

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		
 Flame propagation		
 Flame spread		
 Smoke density		
 Circuit integrity [FE/PH]		
 System Circuit integrity [E30-E60]*		
		IEC 60754-2, EN 50267-2-2, VDE 0482-267-2-2 IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2 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 IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2 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 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
171 289	1	x	4	RE	38	90	7,1	0,21
171 290	1	x	6	RE	58	113	7,6	0,23
171 291	1	x	10	RE	96	158	8,4	0,27
171 370	1	x	16	RM	154	227	9,8	0,34
171 377	1	x	25	RM	240	329	11,3	0,43
171 386	1	x	35	RM	336	428	12,4	0,48
171 394	1	x	50	RM	480	565	13,9	0,58
171 429	1	x	70	RM	672	783	15,7	0,68
170 842	1	x	95	RM	912	1054	18,1	0,91
170 845	1	x	120	RM	1152	1279	19,2	0,97
170 850	1	x	150	RM	1440	1604	21,4	1,20
170 855	1	x	185	RM	1776	1981	23,6	1,46
170 858	1	x	240	RM	2304	2604	26,8	1,81
186 280	2	x	1,5	RE	29	178	11,0	0,48
186 921	2	x	2,5	RE	48	217	11,8	0,54
186 922	2	x	4	RE	77	272	12,8	0,62
186 923	2	x	6	RE	115	337	13,8	0,70
186 924	2	x	10	RE	192	459	15,4	0,83
186 952	2	x	16	RM	307	661	18,2	1,09
187 221	2	x	25	RM	480	950	21,2	1,42
186 925	3	x	1,5	RE	43	200	11,5	0,53
186 926	3	x	2,5	RE	72	250	12,4	0,60
186 927	3	x	4	RE	115	319	13,5	0,68
186 928	3	x	6	RE	173	403	14,6	0,77
186 929	3	x	10	RE	288	560	16,3	0,91
186 953	3	x	16	RM	461	811	19,3	1,19
186 955	3	x	25	RM	720	1184	22,6	1,56
186 957	3	x	35	RM	1008	1529	24,9	1,80
186 959	3	x	50	RM	1440	2026	28,2	2,24
186 961	3	x	70	RM	2016	2844	32,7	2,88
RE = circular, solid conductor								
RM = circular, stranded conductor								

Additional dimensions available on request.

* Circuit integrity is dependent on installation method