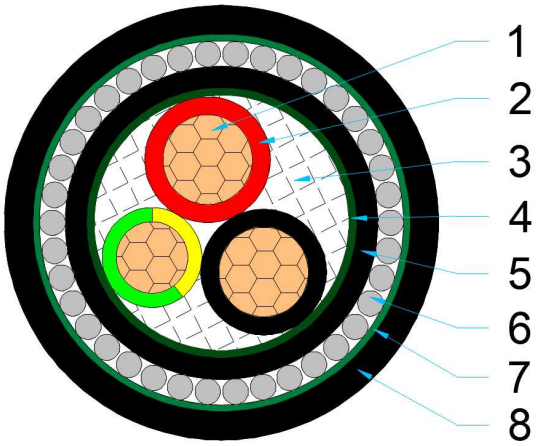
CU/V-90/5V-90/SWA/5V-90 0.6/1kV

1. Standard compliance

Item	Standard
Cable design	AS/NZS 5000.1
Conductor	AS/NZS 1125
Insulating and sheathing material	AS/NZS 3808

2. Construction



No.	Construction	Specification
1	Conductor	Class 2 plain annealed stranded circular copper conductor as per AS/NZS 1125
2	Insulation	V-90 as per AS/NZS 3808
3	Filler	PP rope
4	Binder tape	Non-woven tape
5	Bedding layer	5V-90 as per AS/NZS 3808, Black
6	Armour	Galvanized steel wire armor
7	Binder tape	Non-woven tape
8	Outer sheath	5V-90 (UV resistant) as per AS/NZS 3808, **Black** or as per client's requirements

3. Cable identification & Packing

Item	Requirement
Core identification:	2C+E : Red、Black、G/Y
	3C+E : Red、White、Blue、G/Y
	4C+E : Red、White、Blue、Black、G/Y
Printing Colour:	**White** colour text on **Black** sheath or **Black** colour text on **Other colour** sheath
Cable marking by printing:	**e.g.:** ****** CABLES ELECTRIC CABLE CU/V-90/5V-90/SWA/5V-90 2C4+E2.5MM2 0.6/1kV AS/NZS 5000.1 2026 xxxxM**
Printing criteria:	By printing in one line on the surface of outer sheath. The distance between the end of one block of marking and the beginning of the next shall not exceed 550 mm. Meter marking interval is every one meter.

Packing length in meters:	As per cable schedule
Type of drum:	Steel-wooden/Wooden/Plywood/Steel Drum

4. Electrical properties

Item	Specification
Voltage grade	0.6/1kV
Permissible frequency variation	49Hz~61Hz
Normal use conductor temperature at rated current	75°C
Max. permissible conductor temperature	90°C (See note 3&4)
Max. conductor temp. at the end of short circuit	160°C
Ambient temperature during operation	-15°C~55°C
Lowest temperature during installation	0°C
Test voltage	3.5kV AC/5 min. (50 Hz)

5. Construction characteristics

Dimensions											
No. of cores & CSA	Minimum number of wires in conductor		Approx. dia. of conductor		Insulation thickness (Nom.)		Bedding layer thickness (Nom.)	Dia. of armor wire (Nom.)	Outer sheath thickness (Nom.)	Approx. OD of cable	Approx. weight of cable
	Phase	Earth	Phase	Earth	Phase	Earth					
Sq.mm	Nos.	Nos.	mm	mm	mm	mm	mm	mm	mm	mm	kg/km
2C1.5+E1.5	3	3	1.5	1.5	0.8	0.8	1.0	0.80	1.8	15.6±1.0	381.1
2C2.5+E2.5	3	3	2.01	2.01	0.8	0.8	1.0	0.80	1.8	16.7±1.0	446.7
2C4+E2.5	7	3	2.55	2.01	1.0	0.8	1.0	0.80	1.8	18.2±1.0	531.1
2C6+E2.5	7	3	3.1	2.01	1.0	0.8	1.0	1.25	1.8	20.1±1.0	743.3
2C10+E4	7	7	4.0	2.55	1.0	1.0	1.0	1.25	1.8	22.0±1.0	909.7
2C16+E6	7	7	5.0	3.1	1.0	1.0	1.0	1.25	1.8	23.9±1.0	1128.3
2C25+E6	6	7	6.0	3.1	1.2	1.0	1.0	1.60	1.8	27.5±1.0	1582.1
2C35+E10	6	7	7.0	4.0	1.2	1.0	1.0	1.60	1.8	29.4±1.0	1900.7
2C50+E16	6	7	8.2	5.0	1.4	1.0	1.0	1.60	1.9	33.0±1.0	2415.1
2C70+E25	12	6	9.8	6.0	1.4	1.2	1.0	2.00	2.0	37.4±1.0	3340.6
3C1.5+E1.5	3	3	1.5	1.5	0.8	0.8	1.0	0.80	1.8	16.4±1.0	427.5
3C2.5+E2.5	3	3	2.01	2.01	0.8	0.8	1.0	0.80	1.8	17.7±1.0	506.0
3C4+E2.5	7	3	2.55	2.01	1.0	0.8	1.0	1.25	1.8	20.3±1.0	755.3
3C6+E2.5	7	3	3.1	2.01	1.0	0.8	1.0	1.25	1.8	21.3±1.0	864.0
3C10+E4	7	7	4.0	2.55	1.0	1.0	1.0	1.25	1.8	23.5±1.0	1082.8
3C16+E6	7	7	5.0	3.1	1.0	1.0	1.0	1.60	1.8	26.4±1.0	1503.1
3C25+E6	6	7	6.0	3.1	1.2	1.0	1.0	1.60	1.8	29.2±1.0	1925.4
3C35+E10	6	7	7.0	4.0	1.2	1.0	1.0	1.60	1.8	31.6±1.0	2351.9
3C50+E16	6	7	8.2	5.0	1.4	1.0	1.0	1.60	2.0	35.6±1.0	3000.5

