

M1-type (Mammoflex) 60 kVDC rated High Voltage Cable

Highly flexible, small diameter, 1-conductor, 60kVDC rated rubber insulated high voltage cable.

Features

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

Description

This 1-conductor, rubber insulated high voltage cable's typical applications are:

- Medical mammography and other scientific X-ray, electron beam or laser equipment.
- Low power high voltage test- en measuring equipment.





Construction

Bare conductor, 2 mm² (37 x \emptyset 0.26 mm), stranded tinned copper wires.

Semi-conducting tape.

Semi-conducting EP rubber.

High voltage insulation, EP rubber, black.

Semi-conducting tape.

Shielding braid, > 95 % coverage, tinned copper wires.

PVC jacket, color: light gray, MAMMOFLEX imprinted.

Technical data

Number of conductors	1
Rated voltage	60 kVDC
Routine test voltage (high voltage insulation)	90 kVDC / 10 min.
Conductor current rating	31 A
Nominal outside diameter	11.1 mm / 0.437 in / ±0.5 mm / ±0.020 in
Thickness of PVC jacket	1 mm / 0.039 in
Thickness of high voltage insulation	2.6 mm / 0.102 in
Diameter of core-assembly	1.8 mm / 0.071 in
Insulation resistance core-shield @ 20 °C	$\geq 1 \times 10^{12} \Omega \cdot m / \geq 3 \times 10^{12} \Omega \cdot ft$
Conductor resistance @ 20 °C	8.82 mΩ/m / 2.9 mΩ/ft / ±5%
Shield resistance @ 20 °C	7.22 mΩ/m / 2.37 mΩ/ft / ±5%
Capacitance between conductor and shield	171 pF/m / 56 pF/ft / ±10%
Cable min. bending radius (static installation)	22 mm / 0.9 in
Cable min. bending radius (dynamic installation)	45 mm / 1.8 in
Operating temperature	-10/+70 °C / +14/+158 °F
Storage temperature	-40/+70 °C / -40/+158 °F
Net weight	180 kg/km