



Heavy-duty rubber cables (NSSHÖU)

# MGM 112 Type E2 / E4 / E5

## Unscreened Armoured Auxiliary Cable

660/1,100 V 2-, 4- &amp; 5-core unscreened steel-wire-armoured mining rubber cable



MGM 112 Type E2/E4/E5

U0/U 660/1,100 V

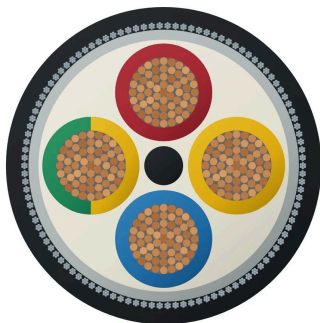
2/4/5-Core · Steel Armour

### Application

Low-voltage 660/1,100 V unscreened steel-wire-armoured mining power and auxiliary cable to MGM 112 in Type E2 (2C), Type E4 (4C) and Type E5 (5C) with Class 5 tinned copper (2.5–150 mm<sup>2</sup>), GP8 EPR insulation, inner bedding, steel armour and PCP sheath.

**Typical uses:** Underground mine lighting & auxiliary power, Mine ventilation fans & dewatering pumps, Gate-end box & conveyor interlocks (5C), Quarry crushing & screening plant, Tunnel & shaft utility power distribution

### Construction



Cross-section, not to scale

|   |                              |                             |
|---|------------------------------|-----------------------------|
| 1 | Tinned copper conductor      | IEC 60228 Class 5           |
| 2 | EPR core insulation          | BS 7655-1.2 GP8 / MGM 112   |
| 3 | Elastomeric center / cradle  | MGM 112 Type E2/E4/E5       |
| 4 | Elastomeric inner bedding    | MGM 112 inner bedding       |
| 5 | Galvanised steel wire armour | MGM 112 / BS 6708           |
| 6 | Heavy-duty PCP outer sheath  | BS 7655-2.1 / IEC 60332-1-2 |

## Technical data

Typical values

|                             |                                                                 |                            |                                                                 |
|-----------------------------|-----------------------------------------------------------------|----------------------------|-----------------------------------------------------------------|
| Rated voltage U0/U          | 660/1,100 V (640/1,100 V AC · 1.1 kV mining system)             | AC test voltage            | 3000 V AC (50 Hz, 5 min)                                        |
| Conductor stranding         | IEC 60228 / BS EN 60228 Class 5 tinned copper                   | Core configurations        | Type E2: 2C · Type E4: 4C (3P+E) · Type E5: 5C (3P+E+Pilot)     |
| Collective armour path      | Galvanised steel wire armour provides mechanical & earth screen | Max. conductor temperature | +90 °C continuous operation                                     |
| Short-circuit temperature   | +250 °C max. (up to 5 s)                                        | Temperature, flexing       | –25 °C to +80 °C                                                |
| Temperature, fixed          | –40 °C to +80 °C                                                | Min. bending radius, fixed | 6 × overall diameter                                            |
| Min. bending radius, moving | 8 × overall diameter                                            | Armour construction        | Galvanised steel wire armour over extruded rubber inner bedding |
| Crush & impact duty         | Heavy underground roadway, lighting & auxiliary feeder duty     | Flame retardance           | IEC 60332-1-2 / BS EN 60332-1-2 underground mine flame test     |
| Oil & hydraulic emulsion    | EN 60811-404 mineral oil, grease & hydraulic fluid resistant    | Mine water & humidity      | Resistant to wet coal-mine roadways, sludge and grease          |
| Abrasion & tear             | Heavy-duty RS4/EM2 polychloroprene outer sheath                 | Standards                  | TTK MGM 112 (Type E2, Type E4 & Type E5) / BS 6708              |
| Standard packing            | Heat-treated ISPM-15 timber drums with sealed cable ends        |                            |                                                                 |

