

SAFETY CABLES

(N)HXCH FE180/ E90 (K054)

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



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



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)

PARAMETERS

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



PARAMETERS

Number of cores x nominal cross-section / cross-section of screen (mm ²)	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	Laying type No.
OBO Bettermann	RKSM 630 + AW55/31	E90	$n \times \geq 1.5/1.5$	$a \leq 1500 \text{ mm}$ $b = 300 \text{ mm}$ $g \leq 20 \text{ kg/m}$	P-MPA-E-23-003	2.1
OBO Bettermann	2056/M	E90	$n \times \geq 1.5/1.5$	$a \leq 800 \text{ mm}$	P-MPA-E-23-003	8.1
Niedax	SHS15	E90	$n \times = 1.5/1.5$	$a \leq 600 \text{ mm}$ $g \leq 3 \text{ kg/m}$	P-MPA-E-23-003	7.1
Niedax	Bügelzellen B	E90	$n \times \geq 1.5/1.5$	$a \leq 800 \text{ mm}$	P-MPA-E-23-003	9.1
Niedax	Abstandschelle SAS	E90	$n \times \geq 1.5/1.5$	$a \leq 800 \text{ mm}$	P-MPA-E-23-003	9.2

CONTACT PERSON

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