

# TSLF 72 - 170kV singel core

TSLF 72 kV 1x1000A

Metal screened cable with aluminium sheath and outer semiconducting layer

## DESCRIPTION

### User benefits:

Diffusion free high voltage cable

Avoids growth of watertrees in the XLPE insulation and increases the lifetime of the cable.

Sheath integrity may be tested while on drum, before backfilling, in plastic pipes etc.

Meter marks

**Screen section:** Value given is the physical cross section of the copper wires in the screen.

**Usage:** Indoor, Underground, Outdoors

Intended for high voltage energy distribution

### Fire properties:

Halogenfree

### Cable marking:

NEXANS NS TSLF kV 1 x mm<sup>2</sup>/mm<sup>2</sup> MONTH YEAR, metermarks

### Lifemark



## STANDARDS

International IEC 60840



Radial waterproof  
Yes



Halogen free  
Yes



Conductor flexibility  
Stranded class 2



Rated Voltage U<sub>0</sub>/U  
(U<sub>m</sub>)  
36/66 (72,5) kV



Minimum repeated  
bending diameter  
1560 mm



Maximum operating  
temperature  
90 °C



Minimum  
installation  
temperature  
-20 °C



Bending factor  
when laying  
10 (xD)

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	Aluminum
Conductor shape	Circular compacted
Material used for longitudinal water tightness	Swelling powder
Material of the inner semi-conductor	Extruded
Insulation	Extruded XLPE
Material of the external semi-conductor	Extruded
Screen	Copper wire
Radial waterproof	Yes
Outer sheath	MDPE
Outer conductive layer	Yes
Halogen free	Yes
Conductor flexibility	Stranded class 2

### Dimensional characteristics

Conductor cross-section	1000 mm <sup>2</sup>
Conductor diameter	38.7 mm
Nominal insulation thickness	12.0 mm
Diameter over insulation	65.5 mm
Earth conductor cross section	- mm <sup>2</sup>
Screen section	50 mm <sup>2</sup>
Average sheath thickness	3.5 mm
Nominal outer diameter	78.0 mm
Approximate weight	6.39 kg/m
Number of cores	1

### Electrical characteristics

Max. DC resistance of the conductor at 20°C	0.0291 Ohm/km
Phase reactance 50 Hz - trefoil formation	0.1 Ohm/km
Phase reactance 50 Hz - flat formation	0.16 Ohm/km
Maximum operating voltage	72 kV
Perm. current rating buried 15°C - flat formation	845 A
Perm. current rating buried 15°C - trefoil formation	895 A
Perm. current rating in air 25°C - flat formation	1150 A
Perm. current rating in air 25°C - trefoil formation	1205 A
Permissible short circuit current conductor 1s	90 kA
A.C. Conductor resist. 50Hz and at 90 °C	- Ohm/km
Nominal phase capacitance	0.28 µF / km
Rated Voltage U <sub>o</sub> /U (U <sub>m</sub> )	36/66 (72,5) kV

### Mechanical characteristics

Maximum Pulling Tension	30 kN
Minimum repeated bending diameter	1560 mm

### Usage characteristics

Maximum operating temperature	90 °C
Short-circuit max. conductor temperature	250 °C

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## Usage characteristics

Minimum installation temperature	-20 °C
Bending factor when laying	10 (xD)
Length	- m