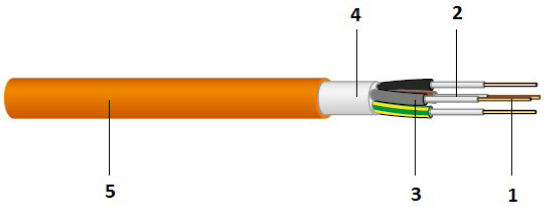
(N)HXH FE180 E30-E60 B2$_{ca}$

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
Reaction to fire according to EN 13501-6



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 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.
System Circuit Integrity is provided up to 400 V operating voltage.
Permitted operating temperature at conductor of +90˚C.

Applicazione

For use in critical fire safety infrastructure (in compliance with VKF, ASTRA, Tunnels Directive, etc.), particularly in escape routes and emergency lines.

Costruzione

Colori delle anime	CENELEC HD 308 S2, VDE 0293
Conduttore	Bare copper, solid or stranded, IEC 60228 and EN 60228 (VDE 0295)
Isolamento	Double insulation, cross-linked, high-performance Keram special compound, VDE 0266 “HXI1”
Outer sheath colour	arancia
Outer sheath material	Flame retardant Polyolefin compound, CENELEC HD 604 S1 and VDE 0276-604 “HM4”
Riempitrice	Flame retardant, halogen-free thermoplastic compound

Proprietà generali

Installation temperature	-5 °C - +50 °C
Integrità del circuito	E60
Integrità dell’isolamento	FE 180
Operating temperature	-45 °C - +90 °C

Proprietà elettriche

Nominal voltage	0.6/1kV
Test voltage 50Hz	4.000 V

Proprietà meccaniche

Curvatura minima durante l'installazione (anima singola)	15 x D
Curvatura minima durante l'installazione (multicore)	12 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

Integrità del circuito (FE180)	IEC 60331-11/-21 (180 minutes),VDE 0472-814 (FE180),IEC 60331-1 (120 minutes),IEC 60331-2 (120 minutes),EN 50200 (PH120 minutes),VDE 0482-200 (PH120),VDE 0482-331-1 (PH120),AREI-RGIE Art.104-FR1
Reaction to fire (Euroclasses)	EN 13501-6: $B2_{ca}$
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	AREI-RGIE Art.104-F1, EN 60332-1-2, IEC 60332-1-2, VDE 0482-332-1-2
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
Integrità del circuito di sistema	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

Nota

* System Circuit Integrity is dependent on installation method

Versions

Numero Materiale	Product	Reaction To Fire	Outer sheath colour	Numero di core	Diametro mm^2	Diametro esterno della guaina [mm]	Tasso di CU [kg\km]	Weight [kg\km]	Fire load [kWh\m]	Conductor	Construction	Packing unit
18628000BZ	(N)HXH FE180 E30-E60 2 x 1.5	B2ca-s1a,d1,a1	arancia	2	1.5	11	29	176	0,441	solid	LN	al metro
18692100BZ	(N)HXH FE180 E30-E60 2 x 2.5	B2ca-s1a,d1,a1	arancia	2	2.5	11,8	48	214	0,495	solid	LN	al metro
18692200BZ	(N)HXH FE180 E30-E60 2 x 4	B2ca-s1a,d1,a1	arancia	2	4	12,8	77	269	0,565	solid	LN	al metro
18692300BZ	(N)HXH FE180 E30-E60 2 x 6	B2ca-s1a,d1,a1	arancia	2	6	13,8	115	333	0,636	solid	LN	al metro
18692400BZ	(N)HXH FE180 E30-E60 2 x 10	B2ca-s1a,d1,a1	arancia	2	10	15,4	192	454	0,754	solid	LN	al metro
18695200BZ	(N)HXH FE180 E30-E60 2 x 16	B2ca-s1a,d1,a1	arancia	2	16	18,2	307	653	0,98	solid	LN	al metro
19040400BZ	(N)HXH FE180 E30-E60 2 x 25	B2ca-s1a,d1,a1	arancia	2	25	21,2	480	939	1,281	stranded	LN	al metro
18692500BZ	(N)HXH-J FE180 E30-E60 3 x 1.5	B2ca-s1a,d1,a1	arancia	3	1.5	11,5	43	198	0,488	solid	LNPE	al metro
18692600BZ	(N)HXH-J FE180 E30-E60 3 x 2.5	B2ca-s1a,d1,a1	arancia	3	2.5	12,4	72	247	0,551	solid	LNPE	al metro
18692700BZ	(N)HXH-J FE180 E30-E60 3 x 4	B2ca-s1a,d1,a1	arancia	3	4	13,5	115	316	0,63	solid	LNPE	al metro

