Master Tec®
Wire & Cable

Strive to power up everyone's life

Low Voltage Power Cable

Copper Conductor

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winner of ST product safety award

COMPANY INTRODUCTION

MASTER TEC WIRE & CABLE

Founded in 2005, with a decade of wires and cables manufacturing experience. Our current factory located at Rembia Industrial Park, Alor Gajah Melaka. Currently we have 4 manufacturing plants in Melaka. We principally involved in the manufacturing and distribution of power cables, control cables, intrumentation cables, trading of power cables, fibre optic cables, and other related products.

We have extensive experience in wires & cables since 2006. We have established a reputable MASTER TEC brand and track record for our LV power cables, control cables and instrumentation cables. Through our brand, customers recognise our products and they have given the assurance and confidence of our product's quality, performance, safety and durability.

Master Tec®
Wire & Cable

TABLE OF CONTENT

Master Tec
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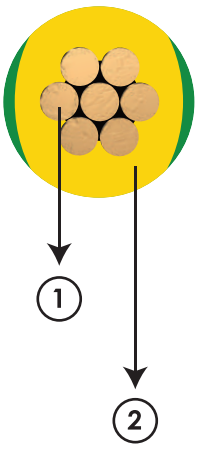
CU / PVC - 450 / 750 VOLT (NYA) IEC 60227-3, MS 2112-3, SS358-3

1-CORE : COPPER CONDUCTOR AND PVC INSULATED CABLE

Application : This cable is used in light fitting, and in switching and control equipment. It can be installed in conduit, in cable trunking and on cable trays.	Construction : 1 - Copper Conductor 2 - PVC Insulated
Voltage rating : 450/750 Volt	Insulation Colour : Black / Red / Brown / Grey / Blue / Green / Green with double Yellow line
Specification : IEC60227-3, MS 2112-3, SS358-3	
Conductor Operating Temperature : 70°C	



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness	Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	kg/km	mm	m
1.5	7	circular	0.7	3	22	24	1,000
2.5	7	circular	0.8	4	33	29	1,000
4	7	circular	0.8	4	49	33	1,000
6	7	circular	0.8	5	68	38	1,000
10	7	circular	1.0	6	113	47	1,000
16	7	compacted	1.0	7	170	55	1,000
25	7	compacted	1.2	8	261	67	1,000
35	7	compacted	1.2	10	349	76	1,000
50	7	compacted	1.4	11	467	88	1,000
70	12	compacted	1.4	13	653	100	1,000
95	15	compacted	1.6	15	900	118	1,000
120	18	compacted	1.6	16	1,125	127	1,000
150	18	compacted	1.8	18	1,391	142	1,000
185	30	compacted	2.0	20	1,743	162	1,000
240	34	compacted	2.2	23	2,279	182	1,000
300	34	compacted	2.4	25	2,845	202	1,000
400	53	compacted	2.6	28	3,624	226	500
500	53	compacted	2.8	32	4,598	254	500
630	53	compacted	2.8	35	5,920	282	500

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop		
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase (enclosed in conduit)	Single-Phase (clipped direct or on tray, touching)	Three-Phase (in trefoil)
mm²	Ω/km	MΩ.km	A	A	mV/A/m		
1.5	12.1	0.010	-	15.5	29	29	25
2.5	7.41	0.009	-	21	18	18	15
4	4.61	0.008	-	28	11	11	9.5
6	3.08	0.007	-	36	7.3	7.3	6.4
10	1.83	0.007	-	50	4.4	4.4	3.8
16	1.15	0.005	-	68	2.8	2.8	2.4
25	0.727	0.005	110	89	1.8	1.75	1.5
35	0.524	0.004	137	110	1.3	1.25	1.1
50	0.387	0.004	167	134	1	0.95	0.82
70	0.268	0.004	216	171	0.72	0.66	0.57
95	0.193	0.004	264	207	0.56	0.5	0.43
120	0.153	0.003	308	239	0.47	0.41	0.36
150	0.124	0.003	356	262	0.41	0.34	0.3
185	0.0991	0.003	409	296	0.37	0.29	0.26
240	0.0754	0.003	485	346	0.33	0.25	0.22
300	0.0601	0.003	561	394	0.31	0.22	0.19
400	0.047	0.003	656	467	0.29	0.2	0.175
500	0.0366	0.003	749	533	0.28	0.185	0.16
630	0.0283	0.003	855	611	0.27	0.175	0.15

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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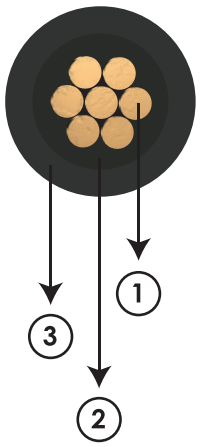
CU / PVC / PVC - 600 / 1000 VOLT (NYY) — IEC 60502-1, MS 2100

1-CORE : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor : 2 - PVC Insulated : 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : Black or as per order
Specification : IEC 60502-1, MS 2100	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.8	1.4	6.0	55	48	1,000
2.5	7	circular	0.8	1.4	6.4	67	51	1,000
4	7	circular	1.0	1.4	7.3	93	58	1,000
6	7	circular	1.0	1.4	7.9	117	63	1,000
10	7	circular	1.0	1.4	8.7	162	70	1,000
16	7	compacted	1.0	1.4	9.7	226	78	1,000
25	7	compacted	1.2	1.4	11.2	328	90	1,000
35	7	compacted	1.2	1.4	12.3	423	98	1,000
50	7	compacted	1.4	1.4	13.8	551	110	1,000
70	12	compacted	1.4	1.4	15.3	747	122	1,000
95	15	compacted	1.6	1.5	17.8	1,018	142	1,000
120	18	compacted	1.6	1.5	18.9	1,251	151	1,000
150	18	compacted	1.8	1.6	21.0	1,540	168	1,000
185	30	compacted	2.0	1.7	23.6	1,922	189	1,000
240	34	compacted	2.2	1.7	26.1	2,478	209	1,000
300	34	compacted	2.4	1.8	28.8	3,077	230	1,000
400	53	compacted	2.6	1.9	32.0	3,897	256	500
500	53	compacted	2.8	2.1	35.9	4,937	287	500
630	53	compacted	2.8	2.2	39.7	6,313	318	500

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop		
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase (enclosed in conduit)	Single-Phase (clipped direct or on tray, touching)	Three-Phase (in trefoil)
mm²	Ω/km	MΩ.km	A	A	mV/A/m		
1.5	12.1	12.015	-	16	29	29	25
2.5	7.41	9.976	-	21	18	18	15
4	4.61	9.607	-	28	11	11	9.5
6	3.08	8.446	-	36	7.3	7.3	6.4
10	1.83	7.027	-	50	4.4	4.4	3.8
16	1.15	5.665	-	68	2.8	2.8	2.4
25	0.727	5.407	110	89	1.8	1.75	1.5
35	0.524	4.838	137	110	1.3	1.25	1.1
50	0.387	4.898	167	134	1	0.95	0.82
70	0.268	4.158	216	171	0.72	0.66	0.57
95	0.193	3.970	264	207	0.56	0.5	0.43
120	0.153	3.611	308	239	0.47	0.41	0.36
150	0.124	3.631	356	262	0.41	0.34	0.3
185	0.0991	3.596	409	296	0.37	0.29	0.26
240	0.0754	3.541	485	346	0.33	0.25	0.22
300	0.0601	3.396	561	394	0.31	0.22	0.19
400	0.047	3.310	656	467	0.29	0.2	0.175
500	0.0366	3.123	749	533	0.28	0.185	0.16
630	0.0283	2.776	855	611	0.27	0.175	0.15

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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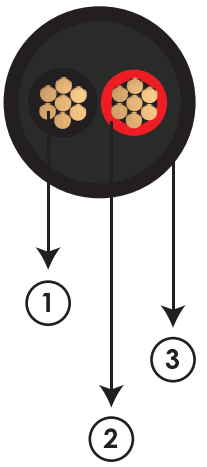
CU / PVC / PVC - 600 / 1000 VOLT (NYY)	IEC 60502-1, MS 2102

2-CORES : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor : 2 - PVC Insulated : 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 2-Cores (Red, Black) or (Brown, Blue)
Specification : IEC 60502-1, MS 2102	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.8	1.8	10.0	141	80	1,000
2.5	7	circular	0.8	1.8	10.8	174	86	1,000
4	7	circular	1.0	1.8	12.6	246	101	1,000
6	7	circular	1.0	1.8	13.8	311	110	1,000
10	7	compacted	1.0	1.8	15.4	425	123	1,000
16	7	compacted	1.0	1.8	17.4	585	139	1,000
25	7	compacted	1.2	1.8	20.4	848	163	1,000
35	7	compacted	1.2	1.8	22.6	1,089	181	1,000
50	7	compacted	1.4	1.8	25.6	1,424	205	1,000
70	12	compacted	1.4	1.8	28.6	1,904	229	1,000
95	15	compacted	1.6	2.0	33.6	2,615	269	1,000
120	18	compacted	1.6	2.1	36.0	3,183	288	500
150	18	compacted	1.8	2.2	40.0	3,921	320	500
185	30	compacted	2.0	2.4	45.2	4,931	362	500
240	34	compacted	2.2	2.5	50.4	6,335	403	500
300	34	compacted	2.4	2.7	55.8	7,859	446	500

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single- Phase	Three- Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	12.015	18.5	15	29	25
2.5	7.41	9.976	25	20	18	15
4	4.61	9.607	34	27	11	9.5
6	3.08	8.446	43	34	7.3	6.4
10	1.83	7.027	60	46	4.4	3.8
16	1.15	5.665	80	62	2.8	2.4
25	0.727	5.407	101	80	1.75	1.5
35	0.524	4.838	126	99	1.25	1.1
50	0.387	4.898	153	118	0.94	0.81
70	0.268	4.158	196	149	0.65	0.57
95	0.193	3.970	238	179	0.5	0.43
120	0.153	3.611	276	206	0.41	0.35
150	0.124	3.631	319	225	0.34	0.29
185	0.0991	3.596	364	255	0.29	0.25
240	0.0754	3.541	430	297	0.24	0.21
300	0.0601	3.396	497	339	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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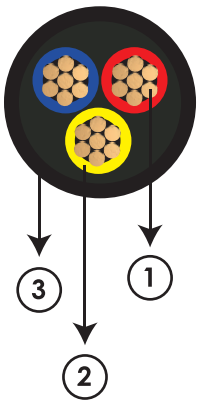
CU / PVC / PVC - 600 / 1000 VOLT (NYY)	IEC 60502-1, MS 2102

3-CORES : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor : 2 - PVC Insulated : 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 3-Cores (Red, Yellow, Blue) or (Brown, Black, Grey)
Specification : IEC 60502-1, MS 2102	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.8	1.8	10.5	165	84	1,000
2.5	7	circular	0.8	1.8	11.4	208	91	1,000
4	7	circular	1.0	1.8	13.3	297	106	1,000
6	7	circular	1.0	1.8	14.6	380	117	1,000
10	7	compacted	1.0	1.8	16.4	535	131	1,000
16	7	compacted	1.0	1.8	18.5	746	148	1,000
25	7	compacted	1.2	1.8	21.8	1,097	174	1,000
35	7	compacted	1.2	1.8	24.1	1,417	193	1,000
50	7	compacted*	1.4	1.8	27.4	1,863	219	1,000
70	12	compacted*	1.4	1.9	30.8	2,530	246	1,000
95	15	compacted*	1.6	2.1	36.1	3,466	289	1,000
120	18	compacted*	1.6	2.1	38.5	4,235	308	500
150	18	compacted*	1.8	2.3	43.0	5,238	344	500
185	30	compacted*	2.0	2.5	48.6	6,578	389	500
240	34	compacted*	2.2	2.7	54.4	8.510	435	500
300	34	compacted*	2.4	2.9	60.2	10,569	482	300
400	53	compacted*	2.6	3.1	67.0	13,360	536	300

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	12.015	18.5	15	29	25
2.5	7.41	9.976	25	20	18	15
4	4.61	9.607	34	27	11	9.5
6	3.08	8.446	43	34	7.3	6.4
10	1.83	7.027	60	46	4.4	3.8
16	1.15	5.665	80	62	2.8	2.4
25	0.727	5.407	101	80	1.75	1.5
35	0.524	4.838	126	99	1.25	1.1
50	0.387	4.898	153	118	0.94	0.81
70	0.268	4.158	196	149	0.65	0.57
95	0.193	3.970	238	179	0.5	0.43
120	0.153	3.611	276	206	0.41	0.35
150	0.124	3.631	319	225	0.34	0.29
185	0.0991	3.596	364	255	0.29	0.25
240	0.0754	3.541	430	297	0.24	0.21
300	0.0601	3.396	497	339	0.21	0.185
400	0.0470	3.310	597	402	0.185	0.16

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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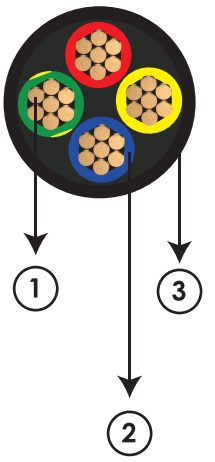
CU / PVC / PVC - 600 / 1000 VOLT (NYY-J)	IEC 60502-1, MS 2102

3-CORES+ GROUND : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor : 2 - PVC Insulated : 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 3-Cores (Red, Yellow, Blue) or (Brown, Black, Grey) : 1-Core Earthing (Green with double Yellow line)
Specification : IEC 60502-1, MS 2102	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
3 x 25 + 16	7/7	compacted	1.2/1.0	1.8	23.1	1,295	185	1,000
3 x 35 + 16	7/7	compacted	1.2/1.0	1.8	25.2	1,597	202	1,000
3 x 50 + 25	7/7	compacted	1.4/1.2	1.8	28.8	2,147	230	1,000
3 x 70 + 35	12/7	compacted	1.4/1.2	1.9	32.4	2,909	259	1,000
3 x 95 + 50	15/7	compacted	1.6/1.4	2.1	37.9	3,966	303	500
3 x 120 + 70	18/12	compacted	1.6/1.4	2.2	40.9	4,969	327	500
3 x 150 + 70	18/12	compacted	1.8/1.4	2.4	44.9	5,905	359	500
3 x 185 + 95	30/15	compacted	2.0/1.6	2.6	51.0	7,526	408	500
3 x 240 + 120	34/18	compacted	2.2/1.6	2.7	56.5	9,615	452	300
3 x 300 + 150	34/18	compacted	2.4/1.8	2.9	62.6	11,945	501	300

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
3 x 25 + 16	0.727(P) + 1.15(E)	5.407 + 5.665(E)	101	80	1.75	1.5
3 x 35 + 16	0.524(P) + 1.15(E)	4.838 + 5.665(E)	126	99	1.25	1.1
3 x 50 + 25	0.387(P) + 0.727(E)	4.898 + 5.407(E)	153	118	0.94	0.81
3 x 70 + 35	0.268(P) + 0.524(E)	4.158 + 4.838(E)	196	149	0.65	0.57
3 x 95 + 50	0.193(P) + 0.387(E)	3.97 + 4.898(E)	238	179	0.5	0.43
3 x 120 + 70	0.153(P) + 0.268(E)	3.611 + 4.158(E)	276	206	0.41	0.35
3 x 150 + 70	0.124(P) + 0.268(E)	3.631 + 4.158(E)	319	225	0.34	0.29
3 x 185 + 95	0.0991(P) + 0.193(E)	3.596 + 3.97(E)	364	255	0.29	0.25
3 x 240 + 120	0.0754(P) + 0.153(E)	3.541 + 3.611(E)	430	297	0.24	0.21
3 x 300 + 150	0.0601(P) + 0.124(E)	3.396 + 3.631(E)	497	339	0.21	0.185

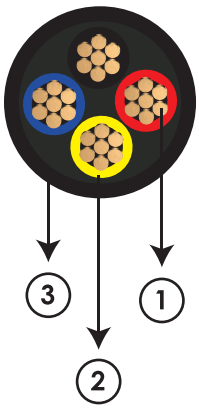
Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / PVC / PVC - 600 / 1000 VOLT (NYY) IEC 60502-1, MS 2102

4-CORES : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	**Construction :** 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** 4-Cores (Red, Yellow,Blue, Black) or (Brown, Black, Grey, Blue)
Specification : IEC 60502-1, MS 2102	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.8	1.8	11.40	200	91	1,000
2.5	7	circular	0.8	1.8	12.30	252	98	1,000
4	7	circular	1.0	1.8	14.50	365	116	1,000
6	7	circular	1.0	1.8	16.00	474	128	1,000
10	7	circular	1.0	1.8	17.90	668	143	1,000
16	7	compacted	1.0	1.8	20.30	943	162	1,000
25	7	compacted	1.2	1.8	23.90	1,390	191	1,000
35	7	compacted	1.2	1.8	26.60	1,810	213	1,000
50	7	sector*	1.4	1.8	27.80	2,150	278	1,000
70	12	sector*	1.4	1.9	31.30	2,957	313	1,000
95	15	sector*	1.6	2.1	36.20	4,031	362	1,000
120	18	sector*	1.6	2.2	39.30	5,010	393	500
150	18	sector*	1.8	2.3	43.40	6,164	434	500
185	30	sector*	2.0	2.5	50.20	7,702	502	500
240	34	sector*	2.2	2.7	54.40	9.988	544	500
300	34	sector*	2.4	3.0	63.20	12,511	632	300
400	53	sector*	2.6	3.1	67.10	15,763	671	300

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	12.015	19	15	29	25
2.5	7.41	9.976	25	20	18	15
4	4.61	9.607	34	27	11	9.5
6	3.08	8.446	43	34	7.3	6.4
10	1.83	7.027	60	46	4.4	3.8
16	1.15	5.665	80	62	2.8	2.4
25	0.727	5.407	101	80	1.75	1.5
35	0.524	4.838	126	99	1.25	1.1
50	0.387	3.723	153	118	0.94	0.81
70	0.268	3.139	196	149	0.65	0.57
95	0.193	3.031	238	179	0.5	0.43
120	0.153	2.785	276	206	0.41	0.35
150	0.124	2.791	319	225	0.34	0.29
185	0.0991	2.730	364	255	0.29	0.25
240	0.0754	2.678	430	297	0.24	0.21
300	0.0601	2.722	497	339	0.21	0.185
400	0.0470	2.501	597	402	0.185	0.16

