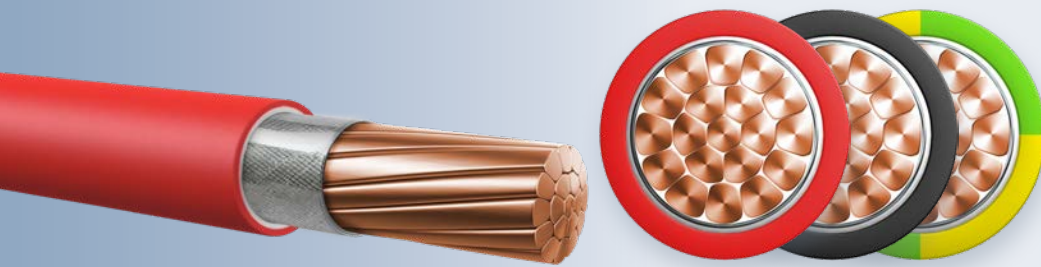


FR-MI 90 SCSI / Single-core single insulated

BETAflam® Fire resistant power cables 0.6/1 kV, circuit integrity acc. to BS 6387, LSOH



Advantages

- High safety standard: BS 6387 C.W.Z, fully tested and certified by LPCB
- Fire tested by Electrosuisse
- Low Smoke Zero Halogen (LSOH)
- Operating temperature 90 °C
- In compliance with RoHS and REACH
- Mineral filled fire resistant materials
- Space saving installation due to small outer diameter
- Long term ageing stability

Application

Single cores for use in cable wiring systems with improved fire performance and circuit integrity. For normal temperature conditions.

Typical applications:

- Fire alarm circuits
- Fire detection circuits
- Emergency signal / control circuits
- Fire fighting systems (water pumps)
- Smoke exhaust systems etc.
- Especially recommended in areas where human and animal life as well as valuable property are exposed to high risk in case of fire

Construction

- | | |
|-----------------------|---|
| ■ Conductor | Bare annealed copper, acc. IEC 60228 class 2 |
| ■ Flame barrier | MICA tape |
| ■ Insulation | BETAflam® mineral copolymer, cross-linked |
| ■ Core identification | Red, black or green/yellow (further colours upon request) |

Electrical characteristics

Rated voltage	U_0/U 0.6/1 kV
Test voltage	4 kV / 50 Hz

Thermal characteristics

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

Bending radius

during laying	> 10 × outer Ø
fixed installed	> 6 × outer Ø

Laying conditions

- For electrical installation in control cabinets, switchboards or other closed cable wiring systems

Standards / Material properties / Fire performance

- Halogen free: IEC 60754-1; BS EN 60754-1
- No corrosive gases: IEC 60754-2; BS EN 60754-2
- No toxic gases: NFX 70-100; NES 02-713; NFC 20-454
- Low smoke density: IEC 61034-1 & -2; BS EN 61034-1 & -2
- Flame retardant: IEC 60332-1; BS EN 60332-1
- No flame spread on bunched cables: IEC 60332-3-22, -23, -24 (Cat. A, B, C); BS EN 60332-22, -23, -24 (Cat. A, B, C)
- Limiting Oxygen Index (LOI): ASTM D2863 ≥38
- Circuit integrity FE180: IEC 60331-21
- Circuit integrity: BS 6387 C.W.Z. as certified BS 7846 Category F2 (Amendment 1 & 2, Annex L.1 / cable Ø > 20 mm)

Cross section nom.	Min. no. of conductor strands	Conductor Ø nom.	Insulation thickness nom.	Cable Ø nom.	Weight approx.	Current rating ¹		AC voltage drop		Fire load	Order no.
						1 phase ²	3 phase ²	1 phase ³ system	3 phase ³ system		
mm ²		mm	mm	mm	kg/km	A		mV / Am		kWh / m	acc. to colour
1.5	7	1.6	0.7	3.7	27	33	23	25.05	21.6	0.04	● BK ● RD ● GNYE
2.5	7	2.1	0.7	4.0	37	43	30	15.47	13.3	0.04	301790 301789 301791
4	7	2.6	0.8	4.7	55	58	41	9.74	8.34	0.05	301793 301792 301794
6	7	3.0	0.8	5.2	75	73	52	6.61	5.63	0.06	301796 301795 301797
10	7	4.0	1.1	6.7	121	103	76	4.05	3.42	0.11	301799 301798 301800
16	7	4.8	1.1	7.5	181	135	101	2.66	2.21	0.12	301802 301801 301803
25	7	6.1	1.2	9.1	276	182	137	1.79	1.46	0.17	301806 301805 301807
35	7	7.2	1.2	10.2	369	224	170	1.37	1.1	0.19	301809 301808 301810
50	19	8.4	1.4	11.9	502	274	210	1.09	0.85	0.26	301812 301811 301813
70	19	10.1	1.4	13.6	699	347	268	0.84	0.64	0.31	301815 301814 301816
95	19	12.0	1.6	15.8	959	431	336	0.68	0.5	0.41	301818 301817 301819
120	37	13.7	1.6	17.5	1208	505	395	0.6	0.43	0.46	301821 301820 *
150	37	15.2	1.8	19.5	1483	581	458	0.54	0.38	0.57	301823 301822 *
185	37	17.0	2.0	21.7	1845	674	533	0.49	0.33	0.71	301825 301824 *
240	37	19.5	2.2	24.5	2418	807	641	0.44	0.29	0.88	301827 301826 *
300	61	22.7	2.5	28.3	3109	949	757	0.41	0.26	1.14	301829 301828 *
400	61	25.7	2.7	31.7	3948	1115	887	0.38	0.24	1.38	301831 301830 *
500	61	28.8	2.9	35.3	4955	1305	1033	0.36	0.22	1.66	301833 301832 *
630	91	32.8	3.1	39.7	6384	1536	1203	0.34	0.21	2.01	301835 301834 *
											301837 301836 *

¹ AC circuit, max. conductor temperature 90 °C

² Free in air, spaced

³ Open tray, touching

* upon request