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H05V-U / H07V-U



Verwendung

These cables are used for the internal wiring of devices, switchgear and distribution boards as well as for installation in and on luminaires with a rated voltage of up to 1000 V or a DC voltage of up to 750 V to earth.

In dry rooms, in switchgear and distribution systems for laying in conduit on and under plaster as well as without conduit on suitable insulating bodies.

Aufbau und Normen

DIN VDE 0285-525-2-31 / DIN EN 50525-2-31 HD 21.3.S3























- Bare copper wire, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1
- PVC core insulation T11

Technische Daten

Nominal voltage U0/U EN:	H05V-U: 300/500 V, H07V-U: 450/750 V
H05V-U:	300/500 V
H07V-U:	450/750 V
Testing voltage:	H05V-U: 2000 V, H07V-U: 2500 V
H05V-U:	2000 V
H07V-U:	2500 V
Insulating resistance:	≥ 10 MOhm x km
Temperature range:	when laying: min. +5°C, Operating temperature: -40°C to +70°C
When laying:	min. +5°C
Operating temperature:	-40°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	4 x DA
CPR performance class:	Eca

H05V-U / H07V-U

Produkteigenschaften

Nennquerschnitt	Farben	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
	H05V-U							
0,5		0,77	0,6	1,9 - 2,3	9,0	36,0	12,0	5,0
0,5		0,77	0,6	1,9 - 2,3	9,0	36,0	12,0	5,0
0,75		0,95	0,6	2,1 - 2,5	12,0	24,5	15,0	7,5
0,75		0,95	0,6	2,1 - 2,5	12,0	24,5	15,0	7,5
0,75		0,95	0,6	2,1 - 2,5	12,0	24,5	15,0	7,5
1,0		1,2	0,6	2,2 - 2,7	14,0	18,1	15,0	10,0
1,0		1,2	0,6	2,2 - 2,7	14,0	18,1	15,0	10,0
1,0		1,2	0,6	2,2 - 2,7	14,0	18,1	15,0	10,0
	H07V-U							
1,5		1,4	0,7	2,6 - 3,2	20,0	12,1	24,0	15,0
1,5		1,4	0,7	2,6 - 3,2	20,0	12,1	24,0	15,0
1,5		1,4	0,7	2,6 - 3,2	20,0	12,1	24,0	15,0
2,5		1,8	0,8	3,2 - 3,9	32,0	7,4	32,0	25,0
2,5		1,8	0,8	3,2 - 3,9	32,0	7,4	32,0	25,0
2,5		1,8	0,8	3,2 - 3,9	32,0	7,4	32,0	25,0
4,0		2,3	0,8	3,6 - 4,4	46,0	4,6	42,0	40,0
4,0		2,3	0,8	3,6 - 4,4	46,0	4,6	42,0	40,0
4,0		2,3	0,8	3,6 - 4,4	46,0	4,6	42,0	40,0
6,0		2,8	0,8	4,1 - 5,0	65,0	3,1	54,0	60,0
6,0		2,8	0,8	4,1 - 5,0	65,0	3,1	54,0	60,0
6,0		2,8	0,8	4,1 - 5,0	65,0	3,1	54,0	60,0
10,0		3,6	1,0	5,3 - 6,4	110,0	1,8	73,0	100,0
10,0		3,6	1,0	5,3 - 6,4	110,0	1,8	73,0	100,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NYM



Verwendung

For industrial and domestic installations, in dry, damp and wet rooms, on, in and under plaster, as well as in masonry and concrete, except for direct embedding in vibrated or tamped concrete. This cable is not suitable for laying directly in the ground. Outdoor use is only possible if it is protected from direct sunlight.

Aufbau und Normen

DIN VDE 0250-204

- Bare copper wire, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC – core isolation T11
- Core labelling according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- Filling coat
- PVC outer sheath TM1
- sheath colour grey

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	min. +5°C
Operating temperature:	-40°C to +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Conductor operating temperature:	max. +70°C
Minimum bending radius:	4x DA
CPR performance class:	Eca

NYM

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE	1,5	0,6	8,5	100,0	12,1	14,0	30,0
3 x 1,5 RE	1,5	0,6	8,8	120,0	12,1	14,0	45,0
4 x 1,5 RE	1,5	0,6	9,6	140,0	12,1	14,0	60,0
5 x 1,5 RE	1,5	0,6	10,3	170,0	12,1	14,0	75,0
7 x 1,5 RE	1,5	0,6	11,3	210,0	12,1	14,0	105,0
7 x 1,5 RE färb. Adern	1,5	0,6	11,3	210,0	12,1	14,0	105,0
10 x 1,5 RE	1,5	0,6	14,7	330,0	12,1	14,0	150,0
12 x 1,5 RE	1,5	0,6	16,0	400,0	12,1	14,0	180,0
2 x 2,5 RE	1,9	0,7	9,5	145,0	7,4	18,0	50,0
3 x 2,5 RE	1,9	0,7	10,4	165,0	7,4	18,0	75,0
4 x 2,5 RE	1,9	0,7	11,2	200,0	7,4	18,0	100,0
5 x 2,5 RE	1,9	0,7	12,1	245,0	7,4	18,0	125,0
7 x 2,5 RE	1,9	0,7	14,5	320,0	7,4	18,0	175,0
3 x 4 RE	2,4	0,8	11,5	240,0	4,6	24,0	120,0
4 x 4 RE	2,4	0,8	13,2	305,0	4,6	24,0	160,0
5 x 4 RE	2,4	0,8	14,7	370,0	4,6	24,0	200,0
3 x 6 RE	2,9	0,8	13,0	330,0	3,1	31,0	180,0
4 x 6 RE	2,9	0,8	14,8	400,0	3,1	31,0	240,0
5 x 6 RE	2,9	0,8	16,1	495,0	3,1	31,0	300,0
4 x 10 RE	3,7	1,0	17,8	635,0	1,8	41,0	400,0
4 x 10 RM	4,2	1,0	17,8	635,0	1,8	41,0	400,0
5 x 10 RE	3,7	1,0	19,3	770,0	1,8	41,0	500,0
5 x 10 RM	4,2	1,0	19,3	770,0	1,8	41,0	500,0
4 x 16 RM	5,3	1,0	21,8	915,0	1,2	55,0	640,0
5 x 16 RM	5,3	1,0	23,2	1.150,0	1,2	55,0	800,0
3 x 1,5 RE ROT	1,5	0,6	8,8	120,0	12,1	14,0	45,0
3 x 1,5 RE GRÜN	1,5	0,6	8,8	120,0	12,1	14,0	45,0
3 x 2,5 RE ROT	1,9	0,7	10,4	165,0	7,4	18,0	75,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H07V-R



Verwendung

These cables are used for the internal wiring of devices, switchgear and distribution boards as well as for installation in and on luminaires with a rated voltage of up to 1000 V or a DC voltage of up to 750 V to earth. In dry rooms, in switchgear and distribution systems for laying in conduit on and under plaster as well as without conduit on suitable insulating bodies.

Aufbau und Normen

DIN VDE 0285-525-2-31 / DIN EN 50525-2-31/HD 21.3.S3























- Bare copper conductor, stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC core insulation T11

Technische Daten

Nominal voltage U_0/U:	450/750 V
Testing voltage:	2500 V
Insulating resistance:	$\geq 10 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	min. +5°C
Operating temperature:	-40°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	4 x DA to 16 mm ² 5 x DA 25 to 50 mm ² 6 x DA from 70 mm ²
CPR performance class:	Eca

H07V-R

Produkteigenschaften

Nennquerschnitt	Farben	Leiteraufbau	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl kg/km
mm ²		ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
6,0		7 x 1,05	0,8	4,3 - 5,2	66,0	3,1	54,0	60,0
6,0		7 x 1,05	0,8	4,3 - 5,2	66,0	3,1	54,0	60,0
10,0		7 x 1,35	1,0	5,6 - 6,7	112,0	1,8	73,0	100,0
10,0		7 x 1,35	1,0	5,6 - 6,7	112,0	1,8	73,0	100,0
16,0		7 x 1,7	1,0	6,4 - 7,8	167,0	1,2	98,0	160,0
16,0		7 x 1,7	1,0	6,4 - 7,8	167,0	1,2	98,0	160,0
25,0		7 x 2,13	1,2	8,1 - 9,7	260,0	0,727	129,0	250,0
25,0		7 x 2,13	1,2	8,1 - 9,7	260,0	0,727	129,0	250,0
35,0		7 x 2,52	1,2	9,0 - 10,9	360,0	0,524	158,0	350,0
35,0		7 x 2,52	1,2	9,0 - 10,9	360,0	0,524	158,0	350,0
35,0		7 x 2,52	1,2	9,0 - 10,9	360,0	0,524	158,0	350,0
50,0		19 x 1,83	1,4	10,6 - 12,8	530,0	0,387	198,0	500,0
50,0		19 x 1,83	1,4	10,6 - 12,8	530,0	0,387	198,0	500,0
70,0		19 x 2,17	1,4	12,1 - 14,6	740,0	0,268	245,0	700,0
70,0		19 x 2,17	1,4	12,1 - 14,6	740,0	0,268	245,0	700,0
70,0		19 x 2,17	1,4	12,1 - 14,6	740,0	0,268	245,0	700,0
95,0		19 x 2,52	1,6	14,1 - 17,1	1.000,0	0,193	292,0	950,0
120,0		37 x 2,03	1,6	15,6 - 18,8	1.250,0	0,153	344,0	1.200,0
150,0		37 x 2,27	1,8	17,3 - 20,9	1.580,0	0,124	391,0	1.500,0
185,0		37 x 2,52	2,0	19,3 - 23,3	1.930,0	0,0991	448,0	1.850,0
240,0		61 x 2,24	2,2	22,0 - 26,6	2.500,0	0,0754	528,0	2.400,0
300,0		61 x 2,50	2,4	24,5 - 29,6	3.130,0	0,0601	608,0	3.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

E-YY



Verwendung

As a power supply cable for power stations, industry and switchgear, house connections and street lighting as well as a control cable for transmitting control pulses and measured values. For fixed installation indoors, outdoors, in the ground, in water and in cable ducts if no risk of mechanical damage is to be expected.

Aufbau und Normen

ÖVE K23 und K603/HD 603 S1
from 7 cores K627/HD 627 S1

- Bare copper conductor, solid (RE)
- according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM)
according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation DIV4
- Core labelling according to HD 308 S2
from 7-core version black with numbers
- PVC - Filling jacket (FM)
or banding (BD)
- PVC outer sheath DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	
$\leq 300\text{mm}^2$:	max. 160°C/5 sec.
$> 300\text{mm}^2$:	max. 140°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Eca

E-YY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 4 RE	1,0	9,0	110,0	4,6	37,0	50,0	40,0
1 x 6 RE	1,0	9,5	130,0	3,1	47,0	62,0	60,0
1 x 10 RE	1,0	10,0	180,0	1,8	64,0	83,0	100,0
1 x 16 RE	1,0	11,0	240,0	1,2	84,0	107,0	160,0
1 x 16 RM	1,0	11,0	240,0	1,2	84,0	107,0	160,0
1 x 25 RM	1,2	13,0	350,0	0,727	114,0	138,0	250,0
1 x 35 RM	1,2	14,0	460,0	0,524	139,0	164,0	350,0
1 x 50 RM	1,4	15,0	600,0	0,387	169,0	195,0	500,0
1 x 70 RM	1,4	17,0	800,0	0,268	213,0	238,0	700,0
1 x 95 RM	1,6	19,0	1.100,0	0,193	264,0	286,0	950,0
1 x 120 RM	1,6	21,0	1.350,0	0,153	307,0	325,0	1.200,0
1 x 150 RM	1,8	23,0	1.650,0	0,124	352,0	365,0	1.500,0
1 x 185 RM	2,0	25,0	2.000,0	0,0991	406,0	413,0	1.850,0
1 x 240 RM	2,2	27,0	2.600,0	0,0754	483,0	479,0	2.400,0
1 x 300 RM	2,4	30,0	3.200,0	0,0601	557,0	541,0	3.000,0
1 x 400 RM	2,6	34,0	4.100,0	0,047	646,0	614,0	4.000,0
1 x 500 RM	2,8	38,0	5.200,0	0,0366	747,0	693,0	5.000,0
1 x 630 RM	2,8	42,0	6.650,0	0,0283	858,0	777,0	6.300,0
2 x 1,5 RE	0,8	12,0	170,0	12,1	19,0	27,0	30,0
2 x 2,5 RE	0,8	13,0	210,0	7,4	25,0	36,0	50,0
2 x 4 RE	1,0	14,0	290,0	4,6	34,0	47,0	80,0
2 x 6 RE	1,0	15,0	360,0	3,1	43,0	59,0	120,0
2 x 10 RE	1,0	17,0	490,0	1,8	59,0	79,0	200,0
2 x 16 RM	1,0	19,0	660,0	1,2	79,0	103,0	320,0
3 x 1,5 RE	0,8	12,0	190,0	12,1	19,0	27,0	45,0
3 x 2,5 RE	0,8	13,0	240,0	7,4	25,0	36,0	75,0
3 x 4 RE	1,0	15,0	330,0	4,6	34,0	47,0	120,0
3 x 6 RE	1,0	16,0	420,0	3,1	43,0	59,0	180,0
3 x 10 RE	1,0	18,0	580,0	1,8	59,0	79,0	300,0
3 x 10 RM	1,0	18,0	580,0	1,8	59,0	79,0	300,0
3 x 16 RE	1,0	20,0	810,0	1,2	79,0	103,0	480,0
3 x 16 RM	1,0	20,0	810,0	1,2	79,0	103,0	480,0
3 x 25 RM	1,2	24,0	1.300,0	0,727	106,0	133,0	750,0
3 x 35 SM	1,2	24,0	1.400,0	0,524	129,0	159,0	1.050,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
3 x 50 SM	1,4	26,0	1.800,0	0,387	157,0	188,0	1.500,0
3 x 70 SM	1,4	29,7	2.400,0	0,268	199,0	232,0	2.100,0
3 x 95 SM	1,6	33,8	3.300,0	0,193	246,0	280,0	2.850,0
3 x 120 SM	1,6	35,8	4.000,0	0,153	285,0	318,0	3.600,0
3 x 150 SM	1,8	39,8	4.900,0	0,124	326,0	359,0	4.500,0
3 x 185 SM	2,0	46,0	6.500,0	0,0991	374,0	406,0	5.550,0
3 x 240 SM	2,2	51,0	8.300,0	0,0754	445,0	473,0	7.200,0
3 x 25 RM/16 RE	1,2/1,0	26,0	1.500,0	0,727/1,15	106,0	133,0	910,0
3 x 35 SM/16 RE	1,2/1,0	26,0	1.700,0	0,524/1,15	129,0	159,0	1.210,0
3 x 50 SM/25 RM	1,4/1,2	30,0	2.300,0	0,387/0,727	157,0	188,0	1.750,0
3 x 70/35 SM	1,4/1,2	33,0	2.800,0	0,268/0,524	199,0	232,0	2.450,0
3 x 95/50 SM	1,6/1,4	38,0	3.800,0	0,193/0,387	246,0	280,0	3.350,0
3 x 120/70 SM	1,6/1,4	40,0	4.700,0	0,153/0,268	285,0	318,0	4.300,0
3 x 150/70 SM	1,8/1,4	44,0	5.600,0	0,124/0,268	326,0	359,0	5.200,0
3 x 185/95 SM	2,0/1,6	49,0	7.400,0	0,0991/0,193	374,0	406,0	6.500,0
3 x 240/120 SM	2,2/1,6	55,0	9.600,0	0,0754/0,153	445,0	473,0	8.400,0
3 x 300/150 SM	2,4/1,8	66,0	11.200,0	0,0601/0,124	511,0	535,0	10.500,0
4 x 1,5 RE	0,8	13,0	220,0	12,1	19,0	27,0	60,0
4 x 2,5 RE	0,8	14,0	290,0	7,4	25,0	36,0	100,0
4 x 4 RE	1,0	16,0	400,0	4,6	34,0	47,0	160,0
4 x 6 RE	1,0	17,0	510,0	3,1	43,0	59,0	240,0
4 x 10 RE	1,0	19,0	720,0	1,8	59,0	79,0	400,0
4 x 10 RM	1,0	19,0	720,0	1,8	59,0	79,0	400,0
4 x 16 RE	1,0	21,0	1.050,0	1,2	79,0	103,0	640,0
4 x 16 RM	1,0	21,0	1.050,0	1,2	79,0	103,0	640,0
4 x 25 RM	1,2	26,0	1.600,0	0,727	106,0	133,0	1.000,0
4 x 35 SM	1,2	26,0	1.750,0	0,524	129,0	159,0	1.400,0
4 x 50 SM	1,4	30,0	2.300,0	0,387	157,0	188,0	2.000,0
4 x 70 SM	1,4	34,0	3.100,0	0,268	199,0	232,0	2.800,0
4 x 95 SM	1,6	38,0	4.200,0	0,193	246,0	280,0	3.800,0
4 x 120 SM	1,6	42,0	5.200,0	0,153	285,0	318,0	4.800,0
4 x 150 SM	1,8	46,0	6.400,0	0,124	326,0	359,0	6.000,0
4 x 185 SM	2,0	51,0	8.050,0	0,0991	374,0	406,0	7.400,0
4 x 240 SM	2,2	57,0	11.000,0	0,0754	445,0	473,0	9.600,0
5 x 1,5 RE	0,8	14,0	270,0	12,1	19,0	27,0	75,0
5 x 2,5 RE	0,8	15,0	350,0	7,4	25,0	36,0	125,0
5 x 4 RE	1,0	17,0	480,0	4,6	34,0	47,0	200,0
5 x 6 RE	1,0	19,0	610,0	3,1	43,0	59,0	300,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
5 x 10 RE	1,0	21,0	880,0	1,8	59,0	79,0	500,0
5 x 10 RM	1,0	21,0	880,0	1,8	59,0	79,0	500,0
5 x 16 RE	1,0	23,0	1.250,0	1,2	79,0	103,0	800,0
5 x 16 RM	1,0	23,0	1.250,0	1,2	79,0	103,0	800,0
5 x 25 RM	1,2	29,0	1.950,0	0,727	106,0	133,0	1.250,0
5 x 35 RM	1,2	30,0	2.400,0	0,524	129,0	159,0	1.750,0
5 x 50 RM	1,4	36,0	3.500,0	0,387	157,0	188,0	2.500,0
5 x 50 SM	1,4	36,0	3.500,0	0,387	157,0	188,0	2.500,0
5 x 70 RM	1,4	40,0	4.450,0	0,268	199,0	232,0	3.500,0
5 x 95 RM	1,6	46,0	6.134,0	0,193	246,0	280,0	4.750,0
5 x 95 SM	1,6	46,0	6.134,0	0,193	246,0	280,0	4.750,0
5 x 120 RM	1,6	50,0	7.483,0	0,153	285,0	318,0	6.000,0
5 x 150 RM	1,8	58,0	8.240,0	0,124	326,0	359,0	7.500,0
7 x 1,5 RE	0,8	16,0	300,0	12,1	19,0	27,0	105,0
7 x 2,5 RE	0,8	17,0	420,0	7,4	25,0	36,0	175,0
7 x 4 RE	1,0	19,0	630,0	4,6	34,0	47,0	280,0
7 x 6 RE	1,0	21,0	840,0	3,1	43,0	59,0	420,0
7 x 10 RE	1,0	23,0	1.150,0	1,8	59,0	79,0	700,0
10 x 1,5 RE	0,8	19,0	360,0	12,1	19,0	27,0	150,0
10 x 2,5 RE	0,8	20,0	500,0	7,4	25,0	36,0	250,0
12 x 1,5 RE	0,8	19,0	400,0	12,1	19,0	27,0	180,0
12 x 2,5 RE	0,8	21,0	560,0	7,4	25,0	36,0	300,0
14 x 1,5 RE	0,8	20,0	450,0	12,1	19,0	27,0	210,0
14 x 2,5 RE	0,8	21,0	630,0	7,4	25,0	36,0	350,0
16 x 1,5 RE	0,8	21,0	500,0	12,1	19,0	27,0	240,0
16 x 2,5 RE	0,8	22,0	710,0	7,4	25,0	36,0	400,0
19 x 1,5 RE	0,8	22,0	560,0	12,1	19,0	27,0	285,0
19 x 2,5 RE	0,8	23,0	830,0	7,4	25,0	36,0	475,0
21 x 1,5 RE	0,8	19,0	620,0	12,1	19,0	27,0	315,0
21 x 2,5 RE	0,8	23,0	910,0	7,4	25,0	36,0	525,0
24 x 1,5 RE	0,8	25,0	700,0	12,1	19,0	27,0	360,0
24 x 2,5 RE	0,8	27,0	1.050,0	7,4	25,0	36,0	600,0
30 x 1,5 RE	0,8	26,0	810,0	12,1	19,0	27,0	450,0
30 x 2,5 RE	0,8	28,0	1.250,0	7,4	25,0	36,0	750,0
40 x 1,5 RE	0,8	29,0	1.050,0	12,1	19,0	27,0	600,0
40 x 2,5 RE	0,8	31,0	1.650,0	7,4	25,0	36,0	1.000,0
61 x 1,5 RE	0,8	34,0	1.650,0	12,1	19,0	27,0	915,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

For multi-core cables, the load capacity depends on the number of loaded cores.

H05V-K / H07V-K



Verwendung

Approved for the internal wiring of devices, distributors or switchgear as well as for protected installation in and on luminaires with a rated voltage of up to 1000 V AC or a DC voltage of up to 750 V to earth. Also suitable for laying in conduits on, in and under plaster as well as in closed installation ducts. Not suitable for direct installation on platforms, channels or trays.

Aufbau und Normen

DIN VDE 0285-525-2-31/DIN EN 50525-2-31/HD 21.3.S3

- Bare copper stranded wire, finely stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC – wire insulation T11

Technische Daten

Nominal voltage U_0/U :

H05V-K:	300/500 V
H07V-K:	450/750 V

Testing voltage:

H05V-K:	2000 V
H07V-K:	2500 V

Insulating resistance:

$\geq 10 \text{ MOhm} \times \text{km}$

Temperature range:

When laying:	min. +5°C
Operating temperature:	-40°C to +70°C

Conductor operating temperature:

max. +70°C

Short-circuit temperature:

max. +160°C/5 sec.

Minimum bending radius:
















4 x DA to 16 mm ²
5 x DA 25 to 50 mm ²
6 x DA from 70 mm ²











CPR performance class:

Eca

H05V-K / H07V-K

Produkteigenschaften

Nennquerschnitt	Farben	Leiteraufbau	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
	H05V-K							
0,5		16 x 0,20	0,6	2,1 - 2,5	10,0	39,0	12,0	5,0
0,5		16 x 0,20	0,6	2,1 - 2,5	10,0	39,0	12,0	5,0
0,5		16 x 0,20	0,6	2,1 - 2,5	10,0	39,0	12,0	5,0
0,75		24 x 0,20	0,6	2,2 - 2,7	12,0	26,0	15,0	7,5
0,75		24 x 0,20	0,6	2,2 - 2,7	12,0	26,0	15,0	7,5
1,0		32 x 0,20	0,6	2,4 - 2,8	14,0	19,5	19,0	10,0
1,0		32 x 0,20	0,6	2,4 - 2,8	14,0	19,5	19,0	10,0
	H07V-K							
1,5		30 x 0,25	0,7	2,8 - 3,4	21,0	13,3	24,0	15,0
1,5		30 x 0,25	0,7	2,8 - 3,4	21,0	13,3	24,0	15,0
1,5		30 x 0,25	0,7	2,8 - 3,4	21,0	13,3	24,0	15,0
2,5		50 x 0,25	0,8	3,4 - 4,1	32,0	8,0	32,0	25,0
2,5		50 x 0,25	0,8	3,4 - 4,1	32,0	8,0	32,0	25,0
2,5		50 x 0,25	0,8	3,4 - 4,1	32,0	8,0	32,0	25,0
4,0		56 x 0,30	0,8	3,9 - 4,8	47,0	5,0	42,0	40,0
4,0		56 x 0,30	0,8	3,9 - 4,8	47,0	5,0	42,0	40,0

Nennquerschnitt	Farben	Leiteraufbau	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
6,0		84 x 0,30	0,8	4,5 - 5,3	67,0	3,3	54,0	60,0
6,0		84 x 0,30	0,8	4,5 - 5,3	67,0	3,3	54,0	60,0
10,0		80 x 0,40	1,0	5,8 - 6,8	115,0	1,9	73,0	100,0
10,0		80 x 0,40	1,0	5,8 - 6,8	115,0	1,9	73,0	100,0
16,0		128 x 0,40	1,0	7,0 - 8,1	175,0	1,2	98,0	160,0
16,0		128 x 0,40	1,0	7,0 - 8,1	175,0	1,2	98,0	160,0
16,0		128 x 0,40	1,0	7,0 - 8,1	175,0	1,2	98,0	160,0
25,0		200 x 0,40	1,2	8,5 - 10,2	280,0	0,78	129,0	250,0
35,0		280 x 0,40	1,2	9,8 - 11,7	375,0	0,554	158,0	350,0
35,0		280 x 0,40	1,2	9,8 - 11,7	375,0	0,554	158,0	350,0
50,0		400 x 0,40	1,4	11,6 - 13,9	550,0	0,386	198,0	500,0
70,0		356 x 0,50	1,4	13,3 - 16,0	760,0	0,272	245,0	700,0
95,0		485 x 0,50	1,6	15,3 - 18,2	1.020,0	0,206	292,0	950,0
95,0		485 x 0,50	1,6	15,3 - 18,2	1.020,0	0,206	292,0	950,0
120,0		614 x 0,50	1,6	16,9 - 20,2	1.270,0	0,161	344,0	1.200,0
120,0		614 x 0,50	1,6	16,9 - 20,2	1.270,0	0,161	344,0	1.200,0
150,0		765 x 0,50	1,8	18,8 - 22,5	1.600,0	0,129	391,0	1.500,0
185,0		944 x 0,50	2,0	21,0 - 24,9	1.960,0	0,106	448,0	1.850,0
240,0		1225 x 0,50	2,2	24,0 - 28,4	2.550,0	0,0801	528,0	2.400,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Delivery packaging:

Ring in carton, ring in foil, carton drum, plastic spool, drum

H05V2-K / H07V2-K



Verwendung

For the internal wiring of switch cabinets, electrical appliances, e.g. television, radio or household appliances, control panels and as a connecting cable for machines in protective conduits and tubes, as well as a connecting cable for motors and transformers.

Aufbau und Normen

UL/CSA/HAR

- Stranded copper wire, tinned, finely stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC core insulation according to UL standard 1581 Tab.50.182

Technische Daten

Operating voltage U:

H05V2-K: 300/500 V

UL/CSA 1007/1569: 300 V

H07V2-K: 450/750 V

CSA+UL (MTW): 600 V

UL(AWM) (10269):

1000 V

Testing voltage:

3000 V

Operating temperature:

HAR: -40°C to +90°C

UL (MTW): -40°C to +90°C

CSA+UL(AWM): -40°C to +105°C

Minimum bending radius:

When laying: 15 x DA

Fixed installation: 10 x DA

Fire behaviour:




















UL VW-1, CSA FT1

CPR performance class:

Eca

H05V2-K / H07V2-K

Produkteigenschaften

Nennquerschnitt	Farben	Leiteraufbau	Aussen Ø	Gewicht	Cu Zahl
mm ²		ca. mm	ca. mm	ca. kg/km	kg/km
	H05V2-K				
AWG 20 (0,5)		16 x 0,20	2,5	10,3	5,0
AWG 20 (0,5)		16 x 0,20	2,5	10,3	5,0
AWG 19 (0,75)		24 x 0,20	2,7	11,0	7,5
AWG 18 (1,0)		32 x 0,20	2,9	15,7	10,0
AWG 18 (1,0)		32 x 0,20	2,9	15,7	10,0
	H07V2-K				
AWG 16 (1,5)		30 x 0,25	3,2	21,0	15,0
AWG 16 (1,5)		30 x 0,25	3,2	21,0	15,0
AWG 14 (2,5)		50 x 0,25	3,6	29,9	25,0
AWG 14 (2,5)		50 x 0,25	3,6	29,9	25,0
AWG 12 (4,0)		56 x 0,30	4,2	46,1	40,0
AWG 10 (6,0)		84 x 0,30	4,8	66,1	60,0
AWG 8 (10,0)		80 x 0,40	6,4	114,2	100,0
AWG 6 (16,0)		126 x 0,40	8,8	192,3	160,0
AWG 4 (25,0)		196 x 0,40	10,0	269,7	250,0
AWG 2 (35,0)		276 x 0,40	11,5	367,3	350,0
AWG 1 (50,0)		400 x 0,40	14,0	550,0	500,0
AWG 2/0 (70,0)		356 x 0,50	16,5	752,0	700,0
AWG 3/0 (95,0)		485 x 0,50	17,8	1.126,0	950,0
AWG 4/0 (120,0)		614 x 0,5	19,4	1.215,0	1.200,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

"bare" version on request

NY Y



Verwendung

As a power supply cable for power stations, industry and switchgear, house connections and street lighting as well as a control cable for transmitting control pulses and measured values. For fixed installation indoors, outdoors, in the ground, in water and in cable ducts if no risk of mechanical damage is to be expected.

Aufbau und Normen

DIN VDE 0276-603/HD 603 S1
from 7 cores DIN VDE 0276-627/HD 627 S1
and IEC 60502-1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) nach DIN VDE 0295 Kl.2, IEC 60228 cl.2
- PVC - core insulation DIV4
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- PVC filling jacket (FM) or banding (BD)
- PVC - outer sheath DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	
≤ 300mm ² :	max. 160°C/5 sec.
> 300mm ² :	max. 140°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Eca

NY Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 4 RE	1,0	9,0	110,0	4,6	37,0	50,0	40,0
1 x 6 RE	1,0	9,5	130,0	3,1	47,0	62,0	60,0
1 x 10 RE	1,0	10,0	180,0	1,8	64,0	83,0	100,0
1 x 16 RE	1,0	11,0	240,0	1,2	84,0	107,0	160,0
1 x 16 RM	1,0	11,0	240,0	1,2	84,0	107,0	160,0
1 x 25 RM	1,2	13,0	350,0	0,727	114,0	138,0	250,0
1 x 35 RM	1,2	14,0	460,0	0,524	139,0	164,0	350,0
1 x 50 RM	1,4	15,0	600,0	0,387	169,0	195,0	500,0
1 x 70 RM	1,4	17,0	800,0	0,268	213,0	238,0	700,0
1 x 95 RM	1,6	19,0	1.100,0	0,193	264,0	286,0	950,0
1 x 120 RM	1,6	21,0	1.350,0	0,153	307,0	325,0	1.200,0
1 x 150 RM	1,8	23,0	1.650,0	0,124	352,0	365,0	1.500,0
1 x 185 RM	2,0	25,0	2.000,0	0,0991	406,0	413,0	1.850,0
1 x 240 RM	2,2	27,0	2.600,0	0,0754	483,0	479,0	2.400,0
1 x 300 RM	2,4	30,0	3.200,0	0,0601	557,0	541,0	3.000,0
1 x 400 RM	2,6	34,0	4.100,0	0,047	646,0	614,0	4.000,0
1 x 500 RM	2,8	38,0	5.200,0	0,0366	747,0	693,0	5.000,0
1 x 630 RM	2,8	42,0	6.650,0	0,0283	858,0	777,0	6.300,0
2 x 1,5 RE	0,8	12,0	170,0	12,1	19,0	27,0	30,0
2 x 2,5 RE	0,8	13,0	210,0	7,4	25,0	36,0	50,0
2 x 4 RE	1,0	14,0	290,0	4,6	34,0	47,0	80,0
2 x 6 RE	1,0	15,0	360,0	3,1	43,0	59,0	120,0
2 x 10 RE	1,0	17,0	490,0	1,8	59,0	79,0	200,0
2 x 16 RM	1,0	19,0	660,0	1,2	79,0	103,0	320,0
3 x 1,5 RE	0,8	12,0	190,0	12,1	19,0	27,0	45,0
3 x 2,5 RE	0,8	13,0	240,0	7,4	25,0	36,0	75,0
3 x 4 RE	1,0	15,0	330,0	4,6	34,0	47,0	120,0
3 x 6 RE	1,0	16,0	420,0	3,1	43,0	59,0	180,0
3 x 10 RE	1,0	18,0	580,0	1,8	59,0	79,0	300,0
3 x 10 RM	1,0	18,0	580,0	1,8	59,0	79,0	300,0
3 x 16 RE	1,0	20,0	810,0	1,2	79,0	103,0	480,0
3 x 16 RM	1,0	20,0	810,0	1,2	79,0	103,0	480,0
3 x 25 RM	1,2	24,0	1.300,0	0,727	106,0	133,0	750,0
3 x 35 SM	1,2	24,0	1.400,0	0,524	129,0	159,0	1.050,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
3 x 50 SM	1,4	26,0	1.800,0	0,387	157,0	188,0	1.500,0
3 x 70 SM	1,4	29,7	2.400,0	0,268	199,0	232,0	2.100,0
3 x 95 SM	1,6	33,8	3.300,0	0,193	246,0	280,0	2.850,0
3 x 120 SM	1,6	35,8	4.000,0	0,153	285,0	318,0	3.600,0
3 x 150 SM	1,8	39,8	4.900,0	0,124	326,0	359,0	4.500,0
3 x 185 SM	2,0	46,0	6.500,0	0,0991	374,0	406,0	5.550,0
3 x 240 SM	2,2	51,0	8.300,0	0,0754	445,0	473,0	7.200,0
3 x 25 RM/16 RE	1,2/1,0	26,0	1.500,0	0,727/1,15	106,0	133,0	910,0
3 x 35 SM/16 RE	1,2/1,0	26,0	1.700,0	0,524/1,15	129,0	159,0	1.210,0
3 x 50 SM/25 RM	1,4/1,2	30,0	2.300,0	0,387/0,727	157,0	188,0	1.750,0
3 x 70/35 SM	1,4/1,2	33,0	2.800,0	0,268/0,524	199,0	232,0	2.450,0
3 x 95/50 SM	1,6/1,4	38,0	3.800,0	0,193/0,387	246,0	280,0	3.350,0
3 x 120/70 SM	1,6/1,4	40,0	4.700,0	0,153/0,268	285,0	318,0	4.300,0
3 x 150/70 SM	1,8/1,4	44,0	5.600,0	0,124/0,268	326,0	359,0	5.200,0
3 x 185/95 SM	2,0/1,6	49,0	7.400,0	0,0991/0,193	374,0	406,0	6.500,0
3 x 240/120 SM	2,2/1,6	55,0	9.600,0	0,0754/0,153	445,0	473,0	8.400,0
3 x 300/150 SM	2,4/1,8	66,0	11.200,0	0,0601/0,124	511,0	535,0	10.500,0
4 x 1,5 RE	0,8	13,0	220,0	12,1	19,0	27,0	60,0
4 x 2,5 RE	0,8	14,0	290,0	7,4	25,0	36,0	100,0
4 x 4 RE	1,0	16,0	400,0	4,6	34,0	47,0	160,0
4 x 6 RE	1,0	17,0	510,0	3,1	43,0	59,0	240,0
4 x 10 RE	1,0	19,0	720,0	1,8	59,0	79,0	400,0
4 x 10 RM	1,0	19,0	720,0	1,8	59,0	79,0	400,0
4 x 16 RE	1,0	21,0	1.050,0	1,2	79,0	103,0	640,0
4 x 16 RM	1,0	21,0	1.050,0	1,2	79,0	103,0	640,0
4 x 25 RM	1,2	26,0	1.600,0	0,727	106,0	133,0	1.000,0
4 x 35 SM	1,2	26,0	1.750,0	0,524	129,0	159,0	1.400,0
4 x 50 SM	1,4	30,0	2.300,0	0,387	157,0	188,0	2.000,0
4 x 70 SM	1,4	34,0	3.100,0	0,268	199,0	232,0	2.800,0
4 x 95 SM	1,6	38,0	4.200,0	0,193	246,0	280,0	3.800,0
4 x 120 SM	1,6	42,0	5.200,0	0,153	285,0	318,0	4.800,0
4 x 150 SM	1,8	46,0	6.400,0	0,124	326,0	359,0	6.000,0
4 x 185 SM	2,0	51,0	8.050,0	0,0991	374,0	406,0	7.400,0
4 x 240 SM	2,2	57,0	11.000,0	0,0754	445,0	473,0	9.600,0
5 x 1,5 RE	0,8	14,0	270,0	12,1	19,0	27,0	75,0
5 x 2,5 RE	0,8	15,0	350,0	7,4	25,0	36,0	125,0
5 x 4 RE	1,0	17,0	480,0	4,6	34,0	47,0	200,0
5 x 6 RE	1,0	19,0	610,0	3,1	43,0	59,0	300,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
5 x 10 RE	1,0	21,0	880,0	1,8	59,0	79,0	500,0
5 x 10 RM	1,0	21,0	880,0	1,8	59,0	79,0	500,0
5 x 16 RE	1,0	23,0	1.250,0	1,2	79,0	103,0	800,0
5 x 16 RM	1,0	23,0	1.250,0	1,2	79,0	103,0	800,0
5 x 25 RM	1,2	29,0	1.950,0	0,727	106,0	133,0	1.250,0
5 x 35 RM	1,2	30,0	2.400,0	0,524	129,0	159,0	1.750,0
5 x 50 RM	1,4	36,0	3.500,0	0,387	157,0	188,0	2.500,0
5 x 50 SM	1,4	36,0	3.500,0	0,387	157,0	188,0	2.500,0
5 x 70 RM	1,4	40,0	4.450,0	0,268	199,0	232,0	3.500,0
5 x 95 RM	1,6	46,0	6.134,0	0,193	246,0	280,0	4.750,0
5 x 95 SM	1,6	46,0	6.134,0	0,193	246,0	280,0	4.750,0
5 x 120 RM	1,6	50,0	7.483,0	0,153	285,0	318,0	6.000,0
5 x 150 RM	1,8	58,0	8.240,0	0,124	326,0	359,0	7.500,0
5 x 185 RM	2,0	63,0	11.671,0	0,0991	374,0	406,0	9.250,0
5 x 240 RM	2,2	69,9	13.348,0	0,0754	445,0	473,0	12.000,0
7 x 1,5 RE	0,8	16,0	300,0	12,1	19,0	27,0	105,0
7 x 2,5 RE	0,8	17,0	420,0	7,4	25,0	36,0	175,0
7 x 4 RE	1,0	19,0	630,0	4,6	34,0	47,0	280,0
7 x 6 RE	1,0	21,0	840,0	3,1	43,0	59,0	420,0
7 x 10 RE	1,0	23,0	1.150,0	1,8	59,0	79,0	700,0
10 x 1,5 RE	0,8	19,0	360,0	12,1	19,0	27,0	150,0
10 x 2,5 RE	0,8	20,0	500,0	7,4	25,0	36,0	250,0
12 x 1,5 RE	0,8	19,0	400,0	12,1	19,0	27,0	180,0
12 x 2,5 RE	0,8	21,0	560,0	7,4	25,0	36,0	300,0
14 x 1,5 RE	0,8	20,0	450,0	12,1	19,0	27,0	210,0
14 x 2,5 RE	0,8	21,0	630,0	7,4	25,0	36,0	350,0
16 x 1,5 RE	0,8	21,0	500,0	12,1	19,0	27,0	240,0
16 x 2,5 RE	0,8	22,0	710,0	7,4	25,0	36,0	400,0
19 x 1,5 RE	0,8	22,0	560,0	12,1	19,0	27,0	285,0
19 x 2,5 RE	0,8	23,0	830,0	7,4	25,0	36,0	475,0
21 x 1,5 RE	0,8	19,0	620,0	12,1	19,0	27,0	315,0
21 x 2,5 RE	0,8	23,0	910,0	7,4	25,0	36,0	525,0
24 x 1,5 RE	0,8	25,0	700,0	12,1	19,0	27,0	360,0
24 x 2,5 RE	0,8	27,0	1.050,0	7,4	25,0	36,0	600,0
30 x 1,5 RE	0,8	26,0	810,0	12,1	19,0	27,0	450,0
30 x 2,5 RE	0,8	28,0	1.250,0	7,4	25,0	36,0	750,0
40 x 1,5 RE	0,8	29,0	1.050,0	12,1	19,0	27,0	600,0
40 x 2,5 RE	0,8	31,0	1.650,0	7,4	25,0	36,0	1.000,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
61 x 1,5 RE	0,8	34,0	1.650,0	12,1	19,0	27,0	915,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

With multi-core cables, the load capacity depends on the number of loaded cores.

NYY feindrätig (RF)



Verwendung

Flexible power supply cable for fixed installation indoors, outdoors, in the ground, in water and in cable ducts if no risk of mechanical damage is to be expected.

Aufbau und Normen

based on DIN VDE 0276-603/HD 603 S1

- Bare copper conductor, fine stranded (RF) according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC - core insulation DIV4
- Core labelling according to HD 308 S2
- PVC filling jacket (FM) or banding (BD)
- PVC outer sheath DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	
≤ 300mm ² :	max. 160°C/5 sec.
> 300mm ² :	max. 140°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Eca

NYY feindrchtig (RF)

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstrke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 16 RF	1,0	11,0	240,0	1,15	84,0	108,0	160,0
1 x 35 RF	1,2	14,0	460,0	0,524	139,0	164,0	350,0
1 x 50 RF	1,4	15,0	600,0	0,387	169,0	195,0	500,0
1 x 70 RF	1,4	17,0	800,0	0,268	213,0	238,0	700,0
1 x 95 RF	1,6	19,0	1.100,0	0,193	264,0	286,0	950,0
1 x 120 RF	1,6	21,0	1.350,0	0,153	307,0	325,0	1.200,0
1 x 150 RF	1,8	23,0	1.650,0	0,124	352,0	365,0	1.500,0
1 x 185 RF	2,0	25,0	2.000,0	0,0991	406,0	413,0	1.850,0
1 x 240 RF	2,2	27,0	2.600,0	0,0754	483,0	479,0	2.400,0
1 x 300 RF	2,4	30,0	3.200,0	0,0601	557,0	541,0	3.000,0

Technische nderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewhr.

YM



Verwendung

For industrial and domestic installations, in dry, damp and wet rooms, on, in and under plaster, as well as in masonry and concrete, except for direct embedding in vibrated or tamped concrete. This cable is not suitable for laying directly in the ground. Outdoor use is only possible if it is protected from direct sunlight.

Aufbau und Normen

ÖNORM E 8242

- Bare copper wire, solid (RE) to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM) to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC – core insulation T11
- Core labelling according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- Filling coat
- PVC – Outer sheath TM1
- Sheath colour grey

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	min. +5°C
Operating temperature:	-40°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	4x DA
CPR performance class:	Eca

YM

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE	1,5	0,6	8,5	100,0	12,1	14,0	30,0
3 x 1,5 RE	1,5	0,6	8,8	120,0	12,1	14,0	45,0
4 x 1,5 RE	1,5	0,6	9,6	140,0	12,1	14,0	60,0
5 x 1,5 RE	1,5	0,6	10,3	170,0	12,1	14,0	75,0
7 x 1,5 RE	1,5	0,6	11,3	210,0	12,1	14,0	105,0
7 x 1,5 RE färb. Adern	1,5	0,6	11,3	210,0	12,1	14,0	105,0
10 x 1,5 RE	1,5	0,6	14,7	330,0	12,1	14,0	150,0
12 x 1,5 RE	1,5	0,6	16,0	400,0	12,1	14,0	180,0
2 x 2,5 RE	1,9	0,7	9,5	145,0	7,4	18,0	50,0
3 x 2,5 RE	1,9	0,7	10,4	165,0	7,4	18,0	75,0
4 x 2,5 RE	1,9	0,7	11,2	200,0	7,4	18,0	100,0
5 x 2,5 RE	1,9	0,7	12,1	245,0	7,4	18,0	125,0
7 x 2,5 RE	1,9	0,7	14,5	320,0	7,4	18,0	175,0
3 x 4 RE	2,4	0,8	11,5	240,0	4,6	24,0	120,0
4 x 4 RE	2,4	0,8	13,2	305,0	4,6	24,0	160,0
5 x 4 RE	2,4	0,8	14,7	370,0	4,6	24,0	200,0
3 x 6 RE	2,9	0,8	13,0	330,0	3,1	31,0	180,0
4 x 6 RE	2,9	0,8	14,8	400,0	3,1	31,0	240,0
5 x 6 RE	2,9	0,8	16,1	495,0	3,1	31,0	300,0
4 x 10 RE	3,7	1,0	17,8	635,0	1,8	41,0	400,0
4 x 10 RM	4,2	1,0	17,8	635,0	1,8	41,0	400,0
5 x 10 RE	3,7	1,0	19,3	770,0	1,8	41,0	500,0
5 x 10 RM	4,2	1,0	19,3	770,0	1,8	41,0	500,0
4 x 16 RM	5,3	1,0	21,8	915,0	1,2	55,0	640,0
5 x 16 RM	5,3	1,0	23,2	1.150,0	1,2	55,0	800,0
3 x 1,5 RE ROT	1,5	0,6	8,8	120,0	12,1	14,0	45,0
3 x 1,5 RE GRÜN	1,5	0,6	8,8	120,0	12,1	14,0	45,0
3 x 2,5 RE ROT	1,9	0,7	10,4	165,0	7,4	18,0	75,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

(N)YM(St)-J



Verwendung

For effective limitation of electromagnetic interference fields, especially for installation in the computer sector, in hospitals or in industry. In conjunction with particularly interference-sensitive measuring devices for laying on, in and under plaster in dry and damp rooms as well as in concrete and masonry, except for direct embedding in vibrated concrete. This cable is not suitable for laying directly in the ground. Outdoor use is only possible if it is protected from direct sunlight.

Aufbau und Normen

based on DIN VDE 0250-204

- Bare copper wire, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1
- PVC core insulation T11
- Core labelling according to HD 308 S2
- Foil shielding made of coated aluminium foil with tinned drain wire
- PVC outer sheath
- Sheath colour grey

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	min. +5°C
Operating temperature:	-40°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	4x DA
CPR performance class:	Eca

(N)YM(St)-J

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
3 x 1,5/1,5	1,4	0,6	9,8	158,0	12,1	14,0	55,0
4 x 1,5/1,5	1,4	0,6	10,2	177,0	12,1	14,0	68,0
5 x 1,5/1,5	1,4	0,6	11,2	216,0	12,1	14,0	83,0
7 x 1,5/1,5	1,4	0,6	11,7	247,0	12,1	14,0	113,0
3 x 2,5/1,5	1,8	0,7	10,9	208,0	7,4	18,0	83,0
5 x 2,5/1,5	1,8	0,7	12,6	291,0	7,4	18,0	133,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NYCY



Verwendung

For industrial and switchgear applications, house connections and street lighting as well as control cables for transmitting control pulses and measured values. For increased electrical and mechanical stress for fixed installation indoors, outdoors, in the ground, in water, concrete and in cable ducts. The concentric conductor (C) may be used as a PE or PEN conductor or as a shield.

Aufbau und Normen

DIN VDE 0276-603/HD 603 S1
from 7 cores VDE 0276-627/HD 627 S1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1
- PVC - core insulation DIV 4
- Core labelling according to HD 308 S2 from 7 cores black with numbers
- Cores stranded concentrically in layers
- PVC filler sheath (FM) or strapping (BD)
- Concentric conductor, round copper wires between sheath and outer sheath, copper tape as cross copper tape over the copper wires
- PVC - outer sheath, DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30° to +70°C
Conductor operating temperature:	max. +70 °C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Eca

NYCY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
2 x 1,5 RE/1,5	0,8	13,0	245,0	12,1	19,0	27,0	54,0
2 x 2,5 RE/2,5	0,8	14,0	310,0	7,4	25,0	36,0	83,0
2 x 4 RE/4	1,0	15,0	410,0	4,6	34,0	47,0	128,0
2 x 6 RE/6	1,0	16,0	500,0	3,1	43,0	59,0	190,0
3 x 1,5 RE /1,5	0,8	13,0	285,0	12,1	19,0	27,0	73,0
3 x 2,5 RE/2,5	0,8	14,0	340,0	7,4	25,0	36,0	113,0
3 x 4 RE/4	1,0	16,0	460,0	4,6	34,0	47,0	168,0
3 x 6 RE/6	1,0	17,0	570,0	3,1	43,0	59,0	250,0
4 x 1,5 RE/1,5	0,8	14,0	315,0	12,1	19,0	27,0	88,0
4 x 2,5 RE/2,5	0,8	15,0	385,0	7,4	25,0	36,0	138,0
4 x 4 RE/4	1,0	17,0	525,0	4,6	34,0	47,0	208,0
4 x 6 RE/6	1,0	18,0	650,0	3,1	43,0	59,0	309,0
5 x 1,5 RE/1,5	0,8	15,0	350,0	12,1	19,0	27,0	103,0
5 x 2,5 RE/2,5	0,8	16,0	440,0	7,4	25,0	36,0	163,0
5 x 4 RE/4	1,0	19,0	600,0	4,6	34,0	47,0	248,0
5 x 6 RE/6	1,0	20,0	750,0	3,1	43,0	59,0	370,0
5 x 10 RE/10	1,0	23,0	1080,0	1,8	59,0	79,0	625,0
7 x 1,5 RE/2,5	0,8	15,3	350,0	12,1	19,0	27,0	139,0
7 x 2,5 RE/2,5	0,8	17,4	450,0	7,4	25,0	36,0	208,0
7 x 4 RE/4	1,0	20,0	600,0	4,6	34,0	47,0	320,0
10 x 1,5 RE/2,5	0,8	18,4	410,0	12,1	19,0	27,0	183,0
10 x 2,5 RE/4	0,8	20,4	600,0	7,4	25,0	36,0	298,0
12 x 1,5 RE/2,5	0,8	19,4	470,0	12,1	19,0	27,0	214,0
12 x 2,5 RE/4	0,8	20,5	660,0	7,4	25,0	36,0	348,0
14 x 1,5 RE/2,5	0,8	20,4	520,0	12,1	19,0	27,0	244,0
14 x 2,5 RE/6	0,8	21,5	750,0	7,4	25,0	36,0	419,0
16 x 1,5 RE/4	0,8	20,0	620,0	12,1	19,0	27,0	288,0
16 x 2,5 RE/6	0,8	22,5	800,0	7,4	25,0	36,0	470,0
19 x 1,5 RE/4	0,8	22,5	660,0	12,1	19,0	27,0	333,0
19 x 2,5 RE/6	0,8	23,5	940,0	7,4	25,0	36,0	544,0
24 x 1,5 RE/6	0,8	25,5	850,0	12,1	19,0	27,0	430,0
24 x 2,5 RE/10	0,8	27,6	1.150,0	7,4	25,0	36,0	725,0
30 x 1,5 RE/6	0,8	26,5	1.020,0	12,1	19,0	27,0	519,0
30 x 2,5 RE/10	0,8	29,5	1.600,0	7,4	25,0	36,0	875,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
40 x 1,5 RE/10	0,8	30,0	1280,0	12,1	19,0	27,0	725,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NYIF-J



Verwendung

For laying in and under plaster in dry rooms and in cavities in ceilings and walls made of non-combustible building materials. Observe special installation regulations: DIN VDE 0100-520.

Aufbau und Normen

DIN VDE 0250-201

- Bare copper wire, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1
- PVC core insulation T11
- Cores lie parallel next to each other
- Outer sheath made of vulcanised rubber compound
- Sheath colour dark beige

Technische Daten

Nominal voltage U_0/U:	230/400 V
Testing voltage:	2000 V
Temperature range:	
When laying:	min. +5°C
Operating temperature:	-40°C to +60°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	15x DA
CPR performance class:	Fca

NYIF-J

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen- abmessung	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
3 x 1,5	1,5	0,4	4,4 x 19,0	115,0	12,1	14,0	45,0
4 x 1,5	1,5	0,4	4,4 x 26,0	160,0	12,1	14,0	60,0
5 x 1,5	1,5	0,4	4,4 x 33,0	205,0	12,1	14,0	75,0
3 x 2,5	1,9	0,5	5,2 x 21,5	160,0	7,41	18,0	75,0
5 x 2,5	1,9	0,5	5,2 x 37,0	290,0	7,41	18,0	125,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

E-YCY/16



Verwendung

For industrial and switchgear applications, house connections and street lighting as well as control cables for transmitting control pulses and measured values. For increased electrical and mechanical stress for fixed installation indoors, outdoors, in the ground, in water, concrete and in cable ducts. The concentric conductor (C) may be used as a PE or PEN conductor or as a shield.

Aufbau und Normen

ÖVE K 23 and K 603/HD 603 S1
from 7 cores K 627/HD 627 S1

- Bare copper conductor, solid (RE) according to EN 60228 cl.1, or stranded (RM) according to EN 60228 cl.2
- PVC - core insulation
- Core labelling according to HD 308 S2 from 7 cores black with numbers
- PVC filler jacket (FM) or strapping (BD)
- Concentric conductor, round copper wires between sheath and outer sheath, copper tape as cross copper tape over the copper wires
- PVC - outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Eca

E-YCY/16

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
	E-YCY-O						
2 x 4 RE/16	1,0	14,7	432,0	4,6	37,0	54,0	270,0
4 x 1,5 RE/16	0,8	14,0	367,0	12,1	19,5	27,0	250,0
4 x 2,5 RE/16	0,8	15,0	419,0	7,4	25,0	36,0	290,0
4 x 4 RE/16	1,0	16,0	542,0	4,6	34,0	46,0	350,0
4 x 6 RE/16	1,0	17,6	639,0	3,1	43,0	58,0	430,0
4 x 10 RE/16	1,0	19,6	856,0	1,8	59,0	78,0	590,0
4 x 10 RM/16	1,0	20,6	883,0	1,8	59,0	78,0	590,0
5 x 2,5 RE/16	0,8	15,4	462,0	7,4	19,5	25,0	315,0
5 x 4 RE/16	1,0	17,9	607,0	4,6	25,5	32,0	390,0
5 x 6 RE/16	1,0	19,3	726,0	3,1	32,0	41,0	490,0
5 x 10 RE/16	1,0	22,7	1013,0	1,8	44,0	55,0	690,0
5 x 10 RM/16	1,0	23,7	1040,0	1,8	44,0	55,0	690,0
5 x 16 RE/16	1,0	25,0	1375,0	1,2	59,0	71,0	990,0
5 x 16 RM/16	1,0	26,0	1410,0	1,2	59,0	71,0	990,0
7 x 1,5 RE/16	0,8	17,8	449,0	12,1	12,5	16,0	295,0
7 x 2,5 RE/16	0,8	18,8	572,0	7,4	17,0	21,5	365,0
7 x 4 RE/16	1,0	19,1	774,0	4,6	22,0	27,5	470,0
10 x 1,5 RE/16	0,8	18,1	588,0	12,1	10,5	13,5	340,0
10 x 2,5 RE/16	0,8	19,9	742,0	7,4	14,5	18,0	440,0
12 x 1,5 RE/16	0,8	17,6	613,0	12,1	10,0	12,5	370,0
12 x 2,5 RE/16	0,8	20,4	847,0	7,4	13,5	17,0	490,0
14 x 1,5 RE/16	0,8	19,2	676,0	12,1	9,5	12,0	400,0
14 x 2,5 RE/16	0,8	21,4	922,0	7,4	13,0	16,0	540,0
19 x 1,5 RE/16	0,8	20,9	808,0	12,1	9,0	11,0	475,0
19 x 2,5 RE/16	0,8	24,0	1188,0	7,4	11,5	14,5	665,0
24 x 1,5 RE/16	0,8	24,2	1041,0	12,1	8,0	9,5	550,0
24 x 2,5 RE/16	0,8	27,4	1308,0	7,4	10,5	12,5	790,0
30 x 1,5 RE/16	0,8	25,5	1119,0	12,1	7,5	8,5	640,0
30 x 2,5 RE/16	0,8	28,7	1670,0	7,4	9,5	11,5	940,0
	E-YCY-J						
3 x 2,5/16	0,8	13,9	379,0	7,4	25,0	36,0	265,0
5 x 2,5 RE/16	0,8	15,4	462,0	7,4	19,5	25,0	315,0
5 x 4 RE/16	1,0	17,9	607,0	4,6	25,5	32,0	390,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
5 x 6 RE/16	1,0	19,3	726,0	3,1	32,0	41,0	490,0
5 x 10 RE/16	1,0	22,7	1.013,0	1,8	44,0	55,0	690,0
5 x 16 RE/16	1,0	25,0	1.375,0	1,2	59,0	71,0	990,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Basic rated current in accordance with ÖVE K 23 and K 603 (HD 603), or K 627 (HD 627)

H03VVH2-F



Verwendung

Particularly suitable for light hand-held appliances with low mechanical loads and for connecting light electrical appliances such as household appliances, office machines, radios, etc., insofar as this is authorised in the relevant appliance regulations. Not approved for cooking or heating appliances. These cables are not suitable for use outdoors, in commercial and agricultural operations or for connecting commercial power tools.

Aufbau und Normen

DIN VDE 0285-525-2-11/HD 21.5.S3/ÖNORM E 8241



- Bare copper stranded wire, finely stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC core insulation T12
- Core labelling according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- PVC outer sheath TM2

Technische Daten

Nominal voltage U_0/U:	300/300 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	min. +5°C
Operating temperature:	+5°C do +60°C
Conductor operating temperature:	max. +60°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	6 x DA
CPR performance class:	Eca

H03VVH2-F

Produkteigenschaften

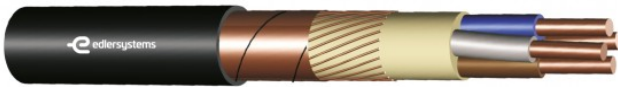
Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiter Ø	Wandstärke Isolation	Aussen- abmessung	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 0,75		1,1	0,5	3,8 x 6,3	35,0	26,0	6,0	15,0
2 x 0,75		1,1	0,5	3,8 x 6,3	35,0	26,0	6,0	15,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)
x = without protective conductor

E-XYCY/16



Verwendung

For industrial and switchgear applications and as a control cable for transmitting control pulses and measured values. For increased electrical and mechanical stress for fixed installation indoors, outdoors, in the ground, in water, concrete and in cable ducts. The concentric conductor (C) can be used as a PE or PEN conductor or as a shield.

Aufbau und Normen

based on DIN VDE 0276-603/HD 603 S1
from 7 cores DIN VDE 0276-267/HD 627 S1
and according to APG regulation

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1
- PVC - core insulation
- Core labelling according to HD 308 S1 from 7 cores black with numbers
- PVC - Filling coat (FM)
- Concentric conductor, round copper wires between core sheath and outer sheath, Copper tape winding 3-5 mm overlapping over the copper wires
- PVC - outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30° to +70°C
Conductor operating temperature:	max. +70 °C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Eca

E-XYCY/16

Produkteigenschaften

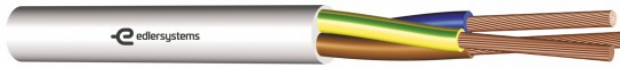
Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
3 x 2,5 RE/16	0,8	12,9	385,0	7,4	25,0	36,0	283,0
4 x 1,5 RE/16	0,8	14,4	395,0	12,1	19,5	27,0	275,0
4 x 2,5 RE/16	0,8	15,4	437,0	7,4	25,0	36,0	315,0
4 x 4 RE/16	1,0	16,4	566,0	4,6	34,0	46,0	395,0
4 x 6 RE/16	1,0	18,0	654,0	3,1	43,0	58,0	467,0
4 x 10 RE/16	1,0	20,0	879,0	1,8	59,0	78,0	635,0
4 x 16 RE/16	1,0	22,6	1.189,0	1,2	78,0	101,0	889,0
5 x 2,5 RE/16	0,8	15,8	478,0	7,4	19,5	25,0	347,0
5 x 4 RE/16	1,0	18,3	631,0	4,6	25,5	32,0	435,0
5 x 6 RE/16	1,0	19,7	748,0	3,1	32,0	41,0	535,0
5 x 10 RE/16	1,0	23,1	1.052,0	1,8	44,0	55,0	735,0
5 x 16 RE/16	1,0	25,4	1.405,0	1,2	59,0	71,0	1.049,0
7 x 1,5 RE/16	0,8	18,2	462,0	12,1	12,5	16,0	325,0
7 x 2,5 RE/16	0,8	19,2	585,0	7,4	17,0	21,5	400,0
12 x 1,5 RE/16	0,8	18,0	627,0	12,1	10,0	12,5	395,0
12 x 2,5 RE/16	0,8	20,8	863,0	7,4	13,5	17,0	543,0
19 x 2,5 RE/16	0,8	24,4	1.209,0	7,4	11,5	14,5	731,0
24 x 1,5 RE/16	0,8	24,6	1.064,0	12,1	8,0	9,5	620,0
30 x 1,5 RE/16	0,8	25,9	1.137,0	12,1	7,5	8,5	704,0
37 x 1,5 RE/16	0,8	28,2	1.344,0	12,1	7,0	8,0	827,0
61 x 1,5 RE/16	0,8	33,8	1.994,0	12,1	6,0	7,0	1.219,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Basis rated current in accordance with ÖVE K 23 and K 603 (HD 603), or K 627 (HD 627).
E-XYCY-J on request

H03VV-F



Verwendung

Particularly suitable for light hand-held appliances with low mechanical loads and for connecting light electrical appliances such as household appliances, office machines, radios, etc., insofar as this is authorised in the relevant appliance regulations. Not approved for cooking or heating appliances. These cables are not suitable for use outdoors, in commercial and agricultural operations or for connecting commercial power tools.

Aufbau und Normen

DIN VDE 0285-525-2-11/ÖNORM E 8241





















- Bare copper stranded wire, finely stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC core insulation T12
- Core labelling according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- PVC- outer sheath TM2

Technische Daten

Nominal voltage U_0/U:	300/300 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	min. +5°C
Operating temperature:	+5°C to +60°C
Conductor operating temperature:	max. +60°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	
When laying:	3 x DA
Fixed installation:	5 x DA
CPR performance class:	Eca

H03VV-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
	H03VV-F							
2 x 0,5		0,9	0,5	5,9	36,0	39,0	3,0	10,0
2 x 0,5		0,9	0,5	5,9	36,0	39,0	3,0	10,0
2 x 0,5		0,9	0,5	5,9	36,0	39,0	3,0	10,0
3 G 0,5		0,9	0,5	6,3	44,0	39,0	3,0	15,0
4 G 0,5		0,9	0,5	6,9	54,0	39,0	3,0	20,0
2 x 0,75		1,1	0,5	6,3	45,0	26,0	6,0	15,0
3 G 0,75		1,1	0,5	6,7	55,0	26,0	6,0	22,5
3 G 0,75		1,1	0,5	6,7	55,0	26,0	6,0	22,5
4 G 0,75		1,1	0,5	7,3	68,0	26,0	6,0	30,0
4 G 0,75		1,1	0,5	7,3	68,0	26,0	6,0	30,0
4 G 0,75		1,1	0,5	7,3	68,0	26,0	6,0	30,0
	A03VV-F							
5 G 0,5		0,9	0,5	7,2	72,0	39,0	3,0	25,0
5 G 0,75		1,1	0,5	7,7	83,0	26,0	6,0	37,5
5 G 0,75		1,1	0,5	7,7	83,0	26,0	6,0	37,5
2 x 1		1,3	0,6	5,8	55,0	19,5	10,0	20,0
2 x 1		1,3	0,6	5,8	55,0	19,5	10,0	20,0
3 G 1		1,3	0,6	6,2	62,0	19,5	10,0	30,0
3 G 1		1,3	0,6	6,2	62,0	19,5	10,0	30,0
4 G 1		1,3	0,6	6,8	75,0	19,5	10,0	40,0
4 G 1		1,3	0,6	6,8	75,0	19,5	10,0	40,0

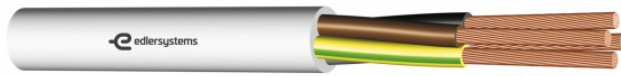
Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

H05VV-F



Verwendung

Particularly suitable for medium mechanical loads in households and offices, insofar as this is permitted in the relevant appliance regulations. These cables are not suitable for use outdoors, in commercial and agricultural operations or for connecting commercial power tools.

Aufbau und Normen

DIN VDE 0285-525-2-11/ÖNORM E 8241

- Bare copper stranded wire, finely stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC- core insulation T12
- Core labelling according to HD 308 S2, From 7-core version black cores with numbers
- Cores stranded in layers with optimum lay lengths
- PVC- outer sheath TM2

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	min. +5°C
Operating temperature:	+5°C to +60°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	
When laying:	5 x DA
Fixed installation:	3 x DA
CPR performance class:	Eca

H05VV-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
	H05VV-F							
2 x 0,75		1,1	0,6	5,8	52,0	26,0	6,0	15,0
2 x 0,75		1,1	0,6	5,8	52,0	26,0	6,0	15,0
3 G 0,75		1,1	0,6	7,6	63,0	26,0	6,0	22,5
3 G 0,75		1,1	0,6	7,6	63,0	26,0	6,0	22,5
5 G 0,75		1,1	0,6	9,3	96,0	26,0	6,0	37,5
5 G 0,75		1,1	0,6	9,3	96,0	26,0	6,0	37,5
2 x 1		1,3	0,6	7,5	61,0	19,5	10,0	20,0
3 G 1		1,3	0,6	8,0	73,0	19,5	10,0	30,0
3 G 1		1,3	0,6	8,0	73,0	19,5	10,0	30,0
3 G 1		1,3	0,6	8,0	73,0	19,5	10,0	30,0
4 G 1		1,3	0,6	9,0	91,0	19,5	10,0	40,0
4 G 1		1,3	0,6	9,0	91,0	19,5	10,0	40,0
5 G 1		1,3	0,6	9,8	110,0	19,5	10,0	50,0
5 G 1		1,3	0,6	9,8	110,0	19,5	10,0	50,0
2 x 1,5		1,5	0,7	8,6	81,0	13,3	16,0	30,0
2 x 1,5		1,5	0,7	8,6	81,0	13,3	16,0	30,0
3 G 1,5		1,5	0,7	9,4	100,0	13,3	16,0	45,0
3 G 1,5		1,5	0,7	9,4	100,0	13,3	16,0	45,0
4 G 1,5		1,5	0,7	10,5	127,0	13,3	16,0	60,0
4 G 1,5		1,5	0,7	10,5	127,0	13,3	16,0	60,0
5 G 1,5		1,5	0,7	11,6	160,0	13,3	16,0	75,0
5 G 1,5		1,5	0,7	11,6	160,0	13,3	16,0	75,0
2 x 2,5		1,9	0,8	10,6	125,0	8,0	20,0	50,0
2 x 2,5		1,9	0,8	10,6	125,0	8,0	20,0	50,0
3 G 2,5		1,9	0,8	11,4	157,0	8,0	20,0	75,0
3 G 2,5		1,9	0,8	11,4	157,0	8,0	20,0	75,0
4 G 2,5		1,9	0,8	12,5	191,0	8,0	20,0	100,0
4 G 2,5		1,9	0,8	12,5	191,0	8,0	20,0	100,0
5 G 2,5		1,9	0,8	13,9	238,0	8,0	20,0	125,0
5 G 2,5		1,9	0,8	13,9	238,0	8,0	20,0	125,0
4 G 4		2,5	0,8	14,3	265,0	5,0	30,0	160,0
5 G 4		2,5	0,8	16,1	340,0	5,0	30,0	200,0
5 G 4		2,5	0,8	16,1	340,0	5,0	30,0	200,0

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
	A05VV-F							
5 G 6	○	2,9	0,8	16,5	485,0	3,3	40,0	300,0
5 G 6	○	2,9	0,8	16,5	485,0	3,3	40,0	300,0
7 G 1	○	1,3	0,6	9,0	155,0	19,5	10,0	70,0
7 G 1	○ ○ ●	1,3	0,6	9,0	155,0	19,5	10,0	70,0
7 G 1,5	●	1,5	0,7	10,4	199,0	13,3	16,0	105,0
7 G 1,5	○ ○	1,5	0,7	10,4	199,0	13,3	16,0	105,0
10 G 1,5	○	1,5	0,7	14,0	309,0	13,3	16,0	150,0
7 G 2,5	○	1,9	0,8	13,1	317,0	8,0	20,0	175,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

(H)03VH-H / (N)YFAZ



Verwendung

In dry rooms for connecting mobile power consumers with very low mechanical loads such as radios, lighting equipment, but not for heating appliances. Not suitable for outdoor installation.

Aufbau und Normen

(H)03VH-H:

based on DIN VDE 0285-525-2-11/ÖNORM E 8241(N)

YFAZ:

based on DIN VDE 0285-525-2-11














- Bare copper stranded wire
(N)YFAZ finely stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
(H)03VH-H Ultra-fine stranded according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- PVC core insulation, parallel, easily separable

Technische Daten

Nominal voltage U_0/U :	300/300 V
Testing voltage:	2000 V
Temperature range:	
When laying:	min. +5°C
Operating temperature:	+5°C to +60°C
Conductor operating temperature:	max. +60°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	3 x DA
CPR performance class:	Eca

(H)03VH-H / (N)YFAZ

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Farben	Leiter Ø	Wandstärke Isolation	Aussen- abmessung	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
	(H)03VH-H							
2 x 0,75		1,1	0,5	2,7 x 5,8	26,0	26,0	6,0	15,0
2 x 0,75		1,1	0,5	2,7 x 5,8	26,0	26,0	6,0	15,0
	(N)YFAZ							
2 x 0,5		0,9	0,5	2,3 x 4,6	17,0	39,0	3,0	10,0
2 x 0,75		1,1	0,5	2,5 x 5,3	25,0	26,0	6,0	15,0
2 x 0,75		1,1	0,5	2,5 x 5,3	25,0	26,0	6,0	15,0
2 x 1		1,3	0,6	2,8 x 5,8	30,0	19,5	10,0	20,0
2 x 1,5		1,5	0,7	3,1 x 6,3	39,0	13,3	16,0	30,0
2 x 1,5		1,5	0,7	3,1 x 6,3	39,0	13,3	16,0	30,0
2 x 2,5		1,9	0,8	3,8 x 7,8	63,0	8,0	20,0	50,0
2 x 2,5		1,9	0,8	3,8 x 7,8	63,0	8,0	20,0	50,0
2 x 4		2,5	0,8	4,7 x 9,8	105,0	5,0	25,0	80,0
2 x 4		2,5	0,8	4,7 x 9,8	105,0	5,0	25,0	80,0
2 x 4		2,5	0,8	4,7 x 9,8	105,0	5,0	25,0	80,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

LFZ-XY / LSP



Verwendung

Universally applicable, high-quality speaker cable for use in the home as well as in cinemas, theatres and other public buildings. The special conductor design ensures that the cable is permanently flexible.

Aufbau und Normen

according to factory standard














- Fine stranded copper wire
(LSP) according to DIN VDE 0295 cl.5, IEC 60228 cl.5
or extra-fine stranded
(LFZ-XY) according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- Wire insulation made of soft special PVC,
arranged in parallel with polarisation identification strips

Technische Daten

Operating voltage U:	50/75 V AC/DC
Dielectric strength (at 50 Hz over 1 minute):	1000 V
Insulating resistance:	≥ 20 MOhm x km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	6 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1

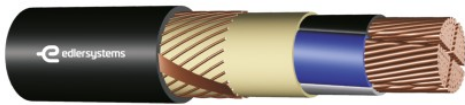
LFZ-XY / LSP

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Farben	Aderaufbau	Aussen- abmessung	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
	LSP					
2 x 0,75		24 x 0,20	2,35 x 4,9	23,0	26,0	15,0
2 x 1,5		48 x 0,20	2,8 x 5,8	42,0	13,3	30,0
2 x 2,5		78 x 0,20	3,6 x 7,4	60,0	8,0	50,0
	LFZ-XY-F					
2 x 1,5		82 x 0,15	2,8 x 5,8	42,0	13,3	30,0
2 x 2,5		140 x 0,15	3,6 x 7,4	60,0	8,0	50,0
2 x 4		224 x 0,15	4,5 x 9,7	105,0	5,0	80,0
2 x 6		336 x 0,15	6,1 x 12,5	141,0	3,3	120,0
2 x 10		560 x 0,15	7,0 x 15,0	252,0	2,0	200,0
	LFZ-XY-H					
2 x 1,5		189 x 0,10	2,8 x 5,8	42,0	13,3	30,0
2 x 2,5		322 x 0,10	3,6 x 7,4	60,0	8,0	50,0
2 x 4		511 x 0,10	4,5 x 9,7	105,0	5,0	80,0
2 x 6		777 x 0,10	6,1 x 12,5	141,0	3,3	120,0
2 x 10		1260 x 0,10	7,0 x 15,0	252,0	2,0	200,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NYCWY



Verwendung

For increased electrical and mechanical stress for fixed installation indoors, outdoors, in the ground, in water, concrete and in cable ducts. For industry and switchgear, house connections and street lighting. The concentric conductor (C) may be used as a PE or PEN conductor or as a screen.

Aufbau und Normen

DIN VDE 0276-603/HD 603 S1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation DIV 4
- Core labelling according to HD 308 S2
- PVC - Filling coat (FM)
- Concentric conductor, corrugated copper wires copper wires between core sheath and outer sheath, Copper tape as cross conductor helix over the copper wires
- PVC outer sheath DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Eca

NYCWY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
2 x 10 RE/10	1,0	19,0	650,0	1,8	59,0	79,0	325,0
2 x 16 RE/16	1,0	20,4	840,0	1,2	79,0	103,0	510,0
3 x 10 RE/10	1,0	19,4	750,0	1,8	59,0	79,0	425,0
3 x 16 RE/16	1,0	21,4	1.050,0	1,2	79,0	103,0	670,0
3 x 25 RM/16	1,2	25,5	1.550,0	0,727	106,0	133,0	940,0
3 x 25 RM/25	1,2	25,5	1.600,0	0,727	106,0	133,0	1.045,0
3 x 35 SM/16	1,2	27,6	1.750,0	0,524	129,0	159,0	1.240,0
3 x 35 SM/35	1,2	28,1	1.850,0	0,524	129,0	159,0	1.460,0
3 x 50 SM/25	1,4	28,7	2.250,0	0,387	157,0	188,0	1.795,0
3 x 50 SM/50	1,4	29,2	2.450,0	0,387	157,0	188,0	2.083,0
3 x 70 SM/35	1,4	32,8	2.950,0	0,268	199,0	232,0	2.510,0
3 x 70 SM/70	1,4	33,8	3.350,0	0,268	199,0	232,0	2.913,0
3 x 95 SM/50	1,6	37,8	4.100,0	0,193	246,0	280,0	3.433,0
3 x 95 SM/95	1,6	38,3	4.550,0	0,193	246,0	280,0	3.949,0
3 x 120 SM/70	1,6	40,8	5.050,0	0,153	285,0	318,0	4.413,0
3 x 120 SM/120	1,6	41,8	5.500,0	0,153	285,0	318,0	4.985,0
3 x 150 SM/70	1,8	45,0	6.000,0	0,124	326,0	359,0	5.313,0
3 x 150 SM/150	1,8	46,0	6.750,0	0,124	326,0	359,0	6.219,0
3 x 185 SM/95	2,0	50,0	7.500,0	0,0991	374,0	406,0	6.649,0
3 x 240 SM/120	2,2	57,0	9.950,0	0,0754	445,0	473,0	8.585,0
4 x 10 RE/10	1,0	20,4	870,0	1,8	59,0	79,0	525,0
4 x 16 RE/16	1,0	23,4	1.250,0	1,2	79,0	103,0	829,0
4 x 25 RM/16	1,2	27,6	1.800,0	0,727	106,0	133,0	1.190,0
4 x 35 SM/16	1,2	28,6	2.050,0	0,524	129,0	159,0	1.590,0
4 x 50 SM/25	1,4	32,8	2.700,0	0,387	157,0	188,0	2.295,0
4 x 70 SM/35	1,4	36,8	3.750,0	0,268	199,0	232,0	3.210,0
4 x 95 SM/50	1,6	43,9	5.000,0	0,193	246,0	280,0	4.383,0
4 x 120 SM/70	1,6	47,0	6.300,0	0,153	285,0	318,0	5.613,0
4 x 150 SM/70	1,8	51,0	7.600,0	0,124	326,0	359,0	6.813,0
4 x 185 SM/95	2,0	56,0	9.300,0	0,0991	374,0	406,0	8.499,0
4 x 240 SM/120	2,2	63,0	11.600,0	0,0754	445,0	473,0	10.913,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Version **N2XCWY** on request.

WYBLYK



Verwendung

As a connection from the charger to the consumer batteries, e.g. for battery chargers for forklift trucks, industrial trucks or other battery-powered vehicles or devices in dry, damp and wet rooms.

Aufbau und Normen

based on DIN VDE 0250

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5 except 25mm² and 35mm², extra-fine stranded according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- Thermoplastic core insulation
- Core colours red and black
- Cores lying parallel next to each other
- PVC outer sheath
- Sheath colour transparent

Technische Daten

Nominal voltage U₀/U:	80 V
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-25°C to +70°C
Conductor operating temperature:	max. +70°C
Minimum bending radius:	10x DA
CPR performance class:	Fca

WYBLYK

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen- abmessung	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 2,5	133 x 0,15	0,8	4,4 x 10,8	90,0	8,0	50,0
2 x 4	217 x 0,15	0,8	4,7 x 11,4	120,0	5,0	80,0
2 x 6	189 x 0,20	0,8	5,3 x 12,6	160,0	3,3	120,0
2 x 10	315 x 0,20	1,0	6,0 x 13,8	270,0	1,9	200,0
2 x 16	494 x 0,20	1,0	6,7 x 15,2	400,0	1,2	320,0
2 x 25	779 x 0,20	1,2	8,1 x 18,0	605,0	0,78	500,0
2 x 35	1083 x 0,20	1,2	9,1 x 20,0	780,0	0,554	700,0
2 x 50	1554 x 0,20	1,4	14,6 x 30,6	1.150,0	0,386	1.000,0
2 x 70	2220 x 0,20	1,4	16,4 x 34,4	1.580,0	0,272	1.400,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H05RR-F



Verwendung

With low mechanical stress for connecting electrical appliances such as hoovers, irons, kitchen appliances, etc. and for short-term outdoor use, as well as in commercial and agricultural operations and for connecting commercial electrical appliances.