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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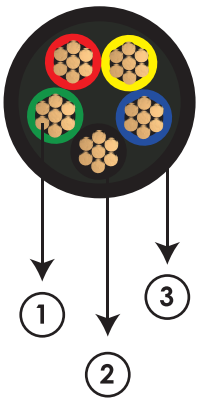
CU / PVC / PVC - 600 / 1000 VOLT (NYY-J)	IEC 60502-1, MS 2102

5-CORES : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor : 2 - PVC Insulated : 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 5-Cores (Red, Yellow, Blue, Black, Green) or Brown, Black, Grey, Blue, Green)
Specification : IEC 60502-1, MS 2102	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.8	1.80	12.4	242	99	1,000
2.5	7	circular	0.8	1.80	13.5	310	108	1,000
4	7	circular	1.0	1.80	16.0	456	128	1,000
6	7	circular	1.0	1.80	17.6	589	141	1,000
10	7	circular	1.0	1.80	19.8	837	158	1,000
16	7	compacted	1.0	1.80	22.5	1,184	180	1,000
25	7	compacted	1.2	1.80	26.5	1,745	212	1,000
35	7	compacted	1.2	1.90	29.7	2,287	238	1,000
50	7	compacted	1.4	2.00	34.3	3,055	274	500

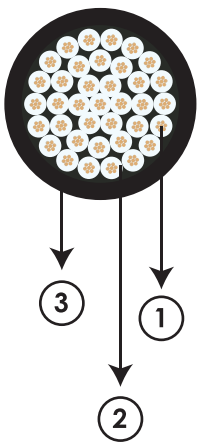
ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	12.015	19	15	29	25
2.5	7.41	9.976	25	20	18	15
4	4.61	9.607	34	27	11	9.5
6	3.08	8.446	43	34	7.3	6.4
10	1.83	7.027	60	46	4.4	3.8
16	1.15	5.665	80	62	2.8	2.4
25	0.727	5.407	101	80	1.75	1.5
35	0.524	4.838	126	99	1.25	1.1
50	0.387	4.898	153	118	0.94	0.81

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / PVC / PVC - 600 / 1000 VOLT (NYY)	IEC 60502-1, MS 2102
1.5 MM2 : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED	
Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy duty industry where power distribution device is needed to transmit control signals or measure signal operations.	Construction : 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : White core with numbering or as per order
Specification : IEC 60502-1, MS 2102	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	kg/km	mm	m
7 x 1.5	7	circular	0.8	1.8	13.3	291	106	1,000
8 x 1.5	7	circular	0.8	1.8	14.8	357	118	1,000
10 x 1.5	7	circular	0.8	1.8	16.6	443	133	1,000
12 x 1.5	7	circular	0.8	1.8	17.2	490	138	1,000
14 x 1.5	7	circular	0.8	1.8	18.0	547	144	1,000
16 x 1.5	7	circular	0.8	1.8	18.9	610	151	1,000
19 x 1.5	7	circular	0.8	1.8	19.8	684	158	1,000
21 x 1.5	7	circular	0.8	1.8	20.9	765	167	1,000
24 x 1.5	7	circular	0.8	1.8	23.0	903	184	1,000
30 x 1.5	7	circular	0.8	1.8	24.4	1,051	195	1,000
40 x 1.5	7	circular	0.8	1.8	27.3	1,347	218	500
52 x 1.5	7	circular	0.8	1.9	31.0	1,734	248	500
61 x 1.5	7	circular	0.8	2.0	33.0	1,988	264	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 1.5	12.1	12.015	18.5	15	29	25
8 x 1.5	12.1	12.015	18.5	15	29	25
10 x 1.5	12.1	12.015	18.5	15	29	25
12 x 1.5	12.1	12.015	18.5	15	29	25
14 x 1.5	12.1	12.015	18.5	15	29	25
16 x 1.5	12.1	12.015	18.5	15	29	25
19 x 1.5	12.1	12.015	18.5	15	29	25
21 x 1.5	12.1	12.015	18.5	15	29	25
24 x 1.5	12.1	12.015	18.5	15	29	25
30 x 1.5	12.1	12.015	18.5	15	29	25
40 x 1.5	12.1	12.015	18.5	15	29	25
52 x 1.5	12.1	12.015	18.5	15	29	25
61 x 1.5	12.1	12.015	18.5	15	29	25

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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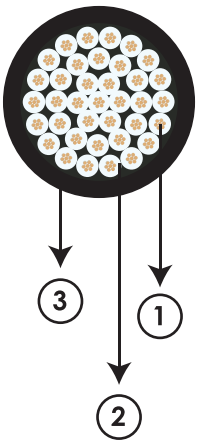
CU / PVC / PVC - 600 / 1000 VOLT (NYY)	IEC 60502-1, MS 2102

2.5 MM2 : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED

Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy duty industry where power distribution device is needed to transmit control signals or measure signal operations.	Construction : 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : White core with numbering or as per order
Specification : IEC 60502-1, MS 2102	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	kg/km	mm	m
7 x 2.5	7	circular	0.80	1.8	14.5	377	116	1,000
8 x 2.5	7	circular	0.80	1.8	16.3	469	130	1,000
10 x 2.5	7	circular	0.80	1.8	18.2	577	146	1,000
12 x 2.5	7	circular	0.80	1.8	18.8	639	150	1,000
14 x 2.5	7	circular	0.80	1.8	19.7	717	158	1,000
16 x 2.5	7	circular	0.80	1.8	20.8	808	166	1,000
19 x 2.5	7	circular	0.80	1.8	21.8	911	174	1,000
21 x 2.5	7	circular	0.80	1.8	23.0	1,018	184	1,000
24 x 2.5	7	circular	0.80	1.8	25.4	1,202	203	1,000
30 x 2.5	7	circular	0.80	1.8	26.9	1,405	215	500
40 x 2.5	7	circular	0.80	1.9	30.4	1,830	243	500
52 x 2.5	7	circular	0.80	2.0	34.5	2,355	276	500
61 x 2.5	7	circular	0.80	2.1	36.8	2,713	294	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 2.5	7.41	9.9760	25	20	18	15
8 x 2.5	7.41	9.9760	25	20	18	15
10 x 2.5	7.41	9.9760	25	20	18	15
12 x 2.5	7.41	9.9760	25	20	18	15
14 x 2.5	7.41	9.9760	25	20	18	15
16 x 2.5	7.41	9.9760	25	20	18	15
19 x 2.5	7.41	9.9760	25	20	18	15
21 x 2.5	7.41	9.9760	25	20	18	15
24 x 2.5	7.41	9.9760	25	20	18	15
30 x 2.5	7.41	9.9760	25	20	18	15
40 x 2.5	7.41	9.9760	25	20	18	15
52 x 2.5	7.41	9.9760	25	20	18	15
61 x 2.5	7.41	9.9760	25	20	18	15

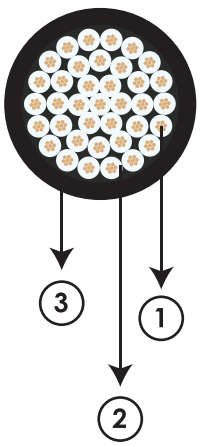
Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / PVC / PVC - 600 / 1000 VOLT (NYY)	IEC 60502-1, MS 2102

4 MM2 : COPPER CONDUCTOR, PVC INSULATED AND PVC SHEATHED

Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy duty industry where power distribution device is needed to transmit control signals or measure signal operations.	Construction : 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : White core with numbering or as per order
Specification : IEC 60502-1, MS 2102	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	kg/km	mm	m
7 x 4	7	circular	1.0	1.8	17.3	562	138	500
8 x 4	7	circular	1.0	1.8	19.4	694	155	500
10 x 4	7	circular	1.0	1.8	21.8	858	174	500
12 x 4	7	circular	1.0	1.8	22.6	958	181	500
14 x 4	7	circular	1.0	1.8	23.7	1,077	190	500
16 x 4	7	circular	1.0	1.8	25.0	1,215	200	500
19 x 4	7	circular	1.0	1.8	26.3	1,378	210	500
21 x 4	7	circular	1.0	1.8	27.8	1,544	222	500
24 x 4	7	circular	1.0	1.9	31.0	1,841	248	500
30 x 4	7	circular	1.0	2.0	33.1	2,176	265	500
40 x 4	7	circular	1.0	2.1	37.4	2,839	299	500
52 x 4	7	circular	1.0	2.3	43.1	3,721	345	500
61 x 4	7	circular	1.0	2.4	45.9	4,279	367	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 4	4.61	9.607	34	27	11	9.5
8 x 4	4.61	9.607	34	27	11	9.5
10 x 4	4.61	9.607	34	27	11	9.5
12 x 4	4.61	9.607	34	27	11	9.5
14 x 4	4.61	9.607	34	27	11	9.5
16 x 4	4.61	9.607	34	27	11	9.5
19 x 4	4.61	9.607	34	27	11	9.5
21 x 4	4.61	9.607	34	27	11	9.5
24 x 4	4.61	9.607	34	27	11	9.5
30 x 4	4.61	9.607	34	27	11	9.5
40 x 4	4.61	9.607	34	27	11	9.5
52 x 4	4.61	9.607	34	27	11	9.5
61 x 4	4.61	9.607	34	27	11	9.5

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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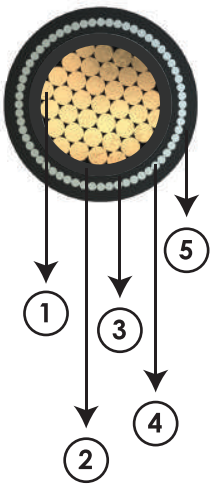
CU / PVC / PVC / AWA / PVC - 600 / 1000 VOLT (NYRY)	IEC 60502-1, MS 2101

1-CORE : COPPER CONDUCTOR, PVC INSULATED, ALUMINIUM WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.	**Construction :** 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour : Black or as per order**
Specification : IEC 60502-1, MS 2101	
Conductor Operating Temperature : 70°C	**Outer Sheath Colour : Black or as per order**



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Diameter of Aluminium Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
50	7	compacted	1.4	1.6	1.8	13.0	20.4	824	204	1,000
70	12	compacted	1.4	1.6	1.8	14.5	21.9	1,042	219	1,000
95	15	compacted	1.6	1.6	1.8	16.8	24.2	1,342	242	1,000
120	18	compacted	1.6	1.6	1.8	17.9	25.3	1,594	253	1,000
150	18	compacted	1.8	1.6	1.8	19.8	27.2	1,902	272	1,000
185	30	compacted	2.0	1.6	1.9	22.2	29.8	2,323	298	1,000
240	34	compacted	2.2	1.6	1.9	24.7	32.3	2,917	323	1,000
300	34	compacted	2.4	2.0	2.1	27.2	36.0	3,649	360	1,000
400	53	compacted	2.6	2.0	2.2	30.6	39.6	4,567	396	500
500	53	compacted	2.8	2.0	2.3	34.1	43.3	5,662	433	500
630	53	compacted	2.8	2.5	2.5	37.7	48.3	7,251	483	500

ELECTRICAL DATA

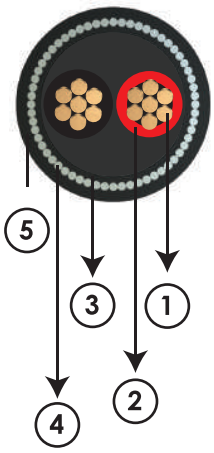
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Direct In Ground (trefoil touching)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
50	0.3870	4.898	181	203	0.95	0.82
70	0.2680	4.158	231	248	0.68	0.58
95	0.1930	3.970	280	297	0.52	0.45
120	0.1530	3.611	324	337	0.43	0.37
150	0.1240	3.631	373	376	0.37	0.32
185	0.0991	3.596	425	423	0.32	0.27
240	0.0754	3.541	501	485	0.27	0.23
300	0.0601	3.396	567	542	0.24	0.21
400	0.0470	3.310	657	600	0.22	0.195
500	0.0366	3.123	731	660	0.21	0.18
630	0.0283	2.776	809	721	0.195	0.17

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NYRY) IEC 60502-1, MS 2103

2-CORES : COPPER CONDUCTOR, PVC INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE



Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.	**Construction :** 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** 2-Cores (Red, Black) or (Brown, Blue)
Specification : IEC 60502-1, MS 2103	
Conductor Operating Temperature : 70°C	**Outer Sheath Colour :** Black or as per order

DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.80	0.90	1.80	8.5	15	341	145	1,000
2.5	7	circular	0.80	0.90	1.80	9.3	15	390	153	1,000
4	7	circular	1.00	1.25	1.80	11.1	18	566	178	1,000
6	7	circular	1.00	1.25	1.80	12.3	19	649	190	1,000
10	7	circular	1.00	1.25	1.80	13.9	21	797	206	1,000
16	7	compacted	1.00	1.60	1.80	16.0	23	1,107	234	1,000
25	7	compacted	1.20	1.60	1.80	19.0	26	1,432	264	1,000
35	7	compacted	1.20	1.60	1.80	21.2	29	1,720	286	1,000
50	7	compacted	1.40	1.60	1.90	24.2	32	2,120	318	1,000
70	12	compacted	1.40	2.00	2.10	27.2	36	2,863	360	1,000
95	15	compacted	1.60	2.00	2.20	32.2	41	3,709	412	1,000
120	18	compacted	1.60	2.00	2.30	34.8	44	4,358	440	500
150	18	compacted	1.80	2.50	2.50	39.0	50	5,595	496	500
185	30	compacted	2.00	2.50	2.70	43.8	55	6,715	548	500
240	34	compacted	2.20	2.50	2.90	48.8	60	8,232	602	300
300	34	compacted	2.40	2.50	3.00	54.2	66	9,892	658	300

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (horizontal cable tray)	Direct In Ground	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	12.015	19	27	29	25
2.5	7.41	9.976	26	35	18	15
4	4.61	9.607	35	47	11	9.5
6	3.08	8.446	45	59	7.3	6.4
10	1.83	7.027	62	78	4.4	3.8
16	1.15	5.665	83	101	2.8	2.4
25	0.727	5.407	110	132	1.75	1.5
35	0.524	4.838	135	159	1.25	1.1
50	0.387	4.898	163	188	0.94	0.81
70	0.268	4.158	207	233	0.65	0.57
95	0.193	3.970	251	279	0.5	0.43
120	0.153	3.611	290	317	0.41	0.35
150	0.124	3.631	332	355	0.34	0.29
185	0.0991	3.596	378	401	0.29	0.25
240	0.0754	3.541	445	462	0.24	0.21
300	0.0601	3.396	510	517	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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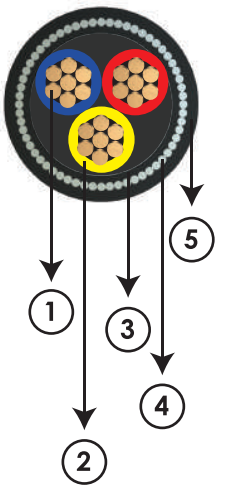
CU / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NYRY)	IEC 60502-1, MS 2103

3-CORES : COPPER CONDUCTOR, PVC INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.	**Construction :** 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** 3-Cores (Red, Yellow, Blue) or (Brown, Black, Grey)
Specification : IEC 60502-1, MS 2103	
Conductor Operating Temperature : 70°C	**Outer Sheath Colour :** Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.8	0.9	1.8	9.0	15.0	380	150	1,000
2.5	7	circular	0.8	0.9	1.8	9.9	15.9	438	159	1,000
4	7	circular	1.0	1.3	1.8	11.8	18.5	635	185	1,000
6	7	circular	1.0	1.3	1.8	13.1	19.8	747	198	1,000
10	7	circular	1.0	1.3	1.8	15.0	21.7	934	217	1,000
16	7	compacted	1.0	1.6	1.8	17.1	24.5	1,317	245	1,000
25	7	compacted	1.2	1.6	1.8	20.4	27.8	1,737	278	1,000
35	7	compacted	1.2	1.6	1.9	22.7	30.3	2,122	303	1,000
50	7	compacted*	1.4	2.0	2.0	26.0	34.6	2,853	346	1,000
70	12	compacted*	1.4	2.0	2.2	29.9	38.9	3,679	389	1,000
95	15	compacted*	1.6	2.0	2.3	34.9	44.1	4,746	441	500
120	18	compacted*	1.6	2.5	2.5	37.3	47.9	5,955	479	500
150	18	compacted*	1.8	2.5	2.6	41.8	52.6	7,134	526	500
185	30	compacted*	2.0	2.5	2.8	46.9	58.1	8,599	581	300
240	34	compacted*	2.2	2.5	3.0	52.7	64.3	10,742	643	300
300	34	compacted*	2.4	2.5	3.2	58.1	70.1	12,945	701	300

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

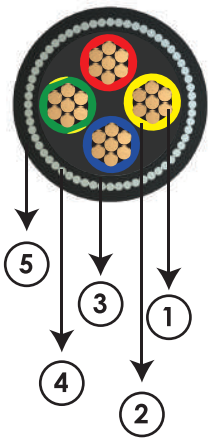
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (horizontal cable tray)	Direct In Ground	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	12.015	19	27	29	25
2.5	7.41	9.976	26	35	18	15
4	4.61	9.607	35	47	11	9.5
6	3.08	8.446	45	59	7.3	6.4
10	1.83	7.027	62	78	4.4	3.8
16	1.15	5.665	83	101	2.8	2.4
25	0.727	5.407	110	132	1.75	1.5
35	0.524	4.838	135	159	1.25	1.1
50	0.387	4.898	163	188	0.94	0.81
70	0.268	4.158	207	233	0.65	0.57
95	0.193	3.970	251	279	0.5	0.43
120	0.153	3.611	290	317	0.41	0.35
150	0.124	3.631	332	355	0.34	0.29
185	0.0991	3.596	378	401	0.29	0.25
240	0.0754	3.541	445	462	0.24	0.21
300	0.0601	3.396	510	517	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NYRY-J) IEC 60502-1, MS 2103

3-CORES + GROUND : COPPER CONDUCTOR, PVC INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE



Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.

