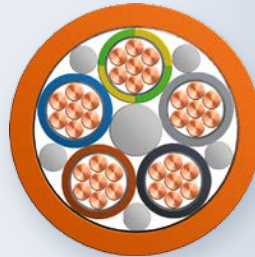


BETAflam® Safety cables

DIN VDE 0266



Advantages

- Very high safety standards
- System circuit integrity acc. to DIN 4102 part 12
- DIN approved with LEONI BETAfixss® cable support system
- Halogen-free
- In compliance with RoHS directive

BETAflam® NHXH FE180 / E90

Applications

Power cable 0,6/1 kV for fixed installation in cable systems with improved fire performance and system circuit integrity acc. to DIN 4102 part 12, e.g. for:

- water pumps for fire fighting
- smoke exhaust systems etc.
- recommended in areas where people gather and for protection of valuables

Construction

■ Conductors	Bare annealed copper
■ Flame barrier	MICA tape
■ Insulation	BETAflam® cross-linked
■ Inner covering	Tape or filler
■ Sheath	BETAflam® copolymer
■ Core identification	acc. to VDE 0266 resp. HD 308 S2
■ Sheath colour	Orange

Electrical characteristics

Rated voltage	U ₀ /U 0.6 / 1 kV
Test voltage	4 kV with 50 Hz

Thermal characteristics

Operation temperature	-30 °C up to +90 °C
Laying temperature	-5 °C up to +70 °C
Short circuit temperature (temperature peak < 5 s)	up to +250 °C

Bending radius

cable design	single core	multiple core
during laying	> 15 × outer Ø	>12 × outer Ø
fixed	> 8 × outer Ø	>7 × outer Ø

Laying conditions

- Fixed installation indoor, in air or concrete
- Laying in earth or water only in water-proof dry tubes
- Outdoor laying only when protected from direct sunlight and other external impacts

Standards / Material properties

- Halogen-free: IEC 60754-1, EN 50267-2-1, VDE 0482-267-2-1
- No corrosive gases: IEC 60754-2, EN 50267-2-2, VDE 0482-267-2-2
- No toxic gases: NF X 70-100
- Low smoke density: IEC 61034-1 and -2, EN 61034-1 and -2, VDE 0482-1034-1 and -2
- Flame retardant: IEC 60332-1, EN 60332-1, VDE 0482-332-1
- No flame propagation: IEC 60332-3-10 and -3-24, EN 60332-3-10, -24, VDE 0482-332-3-24
- Circuit integrity FE180: IEC 60331-11 and -21, VDE 0472-814
- Circuit integrity with shock: EN 50200 PH 90 (up to Ø 20 mm) and EN 50362 P 90 (>20 mm up to Ø 45 mm)
- System circuit integrity: DIN 4102-12 E90, depending on laying system
- Water extinguishing systems: VdS ≥ 2.5 mm²

