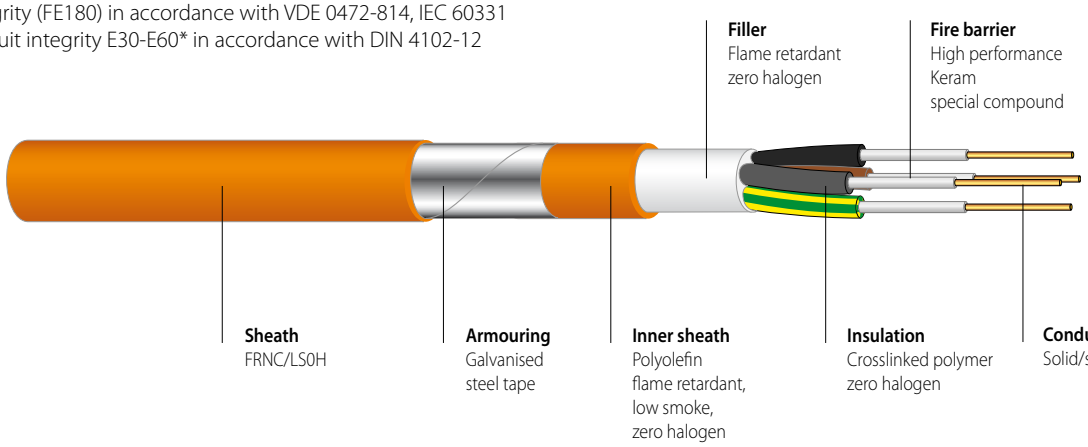
(N)HXH CL FE180 E30-E60

Safety cable 0.6/1kV armoured with rodent protection, 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 circuit integrity E30-E60* in accordance with DIN 4102-12. 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 "HXI1"
Filler	Flame retardant, halogen-free, thermoplastic compound
Inner sheath	Flame retardant Polyolefin compound, CENELEC HD 604 S1 and VDE 0276-604 "HM4"
Armouring [rodent protection]	Single core cable with copper tape [CLCU] and multicore cable with galvanised steel tape [CL]
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 „CLCU or CL" FE180 E30-E60 1kV "N X MM2" VDE REG. NR. 7800 „YEAR" "ORDER NO." SWISS MADE "METRE MARKING" or on request

ELECTRICAL PROPERTIES

Nominal 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)
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), BS 6387 C/W/Z
System Circuit integrity [E30-E60]*		DIN 4102 part 12

* System Circuit integrity is dependent on installation method.

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PRODUCT INFORMATION

Article No.	No. of cores x cross section n x mm²				Cu content kg/km	Total weight app. kg/km	Outer diameter app. mm	Fire load kWh/m
192 350	2	x	1,5	RE	29	336	15	0,94
187 562	2	x	2,5	RE	48	385	16	1,02
191 612	2	x	4	RE	77	453	17	1,13
187 563	2	x	6	RE	115	531	18	1,25
	2	x	10	RE	192	673	20	1,43
	2	x	16	RM	307	911	22	1,79
	2	x	25	RM	480	1239	25	2,22
	2	x	35	RM	672	1536	28	2,64
	2	x	50	RM	960	1956	31	3,04
	2	x	70	RM	1344	2640	35	3,79
	2	x	95	RM	1824	3476	40	4,89
	2	x	120	RM	2304	4119	42	5,47
	2	x	150	RM	2880	5087	47	6,62
	2	x	185	RM	3552	6268	52	8,13
191 107	3	x	1,5	RE	43	364	16	1,00
186 940	3	x	2,5	RE	72	426	17	1,10
192 351	3	x	4	RE	115	509	18	1,22
188 326	3	x	6	RE	173	607	19	1,35
191 597	3	x	10	RE	288	785	21	1,54
188 327	3	x	16	RM	461	1075	24	1,93
	3	x	25	RM	720	1491	27	2,41
	3	x	35	RM	1008	1865	29	2,73
	3	x	50	RM	1440	2404	32	3,29
	3	x	70	RM	2016	3315	37	4,22
	3	x	95	RM	2736	4369	42	5,42
	3	x	120	RM	3456	5222	45	6,04
	3	x	150	RM	4320	6460	50	7,30

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

Additional dimensions available on request.
* Circuit integrity is dependent on installation method

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	4	x	1,5	RE	58	410	17	1,11
190 590	4	x	2,5	RE	96	485	18	1,22
191 102	4	x	4	RE	154	585	19	1,36
	4	x	6	RE	230	710	20	1,51
	4	x	10	RE	384	940	22	1,76
186 980	4	x	16	RM	614	1296	25	2,2
186 981	4	x	25	RM	960	1820	29	2,78
186 982	4	x	35	RM	1344	2296	32	3,16
190 589	4	x	50	RM	1920	3037	36	4,02
	4	x	70	RM	2688	4157	41	5,05
	4	x	95	RM	3648	5498	47	6,52
	4	x	120	RM	4608	6595	50	7,26
192 347	5	x	1,5	RE	72	466	18	1,25
188 117	5	x	2,5	RE	120	556	19	1,38
188 118	5	x	4	RE	192	676	20	1,54
186 941	5	x	6	RE	288	826	21	1,72
186 942	5	x	10	RE	480	1096	24	1,98
190 525	5	x	16	RM	768	1460	26	2,53
186 984	5	x	25	RM	1200	2171	31	3,23
190 529	5	x	35	RM	1680	2730	35	3,85
191 565	5	x	50	RM	2400	3620	39	4,83
	5	x	70	RM	3360	5054	45	6,05
	5	x	95	RM	4560	6792	52	8,14
	6	x	1,5	RE	86	521	19	1,39
	6	x	2,5	RE	144	625	20	1,54
188 094	6	x	4	RE	230	693	20	1,74
	6	x	6	RE	346	943	23	1,94
	6	x	10	RE	576	1269	25	2,26

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185 232	7	x	1,5	RE	101	532	19	1,38
	7	x	2,5	RE	168	643	20	1,53
185 245	7	x	4	RE	269	799	21	1,71
185 247	7	x	6	RE	403	987	23	1,9
185 248	7	x	10	RE	672	1343	25	2,2
	8	x	1,5	RE	115	605	20	1,53
	8	x	2,5	RE	192	732	21	1,69
188 095	8	x	4	RE	307	916	23	1,91
	10	x	1,5	RE	144	701	22	1,78
	10	x	2,5	RE	240	858	24	1,98
	10	x	4	RE	384	1080	26	2,24
	12	x	1,5	RE	173	764	23	1,9
185 239	12	x	2,5	RE	288	873	23	2,13
	12	x	4	RE	461	1205	26	2,42
	14	x	1,5	RE	202	847	23	2,07
	14	x	2,5	RE	336	1062	25	2,34
185 233	16	x	1,5	RE	231	926	24	2,24
	16	x	2,5	RE	384	1155	26	2,52
	21	x	1,5	RE	303	1093	27	2,58
	21	x	2,5	RE	504	1381	29	2,89
	27	x	1,5	RE	389	1311	29	3,06
	27	x	2,5	RE	648	1681	32	3,45
185 235	30	x	1,5	RE	432	1407	30	3,25
185 241	30	x	2,5	RE	720	1848	33	3,81

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

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