

SAFETY CABLES WITH CIRCUIT INTEGRITY

(N)HXH FE180/E90 (K054)

SiR/FRNC halogen-free energy cable with
insulation integrity and circuit integrity
VDE Reg. No. K054



TECHNICAL DATA



Standard
adapted to DIN VDE 0266
HD 604.5H
DIN VDE 0276-604, part 0, 1 and 5G
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
IEC 60331-21: 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) or round stranded (RM)

2

Core insulation (silicone rubber)

3

Inner covering (halogen-free tape or halogen free polymer compound)

4

Sheath (halogen-free polymer compound, orange)

PARAMETERS

Number of cores x nominal cross-section (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	12.1	29	9.3	126
3 x 1.5 RE	12.1	24	9.9	147
4 x 1.5 RE	12.1	24	10.7	174
5 x 1.5 RE	12.1	24	11.5	202
7 x 1.5 RE	12.1	16	12.6	254
10 x 1.5 RE	12.1	13	15.8	379
12 x 1.5 RE	12.1	13	16.3	414
14 x 1.5 RE	12.1	12	17.2	466
16 x 1.5 RE	12.1	12	18.0	517
19 x 1.5 RE	12.1	11	19.1	591
21 x 1.5 RE	12.1	10	20.0	630
24 x 1.5 RE	12.1	10	22.3	777
30 x 1.5 RE	12.1	8	23.5	894
40 x 1.5 RE	12.1	8	28.5	1298
52 x 1.5 RE	12.1	8	31.8	1626
61 x 1.5 RE	12.1	7	33.9	1865
2 x 2.5 RE	7.41	38	10.2	161
3 x 2.5 RE	7.41	32	10.8	190
4 x 2.5 RE	7.41	32	11.6	225
5 x 2.5 RE	7.41	32	12.8	269
7 x 2.5 RE	7.41	20	13.9	343
10 x 2.5 RE	7.41	17	17.6	510
12 x 2.5 RE	7.41	16	18.1	562
14 x 2.5 RE	7.41	16	19.1	635
16 x 2.5 RE	7.41	15	20.0	707
19 x 2.5 RE	7.41	14	21.2	811
21 x 2.5 RE	7.41	13	22.5	878
24 x 2.5 RE	7.41	12	24.8	1063
30 x 2.5 RE	7.41	10	28.3	1396
40 x 2.5 RE	7.41	10	31.5	1760
52 x 2.5 RE	7.41	10	35.4	2235
61 x 2.5 RE	7.41	9	37.7	2569
2 x 4 RE	4.61	51	12.2	233
3 x 4 RE	4.61	42	12.8	275
4 x 4 RE	4.61	42	14.0	334
5 x 4 RE	4.61	42	15.2	391
2 x 6 RE	3.08	63	13.1	291
3 x 6 RE	3.08	54	14.1	356
4 x 6 RE	3.08	54	15.2	429
5 x 6 RE	3.08	54	16.7	514
6 x 6 RE	3.08	34	18.3	615
7 x 6 RE	3.08	34	18.3	668
2 x 10 RE	1.83	86	15.1	418
3 x 10 RE	1.83	74	16.2	520



PARAMETERS

Number of cores x nominal cross-section (mm²)	Max. conductor resistance (Ω/km)	Current rating in the air (A)	Outer diameter appr. (mm)	Total weight appr. (kg/km)
4 x 10 RE	1.83	74	17.8	642
5 x 10 RE	1.83	74	19.6	778
1 x 16 RM	1.15	131	9.7	213
2 x 16 RE	1.15	113	17.4	588
2 x 16 RM	1.15	113	17.9	611
3 x 16 RE	1.15	98	18.4	732
3 x 16 RM	1.15	98	19.2	764
4 x 16 RE	1.15	98	20.2	911
4 x 16 RM	1.15	98	21.4	972
5 x 16 RE	1.15	98	22.4	1118
5 x 16 RM	1.15	98	23.2	1154
1 x 25 RM	0.727	177	11.3	313
2 x 25 RM	0.727	133	21.6	924
3 x 25 RM	0.727	133	23.2	1164
4 x 25 RM	0.727	133	25.4	1447
5 x 25 RM	0.727	133	30.3	1935
1 x 35 RM	0.524	217	12.8	422
3 x 35 RM	0.524	162	28.5	1713
4 x 35 RM	0.524	162	31.1	2113
5 x 35 RM	0.524	162	32.5	2454
1 x 50 RM	0.387	265	14.5	557
3 x 50 RM	0.387	197	31.9	2215
4 x 50 RM	0.387	197	35.1	2755
5 x 50 RM	0.387	197	38.1	3259
1 x 70 RM	0.268	336	16.6	770
3 x 70 RM	0.268	250	33.8	2510
4 x 70 RM	0.268	250	40.4	3801
5 x 70 RM	0.268	250	42.7	4298
1 x 95 RM	0.193	415	18.9	1049
3 x 95 RM	0.193	308	38.3	4275
4 x 95 RM	0.193	308	45.6	5066
5 x 95 RM	0.193	308	46.6	6127
1 x 120 RM	0.153	485	20.6	1299
3 x 120 RM	0.153	359	43.8	4796
4 x 120 RM	0.153	359	50.0	6262
5 x 120 RM	0.153	359	50.6	7740
1 x 150 RM	0.124	557	22.5	1582
3 x 150 RM	0.124	412	42.8	5805
4 x 150 RM	0.124	412	55.3	7702
5 x 150 RM	0.124	412	56.4	9675
1 x 185 RM	0.099	646	24.6	1950
3 x 185 RM	0.099	475	52.3	7159
4 x 185 RM	0.099	475	56.3	8769
5 x 185 RM	0.099	475	62.3	11932



Number of cores x nominal cross-section (mm²)	Max. conductor resistance (Ω/km)	Current rating in the air (A)	Outer diameter appr. (mm)	Total weight appr. (kg/km)
1 x 240 RM	0.075	774	27.8	2537
3 x 240 RM	0.075	564	59.1	9288
4 x 240 RM	0.075	564	68.0	11965



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	$n \times \geq 1.5$	$a \leq 1500 \text{ mm}$ $b = 300 \text{ mm}$ $g \leq 20 \text{ kg/m}$	P-MPA-E-23-003	2.1
OBO Bettermann	RKSM 640 + AW55/41	E90	$n \times \geq 1.5$	$a \leq 1500 \text{ mm}$ $b = 400 \text{ mm}$ $g \leq 20 \text{ kg/m}$	P-MPA-E-23-003	2.2
OBO Bettermann	2056/M	E90	$n \times \geq 1.5$	$a \leq 800 \text{ mm}$	P-MPA-E-23-003	8.1
OBO Bettermann	732/733	E90	$n \times \geq 1.5$	$a \leq 800 \text{ mm}$	P-MPA-E-23-003	8.2
Niedax	Bügeschellen B	E90	$n \times \geq 1.5$	$a \leq 800 \text{ mm}$	P-MPA-E-23-003	9.1
Niedax	Abstandschelle SAS	E90	$n \times \geq 1.5$	$a \leq 800 \text{ mm}$	P-MPA-E-23-003	9.2

CONTACT PERSON

Ing. Štěpán Laštůvka
Product Supervisor
+420 732 912 682
stepan.lastuvka@prakab.com

