

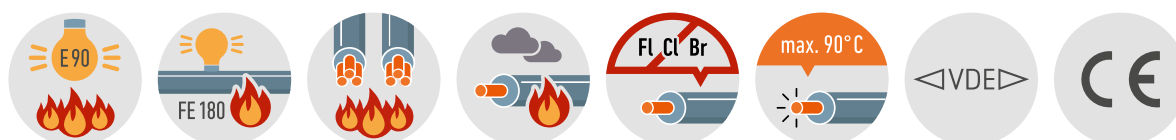
FRNC power cable (N)HXH FE180/E90 acc. to VDE 0266



Conductor material:	bare copper
Conductor class:	class 1, from 25 sqmm class 2
Insulation:	FRNC-compound HI1
Sheathing material:	FRNC-compound HM1
Colour outer sheath:	orange
Flame-retardant:	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-resistant:	FE 180
Circuit integrity:	E90
Maximum permitted conductor temperature:	90 °C
Permitted outer cable temperature, fixed:	-5 - +70 °C
Bending radius, fixed installation:	12 x DA

	(N)HXH-O E90	(N)HXH-J E90
Nominal voltage U₀:	600 V	600 V
Nominal voltage U:	1 kV	1 kV
Maximum permitted operating voltage in three-phase systems:	1,2 kV	1,2 kV
Test voltage:	4 kV	4 kV
Protective conductor:	no	yes
Core identification:	colours acc. to VDE 0293 (HD308)	colours acc. to VDE 0293 (HD308)

Application: For installation in dry and wet rooms, also for direct bedding in concrete, but not for direct burial in the 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 cable is halogen-free, has a low smoke density and is fire-resistant according to VDE 0472 part 814 (180 min., = IEC 60331), EN 50200 and EN 50362. Furthermore the cable passed the test of 90 min. circuit integrity according to DIN 4102 part 12 (E 90) for all so-called standard installation systems (ladder, tray and ceiling). A special test certificate about the circuit integrity is issued by -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 1000 °C is approximately 4,5 times higher than at 20 °C and the current carrying capacity has to be 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 E90

p/n	part name		R _l [Ω/km]	I _{bl} [A]	R _{bv} [mm]	D _A [mm]	Cu [kg/km]	G [kg/km]
012020	NHXH-O E90 01X16 OR	RE	1,15	102	158	10,5	154	230
012021	NHXH-O E90 01X25 OR	RM	0,727	138	188	12,5	240	340
012022	NHXH-O E90 01X35 OR	RM	0,524	170	203	13,5	336	440
011757	NHXH-O E90 01X50 OR	RM	0,387	207	209	13,9	480	600
011843	NHXH-O E90 01X70 OR	RM	0,268	263	248	16,5	672	800
011756	NHXH-O E90 01X95 OR	RM	0,193	325	284	18,9	912	1100
011744	NHXH-O E90 01X120 OR	RM	0,153	380	308	20,5	1152	1350
011177	NHXH-O E90 01X150 OR	RM	0,124	437	338	22,5	1440	1650
011755	NHXH-O E90 01X185 OR	RM	0,0991	507	374	24,9	1776	2000
011754	NHXH-O E90 01X240 OR	RM	0,0754	604	419	27,9	2304	2600
011178	NHXH-O E90 01X300 OR	RM	0,0601	697	464	30,9	2880	3200
012221	NHXH-O E90 01X400 OR	RM	0,047	811	524	34,9	3840	4200
012011	NHXH-O E90 02X1,5 OR	RE	12,1	24	167	13,9	29	210
013885	NHXH-O E90 02X2,5	RE	7,41	32	165	13,7	49	222
013223	NHXH-O E90 02X4 OR	RE	4,16	42	177	14,7	77	335
013224	NHXH-O E90 02X6 OR	RE	3,08	53	189	15,7	115	400
013225	NHXH-O E90 02X10 OR	RE	1,83	74	207	17,2	192	525
013226	NHXH-O E90 02X16 OR		1,15	98	228	19	307	693
013912	NHXH-O E90 04X95 RM OR	RM			543	45,2	3648	5200
013913	NHXH-O E90 04X120	RM	0,153	359	587	48,9	4608	6300

