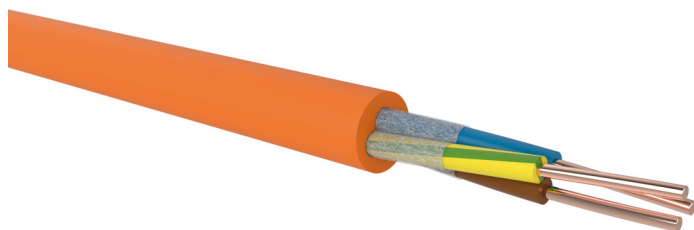


## NHXH FE180/E90

SI/FRNC energy cable with insulation integrity FE180 and circuit integrity E90

### DESIGN



- 1 | Copper conductor, round solid (RE) resp. round stranded (RM)
- 2 | Core insulation (silicone rubber)
- 3 | Inner covering (halogen-free fixation tape)
- 4 | Sheath (halogen-free polymer compound orange)

### APPLICATION

Suitable 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). The cable is not UV-resistant.

### TECHNICAL DATA



**Standard:**  
adapted to DIN VDE 0266



**Rated voltage:**  
0.6/1 kV (U<sub>0</sub>/U)



**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.):**  
15 x Ø of cable (single core)  
12 x Ø of cable (multi core)



**Core identification:**  
HD 308 S2



**Fire properties:**  
EN 60332-1-2: flame retardant  
EN 60754-1 and 2: halogen-free; non-corrosive combustion gases  
EN 60332-3-22 and 24: reduced flame propagation  
EN 61034-2: low smoke emission  
IEC 60331-21, DIN VDE 0472-814: insulation integrity FE 180  
DIN 4102-12: circuit integrity E90



**Certificate:**  
VDE Germany

Number of cores x nominal cross-section (mm <sup>2</sup> )	Max. conductor resistance (Ω/km)	Current rating in the air (A)	Outer diameter (mm) appr.	Total weight (kg/km) appr.	Standard lengths/packing (m)
<b>NHXH FE180/E90</b>					
2 x 1.5 RE	12.1	28	13.0	185	1000 D
3 x 1.5 RE	12.1	24	13.5	210	1000 D
4 x 1.5 RE	12.1	24	14.4	240	1000 D
5 x 1.5 RE	12.1	16	15.5	280	500 D, 1000 D
6 x 1.5 RE	12.1	15.5	16.5	330	1000 D
7 x 1.5 RE	12.1	15.5	17.0	345	1000 D
8 x 1.5 RE	12.1	13.5	18.9	390	1000 D
10 x 1.5 RE	12.1	13	20.1	465	500 D
12 x 1.5 RE	12.1	12.5	20.7	520	500 D
14 x 1.5 RE	12.1	12	21.5	655	500 D
16 x 1.5 RE	12.1	11.5	22.6	725	500 D

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Number of cores x nominal cross-section (mm <sup>2</sup> )	Max. conductor resistance (Ω/km)	Current rating in the air (A)	Outer diameter (mm) appr.	Total weight (kg/km) appr.	Standard lengths/packing (m)
<b>NHXH FE180/E90</b>					
19 x 1.5 RE	12.1	10.5	23.6	810	500 D
24 x 1.5 RE	12.1	9.5	27.4	895	500 D
30 x 1.5 RE	12.1	9	28.9	1180	500 D
40 x 1.5 RE	12.1	8	32.7	1320	500 D
2 x 2.5 RE	7.41	37	13.8	225	500 D
3 x 2.5 RE	7.41	32	14.4	255	1000 D
4 x 2.5 RE	7.41	32	15.4	300	1000 D
5 x 2.5 RE	7.41	22	16.5	350	1000 D
7 x 2.5 RE	7.41	20.5	17.7	445	1000 D
8 x 2.5 RE	7.41	18	20.3	495	500 D
10 x 2.5 RE	7.41	17.5	21.7	645	500 D
12 x 2.5 RE	7.41	16.5	22.3	745	500 D
14 x 2.5 RE	7.41	16	23.3	750	500 D
16 x 2.5 RE	7.41	15	24.5	925	500 D
19 x 2.5 RE	7.41	14	25.6	1040	500 D
24 x 2.5 RE	7.41	12.5	30.0	1175	500 D
30 x 2.5 RE	7.41	12	32.0	1390	500 D
40 x 2.5 RE	7.41	11	35.9	1735	500 D
2 x 4 RE	4.61	49	14.7	270	1000 D
3 x 4 RE	4.61	42	15.4	315	1000 D
4 x 4 RE	4.61	42	16.5	375	1000 D
5 x 4 RE	4.61	28	17.8	465	1000 D
7 x 4 RE	4.61	27	19.1	555	500 D
10 x 4 RE	4.61	23	23.6	755	500 D
12 x 4 RE	4.61	22	24.3	925	500 D
14 x 4 RE	4.61	21	25.4	1005	500 D
19 x 4 RE	4.61	18.5	28.2	1345	500 D
2 x 6 RE	3.08	62	15.7	335	500 D
3 x 6 RE	3.08	53	16.5	400	500 D
4 x 6 RE	3.08	53	17.7	480	500 D
5 x 6 RE	3.08	36	19.2	560	500 D
7 x 6 RE	43.08	34	20.3	725	1000 D
2 x 10 RE	1.83	85	17.3	455	500 D
2 x 10 RM	1.83	74	17.8	555	500 D
3 x 10 RE	1.83	74	18.2	550	500 D
3 x 10 RM	1.83	74	18.8	770	500 D
4 x 10 RE	1.83	74	19.6	690	500 D
4 x 10 RM	1.83	74	20.3	790	500 D
5 x 10 RE	1.83	49	21.3	825	500 D
5 x 10 RM	1.83	49	22.0	920	500 D