Aufbau und Normen

DIN VDE 0285-525-2-21 / HD 22.4.S4

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Rubber core insulation EI4
- Cores stranded in layers
- Core labelling according to HD 308 S2
- Rubber outer sheath EM3
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 1 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-25°C to $+60^\circ\text{C}$
Conductor operating temperature:	max. $+60^\circ\text{C}$
Short-circuit temperature:	max. $+200^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	4 x DA
CPR performance class:	Eca

H05RR-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 0,75	1,1	0,6	5,7 - 7,4	56,0	26,0	6,0	15,0
3 G 0,75	1,1	0,6	6,2 - 8,1	76,0	26,0	6,0	22,5
4 G 0,75	1,1	0,6	6,8 - 8,8	86,0	26,0	6,0	30,0
5 G 0,75	1,1	0,6	7,4 - 9,9	110,0	26,0	6,0	37,5
2 x 1	1,3	0,6	6,1 - 8,0	69,0	19,5	10,0	20,0
3 G 1	1,3	0,6	6,5 - 8,5	85,0	19,5	10,0	30,0
4 G 1	1,3	0,6	7,1 - 9,3	105,0	19,5	10,0	40,0
5 G 1	1,3	0,6	8,0 - 10,3	132,0	19,5	10,0	50,0
2 x 1,5	1,5	0,8	7,6 - 9,8	99,0	13,3	16,0	30,0
3 G 1,5	1,5	0,8	8,0 - 10,4	121,0	13,3	16,0	45,0
4 G 1,5	1,5	0,8	9,0 - 11,6	153,0	13,3	16,0	60,0
5 G 1,5	1,5	0,8	9,1 - 12,7	187,0	13,3	16,0	75,0
2 x 2,5	2,0	0,9	9,0 - 11,5	142,0	8,0	20,0	50,0
3 G 2,5	2,0	0,9	9,6 - 12,4	166,0	8,0	20,0	75,0
4 G 2,5	2,0	0,9	10,7 - 13,8	220,0	8,0	20,0	100,0
5 G 2,5	2,0	0,9	11,0 - 15,3	280,0	8,0	20,0	125,0

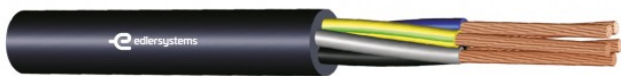
Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

H07RN-F



Verwendung

For medium mechanical stress in dry, damp and wet rooms, outdoors, in agricultural premises and in commercial operations for devices such as power tools, hand lamps, etc. as well as for transportable motors or machines on construction sites. These cables are suitable for fixed installation on plaster, in temporary buildings and residential barracks as well as for direct installation on components of lifting equipment and machines. Suitable for up to 1000 V AC voltage or 750 V DC voltage with protected fixed installation in pipes or in devices.

Aufbau und Normen

DIN VDE 0285-525-2-21/HD 22.4.S4
except 5G120; 5G150 based on
DIN VDE 0285-525-2-21/HD 22.4.S4

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Rubber core insulation EI4
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- Cores stranded in layers with optimum lay lengths
- Outer sheath made of rubber (neoprene), abrasion-resistant, flame-retardant, oil-resistant
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	450/750 V
Testing voltage:	2500 V
Insulating resistance:	$\geq 1 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-25°C to $+60^\circ\text{C}$
Conductor operating temperature:	max. $+60^\circ\text{C}$
Short-circuit temperature:	max. $+200^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	5x DA
Fixed installation:	4x DA
CPR performance class:	Eca
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404
Ozone resistance:	DIN VDE 0472-805

H07RN-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
1x1,5	1,5	0,8	5,9 - 7,1	58,0	13,3	18,0	15,0
1x2,5	2,0	0,9	6,5 - 7,9	71,0	8,0	22,0	25,0
1x4	2,5	1,0	7,4 - 9,0	100,0	5,0	30,0	40,0
1x6	3,2	1,0	8,1 - 9,8	130,0	3,3	38,0	60,0
1x10	4,1	1,2	10,4 - 11,9	230,0	1,9	53,0	100,0
1x16	5,6	1,2	11,6 - 13,4	290,0	1,2	71,0	160,0
1x25	6,8	1,4	13,7 - 15,8	420,0	0,78	94,0	250,0
1x35	8,1	1,4	15,4 - 17,9	530,0	0,554	117,0	350,0
1x50	9,6	1,6	17,7 - 20,6	750,0	0,386	148,0	500,0
1x70	11,2	1,6	20,0 - 23,3	960,0	0,272	185,0	700,0
1x95	13,2	1,8	22,1 - 26,0	1.250,0	0,206	172,0	950,0
1x120	14,9	1,8	24,5 - 28,6	1.560,0	0,161	260,0	1.200,0
1x150	16,6	2,0	26,9 - 31,4	1.900,0	0,129	300,0	1.500,0
1x185	18,0	2,2	28,9 - 34,4	2.300,0	0,106	341,0	1.850,0
1x240	21,2	2,4	32,6 - 38,4	2.950,0	0,0801	407,0	2.400,0
1x300	23,6	2,6	34,1 - 40,5	3.600,0	0,0641	468,0	3.000,0
1x400	27,0	2,8	39,0 - 44,7	4.800,0	0,0486	553,0	4.000,0
2x1	1,3	0,8	8,4 - 10,0	98,0	19,5	15,0	20,0
2x1,5	1,5	0,8	9,1 - 11,0	135,0	13,3	18,0	30,0
2x2,5	2,0	0,9	10,8 - 13,1	196,0	8,0	26,0	50,0
2x4	2,5	1,0	12,4 - 15,1	280,0	5,0	34,0	80,0
2x6	3,0	1,0	13,8 - 16,8	330,0	3,3	43,0	120,0
3G1	1,3	0,8	9,1 - 10,7	130,0	19,5	15,0	30,0
3x1,5	1,5	0,8	9,8 - 11,9	165,0	13,3	16,0	45,0
3G1,5	1,5	0,8	9,8 - 11,9	165,0	13,3	16,0	45,0
3x2,5	2,0	0,9	11,6 - 14,0	235,0	8,0	21,0	75,0
3G2,5	2,0	0,9	11,6 - 14,0	235,0	8,0	21,0	75,0
3x4	2,5	1,0	13,3 - 16,2	320,0	5,0	29,0	120,0
3G4	2,5	1,0	13,3 - 16,2	320,0	5,0	29,0	120,0
3x6	3,0	1,0	14,8 - 18,0	420,0	3,3	36,0	180,0
3G6	3,0	1,0	14,8 - 18,0	420,0	3,3	36,0	180,0
3x10	4,1	1,2	20,8 - 24,2	810,0	1,9	51,0	300,0
3G10	4,1	1,2	20,8 - 24,2	810,0	1,9	51,0	300,0
3x16	5,6	1,2	23,2 - 27,6	1.050,0	1,2	67,0	480,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
3 G 16	5,6	1,2	23,2 - 27,6	1.050,0	1,2	67,0	480,0
3 x 25	6,8	1,4	27,7 - 33,0	1.250,0	0,78	89,0	750,0
3 G 25	6,8	1,4	27,7 - 33,0	1.250,0	0,78	89,0	750,0
3 x 35	8,1	1,4	31,0 - 37,1	1.900,0	0,554	110,0	1.050,0
3 G 35	8,1	1,4	31,0 - 37,1	1.900,0	0,554	110,0	1.050,0
3 x 50	9,6	1,6	35,9 - 42,9	2.600,0	0,386	138,0	1.500,0
3 G 50	9,6	1,6	35,9 - 42,9	2.600,0	0,386	138,0	1.500,0
4 G 1	1,3	0,8	10,0 - 11,9	150,0	19,5	15,0	40,0
4 x 1,5	1,5	0,8	10,8 - 13,1	200,0	13,3	16,0	60,0
4 G 1,5	1,5	0,8	10,8 - 13,1	200,0	13,3	16,0	60,0
4 x 2,5	2,0	0,9	12,8 - 15,5	290,0	8,0	21,0	100,0
4 G 2,5	2,0	0,9	12,8 - 15,5	290,0	8,0	21,0	100,0
4 x 4	2,5	1,0	14,6 - 17,9	395,0	5,0	29,0	160,0
4 G 4	2,5	1,0	14,6 - 17,9	395,0	5,0	29,0	160,0
4 x 6	3,0	1,0	16,4 - 20,0	540,0	3,3	36,0	240,0
4 G 6	3,0	1,0	16,4 - 20,0	540,0	3,3	36,0	240,0
4 x 10	4,1	1,2	22,6 - 26,5	950,0	1,9	51,0	400,0
4 G 10	4,1	1,2	22,6 - 26,5	950,0	1,9	51,0	400,0
4 x 16	5,6	1,2	25,3 - 30,1	1.260,0	1,2	67,0	640,0
4 G 16	5,6	1,2	25,3 - 30,1	1.260,0	1,2	67,0	640,0
4 x 25	6,8	1,4	30,8 - 36,6	1.860,0	0,78	89,0	1.000,0
4 G 25	6,8	1,4	30,8 - 36,6	1.860,0	0,78	89,0	1.000,0
4 x 35	8,1	1,4	34,2 - 41,1	2.380,0	0,554	110,0	1.400,0
4 G 35	8,1	1,4	34,2 - 41,1	2.380,0	0,554	110,0	1.400,0
4 x 50	9,6	1,6	39,6 - 47,5	3.190,0	0,386	138,0	2.000,0
4 G 50	9,6	1,6	39,6 - 47,5	3.190,0	0,386	138,0	2.000,0
4 x 70	11,2	1,6	44,9 - 54,0	4.260,0	0,272	172,0	2.800,0
4 G 70	11,2	1,6	44,9 - 54,0	4.260,0	0,272	172,0	2.800,0
4 x 95	13,2	1,8	50,4 - 61,0	5.600,0	0,206	222,0	3.800,0
4 G 95	13,2	1,8	50,4 - 61,0	5.600,0	0,206	222,0	3.800,0
4 G 120	14,9	1,8	55,3 - 66,0	6.830,0	0,161	238,0	4.800,0
4 G 150	16,6	2,0	60,9 - 73,0	8.320,0	0,129	273,0	6.000,0
4 G 185	18,0	2,2	65,7 - 75,3	9.800,0	0,106	309,0	7.400,0
4 G 240	21,2	2,4	73,5 - 81,7	12.100,0	0,0801	365,0	9.600,0
5 G 1	1,3	0,8	11,0 - 13,1	174,0	19,5	15,0	50,0
5 G 1,5	1,5	0,8	11,8 - 14,4	240,0	13,3	16,0	75,0
5 G 2,5	2,0	0,9	14,0 - 17,0	345,0	8,0	21,0	125,0
5 G 4	2,5	1,0	16,3 - 19,9	485,0	5,0	29,0	200,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
5 G 6	3,0	1,0	18,1 - 22,2	650,0	3,3	36,0	300,0
5 G 10	4,1	1,2	24,8 - 29,1	1.200,0	1,9	51,0	500,0
5 G 16	5,6	1,2	28,0 - 33,3	1.550,0	1,2	67,0	800,0
5 G 25	6,8	1,4	33,6 - 40,4	2.250,0	0,78	89,0	1.250,0
5 G 35	8,1	1,4	41,1 - 47,8	2.750,0	0,554	110,0	1.750,0
5 G 50	9,6	1,6	45,2 - 51,6	3.950,0	0,386	138,0	2.500,0
5 G 70	11,2	1,6	48,7 - 54,3	4.740,0	0,272	172,0	3.500,0
5 G 95	13,2	1,8	58,3 - 64,7	6.600,0	0,206	222,0	4.750,0
5 G 120	14,9	1,8	61,5 - 73,8	8.260,0	0,161	246,0	6.000,0
5 G 150	16,6	2,0	73,0 - 79,8	10.500,0	0,129	282,0	7.500,0
7 G 1,5	1,5	0,8	14,8 - 17,2	375,0	13,3	16,0	105,0
7 G 2,5	2,0	0,9	17,1 - 20,0	520,0	8,0	21,0	175,0
7 G 4	2,5	1,0	19,7 - 22,5	760,0	5,0	29,0	280,0
12 G 1,5	1,5	0,8	18,9 - 22,4	460,0	13,3	16,0	180,0
12 G 2,5	2,0	0,9	22,0 - 26,2	760,0	8,0	21,0	300,0
19 G 1,5	1,5	0,8	22,1 - 26,3	810,0	13,3	16,0	285,0
19 G 2,5	2,0	0,9	26,0 - 30,9	1.075,0	8,0	21,0	475,0
24 G 1,5	1,5	0,8	25,7 - 30,7	1.015,0	13,3	16,0	360,0
24 G 2,5	2,0	0,9	30,4 - 36,4	1.390,0	8,0	21,0	600,0
27 G 1,5	1,5	0,8	32,0 - 38,2	1.077,0	13,3	16,0	405,0

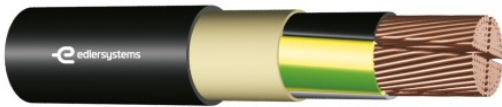
Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

E-Y2Y / NY2Y



Verwendung

As power supply cables for power stations, industry and switchgear, as well as in local networks. For fixed installation indoors, outdoors, in the ground, in water and in cable ducts in accordance with the applicable installation regulations under heavy mechanical stress during installation and operation.

Aufbau und Normen

E-Y2Y

ÖVE K23 und K603/HD 603 S1

NY2Y

DIN VDE 0276-603/HD 603 S1 and IEC 60502-1

- Bare copper conductor, solid (RE/SE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC – core insulation
- Core labelling according to HD 308 S2
- PVC - filling coat (FM) or banding (BD)
- PE - outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U :	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Eca

E-Y2Y / NY2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. Ω/km	A	A	kg/km
4 x 6 RE	1,0	16,3	3,1	43,0	58,0	240,0
5 x 6 RE	1,0	17,0	3,1	43,0	58,0	300,0
4 x 10 RE	1,0	18,5	1,8	59,0	78,0	400,0
4 x 10 RM	1,0	18,5	1,8	59,0	78,0	400,0
5 x 10 RE	1,0	21,0	1,8	59,0	78,0	500,0
4 x 16 RE	1,0	20,3	1,2	78,0	101,0	640,0
4 x 16 RM	1,0	20,3	1,2	78,0	101,0	640,0
4 x 25 RM	1,2	24,4	0,727	105,0	132,0	1.000,0
4 x 35 SM	1,2	27,0	0,524	129,0	159,0	1.400,0
4 x 50 SM	1,4	28,7	0,387	157,0	188,0	2.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NSSHöu



Verwendung

For very high mechanical loads in mining, open-cast mining, quarries, on construction sites for connecting heavy equipment and tools and in industry. Also suitable for fixed installation on plaster, in dry, damp and wet rooms. For a long service life under difficult operating conditions. However, not suitable for use on cable routing devices, reels and mobile cable carriers.

Aufbau und Normen

DIN VDE 0250-812

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Rubber core isolation EPR 3GI3
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- Cores stranded in layers with optimum lay lengths
- Rubber intersheath
- Polychloroprene outer sheath 5GM5 high abrasion resistance, oil resistant
- Sheath colour yellow

Technische Daten

Nominal voltage U_0/U:	0,6/1 KV
Testing voltage:	3000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-40°C to $+80^\circ\text{C}$
Conductor operating temperature:	max. $+80^\circ\text{C}$
Short-circuit temperature:	max. $+250^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	4 x DA
Fixed installation:	10 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404

NSSHöu

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl kg/km
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 16	5,4	10,6 - 11,8	231,0	1,2	132,0	160,0
1 x 25	6,3	12,8 - 14,0	349,0	0,795	176,0	250,0
1 x 35	7,4	13,9 - 15,1	443,0	0,565	218,0	350,0
1 x 50	8,8	15,6 - 17,1	601,0	0,393	276,0	500,0
1 x 70	10,6	17,7 - 19,2	814,0	0,277	347,0	700,0
1 x 95	12,1	19,7 - 21,2	1.041,0	0,21	416,0	950,0
1 x 120	14,3	22,4 - 23,9	1.325,0	0,164	488,0	1.200,0
1 x 150	15,9	24,4 - 25,9	1.615,0	0,132	566,0	1.500,0
1 x 185	17,5	27,2 - 29,4	1.997,0	0,108	644,0	1.850,0
1 x 240	20,3	30,4 - 32,6	2.575,0	0,0817	775,0	2.400,0
3 G 1,5	1,6	11,1 - 12,7	195,0	13,7	23,0	45,0
3 G 2,5	1,9	12,2 - 13,8	235,0	8,2	30,0	75,0
3 G 70/35	10,6	42,3 - 45,3	3.714,0	0,277	250,0	2.450,0
3 G 95/50	12,1	48,1 - 52,1	5.899,0	0,21	301,0	3.350,0
3 G 120/70	14,2	54,6 - 58,6	6.482,0	0,164	352,0	4.300,0
3 G 150/70	16,1	60,0 - 64,0	7.568,0	0,132	404,0	5.200,0
4 G 1,5	1,6	11,8 - 13,1	205,0	13,7	23,0	60,0
4 G 2,5	1,9	14,1 - 16,1	319,0	8,2	30,0	100,0
4 G 4	2,4	15,7 - 17,7	411,0	5,1	41,0	160,0
4 G 6	2,9	16,9 - 18,9	508,0	3,4	53,0	240,0
4 G 10	3,9	21,1 - 23,1	803,0	2,0	74,0	400,0
4 G 16	5,4	25,2 - 28,2	1.181,0	1,2	99,0	640,0
4 G 25	6,3	29,8 - 32,8	1.721,0	0,795	131,0	1.000,0
4 G 35	7,5	32,7 - 35,7	2.176,0	0,565	162,0	1.400,0
4 G 50	8,8	38,1 - 41,1	3.022,0	0,393	202,0	2.000,0
4 G 70	10,6	42,1 - 45,1	3.939,0	0,277	250,0	2.800,0
4 G 95	12,1	48,2 - 52,2	5.335,0	0,21	301,0	3.800,0
4 G 120	14,2	54,6 - 58,6	6.758,0	0,164	352,0	4.800,0
4 G 150	16,1	60,8 - 64,8	8.021,0	0,132	404,0	6.000,0
5 G 1,5	1,6	12,7 - 14,3	250,0	13,7	23,0	75,0
5 G 2,5	1,9	15,2 - 17,2	363,0	8,2	30,0	125,0
5 G 4	2,4	17,0 - 19,0	482,0	5,1	41,0	200,0
5 G 6	2,9	19,1 - 21,1	633,0	3,4	53,0	300,0
5 G 10	3,9	23,0 - 25,0	956,0	2,0	74,0	500,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
5 G 16	5,4	27,4 - 30,4	1.396,0	1,2	99,0	800,0
5 G 25	6,3	32,4 - 35,4	2.051,0	0,795	131,0	1.250,0
5 G 35	7,5	36,9 - 39,9	2.743,0	0,565	162,0	1.750,0
7 G 1,5	1,6	15,2 - 17,2	364,0	13,7	15,0	105,0
7 G 2,5	1,9	17,4 - 19,4	497,0	8,2	19,5	175,0
10 G 1,5	1,6	17,7 - 19,7	476,0	13,7	12,7	150,0
12 G 2,5	1,9	21,2 - 23,2	735,0	8,2	15,6	300,0
18 G 2,5	1,9	24,5 - 27,5	1.034,0	8,2	13,5	450,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G= with protective conductor (GNGE)

x= without protective conductor

H01N2-D / H01N2-E



Verwendung

As a welding cable in the automotive industry, in mechanical engineering, in shipyards, etc. as a connection between electric welding equipment and welding tools in dry and damp rooms as well as outdoors.

Aufbau und Normen

DIN VDE 0285-525-2-81/HD 22.6 S2

- Bare copper stranded wire,
H01N2-D: extra-fine stranded according to DIN VDE 0295 cl.6,
IEC 60228 cl.6
H01N2-E: extra-fine stranded, extra flexibel according to DIN VDE 0295 cl. 6, IEC 60228 cl.6
- Separating layer over conductor
- Neoprene outer sheath EM5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	100/100 V
Testing voltage:	1000 V
Temperature range:	
When laying:	max. -20°C
Operating temperature:	-20°C to +80°C
Conductor operating temperature:	max. +85°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
H01N2-D:	12 x DA
H01N2-E:	10 x DA
Fire behaviour:	EN 60332-1-2, IEC 60332-1
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404

H01N2-D / H01N2-E

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Drahtanzahl x Einzeldraht Ø	Mantelwanddicke Nennwert	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
	H01N2-D						
1 x 10	320 x 0,2	2,0	7,7 - 9,7	135,0	1,9	100,0	100,0
1 x 16	512 x 0,2	2,0	8,8 - 11,0	205,0	1,2	110,0	160,0
1 x 25	800 x 0,2	2,0	10,1 - 12,7	302,0	0,78	140,0	250,0
1 x 35	1120 x 0,2	2,0	11,4 - 14,2	420,0	0,554	180,0	350,0
1 x 50	1.600 x 0,2	2,2	13,2 - 16,5	586,0	0,386	210,0	500,0
1 x 70	2.240 x 0,2	2,4	15,3 - 19,2	798,0	0,272	270,0	700,0
1 x 95	3.024 x 0,2	2,6	17,1 - 21,4	1.015,0	0,206	330,0	950,0
1 x 120	614 x 0,5	2,8	19,2 - 24,0	1.310,0	0,161	380,0	1.200,0
1 x 150	765 x 0,5	3,0	21,2 - 26,4	1.620,0	0,129	440,0	1.500,0
	H01N2-E						
1 x 16	903 x 0,15	1,2	7,3 - 9,1	181,0	1,2	110,0	160,0
1 x 25	1.407 x 0,15	1,2	8,6 - 10,8	270,0	0,78	140,0	250,0
1 x 35	1.974 x 0,15	1,2	9,8 - 12,3	363,0	0,554	180,0	350,0
1 x 50	2.830 x 0,15	1,5	11,9 - 14,8	528,0	0,386	210,0	500,0
1 x 70	3.952 x 0,15	1,5	13,6 - 17,0	716,0	0,272	270,0	700,0
1 x 95	5.370 x 0,15	1,8	15,6 - 19,5	1.012,0	0,206	330,0	950,0
1 x 120	3.819 x 0,2	1,8	17,2 - 21,6	1.240,0	0,161	380,0	1.200,0
1 x 150	4.788 x 0,2	1,8	18,8 - 23,5	1.560,0	0,129	440,0	1.500,0

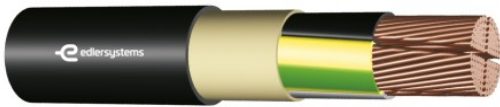
Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

"Tinned" version on request

Number of wires = guide value; information on the number of wires and individual wire diameters is not binding

(N)2XY



Verwendung

For fixed installation indoors, outdoors, in the ground, in water and concrete and in cable ducts for power stations, industrial and switchgear installations.

Aufbau und Normen

according to VDE 0276-603/HD 603 S1
from 7 cores VDE 0276-627/HD 627 S1
and IEC 60502-1

- Bare copper conductor, solid (RE)
- according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM)
according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - core insulation
- Core labelling according to HD 308 S2
from 7 core version black with numbers
- PVC - filling coat (FM) or banding (BD)
- PVC - outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
Fire behaviour:	
Execution (N)2XY:	IEC 60332-1
Execution (N)2XY-FR:	IEC 60332-3

(N)2XY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 16 RE	0,7	10,1	222,0	1,2	98,0	115,0	160,0
1 x 25 RM	0,9	11,8	328,0	0,727	148,0	145,0	250,0
1 x 35 RM	0,9	13,0	428,0	0,524	170,0	177,0	350,0
1 x 50 RM	1,0	14,5	562,0	0,387	207,0	209,0	500,0
1 x 70 RM	1,1	16,5	779,0	0,268	263,0	256,0	700,0
1 x 95 RM	1,1	18,4	1040,0	0,193	325,0	307,0	950,0
1 x 120 RM	1,2	20,2	1296,0	0,153	380,0	348,0	1.200,0
1 x 150 RM	1,4	22,2	1579,0	0,124	437,0	393,0	1.500,0
1 x 185 RM	1,6	24,8	1981,0	0,0991	507,0	445,0	1.850,0
1 x 240 RM	1,7	27,7	2.560,0	0,0754	604,0	517,0	2.400,0
1 x 300 RM	1,8	29,9	3.142,0	0,0601	697,0	583,0	3.000,0
1 x 400 RM	2,0	33,5	4.021,0	0,047	811,0	663,0	4.000,0
2 x 1,5 RE	0,7	10,7	159,0	12,1	24,0	31,0	30,0
2 x 2,5 RE	0,7	11,5	195,0	7,4	32,0	40,0	50,0
2 x 4 RE	0,7	12,5	249,0	4,6	42,0	52,0	80,0
2 x 6 RE	0,7	13,5	311,0	3,1	53,0	64,0	120,0
2 x 10 RE	0,7	16,1	465,0	1,8	74,0	86,0	200,0
2 x 16 RE	0,7	18,2	642,0	1,2	98,0	112,0	320,0
3 x 1,5 RE	0,7	11,3	177,0	12,1	24,0	31,0	45,0
3 x 2,5 RE	0,7	12,0	223,0	7,4	32,0	40,0	75,0
3 x 4 RE	0,7	13,1	291,0	4,6	42,0	52,0	120,0
3 x 6 RE	0,7	14,1	370,0	3,1	53,0	64,0	180,0
3 x 10 RE	0,7	16,9	562,0	1,8	74,0	86,0	300,0
3 x 16 RE	0,7	19,2	790,0	1,2	102,0	112,0	480,0
3 x 25 RM	0,9	23,7	1.234,0	0,727	133,0	145,0	750,0
3 x 35 RM	0,9	26,6	1.620,0	0,524	162,0	174,0	1.050,0
3 x 50 RM	1,0	27,1	1.800,0	0,387	197,0	206,0	1.500,0
3 x 70 RM	1,1	31,2	2.400,0	0,268	250,0	254,0	2.100,0
3 x 95 RM	1,1	34,5	3.300,0	0,193	308,0	305,0	2.850,0
3 x 25 RM/16 RE	0,9/0,7	25,0	1.500,0	0,727/1,15	133,0	145,0	910,0
3 x 35 RM/16 RE	0,9/0,7	27,0	1.700,0	0,524/1,15	162,0	174,0	1.210,0
3 x 50/35 RM	1,0/0,9	31,0	2.300,0	0,387/0,524	197,0	206,0	1.850,0
3 x 70/50 RM	1,1/1,0	35,0	2.800,0	0,268/0,387	250,0	254,0	2.600,0
3 x 95/50 RM	1,1/1,0	39,0	3.800,0	0,193/0,387	308,0	305,0	3.350,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
3 x 120/70 RM	1,2/1,1	44,0	4.700,0	0,153/0,268	359,0	348,0	4.300,0
3 x 150/70 RM	1,4/1,1	47,0	5.600,0	0,124/0,268	412,0	392,0	5.200,0
3 x 185/95 RM	1,6/1,1	53,0	7.400,0	0,0991/0,193	475,0	444,0	6.500,0
3 x 240/120 RM	1,7/1,2	59,0	9.600,0	0,0754/0,153	564,0	517,0	8.400,0
4 x 1,5 RE	0,7	11,8	202,0	12,1	24,0	31,0	60,0
4 x 2,5 RE	0,7	12,8	258,0	7,4	32,0	40,0	100,0
4 x 4 RE	0,7	14,0	343,0	4,6	42,0	52,0	160,0
4 x 6 RE	0,7	15,2	442,0	3,1	53,0	64,0	240,0
4 x 10 RE	0,7	18,4	678,0	1,8	74,0	86,0	400,0
4 x 16 RE	0,7	21,7	1.013,0	1,2	102,0	112,0	640,0
4 x 25 RM	0,9	26,2	1.530,0	0,727	133,0	145,0	1.000,0
4 x 35 RM	0,9	27,4	1.990,0	0,524	162,0	174,0	1.400,0
4 x 50 RM	1,0	29,0	2.071,0	0,387	197,0	206,0	2.000,0
4 x 70 RM	1,1	31,1	2.908,0	0,268	250,0	254,0	2.800,0
4 x 95 RM	1,1	35,1	3.958,0	0,193	308,0	305,0	3.800,0
4 x 120 RM	1,2	38,8	4.959,0	0,153	359,0	348,0	4.800,0
4 x 150 RM	1,4	42,5	6.061,0	0,124	412,0	392,0	6.000,0
4 x 185 RM	1,6	47,5	7.632,0	0,0991	475,0	444,0	7.400,0
4 x 240 RM	1,7	52,6	9.908,0	0,0754	564,0	517,0	9.600,0
5 x 1,5 RE	0,7	15,0	270,0	12,1	24,0	31,0	75,0
5 x 2,5 RE	0,7	16,0	350,0	7,4	32,0	40,0	125,0
5 x 4 RE	0,7	18,0	480,0	4,6	42,0	52,0	200,0
5 x 6 RE	0,7	19,0	610,0	3,1	53,0	64,0	300,0
5 x 10 RE	0,7	21,0	880,0	1,8	74,0	86,0	500,0
5 x 16 RE	0,7	24,0	1.250,0	1,2	102,0	112,0	800,0
5 x 25 RM	0,9	29,0	1.950,0	0,727	133,0	145,0	1.250,0
5 x 35 RM	0,9	30,0	2.400,0	0,524	162,0	174,0	1.750,0
5 x 50 RM	1,0	36,0	3.500,0	0,387	197,0	206,0	2.500,0
5 x 70 RM	1,1	40,0	4.450,0	0,268	250,0	254,0	3.500,0
5 x 95 RM	1,1	46,0	6.134,0	0,193	308,0	305,0	4.750,0
5 x 120 RM	1,2	50,0	7.483,0	0,153	359,0	349,0	6.000,0
7 x 1,5 RE	0,7	14,1	300,0	12,1	24,0	31,0	105,0
7 x 2,5 RE	0,7	15,2	420,0	7,4	32,0	40,0	175,0
12 x 1,5 RE	0,7	17,5	400,0	12,1	24,0	31,0	180,0
12 x 2,5 RE	0,7	18,9	560,0	7,4	32,0	40,0	300,0
19 x 1,5 RE	0,7	19,5	560,0	12,1	24,0	31,0	285,0
24 x 1,5 RE	0,7	22,5	700,0	12,1	24,0	31,0	360,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NSGAFöu



Verwendung

As a short-circuit and earth-fault proof connecting cable in railway vehicles and buses, in switchgear and distribution boards up to 1000 volts and in dry rooms.

Aufbau und Normen

DIN VDE 0250-602

- Stranded copper wire, tinned, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Aluminium foil strapping
- Ethylene-propylene core insulation (EPR) 3G13
- Polychloroprene outer sheath 5GM3
- Sheath colour black

Special properties:

- ozone resistant
- notch resistant
- increased abrasion resistance
- oil resistant

Technische Daten

Nominal voltage U_0/U:	1,8/3 kV
Testing voltage:	6000 V
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-40°C to +80°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +200°C/5 sec.
Minimum bending radius:	5 x DA
CPR performance class:	Eca
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404

NSGAFöu

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 1,5	1,5	1,3	6,3	51,0	13,7	30,0	15,0
1 x 2,5	1,9	1,3	6,7	63,0	8,2	41,0	25,0
1 x 4	2,5	1,3	7,4	82,0	5,1	55,0	40,0
1 x 6	3,2	1,3	7,9	103,0	3,4	70,0	60,0
1 x 10	4,1	1,5	9,5	159,0	2,0	98,0	100,0
1 x 16	5,6	1,5	10,5	219,0	1,2	132,0	160,0
1 x 25	6,8	1,6	12,8	335,0	0,795	176,0	250,0
1 x 35	8,1	1,6	14,1	435,0	0,565	218,0	350,0
1 x 50	9,6	1,8	15,9	582,0	0,393	276,0	500,0
1 x 70	11,2	1,8	17,8	757,0	0,277	347,0	700,0
1 x 95	13,2	2,2	20,1	1.040,0	0,21	416,0	950,0
1 x 120	14,9	2,2	22,0	1.279,0	0,164	488,0	1.200,0
1 x 150	16,6	2,2	24,0	1.581,0	0,132	566,0	1.500,0
1 x 185	18,0	2,4	26,3	1.895,0	0,108	644,0	1.850,0
1 x 240	21,2	2,6	29,6	2.452,0	0,0817	775,0	2.400,0
1 x 300	23,6	2,8	32,2	2.998,0	0,0654	879,0	3.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

NSGAFöu 3,6/6 kV on request

(N)2XCY



Verwendung

For industrial and switchgear applications, as well as control cables for transmitting control pulses and measured values. For increased electrical and mechanical stress for fixed installation indoors, outdoors, in earth and in cable ducts. The concentric conductor (C) may be used as a PE or PEN conductor or as a shield.

Aufbau und Normen

based on DIN VDE 0276-603/HD 603 S1
from 7 cores DIN VDE 0276-627/HD 627 S1
and IEC 60502-1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1
- VPE - core insulation
- Core labelling according to HD 308 S2 from 7 cores black with numbers
- Cores stranded concentrically in layers
- PVC - filling coat (FM) or banding (BD)
- Concentric conductor, round copper wires between core sheath and outer sheath, Copper tape as cross-conducting spiral over the copper wires
- PVC outer sheath, DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	12 x DA
Fire behaviour:	
Execution (N)2XCY:	IEC 60332-1
Execution (N)2XCY-FR:	IEC 60332-3

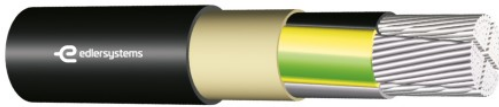
(N)2XCY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
2 x 1,5 RE/1,5	0,7	12,0	200,0	12,1	24,0	31,0	54,0
2 x 2,5 RE/2,5	0,7	13,5	255,0	7,4	32,0	40,0	83,0
3 x 1,5 RE/1,5	0,7	12,5	215,0	12,1	24,0	31,0	83,0
3 x 2,5 RE/2,5	0,7	14,0	280,0	7,4	32,0	40,0	113,0
3 x 4 RE/4	0,7	15,0	350,0	4,6	42,0	52,0	168,0
3 x 6 RE/6	0,7	17,5	510,0	3,1	53,0	64,0	250,0
4 x 1,5 RE/1,5	0,7	13,5	245,0	12,1	24,0	31,0	88,0
4 x 2,5 RE/2,5	0,7	14,5	315,0	7,4	32,0	40,0	138,0
4 x 4 RE/4	0,7	15,5	410,0	4,6	42,0	52,0	208,0
4 x 6 RE/6	0,7	19,0	585,0	3,1	53,0	64,0	309,0
5 x 1,5 RE/1,5	0,7	14,0	285,0	12,1	24,0	31,0	103,0
5 x 2,5 RE/1,5	0,7	15,5	370,0	7,4	32,0	40,0	163,0
7 x 1,5 RE/2,5	0,7	14,5	270,0	12,1	24,0	31,0	139,0
7 x 2,5 RE/2,5	0,7	15,5	350,0	7,4	32,0	40,0	208,0
12 x 1,5 RE/2,5	0,7	17,5	465,0	12,1	24,0	31,0	214,0
12 x 2,5 RE/4	0,7	20,0	590,0	7,4	32,0	40,0	348,0
24 x 1,5 RE/6	0,7	23,5	700,0	12,1	24,0	31,0	430,0
24 x 2,5 RE/10	0,7	26,0	975,0	7,4	32,0	40,0	725,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

E-AYY



Verwendung

As power supply cables for power stations, industry and switchgear, as well as in local networks. For fixed installation indoors, outdoors, in the ground, in water and in cable ducts if no risk of mechanical damage is to be expected.

Aufbau und Normen

ÖVE K23 and K603/HD 603 S1

- bare aluminium conductor, solid (RE/SE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation DIV 4
- Core labelling according to HD 308 S2
- PVC filling coat (FM) or banding (BD)
- PVC outer sheath DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Eca

E-AYY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Alu Zahl
mm ²	ca. mm	ca. mm	ca. Ω/km	A	A	kg/km
1 x 25 RM	1,2	11,0	1,2	87,0	106,0	74,0
1 x 35 RM	1,2	12,0	0,868	107,0	127,0	103,0
1 x 50 RM	1,4	14,0	0,641	131,0	151,0	147,0
1 x 70 RM	1,4	16,0	0,443	166,0	185,0	206,0
1 x 95 RM	1,6	18,0	0,32	205,0	222,0	279,0
1 x 120 RM	1,6	19,0	0,253	239,0	253,0	353,0
1 x 150 RM	1,8	21,0	0,206	273,0	284,0	441,0
1 x 185 RM	2,0	24,0	0,164	317,0	322,0	544,0
1 x 240 RM	2,2	26,0	0,125	378,0	375,0	706,0
1 x 300 RM	2,4	29,0	0,1	437,0	425,0	882,0
1 x 400 RM	2,6	32,0	0,0778	513,0	487,0	1.200,0
1 x 500 RM	2,8	36,0	0,0605	600,0	558,0	1.510,0
1 x 630 RM	2,8	40,0	0,0469	701,0	635,0	1.900,0
3 x 150/70 SM	1,8/1,4	44,0	0,206/0,443	246,0	275,0	1.529,0
3 x 185/95 SM	2,0/1,6	47,0	0,164/0,320	285,0	313,0	1.911,0
3 x 240/120 SM	2,2/1,6	55,0	0,125/0,253	338,0	364,0	2.470,0
4 x 16 RM	1,2	23,0	1,9	50,0	63,0	189,0
4 x 25 RM	1,2	25,0	1,2	82,0	102,0	294,0
4 x 35 SM	1,2	27,0	0,868	100,0	123,0	412,0
4 x 50 SM	1,4	27,0	0,641	119,0	144,0	588,0
4 x 70 SM	1,4	30,0	0,443	152,0	179,0	823,0
4 x 95 SM	1,6	34,0	0,32	186,0	215,0	1.117,0
4 x 120 SM	1,6	40,0	0,253	216,0	245,0	1.411,0
4 x 150 SM	1,8	43,0	0,206	246,0	275,0	1.764,0
4 x 185 SM	2,0	50,0	0,164	285,0	313,0	2.176,0
4 x 240 SM	2,2	54,0	0,125	338,0	364,0	2.822,0
4 x 300 SM	2,4	58,0	0,1	400,0	419,0	3.528,0
5 x 10 RE	1,0	22,0	0,94	34,0	47,0	147,0
5 x 16 RM	1,2	24,0	1,9	50,0	63,0	235,0
5 x 25 RM	1,2	26,0	1,2	82,0	102,0	368,0
5 x 25 SM	1,2	26,0	1,2	82,0	102,0	368,0
5 x 35 RM	1,2	28,0	0,868	100,0	123,0	515,0
5 x 35 SM	1,2	28,0	0,868	100,0	123,0	515,0
5 x 50 RM	1,4	30,0	0,641	119,0	144,0	781,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Alu Zahl
mm ²	ca. mm	ca. mm	ca. Ω/km	A	A	kg/km
5 x 50 SM	1,4	30,0	0,641	119,0	144,0	781,0
5 x 70 RM	1,4	34,0	0,443	152,0	179,0	1.071,0
5 x 70 SM	1,4	34,0	0,443	152,0	179,0	1.071,0
5 x 95 RM	1,6	38,0	0,32	186,0	215,0	1.484,0
5 x 95 SM	1,6	38,0	0,32	186,0	215,0	1.484,0
5 x 120 RM	1,6	45,0	0,253	216,0	245,0	1.875,0
5 x 120 SM	1,6	45,0	0,253	216,0	245,0	1.875,0
5 x 150 RM	1,8	48,0	0,206	246,0	275,0	2.343,0
5 x 150 SM	1,8	48,0	0,206	246,0	275,0	2.343,0
5 x 185 RM	2,0	56,0	0,164	285,0	313,0	2.891,0
5 x 185 SM	2,0	56,0	0,164	285,0	313,0	2.891,0
5 x 240 RM	2,2	60,0	0,125	338,0	364,0	3.744,0
5 x 240 SM	2,2	60,0	0,125	338,0	364,0	3.744,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NSHTöu



Verwendung

In crane, hoist and conveyor systems as well as construction machinery subject to high mechanical stress due to frequent winding and unwinding with simultaneous tensile and torsional stress. For installation in dry, damp and wet rooms as well as outdoors.

Aufbau und Normen

DIN VDE 0250-814

- Stranded copper wire, tinned, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Rubber core insulation 3GI3
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- Inner sheath made of rubber
- Torsion protection insert made of textile or plastic threads
- Neoprene outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U₀/U:	0,6/1 kV
Testing voltage:	2500 V
Insulating resistance:	≥ 10 MOhm x km
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-40°C to +80°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. 250°C/5 sec.
Torsionsbelastung:	+/- 25°/m
Minimum bending radius:	
When laying:	5 x DA
Fixed installation:	7,5 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404

NSHTöu

Produkteigenschaften

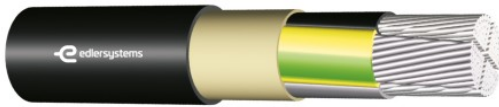
Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
4 G 1,5	1,6	11,5 - 15,0	275,0	13,7	18,0	60,0
5 G 1,5	1,6	12,5 - 16,0	317,0	13,7	18,0	75,0
7 G 1,5	1,6	17,3 - 19,4	414,0	13,7	18,0	105,0
12 G 1,5	1,6	23,6 - 25,7	607,0	13,7	18,0	180,0
18 G 1,5	1,6	24,2 - 26,3	743,0	13,7	18,0	270,0
24 G 1,5	1,6	18,8 - 30,9	1.024,0	13,7	18,0	360,0
30 G 1,5	1,6	30,8 - 34,0	1.327,0	13,7	18,0	450,0
4 G 2,5	2,1	14,5 - 18,0	415,0	8,2	26,0	100,0
5 G 2,5	2,1	15,0 - 18,5	464,0	8,2	26,0	125,0
7 G 2,5	2,1	19,6 - 21,6	575,0	8,2	26,0	175,0
12 G 2,5	2,1	27,4 - 29,5	904,0	8,2	26,0	300,0
18 G 2,5	2,1	28,5 - 30,6	1.230,0	8,2	26,0	450,0
24 G 2,5	2,1	33,4 - 36,6	1.583,0	8,2	26,0	600,0
30 G 2,5	2,1	37,0 - 40,2	1.841,0	8,2	26,0	750,0
4 G 4	2,7	16,0 - 19,5	530,0	5,1	34,0	160,0
5 G 4	2,7	17,5 - 21,0	630,0	5,1	34,0	200,0
4 G 6	3,0	17,5 - 21,0	684,0	3,4	44,0	240,0
5 G 6	3,0	19,0 - 23,5	790,0	3,4	44,0	300,0
4 G 10	4,2	25,1 - 27,1	1.017,0	2,0	61,0	400,0
5 G 10	4,2	24,5 - 29,0	1.200,0	2,0	61,0	500,0
4 G 16	5,4	28,0 - 30,1	1.370,0	1,2	82,0	640,0
5 G 16	5,4	28,0 - 32,5	1.700,0	1,2	82,0	800,0
4 G 25	6,6	32,8 - 36,0	1.985,0	0,795	108,0	1.000,0
4 G 35	8,0	35,8 - 39,0	2.605,0	0,565	135,0	1.400,0
5 G 35	8,0	38,0 - 43,5	2.950,0	0,565	135,0	1.750,0
4 G 50	9,3	41,8 - 45,0	3.593,0	0,393	168,0	2.000,0
4 G 70	11,2	46,2 - 49,4	4.950,0	0,277	207,0	2.800,0
4 G 95	13,0	53,0 - 57,5	6.490,0	0,21	250,0	3.800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

NAYY



Verwendung

As power supply cables for power stations, industry and switchgear, as well as in local networks. For fixed installation indoors, outdoors, in the ground, in water and in cable ducts if no risk of mechanical damage is to be expected.

Aufbau und Normen

DIN VDE 0276-603/HD 603 S1
and IEC 60502-1

- Bare aluminium conductor, solid (RE/SE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation DIV 4
- Core labelling according to HD 308 S2
- PVC filling coat (FM) or banding (BD)
- PVC outer sheath DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Eca

NAYY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Alu Zahl
mm ²	ca. mm	ca. mm	ca. Ω/km	A	A	kg/km
1 x 25 RM	1,2	11,0	1,2	87,0	106,0	74,0
1 x 35 RM	1,2	12,0	0,868	107,0	127,0	103,0
1 x 50 RM	1,4	14,0	0,641	131,0	151,0	147,0
1 x 70 RM	1,4	16,0	0,443	166,0	185,0	206,0
1 x 95 RM	1,6	18,0	0,32	205,0	222,0	279,0
1 x 120 RM	1,6	19,0	0,253	239,0	253,0	353,0
1 x 150 RM	1,8	21,0	0,206	273,0	284,0	441,0
1 x 185 RM	2,0	24,0	0,164	317,0	322,0	544,0
1 x 240 RM	2,2	26,0	0,125	378,0	375,0	706,0
1 x 300 RM	2,4	29,0	0,1	437,0	425,0	882,0
1 x 400 RM	2,6	32,0	0,0778	513,0	487,0	1.200,0
1 x 500 RM	2,8	36,0	0,0605	600,0	558,0	1.510,0
1 x 630 RM	2,8	40,0	0,0469	701,0	635,0	1.900,0
3 x 150/70 SM	1,8/1,4	44,0	0,206/0,443	246,0	275,0	1.529,0
3 x 185/95 SM	2,0/1,6	47,0	0,164/0,320	285,0	313,0	1.911,0
3 x 240/120 SM	2,2/1,6	55,0	0,125/0,253	338,0	364,0	2.470,0
4 x 16 RM	1,2	23,0	1,9	50,0	63,0	189,0
4 x 16 RE	1,2	23,0	1,9	50,0	63,0	189,0
4 x 25 RM	1,2	25,0	1,2	82,0	102,0	294,0
4 x 25 RE	1,2	25,0	1,2	82,0	102,0	294,0
4 x 35 SM	1,2	27,0	0,868	100,0	123,0	412,0
4 x 35 RE	1,2	27,0	0,868	100,0	123,0	412,0
4 x 50 SM	1,4	27,0	0,641	119,0	144,0	588,0
4 x 50 SE	1,4	27,0	0,641	119,0	144,0	588,0
4 x 70 SM	1,4	30,0	0,443	152,0	179,0	823,0
4 x 70 SE	1,4	30,0	0,443	152,0	179,0	823,0
4 x 95 SM	1,6	34,0	0,32	186,0	215,0	1.117,0
4 x 95 SE	1,6	34,0	0,32	186,0	215,0	1.117,0
4 x 120 SM	1,6	40,0	0,253	216,0	245,0	1.411,0
4 x 120 SE	1,6	40,0	0,253	216,0	245,0	1.411,0
4 x 150 SM	1,8	43,0	0,206	246,0	275,0	1.764,0
4 x 150 SE	1,8	43,0	0,206	246,0	275,0	1.764,0
4 x 185 SM	2,0	50,0	0,164	285,0	313,0	2.176,0
4 x 185 SE	2,0	50,0	0,164	285,0	313,0	2.176,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Alu Zahl
mm ²	ca. mm	ca. mm	ca. Ω/km	A	A	kg/km
4 x 240 SM	2,2	54,0	0,125	338,0	364,0	2.822,0
4 x 240 SE	2,2	54,0	0,125	338,0	364,0	2.822,0
4 x 300 SM	2,4	58,0	0,1	400,0	419,0	3.528,0
4 x 300 SE	2,4	58,0	0,1	400,0	419,0	3.528,0
5 x 10 RE	1,0	22,0	0,94	34,0	47,0	147,0
5 x 16 RM	1,2	24,0	1,9	50,0	63,0	235,0
5 x 16 RE	1,2	24,0	1,9	50,0	63,0	235,0
5 x 25 RM	1,2	26,0	1,2	82,0	102,0	368,0
5 x 25 RE	1,2	26,0	1,2	82,0	102,0	368,0
5 x 25 SM	1,2	26,0	1,2	82,0	102,0	368,0
5 x 35 RM	1,2	28,0	0,868	100,0	123,0	515,0
5 x 35 RE	1,2	28,0	0,868	100,0	123,0	515,0
5 x 35 SM	1,2	28,0	0,868	100,0	123,0	515,0
5 x 50 RM	1,4	30,0	0,641	119,0	144,0	781,0
5 x 50 SM	1,4	30,0	0,641	119,0	144,0	781,0
5 x 70 RM	1,4	34,0	0,443	152,0	179,0	1.071,0
5 x 70 SM	1,4	34,0	0,443	152,0	179,0	1.071,0
5 x 95 RM	1,6	38,0	0,32	186,0	215,0	1.484,0
5 x 95 SM	1,6	38,0	0,32	186,0	215,0	1.484,0
5 x 120 RM	1,6	45,0	0,253	216,0	245,0	1.875,0
5 x 120 SM	1,6	45,0	0,253	216,0	245,0	1.875,0
5 x 150 RM	1,8	48,0	0,206	246,0	275,0	2.343,0
5 x 150 SM	1,8	48,0	0,206	246,0	275,0	2.343,0
5 x 185 RM	2,0	56,0	0,164	285,0	313,0	2.891,0
5 x 185 SM	2,0	56,0	0,164	285,0	313,0	2.891,0
5 x 240 RM	2,2	60,0	0,125	338,0	364,0	3.744,0
5 x 240 SM	2,2	60,0	0,125	338,0	364,0	3.744,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

(N)FLGöu



Verwendung

For medium mechanical stress as a flexible power and control cable for connecting moving parts such as control bulbs for crane control in dry, damp and wet rooms as well as outdoors. However, the cable is not suitable for use on rollers or reels under tensile load.

Aufbau und Normen

based on DIN VDE 0250

- Supporting element made of banded cord or synthetic rope
- Bare copper stranded wire, extra-fine stranded according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- Rubber core insulation
- cores with optimum lay lengths in layers around stranded around the supporting element in the core
- Banding over each stranding layer
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- Neoprene outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	3000 V
Insulating resistance:	$\geq 10 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-40°C to $+80^\circ\text{C}$
Conductor operating temperature:	max. $+80^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	$12,5 \times \text{DA}$
Fire behaviour:	EN 60332-1-2 IEC 60332-1

(N)FLGöu

Produkteigenschaften

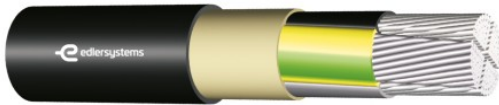
Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
7 G 1	56 x 0,16	14,0	225,0	19,5	13,0	70,0
12 G 1	56 x 0,16	18,9	400,0	19,5	13,0	120,0
18 G 1	56 x 0,16	19,8	490,0	19,5	13,0	180,0
24 G 1	56 x 0,16	22,5	650,0	19,5	13,0	240,0
36 G 1	56 x 0,16	27,0	980,0	19,5	13,0	360,0
48 G 1	56 x 0,16	31,0	1.235,0	19,5	13,0	480,0
4 G 1,5	84 x 0,16	11,0	171,0	13,3	16,0	60,0
5 G 1,5	84 x 0,16	12,0	223,0	13,3	16,0	75,0
7 G 1,5	84 x 0,16	14,0	270,0	13,3	16,0	105,0
9 G 1,5	84 x 0,16	17,0	410,0	13,3	16,0	135,0
12 G 1,5	84 x 0,16	19,5	510,0	13,3	16,0	180,0
18 G 1,5	84 x 0,16	21,0	630,0	13,3	16,0	270,0
24 G 1,5	84 x 0,16	23,5	910,0	13,3	16,0	360,0
4 G 2,5	140 x 0,16	12,0	250,0	8,0	21,0	100,0
7 G 2,5	140 x 0,16	15,5	380,0	8,0	21,0	175,0
12 G 2,5	140 x 0,16	22,0	710,0	8,0	21,0	300,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

E-AY2Y



Verwendung

As power supply cables for power stations, industry and switchgear, as well as in local networks. For fixed installation indoors, outdoors, in the ground, in water and in cable ducts in accordance with the applicable installation regulations under heavy mechanical stress.

Aufbau und Normen

ÖVE K23 and K603/HD 603 S1

- Bare aluminium conductor, solid (RE/SE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation
- Core labelling according to HD 308 S2
- PVC - filling coat (FM) or banding (BD)
- PE - outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Fca

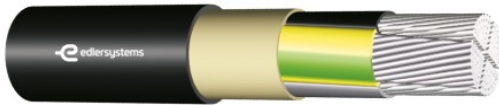
E-AY2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Alu Zahl
mm ²	ca. mm	ca. mm	ca. Ω/km	A	A	kg/km
1 x 120 RM	1,6	20,0	0,253	239,0	253,0	353,0
3 x 240/120 SM	2,2/1,6	55,0	0,125/0,253	338,0	364,0	2.470,0
4 x 16 RM	1,2	23,0	1,9	50,0	63,0	189,0
4 x 25 RE	1,2	24,0	1,2	82,0	102,0	294,0
4 x 25 RM	1,2	24,0	1,2	82,0	102,0	294,0
4 x 35 SM	1,2	25,0	0,868	100,0	123,0	412,0
4 x 50 SM	1,4	28,0	0,641	119,0	144,0	588,0
4 x 70 SM	1,4	33,0	0,443	152,0	179,0	823,0
4 x 95 SM	1,6	37,0	0,32	186,0	215,0	1.117,0
4 x 120 SM	1,6	41,0	0,253	216,0	245,0	1.411,0
4 x 150 SM	1,8	43,3	0,206	246,0	275,0	1.764,0
4 x 185 SM	2,0	48,0	0,164	285,0	313,0	2.176,0
4 x 240 SM	2,2	54,0	0,125	338,0	364,0	2.822,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NAY2Y



Verwendung

As power supply cables for power stations, industry and switchgear, as well as in local networks. For fixed installation indoors, outdoors, in the ground, in water and in cable ducts in accordance with the applicable installation regulations under heavy mechanical stress.

Aufbau und Normen

DIN VDE 0276-603/HD 603 S1
and IEC 60502-1

- Bare aluminium conductor, solid (RE/SE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation
- Core labelling according to HD 308 S2
- PVC - filling coat (FM) or banding (BD)
- PE - outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing resistance:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Fca

NAY2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Alu Zahl
mm ²	ca. mm	ca. mm	ca. Ω/km	A	A	kg/km
1 x 120 RM	1,6	20,0	0,253	239,0	253,0	353,0
3 x 240/120 SM	2,2/1,6	55,0	0,125/0,253	338,0	364,0	2.470,0
4 x 16 RM	1,2	23,0	1,9	50,0	63,0	189,0
4 x 25 RE	1,2	24,0	1,2	82,0	102,0	294,0
4 x 25 RM	1,2	24,0	1,2	82,0	102,0	294,0
4 x 35 SM	1,2	25,0	0,868	100,0	123,0	412,0
4 x 35 RE	1,2	25,0	0,868	100,0	123,0	412,0
4 x 50 SM	1,4	28,0	0,641	119,0	144,0	588,0
4 x 50 SE	1,4	28,0	0,641	119,0	144,0	588,0
4 x 70 SM	1,4	33,0	0,443	152,0	179,0	823,0
4 x 95 SM	1,6	37,0	0,32	186,0	215,0	1.117,0
4 x 120 SM	1,6	41,0	0,253	216,0	245,0	1.411,0
4 x 150 SM	1,8	43,3	0,206	246,0	275,0	1.764,0
4 x 185 SM	2,0	48,0	0,164	285,0	313,0	2.176,0
4 x 185 SE	2,0	48,0	0,164	285,0	313,0	2.176,0
4 x 240 SM	2,2	54,0	0,125	338,0	364,0	2.822,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

E-A2Y



Verwendung

As an overhead power line primarily for public distribution networks up to and including 1000 V. Not suitable for underground installation.

Aufbau und Normen

ÖVE/ÖNORM 8200-626/HD 626

- Aluminium conductor, multi-stranded, compacted (RMV)
- PE core insulation
2 or 4 cores of the same cross-section are stranded together in a clockwise direction.
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	3500 V
Temperature range:	
When laying:	max. -20°C
Operating temperature:	-40°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +120°C/5 sec.
Minimum bending radius:	18 x DA
CPR performance class:	Fca

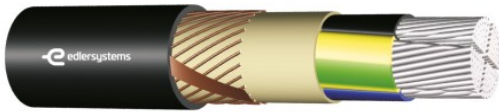
E-A2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Alu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 25 RM	9,0	17,2	197,0	1,2	80,0	147,0
4 x 25 RM	9,0	22,0	407,0	1,2	80,0	294,0
4 x 50 RM	13,0	28,0	705,0	0,641	125,0	588,0
4 x 70 RM	14,0	31,0	955,0	0,443	160,0	823,0
4 x 95 RM	16,0	36,0	1.280,0	0,32	185,0	1.117,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NAYCWY



Verwendung

For industrial and switchgear applications, as well as in local networks where protection against touch voltage in the event of mechanical damage is required. For fixed installation indoors, outdoors, in the ground, in water, concrete and in cable ducts.

Aufbau und Normen

DIN VDE 0276-603/HD 603 S1

- Aluminium conductor, solid (RE)
- according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM)
according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation DIV 4
- Core labelling according to HD 308 S2
- PVC filling coat (FM) or banding (BD)
- Concentric conductor, corrugated copper wires
copper wires between core sheath and outer sheath,
Copper tape as cross conductor helix over the copper wires
- PVC - outer sheath DMV 5
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Eca

NAYCWY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Alu Zahl	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km	kg/km
3 x 35 SM/35	1,2	27,0	1.300,0	0,868	101,0	123,0	309,0	410,0
3 x 50 SM/50	1,4	28,0	1.400,0	0,641	121,0	145,0	441,0	583,0
3 x 70 SM/70	1,4	32,0	1.950,0	0,443	155,0	180,0	618,0	813,0
3 x 95 SM/95	1,6	36,0	2.500,0	0,32	189,0	216,0	838,0	1.099,0
3 x 120 SM/120	1,6	39,0	2.950,0	0,253	220,0	246,0	1.059,0	1.385,0
3 x 150 SM/150	1,8	43,0	3.550,0	0,206	249,0	276,0	1.323,0	1.719,0
3 x 240 SM/120	2,2	63,0	5.350,0	0,125	339,0	362,0	2.117,0	1.385,0
4 x 16 RE/16	1,0	22,0	950,0	1,9	57,0	75,0	189,0	190,0
4 x 25 RM/16	1,2	26,0	1.150,0	1,2	83,0	103,0	294,0	190,0
4 x 35 SM/16	1,2	27,0	1.200,0	0,868	101,0	123,0	412,0	190,0
4 x 50 SM/25	1,4	31,0	1.600,0	0,641	121,0	145,0	588,0	295,0
4 x 50 SE/25	1,4	31,0	1.600,0	0,641	121,0	145,0	588,0	295,0
4 x 70 SM/35	1,4	35,0	2.250,0	0,443	155,0	180,0	823,0	410,0
4 x 70 SE/35	1,4	35,0	2.250,0	0,443	155,0	180,0	823,0	410,0
4 x 95 SM/50	1,6	42,0	2.900,0	0,32	189,0	216,0	1.117,0	583,0
4 x 95 SE/50	1,6	42,0	2.900,0	0,32	189,0	216,0	1.117,0	583,0
4 x 120 SM/70	1,6	45,0	3.500,0	0,253	220,0	246,0	1.411,0	813,0
4 x 120 SE/70	1,6	45,0	3.500,0	0,253	220,0	246,0	1.411,0	813,0
4 x 150 SM/70	1,8	48,0	4.200,0	0,206	249,0	276,0	1.764,0	813,0
4 x 150 SE/70	1,8	48,0	4.200,0	0,206	249,0	276,0	1.764,0	813,0
4 x 185 SM/95	2,0	53,0	4.950,0	0,164	287,0	313,0	2.176,0	1.099,0
4 x 185 SE/95	2,0	53,0	4.950,0	0,164	287,0	313,0	2.176,0	1.099,0
4 x 240 SM/120	2,2	60,0	5.600,0	0,125	339,0	362,0	2.822,0	1.385,0
4 x 240 SE/120	2,2	60,0	5.600,0	0,125	339,0	362,0	2.822,0	1.385,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NYRY



Verwendung

For increased electrical or mechanical stress for fixed installation indoors, outdoors, in the ground, in damp rooms, in concrete and in cable ducts in power stations, industrial and switchgear installations and in local networks.

Aufbau und Normen

DIN VDE 0271 und IEC 60502-1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (SM/RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- PVC filling coat (FM)
- Reinforcement made of galvanised round steel wire
- PVC outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	3500 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1

NYRY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 20°C in Erde	Cu Zahl kg/km
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
2 x 1,5 RE	0,8	13,3	346,0	12,1	19,0	27,0	30,0
2 x 2,5 RE	0,8	14,1	397,0	7,4	25,0	36,0	50,0
2 x 4 RE	1,0	16,5	598,0	4,6	34,0	47,0	80,0
2 x 6 RE	1,0	17,5	692,0	3,1	43,0	59,0	120,0
2 x 10 RE	1,0	19,9	904,0	1,8	59,0	79,0	200,0
2 x 16 RM	1,0	22,1	1.143,0	1,2	79,0	103,0	320,0
2 x 25 RM	1,2	26,0	1.600,0	0,727	106,0	133,0	500,0
3 x 1,5 RE	0,8	13,8	378,0	12,1	19,0	27,0	45,0
3 x 2,5 RE	0,8	14,7	439,0	7,4	25,0	36,0	75,0
3 x 4 RE	1,0	17,2	667,0	4,6	34,0	47,0	120,0
3 x 6 RE	1,0	18,3	779,0	3,1	43,0	59,0	180,0
3 x 10 RE	1,0	20,9	1.029,0	1,8	59,0	79,0	300,0
3 x 16 RM	1,0	24,0	1.459,0	1,2	79,0	103,0	480,0
3 x 25 RM	1,2	27,3	1.900,0	0,727	106,0	133,0	750,0
3 x 35 RM	1,2	29,9	2.325,0	0,524	129,0	159,0	1.050,0
3 x 50 RM	1,4	31,3	2.580,0	0,387	157,0	188,0	1.500,0
3 x 25/16 RM	1,2/1,0	32,0	1.840,0	0,727/1,15	106,0	133,0	910,0
3 x 35/16 RM	1,2/1,0	34,0	2.460,0	0,524/1,15	129,0	159,0	1.210,0
3 x 50/25 SM/RM	1,4/1,2	36,0	2.910,0	0,387/0,727	157,0	188,0	1.750,0
3 x 70/35 SM/RM	1,4/1,2	39,0	3.715,0	0,268/0,524	199,0	232,0	2.450,0
3 x 95/50 SM	1,6/1,4	43,5	4.927,0	0,193/0,387	246,0	280,0	3.350,0
3 x 120/70 SM	1,6/1,4	48,0	5.917,0	0,153/0,268	285,0	318,0	4.300,0
3 x 150/70 SM	1,8/1,4	52,5	6.912,0	0,124/0,268	326,0	359,0	5.200,0
3 x 185/95 SM	2,0/1,6	57,5	8.637,0	0,0991/0,193	374,0	406,0	6.500,0
3 x 240/120 SM	2,2/1,6	65,0	11.087,0	0,0754/0,153	445,0	473,0	8.400,0
4 x 1,5 RE	0,8	14,6	426,0	12,1	19,0	27,0	60,0
4 x 2,5 RE	0,8	16,4	603,0	7,4	25,0	36,0	100,0
4 x 4 RE	1,0	18,3	765,0	4,6	34,0	47,0	160,0
4 x 6 RE	1,0	19,5	900,0	3,1	43,0	59,0	240,0
4 x 10 RE	1,0	23,1	1.326,0	1,8	59,0	79,0	400,0
4 x 16 RM	1,0	25,8	1.729,0	1,2	79,0	103,0	640,0
4 x 25 RM	1,2	29,8	2.235,0	0,727	106,0	133,0	1.000,0
4 x 35 SM	1,2	33,3	2.910,0	0,524	129,0	159,0	1.400,0
4 x 50 SM	1,4	37,1	3.185,0	0,387	157,0	188,0	2.000,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 20°C in Erde	Cu Zahl kg/km
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
4 x 70 SM	1,4	42,7	4.845,0	0,268	199,0	232,0	2.800,0
4 x 95 SM	1,6	47,4	6.145,0	0,193	246,0	280,0	3.800,0
4 x 120 SM	1,6	49,7	7.255,0	0,153	285,0	318,0	4.800,0
4 x 150 SM	1,8	55,0	9.155,0	0,124	326,0	359,0	6.000,0
4 x 185 SM	2,0	60,5	11.170,0	0,0991	374,0	406,0	7.400,0
4 x 240 SM	2,2	68,9	14.420,0	0,0754	445,0	473,0	9.600,0
5 x 1,5 RE	0,8	16,3	581,0	12,1	19,0	27,0	75,0
5 x 2,5 RE	0,8	17,4	673,0	7,4	25,0	36,0	125,0
5 x 4 RE	1,0	19,6	869,0	4,6	34,0	47,0	200,0
5 x 6 RE	1,0	20,9	1.027,0	3,1	43,0	59,0	300,0
5 x 10 RE	1,0	24,8	1.537,0	1,8	59,0	79,0	500,0
5 x 16 RM	1,0	28,2	2.009,0	1,2	79,0	103,0	800,0
7 x 1,5 RE	0,8	17,2	652,0	12,1	19,0	27,0	105,0
7 x 2,5 RE	0,8	18,4	773,0	7,4	25,0	36,0	175,0
12 x 1,5 RE	0,8	20,8	909,0	12,1	19,0	27,0	180,0
12 x 2,5 RE	0,8	23,2	1.233,0	7,4	25,0	36,0	300,0
14 x 1,5 RE	0,8	22,3	1.108,0	12,1	19,0	27,0	210,0
14 x 2,5 RE	0,8	24,1	1.330,0	7,4	25,0	36,0	350,0
16 x 1,5 RE	0,8	23,2	1.199,0	12,1	19,0	27,0	240,0
16 x 2,5 RE	0,8	25,1	1.444,0	7,4	25,0	36,0	400,0
19 x 1,5 RE	0,8	24,1	1.298,0	12,1	19,0	27,0	285,0
19 x 2,5 RE	0,8	26,1	1.590,0	7,4	25,0	36,0	475,0
24 x 1,5 RE	0,8	27,2	1.553,0	12,1	19,0	27,0	360,0
24 x 2,5 RE	0,8	29,8	1.935,0	7,4	25,0	36,0	600,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NYBY



Verwendung

For increased electrical or mechanical stress for fixed installation indoors, outdoors, in the ground, in damp rooms, in concrete and in cable ducts in power stations, industrial and switchgear installations and in local networks.

Aufbau und Normen

DIN VDE 0271 and IEC 60502-1

- Bare copper conductor, solid (SE/RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (SM/RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- PVC filling coat (FM)
- Reinforcement made of overlapping galvanised steel strip
- PVC outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Eca

NYBY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
2 x 1,5 RE	0,8	12,9	270,0	12,1	19,0	27,0	30,0
2 x 2,5 RE	0,8	13,7	315,0	7,4	25,0	36,0	50,0
2 x 4 RE	1,0	15,3	390,0	4,6	34,0	47,0	80,0
2 x 6 RE	1,0	16,3	465,0	3,1	43,0	59,0	120,0
2 x 10 RE	1,0	18,7	590,0	1,8	59,0	79,0	200,0
2 x 16 RM	1,0	20,9	790,0	1,2	79,0	103,0	320,0
2 x 25 RM	1,2	23,5	1.215,0	0,727	106,0	133,0	500,0
3 x 1,5 RE	0,8	13,4	280,0	12,1	19,0	27,0	45,0
3 x 2,5 RE	0,8	14,3	340,0	7,4	25,0	36,0	75,0
3 x 4 RE	1,0	16,0	440,0	4,6	34,0	47,0	120,0
3 x 6 RE	1,0	17,1	540,0	3,1	43,0	59,0	180,0
3 x 10 RE	1,0	19,7	710,0	1,8	59,0	79,0	300,0
3 x 16 RM	1,0	22,1	970,0	1,2	79,0	103,0	480,0
3 x 25 RM	1,2	24,9	1.463,0	0,727	106,0	133,0	750,0
3 x 35 RM	1,2	27,3	1.822,0	0,524	129,0	159,0	1.050,0
3 x 50 RM	1,4	30,7	2.356,0	0,387	157,0	188,0	1.500,0
3 x 25/16 RM	1,2/1,0	26,2	1.740,0	0,727/1,15	106,0	133,0	910,0
3 x 35/16 RM	1,2/1,0	28,2	2.340,0	0,524/1,15	129,0	159,0	1.210,0
3 x 50/25 SM/RM	1,4/1,2	31,9	2.765,0	0,387/0,727	157,0	188,0	1.750,0
3 x 70/35 SM/RM	1,4/1,2	35,8	3.590,0	0,268/0,524	199,0	232,0	2.450,0
3 x 95/50 SM	1,6/1,4	42,6	4.700,0	0,193/0,387	246,0	280,0	3.350,0
3 x 120/70 SM	1,6/1,4	45,6	5.720,0	0,153/0,268	285,0	318,0	4.300,0
3 x 150/70 SM	1,8/1,4	49,3	6.880,0	0,124/0,268	326,0	359,0	5.200,0
3 x 185/95 SM	2,0/1,6	56,1	8.440,0	0,0991/0,193	374,0	406,0	6.500,0
3 x 240/120 SM	2,2/1,6	62,4	10.880,0	0,0754/0,153	445,0	473,0	8.400,0
4 x 1,5 RE	0,8	14,2	313,0	12,1	19,0	27,0	60,0
4 x 2,5 RE	0,8	15,1	380,0	7,4	25,0	36,0	100,0
4 x 4 RE	1,0	17,1	520,0	4,6	34,0	47,0	160,0
4 x 6 RE	1,0	18,3	640,0	3,1	43,0	59,0	240,0
4 x 10 RE	1,0	21,2	860,0	1,8	59,0	79,0	400,0
4 x 16 RM	1,0	23,8	1.170,0	1,2	79,0	103,0	640,0
4 x 25 RM	1,2	27,0	1.810,0	0,727	106,0	133,0	1.000,0
4 x 35 SM	1,2	29,6	2.630,0	0,524	129,0	159,0	1.400,0
4 x 50 SM	1,4	33,6	2.940,0	0,387	157,0	188,0	2.000,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Strombelastbarkeit bei 20°C in Erde	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
4 x 70 SM	1,4	38,7	3.860,0	0,268	199,0	232,0	2.800,0
4 x 95 SM	1,6	45,4	5.100,0	0,193	246,0	280,0	3.800,0
4 x 120 SM	1,6	48,0	6.150,0	0,153	285,0	318,0	4.800,0
4 x 150 SM	1,8	53,0	7.510,0	0,124	326,0	359,0	6.000,0
4 x 185 SM	2,0	59,6	9.170,0	0,0991	374,0	406,0	7.400,0
4 x 240 SM	2,2	67,0	12.866,0	0,0754	445,0	473,0	9.600,0
5 x 1,5 RE	0,8	15,0	360,0	12,1	19,0	27,0	75,0
5 x 2,5 RE	0,8	16,1	436,0	7,4	25,0	36,0	125,0
5 x 4 RE	1,0	18,3	600,0	4,6	34,0	47,0	200,0
5 x 6 RE	1,0	20,0	750,0	3,1	43,0	59,0	300,0
5 x 10 RE	1,0	22,6	1.087,0	1,8	59,0	79,0	500,0
5 x 16 RM	1,0	25,8	1.472,0	1,2	79,0	103,0	800,0
7 x 1,5 RE	0,8	15,9	461,0	12,1	19,0	27,0	105,0
7 x 2,5 RE	0,8	17,1	650,0	7,4	25,0	36,0	175,0
12 x 1,5 RE	0,8	19,4	758,0	12,1	19,0	27,0	180,0
12 x 2,5 RE	0,8	21,1	970,0	7,4	25,0	36,0	300,0
14 x 1,5 RE	0,8	20,2	824,0	12,1	19,0	27,0	210,0
14 x 2,5 RE	0,8	21,9	1.035,0	7,4	25,0	36,0	350,0
16 x 1,5 RE	0,8	21,0	890,0	12,1	19,0	27,0	240,0
16 x 2,5 RE	0,8	22,9	1.170,0	7,4	25,0	36,0	400,0
19 x 1,5 RE	0,8	21,9	981,0	12,1	19,0	27,0	285,0
19 x 2,5 RE	0,8	23,9	1.300,0	7,4	25,0	36,0	475,0
24 x 1,5 RE	0,8	24,9	1.173,0	12,1	19,0	27,0	360,0
24 x 2,5 RE	0,8	27,3	1.640,0	7,4	25,0	36,0	600,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

RV-K



Verwendung

For fixed installation indoors, outdoors, in the ground and in cable ducts for power stations, industrial and switchgear systems. This cable offers high flexibility and is therefore ideal for difficult and complex cabling.

Aufbau und Normen

UNE 21123 / HD 603 S1 und IEC 60502

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl. 5
- VPE - core insulation
- Core labelling according to HD 308 S2
- PVC - outer sheath
- sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	3500 V
Temperature range:	
When laying:	max. 0°C
Operating Temperature:	-30°C to +70°C
Conductor operating Temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Eca

RV-K

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
1 x 6	84 x 0,31	0,7	7,3	95,0	3,3	60,0
1 x 10	80 x 0,41	0,7	8,2	140,0	1,9	100,0
1 x 16	128 x 0,41	0,7	9,2	195,0	1,2	160,0
1 x 25	200 x 0,41	0,9	11,0	290,0	0,78	250,0
1 x 35	280 x 0,41	0,9	12,1	380,0	0,554	350,0
1 x 50	400 x 0,41	1,0	13,8	520,0	0,386	500,0
1 x 70	356 x 0,51	1,1	15,7	720,0	0,272	700,0
1 x 95	485 x 0,51	1,1	17,6	930,0	0,206	950,0
1 x 120	614 x 0,51	1,2	19,2	1.175,0	0,161	1.200,0
1 x 150	765 x 0,51	1,4	21,5	1.455,0	0,129	1.500,0
1 x 185	944 x 0,51	1,6	23,9	1.745,0	0,106	1.850,0
1 x 240	1.225 x 0,51	1,7	26,9	2.315,0	0,0801	2.400,0
1 x 300	1.530 x 0,51	1,8	29,6	2.895,0	0,0641	3.000,0
1 x 400	2.035 x 0,51	2,0	33,8	3.935,0	0,0486	4.000,0
2 x 1,5	30 x 0,26	0,7	8,2	100,0	13,3	30,0
2 x 2,5	50 x 0,26	0,7	9,2	130,0	8,0	50,0
2 x 4	56 x 0,31	0,7	10,3	175,0	5,0	80,0
2 x 6	84 x 0,31	0,7	11,3	225,0	3,3	120,0
2 x 10	80 x 0,41	0,7	13,2	335,0	1,9	200,0
2 x 16	128 x 0,41	0,7	14,9	475,0	1,2	320,0
3 G 1,5	30 x 0,26	0,7	8,9	115,0	13,3	45,0
3 G 2,5	50 x 0,26	0,7	9,8	135,0	8,0	75,0
3 G 4	56 x 0,31	0,7	11,0	210,0	5,0	120,0
3 G 6	84 x 0,31	0,7	12,1	275,0	3,3	180,0
3 G 10	80 x 0,41	0,7	14,3	420,0	1,9	300,0
3 G 16	128 x 0,41	0,7	16,5	605,0	1,2	480,0
3 G 25	200 x 0,41	0,9	20,0	915,0	0,78	750,0
3 G 35	280 x 0,41	0,9	22,7	1.240,0	0,554	1.050,0
4 G 1,5	30 x 0,26	0,7	9,7	140,0	13,3	60,0
4 G 2,5	50 x 0,26	0,7	10,7	190,0	8,0	100,0
4 G 4	56 x 0,31	0,7	12,0	255,0	5,0	160,0
4 G 6	84 x 0,31	0,7	13,4	345,0	3,3	240,0
4 G 10	80 x 0,41	0,7	15,7	535,0	1,9	400,0
4 G 16	128 x 0,41	0,7	18,2	775,0	1,2	640,0

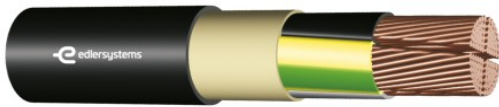
Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
4 G 25	200 x 0,41	0,9	24,1	1.175,0	0,78	1.000,0
4 G 35	280 x 0,41	0,9	26,3	1.580,0	0,554	1.400,0
4 G 50	400 x 0,41	1,0	31,3	2.205,0	0,386	2.000,0
4 G 70	356 x 0,51	1,1	36,1	2.905,0	0,272	2.800,0
4 G 95	485 x 0,51	1,1	40,2	3.755,0	0,206	3.800,0
5 G 1,5	30 x 0,26	0,7	10,4	170,0	13,3	75,0
5 G 2,5	50 x 0,26	0,7	11,6	230,0	8,0	125,0
5 G 4	56 x 0,31	0,7	13,2	315,0	5,0	200,0
5 G 6	84 x 0,31	0,7	14,7	425,0	3,3	300,0
5 G 10	80 x 0,41	0,7	17,2	655,0	1,9	500,0
5 G 16	128 x 0,41	0,7	20,2	945,0	1,2	800,0
5 G 25	200 x 0,41	0,9	25,6	1.450,0	0,78	1.250,0
5 G 35	280 x 0,41	0,9	29,3	1.960,0	0,554	1.750,0
5 G 50	400 x 0,41	1,0	34,5	2.885,0	0,386	2.500,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)
x = without protective conductor

U-1000 R2V



Verwendung

For fixed installation indoors, outdoors, in cable ducts and in the ground (only with mechanical protection) in power stations, industrial and switchgear installations.

