

NHXCH FE180/E90



Primena: Za ugradnju u suvim i vlažnim prostorijama, takođe za direktno postavljanje u betonu, ali nije za direktno poleganje u zemlju i nije za korišćenje u vodi. Kabl ima poboljšanu otpornost na plamen i može da se koristi u javnim zgradama sa visokim zahtevima bezbednosti. Kablovi su bez halogena, niske gustine dima i vatrootporni prema VDE 0472 deo 814 (180 min. = IEC331). Štaviše kabl je prošao test od 90 min. funkcije u požaru prema DIN 4102 deo 12 (E 90) za sve tzv. standardne-instalacione sisteme (regale i plafone) i pogodan je za ugradnju u požarne alarmne sisteme, signosna osvetljenja i druge hitne sisteme snabdevanja električnom strujom prema VDE 0108. Poseban test sertifikat o integritetu kola izdaje "Zvanični Zavod za ispitivanje materijala za građevinsku industriju". Za izračunavanje električnih sistema sa integritetom kola mora se uzeti u obzir da električna otpornost bakarnih provodnika na 1000° C je oko 4,5 puta veća nego na 20° C, a trenutni kapacitet mora da bude smanjen.

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 flame retardant and may be used in public buildings with high safety requirements. Cables are halogen free, low smoke density and are fire resistant according to VDE 0472 part 814 (180 min., = IEC 331) 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) 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 "Amtlichen Materialprüfanstalt für das Bauwesen". 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.

Materijal provodnika:	bakar
Konstrukcija provodnika:	klasa 1, od 25 mm ² klasa 2
Izolacija:	bezhalogeno jedinjenje HI1
Koncentrični provodnik:	Cu
Materijal plašta:	bezhalogeno jedinjenje HM1
Boja spoljnog plašta:	narandžasta
Otpornost na plamen:	VDE 0482-266-2-4/IEC 60332-3-24 (Kat. C)
Gustina dima:	DIN EN 61034/IEC 61034
Bez halogena:	DIN EN 50267/IEC 60754
Vatrootpornost:	FE 180 (IEC 60331)
Fukcija u požaru:	E 90
Maks. temperatura u provodniku:	90 °C
Maksimalna temperatura tokom rada:	-5 - +70 °C
Radius savijanja tokom rada:	12 x DA
Nominalni naponski nivo U ₀ :	600 V
Nominalni naponski nivo U:	1 kV
Maksimalni dozvoljeni naponski nivo prilikom rada na trofaznoj struji:	1,2 kV
Ispitni naponski nivo:	4 kV
Obeležavanje žila:	boje po VDE 0293 (HD308)

Conductor material:	bare copper
Conductor construction:	class 1, from 25 mm ² class 2
Insulation:	FRNC compound HI1
Concentric conductor:	Cu
Sheathing material:	FRNC-compound HM1
Color of 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 resistance:	FE 180 (IEC 60331)
Circuit integrity:	E 90
Max. temperature at conductor:	90 °C
Maximum operating temperature, fixed:	-5 - +70 °C
Bending radius, fixed installation:	12 x DA
Nominal voltage U ₀ :	600 V
Nominal voltage U:	1 kV
Maximum permitted operating voltage in 3-phase systems:	1,2 kV
Test voltage:	4 kV
Core identification:	colors acc. VDE 0293 (HD308)

