We Make Modern Life Possible.

SAFETY CABLES

(N)HXCH FE180/ E90 (K054)



Halogen-free energy cable with insulation integrity and circuit integrity, screened VDE Reg. No. K054

These cables are intended for the stationary distribution of electrical energy in dry or damp premises and for fixed installations in air or concrete. Suitable for hotels, hospitals, underground railways, airports etc. to protect people and technical building equipment in the event of fire.. Not allowed for installations underground or in water. These cables are not UV-protected.

TECHNICAL DATA

Standard
adapted to DIN VDE 0266
with reference to:
DIN VDE 0276-604, part 0, 1 and 5G
HD 604 5H
DIN VDE 0276-627, part 1 and 7H

Certificate
VDE Germany
VDE Reg. No. K054

Test Voltage
core/core 4 kV / 50 Hz

Rated Voltage
0.6/1 kV

Bending radius (min.)
12 x Ø of cable

Fire properties
EN 60332-1-2: flame retardant
EN 60754-2: halogen-free, non-corrosive combustion gases
EN IEC 60332-3-24: reduced flame propagation
EN 61034-2: low smoke emission
DIN VDE 0472-814: insulation integrity FE180
DIN 4102-12: circuit integrity E90

Core identification
HD 308 S2

Temperature range
Laying temperature: min. -5°C
Operating temperature: -30°C up to 90°C
Conductor temperature: max. 90°C
Short circuit temperature: max. 250°C

DESIGN



1. Copper conductor, round solid (RE)
2. Core insulation (silicone rubber)
3. Inner covering (halogen-free tape and halogen free polymer compound)
4. Inner sheath (halogen-free polymer compound)
5. Concentric screen (bare copper wires applied with changing direction of lay) and counter helix (copper tape)
6. Sheath (halogen-free polymer compound, orange)

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Halogen-free energy cable with insulation integrity and circuit integrity, screened
VDE Reg. No. K054

Number of cores x nominal cross-section / cross-section of screen (mm²)	Max. conductor resistance (Ω/km)	Current rating in the air (A)	Outer diameter appr. (mm)	Total weight appr. (kg/km)
2 x 1.5 RE / 1.5	12.1	29	13.4	223
3 x 1.5 RE / 1.5	12.1	24	14.1	255
4 x 1.5 RE / 1.5	12.1	24	14.9	287
5 x 1.5 RE / 1.5	12.1	24	16.0	328
7 x 1.5 RE / 2.5	12.1	16	17.2	405
12 x 1.5 RE / 2.5	12.1	13	21.3	618
14 x 1.5 RE / 2.5	12.1	12	22.4	689
19 x 1.5 RE / 4	12.1	11	25.1	864
24 x 1.5 RE / 6	12.1	10	28.8	1130
30 x 1.5 RE / 6	12.1	8	30.1	1274
40 x 1.5 RE / 10	12.1	8	36.3	1846
2 x 2.5 RE / 2.5	7.41	38	14.4	280
3 x 2.5 RE / 2.5	7.41	32	15.0	312
4 x 2.5 RE / 2.5	7.41	32	16.0	361
5 x 2.5 RE / 2.5	7.41	32	17.4	420
7 x 2.5 RE / 2.5	7.41	21	18.5	504
10 x 2.5 RE / 4	7.41	18	23.4	751
12 x 2.5 RE / 4	7.41	17	24.1	822
14 x 2.5 RE / 6	7.41	16	25.1	925
19 x 2.5 RE / 6	7.41	14	27.6	1151
24 x 2.5 RE / 10	7.41	13	31.8	1488
30 x 2.5 RE / 10	7.41	10	36.1	1928
40 x 2.5 RE / 10	7.41	10	39.7	2371
2 x 4 RE / 4	4.61	51	17.4	399
3 x 4 RE / 4	4.61	42	18.0	446
4 x 4 RE / 4	4.61	42	19.5	525
5 x 4 RE / 4	4.61	42	20.9	604
7 x 4 RE / 4	4.61	27	22.5	742
10 x 4 RE / 6	4.61	24	27.8	1108
12 x 4 RE / 6	4.61	21	28.4	1201
14 x 4 RE / 6	4.61	21	39.8	1339
19 x 4 RE / 10	4.61	18	35.4	1893
2 x 6 RE / 6	3.08	64	18.4	486
3 x 6 RE / 6	3.08	53	19.5	568
4 x 6 RE / 6	3.08	53	20.8	661
5 x 6 RE / 6	3.08	53	22.6	772
2 x 10 RE / 10	1.83	86	21.2	685
3 x 10 RE / 10	1.83	74	22.4	806
4 x 10 RE / 10	1.83	74	24.2	954
5 x 10 RE / 10	1.83	74	26.2	1119
2 x 16 RM / 16	1.15	113	24.7	997
3 x 16 RM / 16	1.15	98	26.1	1179
4 x 16 / 16	1.15	98	28.2	1400
5 x 16 RM / 16	1.15	74	30.6	1650

