



BFXI FE180/E90

Halogen-free power and signal cable with improved properties under fire, and 90-minute circuit integrity maintenance, rated voltage 0,6/1 kV

APPLICATION

BFXI cables are suitable for fixed installation in dry and damp environment, on or under plaster, on cable trays, same as in walls and concrete. Not intended for direct laying in ground or water. For outdoor application can be laid in tubes, but in that case should be taken all precautionary measures necessary to prevent water penetration into the tubes. Suitable for electric installations with marked fire-fighting and function preserving requirements, for alarm systems, fire sensors, evacuation elevators and other supply systems in an emergency. Appropriate for application in all situations where people and material goods need to be protected in case of fire. Recommended for public buildings frequented by a lot of people, and for buildings of high material value, for industrial complexes, electric power plants, transformer stations, municipal facilities, hotels, shopping malls, hospitals, schools, airports, underground railways and similar. Important - BFXI cables should not be laid on common trays, but on fire-resistant trays which retain their geometry in case of fire. Keeping BFXI cables in the same position in case of fire, enables additional protection of cable conductivity, by means of the mineral layer discharged around the cable at increased temperature. Expected lifetime 50 years, provided proper installation, load and ambient temperature

CORE IDENTIFICATION

According to HD 308 S2

Insulation Color:

Single-core: ● Green/Yellow OR ● Black

2-core: ● Brown ● Blue

3-core (a): ● Green/Yellow ● Brown ● Blue

3-core (b): ● Black ● Brown ● Grey

4-core (a): ● Green/Yellow ● Brown ● Black ● Grey

4-core (b): ● Blue ● Brown ● Black ● Grey

5-core: ● Green/Yellow ● Blue ● Brown ● Black ● Grey

Outer Sheath Colour:

● Orange

Other colours available on request

STANDARD

HD 604 S1, part 5D

TECHNICAL CHARACTERISTICS

Test voltage: 4 kV AC, 50 Hz, 5 min. per core

Rated voltage: 0,6/1 kV

Min. bending radius: single-core- 15D;

multicore- 12D, D – overall diameter

Min. laying temperature: -5°C

Max. cond. operating temp.: 90°C

Max. short-circuit temperature: 250°C

Circuit integrity: EN 60331-21 (3h, 750°C), IEC

60331-1, IEC 60331-2, IEC 60331-11, IEC 60331-25

Vertical flame spread: EN 60332-10-2, EN 60332-3-24 (Cat. C)

