The 2000 Handbook

SAFETY WARNING

Cables are insulated and sheathed with stable materials which may contain certain toxic substances including lead. Insulation and sheathing materials should not be chewed or ingested.

INSTALLATION

Cables must be installed in accordance with the requirements of Section 3 – Selection and Installation of Wiring Systems in the latest issue of AS/NZS3000 or the appropriate ruling standard in the country of installation. Cables must also be connected by a licensed electrician, as ruled in the state or country of installation. In particular your attention is drawn to Section 1.7 of the Wiring Rules (AS/NZS3000) – Protection for Safety.

The requirements of AS/NZS3000.2000 (current edition) differ dramatically from those in the 1991 edition of AS3000. While the intent to enforce safe design and installation practices is the same, the new standard defines the requirements rather than specifying solutions. Designers and installers can be assured the products provided by Olex Cables meet the requirements of the relevant standards, but must ensure appropriate selection of cables and components for any electrical installation.

HAZARDOUS AREAS

Installation of wiring and fittings for hazardous areas, e.g. flammable or explosive gas, liquid, dust or solids must comply with Section 7.9 – Hazardous Areas, of AS/NZS3000, and other relevant Australian Standards for specific hazards and occupancies.

TECHNICAL NOTE

PVC 90°C THERMAL RATING

The current-carrying capacities for thermoplastic cables, including flexible cords used as fixed wiring, insulated with V-90 and V-90HT PVC compounds have been based on a conductor operating temperature of 75°C because of the likelihood of thermal deformation of these cable types in the temperature range 90 to 105°C (refer AS/NZS3008.1 Table 1 Note 2).

Olex Cables is a division of Australian Cables Pty Ltd. A.C.N. 087 542 863.

CONTENTS

Handbook – 2000

CONTENTS

CONTENTS

ENVIROLEX™

Olex Envirolex™ cables are an extensive range of enhanced performance cables for the construction industry engineered to dramatically reduce environmental impact, particularly under fire conditions, while retaining the excellent mechanical and electrical properties designed into Olex' cables. Olex uses a variety of inorganically filled polyolefin based materials to engineer the cables in the Envirolex™ range to meet a wide variety of end uses and performance requirements.

Advantages of Olex Envirolex™ cables

- Conductor range up to 630mm^2
- Cable types from building wires to SWA, to multicore control
- 90°C rated for superior thermal performance
- Improved performance under fire conditions:
  - Flame retardant/self-extinguishing
  - Reduced acid, gas and smoke generation
  - Non-corrosive in fire situations
  - Reduced toxicity of fumes during fire
- Halogen free (i.e. no chlorine, bromine etc.)
- Lead free
- No special termination or installation requirements
- Made in accordance with Australian Standards

Envirolex™ cables have been tested according to and comply with the requirements of the single and bunched flame tests (as applicable) specified in AS1660.

Envirolex™ products include readily strippable cables for general construction purposes as well as the tougher products commonly found in cables with higher fire performance capability.

Envirolex™ materials are used as alternatives to all low voltage power and control cables (refer tables on pages 5 to 23).

Cables are available on request, subject to minimum production run.

Single core, 0.6/1kV PVC insulated, unsheathed to AS/NZS5000.1, Copper conductors, 90°C.

Nominal conductor area mm^2	Nominal insulation thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
0.5	0.8	2.4	1.1	BAAP01AA001
1.0	0.8	2.7	1.7	BAAP02AA001
1.0	0.8	2.8	1.6	BAAP03AA001
1.5	0.8	3.1	2.1	BAAP05AA001
2.5	0.8	3.6	3.3	BAAP07AA001
4	1.0	4.5	5.3	BAAP09AA001
6	1.0	5.1	7.3	BAAP11AA001
10	1.0	6.0	12	BAAP13AA001
16	1.0	6.9	17	BAAP15AA001
25	1.2	8.4	26	BAAC17AA001•
35	1.2	9.4	36	BAAC18AA001•
50	1.4	10.9	48	BAAC19AA001•
70	1.4	12.7	68	BAAC20AA001•
95	1.6	14.6	91	BAAC22AA001•
120	1.6	17.3	117	BAAP23AA001
150	1.8	18.8	145	BAAP24AA001
185	2.0	21.1	182	BAAP25AA001
240	2.2	24.1	238	BAAP26AA001
300	2.4	26.9	298	BAAP27AA001
400	2.6	30.6	377	BAAP28AA001
500	2.8	34.1	482	BAAP30AA001
630	2.8	37.8	615	BAAP32AA001
Single core PVC insulated copper earth conductor				
1.5	0.6	2.7	1.8	AATP05AA001
2.5	0.7	3.4	3.2	AATP07AA001

Note: • Compacted conductor.
Other temperature grades subject to minimum production runs.

Single core, PVC insulated, PVC sheathed to AS/NZS5000, Copper conductors, 90°C.

- 1.0 to 25mm² 450/750V to AS/NZS5000.2
- 35 to 630mm² 0.6/1kV to AS/NZS5000.1

Nominal conductor area mm²	Nominal insulation thickness mm	Nominal sheath thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
1.0	0.6	1.4	3.9	2.7	AABP02AA001
1.5	0.6	1.4	4.2	3.2	AABP05AA001
2.5	0.7	1.4	4.9	4.8	AABP07AA001
4	0.8	1.4	5.9	7.1	AABP09AA001
6	0.8	1.4	6.4	9.4	AABP11AA001
10	1.0	1.4	7.8	14.7	AABP13AA001
16	1.0	1.4	9.0	20.8	AABP15AA001
25	1.2	1.4	10.6	31.3	AABC17AA001•
35	1.2	1.4	12.2	43	BABC18AA001•
50	1.4	1.4	13.8	56	BABC19AA001•
70	1.4	1.4	15.5	77	BABC20AA001•
95	1.6	1.5	17.7	103	BABC22AA001•
120	1.6	1.5	20.4	133	BABP23AA001
150	1.8	1.6	22.1	161	BABP24AA001
185	2.0	1.7	24.5	201	BABP25AA001
240	2.2	1.8	27.8	262	BABP26AA001
300	2.4	1.9	30.8	326	BABP27AA001
400	2.6	2.0	34.7	411	BABP28AA001
500	2.8	2.1	38.4	521	BABP30AA001
630	2.8	2.2	42.2	659	BABP32AA001

Note: • Compacted conductor.

Single core, 0.6/1kV XLPE insulated,
PVC sheathed to AS/NZS5000.1,
Copper and Aluminium conductors, 90°C.

Nom. cond. area mm^2	Nom. insul. thick. mm	Sheath thick. mm	Nominal overall diameter mm		Approximate mass kg/100m		Product code	
			Cu	**Al**	**Cu**	**Al**	**Cu**	**Al**
16	0.7	1.4	9.1	9.1	21	11	BDBP15	BDBA15
25	0.9	1.4	10.6	10.8	30	15	BDBC17•	BDBA17•
35	0.9	1.4	11.6	12.8	40	18	BDBC18•	BDBA18•
50	1.0	1.4	13.0	13.7	52	23	BDBC19•	BDBA19•
70	1.1	1.4	14.9	15.0	73	31	BDBC20•	BDBA20•
95	1.1	1.5	16.7	17.7	97	40	BDBC22•	BDBA22•
120	1.2	1.5	19.6	18.5	123	54.9	BDBP23	BDBA23
150	1.4	1.6	21.3	20.6	152	60	BDBP24	BDBA24
185	1.6	1.6	23.5	22.4	189	72	BDBP25	BDBA25
240	1.7	1.7	26.6	25.1	246	91	BDBP26	BDBA26
300	1.8	1.8	29.4	27.7	306	112	BDBP27	BDBA27
400	2.0	1.9	33.3	31.1	386	141	BDBP28	BDBA28
500	2.2	2.0	37.0	34.7	491	178	BDBP30	BDBA30
630	2.4	2.2	41.4	39.5	635	232	BDBP32	BDBA32

Note: • Compacted conductor.
Cu – Copper conductors. Al – Aluminium conductors.

2 & 3 core flat, 450/750V PVC insulated, PVC sheathed to AS/NZS5000.2, Copper conductors, 90°C.

Nominal conductor area mm^2	Conductor type	Nominal earth area mm^2	Nominal overall dimensions mm	Approximate mass kg/100m	Product code
			2C		
1.0	Solid	1.5	6.4 × 4.1	5.1	CACP02AA002
1.5	Strand	1.5	7.1 × 4.4	6.2	CACP05AA002
2.5	Strand	2.5	8.7 × 5.3	9.7	CACP07AA002
4	Strand	2.5	10.5 × 6.3	14.3	CACP09AA002
6	Strand	2.5	11.5 × 6.8	18.7	CACP11AA002
10	Strand	4	14.3 × 8.3	29.9	CACP13AA002
16	Strand	6	16.6 × 9.6	42.5	CACP15AA002
			3C		
1.5	Strand	1.5	9.7 × 4.4	8.9	EACP05AA003
2.5	Strand	2.5	12.1 × 5.3	14.1	EACP07AA003

Note: For insulation thickness refer to page 6.

2 & 3 core+earth flat, 450/750V PVC insulated, PVC sheathed to AS/NZS5000.2, Copper conductors, 90°C.

Nominal conductor area mm^2	Conductor type	Nominal earth area mm^2	Nominal overall dimensions mm	Approximate mass kg/100m	Product code
			2C+E		
1.0	Solid	1.5	9.0×4.2	7.5	CNCP02AA002
1.5	Strand	1.5	9.7×4.4	8.9	CNCP05AA002
2.5	Solid	2.5	11.8×5.2	13.7	CNCP06AA002
2.5	Strand	2.5	12.1×5.3	14.1	CNCP07AA002
4	Strand	2.5	13.9×6.3	18.8	CNCP09AA002
6	Strand	2.5	14.8×6.8	23.2	CNCP11AA002
10	Strand	4	18.5×8.3	36.6	CNCP13AA002
16	Strand	6	21.3×19.6	51.5	CNCP15AA002
			3C+E		
1.5	Strand	1.5	12.3×4.4	11.6	ENCP05AA003
2.5	Strand	2.5	15.4×5.3	18.4	ENCP07AA003

Note: For insulation thickness refer to page 6.

2 & 3 core+earth, circular, PVC insulated, PVC sheathed to AS/NZS5000, Copper conductors, 90°C.

- 1.5 to 6mm² 450/750V to AS/NZS5000.2
- 10 to 300mm² 0.6/1kV to AS/NZS5000.1

Nominal conductor area mm²	Earth conductor area mm²	Nominal overall diameter mm	Approximate mass kg/100m	Product code
		2C+E		
1.5	1.5	9.4	13	CNHP05AA002
2.5	2.5	10.9	17	CNHP07AA002
4	2.5	12.3	22	CNHP09AA002
6	2.5	13.3	28	CNHP11AA002
10	4	16.0	48	DNHP13AA002
16	6	17.7	65	DNHP15AA002
25	6	20.5	80	DNHC17AA002•
35	10	22.5	107	DNHC18AA002•
50	16	25.6	139	DNHC19AA002•
		3C+E		
1.5	1.5	10.3	16	ENHP05AA003
2.5	2.5	12.0	23	ENHP07AA003
4	2.5	13.4	31	ENHP09AA003
6	2.5	14.4	37	ENHP11AA003
10	4	17.5	61	FNHP13AA003
16	6	19.4	84	FNHP15AA003
25	6	22.3	110	FNHC17AA003•
35	10	24.7	143	FNHC18AA003•
50	16	28.3	192	FNHC19AA003•
70	25	32.6	268	FNHC20AA003•
95	25	36.4	346	FNHC22AA003•
120	35	42.0	453	FNHP23AA003
150	50	46.3	560	FNHP24AA003
185	70	51.6	706	FNHP25AA003
240	95	58.9	916	FNHP26AA003
300	120	65.3	1153	FNHP27AA003

Note: • Compacted conductor. Earth cores smaller than 25mm² are not compacted.
2C+E, 35mm² and above, subject to minimum production run.
For insulation thickness refer to page 6.

2 & 3 core+earth, circular, 0.6/1kV XLPE insulated, PVC sheathed to AS/NZS5000.1, Copper conductors, 90°C.

Nominal conductor area mm^2	Main conductor type	Sheath thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
2C+E					
16	Strand	1.8	16.5	52	DTHP15AA002
25	Compact	1.8	19.4	74	DTHC17AA002•
35	Compact	1.8	21.4	97	DTHC18AA002•
50	Compact	1.8	24.1	130	DTHC19AA002•
70	Compact	1.8	28.0	184	DTHC20AA002•
95	Compact	1.9	31.3	233	DTHC22AA002•
120	Strand	2.0	37.0	301	DTHP23AA002
3C+E					
16	Strand	1.8	18.0	68	FTHP15AA003
25	Compact	1.8	21.0	100	FTHC17AA003•
35	Compact	1.8	23.3	132	FTHC18AA003•
50	Compact	1.8	26.3	178	FTHC19AA003•
70	Compact	1.9	31.0	253	FTHC20AA003•
95	Compact	2.0	34.1	321	FTHC22AA003•
120	Strand	2.1	40.1	422	FTHP23AA003
150	Strand	2.3	44.2	521	FTHP24AA003
185	Strand	2.5	49.8	661	FTHP25AA003
240	Strand	2.6	56.3	857	FTHP26AA003
300	Strand	2.8	62.5	1080	FTHP27AA003

Note: •Compacted conductor. Earth cores smaller than 25mm^2 are not compacted
For insulation thickness refer to page 7.
3½ core (3 core+reduced neutral with or without earth) available on request subject to minimum production runs.

4 core+earth, circular, PVC insulated,
PVC sheathed to AS/NZS5000,
Copper conductors, 90°C.

- 1.5 to 6mm^2 450/750V to AS/NZS5000.2
- 10 to 300mm^2 0.6/1kV to AS/NZS5000.1

Nominal conductor area mm^2	Earth conductor area mm^2	Nominal overall diameter mm	Approximate mass kg/100m	Product code
		4C+E		
1.5	1.5	11.0	18	GNHP05AA004
2.5	2.5	12.9	27	GNHP07AA004
4	2.5	14.5	37	GNHP09AA004
6	2.5	15.7	46	GNHP11AA004
10	4	19.1	75	HNHP13AA004
16	6	21.3	105	HNHP15AA004
25	6	24.6	138	HNHC17AA004•
35	10	27.3	182	HNHC18AA004•
50	16	32.9	249	HNHC19AA004•
70	25	38.1	349	HNHC20AA004•
95	25	42.3	451	HNHC22AA004•
120	35	48.7	591	HNHP23AA004
150	50	53.8	734	HNHP24AA004
185	70	60.2	908	HNHP25AA004
240	95	69.5	1201	HNHP26AA004
300	120	77.8	1502	HNHP27AA004

Note: •Compacted conductor. Earth cores smaller than 25mm^2 are not compacted.
For insulation thickness refer to page 6.

4 core+earth, circular, 0.6/1kV XLPE insulated, PVC sheathed to AS/NZS5000.1, Copper conductors, 90°C.

Nominal conductor area mm^2	Main conductor type	Sheath thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
		4C+E			
16	Strand	1.8	19.7	68	HTHP15AA004
25	Compact	1.8	22.8	126	HTHC17AA004•
35	Compact	1.8	25.5	168	HTHC18AA004•
50	Compact	1.9	30.6	231	HTHC19AA004•
70	Compact	2.0	36.1	330	HTHC20AA004•
95	Compact	2.2	39.6	423	HTHC22AA004•
120	Strand	2.3	46.4	552	HTHP23AA004
150	Strand	2.5	51.3	681	HTHP24AA004
185	Strand	2.7	58.1	864	HTHP25AA004
240	Strand	2.9	66.0	1117	HTHP26AA004
300	Strand	3.1	74.6	1407	HTHP27AA004

Note: •Compacted conductor. Earth cores smaller than 25mm^2 are not compacted.
For insulation thickness refer to page 7.

2 & 3 core+earth, circular, PVC insulated, PVC bedded, steel wire armoured, PVC sheathed cable to AS/NZS5000, Copper conductors, 90°C.

- 1.5 to 6mm² 450/750V to AS/NZS5000.2
- 10 to 300mm² 0.6/1kV to AS/NZS5000.1

Nominal conductor area mm²	Earth conductor area mm²	Nominal dia. over bedding mm	Nominal dia. over armour mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
2C+E						
1.5	1.5	7.8	9.7	13.3	34	CNMP05AA002
2.5	2.5	9.3	11.2	14.8	43	CNMP07AA002
4	2.5	10.7	13.2	16.8	59	CNMP09AA002
6	2.5	11.7	14.3	17.9	67	CNMP11AA002
10	4	14.4	16.9	20.5	95	DNMP13AA002
16	6	16.1	18.6	22.3	116	DNMP15AA002
25	6	19.0	22.2	25.8	150	DNMC17AA002•
35	10	21.0	24.2	27.8	181	DNMC18AA002•
50	16	24.0	27.2	30.9	230	DNMC19AA002•
3C+E						
1.5	1.5	8.7	10.5	14.1	39	ENMP05AA003
2.5	2.5	10.4	12.9	16.5	57	ENMP07AA003
4	2.5	11.8	14.3	17.9	68	ENMP09AA003
6	2.5	12.8	15.4	19.0	79	ENMP11AA003
10	4	15.9	18.4	22.0	113	FNMP13AA003
16	6	17.8	21.0	24.6	154	FNMP15AA003
25	6	20.7	23.9	27.6	184	FNMC17AA003•
35	10	23.1	26.3	30.0	226	FNMC18AA003•
50	16	26.5	29.7	33.7	287	FNMC19AA003•
70	25	31.0	35.0	39.2	407	FNMC20AA003•
95	25	34.6	38.6	43.1	499	FNMC22AA003•
120	35	40.0	44.1	48.9	636	FNMP23AA003
150	50	44.3	49.3	54.3	802	FNMP24AA003
185	70	49.4	54.4	59.8	977	FNMP25AA003
240	95	56.7	61.7	68.0	1230	FNMP26AA003
300	120	62.7	67.7	74.5	1501	FNMP27AA003

Note: •Compacted conductor.
For insulation thickness refer to page 6.

3½ core (3 core+reduced neutral with or without earth) available on request subject to minimum production runs.

2 & 3 core+earth, circular, 0.6/1kV XLPE insulated, PVC bedded, steel wire armoured, PVC sheathed cable to AS/NZS5000.1, Copper conductors, 90°C.

Nominal conductor area mm^2	Earth conductor area mm^2	Nominal dia. over bedding mm	Nominal dia. over armour mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
2C+E						
2.5	2	9.3	11.1	14.8	42	DTMP07AA002
4	2	10.3	12.8	16.5	57	DTMP09AA002
6	2	11.3	13.8	17.5	64	DTMP11AA002
10	4	13.2	15.7	19.3	80	DTMP13AA002
16	6	14.9	17.4	21.1	98	DTMP15AA002
25	6	17.8	20.3	24.0	129	DTMC17AA002•
35	10	19.8	23.0	26.7	169	DTMC18AA002•
50	16	22.5	25.7	29.4	211	DTMC19AA002•
70	25	26.4	29.6	33.4	279	DTMC20AA002•
95	25	29.9	33.9	37.9	364	DTMC22AA002•
120	35	35.4	39.4	43.7	459	DTMP23AA002
3C+E						
16	6	16.4	18.9	22.5	118	FTMP15AA003
25	6	19.4	22.6	26.2	171	FTMC17AA003•
35	10	21.7	24.9	28.6	212	FTMC18AA003•
50	16	24.7	27.9	31.8	267	FTMC19AA003•
70	25	29.6	33.6	37.8	387	FTMC20AA003•
95	25	32.0	36.0	40.5	467	FTMC22AA003•
120	35	38.2	42.3	46.9	596	FTMP23AA003
150	50	42.4	47.4	52.5	750	FTMP24AA003
185	70	47.6	52.6	57.9	916	FTMP25AA003
240	95	54.3	59.3	65.0	1145	FTMP26AA003
300	120	60.1	65.1	71.7	1406	FTMP27AA003

Note: •Compacted conductor.
For insulation thickness refer to page 7.
3½ core (3 core+reduced neutral with or without earth) available on request subject to minimum production runs.

