



APPLICATION

For mains, submains and subcircuits unenclosed, enclosed in conduit, buried direct or underground ducts for buildings and industrial plants where not subject to mechanical damage and where out of balance currents may require a neutral equal in size to the active.

Suitable for glanding.

STANDARD VOLTAGE CONDUCTOR

AS/NZS 5000:2
450/750V
Copper 1.5 – 6.0mm²

STANDARD VOLTAGE CONDUCTOR

AS/NZS 5000.1
600/1000V
Copper 10 - 240mm²

INSULATION

PVC, V-90
Red, White, Blue, Black &
Green/Yellow

SHEATH

PVC, 5V-90
Orange

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		
DC520	1.5	7/0.50	9.97	9.90	230	80
DC540	2.5	7/0.67	11.91	12.11	330	85
DC550	4	7/0.85	13.71	13.91	410	100
DC560	6	7/1.04	14.94	15.14	520	105
DC570	10	7/1.35	19.13	19.58	730	120
DC580	16	7/1.70	21.70	22.20	1040	135
DC590	25	19/1.35	26.13	26.63	1550	165
DC5100	35	19/1.53	28.72	29.22	1950	175
DC5110	50	19/1.78	33.14	33.64	2630	200
DC5120	70	19/2.14	38.45	38.99	3810	230
DC5130	95	37/1.78	43.48	43.98	4870	260
DC5140	120	37/2.03	48.04	48.69	5490	280
DC5150	150	37/2.25	53.48	54.13	7370	340
DC5160	185	37/2.52	59.81	60.46	9450	380
DC5170	240	61/2.25	68.02	68.72	12260	430

Larger size available on application

CONDUCTOR	CURRENT RATING (a)			ELECTRICAL CHARACTERISTICS			
Nominal Area	Unenclosed In Air	Non-metallic wiring enclosure in air	Buried In Ducts	Maximum DC Resistance @20°C	Maximum AC Resistance @90°C	Equival nt Star Reactanc e	3 Phase Voltage Drop @90°C
mm ²	 A	 A	 A	Ω/km	Ω/km	Ω/km	mV/Am (b)
1.5	15	14	18	13.6	17.3	0.111	30.0
2.5	22	20	25	7.41	9.45	0.102	16.4
4	29	25	33	4.61	5.88	0.102	10.2
6	37	33	42	3.08	3.93	0.0967	6.80
10	51	44	55	1.83	2.33	0.0906	4.05
16	68	58	73	1.15	1.47	0.0861	2.55
25	91	76	94	0.73	0.927	0.0853	1.61
35	112	94	114	0.524	0.669	0.0826	1.17
50	137	112	136	0.387	0.494	0.0797	0.87
70	172	142	170	0.268	0.343	0.0770	0.61
95	213	177	208	0.193	0.248	0.0766	0.45
120	247	202	237	0.153	0.197	0.0743	0.37
150	282	228	266	0.124	0.160	0.0745	0.31
185	324	263	304	0.0991	0.129	0.0744	0.259
240	383	316	359	0.0754	0.0998	0.0735	0.216

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) For single phase voltage drop, multiply by 1.155.

The above information is from the following sources:

AS/NZS 3008.1.1:2009 (tables 13, 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.

ACTIVE / CONDUCTOR			EARTH CONDUCTOR		
Nominal Area	Nominal Diameter	Minimum Insulation Thickness	Nominal Area	Number & Diameter of Wires	Minimum Insulation Thickness
mm ²	mm	mm	mm ²	No/mm	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	4.0	7/0.85	1.0
16	5.1	1.0	6.0	7/1.04	1.0
25	6.75	1.2	6.0	7/1.04	1.0
35	7.65	1.2	10	7/1.35	1.0
50	8.90	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
185	17.64	2.0	70	19/2.14	1.4
240	20.25	2.2	95	37/1.78	1.6

DOMINION WIRE & CABLES LTD.

QUALITY CABLE MANUFACTURES, DISTRIBUTORS AND EXPORTERS

LOT 3, KINGS ROAD, YALALEVU, BA. P.O. BOX 1562, BA, FIJI.

PHONE: (679)6675244 FAX: (679)6670023, E-Mail: sales@dominioncables.com

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