

Type designation: TSLI(F) 170kV 1x630A/95

Prysmian Group Finland Oy

SPECIFICATION 30.01.2020

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(Design code 71009685)

High voltage power cable

Rated voltage 87/150 (170) kV Standard Construction and tests i.a.w. IEC 60840 (where applicable) Reference standards IEC 60228, outer sheath is flame retardant i.a.w. IEC 60332-3-24 and low smoke and halogen free Temperature rating Max. conductor operating temperature: 90°C Max. permissible conductor temperature at short-circuit for max. 5 s.: 250°C Construction Construction and extra short-circuit for max. 5 s.: 250°C Conductor Round, stranded and compacted longitudinally watertight aluminium conductor. Watertightening by swellable material in the wire interstices and semi-conducting water-swellable tape over conductor. Nominal cross-sectional area Nominal cross-sectional area mm² 630 Approximate diameter mm 29.7 DC resistance at 20°C (max.) ohm/km 0.0469 Conductor screen Semi-conducting copolymer compound Insulation Numinal thickness mm 20.0 Approximate outer diameter mm 73 Insulation screen Semi-conducting water-swellable tape eounter helix Metallic screen A layer of copper wire helix and a copper contact tape counter helix Cross-sectional area of Cu wires mm² 95 DC resistance at 20°C (Cu wires max.) ohm/km	General				
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Approximate diameter mm 89 Approximate weight kg/km 8000	Complete cable				
Approximate weight kg/km 8000		Approximate diameter	mm	89	
		Approximate weight	kg/km	8000	



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SPECIFICATION 30.01.2020

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Type designation: TSLI(F) 170kV 1x630A/95

(Design code 71009685)

High voltage power cable

Marking

Marks of origin

Embossed on the outer sheath: manufacturer, year and week of manufacturing.Printed on the outer sheath: manufacturer, cable type designation, year and week of manufacturing, length marking in metres.

Electrical data

Phase inductance in trefoil ¹ (appr.)	mH/km	0.41			
Phase inductance in flat formation ² (appr.)	mH/km	0.46			
Operating capacitance (appr.)	µF/km	0.18			
Thermal short-circuit current (max.) for phase	kA	60.0			
conductor for 1.0 s ³					
Thermal short-circuit current (max.) for Cu wire-	kA	15.3			
screen only for 1.0 s ⁴					
Thermal short-circuit current (max.) for Cu wire-	kA	21.8			
screen + metallic foil for 1.0 s ⁵					
Mechanical data					
Bending radius, during laying (min.)	m	1.78			
Bending radius, final position (min.)	m	1.25			

Type tests

Pulling tension with pulling eye (max.)

Type tests and additional tests shall be separately agreed in advance.

Sketch



kN

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Note: Informative only - not to scale.

¹ Cables touching each other.

² Cables touching each other.

³ Initial temperature of conductor before short-circuit 90°C, final temperature after short-circuit 250°C.

⁴ Initial temperature of metallic screen before short-circuit 80°C, final temperature after short-circuit 250°C.

⁵ Initial temperature of metallic screen and metallic foil before short-circuit 80°C, final temperature after short-circuit 250°C/170°C.