Construction :
1 - Copper Conductor
2 - PVC Insulated
3 - PVC Bedding
4 - Armoured
5 - PVC Sheathed

Voltage Rating : 600/1000 Volt

Specification : IEC 60502-1, MS 2103

Insulation Colour : 3-Cores (Red, Yellow, Blue) or (Brown, Black, Grey)
: 1-Core Earthing (Green with double Yellow line)

Conductor Operating Temperature : 70°C

Outer Sheath Colour : Black or as per order

DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
3 x 50 + 25	7/7	compacted	1.4/1.2	2.0	2.1	27.4	36.2	3,203	362	1,000
3 x 70 + 35	12/7	compacted	1.4/1.2	2.0	2.2	31.5	40.5	4,106	405	1,000
3 x 95 + 50	15/7	compacted	1.6/1.4	2.5	2.4	36.6	47.0	5,642	470	500
3 x 120 + 70	18/12	compacted	1.6/1.4	2.5	2.5	39.9	50.5	6,807	505	500
3 x 150 + 70	18/12	compacted	1.8/1.4	2.5	2.7	43.5	54.5	7,917	545	500
3 x 185 + 95	30/15	compacted	2.0/1.6	2.5	2.9	49.6	61.0	9,744	610	250
3 x 240 + 120	34/18	compacted	2.2/1.6	2.5	3.1	54.9	66.7	12,059	667	250
3 x 300 + 150	34/18	compacted	2.4/1.8	2.5	3.3	60.6	72.8	14,540	728	200

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

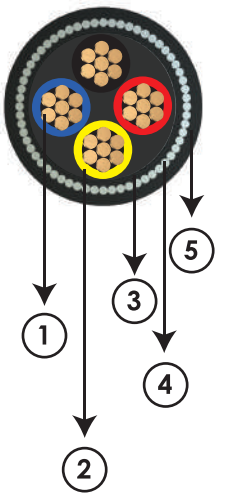
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (horizontal cable tray)	Direct In Ground	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
3 x 50 + 25	0.387(P) + 0.727(E)	4.898 + 5.407(E)	163	188	0.94	0.81
3 x 70 + 35	0.268(P) + 0.524(E)	4.158 + 4.838(E)	207	233	0.65	0.57
3 x 95 + 50	0.193(P) + 0.387(E)	3.97 + 4.898(E)	251	279	0.5	0.43
3 x 120 + 70	0.153(P) + 0.268(E)	3.611 + 4.158(E)	290	317	0.41	0.35
3 x 150 + 70	0.124(P) + 0.268(E)	3.631 + 4.158(E)	332	355	0.34	0.29
3 x 185 + 95	0.0991(P) + 0.193(E)	3.596 + 3.97(E)	378	401	0.29	0.25
3 x 240 + 120	0.0754(P) + 0.153(E)	3.541 + 3.611(E)	445	462	0.24	0.21
3 x 300 + 150	0.0601(P) + 0.124(E)	3.396 + 3.631(E)	510	517	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

CU / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NYRY) IEC 60502-1, MS 2103

4-CORES : COPPER CONDUCTOR, PVC INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.	Construction : 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 4-Cores (Red, Yellow, Blue, Black) or (Brown, Black, Grey, Blue)
Specification : IEC 60502-1, MS 2103	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.8	0.90	1.8	9.9	15.9	433	159	1,000
2.5	7	circular	0.8	0.90	1.8	10.8	16.8	494	168	1,000
4	7	circular	1.0	1.25	1.8	13.0	19.7	736	197	1,000
6	7	circular	1.0	1.25	1.8	14.6	21.3	875	213	1,000
10	7	circular	1.0	1.60	1.8	16.5	23.9	1,230	239	1,000
16	7	compacted	1.0	1.60	1.8	18.9	26.3	1,563	263	1,000
25	7	compacted	1.2	1.60	1.9	22.5	30.1	2,105	301	1,000
35	7	compacted	1.2	1.60	2.0	25.2	33.0	2,596	330	1,000
50	7	sector*	1.4	2.00	2.0	26.2	34.8	3,283	348	1,000
70	12	sector*	1.4	2.00	2.2	29.9	38.9	4,286	389	1,000
95	15	sector*	1.6	2.00	2.3	34.4	43.6	5,528	436	500
120	18	sector*	1.6	2.50	2.5	37.3	47.9	6,997	479	500
150	18	sector*	1.8	2.50	2.6	41.6	52.4	8,420	524	500
185	30	sector*	2.0	2.50	2.8	48.0	59.2	10,251	592	500
240	34	sector*	2.2	2.50	3.0	52.2	63.8	12,823	638	500
300	34	sector*	2.4	2.50	3.3	60.4	72.6	15,782	726	200

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

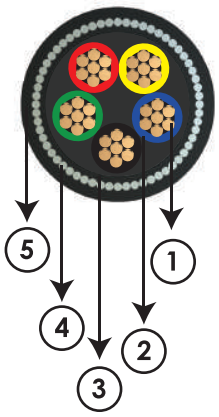
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (horizontal cable tray)	Direct In Ground	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	12.015	19	27	29	25
2.5	7.41	9.976	26	35	18	15
4	4.61	9.607	35	47	11	9.5
6	3.08	8.446	45	59	7.3	6.4
10	1.83	7.027	62	78	4.4	3.8
16	1.15	5.665	83	101	2.8	2.4
25	0.727	5.407	110	132	1.75	1.5
35	0.524	4.838	135	159	1.25	1.1
50	0.387	3.723	163	188	0.94	0.81
70	0.268	3.139	207	233	0.65	0.57
95	0.193	3.031	251	279	0.5	0.43
120	0.153	2.785	290	317	0.41	0.35
150	0.124	2.791	332	355	0.34	0.29
185	0.0991	2.730	378	401	0.29	0.25
240	0.0754	2.678	445	462	0.24	0.21
300	0.0601	2.722	510	517	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NYRY-J)	IEC 60502-1, MS 2103

5-CORES : COPPER CONDUCTOR, PVC INSULATED, PVC BENDDING, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE



Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy duty industry where power distribution device is needed to transmit control signals or measure signal operations.	**Construction :** 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** 5-Cores (Red, Yellow, Blue, Black, Green) or (Brown, Black, Grey, Blue, Green)
Specification : IEC 60502-1, MS 2103	
Conductor Operating Temperature : 70°C	**Outer Sheath Colour :** Black or as per order

DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.80	0.90	1.8	10.8	16.8	473	168	1,000
2.5	7	circular	0.80	1.25	1.8	11.9	18.6	645	186	1,000
4	7	circular	1.00	1.25	1.8	14.4	21.1	829	211	1,000
6	7	circular	1.00	1.60	1.8	16.0	23.4	1,100	234	1,000
10	7	circular	1.00	1.60	1.8	18.2	25.6	1,420	256	1,000
16	7	compacted	1.00	1.60	1.8	20.9	28.3	1,817	283	1,000
25	7	compacted	1.20	1.60	2.0	24.9	32.7	2,490	327	1,000
35	7	compacted	1.20	2.00	2.1	27.9	36.7	3,291	367	1,000
50	7	compacted	1.40	2.00	2.3	32.7	41.9	4,229	419	1,000

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (horizontal cable tray)	Direct In Ground	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.100	12.015	19	27	29	25
2.5	7.410	9.976	26	35	18	15
4	4.610	9.607	35	47	11	9.5
6	3.080	8.446	45	59	7.3	6.4
10	1.830	7.027	62	78	4.4	3.8
16	1.150	5.665	83	101	2.8	2.4
25	0.727	5.407	110	132	1.75	1.5
35	0.524	4.838	135	159	1.25	1.1
50	0.387	4.898	163	188	0.94	0.81

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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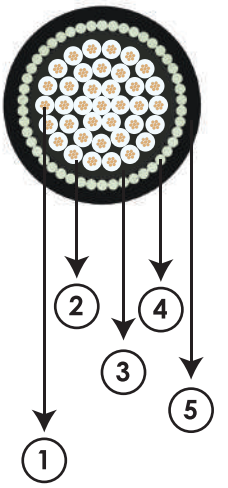
CU / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NYRY)	IEC 60502-1, MS 2103

1.5MM2 : COPPER CONDUCTOR, PVC INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy duty industry where power distribution device is needed to transmit control signals or measure signal operations.	Construction : 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : White core with numbering or as per order
Specification : IEC 60502-1, MS 2103	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
7 x 1.5	7	circular	0.80	1.25	1.8	11.7	18.4	626	184	1,000
8 x 1.5	7	circular	0.80	1.25	1.8	13.2	19.9	706	199	1,000
10 x 1.5	7	circular	0.80	1.25	1.8	15.0	21.7	820	217	1,000
12 x 1.5	7	circular	0.80	1.25	1.8	15.6	22.3	879	223	1,000
14 x 1.5	7	circular	0.80	1.60	1.8	16.4	23.8	1,080	238	1,000
16 x 1.5	7	circular	0.80	1.60	1.8	17.3	24.7	1,156	247	1,000
19 x 1.5	7	circular	0.80	1.60	1.8	18.2	25.6	1,267	256	1,000
21 x 1.5	7	circular	0.80	1.60	1.8	19.3	26.7	1,352	267	1,000
24 x 1.5	7	circular	0.80	1.60	1.8	21.4	28.8	1,516	288	1,000
30 x 1.5	7	circular	0.80	1.60	1.9	22.8	30.4	1,719	304	500
40 x 1.5	7	circular	0.80	1.60	2.0	25.7	33.5	2,093	335	500
52 x 1.5	7	circular	0.80	2.00	2.1	29.6	38.4	2,807	384	500
61 x 1.5	7	circular	0.80	2.00	2.2	31.4	40.4	3,110	404	500

ELECTRICAL DATA

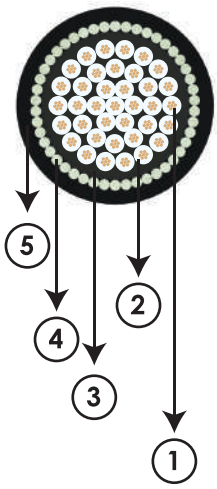
No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (horizontal cable tray)	Direct In Ground	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 1.5	12.1	12.015	19	27	29	25
8 x 1.5	12.1	12.015	19	27	29	25
10 x 1.5	12.1	12.015	19	27	29	25
12 x 1.5	12.1	12.015	19	27	29	25
14 x 1.5	12.1	12.015	19	27	29	25
16 x 1.5	12.1	12.015	19	27	29	25
19 x 1.5	12.1	12.015	19	27	29	25
21 x 1.5	12.1	12.015	19	27	29	25
24 x 1.5	12.1	12.015	19	27	29	25
30 x 1.5	12.1	12.015	19	27	29	25
40 x 1.5	12.1	12.015	19	27	29	25
52 x 1.5	12.1	12.015	19	27	29	25
61 x 1.5	12.1	12.015	19	27	29	25

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NYRY) IEC 60502-1, MS 2103

2.5MM2 : COPPER CONDUCTOR, PVC INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE



Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy duty industry where power distribution device is needed to transmit control signals or measure signal operations.	**Construction :** 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** White core with numbering or as per order
Specification : IEC 60502-1, MS 2103	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order

DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
7 x 2.5	7	circular	0.8	1.3	1.8	12.9	19.6	741	196	1,000
8 x 2.5	7	circular	0.8	1.3	1.8	14.7	21.4	849	214	1,000
10 x 2.5	7	circular	0.8	1.6	1.8	16.6	24.0	1,096	240	1,000
12 x 2.5	7	circular	0.8	1.6	1.8	17.2	24.6	1,177	246	1,000
14 x 2.5	7	circular	0.8	1.6	1.8	18.1	25.5	1,273	255	1,000
16 x 2.5	7	circular	0.8	1.6	1.8	19.2	26.6	1,391	266	1,000
19 x 2.5	7	circular	0.8	1.6	1.8	20.2	27.6	1,531	276	1,000
21 x 2.5	7	circular	0.8	1.6	1.8	21.4	28.8	1,654	288	500
24 x 2.5	7	circular	0.8	1.6	1.9	23.8	31.4	1,869	314	500
30 x 2.5	7	circular	0.8	1.6	2.0	25.3	33.1	2,129	331	500
40 x 2.5	7	circular	0.8	2.0	2.1	29.0	37.8	2,890	378	500
52 x 2.5	7	circular	0.8	2.0	2.3	32.9	42.1	3,513	421	500
61 x 2.5	7	circular	0.8	2.0	2.3	35.0	44.2	3,922	442	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (horizontal cable tray)	Direct In Ground	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 2.5	7.41	9.976	26	35	18	15
8 x 2.5	7.41	9.976	26	35	18	15
10 x 2.5	7.41	9.976	26	35	18	15
12 x 2.5	7.41	9.976	26	35	18	15
14 x 2.5	7.41	9.976	26	35	18	15
16 x 2.5	7.41	9.976	26	35	18	15
19 x 2.5	7.41	9.976	26	35	18	15
21 x 2.5	7.41	9.976	26	35	18	15
24 x 2.5	7.41	9.976	26	35	18	15
30 x 2.5	7.41	9.976	26	35	18	15
40 x 2.5	7.41	9.976	26	35	18	15
52 x 2.5	7.41	9.976	26	35	18	15
61 x 2.5	7.41	9.976	26	35	18	15

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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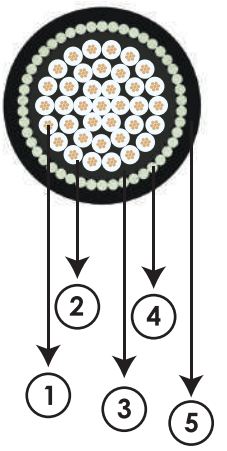
CU / PVC / SWA / PVC - 600 / 1000 VOLT (NYRY)	IEC 60502-1, MS 2103

4 MM2 : COPPER CONDUCTOR, PVC INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy duty industry where power distribution device is needed to transmit control signals or measure signal operations.	**Construction :** 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** White core with numbering or as per order
Specification : IEC 60502-1, MS 2103	
Conductor Operating Temperature : 70°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
7 x 4	7	circular	1.00	1.25	1.8	15.7	22.4	977	224	500
8 x 4	7	circular	1.00	1.60	1.8	17.8	25.2	1,238	252	500
10 x 4	7	circular	1.00	1.60	1.8	20.2	27.6	1,444	276	500
12 x 4	7	circular	1.00	1.60	1.8	21.0	28.4	1,564	284	500
14 x 4	7	circular	1.00	1.60	1.9	22.1	29.7	1,731	297	500
16 x 4	7	circular	1.00	1.60	1.9	23.4	31.0	1,890	310	500
19 x 4	7	circular	1.00	1.60	1.9	24.7	32.3	2,094	323	500
21 x 4	7	circular	1.00	2.00	2.0	26.2	34.8	2,491	348	500
24 x 4	7	circular	1.00	2.00	2.1	29.6	38.4	2,872	384	500
30 x 4	7	circular	1.00	2.00	2.2	31.5	40.5	3,278	405	500
40 x 4	7	circular	1.00	2.00	2.4	35.6	45.0	4,076	450	500
52 x 4	7	circular	1.00	2.50	2.6	41.3	52.1	5,447	521	500
61 x 4	7	circular	1.00	2.50	2.7	43.9	54.9	6,112	549	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (horizontal cable tray)	Direct In Ground	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 4	4.61	9.607	35	47	11	9.5
8 x 4	4.61	9.607	35	47	11	9.5
10 x 4	4.61	9.607	35	47	11	9.5
12 x 4	4.61	9.607	35	47	11	9.5
14 x 4	4.61	9.607	35	47	11	9.5
16 x 4	4.61	9.607	35	47	11	9.5
19 x 4	4.61	9.607	35	47	11	9.5
21 x 4	4.61	9.607	35	47	11	9.5
24 x 4	4.61	9.607	35	47	11	9.5
30 x 4	4.61	9.607	35	47	11	9.5
40 x 4	4.61	9.607	35	47	11	9.5
52 x 4	4.61	9.607	35	47	11	9.5
61 x 4	4.61	9.607	35	47	11	9.5

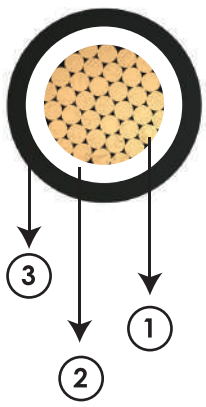
Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / XLPE / PVC - 600 / 1000 VOLT (N2XY)	IEC 60502-1, MS 2104

1-CORE : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : Natural or as per order
Specification : IEC 60502-1, MS 2104	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.7	1.4	5.8	48	46	1,000
2.5	7	circular	0.7	1.4	6.2	60	50	1,000
4	7	circular	0.7	1.4	6.7	78	54	1,000
6	7	circular	0.7	1.4	7.3	100	58	1,000
10	7	circular	0.7	1.4	8.1	144	65	1,000
16	7	compacted	0.7	1.4	9.1	203	73	1,000
25	7	compacted	0.9	1.4	10.6	299	85	1,000
35	7	compacted	0.9	1.4	11.7	392	94	1,000
50	7	compacted	1.0	1.4	13.0	508	104	1,000
70	12	compacted	1.1	1.4	14.7	704	118	1,000
95	15	compacted	1.1	1.4	16.6	943	133	1,000
120	18	compacted	1.2	1.5	18.1	1,186	145	1,000
150	18	compacted	1.4	1.5	20.0	1,452	160	1,000
185	30	compacted	1.6	1.6	22.6	1,815	181	1,000
240	34	compacted	1.7	1.7	25.1	2,355	201	1,000
300	34	compacted	1.8	1.8	27.6	2,926	221	1,000
400	53	compacted	2.0	1.9	30.8	3,717	246	500
500	53	compacted	2.2	2.0	34.5	4,709	276	500
630	53	compacted	2.4	2.2	38.9	6,101	311	500

