

**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 kg/km	Total weight app. kg/km	Outer diameter app. mm	Fire load kWh/m
	n x mm <sup>2</sup>						
186 954	3	x	25 + 1 x 16 RM	874	1361	23,9	1,73
186 956	3	x	35 + 1 x 16 RM	1162	1692	25,9	1,93
186 958	3	x	50 + 1 x 25 RM	1680	2311	29,9	2,52
186 960	3	x	70 + 1 x 35 RM	2352	3171	34,0	3,07
186 962	3	x	95 + 1 x 50 RM	3216	4276	39,3	4,18
186 963	3	x	120 + 1 x 70 RM	4128	5303	42,6	4,74
186 964	3	x	150 + 1 x 70 RM	4992	6417	46,6	5,63
186 965	3	x	185 + 1 x 95 RM	6240	8040	52,0	6,99
186 930	4	x	1,5 RE	58	234	12,4	0,61
186 931	4	x	2,5 RE	96	296	13,4	0,69
186 932	4	x	4 RE	154	381	14,6	0,78
186 933	4	x	6 RE	230	490	15,8	0,90
186 934	4	x	10 RE	384	695	17,8	1,07
186 967	4	x	16 RM	614	1009	21,1	1,40
186 968	4	x	25 RM	960	1485	24,8	1,86
186 969	4	x	35 RM	1344	1929	27,4	2,15
186 970	4	x	50 RM	1920	2600	31,5	2,79
186 971	4	x	70 RM	2688	3618	36,2	3,38
186 972	4	x	95 RM	3648	4860	41,7	4,68
186 973	4	x	120 RM	4608	5890	44,6	5,19
186 974	4	x	150 RM	5760	7417	50,0	6,52
187 548	4	x	185 RM	7104	9160	55,3	7,98
187 077	4	x	240 RM	9216	12043	63,0	10,05

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

Additional dimensions available on request.

\* Circuit integrity is dependent on installation method