

AL Cantols

AL CANTOL 400

Contact

Sales and Customer Solutions
sales.nz@nexans.com

Nexans Ref.: BDBH28AA001CXNA

Country Ref.: 4468

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 | 400 mm ² |
| Nominal overall diameter | 31.3 mm |
| Gland Size (A2 or A2F) | 40 |
| Approximate weight | 1.5 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) | 0.0778 |
| Permissible short circuit current conductor 1s | - kA |
| Rated Voltage U ₀ /U (Um) | 0.6/ 1 (1.2) kV |

Mechanical characteristics















| | |
|-------------------|-------|
| Cable flexibility | Rigid |
|-------------------|-------|

Usage characteristics

| | |
|---------------------------------------|-------|
| Max. conductor temperature in service | 90 °C |
|---------------------------------------|-------|

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 [mm ²] |  | |  | |  | |  | |  | |  | |  | |
|---|---|-----|---|-----|---|---------------------------|---|-----|--|---|---|-----|---|----|
| | Cu | Al | Cu | Al | Cu | Al | Cu | Al | Cu | Al | Cu | Al | Cu | Al |
| 400 | 920 | 726 | 779 | 615 | - | - | 865 | 865 | 755 | 592 | 699 | 552 | - | - |
|  | 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 |
| 400 | 832 | 659 | 772 | 613 | 587 | 466 | 715 | 567 | 670 | 525 | 596 | 473 | - | - |
|  | 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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installation conditions of:

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