

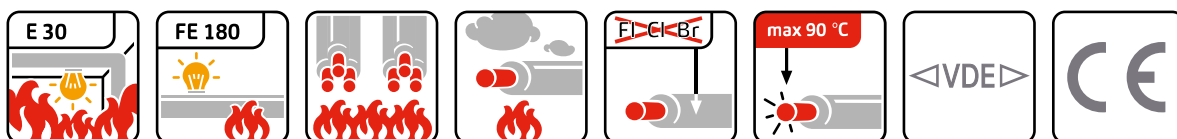
FRNC power cable (N)HXH FE180/E30 acc. to VDE 0266



Conductor material:	bare copper
Conductor class:	class 1, from 25 sqmm class 2
insulation:	FRNC compound HI1
Material outer sheath:	FRNC-compound HM1
colour outer sheath:	orange
Flame-retardance:	VDE 0482-266-2-4/IEC 60332-3-24 (Kat. C)
smoke density:	DIN EN 61034/IEC 61034
Halogen-free:	DIN EN 50267/IEC 60754
fire resistance:	FE 180 (IEC 60331)
Circuit integrity:	E30
Maximum permitted conductor temperature:	90 °C
Permitted cable outer temperature, fixed:	-5 - +70 °C
bending radius, fixed installation:	12 x DA

	(N)HXH-O E30	(N)HXH-J E30
Nominal voltage U₀:	600 V	600 V
nominal voltage U:	1 kV	1 kV
maximum permitted operating voltage in 3-phase systems:	1,2 kV	1,2 kV
test voltage:	4 kV	4 kV
core identification:	colours acc. VDE 0293 (HD308)	colours acc. VDE 0293 (HD308)

Application: For installation in dry and wet rooms, also for direct bedding in concrete, but not for direct burial in ground and not for use in water. The cable has improved properties in case of fire and may be used in public buildings with high safety requirements. The cables are halogen-free, have a low smoke density and are fire-resistant according to VDE 0472 part 814 (180 min., = IEC 60331). Furthermore the cable passed the test of 30 min. circuit integrity according to DIN 4102 part 12 (E 30) for all so-called standard installation systems (ladder, tray and ceiling) and is suitable for installation in fire alarm systems, safety lightning and other emergency electrical supply systems according to VDE 0108. A special test certificate about the circuit integrity is issued by the "The Civil Engineering Materials Testing Institute". For calculation of electrical systems with circuit integrity has to be considered that electrical resistance of copper conductors at 800 °C is approximately four times higher than at 20 °C and the current carrying capacity is reduced respectively.



The products and information presented here are for technical calculation only. They are subject to technical progress and in no way represent the ability of shipment. Outer diameters are approximately.

Table: Technical characteristics (N)HXH-O E30

p/n	part name		R _l [Ω/km]	I _{bl} [A]	R _{bv} [mm]	D _A [mm]	Cu [kg/km]	G [kg/km]
011238	NHXH-O E30 01X4 RE OR	RE	4,61	44	120	6,9	38	100
011240	NHXH-O E30 01X6 RE OR	RE	3,08	56	135	7,9	58	120
011229	NHXH-O E30 01X10 RE OR	RE	1,83	77	150	8,1	96	160
011232	NHXH-O E30 01X16 OR	RE	1,15	102	180	8,9	154	200
011235	NHXH-O E30 01X25 RM OR	RM	0,727	138	195	10,9	240	310
011237	NHXH-O E30 01X35 RM OR	RM	0,524	170	225	11,9	336	410
011239	NHXH-O E30 01X50 RM OR	RM	0,387	207	240	12,9	480	540
011241	NHXH-O E30 01X70 RM OR	RM	0,268	263	270	15,9	672	740
011242	NHXH-O E30 01X95 RM OR	RM	0,193	325	300	17,9	912	1020
011230	NHXH-O E30 01X120 RM OR	RM	0,153	380	330	18,9	1152	1380
011231	NHXH-O E30 01X150 RM OR	RM	0,124	437	360	20,9	1440	1560
011233	NHXH-O E30 01X185 RM OR	RM	0,0991	507	405	23,9	1776	1930
011234	NHXH-O E30 01X240 RM OR	RM	0,0754	604	450	26,9	2304	2540
011236	NHXH-O E30 01X300 RM OR	RM	0,0601	697	495	32,9	2880	3180
011243	NHXH-O E30 02X1,5 RE OR	RE	12,1	24	145,2	10,2	29	190
011246	NHXH-O E30 02X2,5 RE OR	RE	7,41	32	146,4	10,9	48	220
011248	NHXH-O E30 02X4 RE OR	RE	4,61	42	158,4	11,9	77	270
011249	NHXH-O E30 02X6 RE OR	RE	3,08	53	170,4	12,8	115	320
011244	NHXH-O E30 02X10 RE OR	RE	1,83	73	196,8	14,4	192	430
011245	NHXH-O E30 02X16 OR	RE	1,15	97	234	17,3	307	620
011247	NHXH-O E30 02X25 RM OR	RM	0,727	135	267,6	21,1	480	900

