

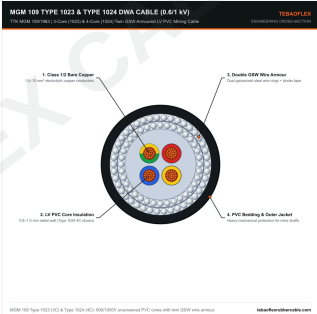
MGM 109 Type 1023 (3C) & Type 1024 (4C) Double-Armoured LV Mining Cable (600/1000V)

MGM 109 Type 1023 (3-core) and Type 1024 (4-core) are 600/1000 V double galvanized steel wire armoured (DWA) PVC cables complying with Turkish TTK MGM 109/1983 for fixed low-voltage power, auxiliary motor, and lighting circuits in deep shafts and gassy mines.

1. CABLE CONSTRUCTION

1. Conductor	Electrolytic solid or circular stranded bare copper wire per IEC 60228 Class 1 or Class 2 (1.5 mm² to 10 mm²).
2. Core Insulation	Flame-retardant PVC compound (0.8 mm to 1.0 mm radial wall) laid up in close contact (3 cores for Type 1023, 4 cores for Type 1024).
3. Inner Bedding	Extruded PVC-based inner bedding compound (0.8 mm radial wall) forming a smooth cylindrical seat under the steel armour.
4. Double GSW Armour (DWA)	Two concentric layers of galvanized steel round wires (0.9 mm or 1.25 mm wire gauge) with optional galvanized steel separator tape.
5. Outer Sheath	Black special flame-retardant mining PVC compound (1.4 mm to 1.8 mm radial wall) formulated against moisture, mineral oil, and chemical attack.

Cross-Section Anatomy



MGM 109 Type 1024 Cross-Section (4-Core Shown): Unscreened Class 1/2 bare copper PVC cores, extruded PVC inner bedding, double-layer GSW wire armour, and special PVC outer jacket.

2. ELECTRICAL, MECHANICAL & STANDARD DATA

Reference Standard	Turkish Hard Coal Enterprises TTK MGM 109/1983 & IEC 60228 Class 1/2
Rated Voltage (Uo/U)	600 / 1000 V
Routine AC Test Voltage	3 kV AC
Product Families	MGM 109 Type 1023 (3x1.5 to 3x10 mm²) & Type 1024 (4x1.5 to 4x10 mm²)
Continuous Current Rating	18 A (1.5 mm²), 26 A (2.5 mm²), 34 A (4 mm²), 44 A (6 mm²), 61 A (10 mm²) at 25°C
Minimum Bending Radius	10 x maximum overall cable diameter (185 mm to 305 mm)
Armour Separator Option	Optional galvanized steel binder tape between inner and outer wire armour layers
Extended Cross-Sections	Larger DWA low-voltage sizes (16 mm² to 95 mm²) manufactured to order upon request

TEBAOFLEX CABLE

MGM 109 Type 1023 (3C) & Type 1024 (4C) Double-Armoured LV Mining Cable (600/1000V) — Dimensional, Weight & Electrical Schedule

SKU: MGM-109-T1023-1024

<https://tebaoflexrubbercable.com/>

3. DIMENSIONAL, ARMOUR & ELECTRICAL SPECIFICATIONS

MGM 109 Type 1023 (3-Core, 600/1000V) — Double-Armoured Dimensional & Electrical Schedule													
Cable Type	Insul. (mm)	Inner Sheath (mm)	Inner Dia. (mm)	DWA Wire Dia. (mm)	Outer Sheath (mm)	Min. OD (mm)	Max. OD (mm)	Min. Bend (mm)	Current 25°C (A)	Cond. R (Ω/km)	Armour R (Ω/km)	Cu Wt. (kg/km)	Cable Wt. (kg/km)
3x1.5	0.8	0.8	8.9	2 x 0.9	1.4	14.5	18.5	185	18	12.1	20.17	45	650
3x2.5	0.8	0.8	10.3	2 x 0.9	1.5	16.3	20.3	203	26	7.41	9.71	75	750
3x4	0.8	0.8	12.4	2 x 0.9	1.6	18.6	22.6	226	34	4.61	6.15	120	910
3x6	0.8	0.8	13.6	2 x 1.25	1.6	21.4	25.4	254	44	3.08	4.11	190	1300
3x10	0.8	0.8	16.5	2 x 1.25	1.7	26.5	30.5	305	61	1.83	2.44	310	1700

MGM 109 Type 1024 (4-Core, 600/1000V) — Double-Armoured Dimensional & Electrical Schedule													
Cable Type	Insul. (mm)	Inner Sheath (mm)	Inner Dia. (mm)	DWA Wire Dia. (mm)	Outer Sheath (mm)	Min. OD (mm)	Max. OD (mm)	Min. Bend (mm)	Current 25°C (A)	Cond. R (Ω/km)	Armour R (Ω/km)	Cu Wt. (kg/km)	Cable Wt. (kg/km)
4x1.5	0.8	0.8	9.6	2 x 0.9	1.5	15.5	19.5	195	18	12.1	16.10	60	750
4x2.5	0.8	0.8	11.1	2 x 0.9	1.5	17.1	21.1	211	26	7.41	9.71	100	850
4x4	0.8	0.8	13.4	2 x 1.25	1.6	21.2	25.2	252	34	4.61	6.15	160	1250
4x6	0.8	0.8	14.8	2 x 1.25	1.7	22.8	26.8	268	44	3.08	4.11	240	1480
4x10	1.0	0.8	18.1	2 x 1.25	1.8	26.2	30.2	302	61	1.83	2.44	385	1980

Need 16–95 mm² Low-Voltage Cables? For standard single-armoured 1.5–95 mm² circuits see MGM 109 Type 1012/1013/1014; custom heavy DWA 16–95 mm² builds are also produced on request.