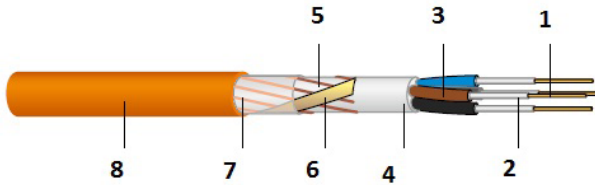


(N)HXCH FE180 E30-E60

Safety cable, 0.6/1kV, 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-peformance Keram compound
- 3 Insulation: cross-linked polymer, zero halogen
- 4 Filler: flame retardant, zero halogen
- 5 Concentric conductor: bare copper wire
- 6 Reinforcing helix: bare copper tape
- 7 Separator: plastic tape
- 8 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 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 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 "HX11"
Core colours	CENELEC HD 308 S2, VDE 0293
Separator	Plastic tape
Filler	Flame retardant, halogen-free thermoplastic compound
Concentric conductor	Bare copper wires with reinforced helix
Outer sheath material	Flame retardant Polyolefin compound, CENELEC HD 604 S1 and VDE 0276-604 "HM4"
Outer sheath colour	orange

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
Screened	no

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	Packing unit	GTIN / EAN
184751	(N)HXCH FE180 E30-E60 12 x 2.5/4	22.6	334	786.4	1,604	solid	12L	by the metre	
186943	(N)HXCH FE180 E30-E60 2 x 1.5/1.5	12.7	52	221	0.60	solid	LN		40393910075366
186944	(N)HXCH FE180 E30-E60 2 x 2.5/2.5	13.5	80	269	0.66	solid	LN		40393910075359
187232	(N)HXCH FE180 E30-E60 2 x 4/4	14.9	123	351	0.78	solid	LN		40393910074178
187234	(N)HXCH FE180 E30-E60 2 x 6/6	16	182	429	0.86	solid	LN		40393910074161
186945	(N)HXCH FE180 E30-E60 3 x 1.5/1.5	13.2	66	246	0.65	solid	3L		40393910075342
186946	(N)HXCH FE180 E30-E60 3 x 2.5/2.5	14.1	104	303	0.72	solid	3L		40393910075335
187238	(N)HXCH FE180 E30-E60 3 x 16/16	21.3	624.7	1,025	1.63	stranded	3L		40393910074154
187239	(N)HXCH FE180 E30-E60 3 x 25/16	25	902	1,433	1.90	stranded	3L		40393910074147
187240	(N)HXCH FE180 E30-E60 3 x 35/16	37.3	1,190	1,799	2.20	stranded	3L		40393910074130
187241	(N)HXCH FE180 E30-E60 3 x 50/25	31.7	1,723	2,450	2.84	stranded	3L		40393910074123
187242	(N)HXCH FE180 E30-E60 3 x 70/35	36	2,410	3,341	3.52	stranded	3L		40393910074116
186985	(N)HXCH FE180 E30-E60 3 x 95/50	41.1	3,296	4,445	4.50	stranded	3L		40393910074956
186986	(N)HXCH FE180 E30-E60 3 x 120/70	44.5	4,236	5,524	5.30	stranded	3L		40393910074949
186987	(N)HXCH FE180 E30-E60 3 x 150/70	49.2	5,100	6,730	6.00	stranded	3L		40393910074932

Material number	Product	Outer sheath diameter [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Conductor	Construction	Packing unit	GTIN / EAN
186988	(N)HXCH FE180 E30-E60 3 x 240/120	61.5	8,242	10,908	9.93	stranded	3L		40393910074925
186947	(N)HXCH FE180 E30-E60 4 x 1.5/1.5	14.1	81	281	0.73	solid	3LN		40393910075328
186948	(N)HXCH FE180 E30-E60 4 x 2.5/2.5	15.1	128	350	0.82	solid	3LN		40393910075311
186949	(N)HXCH FE180 E30-E60 4 x 4/4	16.7	200	464	0.96	solid	3LN		40393910075304
186950	(N)HXCH FE180 E30-E60 4 x 6/6	18.1	297	613	1.13	solid	3LN		40393910075298
186951	(N)HXCH FE180 E30-E60 4 x 10/10	20.1	504	858	1.33	solid	3LN		40393910075281
186989	(N)HXCH FE180 E30-E60 4 x 16/16	23.4	796	1,247	1.70	stranded	3LN		40393910074918
186990	(N)HXCH FE180 E30-E60 4 x 25/16	27.2	1,142	1,742	2.20	stranded	3LN		40393910074901
186991	(N)HXCH FE180 E30-E60 4 x 35/16	29.8	1,526	2,200	2.56	stranded	3LN		40393910074895
186992	(N)HXCH FE180 E30-E60 4 x 50/25	34.8	2,203	3,029	3.41	stranded	3LN		40393910074888
186993	(N)HXCH FE180 E30-E60 4 x 70/35	39.5	3,082	4,128	4.18	stranded	3LN		40393910074871
186994	(N)HXCH FE180 E30-E60 4 x 95/50	45.2	4,208	5,503	5.58	stranded	3LN		40393910074864
186995	(N)HXCH FE180 E30-E60 4 x 120/70	49.1	5,388	6,862	6.37	stranded	3LN		40393910074857
186996	(N)HXCH FE180 E30-E60 4 x 150/70	54.3	6,540	8,399	7.83	stranded	3LN		40393910074840
186997	(N)HXCH FE180 E30-E60 4 x 185/95	59.8	8,159	10,470	9.55	stranded	3LN		40393910074833
186998	(N)HXCH FE180 E30-E60 4 x 240/120	67.9	10,546	13,600	12.00	stranded	3LN		40393910074826
187244	(N)HXCH FE180 E30-E60 7 x 1.5/2.5	16.1	133	390	0.94	solid	7L		40393910074109
187245	(N)HXCH FE180 E30-E60 30 x 1.5/6	28.4	499	1,232	2.67	solid	30L		40393910074093

Additional dimensions available on request.

Subject to technical modification

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