Table: Technical characteristics (N)HXH-J E30

p/n	part name		R _l [Ω/km]	I _{bl} [A]	R _{bv} [mm]	D _A [mm]	Cu [kg/km]	G [kg/km]
012034	NHXH-J E30 01X185 OR	RM	0,0991			23,9	1776	1930
012198	NHXH-J E30 01X240 RM OR	RM	0,0754			26,9	2304	2540
011044	NHXH-J E30 03X1,5 RE OR	RE	12,1	24	156	10,9	43	210
011171	NHXH-J E30 03X2,5 RE OR	RE	7,41	32	168	11,9	72	260
011172	NHXH-J E30 03X4 RE OR	RE	4,61	42	180	12,9	115	320
011194	NHXH-J E30 03X6 RE OR	RE	3,08	53	192	13,9	173	400
011182	NHXH-J E30 03X10 RE OR	RE	1,83	73	216	15,9	288	550
011185	NHXH-J E30 03X16 OR	RE	1,15	97	264	17,9	461	790
011251	NHXH-J E30 03X25 RM OR	RM	0,727	135	300	23,9	720	1150
011253	NHXH-J E30 03X35 RM OR	RM	0,524	165	324	25,9	1008	1490
011255	NHXH-J E30 03X50 RM OR	RM	0,387	201	348	28,9	1440	1980
011257	NHXH-J E30 03X70 RM OR	RM	0,268	255	396	31,9	2016	2830
011252	NHXH-J E30 03X25/16 RM OR	RM	0,727	135	324	23,4	874	1500
011254	NHXH-J E30 03X35/16 RM OR	RM	0,524	165	348	26,9	1162	1800
011256	NHXH-J E30 03X50/25 RM OR	RM	0,387	201	432	29,9	1680	2600
011258	NHXH-J E30 03X70/35 RM OR	RM	0,268	255	480	34,9	2352	3400
011186	NHXH-J E30 03X95/50 RM OR	RM	0,193	314	552	38,9	3216	4600
011269	NHXH-J E30 03X120/70 RM OR	RM	0,153	364	600	42,9	4128	5700
011270	NHXH-J E30 03X150/70 RM OR	RM	0,124	416	648	46,9	4992	6800
011271	NHXH-J E30 03X185/95 RM OR	RM	0,0991	480	720	52,9	6240	8500
011272	NHXH-J E30 03X240/120 RM OR	RM	0,0754	565	756	58,8	8064	11000

p/n	part name		R _l [Ω/km]	I _{bl} [A]	R _{bv} [mm]	D _A [mm]	Cu [kg/km]	G [kg/km]
011188	NHXH-J E30 04X1,5 RE OR	RE	12,1	24	180	11,9	58	240
011045	NHXH-J E30 04X2,5 RE OR	RE	7,41	32	192	12,9	96	300
011217	NHXH-J E30 04X4 RE OR	RE	4,61	42	204	13,9	154	390
011218	NHXH-J E30 04X6 RE OR	RE	3,08	53	228	14,9	230	490
011219	NHXH-J E30 04X10 RE OR	RE	1,83	73	252	16,9	384	670
011220	NHXH-J E30 04X16 OR	RE	1,15	97	300	19,9	614	950
011221	NHXH-J E30 04X25 RM OR	RM	0,727	135	312	24,9	960	1430
011189	NHXH-J E30 04X35 RM OR	RM	0,524	165	348	27,9	1344	1890
011222	NHXH-J E30 04X50 RM OR	RM	0,387	201	408	31,9	1920	2510
011196	NHXH-J E30 04X70 RM OR	RM	0,268	255	456	36,9	2688	3650
011261	NHXH-J E30 04X95 RM OR	RM	0,193	314	528	40,9	3648	4750
011259	NHXH-J E30 04X120 RM OR	RM	0,153	364	576	44,9	4608	5910
011260	NHXH-J E30 04X150 RM OR	RM	0,124	416	624	49,9	5760	7240
013794	NHXH-J E30 04X185 RM OR	RM				59,8	7104	9704
011190	NHXH-J E30 05X1,5 RE OR	RE	12,1	24	216	12,9	72	280
011046	NHXH-J E30 05X2,5 RE OR	RE	7,41	32	228	13,9	120	354
011192	NHXH-J E30 05X4 RE OR	RE	4,61	42	192	14,9	192	450
011193	NHXH-J E30 05X6 RE OR	RE	3,08	53	264	16,9	288	570
011173	NHXH-J E30 05X10 RE OR	RE	1,83	73	300	18,9	480	820
011195	NHXH-J E30 05X16 OR	RE	1,15	97	324	22,9	768	1140
011262	NHXH-J E30 05X25 RM OR	RM	0,727	135	372	26,6	1200	1710
012469	NHXH-J E30 05X35 OR	RM	0,524	165		30,5	1680	2384
011047	NHXH-J E30 07X1,5 RE OR	RE	12,1	24	192	13,9	101	330
013127	NHXH-J E30 10X1,5 RE OR	RE	12,1			18	144	580
011214	NHXH-J E30 12X1,5 RE OR	RE	12,1	24	246	18,9	173	500
011263	NHXH-J E30 19X1,5 RE OR	RE	12,1	24	288	21,9	274	720
011265	NHXH-J E30 24X1,5 RE OR	RE	12,1	24	336	24,9	346	890
011267	NHXH-J E30 30X1,5 RE OR	RE	12,1	24	372	25,9	432	1090
011223	NHXH-J E30 07X2,5 RE OR	RE	7,41	32	216	14,9	168	430
012838	NHXH-J E30 10X2,5 RE OR	RE	7,41	32		18	240	522
011180	NHXH-J E30 12X2,5 RE OR	RE	7,41	32	276	21,9	288	650
013662	NHXH-J E30 14X2,5	RE	7,41	32	260	21,6	336	676
011264	NHXH-J E30 19X2,5 RE OR	RE	7,41	32	312	23,9	456	950
011266	NHXH-J E30 24X2,5 RE OR	RE	7,41	32	366	26,9	576	1210
011268	NHXH-J E30 30X2,5 RE OR	RE	7,41	32	390	28,9	720	1470

RI	conductor resistance
Ibl	ampacity (in air) (30°C)
Rbv	bending radius, fixed installation
DA	outer diameter
Cu	copper weight (ger)
G	weight