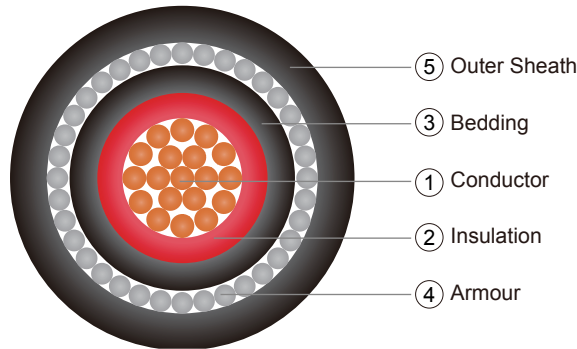


CU/PVC/PVC/AWA/PVC (Single Core)

PVC Insulated, PVC Bedded, Aluminium Wire Armoured, PVC Sheathed Cable

Application

These power cable for fixed installations such as distribution networks or industrial installations. Such as Plant engineering; Industrial machinery; Heating and air-conditioning systems; Power stations; Stage applications etc. Armoured cable suitable for direct burial.



Construction

① Conductor: Plain annealed copper, class1 solid or class 2 stranded acc. to IEC 60228. Flexible class 5 or tinned conductor could be offer upon request.

② Insulation: Polyvinyl chloride (PVC) compound as per IEC 60502-1.
Insulation Color Code:

| Number of Cores | Color Code to IEC 60502-1 | Color Code to BS 5467 |
|-----------------|---------------------------|-----------------------|
| 1 | Red or Black | Brown or Blue |

③ Bedding: Polyvinyl chloride (PVC) compound type ST1 (80°C), ST2 (90°C) of IEC 60502-1.

④ Armour: Aluminium wire armoured (AWA).

⑤ Outer Sheath: Polyvinyl chloride (PVC) compound type ST1 (80°C), ST2 (90°C) of IEC 60502-1.
Outer Sheath Color: Black or other color as per customer request.

Electrical Characteristics

Recommended rated voltages U_0

| Highest system voltage (U_m) (kV) | Rated voltage (U_0) (kV) | |
|--|------------------------------|------------|
| | Categories A and B | Category C |
| 1,2 | 0,6 | 0,6 |

Routine test voltages

| | |
|--------------------------|-----|
| Rated voltage U_0 (kV) | 0,6 |
| Test voltage (kV) | 3,5 |

Maximum conductor temperatures for different types of insulating compound

| PVC Insulation compound | Maximum conductor temperature (°C) | |
|---|------------------------------------|--------------------------------------|
| | Normal operation | Short-circuit (5 s maximum duration) |
| Conductor cross-section $\leq 300 \text{ mm}^2$ | 70 | 160 |
| Conductor cross-section $> 300 \text{ mm}^2$ | 70 | 140 |

Minimum Insulation Resistance at 20°C: 36.7 M Ω ·km

Operating Temperature: -15°C to 70°C

Test Voltage: 3.5 kV for 5 minutes

Installation Reference

Min.Bending Radius (mm): 8 x cable overall diameter

Max.Pulling Tension (N/mm²): 50

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Reference Standards

Design: IEC60502-1

Conductor: IEC60228, BS EN60228

Flame Retardancy: IEC 60332-1, BS EN60332-1

Dimension

| Nominal Conductor Area (mm ²) | No. and Diameter of Wires (no./mm) | Thickness of Insulation (mm) | Thickness of Inner Sheath (mm) | Diameter of Armour Wire (mm) | Thickness of Outer Sheath (mm) | Overall Diameter (mm) | Approximate Weight (kg/km) |
|---|------------------------------------|------------------------------|--------------------------------|------------------------------|--------------------------------|-----------------------|----------------------------|
| 1x50 | 19/1.78 | 1.4 | 1.0 | 1.25 | 1.8 | 19.8 | 1156 |
| 1x70 | 19/2.14 | 1.4 | 1.0 | 1.25 | 1.8 | 21.6 | 1451 |
| 1x95 | 19/2.52 | 1.6 | 1.0 | 1.60 | 1.8 | 24.6 | 1990 |
| 1x120 | 37/2.03 | 1.6 | 1.0 | 1.60 | 1.8 | 26.2 | 2329 |
| 1x150 | 37/2.25 | 1.8 | 1.0 | 1.60 | 1.8 | 28.2 | 2725 |
| 1x185 | 37/2.52 | 2.0 | 1.0 | 1.60 | 1.9 | 30.6 | 3262 |
| 1x240 | 61/2.25 | 2.2 | 1.0 | 2.00 | 2.0 | 34.7 | 4308 |
| 1x300 | 61/2.52 | 2.4 | 1.2 | 2.00 | 2.1 | 38.1 | 5209 |
| 1x400 | 61/2.85 | 2.6 | 1.2 | 2.00 | 2.3 | 41.9 | 6362 |
| 1x500 | 61/3.20 | 2.8 | 1.2 | 2.50 | 2.4 | 46.6 | 8118 |
| 1x630 | 127/2.52 | 2.8 | 1.4 | 2.50 | 2.6 | 51.4 | 9996 |
| 1x800 | 127/2.85 | 2.8 | 1.4 | 2.50 | 2.7 | 55.9 | 12160 |
| 1x1000 | 127/3.20 | 3.0 | 1.6 | 2.50 | 2.9 | 61.6 | 14882 |