Aufbau und Normen

NF C 32-321 and IEC 60502-1

- Bare copper conductor, solid (RE) according to IEC 60228 cl.1 or stranded (RM) according to IEC 60228 cl.2
- XLPE - core insulation
- core labelling according to HD 308 S2 from 7-core version black with numbers
- PVC - inner sheath
- PVC - outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5 °C
Operating temperature:	-10°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	12 x DA
Fire behaviour:	IEC 60332-1

U-1000 R2V

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 10 RM	3,8	0,7	9,2	140,0	1,8	80,0	101,0	100,0
1 x 16 RM	4,7	0,7	10,5	205,0	1,2	107,0	128,0	160,0
1 x 25 RM	5,9	0,9	12,5	315,0	0,727	138,0	144,0	250,0
1 x 35 RM	7,1	0,9	13,5	400,0	0,524	169,0	174,0	350,0
1 x 50 RM	8,0	1,0	15,0	530,0	0,387	207,0	206,0	500,0
1 x 70 RM	9,6	1,1	17,0	725,0	0,268	268,0	254,0	700,0
1 x 95 RM	11,4	1,1	19,0	985,0	0,193	328,0	301,0	950,0
1 x 120 RM	13,1	1,2	21,0	1.260,0	0,153	382,0	343,0	1.200,0
1 x 150 RM	14,6	1,4	23,0	1.520,0	0,124	441,0	387,0	1.500,0
1 x 185 RM	16,5	1,6	25,5	1.940,0	0,0991	506,0	434,0	1.850,0
1 x 240 RM	18,4	1,7	28,5	2.645,0	0,0754	599,0	501,0	2.400,0
1 x 300 RM	21,1	1,8	31,0	3.200,0	0,0601	693,0	565,0	3.000,0
2 x 1,5 RE	1,4	0,7	10,5	115,0	12,1	26,0	37,0	30,0
2 x 2,5 RE	1,8	0,7	11,5	145,0	7,4	36,0	48,0	50,0
2 x 4 RE	2,3	0,7	13,0	195,0	4,6	49,0	63,0	80,0
2 x 6 RM	3,1	0,7	14,0	265,0	3,1	63,0	80,0	120,0
2 x 10 RM	3,8	0,7	16,0	390,0	1,8	86,0	104,0	200,0
2 x 16 RM	4,7	0,7	18,5	560,0	1,2	115,0	136,0	320,0
2 x 25 RM	5,9	0,9	22,0	850,0	0,727	149,0	173,0	500,0
3 G 1,5 RE	1,4	0,7	11,0	130,0	12,1	23,0	31,0	45,0
3 G 2,5 RE	1,8	0,7	12,5	170,0	7,4	31,0	41,0	75,0
3 G 4 RE	2,3	0,7	13,5	230,0	4,6	42,0	53,0	120,0
3 G 6 RM	3,1	0,7	15,0	325,0	3,1	54,0	66,0	180,0
3 G 10 RM	3,8	0,7	17,0	485,0	1,8	75,0	87,0	300,0
3 G 16 RM	4,7	0,7	19,5	705,0	1,2	100,0	113,0	480,0
3 G 25 RM	5,9	0,9	23,5	1.080,0	0,727	127,0	144,0	750,0
3 G 35 RM	7,1	0,9	26,0	1.390,0	0,524	158,0	174,0	1.050,0
3 G 50 RM	8,0	1,0	29,0	1.840,0	0,387	192,0	206,0	1.500,0
3 G 70 RM	9,6	1,1	34,0	2.540,0	0,268	246,0	254,0	2.100,0
3 G 95 RM	11,4	1,1	38,5	3.430,0	0,193	298,0	301,0	2.850,0
3 G 120 RM	13,1	1,2	42,5	4.440,0	0,153	346,0	343,0	3.600,0
3 G 150 RM	14,6	1,4	47,5	5.380,0	0,124	395,0	387,0	4.500,0
3 G 185 RM	16,5	1,6	53,0	6.920,0	0,0991	450,0	434,0	5.550,0
3 G 240 RM	18,4	1,7	59,5	8.420,0	0,0754	538,0	501,0	7.200,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
3 G 300 RM	21,1	1,8	66,0	11.300,0	0,0601	621,0	565,0	9.000,0
3 G 50/35 RM	8,0/7,1	1,0/0,9	31,1	2.160,0	0,387/0,524	192,0	206,0	1.850,0
3 G 70/50 RM	9,6/8,0	1,1/1,0	36,2	3.010,0	0,268/0,387	246,0	254,0	2.600,0
3 G 95/50 RM	11,4/8,0	1,1/1,0	40,6	3.960,0	0,193/0,387	298,0	301,0	3.350,0
3 G 120/70 RM	13,1/9,6	1,2/1,1	45,4	5.160,0	0,153/0,268	346,0	343,0	4.300,0
3 G 150/70 RM	14,6/9,6	1,4/1,1	49,5	6.150,0	0,124/0,268	395,0	387,0	5.200,0
3 G 185/70 RM	16,5/9,6	1,6/1,1	54,4	7.780,0	0,0991/0,268	450,0	434,0	6.250,0
3 G 240/95 RM	18,4/11,4	1,7/1,1	61,5	9.550,0	0,0754/0,193	538,0	501,0	8.150,0
4 G 1,5 RE	1,4	0,7	12,0	150,0	12,1	23,0	31,0	60,0
4 G 2,5 RE	1,8	0,7	13,0	205,0	7,4	31,0	41,0	100,0
4 G 4 RE	2,3	0,7	14,5	280,0	4,6	42,0	53,0	160,0
4 G 6 RM	3,1	0,7	16,0	390,0	3,1	54,0	66,0	240,0
4 G 10 RM	3,8	0,7	18,5	590,0	1,8	75,0	87,0	400,0
4 G 16 RM	4,7	0,7	21,0	870,0	1,2	100,0	113,0	640,0
4 G 25 RM	5,9	0,9	25,5	1.365,0	0,727	127,0	144,0	1.000,0
4 G 35 RM	7,1	0,9	28,5	1.760,0	0,524	158,0	174,0	1.400,0
4 G 50 RM	8,0	1,0	32,5	2.365,0	0,387	192,0	206,0	2.000,0
4 G 70 RM	9,6	1,1	37,5	3.330,0	0,286	246,0	254,0	2.800,0
4 G 95 RM	11,4	1,1	42,5	4.355,0	0,193	298,0	301,0	3.800,0
4 G 120 RM	13,1	1,2	47,5	5.615,0	0,153	346,0	343,0	4.800,0
4 G 150 RM	14,6	1,4	52,5	6.875,0	0,124	395,0	387,0	6.000,0
4 G 185 RM	16,5	1,6	59,0	8.645,0	0,0991	450,0	434,0	7.400,0
4 G 240 RM	18,4	1,7	66,5	11.160,0	0,0754	538,0	501,0	9.600,0
4 G 300 RM	21,1	1,8	73,5	13.630,0	0,0601	621,0	565,0	12.000,0
5 G 1,5 RE	1,4	0,7	13,0	180,0	12,1	23,0	31,0	75,0
5 G 2,5 RE	1,8	0,7	14,5	240,0	7,4	31,0	41,0	125,0
5 G 4 RE	2,3	0,7	16,0	335,0	4,6	42,0	53,0	200,0
5 G 6 RM	3,1	0,7	17,5	475,0	3,1	54,0	66,0	300,0
5 G 10 RM	3,8	0,7	20,0	720,0	1,8	75,0	87,0	500,0
5 G 16 RM	4,7	0,7	23,0	1.060,0	1,2	100,0	113,0	800,0
5 G 25 RM	5,9	0,9	28,0	1.645,0	0,727	127,0	144,0	1.250,0
5 G 35 RM	7,1	0,9	31,0	1.980,0	0,524	158,0	174,0	1.750,0
5 G 50 RM	8,0	1,0	35,5	2.620,0	0,387	192,0	206,0	2.500,0
5 G 70 RM	9,6	1,1	41,0	3.720,0	0,268	246,0	254,0	3.500,0
7 G 1,5 RE	1,4	0,7	13,5	220,0	12,1	18,0	31,0	105,0
7 G 2,5 RE	1,8	0,7	15,0	310,0	7,4	23,0	41,0	175,0
12 G 1,5 RE	1,4	0,7	17,0	370,0	12,1	14,0	31,0	180,0
12 G 2,5 RE	1,8	0,7	19,5	525,0	7,4	20,0	41,0	300,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
19 G 1,5 RE	1,4	0,7	19,5	560,0	12,1	13,0	31,0	285,0
19 G 2,5 RE	1,8	0,7	22,5	745,0	7,4	18,0	41,0	475,0
24 G 1,5 RE	1,4	0,7	22,5	710,0	12,1	12,0	31,0	360,0
24 G 2,5 RE	1,8	0,7	25,5	1.000,0	7,4	16,0	41,0	600,0
30 G 1,5 RE	1,4	0,7	24,0	695,0	12,1	12,0	31,0	450,0
30 G 2,5 RE	1,8	0,7	27,5	925,0	7,4	16,0	41,0	750,0
37 G 1,5 RE	1,4	0,7	25,5	850,0	12,1	12,0	31,0	555,0
37 G 2,5 RE	1,8	0,7	29,5	1.250,0	7,4	16,0	41,0	925,0

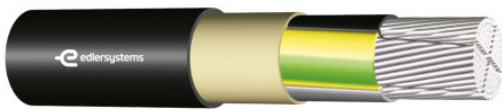
Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

U-1000 AR2V



Verwendung

For fixed installation indoors, outdoors, in cable ducts and in the ground (only with mechanical protection) in power stations, industrial and switchgear installations.

Aufbau und Normen

NF C 32-321 and IEC 60502-1

- Bare aluminium conductor, stranded (RM) according to IEC 60228 cl.2
- XLPE - core insulation
- Core labelling according to HD 308 S2
- PVC - inner sheath
- PVC - outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5 °C
Operating temperature:	-10°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimam bending radius:	12 x DA
CPR performance class:	IEC 60332-1

U-1000 AR2V

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 30°C in Luft	Alu Zahl kg/km
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 25	0,9	12,5	150,0	1,2	112,0	115,0	74,0
1 x 35	0,9	13,5	185,0	0,868	138,0	139,0	103,0
1 x 50	1,0	15,0	235,0	0,641	168,0	167,0	147,0
1 x 70	1,1	17,0	310,0	0,443	213,0	206,0	206,0
1 x 95	1,1	19,0	400,0	0,32	258,0	247,0	279,0
1 x 120	1,2	21,0	480,0	0,253	299,0	283,0	353,0
1 x 150	1,4	23,0	595,0	0,206	344,0	316,0	441,0
1 x 185	1,6	25,5	725,0	0,164	392,0	357,0	544,0
1 x 240	1,7	28,5	930,0	0,125	461,0	413,0	706,0
1 x 300	1,8	31,0	1.155,0	0,1	525,0	468,0	882,0
1 x 400	2,0	34,5	1.460,0	0,0778	613,0	538,0	1.200,0
1 x 500	2,2	38,5	1.845,0	0,0605	687,0	608,0	1.510,0
3 G 25	0,9	23,5	615,0	1,2	100,0	110,0	221,0
3 G 35	0,9	26,0	775,0	0,868	125,0	133,0	309,0
3 G 50	1,0	29,5	1.005,0	0,41	151,0	159,0	441,0
3 G 70	1,1	34,0	1.365,0	0,443	192,0	197,0	618,0
3 G 95	1,1	38,5	1.765,0	0,32	232,0	236,0	838,0
3 G 120	1,2	42,5	2.175,0	0,253	269,0	269,0	1.059,0
3 G 150	1,4	47,5	2.700,0	0,206	309,0	301,0	1.323,0
3 G 185	1,6	53,0	3.300,0	0,164	353,0	339,0	1.632,0
3 G 240	1,7	59,5	4.270,0	0,125	415,0	393,0	2.118,0
3 G 300	1,8	66,0	5.295,0	0,1	472,0	445,0	2.646,0
3 G 50/35	1,1/0,9	31,1	1.150,0	0,641/0,868	151,0	159,0	544,0
3 G 70/50	1,1/1,0	36,2	1.545,0	0,443/0,641	192,0	197,0	765,0
3 G 95/50	1,1/1,0	40,6	1.935,0	0,32/0,641	232,0	236,0	985,0
3 x 120/70	1,2/1,1	45,4	2.415,0	0,253/0,443	269,0	269,0	1.265,0
3 G 150/70	1,4/1,1	49,5	2.890,0	0,206/0,443	309,0	301,0	1.529,0
3 G 185/95	1,6/1,1	54,4	3.495,0	0,164/0,32	353,0	339,0	1.911,0
3 G 240/95	1,7/1,1	61,5	4.495,0	0,125/0,32	415,0	393,0	2.470,0
3 G 300/150	1,8/1,4	69,6	5.865,0	0,100/0,206	472,0	445,0	3.087,0
4 G 25	0,9	25,5	735,0	1,2	100,0	110,0	294,0
4 G 35	0,9	28,5	910,0	0,868	125,0	133,0	412,0
4 G 50	1,0	32,5	1.195,0	0,641	151,0	159,0	588,0
4 G 70	1,1	37,5	1.625,0	0,443	192,0	197,0	823,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Strombelastbarkeit bei 30°C in Luft	Alu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
4 G 95	1,1	42,5	2.110,0	0,32	232,0	236,0	1.117,0
4 G 120	1,2	47,5	2.610,0	0,253	269,0	269,0	1.411,0
4 G 150	1,4	52,5	3.195,0	0,206	309,0	301,0	1.764,0
4 G 185	1,6	59,0	3.970,0	0,164	353,0	339,0	2.176,0
4 G 240	1,7	66,5	5.100,0	0,125	415,0	393,0	2.822,0
4 G 300	1,8	73,5	6.310,0	0,1	472,0	445,0	3.528,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

N2XSY



Verwendung

For laying in the ground, outdoors, indoors and in cable ducts as well as on platforms for power station, industrial and distribution networks. The cable is easy to lay due to its good laying properties, even with difficult routing. In accordance with VDE 0276, the cables must be protected from direct sunlight. A **PE outer sheath** is recommended for installation in water.

Aufbau und Normen

DIN VDE 0276-620/HD 620 S2 and IEC 60502

- Bare copper conductor, stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Inner conductive layer
- XLPE - core insulation, cross-linked polyethylene
- Outer conductive layer extruded and firmly welded with VPE - core insulation
- Conductive banding
- Copper shield with copper wires, Cross conductor helix with copper tape
- Banding
- PVC outer sheath
- Sheath colour red
- Sheath wall thickness Nominal value: 2.5 mm

Technische Daten

Nominal voltage $U_0/U/U_{max}$:	6/10 (12) kV
	12/20 (24) kV
	18/30 (36) kV
Testing voltage:	21 kV
	42 kV
	63 kV
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-20°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	15 x DA
Fire behaviour:	EN 60332-1-2
	IEC 60332-1

N2XSY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Cu Zahl kg/km
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km
	N2XSY 6/10 kV						
1 x 35 RM/16	3,4	23 - 28	880,0	0,524	197,0	187,0	540,0
1 x 50 RM/16	3,4	24 - 29	1.050,0	0,387	236,0	220,0	690,0
1 x 70 RM/16	3,4	26 - 31	1.250,0	0,268	294,0	268,0	890,0
1 x 95 RM/16	3,4	27 - 32	1.550,0	0,193	358,0	320,0	1.140,0
1 x 120 RM/16	3,4	29 - 34	1.800,0	0,153	413,0	363,0	1.390,0
1 x 150 RM/25	3,4	30 - 35	2.150,0	0,124	468,0	405,0	1.795,0
1 x 185 RM/25	3,4	32 - 37	2.500,0	0,0991	535,0	456,0	2.145,0
1 x 240 RM/25	3,4	34 - 39	3.050,0	0,0754	631,0	526,0	2.695,0
1 x 300 RM/25	3,4	36 - 41	3.650,0	0,0601	722,0	591,0	3.295,0
1 x 400 RM/35	3,4	40 - 45	4.600,0	0,047	827,0	662,0	4.410,0
1 x 500 RM/35	3,4	43 - 48	5.600,0	0,0366	949,0	744,0	5.410,0
	N2XSY 12/20 kV						
1 x 35 RM/16	5,5	27 - 32	1.050,0	0,524	200,0	189,0	540,0
1 x 50 RM/16	5,5	28 - 33	1.200,0	0,387	239,0	222,0	690,0
1 x 70 RM/16	5,5	30 - 35	1.450,0	0,268	297,0	271,0	890,0
1 x 95 RM/16	5,5	31 - 36	1.700,0	0,193	361,0	323,0	1.140,0
1 x 120 RM/16	5,5	33 - 38	2.000,0	0,153	416,0	367,0	1.390,0
1 x 150 RM/25	5,5	34 - 39	2.350,0	0,124	470,0	409,0	1.795,0
1 x 185 RM/25	5,5	36 - 41	2.750,0	0,0991	538,0	461,0	2.145,0
1 x 240 RM/25	5,5	39 - 44	3.300,0	0,0754	634,0	532,0	2.695,0
1 x 300 RM/25	5,5	41 - 46	3.900,0	0,0601	724,0	599,0	3.295,0
1 x 400 RM/35	5,5	44 - 49	4.800,0	0,047	829,0	671,0	4.410,0
1 x 500 RM/35	5,5	47 - 52	5.900,0	0,0366	953,0	754,0	5.410,0
	N2XSY 18/30 kV						
1 x 35 RM/16	8,0	31 - 35	1.250,0	0,524	202,0	191,0	540,0
1 x 50 RM/16	8,0	33 - 38	1.450,0	0,387	241,0	225,0	690,0
1 x 70 RM/16	8,0	35 - 40	1.700,0	0,268	299,0	274,0	890,0
1 x 95 RM/16	8,0	36 - 41	2.000,0	0,193	363,0	327,0	1.140,0
1 x 120 RM/16	8,0	38 - 43	2.250,0	0,153	418,0	371,0	1.390,0
1 x 150 RM/25	8,0	39 - 44	2.650,0	0,124	472,0	414,0	1.795,0
1 x 185 RM/25	8,0	41 - 46	3.000,0	0,0991	539,0	466,0	2.145,0
1 x 240 RM/25	8,0	43 - 48	3.600,0	0,0754	635,0	539,0	2.695,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 300 RM/25	8,0	46 - 51	4.250,0	0,0601	725,0	606,0	3.295,0
1 x 400 RM/35	8,0	49 - 54	5.150,0	0,047	831,0	680,0	4.410,0
1 x 500 RM/35	8,0	52 - 57	6.300,0	0,0366	953,0	765,0	5.410,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

All values for installation bundled in a triangle, copper shields earthed on both sides.

1) Ambient temperature 30°C, load factor 1.0

2) Soil temperature 20°C, laying depth 0.7 m, specific soil thermal resistance 1.0 Km/W
(dried out area 2.5 Km/W) Load factor 0.7

NGFLGöu



Verwendung

Neoprene flat cables are mainly used as trailing cables for crane systems, floor conveyors and storage and retrieval machines. For medium mechanical stress for connecting moving parts of machine tools, conveyor systems and large appliances, provided the cable is only moved in one plane. These cables are weatherproof and can be used under the harshest environmental conditions.

Aufbau und Normen

DIN VDE 0250-809

- Bare copper stranded wire, 1,5 to 25 mm² extra-fine stranded according to DIN VDE 0295 cl.6, IEC 60228 cl.6 from 35 mm² fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Special rubber core insulation 3GI3
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- Cores arranged flat next to each other
- Neoprene outer sheath 5GM3
- Sheath colour black

Technische Daten

Nominal voltage U₀/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	≥ 10 MOhm x km
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-40°C to +80°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	+200°C/5 sec.
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1

NGFLGöu

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Abmessung Höhe x Breite	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
4 G 1,5	1,5	6,2 x 15,8	171,0	13,3	18,0	60,0
5 G 1,5	1,5	6,0 x 20,1	214,0	13,3	18,0	75,0
7 G 1,5	1,5	6,0 x 26,8	292,0	13,3	18,0	105,0
8 G 1,5	1,5	6,0 x 28,3	325,0	13,3	18,0	120,0
12 G 1,5	1,5	6,8 x 43,5	550,0	13,3	18,0	180,0
24 G 1,5	1,5	12,1 x 52,7	1.050,0	13,3	18,0	360,0
4 G 2,5	2,0	7,4 x 19,6	257,0	8,0	26,0	100,0
5 G 2,5	2,0	7,4 x 24,6	332,0	8,0	26,0	125,0
7 G 2,5	2,0	7,4 x 32,8	452,0	8,0	26,0	175,0
8 G 2,5	2,0	7,4 x 35,9	510,0	8,0	26,0	200,0
12 G 2,5	2,0	8,0 x 53,5	810,0	8,0	26,0	300,0
24 G 2,5	2,0	15,8 x 69,2	1.730,0	8,0	26,0	600,0
4 G 4	2,8	9,0 x 24,0	402,0	5,0	34,0	160,0
5 G 4	2,8	9,0 x 31,2	510,0	5,0	34,0	200,0
7 G 4	2,8	9,0 x 40,9	720,0	5,0	34,0	280,0
4 G 6	3,5	9,6 x 27,0	510,0	3,3	44,0	240,0
5 G 6	3,5	9,6 x 39,1	640,0	3,3	44,0	300,0
7 G 6	3,5	9,6 x 45,3	910,0	3,3	44,0	420,0
4 G 10	4,5	11,3 x 32,8	770,0	1,9	61,0	400,0
5 G 10	4,5	11,3 x 41,6	960,0	1,9	61,0	500,0
7 G 10	4,5	11,3 x 55,9	1.370,0	1,9	61,0	700,0
4 G 16	5,6	13,0 x 37,6	1.160,0	1,2	82,0	640,0
5 G 16	5,6	12,7 x 47,6	1.370,0	1,2	82,0	800,0
4 G 25	6,6	14,5 x 43,8	1.560,0	0,78	108,0	1.000,0
5 G 25	6,6	16,0 x 60,0	2.215,0	0,78	108,0	1.250,0
4 G 35	8,1	16,8 x 50,3	2.100,0	0,554	135,0	1.400,0
4 G 50	9,7	19,3 x 59,0	2.930,0	0,386	168,0	2.000,0
4 G 70	11,2	21,5 x 66,0	3.910,0	0,272	207,0	2.800,0
4 G 95	13,1	24,5 x 76,2	5.120,0	0,206	250,0	3.800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

H05VVH6-F / H07VVH6-F



Verwendung

For low and medium mechanical stress for connecting moving parts of machine tools, conveyor systems and large appliances, provided the cable is only moved in one plane. For use in dry, damp and wet rooms as well as outdoors.

Aufbau und Normen

DIN VDE 0283-2

- Bare copper conductor, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC – core insulation T12
- Cores arranged flat next to each other
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- PVC – outer sheath TM2
- Sheath colour black (RAL 9005)

Technische Daten

Nominal voltage U_0/U :

H05VVH6-F: 300/500 V

H07VVH6-F: 450/750 V

Testing voltage:

H05VVH6-F: 2000 V

H07VVH6-F: 2500 V

Insulating resistance:

$\geq 20 \text{ MOhm} \times \text{km}$

Temperature range:

When laying: max. -5°C

Operating temperature: -30°C to $+70^\circ\text{C}$

Conductor operating temperature:

max. $+70^\circ\text{C}$

Short-circuit temperature:

$+160^\circ\text{C}/5 \text{ sec.}$

Minimum bending radius:

$10 \times \text{DA}$

Fire behaviour:

EN 60332-1-2

IEC 60332-1

H05VVH6-F / H07VVH6-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Abmessung Höhe x Breite	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
	H05VVH6-F					
4 G 0,75	24 x 0,21	4,6 x 12,8	100,0	26,0	6,0	30,0
5 G 0,75	24 x 0,21	4,6 x 16,1	141,0	26,0	6,0	37,5
8 G 0,75	24 x 0,21	4,6 x 25,9	190,0	26,0	6,0	60,0
12 G 0,75	24 x 0,21	4,6 x 32,6	260,0	26,0	6,0	90,0
18 G 0,75	24 x 0,21	4,6 x 48,0	400,0	26,0	6,0	135,0
24 G 0,75	24 x 0,21	4,6 x 63,2	510,0	26,0	6,0	180,0
4 G 1	32 x 0,21	4,8 x 13,8	115,0	19,5	10,0	40,0
5 G 1	32 x 0,21	4,8 x 16,3	135,0	19,5	10,0	50,0
8 G 1	32 x 0,21	4,8 x 26,9	220,0	19,5	10,0	80,0
12 G 1	32 x 0,21	4,8 x 35,2	310,0	19,5	10,0	120,0
18 G 1	32 x 0,21	4,8 x 53,4	470,0	19,5	10,0	180,0
24 G 1	32 x 0,21	4,8 x 68,1	600,0	19,5	10,0	240,0
	H07VVH6-F					
4 G 1,5	30 x 0,26	5,0 x 15,1	150,0	13,3	16,0	60,0
5 G 1,5	30 x 0,26	5,0 x 18,1	180,0	13,3	16,0	75,0
7 G 1,5	30 x 0,26	5,0 x 26,0	260,0	13,3	16,0	105,0
8 G 1,5	30 x 0,26	5,0 x 29,0	300,0	13,3	16,0	120,0
10 G 1,5	30 x 0,26	5,0 x 35,0	360,0	13,3	16,0	150,0
12 G 1,5	30 x 0,26	5,0 x 40,5	420,0	13,3	16,0	180,0
18 G 1,5	30 x 0,26	5,0 x 60,0	620,0	13,3	16,0	270,0
24 G 1,5	30 x 0,26	5,6 x 83,0	790,0	13,3	16,0	360,0
4 G 2,5	50 x 0,26	6,0 x 18,5	210,0	8,0	20,0	100,0
5 G 2,5	50 x 0,26	6,0 x 22,0	260,0	8,0	20,0	125,0
7 G 2,5	50 x 0,26	6,0 x 32,0	380,0	8,0	20,0	175,0
8 G 2,5	50 x 0,26	6,0 x 35,0	405,0	8,0	20,0	200,0
12 G 2,5	50 x 0,26	6,0 x 50,5	620,0	8,0	20,0	300,0
4 G 4	56 x 0,31	6,6 x 21,0	300,0	5,0	25,0	160,0
5 G 4	56 x 0,31	6,6 x 25,0	380,0	5,0	25,0	200,0
7 G 4	56 x 0,31	6,6 x 37,0	550,0	5,0	25,0	280,0
4 G 6	84 x 0,31	7,1 x 23,0	390,0	3,3	44,0	240,0
5 G 6	84 x 0,31	7,1 x 28,0	480,0	3,3	44,0	300,0
4 G 10	80 x 0,41	9,0 x 29,0	620,0	1,9	61,0	400,0
5 G 10	80 x 0,41	9,9 x 38,0	780,0	1,9	61,0	500,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Abmessung Höhe x Breite	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
4 G 16	128 x 0,41	11,0 x 37,0	990,0	1,2	82,0	640,0
5 G 16	128 x 0,41	11,0 x 38,6	1.200,0	1,2	82,0	800,0
4 G 25	200 x 0,41	13,5 x 46,0	1.550,0	0,78	108,0	1.000,0
4 G 35	280 x 0,41	14,8 x 51,0	2.030,0	0,554	135,0	1.400,0
4 G 50	400 x 0,41	17,0 x 57,0	2.650,0	0,386	168,0	2.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

N2XS2Y



Verwendung

For laying in the ground, in water, outdoors, indoors and in cable ducts as well as on platforms for power station, industrial and distribution networks. When laying in cable ducts and indoors, it must be taken into account that the PE sheath is halogen-free but not flame-retardant. Due to the resistant PE sheath, the cable can be subjected to high mechanical stress during installation and operation. The inner conductive layer between the conductor and the XLPE insulation and the firmly adhering outer conductive layer on the XLPE insulation ensure a partial discharge-free structure with high operational safety.

Aufbau und Normen

DIN VDE 0276-620/HD 620 S2 and IEC 60502

- Bare copper conductor, stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Inner conductive layer
- XLPE - core insulation, cross-linked polyethylene
- Outer conductive layer extruded and firmly welded with VPE - core insulation
- Conductive banding
- Copper shield with copper wires, Cross conductor helix with copper tape
- Banding
- PE outer sheath DMP 2
- Sheath colour black
- Sheath wall thickness Nominal value: 2.5 mm

Technische Daten

Nominal voltage $U_0/U/U_{max}$:	6/10 (12) kV
	12/20 (24) kV
	18/30 (36) kV
Testing voltage:	21 kV
	42 kV
	63 kV
Temperature range:	
	When laying: max. -20°C
Operating temperature:	-20°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	15 x DA

N2XS2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Cu Zahl kg/km
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km
N2XS2Y 6/10 kV							
1 x 35 RM/16	3,4	23 - 28	800,0	0,524	197,0	187,0	540,0
1 x 50 RM/16	3,4	24 - 29	910,0	0,387	236,0	220,0	690,0
1 x 70 RM/16	3,4	26 - 31	1.150,0	0,268	294,0	268,0	890,0
1 x 95 RM/16	3,4	27 - 32	1.400,0	0,193	358,0	320,0	1.140,0
1 x 120 RM/16	3,4	29 - 34	1.650,0	0,153	413,0	363,0	1.390,0
1 x 150 RM/25	3,4	30 - 35	2.000,0	0,124	468,0	405,0	1.795,0
1 x 185 RM/25	3,4	32 - 37	2.350,0	0,0991	535,0	456,0	2.145,0
1 x 240 RM/25	3,4	34 - 39	2.900,0	0,0754	631,0	526,0	2.695,0
1 x 300 RM/25	3,4	36 - 41	3.500,0	0,0601	722,0	591,0	3.295,0
1 x 400 RM/35	3,4	40 - 45	4.400,0	0,047	827,0	662,0	4.410,0
1 x 500 RM/35	3,4	43 - 48	5.400,0	0,0366	949,0	744,0	5.410,0
N2XS2Y 12/20 kV							
1 x 35 RM/16	5,5	27 - 32	920,0	0,524	200,0	189,0	540,0
1 x 50 RM/16	5,5	28 - 33	1.100,0	0,387	239,0	222,0	690,0
1 x 70 RM/16	5,5	30 - 35	1.300,0	0,268	297,0	271,0	890,0
1 x 95 RM/16	5,5	31 - 36	1.600,0	0,193	361,0	323,0	1.140,0
1 x 120 RM/16	5,5	33 - 38	1.850,0	0,153	416,0	367,0	1.390,0
1 x 150 RM/25	5,5	34 - 39	2.200,0	0,124	470,0	409,0	1.795,0
1 x 185 RM/25	5,5	36 - 41	2.550,0	0,0991	538,0	461,0	2.145,0
1 x 240 RM/25	5,5	39 - 44	3.150,0	0,0754	634,0	532,0	2.695,0
1 x 300 RM/25	5,5	41 - 46	3.750,0	0,0601	724,0	599,0	3.295,0
1 x 400 RM/35	5,5	44 - 49	4.650,0	0,047	829,0	671,0	4.410,0
1 x 500 RM/35	5,5	47 - 52	5.650,0	0,0366	953,0	754,0	5.410,0
N2XS2Y 18/30 kV							
1 x 50 RM/16	8,0	33 - 38	1.300,0	0,387	241,0	225,0	690,0
1 x 70 RM/16	8,0	35 - 40	1.550,0	0,268	299,0	274,0	890,0
1 x 95 RM/16	8,0	36 - 41	1.800,0	0,193	363,0	327,0	1.140,0
1 x 120 RM/16	8,0	38 - 43	2.100,0	0,153	418,0	371,0	1.390,0
1 x 150 RM/25	8,0	39 - 44	2.450,0	0,124	472,0	414,0	1.795,0
1 x 185 RM/25	8,0	41 - 46	2.850,0	0,0991	539,0	466,0	2.145,0
1 x 240 RM/25	8,0	43 - 48	3.400,0	0,0754	635,0	539,0	2.695,0
1 x 300 RM/25	8,0	46 - 51	4.050,0	0,0601	725,0	606,0	3.295,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 400 RM/35	8,0	49 - 54	4.950,0	0,047	831,0	680,0	4.410,0
1 x 500 RM/35	8,0	52 - 57	6.050,0	0,0366	953,0	765,0	5.410,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

All values for installation bundled in a triangle, copper shields earthed on both sides.

1) Ambient temperature 30°C, load factor 1.0

2) Ground temperature 20°C, laying depth 0.7 m, specific ground thermal resistance 1.0 Km/W
(dried out area 2.5 Km/W) Load factor 0.7

FYMYTW



Verwendung

As a control cable for lifts, crane and conveyor systems as well as in freely suspended pendant stations and control bimens, in high-bay racking systems and in harbour facilities. Suitable for indoor and outdoor use down to -25°C.

Aufbau und Normen

based on DIN VDE 0250

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Thermoplastic - Core insulation
- Core labelling according to HD 308 S2
- Supporting element: 2 external steel cables
steel cables embedded in the outer sheath
- PVC – outer sheath
- Sheath colour black (RAL 9005)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-25°C to +60°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. 150°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Fca

FYMYTW

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Abmessung	Gewicht	Leiterwiderstand bei 20°C	Bruchlast des Tragorgans	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	N	kg/km
12 G 1	32 x 0,21	15,5 x 28,5	408,0	19,5	1400,0	120,0
18 G 1	32 x 0,21	17,6 x 33,4	590,0	19,5	1400,0	180,0
25 G 1	32 x 0,21	21,8 x 37,5	751,0	19,5	1400,0	250,0
8 G 1,5	30 x 0,26	15,5 x 28,5	419,0	13,3	1400,0	120,0
12 G 1,5	30 x 0,26	16,5 x 31,5	515,0	13,3	1400,0	180,0
20 G 1,5	30 x 0,26	21,8 x 37,5	798,0	13,3	1400,0	300,0
8 x 1,5	30 x 0,26	15,5 x 28,5	419,0	13,3	1400,0	120,0
12 x 1,5	30 x 0,26	16,5 x 31,5	515,0	13,3	1400,0	180,0
16 x 1,5	30 x 0,26	18,5 x 32,0	594,0	13,3	1400,0	240,0
20 x 1,5	30 x 0,26	21,8 x 37,5	798,0	13,3	1400,0	300,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

L-YY(ZG)Y



Verwendung

As a tensile, movable connecting cable for mobile and fixed telecommunication systems above and below ground as well as in opencast and blind shafts. Blue cables for intrinsically safe systems comply with the BB 22 450 Mining Code.

Aufbau und Normen

DIN VDE 0817

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC- core insulation
- Cores with optimum lay lengths stranded in pairs. Pairs with optimum lay lengths stranded in layers
- Core labelling in each layer Counting pair, black-blue, other pairs grey-blue, Single core 1.5 mm² green-yellow
- PVC inner sheath
- Strain relief: bundled aramid yarn
- PVC-Aussenmantel
- Sheath colour blue

Technische Daten

Operating voltage U:	375 V
Testing voltage:	1000 V
Insulating resistance:	≥ 20 MOhm x km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-55°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	+150°C/5 sec.
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
Fire behaviour:	EN 60332-1-2
	IEC 60332-1

L-YY(ZG)Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand	Betriebskapazität 800Hz	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	Ω/km	max. nF/km	kg/km
1 x 2 x 0,5	12 x 0,21	10,0	100,0	38,9	90,0	11,0
2 x 2 x 0,5	12 x 0,21	11,0	140,0	38,9	90,0	21,0
3 x 2 x 0,5	12 x 0,21	13,0	165,0	38,9	90,0	31,0
5 x 2 x 0,5	12 x 0,21	15,0	240,0	38,9	90,0	52,0
7 x 2 x 0,5	12 x 0,21	17,0	315,0	38,9	90,0	73,0
12 x 2 x 0,5	12 x 0,21	21,0	455,0	38,9	90,0	125,0
21 x 2 x 0,5	12 x 0,21	24,0	650,0	38,9	90,0	219,0
1 x 2 x 1,5	30 x 0,26	12,0	170,0	13,3	90,0	31,0
2 x 2 x 1,5	30 x 0,26	13,0	215,0	13,3	90,0	63,0
3 x 2 x 1,5	30 x 0,26	17,0	320,0	13,3	90,0	94,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

N2XS(F)2Y



Verwendung

For laying in the ground, in water, outdoors, indoors and in cable ducts as well as on platforms for industry and distribution networks. When laying in cable ducts and indoors, it must be taken into account that the PE sheath is halogen-free but not flame-retardant. The cable is suitable for unfavourable operating conditions, especially if the penetration of water in the longitudinal direction is to be prevented after mechanical damage. In the event of damage to the outer sheath, the longitudinally watertight shield area limits the influence of water at the damaged area.

Aufbau und Normen

DIN VDE 0276-620/HD 620 S2 and IEC 60502

- Bare copper conductor, stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Inner conductive layer
- XLPE - core insulation, cross-linked polyethylene
- Outer conductive layer extruded and firmly welded with VPE - core insulation
- Longitudinally watertight swelling fleece
- Copper shield with copper wires, Cross conductor helix with copper tape
- Longitudinally watertight banding
- PE outer sheath DMP2
- Sheath colour black
- Sheath wall thickness nominal value: 2.5 mm

Technische Daten

Nominal voltage $U_0/U/U_{max}$:	6/10 (12) kV
	12/20 (24) kV
	18/30 (36) kV
Testing voltage:	21 kV
	42 kV
	63 kV
Temperature range:	
When laying:	max. -20°C
Operating temperature:	-20°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	15 x DA

N2XS(F)2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Cu Zahl kg/km
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km
N2XS(F)2Y 6/10 kV							
1 x 35 RM/16	3,4	23 - 28	900,0	0,524	197,0	187,0	540,0
1 x 50 RM/16	3,4	24 - 29	950,0	0,387	236,0	220,0	690,0
1 x 70 RM/16	3,4	26 - 31	1.150,0	0,268	294,0	268,0	890,0
1 x 95 RM/16	3,4	27 - 32	1.400,0	0,193	358,0	320,0	1.140,0
1 x 120 RM/16	3,4	29 - 34	1.650,0	0,153	413,0	363,0	1.390,0
1 x 150 RM/25	3,4	30 - 35	2.000,0	0,124	468,0	405,0	1.795,0
1 x 185 RM/25	3,4	32 - 37	2.400,0	0,0991	535,0	456,0	2.145,0
1 x 240 RM/25	3,4	34 - 39	2.950,0	0,0754	631,0	526,0	2.695,0
1 x 300 RM/25	3,4	36 - 41	3.500,0	0,0601	722,0	591,0	3.295,0
1 x 400 RM/35	3,4	40 - 45	4.400,0	0,047	827,0	662,0	4.410,0
1 x 500 RM/35	3,4	43 - 48	5.400,0	0,0366	949,0	744,0	5.410,0
N2XS(F)2Y 12/20 kV							
1 x 35 RM/16	5,5	27 - 32	950,0	0,524	200,0	189,0	540,0
1 x 50 RM/16	5,5	28 - 33	1.100,0	0,387	239,0	222,0	690,0
1 x 70 RM/16	5,5	30 - 35	1.300,0	0,268	297,0	271,0	890,0
1 x 95 RM/16	5,5	31 - 36	1.600,0	0,193	361,0	323,0	1.140,0
1 x 120 RM/16	5,5	33 - 38	1.850,0	0,153	416,0	367,0	1.390,0
1 x 150 RM/25	5,5	34 - 39	2.200,0	0,124	470,0	409,0	1.795,0
1 x 185 RM/25	5,5	36 - 41	2.550,0	0,0991	538,0	461,0	2.145,0
1 x 240 RM/25	5,5	39 - 44	3.150,0	0,0754	634,0	532,0	2.695,0
1 x 300 RM/25	5,5	41 - 46	3.750,0	0,0601	724,0	599,0	3.295,0
1 x 400 RM/35	5,5	44 - 49	4.650,0	0,047	829,0	671,0	4.410,0
1 x 500 RM/35	5,5	47 - 52	5.650,0	0,0366	953,0	754,0	5.410,0
N2XS(F)2Y 18/30 kV							
1 x 50 RM/16	8,0	33 - 38	1.300,0	0,387	241,0	225,0	690,0
1 x 70 RM/16	8,0	35 - 40	1.550,0	0,268	299,0	274,0	890,0
1 x 95 RM/16	8,0	36 - 41	1.800,0	0,193	363,0	327,0	1.140,0
1 x 120 RM/16	8,0	38 - 43	2.100,0	0,153	418,0	371,0	1.390,0
1 x 150 RM/25	8,0	39 - 44	2.450,0	0,124	472,0	414,0	1.795,0
1 x 185 RM/25	8,0	41 - 46	2.850,0	0,0991	539,0	466,0	2.145,0
1 x 240 RM/25	8,0	43 - 48	3.450,0	0,0754	635,0	539,0	2.695,0
1 x 300 RM/25	8,0	46 - 51	4.050,0	0,0601	725,0	606,0	3.295,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km
1 x 400 RM/35	8,0	49 - 54	4.950,0	0,047	831,0	680,0	4.410,0
1 x 500 RM/35	8,0	52 - 57	6.050,0	0,0366	953,0	765,0	5.410,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

All values for installation bundled in a triangle, copper shields earthed on both sides.

1) Ambient temperature 30°C, load factor 1.0

2) Ground temperature 20°C, laying depth 0.7 m, specific ground thermal resistance 1.0 Km/W
(dried out area 2.5 Km/W) Load factor 0.7

N07V3V3-F



Verwendung

For connecting equipment, especially on construction sites. In dry and damp rooms, outdoors and in potentially explosive atmospheres.

Cable is only authorised for the Austrian market.

Aufbau und Normen

ÖVE/ÖNORM E8241-55

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl. 5
- PVC – core insulation (cold-resistant)
- Core labelling according to HD 308 S2
- PVC – Aussenmantel (cold-resistant)
- Sheath colour yellow

Technische Daten

Nominal voltage U_0/U:	450/750 V
Testing voltage:	2500 V
Temperature range:	
When laying:	max. -35°C
Operating temperature:	-35°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +150°C/5 sec
Minimum bending radius:	5 x DA
CPR performance class:	Eca

N07V3V3-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 1,5	30 x 0,26	9,5	85,0	13,3	30,0
3 G 1,5	30 x 0,26	10,0	120,0	13,3	45,0
4 G 1,5	30 x 0,26	11,0	150,0	13,3	60,0
5 G 1,5	30 x 0,26	12,0	172,0	13,3	75,0
3 G 2,5	50 x 0,26	12,0	174,0	8,0	75,0
4 G 2,5	50 x 0,26	13,0	219,0	8,0	100,0
5 G 2,5	50 x 0,26	14,0	285,0	8,0	125,0
5 G 4	56 x 0,31	16,5	420,0	5,0	200,0
5 G 6	84 x 0,31	18,0	550,0	3,3	300,0
5 G 10	80 x 0,41	24,0	980,0	1,9	500,0
5 G 16	128 x 0,41	27,5	1.355,0	1,2	800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)
x = without protective conductor

NA2XSY



Verwendung

For laying in the ground, outdoors, indoors and in cable ducts as well as on platforms for power station, industrial and distribution networks. The cable is easy to lay due to its good laying properties, even with difficult routing. In accordance with VDE 0276, the cables must be protected from direct sunlight. A **PE outer sheath** is recommended for installation in water.

Aufbau und Normen

DIN VDE 0276-620/HD 620 S2 and IEC 60502

- Bare aluminium conductor, stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Inner conductive layer
- XLPE - core insulation, cross-linked polyethylene
- Outer conductive layer extruded and firmly welded with VPE - core insulation
- Conductive banding
- Copper shield with copper wires, Cross conductor helix with copper tape
- Banding
- PVC - outer sheath
- Sheath colour red
- Sheath wall thickness Nominal value: 2.5 mm

Technische Daten

Nominal voltage $U_0/U/U_{max}$:	6/10 (12) kV
	12/20 (24) kV
	18/30 (36) kV
Testing voltage:	21 kV
	42 kV
	63 kV
Temperature range:	
	When laying: max. -5°C
Operating temperature:	-20°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	15 x DA
Fire behaviour:	EN 60332-1-2
	IEC 60332-1

NA2XSJ

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Alu Zahl	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km	kg/km
	NA2XSJ 6/10 kV							
1 x 50 RM/16	3,4	24 - 29	780,0	0,641	183,0	171,0	147,0	190,0
1 x 70 RM/16	3,4	26 - 31	875,0	0,443	228,0	208,0	206,0	190,0
1 x 95 RM/16	3,4	27 - 32	990,0	0,32	278,0	248,0	279,0	190,0
1 x 120 RM/16	3,4	29 - 34	1.110,0	0,253	321,0	283,0	353,0	190,0
1 x 150 RM/25	3,4	30 - 35	1.310,0	0,206	364,0	315,0	441,0	295,0
1 x 185 RM/25	3,4	32 - 37	1.460,0	0,164	418,0	357,0	544,0	295,0
1 x 240 RM/25	3,4	34 - 39	1.660,0	0,125	494,0	413,0	706,0	295,0
1 x 300 RM/25	3,4	36 - 41	1.910,0	0,1	568,0	466,0	882,0	295,0
1 x 400 RM/35	3,4	40 - 45	2.315,0	0,0778	660,0	535,0	1.176,0	410,0
	NA2XSJ 12/20 kV							
1 x 50 RM/16	5,5	28 - 33	950,0	0,641	185,0	172,0	147,0	190,0
1 x 70 RM/16	5,5	30 - 35	1.110,0	0,443	231,0	210,0	206,0	190,0
1 x 95 RM/16	5,5	31 - 36	1.220,0	0,32	280,0	251,0	279,0	190,0
1 x 120 RM/16	5,5	33 - 38	1.310,0	0,253	323,0	285,0	353,0	190,0
1 x 150 RM/25	5,5	34 - 39	1.460,0	0,206	366,0	319,0	441,0	295,0
1 x 185 RM/25	5,5	36 - 41	1.720,0	0,164	420,0	361,0	544,0	295,0
1 x 240 RM/25	5,5	39 - 44	1.910,0	0,125	496,0	417,0	706,0	295,0
1 x 300 RM/25	5,5	41 - 46	2.220,0	0,1	569,0	471,0	882,0	295,0
1 x 400 RM/35	5,5	44 - 49	2.620,0	0,0778	660,0	535,0	1.176,0	410,0
	NA2XSJ 18/30 kV							
1 x 50 RM/16	8,0	33 - 38	1.260,0	0,641	187,0	174,0	147,0	190,0
1 x 70 RM/16	8,0	35 - 40	1.360,0	0,443	232,0	213,0	206,0	190,0
1 x 95 RM/16	8,0	36 - 41	1.510,0	0,32	282,0	254,0	279,0	190,0
1 x 120 RM/16	8,0	38 - 43	1.610,0	0,253	325,0	289,0	353,0	190,0
1 x 150 RM/25	8,0	39 - 44	1.810,0	0,206	367,0	322,0	441,0	295,0
1 x 185 RM/25	8,0	41 - 46	2.020,0	0,164	421,0	364,0	544,0	295,0
1 x 240 RM/25	8,0	43 - 48	2.260,0	0,125	496,0	422,0	706,0	295,0
1 x 300 RM/25	8,0	46 - 51	2.560,0	0,1	568,0	476,0	882,0	295,0
1 x 400 RM/35	8,0	49 - 54	2.960,0	0,0778	659,0	541,0	1.176,0	410,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

All values for installation bundled in a triangle, copper shields earthed on both sides.

- 1) Ambient temperature 30°C, load factor 1.0
- 2) Ground temperature 20°C, laying depth 0.7 m, specific ground thermal resistance 1.0 Km/W (dried out area 2.5 Km/W) Load factor 0.7

XYMM



Verwendung

For connecting equipment, especially on construction sites. In dry and damp rooms, outdoors and in potentially explosive atmospheres.

Cable is only authorised for the Austrian market.

Aufbau und Normen

based on EN 50525-1

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl. 5
- PVC – core insulation (cold-resistant)
- Core labelling according to HD 308 S2
- PVC – Aussenmantel (cold-resistant)
- Sheath colour yellow

Technische Daten

Nominal voltage U_0/U :	450/750 V
Testing voltage:	2500 V
Temperature range:	
When laying:	max. -35°C
Operating temperature:	-35°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +150°C/5 sec
Minimum bending radius:	5 x DA
CPR performance class:	Eca

XYMM

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 1,5	30 x 0,26	8,0	80,0	13,3	30,0
3 G 1,5	30 x 0,26	8,6	98,0	13,3	45,0
4 G 1,5	30 x 0,26	9,6	127,0	13,3	60,0
5 G 1,5	30 x 0,26	10,6	158,0	13,3	75,0
3 G 2,5	50 x 0,26	10,2	152,0	8,0	75,0
4 G 2,5	50 x 0,26	11,2	192,0	8,0	100,0
5 G 2,5	50 x 0,26	12,4	234,0	8,0	125,0
5 G 4	56 x 0,31	14,9	356,0	5,0	200,0
5 G 6	84 x 0,31	16,6	480,0	3,3	300,0
5 G 10	80 x 0,41	20,7	795,0	1,9	500,0
5 G 16	128 x 0,41	23,4	1.122,0	1,2	800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)
x = without protective conductor

H05BQ-F / H07BQ-F



Verwendung

In dry and damp rooms as well as outdoors for short periods under medium mechanical stress. As a tool connection cable with high oil resistance, abrasion resistance and notch resistance.

Aufbau und Normen

DIN VDE 0285-525-2-21

except X07BQ-F based on DIN VDE 0285-525-2-21

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Rubber core insulation, EI6
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- Cores stranded in layers with optimum lay lengths (inner protective sheath permissible)
- PUR – outer sheath TPU
- Sheath colour orange (RAL 2003)

Special properties:

- abrasion resistant
- notch resistant
- tear and cut resistant

Technische Daten

Nominal voltage U_0/U :

H05BQ-F: 300/500 V

H07BQ-F: 450/750 V

Conductor operating temperature:

max. +90°C

Testing voltage:

H05BQ-F: 2000 V

H07BQ-F: 2500 V

Temperature range:

When laying: max. -40°C

Operating temperature: -40°C to +80°C

Short-circuit temperature:

max. 200°C/5 sec.

Minimum bending radius:

When laying: 5 x DA

Fixed installation: 3 x DA

Fire behaviour:

H05BQ-F: EN 60332-1-2

IEC 60332-1

CPR performance class:

H07BQ-F: Eca

H05BQ-F / H07BQ-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø min - max	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. Ω/km	A	kg/km
	H05BQ-F					
2 x 0,75	24 x 0,21	0,6	5,7 - 7,4	26,0	6,0	15,0
3 G 0,75	24 x 0,21	0,6	6,2 - 8,1	26,0	6,0	22,5
4 G 0,75	24 x 0,21	0,6	6,8 - 8,8	26,0	6,0	30,0
5 G 0,75	24 x 0,21	0,6	7,6 - 9,9	26,0	6,0	37,5
2 x 1	32 x 0,21	0,6	6,1 - 8,0	19,5	10,0	20,0
3 G 1	32 x 0,21	0,6	6,5 - 8,5	19,5	10,0	30,0
4 G 1	32 x 0,21	0,6	7,1 - 9,3	19,5	10,0	40,0
5 G 1	32 x 0,21	0,6	8,0 - 10,3	19,5	10,0	50,0
	H07BQ-F					
2 x 1,5	30 x 0,26	0,8	7,6 - 9,8	13,3	16,0	30,0
3 G 1,5	30 x 0,26	0,8	8,0 - 10,4	13,3	16,0	45,0
4 G 1,5	30 x 0,26	0,8	9,0 - 11,6	13,3	18,0	60,0
5 G 1,5	30 x 0,26	0,8	9,8 - 12,7	13,3	18,0	75,0
3 G 2,5	50 x 0,26	0,9	9,6 - 12,4	8,0	21,0	75,0
4 G 2,5	50 x 0,26	0,9	10,7 - 13,8	8,0	26,0	100,0
5 G 2,5	50 x 0,26	0,9	11,9 - 15,3	8,0	26,0	125,0
4 G 4	56 x 0,31	1,0	12,7 - 16,2	5,0	34,0	160,0
5 G 4	56 x 0,31	1,0	14,1 - 17,9	5,0	34,0	200,0
4 G 6	84 x 0,31	1,0	15,2 - 18,8	3,3	44,0	240,0
5 G 6	84 x 0,31	1,0	15,7 - 20,0	3,3	44,0	300,0
5 G 10	80 x 0,41	1,2	20,4 - 25,9	1,9	61,0	500,0
5 G 16	128 x 0,41	1,2	23,7 - 30,0	1,2	82,0	800,0
5 G 25	200 x 0,41	1,4	30,5 - 36,2	0,78	109,0	1250,0
	X07BQ-F					
7 G 1,5	30 x 0,26	0,8	13,0 - 15,5	13,3	18,0	105,0
12 G 1,5	30 x 0,26	0,8	17,0 - 20,0	13,3	18,0	180,0
7 G 2,5	50 x 0,26	0,9	16,0 - 19,3	8,0	26,0	175,0
12 G 2,5	50 x 0,26	0,9	20,4 - 25,9	8,0	26,0	300,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

NA2XS2Y



Verwendung

For laying in the ground, in water, outdoors, indoors and in cable ducts as well as on platforms for power station, industrial and distribution networks. When laying in cable ducts and indoors, it must be taken into account that the PE sheath is halogen-free but not flame-retardant. Due to the resistant PE sheath, the cable can be subjected to high mechanical stress during installation and operation. The inner conductive layer between the conductor and the XLPE insulation and the firmly adhering outer conductive layer on the XLPE insulation ensure a partial discharge-free structure with high operational safety.S

Aufbau und Normen

DIN VDE 0276-620/HD 620 S2 and IEC 60502

- Bare aluminium conductor, stranded, (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl. 2
- Inner conductive layer
- XLPE - core insulation, cross-linked polyethylene
- Outer conductive layer extruded and firmly welded with VPE core insulation
- Conductive banding
- Copper shield with copper wires, Cross conductor helix with copper tape
- Banding
- PE outer sheath DMP 2
- Sheath colour black
- Sheath wall thickness Nominal value: 2.5 mm

Technische Daten

Nominal voltage $U_0/U/U_{max}$:	6/10 (12) kV
	12/20 (24) kV
	18/30 (36) kV
Testing voltage:	21 kV
	42 kV
	63 kV
Temperature range:	
	When laying: max. -20°C
Operating temperature:	-20°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	15 x DA

NA2XS2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Alu Zahl	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km	kg/km
	NA2XS2Y 6/10 kV							
1 x 50 RM/16	3,4	24 - 29	710,0	0,641	183,0	171,0	147,0	190,0
1 x 70 RM/16	3,4	26 - 31	790,0	0,443	228,0	208,0	206,0	190,0
1 x 95 RM/16	3,4	27 - 32	920,0	0,32	278,0	248,0	279,0	190,0
1 x 120 RM/16	3,4	29 - 34	990,0	0,253	321,0	283,0	353,0	190,0
1 x 150 RM/25	3,4	30 - 35	1.220,0	0,206	364,0	315,0	441,0	295,0
1 x 185 RM/25	3,4	32 - 37	1.370,0	0,164	418,0	357,0	544,0	295,0
1 x 240 RM/25	3,4	34 - 39	1.530,0	0,125	494,0	413,0	706,0	295,0
1 x 300 RM/25	3,4	36 - 41	1.820,0	0,1	568,0	466,0	882,0	295,0
1 x 400 RM/35	3,4	40 - 45	2.220,0	0,0778	660,0	529,0	1.176,0	410,0
	NA2XS2Y 12/20 kV							
1 x 50 RM/16	5,5	28 - 33	890,0	0,641	185,0	172,0	147,0	190,0
1 x 70 RM/16	5,5	30 - 35	970,0	0,443	231,0	210,0	206,0	190,0
1 x 95 RM/16	5,5	31 - 36	1.120,0	0,32	280,0	251,0	279,0	190,0
1 x 120 RM/16	5,5	33 - 38	1.210,0	0,253	323,0	285,0	353,0	190,0
1 x 150 RM/25	5,5	34 - 39	1.420,0	0,206	366,0	319,0	441,0	295,0
1 x 185 RM/25	5,5	36 - 41	1.570,0	0,164	420,0	361,0	544,0	295,0
1 x 240 RM/25	5,5	39 - 44	1.830,0	0,125	496,0	417,0	706,0	295,0
1 x 300 RM/25	5,5	41 - 46	2.070,0	0,1	569,0	471,0	882,0	295,0
1 x 400 RM/35	5,5	44 - 49	2.460,0	0,0778	660,0	535,0	1.176,0	410,0
	NA2XS2Y 18/30 kV							
1 x 50 RM/16	8,0	33 - 38	1.120,0	0,641	187,0	174,0	147,0	190,0
1 x 70 RM/16	8,0	35 - 40	1.270,0	0,443	232,0	213,0	206,0	190,0
1 x 95 RM/16	8,0	36 - 41	1.380,0	0,32	282,0	254,0	279,0	190,0
1 x 120 RM/16	8,0	38 - 43	1.530,0	0,253	325,0	289,0	353,0	190,0
1 x 150 RM/25	8,0	39 - 44	1.720,0	0,206	367,0	322,0	441,0	295,0
1 x 185 RM/25	8,0	41 - 46	1.860,0	0,164	421,0	364,0	544,0	295,0
1 x 240 RM/25	8,0	43 - 48	2.110,0	0,125	496,0	422,0	706,0	295,0
1 x 300 RM/25	8,0	46 - 51	2.370,0	0,1	568,0	476,0	882,0	295,0
1 x 400 RM/35	8,0	49 - 54	2.820,0	0,0778	659,0	541,0	1.176,0	410,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

All values for installation bundled in a triangle, copper shields earthed on both sides.

- 1) Ambient temperature 30°C, load factor 1.0
- 2) Ground temperature 20°C, laying depth 0.7 m, specific ground thermal resistance 1.0 Km/W (dried out area 2.5 Km/W) Load factor 0.7

YSLY



Verwendung

For medium mechanical stress for flexible use with free movement without tensile stress and without forced movement guidance in dry and damp rooms. As a measuring, monitoring and control cable in machine tool construction, plant construction on assembly lines and production lines. Can also be used outdoors if sufficiently protected from direct sunlight and the temperature range is observed. This cable is not suitable for laying directly in the ground.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl. 5
- Core labelling:
JZ: black with number imprint, one core green-yellow
OZ: black with printed numbers
JB/OB: according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- PVC-outer sheath
- sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	15 x DA
Fixed installation:	4 x DA
CPR performance class:	Eca

YSLY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	0,9	4,9	38,0	39,0	10,0
3 x 0,5	0,9	5,2	47,0	39,0	15,0
4 x 0,5	0,9	5,7	58,0	39,0	20,0
5 x 0,5	0,9	6,0	60,0	39,0	25,0
7 x 0,5	0,9	7,0	75,0	39,0	35,0
10 x 0,5	0,9	8,5	110,0	39,0	50,0
12 x 0,5	0,9	9,0	120,0	39,0	60,0
14 x 0,5	0,9	9,2	145,0	39,0	70,0
16 x 0,5	0,9	10,3	160,0	39,0	80,0
18 x 0,5	0,9	10,7	185,0	39,0	90,0
21 x 0,5	0,9	11,9	210,0	39,0	105,0
25 x 0,5	0,9	12,7	250,0	39,0	125,0
30 x 0,5	0,9	13,6	300,0	39,0	150,0
34 x 0,5	0,9	14,6	330,0	39,0	170,0
40 x 0,5	0,9	15,5	390,0	39,0	200,0
42 x 0,5	0,9	16,1	405,0	39,0	210,0
50 x 0,5	0,9	17,5	470,0	39,0	250,0
61 x 0,5	0,9	18,8	560,0	39,0	305,0
2 x 0,75	1,1	5,5	42,0	26,0	15,0
3 x 0,75	1,1	5,7	55,0	26,0	22,5
4 x 0,75	1,1	6,2	65,0	26,0	30,0
5 x 0,75	1,1	6,9	80,0	26,0	37,5
6 x 0,75	1,1	7,5	95,0	26,0	43,0
7 x 0,75	1,1	7,6	100,0	26,0	52,5
8 x 0,75	1,1	8,2	113,0	26,0	60,0
9 x 0,75	1,1	9,6	135,0	26,0	67,5
10 x 0,75	1,1	9,9	145,0	26,0	75,0
12 x 0,75	1,1	10,1	165,0	26,0	90,0
15 x 0,75	1,1	11,1	200,0	26,0	112,5
16 x 0,75	1,1	11,5	210,0	26,0	120,0
18 x 0,75	1,1	12,0	245,0	26,0	135,0
21 x 0,75	1,1	13,3	285,0	26,0	157,5
25 x 0,75	1,1	14,1	325,0	26,0	187,5
34 x 0,75	1,1	16,2	435,0	26,0	255,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
41 x 0,75	1,1	17,7	535,0	26,0	307,5
42 x 0,75	1,1	18,0	545,0	26,0	315,0
50 x 0,75	1,1	19,4	635,0	26,0	375,0
61 x 0,75	1,1	20,8	660,0	26,0	457,5
65 x 0,75	1,1	21,8	795,0	26,0	487,5
80 x 0,75	1,1	23,9	1.000,0	26,0	600,0
2 x 1	1,3	5,8	50,0	19,5	20,0
3 x 1	1,3	6,3	61,0	19,5	30,0
4 x 1	1,3	6,7	75,0	19,5	40,0
5 x 1	1,3	7,3	95,0	19,5	50,0
7 x 1	1,3	8,3	125,0	19,5	70,0
8 x 1	1,3	9,5	150,0	19,5	80,0
9 x 1	1,3	10,2	168,0	19,5	90,0
10 x 1	1,3	10,4	175,0	19,5	100,0
12 x 1	1,3	10,7	195,0	19,5	120,0
14 x 1	1,3	11,5	225,0	19,5	140,0
16 x 1	1,3	12,0	260,0	19,5	160,0
18 x 1	1,3	12,8	300,0	19,5	180,0
20 x 1	1,3	13,3	328,0	19,5	200,0
21 x 1	1,3	14,1	340,0	19,5	210,0
25 x 1	1,3	14,7	390,0	19,5	250,0
34 x 1	1,3	17,1	535,0	19,5	340,0
41 x 1	1,3	18,9	649,0	19,5	410,0
42 x 1	1,3	19,1	670,0	19,5	420,0
50 x 1	1,3	20,8	785,0	19,5	500,0
61 x 1	1,3	22,4	925,0	19,5	610,0
65 x 1	1,3	23,3	985,0	19,5	650,0
2 x 1,5	1,5	6,6	65,0	13,3	30,0
3 x 1,5	1,5	6,8	80,0	13,3	45,0
4 x 1,5	1,5	7,4	100,0	13,3	60,0
5 x 1,5	1,5	8,3	130,0	13,3	75,0
6 x 1,5	1,5	8,5	150,0	13,3	90,0
7 x 1,5	1,5	9,1	160,0	13,3	105,0
8 x 1,5	1,5	10,8	195,0	13,3	120,0
9 x 1,5	1,5	11,2	225,0	13,3	135,0
10 x 1,5	1,5	11,6	230,0	13,3	150,0
12 x 1,5	1,5	12,3	265,0	13,3	180,0
14 x 1,5	1,5	12,8	315,0	13,3	210,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
16 x 1,5	1,5	13,7	355,0	13,3	240,0
18 x 1,5	1,5	14,7	405,0	13,3	270,0
21 x 1,5	1,5	16,0	470,0	13,3	315,0
25 x 1,5	1,5	17,2	550,0	13,3	375,0
26 x 1,5	1,5	17,3	600,0	13,3	390,0
32 x 1,5	1,5	19,0	720,0	13,3	480,0
34 x 1,5	1,5	19,7	745,0	13,3	510,0
42 x 1,5	1,5	21,5	915,0	13,3	630,0
50 x 1,5	1,5	23,7	1.060,0	13,3	750,0
61 x 1,5	1,5	25,5	1.290,0	13,3	915,0
80 x 1,5	1,5	29,3	1.700,0	13,3	1.200,0
2 x 2,5	2,0	7,7	99,0	8,0	50,0
3 x 2,5	2,0	8,3	125,0	8,0	75,0
4 x 2,5	2,0	9,1	160,0	8,0	100,0
5 x 2,5	2,0	10,2	195,0	8,0	125,0
7 x 2,5	2,0	11,2	255,0	8,0	175,0
10 x 2,5	2,0	14,3	379,0	8,0	250,0
12 x 2,5	2,0	15,0	420,0	8,0	300,0
16 x 2,5	2,0	16,7	575,0	8,0	400,0
18 x 2,5	2,0	18,0	655,0	8,0	450,0
25 x 2,5	2,0	21,0	875,0	8,0	625,0
34 x 2,5	2,0	24,7	1.240,0	8,0	850,0
50 x 2,5	2,0	29,7	1.855,0	8,0	1.250,0
2 x 4	2,5	9,3	140,0	5,0	80,0
3 x 4	2,5	10,1	180,0	5,0	120,0
4 x 4	2,5	11,0	230,0	5,0	160,0
5 x 4	2,5	12,3	290,0	5,0	200,0
7 x 4	2,5	13,6	380,0	5,0	280,0
12 x 4	2,5	17,8	650,0	5,0	480,0
2 x 6	3,0	10,7	212,0	3,3	120,0
3 x 6	3,0	11,8	265,0	3,3	180,0
4 x 6	3,0	13,1	340,0	3,3	240,0
5 x 6	3,0	14,4	430,0	3,3	300,0
7 x 6	3,0	16,0	555,0	3,3	420,0
4 x 10	4,0	16,5	575,0	1,9	400,0
5 x 10	4,0	18,3	715,0	1,9	500,0
7 x 10	4,0	20,2	935,0	1,9	700,0
4 x 16	5,0	19,1	945,0	1,2	640,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
5 x 16	5,0	21,5	1.060,0	1,2	800,0
7 x 16	5,0	23,7	1.505,0	1,2	1.120,0
4 x 25	6,2	23,8	1.320,0	0,78	1.000,0
5 x 25	6,2	26,7	1.610,0	0,78	1.250,0
7 x 25	6,2	31,0	2.315,0	0,78	1.750,0
4 x 35	7,4	26,4	1.775,0	0,554	1.400,0
5 x 35	7,4	29,3	2.190,0	0,554	1.750,0
4 x 50	8,9	31,4	2.540,0	0,386	2.000,0
5 x 50	8,9	35,4	2.920,0	0,386	2.500,0
4 x 70	10,5	35,7	3.418,0	0,272	2.800,0
5 x 70	10,5	40,0	3.750,0	0,272	3.500,0
4 x 95	12,2	41,9	4.560,0	0,206	3.800,0
5 x 95	12,2	55,1	5.875,0	0,296	4.750,0
4 x 120	13,8	45,4	5.600,0	0,161	4.800,0
4 x 150	15,1	59,3	7.430,0	0,129	6.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NA2XS(F)2Y



Verwendung

For laying in the ground, in water, outdoors, indoors and in cable ducts as well as on platforms for industry and distribution networks. When laying in cable ducts and indoors, it must be taken into account that the PE sheath is halogen-free but not flame-retardant. The cable is suitable for unfavourable operating conditions, especially if the penetration of water in the longitudinal direction is to be prevented after mechanical damage. In the event of damage to the outer sheath, the longitudinally watertight shield area limits the influence of water at the damaged area.

Aufbau und Normen

DIN VDE 0276-620/HD 620 S2 und IEC 60502

- Bare aluminium conductor, stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Inner conductive layer
- XLPE - core insulation, cross-linked polyethylene
- Outer conductive layer extruded and firmly welded with VPE - core insulation
- Longitudinally watertight swelling fleece
- Copper shield with copper wires, Cross conductor spiral with copper tape
- Longitudinally watertight banding
- PE outer sheath DMP2
- Sheath colour black
- Sheath wall thickness nominal value: 2.5 mm

Technische Daten

Nominal voltage $U_0/U/U_{max}$:	6/10 (12) kV
	12/20 (24) kV
	18/30 (36) kV
Testing voltage:	21 kV
	42 kV
	63 kV
Temperature range:	
When laying:	max. -20°C
Operating temperature:	-20°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	15 x DA

NA2XS(F)2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Alu Zahl	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km	kg/km
	NA2XS(F)2Y 6/10 kV							
1 x 50 RM/16	3,4	24 - 29	850,0	0,641	183,0	171,0	147,0	190,0
1 x 70 RM/16	3,4	26 - 31	980,0	0,443	228,0	208,0	206,0	190,0
1 x 95 RM/16	3,4	27 - 32	1.080,0	0,32	278,0	248,0	279,0	190,0
1 x 120 RM/16	3,4	29 - 34	1.150,0	0,253	321,0	283,0	353,0	190,0
1 x 150 RM/25	3,4	30 - 35	1.280,0	0,206	364,0	315,0	441,0	295,0
1 x 185 RM/25	3,4	32 - 37	1.420,0	0,164	418,0	357,0	544,0	295,0
1 x 240 RM/25	3,4	34 - 39	1.630,0	0,125	494,0	413,0	706,0	295,0
1 x 300 RM/25	3,4	36 - 41	1.950,0	0,1	568,0	466,0	882,0	295,0
1 x 400 RM/35	3,4	40 - 45	2.350,0	0,0778	660,0	529,0	1.176,0	410,0
1 x 500 RM/35	3,4	43 - 48	2.780,0	0,0605	767,0	602,0	1.470,0	410,0
	NA2XS(F)2Y 12/20 kV							
1 x 50 RM/16	5,5	28 - 33	920,0	0,641	185,0	172,0	147,0	190,0
1 x 70 RM/16	5,5	30 - 35	1.030,0	0,443	231,0	210,0	206,0	190,0
1 x 95 RM/16	5,5	31 - 36	1.140,0	0,32	280,0	251,0	279,0	190,0
1 x 120 RM/16	5,5	33 - 38	1.250,0	0,253	323,0	285,0	353,0	190,0
1 x 150 RM/25	5,5	34 - 39	1.320,0	0,206	366,0	319,0	441,0	295,0
1 x 185 RM/25	5,5	36 - 41	1.570,0	0,164	420,0	361,0	544,0	295,0
1 x 240 RM/25	5,5	39 - 44	1.780,0	0,125	496,0	417,0	706,0	295,0
1 x 300 RM/25	5,5	41 - 46	2.100,0	0,1	569,0	471,0	882,0	295,0
1 x 400 RM/35	5,5	44 - 49	2.480,0	0,0778	660,0	535,0	1.176,0	410,0
1 x 500 RM/35	5,5	47 - 52	2.900,0	0,0605	766,0	609,0	1.470,0	410,0
1 x 630 RM/35	5,5	50 - 54	3.280,0	0,0469	890,0	675,0	1.900,0	410,0
	NA2XS(F)2Y 18/30 kV							
1 x 50 RM/16	8,0	33 - 38	1.250,0	0,641	187,0	174,0	147,0	190,0
1 x 70 RM/16	8,0	35 - 40	1.500,0	0,443	232,0	213,0	206,0	190,0
1 x 95 RM/16	8,0	36 - 41	1.700,0	0,32	282,0	254,0	279,0	190,0
1 x 120 RM/16	8,0	38 - 43	1.800,0	0,253	325,0	289,0	353,0	190,0
1 x 150 RM/25	8,0	39 - 44	2.050,0	0,206	367,0	322,0	441,0	295,0
1 x 185 RM/25	8,0	41 - 46	2.150,0	0,164	421,0	364,0	544,0	295,0
1 x 240 RM/25	8,0	43 - 48	2.400,0	0,125	496,0	422,0	706,0	295,0

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø min - max	Gewicht ca. kg/km	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Alu Zahl kg/km	Cu Zahl kg/km
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	A	kg/km	kg/km
1 x 300 RM/25	8,0	46 - 51	2.700,0	0,1	568,0	476,0	882,0	295,0
1 x 400 RM/35	8,0	49 - 54	3.200,0	0,0778	659,0	541,0	1.176,0	410,0
1 x 500 RM/35	8,0	52 - 56	3.660,0	0,0605	764,0	616,0	1.470,0	410,0
1 x 630 RM/35	8,0	56 - 60	3.750,0	0,0469	890,0	675,0	1.900,0	410,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

All values for installation bundled in a delta, copper shields earthed on both sides.

1) Ambient temperature 30°C, load factor 1.0

2) Ground temperature 20°C, laying depth 0.7m, specific ground thermal resistance 1.0 Km/W
(dried out area 2.5 Km/W) Load factor 0.7

YSLCY



Verwendung

For medium mechanical stress for flexible application with free movement without tensile stress and without forced movement control in dry and damp rooms. As a shielded measuring, monitoring and control cable in machine tool construction, plant construction on assembly lines and production lines. When used outdoors, the temperature range and adequate protection against UV rays must be observed. These cables with copper shielding are ideally suited for interference-free data and signal transmission for measurement and control technology in EMC-affected environments.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC – core insulation
- Core labelling:
JZ: black with number imprint, one core green-yellow
OZ: black with printed numbers
JB/OB: according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- Shielding braid made of tinned copper wires
- PVC outer sheath TM2
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
CPR performance class:	Eca

YSLCY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	0,9	5,4	45,0	39,0	36,0
3 x 0,5	0,9	5,7	56,0	39,0	49,0
4 x 0,5	0,9	6,3	72,0	39,0	60,0
5 x 0,5	0,9	6,8	89,0	39,0	72,0
7 x 0,5	0,9	7,6	125,0	39,0	89,0
12 x 0,5	0,9	9,8	200,0	39,0	148,0
18 x 0,5	0,9	11,9	255,0	39,0	214,0
25 x 0,5	0,9	14,1	354,0	39,0	279,0
2 x 0,75	1,1	6,0	56,0	26,0	43,0
3 x 0,75	1,1	6,3	71,0	26,0	57,0
4 x 0,75	1,1	6,8	79,0	26,0	70,0
5 x 0,75	1,1	7,6	95,0	26,0	82,0
7 x 0,75	1,1	8,2	120,0	26,0	113,0
10 x 0,75	1,1	10,7	168,0	26,0	135,0
12 x 0,75	1,1	11,0	200,0	26,0	192,0
18 x 0,75	1,1	12,9	295,0	26,0	268,0
25 x 0,75	1,1	15,5	377,0	26,0	331,0
34 x 0,75	1,1	17,8	497,0	26,0	346,0
2 x 1	1,3	6,3	63,0	19,5	52,0
3 x 1	1,3	6,6	87,0	19,5	78,0
4 x 1	1,3	7,2	96,0	19,5	89,0
5 x 1	1,3	8,0	112,0	19,5	106,0
7 x 1	1,3	8,6	144,0	19,5	132,0
8 x 1	1,3	9,0	197,0	19,5	149,0
10 x 1	1,3	11,3	202,0	19,5	159,0
12 x 1	1,3	11,8	232,0	19,5	206,0
18 x 1	1,3	13,8	342,0	19,5	316,0
25 x 1	1,3	16,8	464,0	19,5	428,0
34 x 1	1,3	18,8	604,0	19,5	537,0
50 x 1	1,3	22,4	849,0	19,5	758,0
2 x 1,5	1,5	7,1	97,0	13,3	66,0
3 x 1,5	1,5	7,7	110,0	13,3	99,0
4 x 1,5	1,5	8,3	135,0	13,3	121,0
5 x 1,5	1,5	9,2	158,0	13,3	135,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
7 x 1,5	1,5	9,9	250,0	13,3	227,0
10 x 1,5	1,5	11,1	313,0	13,3	201,0
12 x 1,5	1,5	13,3	358,0	13,3	322,0
18 x 1,5	1,5	15,5	490,0	13,3	428,0
25 x 1,5	1,5	19,1	667,0	13,3	568,0
27 x 1,5	1,5	20,0	750,0	13,3	598,0
34 x 1,5	1,5	21,3	874,0	13,3	784,0
50 x 1,5	1,5	25,3	1.269,0	13,3	1.074,0
2 x 2,5	2,0	8,5	164,0	8,0	92,0
3 x 2,5	2,0	9,2	171,0	8,0	154,0
4 x 2,5	2,0	9,9	190,0	8,0	170,0
5 x 2,5	2,0	11,0	230,0	8,0	208,0
7 x 2,5	2,0	12,1	337,0	8,0	300,0
12 x 2,5	2,0	15,9	591,0	8,0	537,0
2 x 4	2,5	10,9	194,0	5,0	141,0
4 x 4	2,5	12,6	260,0	5,0	248,0
5 x 4	2,5	13,8	340,0	5,0	288,0
7 x 4	2,5	15,4	442,0	5,0	378,0
2 x 6	3,0	12,5	185,0	3,3	170,0
4 x 6	3,0	14,7	384,0	3,3	343,0
5 x 6	3,0	16,3	472,0	3,3	403,0
7 x 6	3,0	17,0	506,0	3,3	564,0
4 x 10	4,0	18,9	683,0	1,9	535,0
5 x 10	4,0	20,7	824,0	1,9	635,0
7 x 10	4,0	21,5	940,0	1,9	890,0
4 x 16	5,0	20,0	930,0	1,2	800,0
5 x 16	5,0	22,2	1.203,0	1,2	960,0
4 x 25	6,2	24,7	1.570,0	0,78	1.280,0
5 x 25	6,2	27,5	1.965,0	0,78	1.530,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

N2XSEY



Verwendung

For fixed installation indoors, outdoors, in the ground and in cable ducts for power stations, industrial and switchgear installations. Limited use when laying in the ground if the PVC outer sheath can be damaged due to heavy mechanical stress. In accordance with DIN VDE 0276, the cables must be protected from direct sunlight. A version with **PE outer sheath** is recommended for installation in water.

