Magnum cable

MAGNUM CABLE SDN. BHD. (781077-V)

PVC INSULATED NON-SHEATHED, PVC INSULATED & PVC SHEATHED CABLE

FOR ELECTRIC POWER, LIGHTING & INTERNAL WIRING

WELCOME TO MAGNUM CABLE

Corporate Profile

INTRODUCTION

MAGNUM CABLE SDN. BHD. - a company specialized in cable manufacturing based in Melaka, Malaysia. We design and manufacture an extensive range of instrumentation, Control and Data Transmission Cables that complies with both standard and proprietary specifications. Cable designs include high performance materials for special applications suitable for high temperature, low smoke and toxic gas emission, UV and anti-rodent etc. The Company was formed with the mission an vision to become a specialty cable focused manufacturer providing a wide range of high quality products meet specific requirements. We have a team of experienced and committed work force from the management or technical level to machine operators with experiences ranging from 10 to 30 years in the cable industry. They are familiar and specialized in the various processes and materials employed in the different types of cables. The company is equipped with modern and specific manufacturing facilities to cater for speciality cable manufacturing. Test facilities are set up to ensure that all products manufactured comply with international standards as well as meeting customer's requirements. Instrumentation and Control Cable both armoured and non-armoured flame retardant cable are our strength. Low smoke halogen free, copper tape, steel wire braided are part of our product ranges. Since established, we have been supplying to the local market as well as export to overseas projects. Our main focus is to serve and provide solution to clients from the following industries and sectors :

1. Petrochemical Industries	**4. Oil & Gas Industries**
2. Industry Automation	**5. Tunnelling & other Industries**
3. Power Plant	**6. Automotive Industries**

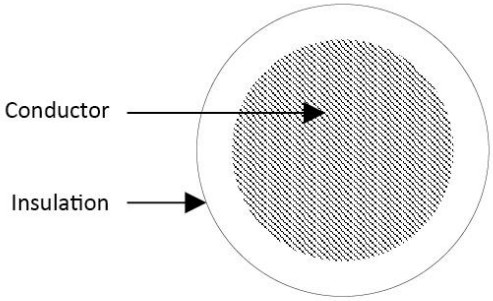
TABLE OF CONTENTS

PVC Cable

MS IV 01	: 450/750V PVC Insulated Non-Sheathed General Purpose Cable	1
MS IV 02	: 450/750V PVC Insulated Non-Sheathed Flexible Cable	2
MS IV 03	: 300/500V PVC Insulated Non-Sheathed Solid Internal Wiring Cable	3
MS IV 04	: 300/500V PVC Insulated Non-Sheathed Flexible Internal Wiring Cable	4
MS VV 10	: 300/500V PVC Insulated PVC Sheathed General Purpose Cable	5 - 6
MS VVF 20	: 300/300V PVC Insulated PVC Sheathed Flexible Cord	7
MS VVF 21	: 300/500V PVC Insulated PVC Sheathed Flexible Cord	8
Sustained Current Rating		9 - 10
600/1000V PVC Insulated PVC Sheathed Non-armoured Cable		11 - 14
600/1000V PVC Insulated PVC Sheathed Armoured Cable		15 - 18
Sustained Current Rating		19 - 20
Short Circuit Current Rating		21
Sirim		22
Existing Customer Profile		23

PVC CABLE

MS IV 01: 450/750V PVC Insulated Non-Sheathed General Purpose Cable



APPLICATION

Single core PVC insulated, non-sheathed for general purpose cables with rigid conductors are installed in surface mounted or embedded conduits or similar enclosed systems. They are suitable for use in channels with cover, fixed protected installation in or on lighting fittings and inside electrical applicances up to including 450/750V ac.

CONSTRUCTION

Conductor : Circular stranded plain annealed copper wire to IEC 60228 Class 2

Insulation : Polyvinyl chloride (PVC) compound PVC/C 70 to MS 2112-1, colour: Assorted colours for ≤ 25mm^2 , Black for ≥ 35mm^2

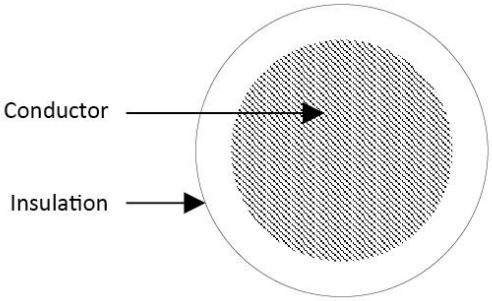
TECHNICAL INFO

Rated Voltage	: 450/750 V
Conductor Temperature	: 70° C, Max.
Spec Reference	: MS 2112-3/IEC 60227
Testing Voltage	: 2500V
Min. Bending Radius	: 8 X Cable OD

Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Approx. overall diameter	Approx. net weight	Electrical Characteristics		
					Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.	
mm^2	no/mm	mm	mm	kg/km	Ω/km	at 20° C MΩ.km	at 70° C MΩ.km
1.5	7/0.53	0.7	3.0	23	12.1	10	0.0102
2.5	7/0.67	0.8	3.7	35	7.41	9	0.0098
4	7/0.85	0.8	4.2	52	4.61	8	0.0080
6	7/1.04	0.8	4.8	73	3.08	7	0.0069
10	7/1.35	1.0	6.2	120	1.83	6	0.0068
16	7/1.70	1.0	7.1	181	1.15	5	0.0053
25	7/2.14	1.2	8.9	283	0.727	5	0.0052
35	19/1.53	1.2	10.0	377	0.524	4	0.0043
50	19/1.78	1.4	11.7	513	0.387	4	0.0044
70	19/2.14	1.4	13.4	721	0.268	3	0.0036
95	19/2.52	1.6	15.6	994	0.193	3	0.0034
120	37/2.03	1.6	17.2	1234	0.153	3	0.0031
150	37/2.25	1.8	19.1	1517	0.124	3	0.0031
185	37/2.52	2.0	21.3	1904	0.0991	3	0.0030
240	61/2.25	2.2	24.3	2485	0.0754	3	0.0029
300	61/2.52	2.4	27.1	3112	0.0601	3	0.0029
400	61/2.85	2.6	30.4	3960	0.0470	3	0.0027
500	61/3.20	2.8	33.7	4968	0.0366	2	0.0025
630	127/2.52	2.8	37.6	6325	0.0283	2	0.0022

PVC CABLE

MS IV 02: 450/750V PVC Insulated Non-Sheathed Flexible Cable



APPLICATION

Single core PVC insulated, non-sheathed for general purpose cables with flexible conductors are installed in trays, trunkings, lighting units or inside switching and control equipments for voltages up to and including 450/750V ac.

CONSTRUCTION

Conductor : Circular stranded plain annealed copper wire to IEC 60228 Class 5

Insulation : Polyvinyl chloride (PVC) compound PVC/C 70 to MS 2112-1,
Colour: Assorted colours

TECHNICAL INFO

Rated Voltage : 450/750 V

Conductor Temperature : 70° C, Max.

Spec Reference : MS 2112-3/IEC 60227

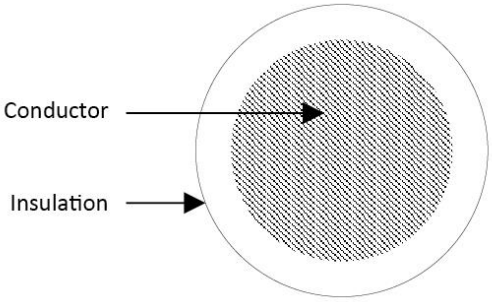
Testing Voltage : 2500V

Min. Bending Radius : 6 X Cable OD

Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Approx. overall diameter	Approx. net weight	Electrical Characteristics		
					Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.	
mm^2	no/mm	mm	mm	kg/km	Ω/km	at 20° C MΩ.km	at 70° C MΩ.km
1.5	30/0.25	0.7	3.5	23	13.3	12	0.0128
2.5	50/0.25	0.8	4.2	35	7.98	11	0.0116
4	56/0.30	0.8	4.8	50	4.95	9	0.0091
6	84/0.30	0.8	6.3	70	3.30	9	0.0090
10	80/0.40	1.0	7.6	125	1.91	9	0.0090
16	126/0.40	1.0	8.8	195	1.21	6	0.0065
25	196/0.40	1.2	11.0	300	0.780	6	0.0066
35	276/0.40	1.2	12.5	410	0.554	6	0.0060
50	396/0.40	1.4	14.5	585	0.386	5	0.0056
70	360/0.50	1.4	17.0	810	0.272	5	0.0053
95	475/0.50	1.6	19.0	1065	0.206	5	0.0048
120	608/0.50	1.6	21.0	1335	0.161	4	0.0047
150	756/0.50	1.8	23.5	1600	0.129	5	0.0049
185	925/0.50	2.0	26.0	2000	0.106	4	0.0040
240	1221/0.50	2.2	29.5	2500	0.0801	4	0.0038

PVC CABLE

MS IV 03: 300/500V PVC Insulated Non-Sheathed Solid Internal Wring Cable



APPLICATION

Single core PVC insulated, non-sheathed for internal wiring cables with solid conductors are used in fixed protected installation, inside electrical applicances and in lighting fittings. The cables are also suitable for installation in surface mounted or embedded conduits and used only for signaling or control circuits for voltages up to and including 300/500V ac.