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil)	Trunking (on wall)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	1088.921	-	19.0	27	27
2.5	7.41	898.408	-	26.0	16	16
4	4.61	724.786	-	35.0	10	10
6	3.08	638.305	-	45.0	6.8	6.8
10	1.83	526.098	-	63.0	4.7	4
16	1.15	416.908	-	85.0	2.9	2.5
25	0.727	418.172	138.0	111.0	1.85	1.6
35	0.524	375.935	171.0	138.0	1.35	1.15
50	0.387	365.456	209.0	168.0	1	0.87
70	0.268	334.042	270.0	214.0	0.71	0.61
95	0.193	282.301	330.0	259.0	0.52	0.45
120	0.153	275.886	385.0	299.0	0.43	0.37
150	0.124	286.849	445.0	328.0	0.36	0.31
185	0.0991	292.239	511.0	370.0	0.3	0.26
240	0.0754	279.47	606.0	433.0	0.25	0.22
300	0.0601	259.033	701.0	493.0	0.22	0.195
400	0.047	259.033	820.0	584.0	0.2	0.175
500	0.0366	248.31	936.0	666.0	0.185	0.16
630	0.0283	238.78	1069.0	764.0	0.175	0.15

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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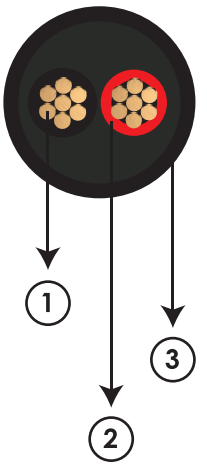
CU / XLPE / PVC - 600 / 1000 VOLT (N2XY) — IEC 60502-1, MS 2106

2-CORES : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 2-Cores (Red, Black) or (Brown, Blue)
Specification : IEC 60502-1, MS 2106	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.7	1.8	9.7	113	78	1,000
2.5	7	circular	0.7	1.8	10.5	140	84	1,000
4	7	circular	0.7	1.8	11.5	181	92	1,000
6	7	circular	0.7	1.8	12.7	233	102	1,000
10	7	circular	0.7	1.8	14.3	329	114	1,000
16	7	compacted	0.7	1.8	16.4	466	131	1,000
25	7	compacted	0.9	1.8	19.4	684	155	1,000
35	7	compacted	0.9	1.8	21.6	889	173	1,000
50	7	compacted	1.0	1.8	24.2	1,150	194	1,000
70	12	compacted	1.1	1.8	27.6	1,582	221	1,000
95	15	compacted	1.1	1.9	31.6	2,127	253	1,000
120	18	compacted	1.2	2.0	34.8	2,659	278	500
150	18	compacted	1.4	2.2	39.0	3,293	312	500
185	30	compacted	1.6	2.3	44.0	4,114	352	500
240	34	compacted	1.7	2.5	49.0	5,317	392	500
300	34	compacted	1.8	2.6	53.8	6,570	430	500

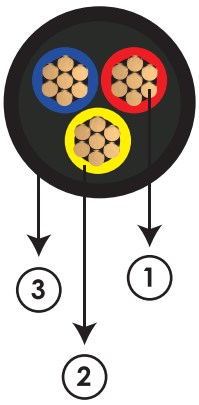
ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (perforated cable tray)	Trunking (on wall or ceiling)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	1088.921	23.0	19.5	31	27
2.5	7.41	898.408	32.0	26.0	19	16
4	4.61	724.786	42.0	35.0	12	10
6	3.08	638.305	54.0	44.0	7.9	6.8
10	1.83	526.098	75.0	60.0	4.7	4
16	1.15	416.908	100.0	80.0	2.9	2.5
25	0.727	418.172	127.0	105.0	1.9	1.65
35	0.524	375.935	158.0	128.0	1.35	1.15
50	0.387	365.456	192.0	154.0	1	0.87
70	0.268	334.042	246.0	194.0	0.69	0.6
95	0.193	282.301	298.0	233.0	0.52	0.45
120	0.153	275.886	346.0	268.0	0.42	0.37
150	0.124	286.849	399.0	300.0	0.35	0.3
185	0.0991	292.239	456.0	340.0	0.29	0.26
240	0.0754	279.470	538.0	398.0	0.24	0.21
300	0.0601	259.033	621.0	455.0	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / XLPE / PVC - 600 / 1000 VOLT (N2XY)	IEC 60502-1, MS 2106
3-CORES : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED	
Application : This cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor : 2 - XLPE Insulated : 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 3-Cores (Red, Yellow, Blue) or (Brown, Black, Grey)
Specification : IEC 60502-1, MS 2106	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.7	1.8	10.2	135	82	1,000
2.5	7	circular	0.7	1.8	11.1	172	89	1,000
4	7	circular	0.7	1.8	12.2	229	98	1,000
6	7	circular	0.7	1.8	13.4	296	107	1,000
10	7	circular	0.7	1.8	15.2	433	122	1,000
16	7	compacted*	0.7	1.8	17.4	621	139	1,000
25	7	compacted*	0.9	1.8	20.7	925	166	1,000
35	7	compacted*	0.9	1.8	23.0	1,213	184	1,000
50	7	compacted*	1.0	1.8	25.8	1,578	206	1,000
70	12	compacted*	1.1	1.9	30.1	2,216	241	1,000
95	15	compacted*	1.1	2.0	34.3	2,978	274	1,000
120	18	compacted*	1.2	2.1	37.4	3,734	299	500
150	18	compacted*	1.4	2.3	41.8	4,613	334	500
185	30	compacted*	1.6	2.4	47.2	5,766	378	500
240	34	compacted*	1.7	2.6	52.6	7,479	421	500
300	34	compacted*	1.8	2.8	57.9	9,284	463	300
400	53	compacted*	2.0	3.0	64.8	11,806	518	300

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (perforated cable tray)	Trunking (on wall or ceiling)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	1088.921	23.0	19.5	31	27
2.5	7.41	898.408	32.0	26.0	19	16
4	4.61	724.786	42.0	35.0	12	10
6	3.08	638.305	54.0	44.0	7.9	6.8
10	1.83	526.098	75.0	60.0	4.7	4
16	1.15	416.908	100.0	80.0	2.9	2.5
25	0.727	418.172	127.0	105.0	1.9	1.65
35	0.524	375.935	158.0	128.0	1.35	1.15
50	0.387	365.456	192.0	154.0	1	0.87
70	0.268	334.042	246.0	194.0	0.69	0.6
95	0.193	282.301	298.0	233.0	0.52	0.45
120	0.153	275.886	346.0	268.0	0.42	0.37
150	0.124	286.849	399.0	300.0	0.35	0.3
185	0.0991	292.239	456.0	340.0	0.29	0.26
240	0.0754	279.47	538.0	398.0	0.24	0.21
300	0.0601	259.033	621.0	455.0	0.21	0.185
400	0.0470	259.033	741.0	536.0	0.19	0.165

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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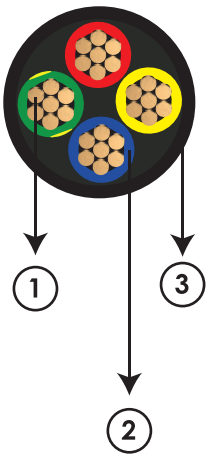
CU / XLPE / PVC - 600 / 1000 VOLT (N2XY-J) IEC 60502-1, MS 2106

3-CORES+GROUND : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED

Application : This cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 3-Cores (Red, Yellow, Blue) or (Brown, Black, Grey) : 1-core Earthing (Green with double Yellow line)
Specification : IEC 60502-1, MS 2106	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
3 x 25 + 16	7/7	compacted	0.9/0.7	1.80	21.8	1,085	174	1,000
3 x 35 + 16	7/7	compacted	0.9/0.7	1.80	23.9	1,373	191	1,000
3 x 50 + 25	7/7	compacted	1.0/0.9	1.80	27.1	1,827	217	1,000
3 x 70 + 35	12/7	compacted	1.1/0.9	1.90	31.5	2,549	252	1,000
3 x 95 + 50	15/7	compacted	1.1/1.0	2.10	36.1	3,441	289	500
3 x 120 + 70	18/12	compacted	1.2/1.1	2.20	39.7	4,393	318	500
3 x 150 + 70	18/12	compacted	1.4/1.1	2.30	43.5	5,248	348	500
3 x 185 + 95	30/15	compacted	1.6/1.1	2.50	49.4	6,651	395	500
3 x 240 + 120	34/18	compacted	1.7/1.2	2.70	54.8	8,584	438	300
3 x 300 + 150	34/18	compacted	1.8/1.4	2.90	60.5	10,658	484	300

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (perforated cable tray)	Trunking (on wall or ceiling)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
3 x 25 + 16	0.727(P) + 1.15(E)	418.172 + 416.908(E)	127	105	1.9	1.65
3 x 35 + 16	0.524(P) + 1.15(E)	375.935 + 416.908(E)	158	128	1.35	1.15
3 x 50 + 25	0.387(P) + 0.727(E)	365.456 + 418.172(E)	192	154	1	0.87
3 x 70 + 35	0.268(P) + 0.524(E)	334.042 + 375.935(E)	246	194	0.69	0.6
3 x 95 + 50	0.193(P) + 0.387(E)	282.301 + 365.456(E)	298	233	0.52	0.45
3 x 120 + 70	0.153(P) + 0.268(E)	275.886 + 334.042(E)	346	268	0.42	0.37
3 x 150 + 70	0.124(P) + 0.268(E)	286.849 + 334.042(E)	399	300	0.35	0.3
3 x 185 + 95	0.0991(P) + 0.193(E)	292.239 + 282.301(E)	456	340	0.29	0.26
3 x 240 + 120	0.0754(P) + 0.153(E)	279.470 + 275.886(E)	538	398	0.24	0.21
3 x 300 + 150	0.0601(P) + 0.124(E)	259.033 + 286.849(E)	621	455	0.21	0.185

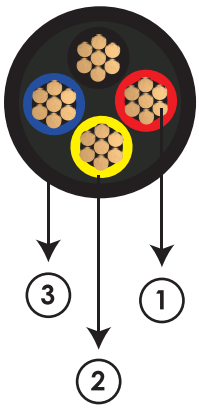
Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / XLPE / PVC - 600 / 1000 VOLT (N2XY)	IEC 60502-1, MS 2106

4-CORES : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED

Application : This is cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	**Construction :** 1- Copper Conductor 2- XLPE Insulated 3- PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 4-Cores (Red, Yellow, Blue, Black) or (Brown, Black, Grey, Blue)
Specification : IEC 60502-1, MS 2106	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.7	1.8	11.00	160	88	1,000
2.5	7	circular	0.7	1.8	12.00	208	96	1,000
4	7	circular	0.7	1.8	13.20	280	106	1,000
6	7	circular	0.7	1.8	14.60	369	117	1,000
10	7	circular	0.7	1.8	16.60	545	133	1,000
16	7	compacted	0.7	1.8	19.10	791	153	1,000
25	7	compacted	0.9	1.8	22.70	1,184	182	1,000
35	7	compacted	0.9	1.8	25.30	1,560	202	1,000
50	7	sector*	1.0	1.8	25.70	1,956	257	1,000
70	12	sector*	1.1	1.9	29.70	2,751	297	1,000
95	15	sector*	1.1	2.0	33.40	3,709	334	1,000
120	18	sector*	1.2	2.1	36.90	4,675	369	500
150	18	sector*	1.4	2.2	41.00	5,757	410	500
185	30	sector*	1.6	2.4	47.40	7,223	474	500
240	34	sector*	1.7	2.6	51.50	9,372	515	500
300	34	sector*	1.8	2.9	60.30	11,748	603	300
400	53	sector*	2.0	3.0	63.70	14,859	637	300

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (perforated cable tray)	Trunking (on wall or ceiling)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	1088.921	23.0	19.5	31	27
2.5	7.41	898.408	32.0	26.0	19	16
4	4.61	724.786	42.0	35.0	12	10
6	3.08	638.305	54.0	44.0	7.9	6.8
10	1.83	526.098	75.0	60.0	4.7	4
16	1.15	416.908	100.0	80.0	2.9	2.5
25	0.727	418.172	127.0	105.0	1.9	1.65
35	0.524	375.935	158.0	128.0	1.35	1.15
50	0.387	274.103	192.0	154.0	1	0.87
70	0.268	250.458	246.0	194.0	0.69	0.6
95	0.193	213.079	298.0	233.0	0.52	0.45
120	0.153	213.435	346.0	268.0	0.42	0.37
150	0.124	220.421	399.0	300.0	0.35	0.3
185	0.0991	220.192	456.0	340.0	0.29	0.26
240	0.0754	210.271	538.0	398.0	0.24	0.21
300	0.0601	206.688	621.0	455.0	0.21	0.185
400	0.0470	195.053	741.0	536.0	0.19	0.165

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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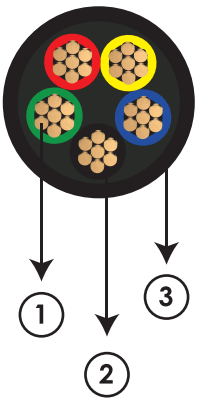
CU / XLPE / PVC - 600 / 1000 VOLT (N2XY - J)	IEC 60502-1, MS 2106

5-CORES : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED

Application : This is cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	**Construction :** 1- Copper Conductor 2- XLPE Insulated 3- PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** 5-Cores (Red, Yellow, Blue, Black, Green) or (Brown, Black, Grey, Blue, Green)
Specification : IEC 60502-1, MS 2106	
Conductor Operating Temperature : 90°C	**Outer Sheath Colour :** Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.7	1.80	11.8	182	94	1,000
2.5	7	circular	0.7	1.80	12.9	237	103	1,000
4	7	circular	0.7	1.80	14.3	324	114	1,000
6	7	circular	0.7	1.80	16.0	433	128	1,000
10	7	circular	0.7	1.80	18.2	666	146	1,000
16	7	compacted	0.7	1.80	20.9	963	167	1,000
25	7	compacted	0.9	1.80	24.9	1,451	199	1,000
35	7	compacted	0.9	1.80	27.9	1,924	223	1,000
50	7	compacted	1.0	1.90	31.9	2,534	255	500

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (perforated cable tray)	Trunking (on wall or ceiling)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	1088.921	23.0	19.5	31	27
2.5	7.41	898.408	32.0	26.0	19	16
4	4.61	724.786	42.0	35.0	12	10
6	3.08	638.305	54.0	44.0	7.9	6.8
10	1.83	526.098	75.0	60.0	4.7	4
16	1.15	416.908	100.0	80.0	2.9	2.5
25	0.727	418.172	127.0	105.0	1.9	1.65
35	0.524	375.935	158.0	128.0	1.35	1.15
50	0.387	365.456	192.0	154.0	1	0.87

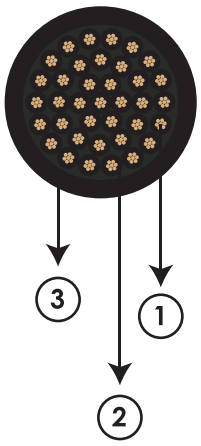
Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / XLPE / PVC - 600 / 1000 VOLT (N2XY) IEC 60502-1, MS 2106

1.5 MM2 : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED

Application : This is cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	**Construction :** 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** Black core with numbering or as per order
Specification : IEC 60502-1, MS 2106	
Conductor Operating Temperature : 90°C	**Outer Sheath Colour :** Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	kg/km	mm	m
7 x 1.5	7	circular	0.7	1.8	12.7	225	102	1,000
8 x 1.5	7	circular	0.7	1.8	14.1	262	113	1,000
10 x 1.5	7	circular	0.7	1.8	15.8	316	126	1,000
12 x 1.5	7	circular	0.7	1.8	16.3	351	130	1,000
14 x 1.5	7	circular	0.7	1.8	17.1	397	137	1,000
16 x 1.5	7	circular	0.7	1.8	17.9	441	143	1,000
19 x 1.5	7	circular	0.7	1.8	18.8	502	150	1,000
21 x 1.5	7	circular	0.7	1.8	19.8	554	158	1,000
24 x 1.5	7	circular	0.7	1.8	21.8	628	174	1,000
30 x 1.5	7	circular	0.7	1.8	23.1	748	185	1,000
40 x 1.5	7	circular	0.7	1.8	25.8	959	206	500
52 x 1.5	7	circular	0.7	1.8	29.1	1,210	233	500
61 x 1.5	7	circular	0.7	1.9	31.0	1,401	248	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (perforated cable tray)	Trunking (on wall or ceiling)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 1.5	12.1	1088.921	23.0	19.5	31	27
8 x 1.5	12.1	1088.921	23.0	19.5	31	27
10 x 1.5	12.1	1088.921	23.0	19.5	31	27
12 x 1.5	12.1	1088.921	23.0	19.5	31	27
14 x 1.5	12.1	1088.921	23.0	19.5	31	27
16 x 1.5	12.1	1088.921	23.0	19.5	31	27
19 x 1.5	12.1	1088.921	23.0	19.5	31	27
21 x 1.5	12.1	1088.921	23.0	19.5	31	27
24 x 1.5	12.1	1088.921	23.0	19.5	31	27
30 x 1.5	12.1	1088.921	23.0	19.5	31	27
40 x 1.5	12.1	1088.921	23.0	19.5	31	27
52 x 1.5	12.1	1088.921	23.0	19.5	31	27
61 x 1.5	12.1	1088.921	23.0	19.5	31	27

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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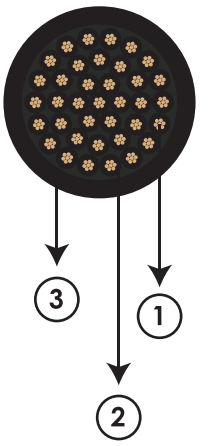
CU / XLPE / PVC - 600 / 1000 VOLT (N2XY)	IEC 60502-1, MS 2106

