



Strive to power up everyone's life

Low Voltage Power Cable Aluminium Conductor



www.mastertec-wirecable.com





COMPANY INTRODUCTION

MASTER TEC WIRE & CABLE

Founded in 2005, with a decade wire and cable manufacturing experience. Our current factory located at Rembia Industrial Park, Alor gajah Melaka. Our Sale Corporate Office at Oasis Square Ara Damansara, Selangor. Currently we have 4 manufacturing plants in Melaka. Our principally involved in the manufacturing and distribution of power cables, control cables, instrumentation 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 and control and instrumentation cables. Through our brand, customers recognize our products and they are given the assurance and confidence of our products' quality, performance, safety and durability.

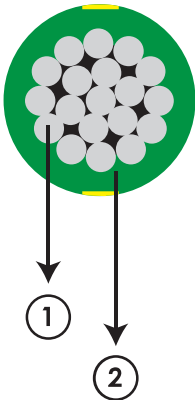
TABLE OF CONTENT

CABLE TYPE	CORE	VOLTAGE (KV)	STANDARD	PAGE
AL / PVC (NAYA)	1 CORE	600 / 1000	IEC 60502-1	1
AL / PVC / PVC (NAYY)	1 CORE	600 / 1000	IEC 60502-1, MS 2100	2
AL / PVC / PVC (NAYY)	1 CORE ~ 4 CORE	600 / 1000	IEC 60502-1, MS 2102	3 - 5
AL / PVC / PVC / AWA / PVC (NAYRY)	1 CORE	600 / 1000	IEC 60502-1, MS 2101	6
AL / PVC / PVC / SWA / PVC (NAYRY)	2 CORE ~ 4 CORE	600 / 1000	IEC 60502-1, MS 2103	7 - 9
AL / XLPE / PVC (NA2XY)	1 CORE ~ 4 CORE	600 / 1000	IEC 60502-1	10 - 13
AL / XLPE / PVC / AWA / PVC (NA2XRY)	1 CORE	600 / 1000	IEC 60502-1	14
AL / XLPE / PVC / SWA / PVC (NA2XRY)	2 CORE ~ 4 CORE	600 / 1000	IEC 60502-1	15 - 17
Technical Data				18 - 19

*** DISCLAIMER**

The information appearing in this catalogue is for general information purposes only. The information is provided by **MASTER TEC** and whilst it is our endeavour to keep the information updated and factual, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the catalogue or the information, products, services, or related graphics contained on the catalogue for any purpose. Any reliance you place on such information is therefore strictly at your own risk. In no event will we be liable for any loss or damage including without limitation, indirect or consequential loss or damage, or any loss or damage whatsoever arising from loss of data or profits arising out of, or in connection with, the use of this catalogue.

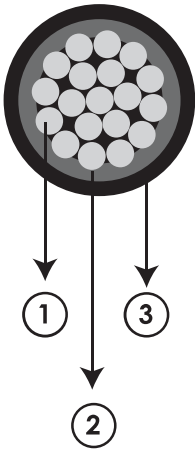
AL / PVC - 600 / 1000 VOLT [NAYA]		IEC 60502-1
1-CORE : ALUMINIUM CONDUCTOR AND PVC INSULATED CABLE		
Application : This cable is used in light fitting, and in switching and control equipment. It can be installed in conduit, in cable trunking and on cable trays		Construction : 1 - Aluminium Conductor 2 - PVC Insulated
Voltage Rating : 600 / 1000 Volt		Insulation : Brown, Black, Grey, Blue, Colour Green with double yellow line
Specification : IEC 60502-1		
Conductor Operating Temperature : 70°C		



DIMENSIONAL & MECHANICAL DATA							
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness	Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Overall Diameter	Net Weight		
mm²	min	shape		mm	Kg/Km	mm	m
16	7	compacted	1.0	6.8	73	54.4	1,000
25	7	compacted	1.2	8.4	111	67.2	1,000
35	7	compacted	1.2	9.5	141	76	1,000
50	7	compacted	1.4	11.0	190	88	1,000
70	12	compacted	1.4	12.5	255	100	1,000
95	15	compacted	1.6	14.8	350	118.4	1,000
120	15	compacted	1.6	15.9	423	127.2	1,000
150	15	compacted	1.8	17.8	522	142.4	1,000
185	30	compacted	2.0	20.2	658	161.6	1,000
240	30	compacted	2.2	22.7	852	181.6	1,000
300	30	compacted	2.4	25.2	1052	201.6	1,000
400	53	compacted	2.6	28.2	1336	225.6	1,000
500	53	compacted	2.8	31.7	1692	254	1,000

