

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

## CHARACTERISTICS

### Construction characteristics

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

### Dimensional characteristics

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

### Electrical characteristics

Max. DC resistance of the conductor at 20°C (Ohm/km)	0.1
Rated Voltage U <sub>0</sub> /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
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## CURRENT CARRYING CAPACITIES SINGLE PHASE (IN AMPS) - SINGLE CONDUCTOR XLPE

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

Conductor cross-section [mm²]	 AI	 AI	 AI	 AI	 AI	 AI
70	233	191	175	335	214	194
95	288	238	218	401	256	236
120	336	278	249	457	297	270
150	385	320	281	514	333	303
185	447	374	331	581	384	352
240	534	449	396	674	446	415
300	618	520	-	761	516	471
400	726	615	-	865	592	552
500	849	722	-	977	676	631
630	994	849	-	1098	792	744








 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 <sup>2</sup> ]	 AI	 AI	 AI	 AI	 AI	 AI	 AI
70	205	191	156	217	193	169	-
95	255	238	188	260	229	203	-
120	298	278	223	296	265	236	-
150	344	320	252	332	296	266	-
185	402	373	287	377	343	303	-
240	482	448	343	438	397	356	-
300	559	519	405	495	460	412	-
400	659	613	466	567	525	473	-
500	773	717	560	646	598	556	-
630	906	842	641	736	700	635	-
800	1037	964	-	825	-	706	-

 Air Spaced from Surface, Unenclosed	 Air touching, unenclosed	 Air enclosed
 Buried direct	 Buried in single-way duct	 Buried in multi-way duct
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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