2.5 MM2 : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED

Application : This is cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : Black core with numbering or as per order
Specification : IEC 60502-1, MS 2106	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	kg/km	mm	m
7 x 2.5	7	circular	0.7	1.8	13.9	299	111	1,000
8 x 2.5	7	circular	0.7	1.8	15.5	349	124	1,000
10 x 2.5	7	circular	0.7	1.8	17.4	423	139	1,000
12 x 2.5	7	circular	0.7	1.8	18.0	477	144	1,000
14 x 2.5	7	circular	0.7	1.8	18.8	538	150	1,000
16 x 2.5	7	circular	0.7	1.8	19.8	604	158	1,000
19 x 2.5	7	circular	0.7	1.8	20.8	693	166	1,000
21 x 2.5	7	circular	0.7	1.8	22.0	769	176	1,000
24 x 2.5	7	circular	0.7	1.8	24.2	870	194	1,000
30 x 2.5	7	circular	0.7	1.8	25.6	1,040	205	500
40 x 2.5	7	circular	0.7	1.8	28.8	1,355	230	500
52 x 2.5	7	circular	0.7	2.0	32.8	1,739	262	500
61 x 2.5	7	circular	0.7	2.0	34.8	2,006	278	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (perforated cable tray)	Trunking (on wall or ceiling)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 2.5	7.41	898.408	32	26	19	16
8 x 2.5	7.41	898.408	32	26	19	16
10 x 2.5	7.41	898.408	32	26	19	16
12 x 2.5	7.41	898.408	32	26	19	16
14 x 2.5	7.41	898.408	32	26	19	16
16 x 2.5	7.41	898.408	32	26	19	16
19 x 2.5	7.41	898.408	32	26	19	16
21 x 2.5	7.41	898.408	32	26	19	16
24 x 2.5	7.41	898.408	32	26	19	16
30 x 2.5	7.41	898.408	32	26	19	16
40 x 2.5	7.41	898.408	32	26	19	16
52 x 2.5	7.41	898.408	32	26	19	16
61 x 2.5	7.41	898.408	32	26	19	16

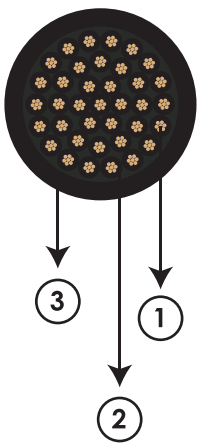
Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / XLPE / PVC - 600 / 1000 VOLT (N2XY)	IEC 60502-1, MS 2106

4 MM2 : COPPER CONDUCTOR, XLPE INSULATED AND PVC SHEATHED

Application : This is cable is primarily used for main power supply. It can be installed in cable ducts, on cable trays, on cable ladders and in cable trunking.	Construction : 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : Black core with numbering or as per order
Specification : IEC 60502-1, MS 2106	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	kg/km	mm	m
7 x 4	7	circular	0.7	1.8	15.4	413	123	500
8 x 4	7	circular	0.7	1.8	17.3	484	138	500
10 x 4	7	circular	0.7	1.8	19.4	589	155	500
12 x 4	7	circular	0.7	1.8	20.1	670	161	500
14 x 4	7	circular	0.7	1.8	21.0	760	168	500
16 x 4	7	circular	0.7	1.8	22.2	860	178	500
19 x 4	7	circular	0.7	1.8	23.3	990	186	500
21 x 4	7	circular	0.7	1.8	24.6	1,095	197	500
24 x 4	7	circular	0.7	1.8	27.2	1,248	218	500
30 x 4	7	circular	0.7	1.8	28.8	1,504	230	500
40 x 4	7	circular	0.7	2.0	32.8	1,995	262	500
52 x 4	7	circular	0.7	2.1	37.6	2,561	301	500
61 x 4	7	circular	0.7	2.2	40.1	2,981	321	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (perforated cable tray)	Trunking (on wall or ceiling)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 4	4.61	724.786	42	35	12	10
8 x 4	4.61	724.786	42	35	12	10
10 x 4	4.61	724.786	42	35	12	10
12 x 4	4.61	724.786	42	35	12	10
14 x 4	4.61	724.786	42	35	12	10
16 x 4	4.61	724.786	42	35	12	10
19 x 4	4.61	724.786	42	35	12	10
21 x 4	4.61	724.786	42	35	12	10
24 x 4	4.61	724.786	42	35	12	10
30 x 4	4.61	724.786	42	35	12	10
40 x 4	4.61	724.786	42	35	12	10
52 x 4	4.61	724.786	42	35	12	10
61 x 4	4.61	724.786	42	35	12	10

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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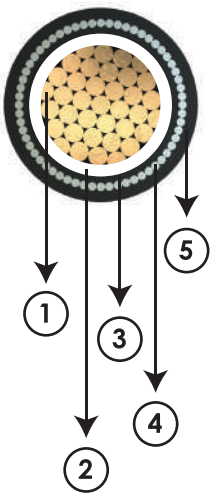
CU / XLPE / PVC / AWA / PVC - 600 / 1000 VOLT (N2XRY)	IEC 60502-1, MS 2105

1-CORE : COPPER CONDUCTOR, XLPE INSULATED, ALUMINIUM WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.	Construction : 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : Natural or as per order
Specification : IEC 60502-1, MS 2105	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Diameter Aluminium Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
50	7	compacted	1.4	1.6	1.8	13.0	20.4	824	204	1,000
70	12	compacted	1.1	1.6	1.8	13.9	21.3	989	213	1,000
95	15	compacted	1.1	1.6	1.8	15.8	23.2	1,263	232	1,000
120	18	compacted	1.2	1.6	1.8	17.1	24.5	1,518	245	1,000
150	18	compacted	1.4	1.6	1.8	19.0	26.4	1,813	264	1,000
185	30	compacted	1.6	1.6	1.8	21.4	28.8	2,203	288	1,000
240	34	compacted	1.7	1.6	1.9	23.7	31.3	2,782	313	1,000
300	34	compacted	1.8	2.0	2.0	26.0	34.6	3,464	346	1,000
400	53	compacted	2.0	2.0	2.1	29.4	38.2	4,343	382	500
500	53	compacted	2.2	2.0	2.3	32.9	42.1	5,426	421	500
630	53	compacted	2.4	2.5	2.4	36.9	47.3	7,011	473	500

ELECTRICAL DATA

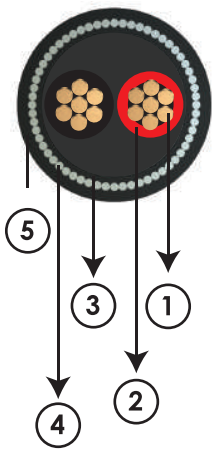
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop		
	DC Conductor Max	Insulation Min (calculated)	In Air (trefoil touching)	Direct In Ground (trefoil touching)	Single-Phase	Three-Phase (flat touching)	Three-Phase (trefoil touching)
mm²	Ω/km	MΩ.km	A	A	mV/A/m		
50	0.3870	365.456	222	235	1	0.88	0.87
70	0.2680	334.042	285	290	0.71	0.65	0.62
95	0.1930	282.301	346	345	0.55	0.52	0.47
120	0.1530	275.886	402	389	0.45	0.44	0.39
150	0.1240	286.849	463	435	0.38	0.39	0.33
185	0.0991	292.239	529	490	0.33	0.34	0.28
240	0.0754	279.470	625	560	0.28	0.3	0.24
300	0.0601	259.033	720	630	0.25	0.28	0.21
400	0.0470	259.033	815	700	0.22	0.27	0.195
500	0.0366	248.310	918	770	0.21	0.25	0.18
630	0.0283	238.780	1027	840	0.195	0.24	0.17

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (N2XRY) IEC 60502-1, MS 2107

2-CORES : COPPER CONDUCTOR, XLPE INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE



Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.	**Construction :** 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** 2-Cores (Red, Black) or (Brown, Blue)
Specification : IEC 60502-1, MS 2107	
Conductor Operating Temperature : 90°C	**Outer Sheath Colour :** Black or as per order

DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.70	0.90	1.80	8.1	14.1	319	141	1,000
2.5	7	circular	0.70	0.90	1.80	8.9	14.9	366	149	1,000
4	7	circular	0.70	0.90	1.80	9.9	15.9	427	159	1,000
6	7	circular	0.70	1.25	1.80	11.1	17.8	581	178	1,000
10	7	circular	0.70	1.25	1.80	12.7	19.4	714	194	1,000
16	7	compacted	0.70	1.25	1.80	14.8	21.5	911	215	1,000
25	7	compacted	0.90	1.60	1.80	17.8	25.2	1,327	252	1,000
35	7	compacted	0.90	1.60	1.80	20.0	27.4	1,607	274	1,000
50	7	compacted*	1.00	1.60	1.90	22.6	30.2	1,958	302	1,000
70	12	compacted*	1.10	2.00	2.00	26.0	34.6	2,714	346	1,000
95	15	compacted*	1.10	2.00	2.20	30.2	39.2	3,458	392	1,000
120	18	compacted*	1.20	2.00	2.30	33.2	42.4	4,115	424	500
150	18	compacted*	1.40	2.50	2.40	37.0	47.4	5,256	474	500
185	30	compacted*	1.60	2.50	2.60	42.2	53.0	6,375	530	500
240	34	compacted*	1.70	2.50	2.80	46.8	58.0	7,817	580	300
300	34	compacted*	1.80	2.50	3.00	51.8	63.4	9,427	634	300

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (on perforated horizontal cable tray)	Direct In Ground (laid directly)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	1088.921	25	28	31	27
2.5	7.41	898.408	33	36	19	16
4	4.61	724.786	44	48	12	10
6	3.08	638.305	56	60	7.9	6.8
10	1.83	526.098	78	80	4.7	4
16	1.15	416.908	99	115	2.9	2.5
25	0.727	418.172	131	150	1.9	1.65
35	0.524	375.935	162	180	1.35	1.15
50	0.387	365.456	197	215	1	0.87
70	0.268	334.042	251	265	0.69	0.6
95	0.193	282.301	304	315	0.52	0.45
120	0.153	275.886	353	360	0.42	0.37
150	0.124	286.849	406	405	0.35	0.3
185	0.0991	292.239	463	460	0.29	0.26
240	0.0754	279.470	546	530	0.24	0.21
300	0.0601	259.033	628	590	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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CU / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (N2XRY) — IEC 60502-1, MS 2107

3-CORES : COPPER CONDUCTOR, XLPE INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.

Construction :
1 - Copper Conductor
2 - XLPE Insulated
3 - PVC Bedding
4 - Armoured
5 - PVC Sheathed

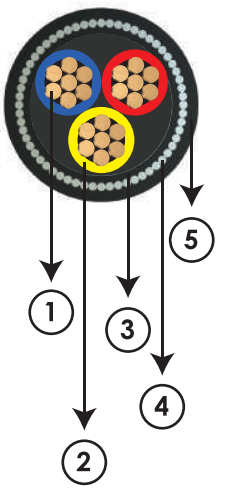
Voltage Rating : 600/1000 Volt

Specification : IEC 60502-1, MS 2107

Insulation Colour : 3-Cores (Red, Yellow, Blue) or (Brown, Black, Grey)

Conductor Operating Temperature : 90°C

Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.7	0.9	1.8	8.6	14.6	353	146	1,000
2.5	7	circular	0.7	0.9	1.8	9.5	15.5	406	155	1,000
4	7	circular	0.7	0.9	1.8	10.6	16.6	488	166	1,000
6	7	circular	0.7	1.3	1.8	11.8	18.5	657	185	1,000
10	7	circular	0.7	1.3	1.8	13.6	20.3	843	203	1,000
16	7	compacted	0.7	1.3	1.8	15.8	22.5	1,090	225	1,000
25	7	compacted	0.9	1.6	1.8	19.1	26.5	1,607	265	1,000
35	7	compacted	0.9	1.6	1.8	21.4	28.8	1,970	288	1,000
50	7	compacted*	1.0	1.6	1.9	24.2	31.8	2,443	318	1,000
70	12	compacted*	1.1	2.0	2.1	28.7	37.5	3,469	375	1,000
95	15	compacted*	1.1	2.0	2.3	32.7	41.9	4,430	419	500
120	18	compacted*	1.2	2.0	2.4	35.6	45.0	5,310	450	500
150	18	compacted*	1.4	2.5	2.5	40.0	50.6	6,755	506	500
185	30	compacted*	1.6	2.5	2.7	45.2	56.2	8,172	562	300
240	34	compacted*	1.7	2.5	2.9	50.6	62.0	10,219	620	300
300	34	compacted*	1.8	2.5	3.1	55.5	67.3	12,270	673	300

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (on perforated horizontal cable tray)	Direct In Ground (laid directly)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	1088.921	25	28	31	27
2.5	7.41	898.408	33	36	19	16
4	4.61	724.786	44	48	12	10
6	3.08	638.305	56	60	7.9	6.8
10	1.83	526.098	78	80	4.7	4
16	1.15	416.908	99	115	2.9	2.5
25	0.727	418.172	131	150	1.9	1.65
35	0.524	375.935	162	180	1.35	1.15
50	0.387	365.456	197	215	1	0.87
70	0.268	334.042	251	265	0.69	0.6
95	0.193	282.301	304	315	0.52	0.45
120	0.153	275.886	353	360	0.42	0.37
150	0.124	286.849	406	405	0.35	0.3
185	0.0991	292.239	463	460	0.29	0.26
240	0.0754	279.470	546	530	0.24	0.21
300	0.0601	259.033	628	590	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
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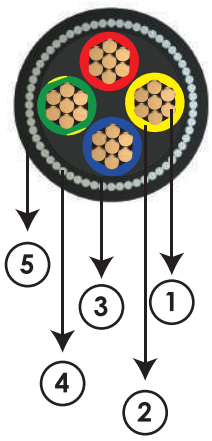
CU / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (N2XRY-J) IEC 60502-1, MS 2107

3-CORES+GROUND : COPPER CONDUCTOR, XLPE INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE



Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.	**Construction :** 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour : 3-Cores (Red, Yellow, Blue) or (Brown, Black, Grey)** **: 1-Core Earthing (Green with double Yellow line)**
Specification : IEC 60502-1, MS 2107	
Conductor Operating Temperature : 90°C	**Outer Sheath Colour : Black or as per order**

DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
3 x 50 + 25	7/7	compacted	1.0/0.9	1.6	2.0	25.5	33.3	2,746	333	1,000
3 x 70 + 35	12/7	compacted	1.1/0.9	2.0	2.2	30.1	39.1	3,879	391	1,000
3 x 95 + 50	15/7	compacted	1.1/1.0	2.0	2.3	34.3	43.5	4,937	435	500
3 x 120 + 70	18/12	compacted	1.2/1.1	2.5	2.5	37.7	48.3	6,383	483	500
3 x 150 + 70	18/12	compacted	1.4/1.1	2.5	2.6	41.7	52.5	7,505	525	500
3 x 185 + 95	30/15	compacted	1.6/1.1	2.5	2.8	47.2	58.4	9,193	584	250
3 x 240 + 120	34/18	compacted	1.7/1.2	2.5	3.0	52.6	64.2	11,424	642	250
3 x 300 + 150	34/18	compacted	1.8/1.4	2.5	3.2	57.9	69.9	13,787	699	200

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (on perforated horizontal cable tray)	Direct In Ground (laid directly)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
3 x 50 + 25	0.387(P) + 0.727(E)	365.456 + 418.172(E)	197	215	1	0.87
3 x 70 + 35	0.268(P) + 0.524(E)	334.042 + 375.935(E)	251	265	0.69	0.6
3 x 95 + 50	0.193(P) + 0.387(E)	282.301 + 365.456(E)	304	315	0.52	0.45
3 x 120 + 70	0.153(P) + 0.268(E)	275.886 + 334.042(E)	353	360	0.42	0.37
3 x 150 + 70	0.124(P) + 0.268(E)	286.849 + 334.042(E)	406	405	0.35	0.3
3 x 185 + 95	0.0991(P) + 0.193(E)	292.239 + 282.301(E)	463	460	0.29	0.26
3 x 240 + 120	0.0754(P) + 0.153(E)	279.470 + 275.886(E)	546	530	0.24	0.21
3 x 300 + 150	0.0601(P) + 0.124(E)	259.033 + 286.849(E)	628	590	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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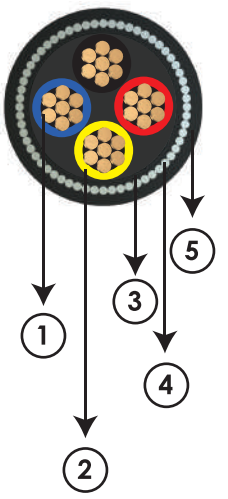
CU / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (N2XRY) IEC 60502-1, MS 2107

4-CORES : COPPER CONDUCTOR, XLPE INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable trenches, cable ducts and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.	Construction : 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	Insulation Colour : 4-Cores (Red, Yellow, Blue, Black) or (Brown, Black, Grey,Blue)
Specification : IEC 60502-1, MS 2107	
Conductor Operating Temperature : 90°C	Outer Sheath Colour : Black or as per order



DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.7	0.90	1.8	9.4	15.4	394	154	1,000
2.5	7	circular	0.7	0.90	1.8	10.4	16.4	462	164	1,000
4	7	circular	0.7	1.25	1.8	11.6	18.3	640	183	1,000
6	7	circular	0.7	1.25	1.8	13.0	19.7	765	197	1,000
10	7	circular	0.7	1.25	1.8	15.0	21.7	991	217	1,000
16	7	compacted	0.7	1.25	1.8	17.5	24.2	1,308	242	1,000
25	7	compacted	0.9	1.60	1.8	21.1	28.5	1,924	285	1,000
35	7	compacted	0.9	1.60	1.9	23.7	31.3	2,406	313	1,000
50	7	sector*	1.0	1.60	1.9	24.1	31.7	2,805	317	1,000
70	12	sector*	1.1	2.00	2.1	27.9	36.7	3,946	367	1,000
95	15	sector*	1.1	2.00	2.2	31.8	40.8	5,110	408	500
120	18	sector*	1.2	2.00	2.3	35.1	44.3	6,201	443	500
150	18	sector*	1.4	2.50	2.5	39.4	50.0	7,875	500	500
185	30	sector*	1.6	2.50	2.7	45.4	56.4	9,669	564	500
240	34	sector*	1.7	2.50	2.9	49.5	60.9	12,063	609	500
300	34	sector*	1.8	2.50	3.2	57.7	69.7	14,875	697	200