Cable type	Construction	Core function	Outer Ø	Weight	Cu factor	Order no.	
						Germany	Switzerland
NHXX-J FE180 / E90	1 × 10 RE	PE	9.5	178	96	LKI 8002 1700 0000	
NHXX-J FE180 / E90	1 × 16 RM	PE	10.9	271	154	LKI 8002 1800 0000	
NHXX-J FE180 / E90	1 × 25 RM	PE	12.5	360	240	LKI 2187 8300 0000	218783
NHXX-J FE180 / E90	1 × 35 RM	PE	13.6	478	336	LKI 8002 1900 0000	305400
NHXX-J FE180 / E90	1 × 50 RM	PE	15.2	630	480	LKI 8002 2000 0000	
NHXX-J FE180 / E90	1 × 70 RM	PE	17.0	841	672	LKI 8002 2100 0000	305403
NHXX-J FE180 / E90	1 × 95 RM	PE	19.4	1128	912	LKI 8002 2200 0000	305401
NHXX-J FE180 / E90	1 × 120 RM	PE	21.2	1389	1152	LKI 8002 2300 0000	
NHXX-J FE180 / E90	1 × 150 RM	PE	23.2	1681	1440	LKI 8002 2400 0000	306264
NHXX-J FE180 / E90	1 × 185 RM	PE	25.6	2070	1776	LKI 8002 2500 0000	303473
NHXX-J FE180 / E90	1 × 240 RM	PE	28.6	2678	2304	LKI 2255 5100 0000	225551
NHXX-J FE180 / E90	1 × 300 RM	PE	32.9	3478	2880	LKI 8002 2600 0000	304198
NHXX-J FE180 / E90	1 × 400 RM	PE	36.6	4381	3840	LKI 8002 2700 0000	304931
NHXX-J FE180 / E90	1 × 500 RM	PE	40.6	5500	4800	LKI 8002 2800 0000	
NHXX-O FE180 / E90	1 × 10 RE	L	9.5	178	96	LKI 8002 7400 0000	
NHXX-O FE180 / E90	1 × 16 RM	L	10.9	271	154	LKI 3006 6700 0000	300667
NHXX-O FE180 / E90	1 × 25 RM	L	12.5	360	240	LKI 2255 3900 0000	225539
NHXX-O FE180 / E90	1 × 35 RM	L	13.6	478	336	LKI 2255 4000 0000	225540
NHXX-O FE180 / E90	1 × 50 RM	L	15.2	630	480	LKI 2255 1300 0000	225513
NHXX-O FE180 / E90	1 × 70 RM	L	17.0	841	672	LKI 2255 1600 0000	225516
NHXX-O FE180 / E90	1 × 95 RM	L	19.4	1128	912	LKI 2255 1800 0000	225518
NHXX-O FE180 / E90	1 × 120 RM	L	21.2	1389	1152	LKI 2255 2000 0000	225520
NHXX-O FE180 / E90	1 × 150 RM	L	23.2	1681	1440	LKI 2255 2100 0000	225521
NHXX-O FE180 / E90	1 × 185 RM	L	25.6	2070	1776	LKI 2255 2200 0000	225522
NHXX-O FE180 / E90	1 × 240 RM	L	28.6	2678	2304	LKI 2255 2300 0000	225523
NHXX-O FE180 / E90	1 × 300 RM	L	32.9	3478	2880	LKI 2255 5300 0000	225553
NHXX-O FE180 / E90	1 × 400 RM	L	36.6	4381	3840	LKI 8002 7500 0000	304930
NHXX-O FE180 / E90	1 × 500 RM	L	40.6	5500	4800	LKI 8002 7600 0000	
NHXX-O FE180 / E90	2 × 1.5 RE	LN	12.4	200	29	LKI 3012 1400 0000	301214
NHXX-O FE180 / E90	2 × 2.5 RE	LN	13.8	231	48	LKI 8002 7700 0000	307085
NHXX-O FE180 / E90	2 × 4 RE	LN	14.2	273	77	LKI 8002 7800 0000	305397
NHXX-O FE180 / E90	2 × 6 RE	LN	15.1	345	115	LKI 3026 2800 0000	302628
NHXX-O FE180 / E90	2 × 10 RE	LN	17.4	443	192	LKI 8002 7900 0000	
NHXX-O FE180 / E90	2 × 16 RM	LN	20.2	654	307	LKI 8002 8000 0000	
NHXX-O FE180 / E90	2 × 25 RM	LN	23.4	909	480	LKI 8002 8100 0000	
NHXX-J FE180 / E90	3 × 1.5 RE	LNPE	13.1	214	43	LKI 2254 8200 0000	225482
NHXX-J FE180 / E90	3 × 2.5 RE	LNPE	13.9	258	72	LKI 2254 9000 0000	225490
NHXX-J FE180 / E90	3 × 4 RE	LNPE	15.0	319	115	LKI 2254 9500 0000	225495
NHXX-J FE180 / E90	3 × 6 RE	LNPE	15.9	389	173	LKI 2254 9900 0000	225499
NHXX-J FE180 / E90	3 × 10 RE	LNPE	17.4	529	288	LKI 2255 0200 0000	225502
NHXX-J FE180 / E90	3 × 16 RM	LNPE	21.5	829	461	LKI 2255 0500 0000	225505
NHXX-J FE180 / E90	3 × 25 RM	LNPE	24.9	1184	720	LKI 2255 0800 0000	225508
NHXX-J FE180 / E90	3 × 35 RM	LNPE	27.3	1447	1008	LKI 2255 4100 0000	225541
NHXX-J FE180 / E90	3 × 50 RM	LNPE	30.9	2020	1440	LKI 3021 5600 0000	302156
NHXX-J FE180 / E90	3 × 70 RM	LNPE	34.8	2693	2016	LKI 3021 5700 0000	302157
NHXX-J FE180 / E90	3 × 95 RM	LNPE	39.9	3623	2736	LKI 3021 5800 0000	302158
NHXX-J FE180 / E90	3 × 120 RM	LNPE	43.8	4521	3456	LKI 8002 3800 0000	
NHXX-J FE180 / E90	3 × 150 RM	LNPE	48.5	5525	4320	LKI 8002 3900 0000	
NHXX-J FE180 / E90	3 × 185 RM	LNPE	53.4	6799	5328	LKI 8002 4000 0000	
NHXX-J FE180 / E90	3 × 240 RM	LNPE	59.9	8137	6912	LKI 8002 4100 0000	