4 core+earth, circular, PVC insulated, PVC bedded, steel wire armoured PVC sheathed to AS/NZS5000, Copper conductors, 90°C.

- 1.5 to 6mm² 450/750V to AS/NZS5000.2
- 10 to 300mm² 0.6/1kV to AS/NZS5000.1

Nominal conductor area mm²	Earth conductor area mm²	Nominal dia. over bedding mm	Nominal dia. over armour mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
			4C+E			
1.5	1.5	9.4	11.3	14.9	43	GNMP05AA004
2.5	2.5	11.3	13.9	17.5	63	GNMP07AA004
4	2.5	12.9	15.4	19.0	78	GNMP09AA004
6	2.5	14.1	16.7	20.3	91	GNMP11AA004
10	4	17.5	20.7	24.4	145	HNMP13AA004
16	6	19.7	22.9	26.5	181	HNMP15AA004
25	6	23.0	26.2	29.9	221	HNMC17AA004•
35	10	25.7	28.9	32.7	276	HNMC18AA004•
50	16	31.3	35.3	39.5	390	HNMC19AA004•
70	25	36.3	40.3	44.7	511	HNMC20AA004•
95	25	40.5	45.5	50.4	672	HNMC22AA004•
120	35	46.7	51.7	56.9	849	HNMP23AA004
150	50	51.4	56.4	61.9	1012	HNMP24AA004
185	70	58.0	63.0	69.4	1227	HNMP25AA004
240	95	66.6	71.6	78.4	1560	HNMP26AA004
300	120	75.0	82.1	88.9	2009	HNMP27AA004

Note: •Compacted conductor.
For insulation thickness refer to page 6.
3½ core (3 core+reduced neutral with or without earth) available on request subject to minimum production runs.

4 core+earth, circular, 0.6/1kV XLPE insulated, PVC bedded, steel wire armoured PVC sheathed to AS/NZS5000.1, Copper conductors, 90°C.

Nominal conductor area mm^2	Earth conductor area mm^2	Nominal dia. over bedding mm	Nominal dia. over armour mm	Nominal overall diameter mm	Approx. mass kg/100m	Product code
			4C+E			
16	6	18.1	21.3	25.0	154	HTMP15AA004
25	6	21.2	24.4	28.0	203	HTMC17AA004•
35	10	23.9	27.1	31.0	256	HTMC18AA004•
50	16	29.2	33.2	37.2	363	HTMC19AA004•
70	25	34.5	38.5	43.0	485	HTMC20AA004•
95	25	37.6	41.6	46.3	586	HTMC22AA004•
120	35	44.6	49.6	54.7	795	HTMP23AA004
150	50	49.1	54.1	59.6	944	HTMP24AA004
185	70	55.9	60.9	67.0	1164	HTMP25AA004
240	95	63.4	68.4	74.9	1452	HTMP26AA004
300	120	70.6	76.9	84.0	1900	HTMP27AA004

Note: •Compacted conductor.
For insulation thickness refer to page 7.
3½ core (3 core+reduced neutral with or without earth) available on request subject to minimum production runs.

Multicore circular+earth, 0.6/1kV PVC insulated, PVC sheathed to AS/NZS5000.1, Copper conductors, 90°C.

Number of cores	Nominal overall diameter mm	Approximate mass kg/100m	Product code
1.5mm² (7/0.50mm)			
5+E	12.9	24	BFAP05AA005
6+E	14.4	27	BFAP05AA006
8+E	15.2	32	BFAP05AA008
10+E	16.1	38	BFAP05AA010
12+E	16.8	42	BFAP05AA012
15+E	18.2	50	BFAP05AA015
16+E	19.1	53	BFAP05AA016
20+E	20.1	63	BFAP05AA020
25+E	22.1	74	BFAP05AA025
30+E	24.2	87	BFAP05AA030
36+E	25.2	100	BFAP05AA036
40+E	27.4	112	BFAP05AA040
50+E	29.3	138	BFAP05AA050
2.5mm² (7/0.67mm)			
5+E	14.5	33	BFAP07AA005
6+E	14.8	35	BFAP07AA006
8+E	17.2	46	BFAP07AA008
10+E	18.2	56	BFAP07AA010
12+E	19	61	BFAP07AA012
15+ E	20.6	71	BFAP07AA015
16+E	21.7	77	BFAP07AA016
20+E	22.8	91	BFAP07AA020
25+E	25.2	109	BFAP07AA025
30+E	27.7	128	BFAP07AA030
36+E	28.9	150	BFAP07AA036
40+E	31.5	168	BFAP07AA040
50+E	33.8	203	BFAP07AA050

Note: For insulation thickness refer to page 5.

Multicore circular+earth, 0.6/1kV PVC insulated, PVC bedded, steel wire armoured PVC sheathed to AS/NZS5000.1, Copper conductors 90°C.

Number of cores	Nominal dia. over bedding mm	Nominal dia. over armour mm	Nominal overall diameter mm	Approx. mass kg/100m	Product code
1.5mm² (7/0.50mm)					
5+E	11.3	13.8	17.5	60	BFCP05AA005
6+E	11.6	14.1	17.8	62	BFCP05AA006
8+E	13.6	16.1	19.8	75	BFCP05AA008
10+E	15.1	17.5	21.1	87	BFCP05AA010
12+E	15.2	17.7	21.4	89	BFCP05AA012
15+E	16.6	19.1	22.8	100	BFCP05AA015
16+E	17.5	20.7	24.4	119	BFCP05AA016
20+E	18.5	21.7	25.4	131	BFCP05AA020
25+E	20.5	23.7	27.4	151	BFCP05AA025
30+E	22.6	25.8	29.5	170	BFCP05AA030
36+E	23.6	26.8	30.6	188	BFCP05AA036
40+E	25.8	29	32.9	208	BFCP05AA040
50+E	27.9	31.9	36.2	266	BFCP05AA050
2.5mm² (7/0.67mm)					
5+E	12.9	15.4	19	75	BFCP07AA005
6+E	13.1	15.6	19.3	77	BFCP07AA006
8+E	15.6	18.1	21.8	94	BFCP07AA008
10+E	17.2	20.4	24.1	122	BFCP07AA010
12+E	17.4	20.6	24.3	126	BFCP07AA012
15+E	19	22.2	25.9	143	BFCP07AA015
16+E	20.1	23.3	26.9	152	BFCP07AA016
20+E	21.2	24.4	28.1	169	BFCP07AA020
25+E	23.6	26.8	30.7	197	BFCP07AA025
30+E	26.1	29.3	33.1	226	BFCP07AA030
36+E	27.1	30.3	34.4	250	BFCP07AA036
40+E	30.1	34.1	38.4	308	BFCP07AA040
50+E	32.2	36.2	40.6	352	BFCP07AA050

Note: For insulation thickness refer to page 5.

2, 3 & 4 conductor 0.6/1kV PVC insulated, NEUTRAL SCREENED, PVC sheathed cable to AS/NZS3155, Copper conductor, 90°C.

	Nominal conductor area mm^2	Nominal insulation thickness mm	Nominal sheath thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
2 conductor				**Mains cable**		
	6	1.2	1.8	10.4	21	BAGP11AA001
	10	1.2	1.8	11.6	31	BAGP13AA001
	16	1.2	1.8	13.2	44	BAGP15AA001
	25	1.4	2.0	15.5	70	BAGC17AA001•
				Aerial cable		
	6	1.2	1.8	10.4	22	BAGT11AA001
	10	1.2	1.8	11.7	31	BAGT13AA001
	16	1.2	1.8	13.5	45	BAGT15AA001
	25	1.4	1.8	15.9	68	BAGT17AA001
3 conductor				**Mains cable**		
	6	1.0	1.8	10.7×16.0	33	DAEP11AA002
	10	1.0	1.8	12.0×18.2	47	DAEP13AA002
	16	1.0	1.8	13.2×20.3	65	DAEP15AA002
				Aerial cable		
	6	1.0	1.8	10.8×16.1	34	DAET11AA002
	10	1.0	1.8	12.0×18.3	48	DAET13AA002
	16	1.0	1.8	13.4×20.8	67	DAET15AA002
4 conductor				**Mains cable**		
	6	1.0	1.8	16.6	46	FAGP11AA003
	10	1.0	1.8	18.1	60	FAGP13AA003
	16	1.0	1.8	20.7	85	FAGP15AA003
	25	1.2	1.8	23.9	132	FAGC17AA003•
	35	1.2	1.9	26.6	174	FAGC18AA003•
	50	1.4	2.0	30.5	232	FAGC19AA003•
	70	1.4	2.0	35.3	321	FAGC20AA003•
				Aerial cable		
	6	1.0	1.8	16.7	45	FAGT11AA003
	10	1.0	1.8	18.7	62	FAGT13AA003
	16	1.0	1.8	21.3	87	FAGT15AA003
	25	1.2	1.8	25.6	139	FAGT17AA003
	35	1.2	1.8	28.1	174	FAGT18AA003

Note: • Compacted conductor.

0.6/1kV PVC insulated aerial cables to AS/NZS5000.1, Hard Drawn Copper conductors, 90°C.

Nominal conductor area mm^2	No. & nom. diameter of wires mm	Nominal insulation thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
Single core					
6	7/1.04	1.0	5.1	8	BAAT11AA001
10	7/1.35	1.0	6.1	12	BAAT13AA001
16	7/1.70	1.0	7.1	18	BAAT15AA001
25	19/1.35	1.2	9.2	29	BAAT17AA001
35	19/1.53	1.2	10.1	37	BAAT18AA001
50	19/1.78	1.4	11.7	50	BAAT19AA001
70	19/2.14	1.4	13.5	70	BAAT20AA001
95	37/1.78	1.6	15.7	95	BAAT22AA001
120	37/2.03	1.6	17.4	121	BAAT23AA001
150	37/2.25	1.8	19.4	149	BAAT24AA001
2C – Parallel					
6	7/1.04	1.0	5.1 × 11.4	15	DAAT11AA002
10	7/1.35	1.0	6.1 × 13.0	23	DAAT13AA002
16	7/1.70	1.0	7.1 × 15.1	35	DAAT15AA002
3C – Parallel					
6	7/1.04	1.0	5.1 × 17.2	22	FAAT11AA003
10	7/1.35	1.0	6.1 × 20.0	35	FAAT13AA003
16	7/1.70	1.0	7.1 × 23.2	53	FAAT15AA003
2C – Twisted					
6	7/1.04	1.0	10.1	15	DAFT11AA002
10	7/1.35	1.0	11.9	23	DAFT13AA002
16	7/1.70	1.0	14.0	35	DAFT15AA002
25	19/1.35	1.2	18.1	59	DAFT17AA002
3C – Twisted					
6	7/1.04	1.0	10.9	22	FAFT11AA003
10	7/1.35	1.0	12.9	35	FAFT13AA003
16	7/1.70	1.0	15.1	53	FAFT15AA003
25	19/1.35	1.2	19.5	89	FAFT17AA003
4C – Twisted					
6	7/1.04	1.0	12.2	30	HAFT11AA004
10	7/1.35	1.0	14.4	47	HAFT13AA004
16	7/1.70	1.0	16.9	71	HAFT15AA004
25	19/1.35	1.2	21.8	118	HAFT17AA004

2, 3 & 4 core aerial bundled cable 0.6/1kV XLPE insulated compacted H9 Aluminium conductors, to AS3560, 90°C.

Nominal conductor area mm²	Nominal insulation thickness mm	Diameter over insulation mm	Diameter over laid-up cores mm	Approximate mass kg/100m	Product code
			2C		
25	1.3	8.6	17.2	20	XDAB17AA002
35	1.3	9.8	19.3	25	XDAB18AA002
50	1.5	11.3	22.5	34	XDAB19AA002
95	1.7	15.0	30.1	64	XDAB22AA002
			3C		
25	1.3	8.6	18.7	29	XDAB17AA003
35	1.3	9.8	21.0	37	XDAB18AA003
50	1.5	11.3	24.3	51	XDAB19AA003
70	1.5	13.0	27.7	70	XDAB20AA003
			4C		
25	1.3	8.6	21.0	39	XDAB17AA004
35	1.3	9.8	23.5	50	XDAB18AA004
50	1.5	11.3	27.2	67	XDAB19AA004
70	1.5	13.0	31.1	93	XDAB20AA004
95	1.7	15.1	36.2	128	XDAB22AA004
120	1.7	16.5	39.6	157	XDAB23AA004
150	1.7	17.9	43.1	189	XDAB24AA004

CORE COLOURS

Colour sequences are valid for standard light ordinary and heavy duty cords.

a) **Preferred Core Colours** – As specified by AS/NZS3000 for cords not installed as fixed wiring.

		Olex Colour Code
2 Core	Brown, Light Blue	JJ
3 Core	Brown, Light Blue, Green/Yellow	KA
4 Core	Brown, Light Blue, White, Green/Yellow	DV
5 Core	Brown, Light Blue, Orange, White, Green/Yellow	FS

Light blue is normally used as a neutral (where applicable).

b) **Alternative Core Colours** – As recommended by AS/NZS3191 for cords used in fixed applications. Purchase of these cables may be subject to main order quantities.

		Olex Colour Code
2 Core	Red, Black	HF
3 Core	Red, Black, Green/Yellow	TD
4 Core	Red, White, Blue, Green/Yellow	PF

Black may only be used as a neutral in fixed applications.

Note: The core colours are only recommended by AS/NZS3191. Variations may be used for flexible or fixed application; contact your local Olex office for further information.

250/440V PVC insulated and sheathed ordinary duty flexible cord to AS/NZS3191, 90°C.

Nominal conductor area mm^2	Maximum diameter of wires mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
		2C		
0.75	0.21	6.3	6	CAHR02AA002
1.0	0.21	6.6	7	CAHR03AA002
1.5	0.26	7.6	9	CAHR04AA002
2.5	0.26	9.4	14	CAHR05AA002
4	0.31	10.5	19	CAHR06AA002
		2C+E		
0.75	0.21	6.6	7	EAHR02AA003
1.0	0.21	7.0	8	EAHR03AA003
1.5	0.26	8.3	11	EAHR04AA003
2.5	0.26	10.1	17	EAHR05AA003
4	0.31	11.4	24	EAHR06AA003
		3C+E		
0.75	0.21	7.2	8	GAHR02AA004
1.0	0.21	7.8	10	GAHR03AA004
1.5	0.26	9.2	14	GAHR04AA004
2.5	0.26	11.0	21	GAHR05AA004
4	0.31	12.4	29	GAHR06AA004
		4C+E		
0.75	0.21	8.1	10	APAR02AA005
1.0	0.21	8.5	12	APAR03AA005
1.5	0.26	10.3	17	APAR04AA005
2.5	0.26	12.3	26	APAR05AA005
4	0.31	13.8	36	APAR06AA005

Note: For core colour, flexible cords refer to page 23.
90°C HT available on request subject to minimum production runs.

0.6/1kV PVC insulated and PVC sheathed heavy duty flexible cord to AS/NZS3191, 90°C.

Nominal conductor area mm^2	Maximum diameter of wires mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
		2C		
0.75	0.21	8.2	9	CBGR02AA002
1.0	0.21	8.5	10	CBGR03AA002
1.5	0.26	9.5	12	CBGR04AA002
2.5	0.26	11.2	18	CBGR05AA002
4	0.31	12.9	25	CBGR06AA002
		3C		
0.75	0.21	8.8	10	EBGR02AA003
1.0	0.21	9.1	12	EBGR03AA003
1.5	0.26	10.1	15	EBGR04AA003
2.5	0.26	11.9	22	EBGR05AA003
4	0.31	13.8	30	EBGR06AA003
		4C		
0.75	0.21	9.7	13	GBGR02AA004
1.0	0.21	10.0	14	GBGR03AA004
1.5	0.26	11.1	18	GBGR04AA004
2.5	0.26	13.1	26	GBGR05AA004
4	0.31	15.2	37	GBGR06AA004
		5C		
0.75	0.21	10.6	15	BSBR02AA005
1.0	0.21	11.0	17	BSBR03AA005
1.5	0.26	12.2	22	BSBR04AA005
2.5	0.26	14.4	32	BSBR05AA005
4	0.31	16.9	46	BSBR06AA005

Note: For core colour, flexible cords refer to page 23.
Conductor stranding may vary according to production method and relevant Standard.
90°C HT available on request subject to minimum production runs.

Other flexible cords to AS/NZS3191.

Nominal conductor area mm^2	Maximum diameter of cores mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
Single core 0.6/1kV PVC insulated flexible cord to AS/NZS3191, 90°C				
0.75	0.21	2.8	1.5	BAAR02AA001
1.0	0.21	3.0	1.7	BAAR03AA001
1.5	0.26	3.2	2	BAAR04AA001
2.5	0.26	3.7	3	BAAR05AA001
4	0.31	5.0	5.3	BAAR06AA001
Single core 0.6/1kV V90HT PVC insulated, tinned copper flexible cord to AS/NZS3191, 90°C HT				
0.75	0.21	2.8	1.5	BAAR52AD001
1.0	0.21	3.0	1.7	BAAR53AD001
1.5	0.26	3.2	2.0	BAAR54AD001
2.5	0.26	3.7	3.0	BAAR55AD001
4	0.31	5.0	5.3	BAAR56AD001
Twin "figure 8" 250/250V PVC insulated flexible cord to AS/NZS3191, 90°C				
0.75	0.21	3.1×5.9	2.3	CAAR02AA002
2 and 3 core 250/250V PVC insulated, PVC sheathed LIGHT duty flexible cord to AS/NZS3191, 90°C				
0.75	0.21	5.7	5	CBER02AA002
0.75	0.21	5.8	6	EBER02AA003
2 core 250/250V PVC insulated, PVC sheathed LIGHT duty flat flexible cord to AS/NZS3191, 90°C				
0.75	0.21			CBLR02AA002

Note: For core colour, flexible cords refer page 24.
2 core light duty flat cords supplied in red and white insulation, red sheath for fire alarm wiring systems.

Multicore circular 0.6/1kV PVC insulated and PVC sheathed heavy duty flexible control cable, with or without black neutral, white insulated, black numbered cores including earth generally to AS/NZS5000.1, 90°C.

Number of cores	Nominal overall diameter mm^2	Approximate mass kg/100m	Product code
		0.75mm^2	
5	13.4	22	BFFR02AA005
7	15.4	28	BFFR02AA007
9	17.2	34	BFFR02AA009
11	18.9	41	BFFR02AA011
15	18.2	43	BFFR02AA015
19	19.9	51	BFFR02AA019
		1.0mm^2	
5	13.9	24	BFFR03AA005
7	16.1	31	BFFR03AA007
9	17.9	38	BFFR03AA009
11	19.8	46	BFFR03AA011
15	19.0	48	BFFR03AA015
19	20.9	58	BFFR03AA019
		1.5mm^2	
5	14.8	29	BFFR04AA005
7	17.1	36	BFFR04AA007
9	19.2	46	BFFR04AA009
11	21.2	54	BFFR04AA011
15	20.4	58	BFFR04AA015
19	22.4	70	BFFR04AA019

*Cables suitable for crane pendant and de-reeler applications.