*Note: * shape can be sector or compacted*

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (on perforated horizontal cable tray)	Direct In Ground (laid directly)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.1	1088.921	25	28	31	27
2.5	7.41	898.408	33	36	19	16
4	4.61	724.786	44	48	12	10
6	3.08	638.305	56	60	7.9	6.8
10	1.83	526.098	78	80	4.7	4
16	1.15	416.908	99	115	2.9	2.5
25	0.727	418.172	131	150	1.9	1.65
35	0.524	375.935	162	180	1.35	1.15
50	0.387	274.108	197	215	1	0.87
70	0.268	250.458	251	265	0.69	0.6
95	0.193	213.079	304	315	0.52	0.45
120	0.153	213.435	353	360	0.42	0.37
150	0.124	220.421	406	405	0.35	0.3
185	0.0991	220.192	463	460	0.29	0.26
240	0.0754	210.271	546	530	0.24	0.21
300	0.0601	206.688	628	590	0.21	0.185

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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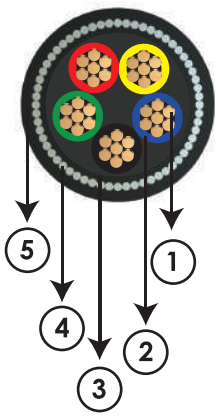
CU / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (N2XRY - J) IEC 60502-1, MS 2107

5-CORES : COPPER CONDUCTOR, XLPE INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE



Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy dusty industry where power distribution device is needed to transmit control signals or measure signal operations.	**Construction :** 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** 5-Cores (Red, Yellow, Blue, Black, Green)
Specification : IEC 60502-1, MS 2107	
Conductor Operating Temperature : 90°C	**Outer Sheath Colour :** Black or as per order

DIMENSIONAL & MECHANICAL DATA

Nominal Cross Sectional Area	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
1.5	7	circular	0.70	0.90	1.8	10.2	16.2	429	162	1,000
2.5	7	circular	0.70	1.25	1.8	11.3	18.0	587	180	1,000
4	7	circular	0.70	1.25	1.8	12.7	19.4	710	194	1,000
6	7	circular	0.70	1.25	1.8	14.4	21.1	866	211	1,000
10	7	circular	0.70	1.60	1.8	16.6	24.0	1,272	240	1,000
16	7	compacted	0.70	1.60	1.8	19.3	26.7	1,646	267	1,000
25	7	compacted	0.90	1.60	1.9	23.3	30.9	2,280	309	1,000
35	7	compacted	0.90	2.00	2.0	26.3	34.9	3,057	349	1,000
50	7	compacted	1.00	2.00	2.2	30.5	39.5	3,892	395	1,000

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (on perforated horizontal cable tray)	Direct In Ground (laid directly)	Single-Phase	Three-Phase
mm²	Ω/km	MΩ.km	A	A	mV/A/m	
1.5	12.100	1088.921	25	28	31	27
2.5	7.410	898.408	33	36	19	16
4	4.610	724.786	44	48	12	10
6	3.080	638.305	56	60	7.9	6.8
10	1.830	526.098	78	80	4.7	4
16	1.150	416.908	99	115	2.9	2.5
25	0.727	418.172	131	150	1.9	1.65
35	0.524	375.935	162	180	1.35	1.15
50	0.387	365.456	197	215	1	0.87

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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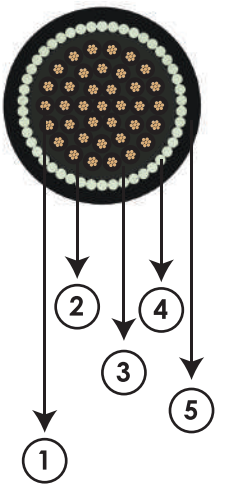
CU / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (N2XRY) — IEC 60502-1, MS 2107

1.5MM2 : COPPER CONDUCTOR, XLPE INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy dusty industry where power distribution device is needed to transmit control signals or measure signal operations.	**Construction :** 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** Black core with numbering or as per order
Specification : IEC 60502-1, MS 2107	
Conductor Operating Temperature : 90°C	**Outer Sheath Colour :** Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
7 x 1.5	7	circular	0.7	1.25	1.8	11.1	17.8	573	178	1,000
8 x 1.5	7	circular	0.7	1.25	1.8	12.5	19.2	646	192	1,000
10 x 1.5	7	circular	0.7	1.25	1.8	14.2	20.9	748	209	1,000
12 x 1.5	7	circular	0.7	1.25	1.8	14.7	21.4	795	214	1,000
14 x 1.5	7	circular	0.7	1.25	1.8	15.5	22.2	856	222	1,000
16 x 1.5	7	circular	0.7	1.60	1.8	16.3	23.7	1,029	237	1,000
19 x 1.5	7	circular	0.7	1.60	1.8	17.2	24.6	1,127	246	1,000
21 x 1.5	7	circular	0.7	1.60	1.8	18.2	25.6	1,215	256	1,000
24 x 1.5	7	circular	0.7	1.60	1.8	20.2	27.6	1,347	276	1,000
30 x 1.5	7	circular	0.7	1.60	1.8	21.5	28.9	1,505	289	500
40 x 1.5	7	circular	0.7	1.60	1.9	24.2	31.8	1,824	318	500
52 x 1.5	7	circular	0.7	2.00	2.1	27.5	36.3	2,416	363	500
61 x 1.5	7	circular	0.7	2.00	2.1	29.6	38.4	2,710	384	500

ELECTRICAL DATA

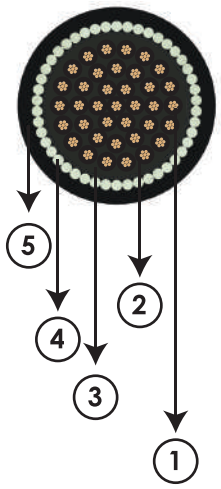
No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (on perforated horizontal cable tray)	Direct In Ground (laid directly)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 1.5	12.1	1088.921	25	28	31	27
8 x 1.5	12.1	1088.921	25	28	31	27
10 x 1.5	12.1	1088.921	25	28	31	27
12 x 1.5	12.1	1088.921	25	28	31	27
14 x 1.5	12.1	1088.921	25	28	31	27
16 x 1.5	12.1	1088.921	25	28	31	27
19 x 1.5	12.1	1088.921	25	28	31	27
21 x 1.5	12.1	1088.921	25	28	31	27
24 x 1.5	12.1	1088.921	25	28	31	27
30 x 1.5	12.1	1088.921	25	28	31	27
40 x 1.5	12.1	1088.921	25	28	31	27
52 x 1.5	12.1	1088.921	25	28	31	27
61 x 1.5	12.1	1088.921	25	28	31	27

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

Master Tec®
Wire & Cable

CU / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (N2XRY) IEC 60502-1, MS 2107

2.5MM2 : COPPER CONDUCTOR, XLPE INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE



Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy dusty industry where power distribution device is needed to transmit control signals or measure signal operations.	**Construction :** 1 - Copper Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** Black core with numbering or as per order
Specification : IEC 60502-1, MS 2107	
Conductor Operating Temperature : 90°C	**Outer Sheath Colour :** Black or as per order

DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
7 x 2.5	7	circular	0.7	1.25	1.8	12.3	19.0	673	190	1,000
8 x 2.5	7	circular	0.7	1.25	1.8	13.9	20.6	770	206	1,000
10 x 2.5	7	circular	0.7	1.25	1.8	15.8	22.5	892	225	1,000
12 x 2.5	7	circular	0.7	1.60	1.8	16.4	23.8	1,081	238	1,000
14 x 2.5	7	circular	0.7	1.60	1.8	17.2	24.6	1,162	246	1,000
16 x 2.5	7	circular	0.7	1.60	1.8	18.2	25.6	1,265	256	1,000
19 x 2.5	7	circular	0.7	1.60	1.8	19.2	26.6	1,375	266	1,000
21 x 2.5	7	circular	0.7	1.60	1.8	20.4	27.8	1,489	278	500
24 x 2.5	7	circular	0.7	1.60	1.9	22.6	30.2	1,679	302	500
30 x 2.5	7	circular	0.7	1.60	1.9	24.0	31.6	1,888	316	500
40 x 2.5	7	circular	0.7	2.00	2.10	27.2	36.0	2,535	360	500
52 x 2.5	7	circular	0.7	2.00	2.20	31.2	40.2	3,111	402	500
61 x 2.5	7	circular	0.7	2.00	2.30	33.2	42.4	3,462	424	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (on perforated horizontal cable tray)	Direct In Ground (laid directly)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 2.5	7.41	898.408	33	36	19	16
8 x 2.5	7.41	898.408	33	36	19	16
10 x 2.5	7.41	898.408	33	36	19	16
12 x 2.5	7.41	898.408	33	36	19	16
14 x 2.5	7.41	898.408	33	36	19	16
16 x 2.5	7.41	898.408	33	36	19	16
19 x 2.5	7.41	898.408	33	36	19	16
21 x 2.5	7.41	898.408	33	36	19	16
24 x 2.5	7.41	898.408	33	36	19	16
30 x 2.5	7.41	898.408	33	36	19	16
40 x 2.5	7.41	898.408	33	36	19	16
52 x 2.5	7.41	898.408	33	36	19	16
61 x 2.5	7.41	898.408	33	36	19	16

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

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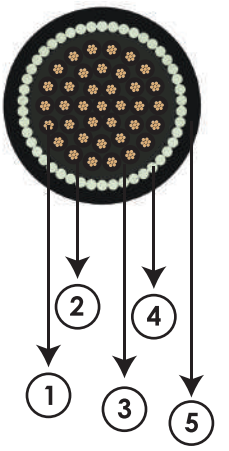
CU / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (N2XRY) IEC 60502-1, MS 2107

4MM2 : COPPER CONDUCTOR, XLPE INSULATED, GALVANISED ROUND STEEL WIRE ARMOURED AND PVC SHEATHED CABLE

Application : This auxiliary cable is used in super visory electrical equipment and station control circuits, in light, ordinary or heavy dusty industry where power distribution device is needed to transmit control signals or measure signal operations.	**Construction :** 1 - Copper Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt	**Insulation Colour :** Black core with numbering or as per order
Specification : IEC 60502-1, MS 2107	
Conductor Operating Temperature : 90°C	**Outer Sheath Colour :** Black or as per order



DIMENSIONAL & MECHANICAL DATA

No. of Cores	No. of Wires and Conductor Shape		Nominal Thickness			Approximately			Bending Radius Min	Standard Delivery Length
			Insulation	Galvanised Steel Wire Armour	Outer Sheath	Inner Sheath Diameter	Overall Diameter	Net Weight		
cores x mm²	min	shape	mm	mm	mm	mm	mm	kg/km	mm	m
7 x 4	7	circular	0.70	1.25	1.8	13.8	20.5	833	205	500
8 x 4	7	circular	0.70	1.25	1.8	15.7	22.4	952	224	500
10 x 4	7	circular	0.70	1.60	1.8	17.8	25.2	1,232	252	500
12 x 4	7	circular	0.70	1.60	1.8	18.5	25.9	1,333	259	500
14 x 4	7	circular	0.70	1.60	1.8	19.4	26.8	1,459	268	500
16 x 4	7	circular	0.70	1.60	1.8	20.6	28.0	1,597	280	500
19 x 4	7	circular	0.70	1.60	1.8	21.7	29.1	1,748	291	500
21 x 4	7	circular	0.70	1.60	1.9	23.0	30.6	1,921	306	500
24 x 4	7	circular	0.70	1.60	2.0	25.6	33.4	2,168	334	500
30 x 4	7	circular	0.70	2.00	2.1	27.2	36.0	2,683	360	500
40 x 4	7	circular	0.70	2.00	2.2	31.2	40.2	3,368	402	500
52 x 4	7	circular	0.70	2.00	2.4	35.8	45.2	4,138	452	500
61 x 4	7	circular	0.70	2.50	2.5	38.1	48.7	5,013	487	500

ELECTRICAL DATA

No. of Cores	Resistance at 20 °C		Current Carrying Capacity		Voltage Drop	
	DC Conductor Max	Insulation Min (calculated)	In Air (on perforated horizontal cable tray)	Direct In Ground (laid directly)	Single-Phase	Three-Phase
cores x mm²	Ω/km	MΩ.km	A	A	mV/A/m	
7 x 4	4.61	724.786	44	48	12	10
8 x 4	4.61	724.786	44	48	12	10
10 x 4	4.61	724.786	44	48	12	10
12 x 4	4.61	724.786	44	48	12	10
14 x 4	4.61	724.786	44	48	12	10
16 x 4	4.61	724.786	44	48	12	10
19 x 4	4.61	724.786	44	48	12	10
21 x 4	4.61	724.786	44	48	12	10
24 x 4	4.61	724.786	44	48	12	10
30 x 4	4.61	724.786	44	48	12	10
40 x 4	4.61	724.786	44	48	12	10
52 x 4	4.61	724.786	44	48	12	10
61 x 4	4.61	724.786	44	48	12	10

Note: For condition of current carrying capacity please refer to Table 1 Appendix A

CURRENT RATING AND VOLTAGE DROP

XLPE (or LS0H) Insulated Cables
Multi-Core, Unarmoured

Multi-core Cables with XLPE (or LS0H) Insulation, PVC (or LS0H) Outer Sheath 300/500V or 600/1000V

Table XN1-A : Current-Carrying Capacity (Amp) [CU/XLPE/PVC, CU/XLPE/LS0H or CU/MICA/XLPE/LS0H Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

IEC 60502-1

Conductor Cross Sectional Area	Reference Method 4 (enclosed in conduit insulated wall etc)	Reference Method 3 (enclosed in conduit on a wall or ceiling, or in trunking)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray) or Reference Method 13 (free air)	
	one 3-cores cable or one 4-cores cable 3-phase a.c.	one 2-cores cable single - phase a.c. or d.c.	one 3-cores cable or one 4-cores cable 3-phase a.c.	one 2-cores cable single - phase a.c. or d.c.	one 3-cores cable or one 4-cores cable 3-phase a.c.	one 2-cores cable single - phase a.c. or d.c.	one 3-cores cable or one 4-cores cable 3-phase a.c.
1	2	3	4	5	6	7	8
mm	A	A	A	A	A	A	A
1.5	16.5	22	19.5	24	22	26	23
2.5	22	30	26	33	30	36	32
4	30	40	35	45	40	49	42
6	38	51	44	58	52	63	54
10	51	69	60	80	71	86	75
16	68	91	80	107	96	115	100
25	89	119	105	138	119	149	127
35	109	146	128	171	147	185	158
50	130	175	154	209	179	225	192
70	164	221	194	269	229	289	246
95	197	265	233	328	278	352	298
120	227	305	268	382	322	410	346
150	259	334	300	441	371	473	399
185	295	384	340	506	424	542	456
240	346	459	398	599	500	641	538
300	396	532	455	693	576	741	621
400	-	625	536	803	667	865	741

Table XN1-B : Voltage Drop (Per Amp Per Meter) [CU/XLPE/LS0H or CU/MICA/XLPE/LS0H Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

IEC 60502-1

Conductor Cross Sectional Area	2-cores cable d. c.	2-cores cable single-phase a. c.			3-cores or 4-cores cable 3-phase a. c.		
1	2	3			4		
mm	mV/A/ m	mV/A/m			mV/A/m		
1.5	31		31			27	
2.5	19		19			16	
4	12		12			10	
6	7.9		7.9			6.8	
10	4.7		4.7			4.0	
16	2.9		2.9			2.5	
		r	x	z	z	x	z
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.30
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.20	0.140	0.24	0.175	0.125	0.21
300	0.155	0.16	0.140	0.21	0.140	0.120	0.185
400	0.120	0.13	0.140	0.19	0.115	0.120	0.165

Note: r = conductor resistance at operating temperature, x = reactance, z = impeciance

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CURRENT RATING AND VOLTAGE DROP

XLPE (or LS0H) Insulated Cables
Single-Core, Unarmoured

Master Tec® Wire & Cable

Single-core Cables with XLPE (or LS0H) Insulation, with or without PVC (or LS0H) Outer Sheath 450/750V or 600/1000V

Table XN2-A : Current-Carrying Capacity (Amp) [CU/LS0H, CU/XLPE/PVC, CU/XLPE/LS0H, CU/MICA/LS0H or CU/MICA/XLPE/LS0H Cables]

Conductor Operating Temperature : 90°C — **BS 7211**

Ambient Temperature : 30°C — **IEC 60502-1**

Conductor Cross Sectional Area	Reference Method 4 (enclosed in conduit in thermally insulated wall etc)		Reference Method 3 (enclosed in conduit on a wall or in trunking etc)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray, horizontal or vertical)		Reference Method 12 (free air)		
									Horizontal Flat Spaced	Vertical Flat Spaced	Trefoil
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. or 3 cables three phase	2 cables, single-phase a.c. or d.c. or 3 cables three phase	3 cables, trefoil 3-phase a.c.
1	2	3	4	5	6	7	8	9	10	11	12
mm	A	A	A	A	A	A	A	A	A	A	A
1.5	18	17	22	19	25	23	-	-	-	-	-
2.5	24	23	30	26	34	31	-	-	-	-	-
4	33	30	40	35	46	41	-	-	-	-	-
6	43	39	51	45	59	54	-	-	-	-	-
10	58	53	71	63	81	74	-	-	-	-	-
16	76	70	95	85	109	99	-	-	-	-	-
25	100	91	126	111	143	130	158	140	183	163	138
35	125	111	156	138	176	161	195	176	226	203	171
50	149	135	189	168	228	209	293	215	274	246	209
70	189	170	240	214	293	268	308	279	351	318	270
95	228	205	290	259	355	326	375	341	426	389	330
120	263	235	336	299	413	379	436	398	495	453	385
150	300	270	375	328	476	436	505	461	570	524	445
185	341	306	426	370	545	500	579	530	651	600	511
240	400	358	500	433	644	590	686	630	769	711	606
300	459	410	573	493	743	681	794	730	886	824	701
400	-	-	684	584	868	793	915	849	1055	994	820
500	-	-	783	666	990	904	1044	973	1228	1150	936
630	-	-	900	764	1130	1033	1191	1115	1423	1338	1069