Table: Technical characteristics (N)HXH-J E90

p/n	part name		R _l [Ω/km]	I _{bl} [A]	R _{bv} [mm]	D _A [mm]	Cu [kg/km]	G [kg/km]
010951	NHXH-J E90 03X1,5 OR	RE	12,1	24	179	14,9	43	210
010952	NHXH-J E90 03X2,5 OR	RE	7,41	32	191	15,9	72	243
010953	NHXH-J E90 03X4 OR	RE	4,61	42	201	16,7	115	302
010954	NHXH-J E90 03X6 OR	RE	3,08	53	214	17,8	173	399
010955	NHXH-J E90 03X10 OR	RE	1,83	74	233	19,4	288	546
010956	NHXH-J E90 03X16 OR	RE	1,15	98	268	22,3	461	765
014073	NHXH-J E90 03X25	RM	0,727	133	292	24,3	720	1296
014074	NHXH-J E90 03X35	RM	0,524	162	327	27,2	1008	1653
014075	NHXH-J E90 03X50	RM	0,387	197	370	30,8	1440	2172
014076	NHXH-J E90 03X70	RM	0,268	250	419	34,9	2016	2984
010957	NHXH-J E90 04X1,5 OR	RE	12,1	24	194	16,1	58	245
010958	NHXH-J E90 04X2,5 OR	RE	7,41	32	203	16,9	96	299
010959	NHXH-J E90 04X4 OR	RE	4,61	42	215	17,9	154	376
010960	NHXH-J E90 04X6 OR	RE	3,08	53	231	19,2	230	474
010961	NHXH-J E90 04X10 OR	RE	1,83	74	254	21,1	384	657
010962	NHXH-J E90 04x16 OR	RE	1,15	98	292	24,3	614	973
010963	NHXH-J E90 04X25 OR	RM	0,727	133	338	28,1	960	1422
010964	NHXH-J E90 04X35 OR	RM	0,524	162	371	30,9	1344	1858
011950	NHXH-J E90 04X50 OR	RM	0,387	197	422	35,1	1920	2900
011955	NHXH-J E90 04X70 OR	RM	0,268	250	479	39,9	2688	3900
011949	NHXH-J E90 04X95 OR	RM	0,193	308	543	45,2	3648	5200
011956	NHXH-J E90 04X120 OR	RM	0,153	359	587	48,9	4608	6300
011869	NHXH-J E90 04X150 OR	RM	0,124	412	611	50,9	5760	6800
013666	NHXH-J E90 04X185 OR	RM	0,0991	507	746	62,1	7104	8698
011963	NHXH-J E90 04X240 OR	RM	0,0754	604	779	64,9	9216	10700
010965	NHXH-J E90 05X1,5 OR	RE	12,1	24	209	17,4	72	290
010966	NHXH-J E90 05X2,5 OR	RE	7,41	32	221	18,4	120	359
010967	NHXH-J E90 05X4 OR	RE	4,61	42	234	19,5	192	457
010968	NHXH-J E90 05X6 OR	RE	3,08	53	251	20,9	288	577
010969	NHXH-J E90 05X10 OR	RE	1,83	74	275	22,9	480	807
010970	NHXH-J E90 05x16 OR	RE	1,15	98	320	26,6	768	1145
010971	NHXH-J E90 05X25 OR	RM	0,727	133	371	30,9	1200	1765
013667	NHXH-J E90 05X35 OR	RM	0,524	162	400	33,3	1680	2462
013668	NHXH-J E90 05X70 OR	RM	0,268	250	518	43,1	3360	4559

p/n	part name		R _l [Ω/km]	I _{bl} [A]	R _{bv} [mm]	D _A [mm]	Cu [kg/km]	G [kg/km]
013669	NHXH-J E90 05X95 OR	RM	0,193	308	592	49,3	4560	6150
014077	NHXH-J E90 05X120	RM	0,153	359	641	53,4	5760	7495
013670	NHXH-J E90 05X150 OR	RM	0,124	412	713	59,4	7200	9157
013671	NHXH-J E90 05X185 OR	RM	0,0991		816	68	8880	10836
010989	NHXH-J E90 07X1,5 OR	RE	12,1	24	224	18,6	101	350
013128	NHXH-J E90 10X1,5 OR	RE	12,1	24	240	20	144	538
011020	NHXH-J E90 12X1,5 OR	RE	12,1	24	282	23,5	173	545
011982	NHXH-J E90 12X2,5 OR	RE	7,41	32	303	25,2	288	780
011162	NHXH-J E90 24X1,5 OR	RE	12,1	24	323	26,9	346	735
011124	NHXH-J E90 07X2,5 OR	RE	7,41	32	238	19,8	168	443
013293	NHXH-J E90 07X4 OR	RE	4,61	42	209	17,4	269	565
012928	NHXH-J E90 07X6 OR	RE	3,08	53	227	18,9	403,2	718

RI	Conductor resistance
Ibl	Ampacity in air (30 °C)
Rbv	Bending radius, fixed installation
DA	Outer diameter approx.
Cu	Copper weight (GER)
G	weight