



Mineral-Insulated Metal-Sheathed (MICC) Cables

BS EN 60702-1

Mineral-Insulated Metal-Sheathed Power Cable

500 V / 750 V compressed MgO mineral-insulated seamless copper-sheathed power cable



500 V / 750 V

BS EN 60702-1

Inorganic MgO + Cu

Application

BS EN 60702-1 (MICC / BTTZ) is a true inorganic fire-survival power cable constructed from solid high-conductivity copper rods embedded in compressed magnesium oxide (MgO) mineral powder inside a seamless drawn copper tube (melting point 1083 °C, MgO 2800 °C),

Typical uses: High-rise & super-tall towers, Underground metro & rail, Oil, gas & ATEX zones, Nuclear & power stations, Heritage & public buildings

Construction



Cross-section, not to scale

1	Solid copper conductor rods	BS EN 60702-1
2	Compacted MgO mineral	BS EN 60702-1
3	Seamless copper sheath	BS EN 60702-1
4	LSZH outer covering	BS EN 60702-1

Technical data

Typical values

Rated voltage	500 V (Light Duty) / 750 V (Heavy Duty)	Routine AC test voltage	1.5 kV (500 V grade) / 2.5 kV (750 V grade) for 1 min
Insulation resistance @ 20 °C	≥1000 MΩ·km (dry sealed termination)	Bare copper sheath continuous temp.	Up to +250 °C (short-term up to +1000 °C)
LSZH covered continuous temp.	-40 °C to +105 °C	Copper / MgO melting points	Cu: 1083 °C · MgO: 2800 °C
Min. permanent bend radius	6 × cable outer diameter	Radial crushing & impact	Withstands flattening to 50 % OD without short-circuit
Fire, water & shock	BS 6387 Cat. C, W, Z & BS 8491 Cat. F120 (120 min)	Reaction to fire (bare MICC)	Euroclass A1 non-combustible
Water & gas ingress	100 % impermeable seamless copper tube	Standards	BS EN 60702-1 / IEC 60702-1

Sizes

15 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Designation	Cores × mm ²	Cross-section	Outer Ø ≈ mm	Copper kg/km	Total weight ≈ kg/km	Min. bend R fixed mm
BS EN 60702-1 standard series 15 sizes						
☐ 2L1.5 (500 V Light Duty)	2×1.5	1.5 mm ²	7.2	65	118	43
☐ 2L2.5 (500 V Light Duty)	2×2.5	2.5 mm ²	8.1	95	160	49
☐ 3L1.5 (500 V Light Duty)	3×1.5	1.5 mm ²	7.6	82	140	46
☐ 4L1.5 (500 V Light Duty)	4×1.5	1.5 mm ²	8.3	102	170	50
☐ 4L2.5 (500 V Light Duty)	4×2.5	2.5 mm ²	9.4	152	235	56
☐ 2H2.5 (750 V Heavy Duty)	2×2.5	2.5 mm ²	10.1	130	225	61
☐ 4H4 (750 V Heavy Duty)	4×4	4.0 mm ²	12.6	265	415	76
☐ 4H6 (750 V Heavy Duty)	4×6	6.0 mm ²	13.8	365	535	83
☐ 4H10 (750 V Heavy Duty)	4×10	10 mm ²	15.8	560	780	95
☐ 4H16 (750 V Heavy Duty)	4×16	16 mm ²	18.0	830	1,110	108
☐ 4H25 (750 V Heavy Duty)	4×25	25 mm ²	21.0	1,240	1,620	126
☐ 1H70 (750 V Heavy Duty)	1×70	70 mm ²	14.8	860	1,070	89
☐ 1H120 (750 V Heavy Duty)	1×120	120 mm ²	18.2	1,410	1,710	109
☐ 1H185 (750 V Heavy Duty)	1×185	185 mm ²	21.6	2,120	2,510	130
☐ 1H240 (750 V Heavy Duty)	1×240	240 mm ²	24.4	2,720	3,190	146

– Nominal outer diameters and weights are subject to manufacturing tolerances per BS EN 60702-1 / IEC 60702-1.

Electrical data

15 sizes

Cores × mm ²	Max. DC R @ 20 °C Ω/km	Current in air A	Current in duct/tray A
2×1.5	12.100	27	23
2×2.5	7.410	36	31
3×1.5	12.100	23	20
4×1.5	12.100	23	20
4×2.5	7.410	31	27
2×2.5	7.410	38	33
4×4	4.610	42	36
4×6	3.080	54	46
4×10	1.830	73	63

Cores × mm ²	Max. DC R @ 20 °C Ω/km	Current in air A	Current in duct/tray A
4×16	1.150	97	83
4×25	0.727	128	110
1×70	0.268	285	245
1×120	0.153	395	340
1×185	0.099	515	443
1×240	0.075	610	525

– Current ratings apply at +30 °C ambient in free air and +25 °C in enclosed tray/conduit.

Standards and approvals

✓ BS EN 60702-1 / IEC 60702-1

✓ BS 6387 CWZ

✓ BS 8491 Cat. F120

✓ BS 5839-1 Enhanced & BS 8519 Cat. 3

✓ Euroclass A1 (bare Cu)

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/mineral-insulated-metal-sheathed-power-cable



Typical values for this cable type, based on BS EN 60702-1 / IEC 60702-1. Values for your order are confirmed in the quotation. Subject to change without notice.
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