TEBAOFLEX CABLE

DATA SHEET

Mining&Industrial cable

3GSEYQY

18/30 kV screened tunnel cable

APPLICATION

Medium-voltage cable for connection of mobile operating equipment in mines, underground excavations and tunnelling environments. Suitable for stationary operation such as high-voltage transformers, main panels and switchboards in demanding tunnel applications.

CONSTRUCTION

Component	Description
Conductor	Circular stranded plain annealed copper conductor, Class 2 according to IEC 60228
Insulation	3GI3 quality EPR rubber compound with extruded inner and outer semi-conductive layers
Core identification	Natural colouring with black semi-conductive layer
Screen	Copper tapes applied over each main core
Lay up	Three screened cores laid up concentrically
Bedding	PVC filler
Armour	Galvanized steel wire braid with minimum 90% coverage
Outer sheath	5GM5 type elastomer compound, red

CHARACTERISTICS

- Screened three-core construction for medium-voltage tunnel power supply.
- Copper tape screen and galvanized steel wire braid armour.
- EPR rubber insulation and flame-retardant elastomer outer sheath.
- Designed for fixed and mobile operation within the stated temperature range.

OPERATING CHARACTERISTICS

Parameter	Value
Rated voltage Uo/U	18/30 kV
AC test voltage	48 kV
Max. permissible AC operating voltage	20.8/36 kV
Max. permissible DC operating voltage	27/54 kV
Maximum conductor temperature	90 °C
Maximum short-circuit temperature	250 °C
Fixed working temperature	-25 °C to +90 °C
Mobile working temperature	+5 °C to +90 °C
Maximum tensile load	15 N/mm2
Maximum torsion	25°/m
Minimum bending radius	According to DIN VDE 0298-3
Current carrying capacity	According to DIN VDE 0298-4

STANDARDS

Parameter	Value
Construction	DIN VDE 0250-605 and IEC 60502-2
General requirements	DIN VDE 0250-1
Guide use	DIN VDE 0298-3
Electrical tests	DIN VDE 0472-501, 503, 508
Non-electrical tests	DIN VDE 0472-401, 402, 602, 303, 615
Under fire condition tests	DIN VDE 0472-803, 804
Flame retardant	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1

TECHNICAL DATA

Values are technical parameters only. Cable dimensions may vary due to manufacturing tolerances.

Cross section mm2	Overall diameter min-max mm	Max. DC resistance 20 °C ohm/km	Approx. weight kg/km
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3x25/16	65.1 - 72.0	0.727	6860
3x35/16	68.0 - 75.1	0.524	7640
3x50/16	70.8 - 78.3	0.387	8520
3x70/16	74.5 - 82.4	0.268	9760
3x95/16	79.0 - 87.2	0.193	11280
3x120/16	82.2 - 90.9	0.153	12600

NOTES

- Standard values are based on the technical data table above.
- Other conductor sizes, packing forms and delivery lengths are available on request.

CERTIFICATIONS