Aufbau und Normen

DIN VDE 0276-620/HD 620 and IEC 60502

- Bare copper conductor, stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Inner conductive layer
- XLPE - core insulation, cross-linked polyethylene
- Outer conductive layer extruded and firmly welded with VPE - core insulation
- Conductive banding
- Copper shield over each core with counter-helix
- Cores stranded
- Common core sheathing
- PVC outer sheath
- Sheath colour red

Technische Daten

Nominal voltage $U_0/U/U_{max}$:	6/10 (12) kV
Testing voltage:	21 kV
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-20°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	
Conductor:	max. +250°C/5 sec.
Shield:	max. +350°C/5 sec.
Minimum bending radius:	15 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1

N2XSEY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke Nennwert	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
3 x 35 RM/16	2,5	3,4	46,0	3.250,0	0,524	178,0	181,0	1.260,0
3 x 50 RM/16	2,5	3,4	49,0	3.800,0	0,387	213,0	213,0	1.690,0
3 x 70 RM/16	2,5	3,4	52,0	4.650,0	0,268	265,0	261,0	2.290,0
3 x 95 RM/16	2,7	3,4	57,0	5.750,0	0,193	322,0	312,0	3.119,0
3 x 120 RM/16	2,8	3,4	60,0	6.750,0	0,153	370,0	355,0	3.790,0
3 x 150 RM/25	2,9	3,4	63,0	7.900,0	0,124	420,0	399,0	4.795,0
3 x 185 RM/25	3,0	3,4	67,0	9.250,0	0,0991	481,0	451,0	5.845,0
3 x 240 RM/25	3,2	3,4	73,0	11.500,0	0,0754	566,0	523,0	7.495,0

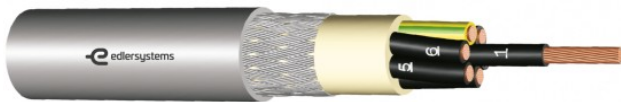
Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Copper shields earthed on both sides.

1) Ambient temperature 30°C, load factor 1.0

2) Ground temperature 20°C, laying depth 0.7 m, specific ground thermal resistance 1.0 Km/W
(dried out area 2.5 Km/W) Load factor 0.7

YSLYCY



Verwendung

For medium mechanical stress for flexible application with free movement without tensile stress and without forced movement control in dry and damp rooms. As a shielded measuring, monitoring and control cable in machine tool construction, plant construction on assembly lines and production lines. When used outdoors, the temperature range and adequate protection against UV rays must be observed. These cables with copper shielding are ideally suited for interference-free data and signal transmission for measurement and control technology in EMC-affected environments.

Aufbau und Normen

based on DIN VDE 0285-525-2-51



































- Bare copper stranded wire, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC – core insulation
- Core labelling:
JZ: black with number imprint, one core green-yellow
OZ: black with printed numbers
JB/OB: according to HD 308 S2
- Cores with optimum lay lengths Stranded in layers
- PVC - inner sheath
- Shielding braid made of tinned copper wires
- PVC - outer sheath
- Sheath colour transparent or grey


























Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$15 \times \text{DA}$
Fixed installation:	$6 \times \text{DA}$
CPR performance class:	Eca

YSLYCY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75		1,1	7,4	80,0	26,0	43,0
3 x 0,75		1,1	7,9	95,0	26,0	57,0
3 x 0,75		1,1	7,9	95,0	26,0	57,0
4 x 0,75		1,1	8,4	110,0	26,0	70,0
4 x 0,75		1,1	8,4	110,0	26,0	70,0
5 x 0,75		1,1	9,0	125,0	26,0	82,0
5 x 0,75		1,1	9,0	125,0	26,0	82,0
7 x 0,75		1,1	9,7	150,0	26,0	113,0
12 x 0,75		1,1	11,9	225,0	26,0	192,0
18 x 0,75		1,1	14,5	340,0	26,0	268,0
25 x 0,75		1,1	16,6	475,0	26,0	331,0
2 x 1		1,3	8,0	90,0	19,5	52,0
3 x 1		1,3	8,2	105,0	19,5	78,0
3 x 1		1,3	8,2	105,0	19,5	78,0
4 x 1		1,3	8,7	125,0	19,5	89,0
5 x 1		1,3	9,5	145,0	19,5	106,0
5 x 1		1,3	9,5	145,0	19,5	106,0
7 x 1		1,3	10,3	175,0	19,5	132,0
7 x 1		1,3	10,3	175,0	19,5	132,0
12 x 1		1,3	13,0	285,0	19,5	206,0
18 x 1		1,3	15,6	415,0	19,5	316,0
25 x 1		1,3	17,4	535,0	19,5	428,0
2 x 1,5		1,5	8,5	115,0	13,3	66,0
3 x 1,5		1,5	8,9	130,0	13,3	99,0
3 x 1,5		1,5	8,9	130,0	13,3	99,0
4 x 1,5		1,5	9,7	155,0	13,3	121,0
5 x 1,5		1,5	10,5	185,0	13,3	135,0
7 x 1,5		1,5	11,4	285,0	13,3	227,0
12 x 1,5		1,5	14,3	433,0	13,3	322,0
18 x 1,5		1,5	17,3	600,0	13,3	428,0
25 x 1,5		1,5	19,4	730,0	13,3	568,0
3 x 2,5		2,0	10,5	208,0	8,0	154,0
4 x 2,5		2,0	11,4	220,0	8,0	170,0
5 x 2,5		2,0	12,8	280,0	8,0	208,0

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
4 x 4		2,5	13,6	400,0	5,0	248,0
4 x 4		2,5	13,6	400,0	5,0	248,0
5 x 4		2,5	14,5	485,0	5,0	288,0
4 x 6		3,0	15,8	455,0	3,3	343,0
5 x 6		3,0	17,1	555,0	3,3	403,0
4 x 10		4,0	19,3	748,0	1,9	535,0
4 x 10		4,0	19,3	748,0	1,9	535,0
5 x 10		4,0	21,5	915,0	1,9	635,0
4 x 16		5,0	21,8	1.000,0	1,2	800,0
4 x 16		5,0	21,8	1.000,0	1,2	800,0
5 x 16		5,0	23,8	1.385,0	1,2	960,0
4 x 25		6,2	25,9	1.760,0	0,78	1.280,0
4 x 25		6,2	25,9	1.760,0	0,78	1.280,0
5 x 25		6,2	29,0	2.270,0	0,78	1.530,0
4 x 35		7,4	29,7	1.980,0	0,554	1.730,0
4 x 35		7,4	29,7	1.980,0	0,554	1.730,0
5 x 35		7,4	32,9	2.400,0	0,554	2.099,0
4 x 50		8,9	34,5	2.700,0	0,386	2.439,0
4 x 50		8,9	34,5	2.700,0	0,386	2.439,0
4 x 70		10,5	40,3	3.880,0	0,272	3.324,0
4 x 70		10,5	40,3	3.880,0	0,272	3.324,0
4 x 95		12,2	46,3	5.070,0	0,206	4.489,0
4 x 95		12,2	46,3	5.070,0	0,206	4.489,0
4 x 120		13,8	51,6	6.280,0	0,196	5.652,0
4 x 120		13,8	51,6	6.280,0	0,196	5.652,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

(N)YFGY



Verwendung

For fixed installation indoors, outdoors, in the ground and in cable ducts for power stations, industrial and switchgear installations where increased mechanical protection or greater tensile stresses are to be expected during installation and operation. The armouring also acts as a shield.

Aufbau und Normen

according to DIN VDE 0271 and IEC 60502

- Bare copper conductor, stranded (SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PVC - core insulation
- PVC filling coat (FM) or banding (BD)
- PVC inner jacket
- Reinforcement made of galvanised steel flat wires and counter helix made of galvanised steel strip
- Thickness of the reinforcement: 0.8 mm
- PVC outer sheath
- Sheath colour red

Technische Daten

Nominal voltage $U_0/U/U_{max}$:	3,6/6 (7,2) kV
Testing voltage:	11 kV
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	
Conductor:	max. 160°C/5 sec.
Minimum bending radius:	15 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1

(N)YFGY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke Nennwert	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C Luft(1)	Strombelastbarkeit bei 20°C Erde(2)	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	A	kg/km
3 x 50 SM	2,2	3,4	39,0	3.000,0	0,387	155,0	184,0	1.500,0
3 x 70 SM	2,3	3,4	43,0	3.800,0	0,268	196,0	227,0	2.100,0
3 x 95 SM	2,4	3,4	45,0	4.650,0	0,193	242,0	272,0	2.280,0
3 x 120 SM	2,6	3,4	48,0	5.550,0	0,153	280,0	309,0	3.600,0
3 x 150 SM	2,7	3,4	51,0	6.400,0	0,124	319,0	346,0	4.500,0
3 x 185 SM	2,8	3,4	54,0	7.650,0	0,0991	366,0	390,0	5.550,0
3 x 240 SM	2,9	3,4	59,0	9.400,0	0,0754	430,0	449,0	7.200,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

1) Ambient temperature 30°C, load factor 1.0

2) Ground temperature 20°C, laying depth 0.7m, specific ground thermal resistance 1.0 Km/W
(dried out area 2.5 Km/W) Load factor 0.7

YSLY 0,6/1 kV



Verwendung

For medium mechanical stress for flexible application with free movement without tensile stress and without forced movement guidance. In dry and damp rooms, permanently installed outdoors, taking into account the temperature range. As measuring, monitoring and control cable in machine tool construction, plant construction on assembly lines and production lines. Must not be laid directly in soil or water.

Aufbau und Normen

based on DIN VDE 0262, DIN VDE 0285-525-2-51
but insulation wall thickness for 1kV

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC – core insulation T12
- Core labelling:
JZ: black with number imprint, one core green-yellow
OZ: black with printed numbers
JB: according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- PVC - outer sheath TM2 UV-resistant
- Sheath colour SW (RAL 9005)

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$7,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
CPR performance class:	Eca

YSLY 0,6/1 kV

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	1,1	6,6	66,0	26,0	15,0
3 x 0,75	1,1	7,0	74,0	26,0	22,5
4 x 0,75	1,1	7,6	126,0	26,0	30,0
5 x 0,75	1,1	8,4	140,0	26,0	37,5
7 x 0,75	1,1	9,6	180,0	26,0	52,5
12 x 0,75	1,1	12,3	250,0	26,0	90,0
18 x 0,75	1,1	14,5	355,0	26,0	135,0
25 x 0,75	1,1	17,4	475,0	26,0	187,5
2 x 1	1,3	7,0	80,0	19,5	20,0
3 x 1	1,3	7,3	85,0	19,5	30,0
4 x 1	1,3	8,2	100,0	19,5	40,0
5 x 1	1,3	9,2	125,0	19,5	50,0
7 x 1	1,3	12,1	170,0	19,5	70,0
10 x 1	1,3	14,0	250,0	19,5	100,0
12 x 1	1,3	14,8	285,0	19,5	120,0
18 x 1	1,3	15,7	400,0	19,5	180,0
25 x 1	1,3	18,8	560,0	19,5	250,0
2 x 1,5	1,5	8,2	90,0	13,3	30,0
3 x 1,5	1,5	8,6	110,0	13,3	45,0
4 x 1,5	1,5	9,6	140,0	13,3	60,0
5 x 1,5	1,5	10,7	160,0	13,3	75,0
7 x 1,5	1,5	11,6	220,0	13,3	105,0
12 x 1,5	1,5	15,5	365,0	13,3	180,0
18 x 1,5	1,5	18,6	510,0	13,3	270,0
25 x 1,5	1,5	21,9	753,0	13,3	375,0
3 x 2,5	2,0	10,1	170,0	8,0	75,0
4 x 2,5	2,0	11,2	200,0	8,0	100,0
5 x 2,5	2,0	12,5	240,0	8,0	125,0
7 x 2,5	2,0	13,8	320,0	8,0	175,0
12 x 2,5	2,0	18,3	550,0	8,0	300,0
18 x 2,5	2,0	21,6	790,0	8,0	450,0
25 x 2,5	2,0	26,6	1.153,0	8,0	625,0
3 x 4	2,5	12,6	218,0	5,0	120,0
4 x 4	2,5	13,7	300,0	5,0	160,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
5 x 4	2,5	15,2	400,0	5,0	200,0
7 x 4	2,5	16,7	530,0	5,0	280,0
4 x 6	3,0	15,5	420,0	3,3	240,0
5 x 6	3,0	17,3	640,0	3,3	300,0
7 x 6	3,0	19,2	850,0	3,3	420,0
4 x 10	4,0	18,2	780,0	1,9	400,0
5 x 10	4,0	20,4	950,0	1,9	500,0
4 x 16	5,0	22,6	1.090,0	1,2	640,0
5 x 16	5,0	25,7	1.600,0	1,2	800,0
4 x 25	6,2	27,6	1.595,0	0,78	1.000,0
5 x 25	6,2	31,3	1.838,0	0,78	1.250,0
4 x 35	7,4	30,5	2.023,0	0,554	1.400,0
5 x 35	7,4	36,6	2.438,0	0,554	1.750,0
4 x 50	8,9	37,2	3.400,0	0,386	2.000,0
4 x 70	10,5	41,5	3.609,0	0,272	2.800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

CU-Seil



Verwendung

For earthing purposes in power installations.

Aufbau und Normen

DIN 48201/1 (soft F21 V2)
DIN VDE 0295 cl.2

- Bare copper conductor or tinned, stranded **compressed** (RMV), stranded **uncompressed** (RM)

Technische Daten

Cu-Seil

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Anzahl der Drähte	Anzahl der Drähte	Drabt Ø	Seil Ø	Gewicht	Leiterwiderstand bei 20°C	Rechn. Bruchkraft	Cu Zahl
mm ²	min (1)	ca.	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kN	kg/km
	Cu-Seil blank weich							
1 x 16 RM	6,0	7,0	1,7	5,1	143,0	1,2	3,2	160,0
1 x 16 RMV	6,0	7,0	1,7	4,7	143,0	1,2	3,2	160,0
1 x 25 RM	6,0	7,0	2,1	6,3	218,0	0,727	4,8	250,0
1 x 25 RMV	6,0	7,0	2,1	6,9	218,0	0,727	4,8	250,0
1 x 35 RM	6,0	7,0	2,5	7,5	310,0	0,524	6,9	350,0
1 x 35 RMV	6,0	7,0	2,5	6,9	310,0	0,524	6,9	350,0
1 x 50 RM	6,0	7,0	3,0	9,0	446,0	0,387	9,9	500,0
1 x 50 RMV	6,0	7,0	3,0	8,2	446,0	0,387	9,9	500,0
1 x 50 RM	6,0	19,0	1,8	9,0	437,0	0,387	9,7	500,0
1 x 50 RMV	6,0	19,0	1,8	8,2	437,0	0,387	9,7	500,0
1 x 70 RM	12,0	19,0	2,1	10,5	596,0	0,268	13,1	700,0
1 x 70 RMV	12,0	19,0	2,1	9,8	596,0	0,268	13,1	700,0
1 x 95 RM	15,0	19,0	2,5	12,5	845,0	0,193	18,6	950,0
1 x 95 RMV	15,0	19,0	2,5	11,6	845,0	0,193	18,6	950,0
1 x 120 RM	18,0	19,0	2,8	14,0	1.060,0	0,153	23,3	1.200,0
1 x 120 RMV	18,0	19,0	2,8	13,1	1.060,0	0,153	23,3	1.200,0
1 x 150 RM	18,0	37,0	2,3	15,8	1.337,0	0,124	29,4	1.500,0
1 x 150 RMV	18,0	37,0	2,3	14,4	1.337,0	0,124	29,4	1.500,0
1 x 185 RM	30,0	37,0	2,5	17,5	1.649,0	0,0991	36,2	1.850,0
1 x 185 RMV	30,0	37,0	2,5	16,2	1.649,0	0,0991	36,2	1.850,0
1 x 240 RM	34,0	61,0	2,3	20,3	2.209,0	0,0754	48,4	2.400,0
1 x 240 RMV	34,0	61,0	2,3	18,7	2.209,0	0,0754	48,4	2.400,0
	Cu-Seil blank hart							
1 x 16 RM	6,0	7,0	1,7	5,1	143,0	1,2	6,4	160,0
1 x 16 RMV	6,0	7,0	1,7	4,7	143,0	1,2	6,4	160,0
1 x 25 RM	6,0	7,0	2,1	6,3	218,0	0,727	9,7	250,0
1 x 25 RMV	6,0	7,0	2,1	6,9	218,0	0,727	9,7	250,0
1 x 35 RM	6,0	7,0	2,5	7,5	310,0	0,524	13,8	350,0
1 x 35 RMV	6,0	7,0	2,5	6,9	310,0	0,524	13,8	350,0
1 x 50 RM	6,0	7,0	3,0	9,0	446,0	0,387	19,8	500,0
1 x 50 RMV	6,0	7,0	3,0	8,2	446,0	0,387	19,8	500,0
1 x 50 RM	6,0	19,0	1,8	9,0	437,0	0,387	19,4	500,0
1 x 50 RMV	6,0	19,0	1,8	8,2	437,0	0,387	19,4	500,0

Aderanzahl x Nennquerschnitt	Anzahl der Drähte	Anzahl der Drähte	Draht Ø	Seil Ø	Gewicht	Leiterwiderstand bei 20°C	Rechn. Bruchkraft	Cu Zahl
mm ²	min (1)	ca.	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kN	kg/km
1 x 70 RM	12,0	19,0	2,1	10,5	596,0	0,268	26,4	700,0
1 x 70 RMV	12,0	19,0	2,1	9,8	596,0	0,268	26,4	700,0
1 x 95 RM	15,0	19,0	2,5	12,5	845,0	0,193	37,4	950,0
1 x 95 RMV	15,0	19,0	2,5	11,6	845,0	0,193	37,4	950,0
1 x 120 RM	18,0	19,0	2,8	14,0	1.060,0	0,153	46,9	1.200,0
1 x 120 RMV	18,0	19,0	2,8	13,1	1.060,0	0,153	46,9	1.200,0
1 x 150 RM	18,0	37,0	2,3	15,8	1.337,0	0,124	59,0	1.500,0
1 x 150 RMV	18,0	37,0	2,3	14,4	1.337,0	0,124	59,0	1.500,0
1 x 185 RM	30,0	37,0	2,5	17,5	1.649,0	0,0991	72,8	1.850,0
1 x 185 RMV	30,0	37,0	2,5	16,2	1.649,0	0,0991	72,8	1.850,0
1 x 240 RM	34,0	61,0	2,3	20,3	2.209,0	0,0754	97,2	2.400,0
1 x 240 RMV	34,0	61,0	2,3	18,7	2.209,0	0,0754	97,2	2.400,0
	Cu-Seil verzinkt							
1 x 16 RM	6,0	7,0	1,7	5,1	143,0	1,2	3,2	160,0
1 x 16 RMV	6,0	7,0	1,7	4,7	143,0	1,2	3,2	160,0
1 x 25 RM	6,0	7,0	2,1	6,3	218,0	0,734	4,8	250,0
1 x 25 RMV	6,0	7,0	2,1	6,0	218,0	0,734	4,8	250,0
1 x 35 RM	6,0	7,0	2,5	7,5	310,0	0,529	6,9	350,0
1 x 35 RMV	6,0	7,0	2,5	6,9	310,0	0,529	6,9	350,0
1 x 50 RM	6,0	7,0	3,0	9,0	446,0	0,391	9,9	500,0
1 x 50 RMV	6,0	7,0	3,0	8,2	446,0	0,391	9,9	500,0
1 x 50 RM	6,0	19,0	1,8	9,0	437,0	0,391	9,7	500,0
1 x 50 RMV	6,0	19,0	1,8	8,2	437,0	0,391	9,7	500,0
1 x 70 RM	12,0	19,0	2,1	10,5	596,0	0,27	13,1	700,0
1 x 70 RMV	12,0	19,0	2,1	9,8	596,0	0,27	13,1	700,0
1 x 95 RM	15,0	19,0	2,5	12,5	845,0	0,195	18,6	950,0
1 x 95 RMV	15,0	19,0	2,5	11,6	845,0	0,195	18,6	950,0
1 x 120 RM	18,0	19,0	2,8	14,0	1.060,0	0,154	23,3	1.200,0
1 x 120 RMV	18,0	19,0	2,8	13,1	1.060,0	0,154	23,3	1.200,0
1 x 150 RM	18,0	37,0	2,3	15,8	1.337,0	0,126	29,4	1.500,0
1 x 150 RMV	18,0	37,0	2,3	14,4	1.337,0	0,126	29,4	1.500,0
1 x 185 RM	30,0	37,0	2,5	17,5	1.649,0	0,1	36,2	1.850,0
1 x 185 RMV	30,0	37,0	2,5	16,2	1.649,0	0,1	36,2	1.850,0
1 x 240 RM	34,0	61,0	2,3	20,3	2.209,0	0,0762	48,4	2.400,0
1 x 240 RMV	34,0	61,0	2,3	18,7	2.209,0	0,0762	48,4	2.400,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Bare - hard on request

VDE 0295 in accordance with IEC 228 specifies the following:

1) For conductor class 2, the minimum number of individual wires in the round conductor applies and not the individual wire diameter. diameter of the individual wires. The required maximum values of the conductor resistance of each conductor at conductor at +20°C. The respective nominal cross-section of the specified maximum values must not be exceeded.

YSLYCY 0,6/1 kV



Verwendung

For medium mechanical stress for flexible application with free movement without tensile stress and without forced movement guidance. In dry and damp rooms, permanently installed outdoors, taking into account the temperature range. These cables with copper shielding are ideal for interference-free data and signal transmission for measurement and control technology in EMC-affected environments. Must not be laid directly in earth or water.

Aufbau und Normen

based on DIN VDE 0262, DIN VDE 0285-525-2-51
but insulation wall thickness for 1kV

- Bare copper stranded wire, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC - core insulation T12
- Core labelling:
JZ: black with number imprint, one core green-yellow
OZ: black with printed numbers
- Cores stranded in layers in optimum lay lengths
- PVC inner sheath
- Shielding braid made of tinned copper wires
- PVC outer sheath, UV-resistant
- Sheath colour black (RAL 9005)

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
CPR performance class:	Eca

YSLYCY 0,6/1 kV

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	1,1	8,8	143,0	26,0	43,0
3 x 0,75	1,1	9,3	155,0	26,0	57,0
4 x 0,75	1,1	9,9	190,0	26,0	70,0
5 x 0,75	1,1	10,8	228,0	26,0	82,0
7 x 0,75	1,1	11,5	323,0	26,0	113,0
12 x 0,75	1,1	14,6	410,0	26,0	192,0
18 x 0,75	1,1	17,1	560,0	26,0	268,0
25 x 0,75	1,1	20,3	730,0	26,0	331,0
2 x 1	1,3	9,4	150,0	19,5	52,0
3 x 1	1,3	9,8	163,0	19,5	78,0
4 x 1	1,3	10,4	200,0	19,5	89,0
5 x 1	1,3	11,4	239,0	19,5	106,0
7 x 1	1,3	12,5	289,0	19,5	132,0
12 x 1	1,3	15,7	464,0	19,5	206,0
18 x 1	1,3	18,4	628,0	19,5	316,0
25 x 1	1,3	21,8	855,0	19,5	428,0
2 x 1,5	1,5	10,4	162,0	13,3	66,0
3 x 1,5	1,5	11,1	187,0	13,3	99,0
4 x 1,5	1,5	11,8	240,0	13,3	121,0
5 x 1,5	1,5	13,1	289,0	13,3	135,0
7 x 1,5	1,5	14,2	383,0	13,3	227,0
12 x 1,5	1,5	18,4	592,0	13,3	322,0
18 x 1,5	1,5	21,5	806,0	13,3	428,0
25 x 1,5	1,5	25,1	1.180,0	13,3	568,0
3 x 2,5	2,0	12,7	298,0	8,0	154,0
4 x 2,5	2,0	13,8	345,0	8,0	170,0
5 x 2,5	2,0	15,1	427,0	8,0	208,0
7 x 2,5	2,0	16,3	470,0	8,0	300,0
4 x 4	2,5	16,2	527,0	5,0	248,0
4 x 6	3,0	17,7	715,0	3,3	343,0
4 x 10	4,0	21,2	1.188,0	1,9	535,0
4 x 16	5,0	24,3	1.656,0	1,2	800,0
4 x 25	6,2	28,7	1.850,0	0,78	1.280,0
4 x 35	7,4	32,0	2.384,0	0,554	1.730,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

YSLYCY-OB/JB on request

J-Y(St)Y



Verwendung

As an installation cable for telecommunication purposes inside buildings in dry and damp rooms on, in and under plaster, but also outdoors for fixed installation on external walls of buildings with protection against solar radiation. This version with static shielding (St) protects the transmission circuits against external electrical interference fields. Not approved for heavy current installation purposes and underground installation.

Aufbau und Normen

DIN VDE 0815

- Bare copper wire, solid \varnothing 0,6 mm and \varnothing 0,8 mm
- PVC - core insulation Y11
- Core and pair labelling according to DIN VDE 0815
- Cores twisted into pairs, pairs twisted into layers, 2-pair cable to form a star quad
- Shield made of plastic-laminated aluminium foil with drain wire
- PVC outer sheath YM1
- Sheath colour grey (RAL 7032)

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz 1 min.):	
Core/Core:	800 V
Core/Shield:	800 V
Insulating resistance:	$\geq 100 \text{ MOhm} \times \text{km}$
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 100 nF/km
Capacitive coupling (at 800 Hz):	max. 300 pF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^{\circ}\text{C}$
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

J-Y(St)Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
1 x 2 x 0,6	1,1	4,5	26,0	7,0
2 x 2 x 0,6	1,1	4,9	35,0	13,0
3 x 2 x 0,6	1,1	6,2	49,0	19,0
4 x 2 x 0,6	1,1	6,6	58,0	24,0
5 x 2 x 0,6	1,1	7,1	59,0	30,0
6 x 2 x 0,6	1,1	7,6	61,0	36,0
8 x 2 x 0,6	1,1	8,1	93,0	48,0
10 x 2 x 0,6	1,1	9,3	113,0	59,0
12 x 2 x 0,6	1,1	9,5	129,0	72,0
16 x 2 x 0,6	1,1	10,4	163,0	97,0
20 x 2 x 0,6	1,1	10,9	191,0	116,0
30 x 2 x 0,6	1,3	13,7	284,0	172,0
40 x 2 x 0,6	1,3	14,5	358,0	228,0
50 x 2 x 0,6	1,5	16,5	438,0	285,0
60 x 2 x 0,6	1,5	17,4	512,0	342,0
100 x 2 x 0,6	1,7	22,1	829,0	568,0
1 x 2 x 0,8	1,1	5,5	38,0	11,0
2 x 2 x 0,8	1,1	6,1	54,0	21,0
3 x 2 x 0,8	1,1	8,0	77,0	31,0
4 x 2 x 0,8	1,1	8,7	94,0	41,0
5 x 2 x 0,8	1,1	9,4	114,0	52,0
6 x 2 x 0,8	1,1	10,1	135,0	62,0
8 x 2 x 0,8	1,1	10,5	154,0	85,0
10 x 2 x 0,8	1,3	13,1	205,0	103,0
12 x 2 x 0,8	1,3	13,5	235,0	123,0
16 x 2 x 0,8	1,3	14,8	299,0	164,0
20 x 2 x 0,8	1,3	15,6	352,0	203,0
30 x 2 x 0,8	1,5	19,4	522,0	304,0
40 x 2 x 0,8	1,5	20,9	663,0	404,0
50 x 2 x 0,8	1,7	23,7	832,0	505,0
60 x 2 x 0,8	1,7	25,8	978,0	606,0
100 x 2 x 0,8	2,1	36,5	1900,0	1008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

YSLYQY



Verwendung

For medium mechanical stress for flexible application with free movement without tensile stress and without forced movement guidance, as armoured measuring, monitoring and control cable in machine tool construction, plant construction on assembly lines and production lines. Suitable for installation in dry and damp rooms, but not outdoors without UV protection and not suitable for underground installation. The galvanised (oxidation-protected) steel wire braiding provides a high level of mechanical protection against damage and also offers magnetic shielding. This makes it suitable for use in harsh operating conditions and under increased mechanical stress.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC - core insulation
- Core labelling:
JZ: black with number imprint, one core green-yellow
OZ: black with printed numbers
JB/OB: according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- PVC - inner sheath
- Protective braid made of galvanised steel wire
- PVC - outer sheath
- Sheath colour transparent

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$15 \times \text{DA}$
Fixed installation:	$6 \times \text{DA}$
CPR performance class:	Eca

YSLYQY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	1,1	8,3	110,0	26,0	15,0
3 x 0,75	1,1	8,6	120,0	26,0	22,5
4 x 0,75	1,1	9,3	145,0	26,0	30,0
5 x 0,75	1,1	9,9	160,0	26,0	37,5
7 x 0,75	1,1	10,4	190,0	26,0	52,5
12 x 0,75	1,1	12,7	275,0	26,0	90,0
18 x 0,75	1,1	14,9	385,0	26,0	135,0
25 x 0,75	1,1	17,0	490,0	26,0	187,5
34 x 0,75	1,1	19,2	625,0	26,0	255,0
50 x 0,75	1,1	27,5	840,0	26,0	375,0
2 x 1	1,3	8,5	91,0	19,5	20,0
3 x 1	1,3	8,9	135,0	19,5	30,0
4 x 1	1,3	9,7	155,0	19,5	40,0
5 x 1	1,3	10,4	180,0	19,5	50,0
7 x 1	1,3	11,2	215,0	19,5	70,0
12 x 1	1,3	13,8	330,0	19,5	120,0
18 x 1	1,3	16,0	445,0	19,5	180,0
25 x 1	1,3	17,8	560,0	19,5	250,0
34 x 1	1,3	20,3	735,0	19,5	340,0
50 x 1	1,3	25,6	1.076,0	19,5	500,0
2 x 1,5	1,5	9,4	145,0	13,3	30,0
3 x 1,5	1,5	9,8	165,0	13,3	45,0
4 x 1,5	1,5	10,5	190,0	13,3	60,0
5 x 1,5	1,5	11,4	225,0	13,3	75,0
7 x 1,5	1,5	12,1	290,0	13,3	105,0
12 x 1,5	1,5	14,9	405,0	13,3	180,0
18 x 1,5	1,5	17,7	630,0	13,3	270,0
25 x 1,5	1,5	19,8	745,0	13,3	375,0
34 x 1,5	1,5	22,9	975,0	13,3	510,0
50 x 1,5	1,5	32,3	1.540,0	13,3	750,0
3 x 2,5	2,0	11,4	225,0	8,0	75,0
4 x 2,5	2,0	12,3	265,0	8,0	100,0
5 x 2,5	2,0	13,4	320,0	8,0	125,0
7 x 2,5	2,0	14,5	385,0	8,0	175,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
12 x 2,5	2,0	17,8	590,0	8,0	300,0
18 x 2,5	2,0	21,4	865,0	8,0	450,0
25 x 2,5	2,0	24,2	1.120,0	8,0	625,0
4 x 4	2,5	14,0	425,0	5,0	160,0
5 x 4	2,5	15,1	498,0	5,0	200,0
7 x 4	2,5	16,3	525,0	5,0	280,0
4 x 6	3,0	16,2	490,0	3,3	240,0
5 x 6	3,0	17,7	590,0	3,3	300,0
7 x 6	3,0	19,1	730,0	3,3	420,0
4 x 10	4,0	19,4	755,0	1,9	400,0
5 x 10	4,0	21,7	935,0	1,9	500,0
7 x 10	4,0	23,4	1.400,0	1,9	700,0
4 x 16	5,0	22,2	1.035,0	1,2	640,0
5 x 16	5,0	24,2	1.405,0	1,2	800,0
7 x 16	5,0	30,0	1.990,0	1,2	1.120,0
4 x 25	6,2	26,1	1.790,0	0,78	1.000,0
4 x 35	7,4	29,9	1.998,0	0,554	1.400,0
5 x 35	7,4	33,1	2.420,0	0,554	1.750,0
4 x 50	8,9	34,7	2.780,0	0,386	2.000,0
4 x 70	10,5	40,5	3.910,0	0,272	2.800,0
4 x 95	12,2	46,5	6.305,0	0,206	3.800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

F-vYAY



Verwendung

As installation cable for telecommunication purposes inside buildings in dry and damp rooms on, in and under plaster, but also outdoors for fixed installation on external walls of buildings with protection from sunlight. Not authorised for heavy current installation purposes and underground laying.

Aufbau und Normen

ÖVE K 35

- Copper wire, tinned, solid, \varnothing 0,5 mm
- PVC - core insulation
- Core labelling according to ÖVE K 35
- Cores stranded in pairs, pairs stranded in layers
- Strapping made of plastic foil
- Shield made of plastic-laminated aluminium foil with drain wire
- PVC outer sheath
- Sheath colour grey (RAL 7035)

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	≥ 500 MOhm x km
Conductor resistance of the loop:	195,6 Ohm/km
Operating capacity (at 800 Hz):	max. 100 nF/km
Capacitive coupling (at 800 Hz):	max. 500 pF/ 100m
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

F-vYAY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,5	1,0	5,5	31,0	10,0
3 x 2 x 0,5	1,0	5,9	32,0	14,0
5 x 2 x 0,5	1,0	6,5	47,0	22,0
6 x 2 x 0,5	1,0	7,0	58,0	25,0
10 x 2 x 0,5	1,0	8,1	87,0	41,0
15 x 2 x 0,5	1,0	9,2	109,0	61,0
20 x 2 x 0,5	1,2	10,0	144,0	80,0
30 x 2 x 0,5	1,2	11,7	201,0	120,0
40 x 2 x 0,5	1,2	13,7	267,0	159,0
50 x 2 x 0,5	1,4	15,0	315,0	198,0
60 x 2 x 0,5	1,4	16,6	385,0	237,0
100 x 2 x 0,5	1,6	22,4	564,0	396,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

YSLY-EB



Verwendung

For potentially explosive atmospheres with type of protection 'i' marked as intrinsically safe (blue) flexible control or measuring cable for intrinsically safe systems in measurement and control technology. The cable complies with the requirements of DIN VDE 0165-1 / DIN EN 60079-14 / IEC 60079-14, section 16.2.2 for type of protection intrinsically safe 'i', which requires special labelling of the outer sheath. Not suitable for underground installation.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Core labelling:
JZ: black with number imprint one core green-yellow
OZ: black with number imprint
- Cores stranded in layers with optimum lay lengths
- PVC outer sheath TM2
- sheath colour blue (RAL 5015)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	15 x DA
Fixed installation:	4 x DA
CPR performance class:	Eca

YSLY-EB

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	1,1	5,5	42,0	26,0	15,0
3 x 0,75	1,1	5,7	55,0	26,0	22,5
4 x 0,75	1,1	6,2	65,0	26,0	30,0
5 x 0,75	1,1	6,9	80,0	26,0	37,5
7 x 0,75	1,1	7,6	100,0	26,0	52,5
18 x 0,75	1,1	12,0	245,0	26,0	135,0
25 x 0,75	1,1	14,1	325,0	26,0	187,5
2 x 1	1,3	5,8	50,0	19,5	20,0
3 x 1	1,3	6,3	61,0	19,5	30,0
4 x 1	1,3	6,7	75,0	19,5	40,0
5 x 1	1,3	7,3	95,0	19,5	50,0
7 x 1	1,3	8,3	125,0	19,5	70,0
12 x 1	1,3	10,7	195,0	19,5	120,0
18 x 1	1,3	12,8	300,0	19,5	180,0
25 x 1	1,3	14,7	390,0	19,5	250,0
2 x 1,5	1,5	6,6	65,0	13,3	30,0
3 x 1,5	1,5	6,8	80,0	13,3	45,0
4 x 1,5	1,5	7,4	100,0	13,3	60,0
5 x 1,5	1,5	8,3	130,0	13,3	75,0
7 x 1,5	1,5	9,1	160,0	13,3	105,0
12 x 1,5	1,5	12,3	265,0	13,3	180,0
18 x 1,5	1,5	14,7	405,0	13,3	270,0
25 x 1,5	1,5	17,2	550,0	13,3	375,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

YSLCY-EB



Verwendung

For potentially explosive atmospheres with type of protection 'i' marked as intrinsically safe (blue) flexible control or measuring cable for intrinsically safe systems in measurement and control technology. The cable complies with the requirements of DIN VDE 0165-1 / DIN EN 60079-14 / IEC 60079-14, section 16.2.2 for type of protection intrinsically safe 'i', which requires special labelling of the outer sheath. Not suitable for underground installation.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC – core insulation
- Core labelling:
JZ: black with number imprint, one core green-yellow
OZ: black with printed numbers
OB: according to DIN47100
- Cores stranded in layers with optimum lay lengths
- Shielding braid made of tinned copper wires
- PVC outer sheath TM2
- Sheath colour blue (RAL 5015)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$10 \times \text{DA}$
Fixed installation:	$5 \times \text{DA}$
CPR performance class:	Eca

YSLCY-EB

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	0,9	5,4	45,0	39,0	36,0
3 x 0,5	0,9	5,7	56,0	39,0	49,0
4 x 0,5	0,9	6,3	72,0	39,0	60,0
7 x 0,5	0,9	7,6	125,0	39,0	89,0
12 x 0,5	0,9	9,8	200,0	39,0	148,0
2 x 0,75	1,1	6,0	56,0	26,0	43,0
3 x 0,75	1,1	6,3	71,0	26,0	57,0
4 x 0,75	1,1	6,8	79,0	26,0	70,0
5 x 0,75	1,1	7,6	95,0	26,0	82,0
7 x 0,75	1,1	8,2	120,0	26,0	113,0
12 x 0,75	1,1	11,0	200,0	26,0	192,0
18 x 0,75	1,1	12,9	295,0	26,0	268,0
25 x 0,75	1,1	15,5	377,0	26,0	331,0
2 x 1	1,3	6,3	63,0	19,5	52,0
3 x 1	1,3	6,6	87,0	19,5	78,0
4 x 1	1,3	7,2	96,0	19,5	89,0
5 x 1	1,3	8,0	112,0	19,5	106,0
7 x 1	1,3	8,6	144,0	19,5	132,0
10 x 1	1,3	11,3	202,0	19,5	159,0
12 x 1	1,3	11,8	232,0	19,5	206,0
18 x 1	1,3	13,8	342,0	19,5	316,0
24 x 1	1,3	16,5	460,0	19,5	418,0
25 x 1	1,3	16,8	464,0	19,5	428,0
2 x 1,5	1,5	7,1	97,0	13,3	66,0
3 x 1,5	1,5	7,7	110,0	13,3	99,0
4 x 1,5	1,5	8,3	135,0	13,3	121,0
5 x 1,5	1,5	9,2	158,0	13,3	135,0
7 x 1,5	1,5	9,9	250,0	13,3	227,0
12 x 1,5	1,5	13,3	358,0	13,3	322,0
18 x 1,5	1,5	15,5	490,0	13,3	428,0
24 x 1,5	1,5	18,8	650,0	13,3	554,0
25 x 1,5	1,5	19,1	667,0	13,3	568,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Version in **JZ** on request

F-XYCY



Verwendung

As installation cable for telecommunication purposes inside buildings in dry and damp rooms on, in and under plaster, but also outdoors for fixed installation on external walls of buildings with protection from sunlight. Not authorised for heavy current installation purposes and underground laying.

Aufbau und Normen

factory standard

- Bare copper wire, solid, Ø 0,8 mm
- PVC - core insulation
- Cores in pairs, pairs stranded in concentric layers
- Plastic foil
- Shield consisting of copper wires (20x0.8mm) and winding with overlapping copper tape (0.1 mm thick)
- PVC outer sheath
- Sheath colour grey

Technische Daten

Operating voltage U:	max. 200 V
Testing voltage (50 Hz):	
Core/Core:	800 V
Core/Shield:	800 V
Insulating resistance:	≥ 100 MOhm x km
Conductor resistance of the loop:	max. 73,6 Ohm/km
Operating capacity (at 800 Hz):	max. 120 nF/km
Capacitive coupling (at 800 Hz):	max. 500 pF/ 100m
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-20°C to +70°C
Minimum bending radius:	15 x DA
CPR performance class:	Fca

F-XYCY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
6 x 2 x 0,8/10	1,8	13,9	315,0	219,0
10 x 2 x 0,8/10	1,8	16,8	405,0	260,0
20 x 2 x 0,8/10	1,8	18,9	560,0	360,0
30 x 2 x 0,8/10	1,8	22,2	730,0	461,0
40 x 2 x 0,8/10	1,8	27,3	925,0	561,0
50 x 2 x 0,8/10	1,8	28,1	1.060,0	662,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Core labelling:

a-cores: white-blue, white-yellow, white-green, white-brown, white-black, red-blue, red-yellow, red-green, red-brown, red-black

b-cores: blue, yellow, green, brown, black

YYSch / YR



Verwendung

As a telecommunications installation cable inside buildings in dry rooms on, in and under plaster. Not suitable for laying outdoors, in earth and water and as a power cable in power installations.

Aufbau und Normen

factory standard























- Bare copper wire, solid
- **YYSch:** Ø 0,6 mm
YR: Ø 0,8 mm
- Cores stranded in layers
- PVC core insulation
- Sheath colours:
- **YYSch:** grey or ivory
YR: white

Technische Daten

Operating voltage U:	max. 100 V
Testing voltage:	500 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-20°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

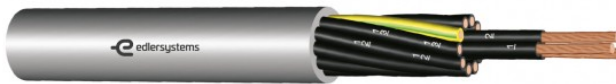
YYSch / YR

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm		ca. mm	ca. mm	ca. kg/km	kg/km
	YYSch				
2 x 0,6		0,5	3,0	15,0	5,6
2 x 0,6		0,5	3,0	15,0	5,6
3 x 0,6		0,5	3,2	18,0	8,4
3 x 0,6		0,5	3,2	18,0	8,4
4 x 0,6		0,5	3,4	22,0	11,2
4 x 0,6		0,5	3,4	22,0	11,2
5 x 0,6		0,5	3,7	26,0	14,0
5 x 0,6		0,5	3,7	26,0	14,0
6 x 0,6		0,6	4,0	31,0	16,8
6 x 0,6		0,6	4,0	31,0	16,8
10 x 0,6		0,9	5,8	56,0	28,0
10 x 0,6		0,9	5,8	56,0	28,0
16 x 0,6		1,0	6,7	81,0	45,0
16 x 0,6		1,0	6,7	81,0	45,0
26 x 0,6		1,0	8,2	121,0	72,8
26 x 0,6		1,0	8,2	121,0	72,8
	YR				
2 x 0,8		0,8	4,2	24,0	10,0
3 x 0,8		0,8	4,8	30,0	15,0
4 x 0,8		0,8	5,2	36,0	20,0
5 x 0,8		0,8	5,8	44,0	25,0
6 x 0,8		0,8	6,0	52,0	30,0
10 x 0,8		0,9	7,4	92,0	50,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H05VV5-F



Verwendung

For medium mechanical stress for flexible application with free movement without tensile stress and without forced movement guidance in dry and damp rooms. As an oil-resistant measuring, monitoring and control cable in machine tool construction, plant construction on assembly lines and production lines. Can also be used outdoors if adequately protected from direct sunlight and the temperature range is observed. This cable is not suitable for direct laying in the ground.

Aufbau und Normen

DIN VDE 0285-525-2-51

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl. 5
- PVC – core insulation T12
- Core labelling black with printed numbers, from 3 cores protective conductor green-yellow
- Cores stranded in layers with optimum lay lengths
- PVC outer sheath TMS
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	350/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	-40°C to +70°C
When laying:	max. -5°C
Operating temperature:	-40°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	
When laying:	12,5 x DA
Fixed installation:	4 x DA
CPR performance class:	Eca
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404

H05VV5-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	1,1	0,6	5,7 - 7,2	55,0	26,0	15,0
3 G 0,75	1,1	0,6	6,0 - 7,6	65,0	26,0	22,5
4 G 0,75	1,1	0,6	6,6 - 8,3	78,0	26,0	30,0
5 G 0,75	1,1	0,6	7,4 - 9,3	97,0	26,0	37,5
7 G 0,75	1,1	0,6	9,0 - 11,3	142,0	26,0	52,5
12 G 0,75	1,1	0,6	11,0 - 13,7	203,0	26,0	90,0
18 G 0,75	1,1	0,6	13,2 - 16,4	300,0	26,0	135,0
25 G 0,75	1,1	0,6	15,8 - 19,5	427,0	26,0	187,5
34 G 0,75	1,1	0,6	18,4 - 22,6	590,0	26,0	255,0
41 G 0,75	1,1	0,6	20,1 - 24,7	710,0	26,0	307,5
50 G 0,75	1,1	0,6	22,1 - 27,0	840,0	26,0	375,0
2 x 1	1,3	0,6	5,9 - 7,5	63,0	19,5	20,0
3 G 1	1,3	0,6	6,3 - 8,0	76,0	19,5	30,0
4 G 1	1,3	0,6	6,9 - 8,7	90,0	19,5	40,0
5 G 1	1,3	0,6	7,8 - 9,8	115,0	19,5	50,0
7 G 1	1,3	0,6	9,5 - 11,8	166,0	19,5	70,0
12 G 1	1,3	0,6	11,8 - 14,6	240,0	19,5	120,0
18 G 1	1,3	0,6	14,0 - 17,2	365,0	19,5	180,0
25 G 1	1,3	0,6	16,8 - 20,7	530,0	19,5	250,0
34 G 1	1,3	0,6	19,6 - 24,0	700,0	19,5	340,0
50 G 1	1,3	0,6	24,5 - 28,2	993,0	19,5	500,0
2 x 1,5	1,5	0,7	6,8 - 8,6	82,0	13,3	30,0
3 G 1,5	1,5	0,7	7,4 - 9,4	104,0	13,3	45,0
4 G 1,5	1,5	0,7	8,2 - 10,2	125,0	13,3	60,0
5 G 1,5	1,5	0,7	9,1 - 11,4	155,0	13,3	75,0
7 G 1,5	1,5	0,7	11,3 - 14,1	232,0	13,3	105,0
12 G 1,5	1,5	0,7	13,8 - 17,0	337,0	13,3	180,0
18 G 1,5	1,5	0,7	16,5 - 20,3	515,0	13,3	270,0
25 G 1,5	1,5	0,7	19,8 - 24,3	724,0	13,3	375,0
34 G 1,5	1,5	0,7	23,1 - 28,2	1.018,0	13,3	510,0
50 G 1,5	1,5	0,7	25,1 - 28,9	1.320,0	13,3	750,0
3 G 2,5	2,0	0,8	9,0 - 11,2	160,0	8,0	75,0
4 G 2,5	2,0	0,8	10,1 - 12,5	194,0	8,0	100,0
5 G 2,5	2,0	0,8	11,0 - 13,7	238,0	8,0	125,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	kg/km
7 G 2,5	2,0	0,8	13,6 - 16,8	340,0	8,0	175,0
12 G 2,5	2,0	0,8	16,8 - 20,6	517,0	8,0	300,0
18 G 2,5	2,0	0,8	20,2 - 24,8	780,0	8,0	450,0
25 G 2,5	2,0	0,8	24,2 - 29,6	1.100,0	8,0	625,0
34 G 2,5	2,0	0,8	28,1 - 34,3	1.436,0	8,0	850,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

F-vYDvY



Verwendung

As data transmission cable in telecommunication systems and as modem cable inside buildings in dry on, in and under plaster.

Aufbau und Normen

based on ÖVE K 50

- Copper wire, tinned, solid
- PVC - core insulation
- Cores twisted into fours
- Core labelling according to ÖVE K 35
- Banding made of plastic foil
- Twist shield made of tinned copper wires
- PVC outer sheath
- Sheath colour yellow

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage:	500 V
Impedance (0,1-2 Mhz):	850 Ohm
Operating capacity:	max. 120 nF/km
Capacitive coupling (at 800 Hz):	max. 500 pF/ 100m
Conductor resistance:	98 Ohm/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1

F-vYDvY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Cu Zahl
mm ²	mm	ca. mm	ca. kg/km	kg/km
4 x 0,5/1	4 x 0,5/1	4,0	31,0	21,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H05VVC4V5-K



Verwendung

For medium mechanical stress for flexible use with free movement without tensile stress and without forced movement guidance in dry and damp rooms. As an oil-resistant, shielded measuring, monitoring and control cable in machine tool construction, plant construction on assembly lines and production lines. Can also be used outdoors if adequately protected from direct sunlight and the temperature range is observed. This cable is not suitable for laying directly in the ground. These cables with copper shielding are ideally suited for interference-free data and signal transmission for measurement and control technology.

Aufbau und Normen

DIN VDE 0285-525-2-51

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC – core insulation T12
- Core labelling black with printed numbers, from 3 cores protective conductor green-yellow
- Cores stranded in layers with optimum lay lengths
- PVC inner sheath
- Shielding braid made of tinned copper wires
- PVC outer sheath TMS
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$12,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
CPR performance class:	Eca
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404

H05VVC4V5-K

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	1,1	0,6	8,0 - 10,0	96,0	26,0	43,0
3 G 0,75	1,1	0,6	8,3 - 10,4	110,0	26,0	57,0
4 G 0,75	1,1	0,6	9,1 - 11,3	135,0	26,0	70,0
5 G 0,75	1,1	0,6	9,7 - 12,1	155,0	26,0	82,0
7 G 0,75	1,1	0,6	11,5 - 14,3	220,0	26,0	113,0
12 G 0,75	1,1	0,6	13,9 - 17,2	300,0	26,0	192,0
18 G 0,75	1,1	0,6	16,2 - 19,9	445,0	26,0	268,0
25 G 0,75	1,1	0,6	18,7 - 23,0	640,0	26,0	331,0
34 G 0,75	1,1	0,6	21,4 - 26,2	821,0	26,0	346,0
2 x 1	1,3	0,6	8,2 - 10,3	110,0	19,5	52,0
3 G 1	1,3	0,6	8,8 - 11,0	130,0	19,5	78,0
4 G 1	1,3	0,6	9,4 - 11,7	150,0	19,5	89,0
5 G 1	1,3	0,6	10,3 - 12,8	185,0	19,5	106,0
7 G 1	1,3	0,6	12,2 - 15,1	263,0	19,5	132,0
12 G 1	1,3	0,6	14,7 - 18,1	355,0	19,5	206,0
18 G 1	1,3	0,6	16,9 - 20,8	510,0	19,5	316,0
25 G 1	1,3	0,6	19,8 - 24,2	775,0	19,5	428,0
34 G 1	1,3	0,6	22,6 - 27,7	996,0	19,5	537,0
2 x 1,5	1,5	0,7	9,3 - 11,6	135,0	13,3	66,0
3 G 1,5	1,5	0,7	9,7 - 12,1	155,0	13,3	99,0
4 G 1,5	1,5	0,7	10,7 - 13,2	200,0	13,3	121,0
5 G 1,5	1,5	0,7	11,8 - 14,7	240,0	13,3	135,0
7 G 1,5	1,5	0,7	14,1 - 17,4	335,0	13,3	227,0
12 G 1,5	1,5	0,7	16,7 - 20,5	485,0	13,3	322,0
18 G 1,5	1,5	0,7	19,6 - 24,1	680,0	13,3	428,0
25 G 1,5	1,5	0,7	22,9 - 28,0	945,0	13,3	568,0
3 G 2,5	2,0	0,8	11,3 - 14,0	220,0	8,0	154,0
4 G 2,5	2,0	0,8	12,6 - 15,5	275,0	8,0	170,0
5 G 2,5	2,0	0,8	13,9 - 17,2	330,0	8,0	208,0
7 G 2,5	2,0	0,8	16,5 - 20,3	490,0	8,0	300,0
12 G 2,5	2,0	0,8	19,9 - 24,4	680,0	8,0	537,0
18 G 2,5	2,0	0,8	23,3 - 28,5	1.051,0	8,0	615,0
25 G 2,5	2,0	0,8	28,2 - 30,6	1.375,0	8,0	937,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

F-YAY



Verwendung

As installation cable for telecommunication purposes inside buildings in dry and damp rooms on, in and under plaster, but also outdoors for fixed installation on external walls of buildings with protection from sunlight. Not authorised for heavy current installation purposes and underground laying.

Aufbau und Normen

ÖVE K 35

- Bare copper wire, solid, Ø 0,6 mm and Ø 0,8 mm
- PVC - core insulation
- Core labelling according to ÖVE K 35
- Cores twisted into pairs, pairs twisted into layers
- Strapping made of plastic film
- Shield made of plastic-laminated aluminium foil with drain wire
- PVC outer sheath
- Sheath colour grey (RAL 7035)

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	≥ 500 MOhm x km
Conductor resistance of the loop:	
Ø 0,6 mm:	max. 135,8 Ohm/km
Ø 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 100 nF/km
Capacitive coupling (at 800 Hz):	max. 500 pF/ 100m
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

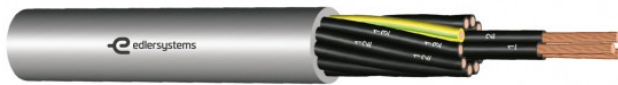
F-YAY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,6	1,0	5,9	41,0	13,0
3 x 2 x 0,6	1,0	6,1	49,0	19,0
5 x 2 x 0,6	1,0	7,1	69,0	30,0
6 x 2 x 0,6	1,0	7,6	77,0	36,0
10 x 2 x 0,6	1,0	8,8	112,0	59,0
15 x 2 x 0,6	1,0	10,4	152,0	87,0
20 x 2 x 0,6	1,2	11,5	185,0	115,0
25 x 2 x 0,6	1,2	13,5	244,0	140,0
30 x 2 x 0,6	1,2	14,0	290,0	172,0
40 x 2 x 0,6	1,2	15,0	370,0	228,0
50 x 2 x 0,6	1,4	17,5	430,0	285,0
60 x 2 x 0,6	1,4	18,9	525,0	342,0
100 x 2 x 0,6	1,6	24,7	805,0	568,0
2 x 2 x 0,8	1,0	7,3	61,0	21,0
3 x 2 x 0,8	1,0	7,9	75,0	32,0
5 x 2 x 0,8	1,0	9,4	115,0	52,0
6 x 2 x 0,8	1,0	10,3	138,0	62,0
10 x 2 x 0,8	1,2	11,9	187,0	103,0
20 x 2 x 0,8	1,2	15,3	340,0	203,0
30 x 2 x 0,8	1,4	17,7	497,0	304,0
40 x 2 x 0,8	1,4	20,4	681,0	404,0
50 x 2 x 0,8	1,6	24,9	830,0	505,0
100 x 2 x 0,8	1,8	34,0	1570,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H05VV5-F UL-CSA



Verwendung

In damp and dry rooms with low mechanical stress as a connection and connection cable in control and measurement technology and as a signal impulse cable for monitoring and controlling production lines, industrial plants and machines. This type is particularly suitable for export due to its UL, CSA and HAR approvals. With adequate protection from direct sunlight and in compliance with the temperature range, it can also be used outdoors.

Aufbau und Normen

DIN VDE 0285-525-2-51/HD 21.13 S1
UL-Style 2587/ CSA

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC - core insulation
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- Cores stranded in layers with optimum lay lengths
- PVC outer sheath
- sheath colour grey (RAL 7001)

4-Norm cable

UL, CSA, VDE/HAR, SEV (0,5-2,5 mm², 2-50-polig)

3-Norm cable

UL, VDE/HAR, SEV (0,5-2,5 mm², 2-50-polig)

2-Norm cable

UL, CSA (0,5-120 mm², 2-100-polig)

Technische Daten

Nominal voltage U₀/U:

HAR: 300/500 V

UL-CSA: 600 V

Testing voltage:

3000 V

Insulating resistance:

≥ 20 MOhm x km

Temperature range:

When laying: max. -5°C

Operating temperature:

HAR: -40°C to +70°C

UL-CSA: -40°C to +90°C

Conductor operating temperature:

max. +70°C

Short-circuit temperature:

max. +150°C/5 sec.

Minimum bending radius:

When laying: 12,5 x DA

Fixed installation: 4 x DA

CPR performance class:

Eca

Fire behaviour:

CSA FT1

Oil resistance:

DIN VDE 0473-811-404

EN 60811-404

H05VV5-F UL-CSA

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
3 G 0,75	24 x 0,21	6,6	61,0	26,0	22,5
4 G 0,75	24 x 0,21	7,3	75,0	26,0	30,0
5 G 0,75	24 x 0,21	8,1	100,0	26,0	37,5
7 G 0,75	24 x 0,21	9,8	141,0	26,0	52,5
12 G 0,75	24 x 0,21	12,1	214,0	26,0	90,0
18 G 0,75	24 x 0,21	14,0	306,0	26,0	135,0
25 G 0,75	24 x 0,21	17,2	427,0	26,0	187,5
34 G 0,75	24 x 0,21	19,5	590,0	26,0	255,0
41 G 0,75	24 x 0,21	21,5	710,0	26,0	307,5
50 G 0,75	24 x 0,21	23,3	807,0	26,0	375,0
3 G 1	32 x 0,21	7,1	71,0	19,5	30,0
4 G 1	32 x 0,21	7,7	89,0	19,5	40,0
5 G 1	32 x 0,21	8,8	116,0	19,5	50,0
7 G 1	32 x 0,21	10,4	166,0	19,5	70,0
12 G 1	32 x 0,21	12,8	251,0	19,5	120,0
18 G 1	32 x 0,21	15,2	385,0	19,5	180,0
25 G 1	32 x 0,21	18,5	534,0	19,5	250,0
34 G 1	32 x 0,21	21,1	700,0	19,5	340,0
41 G 1	32 x 0,21	22,7	815,0	19,5	410,0
50 G 1	32 x 0,21	25,2	993,0	19,5	500,0
61 G 1	32 x 0,21	27,5	1.173,0	19,5	610,0
3 G 1,5	30 x 0,26	8,4	92,0	13,3	45,0
4 G 1,5	30 x 0,26	9,2	125,0	13,3	60,0
5 G 1,5	30 x 0,26	10,3	155,0	13,3	75,0
7 G 1,5	30 x 0,26	12,5	227,0	13,3	105,0
12 G 1,5	30 x 0,26	14,7	330,0	13,3	180,0
18 G 1,5	30 x 0,26	18,3	506,0	13,3	270,0
25 G 1,5	30 x 0,26	22,2	700,0	13,3	375,0
34 G 1,5	30 x 0,26	24,6	920,0	13,3	510,0
41 G 1,5	30 x 0,26	26,3	1.060,0	13,3	614,0
50 G 1,5	30 x 0,26	28,9	1.320,0	13,3	750,0
61 G 1,5	30 x 0,26	31,4	1.560,0	13,3	915,0
3 G 2,5	50 x 0,26	9,9	146,0	8,0	75,0
4 G 2,5	50 x 0,26	11,1	196,0	8,0	100,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
5 G 2,5	50 x 0,26	12,1	235,0	8,0	125,0
7 G 2,5	50 x 0,26	14,7	343,0	8,0	175,0
12 G 2,5	50 x 0,26	18,1	535,0	8,0	300,0
18 G 2,5	50 x 0,26	21,8	800,0	8,0	450,0
25 G 2,5	50 x 0,26	26,0	1.100,0	8,0	625,0
34 G 2,5	50 x 0,26	29,5	1.436,0	8,0	850,0
50 G 2,5	50 x 0,26	35,0	2.070,0	8,0	1.250,0
4 G 6	84 x 0,31	14,2	424,0	3,3	240,0
4 G 10	80 x 0,41	16,1	540,0	1,9	400,0
4 G 16	128 x 0,41	21,7	960,0	1,2	640,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

A-2Y(L)2Y



Verwendung

Outdoor telephone cable at local level for private branch exchanges, as well as a connection cable in operating and industrial systems, in the ground, in cable ducts and cable conduits, and for indoor installation. PE copolymer-coated **aluminium tape (L)** on both sides, which is permanently bonded to the **PE outer sheath (2Y)**, guarantees water vapour resistance and transverse watertightness. The black PE outer jacket is UV-resistant. The polyethylene material (PE 2Y) is halogen-free. Not approved for high voltage installations.

Aufbau und Normen

DIN VDE 0816

- Bare copper wire, solid \varnothing 0,6 mm and \varnothing 0,8 mm
- PE - core insulation 2Y11
- Core labelling of a quad is carried out by black rings
- 4 cores to form a star quad, stranded
5 fours to form a bundle, bundle in layers
- Strapping made from plastic film
- Outer jacket as a layered jacket, plastic-coated aluminium strip with PE sheath (2YM1) welded together
- Sheath colour black

Technische Daten

Operating voltage U:	max. 225 V
Testing voltage (50 Hz 2 min.):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	5 GOhm x km
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz)	
\varnothing 0,6 mm:	max. 50 nF/km
\varnothing 0,8 mm:	max. 55 nF/km
Temperature range:	
Bei Verlegung:	max. -20°C
Operating temperature:	-20°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Fca

A-2Y(L)2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,6	1,8	8,1	60,0	13,0
4 x 2 x 0,6	1,8	10,0	85,0	24,0
6 x 2 x 0,6	1,8	10,3	103,0	36,0
10 x 2 x 0,6	1,8	11,5	135,0	59,0
20 x 2 x 0,6	1,8	15,2	225,0	115,0
30 x 2 x 0,6	1,8	16,6	320,0	172,0
40 x 2 x 0,6	1,8	18,0	398,0	228,0
50 x 2 x 0,6	1,8	19,4	465,0	285,0
70 x 2 x 0,6	2,0	22,8	600,0	413,0
100 x 2 x 0,6	2,0	27,9	830,0	568,0
150 x 2 x 0,6	2,2	33,2	1.220,0	884,0
200 x 2 x 0,6	2,2	36,4	1.600,0	1.178,0
2 x 2 x 0,8	1,8	8,6	74,0	22,0
4 x 2 x 0,8	1,8	10,9	115,0	41,0
6 x 2 x 0,8	1,8	11,3	140,0	62,0
10 x 2 x 0,8	1,8	13,2	195,0	103,0
20 x 2 x 0,8	1,8	17,3	335,0	203,0
30 x 2 x 0,8	1,8	19,0	475,0	315,0
40 x 2 x 0,8	2,0	20,7	595,0	404,0
50 x 2 x 0,8	2,0	23,7	730,0	505,0
70 x 2 x 0,8	2,0	25,3	970,0	734,0
100 x 2 x 0,8	2,2	32,2	1.375,0	1.047,0
150 x 2 x 0,8	2,2	37,7	2.020,0	1.571,0
200 x 2 x 0,8	2,6	42,3	2.610,0	2.095,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H05VVC4V5-K UL-CSA



Verwendung

In damp and dry rooms with low mechanical stress as a connection and connection cable in control and measurement technology and as a signal impulse cable for monitoring and controlling production lines, industrial plants and machines. This type is particularly suitable for export due to its UL, CSA and HAR approvals. With adequate protection from direct sunlight and in compliance with the temperature range, it can also be used outdoors. These cables with copper shielding are ideally suited for interference-free data and signal transmission.

Aufbau und Normen

DIN VDE 0285-525-2-51/HD 21.13 S1
UL-Style 2587/ CSA

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC - core insulation
- Core labelling according to HD 308 S2 from 7-core version black with numbers
- Cores stranded in layers with optimum lay lengths
- PVC - inner sheath
- Shielding braid made of tinned copper wires
- PVC outer sheath
- Sheath colour grey (RAL 7001)

4-Norm cable

UL, CSA, VDE/HAR, SEV (0,5-2,5 mm², 2-50-polig)

3-Norm cable

UL, VDE/HAR, SEV (0,5-2,5 mm², 2-50-polig)

2-Norm cable

UL, CSA (0,5-120 mm², 2-100-polig)

Technische Daten

Nominal voltage U₀/U:

HAR: 300/500 V

UL-CSA: 600 V

Testing voltage:

3000 V

Insulating resistance:

≥ 20 MOhm x km

Temperature range:

When laying: max. -5°C

Operating temperature:

HAR: -40°C to +70°C

UL-CSA: -40°C to +90°C

Conductor operating temperature:

max. +70°C

Short-circuit temperature:

max. +150°C/5 sec.

Minimum bending radius:

When laying: 12,5 x DA

Fixed installation: 6 x DA

CPR performance class:

Eca

Fire behaviour:

CSA FT1

Oil resistance:

DIN VDE 0473-811-404

EN 60811-404

H05VVC4V5-K UL-CSA

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
3 G 0,75	24 x 0,21	9,1	113,0	26,0	57,0
4 G 0,75	24 x 0,21	9,2	148,0	26,0	70,0
5 G 0,75	24 x 0,21	10,6	170,0	26,0	82,0
7 G 0,75	24 x 0,21	12,4	227,0	26,0	113,0
12 G 0,75	24 x 0,21	14,4	310,0	26,0	192,0
18 G 0,75	24 x 0,21	16,7	478,0	26,0	268,0
3 G 1	32 x 0,21	9,7	134,0	19,5	78,0
4 G 1	32 x 0,21	10,4	167,0	19,5	89,0
5 G 1	32 x 0,21	11,4	194,0	19,5	106,0
7 G 1	32 x 0,21	13,0	256,0	19,5	132,0
12 G 1	32 x 0,21	15,8	405,0	19,5	206,0
18 G 1	32 x 0,21	18,0	588,0	19,5	316,0
3 G 1,5	30 x 0,26	9,7	166,0	13,3	99,0
4 G 1,5	30 x 0,26	10,7	204,0	13,3	121,0
5 G 1,5	30 x 0,26	12,9	236,0	13,3	135,0
7 G 1,5	30 x 0,26	15,0	318,0	13,3	227,0
12 G 1,5	30 x 0,26	17,2	490,0	13,3	322,0
18 G 1,5	30 x 0,26	21,9	690,0	13,3	428,0
3 G 2,5	50 x 0,26	12,2	230,0	8,0	154,0
4 G 2,5	50 x 0,26	13,4	280,0	8,0	170,0
5 G 2,5	50 x 0,26	14,9	330,0	8,0	208,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)
x = without protective conductor

A-2YF(L)2Y



Verwendung

Outdoor telephone cables at local level for private branch exchanges, as well as connection cables in operating and industrial plants, in the ground, in cable ducts and cable conduits, and for indoor installation. The stranding cavities are continuously filled with **petrolatum (F)**. PE copolymer-coated **aluminium tape (L)** on both sides, which is permanently bonded to the **PE outer sheath (2Y)**, guarantees a water vapour barrier and transverse and longitudinal watertightness. The black PE outer sheath is UV-resistant. The polyethylene material (PE 2Y) is halogen-free. This cable is not approved for heavy current installations.

Aufbau und Normen

DIN VDE 0816

- Bare copper wire, solid \varnothing 0,6 mm and \varnothing 0,8 mm
- PE - core insulation 2Y11
- Core labelling of a quad is identified by black rings
- 4 cores to form a star quad, stranded
5 fours to form a bundle, bundle in layers
- Cavities continuously filled with petrolatum
- Soul wrapping made from paper tape
- Outer jacket as layered jacket, plastic-coated aluminium tape with PE sheath (2YM1) welded together
- Sheath colour black

Technische Daten

Operating voltage U:	max. 225 V
Testing voltage (50 Hz 2 min.):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	1,5 GOhm x km
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	
\varnothing 0,6 mm:	max. 52 nF/km
\varnothing 0,8 mm:	max. 55 nF/km
Temperature range:	
When laying:	max. -20°C
Operating temperature:	-20°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Fca

A-2YF(L)2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,6	1,8	8,3	65,0	13,0
4 x 2 x 0,6	1,8	10,4	105,0	24,0
6 x 2 x 0,6	1,8	11,0	123,0	36,0
10 x 2 x 0,6	1,8	12,5	175,0	59,0
20 x 2 x 0,6	1,8	15,8	300,0	115,0
30 x 2 x 0,6	1,8	19,0	415,0	172,0
40 x 2 x 0,6	1,8	20,4	510,0	228,0
50 x 2 x 0,6	1,8	22,2	613,0	285,0
70 x 2 x 0,6	2,0	24,5	783,0	413,0
100 x 2 x 0,6	2,0	30,3	1.230,0	568,0
150 x 2 x 0,6	2,2	38,0	1.720,0	884,0
200 x 2 x 0,6	2,2	40,5	2.150,0	1.178,0
2 x 2 x 0,8	1,8	8,5	85,0	22,0
4 x 2 x 0,8	1,8	11,2	142,0	41,0
6 x 2 x 0,8	1,8	12,0	175,0	62,0
10 x 2 x 0,8	1,8	14,0	245,0	103,0
20 x 2 x 0,8	1,8	19,1	455,0	203,0
30 x 2 x 0,8	1,8	22,0	628,0	315,0
40 x 2 x 0,8	2,0	24,0	793,0	404,0
50 x 2 x 0,8	2,0	26,0	965,0	505,0
70 x 2 x 0,8	2,0	28,0	1.280,0	734,0
100 x 2 x 0,8	2,2	36,0	1.850,0	1.047,0
150 x 2 x 0,8	2,2	42,2	2.702,0	1.571,0
200 x 2 x 0,8	2,6	47,4	3.495,0	2.095,0
250 x 2 x 0,8	2,6	52,2	4.162,0	2.619,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

2YSLCY-JB



Verwendung

EMC motor connection cable with overall foil and copper shielding, as a connection between the frequency inverter and the motor powered by the frequency inverter. It is used, for example, on machine tools, handling equipment, processing machines and conveyor belts. For medium mechanical loads, with fixed installation and occasional free movement without tensile stress and without forced movement guidance, in dry, damp and wet rooms, but not outdoors. To ensure EMC in systems and buildings, installations with devices and equipment from which electromagnetic interference fields can have an impermissible influence on the environment.

Aufbau und Normen

based on DIN VDE 0250

- Bare copper stranded wire, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Polyethylene (PE) core insulation
- Core identification: black, brown, grey and green-yellow
- Cores stranded in layers with optimum lay lengths
- 1. shielding with aluminium foil
- 2. shielding with braiding of tinned copper wires
- PVC outer sheath
- Sheath colour transparent

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Max. Operating voltage:	
Single-phase and three-phase current:	700/1200 V
Direct current operation:	900/1800 V
Testing voltage::	2500 V
Insulating resistance:	$\geq 200 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	see below
CPR performance class:	Eca

2YSLCY-JB

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
4 x 1,5	1,8	0,7	12,0	217,0	13,3	19,0	99,0
4 x 2,5	2,1	0,7	13,0	270,0	8,0	25,0	156,0
4 x 4	2,9	0,7	15,0	362,0	5,0	33,0	244,0
4 x 6	3,2	0,7	16,0	447,0	3,3	43,0	333,0
4 x 10	4,4	0,7	20,0	718,0	1,9	60,0	554,0
4 x 16	5,7	0,7	23,0	971,0	1,2	80,0	821,0
4 x 25	6,9	0,9	26,0	1.350,0	0,78	105,0	1.285,0
4 x 35	7,9	0,9	29,0	1.785,0	0,554	132,0	1.730,0
4 x 50	9,4	1,0	34,0	2.417,0	0,386	168,0	2.439,0
4 x 70	11,6	1,1	39,0	3.298,0	0,272	196,0	3.324,0
4 x 95	12,9	1,1	42,0	4.158,0	0,206	235,0	4.489,0
4 x 120	14,8	1,2	48,0	5.179,0	0,161	289,0	5.652,0
4 x 150	16,2	1,4	53,0	6.418,0	0,129	335,0	6.660,0
4 x 185	17,5	1,6	58,0	7.714,0	0,106	385,0	7.957,0
4 x 240	19,8	1,7	63,0	9.853,0	0,0801	453,0	9.750,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Bending radius for the following outer diameter of the cable:

up to 12 mm

moving: 10 x DA
unmoved: 5 x DA

12 to 20mm

moving: 15 x DA
unmoved: 7,5 x DA

over 20mm

moving: 20 x DA
unmoved: 10 x DA

Special properties:

low operating capacity:
tested according to DIN VDE 0875-11 / DIN EN 55011

Low coupling resistance results in good electromagnetic compatibility

Shield connection

In order to comply with interference suppression in accordance with DIN EN 55011, the shield must have large-surface contact all round on both sides.

This shielded motor connection cable with low operating capacitance of the individual cores due to special PE core insulation and low shielding capacitance enables lower-loss power transmission compared to PVC connection cables.

2YSLCYK-JB



Verwendung

EMC motor connection cable with overall foil and copper shielding, as a connection between the frequency inverter and the motor powered by the frequency inverter. It is used, for example, on machine tools, handling equipment, processing machines and conveyor belts. For medium mechanical loads, with fixed installation and occasional free movement without tensile stress and without forced movement guidance, in dry, damp and wet rooms, and outdoors. To ensure EMC in systems and buildings, installations with devices and equipment from which electromagnetic interference fields can have an impermissible influence on the environment.

Aufbau und Normen

based on DIN VDE 0250

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Polyethylene (PE) core insulation
- Core identification: black, brown, grey and green-yellow
- Cores stranded in layers with optimum lay lengths
- 1. shielding with aluminium foil
- 2. shielding with braiding of tinned copper wires
- PVC outer sheath, UV-resistant, flexible at low temperatures
- Sheath colour black (RAL 9005)

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Max. Operating voltage:	
Single-phase and three-phase current:	700/1200 V
Direct current operation:	900/1800 V
Testing voltage:	4000 V
Insulating resistance:	$\geq 200 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C to +70°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec
Minimum bending radius:	see below
CPR performance class:	Eca

2YSLCYK-JB

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
4 x 1,5	1,8	0,7	12,0	217,0	13,3	19,0	99,0
4 x 2,5	2,1	0,7	13,0	270,0	8,0	25,0	156,0
4 x 4	2,9	0,7	15,0	362,0	5,0	33,0	244,0
4 x 6	3,2	0,7	16,0	447,0	3,3	43,0	333,0
4 x 10	4,4	0,7	20,0	718,0	1,9	60,0	554,0
4 x 16	5,7	0,7	23,0	971,0	1,2	80,0	821,0
4 x 25	6,9	0,9	26,0	1.350,0	0,78	105,0	1.285,0
4 x 35	7,9	0,9	29,0	1.785,0	0,554	132,0	1.730,0
4 x 50	9,4	1,0	34,0	2.417,0	0,386	168,0	2.439,0
4 x 70	11,6	1,1	39,0	3.298,0	0,272	196,0	3.324,0
4 x 95	12,9	1,1	42,0	4.158,0	0,206	235,0	4.489,0
4 x 120	14,8	1,2	48,0	5.179,0	0,161	289,0	5.652,0
4 x 150	16,2	1,4	53,0	6.418,0	0,129	335,0	6.660,0
4 x 185	17,5	1,6	58,0	7.714,0	0,106	385,0	7.957,0
4 x 240	19,8	1,7	63,0	9.853,0	0,0801	453,0	9.750,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Bending radius for the following outer diameter of the cable:

up to 12 mm

moving: 10 x DA
unmoved: 5 x DA

12 to 20mm

moving: 15 x DA
unmoved: 7,5 x DA

over 20mm

moving: 20 x DA
unmoved: 10 x DA

Special properties:

low operating capacity:
Testing according to DIN VDE 0875-11 / DIN EN 55011

Low coupling resistance results in good electromagnetic compatibility

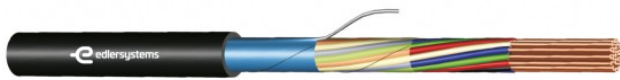
Outdoor use (UV-resistant)

Shield connection

In order to comply with interference suppression in accordance with DIN EN 55011, the shield must have large-surface contact all round on both sides.

This shielded motor connection cable with low operating capacitance of the individual cores due to special PE core insulation and low shielding capacitance enables lower-loss power transmission compared to PVC connection cables.

F-2YA2Y



Verwendung

Outdoor telephone cable at local level for private branch exchanges, as well as a connection cable in operating and industrial systems, in the ground, in cable ducts and cable conduits, as well as for indoor installation. The black PE outer sheath is UV-resistant. The polyethylene material (PE 2Y) is halogen-free. This cable is not approved for heavy current installations.

Aufbau und Normen

based on the Telekom Austria standard

- Bare copper wire, solid, \varnothing 0,6 mm and \varnothing 0,8 mm
- PE - core insulation
- Core labelling according to Telekom Austria standard
- Cores twisted into star quads and these in layers
- Strapping made from plastic film
- Shielding made of plastic-laminated aluminium aluminium foil with drain wire
- PE - outer sheath
- Sheath colour black

Technische Daten

Operating voltage U:	max. 200 V
Testing voltage (50 Hz):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	10 GOhm x km
Capacitive coupling (at 800 Hz):	max. 1500 pF/ 100m
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 55 nF/km
Temperature range:	
When laying:	max. -20°C
Operating capacity:	-20°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Fca

F-2YA2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,6	1,8	7,1	45,0	13,0
6 x 2 x 0,6	1,8	9,2	84,0	36,0
10 x 2 x 0,6	1,8	10,4	119,0	59,0
20 x 2 x 0,6	1,8	13,2	196,0	115,0
30 x 2 x 0,6	1,8	15,5	279,0	172,0
40 x 2 x 0,6	1,8	17,1	351,0	228,0
50 x 2 x 0,6	1,8	19,0	429,0	285,0
60 x 2 x 0,6	1,8	21,0	505,0	342,0
100 x 2 x 0,6	2,0	24,6	788,0	568,0
2 x 2 x 0,8	1,8	8,3	64,0	22,0
6 x 2 x 0,8	1,8	10,7	127,0	62,0
10 x 2 x 0,8	1,8	12,2	188,0	103,0
20 x 2 x 0,8	1,8	16,1	324,0	203,0
30 x 2 x 0,8	1,8	17,7	433,0	304,0
40 x 2 x 0,8	1,8	20,1	579,0	404,0
50 x 2 x 0,8	2,0	25,6	684,0	504,0
60 x 2 x 0,8	2,0	27,5	779,0	606,0
100 x 2 x 0,8	2,0	33,6	1320,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

2YSLCY-JB 3 Plus



Verwendung

EMC motor connection cable with overall foil and copper shielding, as a connection between the frequency inverter and the motor powered by the frequency inverter. It is used, for example, on machine tools, handling equipment, processing machines and conveyor belts. For medium mechanical loads, with fixed installation and occasional free movement without tensile stress and without forced movement guidance, in dry, damp and wet rooms, but not outdoors. To ensure EMC in systems and buildings, installations with devices and equipment from which electromagnetic interference fields can have an impermissible influence on the environment.

