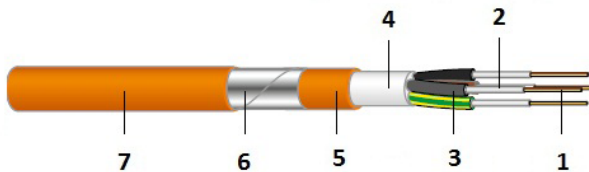


(N)HXH CL FE180 E30-E60

Safety cable, 0.6/1kV armoured with rodent protection, 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



- 1 Conductor: solid/stranded
- 2 Fire barrier: high-performance Keram compound
- 3 Insulation: cross-linked polymer, zero halogen
- 4 Filler: flame retardant, zero halogen
- 5 Inner sheath: Polyolefin, flame retardant, low smoke, zero halogen
- 6 Armouring: galvanised steel tape
- 7 Sheath: FRNC/LSZH



Description

Cables with intrinsic fire resistance are installed in all areas that require special protection of people and equipment against fire and fire damages and where strict security requirements 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 of +90°C.

Construction

Conductor	Bare copper, solid or stranded, IEC 60228 and EN 60228 (VDE 0295)
Insulation	Double insulation, cross-linked, high-performance Keram special compound, VDE 0266 "HXI1"
Core colours	CENELEC HD 308 S2, VDE 0293
Filler	Flame retardant, halogen-free thermoplastic compound
Inner sheath	Flame retardant Polyolefin compound, CENELEC HD 604 S1 and VDE 0276-604 "HM4"
Outer sheath material	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)

General properties

Circuit Integrity	E30-E60*
Insulation integrity	FE 180
Installation temperature	-5 °C - +50 °C
Operating temperature	-45 °C - +90 °C

Electrical properties

Nominal voltage	0.6/1kV
Test voltage at 50Hz	4,000 V

Mechanical properties

Minimum bending during installation (multi core)	12 x D
Minimum bending during installation (single core)	15 x D
Minimum bending radius permanent (multi core)	12 x D
Minimum bending radius permanent (single core)	15 x D

Standards

Insulation Integrity (FE180)	IEC 60331-11/-21 (180 minutes), VDE 0472-814 (FE180), BS 6387 C/W/Z, IEC 60331-1 (120 minutes), IEC 60331-2 (120 minutes), EN 50200 (PH120 minutes), VDE 0482-200 (PH120), AREI-RGIE Art.104-FR1
System circuit integrity	DIN 4102-12, AREI-RGIE Art.104-FR2
Smoke density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2, AREI-RGIE Art.104-SD
Zero halogen no corrosive gases	IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2, AREI-RGIE Art.104-SA
Flame propagation	IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2, AREI-RGIE Art.104-F1
Flame spread	IEC 60332-3-22/-24, EN 60332-3-22/-24, VDE 0482-332-3-22/-24, AREI-RGIE Art.104-F2

Note

System Circuit Integrity is dependent on installation method.

Versions

Material number	Product	Outer sheath diameter [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Conductor	Construction	GTIN / EAN
192350	(N)HXH-O CL FE180 E30-E60 2 x 1.5	14.9	29	333	0.94	solid	LN	40393910067729
187562	(N)HXH-O CL FE180 E30-E60 2 x 2.5	16	48	380	1.02	solid	LN	40393910073614
191612	(N)HXH-O CL FE180 E30-E60 2 x 4	17	77	450	1.13	solid	LN	40393910069044
187563	(N)HXH-O CL FE180 E30-E60 2 x 6	18	115	527	1.25	solid	LN	40393910073607
191107	(N)HXH-J CL FE180 E30-E60 3 x 1.5	16	43	361	1.00	solid	LNPE	40393910069730
186940	(N)HXH-J CL FE180 E30-E60 3 x 2.5	16.3	72	422	1.10	solid	LNPE	40393910075397
192351	(N)HXH-J CL FE180 E30-E60 3 x 4	18	115	509	1.22	solid	LNPE	40393910067712
188326	(N)HXH-J CL FE180 E30-E60 3 x 6	19	173	602	1.35	solid	LNPE	40393910072433
191597	(N)HXH-J CL FE180 E30-E60 3 x 10	21	288	777	1.54	solid	LNPE	40393910069129
188327	(N)HXH-J CL FE180 E30-E60 3 x 16	24	461	1,074	1.93	stranded	LNPE	40393910072426
190590	(N)HXH-J CL FE180 E30-E60 4 x 2.5	18	96	475	1.22	solid	3LPE	40393910070583
191102	(N)HXH-J CL FE180 E30-E60 4 x 4	19	154	585	1.36	solid	3LPE	40393910069761
192593	(N)HXH-J CL FE180 E30-E60 4 x 6	20	230	703	1.51	solid	3LPE	40393910066968
192594	(N)HXH-J CL FE180 E30-E60 4 x 10	22	384	930	1.76	solid	3LPE	40393910066951
186980	(N)HXH-J CL FE180 E30-E60 4 x 16	25	614	1,293	2.20	stranded	3LPE	40393910074994

