



British Coal MGM 109 / MGM 118 & PN-G-90006 Underground Mining Power Cables

MGM 109 Type 1012 / 1013 / 1014

Single-Armoured LV Feeder Cable

British Coal MGM 109 / BS 6708 640/1100 V Type 1012 (2C), 1013 (3C) & 1014 (4C) SWA



MGM 109 Type 1012 / 1013 / 1014

640/1100 V · 2C, 3C & 4C

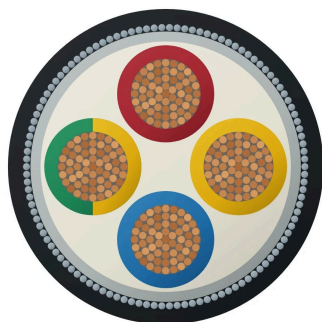
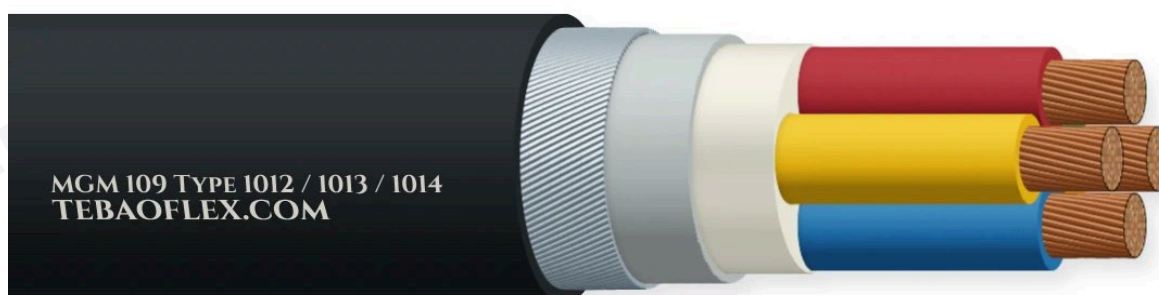
Single Wire Armour (≥ 75 % Earth)

Application

MGM 109 Type 1012 / 1013 / 1014 Single-Armoured LV Feeder Cable is manufactured to British Coal Specification MGM 109 and BS 6708 for 640/1100 V fixed horizontal roadway distribution, lighting transformers, and auxiliary pump/fan circuits in underground

Typical uses: Underground coal mine horizontal roadways, Gate-end box & lighting transformer feeders, Auxiliary ventilation & dewatering pumps, Surface coal handling & washery plants

Construction



Cross-section, not to scale

1	Stranded tinned copper conductor	MGM 109 / BS EN 60228
2	Type GP4 EPR rubber insulation (90 °C)	MGM 109 / BS 7655-1.2
3	Extruded PVC inner bedding	MGM 109
4	Single Wire Armour (SWA ≥ 75 %	MGM 109 / BS 6708
5	Mining flame-retardant PVC outer sheath	MGM 109 / BS 7655

Technical data

Typical values

Rated voltage U ₀ /U	640/1100 V AC	AC dielectric test voltage	3,500 V AC for 5 minutes
Max. conductor operating temp.	+90 °C continuous · +250 °C short-circuit	Metallic armour conductance	≥ 75 % of the conductance of one phase
Operating temperature range	-15 °C to +90 °C (fixed installation)	Minimum installation temp.	0 °C
Min. bending radius	8 × overall diameter (D) for SWA mining	Impact & crush protection	Single layer galvanized steel round wire
Flame retardance	BS EN 60332-1-2 & British Coal underground	Oil, water & chemical resistance	Resistant to mine water, hydraulic oil, and
Standards	British Coal Specification MGM 109 (Types		

Sizes

6 standard constructions

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

Order designation	Cores × Size	Main cross-section	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard MGM 109 Type 1012 / 1013 / 1014 configurations 6 sizes						
☐ MGM 109 Type 1012 2C × 4.0 mm ² SWA	2 × 4.0 mm ² (Type 1012)	4.0 mm ²	16.4	77	490	131
☐ MGM 109 Type 1013 3C × 6.0 mm ² SWA	3 × 6.0 mm ² (Type 1013)	6.0 mm ²	18.8	173	680	150
☐ MGM 109 Type 1013 3C × 16 mm ² SWA	3 × 16 mm ² (Type 1013)	16.0 mm ²	23.6	461	1,180	189
☐ MGM 109 Type 1013 3C × 50 mm ² SWA	3 × 50 mm ² (Type 1013)	50.0 mm ²	33.4	1,440	2,480	267
☐ MGM 109 Type 1013 3C × 95 mm ² SWA (Cu/GSW)	3 × 95 mm ² (Type 1013)	95.0 mm ²	42.8	3,120	4,380	342
☐ MGM 109 Type 1014 4C × 35 mm ² SWA	4 × 35 mm ² (Type 1014)	35.0 mm ²	32.6	1,344	2,360	261

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per British Coal MGM 109 / BS 6708 (Type 1012 / 1013 / 1014 LV SWA).

Electrical & ampacity

6 sizes

Configuration	Max. DC R @ 20 °C Ω/km	I _z free air A	I _z tray / duct A	I _{sc} (1 s) kA	Voltage drop mV/A/m	Dielectric test V
2 × 4.0 mm ² (Type 1012)	4.70	40	36	0.57	11.20	3,500
3 × 6.0 mm ² (Type 1013)	3.11	51	46	0.86	6.80	3,500
3 × 16 mm ² (Type 1013)	1.16	94	85	2.29	2.50	3,500
3 × 50 mm ² (Type 1013)	0.39	185	166	7.15	0.82	3,500
3 × 95 mm ² (Type 1013)	0.20	280	252	13.59	0.43	3,500
4 × 35 mm ² (Type 1014)	0.53	152	137	5.01	1.15	3,500

– Conductor DC resistance at +20 °C per IEC 60228 and reference current ratings at 30 °C ambient per British Coal MGM 109 / BS 6708 (Type 1012 / 1013 / 1014 LV SWA).

Standards and approvals

- ✓ British Coal MGM 109
- ✓ BS 6708
- ✓ CE / UKCA

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/mgm-109-single-armoured-lv-feeder-cable



Typical values for this cable type, based on British Coal MGM 109 / BS 6708 (Type 1012 / 1013 / 1014 LV SWA). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.