ELECTRICAL DATA					
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C	Voltage Drop	
	DC Conductor Max	Insulation Min (Calculated)		Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A	mV/A/m	
16	1.910	5.833	73	4.5	3.9
25	1.200	5.407	97	2.9	2.5
35	0.868	4.838	120	2.1	1.8
50	0.641	4.898	128	1.6	1.4
70	0.443	4.158	166	1.15	0.96
95	0.320	3.970	203	0.86	0.74
120	0.253	3.611	237	0.7	0.61
150	0.206	3.631	274	0.59	0.52
185	0.164	3.596	316	0.5	0.46
240	0.125	3.541	375	0.42	0.4
300	0.100	3.396	434	0.37	0.36
400	0.078	3.310	507	0.35	0.34
500	0.0605	3.123	590	0.32	0.32

Note: For condition of current carrying capacity please refer to Table 1 Page 18



AL / PVC / PVC - 600 / 1000 VOLT (NAYY)		IEC 60502-1, MS 2100	
1-CORE : ALUMINIUM CONDUCTOR, PVC INSULATED AND PVC SHEATHED CABLE			
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 - Aluminium Conductor 2 - PVC Insulated 3 - PVC Sheathed Cable	
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1, MS 2100			
Conductor Operating Temperature : 70°C		Insulation : Black or as per order	

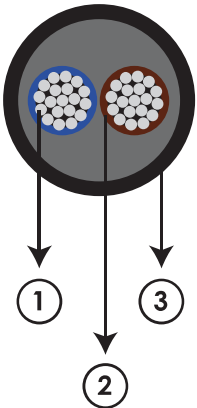
DIMENSIONAL & MECHANICAL DATA								
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm		mm	Kg/Km	m	
16	7	compacted	1.00	1.4	9.6	128	77	1000
25	7	compacted	1.20	1.4	11.2	178	90	1000
35	7	compacted	1.20	1.4	12.3	215	98	1000
50	7	compacted	1.40	1.4	13.8	274	110	1000
70	12	compacted	1.40	1.4	15.3	349	122	1000
95	15	compacted	1.60	1.5	17.8	468	142	1000
120	15	compacted	1.60	1.5	18.9	549	151	1000
150	15	compacted	1.80	1.6	21.0	671	168	1000
185	30	compacted	2.00	1.7	23.6	837	189	1000
240	30	compacted	2.20	1.7	26.1	1051	209	1000
300	30	compacted	2.40	1.8	28.8	1284	230	1000
400	53	compacted	2.60	1.9	32.0	1609	256	1000
500	53	compacted	2.80	2.1	35.9	2030	287	1000
630	54	compacted	2.80	2.2	39.7	2512	318	1000

Note: * shape can be sector or compacted

ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min	In Air (Trefoil Touching)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.9100	5.8330	73	48	4.5	3.9
25	1.2000	5.4070	97	62	2.9	2.5
35	0.8680	4.8380	120	77	2.1	1.8
50	0.6410	4.8980	128	104	1.6	1.4
70	0.4430	4.1580	166	133	1.15	0.96
95	0.3200	3.9700	203	161	0.86	0.74
120	0.2530	3.6110	237	186	0.7	0.61
150	0.2060	3.6310	274	204	0.59	0.52
185	0.1640	3.5960	316	230	0.5	0.46
240	0.1250	3.5410	375	269	0.42	0.4
300	0.1000	3.3960	434	306	0.37	0.36
400	0.0778	3.3100	507	352	0.35	0.4
500	0.0605	3.123	590	405	0.32	0.32
630	0.0469	2.776	680	462	0.3	0.31

