

PREVENTIVE FIRE PROTECTION

FE180 E30-E60

Safety cable 0.6/1kV (N)HXH, pyrofil® Keram

Halogen-free, with improved fire characteristics
 With reference to VDE 0266 and CENELEC HD 604 S1
 Circuit integrity (FE180) in accordance with VDE 0472-814, IEC 60331
 System Circuit integrity E30-E60* in accordance with DIN 4102-12



PRODUCT INFORMATION



APPLICATION

Safety cables are used in all situations that require special protection against fire and flame damage for people and equipment and where a high degree of safety conditions must be fulfilled. Suitable for indoor applications. For outdoor applications, protection must be provided against exposure to direct sunlight. The cable should only be laid directly in earth or water if a protective conduit is used. These cables correspond to the demands of System Circuit integrity E30-E60* in accordance with DIN 4102-12. System Circuit integrity is guaranteed at an operating voltage up to 400V. Permitted operating temperature at conductor +90°C.

CONSTRUCTION

Conductor	Bare copper, solid or stranded, IEC 60228, EN 60228, (VDE 0295)
Insulation	Double insulation, cross-linked, high-performance Keram special compound, VDE 0266 "HX11"
Filler	Flame retardant, halogen-free, thermoplastic compound
Outer sheath	Flame retardant Polyolefin compound, CENELEC HD 604 S1 and VDE 0276-604 "HM4"
Core colours	CENELEC HD 308 S2 and VDE 0293
Sheath colour	Orange
Imprint	DATWYLER PYROFIL KERAM (N)HXH FE180 E30-E60 1kV SWISS MADE "N X MM²" VDE REG. NR. 7780 "ORDER NO." "YEAR" "METRE MARKING" or on request

ELECTRICAL PROPERTIES

Rated voltage	0.6/1kV
Test voltage	4000V, 50Hz

GENERAL PROPERTIES

Minimum bending radius	during and permanent installation	15* x D (single core cable) 12* x D (multicore cable) (D = outer diameter)
	permanent installation	*50% reduction if installation at 30°C and with a template
Operating temperature	permanent installation	-45°C to +90°C
	during installation	-5°C to +50°C
Zero halogen, non corrosive gases		IEC 60754-2, EN 50267-2-2, VDE 0482-267-2-2
Flame propagation		IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2
Flame spread		IEC 60332-3-22/-24 Cat. A/C, EN 60332-3-22/-24 Cat. A/C, VDE 0482-332-3-22/24 Cat. A/C
Smoke density		IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2
Circuit integrity [FE/PH]		IEC 60331-11/-21 (180 minutes), VDE 0472 part 814 (FE180), IEC 60331-1, IEC 60331-2 (120 minutes), EN 50200, VDE 0482-200 (PH120) and EN 50362, VDE 0482-362 (120 minutes), BS 6387 C/W/Z
System Circuit integrity [E30-E60]*		DIN 4102 part 12, NBN 713-020 (Rf1)

* System Circuit integrity is dependent on installation method.

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Article No.	No. of cores x cross section			Cu content	Total weight	Outer diameter	Fire load
	n x mm ²						
				kg/km	app. kg/km	app. mm	kWh/m
186 935	5	x	1,5 RE	72	278	13,4	0,71
186 936	5	x	2,5 RE	120	353	14,5	0,81
186 937	5	x	4 RE	192	456	15,8	0,93
186 938	5	x	6 RE	288	589	17,2	1,05
186 939	5	x	10 RE	480	832	19,3	1,25
186 975	5	x	16 RM	768	1223	23,1	1,67
186 976	5	x	25 RM	1200	1806	27,2	2,22
186 977	5	x	35 RM	1680	2384	30,5	2,66
186 978	5	x	50 RM	2400	3187	34,8	3,41
186 979	5	x	70 RM	3360	4440	40,0	4,26
190 587	5	x	95 RM	4560	6032	46,6	5,89
171 272	7	x	1,5 RE	101	331	14,4	0,81
171 273	7	x	2,5 RE	168	426	15,6	0,92
171 279	12	x	1,5 RE	173	513	18,3	1,20
171 280	12	x	2,5 RE	288	675	20,0	1,37
171 283	19	x	1,5 RE	274	715	21,2	1,63
171 284	19	x	2,5 RE	456	953	23,2	1,83
171 285	24	x	1,5 RE	346	901	24,6	1,99
171 286	24	x	2,5 RE	576	1205	27,0	2,27
171 287	30	x	1,5 RE	432	1057	26,0	2,28
171 288	30	x	2,5 RE	720	1446	28,8	2,68

RE = circular, solid conductor
RM = circular, stranded conductor

Additional dimensions available on request.

* Circuit integrity is dependent on installation method