Aufbau und Normen

based on DIN VDE 0250

- Bare copper stranded wire, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Polyethylene (PE) core insulation
- Core identification: black, brown, grey and green-yellow Earth conductor divided into thirds
- Cores stranded in layers with optimum lay lengths
- The third protective conductor is evenly stranded in the gussets
- 1. shielding with aluminium foil
- 2. shielding with braiding of tinned copper wires
- PVC outer sheath
- Sheath colour transparent

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Max. Operating voltage:	
Single-phase and three-phase current:	700/1200 V
Direct current operation:	900/1800 V
Insulating resistance:	$\geq 200 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+90^\circ\text{C}$
Short-circuit temperature:	max. $+250^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	see below
CPR performance class:	Eca

2YSLCY-JB 3 Plus

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
3 x 1,5 + 3 G 0,25	1,8 / 0,57	0,7/0,6	12,0	213,0	13,3/67,0	18,0	90,0
3 x 2,5 + 3 G 0,5	2,1 / 0,85	0,7/0,6	13,0	264,0	7,98/39,0	26,0	150,0
3 x 4 + 3 G 0,75	2,9 / 1,2	0,7/0,6	15,0	347,0	4,95/26,0	34,0	233,0
3 x 6 + 3 G 1,0	3,2 / 1,3	0,7/0,7	16,0	429,0	3,3/19,5	44,0	310,0
3 x 10 + 3 G 1,5	4,4 / 1,8	0,7/0,7	21,0	692,0	1,91/13,3	61,0	511,0
3 x 16 + 3 G 2,5	5,7 / 2,1	0,7/0,7	24,0	921,0	1,21/7,98	82,0	753,0
3 x 25 + 3 G 4,0	6,9 / 2,9	0,9/0,7	28,0	1.267,0	0,78/4,95	108,0	1.185,0
3 x 35 + 3 G 6,0	7,9 / 3,2	0,9/0,7	30,0	1.674,0	0,554/3,30	135,0	1.599,0
3 x 50 + 3 G 10,0	9,4 / 4,4	1,0/0,7	35,0	2.280,0	0,386/1,91	168,0	2.300,0
3 x 70 + 3 G 10,0	11,6 / 4,4	1,1/0,7	39,0	2.963,0	0,272/1,91	207,0	2.934,0
3 x 95 + 3 G 16,0	12,9 / 5,7	1,1/0,7	42,0	3.758,0	0,206/1,21	250,0	4.117,0
3 x 120 + 3 G 16,0	14,8 / 5,7	1,2/0,7	47,0	4.565,0	0,161/1,21	292,0	5.038,0
3 x 150 + 3 G 25,0	16,2 / 6,9	1,4/0,9	52,0	5.757,0	0,129/0,78	335,0	5.638,0
3 x 185 + 3 G 35,0	17,5 / 7,9	1,6/0,9	57,0	7.018,0	0,106/0,554	382,0	7.259,0
3 x 240 + 3 G 50,0	19,8 / 9,4	1,7/1,0	62,0	9.089,0	0,0801/0,386	453,0	8.895,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Bending radius for the following outer diameter of the cable:

up to 12 mm

moving: 10 x DA

unmoved: 5 x DA

12 to 20mm

moving: 15 x DA

unmoved: 7,5 x DA

over 20mm

moving: 20 x DA

unmoved: 10 x DA

Special properties:

low operating capacity:

Testing according to DIN VDE 0875-11 / DIN EN 55011

Low coupling resistance results in good electromagnetic compatibility

Compared to the 4-core version, this symmetrical motor cable with a third protective conductor motor cable has even better EMC properties

Shield connection

In order to comply with interference suppression in accordance with DIN EN 55011, the shield must have large-surface contact all round on both sides.

This shielded motor connection cable with low operating capacitance of the individual cores due to special PE core insulation and low shielding capacitance enables lower-loss power transmission compared to PVC connection cables.

F-2YC2Y



Verwendung

Outdoor telephone cable at local level for private branch exchanges, as well as a connection cable in operating and industrial systems, in the ground, in cable ducts and cable conduits, as well as for indoor installation. The black PE outer sheath is UV-resistant. The polyethylene material (PE 2Y) is halogen-free. This cable is not approved for heavy current installations.

Aufbau und Normen

based on the Telekom Austria standard

- Bare copper wire, solid, \varnothing 0,6 mm and \varnothing 0,8 mm
- PE- core insulation
- Core labelling according to Telekom Austria standard
- Cores twisted into star quads and these in layers
- Strapping made of plastic foil
- Static shield made of copper tape with drain wire
- PE outer sheath
- Sheath colour black

Technische Daten

Operating voltage U:	max. 200 V
Testing voltage (50 Hz):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	10 GMohm x km
Capacitive coupling (at 800 Hz):	max. 1500 pF/ 100m
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 55 nF/km
Temperature range:	
When laying:	max. -20°C
Operating temperature:	-20°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Fca

F-2YC2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,6	1,8	7,9	69,0	31,5
6 x 2 x 0,6	1,8	10,0	107,0	70,0
10 x 2 x 0,6	1,8	12,5	148,0	97,0
20 x 2 x 0,6	1,8	15,0	247,0	173,0
30 x 2 x 0,6	1,8	16,4	321,0	242,0
40 x 2 x 0,6	1,8	17,6	401,0	304,5
50 x 2 x 0,6	1,8	19,7	482,0	370,5
60 x 2 x 0,6	1,8	20,4	554,0	433,0
100 x 2 x 0,6	2,0	25,5	872,0	682,0
2 x 2 x 0,8	1,8	8,4	87,0	50,0
6 x 2 x 0,8	1,8	11,2	151,0	104,5
10 x 2 x 0,8	1,8	12,8	217,0	160,0
20 x 2 x 0,8	1,8	17,2	367,0	279,0
30 x 2 x 0,8	1,8	18,9	497,0	392,0
40 x 2 x 0,8	1,8	21,1	623,0	500,5
50 x 2 x 0,8	2,0	23,9	747,0	614,5
60 x 2 x 0,8	2,0	25,1	872,0	725,0
100 x 2 x 0,8	2,0	33,7	1401,0	1161,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

2YSLCYK-JB 3 Plus



Verwendung

EMC motor connection cable with overall foil and copper shielding, as a connection between the frequency inverter and the motor powered by the frequency inverter. It is used, for example, on machine tools, handling equipment, processing machines and conveyor belts. For medium mechanical loads, with fixed installation and occasional free movement without tensile stress and without forced movement guidance, in dry, damp and wet rooms, and outdoors. To ensure EMC in systems and buildings, installations with devices and equipment from which electromagnetic interference fields can have an impermissible influence on the environment.

Aufbau und Normen

based on DIN VDE 0250

- Bare copper stranded wire, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Polyethylene (PE) core insulation
- Core identification: black, brown, grey and green-yellow Earth conductor divided into thirds
- Cores stranded in layers with optimum lay lengths
- The third protective conductor is evenly stranded in the gussets
- 1. shielding with aluminium foil
- 2. shielding with braiding of tinned copper wires
- PVC outer sheath, UV-resistant, flexible at low temperatures
- Sheath colour black (RAL 9005)

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Max. Operating voltage:	
Single-phase and three-phase current:	700/1200 V
Direct current operation:	900/1800 V
Testing voltage:	4000 V
Insulating resistance:	$\geq 200 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+90^\circ\text{C}$
Short-circuit temperature:	max. $+250^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	see table
CPR performance class:	Eca

2YSLCYK-JB 3 Plus

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
3 x 1,5 + 3 G 0,25	1,8 / 0,57	0,7/0,6	12,0	213,0	13,3/67,0	18,0	90,0
3 x 2,5 + 3 G 0,5	2,1 / 0,85	0,7/0,6	13,0	264,0	7,98/39,0	26,0	150,0
3 x 4 + 3 G 0,75	2,9 / 1,2	0,7/0,6	15,0	347,0	4,95/26,0	34,0	233,0
3 x 6 + 3 G 1,0	3,2 / 1,3	0,7/0,7	16,0	429,0	3,3/19,5	44,0	310,0
3 x 10 + 3 G 1,5	4,4 / 1,8	0,7/0,7	21,0	692,0	1,91/13,3	61,0	511,0
3 x 16 + 3 G 2,5	5,7 / 2,1	0,7/0,7	24,0	921,0	1,21/7,98	82,0	753,0
3 x 25 + 3 G 4,0	6,9 / 2,9	0,9/0,7	28,0	1.267,0	0,78/4,95	108,0	1.185,0
3 x 35 + 3 G 6,0	7,9 / 3,2	0,9/0,7	30,0	1.674,0	0,554/3,30	135,0	1.599,0
3 x 50 + 3 G 10,0	9,4 / 4,4	1,0/0,7	35,0	2.280,0	0,386/1,91	168,0	2.300,0
3 x 70 + 3 G 10,0	11,6 / 4,4	1,1/0,7	39,0	2.963,0	0,272/1,91	207,0	2.934,0
3 x 95 + 3 G 16,0	12,9 / 5,7	1,1/0,7	42,0	3.758,0	0,206/1,21	250,0	4.117,0
3 x 120 + 3 G 16,0	14,8 / 5,7	1,2/0,7	47,0	4.565,0	0,161/1,21	292,0	5.038,0
3 x 150 + 3 G 25,0	16,2 / 6,9	1,4/0,9	52,0	5.757,0	0,129/0,78	335,0	5.638,0
3 x 185 + 3 G 35,0	17,5 / 7,9	1,6/0,9	57,0	7.018,0	0,106/0,554	382,0	7.259,0
3 x 240 + 3 G 50,0	19,8 / 9,4	1,7/1,0	62,0	9.089,0	0,0801/0,386	453,0	8.895,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Bending radius for the following outer diameter of the cable:

up to 12 mm

moving: 10 x DA
unmoved: 5 x DA

12 to 20mm

moving: 15 x DA
unmoved: 7,5 x DA

over 20mm

moving: 20 x DA
unmoved: 10 x DA

Special properties:

low operating capacity:
Testing according to DIN VDE 0875-11 / DIN EN 55011

Low coupling resistance results in good electromagnetic compatibility

Compared to the 4-core version, this symmetrical motor cable with a third protective conductor motor cable has even better EMC properties

Outdoor use (UV-resistant)

Shield connection

In order to comply with interference suppression in accordance with DIN EN 55011, the shield must have large-surface contact all round on both sides.

This shielded motor connection cable with low operating capacitance of the individual cores due to special PE core insulation and low shielding capacitance enables lower-loss power transmission compared to PVC connection cables.

F-2YJA2Y



Verwendung

Outdoor telephone cables at local level for private branch exchanges, as well as connection cables in operating and industrial plants, in the ground, in cable ducts and cable conduits, and for indoor installation. The stranding cavities are continuously filled with **petrolatum (F)**. The black PE outer sheath is UV-resistant. The polyethylene material (PE 2Y) is halogen-free. This cable is not approved for heavy current installations.

Aufbau und Normen

based on the Telekom Austria standard

- Bare copper wire, solid \varnothing 0,6 mm and \varnothing 0,8 mm
- PE - core insulation
- Core labelling according to the Telekom Austria standard
- Cores stranded into star quads and these in layers
- Cavities continuously filled with petrolatum (longitudinally watertight)
- Strapping made of plastic film
- Outer sheath as a layered sheath, plastic-coated aluminium tape welded to PE jacket
- Sheath colour black

Technische Daten

Operating voltage U:	max. 200 V
Testing voltage at 50 Hz:	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	5 GOhm x km
Capacitive coupling (at 800 Hz):	max. 300 pF/ 100m
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 52 nF/km
Temperature range:	
When laying:	max. -20°C
Operating temperature:	-20°C to +80°C
Minimum bending radius:	10 x DA
CPR performance class:	Fca

F-2YJA2Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
6 x 2 x 0,6	1,8	11,5	115,0	36,0
10 x 2 x 0,6	1,8	13,0	173,0	59,0
20 x 2 x 0,6	1,8	16,0	305,0	115,0
30 x 2 x 0,6	1,8	19,0	398,0	172,0
50 x 2 x 0,6	1,8	23,0	595,0	285,0
100 x 2 x 0,6	2,0	31,0	1187,0	568,0
6 x 2 x 0,8	1,8	12,9	184,0	62,0
10 x 2 x 0,8	1,8	15,0	237,0	103,0
20 x 2 x 0,8	1,8	19,4	451,0	203,0
30 x 2 x 0,8	1,8	21,8	599,0	304,0
50 x 2 x 0,8	2,0	26,2	930,0	504,0
60 x 2 x 0,8	2,0	30,5	1177,0	606,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

AJ-Y(ST)YDY BD Si



Verwendung

For signal transmission in telecommunication systems or measurement, control, data and regulation technology systems. Suitable for fixed installation indoors, outdoors and in the ground.

Aufbau und Normen

according to factory standard

- Bare copper wire, solid \varnothing 0,8 mm
- PVC – core insulation
- core labelling according to VDE 0815
- 2 cores to a pair,
4 pairs to bundle, bundle in layers
(2-pair cable star quad stranded)
- Plastic foil
- Shield made of plastic-laminated
aluminium foil with tinned drain wire 0.8 mm
- PVC inner sheath
- Shielding made of bare copper wires,
Winding with plastic foil
- PVC outer sheath
- Sheath colour black

Technische Daten

Operating voltage U:	max. 225 V
Testing voltage (50 Hz):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	$\geq 100 \text{ MOhm} \times \text{km}$
Capacitive coupling (at 800 Hz):	$\leq 200 \text{ pF}/100\text{m}$
Attenuation (at 800 Hz):	ca. 1,1 dB/km
Impedance:	ca. 320 Ohm
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	
AJ-Y(St)YDY / 16:	10 x DA
AJ-Y(St)YDY / 3,5:	15 x DA
CPR performance class:	Fca

AJ-Y(ST)YDY BD Si

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	max. Ω/km	kg/km
AJ-Y(St)YDY / 16					
2 x 2 x 0,8	1,8	12,7	330,0	73,2	201,0
4 x 2 x 0,8	1,8	15,0	380,0	73,2	222,0
8 x 2 x 0,8	1,8	17,5	480,0	73,2	264,0
12 x 2 x 0,8	1,8	18,5	495,0	73,2	306,0
20 x 2 x 0,8	1,8	21,0	730,0	73,2	390,0
32 x 2 x 0,8	2,0	26,5	960,0	73,2	516,0
40 x 2 x 0,8	2,0	28,0	1.150,0	73,2	599,0
AJ-Y(St)YDY / 35					
2 x 2 x 0,8	1,8	12,2	185,0	73,2	63,0
4 x 2 x 0,8	1,8	13,5	225,0	73,2	85,0
8 x 2 x 0,8	1,8	16,5	320,0	73,2	126,0
12 x 2 x 0,8	1,8	17,5	375,0	73,2	169,0
16 x 2 x 0,8	1,8	18,5	440,0	73,2	211,0
20 x 2 x 0,8	1,8	20,2	515,0	73,2	292,0
32 x 2 x 0,8	2,0	25,5	775,0	73,2	392,0
40 x 2 x 0,8	2,0	27,0	900,0	73,2	459,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Copper shield 3,5 mm²

Laying with 7 bare wires Ø 0.8 mm each

Copper shield 16 mm²

Laying with 16 bare wires Ø 1.13 mm each

J-Y(St)Y BMK



Verwendung

As an installation cable for message and signal transmission for fire alarm systems in dry and damp rooms on, in and under plaster, but also outdoors for fixed installation on external walls of buildings with protection against solar radiation. This version with static shielding (St) protects the transmission circuits against external electrical interference fields. Not approved for heavy current installation purposes and underground installation. Due to the sheath pressure, this cable is specially designed for use in fire alarm systems.

Aufbau und Normen

based on DIN VDE 0815

- Bare copper wire, solid, \varnothing 0,8 mm
- PVC - core insulation Y11
- Core and pair labelling according to VDE 0815
- Cores to pairs, pairs stranded to layers, 2-pair cable to form a star quad
- Strapping made of plastic film
- Shade made of plastic-laminated aluminium aluminium foil with double wire
- PVC outer sheath
- Sheath colour red, with imprint: FIRE ALARM CABLE

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz 1 min.):	
Core/Core:	800 V
Core/Shield:	800 V
Insulating resistance:	$\geq 100 \text{ MOhm} \times \text{km}$
Conductor resistance of the loop:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 100 nF/km
Capacitive coupling (at 800 Hz):	max. 300 pF/km
Temperature range:	
When laying:	max. - 5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

J-Y(St)Y BMK

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
1 x 2 x 0,8	1,1	5,5	38,0	11,0
2 x 2 x 0,8	1,1	6,1	54,0	21,0
3 x 2 x 0,8	1,1	8,0	77,0	32,0
4 x 2 x 0,8	1,1	8,7	94,0	41,0
5 x 2 x 0,8	1,1	9,4	114,0	52,0
6 x 2 x 0,8	1,1	10,1	135,0	62,0
10 x 2 x 0,8	1,3	13,1	205,0	103,0
12 x 2 x 0,8	1,3	13,5	235,0	123,0
20 x 2 x 0,8	1,3	15,6	352,0	203,0
30 x 2 x 0,8	1,5	19,4	522,0	304,0
40 x 2 x 0,8	1,5	20,9	663,0	404,0
50 x 2 x 0,8	1,7	23,7	832,0	505,0
100 x 2 x 0,8	2,1	36,5	1900,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Unshielded version (J-YY BMK) on request

SKL-YY



Verwendung

For frequent lifting and bending loads as a connection and control cable in machine and tool construction, in energy supply chains, on moving machine parts and in robotics in dry or damp rooms, but not outdoors. Can also be used outdoors if sufficiently protected from direct sunlight and if the temperature range is observed.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, extra-fine stranded, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- PVC-Aderisolation
- Core labelling black with printed numbers, from 3 cores protective conductor green-yellow
- Cores stranded in layers with optimum lay lengths
- Fleece taping
- PVC- outer sheath
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$7,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
Fire behaviour:	EN 60332-1-2 IEC 60332-1

SKL-YY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	28 x 0,16	5,5	40,0	39,0	10,0
3 G 0,5	28 x 0,16	5,7	47,0	39,0	15,0
4 G 0,5	28 x 0,16	6,1	56,0	39,0	20,0
5 G 0,5	28 x 0,16	6,7	67,0	39,0	25,0
7 G 0,5	28 x 0,16	8,3	97,0	39,0	35,0
12 G 0,5	28 x 0,16	9,9	145,0	39,0	60,0
18 G 0,5	28 x 0,16	11,9	217,0	39,0	90,0
25 G 0,5	28 x 0,16	14,7	292,0	39,0	125,0
2 x 0,75	42 x 0,16	6,0	43,0	26,0	15,0
3 G 0,75	42 x 0,16	6,7	59,0	26,0	22,5
4 G 0,75	42 x 0,16	7,3	72,0	26,0	30,0
5 G 0,75	42 x 0,16	7,7	87,0	26,0	37,5
7 G 0,75	42 x 0,16	9,4	130,0	26,0	52,5
12 G 0,75	42 x 0,16	10,7	200,0	26,0	90,0
18 G 0,75	42 x 0,16	13,3	282,0	26,0	135,0
25 G 0,75	42 x 0,16	16,4	407,0	26,0	187,5
2 x 1	56 x 0,16	6,2	49,0	19,5	20,0
3 G 1	56 x 0,16	6,5	69,0	19,5	30,0
4 G 1	56 x 0,16	7,1	85,0	19,5	40,0
5 G 1	56 x 0,16	8,0	110,0	19,5	50,0
7 G 1	56 x 0,16	9,6	151,0	19,5	70,0
12 G 1	56 x 0,16	12,0	237,0	19,5	120,0
18 G 1	56 x 0,16	14,2	346,0	19,5	180,0
25 G 1	56 x 0,16	17,1	485,0	19,5	250,0
34 G 1	56 x 0,16	19,6	606,0	19,5	340,0
2 x 1,5	84 x 0,16	6,8	62,0	13,3	30,0
3 G 1,5	84 x 0,16	7,2	91,0	13,3	45,0
4 G 1,5	84 x 0,16	8,3	119,0	13,3	60,0
5 G 1,5	84 x 0,16	9,0	144,0	13,3	75,0
7 G 1,5	84 x 0,16	11,0	208,0	13,3	105,0
12 G 1,5	84 x 0,16	13,2	296,0	13,3	180,0
18 G 1,5	84 x 0,16	15,6	455,0	13,3	270,0
25 G 1,5	84 x 0,16	19,5	673,0	13,3	375,0
2 x 2,5	140 x 0,16	8,4	96,0	8,0	50,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
3 G 2,5	140 x 0,16	8,8	118,0	8,0	75,0
4 G 2,5	140 x 0,16	9,9	192,0	8,0	100,0
5 G 2,5	140 x 0,16	11,0	245,0	8,0	125,0
7 G 2,5	140 x 0,16	13,9	334,0	8,0	175,0
12 G 2,5	140 x 0,16	16,5	548,0	8,0	300,0
4 G 4	224 x 0,16	12,5	278,0	5,0	160,0
5 G 4	224 x 0,16	14,9	348,0	5,0	200,0
7 G 4	224 x 0,16	17,4	458,0	5,0	280,0
4 G 6	192 x 0,21	15,7	436,0	3,3	240,0
5 G 6	192 x 0,21	16,2	561,0	3,3	300,0
7 G 6	192 x 0,21	20,0	745,0	3,3	420,0
4 G 10	320 x 0,21	18,4	683,0	1,9	400,0
4 G 16	512 x 0,21	21,9	1.070,0	1,2	640,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

SKL-YCY



Verwendung

This cable is particularly suitable for use in drag chains or as a control cable on continuously moving machine parts with bending stresses up to medium mechanical stress in dry and damp rooms, but not outdoors. The tinned copper braiding protects against electrical interference.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- PVC- core insulation
- Core labelling black with printed numbers, from 3 cores protective conductor green-yellow
- Cores stranded in layers with optimum lay lengths
- PVC inner sheath
- Shielding braid made of tinned copper wires
- Fleece taping
- PVC outer sheath
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1

SKL-YCY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	28 x 0,16	7,2	90,0	39,0	36,0
3 G 0,5	28 x 0,16	7,5	115,0	39,0	49,0
4 G 0,5	28 x 0,16	8,1	140,0	39,0	60,0
5 G 0,5	28 x 0,16	8,6	168,0	39,0	72,0
7 G 0,5	28 x 0,16	9,9	217,0	39,0	89,0
12 G 0,5	28 x 0,16	11,6	274,0	39,0	148,0
18 G 0,5	28 x 0,16	13,8	445,0	39,0	214,0
25 G 0,5	28 x 0,16	16,1	505,0	39,0	279,0
2 x 0,75	42 x 0,16	7,6	105,0	26,0	43,0
3 G 0,75	42 x 0,16	8,1	128,0	26,0	57,0
4 G 0,75	42 x 0,16	8,6	184,0	26,0	70,0
5 G 0,75	42 x 0,16	9,4	200,0	26,0	82,0
7 G 0,75	42 x 0,16	10,5	269,0	26,0	113,0
12 G 0,75	42 x 0,16	12,9	366,0	26,0	192,0
18 G 0,75	42 x 0,16	14,8	547,0	26,0	268,0
25 G 0,75	42 x 0,16	17,7	600,0	26,0	331,0
2 x 1	56 x 0,16	8,1	115,0	19,5	52,0
3 G 1	56 x 0,16	8,4	142,0	19,5	78,0
4 G 1	56 x 0,16	9,0	196,0	19,5	89,0
5 G 1	56 x 0,16	9,8	271,0	19,5	106,0
7 G 1	56 x 0,16	11,2	307,0	19,5	132,0
12 G 1	56 x 0,16	13,4	474,0	19,5	206,0
18 G 1	56 x 0,16	15,7	622,0	19,5	316,0
25 G 1	56 x 0,16	19,0	828,0	19,5	428,0
2 x 1,5	84 x 0,16	8,6	170,0	13,3	66,0
3 G 1,5	84 x 0,16	9,0	203,0	13,3	99,0
4 G 1,5	84 x 0,16	9,8	243,0	13,3	121,0
5 G 1,5	84 x 0,16	10,5	288,0	13,3	135,0
7 G 1,5	84 x 0,16	12,5	403,0	13,3	227,0
12 G 1,5	84 x 0,16	14,8	592,0	13,3	322,0
18 G 1,5	84 x 0,16	17,3	844,0	13,3	428,0
25 G 1,5	84 x 0,16	21,0	1.155,0	13,3	568,0
3 G 2,5	140 x 0,16	10,8	215,0	8,0	154,0
4 G 2,5	140 x 0,16	11,5	264,0	8,0	170,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
5 G 2,5	140 x 0,16	12,9	344,0	8,0	208,0
7 G 2,5	140 x 0,16	15,1	410,0	8,0	300,0
4 G 4	224 x 0,16	14,2	372,0	5,0	248,0
4 G 6	192 x 0,21	16,0	526,0	3,3	343,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

SKL-Y11Y



Verwendung

This cable fulfils the highest demands in the drag chain sector and when used as a control cable on moving machine parts with extremely high bending stresses. The cut-resistant and low-adhesion PUR outer sheath guarantees a long service life. The cable is halogen-free, flame-retardant and resistant to most chemicals found in industrial environments.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, extra-fine stranded according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- PVC- core insulation
- Core labelling black with printed numbers, from 3 cores earth conductor green-yellow
- Cores stranded in layers with optimum lay lengths
- Fleece taping
- PUR- outer sheath
- Sheath colour grey (RAL 7001)

Special properties:

- halogen-free
- abrasion resistant
- oil-resistant

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ Mohm} \times \text{km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C bis $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$7,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404
Halogen-free:	EN 60754-1 IEC 60754-1

SKL-Y11Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	28 x 0,16	5,4	45,0	39,0	15,0
3 G 0,5	28 x 0,16	5,9	56,0	39,0	15,0
4 G 0,5	28 x 0,16	6,3	69,0	39,0	20,0
5 G 0,5	28 x 0,16	6,9	92,0	39,0	25,0
7 G 0,5	28 x 0,16	7,8	126,0	39,0	35,0
12 G 0,5	28 x 0,16	10,3	176,0	39,0	60,0
18 G 0,5	28 x 0,16	11,5	283,0	39,0	90,0
25 G 0,5	28 x 0,16	13,6	330,0	39,0	125,0
2 x 0,75	42 x 0,16	5,9	57,0	26,0	15,0
3 G 0,75	42 x 0,16	6,2	72,0	26,0	22,5
4 G 0,75	42 x 0,16	6,7	97,0	26,0	30,0
5 G 0,75	42 x 0,16	7,3	119,0	26,0	37,5
7 G 0,75	42 x 0,16	8,7	165,0	26,0	52,5
12 G 0,75	42 x 0,16	11,0	247,0	26,0	90,0
18 G 0,75	42 x 0,16	12,6	356,0	26,0	135,0
25 G 0,75	42 x 0,16	15,2	698,0	26,0	187,5
2 x 1	56 x 0,16	6,6	64,0	19,5	20,0
3 G 1	56 x 0,16	7,0	83,0	19,5	30,0
4 G 1	56 x 0,16	7,6	113,0	19,5	40,0
5 G 1	56 x 0,16	8,2	137,0	19,5	50,0
7 G 1	56 x 0,16	9,6	191,0	19,5	70,0
12 G 1	56 x 0,16	12,0	294,0	19,5	120,0
18 G 1	56 x 0,16	14,5	420,0	19,5	180,0
25 G 1	56 x 0,16	17,6	600,0	19,5	250,0
3 G 1,5	84 x 0,16	7,5	117,0	13,3	45,0
4 G 1,5	84 x 0,16	8,2	147,0	13,3	60,0
5 G 1,5	84 x 0,16	9,0	181,0	13,3	75,0
7 G 1,5	84 x 0,16	10,8	274,0	13,3	105,0
12 G 1,5	84 x 0,16	13,4	391,0	13,3	180,0
18 G 1,5	84 x 0,16	16,0	589,0	13,3	270,0
25 G 1,5	84 x 0,16	19,5	801,0	13,3	375,0
3 G 2,5	140 x 0,16	9,3	160,0	8,0	75,0
4 G 2,5	140 x 0,16	10,3	200,0	8,0	100,0
5 G 2,5	140 x 0,16	11,5	268,0	8,0	125,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
7 G 2,5	140 x 0,16	13,4	357,0	8,0	175,0
12 G 2,5	140 x 0,16	17,0	571,0	8,0	300,0
4 G 4	224 x 0,16	12,5	320,0	5,0	160,0
5 G 4	224 x 0,16	13,8	400,0	5,0	200,0
7 G 4	224 x 0,16	15,6	550,0	5,0	280,0
4 G 6	192 x 0,21	14,7	500,0	3,3	240,0
5 G 6	192 x 0,21	16,0	580,0	3,3	300,0
7 G 6	192 x 0,21	17,5	800,0	3,3	420,0
4 G 10	320 x 0,21	19,0	750,0	1,9	400,0
7 G 10	320 x 0,21	23,6	1.300,0	1,9	700,0
4 G 16	512 x 0,21	23,2	1.200,0	1,2	640,0
4 G 25	800 x 0,21	34,0	1.700,0	0,78	1.000,0
4 G 35	1120 x 0,21	37,0	2.300,0	0,554	1.400,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

SKL-12Y11Y



Verwendung

This cable fulfils the highest demands in the drag chain sector and when used as a control cable on moving machine parts with extremely high bending stresses. The cut-resistant and low-adhesion PUR outer sheath and the TPE core insulation guarantee a long service life. The cable is halogen-free, flame-retardant and resistant to most chemicals found in industrial environments.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, extra-fine stranded, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- TPE core insulation
- Core labelling black with printed numbers, from 3 cores protective conductor green-yellow
- Cores stranded in layers with optimum lay lengths.
- Fleece taping
- PUR outer sheath
- Sheath colour grey (RAL 7001)

Special properties:

- halogen-free
- flexible at low temperatures
- abrasion resistant
- oil resistant

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -40°C
Operating temperature:	-50°C to $+80^\circ\text{C}$
Conductor operating temperature:	max. $+80^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$7,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404
Halogen-free:	EN 60754-1 IEC 60754-1

SKL-12Y11Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	28 x 0,16	5,5	38,0	39,0	10,0
3 G 0,5	28 x 0,16	5,8	46,0	39,0	15,0
4 G 0,5	28 x 0,16	6,4	59,0	39,0	20,0
5 G 0,5	28 x 0,16	7,0	68,0	39,0	25,0
7 G 0,5	28 x 0,16	8,1	88,0	39,0	35,0
12 G 0,5	28 x 0,16	9,9	131,0	39,0	60,0
18 G 0,5	28 x 0,16	11,5	197,0	39,0	90,0
25 G 0,5	28 x 0,16	13,7	282,0	39,0	125,0
2 x 0,75	42 x 0,16	6,2	47,0	26,0	15,0
3 G 0,75	42 x 0,16	6,5	58,0	26,0	22,5
4 G 0,75	42 x 0,16	7,0	69,0	26,0	30,0
5 G 0,75	42 x 0,16	7,8	85,0	26,0	37,5
7 G 0,75	42 x 0,16	9,0	118,0	26,0	52,5
12 G 0,75	42 x 0,16	11,0	183,0	26,0	90,0
18 G 0,75	42 x 0,16	13,0	270,0	26,0	135,0
25 G 0,75	42 x 0,16	15,4	374,0	26,0	187,5
2 x 1	56 x 0,16	6,9	55,0	19,5	20,0
3 G 1	56 x 0,16	7,4	70,0	19,5	30,0
4 G 1	56 x 0,16	8,0	86,0	19,5	40,0
5 G 1	56 x 0,16	8,7	102,0	19,5	50,0
7 G 1	56 x 0,16	10,2	143,0	19,5	70,0
12 G 1	56 x 0,16	12,6	225,0	19,5	120,0
18 G 1	56 x 0,16	14,8	334,0	19,5	180,0
25 G 1	56 x 0,16	18,1	460,0	19,5	250,0
2 x 1,5	84 x 0,16	7,6	70,0	13,3	30,0
3 G 1,5	84 x 0,16	8,1	90,0	13,3	45,0
4 G 1,5	84 x 0,16	8,7	106,0	13,3	60,0
5 G 1,5	84 x 0,16	9,7	145,0	13,3	75,0
7 G 1,5	84 x 0,16	11,3	205,0	13,3	105,0
12 G 1,5	84 x 0,16	13,8	320,0	13,3	180,0
18 G 1,5	84 x 0,16	16,3	465,0	13,3	270,0
25 G 1,5	84 x 0,16	19,8	650,0	13,3	375,0
2 x 2,5	140 x 0,16	9,2	115,0	7,98	50,0
3 G 2,5	140 x 0,16	9,7	162,0	7,98	75,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
4 G 2,5	140 x 0,16	10,5	196,0	7,98	100,0
5 G 2,5	140 x 0,16	11,6	230,0	7,98	125,0
7 G 2,5	140 x 0,16	13,8	312,0	7,98	175,0
12 G 2,5	140 x 0,16	16,9	532,0	7,98	300,0
4 G 4	224 x 0,16	13,2	283,0	4,95	160,0
5 G 4	224 x 0,16	14,6	349,0	4,95	200,0
7 G 4	224 x 0,16	17,6	498,0	4,95	280,0
4 G 6	192 x 0,21	14,4	432,0	3,3	240,0
5 G 6	192 x 0,21	15,9	529,0	3,3	300,0
4 G 10	320 x 0,21	18,4	685,0	1,91	400,0
4 G 16	512 x 0,21	21,3	1.042,0	1,21	640,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

SKL-YC11Y



Verwendung

This cable fulfils the highest demands in the drag chain sector and when used as a control cable on moving machine parts with extremely high bending stresses. The cut-resistant and low-adhesion PUR outer sheath guarantees a long service life. The cable is halogen-free, flame-retardant and resistant to most chemicals found in industrial environments. The tinned copper braiding protects against electrical interference.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, extra-fine stranded, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- PVC wire insulation
- Core labelling black with printed numbers, from 3 cores protective conductor green-yellow
- Cores stranded in layers with optimum lay lengths
- Fleece taping
- PVC inner sheath
- Shielding made of tinned copper wires
- PUR outer sheath
- Sheath colour grey (RAL 7001)

Special properties:

- halogen-free
- flexible at low temperatures
- abrasion resistant
- oil resistant

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20\text{M}\Omega\text{m x km}$
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Halogen-free:	EN 60754-1 IEC 60754-1
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404

SKL-YC11Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	28 x 0,16	7,5	90,0	39,0	36,0
3 G 0,5	28 x 0,16	7,8	104,0	39,0	49,0
4 G 0,5	28 x 0,16	8,2	123,0	39,0	60,0
5 G 0,5	28 x 0,16	9,9	131,0	39,0	72,0
7 G 0,5	28 x 0,16	10,0	172,0	39,0	89,0
12 G 0,5	28 x 0,16	12,5	250,0	39,0	148,0
18 G 0,5	28 x 0,16	14,5	321,0	39,0	214,0
25 G 0,5	28 x 0,16	16,8	445,0	39,0	279,0
2 x 0,75	42 x 0,16	8,3	106,0	26,0	43,0
3 G 0,75	42 x 0,16	8,5	120,0	26,0	57,0
4 G 0,75	42 x 0,16	9,5	150,0	26,0	70,0
5 G 0,75	42 x 0,16	10,8	158,0	26,0	82,0
7 G 0,75	42 x 0,16	11,5	205,0	26,0	113,0
12 G 0,75	42 x 0,16	14,0	304,0	26,0	192,0
18 G 0,75	42 x 0,16	17,3	418,0	26,0	268,0
25 G 0,75	42 x 0,16	18,7	578,0	26,0	331,0
2 x 1	56 x 0,16	10,0	116,0	19,5	52,0
3 G 1	56 x 0,16	10,2	136,0	19,5	78,0
4 G 1	56 x 0,16	11,0	178,0	19,5	89,0
5 G 1	56 x 0,16	11,8	188,0	19,5	106,0
7 G 1	56 x 0,16	12,7	235,0	19,5	132,0
12 G 1	56 x 0,16	15,5	35,0	19,5	206,0
18 G 1	56 x 0,16	18,0	500,0	19,5	316,0
25 G 1	56 x 0,16	21,0	678,0	19,5	428,0
2 x 1,5	84 x 0,16	10,5	141,0	13,3	66,0
3 G 1,5	84 x 0,16	10,8	164,0	13,3	99,0
4 G 1,5	84 x 0,16	11,5	220,0	13,3	121,0
5 G 1,5	84 x 0,16	12,5	233,0	13,3	135,0
7 G 1,5	84 x 0,16	13,2	323,0	13,3	227,0
12 G 1,5	84 x 0,16	16,2	481,0	13,3	322,0
18 G 1,5	84 x 0,16	20,3	672,0	13,3	428,0
25 G 1,5	84 x 0,16	23,1	927,0	13,3	568,0
2 x 2,5	140 x 0,16	11,8	185,0	8,0	92,0
3 G 2,5	140 x 0,16	13,0	278,0	8,0	154,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
4 G 2,5	140 x 0,16	14,0	370,0	8,0	170,0
5 G 2,5	140 x 0,16	15,1	412,0	8,0	208,0
7 G 2,5	140 x 0,16	16,2	470,0	8,0	300,0
12 G 2,5	140 x 0,16	21,0	738,0	8,0	537,0
4 G 4	224 x 0,16	17,3	460,0	5,0	248,0
4 G 6	192 x 0,21	21,0	700,0	3,3	343,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

SKL-12YC11Y



Verwendung

This cable fulfils the highest demands in the drag chain sector and when used as a control cable on moving machine parts with extremely high bending stresses. The cut-resistant and low-adhesion PUR outer sheath and the TPE core insulation guarantee a long service life. The cable is halogen-free, flame-retardant and resistant to most chemicals found in industrial environments. The tinned copper braiding protects against electrical interference.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, extra-fine stranded, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- TPE wire insulation
- Core labelling black with printed numbers, from 3 cores protective conductor green-yellow
- Cores stranded in layers with optimum lay lengths
- Fleece taping
- Inner sheath
- Shielding made of tinned copper wires
- PUR outer sheath
- Sheath colour grey (RAL 7001)

Special properties:

- halogen-free
- flexible at low temperatures
- abrasion resistant
- oil resistant

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 20\text{M}\Omega\text{m x km}$
Temperature range:	
When laying:	max. -40°C
Operating temperature:	-50°C to $+80^\circ\text{C}$
Conductor operating temperature:	max. $+80^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5\text{sec.}$
Minimum bending radius:	
When laying:	$7,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404
Halogen-free:	EN 60754-1 IEC 60754-1

SKL-12YC11Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
3 G 0,5	28 x 0,16	8,5	105,0	39,0	49,0
4 G 0,5	28 x 0,16	9,0	124,0	39,0	60,0
5 G 0,5	28 x 0,16	9,7	132,0	39,0	72,0
7 G 0,5	28 x 0,16	11,1	175,0	39,0	89,0
12 G 0,5	28 x 0,16	12,7	250,0	39,0	148,0
18 G 0,5	28 x 0,16	14,7	325,0	39,0	214,0
25 G 0,5	28 x 0,16	17,1	450,0	39,0	279,0
2 x 0,75	42 x 0,16	8,8	110,0	26,0	43,0
3 G 0,75	42 x 0,16	9,3	120,0	26,0	57,0
4 G 0,75	42 x 0,16	9,7	148,0	26,0	70,0
5 G 0,75	42 x 0,16	10,5	160,0	26,0	82,0
7 G 0,75	42 x 0,16	11,9	205,0	26,0	113,0
12 G 0,75	42 x 0,16	14,2	308,0	26,0	192,0
18 G 0,75	42 x 0,16	16,3	420,0	26,0	268,0
25 G 0,75	42 x 0,16	19,0	579,0	26,0	331,0
2 x 1	56 x 0,16	9,7	120,0	19,5	52,0
3 G 1	56 x 0,16	10,0	135,0	19,5	78,0
4 G 1	56 x 0,16	10,8	173,0	19,5	89,0
5 G 1	56 x 0,16	11,7	187,0	19,5	106,0
7 G 1	56 x 0,16	13,4	240,0	19,5	132,0
12 G 1	56 x 0,16	16,0	360,0	19,5	206,0
18 G 1	56 x 0,16	18,5	498,0	19,5	316,0
25 G 1	56 x 0,16	21,7	670,0	19,5	428,0
3 G 1,5	84 x 0,16	11,0	168,0	13,3	99,0
4 G 1,5	84 x 0,16	11,6	217,0	13,3	121,0
5 G 1,5	84 x 0,16	12,6	235,0	13,3	135,0
7 G 1,5	84 x 0,16	14,5	325,0	13,3	227,0
12 G 1,5	84 x 0,16	17,4	481,0	13,3	322,0
18 G 1,5	84 x 0,16	19,9	675,0	13,3	428,0
25 G 1,5	84 x 0,16	23,7	927,0	13,3	568,0
3 G 2,5	140 x 0,16	12,0	284,0	8,0	154,0
4 G 2,5	140 x 0,16	13,6	378,0	8,0	170,0
5 G 2,5	140 x 0,16	14,7	423,0	8,0	208,0
7 G 2,5	140 x 0,16	17,4	486,0	8,0	300,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
12 G 2,5	140 x 0,16	20,9	756,0	8,0	537,0
5 G 4	224 x 0,16	18,4	533,0	5,0	288,0
7 G 4	224 x 0,16	21,6	678,0	5,0	378,0
4 G 6	192 x 0,21	18,1	636,0	3,3	343,0
5 G 6	192 x 0,21	19,6	772,0	3,3	403,0
7 G 6	192 x 0,21	23,2	1.028,0	3,3	526,0
4 G 10	320 x 0,21	22,5	1.052,0	1,9	535,0
4 G 16	512 x 0,21	25,7	1.386,0	1,2	800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

Li12YC11Y / Li12YC11Y TP



Verwendung

This cable is used in drag chain applications and as an electronic cable on moving machine parts with high bending stresses in dry, damp and wet rooms. The cut-resistant and low-adhesion PUR outer sheath and the TPE core insulation guarantee a long service life. The copper shielding braid prevents electrical and magnetic interference fields from the control cable into the environment as well as from the environment onto the internally routed cores. Not approved for heavy current applications.

Aufbau und Normen

based on DIN VDE 0285-525-2-51

- Bare copper stranded wire, extra-fine stranded, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- TPE- core insulation
- Core labelling according to DIN 47100
- Cores with optimum lay lengths stranded in layers
- 2 cores stranded in pairs only for version Li12YC11Y (TP)
- Fleece taping
- Shielding braid made from tinned copper wires
- PUR- outer sheath
- Sheath colour grey (RAL 7001)

Special properties:

- halogen-free
- flexible at low temperatures
- abrasion resistant
- oil resistant

Technische Daten

Operating voltage U:	350 V
Testing voltage:	1500 V
Insulating resistance:	≥ 20 MΩm x km
Temperature range:	
When laying:	max. -40°C
Operating temperature:	-50°C to +80°C
Conductor operating temperature:	max. +80°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	
When laying:	7,5 x DA
Fixed installation:	4 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Oil resistance:	DIN VDE 0473-811-404 EN 60811-404
Halogen-free:	EN 60754-1 IEC 60754-1

Li2YC11Y / Li2YC11Y TP

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
	Li2YC11Y				
18 x 0,14	26 x 0,07	9,5	111,0	138,0	67,0
2 x 0,25	32 x 0,10	5,7	35,0	79,0	19,0
4 x 0,25	32 x 0,10	6,1	46,0	79,0	26,0
7 x 0,25	32 x 0,10	7,4	74,0	79,0	48,0
12 x 0,25	32 x 0,10	8,9	107,0	79,0	70,0
2 x 0,34	43 x 0,10	5,9	38,0	57,0	21,0
3 x 0,34	43 x 0,10	6,2	44,0	57,0	25,0
2 x 0,50	28 x 0,16	6,3	45,0	39,0	35,0
	Li2YC11Y - TP				
2 x 2 x 0,25	32 x 0,10	7,0	60,0	138,0	36,0
4 x 2 x 0,25	32 x 0,10	8,4	85,0	138,0	52,0
6 x 2 x 0,25	32 x 0,10	10,2	110,0	138,0	74,0
8 x 2 x 0,25	32 x 0,10	12,0	150,0	138,0	83,0
10 x 2 x 0,25	32 x 0,10	13,5	175,0	138,0	99,0
14 x 2 x 0,25	32 x 0,10	14,0	210,0	138,0	123,0
2 x 2 x 0,5	28 x 0,16	7,8	88,0	39,0	54,0
3 x 2 x 0,5	28 x 0,16	9,8	110,0	39,0	76,0
4 x 2 x 0,5	28 x 0,16	11,1	135,0	39,0	78,0
14 x 2 x 0,5	28 x 0,16	17,7	390,0	39,0	233,0
2 x 2 x 0,75	42 x 0,16	9,5	110,0	26,0	65,0
14 x 2 x 0,75	42 x 0,16	18,2	546,0	26,0	331,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

LiPC11Y



Verwendung

This cable is suitable for permanently flexible use and transmits control pulses for positioning and travel characteristics. Used as signalling and data cable, especially in drag chains. The shielding ensures excellent EMC properties. The notch-resistant and low-adhesion PUR outer sheath is characterised by very good oil resistance and good chemical resistance.

Aufbau und Normen

based on System Indramat IN 209

- Bare copper stranded wire, extra-fine stranded
0,25 mm² = 19 x 0,127 mm
1 mm² = 126 x 0,10 mm
- Polyolefin core insulation
- Core labelling:
0.25 mm²: brown/green/grey/pink/blue/purple/red/black
1 mm²: white/brown
- Fleece taping
- Shielding made of tinned copper wires
- PUR outer sheath
- Sheath colour orange (RAL 2003)

Special properties:

- halogen-free
- flexible at low temperatures
- abrasion resistant
- oil resistant

Technische Daten

Operating voltage U:	max. 250 V
Testing voltage:	1500 V
Insulating resistance:	≥ 250 MOhm x km
Speed:	max. 220 m/min
Acceleration:	max. 10m/s ²
Tensile strength::	max. 50 N/mm ²
Temperature range:	
When laying:	max. 0°C
Operating temperature:	-40°C to +80°C
Conductor operating temperature:	max. +80°C
Short-circuit temperature:	max. +150/5 sec.
Minimum bending radius:	min. 90 mm
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Oil resistance:	IEC 60811-404

LiPC11Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Cu Zahl
mm ²	ca. mm	ca. kg/km	kg/km
4 x 2 x 0,25 + 2 x 1,0	8,8	112,0	91,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Servo IN 6



Verwendung

This cable is used as a connection cable for the supply and simultaneous control of motors, especially in drag chains. The double shielding of the signal pairs and the overall shielding ensures excellent EMC properties. The notch-resistant and adhesion-free PUR outer sheath is characterised by very good oil resistance, good chemical resistance and guarantees a long service life.

Aufbau und Normen

according to factory standard

- Bare copper stranded wire, extra-fine stranded, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- TPE-core insulation
- Conductor black with printed numbers 1 to 3
- Protective conductor green-yellow
- Signal wire black with printed numbers 5 to 6 and 7 to 8, stranded in pairs
- Plastic-laminated aluminium foil as static shielding
- Shielding braid made of tinned copper wires
- shielded signal pairs and cable cores stranded in layers with optimum lay lengths
- Fleece taping
- Shielding braid made of tinned copper wires
- PUR-outer sheath
- Sheath colour orange (RAL 2003)

Technische Daten

Nominal voltage U_0/U:	
Power cores:	0,6/1 kV
Signal cores:	300 V
Testing voltage:	
Power cores:	4000 V
Signal cores:	1000 V
Insulating resistance:	$\geq 20 \text{ Mohm} \times \text{km}$
Speed:	max. 180 m/min
Acceleration:	max. 7 m/s ²
Tensile strength:	max. 50 N/mm ²
Temperature range:	
When laying:	max. -30°C
Operating temperature:	-50°C to +80°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	10 x DA
Fire behaviour:	IEC 60332-1
Oil resistance:	IEC 60811-404
Halogen-free:	IEC 60754-1

Servo IN 6

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Draht Ø	Aussen Ø	Gewicht	Appropation	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km		kg/km
4 G 1 + 2 x (2 x 0,75)	0,16 / 0,16	11,5	236,0	UL	178,0
4 G 1,5 + 2 x (2 x 0,75)	0,16 / 0,16	12,2	246,0	UL/CSA	217,0
4 G 2,5 + 2 x (2 x 1)	0,16 / 0,16	13,4	330,0	UL/CSA	234,0
4 G 4 + (2 x 1) + (2 x 1,5)	0,16 / 0,16	16,0	472,0	UL/CSA	333,0
4 G 6 + (2 x 1) + (2 x 1,5)	0,21 / 0,16	18,8	566,0	UL/CSA	434,0
4 G 10 + (2 x 1) + (2 x 1,5)	0,21 / 0,16	22,0	815,0	UL/CSA	630,0
4 G 16 + 2 x (2 x 1,5)	0,21 / 0,16	23,1	1.100,0	UL/CSA	770,0
4 G 25 + 2 x (2 x 1,5)	0,21 / 0,16	28,3	1.550,0	UL/CSA	1.150,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

DESINA SERVO



Verwendung

For high mechanical requirements as an encoder cable for transmitting data and control signals in machine and control engineering, in energy supply chains, handling machines, processing machines and in robot technology in dry, damp or wet rooms. Additional cores ensure the power supply to the respective components.

Aufbau und Normen

according to factory standard

- Bare copper stranded wire, extra-fine stranded, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- TPE-core insulation
- Core labelling:
Conductor core black with imprint U-V-W, protective conductor green-yellow
- Signal core black, white cores twisted in pairs,
Braided shield made of tinned copper wires
- Cable cores and signal pair with optimised lay length stranded in layers
- fleece taping
- tinned copper braided shield
- Fleece taping
- PUR outer sheath
- sheath colour orange (RAL 2003)

Special properties:

- halogen-free
- flexible at low temperatures
- abrasion resistant
- oil resistant

Technische Daten

Nominal voltage U_0/U :

Power cores:	0,6/1 kV,
Signal cores:	250 V

Testing voltage:

Power cores:	4000 V
Signal cores:	2000 V

Speed:

max. 220 m/min

Acceleration:

max. 10 m/s²

Insulating resistance:

10 MOhm x km

Temperature range:

When laying:	max. -10°C
Operating temperature:	-30°C to +80°C

Conductor operating temperature:

max. +80°C

Short-circuit temperature:

max. 150°C/5 sec.

Minimum bending radius:

10 x DA

Fire behaviour:

IEC 60332-1

Oil resistance:

IEC 60811-404

Halogen-free:

IEC 60754-1

DESINA SERVO

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Draht Ø	Aussen Ø	Gewicht	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	kg/km
4 G 1,5 + 2 x 1,5	0,16 / 0,16	12,5	210,0	154,0
4 G 2,5 + 2 x 1,5	0,16 / 0,16	13,8	280,0	195,0
4 G 4 + 2 x 1,5	0,16 / 0,16	14,9	350,0	279,0
4 G 6 + 2 x 1,5	0,21 / 0,16	17,0	486,0	373,0
4 G 10 + 2 x 1,5	0,21 / 0,16	19,9	729,0	608,0
4 G 16 + 2 x 1,5	0,21 / 0,16	23,3	1.020,0	859,0
4 G 25 + 2 x 1,5	0,21 / 0,16	27,0	1.570,0	1.336,0
4 G 35 + 2 x 1,5	0,21 / 0,16	31,4	1.930,0	1.760,0
4 G 50 + 2 x 1,5	0,31 / 0,16	34,8	2.890,0	2.469,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

SiA



Verwendung

For low mechanical stress and high ambient temperatures, primarily for the internal wiring of distributors, lights, heating appliances and electrical machines, as well as in pipes on or under plaster. The insulation is tropicalised and resistant to oxygen and ozone. An outstanding property is the high flash point. When the cable is fired, an insulating silicon dioxide layer remains on the conductor, which can prevent a short circuit.

Aufbau und Normen

based on DIN VDE 0250-502














- Copper wire, tinned, solid according to DIN VDE 0295 cl.1, IEC 60228 cl.1
- Silicone wire insulation

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Temperature range:	
Operating temperature:	-50°C to +180°C
Conductor operating temperature:	max. +180°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	6 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Halogen-free:	EN 60754-1 IEC 60754-1
Corrosiveness:	EN 60754-2 IEC 60754-2

SiA

Produkteigenschaften

Nennquerschnitt	Farben	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A
0,5		0,79	0,6	2,0	8,0	36,7	6,0
0,5		0,79	0,6	2,0	8,0	36,7	6,0
0,75		0,98	0,6	2,2	11,0	24,8	15,0
0,75		0,98	0,6	2,2	11,0	24,8	15,0
1,0		1,1	0,6	2,4	13,0	18,2	19,0
1,0		1,1	0,6	2,4	13,0	18,2	19,0
1,5		1,4	0,7	2,8	18,0	12,2	24,0
1,5		1,4	0,7	2,8	18,0	12,2	24,0
2,5		1,8	0,8	3,2	29,0	7,6	32,0
2,5		1,8	0,8	3,2	29,0	7,6	32,0
4,0		2,3	0,8	3,9	45,0	4,7	42,0
6,0		2,8	0,8	4,4	64,0	3,1	54,0
10,0		3,6	1,0	5,6	119,0	1,8	73,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

SiF



Verwendung

For low mechanical stress and high ambient temperatures, primarily for the internal wiring of distributors, lights, heating appliances and electrical machines, as well as in pipes on or under plaster. The insulation is tropicalised and resistant to oxygen and ozone. An outstanding property is the high flash point. When the cable is fired, an insulating silicon dioxide layer remains on the conductor, which can prevent a short circuit.

Aufbau und Normen

based on DIN VDE 0250-502

























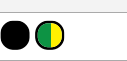





- Stranded copper wire, tinned, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Silicone wire insulation








Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Temperature range:	
Operating temperature:	-50°C to +180°C
Conductor operating temperature:	max. +180°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	6 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Halogen-free:	EN 60754-1 IEC 60754-1
Corrosiveness:	EN 60754-2 IEC 60754-2

SiF

Produkteigenschaften

Nennquerschnitt	Farben	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
0,5		12 x 0,21	0,8	2,1	9,0	40,1	6,0	5,0
0,5		12 x 0,21	0,8	2,1	9,0	40,1	6,0	5,0
0,5		12 x 0,21	0,8	2,1	9,0	40,1	6,0	5,0
0,75		24 x 0,21	0,8	2,4	11,0	26,7	15,0	7,5
0,75		24 x 0,21	0,8	2,4	11,0	26,7	15,0	7,5
0,75		24 x 0,21	0,8	2,4	11,0	26,7	15,0	7,5
1,0		32 x 0,21	0,8	2,5	14,0	20,0	19,0	10,0
1,0		32 x 0,21	0,8	2,5	14,0	20,0	19,0	10,0
1,0		32 x 0,21	0,8	2,5	14,0	20,0	19,0	10,0
1,5		30 x 0,26	0,8	2,8	20,0	13,7	24,0	15,0
1,5		30 x 0,26	0,8	2,8	20,0	13,7	24,0	15,0
2,5		50 x 0,26	0,9	3,4	32,0	8,2	32,0	25,0
2,5		50 x 0,26	0,9	3,4	32,0	8,2	32,0	25,0
2,5		50 x 0,26	0,9	3,4	32,0	8,2	32,0	25,0
4,0		56 x 0,31	1,0	4,2	49,0	5,1	42,0	40,0
4,0		56 x 0,31	1,0	4,2	49,0	5,1	42,0	40,0
4,0		56 x 0,31	1,0	4,2	49,0	5,1	42,0	40,0
6,0		84 x 0,31	1,0	5,2	71,0	3,4	54,0	60,0
6,0		84 x 0,31	1,0	5,2	71,0	3,4	54,0	60,0
10,0		80 x 0,41	1,2	7,0	124,0	2,0	73,0	100,0
10,0		80 x 0,41	1,2	7,0	124,0	2,0	73,0	100,0
16,0		128 x 0,41	1,2	8,0	188,0	1,2	98,0	160,0
16,0		128 x 0,41	1,2	8,0	188,0	1,2	98,0	160,0
25,0		200 x 0,41	1,4	9,9	296,0	0,795	129,0	250,0
25,0		200 x 0,41	1,4	9,9	296,0	0,795	129,0	250,0
35,0		280 x 0,41	1,4	11,2	400,0	0,565	158,0	350,0
35,0		280 x 0,41	1,4	11,2	400,0	0,565	158,0	350,0
50,0		400 x 0,41	1,6	13,8	570,0	0,393	198,0	500,0
50,0		400 x 0,41	1,6	13,8	570,0	0,393	198,0	500,0
70,0		356 x 0,51	1,6	16,0	766,0	0,277	245,0	700,0

Nennquerschnitt	Farben	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
70,0		356 x 0,51	1,6	16,0	766,0	0,277	245,0	700,0
95,0		485 x 0,51	1,8	18,2	1.030,0	0,21	292,0	950,0
120,0		614 x 0,51	1,8	19,2	1.300,0	0,164	344,0	1.200,0
150,0		765 x 0,51	2,0	21,9	1.563,0	0,132	391,0	1.500,0
185,0		944 x 0,51	2,2	23,0	1.915,0	0,108	448,0	1.850,0
240,0		1225 x 0,51	2,4	26,5	2.440,0	0,0817	528,0	2.400,0
300,0		1530 x 0,51	2,4	30,0	3.100,0	0,0654	608,0	3.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

SiF-GL



Verwendung

For low mechanical stress and high ambient temperatures, primarily for the internal wiring of distributors, lights, heating devices and electrical machines, as well as in pipes on or under plaster. An outstanding property is the high flash point. When the cable is fired, an insulating silicon dioxide layer remains on the conductor, which can prevent a short circuit. The glass fibre braid (GL) protects the silicone insulation from mechanical damage.

Aufbau und Normen

based on DIN VDE 0250-502

- Stranded copper wire, tinned, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Silicone wire insulation
- Glass fibre braiding

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Temperature range:	
Operating temperature:	-50°C to +180°C
Conductor operating temperature:	max. +180°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	7,5x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Halogen-free:	EN 60754-1 IEC 60754-1
Corrosiveness:	EN 60754-2 IEC 60754-2

SiF-GL

Produkteigenschaften

Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
0,5	12 x 0,21	0,8	2,5	13,0	40,1	6,0	5,0
0,75	24 x 0,21	0,8	2,8	16,0	26,7	15,0	7,5
1,0	32 x 0,21	0,8	2,9	18,0	20,0	19,0	10,0
1,5	30 x 0,26	0,8	3,5	24,0	13,7	24,0	15,0
2,5	50 x 0,26	0,9	4,1	36,0	8,2	32,0	25,0
4,0	56 x 0,31	1,0	4,7	53,0	5,1	42,0	40,0
6,0	84 x 0,31	1,0	5,7	77,0	3,4	54,0	60,0
10,0	80 x 0,41	1,2	7,6	129,0	2,0	73,0	100,0
16,0	128 x 0,41	1,2	8,8	199,0	1,2	98,0	160,0
25,0	200 x 0,41	1,4	10,8	303,0	0,795	129,0	250,0
35,0	280 x 0,41	1,4	12,1	413,0	0,565	158,0	350,0
50,0	400 x 0,41	1,6	14,4	578,0	0,393	198,0	500,0
70,0	356 x 0,51	1,6	16,5	815,0	0,277	245,0	700,0
95,0	485 x 0,51	1,8	18,9	1.100,0	0,21	292,0	950,0
120,0	614 x 0,51	1,8	20,5	1.360,0	0,164	344,0	1.200,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H07G-K



Verwendung

For the internal wiring of distribution boards and switchgear in dry rooms as well as lights and devices in conduits on or under plaster.

Aufbau und Normen

based on DIN VDE 0285-525-2-42

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Rubber core insulation EIB
- Outer sheath black

Technische Daten

Nominal voltage U_0/U:	450/750 V
Testing voltage:	500 V
Temperature range:	
When laying:	max. -25°C
Operating temperature:	-40°C to +110°C
Conductor operating temperature:	max. +110°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	7 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1

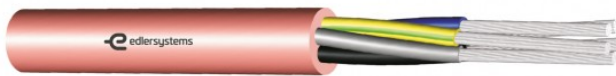
H07G-K

Produkteigenschaften

Nennquerschnitt	Leiteraufbau	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
1,5	30 x 0,26	3,0 - 3,7	24,0	13,7	24,0	15,0
2,5	50 x 0,26	3,6 - 4,5	42,0	8,2	32,0	25,0
4,0	56 x 0,31	4,3 - 5,4	61,0	5,1	42,0	40,0
6,0	84 x 0,31	4,8 - 6,0	78,0	3,4	54,0	60,0
10,0	80 x 0,41	6,0 - 7,6	130,0	2,0	73,0	100,0
16,0	128 x 0,41	7,1 - 8,9	212,0	1,2	98,0	160,0
25,0	200 x 0,41	8,8 - 11,0	323,0	0,795	129,0	250,0
35,0	280 x 0,41	10,1 - 12,6	422,0	0,565	158,0	350,0
50,0	400 x 0,41	11,9 - 14,9	527,0	0,393	198,0	500,0
70,0	356 x 0,51	13,6 - 17,0	726,0	0,277	245,0	700,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

SiHF



Verwendung

Silicone cables are used wherever cable insulation is exposed to high temperature fluctuations. Due to their excellent weather resistance, silicone cables can be used at both high and low temperatures down to -60°C . Due to the elastic properties of the core insulation, they are used they are used as flexible connection cables. The insulation is tropicalised and resistant to oxygen and ozone. An outstanding property is the high flash point. When the cable is fired, an insulating silicon dioxide layer remains on the conductor, which can prevent a short circuit.

Aufbau und Normen

based on DIN VDE 0285-525-2-83

- Stranded copper wire, tinned, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Silicone wire insulation
- Core labelling according to HD 308 S2 from 6 core version black with numbers
- Cores with optimum lay lengths stranded in layers
- Silicone outer jacket
- Sheath colour preferably red-brown

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	200 M Ω hm x km
Temperature range:	
Operating temperature:	-60°C to $+180^{\circ}\text{C}$
Conductor operating temperature:	max. $+180^{\circ}\text{C}$
Short-circuit temperature:	max. $+250^{\circ}\text{C}/5$ sec.
Minimum bending radius:	
When laying:	7,5 x DA
Fixed installation:	4 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Halogen-free:	EN 60754-1 IEC 60754-1
Corrosiveness:	EN 60754-2 IEC 60754-2

SiHF

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,5	12 x 0,21	0,8	5,5	42,0	40,1	10,0
3 G 0,5	12 x 0,21	0,8	5,8	44,0	40,1	15,0
3 x 0,5	12 x 0,21	0,8	5,8	44,0	40,1	15,0
4 G 0,5	12 x 0,21	0,8	6,2	58,0	40,1	20,0
2 x 0,75	24 x 0,21	0,8	6,4	53,0	26,7	15,0
3 G 0,75	24 x 0,21	0,8	6,8	66,0	26,7	22,5
4 G 0,75	24 x 0,21	0,8	7,8	84,0	26,7	30,0
5 G 0,75	24 x 0,21	0,8	8,5	101,0	26,7	37,5
7 G 0,75	24 x 0,21	0,8	9,6	125,0	26,7	52,5
2 x 1	32 x 0,21	0,8	6,6	59,0	20,0	20,0
3 G 1	32 x 0,21	0,8	7,4	78,0	20,0	30,0
4 G 1	32 x 0,21	0,8	8,0	95,0	20,0	40,0
5 G 1	32 x 0,21	0,8	8,8	116,0	20,0	50,0
6 G 1	32 x 0,21	0,8	9,6	134,0	20,0	60,0
6 x 1	32 x 0,21	0,8	9,3	134,0	20,0	60,0
7 G 1	32 x 0,21	0,8	10,0	144,0	20,0	70,0
2 x 1,5	30 x 0,26	0,8	7,6	81,0	13,7	30,0
3 G 1,5	30 x 0,26	0,8	8,0	98,0	13,7	45,0
4 G 1,5	30 x 0,26	0,8	8,8	122,0	13,7	60,0
5 G 1,5	30 x 0,26	0,8	9,6	148,0	13,7	75,0
6 G 1,5	30 x 0,26	0,8	10,8	173,0	13,7	90,0
7 G 1,5	30 x 0,26	0,8	10,9	187,0	13,7	105,0
8 G 1,5	30 x 0,26	0,8	1,7	213,0	13,7	120,0
12 G 1,5	30 x 0,26	0,8	14,8	332,0	13,7	180,0
16 G 1,5	30 x 0,26	0,8	16,7	445,0	13,7	240,0
18 G 1,5	30 x 0,26	0,8	17,4	506,0	13,7	270,0
20 G 1,5	30 x 0,26	0,8	18,2	566,0	13,7	300,0
24 G 1,5	30 x 0,26	0,8	20,2	722,0	13,7	360,0
2 x 2,5	50 x 0,26	0,9	9,2	134,0	8,2	50,0
3 G 2,5	50 x 0,26	0,9	9,7	152,0	8,2	75,0
4 G 2,5	50 x 0,26	0,9	10,6	189,0	8,2	100,0
5 G 2,5	50 x 0,26	0,9	11,6	229,0	8,2	125,0
7 G 2,5	50 x 0,26	0,9	13,2	348,0	8,2	175,0
12 G 2,5	50 x 0,26	0,9	18,0	530,0	8,2	300,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 4	56 x 0,31	1,0	10,8	180,0	5,1	80,0
3 G 4	56 x 0,31	1,0	11,5	224,0	5,1	120,0
4 G 4	56 x 0,31	1,0	13,0	330,0	5,1	160,0
5 G 4	56 x 0,31	1,0	15,0	359,0	5,1	200,0
7 G 4	56 x 0,31	1,0	16,2	487,0	5,1	280,0
2 x 6	84 x 0,31	1,0	13,4	210,0	3,4	120,0
3 G 6	84 x 0,31	1,0	14,2	270,0	3,4	180,0
4 G 6	84 x 0,31	1,0	16,2	341,0	3,4	240,0
5 G 6	84 x 0,31	1,0	17,7	432,0	3,4	300,0
7 G 6	84 x 0,31	1,0	19,3	552,0	3,4	420,0
4 G 10	80 x 0,41	1,2	21,4	644,0	2,0	400,0
5 G 10	80 x 0,41	1,2	22,5	788,0	2,0	500,0
4 G 16	128 x 0,41	1,2	24,0	950,0	1,2	640,0
5 G 16	128 x 0,41	1,2	25,6	1.206,0	1,2	800,0
4 G 25	200 x 0,41	1,4	27,3	1.460,0	0,795	1.000,0
4 G 35	280 x 0,41	1,4	31,0	2.044,0	0,565	1.400,0
4 G 50	400 x 0,41	1,6	34,0	2.990,0	0,393	2.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

SiHF/GL-P



Verwendung

Silicone cables are used wherever cable insulation is exposed to high temperature fluctuations. Due to their excellent weather resistance, they can be used at both high and low temperatures down to -60°C . Particularly suitable for use in power stations. The insulation is tropicalised and resistant to oxygen and ozone. An outstanding property is the high flash point. When the cable is fired, an insulating silicon dioxide layer remains on the conductor, which can prevent a short circuit. The armoured braid (P) ensures a high level of mechanical protection and also provides electrical shielding.

Aufbau und Normen

based on DIN VDE 0285-525-2-83

- Stranded copper wire, tinned, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Silicone wire insulation
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores with optimum lay lengths stranded in layers
- Common silicone sheath
- Glass fibre braiding
- Armoured braid made of galvanised steel wires

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Temperature range:	
Operating temperature:	-60°C to $+180^{\circ}\text{C}$
Conductor operating temperature:	max. $+180^{\circ}\text{C}$
Short-circuit temperature:	max. $+250^{\circ}\text{C}/5$ sec.
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
Fire behaviour:	EN 60332-1-2
	IEC 60332-1
Halogen-free:	EN 60754-1
	IEC 60754-1
Corrosiveness:	EN 60754-2
	IEC 60754-2

SiHF/GL-P

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	24 x 0,21	0,8	7,9	90,0	26,7	15,0
3 G 0,75	24 x 0,21	0,8	8,3	101,0	26,7	22,5
4 G 0,75	24 x 0,21	0,8	9,3	129,0	26,7	30,0
5 G 0,75	24 x 0,21	0,8	10,0	157,0	26,7	37,5
7 G 0,75	24 x 0,21	0,8	10,7	177,0	26,7	52,5
2 x 1	32 x 0,21	0,8	8,0	97,0	20,0	20,0
3 G 1	32 x 0,21	0,8	8,9	122,0	20,0	30,0
4 G 1	32 x 0,21	0,8	9,4	141,0	20,0	40,0
5 G 1	32 x 0,21	0,8	10,4	166,0	20,0	50,0
7 G 1	32 x 0,21	0,8	11,1	197,0	20,0	70,0
2 x 1,5	30 x 0,26	0,8	9,0	127,0	13,7	30,0
3 G 1,5	30 x 0,26	0,8	9,5	145,0	13,7	45,0
4 G 1,5	30 x 0,26	0,8	10,3	173,0	13,7	60,0
5 G 1,5	30 x 0,26	0,8	11,0	202,0	13,7	75,0
7 G 1,5	30 x 0,26	0,8	12,0	244,0	13,7	105,0
12 G 1,5	30 x 0,26	0,8	15,5	327,0	13,7	180,0
3 G 2,5	50 x 0,26	0,9	11,2	205,0	8,2	75,0
4 G 2,5	50 x 0,26	0,9	12,1	278,0	8,2	100,0
5 G 2,5	50 x 0,26	0,9	13,3	322,0	8,2	125,0
7 G 2,5	50 x 0,26	0,9	14,4	380,0	8,2	175,0
4 G 4	56 x 0,31	1,0	15,0	384,0	5,1	160,0
5 G 4	56 x 0,31	1,0	16,0	454,0	5,1	200,0
7 G 4	56 x 0,31	1,0	17,5	633,0	5,1	280,0
4 G 6	84 x 0,31	1,0	18,0	544,0	3,4	240,0
5 G 6	84 x 0,31	1,0	19,4	656,0	3,4	300,0
7 G 6	84 x 0,31	1,0	20,7	769,0	3,4	420,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

SiFCuSi



Verwendung

As a connection cable for low mechanical loads and high ambient temperatures, e.g. in smelters and steelworks, but also in cold environments. The insulation is based on silicone rubber. It is resistant to vegetable and animal fats, many oils and diluted acids as well as decomposition by alcohols, plasticisers, alkalis, salt solutions, etc. If the cable is burnt, an insulating silicon dioxide layer remains on the conductor, which can prevent a short circuit. The high shielding density guarantees interference-free transmission of signals or pulses.

Aufbau und Normen

based on DIN VDE 0285-525-2-83

- Stranded copper wire, tinned, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Silicone wire insulation
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores with optimum lay lengths stranded in layers
- Foil winding
- Shielding braid made of tinned copper wires
- Silicone outer sheath
- Sheath colour preferably red-brown

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	200 MΩm x km
Temperature range:	
Operating temperature:	-60°C to +180°C
Conductor operating temperature:	max. +180°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Halogen-free:	EN 60754-1 IEC 60754-1
Corrosiveness:	EN 60754-2 IEC 60754-2

SiFCuSi

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	24 x 0,21	0,8	7,6	75,0	26,7	43,0
3 G 0,75	24 x 0,21	0,8	7,9	89,0	26,7	57,0
4 G 0,75	24 x 0,21	0,8	8,5	105,0	26,7	70,0
5 G 0,75	24 x 0,21	0,8	9,1	152,0	26,7	82,0
7 G 0,75	24 x 0,21	0,8	9,8	192,0	26,7	113,0
2 x 1	32 x 0,21	0,8	7,8	82,0	20,0	52,0
3 G 1	32 x 0,21	0,8	8,1	100,0	20,0	78,0
4 G 1	32 x 0,21	0,8	8,7	121,0	20,0	89,0
5 G 1	32 x 0,21	0,8	9,4	142,0	20,0	106,0
7 G 1	32 x 0,21	0,8	10,1	173,0	20,0	132,0
2 x 1,5	30 x 0,26	0,8	8,8	107,0	13,7	66,0
3 G 1,5	30 x 0,26	0,8	9,2	131,0	13,7	99,0
4 G 1,5	30 x 0,26	0,8	9,9	157,0	13,7	121,0
5 G 1,5	30 x 0,26	0,8	10,8	194,0	13,7	135,0
7 G 1,5	30 x 0,26	0,8	11,6	239,0	13,7	227,0
12 G 1,5	30 x 0,26	0,8	15,2	386,0	13,7	322,0
3 G 2,5	50 x 0,26	0,9	10,5	184,0	8,2	154,0
4 G 2,5	50 x 0,26	0,9	11,4	222,0	8,2	170,0
5 G 2,5	50 x 0,26	0,9	12,3	272,0	8,2	208,0
7 G 2,5	50 x 0,26	0,9	13,8	351,0	8,2	300,0
4 G 4	56 x 0,31	1,0	14,9	427,0	5,1	307,0
5 G 4	56 x 0,31	1,0	16,9	546,0	5,1	390,0
4 G 6	84 x 0,31	1,0	16,5	657,0	3,4	468,0
4 G 10	80 x 0,41	1,2	22,5	1.119,0	2,0	791,0
4 G 16	128 x 0,41	1,2	25,6	1.872,0	1,2	1.230,0
4 G 25	200 x 0,41	1,4	32,4	2.834,0	0,795	1.886,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

SiHF-C-Si



Verwendung

As a connection cable for low mechanical loads and high ambient temperatures, e.g. in smelters and steelworks, but also for cold stresses. The insulation is silicone rubber-based. It is resistant to vegetable and animal fats, many oils and diluted acids as well as decomposition by alcohols, plasticisers, alkalis, salt solutions, etc. If the cable is burnt, an insulating silicon dioxide layer remains on the conductor, which can prevent a short circuit. The high shielding density guarantees interference-free transmission of signals or pulses.

Aufbau und Normen

based on DIN VDE 0285-525-2-83

- Stranded copper wire, tinned, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Silicone wire insulation
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores with optimum lay lengths stranded in layers
- Inner sheath Shielding braid made of tinned copper wires
- Silicone outer sheath
- Sheath colour preferably red-brown

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	200 MOhm x km
Temperature range:	
Operating temperature:	-60°C to +180°C
Conductor operating temperature:	max. +180°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	5 x DA
Fire behaviour:	EN 60332-1-2, IEC 60332-1
Halogen-free:	EN 60754-1 IEC 60754-1
Corrosiveness:	EN 60754-2 IEC 60754-2

SiHF-C-Si

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	24 x 0,21	0,8	9,2	104,0	26,7	43,0
3 G 0,75	24 x 0,21	0,8	9,5	118,0	26,7	57,0
4 G 0,75	24 x 0,21	0,8	10,1	152,0	26,7	70,0
5 G 0,75	24 x 0,21	0,8	10,8	176,0	26,7	82,0
7 G 0,75	24 x 0,21	0,8	11,6	212,0	26,7	113,0
2 x 1	32 x 0,21	0,8	9,5	116,0	20,0	52,0
3 G 1	32 x 0,21	0,8	9,7	142,0	20,0	78,0
4 G 1	32 x 0,21	0,8	10,4	173,0	20,0	89,0
5 G 1	32 x 0,21	0,8	11,3	202,0	20,0	106,0
7 G 1	32 x 0,21	0,8	12,0	243,0	20,0	132,0
2 x 1,5	30 x 0,26	0,8	10,7	166,0	13,7	66,0
3 G 1,5	30 x 0,26	0,8	11,2	188,0	13,7	99,0
4 G 1,5	30 x 0,26	0,8	11,9	222,0	13,7	121,0
5 G 1,5	30 x 0,26	0,8	13,3	273,0	13,7	135,0
7 G 1,5	30 x 0,26	0,8	14,3	345,0	13,7	227,0
12 G 1,5	30 x 0,26	0,8	18,0	531,0	13,7	322,0
3 G 2,5	50 x 0,26	0,9	12,9	275,0	8,2	154,0
4 G 2,5	50 x 0,26	0,9	14,2	340,0	8,2	170,0
5 G 2,5	50 x 0,26	0,9	15,3	394,0	8,2	208,0
7 G 2,5	50 x 0,26	0,9	16,9	488,0	8,2	300,0
4 G 4	56 x 0,31	1,0	17,1	520,0	5,1	307,0
5 G 4	56 x 0,31	1,0	19,4	653,0	5,1	390,0
4 G 6	84 x 0,31	1,0	18,8	781,0	3,4	468,0
4 G 10	80 x 0,41	1,2	25,7	1.294,0	2,0	791,0
4 G 16	128 x 0,41	1,2	28,4	1.988,0	1,2	1.230,0
4 G 25	200 x 0,41	1,4	35,0	2.995,0	0,795	1.886,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

FZ-LS FZ-LSi_LA



Verwendung

These ignition cables are suitable for use in high and highly fluctuating ambient temperatures up to +180°C.

