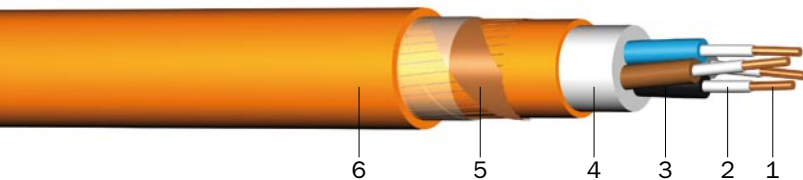


# (N)HXCH FE180/E90

Halogen-free energy cable, with insulation integrity FE180 and circuit integrity E90, screened

## DESIGN



- 1 | Copper conductor, round solid (RE), resp. round stranded (RM)
- 2 | Primary core insulation (silicone rubber)
- 3 | Secondary core insulation (silicone rubber)
- 4 | Inner covering (halogen-free polymer compounds)
- 5 | Concentric screen (bare copper wires) and counter helix (copper tape) and halogen-free plastic tape
- 6 | Sheath (halogen-free polymer compound, orange)

## APPLICATION

These cables are intended for the stationary distribution of electrical energy in dry or damp premises and for fixed installations in air or concrete. Suitable for hotels, hospitals, underground railways, airports etc. to protect people and technical building equipment in the event of fire if circuit integrity is required (circuit integrity is only maintained if these cables are installed with specified supporting elements). Not allowed for installations underground or in water. These cables are not UV-protected.

## TECHNICAL DATA



**Standard:**  
adapted to DIN VDE 0266



**Rated voltage:**  
0.6/1 kV



**Test voltage:**  
4 kV/50 Hz



**Temperature range:**  
 laying temperature: min. -5 °C  
 operating temperature: -50 °C up to +90 °C  
 conductor temperature: max. +90 °C  
 short-circuit temperature: max. +250 °C/5 s



**Bending radius (min.):**  
12 x Ø of cable



**Core identification:**  
HD 308 S2



**Fire properties:**  
 flame retardant:  
 EN 60332-1-2  
 halogen-free, non-corrosive combustion gases:  
 EN 50267-2-2  
 reduced flame propagation:  
 EN 60332-3-24  
 low smoke emission:  
 EN 61034-2  
 insulation integrity FE 180:  
 IEC 60331-21, DIN VDE 0472-814  
 circuit integrity E90:  
 DIN 4102-12



**Certificate:**  
EZÚ Czech Republic, VDE Germany

Number of cores x nominal cross section/cross section of screen (mm <sup>2</sup> )	Max. conductor resistance (Ω/km)	Current rating in the air <sup>2)</sup> (A)	Outer diameter (mm) ca.	Total weight (kg/km) ca.	Standard lengths/packing (m)
<b>(N)HXCH FE180/E90</b>					
2 x 1.5 RE/1.5	12.100	29	16.0	385	1,000 D
3 x 1.5 RE/1.5	12.100	24	16.5	430	1,000 D
4 x 1.5 RE/1.5	12.100	24	17.4	500	1,000 D
5 x 1.5 RE/1.5	12.100	24	18.4	560	1,000 D
7 x 1.5 RE/2.5	12.100	14	19.4	675	1,000 D
10 x 1.5 RE/2.5	12.100	13	22.7	875	500 D

