

Nexans Ref.: BDBH30AA001CXNA

Country Ref.: 4658

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	500 mm ²
Nominal overall diameter	35.0 mm
Gland Size (A2 or A2F)	50S
Approximate weight	1.87 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)	0.0601
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 [mm²]														
	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
500	1063	849	903	722	-	-	977	780	856	676	791	631	-	-
	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 [mm ²]														
	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
500	961	773	893	717	696	560	805	646	756	598	693	556	-	-
	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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