Flexolex™ HD; 0.6/1kV cords and cables EPR insulated and CPE sheathed to AS/NZS3191 (cords) and AS/NZS5000.1 (cables), tinned copper conductors, 90°C.

Nominal conductor area mm^2	Maximum diameter of wires mm	Nominal insulation thickness mm	Nominal sheath thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
2C+E						
0.75	0.21	0.8	1.4	8.8	11	RDER52AA003
1.0	0.21	0.8	1.4	9.1	12	RDER53AA003
1.5	0.26	0.8	1.6	10.1	15	RDER54AA003
2.5	0.26	0.9	1.8	12.0	22	RDER55AA003
4	0.31	1.0	1.9	13.9	31	RDER56AA003
3C+E						
1.5	0.26	0.8	1.7	11.2	19	RDER54AA004
2.5	0.26	0.9	1.9	13.2	27	RDER55AA004
4	0.31	1.0	2.0	15.3	39	RDER56AA004
6	0.31	1.0	2.2	17.9	55	RDHR57AA004
10	0.41	1.2	3.4	24.4	97	RDHR58AA004
16	0.41	1.2	3.6	27.4	135	RDHR59AA004
25	0.41	1.4	4.0	32.9	204	RDHR60AA004
4C+E						
1.5	0.26	0.8	1.8	12.3	23	RDER54AA005
2.5	0.26	0.9	2.0	14.5	33	RDER55AA005
4	0.31	1.0	2.2	17.0	48	RDER56AA005
6	0.31	1.0	2.4	19.9	68	RDHR57AA005
10	0.41	1.2	3.6	26.8	118	RDHR58AA005
16	0.41	1.2	3.8	30.2	164	RDHR59AA005
25	0.41	1.4	4.3	36.4	251	RDHR60AA005
35	0.41	1.4	4.6	40.6	322	RDHR61AA005

Note: Other sizes and conductor configurations are available upon request.

Flexolex™ HD – Screened; 0.6/1kV cords and cables EPR insulated, EPR bedded, tinned copper wire braid screened, CPE sheathed to AS/NZS3191 (cords) and AS/NZS5000.1 (cables), tinned copper conductors, 90°C.

Nominal cond. area mm^2	Maximum diameter of wires mm	Nominal insul. thick. mm	Nom. sheath thick. mm	Nominal dia.under braid mm	Nominal overall mm	Approx. mass diameter kg/100m	Product code
			3C+E				
1.5	0.26	0.8	1.8	9.7	14.7	30	RDLR54AA004
2.5	0.26	0.9	1.9	11.3	16.5	40	RDLR55AA004
4	0.31	1.0	2.2	13.2	19.0	54	RDLR56AA004
6	0.31	1.0	2.4	15.3	21.8	76	RDXR57AA004
10	0.41	1.2	3.5	19.2	28.4	126	RDXR58AA004
16	0.41	1.2	3.8	21.8	31.6	168	RDXR59AA004
			4C+E				
1.5	0.26	0.8	1.9	10.6	15.8	35	RDLR54AA005
2.5	0.26	0.9	2.1	12.4	18.0	48	RDLR55AA005
4	0.31	1.0	2.3	14.5	20.5	64	RDLR56AA005
6	0.31	1.0	2.6	16.9	23.9	92	RDXR57AA005
10	0.41	1.2	3.7	21.2	30.8	150	RDXR58AA005
16	0.41	1.2	4.0	24.2	34.4	201	RDXR59AA005

Note: Other sizes are available upon request.

1 core, 0.6/1kV TPE insulated cable for welding, power and switchboard applications to AS/NZS5000.1 and suitable for 600V welding application to AS/NZS1995.

Nominal insulation thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code	Nominal overall diameter mm	Approximate mass kg/100m	Product code
TPS				**TPSW***		
1.0	6.2	12	BAAX01MN001	9.1	16	BABX01MN001
1.0	7.4	17	BAAX02MN001	10.2	23	BABX02MN001
1.2	9.1	26	BAAX03MN001	12.0	33	BABX03MN001
1.2	10.2	35	BAAX04MN001	13.1	42	BABX04MN001
1.4	12.2	50	BAAX05MN001	15.1	59	BABX05MN001
1.4	14.1	70	BAAX06MN001	16.9	79	BABX06MN001
1.6	16.3	95	BAAX07MN001	19.4	107	BABX07MN001
1.6	17.9	117	BAAX08MN001	20.9	130	BABE87MN001
1.8	19.6	132	BAAE88MN001	22.8	155	BABE88MN001

*Insulation thickness for TPSW cables is the same as that for TPS cables.
TPS: 0.6/1kV rated TPE insulated single core unprotected flexible copper cable for power and switchboard applications. 90°C HT rated to AS/NZS5000.1.
TPSW: 0.6/1kV rated TPE insulated and sheathed single core flexible copper cable for power, welding and switchboard applications. 90°C HT rated to AS/NZS5000.1 and AS/NZS1995.

TPS & TPSW are made with V90HT rated materials and are suitable for temperatures up to 105°C for limited periods (refer AS/NZS3008). These materials have enhanced UV protection characteristics and enhanced fire resistance properties, hence the insulated and sheathed cables are excellent for heavy duty welding applications.

1 core, 0.6/1kV CPE covered cable for welding and power to AS/NZS1995 and AS/NZS5000.1, 90°C.

Nominal conductor area mm^2	Maximum diameter of wires mm	Nominal conductor diameter mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
10	0.21	4.5	8.9	16	RDWX01AA001
16	0.21	5.0	9.4	22	RDWX02AA001
25	0.21	6.5	10.9	32	RDWX03AA001
35	0.21	7.8	12.2	43	RDWX04AA001
50	0.21	9.6	14.4	60	RDWX05AA001
70	0.21	11.8	16.9	83	RDWX06AA001
95	0.21	13.7	19.4	108	RDWX07AA001
120	0.51	15.3	21.3	136	RDWX08AA001
150	0.51	16.5	23.0	167	RDWX09AA001
185	0.51	19.2	26.3	210	RDWX10AA001
240	0.51	22.9	30.2	266	RDWX11AA001

1 core, 600V PVC/TPE welding flex to AS/NZS1995, 90°C.

Nominal conductor area mm^2	Maximum diameter of wires mm	Nominal conductor diameter mm	Nominal overall diameter mm	Approximate mass kg/100m	Product code
16	0.21	2.3	10.0	22	WDCX02AA001
25	0.21	2.3	11.3	32	WDCX03AA001
35	0.21	2.3	12.4	41	WDCX04AA001
50	0.21	2.4	14.2	57	WDCX05AA001
70	0.21	2.4	16.0	78	WDCX06AA001
95	0.21	2.6	18.2	105	WDCX07AA001
120	0.21	2.8	20.2	130	WDCE87AA001
150	0.31	2.9	21.9	158	WDCE88AA001

Current carrying capacity, welding applications.

Nominal conductor area	A Maximum duty cycle %				Maximum D.C. resistance at 20°C	Voltage drop mV/A.m	
mm^2	100	60	30	25	mΩ/m	1 phase	3 phase
10	87	110	160	175	1.843	4.6	4.0
16	115	150	215	235	1.162	3.0	2.6
25	155	200	285	315	0.749	2.0	1.7
35	195	250	355	390	0.530	1.3	1.1
50	250	320	450	495	0.375	0.97	0.84
70	310	400	560	620	0.267	0.69	0.60
95	375	485	685	750	0.198	0.54	0.47
120	435	570	790	870	0.153	0.44	0.38
150	510	660	930	1020	0.123	0.37	0.32
185	570	740	1040	1150	0.097	0.32	0.28
240	680	880	1240	1360	0.076	0.28	0.24

Note: For power current rating refer page 72.

Fixed conductor variable speed drive cables.
0.6/1kV XLPE insulated, 3 core+3 earths,
PVC bedded, Copper tape screened,
PVC sheathed to AS/NZS5000.1,
Copper conductors, 90°C.

Power cores		Combined earth size	Nominal diameter		Approximate mass	Product code
Conductor area mm^2	Insulation thickness mm	mm	over screen mm	overall mm	kg/100m	
2.5	0.7	2.5*	10.7	14.4	33.1	FTDP07AA003
4	0.7	4.5	12.7	16.4	41.8	FTDP09AA003
6	0.7	4.5	13.9	17.6	49.2	FTDP11AA003
10	0.7	4.5	14.9	18.6	62.1	FTDP13AA003
16	0.7	7.5	16.9	20.6	86.3	FTDP15AA003
25	0.9	12	19.4	23.1	123	FTDC17AA003
35	0.9	18	22.2	25.9	163	FTDC18AA003
50	1.0	30	25.4	29.1	215	FTDC19AA003
70	1.1	30	28.6	32.3	281	FTDC20AA003
95	1.1	48	31.6	35.3	367	FTDC22AA003
120	1.2	48	38.1	41.8	464	FTDP23AA003
150	1.4	75	41.8	45.6	581	FTDP24AA003
185	1.6	75	46.5	50.6	703	FTDP25AA003
240	1.7	105	52.7	56.9	914	FTDP26AA003
300	1.8	150	59.2	63.8	1154	FTDP27AA003

*Split earth not feasible, therefore a single earth conductor is utilised.

PYROLEX™ FIRE RATED – SINGLE CORE ES110
Stranded Copper conductor, flame barrier tape layer, 0.6/1kV R-HF-110 insulated, HF-110-R sheathed to AS/NZS5000.1, 110°C.

Nominal area	AS3013 rating	Thickness		Nominal overall diameter	Approximate mass	Product code
		Insulation	Sheath			
mm^2		mm	mm	mm	kg/100m	
10	WS52W	1.0	1.4	10.5	20	PDEP13AA001
16	WS52W	1.0	1.4	11.5	26	PDEP15AA001
25	WS52W	1.2	1.4	13.4	40	PDEP17AA001
35	WS52W	1.2	1.4	14.2	49	PDEP18AA001
50	WS52W	1.4	1.4	15.8	64	PDEP19AA001
70	WS52W	1.4	1.4	17.6	86	PDEP20AA001
95	WS52W	1.6	1.5	19.9	114	PDEP22AA001
120	WS52W	1.6	1.5	21.6	142	PDEP23AA001
150	WS52W	1.8	1.6	23.8	174	PDEP24AA001
185	WS52W	2.0	1.7	26.2	216	PDEP25AA001
240	WS52W	2.2	1.8	29.4	279	PDEP26AA001
300	WS52W	2.4	1.9	32.6	389	PDEP27AA001
400	WS52W	2.6	2.0	36.2	443	PDEP28AA001
500	WS52W	2.8	2.1	39.8	553	PDEP30AA001
630	WS52W	2.8	2.2	43.9	699	PDEP32AA001

PYROLEX™ FIRE RATED – MULTICORE ES90
Stranded Copper conductor, flame barrier tape layer, 0.6/1kV X-HF-90 XLPE insulated, HFS-90-TP sheathed to AS/NZS5000.1, 90°C.

Number of cores	Nominal area	AS3013 rating	Thickness		Nominal overall diameter	Approximate mass	Product code
			Insulation	Sheath			
	mm^2		mm	mm	mm	kg/100m	
2	1.5	WS52W	0.7	1.8	11.0	15	PEGP05AA002
2	2.5	WS52W	0.7	1.8	12.2	20	PEGP07AA002
2+E	1.5	WS52W	0.7	1.8	11.7	18	PDGP05AA002
2+E	2.5	WS52W	0.7	1.8	12.5	23	PDGP07AA002
2+E	4	WS52W	0.7	1.8	13.5	28	PDGP09AA002
2+E	6	WS52W	0.7	1.8	14.6	30	PDGP11AA002
2+E	10	WS52W	0.7	1.8	16.1	50	PDGP13AA002
3	1.5	WS52W	0.7	1.8	11.5	17	PEGP05AA003
3	2.5	WS52W	0.7	1.8	12.7	22	PEGP07AA003
3+E	1.5	WS52W	0.7	1.8	12.5	20	PDGP05AA003
3+E	2.5	WS52W	0.7	1.8	13.7	27	PDGP07AA003
3+E	4	WS52W	0.7	1.8	14.7	33	PDGP09AA003
3+E	6	WS52W	0.7	1.8	16.0	40	PDGP11AA003
3+E	10	WS52W	0.7	1.8	17.8	57	PDGP13AA003
3+E	16	WS52W	0.7	1.8	21.0	82	PDGP15AA003
3+E	25	WS52W	0.9	1.8	23.0	114	PDGC17AA003
3+E	35	WS52W	0.9	1.8	25.6	149	PDGC18AA003
4	1.5	WS52W	0.7	1.8	12.8	20	PEGP05AA004
4	2.5	WS52W	0.7	1.8	13.8	26	PEGP07AA004
4+E	1.5	WS52W	0.7	1.8	13.6	25	PDGP05AA004
4+E	2.5	WS52W	0.7	1.8	15.1	33	PDGP07AA004
4+E	4	WS52W	0.7	1.8	16.4	41	PDGP09AA004
4+E	6	WS52W	0.7	1.8	17.3	50	PDGP11AA004
4+E	10	WS52W	0.7	1.8	19.5	71	PDGP13AA004
4+E	16	WS52W	0.7	1.8	23.1	105	PDGP15AA004
4+E	25	WS52W	0.9	1.8	25.5	145	PDGC17AA004
4+E	35	WS52W	0.9	1.8	28.4	191	PDGC18AA004
4+E	50	WS52W	1.0	1.9	32.8	255	PDGC19AA004

Olex Dekoron™ instrumentation cable.

Number & nominal diameter of wires no/mm	Number of pairs	Nominal overall diameter mm	Approximate mass kg/100m	Product code
Single pair – screened				
7/0.30	1	5.7	4.0	IEB183AA001
7/0.50	1	6.9	6.0	IEB184AA001
Overall screened pairs with drain wire				
7/0.30	2	8.4	8	IEC183AA002
7/0.30	4	9.1	11	IEC183AA004
7/0.30	6	11.3	16	IEC183AA006
7/0.30	8	12.5	20	IEC183AA008
7/0.30	10	13.7	24	IEC183AA010
7/0.30	12	14.7	28	IEC183AA012
7/0.30	16	16.9	36	IEC183AA016
7/0.30	20	18.5	44	IEC183AA020
7/0.30	24	19.9	52	IEC183AA024
7/0.30	36	24.3	76	IEC183AA036
7/0.30	50	27.9	101	IEC183AA050
Individually and overall screened pairs with drain wire				
7/0.30	2	8.7	9	IED183AA002
7/0.30	4	11.6	16	IED183AA004
7/0.30	6	13.5	21	IED183AA006
7/0.30	8	15.1	27	IED183AA008
7/0.30	10	16.3	33	IED183AA010
7/0.30	12	17.6	38	IED183AA012
7/0.30	16	19.7	48	IED183AA016
7/0.30	20	21.7	58	IED183AA020
7/0.30	24	24.1	71	IED183AA024
7/0.30	36	28.5	100	IED183AA036
7/0.30	50	33.1	134	IED183AA050

Note: A complete range of 7/0.50 pairs is available.

Olex Dekoron™ instrumentation cable.

Number & nominal diameter of wires no/mm	Number of pairs (or triples where applicable)	Nominal overall diameter mm	Approximate mass kg/100m	Product code
Single pair screened – SWA				
7/0.50	1	11.8	27.0	IEF184AA001
Overall screened pairs – SWA				
7/0.30	2	13.0	31	IEG183AA002
7/0.30	4	13.7	36	IEG183AA004
7/0.30	6	15.9	52	IEG183AA006
7/0.30	8	17.6	61	IEG183AA008
7/0.30	10	18.8	68	IEG183AA010
7/0.30	12	19.8	75	IEG183AA012
7/0.30	16	21.6	87	IEG183AA016
Individually & overall screened pairs – SWA				
7/0.30	2	13.3	33	IEH183AA002
7/0.30	4	16.3	53	IEH183AA004
7/0.30	6	18.6	66	IEH183AA006
7/0.30	8	20.3	76	IEH183AA008
7/0.30	10	21.0	82	IEH183AA010
Single triple screened				
7/0.50	1	7.5	9.0	IGB184AA001
Single triple screened – SWA				
7/0.50	1	12.1	30.0	IGF184AA001
Overall screened triples with drain wire				
7/0.30	4	11.3	17.0	IGC183AA004
7/0.30	6	13.1	22.0	IGC183AA006
7/0.30	12	17.7	41.0	IGC183AA012
Thermocouple extension wire, screened with drain wire				
1/1.30	1	5.2	5.0	IKC971AA001 JK
1/1.30	1	5.2	5.0	IKC972AA001 KX
1/1.30	1	5.2	5.0	IKC973AA001 SX
1/1.30	1	5.2	5.0	IKC974AA001 TX

Note: Other pair and triple counts available.
7/0.50 SWA pairs and triples available.

CATEGORY 3 16MHz

1/0.5mm (24 AWG) copper, S.R. PVC insulated, twisted pairs, unshielded, grey PVC sheath.

Pairs	Pack size	Nominal insulation thickness	Nominal O.D.	Nominal capacitance	Nominal impedance	Product code
	m	mm	mm	pF/m	Ohm	
2	305 box	0.18	3.6	62.3	100	J1227A1
4	305 box	0.18	4.3	62.3	100	J1229A2
25	305 reel*	0.18	10.4	70	100	JGAD06FG025
50	305 reel	0.13	11.5	70	100	JGAD05FG050
100	600 reel	0.13	14.1	70	100	JGAD06FG100

Approvals – UL, NEC, CEC.
*Also available in 1800m reels.

CATEGORY 5 STANDARD (100MHz)

1/0.5mm (24 AWG) copper, or 7/0.20mm (24 AWG) tinned copper, polyefin insulated, twisted pairs, PVC sheath. Maximum capacitance unbalanced (pF/100m): 330.

Pairs	Sheath colour	Pack size m	Screen Y/N	Solid/ stranded conductor	Nominal insulation thickness mm	Nominal O.D. mm	Product code
4	Blue	305	N	Solid	0.20	5.4	JVJDO6AA004BEDA
4	Blue	500	N	Solid	0.20	5.4	JVJD06AA004BED5
4	Grey	305	N	Solid	0.20	5.4	JVJD06AA004GYDA
25	Blue	305	N	Solid	0.23	14.0	J1864A0061000
4	Blue	305	Y	Solid	0.28	6.4	J1624A006U1000
4	Grey	305	Y	Solid	0.28	6.4	J1624RF2U1000
4	Blue	305	N	Stranded	0.19	5.6	JWTP37DA004BEAA
4	*	500	N	Stranded	0.19	5.6	JWTP37A5004xxAA

Approvals – ACA, TIA/EIA, UL.
*Sheath colours available: blue, green, grey, red, white, and yellow.
**National Brand.

CATEGORY 5 EXTERNAL

1/0.5mm (24 AWG) copper, polyefin insulated, 4 unshielded twisted pairs, ripcord, PVC sheath, black polyethylene oversheath, for outdoor and underground applications.

Pack size m	Std unit kg ea	Nominal insulation thickness mm	Nominal O.D. mm	Maximum DCR Ohms/ 100m	Maximum capacitance unbalanced mm	Maximum capacitance unbalanced pF/100m	Product code
1000	45.9	0.20	6.9	9.38	5	330	JZZD061D006

Approvals – UL, NEC, CEC.