FZ-LS red: Applications in the lamp and lighting industry and in refrigeration and air conditioning technology.

FZ-LSi blue: Application area in motor construction, fan construction and heating technology.

To protect against mechanical damage, a glass fibre braid and a silicone sheath are applied over the core insulation.

Fluorescent tube cable yellow: Application in the lighting industry.

Protected installation is required.

Aufbau und Normen

according to factory standard

FZ-LS, red

- Stranded copper wire, tinned, fine stranded
- Silicone core insulation 2G11
- Sheath colour red-brown

FZ-LSi, blue

- Stranded copper wire, tinned, fine stranded
- Silicone core insulation 2G11
- Glass fibre braiding
- Silicone outer sheath 2GM1
- Sheath colour blue

Fluorescent tube cable yellow

based on DIN VDE 0283-1

- Stranded copper wire, tinned, fine stranded
- Silicone core insulation 2G11
- Sheath colour yellow

Technische Daten

FZ-LS, red Test voltage: Ø 5mm = 15 kV

Ø 7mm = 20 kV

FZ-LSi, blue Test voltage: 20 kV

Fluorescent tube cable, yellow:

Testing voltage: 10 kV

Nominal voltage U_0/U : 3,5 kV, 4,0 kV, 7,5 kV

Specific contact resistance: min. 1012 Ohm x cm

Bending radius for continuous bending: 7,5 x DA

FZ-LS FZ-LSi_LA

Produkteigenschaften

Nennquerschnitt	Litzenaufbau (Richtwert)	Aussen Ø	Nennspannung	Cu Zahl	Durchschlagsspannung
mm ²	ca. mm	ca. mm	kV	kg/km	min. kV
	Leuchtröhrenleitung				
1,5	30 x 0,25	4,4	3,5	15,0	
1,5	30 x 0,25	6,6	4,0	15,0	
1,5	30 x 0,25	7,6	7,5	15,0	
	FZ-LS				
1,0	19 x 0,25	5,0	25,0	10,0	
1,0	19 x 0,25	7,0	35,0	10,0	
	FZ-LSi				
1,0	19 x 0,25	7,5	30,0	10,0	
1,5	28 x 0,26	8,5	30,0	15,0	

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H1Z2Z2-K



Verwendung

For freely movable use or fixed installation in photovoltaic systems in accordance with EN 60364-7-712. They may be used indoors, outdoors, in potentially explosive atmospheres, in industry or on farms. The cable is short-circuit and earth-fault proof.

Aufbau und Normen

TÜV EN 50618
TÜV IEC 62930
TÜV 2 PFG 1169/10.19

- cooper strand, tinned, fine-stranded accrding to DIN VDE 0295 Kl. 5, IEC 60228 cl. 5
- Core isolation: cross-linked speciality polyolefin
- Outer sheath: cross-linked speciality polyolefin UV-resistant
- Sheath colour: black, red, blue

Special characteristics:













- High water resistance
- High insulation resistance
- High mechanical stability
- Optimised for floating PV systems

Technische Daten

Nominal voltage U_0/U:	1/1 kV AC 1,5/1,5 kV DC
Test voltage:	6,5 kV AC 15 kV DC
Temperature range:	
When laying:	max. -25°C
Operating:	-40°C to +90°C
Permissible operating temp. at conductor:	max. +120°C
Short circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
When laying:	10 x DA
Fixed laying:	4 x DA
Reaction to fire:	Dca
Resistance against acid and alkaline solution:	EN 60811-404
Ozone resistance:	EN 50618
Halogen free:	EN 50267-2-1
UV-stability:	EN 50289-4-17

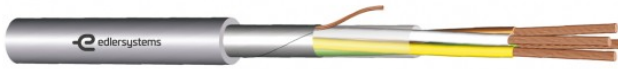
H1Z2Z2-K

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiteraufbau	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 60°C in Luft	Cu Zahl
mm ²		ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 2,5		50 x 0,25	4,7 - 5,1	45,0	8,2	41,0	25,0
1 x 4		56 x 0,31	5,2 - 5,6	55,0	5,1	55,0	40,0
1 x 6		80 x 0,31	5,7 - 6,1	75,0	3,4	70,0	60,0
1 x 10		80 x 0,41	6,8 - 7,7	115,0	2,0	98,0	100,0
1 x 10		80 x 0,41	6,8 - 7,7	115,0	2,0	98,0	100,0
1 x 16		128 x 0,40	8,3 - 9,0	171,0	1,2	132,0	160,0
1 x 16		128 x 0,40	8,3 - 9,0	171,0	1,2	132,0	160,0
1 x 25		200 x 0,40	10,0 - 10,7	273,0	0,795	176,0	250,0
1 x 35		280 x 0,40	11,1 - 12,2	364,0	0,565	218,0	350,0
1 x 50		400 x 0,40	12,6 - 13,3	515,0	0,393	276,0	500,0
1 x 70		356 x 0,56	14,4 - 16,2	735,0	0,277	347,0	700,0
1 x 95		485 x 0,50	16,2 - 18,1	960,0	0,21	416,0	950,0
1 x 120		614 x 0,50	18,3 - 20,1	1.220,0	0,164	488,0	1.200,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

LIY(ST)Y



Verwendung

As a high-quality alarm cable for the secure installation and wiring of intruder alarm systems and security systems.

Aufbau und Normen

factory standard

- Bare copper stranded wire, fine stranded
- PVC-core insulation
- Polyester inner cover
- Shade made of plastic-laminated aluminium foil with double wire
- PVC outer sheath
- Sheath colour white (RAL 9010)

Technische Daten

Nominal voltage U_0/U:	250 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 200 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. 0°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +150°C/5 sec.
Minimum bending radius:	15 x DA
CPR performance class:	Eca

LIY(ST)Y

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 0,22	7 x 0,20	3,2	6,6	6,6
2 x 0,22 + 2 x 0,5	7 x 0,20/16x0,20	4,2	27,0	16,6
2 x 0,22 + 2 x 0,75	7 x 0,20/24x0,20	4,6	33,0	21,6
4 x 0,22	7 x 0,20	3,6	21,0	10,9
4 x 0,22 + 2 x 0,5	7 x 0,20/16x0,20	4,6	35,0	20,9
4 x 0,22 + 2 x 0,75	7 x 0,20/24x0,20	5,1	44,0	25,9
6 x 0,22	7 x 0,20	4,1	26,0	15,3
6 x 0,22 + 2 x 0,5	7 x 0,20/16x0,20	6,2	41,0	25,3
6 x 0,22 + 2 x 0,75	7 x 0,20/24x0,20	5,4	50,0	30,3
8 x 0,22	7 x 0,20	4,5	33,0	19,7
8 x 0,22 + 2 x 0,5	7 x 0,20/16x0,20	5,4	47,0	29,7
8 x 0,22 + 2 x 0,75	7 x 0,20/24x0,20	5,7	58,0	34,7
10 x 0,22	7 x 0,20	5,2	40,0	24,1
10 x 0,22 + 2 x 0,5	7 x 0,20/16x0,20	5,7	48,0	34,1
10 x 0,22 + 2 x 0,75	7 x 0,20/24x0,20	6,1	62,0	39,1

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Core colours:

- 1 white
- 2 red
- 3 yellow
- 4 green
- 5 grey
- 6 orange
- 7 light blue
- 8 btown
- 9 purple
- 10 black

Control line (2x0,5 and 2x0,75):
red and black

FLRY-A / FLRY-B



Verwendung

For cabling in the motor and drive area in the automotive industry.

Aufbau und Normen

based on ISO 6722 Klasse A and B
























- Bare copper stranded wire
- Electrolytic copper, bare
- Conductor construction
FLRY-A: symmetrical construction
FLRY-B: unsymmetrical construction
- PVC outer sheath

Technische Daten

Operating voltage U:	24 V
Testing voltage:	1000 V
Breakdown voltage (effective value):	5 kV
Temperature range:	- 40°C to +105°C
Fire behaviour:	EN 60332-1-2 IEC 60332-1
Oil-fuel resistance:	ISO 6722-2
Note:	See technical part / in progress

FLRY-A / FLRY-B

Produkteigenschaften

Nennquerschnitt	Farben	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
	FLRY-A						
0,35		7 x 0,26	0,25	1,3	4,5	52,0	3,5
0,5		19 x 0,19	0,3	1,6	6,6	37,1	5,0
0,75		19 x 0,23	0,3	1,9	9,0	24,7	7,5
1,0		19 x 0,26	0,3	2,1	11,0	18,5	10,0
1,5		19 x 0,32	0,3	2,4	16,0	12,7	15,0
2,5		19 x 0,41	0,35	3,0	26,0	7,6	25,0
	FLRY-B						
0,35		12 x 0,21	0,25	1,4	4,5	52,0	3,5
0,5		16 x 0,21	0,3	1,6	6,6	37,1	5,0
0,75		24 x 0,21	0,3	1,9	9,0	24,7	7,5
0,75		24 x 0,21	0,3	1,9	9,0	24,7	7,5
1,0		32 x 0,21	0,3	2,1	11,0	18,5	10,0
1,0		32 x 0,21	0,3	2,1	11,0	18,5	10,0
1,5		30 x 0,26	0,3	2,4	16,0	12,7	15,0
1,5		30 x 0,26	0,3	2,4	16,0	12,7	15,0
2,5		50 x 0,26	0,35	3,0	26,0	7,6	25,0
2,5		50 x 0,26	0,35	3,0	26,0	7,6	25,0
4,0		56 x 0,31	0,4	3,7	42,0	4,7	40,0
4,0		56 x 0,31	0,4	3,7	42,0	4,7	40,0
6,0		84 x 0,31	0,4	4,3	61,0	3,1	60,0
6,0		84 x 0,31	0,4	4,3	61,0	3,1	60,0
10,0		80 x 0,41	0,48	6,0	108,0	1,8	100,0
16,0		126 x 0,41	0,52	7,9	170,0	1,2	160,0
25,0		196 x 0,41	0,52	9,4	265,0	0,743	250,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

The following versions are available on request:

FLY, FLRY-W 110°, FLY-W 105°, FLY-W 125°, FL2G, FLR91X-A, FLR91X-B, FL-RG 174, FZL2X53G, FL2X33X, FL4G11Y, FLR33X33X, FLRY, FLRYZ, FLYYF, FLYZ

FZLY



Verwendung

In motor vehicles and related systems.

Aufbau und Normen

according to ISO 3808

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PVC - insulation
- Sheath colour black
- Shore hardness 78 ±3

Technische Daten

Dielectric strength (at 50 Hz rms over 30 minutes):

FZLY 1,5/5: 15 kV

FZLY 1,5/7: > 20 kV

Insulating resistance: ≥ 20 MOhm x km

Temperature range: -40°C to +105°C

Minimum bending radius: 12,5 x DA

Fire behaviour: EN 60332-1-2

IEC 60332-1

FZLY

Produkteigenschaften

Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
1,5/5	30 x 0,25	5,0	36,0	13,3	15,0
1,5/7	30 x 0,25	7,0	48,0	13,3	15,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

FBL UL



Verwendung

As a flexible electronic ribbon cable in all areas of industry and consumer technology, as well as wherever fast and space-saving wiring is required. The cables are extremely flexible.

Aufbau und Normen

UL Execution

- Stranded copper wire, tinned 7 x 0,127 mm
- PVC - core insulation
- Core identification grey with edge marking
- Cores arranged parallel to each other, welded, easy to separate
- Spacing 1.27 ± 0.08 mm

Technische Daten

Nominal voltage U_0/U:	300 V
Testing voltage:	1500 V
Insulating resistance:	≥ 20 MΩm x km
Temperature range:	
Operating temperature:	-20°C to +105°C
Capacity:	at 1 kHz approx. 45 pF/m
Inductance:	at 1 kHz approx. 0,46 μH/m
Characteristic impedance:	at 1 MHz approx. 105 Ωm
Fire behaviour:	EN 60332-1-2 IEC 60332-1

FBL UL

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Gewicht	Gesamtbreite	Gesamtraster	Cu Zahl
mm ²	ca. kg/km	ca. mm	ca. mm	kg/km
9 x AWG 2807	17,0	11,1	10,2	8,5
10 x AWG 2807	19,0	12,4	11,4	9,4
14 x AWG 2807	27,0	17,4	15,5	13,2
15 x AWG 2807	29,0	18,7	17,8	14,1
16 x AWG 2807	31,0	20,0	19,1	15,0
20 x AWG 2807	38,0	25,1	24,1	18,8
24 x AWG 2807	46,0	30,1	29,2	22,5
25 x AWG 2807	48,0	31,4	30,5	23,5
26 x AWG 2807	50,0	32,7	31,8	24,4
34 x AWG 2807	65,0	43,2	42,8	31,9
37 x AWG 2807	70,0	47,0	46,7	34,7
40 x AWG 2807	76,0	50,8	50,5	37,5
50 x AWG 2807	95,0	63,5	63,2	46,9
60 x AWG 2807	114,0	76,2	75,9	56,3
64 x AWG 2807	128,0	81,3	80,9	60,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

RFBL UL



Verwendung

As a flexible, round-moulded electronic ribbon cable in all areas of industry and consumer technology.

Aufbau und Normen

Execution, UL

- Stranded copper wire, tinned 7 x 0,127 mm
- PVC - core insulation
- Core identification grey with edge marking
- PVC outer sheath
- Sheath colour grey (RAL 7032)
- Spacing 1.27 ± 0.08 mm
- Cable thickness 0.93 ± 0.05 mm

Technische Daten

Nominal voltage U_0/U:	300 V
Testing voltage $U_{eff}/50$ Hz:	2000 V
Insulating resistance:	min. 100 MOhm x km
Temperature range:	
When laying:	max. -20°C
Operating temperature:	-30°C to +75°C
Conductor operating temperature:	max. +70°C
Capacity:	at 1 kHz approx. 60 pF/m
Inductivity:	at 1 kHz approx. 0,46µH/m
Characteristic impedance:	at 1 MHz approx. 100 Ohm
Fire behaviour:	EN 60332-1-2 IEC 60332-1

RFBL UL

Produkteigenschaften

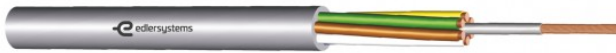
Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Gesamtbreite	Gesamtraster	Cu Zahl
mm ²	ca. mm	ca. kg/km	ca. mm	ca. mm	kg/km
9 x AWG 2807	6,1	33,0	11,4	10,2	8,5
10 x AWG 2807	6,2	34,0	12,7	11,4	9,4
14 x AWG 2807	7,2	47,0	17,8	16,5	13,2
15 x AWG 2807	7,2	48,0	19,1	17,8	14,1
16 x AWG 2807	7,2	51,0	20,3	19,1	15,0
20 x AWG 2807	7,3	53,0	25,4	24,1	18,8
24 x AWG 2807	8,6	63,0	30,5	29,2	22,5
25 x AWG 2807	8,6	64,0	31,8	30,5	23,5
26 x AWG 2807	8,6	67,0	33,0	31,8	24,4
30 x AWG 2807	9,0	72,0	38,1	36,8	28,1
34 x AWG 2807	10,0	79,0	43,2	41,9	31,9
36 x AWG 2807	10,2	81,0	45,7	44,5	33,8
37 x AWG 2807	10,3	83,0	47,0	45,7	34,7
40 x AWG 2807	10,5	88,0	50,8	49,5	37,5
50 x AWG 2807	11,1	105,0	63,5	62,2	46,9
60 x AWG 2807	11,4	124,0	76,2	74,9	56,3
64 x AWG 2807	11,6	138,0	81,3	80,0	60,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Shielded version on request (type: C-RFBL UL)

LIYY



Verwendung

For flexible application with free movement without tensile stress and without forced movement in dry and damp rooms, but not outdoors. Due to their high flexibility and small outer diameter, these cables are ideally suited for mobile devices and are used as connection cables in control, measurement, signalling and data processing applications. Not authorised for heavy current installations and underground laying.

Aufbau und Normen

based on DIN VDE 0812

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5 (Exception: 0,34 mm² 7x0,25mm)
- PVC - core insulation T12
- Core labelling according to DIN 47100
- Cores stranded in layers with optimum lay lengths
- PVC outer sheath TM2
- Sheath colour grey (RAL 7001)

Technische Daten

Operating voltage U:

0,14 mm ² :	350 V
≥ 0,25 mm ² :	500 V

Testing voltage:

0,14 mm ² :	800 V
≥ 0,25 mm ² :	1200 V

Insulating resistance:

≥ 20 MOhm x km

Breakdown voltage:

≤ 0,25 mm ² :	2400 V
≥ 0,34 mm ² :	4000 V

Operating capacity (at 800 Hz):

0,14 mm ² :	120 pF/m
≥ 0,25 mm ² :	150 pF/m

Inductivity:

ca. 0,65 mH/km

Impedance:

ca. 78 Ohm

Temperature range:

When laying:	max. -5°C
Operating temperature:	-30°C to +70°C

Minimum bending radius:

7,5 x DA

CPR performance class:

Eca

LIYY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,14	18 x 0,10	0,6	3,2	12,0	138,0	2,8
3 x 0,14	18 x 0,10	0,6	3,4	15,0	138,0	4,2
4 x 0,14	18 x 0,10	0,6	3,6	17,0	138,0	5,6
5 x 0,14	18 x 0,10	0,6	3,9	22,0	138,0	7,0
6 x 0,14	18 x 0,10	0,6	4,2	25,0	138,0	8,4
7 x 0,14	18 x 0,10	0,6	4,3	26,0	138,0	9,8
8 x 0,14	18 x 0,10	0,6	4,5	29,0	138,0	11,2
10 x 0,14	18 x 0,10	0,6	5,2	35,0	138,0	14,0
12 x 0,14	18 x 0,10	0,7	5,6	43,0	138,0	16,8
14 x 0,14	18 x 0,10	0,7	5,8	48,0	138,0	19,6
16 x 0,14	18 x 0,10	0,7	6,1	52,0	138,0	22,4
18 x 0,14	18 x 0,10	0,8	6,5	65,0	138,0	25,2
20 x 0,14	18 x 0,10	0,8	6,9	73,0	138,0	28,0
24 x 0,14	18 x 0,10	0,8	7,6	89,0	138,0	33,6
25 x 0,14	18 x 0,10	0,8	7,7	91,0	138,0	35,0
27 x 0,14	18 x 0,10	0,8	7,8	96,0	138,0	37,8
30 x 0,14	18 x 0,10	0,8	8,0	106,0	138,0	42,0
32 x 0,14	18 x 0,10	0,8	8,3	112,0	138,0	44,8
36 x 0,14	18 x 0,10	0,8	8,6	120,0	138,0	50,4
40 x 0,14	18 x 0,10	0,8	8,9	132,0	138,0	56,0
52 x 0,14	18 x 0,10	1,0	10,4	177,0	138,0	72,8
2 x 0,25	14 x 0,15	0,6	3,8	25,0	77,8	5,0
3 x 0,25	14 x 0,15	0,6	4,0	29,0	77,8	7,5
4 x 0,25	14 x 0,15	0,6	4,3	31,0	77,8	10,0
5 x 0,25	14 x 0,15	0,6	4,7	38,0	77,8	12,5
6 x 0,25	14 x 0,15	0,6	5,1	42,0	77,8	15,0
7 x 0,25	14 x 0,15	0,6	5,3	48,0	77,8	17,5
8 x 0,25	14 x 0,15	0,7	5,7	54,0	77,8	20,0
10 x 0,25	14 x 0,15	0,8	6,8	65,0	77,8	25,0
12 x 0,25	14 x 0,15	0,8	7,0	75,0	77,8	30,0
14 x 0,25	14 x 0,15	0,8	7,3	89,0	77,8	35,0
16 x 0,25	14 x 0,15	0,8	7,7	95,0	77,8	40,0
18 x 0,25	14 x 0,15	0,8	7,9	105,0	77,8	45,0
20 x 0,25	14 x 0,15	0,8	8,5	115,0	77,8	50,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
24 x 0,25	14 x 0,15	0,8	9,4	143,0	77,8	60,0
25 x 0,25	14 x 0,15	0,8	9,6	148,0	77,8	62,5
27 x 0,25	14 x 0,15	0,8	9,9	158,0	77,8	67,5
30 x 0,25	14 x 0,15	1,0	10,3	172,0	77,8	75,0
32 x 0,25	14 x 0,15	1,0	10,7	186,0	77,8	80,0
36 x 0,25	14 x 0,15	1,0	11,1	196,0	77,8	90,0
40 x 0,25	14 x 0,15	1,0	11,5	200,0	77,8	100,0
44 x 0,25	14 x 0,15	1,0	12,6	225,0	77,8	110,0
52 x 0,25	14 x 0,15	1,0	12,9	258,0	77,8	130,0
2 x 0,34	7 x 0,25	0,6	4,2	28,0	57,7	6,8
3 x 0,34	7 x 0,25	0,6	4,4	30,0	57,7	10,2
4 x 0,34	7 x 0,25	0,6	4,8	40,0	57,7	13,6
5 x 0,34	7 x 0,25	0,7	5,5	44,0	57,7	17,0
6 x 0,34	7 x 0,25	0,7	5,9	53,0	57,7	20,4
7 x 0,34	7 x 0,25	0,7	6,1	60,0	57,7	23,8
8 x 0,34	7 x 0,25	0,7	6,4	65,0	57,7	27,2
10 x 0,34	7 x 0,25	0,8	7,6	77,0	57,7	34,0
12 x 0,34	7 x 0,25	0,8	7,8	97,0	57,7	40,8
14 x 0,34	7 x 0,25	0,8	8,2	101,0	57,7	47,6
16 x 0,34	7 x 0,25	0,8	8,7	114,0	57,7	54,4
18 x 0,34	7 x 0,25	0,8	9,1	135,0	57,7	61,2
20 x 0,34	7 x 0,25	0,8	9,6	146,0	57,7	68,0
21 x 0,34	7 x 0,25	0,8	9,8	166,0	57,7	71,4
24 x 0,34	7 x 0,25	1,0	11,0	171,0	57,7	81,6
25 x 0,34	7 x 0,25	1,0	11,2	177,0	57,7	85,0
27 x 0,34	7 x 0,25	1,0	11,4	188,0	57,7	91,8
30 x 0,34	7 x 0,25	1,0	11,6	207,0	57,7	102,0
32 x 0,34	7 x 0,25	1,0	12,1	223,0	57,7	108,8
36 x 0,34	7 x 0,25	1,0	12,5	244,0	57,7	122,4
40 x 0,34	7 x 0,25	1,0	13,0	266,0	57,7	136,0
52 x 0,34	7 x 0,25	1,2	15,0	337,0	57,7	176,8
2 x 0,5	16 x 0,20	0,6	4,7	25,0	39,0	10,0
3 x 0,5	16 x 0,20	0,6	5,0	35,0	39,0	15,0
4 x 0,5	16 x 0,20	0,7	5,6	42,0	39,0	20,0
5 x 0,5	16 x 0,20	0,7	6,1	49,0	39,0	25,0
6 x 0,5	16 x 0,20	0,8	6,9	65,0	39,0	30,0
7 x 0,5	16 x 0,20	0,8	7,2	73,0	39,0	35,0
8 x 0,5	16 x 0,20	0,8	7,4	83,0	39,0	40,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
10 x 0,5	16 x 0,20	0,8	8,6	120,0	39,0	50,0
12 x 0,5	16 x 0,20	0,8	9,0	130,0	39,0	60,0
16 x 0,5	16 x 0,20	1,0	10,2	152,0	39,0	80,0
18 x 0,5	16 x 0,20	1,0	10,7	173,0	39,0	90,0
24 x 0,5	16 x 0,20	1,0	12,5	250,0	39,0	120,0
30 x 0,5	16 x 0,20	1,0	13,5	303,0	39,0	150,0
36 x 0,5	16 x 0,20	1,2	14,5	315,0	39,0	180,0
40 x 0,5	16 x 0,20	1,2	15,8	391,0	39,0	200,0
2 x 0,75	24 x 0,20	0,6	5,1	44,0	26,0	15,0
3 x 0,75	24 x 0,20	0,7	5,6	64,0	26,0	22,5
4 x 0,75	24 x 0,20	0,7	6,1	66,0	26,0	30,0
5 x 0,75	24 x 0,20	0,8	6,9	77,0	26,0	37,5
7 x 0,75	24 x 0,20	0,8	7,5	95,0	26,0	52,5
8 x 0,75	24 x 0,20	0,8	8,0	122,0	26,0	60,0
10 x 0,75	24 x 0,20	0,8	9,4	159,0	26,0	75,0
12 x 0,75	24 x 0,20	1,0	10,1	188,0	26,0	90,0
16 x 0,75	24 x 0,20	1,0	11,6	220,0	26,0	120,0
20 x 0,75	24 x 0,20	1,0	12,3	283,0	26,0	150,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

LIYCY



Verwendung

For flexible application with free movement without tensile stress and without forced movement in dry and damp rooms, but not outdoors. Thanks to their high flexibility and small outer diameter, these cables are ideally suited for mobile devices and are used as connection and interconnection cables in control, measurement, signalling and data processing technology. These cables with copper shielding are ideally suited for interference-free data and signal transmission for measurement, control and regulation technology in EMC-affected environments. Not approved for heavy current installations and underground laying.

Aufbau und Normen

according to DIN VDE 0812

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5 (Exception: 0,34 mm² 7x0,25mm)
- PVC - core insulation T12
- Core labelling according to DIN 47100
- Cores stranded in layers with optimum lay lengths
- Foil taping
- Shielding braid made of tinned copper wires
- PVC outer sheath TM2
- Sheath colour grey (RAL 7001)

Technische Daten

Peak operating voltage:	
0,14 mm ²	350 V
≥ 0,25 mm ²	500 V
Testing voltage:	
0,14 mm ²	800 V
≥ 0,25 mm ²	1200 V
Insulating resistance:	≥ 20 MOhm x km
Breakdown voltage:	
≤ 0,25 mm ²	2400 V
≥ 0,34 mm ²	4000 V
Operating capacity (at 800 Hz):	
0,14 mm ²	120 pF/m
≥ 0,25 mm ²	150 pF/m
Inductivity:	ca. 0,65 mH/km
Impedance:	ca. 78 Ohm
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Eca

LIICY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
1 x 0,14	18 x 0,10	0,6	3,5	16,0	138,0	9,0
2 x 0,14	18 x 0,10	0,6	3,7	21,0	138,0	13,0
3 x 0,14	18 x 0,10	0,6	3,9	25,0	138,0	15,0
4 x 0,14	18 x 0,10	0,6	4,1	29,0	138,0	17,0
5 x 0,14	18 x 0,10	0,6	4,4	35,0	138,0	20,0
6 x 0,14	18 x 0,10	0,6	4,7	38,0	138,0	23,0
7 x 0,14	18 x 0,10	0,6	4,8	41,0	138,0	25,0
8 x 0,14	18 x 0,10	0,6	5,0	45,0	138,0	26,0
10 x 0,14	18 x 0,10	0,7	5,9	56,0	138,0	30,0
12 x 0,14	18 x 0,10	0,7	6,1	61,0	138,0	33,0
14 x 0,14	18 x 0,10	0,7	6,3	67,0	138,0	36,0
16 x 0,14	18 x 0,10	0,8	6,8	81,0	138,0	50,0
18 x 0,14	18 x 0,10	0,8	7,1	92,0	138,0	54,0
20 x 0,14	18 x 0,10	0,8	7,4	104,0	138,0	61,0
24 x 0,14	18 x 0,10	0,8	8,1	118,0	138,0	77,0
25 x 0,14	18 x 0,10	0,8	8,3	120,0	138,0	79,0
27 x 0,14	18 x 0,10	0,8	8,5	123,0	138,0	88,0
32 x 0,14	18 x 0,10	0,8	8,8	146,0	138,0	110,0
36 x 0,14	18 x 0,10	0,8	9,1	157,0	138,0	121,0
37 x 0,14	18 x 0,10	0,8	9,8	160,0	138,0	129,0
40 x 0,14	18 x 0,10	0,8	9,4	166,0	138,0	131,0
50 x 0,14	18 x 0,10	1,0	11,1	200,0	138,0	161,0
52 x 0,14	18 x 0,10	1,0	11,3	212,0	138,0	164,0
1 x 0,25	14 x 0,15	0,6	3,9	18,0	77,8	12,0
2 x 0,25	14 x 0,15	0,6	4,3	20,0	77,8	17,0
3 x 0,25	14 x 0,15	0,6	4,5	35,0	77,8	22,0
4 x 0,25	14 x 0,15	0,6	4,8	44,0	77,8	25,0
5 x 0,25	14 x 0,15	0,6	5,2	50,0	77,8	30,0
6 x 0,25	14 x 0,15	0,7	5,8	58,0	77,8	34,0
7 x 0,25	14 x 0,15	0,7	6,0	60,0	77,8	38,0
8 x 0,25	14 x 0,15	0,7	6,2	67,0	77,8	44,0
10 x 0,25	14 x 0,15	0,8	7,3	81,0	77,8	52,0
12 x 0,25	14 x 0,15	0,8	7,5	91,0	77,8	61,0
14 x 0,25	14 x 0,15	0,8	7,8	116,0	77,8	67,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
16 x 0,25	14 x 0,15	0,8	8,2	133,0	77,8	74,0
18 x 0,25	14 x 0,15	0,8	8,6	137,0	77,8	86,0
20 x 0,25	14 x 0,15	0,8	9,0	153,0	77,8	104,0
24 x 0,25	14 x 0,15	1,0	10,5	158,0	77,8	119,0
25 x 0,25	14 x 0,15	1,0	10,7	190,0	77,8	121,0
27 x 0,25	14 x 0,15	1,0	10,8	200,0	77,8	126,0
30 x 0,25	14 x 0,15	1,0	11,0	214,0	77,8	138,0
32 x 0,25	14 x 0,15	1,0	11,4	227,0	77,8	144,0
36 x 0,25	14 x 0,15	1,0	11,8	250,0	77,8	158,0
40 x 0,25	14 x 0,15	1,0	12,2	289,0	77,8	170,0
52 x 0,25	14 x 0,15	1,0	13,6	340,0	77,8	246,0
2 x 0,34	7 x 0,25	0,6	4,7	33,0	57,7	22,0
3 x 0,34	7 x 0,25	0,6	4,9	41,0	57,7	28,0
4 x 0,34	7 x 0,25	0,6	5,5	48,0	57,7	34,0
5 x 0,34	7 x 0,25	0,7	6,0	58,0	57,7	37,0
6 x 0,34	7 x 0,25	0,7	6,4	64,0	57,7	41,0
7 x 0,34	7 x 0,25	0,7	6,8	70,0	57,7	53,0
8 x 0,34	7 x 0,25	0,8	7,1	93,0	57,7	56,0
10 x 0,34	7 x 0,25	0,8	8,1	110,0	57,7	77,0
12 x 0,34	7 x 0,25	0,8	8,3	120,0	57,7	83,0
14 x 0,34	7 x 0,25	0,8	8,7	140,0	57,7	90,0
16 x 0,34	7 x 0,25	0,8	9,2	147,0	57,7	98,0
18 x 0,34	7 x 0,25	1,0	10,2	172,0	57,7	112,0
24 x 0,34	7 x 0,25	1,0	11,7	229,0	57,7	145,0
25 x 0,34	7 x 0,25	1,0	11,6	231,0	57,7	152,0
27 x 0,34	7 x 0,25	1,0	11,9	235,0	57,7	156,0
32 x 0,34	7 x 0,25	1,0	12,8	275,0	57,7	169,8
36 x 0,34	7 x 0,25	1,0	13,2	295,0	57,7	185,4
40 x 0,34	7 x 0,25	1,0	13,7	330,0	57,7	212,0
1 x 0,5	16 x 0,20	0,6	4,8	40,0	39,0	14,0
2 x 0,5	16 x 0,20	0,6	5,2	42,0	39,0	30,0
3 x 0,5	16 x 0,20	0,7	5,7	55,0	39,0	41,0
4 x 0,5	16 x 0,20	0,7	6,1	68,0	39,0	48,0
5 x 0,5	16 x 0,20	0,8	6,8	82,0	39,0	59,0
6 x 0,5	16 x 0,20	0,8	7,4	104,0	39,0	71,0
7 x 0,5	16 x 0,20	0,8	7,7	109,0	39,0	83,0
8 x 0,5	16 x 0,20	0,8	7,9	123,0	39,0	95,0
10 x 0,5	16 x 0,20	0,8	9,1	135,0	39,0	104,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
12 x 0,5	16 x 0,20	0,8	9,4	160,0	39,0	122,0
16 x 0,5	16 x 0,20	1,0	10,9	210,0	39,0	134,0
18 x 0,5	16 x 0,20	1,0	11,6	220,0	39,0	158,0
20 x 0,5	16 x 0,20	1,0	12,0	270,0	39,0	172,0
24 x 0,5	16 x 0,20	1,0	13,2	320,0	39,0	245,0
25 x 0,5	16 x 0,20	1,0	13,5	335,0	39,0	260,0
32 x 0,5	16 x 0,20	1,2	15,0	431,0	39,0	313,0
36 x 0,5	16 x 0,20	1,2	15,7	445,0	39,0	271,0
40 x 0,5	16 x 0,20	1,2	16,5	470,0	39,0	302,0
50 x 0,5	16 x 0,20	1,2	18,4	570,0	39,0	354,0
1 x 0,75	24 x 0,20	0,7	5,4	46,0	26,0	17,0
2 x 0,75	24 x 0,20	0,7	5,8	50,0	26,0	40,0
3 x 0,75	24 x 0,20	0,7	6,1	71,0	26,0	52,0
4 x 0,75	24 x 0,20	0,8	6,8	78,0	26,0	60,0
5 x 0,75	24 x 0,20	0,8	7,4	100,0	26,0	73,0
6 x 0,75	24 x 0,20	0,8	8,0	116,0	26,0	92,0
7 x 0,75	24 x 0,20	0,8	8,3	131,0	26,0	104,0
8 x 0,75	24 x 0,20	0,8	8,5	151,0	26,0	114,0
10 x 0,75	24 x 0,20	1,0	10,5	173,0	26,0	146,0
12 x 0,75	24 x 0,20	1,0	10,8	218,0	26,0	161,0
16 x 0,75	24 x 0,20	1,0	12,3	275,0	26,0	191,0
18 x 0,75	24 x 0,20	1,0	12,5	300,0	26,0	216,0
20 x 0,75	24 x 0,20	1,0	13,0	331,0	26,0	229,0
24 x 0,75	24 x 0,20	1,2	14,8	376,0	26,0	280,0
25 x 0,75	24 x 0,20	1,2	15,5	445,0	26,0	290,0
32 x 0,75	24 x 0,20	1,2	17,1	530,0	26,0	344,0
36 x 0,75	24 x 0,20	1,2	17,8	600,0	26,0	385,0
50 x 0,75	24 x 0,20	1,2	21,6	758,0	26,0	500,0
1 x 1	32 x 0,20	0,7	5,8	65,0	19,5	19,0
2 x 1	32 x 0,20	0,7	6,1	74,0	19,5	50,0
3 x 1	32 x 0,20	0,7	6,4	89,0	19,5	60,0
4 x 1	32 x 0,20	0,8	7,2	107,0	19,5	74,0
5 x 1	32 x 0,20	0,8	7,8	132,0	19,5	93,0
7 x 1	32 x 0,20	0,8	8,4	158,0	19,5	118,0
10 x 1	32 x 0,20	1,0	11,1	215,0	19,5	172,0
12 x 1	32 x 0,20	1,0	11,4	254,0	19,5	185,0
18 x 1	32 x 0,20	1,0	13,2	366,0	19,5	256,0
1 x 1,5	30 x 0,25	0,8	6,3	78,0	13,3	30,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 1,5	30 x 0,25	0,8	6,9	86,0	13,3	66,0
3 x 1,5	30 x 0,25	0,8	7,3	107,0	13,3	79,0
4 x 1,5	30 x 0,25	0,8	7,9	129,0	13,3	112,0
5 x 1,5	30 x 0,25	0,8	8,6	150,0	13,3	134,0
7 x 1,5	30 x 0,25	0,8	9,3	192,0	13,3	147,0
12 x 1,5	30 x 0,25	1,0	12,7	315,0	13,3	264,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

LIYCY in pairs (TP)



Verwendung

For flexible application with free movement without tensile stress and without forced movement in dry and damp rooms, but not outdoors. Thanks to their high flexibility and small outer diameter, these cables are ideally suited for mobile devices and are used as connection cables in control, measurement and signalling technology and data processing. These cables with copper shielding are ideally suited for interference-free data and signal transmission for measurement, control and regulation technology in EMC-affected environments. Not approved for heavy current installations and underground laying. Favourable crosstalk attenuation values are achieved due to the pair stranding.

Aufbau und Normen

based on DIN VDE 0812

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5 (excluded: 0,34 mm² 7x0,25mm)
- PVC - core insulation Y12
- Core and pair labelling in accordance with DIN 47100
- Cores with optimum lay lengths stranded in pairs. Pairs with optimum lay lengths stranded in layers
- Foil taping
- Shielding braid made of tinned copper wires
- PVC outer sheath YM2
- Sheath colour grey (RAL 7032)

Technische Daten

Peak operating voltage:	
0,14 mm ² :	350 V
≥ 0,25 mm ² :	500 V
Testing voltage:	
0,14 mm ² :	800 V
≥ 0,25 mm ² :	1200 V
Insulating resistance:	≥ 20 MOhm x km
Breakdown voltage:	
≤ 0,25 mm ² :	2400 V
≥ 0,34 mm ² :	4000 V
Operating capacity (at 800 Hz):	
0,14 mm ² :	120 pF/m
≥ 0,25 mm ² :	150 pF/m
Inductivity:	ca. 0,65 mH/km
Impedance:	ca. 78 Ohm
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Eca

LIYCY in pairs (TP)

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 2 x 0,14	18 x 0,10	0,7	5,8	34,0	138,0	24,0
3 x 2 x 0,14	18 x 0,10	0,7	6,2	43,0	138,0	27,0
4 x 2 x 0,14	18 x 0,10	0,7	6,8	50,0	138,0	41,0
5 x 2 x 0,14	18 x 0,10	0,8	7,7	70,0	138,0	46,0
6 x 2 x 0,14	18 x 0,10	0,8	7,9	81,0	138,0	54,0
8 x 2 x 0,14	18 x 0,10	0,8	8,6	93,0	138,0	59,0
10 x 2 x 0,14	18 x 0,10	0,8	9,5	115,0	138,0	68,0
12 x 2 x 0,14	18 x 0,10	0,8	9,9	125,0	138,0	82,0
16 x 2 x 0,14	18 x 0,10	0,9	11,2	148,0	138,0	97,0
20 x 2 x 0,14	18 x 0,10	0,9	11,6	193,0	138,0	120,0
25 x 2 x 0,14	18 x 0,10	1,0	13,4	220,0	138,0	160,0
32 x 2 x 0,14	18 x 0,10	1,0	14,2	284,0	138,0	155,0
2 x 2 x 0,25	14 x 0,15	0,7	6,6	46,0	77,8	29,0
3 x 2 x 0,25	14 x 0,15	0,7	7,0	64,0	77,8	44,0
4 x 2 x 0,25	14 x 0,15	0,8	7,6	73,0	77,8	57,0
5 x 2 x 0,25	14 x 0,15	0,8	8,4	88,0	77,8	63,0
6 x 2 x 0,25	14 x 0,15	0,8	8,6	98,0	77,8	72,0
8 x 2 x 0,25	14 x 0,15	0,8	9,4	118,0	77,8	80,0
10 x 2 x 0,25	14 x 0,15	0,9	10,7	165,0	77,8	115,0
12 x 2 x 0,25	14 x 0,15	0,9	11,1	190,0	77,8	127,0
16 x 2 x 0,25	14 x 0,15	0,9	12,3	235,0	77,8	144,0
20 x 2 x 0,25	14 x 0,15	1,0	13,7	275,0	77,8	179,0
25 x 2 x 0,25	14 x 0,15	1,0	15,4	343,0	77,8	204,0
32 x 2 x 0,25	14 x 0,15	1,2	16,9	400,0	77,8	269,0
2 x 2 x 0,34	7 x 0,25	0,8	7,5	64,0	57,7	45,0
3 x 2 x 0,34	7 x 0,25	0,8	7,9	86,0	57,7	54,0
4 x 2 x 0,34	7 x 0,25	0,8	8,5	113,0	57,7	67,0
6 x 2 x 0,34	7 x 0,25	0,8	9,6	137,0	57,7	78,0
8 x 2 x 0,34	7 x 0,25	0,9	10,7	161,0	57,7	92,0
12 x 2 x 0,34	7 x 0,25	1,0	13,2	220,0	57,7	145,0
16 x 2 x 0,34	7 x 0,25	1,0	14,1	291,0	57,7	171,0
2 x 2 x 0,5	16 x 0,20	0,8	8,2	75,0	39,0	56,0
3 x 2 x 0,5	16 x 0,20	0,8	8,7	98,0	39,0	77,0
4 x 2 x 0,5	16 x 0,20	0,8	9,3	123,0	39,0	95,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
6 x 2 x 0,5	16 x 0,20	0,9	10,8	162,0	39,0	125,0
8 x 2 x 0,5	16 x 0,20	0,9	11,8	190,0	39,0	150,0
12 x 2 x 0,5	16 x 0,20	1,0	14,0	342,0	39,0	207,0
16 x 2 x 0,5	16 x 0,20	1,2	17,5	421,0	39,0	265,0
20 x 2 x 0,5	16 x 0,20	1,2	19,5	580,0	39,0	304,0
2 x 2 x 0,75	24 x 0,20	0,8	8,2	105,0	26,0	68,0
3 x 2 x 0,75	24 x 0,20	0,8	9,0	128,0	26,0	88,0
4 x 2 x 0,75	24 x 0,20	0,8	9,2	156,0	26,0	124,0
6 x 2 x 0,75	24 x 0,20	0,9	12,4	216,0	26,0	152,0
8 x 2 x 0,75	24 x 0,20	1,0	14,1	309,0	26,0	188,0
12 x 2 x 0,75	24 x 0,20	1,2	16,4	405,0	26,0	277,0
16 x 2 x 0,75	24 x 0,20	1,2	19,2	565,0	26,0	344,0
20 x 2 x 0,75	24 x 0,20	1,2	21,2	700,0	26,0	443,0
2 x 2 x 1	32 x 0,20	0,8	8,9	116,0	19,5	86,0
2 x 2 x 1,5	30 x 0,25	0,8	10,2	122,0	13,3	117,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

JE-LiYCY Bd



Verwendung

These cables are used to transmit signals and measured values in symmetrical control and regulation circuits, as well as to transmit information in data and process computer systems. Suitable for laying on and under plaster, in pipes, in dry, damp and wet rooms. Also outdoors if protected from direct sunlight. Not approved for heavy current installations and underground installation.

Aufbau und Normen

DIN VDE 0815

- Bare copper stranded wire, 7x0,3 mm
- PVC - core insulation Y13
- Core labelling according to DIN VDE 0815
- Cores with optimum lay lengths twisted into pairs, 4 pairs each to form a bundle, the bundles are stranded in layers (2-pair cable as star quad)
- Foil winding
- Shielding made of tinned copper wires
- PVC outer sheath YM1
- Sheath colour grey (RAL 7032)

Technische Daten

Operating voltage U:	max. 225 V
Testing voltage (50 Hz):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	≥ 100 MOhm x km
Inductivity:	ca. 0,70 mH/km
Attenuation (at 800 Hz):	ca. 1,1 dB/km
Capacitive coupling (at 800 Hz):	max. 200 pF/100m
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

JE-LiYCY Bd

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	max. Ω/km	kg/km
2 x 2 x 0,5	7 x 0,30	1,0	6,9	76,0	78,4	51,0
4 x 2 x 0,5	7 x 0,30	1,0	9,2	124,0	78,4	87,0
8 x 2 x 0,5	7 x 0,30	1,2	13,8	227,0	78,4	144,0
12 x 2 x 0,5	7 x 0,30	1,2	14,6	284,0	78,4	196,0
16 x 2 x 0,5	7 x 0,30	1,2	15,9	347,0	78,4	249,0
20 x 2 x 0,5	7 x 0,30	1,4	17,4	412,0	78,4	299,0
24 x 2 x 0,5	7 x 0,30	1,4	19,4	495,0	78,4	348,0
32 x 2 x 0,5	7 x 0,30	1,4	24,9	675,0	78,4	444,0
40 x 2 x 0,5	7 x 0,30	1,6	25,2	776,0	78,4	560,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Version with blue outer sheath (JE-LiYCY/EB) on request.

JE-Y(St)Y Bd



Verwendung

These cables are used to transmit signals and measured values in symmetrical control and regulation circuits, as well as to transmit information in data and process computer systems. Suitable for laying on and under plaster, in pipes, in dry, damp and wet rooms. Also outdoors if protected from direct sunlight. Not approved for heavy current installations and underground installation.

Aufbau und Normen

DIN VDE 0815

- Bare copper wire, solid, $\varnothing 0,8 \text{ mm}^2$
- PVC - core insulation Y13
- Core labelling in accordance with DIN VDE 0815
- Cores with optimum lay lengths pairs, 4 pairs each to the bundle, the bundles are stranded in layers (2-pair cable as star quad)
- Foil winding
- Shielding made of plastic-laminated aluminium foil with copper drain wire
- PVC outer sheath YM1
- Sheath colour grey (RAL 7032)

Technische Daten

Operating voltage U:	max. 225 V
Testing voltage (50 Hz):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	$\geq 100 \text{ MOhm} \times \text{km}$
Inductivity:	ca. 0,70 mH/km
Attenuation (at 800 Hz):	ca. 1,1 dB/km
Capacitive coupling (at 800 Hz):	max. 200 pF/100m
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

JE-Y(St)Y Bd

Produkteigenschaften

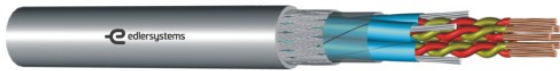
Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	max. Ω/km	kg/km
2 x 2 x 0,8	1,0	5,8	55,0	73,2	25,0
4 x 2 x 0,8	1,0	7,7	88,0	73,2	45,0
8 x 2 x 0,8	1,0	10,5	152,0	73,2	85,0
10 x 2 x 0,8	1,0	11,0	192,0	73,2	103,0
12 x 2 x 0,8	1,0	11,5	204,0	73,2	126,0
16 x 2 x 0,8	1,2	12,4	268,0	73,2	166,0
20 x 2 x 0,8	1,2	14,3	321,0	73,2	206,0
24 x 2 x 0,8	1,2	14,8	375,0	73,2	246,0
32 x 2 x 0,8	1,4	18,0	495,0	73,2	327,0
40 x 2 x 0,8	1,4	20,3	617,0	73,2	407,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Version with blue outer sheath (JE-Y(St)Y/EB) on request.

Li2YCY



Verwendung

As an absolutely interference-free transmission cable at terminals in medical and data technology as well as in toolmaking and mechanical engineering, in transport and process engineering. Also suitable for mobile devices. The individual shielding of the pairs (PiMF) achieves high crosstalk attenuation. The copper braiding provides additional protection against interference from external electrical and magnetic fields.

Aufbau und Normen

according to factory standard

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- PE - core insulation
- Wire colours yellow and red
- PiMF (pair in metal foil)
Cores twisted in pairs, foil wrapping, covered with Shielding with plastic-laminated aluminium foil with stranded tinned stranded wire
- Pairs with optimum lay lengths stranded in layers
- Foil banding
- Shielding braid made of tinned copper wires
- PVC outer sheath
- Sheath colour grey (RAL 7032)

Technische Daten

Operating voltage U:	max. 250 V
Testing voltage (50 Hz):	
Core/Core:	1200 V
Core/Shield:	500 V
Insulating resistance:	5 GOhm x km
Operating capacity (Core/Core):	ca. 75 pF/m
Inductivity:	ca. 0,4 mH/km
Crosstalk attenuation (at 100 kHz):	min. 60 dB
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Eca

Li2YCY

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	max. Ω/km	kg/km
2 x 2 x 0,5	16 x 0,20	9,1	101,0	78,4	77,0
3 x 2 x 0,5	16 x 0,20	10,0	120,0	78,4	92,0
4 x 2 x 0,5	16 x 0,20	12,0	196,0	78,4	112,0
6 x 2 x 0,5	16 x 0,20	14,4	260,0	78,4	154,0
8 x 2 x 0,5	16 x 0,20	15,0	310,0	78,4	188,0
16 x 2 x 0,5	16 x 0,20	21,2	515,0	78,4	352,0

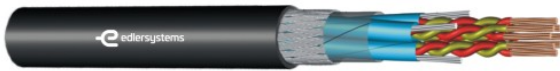
Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

RS2YCY PiMF with wire colours black and white on request

Li2YCY PiMF wire colour according to DIN 47100 on request

Li2YCYv SW



Verwendung

As an absolutely interference-free transmission cable at terminals in medical and data technology as well as in toolmaking and mechanical engineering, in transport and process engineering. Also suitable for mobile devices. The individual shielding of the pairs (PiMF) achieves high crosstalk attenuation. The copper braiding provides additional protection against interference from external electrical and magnetic fields.

Aufbau und Normen

according to factory standard

- Bare copper stranded wire, stranded
- PE - core insulation
- Core and pair labelling in accordance with DIN 47100
- Cores with optimum lay lengths stranded into pairs. Pairs with optimum lay lengths stranded in layers
- Foil taping
- Shielding braid made of tinned copper wires
- PVC outer sheath, reinforced
- Sheath colour black (RAL 9005)

Technische Daten

Operating voltage U:	max. 250 V
Testing voltage (50 Hz):	
Core/Core:	1200 V
Core/Shield:	500 V
Insulating resistance:	5 GOhm x km
Operating capacity (Core/Core):	ca. 75 pF/m
Inductivity:	ca. 0,66 mH/km
Crosstalk attenuation (at 100 kHz):	min. 50 dB
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Eca

Li2YCYv SW

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	max. Ω/km	kg/km
4 x 2 x 0,22	7 x 0,2	8,8	83,0	93,0	33,0
2 x 2 x 0,34	7 x 0,25	9,2	75,0	57,5	45,0
4 x 2 x 0,34	7 x 0,25	10,1	95,0	57,5	67,0
2 x 2 x 0,5	7 x 0,3	10,0	90,0	39,3	51,0
4 x 2 x 0,5	7 x 0,3	11,2	135,0	39,3	76,0
8 x 2 x 0,5	7 x 0,3	13,9	246,0	39,3	111,0
10 x 2 x 0,5	7 x 0,3	14,7	269,0	39,3	154,0
2 x 2 x 1	7 x 0,42	9,8	120,0	19,6	67,0
8 x 2 x 1	7 x 0,42	18,0	280,0	19,6	250,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

RE-2Y(ST)Yv



Verwendung

For the transmission of analogue and digital signals in the field of measurement and control technology for fixed installation in dry and damp rooms as well as outdoors and in the ground.

Aufbau und Normen

according to factory standard

- Bare copper stranded wire, stranded
- PE - core insulation
- Single-coloured cores with numbers
Pair: a-wire black, b-wire white
Triple: a-wire black, b-wire white, c-wire red
with printed numbers 1/1, 2/2 etc.
- Cores in pairs or triples
with optimum lay lengths in
stranded in layers. With multi-pair design
additionally with a communication core
0.5 mm², PE insulated, orange
- Foil winding
- Static screen made from plastic-laminated
metal foil with stranded tinned
tinned stranded wire (7x0.3 mm)
- Reinforced PVC outer sheath
- Sheath colour black (RAL 9005) or
blue (RAL 5015)

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz):	
Core/Core:	2000 V
Core/Shield:	1000 V
Insulating resistance:	≥ 5 GOhm x km
Inductivity:	max. 0,75 mH/km
Operating capacity (at 800 Hz):	max. 115 nF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

RE-2Y(ST)Yv

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
1 x 2 x 0,5	●	7 x 0,30	0,35	7,2	71,0	36,7	16,0
1 x 2 x 0,5	●	7 x 0,30	0,35	7,2	71,0	36,7	16,0
2 x 2 x 0,5	●	7 x 0,30	0,35	9,4	107,0	36,7	31,0
2 x 2 x 0,5	●	7 x 0,30	0,35	9,4	107,0	36,7	31,0
4 x 2 x 0,5	●	7 x 0,30	0,35	10,6	140,0	36,7	52,0
4 x 2 x 0,5	●	7 x 0,30	0,35	10,6	140,0	36,7	52,0
6 x 2 x 0,5	●	7 x 0,30	0,35	12,2	176,0	36,7	73,0
6 x 2 x 0,5	●	7 x 0,30	0,35	12,2	176,0	36,7	73,0
8 x 2 x 0,5	●	7 x 0,30	0,35	12,9	212,0	36,7	94,0
8 x 2 x 0,5	●	7 x 0,30	0,35	12,9	212,0	36,7	94,0
10 x 2 x 0,5	●	7 x 0,30	0,35	14,3	249,0	36,7	115,0
10 x 2 x 0,5	●	7 x 0,30	0,35	14,3	249,0	36,7	115,0
12 x 2 x 0,5	●	7 x 0,30	0,35	14,9	283,0	36,7	135,0
12 x 2 x 0,5	●	7 x 0,30	0,35	14,9	283,0	36,7	135,0
16 x 2 x 0,5	●	7 x 0,30	0,35	16,6	352,0	36,7	177,0
16 x 2 x 0,5	●	7 x 0,30	0,35	16,6	352,0	36,7	177,0
20 x 2 x 0,5	●	7 x 0,30	0,35	18,1	414,0	36,7	219,0
20 x 2 x 0,5	●	7 x 0,30	0,35	18,1	414,0	36,7	219,0
24 x 2 x 0,5	●	7 x 0,30	0,35	19,5	484,0	36,7	260,0
24 x 2 x 0,5	●	7 x 0,30	0,35	19,5	484,0	36,7	260,0
36 x 2 x 0,5	●	7 x 0,30	0,35	24,0	656,0	36,7	385,0
36 x 2 x 0,5	●	7 x 0,30	0,35	24,0	656,0	36,7	385,0
48 x 2 x 0,5	●	7 x 0,30	0,35	27,4	854,0	36,7	510,0
48 x 2 x 0,5	●	7 x 0,30	0,35	27,4	854,0	36,7	510,0
1 x 2 x 0,75	●	7 x 0,37	0,38	7,6	81,0	25,0	21,0
1 x 2 x 0,75	●	7 x 0,37	0,38	7,6	81,0	25,0	21,0
2 x 2 x 0,75	●	7 x 0,37	0,38	10,3	128,0	25,0	36,5
2 x 2 x 0,75	●	7 x 0,37	0,38	10,3	128,0	25,0	36,5
4 x 2 x 0,75	●	7 x 0,37	0,38	11,6	169,0	25,0	68,0
4 x 2 x 0,75	●	7 x 0,37	0,38	11,6	169,0	25,0	68,0
6 x 2 x 0,75	●	7 x 0,37	0,38	13,4	229,0	25,0	99,0
6 x 2 x 0,75	●	7 x 0,37	0,38	13,4	229,0	25,0	99,0
8 x 2 x 0,75	●	7 x 0,37	0,38	14,2	264,0	25,0	130,0
8 x 2 x 0,75	●	7 x 0,37	0,38	14,2	264,0	25,0	130,0

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
10 x 2 x 0,75	●	7 x 0,37	0,38	15,9	317,0	25,0	161,0
10 x 2 x 0,75	●	7 x 0,37	0,38	15,9	317,0	25,0	161,0
12 x 2 x 0,75	●	7 x 0,37	0,38	16,5	359,0	25,0	193,0
12 x 2 x 0,75	●	7 x 0,37	0,38	16,5	359,0	25,0	193,0
16 x 2 x 0,75	●	7 x 0,37	0,38	18,5	448,0	25,0	255,0
16 x 2 x 0,75	●	7 x 0,37	0,38	18,5	448,0	25,0	255,0
20 x 2 x 0,75	●	7 x 0,37	0,38	20,2	535,0	25,0	310,0
20 x 2 x 0,75	●	7 x 0,37	0,38	20,2	535,0	25,0	310,0
24 x 2 x 0,75	●	7 x 0,37	0,38	21,8	616,0	25,0	380,0
24 x 2 x 0,75	●	7 x 0,37	0,38	21,8	616,0	25,0	380,0
36 x 2 x 0,75	●	7 x 0,37	0,38	28,2	940,0	25,0	554,0
36 x 2 x 0,75	●	7 x 0,37	0,38	28,2	940,0	25,0	554,0
48 x 2 x 0,75	●	7 x 0,37	0,38	32,0	1.250,0	25,0	738,0
48 x 2 x 0,75	●	7 x 0,37	0,38	32,0	1.250,0	25,0	738,0
1 x 2 x 1,0	●	7 x 0,43	0,4	8,1	90,0	18,5	26,0
1 x 2 x 1,0	●	7 x 0,43	0,4	8,1	90,0	18,5	26,0
2 x 2 x 1,0	●	7 x 0,43	0,4	11,0	145,0	18,5	46,5
2 x 2 x 1,0	●	7 x 0,43	0,4	11,0	145,0	18,5	46,5
4 x 2 x 1,0	●	7 x 0,43	0,4	12,5	200,0	18,5	88,0
4 x 2 x 1,0	●	7 x 0,43	0,4	12,5	200,0	18,5	88,0
8 x 2 x 1,0	●	7 x 0,43	0,4	15,4	321,0	18,5	170,0
8 x 2 x 1,0	●	7 x 0,43	0,4	15,4	321,0	18,5	170,0
16 x 2 x 1,0	●	7 x 0,43	0,4	20,2	557,0	18,5	335,0
16 x 2 x 1,0	●	7 x 0,43	0,4	20,2	557,0	18,5	335,0
24 x 2 x 1,0	●	7 x 0,43	0,4	23,9	778,0	18,5	500,0
24 x 2 x 1,0	●	7 x 0,43	0,4	23,9	778,0	18,5	500,0
1 x 2 x 1,3	●	7 x 0,49	0,45	8,6	102,0	14,2	32,0
1 x 2 x 1,3	●	7 x 0,49	0,45	8,6	102,0	14,2	32,0
1 x 3 x 1,3	●	7 x 0,49	0,45	9,7	116,0	14,2	46,0
1 x 3 x 1,3	●	7 x 0,49	0,45	9,7	116,0	14,2	46,0
2 x 2 x 1,3	●	7 x 0,49	0,45	12,0	171,0	14,2	65,0
2 x 2 x 1,3	●	7 x 0,49	0,45	12,0	171,0	14,2	65,0
4 x 2 x 1,3	●	7 x 0,49	0,45	13,6	238,0	14,2	119,0
4 x 2 x 1,3	●	7 x 0,49	0,45	13,6	238,0	14,2	119,0
6 x 2 x 1,3	●	7 x 0,49	0,45	16,0	332,0	14,2	175,0
6 x 2 x 1,3	●	7 x 0,49	0,45	16,0	332,0	14,2	175,0
8 x 2 x 1,3	●	7 x 0,49	0,45	16,9	390,0	14,2	227,0
8 x 2 x 1,3	●	7 x 0,49	0,45	16,9	390,0	14,2	227,0

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
12 x 2 x 1,3	●	7 x 0,49	0,45	19,9	540,0	14,2	335,0
12 x 2 x 1,3	●	7 x 0,49	0,45	19,9	540,0	14,2	335,0
16 x 2 x 1,3	●	7 x 0,49	0,45	22,4	688,0	14,2	444,0
16 x 2 x 1,3	●	7 x 0,49	0,45	22,4	688,0	14,2	444,0
24 x 2 x 1,3	●	7 x 0,49	0,45	26,5	968,0	14,2	713,0
24 x 2 x 1,3	●	7 x 0,49	0,45	26,5	968,0	14,2	713,0

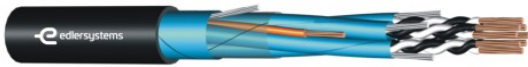
Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

The following versions are available on request:

RE-2Y(St)Yv- FL
 RE-2X(St)H
 RE-2Y(St)YSWAY

RE-2Y(ST)Yv PiMF; DiMF



Verwendung

For the transmission of analogue and digital signals in the field of measurement and control technology. The individual shielding of the pairs ensures good crosstalk attenuation values. The static shield protects the shielded pairs against external electrical interference fields. Suitable for fixed installation in dry and damp rooms as well as outdoors and in the ground.

Aufbau und Normen

according to factory standard

- Bare copper stranded wire, stranded
- PE- core insulation
- Single-coloured cores with numbers:
Pair: a-wire black, b-wire white
Triple: a-wire black, b-wire white,
c-wire red
with printed numbers 1/1, 2/2 etc.
- Wires in pairs or triples with
optimised lay lengths stranded in layers
- **PiMF:** (pair in metal foil)
Plastic-laminated metal foil with
wire 0.6 mm. With multi-pair design
additionally with a communication wire
0.5 mm², PE insulated, orange
DiMF: (triple in metal foil)
- Static shield made of plastic-laminated metal foil with
tinned stranded wire (7x0.3 mm)
- Reinforced PVC outer sheath
- Sheath colour black (RAL 9005) or
blue (RAL 5015)

Technische Daten

Operating voltage U:	max. 300V
Testing voltage (50 Hz):	
Core/Core:	2000 V
Core/Shield:	1000 V
Insulating resistance:	≥ 5 GOhm x km
Inductivity:	max. 0,75 mH/km
Operating capacity (at 800 Hz):	max. 115 nF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

RE-2Y(ST)Yv PiMF; DiMF

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 2 x 0,5	●	7 x 0,30	0,35	10,5	128,0	36,7	37,0
2 x 2 x 0,5	●	7 x 0,30	0,35	10,5	128,0	36,7	37,0
4 x 2 x 0,5	●	7 x 0,30	0,35	11,8	169,0	36,7	63,0
4 x 2 x 0,5	●	7 x 0,30	0,35	11,8	169,0	36,7	63,0
6 x 2 x 0,5	●	7 x 0,30	0,35	13,8	225,0	36,7	85,0
6 x 2 x 0,5	●	7 x 0,30	0,35	13,8	225,0	36,7	85,0
8 x 2 x 0,5	●	7 x 0,30	0,35	14,5	267,0	36,7	126,0
8 x 2 x 0,5	●	7 x 0,30	0,35	14,5	267,0	36,7	126,0
12 x 2 x 0,5	●	7 x 0,30	0,35	17,0	353,0	36,7	168,0
12 x 2 x 0,5	●	7 x 0,30	0,35	17,0	353,0	36,7	168,0
16 x 2 x 0,5	●	7 x 0,30	0,35	19,0	442,0	36,7	221,0
16 x 2 x 0,5	●	7 x 0,30	0,35	19,0	442,0	36,7	221,0
24 x 2 x 0,5	●	7 x 0,30	0,35	22,4	612,0	36,7	326,0
24 x 2 x 0,5	●	7 x 0,30	0,35	22,4	612,0	36,7	326,0
2 x 2 x 0,75	●	7 x 0,37	0,38	11,3	146,0	25,0	47,0
2 x 2 x 0,75	●	7 x 0,37	0,38	11,3	146,0	25,0	47,0
4 x 2 x 0,75	●	7 x 0,37	0,38	12,8	199,0	25,0	81,0
4 x 2 x 0,75	●	7 x 0,37	0,38	12,8	199,0	25,0	81,0
6 x 2 x 0,75	●	7 x 0,37	0,38	15,0	272,0	25,0	115,0
6 x 2 x 0,75	●	7 x 0,37	0,38	15,0	272,0	25,0	115,0
8 x 2 x 0,75	●	7 x 0,37	0,38	15,9	320,0	25,0	153,0
8 x 2 x 0,75	●	7 x 0,37	0,38	15,9	320,0	25,0	153,0
12 x 2 x 0,75	●	7 x 0,37	0,38	18,6	430,0	25,0	234,0
12 x 2 x 0,75	●	7 x 0,37	0,38	18,6	430,0	25,0	234,0
16 x 2 x 0,75	●	7 x 0,37	0,38	20,8	541,0	25,0	294,0
16 x 2 x 0,75	●	7 x 0,37	0,38	20,8	541,0	25,0	294,0
24 x 2 x 0,75	●	7 x 0,37	0,38	24,7	762,0	25,0	435,0
24 x 2 x 0,75	●	7 x 0,37	0,38	24,7	762,0	25,0	435,0
2 x 2 x 1,0	●	7 x 0,43	0,4	12,0	166,0	18,5	57,0
2 x 2 x 1,0	●	7 x 0,43	0,4	12,0	166,0	18,5	57,0
4 x 2 x 1,0	●	7 x 0,43	0,4	13,7	230,0	18,5	102,0
4 x 2 x 1,0	●	7 x 0,43	0,4	13,7	230,0	18,5	102,0
5 x 3 x 1,0	●	7 x 0,43	0,4	16,2	343,0	18,5	184,0
5 x 3 x 1,0	●	7 x 0,43	0,4	16,2	343,0	18,5	184,0

Aderanzahl x Nennquerschnitt	Mantelfarbe	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
6 x 2 x 1,0	●	7 x 0,43	0,4	16,1	316,0	18,5	145,0
6 x 2 x 1,0	●	7 x 0,43	0,4	16,1	316,0	18,5	145,0
8 x 2 x 1,0	●	7 x 0,43	0,4	17,1	378,0	18,5	193,0
8 x 2 x 1,0	●	7 x 0,43	0,4	17,1	378,0	18,5	193,0
8 x 3 x 1,0	●	7 x 0,43	0,4	19,3	496,0	18,5	294,0
8 x 3 x 1,0	●	7 x 0,43	0,4	19,3	496,0	18,5	294,0
12 x 2 x 1,0	●	7 x 0,43	0,4	20,1	515,0	18,5	294,0
12 x 2 x 1,0	●	7 x 0,43	0,4	20,1	515,0	18,5	294,0
16 x 2 x 1,0	●	7 x 0,43	0,4	22,6	648,0	18,5	374,0
16 x 2 x 1,0	●	7 x 0,43	0,4	22,6	648,0	18,5	374,0
16 x 3 x 1,0	●	7 x 0,43	0,4	25,2	870,0	18,5	555,0
16 x 3 x 1,0	●	7 x 0,43	0,4	25,2	870,0	18,5	555,0
24 x 2 x 1,0	●	7 x 0,43	0,4	26,8	913,0	18,5	555,0
24 x 2 x 1,0	●	7 x 0,43	0,4	26,8	913,0	18,5	555,0
2 x 2 x 1,3	●	7 x 0,49	0,45	12,7	184,0	14,2	71,0
2 x 2 x 1,3	●	7 x 0,49	0,45	12,7	184,0	14,2	71,0
4 x 2 x 1,3	●	7 x 0,49	0,45	15,2	269,0	14,2	129,0
4 x 2 x 1,3	●	7 x 0,49	0,45	15,2	269,0	14,2	129,0
6 x 2 x 1,3	●	7 x 0,49	0,45	16,7	370,0	14,2	185,0
6 x 2 x 1,3	●	7 x 0,49	0,45	16,7	370,0	14,2	185,0
8 x 2 x 1,3	●	7 x 0,49	0,45	18,8	442,0	14,2	249,0
8 x 2 x 1,3	●	7 x 0,49	0,45	18,8	442,0	14,2	249,0
12 x 2 x 1,3	●	7 x 0,49	0,45	21,4	593,0	14,2	368,0
12 x 2 x 1,3	●	7 x 0,49	0,45	21,4	593,0	14,2	368,0
16 x 2 x 1,3	●	7 x 0,49	0,45	24,7	789,0	14,2	488,0
16 x 2 x 1,3	●	7 x 0,49	0,45	24,7	789,0	14,2	488,0
24 x 2 x 1,3	●	7 x 0,49	0,45	29,4	1.104,0	14,2	726,0
24 x 2 x 1,3	●	7 x 0,49	0,45	29,4	1.104,0	14,2	726,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

The following versions are available on request:

RE-2Y(St)Y-FL PiMF
 RE-2Y(St)Y-FL DiMF
 RE-2Y(ST)YSWAY PiMF
 RE-2Y(ST)YSWAY DiMF

RE-2YCYö / RE-2YYCYö



Verwendung

For the transmission of analogue and digital signals in the field of measurement and control technology for fixed installation in dry and damp rooms as well as outdoors and in the ground.

Aufbau und Normen

according to factory standard

- Copper wire, stranded, according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- PE - core insulation 2YI2
- Single-coloured cores with numbers
Pair: a wire black, b wire white
with number imprint 1/1, 2/2 etc.
- Cores stranded in pairs, pairs stranded in layers
- Foil winding
- PVC inner sheath
(only for RE-2YYCYö)
- Shielding made of tinned copper wires
- PVC outer sheath
- Sheath colour black (RAL 9005)
or blue (RAL 5015)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 5 \text{ G}\Omega \text{m} \times \text{km}$
Inductivity:	max. 0,40 mH/km
Operating capacity (Core/Core):	approx. 75 pF/m
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

RE-2YCYö / RE-2YYCYö

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
	RE-2YCYö					
1 x 2 x 1/2,5	7 x 0,43	2,2	7,4	215,0	18,1	56,0
2 x 2 x 1/2,5	7 x 0,43	2,2	10,0	173,0	18,1	93,0
	RE-2YYCYö					
12 x 2 x 1/2,5	7 x 0,43	2,2	19,8	595,0	18,1	312,0
16 x 2 x 1/2,5	7 x 0,43	2,2	21,0	700,0	18,1	416,0
24 x 2 x 1/2,5	7 x 0,43	2,2	26,3	854,0	18,1	598,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

J-2Y(ST)Y ST III Bd



Verwendung

For the transmission of digital and analogue signals up to 16 Mbit/s in EDP system units, ISDN private branch exchanges, in production data acquisition, industrial electronics and in bus technology. For laying in dry and damp rooms on and under plaster. These cables with (St) shielding are ideally suited for interference-free data and signal transmission for measurement and control technology.

Aufbau und Normen

based on DIN VDE 0815 and 0816

- Bare copper wire, \varnothing 0,6 mm
- PE - core insulation
- Core labelling according to VDE 0815
- Strands twisted into a star quad, 5 fours to form a bundle in layers
- Shield made of plastic-laminated aluminium foil with drain wire
- PVC outer sheath YM1
- Sheath colour grey (RAL 7032)

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	5 GOhm x km
Operating capacity (at 800 Hz):	max. 52 nF/km
Characteristic impedance (at 4-16 MHz) :	100 Ohm \pm 15%
Capacitive coupling (at 800 Hz):	
K1 (max.):	800 pF/300m
K9-K12 (max.):	300 pF/300m
Crosstalk attenuation (4 MHz to 16 MHz):	
for 2 pairs:	min. 40 dB
from 4 pairs:	min. 25 dB
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	10 x DA
CPR performance class:	Eca

J-2Y(ST)Y ST III Bd

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	max. Ω/km	kg/km
2 x 2 x 0,6	1,0	6,1	36,0	130,0	15,0
4 x 2 x 0,6	1,0	7,5	59,0	130,0	26,0
6 x 2 x 0,6	1,0	7,7	73,0	130,0	39,0
10 x 2 x 0,6	1,0	8,9	104,0	130,0	61,0
20 x 2 x 0,6	1,0	12,7	188,0	130,0	121,0
30 x 2 x 0,6	1,2	14,0	270,0	130,0	175,0
40 x 2 x 0,6	1,4	16,0	370,0	130,0	239,0
50 x 2 x 0,6	1,4	17,5	415,0	130,0	298,0
80 x 2 x 0,6	1,6	24,4	678,0	130,0	474,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Category 7 1200



Verwendung

Data cable for transmitting analogue and digital signals in the frequency range up to 1200 MHz. It is designed for cabling in the primary (campus), secondary (riser) and tertiary (horizontal) areas. For use in LANs such as IEEE 802.3; 10Base-T, 100Base-T; 1000Base-T; FDDI, 10GBase-T, broadband video ISDN, ATM, complies with the requirements of EN 50288-4-1; IEC 61156-5; IEC 61156-7, EN 50173-1, ISO/IEC 11801 2nd edition.

Aufbau und Normen

Cat 7 S/STP - PiMF

- Bare copper wire, solid AWG 22/1
- PE - core insulation
- Core colours: white-blue, white-orange, weiß-grün, weiß-braun
- Cores twisted into pairs
- Pairs individually shielded with aluminium foil individually shielded
- Shielding braid made of tinned copper wires
- Halogen-free (FRNC) outer sheath
- Sheath colour orange

Technische Daten

Operating capacity:	nom. 45 nF/km
Testing voltage:	700 V-AC
Insulating resistance:	≥ 5 GOhm x km
Loop resistance:	≤ 11,5 Ohm/100 m
Capacitive coupling:	≤ 150 pF/100 m
Characteristic impedance:	
1-100 MHz:	100 ± 15 Ohm
100-250 MHz:	100 ± 22 Ohm
250-600 MHz:	100 ± 25 Ohm
Shielding attenuation (up to 1000 MHz):	> 60 dB
maximum tractive force:	150N
maximum tractive force:	
maximum tractive force:	max. 0°C
Operating temperature:	-20°C to +60°C
Minimum bending radius:	
under tensile load:	8 x DA
without tensile load:	4 x DA
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 60754-2
	IEC 60754-2

Category 7 1200

Produkteigenschaften

Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl	Abmessung
ca. mm	ca. mm	ca. kg/km	kg/km	
0,6	8,3	73,0	52,0	4 x 2 x AWG 22/1
0,6	16,8 x 8,3	146,0	104,0	2x (4 x2 x AWG 22/1)

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

f MHZ	Attenuation (dB/100m)		NEXT (dB)		ACR (dB/100m)	EL-FEXT (dB)		
	NOM	MAX	NOM	MIN	NOM	NOM	MIN	
1	1,7	2,0	100	80,0	98,3	95	80	23
4	3,2	3,6	100	80,0	96,8	93	80	27
10	5	5,7	100	80,0	95,0	92	74	30
20	7,1	8,1	100	80,0	92,9	90	68	30
31,25	9,1	10,1	100	80,0	90,9	87	64	30
62,5	13	14,5	100	75,1	87,0	82	58	30
100	16,4	18,5	100	72,4	83,6	77	54	28
155	22,8	23,4	100	69,9	77,2	73	51,0	27
200	23,5	26,8	98	67,9	74,5	70	48,0	26
300	28,5	33,3	96	65,3	67,5	67	44	25
600	41	48,9	88	60,8	47,0	60	38	21
1000	51,8	n.def.	78	n.def.	22,6	55	n.def.	19
1200	60	n.def.	74	n.def.	14,0	42	n.def.	17

Note:

The specified performance data are typical measured values.

Category 7 1000



Verwendung

Data cable for transmitting analogue and digital signals in the frequency range up to 1000 MHz. It is designed for cabling in the primary (campus), secondary (riser) and tertiary (horizontal) areas. For use in LANs such as IEEE 802.3; 10Base-T, 100Base-T; 1000Base-T; FDDI, 10GBase-T, broadband video ISDN, ATM, complies with the requirements of EN 50288-4-1; IEC 61156-5; EN 50173-1, ISO/IEC 11801.

Aufbau und Normen

Cat 7 S/FTP - PiMF

- Bare copper wire, solid AWG 23/1
- PE - core insulation
- Core colour: white-blue, white-orange, white-green, white-brown
- Cores twisted into pairs
- Pairs individually shielded with aluminium foil individually shielded
- Shielding braid made of tinned copper wires
- Halogen-free (FRNC) outer sheath
- Sheath colour orange

Technische Daten

Operating capacity:	
nom. 56 nF/km	700 V-AC
Insulating resistance:	
	≥ 5 GOhm x km
Loop resistance:	
	≤ 14,0 Ohm/100 m
Capacitive coupling:	
	≤ 150 pF/100 m
Characteristic impedance:	
1-100 MHz:	100 ± 15 Ohm
100-250 MHz:	100 ± 22 Ohm
250-600 MHz:	100 ± 25 Ohm
maximum tractive force:	
	110N
Temperature range:	
When laying:	max. 0°C
Operating temperature:	-20°C to +60°C
Minimum bending radius:	
under tensile load:	8 x DA
without tensile load:	4 x DA
CPR performance class:	
	Dca
Corrosiveness of fire gases:	
	EN 60754-2
	IEC 60754-2

Category 7 1000

Produkteigenschaften

Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl	Abmessung
ca. mm	ca. mm	ca. kg/km	kg/km	
0,6	7,5	73,0	44,0	4 x 2 x AWG 23/1
0,6	15,3 x 7,5	146,0	88,0	2x (4 x2 x AWG 23/1)

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

f MHZ	Attenuation (dB/100m)		NEXT (dB)		ACR (dB/100m)	EL-FEXT (dB)		RL (dB)
	NOM	MAX	NOM	MIN	NOM	NOM	MIN	NOM
1	1,9	2	100	80	95,1	90	87	27
10	5,5	5,7	100	80	95,1	90	87	30
16	6,9	7,2	100	80	90,0	86,7	83,7	30
20	7,8	8,1	100	80	89,2	84,8	81,8	30
100	18,0	18,8	94	72	73,3	70,8	67,8	25,1
155	22,7	23,4	91	70	65,1	67	64	23,8
300	32,5	33,3	85	65	50,3	61,3	58,3	21,8
600	47,6	48,9	80	61	29,6	55,2	52,2	19,7
900	60,0	-	77	-	14,1	51,7	48,7	18,4
1000	63,8	-	76	-	9,2	50,8	47,8	18,1

Note:

The specified performance data are typical measured values.