3C70+E25	12	6	9.8	6.0	1.4	1.2	1.2	2.00	2.1	41.0±1.0	4236.1
4C1.5+E1.5	3	3	1.5	1.5	0.8	0.8	1.0	0.80	1.8	17.3±1.0	476.3
4C2.5+E2.5	3	3	2.01	2.01	0.8	0.8	1.0	0.80	1.8	18.7±1.0	572.2
4C4+E2.5	7	3	2.55	2.01	1.0	0.8	1.0	1.25	1.8	21.7±1.0	872.0
4C6+E2.5	7	3	3.1	2.01	1.0	0.8	1.0	1.25	1.8	23.0±1.0	1004.8
4C10+E4	7	7	4.0	2.55	1.0	1.0	1.0	1.60	1.8	26.1±1.0	1418.5
4C16+E6	7	7	5.0	3.1	1.0	1.0	1.0	1.60	1.8	28.6±1.0	1792.7
4C25+E6	6	7	6.0	3.1	1.2	1.0	1.0	1.60	1.8	32.0±1.0	2329.4
4C35+E10	6	7	7.0	4.0	1.2	1.0	1.0	1.60	1.9	34.8±1.0	2874.9
4C50+E16	6	7	8.2	5.0	1.4	1.0	1.2	2.00	2.1	40.7±1.0	4021.1
4C70+E25	12	6	9.8	6.0	1.4	1.2	1.2	2.00	2.2	45.1±1.1	5177.2

6. Electrical and Mechanical properties

Characteristics							
No. of cores & CSA	Max. DC resistance of conductor at 20℃		Max. AC resistance of conductor at **75**℃	Fault current capacity of conductor (1s)	Max. allowable pulling force of armor	Min. bending radius	
	Phase	Earth				During installation	Installed
Sq.mm	Ω/km	Ω/km	Ω/km	kA	kN	mm	mm
2C1.5+E1.5	13.6	13.6	16.5	0.17	2.0	281	188
2C2.5+E2.5	7.41	7.41	9.01	0.29	2.2	301	201
2C4+E2.5	4.61	7.41	5.61	0.46	2.5	328	219
2C6+E2.5	3.08	7.41	3.75	0.69	4.4	362	242
2C10+E4	1.83	4.61	2.23	1.15	4.9	396	264
2C16+E6	1.15	3.08	1.4	1.84	5.5	431	287
2C25+E6	0.727	3.08	0.885	2.88	8.2	495	330
2C35+E10	0.524	1.83	0.638	4.03	9.1	530	353
2C50+E16	0.387	1.15	0.471	5.75	10.6	594	396

2C70+E25	0.268	0.727	0.327	8.05	14.8	674	449
3C1.5+E1.5	13.6	13.6	16.5	0.17	2.2	296	197
3C2.5+E2.5	7.41	7.41	9.01	0.29	2.4	319	213
3C4+E2.5	4.61	7.41	5.61	0.46	4.4	366	244
3C6+E2.5	3.08	7.41	3.75	0.69	4.8	384	256
3C10+E4	1.83	4.61	2.23	1.15	5.4	423	282
3C16+E6	1.15	3.08	1.4	1.84	7.8	476	317
3C25+E6	0.727	3.08	0.885	2.88	9.1	526	351
3C35+E10	0.524	1.83	0.638	4.03	9.9	569	380
3C50+E16	0.387	1.15	0.471	5.75	11.4	641	428
3C70+E25	0.268	0.727	0.327	8.05	16.5	738	492
4C1.5+E1.5	13.6	13.6	16.5	0.17	2.3	312	208
4C2.5+E2.5	7.41	7.41	9.01	0.29	2.6	337	225
4C4+E2.5	4.61	7.41	5.61	0.46	4.9	391	261
4C6+E2.5	3.08	7.41	3.75	0.69	5.3	414	276
4C10+E4	1.83	4.61	2.23	1.15	7.8	470	314
4C16+E6	1.15	3.08	1.4	1.84	8.9	515	344
4C25+E6	0.727	3.08	0.885	2.88	10.1	576	384
4C35+E10	0.524	1.83	0.638	4.03	11.2	627	418
4C50+E16	0.387	1.15	0.471	5.75	16.5	733	489
4C70+E25	0.268	0.727	0.327	8.05	18.5	812	542

Note:

1. The particulars given above are nominal & are subject to normal manufacturing tolerances.
2. All parameter is approximate value for reference only.
3. The maximum permissible temperatures are applicable when there is no chance of thermal deformation or a reasonable chance of human contact in normal use.
4. V-90 and V-90HT insulated cables may be operated up to the maximum permissible temperatures 90°C and 105°C provided that the cable is installed in a manner that is not subject to, or is protected against, severe mechanical pressure at temperatures higher than 75°C.