

FLAME-X 950

(N)HXH FE180/E90 0,6/1 kV

DIN VDE 0266
DIN 4102-12



Halogen- free low smoke fire resistant security power cables

Construction

Conductors: bare copper conductor, circular solid class 1 (RE) or stranded circular or circular compacted class 2 (RM) acc. to EN 60228

Insulation: special fire resistant cross-linked compound

Inner covering: special flame-retardant and halogen-free compound

Sheath: thermoplastic halogen- free compound type HM4 acc. to HD 604 S1

Colour of sheath: orange

Core identification: acc. to HD 308 S2 or HD 186

	(N)HXH-O FE180/E90 without protective conductor	(N)HXH-J FE180/E90 with protective conductor
1-core:	black	green-yellow
2-core:	blue, brown	—
3-core:	brown, black, grey	green-yellow, blue, brown
4-core:	blue, brown, black, grey	green-yellow, brown, black, grey
5-core:	blue, brown, black, grey, black	green-yellow, blue, brown, black, grey
more 5-core:	black with numbering	green-yellow, others cores black with numbering

Maximum conductor operating temperature: +90°C

Lowest ambient temperature for fixed installation: -30°C

Lowest installation temperature: -5°C

Maximum short-circuit conductor temperature: +250°C

Minimum bending radius: 15 x D - for single core cable; 12 x D - for multicore cable (D is the overall diameter of the cable)

Maximum permissible tensile stress with cable grip for Cu-conductor: 50 N/mm²

Insulation integrity FE 180: DIN VDE 0472-814 (800°C, 180 min.), IEC 60331-21

System integrity E90: DIN VDE 4102-12 (90 min.)

Flame retardant: DIN VDE 0482-266-2-2, EN 50266-2-2, IEC 60332-3 -22 (DIN VDE 0472-804 C, HD 405.3)

Smoke density: DIN VDE 0472-1034-2, IEC 61034-2

Gases evolved during combustion: DIN EN 50267-2-2 (VDE 0482-267-2-2), IEC 60754-2: pH ≥ 4,3; conductivity ≤ 2,5 μS/mm

The product is conformed with the RoHS Directive 2002/95/CE, Low-Voltage Directive 2006/95/EC.

Application: Fire resistant security cables for installation everywhere where high safety requirements have a special significance e.g., in industrial complexes, power stations, public buildings, hotels, underground railway systems, hospitals etc.

Standard length cable packing: 500 m on drums. Other forms of packing and delivery are available on request.

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Number and cross-sectional area of conductor n x mm ²	Approximate overall diameter mm	Approximate net weight of cables kg/km	Maximum conductor resistance at 20°C Ω/km
1 x 1,5RE	7,4	71	12,1
1 x 2,5RE	7,7	84	7,41
1 x 4RE	8,2	103	4,61
1 x 6RE	8,7	125	3,08
1 x 10RE	9,5	170	1,83
1 x 16RM	10,8	240	1,15
1 x 25RM	12,5	347	0,727
1 x 35RM	13,6	446	0,524
1 x 50RM	15,5	590	0,387
1 x 70RM	17,0	801	0,268
1 x 95RM	19,8	1094	0,193
1 x 120RM	21,2	1333	0,153
1 x 150RM	23,6	1643	0,124
1 x 185RM	25,7	2023	0,0991
1 x 240RM	29,0	2609	0,0754
1 x 300RM	31,6	3237	0,0601
2 x 1,5RE	14,1	268	12,1
2 x 2,5RE	14,9	310	7,41
2 x 4RE	15,8	367	4,61
2 x 6RE	16,8	435	3,08
2 x 10RE	18,4	562	1,83
2 x 16RM	21,0	776	1,15
2 x 25RM	24,4	1098	0,727
3 x 1,5RE	14,8	296	12,1
3 x 2,5RE	15,6	347	7,41
3 x 4RE	16,6	417	4,61
3 x 6RE	17,7	503	3,08
3 x 10RE	19,4	665	1,83
3 x 16RM	22,2	932	1,15
3 x 25RM	25,9	1337	0,727
3 x 35RM	28,2	1694	0,524
3 x 50RM	32,8	2296	0,387
3 x 70RM	36,0	3025	0,268
3 x 95RM	41,6	4106	0,193
3 x 120RM	45,1	5002	0,153
3 x 150RM	50,3	6177	0,124
3 x 185RM	55,4	7643	0,0991
3 x 240RM	62,5	9825	0,0754
4 x 1,5RE	16,0	345	12,1
4 x 2,5RE	16,9	407	7,41
4 x 4RE	18,0	495	4,61
4 x 6RE	19,2	603	3,08
4 x 10RE	21,1	809	1,83
4 x 16RM	24,3	1144	1,15
4 x 25RM	28,4	1655	0,727
4 x 35RM	31,2	2126	0,524