Flame propagation: EN 60332-1-2

Smoke density: EN 61034-2

Corrosive and acid gases emission: EN 60754-1 HCl content < 0,5%

EN 60754-2 pH ≥ 4,3, conductivity ≤ 10 μSmm-1

CONSTRUCTION

Conductors: Cu, class 1 or 2 according to EN 60228

Primary insulation: mica tape

Insulation: Cross-linked halogen-free polymer

Bedding: Extruded halogen-free compound or lapped glass fibres

Outer sheath: HFFR compound UV resistant

CERTIFICATION



International
Electrotechnical
Commission

NOMINAL CROSS-SECTION	CONDUCTOR SHAPE	MAX. RESISTANCE AT 20°C	CURRENT CAPACITY IN AIR	OUTER DIAM. (APPROX.)	METAL WEIGHT	CABLE WEIGHT (APPROX.)
mm ²		Ω/km	A	mm	kg/km	kg/km
1x10	RE	1,83	77	8,6	96	169
1x16	RE/RM	1,15	102	9,5	153,6	238
1x25	RM	0,727	138	11	240	347
1x35	RM	0,524	170	12,1	336	457
1x50	RM	0,387	207	13,6	480	624
1x70	RM	0,268	263	15,2	672	841
1x95	RM	0,193	325	16,8	912	1103
1x120	RM	0,153	380	18,4	1152	1370
1x150	RM	0,124	437	20,2	1440	1695
1x185	RM	0,0991	507	22,1	1776	2071
1x240	RM	0,0754	604	24,5	2304	2644
1x300	RM	0,0601	697	26,7	2880	3264
1x400	RM	0,047	811	30,4	3840	4315
2x1,5	RE	12,1	26	11,7	28,8	196
2x2,5	RE	7,41	34	12,5	48	237
2x4	RE	4,61	44	13,5	76,8	295
2x6	RE	3,08	56	14,5	115,2	363
2x10	RE	1,83	74	16,4	192	492
2x16	RE/RM	1,15	98	18	307,2	672
2x25	RM	0,727	133	21	480	970
2x35	RM	0,524	162	23,2	672	1257
2x50	RM	0,387	197	26,8	960	1738
3x1,5	RE	12,1	24	12,2	43,2	216
3x2,5	RE	7,41	32	13	72	267
3x4	RE	4,61	42	14	115,2	339
3x6	RE	3,08	53	15,2	172,8	427
3x10	RE	1,83	74	16,9	288	593
3x16	RE/RM	1,15	98	18,9	460,8	828
3x25	RM	0,727	133	22,2	720	1213
3x35	RM	0,524	162	24,5	1008	1592
3x50	RM	0,387	197	28	1440	2182
3x70	RM	0,268	250	31,8	2016	2959
3x95	RM	0,193	308	36,1	2736	3933
3x120	RM	0,153	359	39,7	3456	4885
3x150	RM	0,124	412	43,8	4320	6047
3x185	RM	0,0991	475	48,7	5328	7477
3x240	RM	0,0754	564	54	6912	9506
3x300	RM	0,0601	649	59,6	8640	11781
3x25+16	RM	0,727/1,150	133	22,6	873,6	1165
3x35+16	RM	0,524/1,150	162	24,6	1161,6	1511
3x50+25	RM	0,387/0,727	197	28,4	1680	2114
3x70+35	RM	0,268/0,524	250	32,8	2352	2929
3x70+35	RM	0,268/0,524	250	32,8	2352,0	2929

NOMINAL CROSS-SECTION	CONDUCTOR SHAPE	MAX. RESISTANCE AT 20°C	CURRENT CAPACITY IN AIR	OUTER DIAM. (APPROX.)	METAL WEIGHT	CABLE WEIGHT (APPROX.)
mm ²		Ω/km	A	mm	kg/km	kg/km
3x95+50	RM	0,193/0,387	308	26,8	3216	3920
3x120+70	RM	0,153/0,268	359	40,9	4128	4957
3x150+70	RM	0,124/0,268	412	45	4992	6023
3x185+95	RM	0,0991/0,193	475	49,8	6240	7454
3x240+120	RM	0,0754/0,153	564	55,7	8064	9562
3x300+150	RM	0,0601/0,124	649	61,4	10080	11888
4x1,5	RE	12,1	24	12,9	57,6	253
4x2,5	RE	7,41	32	13,9	96	316
4x4	RE	4,61	42	15,1	153,6	407
4x6	RE	3,08	53	16,3	230,4	517
4x10	RE	1,83	74	18,3	384	728
4x16	RE/RM	1,15	98	20,5	614,4	1029
4x25	RM	0,727	133	24,1	960	1515
4x35	RM	0,524	162	26,8	1344	1998
4x50	RM	0,387	197	30,6	1920	2746
4x70	RM	0,268	250	35,3	2688	3776
4x95	RM	0,193	308	39,5	3648	4967
4x120	RM	0,153	359	44	4608	6230
4x150	RM	0,124	412	48,6	5760	7712
4x185	RM	0,0991	475	53,5	7104	9458
4x240	RM	0,0754	564	59,9	9216	12116
4x300	RM	0,0601	649	65,6	11520	14994
5x1,5	RE	12,1	24	13,8	72	288
5x2,5	RE	7,41	32	14,9	120	365
5x4	RE	4,61	42	16,2	192	474
5x6	RE	3,08	53	17,6	288	608
5x10	RE	1,83	74	19,8	480	863
5x16	RE/RM	1,15	98	22,3	768	1230
5x25	RM	0,727	133	26,4	1200	1821
5x35	RM	0,524	162	29,3	1680	2411
5x50	RM	0,387	197	34	2400	3364
5x70	RM	0,268	250	38,7	3360	4575
5x95	RM	0,193	308	43,4	4560	6030
5x120	RM	0,153	359	48,3	5760	7567
5x150	RM	0,124	412	53,4	7200	9376
5x185	RM	0,0991	475	59,3	8880	11577
5x240	RM	0,0754	564	66	11520	14751
5x300	RM	0,0601	649	72,4	14400	18200