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<b>NHXH FE180/E90</b>					
7 x 10 RE	1.83	48	23.0	1050	500 D
1 x 16 RE	1.15	131	11.6	280	500 D, 1000 D
1 x 16 RM	1.15	131	11.9	300	500 D, 1000 D
2 x 16 RE	1.15	113	19.1	685	500 D
2 x 16 RM	1.15	113	19.6	695	500 D
3 x 16 RE	1.15	98	20.1	790	500 D
3 x 16 RM	1.15	98	20.8	850	500 D
4 x 16 RE	1.15	98	21.8	1010	500 D
4 x 16 RM	1.15	98	22.5	1075	500 D
5 x 16 RE	1.15	65	23.7	1165	500 D
5 x 16 RM	1.15	65	24.5	1245	500 D
7 x 16 RM	1.15	58	26.5	1580	500 D
1 x 25 RM	0.727	177	13.6	390	500 D, 1000 D
2 x 25 RM	0.727	152	22.9	1080	500 D
3 x 25 RE	0.727	133	24.3	1290	500 D
3 x 25 + 16 RM/RM	0.727/1.15	133	26.5	1435	500 D, 1000 D
4 x 25 RM	0.727	133	26.5	1515	500 D
5 x 25 RM	0.727	90	29.1	1780	500 D
1 x 35 RM	0.524	217	15.0	495	500 D, 1000 D
2 x 35 RM	0.524	186	25.4	1320	500 D
3 x 35 RM	0.524	162	27.2	1615	500 D
3 x 35 + 16 RM/RM	0.524/1.15	162	29.7	1215	500 D
3 x 35 + 25 RM/RM	0.524/0.727	162	29.7	1815	500 D
4 x 35 RM	0.524	162	29.7	1990	500 D
5 x 35 RM	0.524	109	33.3	2480	500 D
1 x 50 RM	0.387	265	16.5	645	500 D, 1000 D
3 x 50 RM	0.387	197	30.9	2035	500 D
3 x 50 + 25 RM/RM	0.387/0.727	197	34.3	2470	500 D
3 x 50 + 35 RM/RM	0.387/0.524	197	34.3	2535	500 D
4 x 50 RM	0.387	197	34.3	2680	500 D
5 x 50 RM	0.387	133	37.8	3320	500 D
1 x 70 RM	0.268	336	18.4	870	500 D, 1000 D
3 x 70 RM	0.268	250	34.9	2910	500 D
3 x 70 + 35 RM/RM	0.268/0.524	250	38.4	3305	500 D
3 x 70 + 50 RM/RM	0.268/0.387	250	38.4	3425	500 D
4 x 70 RM	0.268	250	38.4	3615	500 D
5 x 70 RM	0.268	180	42.9	4580	500 D
1 x 95 RM	0.193	415	20.5	1150	500 D, 1000 D
3 x 95 RM	0.193	415	39.9	3910	500 D
3 x 95 + 50 RM/RM	0.193/0.387	308	44.2	4490	500 D

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Number of cores x nominal cross-section (mm <sup>2</sup> )	Max. conductor resistance (Ω/km)	Current rating in the air (A)	Outer diameter (mm) appr.	Total weight (kg/km) appr.	Standard lengths/packing (m)
<b>NHXH FE180/E90</b>					
4 x 95 RM	0.193	308	45.0	4935	500 D
5 x 95 RM	0.193	215	49.0	6150	500 D
1 x 120 RM	0.153	485	22.2	1380	500 D, 1000 D
3 x 120 RM	0.153	359	43.7	4825	500 D
3 x 120 + 70 RM/ RM	0.153/0.268	359	48.1	5560	500 D
4 x 120 RM	0.153	359	48.1	6150	500 D
5 x 120 RM	0.153	247	53.3	7525	500 D
1 x 150 RM	0.124	557	24.0	1700	500 D, 1000 D
3 x 150 + 70 RM/ RM	0.124/0.268	412	52.3	6600	300 D
3 x 150 RM	0.124	412	47.4	5830	300 D
4 x 150 RM	0.124	412	49.0	7500	300 D
5 x 150 RM	0.124	279	58.4	9250	300 D
1 x 185 RM	0.0991	646	26.4	2165	500 D, 1000 D
3 x 185 RM	0.0991	475	52.9	7460	300 D
3 x 185 + 95 RM/ RM	0.0991/0.193	475	58.9	8520	300 D
4 x 185 RM	0.0991	475	58.9	9370	500 D
5 x 185 RM	0.0991	321	65.3	11365	300 D
1 x 240 RM	0.0754	774	29.4	2765	500 D, 1000 D
3 x 240 RM	0.754	564	59.8	9530	300 D
3 x 240 + 120 RM/ RM	0.0754/0.153	564	66.0	10870	300 D
4 x 240 RM	0.0754	564	66.0	12025	300 D
5 x 240 RM	0.0754	380	73.8	14750	300 D

Technical changes reserved. All figures are therefore without guarantee.

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