CONSTRUCTION

Conductor : Round solid plain annealed / hard drawn copper wire to IEC 60228 Class 1

Insulation : Polyvinyl chloride (PVC) compound PVC/C 70 to MS 2112-1,
Colour: Assorted colours

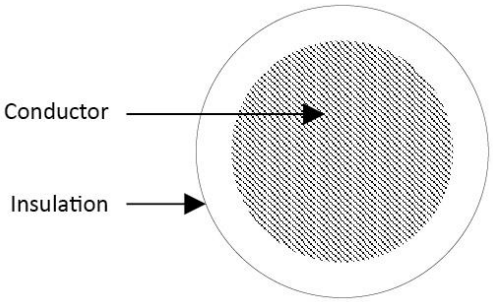
TECHNICAL INFO

Rated Voltage	: 300/500 V
Conductor Temperature	: 70° C, Max.
Spec Reference	: MS 2112-3/IEC 60227
Testing Voltage	: 2500V
Min. Bending Radius	: 8 X Cable OD

Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Approx. overall diameter	Approx. net weight	Electrical Characteristics		
					Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.	
mm^2	no/mm	mm	mm	kg/km	Ω/km	at 20° C MΩ.km	at 70° C MΩ.km
0.5	1/0.80	0.6	2.1	9.4	36.0	15	0.0155
0.75	1/0.98	0.6	2.3	12	24.5	13	0.0137
1.0	1/1.13	0.6	2.5	15	18.1	12	0.0127
1.5	1/1.38	0.7	2.9	22	12.1	11	0.0119
2.5	1/1.78	0.8	3.5	34	7.41	10	0.0108

PVC CABLE

MS IV 04: 300/500V PVC Insulated Non-Sheathed Flexible Internal Wring Cable



APPLICATION

Single core PVC insulated, non-sheathed for internal wiring cables with flexible conductors are used for installation in domestic areas, kitchens and offices. It is also suitable to use in household appliances like hair dryers, washing machine, refrigerators, cookers, heaters etc. for voltages up to and including 300/500V ac.

CONSTRUCTION

Conductor : Circular stranded plain annealed copper wire to IEC 60228 Class 5

Insulation : Polyvinyl chloride (PVC) compound PVC/C 70 to MS 2112-1,
Colour: Assorted colours

TECHNICAL INFO

Rated Voltage : 300/500 V

Conductor Temperature : 70° C, Max.

Spec Reference : MS 2112-3/IEC 60227

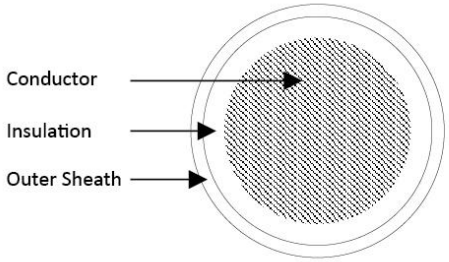
Testing Voltage : 2500V

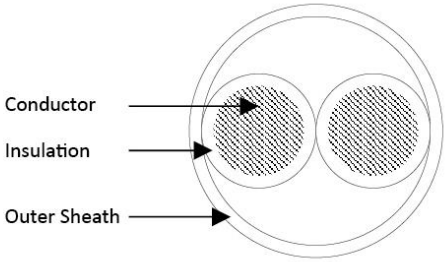
Min. Bending Radius : 6 X Cable OD

Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Approx. overall diameter	Approx. net weight	Electrical Characteristics		
					Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.	
mm^2	no/mm	mm	mm	kg/km	Ω/km	at 20° C MΩ.km	at 70° C MΩ.km
0.5	16/0.20	0.6	2.3	10	39.0	14	0.0147
0.75	24/0.20	0.6	2.5	13	26.0	12	0.0127
1.0	32/0.20	0.6	3.0	16	19.5	13	0.0138
1.5	30/0.25	0.7	3.5	23	13.3	12	0.0128
2.5	50/0.25	0.8	4.2	35	7.98	11	0.0116

PVC CABLE

MS VV 10: 300/500V PVC Insulated PVC Sheathed General Purpose Cable





APPLICATION

Single core and multi-cores up to including five cores, PVC insulated, PVC sheathed cables for fixed installation in walls, on boards and in channels, embedded in plaster ceiling for voltages up to and including 300/500V ac.

CONSTRUCTION

Conductor : Circular or sector shaped stranded plain annealed copper wire to IEC 60228 Class 2

Insulation : Polyvinyl chloride (PVC) compound PVC/C 70 to MS 2112-1

Code identification : Single core - Red or Black
Two core - Red, Black
Three core - Red, Yellow, Blue
Four core - Red, Yellow, Blue, Black
Five core - Red, Yellow, Blue, Black, Green

Laying-up : Cores to be laid-up together, where necessary, binder and non-hygroscopic fillers may be applied

Outer Sheath : Polyvinyl chloride (PVC) compound PVC/ ST 4 70 to MS 2112-1, Colour: Black

TECHNICAL INFO

Rated Voltage : 300/500 V

Conductor Temperature : 70° C, Max.

Spec Reference : MS 2112-4/IEC 60227

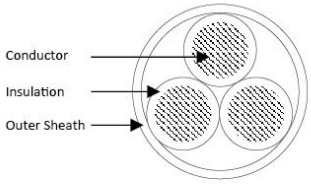
Testing Voltage : 2000V

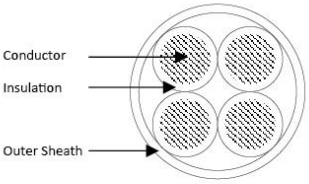
Min. Bending Radius : 8 X Cable OD

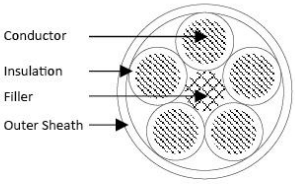
No. of cores	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics		
							Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.	
nos.	mm^2	no/mm	mm	mm	mm	kg/km	Ω/km	at 20° C MΩ.km	at 70° C MΩ.km
1	1.0	7/0.43	0.6	0.8	4.2	27	18.1	10	0.0106
	1.5	7/0.53	0.7	0.8	4.9	40	12.1	10	0.0101
	2.5	7/0.67	0.8	0.8	5.5	55	7.41	9	0.0094
	4	7/0.85	0.8	0.9	6.3	77	4.61	7	0.0078
	6	7/1.04	0.8	0.9	6.8	100	3.08	6	0.0066
	10	7/1.35	1.0	1.0	8.5	155	1.83	6	0.0064
	16	7/1.70	1.0	1.0	9.2	215	1.15	5	0.0053
	25	7/2.14	1.2	1.1	10.9	325	0.727	5	0.0051
	35	19/1.53	1.2	1.1	12.0	425	0.524	4	0.0044
2	1.5	7/0.53	0.7	1.2	8.8	100	12.1	10	0.0101
	2.5	7/0.67	0.8	1.2	10.1	140	7.41	9	0.0094
	4	7/0.85	0.8	1.2	11.2	200	4.61	7	0.0078
	6	7/1.04	0.8	1.2	12.3	260	3.08	6	0.0066
	10	7/1.35	1.0	1.4	15.3	410	1.83	6	0.0064
	16	7/1.70	1.0	1.4	17.4	585	1.15	5	0.0053
	25	7/2.14	1.2	1.4	20.4	870	0.727	5	0.0051
	35	19/1.53	1.2	1.6	23.0	1150	0.524	4	0.0044

PVC CABLE

MS VV 10: 300/500V PVC Insulated PVC Sheathed General Purpose Cable



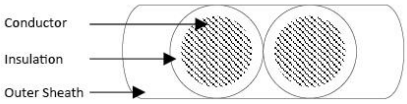


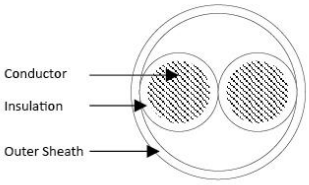


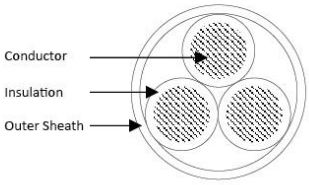
No. of cores	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics		
							Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.	
nos.	mm^2	no/mm	mm	mm	mm	kg/km	Ω/km	at 20° C MΩ.km	at 70° C MΩ.km
3	1.5	7/0.53	0.7	1.2	9.3	170	12.1	10	0.0101
	2.5	7/0.67	0.8	1.2	10.7	180	7.41	9	0.0094
	4	7/0.85	0.8	1.2	11.8	245	4.61	7	0.0078
	6	7/1.04	0.8	1.4	13.5	320	3.08	6	0.0066
	10	7/1.35	1.0	1.4	16.3	520	1.83	6	0.0064
	16	7/1.70	1.0	1.4	18.6	770	1.15	5	0.0053
	25	7/2.14	1.2	1.6	22.2	1160	0.727	5	0.0051
	35	19/1.53	1.2	1.6	24.6	1520	0.524	4	0.0044
4	1.5	7/0.53	0.7	1.2	10.1	160	12.1	10	0.0101
	2.5	7/0.67	0.8	1.2	11.7	220	7.41	9	0.0094
	4	7/0.85	0.8	1.4	13.3	320	4.61	7	0.0078
	6	7/1.04	0.8	1.4	14.7	430	3.08	6	0.0066
	10	7/1.35	1.0	1.4	18.0	660	1.83	6	0.0064
	16	7/1.70	1.0	1.4	20.4	960	1.15	5	0.0053
	25	7/2.14	1.2	1.6	24.5	1460	0.727	5	0.0051
	35	19/1.53	1.2	1.6	27.1	1920	0.524	4	0.0044
5	1.5	7/0.53	0.7	1.2	11.0	200	12.1	10	0.0101
	2.5	7/0.67	0.8	1.2	12.8	260	7.41	9	0.0094
	4	7/0.85	0.8	1.4	14.6	390	4.61	7	0.0078
	6	7/1.04	0.8	1.4	16.0	520	3.08	6	0.0066
	10	7/1.35	1.0	1.4	20.0	810	1.83	6	0.0064
	16	7/1.70	1.0	1.6	23.0	1180	1.15	5	0.0053
	25	7/2.14	1.2	1.6	27.0	1780	0.727	5	0.0051
	35	19/1.53	1.2	1.6	30.0	2340	0.524	4	0.0044

PVC CABLE

MS VVF 20: 300/300V PVC Insulated PVC Sheathed Flexible Cable







APPLICATION

Two, three cores light PVC insulated, PVC sheathed flexible cable suitable for indoor small electrical appliances and instruments.