Note: For condition of current carrying capacity please refer to Table 1 Page 18

AL / PVC / PVC - 600 / 1000 VOLT (NAYY)		IEC 60502-1, MS 2102	
2-CORE : ALUMINIUM CONDUCTOR, PVC INSULATED AND PVC SHEATHED 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- Aluminium Conductor 2 - PVC Insulated 3 - PVC Sheathed	
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1, MS 2102			
Conductor Operating Temperature : 70°C		Insulation : 2-core (Brown, Blue) Colour (Red, Black)	



DIMENSIONAL & MECHANICAL DATA

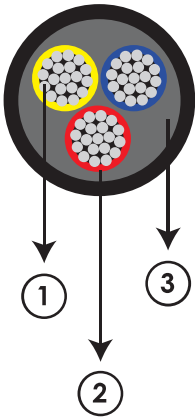
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm		mm	Kg/Km	m	
16	7	compacted	1.0	1.8	17.2	386	138	1000
25	7	compacted	1.2	1.8	20.4	548	163	1000
35	7	compacted	1.2	1.8	22.6	672	181	1000
50	7	compacted	1.4	1.8	25.6	868	205	1000
70	12	compacted	1.4	1.8	28.6	1105	229	1000
95	15	compacted	1.6	2.0	33.6	1513	269	1000
120	15	compacted	1.6	2.1	36.0	1775	288	1000
150	15	compacted	1.8	2.2	40.0	2180	320	1000
185	30	compacted	2.0	2.4	45.2	2757	362	1000
240	30	compacted	2.2	2.5	50.4	3474	403	1000
300	30	compacted	2.4	2.7	55.8	4262	446	1000

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min	In Air (On Perforated Cable Tray)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	5.833	61	48	4.5	3.9
25	1.200	5.407	78	62	2.9	2.5
35	0.868	4.838	96	77	2.1	1.8
50	0.641	4.898	117	92	1.55	1.35
70	0.443	4.158	150	116	1.05	0.92
95	0.320	3.970	183	139	0.79	0.68
120	0.253	3.611	212	160	-	0.55
150	0.206	3.631	245	176	-	0.44
185	0.164	3.596	280	199	-	0.37
240	0.125	3.541	330	232	-	0.3
300	0.100	3.396	381	265	-	0.25

Note: For condition of current carrying capacity please refer to Table 1 Page 18





AL / PVC / PVC - 600 / 1000 VOLT (NAPP)		IEC 60502-1, MS 2102	
3-CORE : ALUMINIUM CONDUCTOR, PVC INSULATED AND PVC SHEATHED CABLE			
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 - Aluminium Conductor 2 - PVC Insulated 3 - PVC Sheathed	
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1, MS 2102			
Conductor Operating Temperature : 70°C		Insulation : 3-core (Brown, Black & Grey) Colour (Red, Yellow & Blue)	

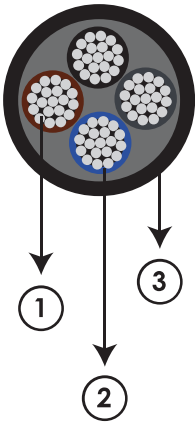
DIMENSIONAL & MECHANICAL DATA								
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm		mm	Kg/Km	m	
16	7	compacted	1.0	1.8	18.3	451	146	1000
25	7	compacted	1.2	1.8	21.8	646	174	1000
35	7	compacted	1.2	1.8	24.1	790	193	1000
50	7	compacted*	1.4	1.8	27.4	1029	216	1000
70	12	compacted*	1.4	1.9	30.8	1332	246	1000
95	15	compacted*	1.6	2.1	36.1	1812	289	1000
120	15	compacted*	1.6	2.1	38.5	2122	308	1000
150	15	compacted*	1.8	2.3	43.0	2625	344	500
185	30	compacted*	2.0	2.5	48.6	3315	389	500
240	30	compacted*	2.2	2.7	54.4	4218	435	500
300	30	compacted*	2.4	2.9	60.2	5176	482	500

note: *shape can be compacted or sector

ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying		Voltage drop	
	DC Conductor Max	Insulation Min	In Air (on Perforated Cable Tray)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	5.833	61	48	4.5	3.9
25	1.200	5.407	78	62	2.9	2.5
35	0.868	4.838	96	77	2.1	1.8
50	0.641	4.898	117	92	1.55	1.35
70	0.443	4.158	150	116	1.05	0.92
95	0.320	3.97	183	139	0.79	0.68
120	0.253	3.611	212	160	-	0.55
150	0.206	3.631	245	176	-	0.44
185	0.164	3.596	280	199	-	0.37
240	0.125	3.541	330	232	-	0.3
300	0.100	3.396	381	265	-	0.25

