

# HIGH VOLTAGE SINGLE CONDUCTOR CABLE 115 kV XLP 2000 kcmil Cu HDPE SC IEC 60840

## General Cable

A Brand of Prysmian Group

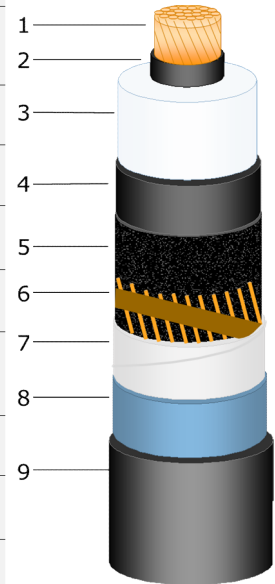
### Cable description

The high voltage single conductor cables are made up of blocked compact soft copper conductor, with semiconductive shield over conductor, cross-linked polyethylene (XLP) insulation, extruded shield over insulation, semiconducting water-blocking tape, wire-based metal shield copper with copper tape applied in an open helix, semiconducting water-blocking tape, overlapped and sealed aluminum tape, and black high-density polyethylene (HDPE) jacket with a semiconductive layer.

### Cable design

Code: E223FK592.0KFBNE

CONSTRUCTION	Nominal thickness mm	Nominal diameter mm
<b>1. CONDUCTOR:</b> Class B soft copper compact round conductor, blocked from the longitudinal pass of water by blocking wires. Nominal cross section: 1010 mm <sup>2</sup> .	-	39.00
<b>2. EXTRUDED THERMOSET SEMI-CONDUCTING STRESS CONTROL LAYER OVER CONDUCTOR:</b> Thermoset extruded semiconductor compound.	1.20	42.30
<b>3. INSULATION:</b> Cross-linked polyethylene (XLP), extruded in a true triple extrusion process.	13.50	69.30
<b>4. SEMICONDUCTOR SCREEN OVER INSULATION:</b> Thermoset extruded semiconductor compound, with adequate adhesion to insulation.	1.80	72.90
<b>5. SEMICONDUCTIVE WATER-BLOCKING TAPE:</b> Helically applied under the electrostatic screen, avoiding the longitudinal penetration of moisture.	0.3	73.50
<b>6. METALLIC SCREEN:</b> Helically applied soft bare copper wires with against spiral of copper tape. Formed by 30 copper wires of 1,829 mm	1.83	78.01
<b>7. SEMICONDUCTIVE WATER-BLOCKING TAPE:</b> Helically applied on the electrostatic screen, avoiding the longitudinal penetration of moisture.	0.3	79.21
<b>8. ALUMINUM TAPE:</b> Longitudinal aluminum tape overlapped and adhered to the jacket.	0.20	79.82
<b>9. JACKET:</b> Extruded black high density polyethylene (HDPE) jacket.	5.00	90.32



### Specifications and special features:

IEC-60840 Power cables with extruded insulation and their accessories for rated voltages above 30 kV (Um = 36 kV) Up to 150 kV (Um = 170 kV) - Test methods and requirements.

CFE E0000-17 CABLES DE POTENCIA PARA 69 kV A 138 kV CON AISLAMIENTO DE XLP.

NMX-J-142/2-ANCE-2011 CONDUCTORES - CABLES DE ENERGÍA CON PANTALLA METÁLICA, AISLADOS CON POLIETILENO DE CADENA CRUZADA O A BASE DE ETILENO - PROPILENO PARA TENSIONES DE 69 kV HASTA 115 kV - ESPECIFICACIONES Y MÉTODOS DE PRUEBA.

Maximum admissible temperature in the conductor in permanent service: 90°C  
Maximum admissible temperature in the conductor in the short-circuit regimen 250°C

### Packing

In non-returnable wooden or metallic reels according to the length of the sections. Tolerance on the length of ± 5%.

### Applications

- Used in energy sub-transmission networks.
- Trenches.
- Underground ducts.
- Directly buried.
- Galleries.

### Technical information

		units
Electrical resistance of the conductor at 20°C d.c.:	0.0174	Ω/km
Nominal capacity:	0.2580	μF/km
Maximum voltage between phases, Um:	123	kV
Impulse voltage, Up:	550	kV
Maximum short-circuit current in the conductor during 0.25 s:	289	kA
Maximum short-circuit current in the metallic screen (Cu wires + Al tape) during 0.25 s:	32.0	kA
Maximum pulling effort:	6 000	kg
Approximate weight:	14 747	kg/km
Bending radius:		
• During the installation:	2.71	m
• Permanent:	1.81	m

Values indicated here are approximate and according to tolerances of manufacturing standards, for which they may vary.

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