NHXCH FE180/E90

Naziv kabla	Presek	Boja		OP	SOS	RSP	Da	CU	T
Cable name	Cross section	Colnarandz. / orange		Ω/km	A	mm	mm	kg/km	kg/km
NHXCH E90	02X2,5/2,5	narandz. / orange	RE	7,41	32	204	16,8	87	370
NHXCH E90	03X1,5/1,5	narandz. / orange	RE	12,1	24	204	16,8	66	348
NHXCH E90	03X2,5/2,5	narandz. / orange	RE	7,41	32	216	17,9	104	410
NHXCH E90	03X4/4	narandz. / orange	RE	4,61	42	228	18,9	161	500
NHXCH E90	03X6/6	narandz. / orange	RE	3,08	53	240	20,9	240	614
NHXCH E90	03X10/10	narandz. / orange	RE	1,83	73	264	24,1	408	830
NHXCH E90	03X16/16	narandz. / orange		1,15	97	312	27,3	643	1073
NHXCH E90	03X25/16	narandz. / orange	RM	0,727	135	360	30,7	902	1450
NHXCH E90	03X35/16	narandz. / orange	RM	0,524	165	396	33,3	1190	1798
NHXCH E90	03X50/25	narandz. / orange	RM	0,387	201	432	37,4	1723	2394
NHXCH E90	03X70/35	narandz. / orange	RM	0,268	255	492	42,5	2410	2796
NHXCH E90	03X95/50	narandz. / orange	RM	0,193	314	564	47,8	3296	4434
NHXCH E90	03X120/70	narandz. / orange	RM	0,153	364	612	51,4	4236	5534
NHXCH E90	03X150/70	narandz. / orange	RM	0,124	416	660	55,7	5100	6546
NHXCH E90	03X185/95	narandz. / orange	RM	0,0991	480	744	61,7	6383	8303
NHXCH E90	03X240/120	narandz. / orange	RM	0,0754	565	816	67,9	8242	10605
NHXCH E90	04X1,5/1,5	narandz. / orange	RE	12,1	24	216	17,9	81	398
NHXCH E90	04X2,5/2,5	narandz. / orange	RE	7,41	32	228	19,2	128	470
NHXCH E90	04X4/4	narandz. / orange	RE	4,61	42	240	20,3	200	578
NHXCH E90	04X6/6	narandz. / orange	RE	3,08	53	252	22,5	297	726
NHXCH E90	04X10/10	narandz. / orange	RE	1,83	73	288	26,4	504	983
NHXCH E90	04X16/16	narandz. / orange		1,15	97	324	29,3	796	1370
NHXCH E90	04X25/16	narandz. / orange	RM	0,727	135	372	33,1	1142	1904
NHXCH E90	04X35/16	narandz. / orange	RM	0,524	165	420	35,9	1526	2427
NHXCH E90	04X50/25	narandz. / orange	RM	0,387	201	468	41,1	2203	3177
NHXCH E90	04X70/35	narandz. / orange	RM	0,268	255	528	46,2	3082	4378
NHXCH E90	04X95/50	narandz. / orange	RM	0,193	314	600	51,9	4208	5803
NHXCH E90	04X120/70	narandz. / orange	RM	0,153	364	648	55,9	5388	7230
NHXCH E90	04X150/70	narandz. / orange	RM	0,124	416	720	60,9	6540	8707
NHXCH E90	04X185/95	narandz. / orange	RM	0,0991	480	804	67,5	8159	10894
NHXCH E90	04X240/120	narandz. / orange	RM	0,0754	565	876	74,4	10546	13933
NHXCH E90	05X2,5/2,5	narandz. / orange	RE	7,41	32			152	480
NHXCH E90	05X4/4	narandz. / orange	RE	4,61	42	246	20,5	238	600
NHXCH E90	07X1,5/2,5	narandz. / orange	RE	12,1	24	264	20,9	133	498
NHXCH E90	07X2,5/2,5	narandz. / orange	RE	7,41	32	282	22,1	200	680
NHXCH E90	10X1,5/2,5	narandz. / orange	RE	7,41			23,1	176	520
NHXCH E90	12X1,5/2,5	narandz. / orange	RE	12,1	24	366	26,2	205	718
NHXCH E90	12X2,5/4	narandz. / orange	RE	7,41	32	384	28,4	334	1050
NHXCH E90	12X4/6	narandz. / orange	RE	4,61	42			528	1100
NHXCH E90	24X1,5/6	narandz. / orange	RE	12,1	24	444	37,6	413	1305
NHXCH E90	24X2,5/10	narandz. / orange	RE	7,41	32	468	40,9	696	1400
NHXCH E90	30X1,5/6	narandz. / orange	RE	12,1	24	468	39,8	499	1519
NHXCH E90	30X2,5/10	narandz. / orange	RE	7,41	32	498	42,9	840	1550

Objašnjenje oznaka

- OP** Otpornost provodnika
- SOS** Strujna opteretljivost (spolja)
- RSP** Radijus savijanja tokom poleganja
- Da** Spoljni dijametar
- Cu** Težina bakra u kablju
- T** Ukupna težina kabla

Labels explanation

- OP** Conductor resistance
- SOS** Ampacity (in air)
- RSP** Bending radius, fixed installation
- Da** Outer diameter
- Cu** Copper weight
- T** Total weight

Indentifikacija žila		NHXCH FE180/ E90			
Core identification					
žile	Boje				
cores	Colors				
1	cr/bc				
2	pl/bl	br/bw			
3	br/bw	cr/bc	si/gr		
4	pl/bl	br/bw	cr/bc	si/gr	
5	pl/bl	br/bw	cr/bc	si/gr	cr/bc
5+	cr/bc	+ obeležavanje brojevima + numbering			

Objašnjenje boja

- cr** crna
- pl** plava
- br** braon
- si** siva

Color explanation

- bc** black
- bl** blue
- bw** brown
- gr** gray

