

**CIRCULAR PVC**

2C + E

 COPPER



## APPLICATION

For mains, submains and subcircuits unenclosed, enclosed in conduit, buried direct or in underground ducts for buildings and industrial plants where not subject to mechanical damage.

Suitable for glanding.

**STANDARD** AS/NZS 5000:2

**VOLTAGE** 450/750V

**CONDUCTOR** Copper 1.5 – 6.0mm2

**STANDARD** AS/NZS 5000.1

**VOLTAGE** 600/1000V

**CONDUCTOR** Copper 10 - 150mm2

**INSULATION** PVC, V-90

Red, Black, & Green/Yellow

**SHEATH** PVC, 5V-90

 Orange

**MAX. OPERATING TEMP.** 90 **°**C

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| --- | --- | --- | --- | --- |
| **Item** **Number**  | **Conductor** | **Overall Diameter** | **Approx.****Mass****kg/km** | **Minimum** **Installed****Bending Radius****mm** |
| **mm2** | **(No./mm)** | **Minimum****mm** | **Maximum****mm** |
| DC320 | 1.5 | 7/0.50 | 8.28 | 8.43 | 160 | 65 |
| DC340 | 2.5 | 7/0.67 | 9.81 | 9.96 | 220 | 70 |
| DC350 | 4 | 7/0.85 | 11.08 | 11.23 | 290 | 80 |
| DC360 | 6 | 7/1.04 | 12.45 | 12.6 | 330 | 90 |
| DC370 | 10 | 7/1.35 | 14.88 | 15.28 | 440 | 100 |
| DC380 | 16 | 7/1.70 | 16.88 | 17.38 | 590 | 110 |
| DC390 | 25 | 19/1.35 | 20.04 | 20.54 | 850 | 135 |
| DC3100 | 35 | 19/1.53 | 22.15 | 22.65 | 1130 | 225 |
| DC3110 | 50 | 19/1.78 | 25.50 | 26.0 | 1650 | 252 |
| DC3120 | 70 | 19/2.14 | 29.85 | 30.35 | 2400 |  |
| DC3130 | 95 | 37/1.78 | 33.18 | 33.68 | 2600 |  |
| DC3140 | 120 | 37/2.03 | 36.57 | 37.22 | 2750 |  |
| DC3150 | 150 | 37/2.25 | 40.83 | 41.48 | 3000 |  |

DOMINION CABLES – LIGHTING FIJI AND THE PACIFIC A21

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| **CONDUCTOR** | **CURRENT RATING (a)** | **ELECTRICAL CHARACTERISTICS** |
| **Nominal Area** **mm2** | **Unenclosed In Air**3c_air**A** | **Non-metallic****wiring enclosure in air**2C+E_NONMETENCL**A** | **Buried In Ducts** 3cburied_2**A** | **Maximum** **DC Resistance @20°C****Ω/km** | **Maximum AC Resistance @90°C** **Ω/km** | **Equivalent Star Reactance** **Ω/km** | **Single Phase Voltage Drop****@90°C****mV/Am**  |
| 1.5 | 19 | 16 | 21 | 13.60 | 17.3 | 0.111 | 34.7 |
| 2.5 | 27 | 23 | 30 | 7.41 | 9.45 | 0.102 | 18.9 |
| 4 | 37 | 30 | 39 | 4.61 | 5.88 | 0.102 | 11.8 |
| 6 | 46 | 39 | 50 | 3.08 | 3.93 | 0.0967 | 7.9 |
| 10 | 64 | 52 | 66 | 1.83 | 2.33 | 0.0906 | 4.7 |
| 16 | 85 | 68 | 86 | 1.15 | 1.47 | 0.0861 | 2.9 |
| 25 | 113 | 90 | 112 | 0.27 | 0.927 | 0.0853 | 1.9 |
| 35 | 139 | 112 | 136 | 0.524 | 0.669 | 0.0826 | 1.35 |
| 50 | 170 | 133 | 162 | 0.387 | 0.494 | 0.0797 | 1.0 |
| 70 | 215 | 170 | 202 | 0.268 | 0.343 | 0.0770 | 0.703 |
| 95 | 265 | 204 | 243 | 0.193 | 0.248 | 0.0766 | 0.52 |
| 120 | 307 | 241 | 282 | 0.153 | 0.197 | 0.0743 | 0.423 |
| 150 | 351 | 271 | 317 | 0.124 | 0.160 | 0.0745 | 0.355 |

(a) Based on 40**°**C ambient air temperature and where applicable, burial depth of 0.5m, soil temperature of 25**°**C and soil resistivity of 1.2**°**C.m/W.

The above information is from the following sources: AS/NZS 3008.1.1:2009 (tables 10, 30, 35, 42)

 AS 1125:2001 (table 2.3)

For installation with thermal insulation refer to AS/NZS 3008 for de-rating factors.

Do not put in direct contact with polystyrene, polyurethane or similar thermal insulation materials.

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| **ACTIVE / CONDUCTOR** | **EARTH CONDUCTOR** |
| **Nominal Area** **mm2** | **Nominal Diameter** **mm** | Minimum Insulation Thickness**mm** | **Nominal Area** **mm2** | **Number & Diameter of Wires No/mm** | **Minimum Insulation Thickness****mm** |
| 1.5 | 1.5 | 0.6 | 1.5 | 7/0.50 | 0.6 |
| 2.5 | 2.0 | 0.7 | 2.5 | 7/0.67 | 0.7 |
| 4 | 2.55 | 0.8 | 2.5 | 7/0.67 | 0.7 |
| 6 | 3.12 | 0.8 | 2.5 | 7/0.67 | 0.7 |
| 10 | 4.05 | 1.0 | 4 | 7/0.85 | 1.0 |
| 16 | 5.1 | 1.0 | 6 | 7/1.04 | 1.0 |
| 25 | 6.75 | 1.2 | 6 | 7/1.04 | 1.0 |
| 35 | 7.65 | 1.2 | 10 | 7/1.35 | 1.0 |
| 50 | 8.9 | 1.4 | 16 | 7/1.70 | 1.0 |
| 70 | 10.70 | 1.4 | 25 | 19/1.35 | 1.2 |
| 95 | 12.46 | 1.6 | 25 | 19/1.35 | 1.2 |
| 120 | 14.21 | 1.6 | 35 | 19/1.53 | 1.2 |
| 150 | 15.75 | 1.8 | 50 | 19/1.78 | 1.4 |

***DOMINION WIRE & CABLES LTD.***

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