Table XN2-B : Voltage Drop (per Amp Per Meter) [CU/LS0H, CU/XLPE/PVC, CU/XLPE/LS0H or CU/MICA/XLPE/LS0H Cables]

Conductor Operating Temperature : 90°C — **BS 7211**

Ambient Temperature : 30°C — **IEC 60502-1**

Conductor Cross Sectional Area	2 cables d.c.	2 cables, single-phase a.c.						3 or 4 cables, 3-phase a.c.								
		Reference Methods 3 and 4 (enclosed in conduit etc. in or on a wall)			Reference Methods 1 and 11 (clipped direct or on trays touching)			Reference Methods 3 and 4 (enclosed in conduit etc. in or on a wall)			Reference Methods 1, 11 and 12 (in trefoil)			Reference Methods 1 and 11 (flat and touching)		
1	2	3			4			5			6			7		
mm	mV/A/m	mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m		
1.5	31		31			27			27			27			27	
2.5	19		19			16			16			16			16	
4	12		12			10			10			10			10	
6	7.8		7.9			6.8			6.8			6.8			6.8	
10	4.7		4.7			4.7			4.0			4.0			4.0	
16	2.9		2.9			2.9			2.5			2.5			2.5	
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
25	1.85	1.85	0.31	1.90	1.85	0.190	1.85	1.60	0.27	1.65	1.600	0.165	1.600	1.600	0.190	1.600
35	1.35	1.35	0.29	1.35	1.35	0.180	1.35	1.15	0.25	1.15	1.150	0.155	1.150	1.150	0.180	1.150
50	0.99	1.00	0.29	1.05	0.99	0.180	1.00	0.87	0.25	0.90	0.860	0.155	0.870	0.860	0.180	0.870
70	0.68	0.70	0.28	0.75	0.68	0.175	0.71	0.60	0.24	0.65	0.590	0.150	0.610	0.590	0.175	0.620
95	0.49	0.51	0.27	0.58	0.49	0.170	0.52	0.44	0.23	0.50	0.430	0.145	0.450	0.430	0.170	0.460
120	0.39	0.41	0.26	0.48	0.39	0.165	0.43	0.35	0.23	0.42	0.340	0.140	0.370	0.340	0.165	0.380
150	0.32	0.33	0.26	0.43	0.32	0.165	0.36	0.29	0.23	0.37	0.280	0.140	0.310	0.280	0.165	0.320
185	0.25	0.27	0.26	0.37	0.26	0.165	0.30	0.23	0.23	0.32	0.220	0.140	0.260	0.220	0.165	0.280
240	0.19	0.21	0.26	0.33	0.20	0.160	0.25	0.185	0.22	0.29	0.170	0.140	0.220	0.170	0.165	0.240
300	0.155	0.175	0.25	0.31	0.16	0.160	0.22	0.150	0.22	0.27	0.140	0.140	0.195	0.135	0.160	0.210
400	0.12	0.140	0.25	0.29	0.13	0.155	0.20	0.125	0.22	0.25	0.110	0.135	0.175	0.110	0.160	0.195
500	0.093	0.120	0.25	0.28	0.105	0.155	0.185	0.10	0.22	0.24	0.090	0.135	0.160	0.088	0.160	0.180
630	0.072	0.100	0.25	0.27	0.086	0.155	0.175	0.088	0.21	0.23	0.074	0.135	0.150	0.071	0.160	0.170

Note: r = conductor resistance at operating temperature, x = reactance, z = impeciance

CURRENT RATING AND VOLTAGE DROP

XLPE Insulated Cables
Single-Core, Armoured

Single-core Cables with XLPE (or LS0H) Insulation, Armoured, PVC or LS0H Outer Sheath 600/1000V

Table XA1-A : Current-Carrying Capacity (Amp) [CU/XLPE/PVC/AWA/PVC, CU/XLPE/LS0H/AWA/LS0H, CU/MICA/XLPE/LS0H/AWA/LS0H Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

BS 6724
BS 7846
IEC 60502-1

Conductor Cross Sectional Area	Reference Method 1 (clipped direct)		Reference Method 11 (on perforated cables tray)		Reference Method 12 (free air)	In Single-Way Ducts		Laid Direct In Ground	
	2 cables single-phase a.c. or d.c flat and touching	3 or 4 cables 3-phase a.c. flat and touching	2 cables single-phase a.c. or d.c flat and touching	3 or 4 cables 3-phase a.c. flat and touching	3 cables 3-phase a.c. trefoil touching	2 cables single-phase a.c. or d.c ducts touching	3 cables 3-phase a.c. trefoil touching	2 cables single-phase a.c. or d.c touching	3 cables 3-phase a.c. trefoil touching
1	2	3	4	5	6	7	8	9	10
mm	A	A	A	A	A	A	A	A	A
50	237	220	253	232	222	255	235	275	235
70	303	277	322	293	285	310	280	340	290
95	367	333	389	352	346	365	330	405	345
120	425	383	449	405	402	410	370	460	389
150	488	437	516	462	463	445	405	510	435
185	557	496	587	524	529	485	440	580	490
240	656	579	689	612	625	550	500	670	560
300	755	662	792	700	720	610	550	750	630
400	853	717	899	767	815	640	580	830	700
500	962	791	1016	851	918	690	620	910	770
630	1082	861	1146	935	1027	750	670	1000	840

Table XA1-B : Voltage Drop (Per Amp Per Meter) [CU/XLPE/PVC/AWA/PVC, CU/XLPE/LS0H/AWA/LS0H, CU/MICA/XLPE/LS0H/AWA/LS0H Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

BS 6724
BS 7846
IEC 60502-1

Conductor Cross Sectional Area	2 cables d.c.	2 cables single-phase a.c.			3 or 4 cables three-phase a.c.						2 cables single-phase a.c.		3 or 4 cables, 3-phase a.c. touching	
		Reference Methods 1 & 11 (touching)			Reference Methods 1, 11 & 12 (in trefoil touching)			Reference Methods 1 & 11 (flat touching)			In Ducts	In Ground	In Ducts	In Ground
1	2	3			4			5			6	7	8	9
mm	mV/A/m	mV/A/m			mV/A/m			mV/A/m			mV/A/m	mV/A/m	mV/A/m	mV/A/m
		r	x	z	r	x	z	r	x	z				
50	0.98	0.99	0.21	1	0.86	0.18	0.87	0.84	0.25	0.88	1.10	0.99	0.93	0.86
70	0.67	0.68	0.20	0.71	0.59	0.17	0.62	0.60	0.25	0.65	0.80	0.70	0.70	0.61
95	0.49	0.51	0.195	0.55	0.44	0.17	0.47	0.46	0.24	0.52	0.65	0.53	0.56	0.46
120	0.39	0.41	0.190	0.45	0.35	0.165	0.39	0.38	0.24	0.44	0.55	0.43	0.48	0.37
150	0.31	0.33	0.185	0.38	0.29	0.160	0.33	0.31	0.23	0.39	0.50	0.37	0.43	0.32
185	0.25	0.27	0.185	0.33	0.23	0.160	0.28	0.26	0.23	0.34	0.45	0.31	0.39	0.27
240	0.195	0.21	0.180	0.28	0.18	0.155	0.24	0.21	0.22	0.30	0.40	0.26	0.35	0.23
300	0.155	0.17	0.175	0.25	0.145	0.150	0.21	0.17	0.22	0.28	0.37	0.24	0.32	0.21
400	0.115	0.145	0.170	0.22	0.125	0.150	0.195	0.160	0.21	0.27	0.35	0.21	0.30	0.19
500	0.093	0.125	0.170	0.21	0.105	0.145	0.180	0.145	0.20	0.25	0.33	0.20	0.28	0.18
630	0.073	0.105	0.165	0.195	0.092	0.145	0.170	0.135	0.195	0.24	0.30	0.19	0.26	0.17

Note: r = conductor resistance at operating temperature, x = reactance, z = impeciance

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CURRENT RATING AND VOLTAGE DROP

XLPE Insulated Cables
Multi-Core, Armoured

Master Tec® Wire & Cable

Multi-core Cables with XLPE (or LS0H) Insulation, Armoured, PVC or LS0H Outer Sheath 600/1000V

Table XA2-A : Current-Carrying Capacity (Amp) [CU/XLPE/PVC/SWA/PVC, CU/XLPE/LS0H/SWA/LS0H, CU/MICA/XLPE/LS0H/SWA/LS0H Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

BS 6724
BS 7846
IEC 60502-1

Conductor Cross Sectional Area	Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated horizontal cable tray) or Reference Method 13 (free air)		In Single-Way Ducts		Laid Direct In Ground	
	one 2-cores cable single-phase a.c. or d.c.	one 3-cores or 4-cores cable 3-phase a.c.	one 2-cores cable single-phase a.c. or d.c.	one 3-cores or 4-cores cable	one 2-cores cable single-phase a.c. or d.c.	one 3-cores or 4-cores cable 3-phase a.c.	one 2-cores cable single-phase a.c. or d.c.	one 3-cores or 4-cores cable 3-phase a.c.
1	2	3	4	5	6	7	8	9
mm	A	A	A	A	A	A	A	A
1.5	27	23	29	25	-	23	-	28
2.5	36	31	39	33	-	30	-	36
4	49	42	52	44	-	40	-	48
6	62	53	66	56	-	50	-	60
10	85	73	90	78	-	65	-	80
15	110	94	115	99	115	94	140	115
25	146	124	152	131	145	125	180	150
35	180	154	188	162	175	150	215	180
50	219	187	228	197	210	175	255	215
70	279	238	291	251	260	215	315	265
95	338	289	354	304	310	260	380	315
120	392	335	410	353	355	300	430	360
160	451	386	472	406	400	335	480	405
185	515	441	539	463	455	380	540	460
240	607	520	636	546	520	440	630	530
300	689	599	732	628	590	495	700	590
400	787	673	847	728	660	560	790	670

Table XA2-B : Voltage Drop (Per Amp Per Meter) [CU/XLPE/PVC/SWA/PVC, CU/XLPE/LS0H/SWA/LS0H, CU/MICA/XLPE/LS0H/SWA/LS0H Cables]

Conductor Operating Temperature : 90°C
Ambient Temperature : 30°C

BS 6724
BS 7846
IEC 60502-1

Conductor Cross Sectional Area	2-cores cable d.c.	2-cores single-phase a.c.			3-cores or 4 cores, 3-phase a.c.			2 cores, single-phase a.c.	3 cores or 4 cores, 3-phase a.c.
								In Ducts or In Ground	In Ducts or In Ground
1	2	3			4			5	6
mm	mV/A/m	mV/A/m			mV/A/m			mV/A/m	mV/A/m
1.5	31.0	31.0			27.0			31.0	25.0
2.5	19.0	19.0			16.0			19.0	15.0
4	12.0	12.0			10.0			12.0	9.7
6	7.9	7.9			6.8			7.9	6.5
10	4.7	4.7			4.0			4.7	3.9
16	2.9	2.9			2.5			2.9	2.6
		r	x	z	r	x	z		
25	1.850	1.850	0.160	1.900	1.600	0.140	1.650	1.900	1.600
35	1.350	1.350	0.155	1.350	1.150	0.135	1.150	1.350	1.200
50	0.980	0.990	0.155	1.000	0.860	0.135	0.870	1.000	0.870
70	0.670	0.670	0.150	0.690	0.590	0.130	0.600	0.690	0.610
95	0.490	0.500	0.150	0.520	0.430	0.130	0.450	0.520	0.450
120	0.390	0.400	0.145	0.420	0.340	0.130	0.370	0.420	0.360
150	0.310	0.320	0.145	0.350	0.280	0.125	0.300	0.350	0.300
185	0.250	0.260	0.145	0.290	0.220	0.125	0.260	0.290	0.250
240	0.195	0.200	0.140	0.240	0.175	0.125	0.210	0.240	0.210
300	0.155	0.160	0.140	0.210	0.140	0.120	0.185	0.210	0.190
400	0.120	0.130	0.140	0.190	0.115	0.120	0.165	0.190	0.180

Note: r = conductor resistance at operating temperature, x = reactance, z = impeciance

CURRENT RATING AND VOLTAGE DROP

PVC Insulated Cables
Single-Core, Unarmoured

Single-core Cables with PVC Insulation, Unarmoured, with or without Sheath 450/750V or 600/1000V

Table PN1-A : Current-Carrying Capacity (Amp) [CU/PVC or CU/PVC/PVC Cables]

Conductor Operating Temperature : 70°C
Ambient Temperature : 30°C

BS 6004
BS 6346
SS 358
IEC 60502-1

Conductor Cross Sectional Area	Reference Method 4 (enclosed in conduit in thermally insulating wall etc)		Reference Method 3 (enclosed in conduit on a wall or in trunking etc)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray, horizontal or vertical)		Reference Method 12 (free air)		
									Horizontal Flat Spaced	Vertical Flat Spaced	Trefoil
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. or flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. or 3 cables 3-phase a.c.	2 cables, single-phase a.c. or d.c. or 3 cables 3-phase a.c.	3 cables, trefoil 3-phase a.c.
1	2	3	4	5	6	7	8	9	10	11	12
mm	A	A	A	A	A	A	A	A	A	A	A
BS 6004											
1	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
BS 6346											
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	316	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

Table PN1-B : Voltage Drop (Per Amp Per Meter) [CU/PVC or CU/PVC/PVC Cables]

Conductor Operating Temperature : 70°C
Ambient Temperature : 30°C

BS 6004
BS 6346
SS 358
IEC 60502-1

Conductor Cross Sectional Area	2 cables d.c	2 cables single-phase a.c.									3 or 4 cables 3-phase a.c.											
		Reference Methods 3 & 4 (enclosed in conduit etc. in or on a wall)			Reference Methods 1 & 11 (clipped direct or on tray, touching)			Reference Method 12 (space)			Reference Methods 3 & 4 (enclosed in conduit etc. in or on a wall)			Reference Methods 1, 11 & 12 (in trefoil)			Reference Methods 1 & 11 (flat touching)			Reference Method 12 (flat spaced)		
1	2	3			4			5			6			7			8			9		
mm	mV/A/m	mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m		
1	44	44			44			44			38			38			38			38		
1.5	29	29			29			29			25			25			25			25		
2.5	18	18			18			18			15			15			15			15		
4	11	11			11			11			9.5			9.5			9.5			9.5		
6	7.3	7.3			7.3			7.3			6.4			6.4			6.4			6.4		
10	4.4	4.4			4.4			4.4			3.8			3.8			3.8			3.8		
16	2.8	2.8			2.8			2.8			2.4			2.4			2.4			2.4		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
25	1.75	1.80	0.33	1.80	1.75	0.20	1.75	1.75	0.29	1.80	1.50	0.29	1.55	1.50	0.175	1.60	150	0.25	1.55	1.50	0.32	1.55
35	1.25	1.30	0.31	1.30	1.25	0.195	1.25	1.25	0.28	1.30	1.10	0.27	1.10	1.10	0.170	1.10	1.10	0.24	1.10	1.10	0.32	1.15
50	0.93	0.95	0.30	1.00	0.93	0.190	0.95	0.93	0.28	0.97	0.81	0.26	0.85	0.80	0.165	0.82	0.80	0.24	0.84	0.80	0.32	0.86
70	0.63	0.65	0.29	0.72	0.63	0.185	0.66	0.63	0.27	0.69	0.56	0.25	0.61	0.55	0.160	0.57	0.55	0.24	0.60	0.55	0.31	0.63
95	0.46	0.49	0.28	0.56	0.47	0.180	0.50	0.47	0.27	0.54	0.42	0.24	0.48	0.41	0.155	0.43	0.41	0.23	0.47	0.40	0.31	0.51
120	0.36	0.39	0.27	0.47	0.37	0.175	0.41	0.37	0.26	0.45	0.33	0.23	0.41	0.32	0.150	0.36	0.32	0.23	0.40	0.32	0.30	0.44
150	0.29	0.31	0.27	0.41	0.30	0.175	0.34	0.29	0.26	0.39	0.27	0.23	0.36	0.26	0.150	0.30	0.26	0.23	0.34	0.26	0.30	0.40
185	0.23	0.25	0.27	0.37	0.24	0.170	0.29	0.24	0.26	0.35	0.22	0.23	0.32	0.21	0.145	0.26	0.21	0.22	0.31	0.21	0.30	0.36
240	0.180	0.195	0.26	0.33	0.185	0.165	0.25	0.185	0.25	0.31	0.17	0.23	0.29	0.160	0.145	0.22	0.160	0.22	0.27	0.160	0.29	0.34
300	0.145	0.160	0.26	0.31	0.150	0.165	0.22	0.150	0.25	0.29	0.14	0.23	0.27	0.130	0.140	0.190	0.130	0.22	0.25	0.130	0.29	0.32
400	0.105	0.130	0.26	0.29	0.120	0.160	0.20	0.115	0.25	0.27	0.12	0.22	0.25	0.105	0.140	0.175	0.105	0.21	0.24	0.100	0.29	0.31
500	0.086	0.110	0.26	0.28	0.098	0.155	0.185	0.093	0.24	0.26	0.10	0.22	0.25	0.086	0.135	0.160	0.086	0.21	0.23	0.081	0.29	0.30
630	0.068	0.094	0.25	0.27	0.081	0.155	0.175	0.076	0.24	0.25	0.08	0.22	0.24	0.072	0.135	0.150	0.072	0.21	0.22	0.066	0.28	0.29