## Sizes

15 standard constructions

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

| Order designation                                                                                         | Cores × mm <sup>2</sup> | AWG ≈ | Outer Ø min mm | Outer Ø max mm | Copper kg/km | Weight ≈ kg/km | Min. bend R mm |
|-----------------------------------------------------------------------------------------------------------|-------------------------|-------|----------------|----------------|--------------|----------------|----------------|
| <b>MGM 112 Type E2 — 2-Core Unscreened Armoured Lighting &amp; Auxiliary Cables (660/1,100 V) 4 sizes</b> |                         |       |                |                |              |                |                |
| <input type="checkbox"/> MGM 112 Type E2 2×2.5                                                            | 2×2.5                   | 14    | 15.5           | 16.8           | 48           | 460            | 101            |
| <input type="checkbox"/> MGM 112 Type E2 2×4                                                              | 2×4                     | 12    | 16.7           | 18.2           | 77           | 560            | 109            |
| <input type="checkbox"/> MGM 112 Type E2 2×6                                                              | 2×6                     | 10    | 18.2           | 19.8           | 115          | 680            | 119            |
| <input type="checkbox"/> MGM 112 Type E2 2×10                                                             | 2×10                    | 8     | 20.8           | 22.6           | 192          | 910            | 136            |
| <b>MGM 112 Type E4 — 4-Core Unscreened Armoured Power &amp; Earth Cables (660/1,100 V) 5 sizes</b>        |                         |       |                |                |              |                |                |
| <input type="checkbox"/> MGM 112 Type E4 4×4                                                              | 4×4                     | 12    | 19.3           | 21.0           | 154          | 760            | 126            |
| <input type="checkbox"/> MGM 112 Type E4 4×10                                                             | 4×10                    | 8     | 24.7           | 26.8           | 384          | 1,340          | 161            |
| <input type="checkbox"/> MGM 112 Type E4 4×16                                                             | 4×16                    | 6     | 27.8           | 30.2           | 614          | 1,790          | 181            |
| <input type="checkbox"/> MGM 112 Type E4 3×35+1×25                                                        | 3×35+1×25               | 2     | 35.3           | 38.4           | 1,248        | 3,050          | 230            |
| <input type="checkbox"/> MGM 112 Type E4 3×70+1×35                                                        | 3×70+1×35               | 2/0   | 43.7           | 47.5           | 2,352        | 4,920          | 285            |
| <b>MGM 112 Type E5 — 5-Core Unscreened Armoured Power + Earth + Pilot Cables (660/1,100 V) 6 sizes</b>    |                         |       |                |                |              |                |                |
| <input type="checkbox"/> MGM 112 Type E5 5×2.5                                                            | 5×2.5                   | 14    | 19.0           | 20.6           | 120          | 710            | 124            |
| <input type="checkbox"/> MGM 112 Type E5 5×4                                                              | 5×4                     | 12    | 20.7           | 22.5           | 192          | 880            | 135            |
| <input type="checkbox"/> MGM 112 Type E5 5×6                                                              | 5×6                     | 10    | 22.8           | 24.8           | 288          | 1,090          | 149            |
| <input type="checkbox"/> MGM 112 Type E5 5×10                                                             | 5×10                    | 8     | 26.5           | 28.8           | 480          | 1,560          | 173            |
| <input type="checkbox"/> MGM 112 Type E5 5×16                                                             | 5×16                    | 6     | 30.0           | 32.6           | 768          | 2,110          | 196            |
| <input type="checkbox"/> MGM 112 Type E5 5×25                                                             | 5×25                    | 4     | 34.8           | 37.8           | 1,200        | 2,940          | 227            |

– Dimensions and weights are typical values per MGM 112 / BS 6708. Minimum fixed bending radius shown is 6 × OD.

## Electrical & current ratings

8 sizes

| Cross-section<br>mm <sup>2</sup> | AWG ≈ | Max. DC resistance<br>20 °C, Ω/km | 1-core in air<br>30 °C, A | 3–4 core in air<br>30 °C, A |
|----------------------------------|-------|-----------------------------------|---------------------------|-----------------------------|
| 2.5                              | 14    | 8.21                              | 30                        | 25                          |
| 4                                | 12    | 5.09                              | 41                        | 34                          |
| 6                                | 10    | 3.39                              | 53                        | 44                          |
| 10                               | 8     | 1.95                              | 74                        | 61                          |
| 16                               | 6     | 1.24                              | 99                        | 82                          |
| 25                               | 4     | 0.795                             | 131                       | 108                         |
| 35                               | 2     | 0.565                             | 162                       | 135                         |
| 70                               | 2/0   | 0.277                             | 250                       | 207                         |

– Current ratings at 30 °C ambient in free air per DIN VDE 0298-4 / EN 50565-1. Apply derating factors for elevated ambient temperature or reeling layer grouping.

## Standards and approvals

- ✓ MGM 112 / BS 6708
- ✓ CE · RoHS 2 (2011/65/EU) · REACH

## 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-112-unscreened-armoured-auxiliary-cable



Typical values for this cable type, based on MGM 112 / BS 6708. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.