Numero Materiale	Product	Reaction To Fire	Outer sheath colour	Numero di core	Diametro mm^2	Diametro esterno della guaina [mm]	Tasso di CU [kg\km]	Weight [kg\ km]	Fire load [kWh\m]	Conductor	Construction	Packing unit
18692800BZ	(N)HXH-J FE180 E30-E60 3 x 6	B2ca-s1a,d1,a1	arancia	3	6	14,6	173	400	0,71	solid	LNPE	al metro
18692900BZ	(N)HXH-J FE180 E30-E60 3 x 10	B2ca-s1a,d1,a1	arancia	3	10	16,3	288	556	0,836	solid	LNPE	al metro
18695300BZ	(N)HXH FE180 E30-E60 3 x 16	B2ca-s1a,d1,a1	arancia	3	16	19,3	461	805	1,076	stranded	LNPE	al metro
18695500BZ	(N)HXH FE180 E30-E60 3 x 25	B2ca-s1a,d1,a1	arancia	3	25	22,6	720	1.176	1,634	stranded	LNPE	al metro
18695400BZ	(N)HXH FE180 E30-E60 3 x 25 + 1 x 16	B2ca-s1a,d1,a1	arancia	3	25+16	23,9	874	1.354	1,576	stranded	3LPE	al metro
18695700BZ	(N)HXH FE180 E30-E60 3 x 35	B2ca-s1a,d1,a1	arancia	3	35	24,9	1.008	1.518	1,634	stranded	LNPE	al metro
18695600BZ	(N)HXH FE180 E30-E60 3 x 35 + 1 x 16	B2ca-s1a,d1,a1	arancia	3	35+16	25,9	1.162	1.684	1,787	stranded	3LPE	al metro
18695900BZ	(N)HXH FE180 E30-E60 3 x 50	B2ca-s1a,d1,a1	arancia	3	50	28,2	1.440	2.012	2,081	stranded	LNPE	al metro
18695800BZ	(N)HXH FE180 E30-E60 3 x 50 + 1 x 25	B2ca-s1a,d1,a1	arancia	3	50+25	29,9	1.680	2.298	2,312	stranded	3LPE	al metro
18696100BZ	(N)HXH FE180 E30-E60 3 x 70	B2ca-s1a,d1,a1	arancia	3	70	32,7	2.016	2.793	2,613	stranded	LNPE	al metro
18696000BZ	(N)HXH FE180 E30-E60 3 x 70 + 1 x 35	B2ca-s1a,d1,a1	arancia	3	70+35	34	2.352	3.124	2,807	stranded	3LPE	al metro
18696200BZ	(N)HXH FE180 E30-E60 3 x 95 + 1 x 20	B2ca-s1a,d1,a1	arancia	3	95+50	39,3	3.216	4.197	3,893	stranded	3LPE	al metro
18696300BZ	(N)HXH FE180 E30-E60 3 x 120 + 1 x 70	B2ca-s1a,d1,a1	arancia	3	120+70	42,6	4.098,28	5.227	4,419	stranded	3LPE	al metro
18696400BZ	(N)HXH FE180 E30-E60 3 x 150 + 1 x 70	B2ca-s1a,d1,a1	arancia	3	150+70	46,6	4.992	6.327	5,244	stranded	3LPE	al metro
18696500BZ	(N)HXH FE180 E30-E60 3 x 185 + 1 x 90	B2ca-s1a,d1,a1	arancia	3	185+95	52	6.240	7.911	6,505	stranded	3LPE	al metro
18693000BZ	(N)HXH-J FE180 E30-E60 4 x 1.5	B2ca-s1a,d1,a1	arancia	4	1.5	12,4	58	232	0,572	solid	3LPE	al metro
18693100BZ	(N)HXH-J FE180 E30-E60 4 x 2.5	B2ca-s1a,d1,a1	arancia	4	2.5	13,4	96	289	0,634	solid	3LPE	al metro
18693200BZ	(N)HXH-J FE180 E30-E60 4 x 4	B2ca-s1a,d1,a1	arancia	4	4	14,6	154	379	0,724	solid	3LPE	al metro
18693300BZ	(N)HXH-J FE180 E30-E60 4 x 6	B2ca-s1a,d1,a1	arancia	4	6	15,8	230	486	0,831	solid	3LPE	al metro
18693400BZ	(N)HXH-J FE180 E30-E60 4 x 10	B2ca-s1a,d1,a1	arancia	4	10	17,8	384	691	0,992	solid	3LPE	al metro
18696700BZ	(N)HXH FE180 E30-E60 4 x 16	B2ca-s1a,d1,a1	arancia	4	16	21,1	614	1.003	1,277	stranded	3LPE	al metro
18696800BZ	(N)HXH FE180 E30-E60 4 x 25	B2ca-s1a,d1,a1	arancia	4	25	24,8	960	1.476	1,695	stranded	3LPE	al metro
18696900BZ	(N)HXH FE180 E30-E60 4 x 35	B2ca-s1a,d1,a1	arancia	4	35	27,4	1.344	1.919	1,951	stranded	3LPE	al metro
18697000BZ	(N)HXH FE180 E30-E60 4 x 50	B2ca-s1a,d1,a1	arancia	4	50	31,5	1.920	2.583	2,604	stranded	3LPE	al metro

