

U3-type 100 kVDC rated High Voltage Cable

Highly flexible, small diameter, low capacitance, 3-conductor, 100kVDC rated rubber insulated high voltage cable.

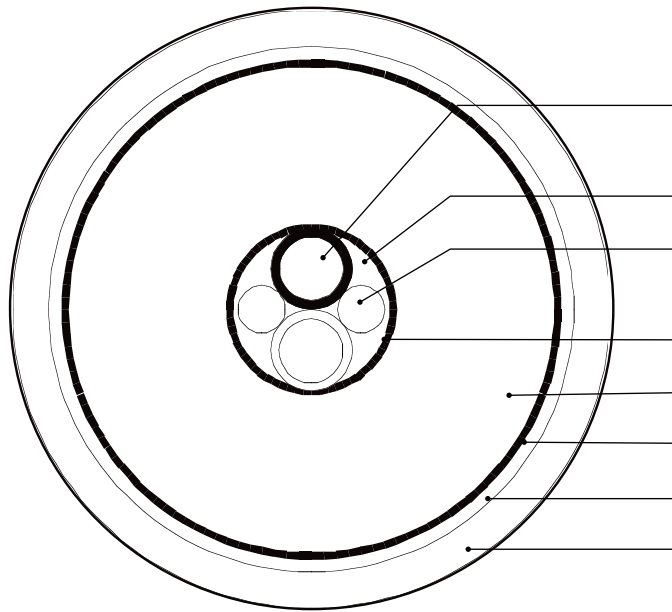
Features

- Low capacitance.
- High flexibility.
- Small diameter.
- 95% shielding braid coverage.

Description

This 3-conductor, rubber insulated high voltage cable's typical applications are:

- Medical X-ray equipment like standard X-ray, computer tomography and angiography equipment.
- Industrial and scientific X-ray or electron beam equipment like electron microscopy and X-ray diffraction equipment.
- Low power high voltage test- and measuring equipment.



Construction

- Red and white Tefzel insulated conductors, 1.8mm² (19 x Ø0.35 mm), stranded tinned copper wires.
- Fillers.
- Bare conductor, 2.5mm² (2 x 50 x Ø0.18 mm), stranded tinned copper wires.
- Semi-conducting tape.
- High voltage insulation, EP rubber, black.
- Semi-conducting tape.
- Shielding braid, 95 % coverage, tinned copper wires.
- PVC jacket, color: light gray.

Technical data

Number of conductors	3
Rated voltage	100 kVDC
Routine test voltage (high voltage insulation)	160 kVDC / 10min
Routine test voltage (conductor insulation)	3.5 kVACrms / 5min
Maximum conductor current	1.8 mm ² : 17 A; 1.25 mm ² : 14 A
Nominal outside diameter	20.0 mm / 0.787 in / ±0.5 mm / 0.020 in
Thickness of PVC jacket	1.0 mm / 0.039 in
Thickness of high voltage Insulation	6.0 mm / 0.236 in
Diameter of core assembly	4.7 mm / 0.185 in
Insulation resistance core to shield @20°C	≥5x10 ¹² Ω·m / ≥15x10 ¹² Ω·ft
Conductor insulation resistance @20°C	≥1x10 ¹³ Ω·m / ≥3x10 ¹³ Ω·ft
Conductor resistance bare cond. @20°C	6.6 mΩ/m / 2.2 mΩ/ft / ±5%
Conductor resistance insul. cond. @20°C	9.5 mΩ/m / 3.1 mΩ/ft / ±5%
Capacitance between cond. and shield	136 pF/m / 45 pF/ft / ±10%
Cable min. bending radius (static installation)	40 mm / 1.57 in
Cable min. bending radius (dynamic install.)	80 mm / 3.15 in
Operating temperature	-10/+70 °C / +14/+158 °F
Storage temperature	-40/+70 °C / -40/+158 °F
Net weight	515 kg/km