CONSTRUCTION

Conductor	: Circular stranded plain annealed copper wire to IEC 60228 Class 5
Insulation	: Polyvinyl chloride (PVC) compound PVC/D 70 to MS 2112-1
Code identification	: Two core - Blue, Brown Three core - Blue, Brown, Green/Yellow
Laying-up	: Cores to be laid-up together, where necessary, fillers may be applied
Outer Sheath	: Polyvinyl chloride (PVC) compound PVC/ ST 5 70 to MS 2112-1, Colour: Grey

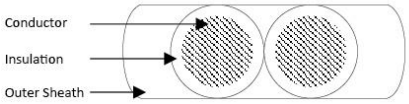
TECHNICAL INFO

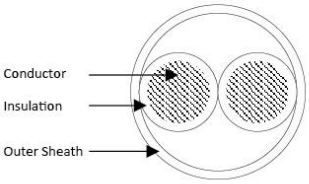
Rated Voltage	: 300/500 V
Conductor Temperature	: 70° C, Max.
Spec Reference	: MS 2112-5/IEC 60227
Testing Voltage	: 1500V
Min. Bending Radius	: 6 X Cable OD

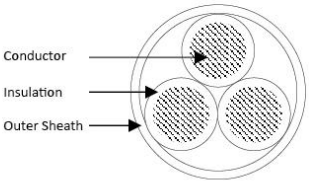
No. of cores (Type)	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics		
							Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.	
nos.	mm^2	no/mm	mm	mm	mm	kg/km	Ω/km	at 20° C MΩ.km	at 70° C MΩ.km
2 (Parallel Twin)	0.5	16/0.20	0.5	0.6	3.3 x 5.2	33	39.0	11	0.0118
	0.75	24/0.20	0.5	0.6	3.6 x 5.6	40	26.0	10	0.0102
2 (Circular)	0.5	16/0.20	0.5	0.6	5.2	40	39.0	11	0.0118
	0.75	24/0.20	0.5	0.6	5.6	50	26.0	10	0.0102
3 (Circular)	0.5	16/0.20	0.5	0.6	5.5	50	39.0	11	0.0118
	0.75	24/0.20	0.5	0.6	6.0	60	26.0	10	0.0102

PVC CABLE

MS VVF 21: 300/500V PVC Insulated PVC Sheathed Flexible Cable







APPLICATION

Two, three cores ordinary PVC insulated, PVC sheathed flexible cable suitable for indoor small electrical appliances and instruments.

CONSTRUCTION

Conductor : Circular stranded plain annealed copper wire to IEC 60228 Class 5

Insulation : Polyvinyl chloride (PVC) compound PVC/D 70 to MS 2112-1

Code identification : Two core - Blue, Brown
Three core - Blue, Brown, Green/Yellow
Four core - Blue, Brown, Green, Black
Five core - Blue, Brown, Black, Grey, Green

Laying-up : Cores to be laid-up together, where necessary, fillers may be applied

Outer Sheath : Polyvinyl chloride (PVC) compound PVC/ ST 5 70 to MS 2112-1, Colour: Grey

TECHNICAL INFO

Rated Voltage : 300/500 V

Conductor Temperature : 70° C, Max.

Spec Reference : MS 2112-5/IEC 60227

Testing Voltage : 1500V

Min. Bending Radius : 6 X Cable OD

No. of cores (Type)	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics		
							Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.	
nos.	mm^2	no/mm	mm	mm	mm	kg/km	Ω/km	at 20° C MΩ.km	at 70° C MΩ.km
2 (Parallel Twin)	0.75	24/0.20	0.6	0.8	4.3 x 6.8	50	26.0	11	0.0116
	1.0	32/0.20	0.6	0.8	4.5 x 7.1	57	19.5	10	0.0107
2 (Circular)	0.75	24/0.20	0.6	0.8	6.5	65	26.0	11	0.0116
	1.0	32/0.20	0.6	0.8	6.9	75	19.5	10	0.0107
	1.50	30/0.25	0.7	0.8	7.5	90	13.3	10	0.0102
	2.50	50/0.25	0.8	1.0	9.4	140	7.98	9	0.0093
3 (Circular)	0.75	24/0.20	0.6	0.8	6.9	75	26.0	11	0.0116
	1.0	32/0.20	0.6	0.8	7.3	85	19.5	10	0.0107
	1.50	30/0.25	0.7	0.9	8.5	115	13.3	10	0.0102
	2.50	50/0.25	0.8	1.1	10.2	180	7.98	9	0.0093
4 (Circular)	0.75	24/0.20	0.6	0.8	7.5	90	26.0	11	0.0116
	1.0	32/0.20	0.6	0.9	8.2	110	19.5	10	0.0107
	1.50	30/0.25	0.7	1.0	9.3	150	13.3	10	0.0102
	2.50	50/0.25	0.8	1.1	11.0	216	7.98	9	0.0093
5 (Circular)	0.75	24/0.20	0.6	0.9	8.6	100	26.0	11	0.0116
	1.0	32/0.20	0.6	0.9	9.1	118	19.5	10	0.0107
	1.50	30/0.25	0.7	1.1	10.8	170	13.3	10	0.0102
	2.50	50/0.25	0.8	1.2	12.7	249	7.98	9	0.0093

CURRENT RATING FOR PVC INSULATED CABLE

SINGLE CORE PVC INSULATED, NON-ARMOURED WITH OR WITHOUT SHEATH MS 2112/ IEC 60227

Conductor Operating Temperature : 70 °C

Ambient Temperature : 30 °C

Installation complied with BS 7671

Conductor Cross-sectional Area	Method of Installation										
	Enclosed in conduit in thermally insulating wall etc.		Enclosed in conduit on a wall or in trunking etc.		Clipped direct		On a perforated cable tray horizontal or vertical		In free air		
									Horizontal flat spaced	Vertical flat spaced	Trefoil
	2 cables, single phase ac. or dc.	3 or 4 cables, three phase ac.	2 cables, single phase ac. or dc.	3 or 4 cables three phase ac.	2 cables, single phase ac. or dc. flat and touchng	3 or 4 cables three-phase ac. or dc. flat and touching or trefoil	2 cables, single phase ac. or dc. flat and touchng	3 or 4 cables three-phase ac. or dc. flat and touching or trefoil	2 cables, single phase ac. or dc. or 3 cables three-phase ac.	2 cables, single phase ac. or dc. or 3 cables three-phase ac.	3 cables trefoil three phase ac.
mm²	A	A	A	A	A	A	A	A	A	A	A
1.0	11	10.5	13.5	12	15.5	14	-	-	-	-	-
1.5	14.5	13.5	17.5	15.5	20	18	-	-	-	-	-
2.5	19.5	18	24	21	27	25	-	-	-	-	-
4	26	24	32	28	37	33	-	-	-	-	-
6	34	31	41	36	47	43	-	-	-	-	-
10	46	42	57	50	65	59	-	-	-	-	-
16	61	56	76	68	87	79	-	-	-	-	-
25	80	73	101	89	114	104	126	112	146	130	110
35	99	89	125	110	141	129	156	141	181	162	137
50	119	108	151	134	182	167	191	172	219	197	167
70	151	136	192	171	234	214	246	223	281	254	216
95	182	164	232	207	284	261	300	273	341	311	264
120	210	188	269	239	330	303	349	318	396	362	308
150	240	216	300	262	381	349	404	369	456	419	356
185	273	245	341	296	436	400	463	424	521	480	409
240	320	286	400	346	515	472	549	504	615	569	485
300	367	328	458	394	594	545	635	584	709	659	561
400	-	-	546	467	694	634	732	679	852	795	656
500	-	-	626	533	792	723	835	778	982	920	749
630	-	-	720	611	904	826	953	892	1138	1070	855

CURRENT RATING FOR MULTICORE PVC INSULATED CABLES IEC 60227

Conductor Operating Temperature : 70 °C

Ambient Temperature : 30 °C

Installation complied with BS 7671

Conductor Cross-sectional Area	Method of Installation							
	Enclosed in an insulating wall etc.conduit in thermally insulating wall etc.		Enclosed in conduit on a wall or ceiling or in trunking		Clipped direct		On a perforated cable tray or in free air	
	1 two-core cable single phase ac. or dc.	1 three core cable or 1 four core cable, three phase ac.	1 two -core cable single phase ac. or dc.	1 three core cable or 1 four core cable, three phase ac.	1 two core cable single phase ac. or dc.	1 three core cable or 1 four core cable, three phase ac.	1 two core cable single phase ac. or dc.	1 three core cable or 1 four core cable, three phase ac.
mm²	A	A	A	A	A	A	A	A
1.0	11	10	13	11.5	15	13.5	17	14.5
1.5	14	13	16.5	15	19.5	17.5	22	18.5
2.5	18.5	17.5	23	20	27	24	30	25
4	25	23	30	27	36	32	40	34
6	32	29	38	34	46	41	51	43
10	43	39	52	46	63	57	70	60
16	57	52	69	62	85	76	94	80
25	75	68	90	80	112	96	119	101
35	92	83	111	99	138	119	148	126