CATEGORY 5e
DATATWIST 5e, ENHANCED 5e 100MHz

1/0.5mm (24 AWG) copper or 7/0.20mm (24 AWG) copper, polyefin insulated, unshielded twisted pairs, PVC sheath. Maximum capacitance unbalanced (pF/m): 49.2.

Pairs	Solid/ stranded conductor	Sheath colour	Pack size m	Nominal insulation thickness mm	Nominal O.D. mm	Product code
4	Solid	Blue	305 box	0.20	5.0	J1583A006DA
4	Solid	Blue	500 box	0.20	5.0	J1583A006D5
4	Solid	Grey	305 box	0.20	5.0	J1583AF6HDA
4	Stranded	*	500 reel	0.21	6.0	JYJP37F6004

Available in blue, black, grey, green, red, white and yellow.
Approvals – ACA, NEC, CEC, TIA/EIA, UL.
*Meets the return loss requirements specified in Addendum 5 of TIA/EIA 568A.

CATEGORY 5e (ENHANCED) EXTERNAL

1/0.5mm (24 AWG) copper, polyefin insulated, unshielded twisted pairs – each with adjoined singles, ripcord, PVC sheath. Black oversheath to suit outdoor and underground applications.

Pack size m	Pairs	Nominal insulation thickness mm	Nominal O.D. mm	Nominal capacitance pF/m	Maximum DCR conductor Ohms/km	Nominal Impedance Ohms	Nominal velocity of propagation	Product code
305 box	4	0.230	6.9	50pF	93.8	100	69%	YM45092

PROPOSED CATEGORY 6
DATATWIST 350

(High Performance with extra headroom) (350MHz) 1/0.5mm (24 AWG) copper or 7/0.20mm (24 AWG) tinned copper, polyolefin insulated, unshielded twisted pairs, ripcord, blue PVC sheath. Maximum capacitance unbalanced (pF/100m): 66.

Pairs	Solid/ stranded conductor	Pack size m	Nominal insulated conductor O.D. mm	Nominal O.D. mm	Product code
4	Solid	305 box	0.23	5.1	J1700A006U1000
4	Solid	500 reel	0.23	5.1	J1700A0061640
4	Stranded	305 box	0.23	5.6	J1752A006U1000

Approvals – ACA, NEC, CEC, UL.

CATEGORY 6

MediaTwist for Multimedia and all shared sheath applications. Performs well in excess of all proposed Category 6 requirements.

1/0.5mm (24 AWG) copper, polyolefin insulated, unshielded twisted pairs, adjacent pairs bonded (see figure).

Pairs	Sheath colour	Nominal insulated conductor O.D. mm	Nominal O.D. mm	Product code
4	Blue	0.23	9.3 x 7.2	J1872A0061000
4	Grey	0.23	9.3 x 7.2	J1872AX661000

THIN ETHERNET

19/0.20 (20 AWG) tinned copper, foam PE insulated, Duobond II shield, 97% tinned copper braid, grey PVC sheath.

Pack size m	Nominal O.D. mm	Ohms	Nominal velocity of propagation	Nominal capacitance pF/m	Product code
305 box	4.7	50	80%	83.3	J9907E4XU1000
500 reel	4.7	50	80%	83.3	J9907E4X1640

100 Ohm TWINAXIAL

7/0.32 (20 AWG) 2 conductors, 1 tinned copper, 1 bare copper, insulated, duofoil and 86% tinned copper braid, black PVC sheath.

Pack size m	Nominal O.D. mm	Nominal velocity of propagation	Nominal capacitance pF/m	Product code
305 reel	6.0	66%	50.9	J92070101000

78 Ohm TWINAXIAL (BLUE HOSE)

7/0.32mm (20 AWG) 2 conductors, tinned copper, PE insulated, foil screen, tinned drain wire, 55% tinned copper braid, blue PVC sheath.

Pack size m	Nominal O.D. mm	Nominal velocity of propagation	Nominal capacitance pF/m	Product code
305 reel	6.2	66%	64.60	J9463J221000
305 box	6.2	66%	64.60	J9463J22U1000

INDOOR/OUTDOOR RISER

Internal/external Multimode (62.5/125/250μm) light duty riser has individually buffered fibres (900μm PVC) surrounded by water swellable yarn reinforcement with an external Flame Retardant Non-Corrosive (FRNC) Sheath.

Number of fibres	Nominal O.D. mm	Nominal weight kg/100m	Minimum bending radius mm		Product code
			No load	Full load	
4	4.8	1.7	75	100	NRBP62AA004
6	5.3	2.1	78	110	NRBP62AA006
8	5.3	2.2	78	110	NRBP62AA008
12	7.0	3.5	105	140	NRBP62AA012

Construction options:

1. Single mode.
2. Higher Pulling tension – e.g. = 1000μm.
3. Dual Jacket of PE & Halogen Free Sheath.

INTERNAL LIGHT DUTY RISER CABLE

Individually buffered optical fibres surrounded by yarn reinforcement, flame retardant, PVC Sheath. Fibre element diameter 0.9mm.

Number of fibres	Fibre type	Nominal O.D. mm	Approximate mass kg/100m	Minimum bending radius (mm)		Product code
				No load	Full load	
6	Single mode	5.3	2.1	78	110	NRAP10AA006
12	Single mode	7.0	3.5	105	140	NRAP10AA012
4	Multi mode	4.8	1.7	75	100	NRAP62AA004
6	Multi mode	5.3	2.1	78	110	NRAP62AA006
8	Multi mode	5.3	2.2	78	110	NRAP62AA008
12	Multi mode	7.0	3.5	105	140	NRAP62AA012

Note: Single mode 9/125/250μm.
Multi mode 62.5/125/250μm.

Construction options:

1. Heavy Duty Yarn for higher pulling tension.
2. Dual sheath: PE & Low Smoke Zero Halogen materials.

INTERNAL HEAVY DUTY RISER

Single element multimode (62.5/125/250μm) fibres stranded around a tension member, taped, PVC sheath.

Number of fibres	Nominal O.D. mm	Approximate mass kg/100m	Minimum bending radius (mm)		Product code
			No load	Full load	
6	9.8	0.8	100	200	NCAP62AA006
12	12.2	1.1	125	250	NCAP62AA012

Construction options:

1. Multimode (62.5/125/250μm) other sheath sizes 18 to 36 core.
2. Single mode (9/125/250μm) 2 to 36 core.
3. Mixed fibre types.
4. Low Smoke Zero Halogen.

EXTERNAL SINGLE TUBE

Construction

Single mode (9/125/250μm) or Multi-mode (62.5/125/250μm).

The optical fibres are contained in a jelly filled loose tube, with external strength members, PE sheath, with or without nylon jacket.

Number of fibres	Fibre type	Nominal O.D.	Maximum Att. dB/km			Product code	Product code (nylon oversheath)
		mm	850 nm	1310 nm	1551 nm		
6	Single mode	10.2	–	1.0	1.0	NQCU10AA006	NQDU10AA006
12	Single mode	10.2	–	1.0	1.0	NQCU16AA012	NQDU10AA012
4	Multi mode	10.2	3.5	1.0	–	NQCU62AA004	NQDU62AA004
6	Multi mode	10.2	3.5	1.1	–	NQCU62AA006	NQDU62AA006
8	Multi mode	10.2	3.5	1.1	–	NQCU62AA008	NQDU62AA008
12	Multi mode	10.2	3.5	1.1	–	NQCU62AA012	NQDU62AA012

Notes:
Minimum Bending Radius (mm) No load 85: Full load: 170.
Rated Tensile Strength: 150kg.
Maximum Crush resistance: 200kg/100mm.
Nominal Weight/km: PE sheath: 52. Nylon oversheath: 62.
Single mode 9/125/250μm.
Multimode 62.5/125/250μm.

EXTERNAL LOOSE TUBE

Single Mode: 10/125 single mode fibres in jelly filled 2.35mm loose tubes, laid up around central strength member, PE sheath.

Multi Mode: 62.5/125 multi mode fibres, in 2.35mm jelly filled loose tubes, laid up around central strength member, PE sheath. Both Single mode and Multi mode type available with or without nylon oversheath.

Number of fibres	Fibre type	Maximum Attentuation dB/km			Product code	Product code (nylon oversheath)
		850 nm	1310 nm	1551 nm		
6	Single mode	–	1.0	1.0	NKCU10BA006	NKDU10BA006
8	Single mode	–	1.0	1.0	NKCU10BA008	NKDU10BA008
12	Single mode	–	1.0	1.0	NKCU10BA012	NKDU10BA012
18	Single mode	–	1.0	1.0	NKCU10BA018	NKDU10BA018
24	Single mode	–	1.0	1.0	NKCU10BA024	NKDU10BA024
36	Single mode	–	1.0	1.0	NKCU10BA036	NKDU10BA036
6	Multi mode	3.5	1.0	–	NKCU62BA006	NKDU62BA006
8	Multi mode	3.5	1.0	–	NKCU62BA008	NKDU62BA008
12	Multi mode	3.5	1.0	–	NKCU62BA012	NKDU62BA012
18	Multi mode	3.5	1.0	–	NKCU62BA018	NKDU62BA018
24	Multi mode	3.5	1.0	–	NKCU62BA024	NKDU62BA024
36	Multi mode	3.5	1.0	–	NKCU62BA036	NKDU62BA036

Notes:

1. Single mode (9/125/250μm). Multimode (62.5/125/250μm).
2. Minimum Bending Radius (mm): No load 100, Full load 200.
3. Rated tensile strength: 200kg.
4. Maximum Crush Resistance: 200kg/100mm.
5. Nominal weight/km: PE sheath 85mm, nylon oversheath 99mm.
6. Nominal O.D. PE sheath 10.2mm, nylon oversheath 10.6mm.

EXTERNAL ARMOURED LOOSE TUBE

Multi-mode (62.5/125/250μm) fibres, in jelly filled loose tubes, laid up around central strength member, water swellable taped, yarn reinforced, corrugated steel tape armour, PE sheath.

Number of fibres	Nominal O.D.	Aproximate mass	Maximum Attenuation dB/km		Product code
	mm	kg/100m	850nm	1310nm	
6	12.9	18.5	3.5	1.0	NKGU62DA006
12	12.9	18.5	3.5	1.0	NKGU62DA012
36	12.9	18.5	3.5	1.0	NKGU62DA036

Notes:

1. Minimum Bending Radius (mm): No load 129, Full load 258.
2. Rated tensile strength: 275kg.
3. Maximum Crush Resistance: 448kg/100mm.

INTERNAL

1/0.5mm PACW, PVC insulated, twisted pairs, PVC sheath.

Pairs	Nominal conductor diameter mm	Nominal overall diameter mm	Approximate mass kg/100m	Capacitance pair to pair at 1kHz pF/500m	Product code
(1 Quad)	0.5	3.3	1.7	1000	TLC590N3001
3	0.5	4.5	2.8	300	TLC590N3003
5	0.5	5.4	4.5	300	TJC590A5005
6	0.5	6.1	5.1	300	TJC590A5006
10	0.5	7.3	7.5	300	TJC590A9010
20	0.5	9.5	13.1	300	TJC590A9020
25	0.5	10.5	15.8	300	TJC590A9025
50	0.5	14.0	29.3	300	TJC590A9050
100	0.5	19.5	57.7	300	TJC590A9100

Note: 1 Quad and 3 pair available in 305m box.
5 and 6 pair available in 200 and 500 metre reels.
10 and above available in 500 and 100 metre reels.

UNDERGROUND – EXTERNAL

Plain Annealed Copper Wire (PACW), PE insulated, twisted pairs, PE sheath.

Pairs	Nominal sheath thickness mm	PE sheath			PE sheath with nylon oversheath		
		Product code	Nominal O.D. mm	Approx. mass kg/100m	Product code	Nominal O.D. mm	Approx. mass kg/100m
0.4mm diameter conductor							
2	0.8	TEP794FPB02	4.9	2.2	TEP794FNB02	5.7	2.9
6	1.15	TAP794PP006	6.7	4.0	TAP794PN006	7.7	5.5
10	1.15	TAP794PP010	8.0	5.6	TAP794PN010	9.0	7.0
20	1.15	TAP794PP020	10.2	9.7	TAP794PN020	11.2	11.4
30	1.15	TAP794PP030	11.9	13.5	TAP794PN030	12.9	15.5
50	1.15	TAP794PP050	14.6	20.8	TAP794PN050	15.6	23.3
100	1.65	TAP794PP100	20.5	41.3	TAP794PN100	21.5	44.7
0.64mm diameter conductor							
(1 Quad)	1.15	TUP796PP002	5.1	2.9	TUP796PN002	5.9	3.6
6	1.15	TAP796PP006	8.9	7.4	TAP796PN006	9.9	8.9
10	1.15	TAP796PP010	10.8	11.0	TAP796PN010	11.8	12.9
20	1.15	TAP796PP020	14.1	19.8	TAP796PN020	15.1	22.1
30	1.45	TAP796PP030	17.3	29.7	TAP796PN030	18.3	32.6
50	1.65	TAP796PP050	22.8	47.9	TAP796PN050	22.8	51.6
100	2.15	TAP796PP100	30.4	94.0	TAP796PN100	31.4	98.8

Pack size: 500m and 1000m drums. Other sizes available on application.

EXTERNAL JELLY FILLED

Plain annealed copper wire (PACW), cellular PE insulated, twisted pairs, high temperature jelly, paper tape wrap, PE sheath, with or without nylon oversheath.

Pairs	Nominal sheath thickness mm	PE sheath			Nylon jacket		
		Product code	Nominal O.D. mm	Approx. mass kg/100m	Product code	Nominal O.D. mm	Approx. mass kg/100m
0.4mm diameter conductor							
6	1.15	TDP794FP006	6.7	4.4	TDP794FN006	7.7	6.0
10	1.15	TDP794FP010	8.4	6.7	TDP794FN010	9.4	8.1
20	1.15	TDP794FP020	10.5	11.2	TDP794FN020	11.5	13.0
30	1.15	TDP794FP030	12.2	15.6	TDP794FN030	13.2	17.6
50	1.15	TDP794FP050	14.8	24.1	TDP794FN050	15.8	26.5
100	1.35	TDP794FP100	20.0	45.5	TDP794FN100	21.0	48.7
0.64mm diameter conductor							
2	1.15	TBP796FP002	6.0	3.6	TBP796FN002	6.8	4.4
6	1.15	TDP796FP006	9.4	8.8	TDP796FN006	10.4	10.4
10	1.15	TDP796FP010	11.2	13.2	TDP796FN010	12.2	14.9
20	1.15	TDP796FP020	14.6	25.5	TDP796FN020	15.6	26.6
30	1.15	TDP796FP030	17.1	33.2	TDP796FN030	18.1	36.0
50	1.35	TDP796FP050	21.6	53.7	TDP796FN050	22.6	57.3
100	1.35	TDP796FP100	29.4	102.8	TDP796FN100	30.4	107.6

Pack size: 500m and 1000m drums. Other sizes available on application.

EXTERNAL JELLY FILLED & MOISTURE BARRIER

PACW, cellular PE insulated, twisted pair, high temperature jelly, taped, Al laminate moisture barrier bonded to the PE sheath, with or without Nylon oversheath.

Pairs	Nominal sheath thickness mm	PE sheath			Nylon jacket		
		Product code	Nominal O.D. mm	Approx. mass kg/100m	Product code	Nominal O.D. mm	Approx. mass kg/100m
0.64mm diameter conductor							
6	1.15	TDB796FP006	9.7	10.1	TDB796FN006	10.7	11.7
10	1.15	TDB796FP010	11.5	14.5	TDB796FN010	12.5	16.5
20	1.15	TDB796FP020	14.9	28.5	TDB796FN020	15.9	27.7
30	1.15	TDB796FP030	17.4	35.6	TDB796FN030	18.4	38.5
50	1.15	TDB796FP050	21.9	56.9	TDB796FN050	22.9	60.1
100	1.35	TDB796FP100	29.7	106.1	TDB796FN100	30.7	110.9

Pack size: 500m and 1000m drums. Other sizes available on application. Solid poly insulated.

AERIAL

0.64mm plain annealed copper wire, PE insulated, twisted pair, tinned copper drain wire, PE sheath incorporating a galvanised high tensile steel bearer wire in figure 8 construction.

Pairs	Size of bearer mm	Nominal sheath thick. mm	Nominal external dia. mm	Approximate mass kg/100m	Product code
0.64mm diameter conductor					
1	1/1.25	1.15	5.4 x 3.8	2.6	TTA796IB001
2	1/1.25	1.25	6.7 x 3.8	3.2	TUA796IB002
10	1/2.50	1.15	17.0 x 11.2	16.9	TIA796IB010*

*Includes aluminium foil screen over the twisted pair.
These cables are not power cables or for direct connection of equipment to mains power supplies.

TELSTRA APPROVED EXTERNAL

Plain annealed copper wire, cellular PE insulated, twisted pair, high temperature jelly filled, taped, PE sheath. Alternate construction, aluminium laminate moisture barrier bonded to the PE sheath, nylon oversheath.

Pairs	Nominal sheath thickness	PE sheath			PE sheath with nylon jacket		
		Product code	Nominal O.D.	Approx. mass	Product code	Nominal O.D.	Approx. mass
	mm		mm	kg/100m		mm	kg/100m
0.4mm diameter conductor							
2	0.80	TEP794FPB02	4.9	2.2	TEP794FNB02	5.7	2.9
5	0.08	TFP794FPB05	5.6	3.8	TFP794FNB02	6.3	4.5
10	1.15	TDB794FPB10	8.8	7.8	TDB794FNB10	9.8	9.2
20	1.15	TDB794FPB20	11.3	12.0	TDB794FNB20	12.3	14.0
30	1.15	TDB794FPB30	12.6	17.5	TDB794FNB30	13.6	19.5
50	1.15	TDB794FPB50	15.2	26.5	TDB794FNB50	16.2	29.0
100	1.15	TDB794FPB00	20.3	48.0	TDB794FNB00	21.3	51.0
0.64mm diameter conductor							
6	0.95	TDB796FPB06	9.7	10.1	TDB796FNB06	10.7	11.7
10	0.95	TDB796FPB10	12.0	14.5	TDB796FNB10	13.0	16.5
20	0.95	TDB796FPB20	14.6	25.5	TDB796FNB20	15.9	27.7
30	0.95	TDB796FPB30	17.4	35.6	TDB796FNB30	18.4	38.5
50	1.15	TDB796FPB50	21.9	56.7	TDB796FNB50	22.9	60.1
100	1.35	TDB796FPB00	27.7	106.1	TDB796FNB00	30.7	110.9

Pack size: 500m and 1000m drums, other sizes available on application.

TELEPHONE JUMPER WIRE (CROSS-CONNECT)

1/0.5mm (24 AWG) copper conductor, PVC insulated, twisted pair.

Pack size m	Nominal O.D. mm	Nominal mass kg/100m	Product code
500	1.84	0.47	TJZ790A5717RWA5
250	1.84	0.47	TJZ790AA717RWA2

CATEGORY 5 JUMPER WIRE (CROSS CONNECT)

1/0.5mm (24 AWG) copper, polyolefin insulated, twisted pairs, adjoined singles.

Pairs	Pack size m	Nominal insulation thickness mm	Nominal O.D. mm	Maximum DCR Ohms/ 100m	Maximum capacitance unbalanced pF/100m	Product code
1	30.5 & 152	0.20	1.9	9.38	330	J1721X000500
2	30.5 & 152	0.20	3.6	9.38	330	J1722X000500
3	30.5 & 152	0.20	3.9	9.38	330	J1723X000500
4	30.5 & 152	0.20	4.3	9.38	330	J1724X000500

Approvals: UL, NEC, CEC.