Note: For condition of current carrying capacity please refer to Table 1 Page 18

AL / PVC / PVC - 600 / 1000 VOLT (NAYY)		IEC 60502-1, MS 2102	
4-CORE : ALUMINIUM CONDUCTOR, PVC INSULATED AND PVC SHEATHED CABLE			
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 - Aluminium Conductor 2 - PVC Insulated 3 - PVC Sheathed	
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1, MS 2102			
Conductor Operating Temperature : 70°C		Insulation : 4-core (Brown, Black, Grey & Blue) Colour (Red, Yellow, Blue & Black)	



DIMENSIONAL & MECHANICAL DATA

Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm		mm	Kg/Km	m	
16	7	compacted	1.0	1.8	20.1	551	161	1000
25	7	compacted	1.2	1.8	23.9	788	191	1000
35	7	compacted	1.2	1.8	26.6	974	213	1000
50	7	sector*	1.4	1.8	27.8	1041	222	1000
70	12	sector*	1.4	1.9	31.3	1362	250	1000
95	15	sector*	1.6	2.1	36.2	1831	290	500
120	15	sector*	1.6	2.1	39.3	2199	314	500
150	15	sector*	1.8	2.3	43.4	2688	347	500
185	30	sector*	2.0	2.5	50.2	3359	402	500
240	30	sector*	2.2	2.7	54.4	4277	435	500
300	30	sector*	2.4	3.0	63.2	5333	506	500

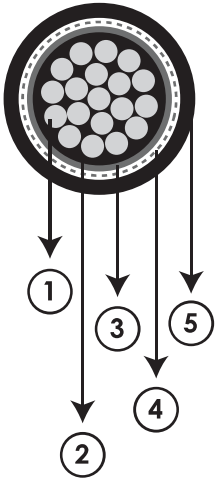
note: *shape can be compacted or sector

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying		Voltage drop	
	DC Conductor Max	Insulation Min	In Air (on Perforated Cable Tray)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	5.8330	61	48	4.5	3.9
25	1.200	5.4070	78	62	2.9	2.5
35	0.868	4.8380	96	77	2.1	1.8
50	0.641	3.7230	117	92	1.55	1.35
70	0.443	3.1390	150	116	1.05	0.92
95	0.320	3.0310	183	139	0.79	0.68
120	0.253	2.7850	212	160	-	0.55
150	0.206	2.7910	245	176	-	0.44
185	0.164	2.7300	280	199	-	0.37
240	0.125	2.6780	330	232	-	0.3
300	0.100	2.7220	381	265	-	0.25

Note: For condition of current carrying capacity please refer to Table 1 Page 18





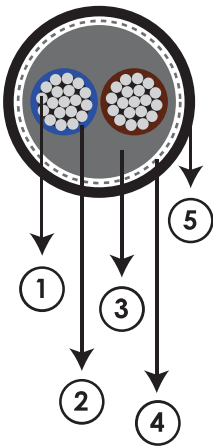
AL / PVC / PVC / AWA / PVC - 600 / 1000 VOLT (NAYRY)		IEC 60502-1, MS 2101	
1-CORE : ALUMINIUM CONDUCTOR, PVC INSULATED, PVC BEDDING, ALUMINIUM WIRES ARMoured AND PVC SHEATHED CABLE			
Application : This cable is primarily used for main power supply such as in switchgears and power station. It can be installed in cable ducts, cable trenches and cable trunking. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.		Construction : 1- Aluminium Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed	
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1, MS 2101			
Conductor Operating Temperature : 70°C		Insulation Colour : Black or as per order	