RATING FACTORS

RATING FACTORS FOR GROUP OF MORE THAN ONE CIRCUIT OF SINGLE CORE CABLES OR MORE THAN ONE MULTICORE CABLE

Method of Installation		Rating Factor													
		Number of Circuits or Multicore cables													
		2	3	4	5	6	7	8	9	10	12	14	16	18	20
Enclosed or bunched and clipped direct to a non-metallic surface		0.80	0.70	0.65	0.60	0.57	0.54	0.52	0.50	0.48	0.45	0.43	0.41	0.39	0.38
Single layer clipped to a non-metallic surface	Touching	0.85	0.79	0.75	0.73	0.72	0.72	0.71	0.70	-	-	-	-	-	-
	Space *	0.94	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Single layer multicore on a perforated metal cable tray, vertical or horizontal	Touching	0.86	0.81	0.77	0.75	0.74	0.73	0.72	0.71	0.70	-	-	-	-	-
	Space *	0.91	0.89	0.88	0.87	0.87	-	-	-	-	-	-	-	-	-
Single layer single core on a perforated metal cable tray, touching	Horizontal	0.90	0.85	-	-	-	-	-	-	-	-	-	-	-	-
	Vertical	0.85	-	-	-	-	-	-	-	-	-	-	-	-	-
Single layer multicore touching on ladder supports		0.86	0.82	0.80	0.79	0.78	0.78	0.78	0.77	-	-	-	-	-	-

*spaced by a clearance between adjacent surfaces of at least one cable diameter, D. Where the horizontal clearance between adjacent cables exceeds 2D, No correction factor is needed.

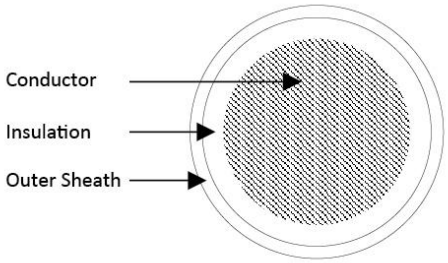
RATING FACTORS FOR OTHER AMBIENT TEMPERATURE

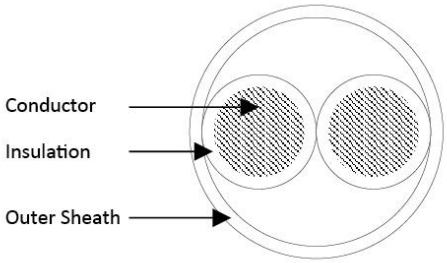
Type of Protection	Rating Factor							
	Ambient Temperature (°C)							
	25	30	35	40	45	50	55	60
The overcurrent protective device is intended to provide short-circuit protection only*	1.03	1.00	0.94	0.87	0.79	0.71	0.61	0.50
The overcurrent protective device is a semi-enclosed fuse to BS 3036	1.03	1.00	0.97	0.94	0.91	0.87	0.84	0.69

*except where the device is a semi-enclosed fuse to BS 3036, the factor also applies where the device is intended to provide overload protection.

PVC INSULATED POWER CABLE

600/1000V, PVC Insulated PVC Sheathed Non-armoured Power Cable





APPLICATION

For electricity supply and generally use for fixed installation system, installed in open air, underground, in cable ducts, outdoors and indoors, power stations, for industry and distribution boards as well as in subscriber networks where mechanical damages are not to be expected up to including 600/1000V ac.

CONSTRUCTION

Conductor	: Circular stranded, compacted circular or sector shaped stranded plain annealed copper wire to IEC 60228 Class 2
Insulation	: Polyvinyl chloride (PVC) compound PVC/A to IEC 60502-1
Code identification	: Single core - Black Two core - Red, Black Three core - Red, Yellow, Blue Four core - Red, Yellow, Blue, Black Five core - Red, Yellow, Blue, Black, Green Six core and above - white core with numbering
Laying-up	: Cores to be laid-up together, where necessary, binder and non-hygroscopic fillers may be applied
Outer Sheath	: Polyvinyl chloride (PVC) compound PVC ST 1 to IEC 60502-1, Colour Black

TECHNICAL INFO

Rated Voltage	: 600/1000 V
Conductor Temperature	: 70° C, Max.
Spec Reference	: IEC 60502-1/ MS 2100 MS 2102
Testing Voltage	: 3500V
Min. Bending Radius	: 8 X Cable OD

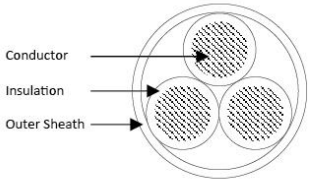
PVC INSULATED POWER CABLE

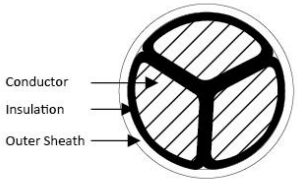
600/1000V, PVC Insulated PVC Sheathed Non-armoured Power Cable

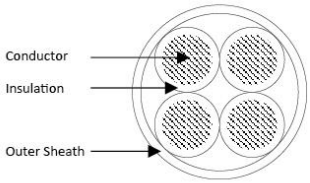
No. of cores	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics				
							Conductor Resistance at 20°C, Max.	Insulation Resistance, Min.		Short circuit Rating	
nos.	mm^2	no/mm	mm	mm	mm	kg/km	Ω/km	at 20°C MΩ.km	at 70°C MΩ.km	1 sec. (kA)	3 sec. (kA)
1	1.5	7/0.53	0.8	1.4	6.4	55	12.1	11	0.0112	0.17	0.10
	2.5	7/0.67	0.8	1.4	6.9	68	7.41	9	0.0094	0.29	0.17
	4.0	7/0.85	1.0	1.4	7.8	100	4.61	9	0.0093	0.46	0.27
	6	7/1.04	1.0	1.4	8.4	128	3.08	8	0.0079	0.69	0.40
	10	7/1.35	1.0	1.4	9.3	177	1.83	6	0.0064	1.15	0.66
	16	7/1.70	1.0	1.4	10.1	243	1.15	5	0.0053	1.84	1.06
	25	7/2.14	1.2	1.4	11.6	355	0.727	5	0.0051	2.88	1.66
	35	19/1.53	1.2	1.4	12.7	455	0.524	4	0.0044	4.03	2.32
	50	19/1.78	1.4	1.4	14.1	596	0.387	4	0.0044	5.75	3.32
	70	19/2.14	1.4	1.4	15.6	813	0.268	4	0.0037	8.05	4.65
	95	19/2.52	1.6	1.5	18.2	1112	0.193	3	0.0036	10.93	6.31
	120	37/2.03	1.6	1.5	19.7	1360	0.153	3	0.0033	13.80	7.97
	150	37/2.25	1.8	1.6	21.7	1664	0.124	3	0.0033	17.25	9.96
	185	37/2.52	2.0	1.7	24.1	2074	0.0991	3	0.0033	21.28	12.28
	240	61/2.25	2.2	1.8	27.0	2700	0.0754	3	0.0032	27.60	15.93
	300	61/2.52	2.4	1.9	29.9	3360	0.0601	3	0.0031	34.50	19.92
	400	61/2.85	2.6	2.0	33.3	4256	0.0470	3	0.0030	41.20	23.79
	500	61/3.20	2.8	2.1	36.8	5310	0.0366	3	0.0029	51.50	29.73
	630	127/2.52	2.8	2.2	40.6	6720	0.0283	2	0.0025	64.89	37.46
	800	127/2.85	2.8	2.3	44.7	8470	0.0221	2	0.0023	82.40	47.57
	1000	127/3.20	3.0	2.5	49.7	10620	0.0176	2	0.0022	103.00	59.47
2	1.5	7/0.53	0.8	1.8	10.7	130	12.1	11	0.0112	0.17	0.10
	2.5	7/0.67	0.8	1.8	11.5	160	7.41	9	0.0094	0.29	0.17
	4.0	7/0.85	1.0	1.8	13.4	220	4.61	9	0.0093	0.46	0.27
	6	7/1.04	1.0	1.8	14.6	278	3.08	8	0.0079	0.69	0.40
	10	7/1.35	1.0	1.8	16.4	384	1.83	6	0.0064	1.15	0.66
	16	7/1.70	1.0	1.8	18.1	523	1.15	5	0.0053	1.84	1.06
	25	7/2.14	1.2	1.8	21.1	760	0.727	5	0.0051	2.88	1.66
	35	19/1.53	1.2	1.8	20.1	960	0.524	4	0.0044	4.03	2.32
	50	19/1.78	1.4	1.8	22.8	1260	0.387	4	0.0044	5.75	3.32
	70	19/2.14	1.4	1.9	25.5	1710	0.268	4	0.0037	8.05	4.65
	95	19/2.52	1.6	2.0	29.3	2300	0.193	3	0.0036	10.93	6.31
	120	37/2.03	1.6	2.1	31.8	2850	0.153	3	0.0033	13.80	7.97
	150	37/2.25	1.8	2.2	35.1	3480	0.124	3	0.0033	17.25	9.96
	185	37/2.52	2.0	2.4	39.1	4350	0.0991	3	0.0033	21.28	12.28
	240	61/2.25	2.2	2.5	43.9	5640	0.0754	3	0.0032	27.60	15.93
	300	61/2.52	2.4	2.7	48.7	7000	0.0601	3	0.0031	34.50	19.92
	400	61/2.85	2.6	2.9	54.2	8900	0.0470	3	0.0030	46.00	26.56