Note: r = conductor resistance at operating temperature, x = reactance, z = impeciance

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CURRENT RATING AND VOLTAGE DROP

PVC Insulated Cables
Single-Core, Armoured

Master Tec® Wire & Cable

Single-core Cables with PVC Insulation, Armoured, PVC Outer Sheath 600/1000V

Table PA1-A : Current Carrying Capacity (Amp) [CU/PVC/PVC/AWA/PVC Cables]

Conductor Operating Temperature : 70°C
Ambient Temperature : 30°C

BS 6346

Conductor Cross Sectional Area	Reference Method 1 (clipped direct)		Reference Method 11 (on perforated cable tray		Reference Method 12 (free air)					Direct In Ground		In Single Way Ducts	
	2 cables single-phase a.c. or d.c.	3 or 4 cables 3-phase a.c.	2 cables single-phase a.c. flat touching	3 or 4 cables 3-phase a.c. flat & touching	3 or 4 cables 3-phase a.c. horizontal flat spaced	3 or 4 cables 3-phase a.c. vertical flat spaced	3 or 4 cables 3-phase a.c. 3 cables trefoil	2 cables d.c. spaced horizontol	2 cables d.c. spaced vertical	2 cables flat touching	3 cables trefoil touching	2 cables duct touching	3 cables trefoil touching
1	2	3	4	5	6	7	8	9	10	11	12	13	14
mm	A	A	A	A	A	A	A	A	A	A	A	A	A
50	193	179	205	189	230	212	181	229	216	238	203	216	199
70	245	225	259	238	286	263	231	294	279	292	248	262	241
95	296	269	313	285	338	313	280	357	340	349	297	308	282
120	342	309	360	327	385	357	324	415	396	396	337	341	311
150	393	352	413	373	436	405	373	479	458	443	376	375	342
195	447	399	469	422	490	456	425	548	525	497	423	414	375
240	525	465	550	492	566	528	501	648	622	571	485	463	419
300	594	515	624	547	616	578	567	748	719	640	542	509	459
400	687	575	723	618	674	632	657	885	851	708	600	545	489
500	763	622	805	673	721	676	731	1035	997	780	660	585	523
600	843	669	891	728	771	723	809	1218	1174	856	721	632	563

Table PA1-B : Voltage Drop (Per Amp Per Meter) [CU/PVC/PVC/AWA/PVC Cables]

Conductor Operating Temperature : 70°C
Ambient Temperature : 30°C

BS 6346

Conductor Cross Sectional Area	2 cables d.c.	2 cables single-phase a.c.						3 or 4 cables 3-phase a.c.									Direct In Ground		In Single Way Ducts	
		Reference Methods 1 & 11 (touching)			Reference Method 12 (space*)			Reference Methods 1, 11 & 12 (in trefoil touching)			Reference Methods 1 & 11 (flat touching)			Reference Method 12 (flat spaced*)			2 cables flat touching	3 cables trefoil touching	2 cables flat touching	3 cables trefoil touching
1	2	3			4			5			6			7			8	9	10	11
mm	mV/A/m	mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m			mV/A/m	mV/A/m	mV/A/m	mV/A/m
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z				
50	0.93	0.93	0.22	0.95	0.92	0.30	0.97	0.80	0.190	0.82	0.79	0.26	0.84	0.79	0.34	0.86	0.97	0.82	1.00	0.88
70	0.63	0.64	0.21	0.68	0.66	0.29	0.72	0.56	0.180	0.58	0.57	0.25	0.62	0.59	0.32	0.68	0.67	0.58	0.76	0.66
95	0.46	0.48	0.20	0.52	0.51	0.28	0.58	0.42	0.175	0.45	0.44	0.25	0.50	0.47	0.31	0.57	0.50	0.44	0.61	0.53
120	0.36	0.39	0.195	0.43	0.42	0.28	0.50	0.33	0.17	0.37	0.36	0.24	0.43	0.40	0.30	0.50	0.42	0.36	0.54	0.47
150	0.29	0.31	0.19	0.37	0.34	0.27	0.44	0.27	0.165	0.32	0.30	0.24	0.38	0.34	0.30	0.45	0.36	0.31	0.48	0.42
185	0.23	0.26	0.19	0.32	0.29	0.27	0.39	0.22	0.160	0.27	0.25	0.23	0.34	0.29	0.29	0.41	0.31	0.27	0.44	0.38
240	0.180	0.20	0.180	0.27	0.23	0.26	0.35	0.175	0.160	0.23	0.20	0.23	0.30	0.24	0.28	0.37	0.26	0.23	0.40	0.34
300	0.145	0.160	0.180	0.24	0.190	0.26	0.32	0.140	0.155	0.21	0.165	0.22	0.28	0.20	0.28	0.34	0.23	0.20	0.37	0.32
400	0.105	0.140	0.175	0.22	0.180	0.24	0.30	0.120	0.150	0.195	0.160	0.21	0.26	0.21	0.25	0.32	0.22	0.19	0.34	0.30
500	0.086	0.120	0.170	0.21	0.165	0.23	0.29	0.105	0.145	0.180	0.145	0.20	0.25	0.190	0.24	0.30	0.20	0.18	0.32	0.28
630	0.068	0.105	0.165	0.195	0.150	0.22	0.27	0.091	0.145	0.170	0.135	0.195	0.23	0.175	0.22	0.28	0.19	0.16	0.30	0.26

Note: r = conductor resistance at operating temperature, x = reactance, z = impeciance

CURRENT RATING AND VOLTAGE DROP

PVC Insulated Cables
Multi-Core, Unarmoured

Multi-core Cables with PVC Insulation, Unarmoured, PVC Outer Sheath 600/1000V

Table PN2-A : Current-Carrying Capacity (Amp) [CU/PVC/PVC Cables]

Conductor Operating Temperature : 70°C
Ambient Temperature : 30°C

BS 6004
BS 6346
IEC 60502-1

Conductor Cross Sectional Area	Reference Method 4 (enclosed in an insulated wall etc)		Reference Method 3 (enclosed in conduit on a wall or ceiling, or in trunking)		Reference Method 1 (clipped direct)		Reference Method 11 (on perforated cable tray) or Reference Method 13 (free air)	
	one 2-cores cable* single-phase a.c. or d.c.	one 3-cores cable* or one 4-cores cable 3-phase a.c.	one 2-cores cable* single-phase a.c. or d.c.	one 3-cores cable* or one 4-cores cable 3-phase a.c.	one 2-cores cable* single-phase a.c. or d.c.	one 3-cores cable* or one 4-cores cable 3-phase a.c.	one 2-cores cable* single-phase a.c. or d.c.	one 3-cores cable* or one 4-cores cable 3-phase a.c.
1	2	3	4	5	6	7	8	9
mm	A	A	A	A	A	A	A	A
1	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
50	110	99	133	118	168	144	180	153
70	139	125	168	149	213	184	232	196
95	167	150	201	179	258	223	282	238
120	192	172	232	206	299	259	328	276
150	219	196	258	225	344	299	379	319
185	248	223	294	255	392	341	434	364
240	291	261	344	297	461	403	514	430
300	334	298	394	339	530	464	593	497
400	-	-	470	402	634	557	715	597

Table PN2-B : Voltage Drop (Per Amp Per Meter) [CU/PVC/PVC Cables]

Conductor Operating Temperature : 70°C
Ambient Temperature : 30°C

Conductor Cross Sectional Area	2-cores cable a.c.	2-cores cable single-phase a.c.			3-cores or 4-cores cable 3-phase a.c.		
1	2	3			4		
mm	mV/A/m	mV/A/m			mV/A/m		
1	44	44			38		
1.5	29	29			25		
2.5	18	18			15		
4	11	11			9.5		
6	7.3	7.3			6.4		
10	4.4	4.4			3.8		
16	2.8	2.8			2.4		
		r	x	z	r	x	z
25	1.75	1.75	0.170	1.75	1.50	0.145	1.50
35	1.25	1.25	0.165	1.25	1.10	0.145	1.10
50	0.93	0.93	0.165	0.94	0.80	0.140	0.81
70	0.63	0.63	0.160	0.65	0.55	0.140	0.57
95	0.46	0.47	0.155	0.50	0.41	0.135	0.43
120	0.36	0.38	0.155	0.41	0.33	0.135	0.35
150	0.29	0.30	0.155	0.34	0.26	0.130	0.29
185	0.23	0.25	0.150	0.29	0.21	0.130	0.25
240	0.180	0.190	0.150	0.24	0.165	0.130	0.21
300	0.145	0.155	0.145	0.21	0.135	0.130	0.185
400	0.105	0.115	0.145	0.185	0.100	0.125	0.160

Note: r = conductor resistance at operating temperature, x = reactance, z = impeciance

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CURRENT RATING AND VOLTAGE DROP

PVC Insulated Cables
Multi-Core, Armoured

Master Tec® Wire & Cable

Multi-core Cables with PVC Insulation, Armoured, PVC Outer Sheath 600/1000V

Table PA2-A : Current Carrying Capacity (Amp) [CU/PVC/PVC/SWA/PVC Cables]

Conductor Operating Temperature : 70°C
Ambient Temperature : 30°C

BS 6346

Conductor Cross Sectional Area	Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated horizontal cable tray) or Reference Method 13 (free air)		Direct In Ground		In Single Way Ducts	
	one 2-cores cable single-phase a.c. or d.c.	one 3-cores or 4-cores cable 3-phase a.c.	one 2-cores cable single-phase a.c. or d.c.	one 3-cores or 4-cores cable 3-phase a.c.	2-cores	3-cores or 4-cores	2-cores	3-cores or 4-cores
1	2	3	4	5	6	7	8	9
mm	A	A	A	A	A	A	A	A
1.5	21	18	22	19	32	27	26	22
2.5	28	25	31	26	41	35	34	29
4	38	33	41	35	55	47	45	38
6	49	42	53	45	69	59	57	48
10	67	58	72	62	92	78	76	64
16	89	77	97	83	119	101	98	83
25	118	102	128	110	158	132	129	107
35	145	125	157	135	190	159	154	126
50	175	151	190	163	225	188	183	153
70	222	192	241	207	277	233	225	190
95	269	231	291	251	332	279	271	228
120	310	267	336	290	377	317	309	260
150	356	306	386	332	422	355	346	292
185	405	348	439	376	478	401	393	331
240	476	409	516	445	551	462	455	382
300	547	469	592	510	616	517	510	428
400	621	540	683	590	693	580	574	490

Table PA2-B : Voltage Drop (Per Amp Per Meter) [CU/PVC/PVC/SWA/PVC Cables]

Conductor Operating Temperature : 70°C
Ambient Temperature : 30°C

BS 6346

Conductor Cross Sectional Area	2-cores cable a.c.	2-cores cable single-phase a.c.			3-cores or 4-cores cable 3-phase a.c.			Direct In Ground		In Single Way Ducts	
								2-cores	3-cores or 4-cores	2-cores	3-cores or 4-cores
1	2	3			4			5	6	7	8
mm	mV/A/m	mV/A/m			mV/A/m			mV/A/m	mV/A/m	mV/A/m	mV/A/m
1.5	29	29			25			29	25	29	25
2.5	18	18			15			18	15	18	15
4	11	11			9.5			11	9.5	11	9.5
6	7.3	7.3			6.4			7.4	6.4	7.4	6.4
10	4.4	4.4			3.8			4.4	3.8	4.4	3.8
16	2.8	2.8			2.4			2.8	2.4	2.8	2.4
		r	x	z	r	x	z				
25	1.75	1.75	0.17	1.75	1.5	0.145	1.5	1.7	1.5	1.7	1.5
35	1.25	1.25	0.165	1.25	1.1	0.145	1.1	1.3	1.1	1.3	1.1
50	0.93	0.93	0.165	0.94	0.8	0.14	0.81	0.94	0.82	0.94	0.82
70	0.63	0.63	0.16	0.65	0.55	0.14	0.57	0.66	0.57	0.66	0.57
95	0.46	0.47	0.155	0.5	0.41	0.135	0.43	0.49	0.42	0.49	0.42
120	0.36	0.38	0.155	0.41	0.33	0.135	0.35	0.4	0.35	0.4	0.35
150	0.29	0.30	0.155	0.34	0.26	0.13	0.29	0.34	0.29	0.34	0.29
185	0.23	0.25	0.15	0.29	0.21	0.13	0.25	0.29	0.25	0.29	0.25
240	0.18	0.19	0.15	0.24	0.165	0.13	0.21	0.24	0.21	0.24	0.21
300	0.145	0.155	0.145	0.21	0.135	0.13	0.185	0.21	0.18	0.21	0.18
400	0.105	0.115	0.145	0.185	0.1	0.125	0.16	0.19	0.17	0.19	0.17

Note: r = conductor resistance at operating temperature, x = reactance, z = impeciance

CURRENT CARRYING CAPACITY

The current carrying capacity given in this catalogue based on the condition shown below:

Table 1 : Condition For Current Carrying Capacity	
Ambient Temperature	30°C
Ground Temperature	15°C
Soil Thermal Resistivity	1.2 km/W
Depth of Laying	0.5 m
Phase	3-phase a.c.
Frequency	50 Hz
Load Factor	100%

Table 2 : Rating Factors For Ambient Air Temperatures							
Temperature (°C)	25	30	35	40	45	50	55
70°C Thermoplastics	1.03	1.00	0.94	0.87	0.79	0.71	0.61
90°C Thermosetting	1.02	1.00	0.96	0.91	0.87	0.82	0.76

Table 3 : Rating Factors For Ambient Ground Temperatures									
Temperature (°C)	10	15	20	25	30	35	40	45	50
70°C Thermoplastics	1.05	1.00	0.95	0.90	0.85	0.80	0.73	0.68	0.60
90°C Thermosetting	1.03	1.00	0.96	0.92	0.89	0.86	0.82	0.77	0.73

Table 4 : Rating Factors For Soil Thermal Resistivity For Buried Cables								
Thermal Resistivity (K.m/W)	0.5	0.8	1	1.2	1.5	2	2.5	3
Buried In Duct	1.13	1.06	1.04	1.00	0.97	0.93	0.88	0.85
Direct Buried	1.34	1.16	1.07	1.00	0.91	0.80	0.71	0.64

Table 5 : Rating Factors For Depth For Buried Cables (up to 1kV)									
Depth (m)	0.5	0.7	1	1.25	1.5	1.75	2	2.5	3
Buried In Duct	1.00	0.98	0.96	0.94	0.93	0.92	0.91	0.90	0.89
Direct Buried	1.00	0.97	0.94	0.92	0.91	0.90	0.89	0.87	0.86

Table 6 : Rating Factors For Depth For Buried Cables (1.9/3.3kV or 1.8/3kV)									
Depth (m)	0.5	0.7	1	1.25	1.5	1.75	2	2.5	3
Buried In Duct	1.00	1.00	0.98	0.96	0.95	0.94	0.92	0.91	0.90
Direct Buried	1.00	1.00	0.97	0.95	0.94	0.92	0.90	0.89	0.88

Table 7 : Flexible Conductors (Class 5)		
Cables Size	Current Carrying Capacity	Voltage Drop
≤ 16 mm²	0.95	1.10
≥ 25 mm²	0.97	1.06

Table 8 : Min. Bending Radius (mm)

To install the cables safely without damaging the electrical and physical properties of the cables, the tabulated minimum bending radius must be

Type of Product	Construction	Overall Dia. (mm)	Min Bending Radius (mm)
PVC Insulated Power / Control Cables	Non Armoured	Any	8D
	Armoured	Any	10D
XLPE (or LS0H) Insulated Power / Control Cable	Non Armoured	Any	8D
	Armoured	Any	10D
Fire Resistant Cables	Non Armoured	Any	10D
	Armoured	Any	10D

Note: D means the overall diameter of cable (mm)

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Technical Data Rating Factors for Other Temperature Conditions

Table 9 : Correction Factors for Ambient Temperatures & Group Installation
Correction for groups of more than one circuit of single-core cables, or more than one multi-core cables

Reference Methods of Installtion		Correction Factor (Cg) — Number of Circuits or Multi-Core Cables													
		2	3	4	5	6	7	8	9	10	12	14	16	18	20
enclosed (Method 3 or 4) or bunched and clipped to a non-metaliic surface (Method 1)		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 (Method 1)	Touching	0.85	0.79	0.75	0.73	0.72	0.72	0.71	0.70	-	-	-	-	-	-
	Spaced*	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 multi-core on a perforated metal cable tray, vertical or horizontal (Method 11)	Touching	0.86	0.81	0.77	0.75	0.74	0.73	0.73	0.72	0.71	0.70	-	-	-	-
	Spaced*	0.91	0.89	0.88	0.87	0.87	-	-	-	-	-	-	-	-	-
single layer single-core on a perforated metal cable tray, touching (Method 11)	Horizontal	0.90	0.85	-	-	-	-	-	-	-	-	-	-	-	-
	Vertical	0.85	-	-	-	-	-	-	-	-	-	-	-	-	-
single layer multi-core touching on ladder support		0.86	0.82	0.80	0.79	0.78	0.78	0.78	0.77	-	-	-	-	-	-

Space means a clearance between adjacent surfaces of at least one cable diameter (De.) Where the horizontal clearance between adjacent cables exceeds 2 De, no correction factor need to be applied.

Note : 1. The factors in the table are applicable to a group of cables all of the same sizes. The value of the current derived from application of the appropriate factors is the maximum continuous current to be carried by any of the cables in the group.

2. If, due to known operating conditions, a cable is expected to carry not more than 30% of it's grouped rating, it may be ignored for the purpose of obtaining the rating factor for the rest of the group.

   For example, a group of N loaded cables would normally require a group reduction factor of Cg applied to the tabulated Lt. However if M cables in the group carry loads which are not greater than 0.3Cg Lt. amperes, the other cables can be sized by using the group rating factor corresponding to (N-M) cables.

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