

FRNC power cable (N)HXCH FE180/E30



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 /IEC 60331-11 for 180 minutes. 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 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.

Construction and technical data:

Standard:	VDE 0266
Conductor material:	copper, bare
Conductor construction:	class 1, from 25 sqmm class 2
Insulation:	FRNC-compound HI1
Concentric conductor:	Cu
Sheathing material:	FRNC-compound HM1
Colour of outer sheath:	orange
Flame-retardant:	VDE 0482-266-2-4/IEC 60332-3-24 (Cat. C)
Smoke density:	DIN EN 61034/IEC 61034
Halogen-free:	DIN EN 50267/IEC 60754
Fire-resistant:	VDE 0472-814/IEC 60331-1/IEC 60331-11 (FE 180)/EN 50200
Circuit integrity:	E30
Max. temperature at conductor, °C:	90 °C
Permitted outer cable temperature, fixed, °C:	-5 - +70 °C
Bending radius, fixed installation:	12 x Ø



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.

(N)HXCH E30**Nominal voltage U_o:** 0.6 kV**Nominal voltage U:** 1 kV**Maximum permitted operating voltage in** 1.2 kV**three-phase systems:****Test voltage:** 4 kV**Core identification:** colours acc. to HD 308;
more than 5 cores: numbers

part no.	part name		RI [Ohm/km]	I _{bl} [A]	R _{bv} [mm]	Ø [mm]	Cu	G [kg]
011505	02X1.5/1.5	RE	12.1	24	162	10.8	52	300
011506	02X2.5/2.5	RE	7.41	32	174	11.9	80	350
011507	02X4/4	RE	4.61	42	186	12.9	123	420
013253	02X6/6	RE	3.08	53	225	15	182	301
015652	02X10/10	RE	1.83	73	288	19.2	312	600
011278	03X1.5/1.5	RE	12.1	24	162	11.9	66	320
011215	03X2.5/2.5	RE	7.41	32	174	12.9	104	380
013753	03X4/4	RE	4.61	42	258	17.2	161	422
013754	03X6/6	RE	3.08	53	275	18.3	240	513
013755	03X10/10	RE	1.83	73	300	20.4	408	711
013756	03X16/16	RE	1.15	97	344	22.9	643	1033
013856	03X25/16	RM	0.727	135	401	26.7	902	1420
013857	03X50/25	RM	0.387	201	507	33.8	1723	2342
013858	03X70/35	RM	0.268	255	585	39	2410	3174
013859	03X95/50	RM	0.193	314	657	43.8	3296	4269
013860	03X120/70	RM	0.153	364	711	47.4	4236	5299
011831	03X150/70	RM	0.124	416	629	46.9	5100	7713
011832	03X185/95	RM	0.0991	480	678	52.9	6383	8810
011280	04X1.5/1.5	RE	12.1	24	180	13.9	81	249
011281	04X2.5/2.5	RE	7.41	32	192	14.1	128	313
011282	04X4/4	RE	4.61	42	216	14.9	200	412
011226	04X6/6	RE	3.08	53	240	16.9	297	522
011224	04X10/10	RE	1.83	73	276	18.9	504	746
011181	04X16/16	RE	1.15	97	324	21.9	796	1119
011167	04X25/16	RM	0.727	135	384	28.1	1142	1583
011183	04X35/16	RM	0.524	165	420	31.1	1526	2002
011227	04X50/25	RM	0.387	201	480	36.2	2203	2700
011168	04X70/35	RM	0.268	255	528	41.5	3082	3838
011184	04X95/50	RM	0.193	314	624	45	4208	5181
011274	04X120/70	RM	0.153	364	696	50.1	5388	6500
011275	04X150/70	RM	0.124	416	756	52.9	6540	7950
011276	04X185/95	RM	0.0991	480	780	60.5	8159	10130
011277	04X240/120	RM	0.0754	565	792	64.9	10546	13190
011279	07X1.5/2.5	RE	12.1	24	216	16.9	133	500
011283	07X2.5/2.5	RE	7.41	32	228	17.9	200	600
011284	12X1.5/2.5	RE	12.1	24	264	19.9	205	700
011285	12X2.5/4	RE	7.41	32	288	21.9	334	900
014465	14X2.5/6	RE	7.41	32	256	21.3	403	646
013621	19X1.5/2.5	RE	12.1	24	375	24.8	310	913
013622	24X1.5/2.5	RE	12.1	24	464	28.6	383	1113
013820	19X1.5/4	RE	12.1	24	629	25.4	328	829
013821	24X1.5/6	RE	12.1			29.2	412	1093

RI	Conductor resistance
Ibl	Ampacity in air (30 °C)
Rbv	Bending radius, fixed installation
Ø	outer diameter approx.
Cu	Copper weight (GER)
G	net weight per 1000