

CABLES

Type: PVDF 1 x 10 mm²

Document No.: 08-600-R1

Sheet: 1 of 1

German Cathodic Protection



Polyvinylidenfluoride (PVDF) insulated cables are used in highly corrosive environments inside deep anode groundbeds of cathodic protection systems.

PVDF 1 x 10 mm² type has been specially developed for extremely corrosive environments of anodes/groundbeds, caused mainly due to the presence of chlorine gas or ions in water.

PVDF is rated for continuous use over a temperature range of -10° to +125°C. It has high resistance to corrosive chemicals and organic solvents. Although this material is very hard with high tensile strength, abrasion resistance and excellent cut-through, limitations of flexibility are evident. It is resistant against creeping and fatigue.

Design and tests

DIN 40 500

Copper for electrical purposes;
wires of copper; technical conditions of delivery

DIN VDE 0472 Part 501

Testing of cables, wires and flexible cords;
conductor resistance

DIN VDE 0472 Part 502

Testing of cables, wires and flexible cords;
insulation resistance and volume resistivity

DIN VDE 0472 Part 509

Testing of cables, wires and flexible cords;
dielectric strength on cables, wires and cords

Voltage rating

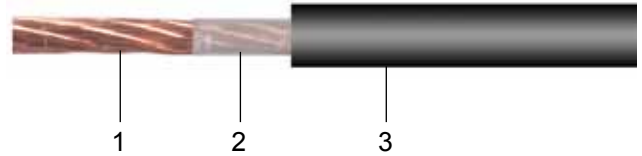
Rated voltage : 600 V

Electrical characteristics at 20° C

DC Resistance : 1.84 Ohm/km
Insulation resistance : 100 MOhm x km
Dielectric strength of insulation : 15 kV

Mechanical characteristics

Ambient temperature : -10 up to +125° C
Bending radius : 200 mm
Max. tension load : 800 N



Construction

- 1 Copper conductor, stranded
Strands 320 x 0.20 acc. to DIN 40 500
Cross-section 10 mm²
Diameter : approx. 4.8 mm
- 2 Separating tape 1 x 16 x 0.19 lapped
Material : PET (polyethyleneglycolterephthalate)
- 3 Outer sheath, black
Material: PVDF (polyvinylidenefluoride)
Thickness min. 1.8 mm
Outside diameter min. 8.4 mm
Weight approx. 193 kg/km

Typical application