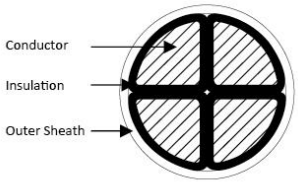
PVC INSULATED POWER CABLE

600/1000V, PVC Insulated PVC Sheathed Non-armoured Power Cable





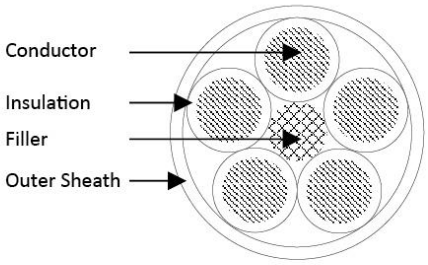


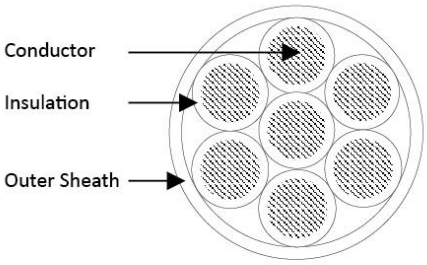


No. of cores	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics				
							Conductor Resistance at 20°C, Max.	Insulation Resistance, Min.		Short circuit Rating	
nos.	mm^2	no/mm	mm	mm	mm	kg/km	Ω/km	at 20°C MΩ.km	at 70°C MΩ.km	1 sec. (kA)	3 sec. (kA)
3	1.5	7/0.53	0.8	1.8	11.5	165	12.1	11	0.0112	0.17	0.10
	2.5	7/0.67	0.8	1.8	12.2	206	7.41	9	0.0094	0.29	0.17
	4.0	7/0.85	1.0	1.8	14.2	288	4.61	9	0.0093	0.46	0.27
	6	7/1.04	1.0	1.8	15.4	370	3.08	8	0.0079	0.69	0.40
	10	7/1.35	1.0	1.8	17.0	590	1.83	6	0.0064	1.15	0.66
	16	7/1.70	1.0	1.8	19.3	718	1.15	5	0.0053	1.84	1.06
	25	7/2.14	1.2	1.8	22.5	1060	0.727	5	0.0051	2.88	1.66
	35	19/1.53	1.2	1.8	22.4	1380	0.524	4	0.0044	4.03	2.32
	50	19/1.78	1.4	1.8	25.5	1830	0.387	4	0.0044	5.75	3.32
	70	19/2.14	1.4	1.9	28.7	2490	0.268	4	0.0037	8.05	4.65
	95	19/2.52	1.6	2.1	33.3	3400	0.193	3	0.0036	10.93	6.31
	120	37/2.03	1.6	2.2	36.3	4190	0.153	3	0.0033	13.80	7.97
	150	37/2.25	1.8	2.3	40.0	5150	0.124	3	0.0033	17.25	9.96
	185	37/2.52	2.0	2.5	44.6	6430	0.0991	3	0.0033	21.28	12.28
	240	61/2.25	2.2	2.6	50.1	8350	0.0754	3	0.0032	27.60	15.93
	300	61/2.52	2.4	2.8	55.6	10350	0.0601	3	0.0031	34.50	19.92
	400	61/2.85	2.6	3.1	62.2	13230	0.0470	3	0.0030	46.00	26.56
4	1.5	7/0.53	0.8	1.8	12.2	200	12.1	11	0.0112	0.17	0.10
	2.5	7/0.67	0.8	1.8	13.2	250	7.41	9	0.0094	0.29	0.17
	4.0	7/0.85	1.0	1.8	15.4	358	4.61	9	0.0093	0.46	0.27
	6	7/1.04	1.0	1.8	16.8	460	3.08	8	0.0079	0.69	0.40
	10	7/1.35	1.0	1.8	18.6	720	1.83	6	0.0064	1.15	0.66
	16	7/1.70	1.0	1.8	21.1	920	1.15	5	0.0053	1.84	1.06
	25	7/2.14	1.2	1.8	24.8	1365	0.727	5	0.0051	2.88	1.66
	35	19/1.53	1.2	1.8	25.4	1820	0.524	4	0.0044	4.03	2.32
	50	19/1.78	1.4	1.9	29.2	2450	0.387	4	0.0044	5.75	3.32
	70	19/2.14	1.4	2.0	33.0	3350	0.268	4	0.0037	8.05	4.65
	95	19/2.52	1.6	2.2	38.3	4560	0.193	3	0.0036	10.93	6.31
	120	37/2.03	1.6	2.3	41.8	5600	0.153	3	0.0033	13.80	7.97
	150	37/2.25	1.8	2.5	46.3	6920	0.124	3	0.0033	17.25	9.96
	185	37/2.52	2.0	2.6	51.3	8600	0.0991	3	0.0033	21.28	12.28
	240	61/2.25	2.2	2.8	58.0	11200	0.0754	3	0.0032	27.60	15.93
	300	61/2.52	2.4	3.1	64.6	13900	0.0601	3	0.0031	34.50	19.92
	400	61/2.85	2.6	3.3	72.0	17750	0.0470	3	0.0030	46.00	26.56

PVC INSULATED POWER CABLE

600/1000V, PVC Insulated PVC Sheathed Non-armoured Power Cable

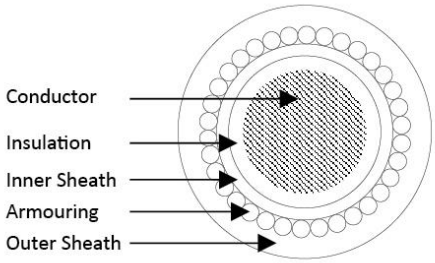


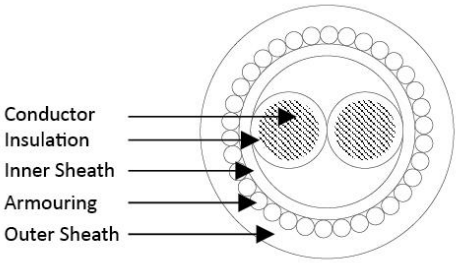


No. of cores	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics				
							Conductor Resistance at 20° C, Max.	Insulation Resistance, Min.		Short circuit Rating	
nos.	mm^2	no/mm	mm	mm	mm	kg/km	Ω/km	at 20°C MΩ.km	at 70°C MΩ.km	1 sec. (kA)	3 sec. (kA)
5	1.5	7/0.53	0.8	1.8	13.1	230	12.1	11	0.0112	0.17	0.10
7			0.8	1.8	14.1	295					
10			0.8	1.8	17.5	404					
12			0.8	1.8	18.1	460					
19			0.8	1.8	20.9	670					
27			0.8	1.8	24.8	915					
37			0.8	1.8	27.7	1200					
48			0.8	1.9	31.8	1540					
5	2.5	7/0.67	0.8	1.8	14.2	300	7.41	9	0.0094	0.29	0.17
7			0.8	1.8	15.4	380					
10			0.8	1.8	19.2	525					
12			0.8	1.8	19.8	606					
19			0.8	1.8	23.0	893					
27			0.8	1.8	27.4	1228					
37			0.8	1.8	30.6	1625					
48			0.8	2.0	35.4	2105					
5	4.0	7/0.85	1.0	1.8	16.8	428	4.61	9	0.0093	0.46	0.27
7			1.0	1.8	18.2	558					
10			1.0	1.8	22.9	775					
12			1.0	1.8	23.7	900					
19			1.0	1.8	27.7	1340					
27			1.0	1.9	33.4	1875					
37			1.0	2.1	37.8	2530					
48			1.0	2.2	43.5	3250					

PVC INSULATED POWER CABLE

600/1000V, PVC Insulated, PVC Inner Sheathed & Sheathed Armoured Power Cable





APPLICATION

For electricity supply and generally use for fixed installation system, installed in open air, underground, in cable ducts, outdoors and indoors, power stations, for industry and distribution boards as well as in subscriber networks where there is risk of mechanical damages for voltages up to including 600/1000V ac.

