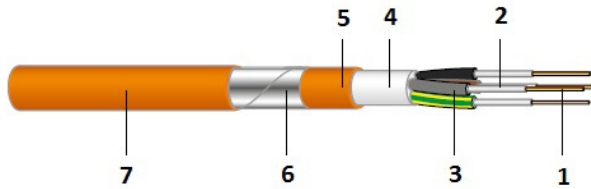


## FE180 E30 CL

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

halogen-free, with improved fire characteristics,  
with reference to SEV TP 20B/3C and CENELEC HD 604 S1 part 5.H



- 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

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)
Insulation	Special compound, HD 604 S1 part 5 H ( $\geq 16 \text{ mm}^2$ : double-layer insulation, special compound, VDE 0266 "HX11")
Core colours	CENELEC HD 308 S2
Filler	HD 604 S1 part 5 H ( $\geq 16 \text{ mm}^2$ : halogen-free polyolefin compound)
Inner sheath	Compound, HD 604 S1 part 5 H ( $\geq 16 \text{ mm}^2$ : Polyolefin compound, VDE 0276-604, CENELEC HD 604 S1 "HM 4", flame-retardant)
Outer sheath material	Compound, HD 604 S1 part 5 H (16 mm <sup>2</sup> : in accordance with CENELEC HD 308 S2 and VDE 0293)
Armouring (rodent protection)	Single-core cable with copper tape (CLCU) and multicore cable with galvanised steel tape (CL)

### General properties

Circuit Integrity	E30
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	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

## 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, SEV TP 20B/3C 3.4.3
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, EN 60332-3-24, VDE 0482-332-3-24, AREI-RGIE Art.104-F2, SEV TP 20B/3C 3.4.1.3

## 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	GTIN / EAN
193886	FE180 E30 CL	11	43	210	0.46	solid	40393910065367
187199	FE180 E30 CL	12	72	255	0.50	solid	40393910074345
191097	FE180 E30 CL	14	115	373	0.69	solid	40393910069785
191121	FE180 E30 CL	15.8	173	481	0.90	solid	40393910069648
188354	FE180 E30 CL	18	288	651	1.20	solid	40393910072303
191595	FE180 E30 CL	14	96	296	0.56	solid	40393910069143
187167	FE180 E30 CL	16	154	408	0.79	solid	40393910074512
188352	FE180 E30 CL	17	230	535	1.06	solid	40393910072327
191038	FE180 E30 CL	14	120	388	0.76	solid	40393910070040
188350	FE180 E30 CL	16	192	488	1.05	solid	40393910072341
188353	FE180 E30 CL	17.5	288	640	1.28	solid	40393910072310
188397	FE180 E30 CL	21	480	964	1.76	solid	40393910072082
187197	FE180 E30 CL	16	168	476	0.91	solid	40393910074369
188355	FE180 E30 CL	19	403	794	1.53	solid	40393910072297
188356	FE180 E30 CL	23	672	1,201	2.13	solid	40393910072280
192461	FE180 E30 CL	15	115	403	0.85	solid	40393910067477
187128	FE180 E30 CL	16	192	489	1.04	solid	40393910074642
191104	FE180 E30 CL	18	308	684	1.36	solid	40393910069754

Additional dimensions available on request

Subject to technical modification

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