Category 7 PE SW 1000



Verwendung

Data cable for transmitting analogue and digital signals in the frequency range up to 1000 MHz. It is designed for cabling in the primary (campus), secondary (riser) and tertiary (horizontal) areas. For use in LANs such as IEEE 802.3; 10Base-T, 100Base-T; 1000Base-T; FDDI, 10GBase-T, broadband video ISDN, ATM, complies with the requirements of EN 50288-4-1; IEC 61156-5; EN 50173-1, ISO/IEC 11801. The PE sheath enables direct burial and outdoor installation. When laying in cable ducts and indoors, it must be taken into account that the PE sheath is halogen-free, but not flame-retardant.

Aufbau und Normen

Cat 7 S/FTP - PiMF

- Bare copper wire, solid AWG 23/1
- PE - core insulation
- Core colours: white-blue, white-orange, white-green, white-brown
- Cores twisted into pairs
- Pairs individually shielded with individually shielded with aluminium foil
- Shielding braid made of tinned copper wires
- PE-outer sheath
- Sheath colour black

Technische Daten

Operating capacity:	nom. 56 nF/km
Testing voltage:	700 V-AC
Insulating resistance:	$\geq 5 \text{ G}\Omega \times \text{km}$
Loop resistance:	$\leq 14,0 \text{ }\Omega / 100 \text{ m}$
Capacitive coupling:	$\leq 150 \text{ pF} / 100 \text{ m}$
Characteristic impedance:	
1-100 MHz:	$100 \pm 15 \text{ }\Omega$
100-250 MHz:	$100 \pm 22 \text{ }\Omega$
250-600 MHz:	$100 \pm 25 \text{ }\Omega$
Maximum tensile force:	110N
Temperature range:	
When laying:	max. 0°C
Operating temperature:	-20°C to +60°C
Minimum bending radius:	
under tensile load:	8 x DA
without tensile load:	4 x DA
CPR performance class:	Fca

Category 7 PE SW 1000

Produkteigenschaften

Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl	Abmessung
ca. mm	ca. mm	ca. kg/km	kg/km	
0,6	8,0	73,0	44,0	4 x 2 x AWG 23/1

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

f MHZ	Attenuation (dB/100m)		NEXT (dB)		ACR (dB/100m)	EL-FEXT (dB)		RL (dB)
	NOM	MAX	NOM	MIN	NOM	NOM	MIN	NOM
1	1,9	2	100	80,0	95,1	90	87	27
10	5,5	5,7	100	80,0	95,1	90	87	30
16	6,9	7,2	100	80,0	90,0	86,7	83,7	30
20	7,8	8,1	100	80,0	89,2	84,8	81,8	30
100	18,0	18,8	94	72,0	73,3	70,8	67,8	25,1
155	22,7	23,4	91	70,0	65,1	67	64	23,8
300	32,5	33,3	85,0	65,0	50,3	61,3	58,3	21,8
600	47,6	48,9	80	61,0	29,6	55,2	52,2	19,7
900	60	-	77	-	14,1	51,7	48,7	18,4
1000	63,8	-	76	-	9,2	50,8	47,8	18,1

Note:

The specified performance data are typical measured values.

J-Y(ST)Y EIB



Verwendung

For transmitting signals in building systems technology for controlling lighting, heating, air conditioning, ventilation and time recording systems. It can also be used for the transmission of measured values as an I&C cable in power installations or in process data processing. Suitable for installation on and under plaster, in pipes, in dry, damp and wet rooms as well as outdoors if protected from direct sunlight. Not authorised for heavy current installations and underground laying.

Aufbau und Normen

based on EIBA Specification



- Bare copper wire, solid \varnothing 0,8 mm
- core insulation PVC Y11
- Cores and quad designation according to DIN VDE 0815
Cores twisted into a star quad
- Shield made of plastic-laminated aluminium foil with drain wire
- PVC outer sheath YM1

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz):	
Core/Shield:	4000 V
Insulating resistance:	100 MOhm x km
Operating capacity (at 800 Hz):	max. 100nF/km
Capacitive coupling (at 800 Hz)	
K1:	max. 200 pF/100m
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca

J-Y(ST)Y EIB

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm		ca. mm	ca. kg/km	max. Ω/km	kg/km
2 x 2 x 0,8		6,3	55,0	73,2	21,0
2 x 2 x 0,8		6,3	55,0	73,2	21,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

J-H(ST)H EIB



Verwendung

For transmitting signals in building systems technology for controlling lighting, heating, air conditioning, ventilation and time recording systems. It can also be used for the transmission of measured values as an I&C cable in power installations or in process data processing. Suitable for installation on and under plaster, in pipes, in dry, damp and wet rooms and outdoors if protected from direct sunlight; not approved for power installations and underground installation.

Aufbau und Normen

based on EIBA Specification


- Bare copper wire, solid \varnothing 0,8 mm
- Core insulation halogen-free polymer mixture
- Cores and quad designation according to DIN VDE 0815
Cores twisted to star quad
- Shield made of plastic-laminated aluminium foil with continuity wire
- Outer sheath made of halogen-free polymer mixture

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz):	
Core/Shield:	4000 V
Insulating resistance:	100 MOhm x km
Operating capacity (at 800 Hz):	max. 100nF/km
Capacitive coupling (at 800 Hz):	
K1:	max. 200 pF/100m
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

J-H(ST)H EIB

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm		ca. mm	ca. kg/km	max. Ω/km	kg/km
2 x 2 x 0,8		6,3	55,0	73,2	21,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

A-DQ(ZN)2Y, A-DQ(ZN)B2Y



Verwendung

These fibre optic cables are characterised by a particularly slim but robust and rodent-proof construction. A central loose tube is surrounded by a composite of glass yarns and swelling fleece, the properties of which ensure rodent protection, strain relief and longitudinal watertightness of the cable. In addition, these cables are grease-free, so there is no need to wipe off the gel. This construction is used especially in underground, pipe and route areas where normal tensile stresses or transverse pressures occur and rodent infestation is to be expected.

Aufbau und Normen

based on DIN VDE 0888

- **Fibre typet:** E9 / G50 / G62,5
- **Core ø:** 9µm / 50µm / 62,5µm
Sheath ø: 125µm / 125µm / 125µm
- Strain relief element: glass yarns
- Reinforcement: glass yarns
PE outer sheath, UV-resistant
- Sheath colour black

Technische Daten

Temperature range:

When laying: max. -5°C

Operating temperature: -20°C to +60°C

Fire behaviour:

EN 50575

Longitudinally watertight:

IEC 60794-1-2

Attenuation:

IEC 60793-1-40

A-DQ(ZN)2Y, A-DQ(ZN)B2Y

Produkteigenschaften

Bezeichnung, Faserzahl, Faserart	Aussen Ø	Max. Zugkraft	Max. Querdruck	Gewicht	Min. Biegeradius
	ca. mm	N	N/cm	ca. kg/km	mm
	U-DQ(ZN)BH				
1X12 OM4	6,5	1.500,0	1.500,0	50,0	
	A-DQ / LWL Kabel				
4 G50/125	7,5	1.500,0	150,0	300,0	40,0
4 G62,5/125	7,5	1.500,0	150,0	300,0	40,0
4 E9/125	7,5	1.500,0	150,0	300,0	40,0
6 G50/125	7,5	1.500,0	150,0	300,0	40,0
6 G62,5/125	7,5	1.500,0	150,0	300,0	40,0
6 E9/125	7,5	1.500,0	150,0	300,0	40,0
8 G50/125	7,5	1.500,0	150,0	300,0	40,0
8 G62,5/125	7,5	1.500,0	150,0	300,0	40,0
8 E9/125	7,5	1.500,0	150,0	300,0	40,0
12 G50/125	7,5	1.500,0	150,0	300,0	40,0
12 G62,5/125	7,5	1.500,0	150,0	300,0	40,0
12 E9/125	7,5	1.500,0	150,0	300,0	40,0
24 G50/125	8,5	1.500,0	170,0	300,0	40,0
24 G62,5/125	8,5	1.500,0	170,0	300,0	40,0
24 E9/125	8,5	1.500,0	170,0	300,0	40,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

The following versions on request

I-D(ZN)H
 I-VHH
 I-V(ZN)H
 I-VH
 A-DQ(ZN)2Y
 A-DQ(ZN)H
 A-DQ(ZN)BH
 A-DF(ZN)B2Y

H07Z-U



Verwendung

As a halogen-free core cable with improved behaviour in the event of fire for the protection of persons and property for the internal wiring of switchgear, appliances and lights as well as for domestic installations. Not suitable for outdoor installation.

Aufbau und Normen

H07Z-U

DIN VDE 0285-525-3-41/HD 22.9 S2

H07Z1-U

DIN VDE 0285-525-3-31/HD 21.15 S1








- Bare copper conductor, solid, (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1
- **H07Z-U:**
Halogen-free polymer core insulation EI5
- **H07Z1-U:**
Thermoplastic compound TI7

Technische Daten

Nominal voltage U_0/U:	450/750 V
Testing voltage:	2500 V
Operating temperature:	
H07Z-U:	-30°C to +90°C
H07Z1-U:	-30°C to +70°C
Conductor operating temperature:	
H07Z-U:	max. +90°C
H07Z1-U:	max. +70°C
Short-circuit temperature:	
H07Z-U:	max. +250°C/5 sec,
H07Z1-U:	max. +160°C/5 sec
Minimum bending radius:	8 x DA
CPR performance class:	Eca
Corrosiveness of fire gases:	EN 60754-2
	IEC 60754-2
Minimal smoke development:	EN 61034 1+2
	IEC 61034-1+2

H07Z-U

Produkteigenschaften

Nennquerschnitt	Farben	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	kg/km
	H07Z-U						
1,5		1,4	0,7	2,8 - 3,4	20,0	12,1	15,0
2,5		1,8	0,8	3,4 - 4,1	30,0	7,4	25,0
4,0		2,3	0,8	3,9 - 4,8	45,0	4,6	40,0
6,0		2,8	0,8	4,4 - 5,3	65,0	3,1	60,0
	H07Z1-U						
1,5		1,4	0,7	2,8 - 3,4	20,0	12,1	15,0
2,5		1,8	0,8	3,4 - 4,1	30,0	7,4	25,0
4,0		2,3	0,8	3,9 - 4,8	45,0	4,6	40,0
6,0		2,8	0,8	4,4 - 5,3	65,0	3,1	60,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

H05Z-U/H05Z1-U on request.

H07Z-R



Verwendung

As a halogen-free core cable with improved behaviour in the event of fire for the protection of persons and property for the internal wiring of switchgear, appliances and lights as well as for domestic installations. Not suitable for outdoor installation.

Aufbau und Normen

H07Z-R:

DIN VDE 0285-525-3-41/HD 22.9 S2

H07Z1-R:

DIN VDE 0285-525-3-31/HD 21.15 S1





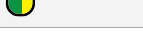








- Bare copper conductor, stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- **H07Z-R:**
Halogen-free polymer core insulation EI5
- **H07Z1-R:**
Thermoplastic compound TI7

Technische Daten

Nominal voltage U_0/U :	450/750 V
Testing voltage:	2500 V
Operating temperature:	
H07Z-R:	-30°C to +90°C
H07Z1-R:	-30°C to +70°C
Conductor operating temperature:	
H07Z-R:	max. +90°C
H07Z1-R:	max. +70°C
Short-circuit temperature:	
H07Z-R:	max. +250°C/5 sec
H07Z1-R:	max. +160°C/5 sec
Minimum bending radius:	8 x DA
CPR performance class:	Eca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

H07Z-R

Produkteigenschaften

Nennquerschnitt	Farben	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	kg/km
6,0		3,1	0,8	4,4 - 5,4	65,0	3,1	60,0
10,0		4,0	1,0	5,7 - 7,9	110,0	1,8	100,0
16,0		4,8	1,0	6,4 - 8,0	175,0	1,2	160,0
25,0		6,0	1,2	8,4 - 10,1	275,0	0,727	250,0
35,0		7,0	1,2	9,6 - 11,3	365,0	0,524	350,0
35,0		7,0	1,2	9,6 - 11,3	365,0	0,524	350,0
50,0		8,1	1,4	11,1 - 13,2	510,0	0,387	500,0
70,0		9,7	1,4	12,8 - 15,1	715,0	0,268	700,0
95,0		11,4	1,6	14,9 - 17,6	980,0	0,193	950,0
120,0		13,1	1,6	16,3 - 19,4	1.290,0	0,153	1.200,0
150,0		14,6	1,8	18,2 - 21,6	1.560,0	0,124	1.500,0
185,0		16,5	2,0	20,4 - 24,1	1.935,0	0,0991	1.850,0
240,0		18,5	2,2	23,1 - 27,5	2.475,0	0,0754	2.400,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NHXMH Dca



Verwendung

Halogen-free sheathed cables with improved behaviour in the event of fire are used where damage to people and material must be prevented due to high material value concentration in the event of fire, e.g. in industrial plants, hotels, airports, underground railways, railway stations, hospitals, department stores, etc. Suitable for internal installation in damp, wet or dry rooms and for laying over, on, in and under plaster as well as in masonry and concrete. Not suitable for direct embedding in shaken, vibrated or tamped concrete.

Aufbau und Normen

DIN VDE 0250-214

- Bare copper wire, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - core insulation 2X11
- Core labelling according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- Common core sheathing made of halogen-free filling compound
- Polymer outer sheath HM2
- Sheath colour grey (RAL7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	4 x DA
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034-1+2 IEC 61034-1+2

NHXMH Dca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE	1,4	0,5	9,2	120,0	12,1	14,0	30,0
3 x 1,5 RE	1,4	0,5	9,6	133,0	12,1	14,0	45,0
4 x 1,5 RE	1,4	0,5	10,3	157,0	12,1	14,0	60,0
5 x 1,5 RE	1,4	0,5	11,0	183,0	12,1	14,0	75,0
7 x 1,5 RE	1,4	0,5	11,9	250,0	12,1	14,0	105,0
10 x 1,5 RE	1,4	0,5	14,5	280,0	12,1	14,0	150,0
12 x 1,5 RE	1,4	0,5	16,5	320,0	12,1	14,0	180,0
2 x 2,5 RE	1,8	0,5	10,1	150,0	7,4	18,0	50,0
3 x 2,5 RE	1,8	0,5	10,6	176,0	7,4	18,0	75,0
4 x 2,5 RE	1,8	0,5	11,5	210,0	7,4	18,0	100,0
5 x 2,5 RE	1,8	0,5	12,3	249,0	7,4	18,0	125,0
7 x 2,5 RE	1,8	0,5	13,8	350,0	7,4	18,0	175,0
3 x 4 RE	2,3	0,6	12,2	247,0	4,6	24,0	120,0
4 x 4 RE	2,3	0,6	13,7	310,0	4,6	24,0	160,0
5 x 4 RE	2,3	0,6	15,1	370,0	4,6	24,0	200,0
3 x 6 RE	2,8	0,6	13,9	335,0	3,1	31,0	180,0
4 x 6 RE	2,8	0,6	15,3	408,0	3,1	31,0	240,0
5 x 6 RE	2,8	0,6	16,6	488,0	3,1	31,0	300,0
3 x 10 RE	3,5	0,7	16,7	496,0	1,8	41,0	300,0
4 x 10 RE	3,5	0,7	18,2	615,0	1,8	41,0	400,0
5 x 10 RE	3,5	0,7	19,7	739,0	1,8	41,0	500,0
4 x 16 RM	4,8	0,7	21,8	917,0	1,2	55,0	640,0
5 x 16 RM	4,8	0,7	23,8	1.168,0	1,2	55,0	800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NHXMH B2ca



Verwendung

Halogen-free sheathed cables with improved behaviour in the event of fire are used where damage to people and material must be prevented due to high material value concentration in the event of fire, e.g. in industrial plants, hotels, airports, underground railways, railway stations, hospitals, department stores, etc. Suitable for internal installation in damp, wet or dry rooms and for laying over, on, in and under plaster as well as in masonry and concrete. Not suitable for direct embedding in shaken, vibrated or tamped concrete.

Aufbau und Normen

DIN VDE 0250-214

- Bare copper wire, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - core insulation 2X11
- Core labelling according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- Common core sheathing made of halogen-free filling compound
- Polymer outer sheath HM2
- Sheath colour grey (RAL7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	4 x DA
CPR performance class:	B2ca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034-1+2 IEC 61034-1+2

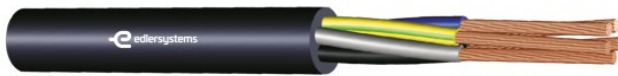
NHXMH B2ca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE	1,4	0,5	9,2	120,0	12,1	14,0	30,0
3 x 1,5 RE	1,4	0,5	9,6	133,0	12,1	14,0	45,0
4 x 1,5 RE	1,4	0,5	10,3	157,0	12,1	14,0	60,0
5 x 1,5 RE	1,4	0,5	11,0	183,0	12,1	14,0	75,0
7 x 1,5 RE	1,4	0,5	11,9	250,0	12,1	14,0	105,0
10 x 1,5 RE	1,4	0,5	14,5	280,0	12,1	14,0	150,0
12 x 1,5 RE	1,4	0,5	16,5	320,0	12,1	14,0	180,0
2 x 2,5 RE	1,8	0,5	10,1	150,0	7,4	18,0	50,0
3 x 2,5 RE	1,8	0,5	10,6	176,0	7,4	18,0	75,0
4 x 2,5 RE	1,8	0,5	11,5	210,0	7,4	18,0	100,0
5 x 2,5 RE	1,8	0,5	12,3	249,0	7,4	18,0	125,0
7 x 2,5 RE	1,8	0,5	13,8	350,0	7,4	18,0	175,0
3 x 4 RE	2,3	0,6	12,2	247,0	4,6	24,0	120,0
4 x 4 RE	2,3	0,6	13,7	310,0	4,6	24,0	160,0
5 x 4 RE	2,3	0,6	15,1	370,0	4,6	24,0	200,0
3 x 6 RE	2,8	0,6	13,9	335,0	3,1	31,0	180,0
4 x 6 RE	2,8	0,6	15,3	408,0	3,1	31,0	240,0
5 x 6 RE	2,8	0,6	16,6	488,0	3,1	31,0	300,0
3 x 10 RE	3,5	0,7	16,7	496,0	1,8	41,0	300,0
4 x 10 RE	3,5	0,7	18,2	615,0	1,8	41,0	400,0
5 x 10 RE	3,5	0,7	19,7	739,0	1,8	41,0	500,0
4 x 16 RM	4,8	0,7	21,8	917,0	1,2	55,0	640,0
5 x 16 RM	4,8	0,7	23,8	1.168,0	1,2	55,0	800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H07ZZ-F



Verwendung

This halogen-free cable is used in wind turbine towers with medium mechanical loads. It can be used freely movable, freely suspended and permanently installed. The cable can be twisted if it is used freely suspended. It is used indoors, outdoors, in potentially explosive atmospheres, in commercial and agricultural operations and on construction sites for connecting electrical appliances and is approved for protected installation, e.g. in pipes, appliances and electrical operating facilities, up to 1000 V AC voltage or 750 V DC voltage to earth.

Aufbau und Normen

DIN VDE 0285-525-3-21/HD 22.13 S1

- Bare copper stranded wire, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Halogen-free cross-linked wire insulation
- Core labelling according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- Halogen-free cross-linked outer sheath
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	450/750 V
Testing voltage:	2500 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
When laying:	6 x DA
Fixed installation:	4 x DA
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 60754-2
	IEC 60754-2
Minimal smoke development:	EN 61034-2
	IEC 61034-2
Oil resistance:	EN 60811-2-1

H07ZZ-F

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 1,5	1,6	0,8	5,7 - 7,1	58,0	13,3	24,0	15,0
1 x 2,5	2,0	0,9	6,3 - 7,9	71,0	8,0	32,0	25,0
1 x 4	2,6	1,0	7,2 - 9,0	100,0	5,0	42,0	40,0
1 x 6	3,4	1,0	7,9 - 9,8	130,0	3,3	54,0	60,0
1 x 10	4,4	1,2	9,5 - 11,9	230,0	1,9	73,0	100,0
1 x 16	5,7	1,2	10,8 - 13,4	290,0	1,2	98,0	160,0
1 x 25	6,9	1,4	12,7 - 15,8	420,0	0,78	125,0	250,0
1 x 35	8,1	1,4	14,3 - 17,9	530,0	0,554	158,0	350,0
1 x 50	9,8	1,6	16,5 - 20,6	750,0	0,386	198,0	500,0
1 x 70	11,6	1,6	18,6 - 23,3	960,0	0,272	245,0	700,0
1 x 95	13,3	1,8	20,8 - 26,0	1.250,0	0,206	292,0	950,0
1 x 120	15,1	1,8	22,8 - 28,6	1.560,0	0,161	344,0	1.200,0
1 x 150	16,8	2,0	25,3 - 31,4	1.900,0	0,129	391,0	1.500,0
1 x 185	18,6	2,2	27,6 - 34,4	2.300,0	0,106	448,0	1.850,0
1 x 240	21,4	2,4	30,6 - 38,3	2.950,0	0,0801	528,0	2.400,0
1 x 300	23,9	2,6	33,5 - 41,9	3.600,0	0,0641	608,0	3.000,0
2 x 1,5	1,6	0,8	8,5 - 11,0	119,0	13,3	18,0	30,0
2 x 2,5	2,0	0,9	10,2 - 13,1	172,0	8,0	26,0	50,0
3 G 1,5	1,6	0,8	9,2 - 11,9	144,0	13,3	18,0	45,0
3 G 2,5	2,0	0,9	10,9 - 14,0	211,0	8,0	26,0	75,0
4 G 1,5	1,6	0,8	10,2 - 13,1	176,0	13,3	18,0	60,0
4 G 2,5	2,0	0,9	12,1 - 15,5	235,0	8,0	26,0	100,0
4 G 4	2,6	1,0	14,0 - 17,9	365,0	5,0	34,0	160,0
4 G 6	3,4	1,0	15,7 - 20,0	501,0	3,3	44,0	240,0
4 G 10	4,4	1,2	20,9 - 26,5	872,0	1,9	61,0	400,0
4 G 16	5,7	1,2	23,8 - 30,1	1.194,0	1,2	82,0	640,0
4 G 25	6,9	1,4	28,9 - 36,6	1.822,0	0,78	108,0	1.000,0
4 G 35	8,1	1,4	32,5 - 41,1	2.307,0	0,554	135,0	1.400,0
4 G 50	9,8	1,6	37,7 - 47,5	3.253,0	0,386	168,0	2.000,0
4 G 70	11,6	1,6	42,7 - 54,0	4.130,0	0,272	207,0	2.800,0
4 G 95	13,3	1,8	48,4 - 61,0	5.720,0	0,206	250,0	3.800,0
4 G 120	15,1	1,8	53,0 - 66,0	6.965,0	0,161	292,0	4.800,0
4 G 150	16,8	2,0	58,0 - 73,0	8.644,0	0,129	335,0	6.000,0
4 G 185	18,6	2,2	64,0 - 80,0	10.598,0	0,106	382,0	7.400,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø min - max	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	mm	ca. kg/km	ca. Ω/km	A	kg/km
4 G 240	21,4	2,4	72,0 - 91,0	12.100,0	0,0801	453,0	9.600,0
5 G 1,5	1,6	0,8	11,2 - 14,4	214,0	13,3	18,0	75,0
5 G 2,5	2,0	0,9	13,3 - 17,0	316,0	8,0	26,0	125,0
5 G 4	2,6	1,0	15,6 - 19,9	448,0	5,0	34,0	200,0
5 G 6	3,4	1,0	17,5 - 22,2	607,0	3,3	44,0	300,0
5 G 10	4,4	1,2	22,9 - 29,1	1.075,0	1,9	61,0	500,0
5 G 16	5,7	1,2	26,4 - 33,3	1.480,0	1,2	82,0	800,0
5 G 25	6,9	1,4	32,0 - 40,4	2.255,0	0,78	108,0	1.250,0
7 G 1,5	1,6	0,8	13,4 - 17,5	303,0	13,3	18,0	105,0
12 G 1,5	1,6	0,8	17,6 - 22,4	496,0	13,3	18,0	180,0
19 G 1,5	1,6	0,8	20,7 - 26,3	788,0	13,3	18,0	285,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

NSHXAFö



Verwendung

As a halogen-free short-circuit and earth-fault proof connecting cable in railway vehicles and buses, in switchgear and distribution boards up to 1000 volts and in dry rooms.

Aufbau und Normen

DIN VDE 0250-606

- Stranded copper wire, tinned, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Plastic film
- Rubber (EPR) - Core insulation 3GI3
- Halogen-free polymer outer sheath HM3
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	1,8/3 kV
Testing voltage:	6000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-25°C to +80°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +200°C/5 sec.
Minimum bending radius:	
When laying:	10 x DA
Fixed installation:	6 x DA
CPR performance class:	Eca
Corrosiveness of fire gases:	EN 60754-2
	IEC 60754-2
Minimal smoke development:	EN 61034 1+2
	IEC 61034-1+2
Oil resistance:	EN 60811-404

NSHXAFö

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 1,5	7,0	60,0	13,3	30,0	15,0
1 x 2,5	7,5	70,0	8,0	41,0	25,0
1 x 4	9,0	85,0	5,0	55,0	40,0
1 x 6	9,5	110,0	3,3	70,0	60,0
1 x 10	11,0	160,0	1,9	98,0	100,0
1 x 16	13,0	240,0	1,2	132,0	160,0
1 x 25	15,0	365,0	0,78	176,0	250,0
1 x 35	16,5	494,0	0,554	219,0	350,0
1 x 50	18,0	656,0	0,386	276,0	500,0
1 x 70	20,5	880,0	0,272	347,0	700,0
1 x 95	24,0	1.090,0	0,206	416,0	950,0
1 x 120	25,1	1.340,0	0,161	488,0	1.200,0
1 x 150	28,0	1.640,0	0,129	566,0	1.500,0
1 x 185	31,0	2.160,0	0,106	644,0	1.850,0
1 x 240	34,5	2.570,0	0,0801	775,0	2.400,0
1 x 300	38,0	3.470,0	0,0641	898,0	3.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

HSLH Dca



Verwendung

Halogen-free, flame-retardant control cable with improved behaviour in the event of fire to prevent increased personal injury and damage to property for fixed installation or flexible applications. For free movement without forced movement and without tensile stress. The cable is suitable for use in dry, damp and wet rooms, above, on, in and under plaster as well as in masonry and concrete, except for direct embedding in vibrated or tamped concrete.

Aufbau und Normen

based on DIN VDE 0281-14

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Halogen-free polymer core insulation Core labelling
JZ: black with numbers, one core green-yellow
OZ: black with numbers
- Cores stranded in layers with optimum lay lengths
- Halogen-free polymer outer sheath
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 10 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -15°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$12,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

HSLH Dca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	24 x 0,21	5,4	43,0	26,0	15,0
3 x 0,75	24 x 0,21	5,7	61,0	26,0	22,5
4 x 0,75	24 x 0,21	6,5	75,0	26,0	30,0
5 x 0,75	24 x 0,21	6,8	100,0	26,0	37,5
7 x 0,75	24 x 0,21	7,5	125,0	26,0	52,5
12 x 0,75	24 x 0,21	9,9	210,0	26,0	90,0
18 x 0,75	24 x 0,21	11,7	270,0	26,0	135,0
25 x 0,75	24 x 0,21	14,2	370,0	26,0	187,5
2 x 1	32 x 0,21	5,7	57,0	19,5	20,0
3 x 1	32 x 0,21	6,0	80,0	19,5	30,0
4 x 1	32 x 0,21	6,7	106,0	19,5	40,0
5 x 1	32 x 0,21	7,3	123,0	19,5	50,0
7 x 1	32 x 0,21	8,2	149,0	19,5	70,0
12 x 1	32 x 0,21	10,5	260,0	19,5	120,0
18 x 1	32 x 0,21	12,7	350,0	19,5	180,0
25 x 1	32 x 0,21	14,7	470,0	19,5	250,0
2 x 1,5	30 x 0,26	6,3	100,0	13,3	30,0
3 x 1,5	30 x 0,26	6,8	110,0	13,3	45,0
4 x 1,5	30 x 0,26	7,4	125,0	13,3	60,0
5 x 1,5	30 x 0,26	8,4	145,0	13,3	75,0
7 x 1,5	30 x 0,26	9,0	195,0	13,3	105,0
12 x 1,5	30 x 0,26	12,0	310,0	13,3	180,0
18 x 1,5	30 x 0,26	14,4	420,0	13,3	270,0
25 x 1,5	30 x 0,26	16,9	600,0	13,3	375,0
34 x 1,5	30 x 0,26	19,4	730,0	13,3	510,0
2 x 2,5	50 x 0,26	7,7	121,0	8,0	50,0
3 x 2,5	50 x 0,26	8,4	170,0	8,0	75,0
4 x 2,5	50 x 0,26	9,2	180,0	8,0	100,0
5 x 2,5	50 x 0,26	10,2	190,0	8,0	125,0
7 x 2,5	50 x 0,26	11,3	280,0	8,0	175,0
12 x 2,5	50 x 0,26	14,8	510,0	8,0	300,0
18 x 2,5	50 x 0,26	18,0	870,0	8,0	450,0
4 x 4	56 x 0,31	10,8	270,0	5,0	160,0
5 x 4	56 x 0,31	12,1	300,0	5,0	200,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
7 x 4	56 x 0,31	13,4	410,0	5,0	280,0
4 x 6	84 x 0,31	13,0	330,0	3,3	240,0
5 x 6	84 x 0,31	14,5	430,0	3,3	300,0
4 x 10	80 x 0,41	16,7	750,0	1,9	400,0
5 x 10	80 x 0,41	18,1	930,0	1,9	500,0
4 x 16	128 x 0,41	18,8	1.050,0	1,2	640,0
5 x 16	128 x 0,41	21,2	1.300,0	1,2	800,0
4 x 25	200 x 0,41	23,5	1.620,0	0,78	1.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

HSLH Cca



Verwendung

Halogen-free, flame-retardant control cable with improved behaviour in the event of fire to prevent increased personal injury and damage to property for fixed installation or flexible applications. For free movement without forced movement and without tensile stress. The cable is suitable for use in dry, damp and wet rooms, above, on, in and under plaster as well as in masonry and concrete, except for direct embedding in vibrated or tamped concrete.

Aufbau und Normen

based on DIN VDE 0281-14

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Halogen-free polymer wire insulation
- Core labelling
JZ: black with numbers, one core green-yellow
OZ: black with numbers
- Cores stranded in layers with optimum lay lengths
- Halogen-free polymer outer sheath
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 10 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -15°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$12,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

HSLH Cca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	24 x 0,21	5,4	43,0	26,0	15,0
3 x 0,75	24 x 0,21	5,7	61,0	26,0	22,5
4 x 0,75	24 x 0,21	6,5	75,0	26,0	30,0
5 x 0,75	24 x 0,21	6,8	100,0	26,0	37,5
7 x 0,75	24 x 0,21	7,5	125,0	26,0	52,5
12 x 0,75	24 x 0,21	9,9	210,0	26,0	90,0
18 x 0,75	24 x 0,21	11,7	270,0	26,0	135,0
25 x 0,75	24 x 0,21	14,2	370,0	26,0	187,5
2 x 1	32 x 0,21	5,7	57,0	19,5	20,0
3 x 1	32 x 0,21	6,0	80,0	19,5	30,0
4 x 1	32 x 0,21	6,7	106,0	19,5	40,0
5 x 1	32 x 0,21	7,3	123,0	19,5	50,0
7 x 1	32 x 0,21	8,2	149,0	19,5	70,0
12 x 1	32 x 0,21	10,5	260,0	19,5	120,0
18 x 1	32 x 0,21	12,7	350,0	19,5	180,0
25 x 1	32 x 0,21	14,7	470,0	19,5	250,0
2 x 1,5	30 x 0,26	6,3	100,0	13,3	30,0
3 x 1,5	30 x 0,26	6,8	110,0	13,3	45,0
4 x 1,5	30 x 0,26	7,4	125,0	13,3	60,0
5 x 1,5	30 x 0,26	8,4	145,0	13,3	75,0
7 x 1,5	30 x 0,26	9,0	195,0	13,3	105,0
12 x 1,5	30 x 0,26	12,0	310,0	13,3	180,0
18 x 1,5	30 x 0,26	14,4	420,0	13,3	270,0
25 x 1,5	30 x 0,26	16,9	600,0	13,3	375,0
34 x 1,5	30 x 0,26	19,4	730,0	13,3	510,0
2 x 2,5	50 x 0,26	7,7	121,0	8,0	50,0
3 x 2,5	50 x 0,26	8,4	170,0	8,0	75,0
4 x 2,5	50 x 0,26	9,2	180,0	8,0	100,0
5 x 2,5	50 x 0,26	10,2	190,0	8,0	125,0
7 x 2,5	50 x 0,26	11,3	280,0	8,0	175,0
12 x 2,5	50 x 0,26	14,8	510,0	8,0	300,0
18 x 2,5	50 x 0,26	18,0	870,0	8,0	450,0
4 x 4	56 x 0,31	10,8	270,0	5,0	160,0
5 x 4	56 x 0,31	12,1	300,0	5,0	200,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
7 x 4	56 x 0,31	13,4	410,0	5,0	280,0
4 x 6	84 x 0,31	13,0	330,0	3,3	240,0
5 x 6	84 x 0,31	14,5	430,0	3,3	300,0
4 x 10	80 x 0,41	16,7	750,0	1,9	400,0
5 x 10	80 x 0,41	18,1	930,0	1,9	500,0
4 x 16	128 x 0,41	18,8	1.050,0	1,2	640,0
5 x 16	128 x 0,41	21,2	1.300,0	1,2	800,0
4 x 25	200 x 0,41	23,5	1.620,0	0,78	1.000,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

HSLCH Dca



Verwendung

Halogen-free, flame-retardant control cable with improved behaviour in the event of fire to prevent increased personal injury and damage to property for fixed installation or flexible applications. For free movement without forced movement and without tensile stress. The cable is suitable for use in dry, damp and wet rooms, above, on, in and under plaster as well as in masonry and concrete, except for direct embedding in vibrated or tamped concrete. The high shielding density ensures interference-free transmission of signals and pulses.

Aufbau und Normen

based on DIN VDE 0281-14

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Halogenfreie Polymer - Aderisolation
- Core labelling
JZ: black with numbers, one core green-yellow
OZ: black with numbers
- Cores with optimum lay lengths stranded in layers
- Foil winding
- Shielding braid made from tinned copper wires
- Halogen-free polymer outer sheath
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 10 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -15°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$12,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 61034 1+2 IEC 61034-1+2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

HSLCH Dca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	24 x 0,21	6,2	55,0	26,0	43,0
3 x 0,75	24 x 0,21	6,5	68,0	26,0	57,0
4 x 0,75	24 x 0,21	7,0	78,0	26,0	70,0
5 x 0,75	24 x 0,21	7,7	95,0	26,0	82,0
7 x 0,75	24 x 0,21	8,3	130,0	26,0	113,0
12 x 0,75	24 x 0,21	10,9	203,0	26,0	192,0
18 x 0,75	24 x 0,21	12,7	284,0	26,0	268,0
25 x 0,75	24 x 0,21	14,9	380,0	26,0	331,0
2 x 1	32 x 0,21	6,5	66,0	19,5	52,0
3 x 1	32 x 0,21	6,8	80,0	19,5	78,0
4 x 1	32 x 0,21	7,3	100,0	19,5	89,0
5 x 1	32 x 0,21	8,1	130,0	19,5	106,0
7 x 1	32 x 0,21	8,8	160,0	19,5	132,0
12 x 1	32 x 0,21	11,5	250,0	19,5	206,0
18 x 1	32 x 0,21	13,9	382,0	19,5	316,0
25 x 1	32 x 0,21	16,0	460,0	19,5	428,0
2 x 1,5	30 x 0,26	7,1	87,0	13,3	66,0
3 x 1,5	30 x 0,26	7,5	100,0	13,3	99,0
4 x 1,5	30 x 0,26	8,2	125,0	13,3	121,0
5 x 1,5	30 x 0,26	8,9	158,0	13,3	135,0
7 x 1,5	30 x 0,26	9,9	210,0	13,3	227,0
12 x 1,5	30 x 0,26	13,0	329,0	13,3	322,0
18 x 1,5	30 x 0,26	15,6	480,0	13,3	428,0
25 x 1,5	30 x 0,26	18,0	660,0	13,3	568,0
2 x 2,5	50 x 0,26	8,5	132,0	8,0	92,0
3 x 2,5	50 x 0,26	9,0	168,0	8,0	154,0
4 x 2,5	50 x 0,26	10,0	195,0	8,0	170,0
5 x 2,5	50 x 0,26	11,0	222,0	8,0	208,0
7 x 2,5	50 x 0,26	12,0	320,0	8,0	300,0
12 x 2,5	50 x 0,26	16,2	540,0	8,0	537,0
4 x 4	56 x 0,31	11,8	280,0	5,0	248,0
5 x 4	56 x 0,31	12,9	350,0	5,0	288,0
4 x 6	84 x 0,31	14,2	390,0	3,3	343,0
5 x 6	84 x 0,31	15,9	480,0	3,3	403,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
4 x 10	80 x 0,41	17,2	600,0	1,9	535,0
4 x 16	128 x 0,41	20,2	1.030,0	1,2	800,0
4 x 25	200 x 0,41	24,7	1.460,0	0,78	1.280,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

JB and **OB** Design on request.

HSLCH Cca



Verwendung

Halogen-free, flame-retardant control cable with improved behaviour in the event of fire to prevent increased personal injury and damage to property for fixed installation or flexible applications. For free movement without forced movement and without tensile stress. The cable is suitable for use in dry, damp and wet rooms, above, on, in and under plaster as well as in masonry and concrete, except for direct embedding in vibrated or tamped concrete. The high shielding density ensures interference-free transmission of signals and pulses.

Aufbau und Normen

based on DIN VDE 0281-14

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Halogen-free polymer core insulation
- Core labelling
JZ: black with numbers, one core green-yellow
OZ: black with numbers
- Cores stranded in layers with optimum lay lengths
- Foil winding
- Shielding braid made of tinned wires
- Halogen-free polymer outer sheath
- Sheath colour grey (RAL 7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Insulating resistance:	$\geq 10 \text{ MOhm} \times \text{km}$
Temperature range:	
When laying:	max. -15°C
Operating temperature:	-30°C to $+70^\circ\text{C}$
Conductor operating temperature:	max. $+70^\circ\text{C}$
Short-circuit temperature:	max. $+150^\circ\text{C}/5 \text{ sec.}$
Minimum bending radius:	
When laying:	$12,5 \times \text{DA}$
Fixed installation:	$4 \times \text{DA}$
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034-1+2 IEC 61034-1+2

HSLCH Cca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,75	24 x 0,21	6,2	55,0	26,0	43,0
3 x 0,75	24 x 0,21	6,5	68,0	26,0	57,0
4 x 0,75	24 x 0,21	7,0	78,0	26,0	70,0
5 x 0,75	24 x 0,21	7,7	95,0	26,0	82,0
7 x 0,75	24 x 0,21	8,3	130,0	26,0	113,0
12 x 0,75	24 x 0,21	10,9	203,0	26,0	192,0
18 x 0,75	24 x 0,21	12,7	284,0	26,0	268,0
25 x 0,75	24 x 0,21	14,9	380,0	26,0	331,0
2 x 1	32 x 0,21	6,5	66,0	19,5	52,0
3 x 1	32 x 0,21	6,8	80,0	19,5	78,0
4 x 1	32 x 0,21	7,3	100,0	19,5	89,0
5 x 1	32 x 0,21	8,1	130,0	19,5	106,0
7 x 1	32 x 0,21	8,8	160,0	19,5	132,0
12 x 1	32 x 0,21	11,5	250,0	19,5	206,0
18 x 1	32 x 0,21	13,9	382,0	19,5	316,0
25 x 1	32 x 0,21	16,0	460,0	19,5	428,0
2 x 1,5	30 x 0,26	7,1	87,0	13,3	66,0
3 x 1,5	30 x 0,26	7,5	100,0	13,3	99,0
4 x 1,5	30 x 0,26	8,2	125,0	13,3	121,0
5 x 1,5	30 x 0,26	8,9	158,0	13,3	135,0
7 x 1,5	30 x 0,26	9,9	210,0	13,3	227,0
12 x 1,5	30 x 0,26	13,0	329,0	13,3	322,0
18 x 1,5	30 x 0,26	15,6	480,0	13,3	428,0
25 x 1,5	30 x 0,26	18,0	660,0	13,3	568,0
2 x 2,5	50 x 0,26	8,5	132,0	8,0	92,0
3 x 2,5	50 x 0,26	9,0	168,0	8,0	154,0
4 x 2,5	50 x 0,26	10,0	195,0	8,0	170,0
5 x 2,5	50 x 0,26	11,0	222,0	8,0	208,0
7 x 2,5	50 x 0,26	12,0	320,0	8,0	300,0
12 x 2,5	50 x 0,26	16,2	540,0	8,0	537,0
4 x 4	56 x 0,31	11,8	280,0	5,0	248,0
5 x 4	56 x 0,31	12,9	350,0	5,0	288,0
4 x 6	84 x 0,31	14,2	390,0	3,3	343,0
5 x 6	84 x 0,31	15,9	480,0	3,3	403,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
4 x 10	80 x 0,41	17,2	600,0	1,9	535,0
4 x 16	128 x 0,41	20,2	1.030,0	1,2	800,0
4 x 25	200 x 0,41	24,7	1.460,0	0,78	1.280,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

JB and **OB** Version on request.

LiHCH Dca



Verwendung

As a halogen-free shielded signal cable in measurement and control technology with improved behaviour in the event of fire for the protection of persons and property for fixed or flexible installation without tensile stress or forced routing in dry, damp or wet room. Not suitable for outdoor installation.

Aufbau und Normen

according to factory standard

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Halogen-free wire insulation HI1
- Core labelling according to DIN 47100
- Cores stranded in layers with optimum lay lengths
- Foil taping
- Shielding braid made of tinned copper wires
- Halogen-free polymer outer sheath
- Sheath colour grey

Technische Daten

Operating voltage U:	max. 350 V
Testing voltage:	1500 V
Insulating resistance:	≥ 100 MOhm x km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. 160°C/5 sec.
Minimum bending radius:	10 x DA
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

LiHCH Dca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,14	18x0,10	0,6	3,9	22,0	138,0	13,0
3 x 0,14	18x0,10	0,6	4,1	25,0	138,0	15,0
4 x 0,14	18x0,10	0,6	4,3	29,0	138,0	17,0
5 x 0,14	18x0,10	0,6	4,6	32,0	138,0	20,0
7 x 0,14	18x0,10	0,6	4,9	35,0	138,0	25,0
2 x 0,25	14x0,15	0,6	4,3	25,0	77,8	17,0
3 x 0,25	14x0,15	0,6	4,5	30,0	77,8	22,0
4 x 0,25	14x0,15	0,6	4,8	35,0	77,8	25,0
5 x 0,25	14x0,15	0,6	5,2	40,0	77,8	30,0
7 x 0,25	14x0,15	0,7	5,8	52,0	77,8	38,0
2 x 0,34	7x0,25	0,6	4,7	30,0	56,0	22,0
3 x 0,34	7x0,25	0,6	4,9	35,0	56,0	28,0
4 x 0,34	7x0,25	0,6	5,3	42,0	56,0	34,0
5 x 0,34	7x0,25	0,7	6,2	53,0	56,0	37,0
7 x 0,34	7x0,25	0,7	6,6	73,0	56,0	53,0
2 x 0,5	16x0,20	0,6	5,5	38,0	39,0	30,0
3 x 0,5	16x0,20	0,7	5,8	47,0	39,0	41,0
4 x 0,5	16x0,20	0,7	6,5	67,0	39,0	48,0
5 x 0,5	16x0,20	0,8	7,0	76,0	39,0	59,0
7 x 0,5	16x0,20	0,8	7,5	91,0	39,0	83,0
2 x 0,75	24x0,20	0,7	5,9	45,0	26,0	40,0
3 x 0,75	24x0,20	0,7	6,4	69,0	26,0	52,0
4 x 0,75	24x0,20	0,8	6,9	80,0	26,0	60,0
5 x 0,75	24x0,20	0,8	7,7	99,0	26,0	73,0
7 x 0,75	24x0,20	0,8	8,4	120,0	26,0	104,0
12 x 0,75	24x0,20	0,8	10,9	202,0	26,0	160,0
18 x 0,75	24x0,20	0,9	13,0	292,0	26,0	216,0
25 x 0,75	24x0,20	0,9	15,5	445,0	26,0	292,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:
JE-LiHCH, Li2YCH on request.

LiHCH Cca



Verwendung

As a halogen-free shielded signal cable in measurement and control technology with improved behaviour in the event of fire for the protection of persons and property for fixed or flexible installation without tensile stress or forced routing in dry, damp or wet rooms. Not suitable for outdoor installation:

Aufbau und Normen

according to factory standard

- Bare copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Halogen-free core insulation HI1
- Core labelling according to DIN 47100
- Cores stranded in layers with optimum lay lengths
- Foil taping
- Shielding braid made of tinned copper wires
- Halogen-free polymer outer sheath
- Sheath colour grey

Technische Daten

Operating voltage U:	max. 350 V
Testing voltage:	1500 V
Insulating resistance:	≥ 100 MOhm x km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. 160°C/5 sec.
Minimum bending radius:	10 x DA
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

LiHCH Cca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Mantelwanddicke	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
2 x 0,14	18x0,10	0,6	3,9	22,0	138,0	13,0
3 x 0,14	18x0,10	0,6	4,1	25,0	138,0	15,0
4 x 0,14	18x0,10	0,6	4,3	29,0	138,0	17,0
5 x 0,14	18x0,10	0,6	4,6	32,0	138,0	20,0
7 x 0,14	18x0,10	0,6	4,9	35,0	138,0	25,0
2 x 0,25	14x0,15	0,6	4,3	25,0	77,8	17,0
3 x 0,25	14x0,15	0,6	4,5	30,0	77,8	22,0
4 x 0,25	14x0,15	0,6	4,8	35,0	77,8	25,0
5 x 0,25	14x0,15	0,6	5,2	40,0	77,8	30,0
7 x 0,25	14x0,15	0,7	5,8	52,0	77,8	38,0
2 x 0,34	7x0,25	0,6	4,7	30,0	56,0	22,0
3 x 0,34	7x0,25	0,6	4,9	35,0	56,0	28,0
4 x 0,34	7x0,25	0,6	5,3	42,0	56,0	34,0
5 x 0,34	7x0,25	0,7	6,2	53,0	56,0	37,0
7 x 0,34	7x0,25	0,7	6,6	73,0	56,0	53,0
2 x 0,5	16x0,20	0,6	5,5	38,0	39,0	30,0
3 x 0,5	16x0,20	0,7	5,8	47,0	39,0	41,0
4 x 0,5	16x0,20	0,7	6,5	67,0	39,0	48,0
5 x 0,5	16x0,20	0,8	7,0	76,0	39,0	59,0
7 x 0,5	16x0,20	0,8	7,5	91,0	39,0	83,0
2 x 0,75	24x0,20	0,7	5,9	45,0	26,0	40,0
3 x 0,75	24x0,20	0,7	6,4	69,0	26,0	52,0
4 x 0,75	24x0,20	0,8	6,9	80,0	26,0	60,0
5 x 0,75	24x0,20	0,8	7,7	99,0	26,0	73,0
7 x 0,75	24x0,20	0,8	8,4	120,0	26,0	104,0
12 x 0,75	24x0,20	0,8	10,9	202,0	26,0	160,0
18 x 0,75	24x0,20	0,9	13,0	292,0	26,0	216,0
25 x 0,75	24x0,20	0,9	15,5	445,0	26,0	292,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

JE-LiHCH, Li2YCH on request.

N2XH Dca



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property for fixed or flexible installation in dry and damp rooms. They are also approved for laying outdoors and in the ground when laid in pipes.

Aufbau und Normen

DIN VDE 0276-604/HD 604 S1
from 7 cores according to DIN VDE 0276-627/HD 627 S1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1.
IEC 60228 cl.1, or stranded (RM/SM)
according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - core insulation 2X11
- Core labelling according to HD 308 S2
from 7-core version black with numbers
- Halogen-free core sheathing
- Cores stranded in layers
- Outer sheath made of thermoplastic polyolefin
compound HM4
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

N2XH Dca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 4 RE	2,3	0,7	7,6	90,0	4,6	44,0	40,0
1 x 6 RE	3,1	0,7	8,2	115,0	3,1	56,0	60,0
1 x 10 RE	3,8	0,7	9,2	165,0	1,8	77,0	100,0
1 x 16 RE	4,7	0,7	10,5	230,0	1,2	102,0	160,0
1 x 25 RM	5,9	0,9	12,5	340,0	0,727	138,0	250,0
1 x 35 RM	7,1	0,9	13,5	440,0	0,524	170,0	350,0
1 x 50 RM	8,0	1,0	15,0	570,0	0,387	207,0	500,0
1 x 70 RM	9,6	1,1	17,0	795,0	0,268	263,0	700,0
1 x 95 RM	11,4	1,1	19,0	1.055,0	0,193	325,0	950,0
1 x 120 RM	13,1	1,2	21,0	1.315,0	0,153	380,0	1.200,0
1 x 150 RM	14,6	1,4	23,0	1.600,0	0,124	437,0	1.500,0
1 x 185 RM	16,5	1,6	25,5	1.975,0	0,0991	507,0	1.850,0
1 x 240 RM	18,4	1,7	28,5	2.525,0	0,0754	604,0	2.400,0
1 x 300 RM	21,1	1,8	31,0	3.150,0	0,0601	697,0	3.000,0
2 x 1,5 RE	1,4	0,7	10,5	125,0	12,1	24,0	30,0
2 x 2,5 RE	1,8	0,7	11,5	155,0	7,4	32,0	50,0
2 x 4 RE	2,3	0,7	13,0	195,0	4,6	42,0	80,0
2 x 6 RE	3,1	0,7	14,0	265,0	3,1	53,0	120,0
2 x 10 RE	3,8	0,7	16,0	390,0	1,8	74,0	200,0
3 x 1,5 RE	1,4	0,7	11,0	145,0	12,1	24,0	45,0
3 x 2,5 RE	1,8	0,7	12,5	180,0	7,4	32,0	75,0
3 x 4 RE	2,3	0,7	13,5	235,0	4,6	42,0	120,0
3 x 6 RE	3,1	0,7	15,0	325,0	3,1	53,0	180,0
3 x 10 RE	3,8	0,7	17,0	485,0	1,8	74,0	300,0
3 x 16 RE	4,7	0,7	19,5	705,0	1,2	98,0	480,0
3 x 25 RM	5,9	0,9	23,5	1.080,0	0,727	133,0	750,0
3 x 35 RM	7,1	0,9	26,0	1.425,0	0,524	162,0	1.050,0
3 x 50 RM	8,0	1,0	29,0	1.840,0	0,387	197,0	1.500,0
3 x 35 SM/16 RE	7,1/4,7	0,9/0,7	30,0	1.680,0	0,524/1,15	162,0	1.210,0
3 x 50 SM /25 RM	8,0/5,9	1,0/0,9	31,1	2.160,0	0,387/0,727	197,0	1.750,0
3 x 70/35 SM	9,6/7,1	1,1/0,9	36,2	3.010,0	0,268/0,524	250,0	2.450,0
3 x 95/50 SM	11,4/8,0	1,1/1,0	40,6	3.960,0	0,193/0,387	308,0	3.350,0
3 x 120/70 SM	13,1/9,6	1,2/1,1	45,4	5.160,0	0,153/0,268	359,0	4.300,0
3 x 150/70 SM	14,6/9,6	1,4/1,1	49,5	6.150,0	0,124/0,268	412,0	5.200,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
3 x 185/95 SM	16,5/11,4	1,6/1,1	54,4	7.780,0	0,0991/0,193	475,0	6.500,0
3 x 240/120 SM	18,4/13,1	1,7/1,2	61,5	9.550,0	0,0754/0,153	564,0	8.400,0
4 x 1,5 RE	1,4	0,7	12,0	170,0	12,1	24,0	60,0
4 x 2,5 RE	1,8	0,7	13,0	215,0	7,4	32,0	100,0
4 x 4 RE	2,3	0,7	14,5	290,0	4,6	42,0	160,0
4 x 6 RE	3,1	0,7	16,0	390,0	3,1	53,0	240,0
4 x 10 RE	3,8	0,7	18,5	600,0	1,8	74,0	400,0
4 x 16 RE	4,7	0,7	21,0	870,0	1,2	98,0	640,0
4 x 16 RM	4,7	0,7	21,0	870,0	1,2	98,0	640,0
4 x 25 RM	5,9	0,9	25,5	1.365,0	0,727	133,0	1.000,0
4 x 35 SM	7,1	0,9	28,5	1.875,0	0,524	162,0	1.400,0
4 x 50 SM	8,0	1,0	31,1	2.550,0	0,387	197,0	2.000,0
4 x 70 SM	9,6	1,1	36,2	3.010,0	0,268	250,0	2.800,0
4 x 95 SM	11,4	1,1	40,6	3.960,0	0,193	308,0	3.800,0
4 x 120 SM	13,1	1,2	45,4	5.160,0	0,153	359,0	4.800,0
4 x 150 SM	14,6	1,4	49,5	6.150,0	0,124	412,0	6.000,0
4 x 185 SM	16,5	1,6	54,4	7.780,0	0,0991	475,0	7.400,0
4 x 240 SM	18,4	1,7	61,5	9.550,0	0,0754	564,0	9.600,0
5 x 1,5 RE	1,4	0,7	13,0	195,0	12,1	24,0	75,0
5 x 2,5 RE	1,8	0,7	14,5	255,0	7,4	32,0	125,0
5 x 4 RE	2,3	0,7	16,0	345,0	4,6	42,0	200,0
5 x 6 RE	3,1	0,7	17,5	475,0	3,1	53,0	300,0
5 x 10 RE	3,8	0,7	20,0	735,0	1,8	74,0	500,0
5 x 16 RE	4,7	0,7	23,0	1.070,0	1,2	98,0	800,0
5 x 16 RM	4,7	0,7	23,0	1.070,0	1,2	98,0	800,0
5 x 25 RM	5,9	0,9	25,0	1.766,0	0,727	133,0	1.250,0
5 x 35 RM	7,1	0,9	28,8	2.155,0	0,524	162,0	1.750,0
5 x 50 RM	8,0	1,0	33,7	3.030,0	0,387	197,0	2.500,0
5 x 70 RM	9,6	1,1	40,0	3.620,0	0,268	250,0	3.500,0
5 x 95 RM	11,4	1,1	45,0	5.438,0	0,193	308,0	4.750,0
5 x 120 RM	13,1	1,2	48,0	6.774,0	0,153	359,0	6.000,0
5 x 150 SM	14,6	1,4	51,0	7.707,0	0,124	412,0	7.500,0
5 x 185 SM	16,5	1,6	56,0	9.467,0	0,0991	475,0	9.250,0
7 x 1,5 RE	1,4	0,7	13,5	220,0	12,1	24,0	105,0
7 x 2,5 RE	1,8	0,7	15,0	310,0	7,4	32,0	175,0
7 x 4 RE	2,3	0,7	17,0	530,0	4,6	42,0	280,0
7 x 6 RE	3,1	0,7	18,3	569,0	3,1	53,0	420,0
7 x 10 RE	3,8	0,7	19,0	859,0	1,8	74,0	700,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
10 x 1,5 RE	1,4	0,7	16,5	310,0	12,1	24,0	150,0
10 x 2,5 RE	1,8	0,7	19,0	440,0	7,4	32,0	250,0
12 x 1,5 RE	1,4	0,7	17,0	370,0	12,1	24,0	180,0
12 x 2,5 RE	1,8	0,7	19,5	525,0	7,4	32,0	300,0
14 x 1,5 RE	1,4	0,7	18,0	430,0	12,1	24,0	210,0
14 x 2,5 RE	1,8	0,7	20,5	610,0	7,4	32,0	350,0
19 x 1,5 RE	1,4	0,7	19,5	560,0	12,1	24,0	285,0
19 x 2,5 RE	1,8	0,7	22,5	745,0	7,4	32,0	475,0
24 x 1,5 RE	1,4	0,7	22,5	710,0	12,1	24,0	360,0
24 x 2,5 RE	1,8	0,7	25,5	1.000,0	7,4	32,0	600,0
30 x 1,5 RE	1,4	0,7	26,0	950,0	12,1	24,0	450,0
30 x 2,5 RE	1,8	0,7	28,0	1.180,0	7,4	32,0	750,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

N2XH Cca



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property for fixed or flexible installation in dry and damp rooms. They are also approved for laying outdoors and in the ground when laid in pipes.

Aufbau und Normen

DIN VDE 0276-604/HD 604 S1
from 7 cores according to DIN VDE 0276-627/HD 627 S1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1.
IEC 60228 cl.1, or stranded (RM/SM)
according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - Core insulation 2X11
- Core labelling according to HD 308 S2
from 7 core version black with numbers
- Halogen-free core sheathing
- Cores stranded in layers
- Outer sheath made of thermoplastic polyolefin
compound HM4
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

N2XH Cca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 4 RE	2,3	0,7	7,6	90,0	4,6	44,0	40,0
1 x 6 RE	3,1	0,7	8,2	115,0	3,1	56,0	60,0
1 x 10 RE	3,8	0,7	9,2	165,0	1,8	77,0	100,0
1 x 16 RE	4,7	0,7	10,5	230,0	1,2	102,0	160,0
1 x 25 RM	5,9	0,9	12,5	340,0	0,727	138,0	250,0
1 x 35 RM	7,1	0,9	13,5	440,0	0,524	170,0	350,0
1 x 50 RM	8,0	1,0	15,0	570,0	0,387	207,0	500,0
1 x 70 RM	9,6	1,1	17,0	795,0	0,268	263,0	700,0
1 x 95 RM	11,4	1,1	19,0	1.055,0	0,193	325,0	950,0
1 x 120 RM	13,1	1,2	21,0	1.315,0	0,153	380,0	1.200,0
1 x 150 RM	14,6	1,4	23,0	1.600,0	0,124	437,0	1.500,0
1 x 185 RM	16,5	1,6	25,5	1.975,0	0,0991	507,0	1.850,0
1 x 240 RM	18,4	1,7	28,5	2.525,0	0,0754	604,0	2.400,0
1 x 300 RM	21,1	1,8	31,0	3.150,0	0,0601	697,0	3.000,0
2 x 1,5 RE	1,4	0,7	10,5	125,0	12,1	24,0	30,0
2 x 2,5 RE	1,8	0,7	11,5	155,0	7,4	32,0	50,0
2 x 4 RE	2,3	0,7	13,0	195,0	4,6	42,0	80,0
2 x 6 RE	3,1	0,7	14,0	265,0	3,1	53,0	120,0
2 x 10 RE	3,8	0,7	16,0	390,0	1,8	74,0	200,0
3 x 1,5 RE	1,4	0,7	11,0	145,0	12,1	24,0	45,0
3 x 2,5 RE	1,8	0,7	12,5	180,0	7,4	32,0	75,0
3 x 4 RE	2,3	0,7	13,5	235,0	4,6	42,0	120,0
3 x 6 RE	3,1	0,7	15,0	325,0	3,1	53,0	180,0
3 x 10 RE	3,8	0,7	17,0	485,0	1,8	74,0	300,0
3 x 16 RE	4,7	0,7	19,5	705,0	1,2	98,0	480,0
3 x 25 RM	5,9	0,9	23,5	1.080,0	0,727	133,0	750,0
3 x 35 RM	7,1	0,9	26,0	1.425,0	0,524	162,0	1.050,0
3 x 50 RM	8,0	1,0	29,0	1.840,0	0,387	197,0	1.500,0
3 x 35 SM/16 RE	7,1/4,7	0,9/0,7	30,0	1.680,0	0,524/1,15	162,0	1.210,0
3 x 50 SM /25 RM	8,0/5,9	1,0/0,9	31,1	2.160,0	0,387/0,727	197,0	1.750,0
3 x 70/35 SM	9,6/7,1	1,1/0,9	36,2	3.010,0	0,268/0,524	250,0	2.450,0
3 x 95/50 SM	11,4/8,0	1,1/1,0	40,6	3.960,0	0,193/0,387	308,0	3.350,0
3 x 120/70 SM	13,1/9,6	1,2/1,1	45,4	5.160,0	0,153/0,268	359,0	4.300,0
3 x 150/70 SM	14,6/9,6	1,4/1,1	49,5	6.150,0	0,124/0,268	412,0	5.200,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
3 x 185/95 SM	16,5/11,4	1,6/1,1	54,4	7.780,0	0,0991/0,193	475,0	6.500,0
3 x 240/120 SM	18,4/13,1	1,7/1,2	61,5	9.550,0	0,0754/0,153	564,0	8.400,0
4 x 1,5 RE	1,4	0,7	12,0	170,0	12,1	24,0	60,0
4 x 2,5 RE	1,8	0,7	13,0	215,0	7,4	32,0	100,0
4 x 4 RE	2,3	0,7	14,5	290,0	4,6	42,0	160,0
4 x 6 RE	3,1	0,7	16,0	390,0	3,1	53,0	240,0
4 x 10 RE	3,8	0,7	18,5	600,0	1,8	74,0	400,0
4 x 16 RE	4,7	0,7	21,0	870,0	1,2	98,0	640,0
4 x 16 RM	4,7	0,7	21,0	870,0	1,2	98,0	640,0
4 x 25 RM	5,9	0,9	25,5	1.365,0	0,727	133,0	1.000,0
4 x 35 SM	7,1	0,9	28,5	1.875,0	0,524	162,0	1.400,0
4 x 50 SM	8,0	1,0	31,1	2.550,0	0,387	197,0	2.000,0
4 x 70 SM	9,6	1,1	36,2	3.010,0	0,268	250,0	2.800,0
4 x 95 SM	11,4	1,1	40,6	3.960,0	0,193	308,0	3.800,0
4 x 120 SM	13,1	1,2	45,4	5.160,0	0,153	359,0	4.800,0
4 x 150 SM	14,6	1,4	49,5	6.150,0	0,124	412,0	6.000,0
4 x 185 SM	16,5	1,6	54,4	7.780,0	0,0991	475,0	7.400,0
4 x 240 SM	18,4	1,7	61,5	9.550,0	0,0754	564,0	9.600,0
5 x 1,5 RE	1,4	0,7	13,0	195,0	12,1	24,0	75,0
5 x 2,5 RE	1,8	0,7	14,5	255,0	7,4	32,0	125,0
5 x 4 RE	2,3	0,7	16,0	345,0	4,6	42,0	200,0
5 x 6 RE	3,1	0,7	17,5	475,0	3,1	53,0	300,0
5 x 10 RE	3,8	0,7	20,0	735,0	1,8	74,0	500,0
5 x 16 RE	4,7	0,7	23,0	1.070,0	1,2	98,0	800,0
5 x 16 RM	4,7	0,7	23,0	1.070,0	1,2	98,0	800,0
5 x 25 RM	5,9	0,9	25,0	1.766,0	0,727	133,0	1.250,0
5 x 35 RM	7,1	0,9	28,8	2.155,0	0,524	162,0	1.750,0
5 x 50 RM	8,0	1,0	33,7	3.030,0	0,387	197,0	2.500,0
5 x 70 RM	9,6	1,1	40,0	3.620,0	0,268	250,0	3.500,0
5 x 95 RM	11,4	1,1	45,0	5.438,0	0,193	308,0	4.750,0
5 x 120 RM	13,1	1,2	48,0	6.774,0	0,153	359,0	6.000,0
5 x 150 SM	14,6	1,4	51,0	7.707,0	0,124	412,0	7.500,0
5 x 185 SM	16,5	1,6	56,0	9.467,0	0,0991	475,0	9.250,0
7 x 1,5 RE	1,4	0,7	13,5	220,0	12,1	24,0	105,0
7 x 2,5 RE	1,8	0,7	15,0	310,0	7,4	32,0	175,0
7 x 4 RE	2,3	0,7	17,0	530,0	4,6	42,0	280,0
7 x 6 RE	3,1	0,7	18,3	569,0	3,1	53,0	420,0
7 x 10 RE	3,8	0,7	19,0	859,0	1,8	74,0	700,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
10 x 1,5 RE	1,4	0,7	16,5	310,0	12,1	24,0	150,0
10 x 2,5 RE	1,8	0,7	19,0	440,0	7,4	32,0	250,0
12 x 1,5 RE	1,4	0,7	17,0	370,0	12,1	24,0	180,0
12 x 2,5 RE	1,8	0,7	19,5	525,0	7,4	32,0	300,0
14 x 1,5 RE	1,4	0,7	18,0	430,0	12,1	24,0	210,0
14 x 2,5 RE	1,8	0,7	20,5	610,0	7,4	32,0	350,0
19 x 1,5 RE	1,4	0,7	19,5	560,0	12,1	24,0	285,0
19 x 2,5 RE	1,8	0,7	22,5	745,0	7,4	32,0	475,0
24 x 1,5 RE	1,4	0,7	22,5	710,0	12,1	24,0	360,0
24 x 2,5 RE	1,8	0,7	25,5	1.000,0	7,4	32,0	600,0
30 x 1,5 RE	1,4	0,7	26,0	950,0	12,1	24,0	450,0
30 x 2,5 RE	1,8	0,7	28,0	1.180,0	7,4	32,0	750,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

N2XH B2ca



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property for fixed or flexible installation in dry and damp rooms. They are also approved for laying outdoors and in the ground when laid in pipes.

Aufbau und Normen

DIN VDE 0276-604/HD 604 S1
from 7 cores according to DIN VDE 0276-627/HD 627 S1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1.
IEC 60228 cl.1, or stranded (RM/SM)
according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - core insulation 2X11
- Core labelling according to HD 308 S2
from 7 core version black with numbers
- Halogen-free core sheathing
- Cores stranded in layers
- Outer sheath made of thermoplastic polyolefin
compound HM4
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
CPR performance class:	B2ca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimum bending radius:	EN 61034-1+2 IEC 61034-1+2

N2XH B2ca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 4 RE	2,3	0,7	7,6	90,0	4,6	44,0	40,0
1 x 6 RE	3,1	0,7	8,2	115,0	3,1	56,0	60,0
1 x 10 RE	3,8	0,7	9,2	165,0	1,8	77,0	100,0
1 x 16 RE	4,7	0,7	10,5	230,0	1,2	102,0	160,0
1 x 25 RM	5,9	0,9	12,5	340,0	0,727	138,0	250,0
1 x 35 RM	7,1	0,9	13,5	440,0	0,524	170,0	350,0
1 x 50 RM	8,0	1,0	15,0	570,0	0,387	207,0	500,0
1 x 70 RM	9,6	1,1	17,0	795,0	0,268	263,0	700,0
1 x 95 RM	11,4	1,1	19,0	1.055,0	0,193	325,0	950,0
1 x 120 RM	13,1	1,2	21,0	1.315,0	0,153	380,0	1.200,0
1 x 150 RM	14,6	1,4	23,0	1.600,0	0,124	437,0	1.500,0
1 x 185 RM	16,5	1,6	25,5	1.975,0	0,0991	507,0	1.850,0
1 x 240 RM	18,4	1,7	28,5	2.525,0	0,0754	604,0	2.400,0
1 x 300 RM	21,1	1,8	31,0	3.150,0	0,0601	697,0	3.000,0
2 x 1,5 RE	1,4	0,7	10,5	125,0	12,1	24,0	30,0
2 x 2,5 RE	1,8	0,7	11,5	155,0	7,4	32,0	50,0
2 x 4 RE	2,3	0,7	13,0	195,0	4,6	42,0	80,0
2 x 6 RE	3,1	0,7	14,0	265,0	3,1	53,0	120,0
2 x 10 RE	3,8	0,7	16,0	390,0	1,8	74,0	200,0
3 x 1,5 RE	1,4	0,7	11,0	145,0	12,1	24,0	45,0
3 x 2,5 RE	1,8	0,7	12,5	180,0	7,4	32,0	75,0
3 x 4 RE	2,3	0,7	13,5	235,0	4,6	42,0	120,0
3 x 6 RE	3,1	0,7	15,0	325,0	3,1	53,0	180,0
3 x 10 RE	3,8	0,7	17,0	485,0	1,8	74,0	300,0
3 x 16 RE	4,7	0,7	19,5	705,0	1,2	98,0	480,0
3 x 25 RM	5,9	0,9	23,5	1.080,0	0,727	133,0	750,0
3 x 35 RM	7,1	0,9	26,0	1.425,0	0,524	162,0	1.050,0
3 x 50 RM	8,0	1,0	29,0	1.840,0	0,387	197,0	1.500,0
3 x 35 SM/16 RE	7,1/4,7	0,9/0,7	30,0	1.680,0	0,524/1,15	162,0	1.210,0
3 x 50 SM /25 RM	8,0/5,9	1,0/0,9	31,1	2.160,0	0,387/0,727	197,0	1.750,0
3 x 70/35 SM	9,6/7,1	1,1/0,9	36,2	3.010,0	0,268/0,524	250,0	2.450,0
3 x 95/50 SM	11,4/8,0	1,1/1,0	40,6	3.960,0	0,193/0,387	308,0	3.350,0
3 x 120/70 SM	13,1/9,6	1,2/1,1	45,4	5.160,0	0,153/0,268	359,0	4.300,0
3 x 150/70 SM	14,6/9,6	1,4/1,1	49,5	6.150,0	0,124/0,268	412,0	5.200,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
3 x 185/95 SM	16,5/11,4	1,6/1,1	54,4	7.780,0	0,0991/0,193	475,0	6.500,0
3 x 240/120 SM	18,4/13,1	1,7/1,2	61,5	9.550,0	0,0754/0,153	564,0	8.400,0
4 x 1,5 RE	1,4	0,7	12,0	170,0	12,1	24,0	60,0
4 x 2,5 RE	1,8	0,7	13,0	215,0	7,4	32,0	100,0
4 x 4 RE	2,3	0,7	14,5	290,0	4,6	42,0	160,0
4 x 6 RE	3,1	0,7	16,0	390,0	3,1	53,0	240,0
4 x 10 RE	3,8	0,7	18,5	600,0	1,8	74,0	400,0
4 x 16 RE	4,7	0,7	21,0	870,0	1,2	98,0	640,0
4 x 16 RM	4,7	0,7	21,0	870,0	1,2	98,0	640,0
4 x 25 RM	5,9	0,9	25,5	1.365,0	0,727	133,0	1.000,0
4 x 35 SM	7,1	0,9	28,5	1.875,0	0,524	162,0	1.400,0
4 x 50 SM	8,0	1,0	31,1	2.550,0	0,387	197,0	2.000,0
4 x 70 SM	9,6	1,1	36,2	3.010,0	0,268	250,0	2.800,0
4 x 95 SM	11,4	1,1	40,6	3.960,0	0,193	308,0	3.800,0
4 x 120 SM	13,1	1,2	45,4	5.160,0	0,153	359,0	4.800,0
4 x 150 SM	14,6	1,4	49,5	6.150,0	0,124	412,0	6.000,0
4 x 185 SM	16,5	1,6	54,4	7.780,0	0,0991	475,0	7.400,0
4 x 240 SM	18,4	1,7	61,5	9.550,0	0,0754	564,0	9.600,0
5 x 1,5 RE	1,4	0,7	13,0	195,0	12,1	24,0	75,0
5 x 2,5 RE	1,8	0,7	14,5	255,0	7,4	32,0	125,0
5 x 4 RE	2,3	0,7	16,0	345,0	4,6	42,0	200,0
5 x 6 RE	3,1	0,7	17,5	475,0	3,1	53,0	300,0
5 x 10 RE	3,8	0,7	20,0	735,0	1,8	74,0	500,0
5 x 16 RE	4,7	0,7	23,0	1.070,0	1,2	98,0	800,0
5 x 16 RM	4,7	0,7	23,0	1.070,0	1,2	98,0	800,0
5 x 25 RM	5,9	0,9	25,0	1.766,0	0,727	133,0	1.250,0
5 x 35 RM	7,1	0,9	28,8	2.155,0	0,524	162,0	1.750,0
5 x 50 RM	8,0	1,0	33,7	3.030,0	0,387	197,0	2.500,0
5 x 70 RM	9,6	1,1	40,0	3.620,0	0,268	250,0	3.500,0
5 x 95 RM	11,4	1,1	45,0	5.438,0	0,193	308,0	4.750,0
5 x 120 RM	13,1	1,2	48,0	6.774,0	0,153	359,0	6.000,0
5 x 150 SM	14,6	1,4	51,0	7.707,0	0,124	412,0	7.500,0
5 x 185 SM	16,5	1,6	56,0	9.467,0	0,0991	475,0	9.250,0
7 x 1,5 RE	1,4	0,7	13,5	220,0	12,1	24,0	105,0
7 x 2,5 RE	1,8	0,7	15,0	310,0	7,4	32,0	175,0
7 x 4 RE	2,3	0,7	17,0	530,0	4,6	42,0	280,0
7 x 6 RE	3,1	0,7	18,3	569,0	3,1	53,0	420,0
7 x 10 RE	3,8	0,7	19,0	859,0	1,8	74,0	700,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
10 x 1,5 RE	1,4	0,7	16,5	310,0	12,1	24,0	150,0
10 x 2,5 RE	1,8	0,7	19,0	440,0	7,4	32,0	250,0
12 x 1,5 RE	1,4	0,7	17,0	370,0	12,1	24,0	180,0
12 x 2,5 RE	1,8	0,7	19,5	525,0	7,4	32,0	300,0
14 x 1,5 RE	1,4	0,7	18,0	430,0	12,1	24,0	210,0
14 x 2,5 RE	1,8	0,7	20,5	610,0	7,4	32,0	350,0
19 x 1,5 RE	1,4	0,7	19,5	560,0	12,1	24,0	285,0
19 x 2,5 RE	1,8	0,7	22,5	745,0	7,4	32,0	475,0
24 x 1,5 RE	1,4	0,7	22,5	710,0	12,1	24,0	360,0
24 x 2,5 RE	1,8	0,7	25,5	1.000,0	7,4	32,0	600,0
30 x 1,5 RE	1,4	0,7	26,0	950,0	12,1	24,0	450,0
30 x 2,5 RE	1,8	0,7	28,0	1.180,0	7,4	32,0	750,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

N2XCH Dca



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property for fixed or flexible installation in dry and damp rooms. They are also approved for laying outdoors and in the ground when laid in pipes. The concentric conductor with a copper cross conductor helix may be used as a PE-PEN conductor or as a shield.

Aufbau und Normen

DIN VDE 0276-604/HD 604 S1
from 7 cores according to DIN VDE 0276-627/HD 627 S1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1, or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - core insulation 2X11
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores stranded in layers
- Common core sheath, with filling compound on top or tape winding
- Concentric conductor, round copper wires between core sheath and outer sheath, copper tape as cross-conducting spiral over the copper wires
- Outer sheath made of thermoplastic polyolefin compound HM4
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

N2XCH Dca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE/1,5	1,4	0,7	14,0	250,0	12,1	24,0	54,0
2 x 2,5 RE/2,5	1,8	0,7	15,0	280,0	7,4	32,0	83,0
2 x 4 RE/4	2,3	0,7	16,0	320,0	4,6	42,0	128,0
3 x 1,5 RE/1,5	1,4	0,7	12,0	200,0	12,1	24,0	73,0
3 x 2,5 RE/2,5	1,8	0,7	13,0	250,0	7,4	32,0	113,0
3 x 4 RE/4	2,3	0,7	14,0	340,0	4,6	42,0	168,0
3 x 6 RE/6	3,1	0,7	15,0	450,0	3,1	53,0	250,0
3 x 10 RE/10	3,8	0,7	18,0	620,0	1,8	74,0	425,0
3 x 16 RE/16	4,7	0,7	20,0	890,0	1,2	98,0	670,0
3 x 25 RM/16	5,9	0,9	25,0	1.350,0	0,727	133,0	940,0
3 x 35 RM/16	7,1	0,9	27,0	1.650,0	0,524	162,0	1.240,0
3 x 50 SM/25	8,0	1,0	30,0	2.400,0	0,387	197,0	1.795,0
3 x 70 SM/35	9,6	1,1	34,0	2.615,0	0,268	250,0	2.510,0
3 x 95 SM/50	11,4	1,1	38,1	3.636,0	0,193	308,0	3.433,0
3 x 120 SM/70	13,1	1,2	42,5	4.606,0	0,153	359,0	4.413,0
3 x 150 SM/70	14,6	1,4	47,0	5.552,0	0,124	412,0	5.313,0
3 x 185 SM/95	16,5	1,6	50,0	6.680,0	0,0991	475,0	6.649,0
3 x 240 SM/120	18,4	1,7	57,1	8.964,0	0,0754	564,0	8.585,0
4 x 1,5 RE/1,5	1,4	0,7	13,0	230,0	12,1	24,0	88,0
4 x 2,5 RE/2,5	1,8	0,7	14,0	290,0	7,4	32,0	138,0
4 x 4 RE/4	2,3	0,7	15,0	400,0	4,6	42,0	208,0
4 x 6 RE/6	3,1	0,7	16,0	500,0	3,1	53,0	309,0
4 x 10 RE/10	3,8	0,7	19,0	750,0	1,8	74,0	525,0
4 x 16 RE/16	4,7	0,7	21,0	1.050,0	1,2	98,0	829,0
4 x 16 RM/16	4,7	0,7	21,0	1.050,0	1,2	98,0	829,0
4 x 25 RM/16	5,9	0,9	27,0	1.600,0	0,727	133,0	1.190,0
4 x 35 RM/16	7,1	0,9	29,0	2.000,0	0,524	162,0	1.590,0
4 x 50 SM/25	8,0	1,0	31,0	2.450,0	0,387	197,0	2.295,0
4 x 70 SM/35	9,6	1,1	36,0	3.450,0	0,268	250,0	3.210,0
4 x 95 SM/50	11,4	1,1	41,0	4.550,0	0,193	308,0	4.383,0
4 x 120 SM/70	13,1	1,2	45,0	5.900,0	0,153	359,0	5.613,0
4 x 150 SM/70	14,6	1,4	49,0	7.050,0	0,124	412,0	6.813,0
4 x 185 SM/95	16,5	1,6	54,0	8.750,0	0,0991	475,0	8.499,0
4 x 240 SM/120	18,4	1,7	60,0	11.200,0	0,0754	564,0	10.985,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
7 x 1,5 RE/2,5	1,4	0,7	14,0	320,0	12,1	24,0	139,0
7 x 2,5 RE/2,5	1,8	0,7	15,0	400,0	7,4	32,0	208,0
7 x 4 RE/4	2,3	0,7	19,0	650,0	4,6	42,0	330,0
12 x 1,5 RE/2,5	1,4	0,7	18,4	450,0	12,1	24,0	214,0
12 x 2,5 RE/4	1,8	0,7	19,2	610,0	7,4	32,0	348,0
24 x 1,5 RE/6	1,4	0,7	23,2	750,0	12,1	24,0	430,0
24 x 2,5 RE/10	1,8	0,7	26,1	1.100,0	7,4	32,0	725,0
30 x 1,5 RE/6	1,4	0,7	24,3	930,0	12,1	24,0	519,0
30 x 2,5 RE/10	1,8	0,7	28,0	1.290,0	7,4	32,0	875,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

N2XCH Cca



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property for fixed or flexible installation in dry and damp rooms. They are also approved for laying outdoors and in the ground when laid in pipes. The concentric conductor with a copper cross conductor helix may be used as a PE-PEN conductor or as a shield.

