



# Caledonian

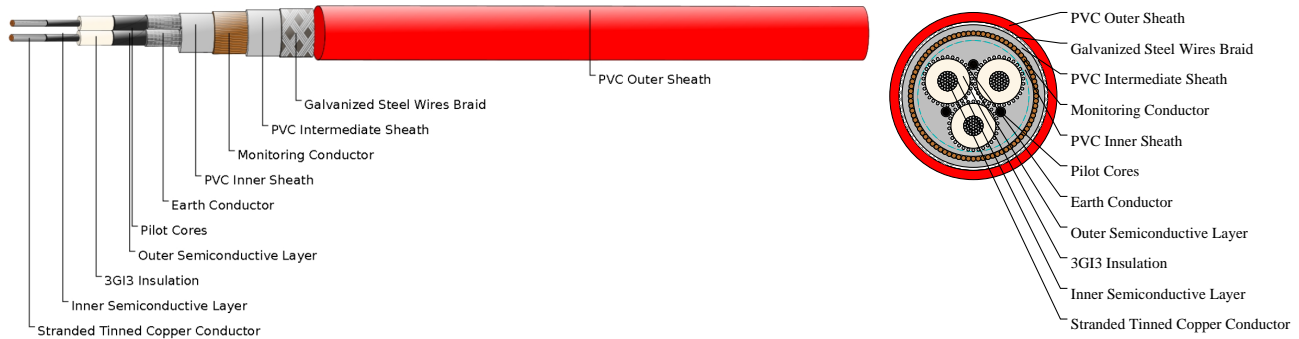
## Tunnel Cables

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### Tunnel Cable

(N)3GHSSYCY 3x25+3x16/3E+3x2.5ST+ÜL



### APPLICATIONS

These cables are used for the connection of mobile operating equipments in mines and underground excavations with hazardous environments. In stationary operation, e.g. highvoltage transformers in mining and tunnelling.

### STANDARDS

Construction: DIN VDE 0250-605 & 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

Flame Retardant: VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1

### VOLTAGE RATING

6/10 KV

### CABLE CONSTRUCTION

Conductors: Flexible electrolytic stranded tinned copper wire DIN VDE 0295 Class 5.

Insulation:

Main Cores: 3GI3 type EPR compound.

Pilot Control Cores: 3GI3 type EPR compound.

Electrical Field Control: Extruded inner and outer rubber semiconductive layer.

Protective Conductor: Made of plain copper wires or copper wire braiding laid up concentrically around each main core.

Lay Up: Three main conductors laid-up with three pilot control cores in the outer interstice. Protective cores are concentrically wrapped over insulation of power cores.

Inner Sheath: YM5 type PVC Compound.

Monitoring Conductor: Semiconductive tape + overall concentric lay of copper wires and synthetic tape over wires.

Intermediate Sheath: PVC compound type DMV6 acc. to DIN VDE 0276-603.

Armour: Galvanized steel wire braiding, coverage minimum 75% ST2 Type to IEC60502.



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Outer Sheath: PVC compound type DMV6 acc. to DIN VDE 0276-603, Red or Black.

## COLOUR CODE

Core Identification:

Main Cores: Natural coloring, design acc to DIN VDE 0250 Part 1

Pilot Cores: Black colored and number coded

## PHYSICAL AND THERMAL PROPERTIES

Rated Voltage: 6/10 KV

AC Test Voltage: 17 KV

Max. Permissible Operating Voltage AC: 6.9/12 KV

Max. Permissible Operating Voltage DC: 9/18 KV

Min Bending Radius: DIN VDE 0298-3

Current Carrying Capacities: DIN VDE 0298-4

Working Temperature:

Fixed: -40°C - +80°C

Mobile: +5°C - +80°C

Max. Tensile Load of Cable: 20N/mm<sup>2</sup>

Max. Torsion: 25°/m

Trawl Speed For Tunnelling App: Max. 30 m/min

Minimum Distance For Change Of Direction: 20×D

## DIMENSION AND PARAMETERS

Nominal Cross-sectional Area	Overall Diameter (min.)	Overall Diameter (max.)	Approx. Weight	Conductor Resistance at 20 °C
mm <sup>2</sup>	mm	mm	kg/km	Ω/km
3x25+3x16/3E +3x2.5ST+ÜL	54	57	4200	0.78