CONSTRUCTION

Conductor	: Circular stranded, compacted circular or sector shaped stranded plain annealed copper wire to IEC 60228 Class 2
Insulation	: Polyvinyl chloride (PVC) compound PVC/A to IEC 60502-1
Code identification	: Single core - Black Two core - Red, Black Three core - Red, Yellow, Blue Four core - Red, Yellow, Blue, Black Five core - Red, Yellow, Blue, Black, Green Six core and above - white core with numbering
Laying-up	: Cores to be laid-up together, where necessary, binder and non-hygroscopic fillers may be applied
Inner Sheath	: Extruded layer of polyvinyl chloride (PVC) compound, Colour: Black
Armouring	: Single layer of round aluminium wire - Single core Single layer of round galvanized steel wire- two cores and above
Outer Sheath	: Polyvinyl chloride (PVC) compound PVC ST 1 to IEC 60502-1, Colour Black

TECHNICAL INFO

Rated Voltage	: 600/1000 V
Conductor Temperature	: 70° C, Max.
Spec Reference	: IEC 60502-1/ MS 2101 MS 2103
Testing Voltage	: 3500V
Min. Bending Radius	: 8 X Cable OD

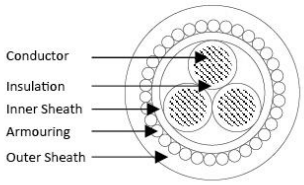
PVC INSULATED POWER CABLE

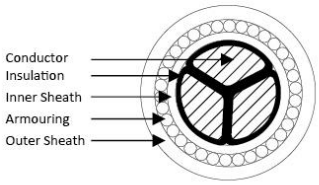
600/1000V, PVC Insulated, PVC Inner Sheathed & Sheathed Armoured Power Cable

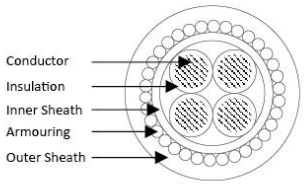
No. of cores	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of inner sheath	Armour wire diameter	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics				
									Conductor Resistance at 20°C, Max.	Insulation Resistance, Min.		Short circuit Rating	
										at 20 °C	at 70 °C		
nos.	mm^2	no/mm	mm	mm	mm	mm	mm	kg/km	Ω/km	MΩ.km	MΩ.km	1 sec. (kA)	3 sec. (kA)
1	50	19/1.78	1.4	1.0	1.6	1.8	20.5	864	0.387	4	0.0044	5.75	3.32
	70	19/2.14	1.4	1.0	1.6	1.8	21.8	1140	0.268	4	0.0037	8.05	4.65
	95	19/2.52	1.6	1.0	1.6	1.8	24.2	1475	0.193	3	0.0036	10.93	6.31
	120	37/2.03	1.6	1.0	1.6	1.8	25.7	1750	0.153	3	0.0033	13.80	7.97
	150	37/2.25	1.8	1.0	1.6	1.8	27.5	2080	0.124	3	0.0033	17.25	9.96
	185	37/2.52	2.0	1.0	1.6	1.8	29.7	2520	0.0991	3	0.0033	21.28	12.28
	240	61/2.25	2.2	1.0	1.6	1.9	32.6	3200	0.0754	3	0.0032	27.60	15.93
	300	61/2.52	2.4	1.0	2.0	2.0	36.3	4000	0.0601	3	0.0031	34.50	19.92
	400	61/2.85	2.6	1.2	2.0	2.1	40.1	5000	0.0470	3	0.0030	41.20	23.79
	500	61/3.20	2.8	1.2	2.0	2.2	43.6	6130	0.0366	3	0.0029	51.50	29.73
	630	127/2.52	2.8	1.2	2.0	2.4	47.6	7650	0.0283	2	0.0025	64.89	37.46
	800	127/2.85	2.8	1.4	2.5	2.5	53.1	9710	0.0221	2	0.0023	82.40	47.57
	1000	127/3.20	3.0	1.4	2.5	2.7	58.1	11990	0.0176	2	0.0022	103.00	59.47
2	1.5	7/0.53	0.8	1.0	0.9	1.8	14.7	385	12.1	11	0.0112	0.17	0.10
	2.5	7/0.67	0.8	1.0	0.9	1.8	15.6	435	7.41	9	0.0094	0.29	0.17
	4.0	7/0.85	1.0	1.0	0.9	1.8	17.3	600	4.61	9	0.0093	0.46	0.27
	6	7/1.04	1.0	1.0	1.25	1.8	19.2	730	3.08	8	0.0079	0.69	0.40
	10	7/1.35	1.0	1.0	1.25	1.8	21.0	900	1.83	6	0.0064	1.15	0.66
	16	7/1.70	1.0	1.0	1.25	1.8	22.7	1180	1.15	5	0.0053	1.84	1.06
	25	7/2.14	1.2	1.0	1.6	1.8	26.4	1720	0.727	5	0.0051	2.88	1.66
	35	19/1.53	1.2	1.0	1.6	1.8	24.9	1735	0.524	4	0.0044	4.03	2.32
	50	19/1.78	1.4	1.0	1.6	1.9	27.8	2080	0.387	4	0.0044	5.75	3.32
	70	19/2.14	1.4	1.0	2.0	2.0	31.9	2880	0.268	4	0.0037	8.05	4.65
	95	19/2.52	1.6	1.2	2.0	2.2	36.3	3740	0.193	3	0.0036	10.93	6.31
	120	37/2.03	1.6	1.2	2.0	2.3	38.7	4380	0.153	3	0.0033	13.80	7.97
	150	37/2.25	1.8	1.2	2.5	2.4	42.9	5500	0.124	3	0.0033	17.25	9.96
	185	37/2.52	2.0	1.4	2.5	2.6	47.4	6655	0.0991	3	0.0033	21.28	12.28
	240	61/2.25	2.2	1.4	2.5	2.8	47.8	7950	0.0754	3	0.0032	27.60	15.93
	300	61/2.52	2.4	1.6	2.5	2.9	57.2	10000	0.0601	3	0.0031	34.50	19.92
	400	61/2.85	2.6	1.6	2.5	3.0	62.0	11410	0.0470	3	0.0030	46.00	26.56

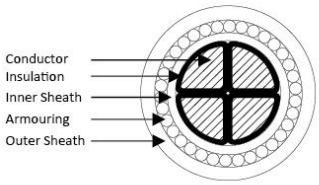
PVC INSULATED POWER CABLE

600/1000V, PVC Insulated, PVC Inner Sheathed & Sheathed Armoured Power Cable





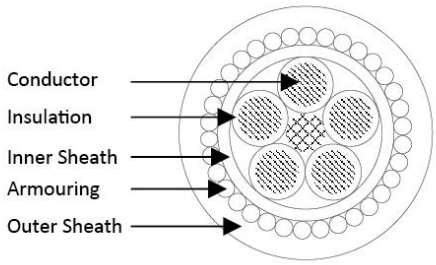


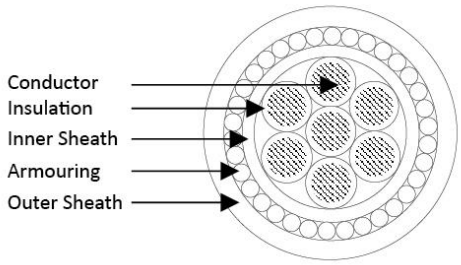


No. of cores	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of inner sheath	Armour wire diameter	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics				
									Conductor Resistance at 20°C, Max.	Insulation Resistance, Min.		Short circuit Rating	
										at 20 °C	at 70 °C		
nos.	mm^2	no/mm	mm	mm	mm	mm	mm	kg/km	Ω/km	MΩ.km	MΩ.km	1 sec. (kA)	3 sec. (kA)
3	1.5	7/0.53	0.8	1.0	0.9	1.8	15.3	430	12.1	11	0.0112	0.17	0.10
	2.5	7/0.67	0.8	1.0	0.9	1.8	16.2	490	7.41	9	0.0094	0.29	0.17
	4.0	7/0.85	1.0	1.0	1.25	1.8	18.1	660	4.61	9	0.0093	0.46	0.27
	6	7/1.04	1.0	1.0	1.25	1.8	20.0	825	3.08	8	0.0079	0.69	0.40
	10	7/1.35	1.0	1.0	1.25	1.8	22.0	1040	1.83	6	0.0064	1.15	0.66
	16	7/1.70	1.0	1.0	1.25	1.8	24.0	1400	1.15	5	0.0053	1.84	1.06
	25	7/2.14	1.2	1.0	1.6	1.8	27.9	2050	0.727	5	0.0051	2.88	1.66
	35	19/1.53	1.2	1.0	1.6	1.8	27.5	2220	0.524	4	0.0044	4.03	2.32
	50	19/1.78	1.4	1.0	1.6	2.0	31.9	2855	0.387	4	0.0044	5.75	3.32
	70	19/2.14	1.4	1.2	2.0	2.1	36.5	3960	0.268	4	0.0037	8.05	4.65
	95	19/2.52	1.6	1.2	2.0	2.2	40.9	5090	0.193	3	0.0036	10.93	6.31
	120	37/2.03	1.6	1.2	2.0	2.3	43.8	6020	0.153	3	0.0033	13.80	7.97
	150	37/2.25	1.8	1.4	2.5	2.5	49.2	7650	0.124	3	0.0033	17.25	9.96
	185	37/2.52	2.0	1.4	2.5	2.7	54.0	9255	0.0991	3	0.0033	21.28	12.28
	240	61/2.25	2.2	1.6	2.5	2.9	60.2	11670	0.0754	3	0.0032	27.60	15.93
	300	61/2.52	2.4	1.6	2.5	3.1	65.7	14060	0.0601	3	0.0031	34.50	19.92
	400	61/2.85	2.6	1.6	2.5	3.3	72.0	15840	0.0470	3	0.0030	46.00	26.56
4	1.5	7/0.53	0.8	1.0	0.9	1.8	16.2	485	12.1	11	0.0112	0.17	0.10
	2.5	7/0.67	0.8	1.0	0.9	1.8	17.1	580	7.41	9	0.0094	0.29	0.17
	4.0	7/0.85	1.0	1.0	1.25	1.8	20.1	820	4.61	9	0.0093	0.46	0.27
	6	7/1.04	1.0	1.0	1.25	1.8	21.4	1020	3.08	8	0.0079	0.69	0.40
	10	7/1.35	1.0	1.0	1.25	1.8	23.8	1240	1.83	6	0.0064	1.15	0.66
	16	7/1.70	1.0	1.0	1.6	1.8	26.5	1800	1.15	5	0.0053	1.84	1.06
	25	7/2.14	1.2	1.0	1.6	1.8	30.1	2430	0.727	5	0.0051	2.88	1.66
	35	19/1.53	1.2	1.0	1.6	1.9	34.4	2950	0.524	4	0.0044	4.03	2.32
	50	19/1.78	1.4	1.2	2.0	2.1	36.5	3920	0.387	4	0.0044	5.75	3.32
	70	19/2.14	1.4	1.2	2.0	2.2	40.4	5030	0.268	4	0.0037	8.05	4.65
	95	19/2.52	1.6	1.2	2.5	2.4	46.6	6910	0.193	3	0.0036	10.93	6.31
	120	37/2.03	1.6	1.4	2.5	2.5	50.5	8270	0.153	3	0.0033	13.80	7.97
	150	37/2.25	1.8	1.4	2.5	2.7	55.0	9820	0.124	3	0.0033	17.25	9.96
	185	37/2.52	2.0	1.6	2.5	2.9	60.9	11990	0.0991	3	0.0033	21.28	12.28
	240	61/2.25	2.2	1.6	2.5	3.1	67.4	15060	0.0754	3	0.0032	27.60	15.93
	300	61/2.52	2.4	1.6	2.5	3.3	73.7	18270	0.0601	3	0.0031	34.50	19.92
	400	61/2.85	2.6	1.8	3.15	3.6	82.5	21390	0.0470	3	0.0030	46.00	26.56

