

SAFETY CABLES WITH CIRCUIT INTEGRITY

(N)HXCH FE180/ E90 (8310)

SiR/FRNC halogen-free energy cable with
insulation integrity and circuit integrity,
screened



TECHNICAL DATA



Standard
adapted to DIN VDE 0266



Certificate
VDE Germany
VDE Reg. No. 8310



Test Voltage
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. 90°C

DESIGN



Copper conductor, round solid (RE) resp. round stranded (RM)



Primary core insulation (silicone rubber)



Secondary core insulation (silicone rubber)



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



Inner sheath (halogen-free polymer compound)



Concentric screen (bare copper wires), counter helix (copper tape) and halogen-free plastic tape



Sheath (halogen-free polymer compound, orange)

Number of cores x nominal cross-section / cross-section of screen (mm ²)	Current rating in the air (A)	Outer diameter appr. (mm)	Total weight appr. (kg/km)
2 x 1.5 RE / 1.5	28	15.4	291
3 x 1.5 RE / 1.5	25	15.9	313
4 x 1.5 RE / 1.5	25	16.8	351
5 x 1.5 RE / 2.5	16	17.8	402
7 x 1.5 RE / 2.5	16	18.8	466
10 x 1.5 RE / 2.5	13	22.3	632
12 x 1.5 RE / 2.5	13	22.8	678
14 x 1.5 RE / 2.5	12	23.7	741
19 x 1.5 RE / 4	11	26.3	914
24 x 1.5 RE / 6	10	30.9	1244
30 x 1.5 RE / 6	9	32.4	1400
40 x 1.5 RE / 10	8	36.2	1767
2 x 2.5 RE / 2.5	37	16.1	339
3 x 2.5 RE / 2.5	33	16.7	372
4 x 2.5 RE / 2.5	33	17.7	420
5 x 2.5 RE / 2.5	22	18.8	473
7 x 2.5 RE / 2.5	21	19.9	561
10 x 2.5 RE / 4	18	24.4	795
12 x 2.5 RE / 4	17	25.0	856
14 x 2.5 RE / 4	16	25.9	940
16 x 2.5 RE / 2.5	15	26.5	1011
19 x 2.5 RE / 6	14	28.2	1169
24 x 2.5 RE / 10	13	33.8	1608
30 x 2.5 RE / 10	12	35.5	1822
40 x 2.5 RE / 10	11	39.7	2312
2 x 4 RE / 4	49	17.6	411
3 x 4 RE / 4	43	18.3	455
4 x 4 RE / 4	43	19.3	519
5 x 4 RE / 2.5	28	20.0	571
5 x 4 RE / 4	28	20.6	587
6 x 4 RE / 4	28	21.8	671
7 x 4 RE / 4	27	21.8	709
10 x 4 RE / 6	23	26.1	1002
12 x 4 RE / 6	22	26.8	1088
14 x 4 RE / 6	21	27.8	1201
19 x 4 RE / 10	19	32.0	1609
2 x 6 RE / 6	62	18.6	498
3 x 6 RE / 6	54	19.3	561
4 x 6 RE / 6	54	20.5	644
5 x 6 RE / 6	36	21.9	738
7 x 6 RE / 6	36	23.3	897
2 x 10 RE / 10	85	20.6	662
3 x 10 RE / 10	75	21.4	760
4 x 10 RE / 10	75	22.8	884