DIMENSIONAL & MECHANICAL DATA								
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm		mm	Kg/Km	m	
16	7	compacted	1.0	1.8	16.2	333	162	1000
25	7	compacted	1.2	1.8	17.8	410	178	1000
35	7	compacted	1.2	1.8	18.9	461	189	1000
50	7	compacted	1.4	1.8	20.4	547	204	1000
70	12	compacted	1.4	1.8	21.9	644	219	1000
95	15	compacted	1.6	1.8	24.2	792	242	1000
120	15	compacted	1.6	1.8	25.3	891	253	1000
150	15	compacted	1.8	1.8	27.2	1033	272	1000
185	30	compacted	2.0	1.9	29.8	1239	298	1000
240	30	compacted	2.2	1.9	32.3	1490	323	500
300	30	compacted	2.4	2.10	36.0	1855	360	500
400	53	compacted	2.6	2.20	39.6	2279	396	500
500	53	compacted	2.8	2.30	43.3	2756	433	500
630	54	compacted	2.8	2.50	48.3	3450	483	500

ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min	In Air (Trefoil Touching)	Clipped Direct (Flat Touching)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	5.8330	-	-	4.5	3.9
25	1.200	5.4070	-	-	2.9	2.5
35	0.868	4.8380	-	-	2.1	1.8
50	0.641	4.8980	131	133	1.6	1.4
70	0.443	4.1580	168	168	1.15	0.96
95	0.320	3.9700	205	202	0.86	0.74
120	0.253	3.6110	238	233	0.7	0.61
150	0.206	3.6310	275	267	0.59	0.52
185	0.164	3.5960	315	303	0.5	0.46
240	0.125	3.5410	372	354	0.42	0.4
300	0.100	3.3960	430	405	0.37	0.36
400	0.078	3.3100	497	452	0.35	0.4
500	0.061	3.1230	568	501	0.32	0.32
630	0.0605	3.123	568	-	0.3	0.31

Note: For condition of current carrying capacity please refer to Table 1 Page 18

AL / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NAYRY)		IEC 60502-1, MS 2103	
2-CORE : ALUMINIUM CONDUCTOR, PVC INSULATED, PVC BEDDING, GALVANIZED STEEL WIRES ARMoured AND PVC SHEATHED CABLE			
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. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.		Construction : 1 - Aluminium Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed	
Voltage Rating : 600 / 1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1, MS 2103			
Conductor Operating Temperature : 70°C		Insulation : 2-core (Brown & Blue) Colour (Red & Black)	



DIMENSIONAL & MECHANICAL DATA

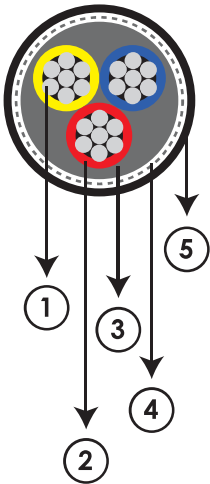
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm		mm	Kg/Km	m	
16	7	compacted	1.0	1.8	22.5	793	225	1000
25	7	compacted	1.2	1.8	26.4	1132	264	1000
35	7	compacted	1.2	1.8	28.6	1303	286	1000
50	7	compacted	1.4	1.8	31.8	1564	318	1000
70	12	compacted	1.4	1.9	36.0	2065	360	1000
95	15	compacted	1.6	2.1	41.2	2608	412	1000
120	15	compacted	1.6	2.1	44.0	2950	440	1000
150	15	compacted	1.8	2.3	49.6	3854	496	1000
185	30	compacted	2.0	2.5	54.8	4541	548	1000
240	30	compacted	2.2	2.7	60.2	5371	602	500
300	30	compacted	2.4	3.0	65.8	6297	658	500
400	53	compacted	2.6	3.30	72.4	7474	724	500

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying		Voltage drop	
	DC Conductor Max	Insulation Min	In Air (on Perforated Cable Tray)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	5.833	61	-	4.5	3.9
25	1.200	5.407	80	77.5	2.9	2.5
35	0.868	4.838	99	93.2	2.1	1.8
50	0.641	4.898	119	110.1	1.55	1.35
70	0.443	4.158	151	135.5	1.05	0.92
95	0.320	3.97	186	159.8	0.79	0.68
120	0.253	3.611	216	181.5	-	0.55
150	0.206	3.631	250	204.5	-	0.44
185	0.164	3.596	287	229.9	-	0.37
240	0.125	3.541	342	263.8	-	0.3
300	0.100	3.396	399	298.9	-	0.25
400	0.0778	3.31	462	346.1	-	0.21