Number of cores x nominal cross-section / cross-section of screen (mm²)	Max. conductor resistance (Ω/km)	Current rating in the air (A)	Outer diameter appr. (mm)	Total weight appr. (kg/km)
1 x 25 RM / 16	0.727	177	19.8	700
2 x 25 RM / 16	0.727	152	28.5	1355
3 x 25 RM / 16	0.727	136	30.2	1626
3 x 25 RM / 25	0.727	136	30.2	1703
4 x 25 RM / 16	0.727	136	32.9	1967
5 x 25 RM / 16	0.727	90	38.1	2553
1 x 35 RM / 25	0.524	217	21.5	921
2 x 35 RM / 25	0.524	186	31.8	1796
3 x 35 RM / 25	0.524	125	37.4	2484
5 x 35 RM / 25	0.524	125	42.9	3407
1 x 50 RM / 25	0.387	265	23.4	1094
2 x 50 RM / 25	0.387	201	38.0	2479
3 x 50 RM / 25	0.387	201	40.1	2971
4 x 50 RM / 25	0.387	201	43.7	3599
5 x 50 RM / 25	0.387	151	48.8	4306
1 x 70 RM / 35	0.268	336	27.0	1466
3 x 70 RM / 35	0.268	255	46.9	4066
4 x 70 RM / 35	0.268	255	50.9	4927
5 x 70 RM / 35	0.268	192	55.5	5888
3 x 95 RM / 50	0.193	314	52.0	5304
4 x 95 RM / 50	0.193	314	56.9	6498
5 x 95 RM / 50	0.193	246	63.7	8022
1 x 120 RM / 70	0.153	485	31.3	2381
3 x 120 RM / 70	0.153	364	56.4	6570
4 x 120 RM / 70	0.153	364	61.8	8026
5 x 120 RM / 70	0.153	285	68.9	9856
3 x 150 RM / 95	0.124	416	61.3	8099
4 x 150 RM / 95	0.124	416	68.6	10015
3 x 185 RM / 95	0.099	480	68.2	9815
1 x 240 RM / 120	0.075	774	40.5	4373
3 x 240 RM / 120	0.075	565	75.8	12482

System / System Manufacturer	System identification	Classification	Range	Distance (a) /Width (b) / Load (g)	AbP number	AbP part no.
Normtrag	Leitter	E30	n x ≥ 1.5/1.5	a ≤ 1200 mm b = 400 mm g ≤ 20 kg/m	ABP_P-MPA-E-23-003	1.1
Normtrag	Rinne	E30	n x ≥ 1.5/1.5	a ≤ 1200 mm b = 300 mm g ≤ 10 kg/m	ABP_P-MPA-E-23-003	1.2
Normtrag	Einzelschelle	E60	n x ≥ 1.5/1.5	a ≤ 300 mm	ABP_P-MPA-E-23-003	1.3
Normtrag	Bügelschelle	E60	n x ≥ 1.5/1.5	a ≤ 300 mm	ABP_P-MPA-E-23-003	1.4
Normtrag	Bügelschelle mit Langwanne	E60	n x ≥ 1.5/1.5	a ≤ 600 mm	ABP_P-MPA-E-23-003	1.5
OBO Bettermann	Rinne RKSM 630 + AW55/31	E90	n x ≥ 1.5/1.5	a ≤ 1500 mm b = 300 mm g ≤ 20 kg/m	P-MPA-E-23-003	2.1
OBO Bettermann	Rinne RKSM 640 + AW55/31	E60	n x ≥ 1.5/1.5	a ≤ 1500 mm b = 400 mm g ≤ 20 kg/m	P-MPA-E-23-003	2.2
OBO Bettermann	Gitterrinne GRM 55/...	E60	n x ≥ 1.5/1.5	a ≤ 1500 mm b = 400 mm g ≤ 15 kg/m	P-MPA-E-23-003	5.1
OBO Bettermann	Sammelhalter 2031-M/15	E60	n x 1.5/1.5 - 25/16	a ≤ 600 mm	P-MPA-E-23-003	6.1
OBO Bettermann	Sammelhalter 2031-M/30	E60	n x ≥ 1.5/1.5	a ≤ 600 mm	P-MPA-E-23-003	6.2
OBO Bettermann	Sammelhalter 2031-M/70	E60	n x ≥ 1.5/1.5	a ≤ 800 mm	P-MPA-E-23-003	6.3
OBO Bettermann	Bügelschelle 2056/M	E90	n x ≥ 1.5/1.5	a ≤ 800 mm	P-MPA-E-23-003	8.1
OBO Bettermann	Abstandschelle 732 oder 733	E60	n x ≥ 1.5/1.5	a ≤ 800 mm	P-MPA-E-23-003	8.2
OBO Bettermann	Abstandschelle 732 oder 733	E90	n x ≥ 1.5/1.5	a ≤ 800 mm	comming soon	
Niedax	SHS15	E90	n x 1.5/1.5	a ≤ 600 mm g ≤ 3 kg/m	P-MPA-E-23-003	7.1
Niedax	Bügelschellen B	E90	n x ≥ 1.5/1.5	a ≤ 800 mm	P-MPA-E-23-003	9.1
Niedax	Abstandschelle SAS	E90	n x ≥ 1.5/1.5	a ≤ 800 mm	P-MPA-E-23-003	9.2

Technical changes reserved. All figures are therefore without guarantee.



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