



# Caledonian

Medium Voltage Cables

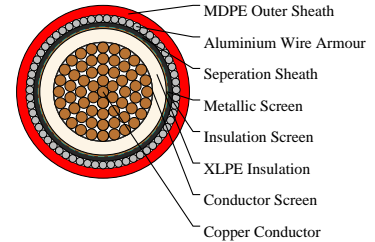
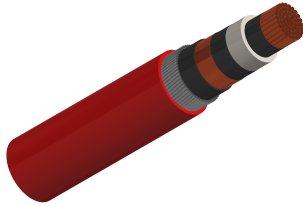
www.caledonian-cables.com

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## 6.35/11kV XLPE Insulated, MDPE Sheathed, Armoured MV Power Cables (Single Core)

N2XSYR2Y 1C400(CU/XLPE/CS/PVC/AWA/PE 6.35/11kV Class 2)

Caledonian No.: FGD300 12RVMAX-R 1C400



### APPLICATIONS

They are suitable for installation mostly in power supply stations, indoors and in cable ducts, outdoors, underground and in water as well as for installation on cable trays for industries, switchboards and power stations.

### STANDARDS

IEC 60502-2

### CABLE CONSTRUCTION

Conductor: Plain annealed copper wire, stranded according to IEC/BS EN 60228 class 2.

Conductor Screen: Extruded layer of semi-conducting cross-linkable compound is applied over the conductor and shall cover the surface completely.

Insulation: Extruded cross-linked compound type (XLPE).

Insulation Screen: Extruded layer of semi-conducting cross-linkable compound is applied over the insulation.

Metallic Screen: The metallic layer shall be applied as a collective screen. The metallic screen shall consist of either copper tapes or a concentric layer of copper wires or a combination of tapes and wires.

Separation Sheath: Thermoplastic PVC compound.

Armour : Aluminium wire.

Outer Sheath: Thermoplastic MDPE compound Type ST7 according to IEC 60502-2. The overall cable design will be more suitable for wet locations.

Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance and anti-rodent can be offered as option.

### COLOUR CODE

Insulation Colour: Natural colouring.

Sheath Colour: Red.

### PHYSICAL AND THERMAL PROPERTIES

Rated Voltage  $U_0/U$ : 6.35/11KV

Operating Voltage ( $U_m$ ): 12KV



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Testing Voltage (rms):25.5KV

Operating Temperature: up to 90°C

Temperature Range: -5°C

Short Circuit Temperature( 5 seconds maximum duration ): 250°C

Bending Radius:20 x OD

## Electrical Properties

Current Rating Conditions:

Ground Temperature: 20°C

Ambient Temperature (air): 30°C

Depth of Soil: 0.8m

Thermal Resistance of Soil: 1.5K•m/W

## TECHNICAL CHARACTERISTICS

Nom. Cross-Section Area	DC Resistance	AC Resistance	Short Circuit Rating of Conductors CU/AL 1s	Capacitance	Charging Current	Short Circuit Rating of Screen 1s (Copper Wire)	Reactance (Trefoil)	Reactance (Flat Spaced)	Inductance (Trefoil)	Inductance (Flat Spaced)	Impedance (Trefoil) CU	Impedance (Flat Spaced) CU
mm <sup>2</sup>	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	μΩ/m	μΩ/m	nH/m	nH/m	μΩ/m	μΩ/m
400	47	64	57.3	561	1.12	4.29	94	154	300	490	113	164

## DIMENSION AND PARAMETERS

Nominal Cross-sectional Area	Nominal Insulation Thickness	Nominal Bedding Thickness	Copper Wire Screen Area	Copper Tape Screen Area	Nominal Sheath Thickness	Nominal Armour Wire Diameter	Approx. Overall Diameter	Approx. Weight
mm <sup>2</sup>	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	mm	mm	mm	kg/km
400	3.4	1.2	35	14.6	2.4	2	48.2	5589

## Current Rating

Nominal Cross-Section Area	Buried direct in Ground (Trefoil)	Buried direct in Ground (Flat spaced)	Laid in Single Way Duct (Trefoil)	Laid in Single Way Duct (Flat Touching)	Laid in Air (Trefoil)	Laid in Air (Flat Touching)	Laid in Air (Flat Spaced)
mm <sup>2</sup>	A	A	A	A	A	A	A
400	590	572	564	571	845	837	938



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Rated voltage



IEC60502-2