

WATERLINK - TSRE 24kV

TSRE 24 kV 3x 95 mm² + GS48

Nexans Ref.: 10545089

Armoured submarine cable

DESCRIPTION

Armored PEX insulated submarine cables for utilities.

Construction:

Conductor:

Round multiple wire, compressed copper conductor

Conductor screen:

Extruded layer of semi-conductive cross-linked polyethylene.

Insulation:

Extruded insulation of cross-linked polyethylene.

Insulation screen:

Extruded insulation of cross-linked polyethylene.

Metal screen:

A layer of Cu tape bonded to an overlying semiconductor sheath.

Sheath:

A layer of extruded semiconductor polyethylene.

Twisting and bonding:

Three insulated conductors are twisted together and bonded with semiconducting bands.

Fillers are installed in the winding rooms.

If desired, fiber cables can also be inserted into the winding rooms.

Armouring:

A layer of galvanized steel wires, 4.2mm.

Zinc wires can be inserted into the reinforcement if desired.

Outer sheath:

A layer of extruded polyethylene, which provides an outer corrosion protection.

The dimensions and weights given are based on IEC 60502 and 4.2 mm reinforcement wire. In other cases, the values given will vary.



STANDARDS

International IEC 60228;
IEC 60502-2;
Nexans specification



Conductor flexibility

-



Rated Voltage U₀/U (Um)

-



Max. conductor temp. in service

90 °C



Bending factor when laying

15 (xD)



Minimum installation temperature

-10 °C

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

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CHARACTERISTICS

Construction characteristics

Conductor material	Annealed copper
Conductor shape	Circular compacted
Material of the inner semi-conductor	Extruded
Insulation	XLPE (Cross-linked Polyethylene)
Material of the external semi-conductor	Extruded
Armour type	Galvanised round steel wires
Conductor flexibility	-

Dimensional characteristics

Conductor diameter	11.5 mm
Diameter over insulation	30.2 mm
Nominal insulation thickness	5.5 mm
Diameter of steel wires	4.2 mm
Nominal outer diameter	80.3 mm
Outer Diameter (mm)	-
Approximate weight	12900 kg/km
Conductor cross-section	95 mm ²
Number of cores	-

Electrical characteristics

Max. DC resistance of the conductor at 20°C	0.193 Ohm/km
Maximum operating voltage	24 kV
Permissible current rating when buried	310 A
Permissible current rating in open air	330 A
Permissible short circuit current	13300 A
Nominal phase capacitance	0.233 µF / km
Phase reactance 50 Hz - trefoil formation	0.117 Ohm/km
Rated Voltage U _o /U (U _m)	-

Usage characteristics

Max. conductor temperature in service	90 °C
Short-circuit max. conductor temperature	250 °C
Bending factor when laying	15 (xD)
Minimum installation temperature	-10 °C



Conductor flexibility

-



Rated Voltage U_o/U (U_m)

-



Max. conductor temp. in service

90 °C



Bending factor when laying

15 (xD)



Minimum installation temperature

-10 °C

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