Material number	Product	Outer sheath diameter [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Conductor	Construction	GTIN / EAN
186981	(N)HXH-J CL FE180 E30-E60 4 x 25	29	960	1,814	2.78	stranded	3LPE	40393910074987
186982	(N)HXH-J CL FE180 E30-E60 4 x 35	32	1,344	2,296	3.16	stranded	3LPE	40393910074970
190589	(N)HXH-J CL FE180 E30-E60 4 x 50	36	1,920	3,030	4.02	stranded	2LNPE	40393910070590
192428	(N)HXH-J CL FE180 E30-E60 4 x 70	40	2,688	4,015	5.05	stranded	3LPE	40393910067590
192429	(N)HXH-J CL FE180 E30-E60 4 x 95	46	3,648	5,343	6.52	stranded	3LPE	40393910067583
192430	(N)HXH-J CL FE180 E30-E60 4 x 120	49	4,608	6,433	7.26	stranded	3LPE	40393910067576
192347	(N)HXH-J CL FE180 E30-E60 5 x 1.5	18	72	463	1.25	solid	3LNPE	40393910067736
188117	(N)HXH-J CL FE180 E30-E60 5 x 2.5	19	120	545	1.38	solid	3LNPE	40393910072945
188118	(N)HXH-J CL FE180 E30-E60 5 x 4	20	192	675	1.54	solid	3LNPE	40393910072938
186941	(N)HXH-J CL FE180 E30-E60 5 x 6	21	288	818	1.72	solid	3LNPE	40393910075380
186942	(N)HXH-J CL FE180 E30-E60 5 x 10	24	480	1,084	1.98	solid	3LNPE	40393910075373
187154	(N)HXH-J CL FE180 E30-E60 5 x 16	27	768	1,452	2.53	stranded	3LNPE	40393910074574
190525	(N)HXH-J CL FE180 E30-E60 5 x 16	26	768	1,531	2.53	stranded	3LNPE	40393910070774
186984	(N)HXH-J CL FE180 E30-E60 5 x 25	31	1,200	2,168	3.23	stranded	3LNPE	40393910074963
187132	(N)HXH-J CL FE180 E30-E60 5 x 35	35	1,680	2,702	3.85	stranded	3LNPE	40393910074611
190529	(N)HXH-J CL FE180 E30-E60 5 x 35	35	1,680	2,801	3.85	stranded	3LNPE	40393910070736
187131	(N)HXH-J CL FE180 E30-E60 5 x 50	39	2,400	3,613	4.83	stranded	3LNPE	40393910074628
191565	(N)HXH-J CL FE180 E30-E60 5 x 50	39	2,400	3,678	4.83	stranded	3LNPE	40393910069198
194049	(N)HXH-J CL FE180 E30-E60 5 x 70	45	3,360	4,999	6.05	stranded	3LNPE	40393910064773
188094	(N)HXH-J CL FE180 E30-E60 6 x 4	20	230	693	1.74	solid	5LPE	40393910073157
185232	(N)HXH-J CL FE180 E30-E60 7 x 1.5	19	101	529	1.38	solid	6LPE	40393910077308
185245	(N)HXH-J CL FE180 E30-E60 7 x 4	21	269	797	1.71	solid	6LPE	40393910077216
185247	(N)HXH-J CL FE180 E30-E60 7 x 6	23	403	977	1.9	solid	6LPE	40393910077209
185248	(N)HXH-J CL FE180 E30-E60 7 x 10	25	672	1,328	2.2	solid	6LPE	40393910077193
188095	(N)HXH-J CL FE180 E30-E60 8 x 4	23	307	834	1.91	solid	7LPE	40393910073140
185239	(N)HXH-J CL FE180 E30-E60 12 x 2.5	23	288	942	2.13	solid	LPE	40393910077254
185233	(N)HXH-J CL FE180 E30-E60 16 x 1.5	24	230	922	2.24	solid	15LPE	40393910077292
192725	(N)HXH-J CL FE180 E30-E60 16 x 2.5	26	384	1,138	2.52	solid	15LPE	40393910066630
196400	(N)HXH-J CL FE180 E30-E60 16 x 4	27.5	614.4	1,414		solid	15LPE	40393910061055
185235	(N)HXH-J CL FE180 E30-E60 30 x 1.5	30	432	1,402	3.25	solid	29LPE	40393910077278
185241	(N)HXH-J CL FE180 E30-E60 30 x 2.5	33	720	1,826	3.81	solid	29LPE	40393910077230

Additional dimensions available on request.

Subject to technical modification

As of 2023-10-30 08:22:38