PVC INSULATED POWER CABLE

600/1000V, PVC Insulated, PVC Inner Sheathed & Sheathed Armoured Power Cable





No. of cores	Nominal cross-sectional of conductor	Number and diameter of wires	Thickness of insulation	Thickness of inner sheath	Armour wire diameter	Thickness of outer sheath	Approx. overall diameter	Approx. net weight	Electrical Characteristics				
									Conductor Resistance at 20oC, Max.	Insulation Resistance, Min.		Short circuit Rating	
nos.	mm^2	no/mm	mm	mm	mm	mm	mm	kg/km	Ω/km	at 20 °C MΩ.km	at 70 °C MΩ.km	1 sec. (kA)	3 sec. (kA)
5	1.5	7/0.53	0.8	1.0	0.9	1.8	17.1	540	12.1	11	0.0112	0.17	0.10
7			0.8	1.0	0.9	1.8	18.1	630					
10			0.8	1.0	1.25	1.8	22.2	940					
12			0.8	1.0	1.25	1.8	22.8	1010					
19			0.8	1.0	1.6	1.8	26.3	1510					
27			0.8	1.0	1.6	1.8	30.2	1860					
37			0.8	1.0	1.6	1.9	33.3	2265					
48			0.8	1.0	1.6	2.0	37.4	2760					
5	2.5	7/0.67	0.8	1.0	0.9	1.8	18.2	630	7.41	9	0.0094	0.29	0.17
7			0.8	1.0	1.25	1.8	20.1	855					
10			0.8	1.0	1.25	1.8	23.9	1110					
12			0.8	1.0	1.25	1.8	24.5	1215					
19			0.8	1.0	1.6	1.8	28.4	1760					
27			0.8	1.0	1.6	1.9	33.0	2290					
37			0.8	1.0	1.6	2.0	36.4	2820					
48			0.8	1.2	2.0	2.1	42.2	3800					
5	4.0	7/0.85	1.0	1.0	1.25	1.8	21.5	940	4.61	9	0.0093	0.46	0.27
7			1.0	1.0	1.25	1.8	22.9	1115					
10			1.0	1.0	1.6	1.8	28.3	1640					
12			1.0	1.0	1.6	1.8	29.1	1790					
19			1.0	1.0	1.6	1.9	33.3	2400					
27			1.0	1.2	2.0	2.1	40.4	3490					
37			1.0	1.2	2.0	2.2	44.6	4350					
48			1.0	1.2	2.5	2.4	51.5	5790					

CURRENT RATING

CURRENT RATING FOR PVC INSULATED NON-ARMOURED CABLE - INSTALLED IN AIR

6000/1000 V IEC 60502-1

Ambient Temperature : 30°C Maximum conductor tempearature : 70°C

Rating factors

Ambient air temperature (°C)	25	30	35	40	45
Rating factor	1.06	1.00	0.94	0.87	0.79

Conductor Cross-sectional Area	Single core				Two core		Three and Four core	
	Three cables spaced *		Three cables trefoil touching		Current rating	Approx. volt drop per amp per metre	Current rating	Approx. volt drop per amp per metre
	Current rating	Approx. volt drop per amp per metre	Current rating	Approx. volt drop per amp per metre				
mm²	A	mV	A	mV	A	mV	A	mV
1.5	-	-	-	-	-	-	-	-
2.5	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
10	-	-	-	-	66	4.30	56	3.80
16	-	-	-	-	86	2.80	73	2.40
25	-	-	-	-	116	1.70	97	1.50
35	-	-	-	-	145	1.30	120	1.10
50	185	0.83	170	0.82	170	0.94	150	0.82
70	235	0.60	220	0.58	220	0.66	185	0.57
95	300	0.47	270	0.43	265	0.49	230	0.42
120	345	0.40	310	0.35	305	0.40	265	0.35
150	395	0.35	360	0.30	350	0.34	305	0.29
185	460	0.33	420	0.25	410	0.29	350	0.25
240	585	0.32	495	0.22	485	0.24	415	0.21
300	680	0.31	575	0.19	550	0.21	475	0.18
400	780	0.28	660	0.18	630	0.19	550	0.17
500	890	0.27	760	0.16	-	-	-	-
630	1030	0.25	870	0.15	-	-	-	-
800	1170	0.23	990	0.15	-	-	-	-
1000	1290	0.22	1100	0.14	-	-	-	-

*adjacent cable surfaces is separated by one cable diameter

CURRENT RATING FOR PVC INSULATED NON-ARMOURED CABLE - LAID DIRECT IN GROUND

6000/1000 V IEC 60502-1

Laying conditions: -

Ground temperature : 25°C Ground thermal resistivity : 1.2°Cm/W

Depth of laying : 0.5m (center of cable or trefoil group of cables) Maximum conductor temperature : 70°C

Rating factors

Ambient ground temperature (°C)	15	20	25	30	35
Rating factor	1.10	1.05	1.00	0.95	0.90

Conductor Cross-sectional Area	Single core				Two core		Three and Four core	
	Three cables spaced *		Three cables trefoil touching		Current rating	Approx. volt drop per amp per metre	Current rating	Approx. volt drop per amp per metre
	Current rating	Approx. volt drop per amp per metre	Current rating	Approx. volt drop per amp per metre				
mm²	A	mV	A	mV	A	mV	A	mV
1.5	-	-	-	-	-	-	-	-
2.5	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-
10	-	-	-	-	79	4.30	67	3.80
16	-	-	-	-	104	2.80	88	2.40
25	-	-	-	-	135	1.70	117	1.50
35	-	-	-	-	165	1.30	140	1.10
50	190	0.83	180	0.82	195	0.94	165	0.82
70	235	0.60	220	0.58	245	0.66	200	0.57
95	280	0.47	265	0.43	285	0.49	245	0.42
120	320	0.40	300	0.35	330	0.40	280	0.35
150	355	0.35	340	0.30	370	0.34	310	0.29
185	405	0.33	380	0.25	420	0.29	350	0.25
240	470	0.32	440	0.22	485	0.24	410	0.21
300	530	0.31	495	0.19	550	0.21	460	0.18
400	610	0.28	565	0.18	620	0.19	520	0.17
500	680	0.27	630	0.16	-	-	-	-
630	780	0.25	700	0.15	-	-	-	-
800	880	0.23	770	0.15	-	-	-	-
1000	980	0.22	850	0.14	-	-	-	-

*adjacent cable surfaces is separated by one cable diameter

CURRENT RATING

CURRENT RATING FOR PVC INSULATED ARMOURED CABLE - INSTALLED IN AIR

6000/1000 V IEC 60502-1

Laying conditions: -

Ambient Temperature : 30°C Maximum conductor tempearature : 70°C

Rating factors

Ambient air temperature (°C)	25	30	35	40	45
Rating factor	1.06	1.00	0.94	0.87	0.79

Conductor Cross-sectional Area	Single core				Two core		Three and Four core	
	Two cables spaced *		Three cables trefoil touching		Current rating	Approx. volt drop per amp per metre	Current rating	Approx. volt drop per amp per metre
	Current rating	Approx. volt drop per amp per metre	Current rating	Approx. volt drop per amp per metre				
mm²	A	mV	A	mV	A	mV	A	mV
1.5	-	-	-	-	21	29	18	25
2.5	-	-	-	-	30	18	25	16
4	-	-	-	-	39	12	33	9.6
6	-	-	-	-	50	7.4	42	6.3
10	-	-	-	-	69	4.30	58	3.80
16	-	-	-	-	90	2.80	77	2.40
25	-	-	-	-	120	1.70	102	1.50
35	-	-	-	-	150	1.30	125	1.10
50	195	0.87	180	0.82	175	0.94	155	0.82
70	245	0.65	230	0.58	220	0.66	190	0.57
95	300	0.52	280	0.44	270	0.49	235	0.42
120	345	0.45	325	0.36	310	0.40	270	0.35
150	390	0.41	370	0.31	355	0.34	310	0.29
185	440	0.38	425	0.27	410	0.29	355	0.25
240	520	0.35	500	0.23	485	0.24	420	0.21
300	575	0.33	565	0.20	550	0.21	475	0.18
400	630	0.32	640	0.19	620	0.19	550	0.17
500	690	0.31	720	0.18	-	-	-	-
630	760	0.31	810	0.16	-	-	-	-
800	820	0.30	870	0.16	-	-	-	-
1000	880	0.29	940	0.15	-	-	-	-