Numero Materiale	Product	Reaction To Fire	Outer sheath colour	Numero di core	Diametro mm^2	Diametro esterno della guaina [mm]	Tasso di CU [kg\km]	Weight [kg\ km]	Fire load [kWh\m]	Conductor	Construction	Packing unit
18697100BZ	(N)HXH FE180 E30-E60 4 x 70	B2ca-s1a,d1,a1	arancia	4	70	36,2	2.688	3.558	3,199	stranded	3LPE	al metro
18697200BZ	(N)HXH FE180 E30-E60 4 x 95	B2ca-s1a,d1,a1	arancia	4	95	41,7	3.648	4.757	4,357	stranded	3LPE	al metro
18697300BZ	(N)HXH FE180 E30-E60 4 x 120	B2ca-s1a,d1,a1	arancia	4	120	44,6	4.608	5.806	4,831	stranded	3LPE	al metro
18697400BZ	(N)HXH FE180 E30-E60 4 x 150	B2ca-s1a,d1,a1	arancia	4	150	50	5.760	7.321	6,103	stranded	3LPE	al metro
18754800BZ	(N)HXH-J FE180 E30-E60 4 x 185	B2ca-s1a,d1,a1	arancia	4	185	55,3	7.104	9.017	7,404	stranded	3LPE	al metro
18707700BZ	(N)HXH FE180 E30-E60 4 x 240	B2ca-s1a,d1,a1	arancia	4	240	62,9	9.216	11.798	9,4	stranded	3LPE	al metro
18693500BZ	(N)HXH-J FE180 E30-E60 5 x 1.5	B2ca-s1a,d1,a1	arancia	5	1.5	13,4	72	275	0,665	solid	3LNPE	al metro
18693600BZ	(N)HXH-J FE180 E30-E60 5 x 2.5	B2ca-s1a,d1,a1	arancia	5	2.5	14,5	120	345	0,754	solid	3LNPE	al metro
18693700BZ	(N)HXH-J FE180 E30-E60 5 x 4	B2ca-s1a,d1,a1	arancia	5	4	15,8	192	454	0,863	solid	3LNPE	al metro
18693800BZ	(N)HXH-J FE180 E30-E60 5 x 6	B2ca-s1a,d1,a1	arancia	5	6	17,2	288	586	0,983	solid	3LNPE	al metro
18693900BZ	(N)HXH-J FE180 E30-E60 5 x 10	B2ca-s1a,d1,a1	arancia	5	10	19,3	480	829	1,164	solid	3LNPE	al metro
18697500BZ	(N)HXH FE180 E30-E60 5 x 16	B2ca-s1a,d1,a1	arancia	5	16	23,1	768	1.218	1,525	stranded	3LNPE	al metro
18697600BZ	(N)HXH FE180 E30-E60 5 x 25	B2ca-s1a,d1,a1	arancia	5	25	27,2	1.200	1.801	2,055	stranded	3LNPE	al metro
18697700BZ	(N)HXH FE180 E30-E60 5 x 35	B2ca-s1a,d1,a1	arancia	5	35	30,5	1.680	2.374	2,45	stranded	3LNPE	al metro
18697800BZ	(N)HXH FE180 E30-E60 5 x 50	B2ca-s1a,d1,a1	arancia	5	50	34,8	2.400	3.177	2,974	stranded	3LNPE	al metro
18697900BZ	(N)HXH FE180 E30-E60 5 x 70	B2ca-s1a,d1,a1	arancia	5	70	40	3.360	4.371	3,65	stranded	3LNPE	al metro
19058700BZ	(N)HXH FE180 E30-E60 5 x 95	B2ca-s1a,d1,a1	arancia	5	95	46,6	4.560	5.897	5,035	stranded	3LNPE	al metro
17127200BZ	(N)HXH-J FE180 E30-E60 7 x 1.5	B2ca-s1a,d1,a1	arancia	7	1.5	14,4	101	328	0,758	solid	6LPE	al metro
17127300BZ	(N)HXH-J FE180 E30-E60 7 x 2.5	B2ca-s1a,d1,a1	arancia	7	2.5	15,6	168	422	0,857	solid	6LPE	al metro
17127900BZ	(N)HXH-J FE180 E30-E60 12 x 1.5	B2ca-s1a,d1,a1	arancia	12	1.5	18,3	173	510	1,128	solid	11LPE	al metro
17128000BZ	(N)HXH-J FE180 E30-E60 12 x 2.5	B2ca-s1a,d1,a1	arancia	12	2.5	20	288	668	1,288	solid	11LPE	al metro

Additional dimensions available on request.