AUDIO CONTROL

7/0.25mm (22 AWG) tinned copper, polypropylene insulated, twisted pairs, foil shield, 7/0.20 (24 AWG) tinned copper drain wire, PVC jacket.

Pack size m	Nominal O.D. mm	Nominal velocity of propagation	Nominal pair capacitance pF/500m		Product code
305 box	4.3	66%	115*	203**	J8723060U1000
305 reel	4.3	66%	115*	203**	J87230601000
500 reel	4.3	66%	115*	203**	J87230601640

*Capacitance between conductors.
**Capacitance between one conductor and other conductors connected to shield.

Notes: Pair 1: black and red. Pair 2: green and white.

RS485 SCREENED (LOW CAPACITANCE)

7/0.20 (24 AWG) tinned copper conductors, PE insulated, twisted pairs, foil screened, 7/0.20 (24 AWG) tinned copper drain wire, overall tinned copper braid shield (90% coverage), PVC sheath. Nominal Impedance: 120 Ohms.

Pairs	Nominal O.D. mm	Nominal pair capacitance pF/m	Product code
1	5.9	12.8	J98410601000
2	8.6	12.8	J98420601000

RS232 SCREENED DATA

RS232 paired, 7/0.20mm (24 AWG) tinned copper conductors, PVC insulated, twisted pairs, foil screened, 7/0.20 (24 AWG) drain wire, PVC jacket.
Nominal Impedance 75 Ohms.

Pairs	Nominal O.D. mm	Nominal pair capacitance pF/m	Product code
1	4.0	40	J95010601000
2	5.6	30	J95020601000
3	5.9	30	J95030601000
4	6.7	30	J59040601000
6	7.3	30	J95060601000
8	8.2	30	J95080601000

RS232 SCREENED DATA (MID CAPACITANCE)

7/0.20mm (24 AWG) Copper, PE insulated, twisted pairs, foil screened, 7/0.20mm (24 AWG) tinned copper drain wire, grey PVC sheath. Nominal Capacitance pF/m: 100. Rating 300V.

Pairs	Nominal insulation thickness mm	Nominal O.D. mm	Weight/ 305m box	Product code
1*	0.3	3.1	12.0	J1883A0081000*
2	0.3	3.6	14.3	JEIP87FG002GYA3
3	0.3	4.6	16.6	JEIP87FG003GYA3
4	0.3	5.1	17.4	JEIP87FG004GYA3
6	0.3	6.2	23.7	JEIP87FG006GYA3
12.5	0.3	8.3	38.6	JEIP87FG012GYA3

*1 pair has tinned copper and polypropylene insulated conductors.

ISDN FOIL OR BRAID 120 Ohm

1/0.5mm (24 AWG) Tinned annealed copper.
Dual insulation of polyolefin foam and non-halogenated fire retardant skin, twisted pairs, polyolefin wrapped, tinned copper wire braid or foil screen with 1/0.5mm tinned copper drain wire, PVC sheath.

Pairs	Nominal insulation thickness mm	Nominal O.D. braid mm	Nominal O.D. foil mm	Nominal pair capacitance nF/km	Product code
1	0.40	N/A	4.4	45	JPMD06B1001
2	0.40	N/A	5.7	45	JPMD06B1002
10	0.26	N/A	8.3	45	JOCD56AA010
25	0.26	–	11.8	45	JOCD56AA025
32	0.26	N/A	13.5	45	JOCD56AA032
25	0.26	12.0	–	45	JOBD56AA025

Minimum quantities apply for other sizes.

SCSI (Small Computer System Interface)

Tinned copper, 7/0.13mm (28 AWG) flame retardant polyolefin insulated, twisted pairs. Polypropylene buffer layer, foil screen, tinned copper braid shield (85% cover). Light Grey PVC sheath.

Pairs	Pack size m	Standard unit kg each	Nominal O.D. mm	Nominal velocity of propagation	Nominal capacitance pF/m		Product code
25	152	24	10.70	66%	45.9	98.4	J1401A
	305	47					
34	152	33	12.2	66%	45.9	98.4	J1403A
	305	64					

*Capacitance between conductors.
**Capacitance between one conductor and other conductors connected to shield.
Note: 1. Differential mode impedance: 120 Ohms.
2. Single end mode termination impedance: 80 Ohms.
Approvals: UL, NEC, CEC.

TRAFFIC DETECTOR

1.5mm^2 stranded copper, PE insulated, twinned, jelly filled, taped, PE sheathed, jelly coated, foil screened, with 7/0.25mm tinned copper drain wire, PVC sheath.

Number of conductors	Nominal insulation thickness mm	Nominal O.D. mm	Characteristic impedance Ohms	Mutual capacitance nF/km	Capacitance unbalance*	Water penetration*	Product code
2	0.47	9.0	82–100	65–85	< 2%	< 3%	JTCD28A9002

*Capacitance unbalance and water penetration to AS2276.2–1986.

MULTICORE CIRCULAR

Copper conductor, PVC insulated, PVC sheath. Rated 50V AC/120V DC (not suitable for connection to mains).

Number of conductors	Nominal insulation thickness mm	Nominal overall diameter mm	Approximate mass kg/100m	Nominal conductor resistance Ohms/km @20°C	Product code
		7/0.20mm conductor			
4	0.25	3.9	2	81.9	JSC.2xx4C†*
6	0.25	4.8	3	81.8	JSC.2xx6C†*
		14/0.20mm conductor			
4	0.45	5.4	4	38.9	JSC.5xx4C†*
6	0.45	6.4	6	39.5	JSC.4xx6C†*

*xx Sheath colour: BN Brown
GY Grey
WT White

†Pack size: 1 100m spool
B 305m spool
5 500m spool

Notes: Insulation colours 4 core – Red, black, white, blue.
6 core – Red, black, white, blue, green, yellow.

FLAT (FIGURE 8)

Copper conductor, PVC insulated only.

Number of conductors	Nominal insulation thickness mm	Nominal diameter mm	Approximate mass kg/100m	Nominal conductor resistance Ohms/km @20°C	Product code
		7/0.20mm conductor			
2	0.45	4.2 x 1.8	2	40.5	JSF.5
		14/0.20mm conductor			
2	0.8	5.8 x 2.9	3	20.0	JSF.75

Notes: JSF.5: available in 5 colours. Rated voltage 50V AC/120V DC (ELV).
Not suitable for connection to mains.
JSF.75: available in 16 colour combinations. Rated voltage 250/250V.
Both Flat figure 8 cables available in 100m and 500m spools.

Tinned Copper, PE insulated, twisted pair, foil shield, tinned Copper drain wire, PVC jacket. Rating 300V 60ºC.

Pack size m	Conductor size	Nominal O.D. mm	Nominal capacitance pF/500m		Product code
305 box	16/0.25 (18 AWG)	5.6	79*	144**	J8760060U1000
305 reel	16/0.25 (18 AWG)	5.6	79*	144**	J87600601000

Note: 7/0.32 (20 AWG) Drain Wire

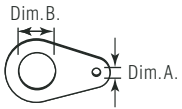
305 box	7/0.25 (22 AWG)	4.5	79*	154**	J8761060U1000
305 reel	7/0.25 (22 AWG)	4.5	79*	154**	J87610601000

Note: 7/0.25 (22 AWG) Drain Wire

*Capacitance between conductors.
**Capacitance between one conductor and other conductors connected to shield.

ALCO EARTH TAGS

Nickel Plated.



Mounting Dim.'A' mm	Dimension 'B' mm	Overall length mm	Between centres mm	Thickness mm	Carton quantity	Product code
16	7.0	55.0	34.0	1.5	30	ET16
20	7.0	55.5	34.9	1.5	30	ET20
25	10.3	69.0	41.3	1.5	20	ET25
32	11.9	90.0	54.0	1.5	20	ET32
40	13.5	108.0	63.5	1.5	20	ET40
50	13.5	126.0	76.2	1.5	5	ET50
63	13.5	141.0	84.1	1.5	1	ET63
2½"	13.5	150.0	95.3	1.5	1	ET75

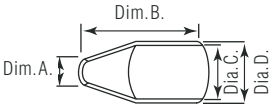
ALCO LOCKNUTS

Nickel Plated (Unplated locknuts use prefix 'U' 16 to 63mm).

Mounting threading diameter mm	Dimension across corner mm	Carton quantity	Product code
½" 26TPI	22	30	PLN12
16	24	30	PLN16
20	30	20	PLN20
25	37	20	PLN25
32	45	20	PLN32
40	55	5	PLN40
50	65	5	PLN50
63	83	1	PLN63
2½" BSP	111	1	LN2.5
2¾" BSP	111	1	LN2.75
3" BSP	123	1	LN3
3¼" BSP	131	1	LN3.25
3½" BSP	131	1	LN3.5
4" BSP	142	1	LN4

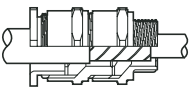
ALCO PVC SHROUDS

Orange (Black also available: add B suffix).



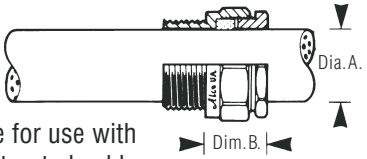
Cable Dimension 'A' mm	Overall Dimension 'B' mm	Inside Diameter 'C' mm	Outside Diameter 'D' mm	Carton quantity	Product code
7.0	70	23	27	50	SG1
14.0	70	29	33	40	SG2
17.0	85	39	41	20	SG3
25.5	85	48	50	20	SG4
30.0	97	56	58	5	SG5
32.7	110	71	73	5	SG6
33.7	125	73	75	5	SG7

CLIPSAL A4 INDUSTRIAL GLANDS TO SUIT OLEX VAROLEX CABLE



Thread size metric	Conductor size mm^2	Olex product code	Clipsal product code
20	1.5	FTDP05AA003	A4 20
25	2.5	FTDP07AA003	A4 25
25	4	FTDP09AA003	A4 25
25	6	FTDP11AA003	A4 25
25	10	FTDP13AA003	A4 25
32	16	FTDP15AA003	A4 32
32	25	FTDC17AA003	A4 32
32	35	FTDC18AA003	A4 32
40	50	FTDC19AA003	A4 40
50	70	FTDC20AA003	A4 50S
50	95	FTDC22AA003	A4 50S
50	120	FTDP23AA003	A4 50
63	150	FTDP24AA003	A4 63S
63	185	FTDP25AA003	A4 63
75	240	FTDP26AA003	A4 75S
75	300	FTDP27AA003	A4 75

ALCO SERIES
"UA" GLANDS

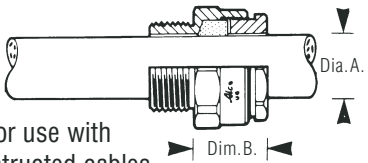


Economical gland suitable for use with unarmoured circular constructed cables.

Mounting thread		Cable dimensions Dia. 'A'		Dim. 'B'	Product code
Diameter mm	Length mm	Minimum mm	Maximum mm	mm	
½" BSP	10	0.00	6.10	16	UA12
16	10	0.00	6.10	16	UA16S
16	10	6.10	8.00	16	UA16
16	10	7.90	9.20	16	UA16L
20	10	5.70	9.20	18	UA20A
20	10	9.20	12.00	18	UA20B
20	10	12.00	14.75	18	UA20C
25	10	14.75	18.30	19	UA25A
25	10	18.30	20.60	19	UA25B
32	10	20.60	23.90	20	UA32A
32	10	23.90	26.20	20	UA32B
40	15	26.20	29.75	25	UA40A
40	15	29.75	32.50	25	UA40B
50	15	32.50	35.00	29	UA50A
50	15	35.00	38.00	29	UA50B
50	15	38.00	41.30	29	UA50C
50	15	41.30	44.45	29	UA50D
63	19	44.45	48.50	30	UA63A
63	19	48.50	52.80	30	UA63B
63	19	52.80	57.00	43	UA63C
2.5" BSP	29	55.50	62.40	35	UFPR250A
2.75" BSP	29	62.40	69.30	35	UFPR275A
3" BSP	35	69.30	76.10	35	UFPR300A
3.5" BSP	35	76.10	83.00	48	UFPR350A
3.5" BSP	35	83.00	89.90	48	UFPR350B
4" BSP	35	89.90	96.60	48	UFPR400A
4" BSP	36	96.60	103.0	48	UFPR400B

Note: UA12 Gland is supplied complete with locknut.

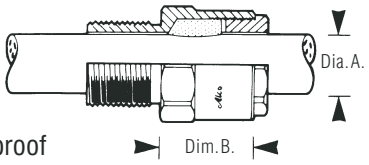
ALCO SERIES
"UG" GLANDS



Premium gland suitable for use with unarmoured circular constructed cables.

Mounting thread		Cable dimensions Dia. 'A'		Dim. 'B'	Product code
Diameter mm	Length mm	Minimum mm	Maximum mm	mm	
20	10	8.30	9.90	23.0	UG1B
20	10	9.90	11.90	23.0	UG1C
20	10	11.90	13.00	23.0	UG2A
20	10	13.00	14.70	23.0	UG2B
25	10	14.70	15.90	23.0	UG3A
25	10	15.90	17.50	23.0	UG3B
25	10	17.50	19.00	23.0	UG3C
25	10	19.00	20.60	23.0	UG3D
32	10	20.60	22.20	24.0	UG4A
32	10	22.20	23.80	24.0	UG4B
32	10	23.80	25.80	24.0	UG4C
40	15	25.80	27.00	29.0	UG5A
40	15	27.00	28.60	29.0	UG5B
40	15	28.60	30.20	29.0	UG5C
40	15	30.20	31.80	29.0	UG5D

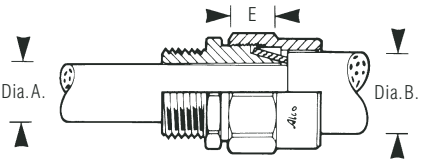
ALCO SERIES
"UFPR" GLANDS



Flameproof and weatherproof gland suitable for use with unarmoured circular constructed cables.

Mounting thread		Cable dimensions Diameter 'A'		Dimension across corner	Dimension 'B'	SG shroud	Carton qty	Product code
Diameter mm	Length mm	Minimum mm	Maximum mm	mm	mm			
20	12	6.2	9.1	25.3	17	1	15	UFPR20A
20	12	9.1	12.0	27.5	17	1	15	UFPR20B
20	13	12.0	14.5	30.2	17	2	15	UFPR20C
25	15	14.5	18.2	36.0	21	3	10	UFPR25A
32	18	18.2	21.9	41.6	22	4	5	UFPR32A
32	18	21.9	25.6	45.9	22	4	5	UFPR32B
40	20	25.6	29.8	49.8	22	5	3	UFPR40A
40	20	29.8	34.2	55.0	22	5	3	UFPR40B
50	29	34.2	39.1	72.1	34	6	2	UFPR50A
50	29	39.1	44.0	72.1	34	7	2	UFPR50B
63	29	44.0	48.7	87.6	35	–	2	UFPR63A
63	29	48.7	55.5	87.6	35	–	2	UFPR63B
2.5″ BSP	29	55.5	62.4	97.4	35	–	1	UFPR250A
2.75″ BSP	29	62.4	69.3	105.0	35	–	1	UFPR275A
3″ BSP	35	69.3	76.1	113.0	35	–	1	UFPR300A
3.5″ BSP	35	76.1	83.0	127.0	48	–	1	UFPR350A
3.5″ BSP	35	83.0	89.9	127.0	48	–	1	UFPR350B
4″ BSP	35	89.9	96.6	143.0	48	–	1	UFPR400A
4″ BSP	36	96.6	103.0	143.0	48	–	1	UFPR400B

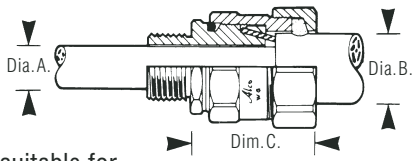
ALCO SERIES
"G" GLANDS



Standard gland suitable for indoor use with armoured circular cables in general areas.

Mounting thread		Cable dimensions		SWA diameter	Dim. 'E' SWA exposed	Product code
Diameter	Length	Dia. 'A' o'bed	Dia. 'B' overall			
mm	mm	mm	mm	mm	mm	
16	10	7.2	10.8	0.9–1.25	8.0	G164
20	10	11.0	17.0	0.9–1.25	8.0	G204
20	10	13.8	20.0	0.9–1.25	8.0	G206
25	10	16.3	22.5	0.9–1.25	8.0	G254
25	10	18.8	26.0	1.25–1.6	10.5	G256
32	10	22.8	30.0	1.25–1.6	12.0	G324
32	10	26.5	34.0	1.6–2.0	12.0	G326
40	15	32.8	41.5	1.6–2.0	14.0	G405
50	15	38.5	49.0	2.0–2.5	15.5	G503
50	15	44.5	55.5	2.0–2.5	15.5	G505
63	19	56.3	68.3	2.5–3.15	17.5	G636
2½" BSP	19	60.4	73.0	2.5–3.15	21.5	G753
2½" BSP	19	66.7	79.4	2.5–3.15	21.5	G755

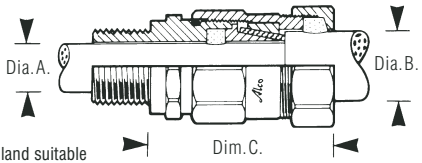
ALCO SERIES
"WG" GLANDS



Weatherproof gland suitable for use with armoured circular cables in general areas.

Mounting thread		Cable acceptance detail				Length of armour to be exposed	Product code
Diameter	Length	Dia. 'A' o'bed	Dia. 'B' overall	Armour wires	Dim. 'C'		
mm	mm	mm	mm	mm	mm	mm	
16	14.00	6.00	9.60	0.90	36.0	8.00	WG162
16	14.00	7.20	10.80	0.90	36.0	8.00	WG164
20	14.00	8.00	12.00	0.50–0.90	40.0	8.00	WG202
20	14.00	9.75	15.50	0.90–1.25	40.0	8.00	WG203
20	14.00	11.00	17.00	0.90–1.25	40.0	8.00	WG204
20	14.00	13.75	20.00	0.90–1.25	40.0	8.00	WG206
25	14.00	16.25	22.50	0.90–1.25	40.0	8.00	WG254
25	14.00	18.75	26.00	1.25–1.60	47.0	10.50	WG256
32	14.00	22.75	30.00	1.25–1.60	53.0	12.00	WG324
32	14.00	26.50	34.00	1.60–2.00	53.0	12.00	WG326
40	15.00	28.50	37.00	1.60–2.00	61.0	14.00	WG403
40	15.00	30.75	39.50	1.60–2.00	61.0	14.00	WG404
40	15.00	32.75	41.50	1.60–2.00	61.0	14.00	WG405
50	15.00	35.75	45.00	2.00–2.50	74.0	15.50	WG502
50	15.00	38.50	49.00	2.00–2.50	74.0	15.50	WG503
50	15.00	41.65	53.50	2.00–2.50	74.0	15.50	WG504
50	15.00	44.45	55.50	2.00–2.50	74.0	15.50	WG505
63	19.00	48.80	60.40	2.50–3.15	80.0	17.50	WG634
63	19.00	52.40	63.50	2.50–3.15	80.0	17.50	WG635
63	19.00	56.25	68.30	2.50–3.15	80.0	17.50	WG636
2½"	BSP23.80	60.35	73.00	2.50–3.15	84.0	23.00	WG753
2½"	BSP23.80	63.50	76.20	2.50–3.15	84.0	23.00	WG754
2½"	BSP23.80	66.70	79.40	2.50–3.15	84.0	23.00	WG755

ALCO SERIES
"FLPW" GLANDS



Flameproof and weatherproof gland suitable for use with armoured circular cables in flameproof areas.

