

Nexans Ref.: BDBH27AA001CXNA

Country Ref.: 8270

Al conductor, XLPE insulated, Black PVC sheath. 0.6/1 kV. Made to AS/NZS 5000.1

DESCRIPTION

Application

- Industrial and commercial applications (predominantly)
- Some domestic applications
- For use in various situations to supply the main power from the point of supply (either single or three phase application) to buildings, equipment, eg, switch board to main control cabinet, main between floors and buildings, cable cabinet to motor, etc. Commonly used in Power Authority work.



STANDARDS

National AS/NZS 5000.1



Conductor flexibility
Class 2



Rated Voltage Uo/U (Um)
0.6/1 (1.2) kV



Cable flexibility
Rigid



Max.conductor temp.in service
90 °C



U.V resistance
Yes

CHARACTERISTICS

Construction characteristics

Conductor material	Aluminum
Type of conductor	Circular compacted stranded
Insulation	XLPE
Outer sheath	PVC
Conductor flexibility	Class 2
Conductor shape	Circular
Sheath colour	Black
With Green/Yellow core	No
With smaller neutral conductor	No

Dimensional characteristics

Conductor cross-section	300 mm ²
Nominal overall diameter	27.9 mm
Gland Size (A2 or A2F)	40
Approximate weight	1.19 kg/m
Neutral conductor section (when smaller)	- mm ²
Number of cores	1

Electrical characteristics

Max. DC resistance of the conductor at 20°C (Ohm/km)	0.1
Permissible short circuit current conductor 1s	- kA
Rated Voltage U ₀ /U (Um)	0.6/ 1 (1.2) kV

Mechanical characteristics

Cable flexibility	Rigid
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Usage characteristics

Max. conductor temperature in service	90 °C
U.V resistance	Yes

CURRENT CARRYING CAPACITIES SINGLE PHASE (IN AMPS) - SINGLE CONDUCTOR XLPE

Copper/ALuminium conductor - Circular compacted stranded - Insulation XLPE Max. Conductor Temperature 90C

Conductor cross-section														
	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
[mm²]														
300	790	618	666	520	-	-	761	595	663	516	601	471	-	-
	Air Spaced from Surface, Unenclosed					Air touching, unenclosed					Air enclosed			
	Buried direct					Buried in single-way duct					Buried in multi-way duct			
	Cable surrounded by thermal insulation, unenclosed													

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- Ambient Air Temperature: 30°C
- Soil Temperature: 15°C
- Soil Thermal Resistivity: 1.2 K.m/W
- Depth of Burial: 0.5 m

CURRENT CARRYING CAPACITIES THREE PHASE (IN AMPS) - SINGLE CONDUCTOR XLPE

Copper conductor - Circular compacted stranded - Insulation XLPE Aluminum conductor - Circular compacted stranded - Insulation XLPE Max. Conductor Temperature 90C

Conductor cross-section [mm²]														
	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
300	713	559	662	519	516	405	630	495	591	460	525	412	-	-
	Air Spaced from Surface, Unenclosed			Air touching, unenclosed			Air enclosed							
	Buried direct			Buried in single-way duct			Buried in multi-way duct							
	Cable surrounded by thermal insulation, unenclosed													

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