



High-temperature wire

Type MG Multi-Conductor

600 V +450 °C multicore cable with 27 % Ni-Cu cores, phlogopite mica & E-glass braid



UL 5107 / CSA Type MG

600 V AC

+450 °C Mica-Glass

Application

Type MG multi-conductor +450 °C high-temperature cable constructed with 27 % nickel-plated copper conductors (ASTM B355 Class 27), individual phlogopite mica-tape and glass-braid core insulation, and an overall treated E-glass jacket for 600 V AC.

Typical uses: Heat-Treatment & Annealing Furnaces, Steelworks, Foundries & Coke Ovens, Glass Melting & Tempering Lines, Plastic Injection & Extruder Heaters, Cement Kilns & Petrochemical Heaters

Construction



Cross-section, not to scale

- 1 27 % Nickel-plated copper conductor
- 2 Per-core phlogopite mica tapes
- 3 Per-core E-glass fibre braid
- 4 Inorganic glass-yarn core bedding
- 5 Overall high-temperature E-glass jacket

Technical data

Typical values

Rated voltage	600 V AC rms	AC dielectric test voltage	2000 V AC for 1 min (core-to-core)
Spark test voltage	6000 V AC on individual insulated cores	Conductor DC resistance factor	~1.35 × bare copper (27 % Ni cladding)
Continuous operating temp.	-60 °C to +450 °C	Short-term peak temperature	+550 °C (mica/glass inorganic matrix)
Thermal binder volatilisation	Organic binder cures cleanly above +350 °C	Conductor stranding	ASTM B355 Class 27 / IEC 60228 Class 5
Min. bending radius (fixed)	6 × overall cable diameter	Min. bending radius (installation)	10 × overall cable diameter
Flame test	UL VW-1 / CSA FT1 / IEC 60332-1-2	Fire circuit integrity	Inorganic mica + glass does not melt or drip
Asbestos-free verification	100 % asbestos-free & halogen-free	Standards	UL 758 Style 5107 / 5335 & CSA Type MG

Sizes

19 standard constructions

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

Order designation	Cross-section / size	Conductor build	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard Type MG Multi-Conductor configurations 19 sizes							
☐ Type-MG 2×1	2×1	Class 5 Sn-Cu (1 mm ²)	1.40	7.90	19.2	92.8	47
☐ Type-MG 3G1	3G1	Class 5 Sn-Cu (1 mm ²)	1.40	8.30	28.8	110.1	50
☐ Type-MG 4G1	4G1	Class 5 Sn-Cu (1 mm ²)	1.40	8.90	38.4	131.9	53
☐ Type-MG 2×1.5	2×1.5	Class 5 Sn-Cu (1.5 mm ²)	1.40	8.50	28.8	114.1	51
☐ Type-MG 3G1.5	3G1.5	Class 5 Sn-Cu (1.5 mm ²)	1.40	8.90	43.2	136.7	53
☐ Type-MG 4G1.5	4G1.5	Class 5 Sn-Cu (1.5 mm ²)	1.40	9.70	57.6	168.6	58
☐ Type-MG 5G1.5	5G1.5	Class 5 Sn-Cu (1.5 mm ²)	1.40	10.40	72.0	199.6	62
☐ Type-MG 7G1.5	7G1.5	Class 5 Sn-Cu (1.5 mm ²)	1.40	11.30	100.8	251.5	68
☐ Type-MG 12G1.5	12G1.5	Class 5 Sn-Cu (1.5 mm ²)	1.40	14.60	172.8	424.3	88
☐ Type-MG 2×2.5	2×2.5	Class 5 Sn-Cu (2.5 mm ²)	1.40	10.20	48.0	170.8	61
☐ Type-MG 3G2.5	3G2.5	Class 5 Sn-Cu (2.5 mm ²)	1.40	10.80	72.0	209.6	65
☐ Type-MG 4G2.5	4G2.5	Class 5 Sn-Cu (2.5 mm ²)	1.40	11.80	96.0	260.3	71
☐ Type-MG 5G2.5	5G2.5	Class 5 Sn-Cu (2.5 mm ²)	1.40	12.80	120.0	313.3	77
☐ Type-MG 7G2.5	7G2.5	Class 5 Sn-Cu (2.5 mm ²)	1.40	13.90	168.0	396.0	83
☐ Type-MG 3G4	3G4	Class 5 Sn-Cu (4 mm ²)	1.80	12.80	115.2	308.5	77
☐ Type-MG 4G4	4G4	Class 5 Sn-Cu (4 mm ²)	1.80	13.90	153.6	381.6	83
☐ Type-MG 4G6	4G6	Class 5 Sn-Cu (6 mm ²)	1.80	15.40	230.4	510.2	92
☐ Type-MG 4G10	4G10	Class 5 Sn-Cu (10 mm ²)	1.80	18.60	384.0	792.2	112
☐ Type-MG 4G16	4G16	Class 5 Sn-Cu (16 mm ²)	1.80	21.30	614.4	1,149.8	128

– Outer diameters and weights are nominal engineering values for Type MG Multi-Conductor subject to standard manufacturing tolerances per UL 758 Style 5107 / 5335 & CSA C22.2 No. 210 Type MG.

Electrical & rating data

19 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or kV)	Derated / AC rating	Dielectric test V AC rms
2×1 mm ²	20.00	15.0	12.0	2,000
3G1 mm ²	20.00	15.0	12.0	2,000
4G1 mm ²	20.00	15.0	12.0	2,000
2×1.5 mm ²	13.70	18.0	14.0	2,000

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or kV)	Derated / AC rating	Dielectric test V AC rms
3G1.5 mm ²	13.70	18.0	14.0	2,000
4G1.5 mm ²	13.70	18.0	14.0	2,000
5G1.5 mm ²	13.70	18.0	14.0	2,000
7G1.5 mm ²	13.70	18.0	14.0	2,000
12G1.5 mm ²	13.70	18.0	14.0	2,000
2×2.5 mm ²	8.21	26.0	20.0	2,000
3G2.5 mm ²	8.21	26.0	20.0	2,000
4G2.5 mm ²	8.21	26.0	20.0	2,000
5G2.5 mm ²	8.21	26.0	20.0	2,000
7G2.5 mm ²	8.21	26.0	20.0	2,000
3G4 mm ²	5.09	34.0	27.0	2,000
4G4 mm ²	5.09	34.0	27.0	2,000
4G6 mm ²	3.39	44.0	34.0	2,000
4G10 mm ²	1.95	61.0	48.0	2,000
4G16 mm ²	1.24	82.0	64.0	2,000

– Electrical resistance at +20 °C and dielectric withstand voltages verified per UL 758 Style 5107 / 5335 & CSA C22.2 No. 210 Type MG.

Standards and approvals

- ✓ UL 758 Style 5107 / 5335 & CSA C22.2 No. 210 Type MG
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC & Halogen/Asbestos Compliance Verified

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

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Email

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Web

tebaoflex.com/cables/450c-mica-glass-multicore-high-temperature-cable



Typical values for this cable type, based on UL 758 Style 5107 / 5335 & CSA C22.2 No. 210 Type MG. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.