Mounting thread		Cable acceptance detail					Length of armour to be exposed	Product code
Diameter	Length	Dia. 'A' o'bed		Dia. 'B' overall	Armour wire size	Dim. 'C'		
mm	mm	mm		mm	mm	mm	mm	
		Min.	Max.					
20	15.80	6.00	8.00	12.00	0.50–0.90	53.0	11.5	FLPW202
20	15.80	7.90	10.00	15.50	0.90–1.25	54.0	11.5	FLPW203
20	15.80	9.20	11.00	17.00	0.90–1.25	54.0	11.5	FLPW204
20	15.80	10.60	12.50	20.00	0.90–1.25	54.0	11.5	FLPW205
20	15.80	12.60	14.00	20.00	0.90–1.25	54.0	11.5	FLPW206
25	19.00	13.40	15.00	22.50	0.90–1.25	56.0	11.5	FLPW253
25	19.00	14.60	16.30	22.50	0.90–1.25	56.0	11.5	FLPW254
25	19.00	15.90	17.50	26.00	1.25–1.60	56.0	11.5	FLPW255
25	19.00	17.10	18.80	26.00	1.25–1.60	56.0	11.5	FLPW256
32	25.40	18.40	20.80	30.00	1.25–1.60	65.0	13.5	FLPW323
32	25.40	20.40	22.90	30.00	1.25–1.60	65.0	13.5	FLPW324
32	25.40	22.40	24.80	34.00	1.60–2.00	65.0	13.5	FLPW325
32	25.40	24.40	26.50	34.00	1.60–2.00	65.0	13.5	FLPW326
40	25.40	26.10	28.50	37.00	1.60–2.00	73.0	15.5	FLPW403
40	25.40	28.10	30.80	39.50	1.60–2.00	73.0	15.5	FLPW404
40	25.40	30.40	32.80	41.50	1.60–2.00	73.0	15.5	FLPW405
50	28.60	32.40	35.80	45.00	2.00–2.50	90.0	17.0	FLPW502
50	28.60	35.40	38.50	49.00	2.00–2.50	90.0	17.0	FLPW503
50	28.60	38.10	41.70	53.50	2.00–2.50	90.0	17.0	FLPW504
50	28.60	41.30	44.50	55.50	2.00–2.50	90.0	17.0	FLPW505
63	28.60	44.10	46.00	57.20	2.00–2.50	97.0	19.0	FLPW633
63	28.60	45.60	48.80	60.40	2.50–3.15	97.0	19.0	FLPW634
63	28.60	48.40	52.40	63.60	2.50–3.15	97.0	19.0	FLPW635
63	28.60	52.00	56.30	68.30	2.50–3.15	97.0	19.0	FLPW636
2½"BSP	28.60	55.90	60.40	73.00	2.50–3.15	102.0	23.0	FLPW753
2½"BSP	28.60	60.00	63.50	76.20	2.50–3.15	102.0	23.0	FLPW754
2½"BSP	28.60	63.10	66.70	79.40	2.50–3.15	102.0	23.0	FLPW755

ELECTRICAL DATA & CURRENT RATINGS

In accordance with wiring regulation AS/NZS3000.

Nominal conductor area mm^2	Current carrying capacity A	Maximum D.C. resistance at 20°C				Voltage drop	
		Single core Ω/km		Multicore Ω/km		Single phase mV/A.m	Three phase
		P	T	P	T		
0.5	3	37.10	38.20	39.00	40.10	–	–
0.75	7.5	24.70	25.40	26.00	26.70	64	55
1.0	10	18.50	19.10	19.50	20.00	47	41
1.5	15	12.70	13.00	13.30	13.70	32	28
2.5	20	7.60	7.82	7.98	8.21	18	16
4.0	25	4.71	4.85	4.95	5.09	13	11

Where a flexible cord is wound on a drum, multiply current carrying capacities by the following factor:

Number of layers:	1	2	3	4
Derating factor:	0.85	0.65	0.45	0.35

PVC AERIAL CABLES

CURRENT CARRYING CAPACITY – COPPER CONDUCTOR

Nominal conductor area	Number and nominal diameter of wires	1 core insulated conductors		2 and 3 core (a) parallel webbed		3 and 4 core (b) twisted		3 Phase Voltage Drop
		still air	1.0m/s wind	still air	1.0m/s wind	still air	1.0m/s still	at 50Hz
mm^2	no/mm							mV/A.m
6	7/1.04	35	70	30	50	26	48	6.71
10	7/1.35	48	96	40	68	36	65	4.02
16	7/1.70	65	125	52	90	47	85	2.56
25	19/1.35	88	165	–	–	63	115	1.67
35	19/1.53	105	205	–	–	–	–	1.26
50	19/1.78	130	240	–	–	–	–	0.988
70	19/2.14	165	305	–	–	–	–	0.767
95	37/1.78	200	360	–	–	–	–	0.639
120	37/2.03	235	425	–	–	–	–	0.574
150	37/2.25	265	475	–	–	–	–	0.530
185	37/2.52	310	540	–	–	–	–	0.494

Note: The current carrying capacities are based on an air ambient temperature of 40°C, a maximum conductor temperature of 75°C and exposure to direct sunlight having an intensity of 1000W/m^2.
The values are based on the use of black PVC.
(a) Also for 2 conductor neutral screened aerial cable.
(b) Also for 3 and 4 conductor neutral screened aerial cable.
Under normal circumstances there will always be some air movement and the rating for 1.0m/s wind is recommended.

General Note – applies to all following current rating tables.
Reference should be made to AS/NZS3008.1 for the following derating factors for
(a) Grounded Circuits
(b) Cables fixed to underside of ceilings
(c) Cables on perforated or unperforated trays
(d) Ambient temperature and depth factors

FLEXIBLE CABLES

Nominal conductor area	Number and nominal diameter of wires	Single Phase		Three Phase	
		Protected from sun	Exposed to sun	Protected from sun	Exposed to sun
					
mm^2	no/mm	R-EP-90/ R-CPE-90	R-EP-90/ R-CPE-90	R-EP-90/ R-CPE-90	R-EP-90/ R-CPE-90
6	84/0.30	54	43	46	37
10	77/0.40	74	58	63	50
16	126/0.40	99	77	85	66
25	209/0.40	135	105	115	88
35	285/0.40	165	125	140	105
50	380/0.40	195	145	165	125
70	203/0.67	250	185	215	155
95	259/0.67	290	210	250	180
120	336/0.67	340	245	290	210
150	427/0.67	390	280	335	240
185	518/0.67	440	315	380	270

WELDING CABLES – CURRENT RATINGS – ELECTRICAL DATA

Nominal conductor area (mm^2)	Maximum duty cycle (%)				Max D.C. resistance at 20°C (mΩ/m)	Duty Cycle AS1966	
	100	60	30	25		Cycle	%
8	80	100	145	160			
10	90	120	165	180	1.843	Continuous	100%
16	125	160	225	245	1.162	Heavy	60%
25	165	210	300	330	0.749	Light industrial	30%
35	205	265	375	410	0.530	Limited input	25%
50	260	335	475	520	0.375		
70	325	415	590	645	0.267		
95	390	505	715	780	0.198		
120	455	585	830	910	0.153		
150	535	690	975	1070	0.123		
185	600	775	1095	1200	0.097		
240	715	920	1305	1430	0.076		

Duty cycle is defined as the ratio of the total time a cable carries a welding current, to the total time that the welding supply is available, expressed as a percentage. The 100% duty cycle is based on a cycle time to one hour, other duty cycles on a cycle time of five minutes.

Power Cable Application

Welding Cables comply with the requirements of 0.6/1kV single core unsheathed power cables in AS/NZS5000.1 and are therefore suitable for use in a variety of applications where flexible power connections are required.

2 × 1 CORE PVC CURRENT RATINGS

SINGLE PHASE CURRENT RATINGS

Two single core V90 PVC or PVC/PVC 0.6/1kV cables.

CURRENT CARRYING CAPACITY A

	Unenclosed						Enclosed						Buried direct		Underground ducts					
Cond. size	Spaced		Spaced from surface		Touching		In conduit or unenclosed partially surrounded by				Completely surrounded by thermal insulation								Single phase voltage drop mV/A.m	
							Conduit in air		thermal insulation											
mm²	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
1	16		16		13		13		10		6		24		18		21		51.6	
1.5	21		21		16		16		13		8		31		24		27		33.0	
2.5	30		29		23		22		18		12		43		33		37		18.0	
4	40		39		31		30		24		16		56		42		48		11.2	
6	51		49		40		38		31		20		71		53		60		7.50	
10	69		67		54		53		42		27		94		71		79		4.49	
16	92	71	89	68	72	55	71	57	57	45	36	28	120	95	91	70	100	78	2.81	4.68
25	125	96	120	92	97	75	97	79	79	62	48	37	160	125	120	92	135	100	1.78	2.95
35	155	120	145	115	120	93	115	92	92	72	59	46	190	145	145	110	160	125	1.29	2.14
50	185	145	175	140	145	115	140	110	110	87	–	–	225	175	170	135	190	145	0.963	1.582
70	240	185	225	175	185	145	175	140	140	110	–	–	275	215	210	165	235	180	0.680	1.100
95	295	230	275	215	230	180	210	165	165	130	–	–	330	255	260	200	285	220	0.507	0.804
120	345	270	320	250	265	210	250	195	195	155	–	–	380	295	295	230	320	250	0.415	0.644
150	395	305	365	285	310	240	280	225	225	175	–	–	425	330	335	260	360	285	0.352	0.535
185	460	355	425	330	360	280	325	255	255	200	–	–	480	375	380	300	415	325	0.301	0.439
240	550	425	510	395	430	335	385	305	300	235	–	–	560	435	450	350	480	380	0.255	0.352
300	640	495	580	455	495	385	–	–	–	–	–	–	630	490	510	400	560	430	0.229	0.300
400	740	580	680	530	580	455	–	–	–	–	–	–	710	560	590	465	630	500	0.209	0.256
500	870	670	780	620	670	530	–	–	–	–	–	–	800	640	670	530	730	570	0.194	0.226
630	1010	790	900	730	770	630	–	–	–	–	–	–	900	740	770	620	830	660	0.181	0.202

SINGLE PHASE CURRENT RATINGS

Two single core XLPE/PVC 90° 0.6/1kV cables.

CURRENT CARRYING CAPACITY A

	Unenclosed						Enclosed						Buried direct		Underground non-metallic wiring enclosure			
Cond. size	Spaced		Spaced from surface		Touching		In non-metallic wiring unenclosed partially				Completely surrounded by thermal insulation							
							Non-metallic wiring enclosure in air		surrounded by thermal insulation									
																		
mm²	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
1	20	–	20	–	16	–	16	12	14	11	8	–	28	–	21	–	24	–
1.5	26	–	25	–	20	–	20	16	17	13	10	–	36	–	27	–	31	–
2.5	36	–	36	–	28	–	28	22	24	19	14	–	50	–	37	–	42	–
4	48	–	47	–	37	–	37	30	32	25	19	–	64	–	48	–	55	–
6	61	–	60	–	47	–	47	39	40	32	24	–	80	–	60	–	68	–
10	84	–	82	–	65	–	65	54	56	44	32	–	105	–	80	–	90	–
16	110	87	110	84	86	67	86	67	74	58	43	33	140	105	105	80	115	89
25	150	115	145	110	115	91	115	91	100	81	58	45	180	140	135	105	150	115
35	185	145	175	135	145	110	145	110	120	94	72	56	215	165	160	125	180	140
50	230	175	215	165	175	135	175	135	145	115	–	–	255	200	195	150	215	165
70	290	225	275	210	225	175	220	175	180	140	–	–	315	245	240	185	265	205
95	360	280	340	260	280	215	260	215	215	170	–	–	375	290	290	225	315	245
120	420	330	395	305	325	255	310	255	255	200	–	–	425	330	335	260	365	285
150	485	375	450	350	375	290	350	290	285	230	–	–	480	370	375	290	410	320
185	570	440	520	405	435	340	400	340	330	260	–	–	540	425	435	335	470	365
240	680	530	620	485	520	410	475	400	390	310	–	–	630	490	510	400	550	425
300	790	610	720	560	610	475	–	–	–	–	–	–	710	560	580	450	630	490
400	920	720	840	660	710	560	–	–	–	–	–	–	810	640	670	530	720	560
500	1080	850	970	770	820	660	–	–	–	–	–	–	910	730	760	610	820	650
630	1260	1000	1110	900	950	770	–	–	–	–	–	–	1030	830	890	720	950	750

SINGLE PHASE CURRENT RATINGS

Two core V90 PVC PVC 0.6/1kV cables.

	CURRENT CARRYING CAPACITY A																	
	Unenclosed				Enclosed								Buried direct		U/ground ducts			
Cond. size	Spaced		Touching		Conduit in air – round cable		In conduit or unenclosed partially surrounded by				Completely surrounded by thermal insulation						Single phase voltage drop mV/A.m	
							Conduit in air – flat cable		thermal insulation									
																		
mm²	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
1	15		14		11		13		10		7		22		17		51.6	
1.5	19		18		14		17		13		9		28		22		33.0	
2.5	27		26		20		22		18		13		40		31		18.0	
4	37		34		26		29		24		17		52		40		11.2	
6	46		44		34		37		31		22		65		51		7.50	
10	64		60		47		50		43		30		87		68		4.46	
16	85	66	80	62	63	48	66	50	57	44	40	31	115	88	88	68	2.81	4.66
25	115	88	105	83	88	67	89	67	79	62	53	41	145	115	115	89	1.78	2.93
35	140	110	130	100	105	78	105	78	92	72	65	51	180	140	140	110	1.28	2.13
50	170	130	160	125	125	94	125	94	110	87	–	–	210	165	165	130	0.951	1.57
70	215	165	200	155	155	120	–	–	140	110	–	–	260	200	205	160	0.673	1.10
95	265	205	250	190	190	145	–	–	165	130	–	–	310	240	250	195	0.498	0.798
120	305	240	290	225	225	170	–	–	195	155	–	–	355	275	290	225	0.405	0.638
150	350	270	330	255	255	190	–	–	220	175	–	–	400	310	325	250	0.342	0.528
185	405	315	375	295	295	220	–	–	255	200	–	–	450	350	370	290	0.290	0.431
240	475	375	445	350	345	260	–	–	300	240	–	–	520	405	430	335	0.243	0.343
300	550	430	510	400	400	300	–	–	345	275	–	–	590	460	495	390	0.215	0.290
400	630	500	590	465	465	350	–	–	405	320	–	–	660	530	560	445	0.194	0.245
500	720	580	670	540	540	405	–	–	465	370	–	–	740	600	650	520	0.180	0.215

SINGLE PHASE CURRENT RATINGS

Two core XLPE/PVC 90° 0.6/1kV cables.

CURRENT CARRYING CAPACITY A

	Unenclosed				Enclosed						Buried direct		Underground non-metallic wiring enclosure	
Cond. size	Spaced		Touching		In non-metallic wiring unenclosed partially				Completely surrounded by thermal insulation					
					Non-metallic wiring enclosure in air		surrounded by thermal insulation							
mm²	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
1	18	–	17	–	13	10	14	11	9	–	26	–	20	–
1.5	24	–	22	–	17	13	17	14	11	–	33	–	25	–
2.5	34	–	31	–	24	18	24	18	16	–	46	–	35	–
4	45	–	42	–	33	24	32	25	21	–	60	–	46	–
6	57	–	53	–	42	32	41	32	27	–	75	–	57	–
10	78	–	73	–	59	44	56	44	36	–	100	–	77	–
16	105	81	97	75	79	60	74	58	49	38	130	100	100	78
25	140	110	130	100	110	84	105	81	66	51	170	130	130	100
35	175	135	160	125	130	99	120	94	81	63	205	160	160	120
50	210	165	195	155	160	120	145	115	–	–	245	190	190	145
70	270	210	250	195	200	155	180	140	–	–	300	235	235	180
95	330	255	310	240	240	185	215	170	–	–	360	280	285	220
120	385	300	360	280	285	220	255	200	–	–	410	320	325	255
150	440	340	410	320	325	250	285	230	–	–	460	355	375	290
185	510	395	475	370	375	290	330	265	–	–	520	405	425	330
240	600	470	560	440	445	350	390	310	–	–	600	470	500	390
300	690	540	640	510	520	405	450–	355	–	–	680	530	570	450
400	800	640	750	590	600	475	520	415	–	–	770	610	650	520
500	920	730	850	680	770	620	620	495	–	–	860	690	750	600

THREE PHASE CURRENT RATINGS

Three single core V90 PVC or PVC/PVC 0.6/1kV cables.

CURRENT CARRYING CAPACITY A

	Unenclosed						Enclosed						Buried direct		Underground ducts							
Cond size	Spaced		Spaced from surface		Touching		In conduit or un-enclosed partially surrounded by thermal insulation				Completely surrounded by thermal								Three phase voltage drop mV/A.m			
							Conduit in air															
mm²	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
1	16	–	14	–	13		11		10		6		21		16	–	19		44.7	–	44.7	–
1.5	20	–	17	–	16		14		12		8		27		20	–	25		28.6	–	28.6	–
2.5	29	–	25	–	23		20		17		12		37		28	–	34		15.6	–	15.6	–
4	38	–	33	–	31		26		23		16		49		37	–	44		9.71	–	9.71	–
6	49	–	42	–	40		34		29		20		61		46	–	54		6.49	–	6.49	–
10	67	–	56	–	54		47		39		27		81		61	–	72		3.86	–	3.86	–
16	89	68	77	59	72	55	62	48	52	40	36	28	105	81	80	61	92	71	2.43	4.05	2.43	4.05
25	120	93	105	80	97	75	87	68	72	56	48	37	135	105	105	80	120	92	1.54	2.55	1.55	2.55
35	150	115	125	99	120	93	100	79	84	65	59	46	160	125	125	97	145	110	1.12	1.85	1.12	1.85
50	180	140	155	120	145	115	125	95	100	79	–	–	190	145	150	115	170	130	0.834	1.37	0.84	1.37
70	230	180	195	155	185	145	155	120	125	99	–	–	235	180	185	145	210	165	0.589	0.952	0.597	0.956
95	285	225	245	190	230	180	185	145	150	120	–	–	280	215	225	175	255	195	0.439	0.696	0.449	0.702
120	335	260	285	225	265	210	220	170	175	140	–	–	315	245	260	200	290	225	0.359	0.558	0.371	0.565
150	385	300	330	255	310	240	250	195	200	160	–	–	355	275	290	230	320	255	0.305	0.463	0.319	0.472
185	445	345	385	300	355	280	285	220	230	180	–	–	400	310	335	260	370	290	0.261	0.380	0.277	0.391
240	540	415	455	355	425	330	340	265	270	215	–	–	465	365	390	305	430	335	0.221	0.305	0.240	0.319
300	620	485	530	415	490	385	390	305	310	250	–	–	520	410	450	350	495	385	0.198	0.260	0.219	0.276
400	730	570	610	485	570	455	455	355	360	290	–	–	590	470	510	405	560	490	0.181	0.222	0.202	0.240
500	850	660	710	570	660	530	530	410	415	335	–	–	670	540	590	465	650	510	0.168	0.196	0.191	0.216
630	990	790	820	670	760	630	620	480	485	390	–	–	750	620	660	540	730	580	0.157	0.175	0.181	0.197

THREE PHASE CURRENT RATINGS

Three single core XLPE/PVC 90° 0.6/1kV cables.