## (N)HXCH FE180/E90

Number of cores x nominal cross section/cross section of screen (mm <sup>2</sup> )	Max. conductor resistance (Ω/km)	Current rating in the air <sup>1)</sup> (A)	Outer diameter (mm) ca.	Total weight (kg/km) ca.	Standard lengths/packing (m)
<b>(N)HXCH FE180/E90</b>					
12 x 1.5 RE/2.5	12.100	12	23.3	975	500 D
14 x 1.5 RE/2.5	12.100	11	24.1	1,080	500 D
19 x 1.5 RE/4	12.100	11	26.9	1,370	500 D
24 x 1.5 RE/6	12.100	10	30.7	1,710	500 D
30 x 1.5 RE/6	12.100	9	32.1	2,010	500 D
40 x 1.5 RE/10	12.100	8	35.5	2,590	500 D
2 x 2.5 RE/2.5	7.410	38	16.8	450	1,000 D
3 x 2.5 RE/2.5	7.410	32	17.4	515	1,000 D
4 x 2.5 RE/2.5	7.410	32	18.4	595	1,000 D
5 x 2.5 RE/2.5	7.410	32	19.4	675	1,000 D
7 x 2.5 RE/2.5	7.410	20	20.6	815	1,000 D
10 x 2.5 RE/4	7.410	18	24.9	1,090	500 D
12 x 2.5 RE/4	7.410	17	25.5	1,220	500 D
14 x 2.5 RE/6	7.410	16	26.5	1,350	500 D
19 x 2.5 RE/6	7.410	16	28.9	1,730	500 D
24 x 2.5 RE/10	7.410	13	33.6	2,190	500 D
30 x 2.5 RE/10	7.410	12	35.6	2,630	500 D
40 x 2.5 RE/10	7.410	11	38.8	3,310	500 D
2 x 4 RE/4	4.610	51	18.3	545	1,000 D
3 x 4 RE/4	4.610	42	19.0	625	1,000 D
4 x 4 RE/4	4.610	42	20.1	725	1,000 D
5 x 4 RE/4	4.610	42	21.3	825	1,000 D
7 x 4 RE/4	4.610	28	22.6	1,020	500 D
10 x 4 RE/6	4.610	25	27.0	1,370	500 D
12 x 4 RE/6	4.610	23	27.7	1,550	500 D
14 x 4 RE/6	4.610	22	28.8	1,740	500 D
19 x 4 RE/10	4.610	22	31.2	2,210	500 D
2 x 6 RE/6	3.080	64	19.3	645	500 D
3 x 6 RE/6	3.080	53	20.1	750	500 D
4 x 6 RE/6	3.080	53	21.3	875	500 D
5 x 6 RE/6	3.080	53	22.7	1,020	500 D
2 x 10 RE/10	1.830	86	21.3	835	500 D
3 x 10 RE/10	1.830	74	22.2	990	500 D
4 x 10 RE/10	1.830	74	23.6	1,170	500 D
5 x 10 RE/10	1.830	74	25.2	1,370	500 D
2 x 16 RM/16	1.150	110	23.5	1,120	500 D
3 x 16 RM/16	1.150	98	24.5	1,330	500 D
4 x 16 RM/16	1.150	98	26.3	1,580	500 D
5 x 16 RM/16	1.150	98	28.4	1,870	500 D
3 x 25 RM/16	0.727	133	29.6	1,730	500 D

**(N)HXCH FE180/E90**

Number of cores x nominal cross section/cross section of screen (mm <sup>2</sup> )	Max. conductor resistance (Ω/km)	Current rating in the air <sup>1)</sup> (A)	Outer diameter (mm) ca.	Total weight (kg/km) ca.	Standard lengths/packing (m)
<b>(N)HXCH FE180/E90</b>					
4 x 25 RM/16	0.727	133	21.1	2,080	500 D
5 x 25 RM/16	0.727	133	35.1	2,470	500 D
3 x 35 RM/16	0.524	162	31.7	2,040	500 D
4 x 35 RM/16	0.524	162	34.4	2,470	500 D
5 x 35 RM/16	0.524	162	38.0	3,000	500 D
3 x 50 RM/25	0.387	197	35.2	2,680	500 D
4 x 50 RM/25	0.387	197	39.6	3,360	500 D
5 x 50 RM/25	0.387	197	43.1	4,000	500 D
3 x 70 RM/35	0.268	250	41.4	3,680	500 D
4 x 70 RM/35	0.268	250	44.9	4,450	500 D
5 x 70 RM/35	0.268	250	49.7	5,410	500 D
3 x 95 RM/50	0.193	308	46.6	4,830	500 D
4 x 95 RM/50	0.193	308	51.1	5,910	500 D
5 x 95 RM/50	0.193	308	56.1	7,110	500 D
3 x 120 RM/70	0.153	359	50.3	6,010	500 D
4 x 120 RM/70	0.153	359	55.2	7,320	500 D
5 x 120 RM/70	0.153	359	60.6	8,800	500 D
3 x 150 RM/70	0.124	412	55.0	7,160	300 D
4 x 150 RM/70	0.124	412	60.0	8,720	300 D
5 x 150 RM/70	0.124	412	66.8	10,650	300 D

1) basic rated current acc. to DIN VDE 0266  
Subject to technical changes.