Aufbau und Normen

DIN VDE 0276-604/HD 604 S1
from 7 cores according to DIN VDE 0276-627/HD 627 S1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1, or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - core insulation 2X11
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores stranded in layers
- Common core sheathing, with filling compound on top or tape winding
- Concentric conductor, round copper wires between core sheath and outer sheath, copper wires
- Outer sheath made of thermoplastic polyolefin compound HM4
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

N2XCH Cca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE/1,5	1,4	0,7	14,0	250,0	12,1	24,0	54,0
2 x 2,5 RE/2,5	1,8	0,7	15,0	280,0	7,4	32,0	83,0
2 x 4 RE/4	2,3	0,7	16,0	320,0	4,6	42,0	128,0
3 x 1,5 RE/1,5	1,4	0,7	12,0	200,0	12,1	24,0	73,0
3 x 2,5 RE/2,5	1,8	0,7	13,0	250,0	7,4	32,0	113,0
3 x 4 RE/4	2,3	0,7	14,0	340,0	4,6	42,0	168,0
3 x 6 RE/6	3,1	0,7	15,0	450,0	3,1	53,0	250,0
3 x 10 RE/10	3,8	0,7	18,0	620,0	1,8	74,0	425,0
3 x 16 RE/16	4,7	0,7	20,0	890,0	1,2	98,0	670,0
3 x 25 RM/16	5,9	0,9	25,0	1.350,0	0,727	133,0	940,0
3 x 35 RM/16	7,1	0,9	27,0	1.650,0	0,524	162,0	1.240,0
3 x 50 SM/25	8,0	1,0	30,0	2.400,0	0,387	197,0	1.795,0
3 x 70 SM/35	9,6	1,1	34,0	2.615,0	0,268	250,0	2.510,0
3 x 95 SM/50	11,4	1,1	38,1	3.636,0	0,193	308,0	3.433,0
3 x 120 SM/70	13,1	1,2	42,5	4.606,0	0,153	359,0	4.413,0
3 x 150 SM/70	14,6	1,4	47,0	5.552,0	0,124	412,0	5.313,0
3 x 185 SM/95	16,5	1,6	50,0	6.680,0	0,0991	475,0	6.649,0
3 x 240 SM/120	18,4	1,7	57,1	8.964,0	0,0754	564,0	8.585,0
4 x 1,5 RE/1,5	1,4	0,7	13,0	230,0	12,1	24,0	88,0
4 x 2,5 RE/2,5	1,8	0,7	14,0	290,0	7,4	32,0	138,0
4 x 4 RE/4	2,3	0,7	15,0	400,0	4,6	42,0	208,0
4 x 6 RE/6	3,1	0,7	16,0	500,0	3,1	53,0	309,0
4 x 10 RE/10	3,8	0,7	19,0	750,0	1,8	74,0	525,0
4 x 16 RE/16	4,7	0,7	21,0	1.050,0	1,2	98,0	829,0
4 x 16 RM/16	4,7	0,7	21,0	1.050,0	1,2	98,0	829,0
4 x 25 RM/16	5,9	0,9	27,0	1.600,0	0,727	133,0	1.190,0
4 x 35 RM/16	7,1	0,9	29,0	2.000,0	0,524	162,0	1.590,0
4 x 50 SM/25	8,0	1,0	31,0	2.450,0	0,387	197,0	2.295,0
4 x 70 SM/35	9,6	1,1	36,0	3.450,0	0,268	250,0	3.210,0
4 x 95 SM/50	11,4	1,1	41,0	4.550,0	0,193	308,0	4.383,0
4 x 120 SM/70	13,1	1,2	45,0	5.900,0	0,153	359,0	5.613,0
4 x 150 SM/70	14,6	1,4	49,0	7.050,0	0,124	412,0	6.813,0
4 x 185 SM/95	16,5	1,6	54,0	8.750,0	0,0991	475,0	8.499,0
4 x 240 SM/120	18,4	1,7	60,0	11.200,0	0,0754	564,0	10.985,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
7 x 1,5 RE/2,5	1,4	0,7	14,0	320,0	12,1	24,0	139,0
7 x 2,5 RE/2,5	1,8	0,7	15,0	400,0	7,4	32,0	208,0
7 x 4 RE/4	2,3	0,7	19,0	650,0	4,6	42,0	330,0
12 x 1,5 RE/2,5	1,4	0,7	18,4	450,0	12,1	24,0	214,0
12 x 2,5 RE/4	1,8	0,7	19,2	610,0	7,4	32,0	348,0
24 x 1,5 RE/6	1,4	0,7	23,2	750,0	12,1	24,0	430,0
24 x 2,5 RE/10	1,8	0,7	26,1	1.100,0	7,4	32,0	725,0
30 x 1,5 RE/6	1,4	0,7	24,3	930,0	12,1	24,0	519,0
30 x 2,5 RE/10	1,8	0,7	28,0	1.290,0	7,4	32,0	875,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

N2XCH B2ca



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property for fixed or flexible installation in dry and damp rooms. They are also approved for laying outdoors and in the ground when laid in pipes. The concentric conductor with a copper cross conductor helix may be used as a PE-PEN conductor or as a shield.

Aufbau und Normen

DIN VDE 0276-604/HD 604 S1
from 7 cores according to DIN VDE 0276-627/HD 627 S1

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1, or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- VPE - core insulation 2X11
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores stranded in layers
- Common core sheath, with filling compound on top or tape winding
- Concentric conductor, round copper wires between core sheath and outer sheath, copper tape as cross-conducting spiral over the copper wires
- Outer sheath made of thermoplastic polyolefin compound HM4
- Sheath colour black

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	B2ca
Corrosiveness of fire development:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034-1+2 IEC 61034-1+2

N2XCH B2ca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE/1,5	1,4	0,7	14,0	250,0	12,1	24,0	54,0
2 x 2,5 RE/2,5	1,8	0,7	15,0	280,0	7,4	32,0	83,0
2 x 4 RE/4	2,3	0,7	16,0	320,0	4,6	42,0	128,0
3 x 1,5 RE/1,5	1,4	0,7	12,0	200,0	12,1	24,0	73,0
3 x 2,5 RE/2,5	1,8	0,7	13,0	250,0	7,4	32,0	113,0
3 x 4 RE/4	2,3	0,7	14,0	340,0	4,6	42,0	168,0
3 x 6 RE/6	3,1	0,7	15,0	450,0	3,1	53,0	250,0
3 x 10 RE/10	3,8	0,7	18,0	620,0	1,8	74,0	425,0
3 x 16 RE/16	4,7	0,7	20,0	890,0	1,2	98,0	670,0
3 x 25 RM/16	5,9	0,9	25,0	1.350,0	0,727	133,0	940,0
3 x 35 RM/16	7,1	0,9	27,0	1.650,0	0,524	162,0	1.240,0
3 x 50 SM/25	8,0	1,0	30,0	2.400,0	0,387	197,0	1.795,0
3 x 70 SM/35	9,6	1,1	34,0	2.615,0	0,268	250,0	2.510,0
3 x 95 SM/50	11,4	1,1	38,1	3.636,0	0,193	308,0	3.433,0
3 x 120 SM/70	13,1	1,2	42,5	4.606,0	0,153	359,0	4.413,0
3 x 150 SM/70	14,6	1,4	47,0	5.552,0	0,124	412,0	5.313,0
3 x 185 SM/95	16,5	1,6	50,0	6.680,0	0,0991	475,0	6.649,0
3 x 240 SM/120	18,4	1,7	57,1	8.964,0	0,0754	564,0	8.585,0
4 x 1,5 RE/1,5	1,4	0,7	13,0	230,0	12,1	24,0	88,0
4 x 2,5 RE/2,5	1,8	0,7	14,0	290,0	7,4	32,0	138,0
4 x 4 RE/4	2,3	0,7	15,0	400,0	4,6	42,0	208,0
4 x 6 RE/6	3,1	0,7	16,0	500,0	3,1	53,0	309,0
4 x 10 RE/10	3,8	0,7	19,0	750,0	1,8	74,0	525,0
4 x 16 RE/16	4,7	0,7	21,0	1.050,0	1,2	98,0	829,0
4 x 16 RM/16	4,7	0,7	21,0	1.050,0	1,2	98,0	829,0
4 x 25 RM/16	5,9	0,9	27,0	1.600,0	0,727	133,0	1.190,0
4 x 35 RM/16	7,1	0,9	29,0	2.000,0	0,524	162,0	1.590,0
4 x 50 SM/25	8,0	1,0	31,0	2.450,0	0,387	197,0	2.295,0
4 x 70 SM/35	9,6	1,1	36,0	3.450,0	0,268	250,0	3.210,0
4 x 95 SM/50	11,4	1,1	41,0	4.550,0	0,193	308,0	4.383,0
4 x 120 SM/70	13,1	1,2	45,0	5.900,0	0,153	359,0	5.613,0
4 x 150 SM/70	14,6	1,4	49,0	7.050,0	0,124	412,0	6.813,0
4 x 185 SM/95	16,5	1,6	54,0	8.750,0	0,0991	475,0	8.499,0
4 x 240 SM/120	18,4	1,7	60,0	11.200,0	0,0754	564,0	10.985,0

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
7 x 1,5 RE/2,5	1,4	0,7	14,0	320,0	12,1	24,0	139,0
7 x 2,5 RE/2,5	1,8	0,7	15,0	400,0	7,4	32,0	208,0
7 x 4 RE/4	2,3	0,7	19,0	650,0	4,6	42,0	330,0
12 x 1,5 RE/2,5	1,4	0,7	18,4	450,0	12,1	24,0	214,0
12 x 2,5 RE/4	1,8	0,7	19,2	610,0	7,4	32,0	348,0
24 x 1,5 RE/6	1,4	0,7	23,2	750,0	12,1	24,0	430,0
24 x 2,5 RE/10	1,8	0,7	26,1	1.100,0	7,4	32,0	725,0
30 x 1,5 RE/6	1,4	0,7	24,3	930,0	12,1	24,0	519,0
30 x 2,5 RE/10	1,8	0,7	28,0	1.290,0	7,4	32,0	875,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

RZ1-K



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property for fixed or flexible installation in dry and damp rooms. They are also approved for laying outdoors and in the ground when laid in pipes.

Aufbau und Normen

UNE 21123-4

- Copper stranded wire, fine stranded according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- VPE - core insulation DIX3
- Core labelling according to HD 308 S2
- Cores stranded in layers
- Halogen-free thermoplastic polyolefin outer sheath
- Sheath colour green

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	3500 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	5 x DA
multicore:	6 x DA
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 60754-2
	IEC 60754-2
Minimal smoke development:	EN 61034 1+2
	IEC 61034-1+2

RZ1-K

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 6	84 x 0,31	0,7	7,3	90,0	3,3	56,0	60,0
1 x 10	80 x 0,41	0,7	8,2	133,0	1,9	77,0	100,0
1 x 16	128 x 0,41	0,7	9,2	189,0	1,2	102,0	160,0
1 x 25	200 x 0,41	0,9	11,0	284,0	0,78	138,0	250,0
1 x 35	280 x 0,41	0,9	12,1	381,0	0,554	170,0	350,0
1 x 50	400 x 0,41	1,0	13,8	517,0	0,386	207,0	500,0
1 x 70	356 x 0,51	1,1	15,7	712,0	0,272	263,0	700,0
1 x 95	485 x 0,51	1,1	17,6	923,0	0,206	325,0	950,0
1 x 120	614 x 0,51	1,2	19,2	1.165,0	0,161	380,0	1.200,0
1 x 150	765 x 0,51	1,4	21,5	1.446,0	0,129	437,0	1.500,0
1 x 185	944 x 0,51	1,6	23,9	1.748,0	0,106	507,0	1.850,0
1 x 240	1.225 x 0,51	1,7	26,9	2.280,0	0,0801	604,0	2.400,0
1 x 300	1.530 x 0,51	1,8	29,6	2.829,0	0,0641	697,0	3.000,0
2 x 1,5	30 x 0,26	0,7	8,2	90,0	13,3	24,0	30,0
2 x 2,5	50 x 0,26	0,7	9,2	120,0	8,0	32,0	50,0
3 G 1,5	30 x 0,26	0,7	8,9	108,0	13,3	24,0	45,0
3 G 2,5	50 x 0,26	0,7	9,8	144,0	8,0	32,0	75,0
3 G 4	56 x 0,31	0,7	11,0	198,0	5,0	42,0	120,0
3 G 6	84 x 0,31	0,7	12,1	263,0	3,3	53,0	180,0
3 G 10	80 x 0,41	0,7	14,3	405,0	1,9	74,0	300,0
3 G 16	128 x 0,41	0,7	16,4	593,0	1,2	98,0	480,0
3 G 25	200 x 0,41	0,9	21,3	975,0	0,78	133,0	750,0
3 G 35	280 x 0,41	0,9	24,1	1.319,0	0,554	162,0	1.050,0
3 G 50	400 x 0,41	1,0	27,8	1.812,0	0,386	197,0	1.500,0
4 G 1,5	30 x 0,26	0,7	9,7	129,0	13,3	24,0	60,0
4 G 2,5	50 x 0,26	0,7	10,7	175,0	8,0	32,0	100,0
4 G 4	56 x 0,31	0,7	12,0	243,0	5,0	42,0	160,0
4 G 6	84 x 0,31	0,7	13,4	328,0	3,3	53,0	240,0
4 G 10	80 x 0,41	0,7	15,7	505,0	1,9	74,0	400,0
4 G 16	128 x 0,41	0,7	18,2	749,0	1,2	98,0	640,0
4 G 25	200 x 0,41	0,9	24,1	1.245,0	0,78	133,0	1.000,0
4 G 35	280 x 0,41	0,9	26,3	1.671,0	0,554	162,0	1.400,0
4 G 50	400 x 0,41	1,0	31,3	2.313,0	0,386	197,0	2.000,0
4 G 70	356 x 0,51	1,1	36,1	3.204,0	0,272	250,0	2.800,0

Aderanzahl x Nennquerschnitt	Leiteraufbau	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
4 G 95	485 x 0,51	1,1	40,2	4.126,0	0,206	308,0	3.800,0
4 G 120	614 x 0,51	1,2	44,6	5.245,0	0,161	359,0	4.800,0
5 G 1,5	30 x 0,26	0,7	10,4	153,0	13,3	24,0	75,0
5 G 2,5	50 x 0,26	0,7	11,6	213,0	8,0	32,0	125,0
5 G 4	56 x 0,31	0,7	13,2	298,0	5,0	42,0	200,0
5 G 6	84 x 0,31	0,7	14,7	403,0	3,3	53,0	300,0
5 G 10	80 x 0,41	0,7	17,2	624,0	1,9	74,0	500,0
5 G 16	128 x 0,41	0,7	20,2	931,0	1,2	98,0	800,0
5 G 25	200 x 0,41	0,9	25,6	1.555,0	0,78	133,0	1.250,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

G = with protective conductor (GNGE)

x = without protective conductor

NHXX E30



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property and a functional integrity of **at least 30 minutes**. For fixed or flexible installation in dry and damp rooms. When laid in protective conduits and if precautions are taken to prevent water from accumulating in the conduit, these cables can also be laid outdoors and in the ground. When laying outdoors, protection against direct sunlight must be provided. When planning cable systems with functional integrity, it should be noted that the conductor resistance at a temperature of 800°C (final temperature for E30 test) is approx. 4 times greater than at 20°C.

Aufbau und Normen

based on DIN VDE 0266

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- core insulation made from halogen-free insulation compound
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores stranded together
- Halogen-free inner sheath
- Halogen-free polymer outer sheath
- Sheath colour orange

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
Insulation maintenance (FE):	180 minutes
Function maintenance (E) :	30 minutes
Fire behaviour:	EN 60332-3-24 IEC 60332-3-24
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2
Insulation maintenance FE180:	VDE 0472-814 IEC 60331
Function maintenance E30:	DIN 4102-12

NHXH E30

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 4 RE	6,9	100,0	4,6	42,0	40,0
1 x 6 RE	7,9	120,0	3,1	53,0	60,0
1 x 10 RE	8,1	160,0	1,8	73,0	100,0
1 x 16 RE	8,9	200,0	1,2	97,0	160,0
1 x 25 RM	10,9	310,0	0,727	135,0	250,0
1 x 35 RM	11,9	410,0	0,524	165,0	350,0
1 x 50 RM	12,9	540,0	0,387	201,0	500,0
1 x 70 RM	15,9	740,0	0,268	255,0	700,0
1 x 95 RM	17,9	1020,0	0,193	314,0	950,0
1 x 120 RM	18,9	1380,0	0,153	364,0	1200,0
1 x 150 RM	20,9	1560,0	0,124	416,0	1500,0
1 x 185 RM	23,9	1930,0	0,0991	480,0	1850,0
1 x 240 RM	26,9	2.540,0	0,0754	565,0	2.400,0
1 x 300 RM	32,9	3.180,0	0,0601	645,0	3.000,0
2 x 1,5 RE	10,2	190,0	12,1	24,0	30,0
2 x 2,5 RE	10,9	220,0	7,4	32,0	50,0
3 x 1,5 RE	10,9	210,0	12,1	24,0	45,0
3 x 2,5 RE	11,9	260,0	7,4	32,0	75,0
3 x 4 RE	12,9	320,0	4,6	42,0	120,0
3 x 6 RE	13,9	400,0	3,1	53,0	180,0
3 x 10 RE	15,9	550,0	1,8	73,0	300,0
3 x 16 RE	17,9	790,0	1,2	97,0	480,0
3 x 25/16 RM	23,4	1500,0	0,727/1,15	135,0	910,0
3 x 35/16 RM	26,9	1800,0	0,524/1,15	165,0	1.210,0
3 x 50/25 RM	29,9	2.600,0	0,387/0,727	201,0	1.750,0
3 x 70/35 RM	34,9	3.400,0	0,268/0,524	255,0	2.450,0
3 x 95/50 RM	38,9	4.600,0	0,193/0,87	314,0	3.350,0
3 x 120/70 RM	42,9	5.700,0	0,153/0,268	364,0	4.300,0
3 x 150/70 RM	46,9	6.800,0	0,124/0,268	416,0	5.200,0
3 x 185/95 RM	52,9	8.500,0	0,0991/0,193	480,0	6.500,0
3 x 240/120 RM	58,8	11.000,0	0,0754/0,153	565,0	8.400,0
4 x 1,5 RE	11,9	240,0	12,1	24,0	60,0
4 x 2,5 RE	12,9	300,0	7,4	32,0	100,0
4 x 4 RE	13,9	390,0	4,6	42,0	160,0

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
4 x 6 RE	14,9	490,0	3,1	53,0	240,0
4 x 10 RE	16,9	670,0	1,8	73,0	400,0
4 x 16 RE	19,9	950,0	1,2	97,0	640,0
4 x 16 RM	19,9	950,0	1,2	97,0	640,0
4 x 25 RM	24,9	1.430,0	0,727	135,0	1.000,0
4 x 35 RM	27,9	1.890,0	0,524	165,0	1.400,0
4 x 50 RM	31,9	2.510,0	0,387	201,0	2.000,0
4 x 70 RM	36,9	3.650,0	0,268	255,0	2.800,0
4 x 95 RM	40,9	4.750,0	0,193	314,0	3.800,0
4 x 120 RM	44,9	5.910,0	0,153	364,0	4.800,0
4 x 150 RM	49,9	7.240,0	0,124	416,0	6.000,0
5 x 1,5 RE	12,9	280,0	12,1	24,0	75,0
5 x 2,5 RE	13,9	354,0	7,4	32,0	125,0
5 x 4 RE	14,9	450,0	4,6	42,0	200,0
5 x 6 RE	16,9	570,0	3,1	53,0	300,0
5 x 10 RE	18,9	820,0	1,8	73,0	500,0
5 x 16 RE	22,9	1.140,0	1,2	97,0	800,0
5 x 16 RM	22,9	1.140,0	1,2	97,0	800,0
5 x 25 RM	26,6	1.710,0	0,727	135,0	1.250,0
5 x 35 RM	30,5	2.384,0	0,524	165,0	1.750,0
7 x 1,5 RE	13,9	330,0	12,1	24,0	105,0
7 x 2,5 RE	14,9	430,0	7,4	32,0	175,0
12 x 1,5 RE	18,9	500,0	12,1	24,0	180,0
12 x 2,5 RE	21,9	650,0	7,4	32,0	300,0
19 x 1,5 RE	21,9	720,0	12,1	24,0	285,0
19 x 2,5 RE	23,9	950,0	7,4	32,0	475,0
24 x 1,5 RE	24,9	890,0	12,1	24,0	360,0
24 x 2,5 RE	26,9	1.210,0	7,4	32,0	600,0
30 x 1,5 RE	25,9	1.090,0	12,1	24,0	450,0
30 x 2,5 RE	28,9	1.470,0	7,4	32,0	750,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NHXCH E30



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property and a functional integrity of **at least 30 minutes**. For fixed or flexible installation in dry and damp rooms. When laid in protective conduits and if precautions are taken to prevent water from accumulating in the conduit, these cables can also be laid outdoors and in the ground. When laying outdoors, protection against direct sunlight must be provided. When planning cable systems with functional integrity, it should be noted that the conductor resistance at a temperature of 800°C (final temperature for E30 test) is approx. 4 times greater than at 20°C.

Aufbau und Normen

based on DIN VDE 0266

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Core insulation made from halogen-free insulation compound
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores stranded together
- Halogen-free inner sheath
- Concentric conductor, round copper wires between core sheath and outer sheath, copper tape as cross-conducting spiral over the copper wires
- Halogen-free polymer outer sheath
- Sheath colour orange

Technische Daten

Nominal voltage U_0/U :	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
Insulation maintenance (FE):	180 minutes
Function maintenance (E):	30 minutes
Fire behaviour:	EN 60332-3-24 IEC 60332-3-24
Corrociiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2
Insulation maintenance FE180:	VDE 0472-814 IEC 60331
Function maintenance E30:	DIN 4102-12

NHXCH E30

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE/1,5	10,8	300,0	12,1	24,0	54,0
2 x 2,5 RE/2,5	11,9	350,0	7,4	32,0	83,0
3 x 1,5 RE/1,5	11,9	320,0	12,1	24,0	73,0
3 x 2,5 RE/2,5	12,9	380,0	7,4	32,0	113,0
3 x 4 RE/4	15,5	530,0	4,6	42,0	168,0
4 x 1,5 RE/1,5	14,5	249,0	12,1	24,0	88,0
4 x 2,5 RE/2,5	15,5	313,0	7,4	32,0	138,0
4 x 4 RE/4	16,5	412,0	4,6	42,0	208,0
4 x 6 RE/6	17,5	522,0	3,1	53,0	309,0
4 x 10 RE/10	18,9	746,0	1,8	73,0	525,0
4 x 16 RE/16	21,9	1.119,0	1,2	97,0	829,0
4 x 25 RM/16	26,9	1.583,0	0,727	135,0	1.190,0
4 x 35 RM/16	29,9	2.002,0	0,524	165,0	1.590,0
4 x 50 RM/25	33,9	2.700,0	0,387	201,0	2.295,0
4 x 70 RM/35	38,9	3.838,0	0,268	255,0	3.210,0
4 x 95 RM/50	41,5	5.181,0	0,193	314,0	4.383,0
4 x 120 RM/70	46,9	6.500,0	0,153	364,0	5.613,0
4 x 150 RM/70	52,9	7.950,0	0,124	416,0	6.813,0
4 x 185 RM/95	58,9	10.130,0	0,0991	480,0	8.499,0
4 x 240 RM/120	64,9	13.190,0	0,0754	565,0	10.985,0
7 x 1,5 RE/2,5	16,9	500,0	12,1	24,0	139,0
7 x 2,5 RE/2,5	19,0	600,0	7,4	32,0	208,0
12 x 1,5 RE/2,5	19,9	700,0	12,1	24,0	214,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NHXX E90



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property and a functional integrity of **at least 90 minutes**. For fixed or flexible installation in dry and damp rooms. When laid in protective conduits and if precautions are taken to prevent water from accumulating in the conduit, these cables can also be laid outdoors and in the ground. When laying outdoors, protection against direct sunlight must be provided. When planning cable systems with functional integrity, it should be noted that the conductor resistance at a temperature of 1000°C (final temperature for E90 test) is approx. 4.5 times greater than at 20°C.

Aufbau und Normen

based on DIN VDE 0266

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Core insulation made from halogen-free insulation compound
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores stranded together
- Halogen-free inner sheath
- Halogen-free polymer outer sheath
- Sheath colour orange

Technische Daten

Nominal voltage U_0/U:	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
Insulation maintenance (FE):	180 minutes
Function maintenance (E):	90 minutes
Fire behaviour:	EN 60332-3-24 IEC 60332-3-24
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2
Insulation maintenance FE180:	VDE 0472-814 IEC 60331
Function maintenance E90:	DIN 4102-12

NHXH E90

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
1 x 16 RM	10,5	230,0	1,2	97,0	160,0
1 x 25 RM	12,5	340,0	0,727	135,0	250,0
1 x 35 RM	13,5	440,0	0,524	165,0	350,0
1 x 50 RM	13,9	600,0	0,387	201,0	500,0
1 x 70 RM	16,5	800,0	0,268	255,0	700,0
1 x 95 RM	18,9	1.100,0	0,193	314,0	950,0
1 x 120 RM	20,5	1.350,0	0,153	364,0	1.200,0
1 x 150 RM	22,5	1.650,0	0,124	416,0	1.500,0
1 x 185 RM	24,9	2.000,0	0,0991	480,0	1.850,0
1 x 240 RM	27,9	2.600,0	0,0754	565,0	2.400,0
1 x 300 RM	30,9	3.200,0	0,0601	645,0	3.000,0
2 x 1,5 RE	13,9	210,0	12,1	24,0	30,0
2 x 2,5 RE	14,2	260,0	7,4	32,0	50,0
3 x 1,5 RE	14,9	235,0	12,1	24,0	45,0
3 x 2,5 RE	15,9	243,0	7,4	32,0	75,0
3 x 4 RE	16,7	302,0	4,6	42,0	120,0
3 x 6 RE	17,8	399,0	3,1	53,0	180,0
3 x 10 RE	19,4	546,0	1,8	73,0	300,0
3 x 16 RM	22,3	765,0	1,2	97,0	480,0
3 x 25 RM	25,0	1.300,0	0,727	135,0	750,0
3 x 35 RM	28,0	1.700,0	0,524	165,0	1.050,0
3 x 25 RM/16	24,0	1.500,0	0,727/1,15	135,0	910,0
3 x 35 RM/16	28,0	1.850,0	0,524/1,15	165,0	1.210,0
3 x 50 RM/25	30,0	2.700,0	0,387/0,727	201,0	1.750,0
3 x 70 RM/35	36,0	3.350,0	0,268/0,524	255,0	2.450,0
3 x 95 RM/50	42,0	4.500,0	0,193/0,387	314,0	3.350,0
3 x 120 RM/70	45,0	5.600,0	0,153/0,268	364,0	4.300,0
3 x 150 RM/70	49,0	6.800,0	0,124/0,268	416,0	5.200,0
4 x 1,5 RE	16,1	245,0	12,1	24,0	60,0
4 x 2,5 RE	16,9	299,0	7,4	32,0	100,0
4 x 4 RE	17,9	376,0	4,6	42,0	160,0
4 x 6 RE	19,2	474,0	3,1	53,0	240,0
4 x 10 RE	21,1	657,0	1,8	73,0	400,0
4 x 16 RM	24,3	973,0	1,2	97,0	640,0

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
4 x 25 RM	28,1	1.422,0	0,727	135,0	1.000,0
4 x 35 RM	30,9	1.858,0	0,524	165,0	1.400,0
4 x 50 RM	35,1	2.900,0	0,387	201,0	2.000,0
4 x 70 RM	39,9	3.900,0	0,268	255,0	2.800,0
4 x 95 RM	45,2	5.200,0	0,193	314,0	3.800,0
4 x 120 RM	48,9	6.300,0	0,153	364,0	4.800,0
4 x 150 RM	50,9	6.800,0	0,124	416,0	6.000,0
4 x 240 RM	64,9	10.700,0	0,0754	565,0	9.600,0
5 x 1,5 RE	17,4	290,0	12,1	24,0	75,0
5 x 2,5 RE	18,4	359,0	7,4	32,0	125,0
5 x 4 RE	19,5	457,0	4,6	42,0	200,0
5 x 6 RE	20,9	577,0	3,1	53,0	300,0
5 x 10 RE	22,9	807,0	1,8	73,0	500,0
5 x 16 RE	26,6	1.145,0	1,2	97,0	800,0
5 x 16 RM	26,6	1.145,0	1,2	97,0	800,0
5 x 25 RM	30,9	1.765,0	0,727	135,0	1.250,0
5 x 35 RM	33,0	2.350,0	0,524	165,0	1.750,0
5 x 50 RM	38,0	3.100,0	0,387	201,0	2.500,0
5 x 70 RM	43,1	4.559,0	0,268	255,0	3.500,0
7 x 1,5 RE	18,6	350,0	12,1	24,0	105,0
7 x 2,5 RE	19,8	443,0	7,4	32,0	175,0
7 x 4 RE	20,5	565,0	4,6	42,0	280,0
12 x 1,5 RE	23,5	545,0	12,1	24,0	180,0
12 x 2,5 RE	25,2	780,0	7,4	32,0	300,0
24 x 1,5 RE	26,9	735,0	12,1	24,0	360,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

NHXCH E90



Verwendung

As a halogen-free safety cable with improved behaviour in the event of fire to protect people and property and a functional integrity of **at least 90 minutes**. For fixed or flexible installation in dry and damp rooms. When laid in protective conduits and if precautions are taken to prevent water from accumulating in the conduit, these cables can also be laid outdoors and in the ground. When laying outdoors, protection against direct sunlight must be provided. When planning cable systems with functional integrity, it should be noted that the conductor resistance at a temperature of 1000°C (final temperature for E90 test) is approx. 4.5 times greater than at 20°C.

Aufbau und Normen

based on DIN VDE 0266

- Bare copper conductor, solid (RE) according to DIN VDE 0295 cl.1, IEC 60228 cl.1 or stranded (RM/SM) according to DIN VDE 0295 cl.2, IEC 60228 cl.2
- Core insulation made from halogen-free insulation compound
- Core labelling according to HD 308 S2 from 7 core version black with numbers
- Cores stranded together
- Halogen-free inner sheath
- Concentric conductor, round copper wires between core sheath and outer sheath, copper tape as cross-conducting spiral over the copper wires
- Halogen-free polymer outer sheath
- Sheath colour orange

Technische Daten

Nominal voltage U_0/U :	0,6/1 kV
Testing voltage:	4000 V
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +90°C
Conductor operating temperature:	max. +90°C
Short-circuit temperature:	max. +250°C/5 sec.
Minimum bending radius:	
single core:	15 x DA
multicore:	12 x DA
Insulation maintenance (FE):	180 minutes
Function maintenance (E):	90 minutes
Fire behaviour:	EN 60332-3-24 IEC 60332-3-24
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2
Insulation maintenance FE180:	VDE 0472-814 IEC 60331
Function maintenance E90:	DIN 4102-12

NHXCH E90

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl kg/km
mm ²	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE/1,5	16,1	300,0	12,1	24,0	54,0
2 x 2,5 RE/1,5	17,8	350,0	7,4	32,0	83,0
3 x 1,5 RE/1,5	16,8	348,0	12,1	24,0	73,0
3 x 2,5 RE/2,5	17,9	410,0	7,4	32,0	113,0
3 x 4 RE/4	18,9	500,0	4,6	42,0	168,0
3 x 6 RE/6	20,9	614,0	3,1	53,0	250,0
3 x 10 RE/10	24,1	830,0	1,8	73,0	425,0
3 x 16 RM/16	27,3	1.073,0	1,2	97,0	670,0
3 x 25 RM/16	30,7	1.450,0	0,727	135,0	1.045,0
3 x 35 RM/16	33,3	1.798,0	0,524	165,0	1.460,0
3 x 50 RM/25	37,4	2.394,0	0,387	201,0	2.083,0
3 x 70 RM/35	42,5	2.796,0	0,268	255,0	2.913,0
3 x 95 RM/50	47,8	4.434,0	0,193	314,0	3.949,0
3 x 120 RM/70	51,4	5.534,0	0,153	364,0	4.985,0
3 x 150 RM/70	55,7	6.546,0	0,124	416,0	5.313,0
3 x 185 RM/95	61,7	8.303,0	0,0991	480,0	6.649,0
3 x 240 RM/120	67,9	10.605,0	0,0754	565,0	8.585,0
4 x 1,5 RE/1,5	17,9	398,0	12,1	24,0	88,0
4 x 2,5 RE/2,5	19,2	470,0	7,4	32,0	138,0
4 x 4 RE/4	20,3	578,0	4,6	42,0	208,0
4 x 6 RE/6	22,5	726,0	3,1	53,0	310,0
4 x 10 RE/10	26,4	983,0	1,8	73,0	525,0
4 x 16 RM/16	29,3	1.370,0	1,2	97,0	829,0
4 x 25 RM/16	33,1	1.904,0	0,727	135,0	1.190,0
4 x 35 RM/16	35,9	2.427,0	0,524	165,0	1.590,0
4 x 50 RM/25	41,1	3.177,0	0,387	201,0	2.295,0
4 x 70 RM/35	46,2	4.378,0	0,268	255,0	3.210,0
4 x 95 RM/50	51,9	5.803,0	0,193	314,0	4.383,0
4 x 120 RM/70	55,9	7.230,0	0,153	364,0	5.613,0
4 x 150 RM/70	60,9	8.707,0	0,124	416,0	6.813,0
4 x 185 RM/95	67,5	10.894,0	0,0991	480,0	8.499,0
4 x 240 RM/120	74,4	13.933,0	0,0754	565,0	10.985,0
7 x 1,5 RE/2,5	20,9	498,0	12,1	24,0	139,0
7 x 2,5 RE/2,5	22,1	680,0	7,4	32,0	208,0

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C in Luft	Cu Zahl
mm ²	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
12 x 1,5 RE/2,5	26,2	718,0	12,1	24,0	214,0
12 x 2,5 RE/4	28,4	1.050,0	7,4	32,0	348,0
24 x 1,5 RE/6	37,6	1.305,0	12,1	24,0	430,0
24 x 2,5 RE/10	40,9	1.400,0	7,4	32,0	725,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

J-H(ST)H Eca



Verwendung

As a halogen-free installation cable for telecommunication systems with improved behaviour in the event of fire to protect people and property for internal installation in damp or dry rooms and for laying above, on, in and under plaster. Not approved for heavy current installation purposes and underground installation. The version with static shielding (St) protects the transmission circuits against external electrical interference fields.

Aufbau und Normen

DIN VDE 0815

- Bare copper wire, solid, \varnothing 0,6 mm or \varnothing 0,8 mm
- HI2 halogen-free core insulation
- Core labelling according to DIN VDE 0815
- 4 cores each twisted into a star quad, 5 star quads each twisted into a bundle, bundle stranded in layers
- Foil winding
- Shield made of plastic-laminated aluminium foil with drain wire
- Halogen-free outer sheath
- Sheath colour grey (RAL7032)

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz 1 min.):	
Core/Core:	800 V
Core/Shield:	800 V
Insulating resistance:	$\geq 100 \text{ MOhm} \times \text{km}$
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 120 nF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

J-H(ST)H Eca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,6	1,0	5,4	42,0	13,0
4 x 2 x 0,6	1,0	7,4	69,0	24,0
6 x 2 x 0,6	1,0	7,7	86,0	36,0
10 x 2 x 0,6	1,0	9,1	124,0	59,0
20 x 2 x 0,6	1,2	13,4	237,0	116,0
30 x 2 x 0,6	1,2	15,1	324,0	172,0
40 x 2 x 0,6	1,2	16,5	410,0	228,0
50 x 2 x 0,6	1,4	18,6	515,0	285,0
60 x 2 x 0,6	1,4	19,3	600,0	342,0
80 x 2 x 0,6	1,4	24,6	800,0	455,0
100 x 2 x 0,6	1,6	27,2	990,0	568,0
1 x 2 x 0,8	1,4	6,5	58,0	11,0
2 x 2 x 0,8	1,4	6,8	69,0	25,0
4 x 2 x 0,8	1,4	9,1	112,0	41,0
6 x 2 x 0,8	1,4	9,6	141,0	62,0
10 x 2 x 0,8	1,4	11,2	204,0	103,0
20 x 2 x 0,8	1,4	16,0	370,0	203,0
30 x 2 x 0,8	1,6	17,8	524,0	304,0
40 x 2 x 0,8	1,6	19,5	666,0	404,0
50 x 2 x 0,8	1,6	21,4	810,0	505,0
60 x 2 x 0,8	1,8	23,2	975,0	606,0
80 x 2 x 0,8	2,0	30,1	1325,0	807,0
100 x 2 x 0,8	2,0	32,0	1600,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

J-H(ST)H Dca



Verwendung

As a halogen-free installation cable for telecommunication systems with improved behaviour in the event of fire to protect people and property for internal installation in damp or dry rooms and for laying above, on, in and under plaster. Not approved for heavy current installation purposes and underground installation. The version with static shielding (St) protects the transmission circuits against external electrical interference fields.

Aufbau und Normen

DIN VDE 0815

- Bare copper wire, solid, \varnothing 0,6 mm or \varnothing 0,8 mm
- halogen-free wire insulation HI2
- Core labelling according to DIN VDE 0815
- 4 cores twisted into star quadruples, 5 star quadruples each twisted into a bundle, bundle twisted in layers
- Foil winding
- Shield made of plastic-laminated aluminium foil with drain wire
- Halogen-free outer sheath
- Sheath colour grey (RAL7032)

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz 1 min.):	
Core/core:	800 V
Core/Shield:	800 V
Insulating resistance:	$\geq 100 \text{ MOhm} \times \text{km}$
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 120 nF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034-1+2 IEC 61034-1+2

J-H(ST)H Dca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,6	1,0	5,4	42,0	13,0
4 x 2 x 0,6	1,0	7,4	69,0	24,0
6 x 2 x 0,6	1,0	7,7	86,0	36,0
10 x 2 x 0,6	1,0	9,1	124,0	59,0
20 x 2 x 0,6	1,2	13,4	237,0	116,0
30 x 2 x 0,6	1,2	15,1	324,0	172,0
40 x 2 x 0,6	1,2	16,5	410,0	228,0
50 x 2 x 0,6	1,4	18,6	515,0	285,0
60 x 2 x 0,6	1,4	19,3	600,0	342,0
80 x 2 x 0,6	1,4	24,6	800,0	455,0
100 x 2 x 0,6	1,6	27,2	990,0	568,0
1 x 2 x 0,8	1,4	6,5	58,0	11,0
2 x 2 x 0,8	1,4	6,8	69,0	25,0
4 x 2 x 0,8	1,4	9,1	112,0	41,0
6 x 2 x 0,8	1,4	9,6	141,0	62,0
10 x 2 x 0,8	1,4	11,2	204,0	103,0
20 x 2 x 0,8	1,4	16,0	370,0	203,0
30 x 2 x 0,8	1,6	17,8	524,0	304,0
40 x 2 x 0,8	1,6	19,5	666,0	404,0
50 x 2 x 0,8	1,6	21,4	810,0	505,0
60 x 2 x 0,8	1,8	23,2	975,0	606,0
80 x 2 x 0,8	2,0	30,1	1325,0	807,0
100 x 2 x 0,8	2,0	32,0	1600,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

J-H(ST)H Cca



Verwendung

Als halogenfreies Installationskabel für Fernmeldeanlagen mit verbessertem Verhalten im Brandfall zum Schutz von Personen und Sachwerten zur inneren Installation in feuchten, oder trockenen Räumen sowie zur Verlegung über, auf, in und unter Putz. Für Starkstrom-Installationszwecke und Erdverlegung nicht zugelassen. Die Ausführung mit statischem Schirm (St) schützt die Übertragungskreis gegen äußere elektrische Störfelder.

Aufbau und Normen

DIN VDE 0815

- Bare copper wire, solid, \varnothing 0,6 mm or \varnothing 0,8 mm
- Halogen-free core insulation HI2
- Core labelling according to DIN VDE 0815
- each 4 cores twisted to star quad, each 5 star quad twisted into bundle, bundle twisted in layers
- Foil winding
- Shield made of plastic-laminated aluminium foil with drain wire
- Halogen-free outer sheath
- Sheath colour grey (RAL7032)

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz 1 min.):	
Core/Core:	800 V
Core/Shield:	800 V
Insulating resistance:	$\geq 100 \text{ MOhm} \times \text{km}$
Conductor resistance of the loop:	
\varnothing 0,6 mm:	max. 130 Ohm/km
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 120 nF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2

J-H(ST)H Cca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
2 x 2 x 0,6	1,0	5,4	42,0	13,0
4 x 2 x 0,6	1,0	7,4	69,0	24,0
6 x 2 x 0,6	1,0	7,7	86,0	36,0
10 x 2 x 0,6	1,0	9,1	124,0	59,0
20 x 2 x 0,6	1,2	13,4	237,0	116,0
30 x 2 x 0,6	1,2	15,1	324,0	172,0
40 x 2 x 0,6	1,2	16,5	410,0	228,0
50 x 2 x 0,6	1,4	18,6	515,0	285,0
60 x 2 x 0,6	1,4	19,3	600,0	342,0
80 x 2 x 0,6	1,4	24,6	800,0	455,0
100 x 2 x 0,6	1,6	27,2	990,0	568,0
1 x 2 x 0,8	1,4	6,5	58,0	11,0
2 x 2 x 0,8	1,4	6,8	69,0	25,0
4 x 2 x 0,8	1,4	9,1	112,0	41,0
6 x 2 x 0,8	1,4	9,6	141,0	62,0
10 x 2 x 0,8	1,4	11,2	204,0	103,0
20 x 2 x 0,8	1,4	16,0	370,0	203,0
30 x 2 x 0,8	1,6	17,8	524,0	304,0
40 x 2 x 0,8	1,6	19,5	666,0	404,0
50 x 2 x 0,8	1,6	21,4	810,0	505,0
60 x 2 x 0,8	1,8	23,2	975,0	606,0
80 x 2 x 0,8	2,0	30,1	1325,0	807,0
100 x 2 x 0,8	2,0	32,0	1600,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

JE-H(ST)H E30-E90



Verwendung

As a halogen-free installation cable with improved behaviour in the event of fire, insulation integrity FE180 and functional integrity E30 or E90, for the protection of persons and property for the installation of cable systems with integrated functional integrity in accordance with DIN 4102-12. For fixed installation in dry and damp rooms on approved support systems. Not approved for heavy current installation purposes and underground installation. The version with static shielding (St) protects the transmission circuits against external electrical interference fields.

Aufbau und Normen

based on DIN VDE 0815

- Bare copper wire, solid, \varnothing 0,8 mm
- Halogen-free core insulation HI1
- Core labelling according to DIN VDE 0815
- Cores in pairs, 4 pairs in bundles, several bundles twisted into layers, 2-pair cable to form a star quad
- Foil taping
- Shield made of plastic-laminated aluminium foil with drain wire
- Halogen-free outer sheath HM2
- Sheath colour orange

Technische Daten

Operating voltage U:	max. 225 V
Testing voltage (50 Hz 1 min.):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	100 MOhm x km
Operating capacity (at 800 Hz):	max. 120 nF/km
Insulation maintenance (FE):	180 minutes
Function maintenance (E):	30 bzw. 90 minutes
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
Fire behaviour:	EN 60332-3-24 IEC 60332-3-24
Insulation resistance FE180:	VDE 0472-814 IEC 60331
Corrossiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2
Function maintenance E30/E90:	DIN 4102-12

JE-H(ST)H E30-E90

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand der Schleife	Cu Zahl
mm	ca. mm	ca. kg/km	max. Ω/km	kg/km
	JE-H(ST)H FE180/E30			
2 x 2 x 0,8	7,5	68,0	73,2	25,0
4 x 2 x 0,8	9,3	107,0	73,2	45,0
8 x 2 x 0,8	11,4	174,0	73,2	85,0
12 x 2 x 0,8	13,5	255,0	73,2	126,0
16 x 2 x 0,8	15,0	320,0	73,2	166,0
20 x 2 x 0,8	16,5	399,0	73,2	206,0
32 x 2 x 0,8	19,5	580,0	73,2	340,0
40 x 2 x 0,8	22,5	740,0	73,2	404,0
52 x 2 x 0,8	25,2	940,0	73,2	525,0
	JE-H(ST)H FE180/E90			
2 x 2 x 0,8	8,5	83,0	73,2	25,0
4 x 2 x 0,8	11,5	138,0	73,2	45,0
8 x 2 x 0,8	15,0	243,0	73,2	85,0
12 x 2 x 0,8	18,5	351,0	73,2	126,0
16 x 2 x 0,8	20,5	441,0	73,2	166,0
20 x 2 x 0,8	24,0	557,0	73,2	206,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

J-H(ST)H BMK Eca



Verwendung

As a halogen-free installation cable for telecommunications systems with improved behaviour in the event of fire to protect people and property for internal installation in damp or dry rooms and for laying above, on, in and under plaster. This version with static shielding (St) protects the transmission circuits against external electrical interference fields. Not approved for heavy current installation purposes and underground installation. Due to the sheath pressure, this cable is specially designed for use in fire alarm systems.

Aufbau und Normen

based on DIN VDE 0815

- Bare copper wire, solid, \varnothing 0,8 mm
- Halogen-free core insulation HI2
- Core labelling according to DIN VDE 0815
- each 4 cores twisted to star quad, each 5 star quad twisted into a bundle, bundle twisted in layers
- Shield made of plastic-laminated aluminium foil with drain wire
- Halogen-free outer sheath
- Sheath colour red, with imprint: FIRE ALARM CABLE

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz 1 min.):	
Core/Core:	800 V
Core/Shield:	800 V
Insulating resistance:	≥ 100 MOhm x km
Conductor resistance of the loop:	
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 120 nF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Eca
Corrosiveness of fire gases:	EN 60754-2
	IEC 60754-2
Minimal smoke development:	EN 61034 1+2
	IEC 61034-1+2

J-H(ST)H BMK Eca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
1 x 2 x 0,8	1,4	6,5	58,0	11,0
2 x 2 x 0,8	1,4	6,8	69,0	25,0
4 x 2 x 0,8	1,4	9,1	112,0	41,0
6 x 2 x 0,8	1,4	9,6	141,0	62,0
10 x 2 x 0,8	1,4	11,2	204,0	103,0
20 x 2 x 0,8	1,4	16,0	370,0	203,0
30 x 2 x 0,8	1,6	17,8	524,0	304,0
40 x 2 x 0,8	1,6	19,5	666,0	404,0
50 x 2 x 0,8	1,6	21,4	810,0	505,0
60 x 2 x 0,8	1,8	23,2	975,0	606,0
80 x 2 x 0,8	2,0	30,1	1.325,0	807,0
100 x 2 x 0,8	2,0	32,0	1.600,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

J-H(ST)H BMK Dca



Verwendung

As a halogen-free installation cable for telecommunications systems with improved behaviour in the event of fire to protect people and property for internal installation in damp or dry rooms and for laying above, on, in and under plaster. This version with static shielding (St) protects the transmission circuits against external electrical interference fields. Not approved for heavy current installation purposes and underground installation. Due to the sheath pressure, this cable is specially designed for use in fire alarm systems.

Aufbau und Normen

based on DIN VDE 0815

- Bare copper wire, solid, \varnothing 0,8 mm
- Halogen-free core insulation HI2
- Core labelling according to DIN VDE 0815
- each 4 cores twisted to star quad, each 5 star quad twisted into a bundle, bundle twisted in layers
- Shield made of plastic-laminated aluminium foil with drain wire
- Halogen-free outer sheath
- Sheath colour red, with imprint: FIRE ALARM CABLE

Technische Daten

Operating voltage U:	max. 300 V
Testing voltage (50 Hz 1 min.):	
Core/Core:	800 V
Core/Shield:	800 V
Insulating resistance:	$\geq 100 \text{ MOhm} \times \text{km}$
Conductor resistance of the loop:	
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800Hz):	max. 120 nF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Dca
Corrosiveness of fire gases:	EN 60754-2
	IEC 60754-2
Minimal smoke development:	EN 61034 1+2
	IEC 61034-1+2

J-H(ST)H BMK Dca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
1 x 2 x 0,8	1,4	6,5	58,0	11,0
2 x 2 x 0,8	1,4	6,8	69,0	25,0
4 x 2 x 0,8	1,4	9,1	112,0	41,0
6 x 2 x 0,8	1,4	9,6	141,0	62,0
10 x 2 x 0,8	1,4	11,2	204,0	103,0
20 x 2 x 0,8	1,4	16,0	370,0	203,0
30 x 2 x 0,8	1,6	17,8	524,0	304,0
40 x 2 x 0,8	1,6	19,5	666,0	404,0
50 x 2 x 0,8	1,6	21,4	810,0	505,0
60 x 2 x 0,8	1,8	23,2	975,0	606,0
80 x 2 x 0,8	2,0	30,1	1.325,0	807,0
100 x 2 x 0,8	2,0	32,0	1.600,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

J-H(ST)H BMK Cca



□

Verwendung

As a halogen-free installation cable for telecommunications systems with improved behaviour in the event of fire to protect people and property for internal installation in damp or dry rooms and for laying above, on, in and under plaster. This version with static shielding (St) protects the transmission circuits against external electrical interference fields. Not approved for heavy current installation purposes and underground installation. Due to the sheath pressure, this cable is specially designed for use in fire alarm systems.

Aufbau und Normen

based on DIN VDE 0815

- Bare copper wire, solid, \varnothing 0,8 mm
- Halogen-free core insulation HI2
- Core labelling according to DIN VDE 0815
- each 4 cores twisted to star quad, each 5 star quad twisted into a bundle, bundle twisted in layers
- Shield made of plastic-laminated aluminium foil with drain wire
- Halogen-free outer sheath
- sheath colour red, with imprint: FIRE ALARM CABLE

Technische Daten

Operating voltage U:	max. 300 V
Testing temperature (50 Hz 1 min.):	
Core/Core:	800 V
Core/Shield:	800 V
Insulating resistance:	≥ 100 MOhm x km
Conductor resistance of the loop:	
\varnothing 0,8 mm:	max. 73,2 Ohm/km
Operating capacity (at 800 Hz):	max. 120 nF/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
CPR performance class:	Cca
Corrosiveness of fire gases:	EN 61034 1+2
	IEC 61034-1+2
Minimal smoke development:	EN 61034 1+2
	IEC 61034-1+2

J-H(ST)H BMK Cca

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelwanddicke	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. mm	ca. kg/km	kg/km
1 x 2 x 0,8	1,4	6,5	58,0	11,0
2 x 2 x 0,8	1,4	6,8	69,0	25,0
4 x 2 x 0,8	1,4	9,1	112,0	41,0
6 x 2 x 0,8	1,4	9,6	141,0	62,0
10 x 2 x 0,8	1,4	11,2	204,0	103,0
20 x 2 x 0,8	1,4	16,0	370,0	203,0
30 x 2 x 0,8	1,6	17,8	524,0	304,0
40 x 2 x 0,8	1,6	19,5	666,0	404,0
50 x 2 x 0,8	1,6	21,4	810,0	505,0
60 x 2 x 0,8	1,8	23,2	975,0	606,0
80 x 2 x 0,8	2,0	30,1	1.325,0	807,0
100 x 2 x 0,8	2,0	32,0	1.600,0	1.008,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

JE-H(ST)H BMK E30-E90



Verwendung

As a halogen-free installation cable with improved behaviour in case of fire, insulation integrity FE180 and functional integrity E30 or E90, for the protection of persons and property for the installation of cable systems with integrated functional integrity in accordance with DIN 4102-12. For fixed installation in dry and damp rooms on approved support systems. Not approved for heavy current installation purposes and underground installation. The design with static shielding (St) protects the transmission circuits against external electrical interference fields. Due to the sheath pressure, this cable is specially designed for use in fire alarm systems.

Aufbau und Normen

based on DIN VDE 0815

- Bare copper wire, solid, Ø 0,8 mm
- Halogen-free core insulation HI1
- Core labelling according to DIN VDE 0815
- Cores in pairs, 4 pairs in bundles, several bundles twisted into layers. 2-pair cable to form a star quad
- Foil taping
- Shield made of plastic-laminated aluminium foil with drain wire
- Halogen-free outer sheath HM2
- Sheath colour red, with imprint: FIRE ALARM CABLE

Technische Daten

Operating voltage U:	max. 225 V
Testing voltage (50 Hz 1 min.):	
Core/Core:	500 V
Core/Shield:	2000 V
Insulating resistance:	100 MOhm x km
Operating capacity (at 800 Hz):	max. 120 nF/km
Insulation maintenance (FE):	180 minutes
Function maintenance (E):	30 or 90 minutes
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +70°C
Minimum bending radius:	7,5 x DA
Fire behaviour:	EN 60332-3-24 IEC 60332-3-24
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2
Minimal smoke development:	EN 61034 1+2 IEC 61034-1+2
Insulation maintenance FE180:	VDE 0472-814 IEC 60331
Function maintenance E30/E90:	DIN 4102-12

JE-H(ST)H BMK E30-E90

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
	JE-H(St)H BMK FE180/E30			
2 x 2 x 0,8	7,5	68,0	73,2	25,0
4 x 2 x 0,8	9,3	107,0	73,2	45,0
8 x 2 x 0,8	11,4	174,0	73,2	85,0
12 x 2 x 0,8	13,5	255,0	73,2	126,0
20 x 2 x 0,8	16,5	399,0	73,2	206,0
32 x 2 x 0,8	20,5	730,0	73,2	340,0
40 x 2 x 0,8	23,4	962,0	73,2	404,0
	JE-H(St)H BMK FE180/E90			
2 x 2 x 0,8	8,5	83,0	73,2	25,0
4 x 2 x 0,8	11,5	138,0	73,2	45,0
8 x 2 x 0,8	15,0	243,0	73,2	85,0
12 x 2 x 0,8	18,5	351,0	73,2	126,0
16 x 2 x 0,8	20,5	441,0	73,2	166,0
20 x 2 x 0,8	24,0	557,0	73,2	206,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

H05Z-K / H07Z-K



□

Verwendung

As a halogen-free core cable with improved behaviour in the event of fire to protect people and property for wiring lights and devices in dry rooms, in closed systems, as well as in pipes in, under and on plaster. Not suitable for outdoor installation.

Aufbau und Normen

DIN VDE 0285-525-3-41/HD 22.9 S2

- Bare copper stranded wire, fine stranded, according to DIN VDE 0295 cl.5, IEC 60228 cl.5
- Halogen-free polymer core insulation E15

Technische Daten

Nominal voltage U_0/U :

H05Z-K:	300/500 V
H07Z-K:	450/750 V

Testing voltage:

H05Z-K:	2000 V
H07Z-K:	2500 V

Temperature range:

When laying:	max. +5°C
Operating temperature:	-30°C to +90°C

Conductor operating temperature: max. +90°C

Short-circuit temperature: max. 250°C/5 sec.

Minimum bending radius: 6 x DA

CPR performance class: Eca

Corrosiveness of fire gases: EN 60754-2
































IEC 60754-2












Minimal smoke development: EN 61034 1+2

IEC 61034-1+2

H05Z-K / H07Z-K

Produkteigenschaften

Nennquerschnitt	Farben	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
	H05Z-K						
0,5		0,77	0,6	2,6	9,0	39,0	5,0
0,5		0,77	0,6	2,6	9,0	39,0	5,0
0,5		0,77	0,6	2,6	9,0	39,0	5,0
0,75		0,95	0,6	2,8	12,0	26,0	7,5
0,75		0,95	0,6	2,8	12,0	26,0	7,5
0,75		0,95	0,6	2,8	12,0	26,0	7,5
1,0		1,3	0,6	2,9	15,0	19,5	10,0
1,0		1,3	0,6	2,9	15,0	19,5	10,0
	H07Z-K						
1,5		1,5	0,7	3,0	19,0	13,3	15,0
1,5		1,5	0,7	3,0	19,0	13,3	15,0
1,5		1,5	0,7	3,0	19,0	13,3	15,0
2,5		2,0	0,8	3,6	31,0	8,0	25,0
2,5		2,0	0,8	3,6	31,0	8,0	25,0
2,5		2,0	0,8	3,6	31,0	8,0	25,0
4,0		2,5	0,8	4,3	45,0	5,0	40,0
4,0		2,5	0,8	4,3	45,0	5,0	40,0
4,0		2,5	0,8	4,3	45,0	5,0	40,0
6,0		3,1	0,8	4,8	63,0	3,3	60,0
6,0		3,1	0,8	4,8	63,0	3,3	60,0
6,0		3,1	0,8	4,8	63,0	3,3	60,0
10,0		4,2	1,0	6,3	108,0	1,9	100,0
10,0		4,2	1,0	6,3	108,0	1,9	100,0
10,0		4,2	1,0	6,3	108,0	1,9	100,0
16,0		5,3	1,0	7,3	162,0	1,2	160,0
16,0		5,3	1,0	7,3	162,0	1,2	160,0
16,0		5,3	1,0	7,3	162,0	1,2	160,0
25,0		6,4	1,2	9,2	252,0	0,78	250,0
25,0		6,4	1,2	9,2	252,0	0,78	250,0
35,0		7,6	1,2	10,1	358,0	0,554	350,0
35,0		7,6	1,2	10,1	358,0	0,554	350,0
35,0		7,6	1,2	10,1	358,0	0,554	350,0

Nennquerschnitt	Farben	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Cu Zahl
mm ²		ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	kg/km
50,0		9,1	1,4	12,2	521,0	0,386	500,0
50,0		9,1	1,4	12,2	521,0	0,386	500,0
70,0		10,6	1,4	14,1	741,0	0,272	700,0
95,0		12,5	1,6	15,9	975,0	0,206	950,0
95,0		12,5	1,6	15,9	975,0	0,206	950,0
120,0		14,2	1,6	17,8	1.290,0	0,161	1.200,0
150,0		15,7	1,8	19,7	1.577,0	0,129	1.500,0
185,0		17,2	2,0	21,9	1.917,0	0,106	1.850,0
185,0		17,2	2,0	21,9	1.917,0	0,106	1.850,0
240,0		20,2	2,2	25,2	2.508,0	0,0801	2.400,0
240,0		20,2	2,2	25,2	2.508,0	0,0801	2.400,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

H05Z1-K/H07Z1-K on request

HMH



Verwendung

Halogen-free sheathed cables with improved behaviour in the event of fire are used where damage to people and material must be prevented due to high material value concentration in the event of fire, e.g. in industrial plants, hotels, airports, underground railways, railway stations, hospitals, department stores, etc. Suitable for internal installation in damp, wet or dry rooms and for laying over, on, in and under plaster as well as in masonry and concrete. Not suitable for direct embedding in shaken, vibrated or tamped concrete.

Aufbau und Normen

DIN VDE 0250-215

- Bare copper wire, solid (RE) according to EN60228, cl. 1 or stranded (RM) according to EN60228, cl.2,
- VPE - core insulation
- Core labelling according to HD 308 S2
- Cores stranded in layers with optimum lay lengths
- Common core sheathing made from halogen-free filling compound
- Polymer outer sheath
- Sheath colour grey (RAL7001)

Technische Daten

Nominal voltage U_0/U:	300/500 V
Testing voltage:	2000 V
Temperature range:	
When laying:	-5°C
Operating temperature:	-15°C to +70°C
Conductor operating temperature:	max. +70°C
Short-circuit temperature:	max. +160°C/5 sec.
Minimum bending radius:	12 x DA
CPR performance class:	Eca
Corrosiveness of fire gases:	EN 60754-1
Minimal smoke development:	EN 61034-2

HMH

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Leiter Ø	Wandstärke Isolation	Aussen Ø	Gewicht	Leiterwiderstand bei 20°C	Strombelastbarkeit bei 30°C	Cu Zahl
mm ²	ca. mm	ca. mm	ca. mm	ca. kg/km	ca. Ω/km	A	kg/km
2 x 1,5 RE	1,4	0,5	7,4	98,0	12,1	14,0	30,0
3 x 1,5 RE	1,4	0,5	8,0	117,0	12,4	14,0	30,0
4 x 1,5 RE	1,4	0,5	9,2	134,0	12,1	14,0	60,0
5 x 1,5 RE	1,4	0,5	10,0	163,0	12,1	14,0	75,0
7 x 1,5 RE färb. Adern	1,4	0,5	11,3	197,0	12,1	14,0	105,0
3 x 2,5 RE	1,8	0,5	9,5	165,0	7,41	18,0	75,0
4 x 2,5 RE	1,8	0,5	10,3	204,0	7,41	18,0	100,0
5 x 2,5 RE	1,8	0,5	11,8	245,0	7,41	18,0	125,0
7 x 2,5 RE	1,8	0,5	12,7	314,0	7,41	18,0	175,0
3 x 4 RE	2,3	0,6	11,1	237,0	4,61	24,0	120,0
4 x 4 RE	2,3	0,6	12,7	294,0	4,61	24,0	160,0
5 x 4 RE	2,3	0,6	13,5	352,0	4,61	24,0	200,0
3 x 6 RE	2,8	0,6	12,5	332,0	3,08	31,0	180,0
4 x 6 RE	2,8	0,6	14,6	405,0	3,08	31,0	240,0
5 x 6 RE	2,8	0,6	15,1	496,0	3,08	31,0	300,0
3 x 10 RE	3,5	0,7	17,3	619,0	1,83	41,0	300,0
4 x 10 RE	3,5	0,7	19,1	756,0	1,83	41,0	400,0
5 x 10 RM	3,5	0,7	20,0	860,0	1,83	41,0	500,0
3 x 16 RM	4,8	0,7	19,0	776,0	1,15	55,0	480,0
4 x 16 RM	4,8	0,7	21,7	972,0	1,15	55,0	640,0
5 x 16 RM	4,8	0,7	22,9	1.201,0	1,15	55,0	800,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Profibus Standard



Verwendung

The cable can be used as a connecting cable in general mechanical engineering. It is used as a connecting cable between bus segments. The advantage of bus technology lies in the cost-effective wiring of machines and systems. Only the component for which the information is intended reacts to the signal and processes it. The shielding ensures use in EMC-critical environments. Suitable for fixed installation in dry rooms.

Aufbau und Normen

DIN VDE 19245 T3 und EN 50170

- Bare copper wire, solid, \varnothing 0,64 mm
- Cellular PE core insulation
- Core colours red and green
- Cores with optimum lay lengths stranded in layers
- Overall shield made of aluminium-laminated foil and braiding of tinned copper wires
- PVC outer sheath
- Sheath colour purple (RAL 4001)

Technische Daten

Characteristic impedance:	± 150 Ohm 10%
Conductor resistance:	max. 57,1 Ohm/km
Loop resistance:	max. 110 Ohm/km
Insulating resistance:	max. 110 Ohm/km
Operating capacity (at 1kHz):	max. 28 nF/km
Attenuation for:	
9,6 kHz:	max. 2,5 dB/km
38,4 kHz:	max. 4,0 dB/km
4,0 MHz:	max. 22 dB/km
16 MHz:	max. 42 dB/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +60°C
Minimum bending radius:	150mm
CPR performance class:	Fca

Profibus Standard

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Gewicht	Cu Zahl
mm	ca. kg/km	kg/km
02Y(Si)CY 1 x 2 x 0,64	7,6	27,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Siemens-Nr.: 6XV1830-0AH10

Profibus Standard SK - Quick contact



□

Verwendung

The cable can be used as a connecting cable in general mechanical engineering. It is used as a connecting cable between bus segments. The advantage of bus technology lies in the cost-effective wiring of machines and systems. Only the component for which the information is intended reacts to the signal and processes it. The shielding ensures use in EMC-critical environments. Suitable for fixed installation in dry rooms.

Aufbau und Normen

DIN VDE 19245 T3 and EN 50170

- Bare copper wire, solid, \varnothing 0,64 mm
- Zell-PE - core insulation
- Core colours red and green
- Cores with optimum lay lengths stranded in layers
- PVC intermediate sheath (SK)
- Overall shield made of aluminium-laminated foil and braiding of tinned copper wires
- PVC - outer sheath
- Sheath colour violet (RAL 4001)

Technische Daten

Characteristic impedance:	±150 Ohm 10%
Conductor resistance:	max. 57,1 Ohm/km
Loop resistance:	max. 110 Ohm/km
Insulating resistance:	≥ 1 GOhm x km
Operating capacity (at 1kHz):	max. 28 nF/km
Attenuation for:	
9,6 kHz:	max. 2,5 dB/km
38,4 kHz:	max. 4,0 dB/km
4,0 MHz:	max. 22 dB/km
16 MHz:	max. 42 dB/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-30°C to +60°C
Minimum bending radius:	150 mm
CPR performance class:	Fca

Profibus Standard SK - Quick contact

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Cu Zahl
mm ²	ca. mm	ca. kg/km	kg/km
02YY(S)CY 1 x 2 x 0,64	8,0	75,0	27,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Siemens-Nr.: 6XV1830-OEH10

Profibus Standard FRNC - halogen-free



Verwendung

The cable can be used as a connecting cable in general mechanical engineering. It is used as a connecting cable between bus segments. The advantage of bus technology lies in the cost-effective wiring of machines and systems. Only the component for which the information is intended reacts to the signal and processes it. The shielding ensures use in EMC-critical environments. Suitable for fixed installation in dry rooms.

Aufbau und Normen

DIN VDE 19245 T3 and EN 50170

- Bare copper wire, solid, \varnothing 0,64 mm
- Cell PE core insulation, halogen-free
- Core colours red and green
- Cores stranded in layers with optimum lay lengths
- Overall shield made of aluminium-laminated foil and braiding of tinned copper wires
- Halogen-free outer sheath
- Sheath colour purple (RAL 4001)

Technische Daten

Characteristic impedance:	150 Ohm \pm 10%
Conductor resistance:	max. 57,1 Ohm/km
Loop resistance:	max. 110 Ohm/km
Insulating resistance:	\geq 1 GOhm x km
Operating capacity (at 1kHz):	max. 28 nF/km
Attenuation for:	
9,6 kHz:	max. 2,5 dB/km
38,4 kHz:	max. 4,0 dB/km
4,0 MHz:	max. 22 dB/km
16 MHz:	max. 42 dB/km
Minimum bending radius:	150 mm
CPR performance class:	Fca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2

Profibus Standard FRNC - halogen-free

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. kg/km	kg/km
02Y(Si)CH 1 x 2 x 0,64	7,6	67,0	27,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Siemens-Nr.: 6XV1830-0CH10

Profibus SK - Quick contact FRNC - halogen-free



Verwendung

The cable can be used as a connecting cable in general mechanical engineering. It is used as a connecting cable between bus segments. The advantage of bus technology lies in the cost-effective wiring of machines and systems. Only the component for which the information is intended reacts to the signal and processes it. The shielding ensures use in EMC-critical environments. Suitable for fixed installation in dry rooms.

Aufbau und Normen

DIN VDE 19245 T3 and EN 50170

- Bare copper wire, solid, \varnothing 0,64 mm
- Cell PE core insulation, halogen-free
- Core colours red and green
- Cores stranded in layers with optimum lay lengths
- Halogen-free intermediate sheath (SK)
- Overall shield made of aluminium-laminated foil and braiding of tinned copper wires
- Halogen-free outer sheath
- Sheath colour violet (RAL 4001)

Technische Daten

Characteristic impedance:	150 Ohm \pm 10%
Conductor resistance:	max. 57,1 Ohm/km
Loop resistance:	max. 110 Ohm/km
Insulating resistance:	\geq 1 GOhm x km
Operating capacity (at 1kHz):	max. 28 nF/km
Attenuation for:	
9,6 kHz:	max. 2,5 dB/km
38,4 kHz:	max. 4,0 dB/km
4,0 MHz:	max. 22 dB/km
16 MHz:	max. 42 dB/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-25°C to +60°C
Minimum bending radius:	150 mm
CPR performance class:	Fca
Corrosiveness of fire gases:	EN 60754-2 IEC 60754-2

Profibus SK - Quick contact FRNC - halogen-free

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. kg/km	kg/km
02YH(St)CH 1 x 2 x 0,64	8,0	75,0	27,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Profibus for drag chain application



Verwendung

This cable is used as a drag chain-capable connection cable at process level. The shielding offers excellent EMC properties. The notch-resistant PUR outer sheath is characterised by good oil resistance and guarantees a long service life.

Aufbau und Normen

DIN VDE 19245 T3 and EN 50170

- Bare copper stranded wire, fine stranded, Ø 0,65 mm
- Cellular PE core insulation
- Core colours red and green
- Cores stranded in layers with optimum lay lengths
- Fleece taping
- Overall shield made of aluminium-laminated foil and braiding of tinned copper wires
- PUR outer sheath, halogen-free
- Sheath colour purple (RAL 4001)

Technische Daten

Characteristic impedance:	150 Ohm +/- 10%
Conductor resistance:	max. 87 Ohm/km
Loop resistance:	max. 133 Ohm/km
Insulating resistance:	≥ 1 GOhm x km
Operating capacity (1 kHz):	max. 28 nF/km
Attenuation for:	
9,6 kHz:	max. 3,0 dB/km
38,4 kHz:	max. 4,0 dB/km
4,0 MHz:	max. 25 dB/km
16 MHz:	max. 49 dB/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C to +60°C
Minimum bending radius:	65 mm
Fire behaviour:	EN 60332-1-2 IEC 60332-1

Profibus for drag chain application

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. kg/km	kg/km
02Y(ST)C11Y 1 x 2 x 0,64	8,5	65,0	29,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Siemens-Nr.: 6XV1830-0DH10

Profibus for underground installation



Verwendung

The cable can be used as a connecting cable in general mechanical engineering. It is used as a connecting cable between bus segments. The advantage of bus technology lies in the cost-effective wiring of machines and systems. Only the component for which the information is intended reacts to the signal and processes it. The shielding ensures use in EMC-critical environments. This cable is designed for installation in the ground and for fixed installation in harsh industrial environments.

Aufbau und Normen

DIN VDE 19245 T3 and EN 50170

- Bare copper wire, solid, \varnothing 0,64 mm
- Zell-PE - core insulation
- Core colours red and green
- Cores stranded in layers with optimum lay lengths
- Overall shield made of aluminium-laminated foil and braiding of tinned copper wires
- PVC - inner jacket
- PE - outer jacket, UV resistant
- Sheath colour black

Technische Daten

Characteristic impedance:	150 Ohm \pm 10%
Conductor resistance	max. 57,1 Ohm/km
Loop resistance:	max. 110 Ohm/km
Insulating resistance:	\geq 1 GOhm x km
Operating capacity (at 1kHz):	max. 28,5 nF/km
Attenuation for:	
9,6 kHz:	max. 3,0 dB/km
38,4 kHz:	max. 5,0 dB/km
4,0 MHz:	max. 5,0 dB/km
16 MHz:	max. 45 dB/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C to +60°C
Minimum bending radius:	150 mm
CPR performance class:	Fca

Profibus for underground installation

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. kg/km	kg/km
02Y(Si)CY2Y 1 x 2 x 0,64	10,2	85,0	27,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Note:

Siemens-Nr.: 6XV1830-3AH10

Profibus PA



Verwendung

The cable can be used as a cost-effective solution to connect various components within automation devices. It is used especially for connecting sensors / actuators in **p**(rocess) **a**(utomation).

Aufbau und Normen

DIN VDE 19245 T3 and EN 50170

- Bare copper wire, solid, \varnothing 1 mm
- Zell-PE - core insulation
- Core colours red and green
- Cores and dummy cores with optimum lay lengths stranded in layers
- Overall shield made of aluminium-laminated foil and braiding of tinned copper wires
- PVC outer jacket, UV-resistant
- Sheath colour black or blue

Technische Daten

Characteristic impedance (at 31,25 kHz):	100 Ohm \pm 20 %
Conductor resistance of the loop:	max. 23 Ohm/km
Insulating resistance:	\geq 1 GOhm x km
Operating capacity (at 1kHz):	max. 80 nF/km
Attenuation (at 38,4 kHz):	max. 3,0 dB/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-10°C to +60°C
Minimum bending radius:	125 mm
Fire behaviour:	EN 60332-1-2
	IEC 60332-1

Profibus PA

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Aussen Ø	Gewicht	Cu Zahl
mm		ca. mm	ca. kg/km	kg/km
02Y(ST)CY 1 x 2 x 1	●	8,0	75,0	47,0
02Y(ST)CY 1 x 2 x 1	●	8,0	75,0	47,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Profinet UL / CSA, SK



Verwendung

Data cable with transmission rates of up to 100 Mbits/s, especially for industrial secondary and tertiary cabling. **Type A** for fixed installation, **type B** for limited flexible use, **type C** for highly flexible use (drag chain). The cable is manufactured in the installation-friendly quick contact version (SK). TypeC is equipped with a robust polyurethane sheath.

Aufbau und Normen

Profinet Draft

- **Type A:** Bare copper wire
- **Type B:** copper strands, 7-wire tinned
- **Type C:** copper strands, 19-wire tinned
- Polyolefin core insulation
- Core colours: white, yellow, blue, orange
- Star quad
- Intermediate cover
- Overall shield made of aluminium-laminated foil and braid made of tinned copper wires
- **Type A and B:** PVC outer sheath
- **Type C:** PUR outer sheath
- Sheath colour green (RAL 6018)

Technische Daten

Characteristic impedance:	100 Ohm ± 15 %
Insulating resistance:	≥ 5 GOhm x km
Operating capacity (at 1kHz):	48 nF/km
Loop resistance (except Type C):	max. 115 Ohm/km
	max. 110,8 Ohm/km
Temperature range:	
Typ A	-40°C to +80°C
Typ B	-10°C to +70°C
Typ C	-30°C to +70°C
Minimum bending radius:	
Typ A/B/C	100 mm/46 mm/50 mm
Fire behaviour Type A and Type B:	IEC 60332-3
c(UL) listing CMG	UL 444
UL listing PLTC	UL 13
c(RU)us Recognition	AWM style 20201
Fire behaviour Type C:	IEC 60332-1
c(UL)us listing CMX	UL 444

Profinet UL / CSA, SK

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Aussen Ø	Gewicht	Cu Zahl
mm	ca. mm	ca. kg/km	kg/km
Typ A 2 x 2 x 0,64	6,5	67,0	33,0
Typ B 2 x 2 x 0,38 mm ²	6,5	67,0	33,0
Typ C 2 x 2 x 0,38 mm ²	6,5	61,0	33,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

AS-Interface-Bus



Verwendung

AS-Interface bus cables connect simple, binary actuators and sensors (slaves) such as proximity switches, valves or light indicators to the higher-level central control unit (master). The **yellow** cable is responsible for transmitting data and auxiliary power (48 V DC) for AS-Interface slaves. The **black** cable only transmits auxiliary power for the AS-Interface slaves (24 V DC).

Aufbau und Normen

based on AS-Interface Standard



- Copper stranded wire, fine stranded, according to DIN VDE 0295 cl.6, IEC 60228 cl.6
- TPE - core insulatin
- Core colours brown and blue
- TPE outer sheath, oil-resistant
- Sheath colour yellow or black

Technische Daten

Operating voltage U:	max. 250 V
Testing voltage (Core/Core):	1500 V
Insulating resistance:	≥ 1 MOhm x km
Conductor resistance:	max. 13,7 Ohm/km
Temperature range:	
When laying:	max. -5°C
Operating temperature:	-40°C to +80°C
Minimum bending radius:	≥ 24 mm
Fire behaviour:	EN 60332-1-2 IEC 60332-1

AS-Interface-Bus

Produkteigenschaften

Aderanzahl x Nennquerschnitt	Mantelfarbe	Gewicht	Cu Zahl
mm ²		ca. kg/km	kg/km
2 x 1,5		60,0	30,0
2 x 1,5		60,0	30,0

Technische Änderungen vorbehalten. Alle Zahlenangaben sind daher ohne Gewähr.

Outer dimensions:

Thickness	4.0 +/- 0.2 mm
Profile nose thickness	2.0 +/- 0.1 mm
Width 1	6.5 +/- 0.2 mm
Width 2	10.0 +/- 0.2 mm
Spacing of ladder/ladder	3.6 +/- 0.2 mm