CURRENT CARRYING CAPACITY A

	Unenclosed						Enclosed						Buried direct		Underground ducts							
Cond. size	Spaced		Spaced from surface		Touching		In conduit or un-enclosed partially surrounded by thermal insulation				Completely surrounded by thermal								Three phase voltage drop mV/A.m			
							Conduit in air															
mm²	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
1	19		16		16		14		10		8		24		18		22		46.8		46.8	
1.5	25		21		20		18		12		10		31		23		28		30.0		30.0	
2.5	35		30		28		25		17		14		42		32		39		16.4		16.4	
4	46		40		37		33		28		19		55		41		50		10.2		10.2	
6	59		50		47		42		36		24		68		52		62		6.81		6.81	
10	81		69		65		58		50		32		91		69		81		4.05		4.05	
16	110	84	92	71	86	67	78	64	66	53	43	33	115	96	89	69	105	80	2.55	4.25	2.55	4.25
25	145	115	125	97	115	91	110	90	92	73	58	45	150	115	115	90	135	105	1.62	2.67	1.62	2.67
35	180	140	155	120	145	110	125	105	105	85	72	56	180	140	140	110	160	125	1.17	1.94	1.18	1.94
50	220	170	190	145	175	135	155	125	130	100	–	–	215	165	170	130	195	150	0.872	1.43	0.878	1.44
70	280	220	240	185	225	175	190	160	160	130	–	–	260	205	210	165	235	185	0.615	0.997	0.623	1.00
95	350	270	300	230	280	215	230	195	195	155	–	–	315	245	250	195	280	220	0.457	0.727	0.467	0.733
120	410	320	350	270	325	255	270	230	225	180	–	–	365	275	290	225	325	255	0.373	0.582	0.385	0.589
150	470	365	405	315	375	290	310	260	255	205	–	–	400	310	330	255	365	280	0.316	0.482	0.330	0.491
185	550	425	470	365	435	340	355	300	295	235	–	–	450	350	375	290	420	325	0.269	0.394	0.285	0.404
240	660	510	560	440	520	405	420	360	350	275	–	–	520	410	440	345	485	380	0.227	0.314	0.245	0.327
300	770	600	650	510	600	470	485	415	400	320	–	–	590	465	510	400	560	435	0.202	0.266	0.222	0.281
400	900	700	760	600	700	560	560	485	465	370	–	–	670	530	580	455	640	500	0.183	0.226	0.205	0.243
500	1050	830	870	700	810	650	650	560	540	425	–	–	750	600	670	540	720	570	0.170	0.197	0.193	0.216
630	1230	980	1010	820	940	770	760	660	630	500	–	–	840	690	760	620	830	660	0.159	0.177	0.182	0.198

THREE PHASE CURRENT RATINGS

Three and four core V90 PVC/PVC 0.6/1kV cables.

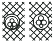
CURRENT CARRYING CAPACITY A

	Unenclosed				Enclosed								Buried direct		U/ground ducts			
Cond. size	Spaced		Touching		Conduit in air – round cable		In conduit or unenclosed partially surrounded by thermal insulation: Conduit in air – flat cable		In conduit or unenclosed partially surrounded by thermal insulation		Completely surrounded by thermal insulation						Three phase voltage drop mV/A.m	
mm²	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
1	13		12		10		12		10		6		19		15		44.7	
1.5	16		15		13		15		12		8		24		19		28.6	
2.5	23		22		18		20		17		11		34		26		15.6	
4	31		29		24		26		22		15		44		34		9.71	
6	40		37		31		34		29		19		55		43		6.49	
10	54		51		42		46		39		25		74		57		3.86	
16	72	56	68	53	56	43	60	46	52	40	34	26	96	75	74	58	2.43	4.04
25	97	75	91	71	79	60	83	63	72	56	46	35	125	97	96	75	1.54	2.54
35	120	93	110	87	92	70	92	70	84	65	56	43	150	115	115	91	1.11	1.84
50	145	115	135	105	110	84	110	84	100	79	–	–	180	140	140	110	0.829	1.36
70	185	145	170	135	140	105	–	–	125	99	–	–	220	170	175	135	0.583	0.948
95	230	180	215	165	165	125	–	–	150	120	–	–	265	205	210	165	0.431	0.691
120	265	205	245	195	195	150	–	–	175	140	–	–	300	235	240	190	0.351	0.552
150	305	235	280	220	225	170	–	–	200	160	–	–	335	265	270	210	0.296	0.457
185	350	275	325	255	260	195	–	–	230	180	–	–	380	300	310	245	0.251	0.373
240	410	325	385	305	305	230	–	–	270	215	–	–	440	345	370	290	0.210	0.297
300	470	375	440	345	–	–	–	–	–	–	–	–	495	390	415	325	0.186	0.251
400	540	440	500	405	–	–	–	–	–	–	–	–	560	450	480	385	0.168	0.212
500	620	500	570	460	–	–	–	–	–	–	–	–	620	500	540	435	0.156	0.186

THREE PHASE CURRENT RATINGS

Three and four core XLPE/PVC 90° 0.6/1kV cables.

CURRENT CARRYING CAPACITY A

	Unenclosed				Enclosed						Buried direct		U/ground ducts			
Cond. size	Spaced		Touching		In conduit or unenclosed partially surrounded by thermal insulation				Completely surrounded by thermal insulation						Three phase voltage drop mV/A.m	
					Conduit in air		thermal insulation									
																
mm²	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
1	16	–	14	–	12		12		6		19		15		46.8	
1.5	20	–	19	–	16		16		8		24		19		30.0	
2.5	28	–	26	–	22		21		11		34		26		16.4	
4	38	–	35	–	29		28		15		44		34		10.2	
6	48	–	45	–	38		36		19		55		43		6.80	
10	66	–	62	–	53		50		25		74		57		4.05	
16	88	68	83	64	70	54	66	53	34	26	96	75	74	58	2.55	4.24
25	120	93	110	86	98	76	92	73	46	35	125	97	96	75	1.61	2.67
35	145	115	135	105	115	89	105	85	56	43	150	115	115	91	1.17	1.93
50	180	140	170	130	140	110	130	100	–	–	180	140	140	110	0.868	1.43
70	230	180	215	165	175	135	160	130	–	–	220	170	175	135	0.609	0.993
95	285	220	265	205	210	165	195	155	–	–	265	205	210	165	0.450	0.723
120	330	255	305	240	250	195	225	180	–	–	300	235	240	190	0.366	0.577
150	375	295	350	270	280	220	255	205	–	–	335	265	270	210	0.307	0.476
185	435	340	405	315	325	255	295	235	–	–	380	300	310	245	0.259	0.388
240	520	405	480	375	385	305	350	275	–	–	440	345	370	290	0.216	0.307
300	590	465	550	430	–	–	–	–	–	–	495	390	415	325	0.190	0.258
400	680	550	630	500	–	–	–	–	–	–	560	450	480	385	0.171	0.216
500	780	630	720	580	–	–	–	–	–	–	620	500	540	435	0.158	0.189

CABLE SELECTION

The size and type of cable required for a given application should be selected according to the following criteria:

1. Current carrying capacity and voltage drop

Conductor sizes are nominated by the Wiring Rules (AS/NZS3000) for the wiring of socket outlets and lighting circuits in domestic and commercial buildings.

For other types of installations:

a) The cable must be capable of carrying the maximum continuous load of the circuit, with due regard for the insulating material and conditions of installation.

b) The voltage drop from the consumer's terminals to any point in the installation must not exceed 5% of the nominal system voltage.

Simplified tables of current ratings and voltage drops for commonly used cables are given on pages 68 to 78.

In large installations where current ratings are critical, attention is drawn to the comprehensive tables given in AS/NZS3008.1.1:1998.

2. Installation conditions

Olex cables are available for aerial, underground and submarine installations as well as in conduit, on racks or trays in air.

Special constructions available include:

- Brass or copper taped or nylon sheathed cables for resistance to termite and marine borer.
- Steel wire or tape armoured for areas where there is a high risk of mechanical damage.
- Pyrolex™ fire performance low smoke halogen free cables for emergency power and lighting and other purposes in areas of high fire risk.
- Lead alloy sheathing as a barrier to moisture or hydrocarbons.
- Envirolex™ cables with low smoke emission and no halogen for environmentally sensitive areas.
- Flexolex™ cables for flexible applications and where flexibility provides advantages during installation.

3. Cable insulating and sheathing materials

Standard Olex cables are available in a number of materials, including the following:

- Olex PVC (Polyvinyl Chloride) insulated and sheathed cables are the economic choice for general wiring. They are resistant to occasional contact with most oils and solvents, clean and easy to handle and coloured to assist phase identification. PVC is suitable for operating temperatures up to 90°C and 90°HT, subject to the requirements of AS/NZS3000.

  PVC is inherently resistant to ultraviolet radiation and although some colours may fade the material will not significantly degrade due to the effects of sunlight and weather, maintaining its physical integrity if not physically abused.

  Care should be taken where cables are subjected to extremes of temperature or contact with crude petroleum, caustic materials or aromatic solvents.

- Olex synthetic rubber (EPR/CPE) insulated and sheathed cables are more flexible and have better resistance to oils and solvents than PVC. Olex EPR (Ethylene Propylene Rubber), while not oil resistant, has excellent dielectric properties and high voltage grades are available for cables up to 33kV. In addition, EPR is halogen free and therefore does not emit toxic or corrosive by-products when burnt.

  Olex CPE (Chlorinated Polyethylene) is an excellent flexible insulation and heavy duty sheathing material. Although having lower insulation resistance than EPR it is suitable for low voltage cable insulation and is used as such in welding cables because of its oil resistance.

  For special purposes a sheath of Olex EA (Ethylene Acrylic) material can be provided subject to special order. This material is halogen free, extremely flame retardant and has better oil resistance than CPE.

  EPR/EA cables can safely be used in plenum air ducts and other applications where high flame retardance and freedom from acid gas emission is required. EPR, CPE and EA are all suitable for continuous operation up to 90°C.

GENERAL

In all cases, cables must be installed in compliance with the safety requirements of AS/NZS3000.

Particular attention should be paid to the following:

- Current carrying capacities of cables depend on the temperature of the air or ground in which they are installed and the degree to which heat can escape. Except for a group of single core cables carrying the phase currents of a circuit, cables should be spaced to allow heat to escape.
- Wherever cables are installed in close proximity, especially in the ground, or enclosed in such a way as to restrict heat loss, their current carrying capacities must be reduced using a derating factor appropriate to the situation.
- For minimum voltage drop single core cables carrying the phase currents of a single circuit should be installed as closely as possible together, to minimise inductive reactance. The preferred formation for three phase conductors is a “trefoil” or cloverleaf pattern although flat formation may also be used. Sheaths should be in contact with one another in either case.

A single core cable generates an alternating magnetic field around itself which can cause large increases in voltage drop and power loss due to “transformer effect” when ferrous metal (iron and steel) is allowed to encircle the cable. Steel racking or ladder will not cause trouble, but the following must be observed:

- Steel wire or tape armour is never used on a single core cable for AC use.
- Where three single phase cables pass through a steel bulkhead all must pass through the same hole. Where glanding is required it is usual to cut out a panel and replace this with a non-ferrous (metal or plastic) plate in which the three or four glands are mounted.

Minimum size of Copper earthing conductors.

Nominal area ACTIVE conductors mm^2	For COPPER active conductors mm^2	For ALUMINIUM active conductors mm^2
1	1.0*	–
1.5	1.5*	–
2.5	2.5	–
4	2.5	–
6	2.5	2.5
10	4	2.5
16	6	4
25	6	6
35	10	6
50	16	10
70	25	10
95	25	16
120	35	25
150	50	25
185	70	35
240	95	50
300	120	70
400	120	95
500	120	95
630	120	120

*Refer Wiring Rules. AS/NZS3000 regarding 1.5 earthing conductors.

Maximum operating temperatures for various types of cable insulants.

Type		°C
Thermoplastic (PVC)	V75	75
	V90	90
	V90-HT	90*
Elastomer	R-EP-90	90
	R-CPE-90	90
	R-S-150	150
Polyethylene – Low Density		75
Cross linked polyethylene (XLPE)		90
PILC 0.6/1kV		80

*V90-HT PVC may be operated up to 105ºC for restricted periods only.

Conductor resistances for insulated cables for fixed installations. Solid, stranded conductors; also refer to AS1125.

Nominal conductor area	Conductor type	Single Core or Multicore Maximum DC resistance at 20°C/Ω/km		
		Copper		Aluminium
mm^2		Tinned	Plain	
0.5	Solid	36.7	36.0	–
1.0*	Solid	18.2	18.1	–
1.0	Stranded	21.6	21.2	–
1.5*	Solid	12.2	12.1	–
1.5	Stranded	13.8	13.6	–
2.5*	Solid	7.35	7.28	–
2.5	Stranded	7.56	7.41	–
4	Stranded	4.70	4.61	–
6	Stranded	3.11	3.08	–
10	Stranded	1.84	1.83	–
16	Stranded	1.16	1.15	1.91
25	Stranded	0.734	0.727	1.20
35	Stranded	0.529	0.524	0.867
50	Stranded	0.391	0.387	0.641
70	Stranded	0.270	0.268	0.443
95	Stranded	0.201	0.199	0.329
120	Stranded	0.154	0.153	0.253
150	Stranded	0.126	0.124	0.206
185	Stranded	0.100	0.0991	0.164
240	Stranded	0.0762	0.0754	0.125
300	Stranded	0.0607	0.0601	0.100
400	Stranded	0.0475	0.0470	0.0778
500	Stranded	0.0369	0.0366	0.0605
630	Stranded	0.0286	0.0283	0.0469

*Single strand conductors only (solid).

Useful 3 phase formulae

$$kW = kVA \times pf$$

$$kW = \frac{hp \times 746}{1000 \times Eff}$$

$$kW = \frac{\text{Line Amps} \times \text{Line Volts} \times 1.732 \times pf}{1000}$$

$$kVA = \frac{kW}{pf}$$

$$kVA = \frac{hp \times 746}{1000 \times Eff \times pf}$$

$$kVA = \frac{\text{Line Amps} \times \text{Line Volts} \times 1.732}{1000}$$

$$\text{Line Amps} = \frac{kW \times 1000}{\text{Line Volts} \times 1.732 \times pf}$$

$$\text{Line Amps} = \frac{kVA \times 1000}{\text{Line Volts} \times 1.732}$$

$$\text{Line Amps} = \frac{hp \times 746}{\text{Line Volts} \times 1.732 \times Eff \times pf}$$

$$\text{Horsepower (hp)} = \frac{kW \times 1000 \times Eff}{746}$$

$$hp = \frac{kVA \times 1000 \times Eff \times pf}{746}$$

$$hp = \frac{\text{Line Amps} \times \text{Line Volts} \times 1.732 \times Eff \times pf}{746}$$

American conductor sizes M.C.M. & A.W.G. conversion to mm^2.

M.C.M.	mm^2	M.C.M.	mm^2
1300	659	650	329
1200	608	600	304
1100	557	550	279
1000	507	500	253
950	481	450	228
900	456	400	203
850	431	350	177
800	405	300	152
750	380	250	127
700	355	200	101

Note: The American term "mil" refers to a milli-inch (1/1000") NOT a millimetre.
A Circular Mil. (C.M.) is the area of a circle 1 mil in diameter.
The term "M.C.M." refers to an area of 1000 Circular Mils.
$1.0mm^2$ is approximately 2000 Circular Mils.

A.W.G.	Diameter mm	mm^2	A.W.G.	Diameter mm	mm^2
0000	11.68	107.3	10	2.59	5.3
000	10.40	85.0	12	2.05	3.3
00	9.27	67.4	14	1.63	2.1
0	8.25	53.5	16	1.29	1.3
2	6.54	33.6	18	1.02	0.8
4	5.19	21.2	20	0.81	0.5
6	4.12	13.3	22	0.64	0.3
8	3.25	8.4	24	0.51	0.2

Note: The American Wire Gauge (AWG) was originally known as the Brown & Sharp (B&S) Gauge and both terms are synonymous.

The gauge number can apply to a single wire or to a standard or bunched conductor. The cross-sectional areas given apply to single wire only.

The larger gauges are sometimes written using a number to denote the number of zeroes, e.g. 0 gauge can be written 1/0 and 000 as 3/0.

Cable minimum installed bending radii.

	Type	Voltage	Factor
Fixed wiring	PVC or Elastomer or XLPE		
	(1) Single and Multicore		
	(a) Overall diameter to & including 25mm	0.6/1kV	4
	(b) Overall diameter over 25mm	0.6/1kV	6
	(2) Multicore SWA	0.6/1kV	12
	(3) Solid Aluminium	0.6/1kV	8
Flexible Cords	PVC or Elastomer	250/440V	4
		0.6/1kV	4
Flexible Cables	PVC or Elastomer	0.6/1kV	4
Lead Sheath	PVC or Elastomer	0.6/1kV	12
Paper Insulated	Single	Up to 11kV	12
	Multicore	Up to 11kV	15
	Single Core	22kV	18
	Multicore	22kV	15
	Single Core	33kV	20
	Multicore	33kV	18
Trailing	Elastomer		
	(1) Single and Multicore	1.1kV	6
	(2) Single and Multicore	3.3kV & above	12
Welding	PVC or Elastomer	0.6/1kV	6
Nylon Covered	All Cables		20
HDPE Sheathed	All Cables		15

Factor × cable overall diameter = minimum internal bending radius.

Motor current table, Amperes (approx.)

Power kW	Power hp	Single phase 240V	Three phase 415VkW	Power kW	Power hp	Single phase 240V	Three phase 415VkW
0.37	0.5	2.2	0.7	5.5	7.5	32.4	10.8
0.55	0.75	3.2	1.1	7.5	10	–	14.4
0.75	1	4.3	1.4	9.3	12.5	–	18.0
1.1	1.5	6.5	2.2	11	15	–	21.6
1.5	2	8.6	2.9	15	20	–	28.8
1.8	2.5	10.8	3.6	18.5	25	–	36.0
2.2	3	13.0	4.3	22	30	–	43.2
4	5	21.6	7.2				

Recommended maximum number of thermoplastic insulated unsheathed single core 0.6/1kV Copper or Aluminium cables permitted in metallic and non-metallic conduit or pipe.

Nominal area	Nominal size of conduit (mm)														
mm²	16 LD	20 LD	20 HD	25 LD	25 HD	32 LD	32 HD	40 LD	40 HD	50 LD	50 HD	63 LD	63 HD	65 HD	80 HD
1	7	11	10	20	17	34	31	56	51	90	84	148	137	–	–
1.5	5	9	8	15	13	27	24	43	40	69	65	114	106	–	–
2.5	4	7	6	12	10	20	18	33	30	52	49	86	80	–	–
4	2	4	4	7	6	13	11	20	19	33	30	54	50	76	106
6	1	3	3	6	5	10	9	17	15	27	25	44	41	62	87
10	1	2	2	4	4	7	7	12	11	19	18	31	29	44	61
16	1	1	1	3	3	5	5	9	8	14	13	23	22	33	46
25	–	1	1	1	1	3	3	5	5	9	8	14	13	20	28
35	–	1	1	1	1	2	2	4	4	7	6	11	11	16	23
50	–	–	–	1	1	1	1	3	3	5	5	9	8	12	17
70	–	–	–	1	1	1	1	2	2	4	4	7	6	9	13
95	–	–	–	–	–	1	1	1	1	3	3	5	5	7	10
120	–	–	–	–	–	1	1	1	1	2	2	4	4	6	8
150	–	–	–	–	–	1	–	1	1	1	1	3	3	5	6
185	–	–	–	–	–	–	–	1	1	1	1	2	2	4	5
240	–	–	–	–	–	–	–	1	–	1	1	1	1	2	4
300	–	–	–	–	–	–	–	–	–	1	1	1	1	2	3
400	–	–	–	–	–	–	–	–	–	1	–	1	1	1	2
500	–	–	–	–	–	–	–	–	–	–	–	1	1	1	1
630	–	–	–	–	–	–	–	–	–	–	–	1	1	1	1

Notes:

1. For PVC flexible conduits, the recommendations are based on conduits used without fittings or with fittings only at the ends of the conduit run. Where intermediate fittings are used in a run of PVC flexible conduit, an appropriate reduction should be made in the number of cables drawn into the conduit.
2. One earth wire of appropriate size, as determined by the requirements of AS/NZS3000, may be inserted in all conduits, provided that its insertion does not prevent easy drawing in of cables.