-J = with gn/ye conductor ●
 -O = without gn/ye conductor
 RE = round solid, class 1
 RM = round stranded, class 2

L = colour phase conductor br/bk/gr ●●●
 N = colour neutral conductor bl ●
 NR = colour phase conductors bk●/numbered
 PE = colour earth conductor gn/ye ●

Further designs upon request

Cable type	Construction	Core function	Outer Ø	Weight	Cu factor
	n × mm ²				
NHXXH-J FE180/E90	3 × 35 + 1 × 16 RM	3LPE	29.0	1804	1162
NHXXH-J FE180/E90	3 × 50 + 1 × 25 RM	3LPE	33.3	2387	1680
NHXXH-J FE180/E90	3 × 70 + 1 × 35 RM	3LPE	37.2	3193	2352
NHXXH-J FE180/E90	3 × 95 + 1 × 50 RM	3LPE	44.0	4831	3216
NHXXH-J FE180/E90	3 × 120 + 1 × 70 RM	3LPE	47.0	5903	4128
NHXXH-J FE180/E90	3 × 150 + 1 × 70 RM	3LPE	51.0	7064	4992
NHXXH-J FE180/E90	3 × 185 + 1 × 95 RM	3LPE	57.0	8600	6240
NHXXH-J FE180/E90	3 × 240 + 1 × 120 RM	3LPE	67.4	10266	8064
NHXXH-J FE180/E90	3 × 300 + 1 × 150 RM	3LPE	77.0	13545	10080
NHXXH-J FE180/E90	4 × 1.5 RE	3LPE	14.2	267	58
NHXXH-J FE180/E90	4 × 2.5 RE	3LPE	15.2	323	96
NHXXH-J FE180/E90	4 × 4 RE	3LPE	16.4	404	154
NHXXH-J FE180/E90	4 × 6 RE	3LPE	17.5	497	230
NHXXH-J FE180/E90	4 × 10 RE	3LPE	19.1	683	384
NHXXH-J FE180/E90	4 × 16 RM	3LPE	23.6	1009	614
NHXXH-J FE180/E90	4 × 25 RM	3LPE	27.4	1536	960
NHXXH-J FE180/E90	4 × 35 RM	3LPE	30.4	1966	1344
NHXXH-J FE180/E90	4 × 50 RM	3LPE	34.2	2589	1920
NHXXH-J FE180/E90	4 × 70 RM	3LPE	38.6	3512	2688
NHXXH-J FE180/E90	4 × 95 RM	3LPE	44.6	4684	3648
NHXXH-J FE180/E90	4 × 120 RM	3LPE	48.9	5734	4608
NHXXH-J FE180/E90	4 × 150 RM	3LPE	53.6	6974	5760
NHXXH-J FE180/E90	4 × 185 RM	3LPE	59.4	8986	7104
NHXXH-J FE180/E90	4 × 240 RM	3LPE	67.6	11385	9216
NHXXH-J FE180/E90	5 × 1.5 RE	3LNPE	15.4	325	72
NHXXH-J FE180/E90	5 × 2.5 RE	3LNPE	16.4	393	120
NHXXH-J FE180/E90	5 × 4 RE	3LNPE	17.9	498	192
NHXXH-J FE180/E90	5 × 6 RE	3LNPE	19.1	623	288
NHXXH-J FE180/E90	5 × 10 RE	3LNPE	20.8	852	480
NHXXH-J FE180/E90	5 × 16 RM	3LNPE	26.0	1263	768
NHXXH-J FE180/E90	5 × 25 RM	3LNPE	30.6	1823	1200
NHXXH-J FE180/E90	5 × 35 RM	3LNPE	33.5	2467	1680
NHXXH-J FE180/E90	5 × 50 RM	3LNPE	38.4	3226	2400
NHXXH-J FE180/E90	5 × 70 RM	3LNPE	43.2	4273	3360
NHXXH-J FE180/E90	5 × 95 RM	3LNPE	50.0	6184	4560
NHXXH-J FE180/E90	7 × 1.5 RE	NRPE	16.4	402	101
NHXXH-J FE180/E90	7 × 2.5 RE	NRPE	17.6	497	168
NHXXH-J FE180/E90	7 × 4 RE	NRPE	19.1	633	269
NHXXH-J FE180/E90	10 × 1.5 RE	NRPE	22.5	664	144
NHXXH-J FE180/E90	10 × 2.5 RE	NRPE	24.1	798	240
NHXXH-J FE180/E90	12 × 1.5 RE	NRPE	21.2	640	173
NHXXH-J FE180/E90	12 × 2.5 RE	NRPE	22.9	801	288
NHXXH-J FE180/E90	24 × 1.5 RE	NRPE	28.6	1193	346
NHXXH-J FE180/E90	24 × 2.5 RE	NRPE	33.2	1576	576
NHXXH-J FE180/E90	30 × 1.5 RE	NRPE	32.6	1398	432

