

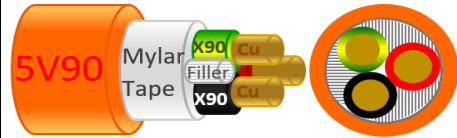


Your first choice for Quality Australian
cables and Excellent service.

Australia Pacific Electric Cables Pty Ltd
ABN 23 068 447 763

Cables Technical Specification - Multicore Electric Cables X90 Insulated/PVC Sheathed AS/NZS 5000.1

Cable drawing



Cable Configuration:

Cu Class 2 / X90 / PVC 0.6/1kV

Cable Construction:

Conductor: Plain Annealed Copper Class 2
Insulation: X90
Outer Sheath: PVC 5V-90

Technical data

Items Description		Unit	AVERAGE VALUES										
Product Code		-	MX016E02	MX025E02	MX035E02	MX050E02	MX070E02	MX095E02	MX120E02	MX150E02	MX185E02	MX240E02	MX300E02
Number of cores		-	2Cores + E										
Phase Cores	Cross Section Area	mm ²	16	25	35	50	70	95	120	150	185	240	300
	Maximum Total Number of Wires	-	7	19	19	19	19	19	37	37	37	61	61
	Maximum Diameter of Single Wire	mm	1.70	1.30	1.53	1.78	2.14	2.52	2.03	2.25	2.52	2.25	2.52
	Conductor Diameter	mm	5.10	6.50	7.65	8.90	10.70	12.60	14.21	15.75	17.64	20.25	22.68
	Average Insulation Thickness	mm	0.7	0.9	0.9	1.0	1.1	1.1	1.2	1.4	1.6	1.7	1.8
	Core Diameter	mm	6.57	8.39	9.54	11.00	13.01	14.91	16.73	18.69	20.84	23.65	26.28
Earth Core	Cross Section Area	mm ²	6	6	10	16	25	25	35	50	70	95	120
	Maximum Total Number of Wires	-	7	7	7	7	19	19	19	19	19	19	37
	Maximum Diameter of Single Wire	mm	1.04	1.04	1.35	1.7	1.3	1.3	1.53	1.78	2.14	2.52	2.03
	Conductor Diameter	mm	3.12	3.12	4.05	5.10	6.50	6.50	7.65	8.9	10.70	12.60	14.21
	Average Insulation Thickness	mm	0.7	0.7	0.7	0.7	0.9	0.9	0.9	1.0	1.1	1.1	1.2
	Core Diameter	mm	4.59	4.59	5.52	6.57	8.39	8.39	9.54	11.00	13.01	14.91	16.73
Filler		-	PVC / PP Yarn (Where required)										
Binder		-	Mylar/Non-woven/Polyester/Mica Tape (Where required) - Tapping overlap ≥ 25%										
Average Sheath Thickness		mm	1.8	1.8	1.8	1.8	1.9	2.0	2.1	2.3	2.4	2.6	2.8
Overall Diameter (±10%)		mm	16.7	19.9	22.1	25.3	29.2	32.9	36.2	40.5	45.4	51.0	56.0
Maximum Overall Diameter		mm	18.3	21.9	24.3	27.8	32.1	36.2	39.8	44.6	49.9	56.1	61.6
Cable Gross Mass (±10%)		kg/km	542	789	1041	1425	2016	2582	3213	4065	5071	6633	8203
Maximum Conductor DC Resistance @ 20° C	Phase	Ω/km	1.15	0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601
	Earth	Ω/km	3.08	3.080	1.830	1.150	0.727	0.727	0.524	0.387	0.268	0.193	0.153
Minimum Bending Radius	During installation	mm	100	119	133	228	263	296	326	365	409	459	504
	Fixed	mm	67	80	88	152	175	197	217	243	272	306	336
Maximum Safe Pulling Tension (Subject to a maximum of 22kN)		kN	2.66	3.92	5.60	8.12	11.55	15.05	19.25	22.00	22.000	22.000	22.000

Remark:

Operating Temperature:

The minimum ambient temperature is 0°C after insulation and only when cables in a fixed position.

Maximum continuous conductor operating temperature: 90°C

Conductor: -25°C to 90°C

Short Circuit (5 secs): 250°C

Colour Identification:

Insulation: Red, Black, Green/Yellow

Outer Sheath: Orange

Cable Markings:

APEC YEAR X90 ELECTRIC CABLE 0.6/1.0 KV SIZE SQMM CU

Mechanical Characteristics:

Maximum Safe Pulling Tension: 0.07 x Total CSA

Minimum Bending Radius: OD < 25mm: During installation-6OD, Fixed-4OD

OD > 25mm: During installation-9OD, Fixed-6OD

Electrical Characteristics:

Voltage Rating: 0.6/1kV

HV Test for 5 mins: 3.5kV

Minimum Insulation Resistance constant @20°C: 3000GΩ.m

Minimum Insulation Resistance constant @90°C: 3GΩ.m

Standard Compliance:

AS/NZS 5000.1

AS/NZS 3808

AS/NZS 3008

AS/NZS 1660

AS/NZS 1574

AS/NZS 1125

RoHS

Part 1: For working voltages up to and including 0.6/1 (1.2kV)

Insulating and sheathing materials for electric cables

Electrical installations—Selection of cables-Part 1.1: Cables for alternating voltages up to and including 0.6/1 kV—Typical Australian installation conditions

Test methods for electric cables, cords and conductors

Copper and Copper alloys - wire for electrical purposes

Conductors in insulated electric cables and flexible cords

Restriction of Hazardous Substances

BRISBANE
P 07 3802 3688
F 07 3803 1955
89 Platinum St
Crestmead QLD

BRISBANE SALES
P 07 3802 3651
SYDNEY
P 02 9609 1580

MELBOURNE
P 03 9445 1188
F 03 9465 9333
188 Holt Pde
Thomastown VIC

PERTH
P 08 9350 1300
F 08 9350 1333
638 Casella Pl
Kewdale WA

www.apecables.com.au

