



Heavy-duty rubber cables (NSSHÖU)

MGM 112 Type 321 Cable

1.9/3.3 kV 4-core unscreened-core pliable-wire-armoured MV mining rubber cable (Type 321)



MGM 112 Type 321

U0/U 1.9/3.3 kV

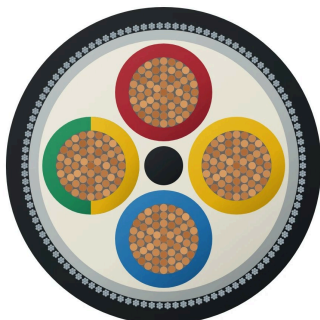
4-Core Cradle · PWA

Application

Medium-voltage 1.9/3.3 kV 4-core underground mining and quarry feeder cable to MGM 112 Type 321 with four unscreened MV EPR-insulated Class 5 tinned copper cores (3 phase + 1 earth) around a rubber cradle, inner bedding, steel PWA and heavy PCP sheath.

Typical uses: 3.3 kV underground & open-pit mines, Mine dewatering & booster pump stations, Quarry primary crushers & overland conveyors, Subterranean haulage & ventilation plant, Mobile 3.3 kV substation interconnections

Construction



Cross-section, not to scale

1	Tinned copper conductor	IEC 60228 Class 5
2	MV EPR core insulation	BS 7655-1.2 GP8 / MGM 112
3	Elastomeric cradle center	MGM 112 Type 321
4	Elastomeric inner bedding	MGM 112 inner bedding
5	Pliable wire armour (PWA)	MGM 112 / BS 6708 PWA
6	Heavy-duty PCP outer sheath	BS 7655-2.1 / IEC 60332-1-2

Technical data

Typical values

Rated voltage U ₀ /U	1.9/3.3 kV (1,900/3,300 V AC · U _m 3.6 kV)	AC test voltage	7.5 kV AC (50 Hz, 5 min)
Conductor stranding	IEC 60228 / BS EN 60228 Class 5 tinned copper	Core configuration	4 unscreened MV EPR cores (3 phase + 1 earth) around central cradle
Collective armour path	Galvanised steel PWA + internal copper earth conductor	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 pliable wire armour (PWA) in multi-wire strands
Crush & impact duty	Extra-heavy underground roadway & quarry 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	Water & mine dampness	Resistant to wet mine roadways, sludge and grease
Abrasion & tear	Heavy-duty RS4/EM2 polychloroprene outer sheath	Standards	TTK MGM 112 Type 321 (aligned with BS 6708)
Standard packing	Heat-treated ISPM-15 timber drums with sealed cable ends		

Sizes

9 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 ²	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
MGM 112 Type 321 — 3 Phase + Equal Earth Core (16–25 mm ² , 1.9/3.3 kV) 2 sizes							
☐ MGM 112 Type 321 3×16+1×16	3×16+1×16	6	33.3	36.2	614	2,240	217
☐ MGM 112 Type 321 3×25+1×25	3×25+1×25	4	37.2	40.4	960	2,890	242
MGM 112 Type 321 — 3 Phase + Reduced Earth Core (25–150 mm ² , 1.9/3.3 kV) 7 sizes							
☐ MGM 112 Type 321 3×25+1×16	3×25+1×16	4	36.6	39.8	874	2,790	239
☐ MGM 112 Type 321 3×35+1×25	3×35+1×25	2	39.9	43.4	1,248	3,440	260
☐ MGM 112 Type 321 3×50+1×25	3×50+1×25	1	44.0	47.8	1,680	4,260	287
☐ MGM 112 Type 321 3×70+1×35	3×70+1×35	2/0	48.3	52.5	2,352	5,350	315
☐ MGM 112 Type 321 3×95+1×50	3×95+1×50	3/0	53.2	57.8	3,216	6,680	347
☐ MGM 112 Type 321 3×120+1×70	3×120+1×70	4/0	57.4	62.4	4,128	7,990	374
☐ MGM 112 Type 321 3×150+1×95	3×150+1×95	300 kcmil	61.6	67.0	5,232	9,560	402

– 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 mm ²	AWG ≈	Max. DC resistance 20 °C, Ω/km	1-core in air 30 °C, A	3–4 core in air 30 °C, A
16	6	1.24	99	82
25	4	0.795	131	108
35	2	0.565	162	135
50	1	0.393	202	168
70	2/0	0.277	250	207
95	3/0	0.21	301	250
120	4/0	0.164	352	292

Cross-section mm ²	AWG ≈	Max. DC resistance 20 °C, Ω/km	1-core in air 30 °C, A	3–4 core in air 30 °C, A
150	300 kcmil	0.132	404	335

– 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-type-321-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.