Recommended maximum number of thermoplastic insulated and sheathed single core Copper or Aluminium cables permitted in metallic and non-metallic conduit or pipe.

- 1.0 to 25mm^2 450/750V to AS/NZS5000.2
- 35 to 630mm^2 0.6/1kV to AS/NZS5000.1

Nominal area	Nominal size of conduit (mm)									
mm^2	20 HD	25 HD	32 HD	40 HD	50 HD	63 HD	65 HD	80 HD	100 HD	150 HD
1.0	7	15	27	43	–	–	–	–	–	–
1.5	7	7	23	37	61	–	–	–	–	–
2.5	5	7	17	27	45	–	–	–	–	–
4	3	5	10	19	31	51	–	–	–	–
6	3	4	8	16	26	43	–	–	–	–
10	1	3	6	10	17	29	44	–	–	–
16	1	2	4	7	12	21	33	–	–	–
25	1	1	3	5	9	16	23	33	–	–
35	–	1	1	2	4	6	9	13	–	–
50	–	–	1	1	3	5	7	10	17	–
70	–	–	1	1	2	4	6	8	13	–
95	–	–	–	1	1	3	4	6	10	20
120	–	–	–	1	1	2	4	5	9	17
150	–	–	–	–	1	1	3	4	7	14
185	–	–	–	–	1	1	2	3	6	11
240	–	–	–	–	1	1	1	3	5	9
300	–	–	–	–	–	1	1	2	4	7
400	–	–	–	–	–	1	1	1	3	6
500	–	–	–	–	–	–	1	1	2	5
630	–	–	–	–	–	–	1	1	1	4

Notes:

1. For PVC flexible conduits, the recommendations are based on conduits used without fittings or with fittings only at the ends of the conduit run. Where intermediate fittings are used in a run of PVC flexible conduit, an appropriate reduction should be made in the number of cables drawn into the conduit.
2. One earth wire of appropriate size, as determined by the requirements of AS/NZS3000, may be inserted in all conduits, provided that its insertion does not prevent easy drawing in of cables.

Cables in conduit and pipe – space factors.

One cable in conduit or pipe	50%
Two cables in conduit or pipe	33%
Three or more in conduit or pipe	40%

Note: The above values should not be exceeded.

Maximum safe pulling tension.

Conductor area mm^2	Maximum tension kN per conductor		Conductor area mm^2	Maximum tension kN per conductor	
	Copper	Aluminium		Copper	Aluminium
1.5	0.11	0.08	25	1.75	1.25
2.5	0.18	0.13	35	2.45	1.75
4	0.28	0.20	50	3.50	2.50
6	0.42	0.30	70	4.90	3.50
10	0.70	0.50	95	6.65	4.75
16	1.12	0.80			

(1kN = 102kgf)

ABBREVIATIONS

A.m	Ampere metre
ABC	aerial bundled cable
AC	alternating current
Al	Aluminium
AS	Australian Standard
C	core
°C	degree Celsius
CPE	Chlorinated Polyethylene
CSA	cross-sectional area
CSP	Chlorosulphinated Polyethylene
Cu	Copper
dB	Decibel
DC	direct current
E	earth
EA	Ethylene Acrylic
Eff	efficiency
ELV	Extra Low Voltage
EPR	Ethylene Propylene Rubber
HD	hard drawn
H.D.	heavy duty
HFS-90-TP	halogen free sheath – 90°C – thermoplastic
HF-110-R	halogen free – 110°C – rubber (sheath)
hp	horsepower
HR	heat resistant
HRC	high rupture capacity
ISDN	Integrated Services Digital Network
kg	kilogram
kN	kilonewton
kV	kilovolt
kVA	kilovoltamp
kW	kilowatt
LAN	local area network
L.D.	light duty
mm	millimetre
MM	Multi mode (Fibre)
nF/km	nanofarad/kilometre
OD	outside diameter
O.D.	ordinary duty
PACW	plain annealed copper wire
PE	Polyethylene
pf	power factor
pF/m	picofarad/metre
PILC	paper insulated lead covered
PVC	Polyvinyl Chloride
R-CPE-90	rubber – Chlorinated Polyethylene – 90°C
R-EP-90	rubber – Ethylene Propylene – 90°C
R-HF-110	rubber – halogen free – 110°C (insulation)
SM	Single Mode (Fibre)
SWA	steel wire armoured
TACW	tinned annealed copper wire
TPW	thermoplastic welding
TPS	thermoplastic switchboard
TPSW	thermoplastic welding/switchboard
UTP	unshielded twisted pairs
V	volt
V75	75°C rated PVC
V90	90°C rated PVC
V90HT	90°C rated PVC – 105°C for restricted periods
X-HF-90	XLPE – halogen free – 90°C
XLPE	cross-linked Polyethylene

AUSLEC BRANCHES

New South Wales
124 Adderley Street, Auburn NSW 2144
Phone: (02) 9748 0295
29 Forge Street, Blacktown NSW 2148
Phone: (02) 9622 3777
15 Thirteenth St, Cobar NSW 2835
Phone: (02) 6836 3611
42 Kareena Road, Miranda NSW 2228
Phone: (02) 9525 5099
19 Market Street, Muswellbrook NSW 2333
Phone: (02) 6541 1733
Unit 5, 176–180 March Street, Orange NSW 2800
Phone: (02) 6362 4944
96 Batt Street, Penrith NSW 2750
Phone: (02) 4731 5744
43 Mentmore Ave, Rosebery NSW 2018
Phone: (02) 9662 2211
Units 2–4, 2 Drummond St, Coniston NSW 2521
Phone: (02) 4229 3411

Northern Territory
7 Albatross Street, Winnellie NT 0821
Phone: (08) 8984 4077

Queensland
Cnr Commercial Rd & Leopold St
Fortitude Valley Qld 4006
Phone: (07) 3854 1661
63 Lord Street, Gladstone Qld 4680
Phone: (07) 4972 3133
48 Barkly Highway, Mt Isa Qld 4825
Phone: (07) 4743 5544
Units 2 & 3, 241 Evans Road, Salisbury Qld 4107
Phone: (07) 3272 7355
17–19 Madden Street, Aikenvale Qld 4814
Phone: (07) 4779 7955

South Australia
9 Ritana Road, Mt Gambier SA 5290
Phone: (08) 8725 6722
78–82 Hardy's Road, Torrensville SA 5031
Phone: (08) 8352 6866
8 Cook Street, Whyalla SA 5608
Phone: (08) 8645 9177

Tasmania
20 Wellington Street, Burnie South Tas 7320
Phone: (03) 6431 4366
250–260 Murray Street, Hobart Tas 7000
Phone: (03) 6234 2133

Victoria
7 Dawson Street, Ballarat Vic 3350
Phone: (03) 5331 3966
Unit 3, 37 Princes Highway, Doveton Vic 3177
Phone: (03) 9791 7600
283–285 Thompsons Road, Geelong Vic 3215
Phone: (03) 5278 1822
1/14 Fitzgerald Road, Laverton North Vic 3026
Phone: (03) 9369 5515
9 Osburn Street, Wodonga Vic 3690
Phone: (02) 6024 2877
Unit 3, 260 Hyde Street, Yarraville Vic 3013
Phone: (03) 9689 5900

Western Australia
172 Boulder Road, Boulder WA 6432
Phone: (08) 9021 3877
5 Halifax Drive, Bunbury WA 6230
Phone: (08) 9725 4133
211 Bannister Road, Canningvale WA 6155
Phone: (08) 9455 1344
220 Lester Avenue, Geraldton WA 6530
Phone: (08) 9921 2444
Lot 1415 Crane Circle, Karratha WA 6714
Phone: (08) 9185 1922
Unit 7, 18 Kewdale Rd, Kewdale WA 6106
Phone: (08) 9451 3433
Lot 1421 Hardies Street, Port Hedland WA 6721
Phone: (08) 9173 3288

LAWRENCE & HANSON BRANCHES

Australian Capital Territory

Fyshwick	Phone: (02) 6280 5532
Mitchell	Phone: (02) 6242 9655

New South Wales

Albury	Phone: (02) 6041 5055
Alexandria	Phone: (02) 9318 0755
Artarmon	Phone: (02) 9439 3066
Ballina	Phone: (02) 6686 4955
Bathurst	Phone: (02) 6331 5966
Berkeley Vale	Phone: (02) 4389 1434
Brookvale	Phone: (02) 9938 5288
Campbelltown	Phone: (02) 4625 4599
Cardiff	Phone: (02) 4954 5288
Castle Hill	Phone: (02) 9634 1322
Coffs Harbour	Phone: (02) 6651 2611
Condell Park	Phone: (02) 9709 2577
Dubbo	Phone: (02) 6882 3188
Erina	Phone: (02) 4365 4822
Gosford	Phone: (02) 4325 0517
Goulburn	Phone: (02) 4822 2377
Griffith	Phone: (02) 6962 3911
Homebush	Phone: (02) 9736 3500
Hornsby	Phone: (02) 9476 5666
Hurstville	Phone: (02) 9588 1166
Inverell	Phone: (02) 6722 3311
Lakemba	Phone: (02) 9740 5622
Leichhardt	Phone: (02) 9566 2091
Lismore	Phone: (02) 6621 2756
Liverpool	Phone: (02) 9601 3488
Newcastle	Phone: (02) 4926 1499
Nowra	Phone: (02) 4421 7077
Orange	Phone: (02) 6362 1888
Pambula	Phone: (02) 6495 6088
Parramatta	Phone: (02) 9890 7855
Peakhurst	Phone: (02) 9534 2099
Pyrmont	Phone: (02) 9552 4299
Rydalmere	Phone: (02) 9684 1755
Ryde	Phone: (02) 9808 3555
Seven Hills	Phone: (02) 9624 5600
Smithfield	Phone: (02) 9604 7811
St Marys	Phone: (02) 9623 0099
Tamworth	Phone: (02) 6766 5511
Wagga Wagga	Phone: (02) 6921 4224
Warilla	Phone: (02) 4296 9166
Windsor	Phone: (02) 4577 5300
Wollongong	Phone: (02) 4229 3088

Northern Territory

Alice Springs	Phone: (08) 8952 2878
Darwin	Phone: (08) 8984 3900
Katherine	Phone: (08) 8972 2033
Palmerston	Phone: (08) 8932 1511

Queensland

Ayr	Phone: (07) 4783 5833
Beenleigh	Phone: (07) 3287 2822
Browns Plains	Phone: (07) 3800 1069
Bundaberg	Phone: (07) 4153 1699
Caboolture	Phone: (07) 5498 6188
Cairns	Phone: (07) 4053 6055
Capalaba	Phone: (07) 3245 4133
Coorbaroo	Phone: (07) 3397 9322
Currumbin	Phone: (07) 5534 1766
Emerald	Phone: (07) 4982 4144
Geebung	Phone: (07) 3265 4011
Gympie	Phone: (07) 5482 8377
Hervey Bay	Phone: (07) 4128 2099
Ipswich	Phone: (07) 3281 2211
Lawnton	Phone: (07) 3205 4344
Mackay	Phone: (07) 4957 7311
Mansfield	Phone: (07) 3343 2155
Maroochydore	Phone: (07) 5443 2633
Milton	Phone: (07) 3369 3899
Nambour	Phone: (07) 5441 1011
Nerang	Phone: (07) 5527 3511
Noosa	Phone: (07) 5449 7666
Redcliffe	Phone: (07) 3284 4171
Rockhampton	Phone: (07) 4927 2066
Rocklea	Phone: (07) 3848 4433
Slacks Creek	Phone: (07) 3208 7555

LAWRENCE & HANSON BRANCHES

Southport	Phone: (07) 5532 8166
Sumner Park	Phone: (07) 3376 4488
Surfers Paradise	Phone: (07) 5570 2911
Toowoomba	Phone: (07) 4632 3022
Townsville	Phone: (07) 4775 5866

South Australia

Berri	Phone: (08) 8582 1900
Blair Athol	Phone: (08) 8269 1811
Clovelly Park	Phone: (08) 8277 9844
Glynde	Phone: (08) 8337 8177
Holden Hill	Phone: (08) 8369 1416
Kilkenny	Phone: (08) 8268 7755
Kurralta Park	Phone: (08) 8297 4566
Lonsdale	Phone: (08) 8384 1555
Mount Barker	Phone: (08) 8391 2899
Mount Gambier	Phone: (08) 8725 9244
Naracoorte	Phone: (08) 8762 2899
Nuriootpa	Phone: (08) 8562 3388
Port Adelaide	Phone: (08) 8341 2744
Port Lincoln	Phone: (08) 8682 2633
Port Pirie	Phone: (08) 8632 3411
Salisbury South	Phone: (08) 8281 7022

Tasmania

Devonport	Phone: (03) 6424 1152
Hobart	Phone: (03) 6234 2666
Launceston	Phone: (03) 6331 4955

Victoria

Airport West	Phone: (03) 9338 6266
Ballarat	Phone: (03) 5332 1871
Bayswater	Phone: (03) 9729 0388
Bendigo	Phone: (03) 5443 1611
Berwick	Phone: (03) 9769 9055
Brunswick	Phone: (03) 9387 1244
Coburg	Phone: (03) 9354 4533
Dandenong	Phone: (03) 9793 4166
Fawkner	Phone: (03) 9357 2933
Frankston	Phone: (03) 9776 9755
Geelong	Phone: (03) 5222 3899
Hoppers Crossing	Phone: (03) 9742 5911
Horsham	Phone: (03) 5382 2388
Lilydale	Phone: (03) 9739 5500
Mildura	Phone: (03) 5022 1044
Moorabbin	Phone: (03) 9555 8511
Mornington	Phone: (03) 5977 0100
Morwell	Phone: (03) 5134 4028
Mulgrave	Phone: (03) 9560 3100
Nunawading	Phone: (03) 9873 5922
Portland	Phone: (03) 5523 4133
Preston	Phone: (03) 9480 5588
Richmond	Phone: (03) 9428 4345
Ringwood	Phone: (03) 9879 1111
Sale	Phone: (03) 5144 7944
Scoresby	Phone: (03) 9764 1277
Shepparton	Phone: (03) 5821 4922
South Melbourne	Phone: (03) 9697 1599
Sunshine	Phone: (03) 9312 5111
Swan Hill	Phone: (03) 5032 3292
Thomastown	Phone: (03) 9464 0664
Traralgon	Phone: (03) 5174 8655
Wangaratta	Phone: (03) 5722 1033
Warrnambool	Phone: (03) 5562 1233

Western Australia

Albany	Phone: (08) 9841 6566
Balcatta	Phone: (08) 9240 2429
Busselton	Phone: (08) 9752 1211
Embleton	Phone: (08) 9272 5344
Joondalup	Phone: (08) 9300 3266
Kelmscott	Phone: (08) 9495 1800
Kenwick	Phone: (08) 9459 8122
Malaga	Phone: (08) 9249 6644
Mandurah	Phone: (08) 9581 9286
Midland	Phone: (08) 9250 1366
Myaree	Phone: (08) 9330 1244
Osborne Park	Phone: (08) 9446 5400
Rockingham	Phone: (08) 9592 1588
Wanneroo	Phone: (08) 9409 1000
Welshpool	Phone: (08) 9351 8955

OLEX CABLES SALES OFFICES

HEAD OFFICE

207 Sunshine Road, Tottenham Vic. 3012
Phone 03 9281 4444 Fax 03 9314 0383

For more information on the complete Olex Cables range, see **www.olexcables.com.au**

New South Wales

STATE OFFICE – 8 South Street, Rydalmere NSW 2116
Phone 02 8845 6111 Fax 02 8845 6150

NEWCASTLE – Suite 9, 115 Darby Street, Newcastle NSW 2300
Phone 02 4929 3977 Fax 02 4929 3975

Queensland

STATE OFFICE – 541 Bilsen Road, Geebung Qld 4034
Phone 07 3259 2600 Fax 07 3259 2606

TOWNSVILLE – 16 Leyland Street, Townsville Qld 4810
Phone 07 4779 0322 Fax 07 4779 7201

Victoria and Tasmania

STATE OFFICE – 11 Newcastle Road, Bayswater Vic. 3153
Phone 03 9237 8188 Fax 03 9729 8144

South Australia

STATE OFFICE – 539 South Road, Regency Park SA 5010
Phone 08 8268 3266 Fax 08 8347 0879

Western Australia

STATE OFFICE – 503 Abernethy Road, Kewdale WA 6105
Phone 08 9353 1122 Fax 08 9353 2688

Australian Capital Territory

STATE OFFICE – Suite 8, 29 Townsville Street, Fyshwick ACT 2609
Phone 02 6280 8130 Fax 02 6280 8135

Northern Territory

STATE OFFICE – 84 Smith Street, Darwin NT 0800
Phone 08 8981 0252 Fax 08 8941 1306

OLEX CABLES SALES OFFICES

MANUFACTURING LOCATIONS

Tottenham

207 Sunshine Road, Tottenham Vic. 3012

Lilydale

55 Main Street, Lilydale Vic. 3140

Wetherill Park

29 Davis Road, Wetherill Park NSW 2164

INTERNATIONAL SALES OFFICES

Head Office

Olex Cables, 207 Sunshine Road, Tottenham Vic. 3012 Australia
Phone 61 3 9281 4444 Fax 61 3 9314 0383

New Zealand

Olex Cables (NZ), Paraite Road, Bell Block, New Plymouth, New Zealand
Phone 64 6 755 3799 Fax 64 6 755 3790

Singapore

No 6 Loyang Way 1 #02-02, Singapore 508707
Phone 65 546 2788 Fax 65 546 2766

Malaysia

Lot T1, Centrepoint, Lebuh Bandar Utama, Bandar Utama 47800,
Petaling Jaya, Malaysia
Phone 60 3 710 4901 Fax 60 3 710 4910

China

Room 57119, Building 7#, Xiyuan Hotel, Beijing China 100044
Phone 86 10 6831 8549, 86 10 6835 1019, 86 10 6831 3388 ext. 57119, 57120
Fax 86 10 6832 1963

Olex Cables has taken every precaution to ensure that the information contained in this booklet is in line with requirements of the appropriate Australian Standards and correct electrical practice. However, we accept no liability of any kind with respect to the information presented here.

Note: Current-carrying capacity tables stated in this handbook are based on AS/NZS3008.1, Electrical Installations – Selection of Cables. Part 1: Cables for alternating voltages up to and including 0.6/1kV.

All information is subject to change without notice.

MINING

OPTICAL FIBRE

Head Office & International Sales

207 Sunshine Road Tottenham Victoria 3012

Telephone 03 9281 4444 Facsimile 03 9314 0383

www.olexcables.com.au

Disegno OLC3342 Printed in Australia 6/2000.