



DIN VDE 0266 Fire-Resistant Power Cables

NHXCH

Fire-Resistant Cable with Concentric Conductor

0.6/1 kV halogen-free E30–E90 fire-resistant power cable with concentric Cu conductor



0.6/1 kV

FE180 / E30–E90

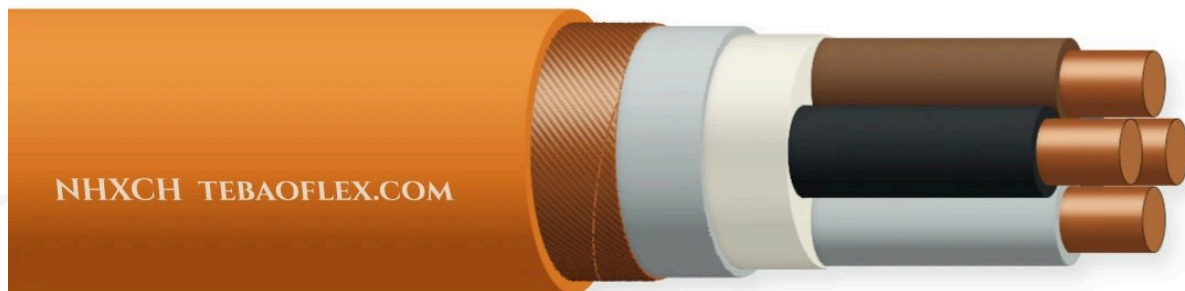
Concentric Cu

Application

NHXCH (FE180/E30 and FE180/E90) is a DIN VDE 0266 0.6/1 kV halogen-free fire-safety power cable featuring a concentric copper wire and counter-helix tape conductor (Ceander/screen) for enhanced earth fault protection, EMC shielding and 30–90 minute circuit int

Typical uses: Hospitals & surgical centres, Metro & rail infrastructure, High-rise firefighting risers, Airports & data centres, Power generation plants

Construction



Cross-section, not to scale

1	Bare copper phase conductor	IEC 60228
2	Mica-glass fire barrier	IEC 60331-21
3	Cross-linked LSZH insulation	DIN VDE 0266
4	Inner halogen-free bedding	DIN VDE 0266
5	Concentric copper conductor	DIN VDE 0266
6	Outer LSZH safety sheath	DIN VDE 0266

Technical data

Typical values

Nominal voltage U ₀ /U	0.6/1 kV	Routine AC test voltage	4.0 kV (50 Hz, 5 min)
Max. operating voltage AC	1.2 kV	Concentric screen conductance	Matches rated geometric cross-section per IEC 60228
Continuous conductor temp.	+90 °C max.	Short-circuit conductor temp.	+250 °C (5 s)
Fixed operating temp.	-30 °C to +90 °C	Min. bending radius (fixed)	12 × cable OD
Max. pulling tension	50 N/mm ² on phase conductors	Impact & radial protection	Concentric Cu screen provides automatic fault disconnection on penetration
Insulation integrity	FE180 (180 min @ ≥750 °C per IEC 60331-21)	System circuit integrity	E30 / E90 per DIN 4102-12
Flame propagation	IEC 60332-3-24 Cat. C / EN 60332-1-2	Corrosivity & smoke	IEC 60754-2 (pH ≥4.3) & IEC 61034-2 (≥60 % light transmission)
Standards	DIN VDE 0266		

Sizes

14 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Designation	Cores × mm ²	Cross-section	Outer Ø ≈ mm	Copper kg/km	Total weight ≈ kg/km	Min. bend R fixed mm
NHXCH standard series 14 sizes						
☐ NHXCH 2×1.5/1.5 RE FE180/E90	2×1.5/1.5	1.5 mm ²	12.5	52	220	150
☐ NHXCH 2×2.5/2.5 RE FE180/E90	2×2.5/2.5	2.5 mm ²	13.5	80	265	162
☐ NHXCH 3×1.5/1.5 RE FE180/E90	3×1.5/1.5	1.5 mm ²	13.0	66	245	156
☐ NHXCH 3×2.5/2.5 RE FE180/E90	3×2.5/2.5	2.5 mm ²	14.0	104	305	168
☐ NHXCH 4×1.5/1.5 RE FE180/E90	4×1.5/1.5	1.5 mm ²	13.8	81	280	166
☐ NHXCH 4×2.5/2.5 RE FE180/E90	4×2.5/2.5	2.5 mm ²	15.0	128	355	180
☐ NHXCH 4×4/4 RE FE180/E90	4×4/4	4.0 mm ²	16.5	200	460	198
☐ NHXCH 4×6/6 RE FE180/E90	4×6/6	6.0 mm ²	18.0	296	590	216
☐ NHXCH 4×10/10 RE FE180/E90	4×10/10	10 mm ²	20.2	488	825	242
☐ NHXCH 4×16/16 RM FE180/E90	4×16/16	16 mm ²	23.2	776	1,180	278
☐ NHXCH 4×25/16 RM FE180/E90	4×25/16	25 mm ²	27.2	1,136	1,690	326
☐ NHXCH 4×35/16 RM FE180/E90	4×35/16	35 mm ²	30.0	1,520	2,140	360
☐ NHXCH 4×50/25 RM FE180/E90	4×50/25	50 mm ²	34.5	2,200	2,920	414
☐ NHXCH 4×70/35 RM FE180/E90	4×70/35	70 mm ²	39.0	3,080	3,980	468

– Nominal outer diameters and weights are subject to manufacturing tolerances per DIN VDE 0266 / DIN 4102-12.

Electrical data

14 sizes

Cores × mm ²	Max. DC R @ 20 °C Ω/km	Current in air A	Current in duct/tray A
2×1.5/1.5	12.100	24	21
2×2.5/2.5	7.410	32	28
3×1.5/1.5	12.100	21	18
3×2.5/2.5	7.410	28	24
4×1.5/1.5	12.100	21	18
4×2.5/2.5	7.410	28	24
4×4/4	4.610	37	32
4×6/6	3.080	48	41

Cores × mm ²	Max. DC R @ 20 °C Ω/km	Current in air A	Current in duct/tray A
4×10/10	1.830	66	57
4×16/16	1.150	88	76
4×25/16	0.727	117	101
4×35/16	0.524	144	124
4×50/25	0.387	175	150
4×70/35	0.268	222	191

– Current ratings apply at +30 °C ambient in free air and +25 °C in enclosed tray/conduit.

Standards and approvals

- ✓ DIN VDE 0266
- ✓ DIN 4102-12 E30–E90
- ✓ IEC 60331-21 FE180
- ✓ IEC 60332-3-24 Cat. C
- ✓ IEC 60754-2 & IEC 61034-2

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/nhxch-fire-resistant-cable-with-concentric-conductor



Typical values for this cable type, based on DIN VDE 0266 / DIN 4102-12. Values for your order are confirmed in the quotation. Subject to change without notice.
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