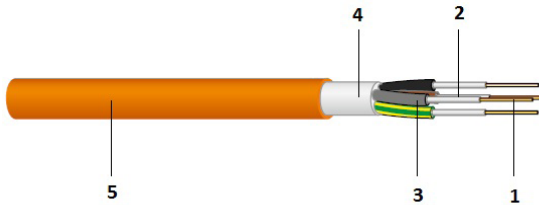


FE180 E30

Safety cable, 0.6/1kV, Keram

halogen-free, with improved fire characteristics,
in accordance to SEV TP 20B/3C and CENELEC HD 604 S1 part 5.H
30 minutes system circuit integrity* with reference to 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 Sheath: FRNC/LSZH



Description

Safety cables 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.

Permitted operating temperature at conductor of +90°C.

Construction

Conductor	Bare copper, solid or stranded, IEC 60228 and EN 60228 ($\geq 16 \text{ mm}^2$; VDE 0295)
Core colours	CENELEC HD 308 S2
Filler	HD 604 S1 part 5 H
Insulation	Special compound, HD 604 S1 part 5 H
Outer sheath material	Compound, HD 604 S1 part 5 H

General Properties

Installation temperature	-5 °C - +50 °C
Operating temperature	-45 °C - +90 °C

Electrical properties

Nominal voltage	0.6/1kV
Test voltage 50Hz	3,500 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
Remarks bending radius	50% reduction if installation at 30°C and with a template

Standards

Circuit integrity (FE180/PH120)	IEC 60331-11/-21 (180 minutes), VDE 0472-814 (FE180), BS 6387 C/W/Z, IEC 60331-1 (PH120), IEC 60331-2 (120 minutes), EN 50200 (PH120), VDE 0482-200 (PH120), VDE 0482-362, AREI-RGIE Art.104-FR1
Zero halogen no corrosive gases	IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2, AREI-RGIE Art.104-SA, SEV TPV11
Flame Propagation	IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2, AREI-RGIE Art.104-F1, SEV TP 20B/3C 3.4.1.1
Flame Spread	IEC 60332-3-24 Cat. C, EN 60332-3-24 Cat. C, VDE 0482-332-3-24 Cat. C, AREI-RGIE Art.104-F2, SEV TP 20B/3C 3.4.1.3
Smoke Density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2, AREI-RGIE Art.104-SD, SEV TP 20B/3C 3.4.3

Note

System Circuit Integrity is dependent on installation method.

Versions

Material number	Product	Diameter mm ²	Outer sheath diameter [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Conductor	Construction
191118	FE180 E30 2 x 1.5	1.5	7.8	29	102	0.22	solid	LN
191119	FE180 E30 2 x 2.5	2.5	9	48	143	0.28	solid	LN
187180	FE180 E30 3 x 1.5	1.5	8.3	43	121	0.25	solid	LNPE
187184	FE180 E30 3 x 2.5	2.5	9.5	72	170	0.31	solid	LNPE
187187	FE180 E30 3 x 4	4	11	115	243	0.41	solid	LNPE
187189	FE180 E30 3 x 6	6	12.5	173	333	0.51	solid	LNPE
187182	FE180 E30 4 x 1.5	1.5	9.1	58	148	0.29	solid	3LPE
190502	FE180 E30 4 x 2.5	2.5	10.5	96	211	0.38	solid	3LPE
192352	FE180 E30 4 x 4	4	12.2	154	304	0.49	solid	3LPE
192353	FE180 E30 4 x 6	6	13.8	230	415	0.61	solid	3LPE
187183	FE180 E30 5 x 1.5	1.5	9.9	72	178	0.35	solid	3LNPE
187186	FE180 E30 5 x 2.5	2.5	11.6	120	260	0.47	solid	3LNPE
187188	FE180 E30 5 x 4	4	13.4	192	371	0.61	solid	3LNPE
187190	FE180 E30 5 x 6	6	15.2	288	510	0.76	solid	3LNPE
186267	FE180 E30 7 x 1.5	1.5	10.8	100.8	205	0.41	solid	6LPE
186268	FE180 E30 7 x 2.5	2.5	12.5	168	321	0.53	solid	6LPE
187201	FE180 E30 7 x 6	6	16.7	403	652	0.89	solid	6LPE
187108	FE180 E30 8 x 1.5	1.5	11.9	115	259	0.48	solid	7LPE
188345	FE180 E30 10 x 1.5	1.5	13.8	144	321	0.69	solid	9LPE
186269	FE180 E30 12 x 1.5	1.5	14.2	172.8	363	0.66	solid	11LPE
192479	FE180 E30 12 x 2.5	2.5	16.7	288	542	0.88	solid	11LPE
187109	FE180 E30 21 x 1.5	1.5	17.7	303	585	0.99	solid	20LPE
190412	FE180 E30 27 x 1.5	1.5	20.4	389	755	1.30	solid	26LPE

Additional dimensions available on request.