Number of cores x nominal cross-section / cross-section of screen (mm ²)	Current rating in the air (A)	Outer diameter appr. (mm)	Total weight appr. (kg/km)
5 x 10 RE / 10	49	24.4	1026
2 x 16 RE / 16	113	22.4	881
2 x 16 RM / 16	113	22.9	908
3 x 16 RM / 16	100	23.9	1057
4 x 16 RE / 16	100	25.0	1210
4 x 16 RM / 16	100	25.6	1243
5 x 16 RM / 16	65	27.5	1456
2 x 25 RM / 16	152	26.3	1225
3 x 25 RM / 16	136	27.6	1457
4 x 25 RM / 16	136	30.7	1819
5 x 25 RM / 16	90	33.3	2163
2 x 35 RM / 16	187	28.4	1493
3 x 35 RM / 16	165	31.0	1893
3 x 35 RM / 35	165	32.1	2071
4 x 35 RM / 16	165	33.4	2285
5 x 35 RM / 16	109	36.5	2746
1 x 50 RM / 25	265	21.0	981
2 x 50 RM / 25	228	33.0	2073
3 x 50 RM / 25	201	34.9	2516
4 x 50 RM / 25	201	38.4	3095
5 x 50 RM / 25	133	42.0	3710
1 x 70 RM / 35	336	24.0	1307
3 x 70 RM / 35	255	40.4	3429
4 x 70 RM / 35	255	43.9	4174
5 x 70 RM / 35	180	48.0	5011
1 x 95 RM / 50	415	26.2	1710
3 x 95 RM / 50	314	45.4	4567
4 x 95 RM / 50	314	49.5	5589
5 x 95 RM / 50	215	54.6	6784
1 x 120 RM / 70	485	27.6	2150
3 x 120 RM / 70	364	48.5	5615
4 x 120 RM / 70	364	53.4	6937
5 x 120 RM / 70	247	58.6	8347
3 x 150 RM / 70	416	53.5	6780
4 x 150 RM / 70	416	58.6	8347
5 x 150 RM / 70	279	64.7	10124
3 x 185 RM / 95	480	59.3	8520
4 x 185 RM / 95	480	65.3	10496
3 x 240 RM / 120	565	66.4	10929
4 x 240 RM / 120	565	72.7	13438



System / System Manufacturer	System identification	Classification	Range	Distance (a) / Width (b) / Load (g)	AbP number	Laying type No.
Normtrag	Abstandschele	E90	$n \times \geq 1.5/1.5$	$a \leq 300 \text{ mm}$	P-MPA-E-09-016	2.2.2 - 3
Normtrag	Bügeschelle mit LW	E90	$n \times \geq 1.5/1.5$	$a \leq 600 \text{ mm}$	P-MPA-E-09-016	2.2.2 - 4
Normtrag	Leiter	E90	$n \times \geq 1.5/1.5$	$a \leq 1200 \text{ mm}$ $b = 400 \text{ mm}$ $g \leq 20 \text{ kg/m}$	P-MPA-E-09-016	2.2.13 - 1
Normtrag	Rinne	E90	$n \times \geq 1.5/1.5$	$a \leq 1200 \text{ mm}$ $b = 300 \text{ mm}$ $g \leq 10 \text{ kg/m}$	P-MPA-E-09-016	2.2.13 - 2
Normtrag	Abstandschele	E90	$n \times \geq 1.5/1.5$	$a \leq 300 \text{ mm}$	P-MPA-E-09-016	2.2.13 - 3
Normtrag	Bügeschelle mit LW	E90	$n \times \geq 1.5/1.5$	$a \leq 600 \text{ mm}$	P-MPA-E-09-016	2.2.13 - 4
Niedax	RLVC 60.300 S + KTA300	E90	$n \times \geq 1.5/1.5$	$a \leq 1500 \text{ mm}$ $b = 300 \text{ mm}$ $g \leq 20 \text{ kg/m}$	P-1016 DMT DO	I
Niedax	RLVC 60.400 S + KTA400	E90	$n \times \geq 1.5/1.5$	$a \leq 1500 \text{ mm}$ $b = 400 \text{ mm}$ $g \leq 30 \text{ kg/m}$	P-1016 DMT DO	II
Niedax	RLVC 60.400 S + KTAS400 (wand)	E90	$n \times \geq 1.5/1.5$	$a \leq 1500 \text{ mm}$ $b = 400 \text{ mm}$ $g \leq 30 \text{ kg/m}$	P-1034 DMT DO	VII
Niedax	RLVC 60.400 S + KTAS400	E90	$n \times \geq 1.5/1.5$	$a \leq 1500 \text{ mm}$ $b = 400 \text{ mm}$ $g \leq 25 \text{ kg/m}$	P-1034 DMT DO	IX
PohlCon	RG-BS 60-40E4 + DB-T 40EC + AB-T 40EC	E90	$n \times \geq 1.5/1.5$	$a \leq 1500 \text{ mm}$ $b = 400 \text{ mm}$ $g \leq 30 \text{ kg/m}$	P-1043 DMT DO	II
PohlCon	RG-BS 60-10E4 + AB-T 10EC	E90	$n \times \geq 1.5/1.5$	$a \leq 1500 \text{ mm}$ $b = 100 \text{ mm}$ $g \leq 30 \text{ kg/m}$	P-1043 DMT DO	III
PohlCon	Bügeschelle AC + KHA 8	E90	$n \times \geq 1.5/1.5$	$a \leq 800 \text{ mm}$	P-1043 DMT DO	VII

CONTACT PERSON

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