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Number and cross-sectional area of conductor n x mm ²	Approximate overall diameter mm	Approximate net weight of cables kg/km	Maximum conductor resistance at 20°C Ω/km
4 x 50RM	36,3	2879	0,387
4 x 70RM	39,8	3815	0,268
4 x 95RM	46,6	5240	0,193
4 x 120RM	50,1	6355	0,153
4 x 150RM	56,2	7879	0,124
4 x 185RM	61,4	9683	0,0991
4 x 240RM	69,5	12491	0,0754
5 x 1,5RE	17,3	402	12,1
5 x 2,5RE	18,3	478	7,41
5 x 4RE	19,6	586	4,61
5 x 6RE	20,9	717	3,08
5 x 10RE	23,0	969	1,83
5 x 16RM	26,6	1380	1,15
5 x 25RM	31,4	2022	0,727
5 x 35RM	34,6	2619	0,524
5 x 50RM	40,2	3525	0,387
5 x 70RM	44,2	4705	0,268
5 x 95RM	51,5	6428	0,193
5 x 120RM	55,9	7867	0,153
5 x 150RM	62,3	9701	0,124
5 x 185RM	68,4	11968	0,0991
5 x 240RM	77,4	15444	0,0754
7 x 1,5RE	18,7	472	12,1
7 x 2,5RE	19,8	569	7,41
7 x 4RM	22,1	751	4,61
8 x 1,5RE	20,0	523	12,1
10 x 1,5RE	23,2	659	12,1
10 x 1,5RM	24,0	694	12,1
10 x 2,5RE	24,8	801	7,41
12 x 1,5RE	23,9	721	12,1
12 x 2,5RE	25,5	882	7,41
14 x 1,5RE	25,1	798	12,1
14 x 2,5RE	26,8	982	7,41
19 x 1,5RE	27,8	992	12,1
19 x 2,5RE	30,1	1263	7,41
20 x 1,5RE	29,4	1079	12,1
20 x 1,5RM	30,4	1135	12,1
24 x 1,5RE	33,0	1289	12,1
24 x 2,5RE	35,4	1612	7,41
30 x 1,5RE	35,0	1510	12,1
30 x 2,5RE	37,5	1885	7,41
3 x 25RM+16RM	27,6	1561	0,727 / 1,15
3 x 35RM+16RM	29,5	1917	0,524 / 1,15
3 x 50RM+25RM	34,5	2631	0,387 / 0,727
3 x 70RM+35RM	37,8	3461	0,268 / 0,524
3 x 95RM+50RM	44,1	4742	0,193 / 0,387

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Number and cross-sectional area of conductor n x mm ²	Approximate overall diameter mm	Approximate net weight of cables kg/km	Maximum conductor resistance at 20°C Ω/km
3 x 120RM+70RM	47,7	5822	0,153 / 0,268
3 x 150RM+70RM	51,9	6979	0,124 / 0,268
3 x 185RM+95RM	57,9	8744	0,0991 / 0,193
3 x 240RM+120RM	64,7	11176	0,0754 / 0,153
4 x 35RM+16RM	33,3	2429	0,524 / 1,15
4 x 50RM+25RM	38,6	3279	0,387 / 0,727
4 x 70RM+35RM	42,4	4349	0,268 / 0,524
4 x 95RM+50RM	49,6	5959	0,193 / 0,387
4 x 120RM+70RM	53,5	7305	0,153 / 0,268
4 x 150RM+70RM	59,0	8864	0,124 / 0,268



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