* adjacent cable surfaces is separated by one cable diameter

CURRENT RATING FOR PVC INSULATED ARMOURED CABLE - LAID DIRECT IN GROUND

6000/1000 V IEC 60502-1

Laying conditions: -

Ground temperature : 25°C Ground thermal resistivity : 1.2°Cm/W

Depth of laying : 0.5m (center of cable or trefoil group of cables) Maximum conductor temperature : 70°C

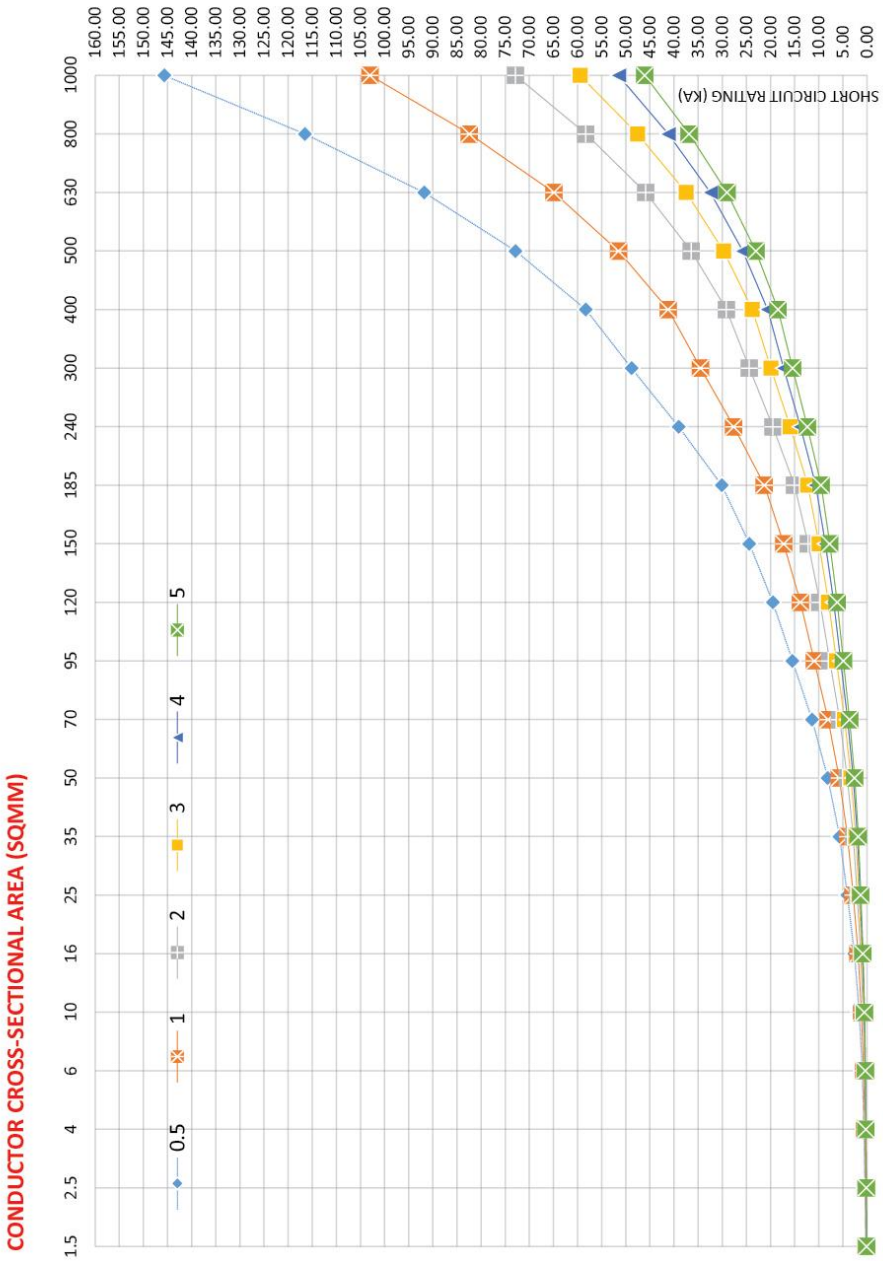
Rating factors

Ambient ground temperature (°C)	15	20	25	30	35
Rating factor	1.10	1.05	1.00	0.95	0.90

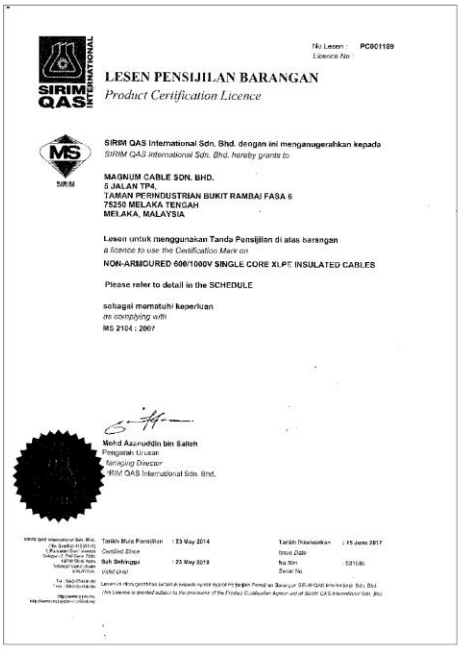
Conductor Cross-sectional Area	Single core				Two core		Three and Four core	
	Two cables spaced *		Three cables trefoil touching		Current rating	Approx. volt drop per amp per metre	Current rating	Approx. volt drop per amp per metre
	Current rating	Approx. volt drop per amp per metre	Current rating	Approx. volt drop per amp per metre				
mm²	A	mV	A	mV	A	mV	A	mV
16	-	-	-	-	130	2.90	105	2.60
25	-	-	-	-	165	1.90	140	1.60
35	-	-	-	-	200	1.30	165	1.20
50	255	0.99	220	0.86	235	1.00	200	0.87
70	315	0.70	270	0.61	295	0.70	245	0.61
95	375	0.53	320	0.46	355	0.52	295	0.45
120	430	0.43	365	0.37	400	0.42	335	0.36
150	475	0.37	405	0.32	445	0.35	375	0.30
185	540	0.31	455	0.27	500	0.29	430	0.25
240	620	0.26	520	0.23	585	0.24	495	0.21
300	700	0.24	585	0.21	650	0.22	550	0.19
400	770	0.21	650	0.19	730	0.19	620	0.18
500	850	0.20	720	0.18	-	-	-	-
630	930	0.19	780	0.17	-	-	-	-
800	1020	0.18	880	0.16	-	-	-	-
1000	1110	0.17	930	0.15	-	-	-	-

*Single core cable with aluminium wire armoured

SHORT CIRCUIT RATING FOR PVC INSULATED CABLE



SIRIM



No Lesen : PC001169
Licence No :

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Please refer to detail in the SCHEDULE

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Mohd Azaruddin bin Salleh
Pengarah Urusan
Managing Director
SIRIM QAS International Sdn. Bhd.

Tarikh Mula Pensijilan : 23 May 2014
Certified Since
Sah Sehingga : 23 May 2018
Valid Until

Tarikh Dikeluarkan : 15 June 2017
Issue Date
No Siri : 031186
Serial No

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Licence No :

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FLEXIBLE CABLES

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as complying with
MS 2112-5 : 2009

Mohd Azaruddin bin Salleh
Pengarah Urusan
Managing Director
SIRIM QAS International Sdn. Bhd.

Tarikh Mula Pensijilan : 09 May 2014
Certified Since
Sah Sehingga : 09 May 2018
Valid Until

Tarikh Dikeluarkan : 15 June 2017
Issue Date
No Siri : 031186
Serial No

No Lesen : PC001182
Licence No :

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LESEN PENSIJILAN BARANGAN
Product Certification Licence

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5 JALAN TP4,
TAMAN PERINDUSTRIAN BUKIT RAMBAI FASA 6
75250 MELAKA TENGAH
MELAKA, MALAYSIA

Lesen untuk menggunakan Tanda Pensijilan di atas barangan
a licence to use the Certification Mark on
PVC-INSULATED CABLES (NON-SHEATHED) FOR FIXED WIRING

Please refer to detail in the SCHEDULE

sebagai mematuhi keperluan
as complying with
MS 2112-3 : 2009

Mohd Azaruddin bin Salleh
Pengarah Urusan
Managing Director
SIRIM QAS International Sdn. Bhd.

Tarikh Mula Pensijilan : 16 May 2014
Certified Since
Sah Sehingga : 16 May 2018
Valid Until

Tarikh Dikeluarkan : 15 June 2017
Issue Date
No Siri : 031186
Serial No

EXISTING CUSTOMER PROFILE

CCC Harbour City

CTRM Tmn Merdeka

Honda Alor Gajah

Honda Trading Alor Gajah

Hotel Temasek

Kip Mart Batu Berendam

Prima Pokok Mangga

Xepa-Soul Pattinson

Magnum
cable

MAGNUM CABLE SDN. BHD. (781077-V)

5, Jalan TP4 Taman Perindustrian Bukit Rambai Fasa 6, Melaka Tengah, 75250 Melaka
8, Jalan TP4 Taman Perindustrian Bukit Rambai Fasa 6, Melaka Tengah, 75250 Melaka