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 N = colour neutral conductor bl ●
 NR = colour phase conductors bk ● / numbered
 PE = colour earth conductor gn/ye ●

Order no.	
Germany	Switzerland
LKI 3007 4100 0000	300741
LKI 3007 4200 0000	300742
LKI 3007 4300 0000	300743
LKI 8002 4300 0000	
LKI 8002 4400 0000	
LKI 8002 4500 0000	
LKI 8002 4600 0000	
LKI 2255 5200 0000	225552
LKI 8002 4700 0000	
LKI 2254 8500 0000	225485
LKI 2254 9100 0000	225491
LKI 2254 9600 0000	225496
LKI 2255 0000 0000	225500
LKI 2255 0300 0000	225503
LKI 2255 0600 0000	225506
LKI 2255 0900 0000	225509
LKI 2255 1100 0000	225511
LKI 2255 1400 0000	225514
LKI 2255 1700 0000	225517
LKI 2255 1900 0000	225519
LKI 2255 4800 0000	225548
LKI 2255 4900 0000	225549
LKI 3021 5900 0000	302159
LKI 3021 0200 0000	302102
LKI 2254 8600 0000	225486
LKI 2254 9200 0000	225492
LKI 2254 9700 0000	225497
LKI 2255 0100 0000	225501
LKI 2255 0400 0000	225504
LKI 2255 0700 0000	225507
LKI 2255 1000 0000	225510
LKI 2255 1200 0000	225512
LKI 2255 4300 0000	225543
LKI 8002 5000 0000	
LKI 8002 5100 0000	
LKI 2254 8700 0000	225487
LKI 2254 9300 0000	225493
LKI 2254 9800 0000	225498
LKI 2254 8700 0000	
LKI 2254 9300 0000	
LKI 2254 9800 0000	225489
LKI 2254 9400 0000	225494
LKI 2255 3500 0000	225535
LKI 8002 6500 0000	
LKI 8002 6700 0000	

Further designs upon request