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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------|
| 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 where space is at a premium and/or where conditions of overload may occur. Suitable for glanding. | STANDARD VOLTAGE | AS/NZS 5000.1 600/1000V |
| | CONDUCTOR INSULATION | Aluminium 16 – 630mm ² XLPE, X-90 Natural |
| | SHEATH | PVC, 5V-90 Black |
| | MAX. OPERATING TEMP. | 90°C |

| Item Number | Conductor | | Overall Diameter | | Approx. Mass Kg/Km | Minimum Installed Bending Radius mm |
|--------------|-----------------|----------|------------------|--------------|-----------------------|----------------------------------------|
| | mm ² | (No./mm) | Minimum (mm) | Maximum (mm) | | |
| DC189/X/AL | 16 | 7/1.70 | 9.5 | 10 | 110 | 40 |
| DC199/X/AL | 25 | 19/1.35 | 11.55 | 12.05 | 160 | 50 |
| DC1109/X/AL | 35 | 19/1.53 | 12.45 | 12.95 | 225 | 55 |
| DC1119/X/AL | 50 | 19/1.78 | 13.9 | 14.4 | 260 | 55 |
| DC1129/X/AL | 70 | 19/2.14 | 16.1 | 16.6 | 330 | 65 |
| DC1139/X/AL | 95 | 37/1.78 | 17.86 | 18.51 | 420 | 70 |
| DC1149/X/AL | 120 | 37/2.03 | 20.01 | 20.66 | 510 | 80 |
| DC1159/X/AL | 150 | 37/2.25 | 21.95 | 22.66 | 640 | 85 |
| DC1169/X/AL | 185 | 37/2.52 | 24.44 | 25.09 | 775 | 95 |
| DC1179/X/AL | 240 | 61/2.25 | 27.45 | 28.15 | 990 | 160 |
| DC1189/X/AL | 300 | 61/2.52 | 30.28 | 30.98 | 1220 | 175 |
| DC1199/X/AL | 400 | 61/2.85 | 33.85 | 34.65 | 1600 | 195 |
| DC11109/X/AL | 500 | 61/3.20 | 37.6 | 38.4 | 2000 | 220 |
| DC11119/X/AL | 630 | 90/3.00 | 42.16 | 43.06 | 2500 | 245 |

| CONDUCTOR | CURRENT RATING (a) | | | | ELECTRICAL CHARACTERISTICS | | | |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------|
| | Three Phase | | Single Phase | | Maximum DC Resistance @20°C Ω/km | Maximum AC Resistance @90°C Ω/km | Equivalent Star Reactance (Trefoil) Ω/km | 3 Phase Voltage Drop (Trefoil) mV/Am (b),(c) |
| Nominal Area mm ² | In Conduit In Air  A | Buried In Ducts  A | In Conduit In Air  A | Buried In Ducts  A | | | | |
| 16 | 56 | 66 | 65 | 78 | 1.91 | 2.45 | 0.106 | 4.25 |
| 25 | 75 | 87 | 87 | 102 | 1.2 | 1.54 | 0.102 | 2.67 |
| 35 | 93 | 106 | 105 | 122 | 0.868 | 1.11 | 0.0982 | 1.94 |
| 50 | 111 | 126 | 129 | 147 | 0.641 | 0.822 | 0.0924 | 1.43 |
| 70 | 142 | 158 | 159 | 181 | 0.443 | 0.568 | 0.0893 | 0.997 |
| 95 | 171 | 190 | 198 | 221 | 0.320 | 0.411 | 0.0868 | 0.727 |
| 120 | 203 | 221 | 226 | 252 | 0.253 | 0.325 | 0.0844 | 0.582 |
| 150 | 229 | 249 | 255 | 283 | 0.206 | 0.265 | 0.0844 | 0.482 |
| 185 | 261 | 283 | 301 | 329 | 0.164 | 0.212 | 0.0835 | 0.394 |
| 240 | 312 | 333 | 360 | 388 | 0.125 | 0.162 | 0.0818 | 0.314 |
| 300 | 368 | 385 | | 440 | 0.100 | 0.130 | 0.0809 | 0.266 |
| 400 | 424 | 442 | | 516 | 0.0778 | 0.103 | 0.0802 | 0.226 |
| 500 | 509 | 520 | | 590 | 0.0605 | 0.0813 | 0.0796 | 0.197 |
| 630 | 583 | 593 | | 695 | 0.0469 | 0.0649 | 0.0787 | 0.177 |

(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.

(b) Assumes formation with cables touching.

(c) For single phase voltage drop, multiple by 1.155.

The above information is from the following sources:

AS/NZS 3008.1.1:2009 (tables 5, 8, 30, 34, 43)

AS 1125:2001 (table 3.3)

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.

DOMINION WIRE & CABLES LTD.

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