Note: For condition of current carrying capacity please refer to Table 1 Page 18





AL / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NAYRY)		IEC 60502-1, MS 2103	
3-CORE : ALUMINIUM CONDUCTOR, PVC INSULATED, PVC BEDDING, GALVANIZED STEEL WIRES ARMoured AND PVC SHEATHED CABLE			
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. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.		Construction : 1 - Aluminium Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed	
Voltage Rating : 600 / 1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1, MS 2103			
Conductor Operating Temperature : 70°C		Insulation : 3-core (Brown, Black & Grey) Colour (Red, Yellow & Blue)	

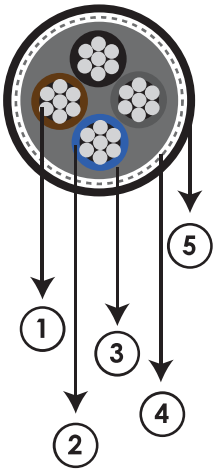
DIMENSIONAL & MECHANICAL DATA								
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm		mm	Kg/Km	m	
16	7	compacted	1.0	1.8	24.3	1008	243	1000
25	7	compacted	1.2	1.8	27.8	1286	278	1000
35	7	compacted	1.2	1.8	30.3	1495	303	1000
50	7	compacted	1.4	1.8	34.6	2020	346	1000
70	12	compacted	1.4	1.9	38.9	2481	389	1000
95	15	compacted	1.6	2.1	44.1	3092	441	1000
120	15	compacted	1.6	2.1	47.9	3843	479	1000
150	15	compacted	1.8	2.3	52.6	4522	526	500
185	30	compacted	2.0	2.5	58.1	5336	581	500
240	30	compacted	2.2	2.7	64.3	6450	643	500
300	30	compacted	2.4	3.0	70.1	7552	701	500
400	53	compacted	2.6	3.50	78.9	9890	789	500

note: *shape can be compacted or sector

ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying		Voltage drop	
	DC Conductor Max	Insulation Min	In Air (on Perforated Cable Tray)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	5.833	61	-	4.5	3.9
25	1.200	5.407	80	77.5	2.9	2.5
35	0.868	4.838	99	93.2	2.1	1.8
50	0.641	4.898	119	110.1	1.55	1.35
70	0.443	4.158	151	135.5	1.05	0.92
95	0.320	3.97	186	159.8	0.79	0.68
120	0.253	3.611	216	181.5	-	0.55
150	0.206	3.631	250	204.5	-	0.44
185	0.164	3.596	287	229.9	-	0.37
240	0.125	3.541	342	263.8	-	0.3
300	0.100	3.396	399	298.9	-	0.25
400	0.0778	3.31	462	346.1	-	0.21

Note: For condition of current carrying capacity please refer to Table 1 Page 18

AL / PVC / PVC / SWA / PVC - 600 / 1000 VOLT (NAYRY)		IEC 60502-1, MS 2103	
4-CORE : ALUMINIUM CONDUCTOR, PVC INSULATED, PVC BEDDING, GALVANIZED STEEL WIRES ARMoured AND PVC SHEATHED CABLE			
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. The armoured cable is ideal for ground emplacement if a higher electrical or mechanical protection is required.		Construction : 1 - Aluminium Conductor 2 - PVC Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC sheathed	
Voltage Rating : 600 / 1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1, MS 2103			
Conductor Operating Temperature : 70°C		Insulation : 4-core (Brown, Black, Grey & Blue) Colour (Red, Yellow, Blue & Black)	



DIMENSIONAL & MECHANICAL DATA

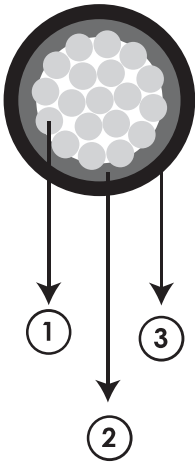
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min	Standard Delivery Length
			Insulation	Outer Sheath	Overall Diameter	Net Weight		
mm²	min	shape	mm		mm	Kg/Km	m	
16	7	compactd	1.0	1.8	26.1	1154	261	1000
25	7	compactd	1.2	1.8	30.1	1503	301	1000
35	7	compactd	1.2	1.8	33.0	1760	330	1000
50	7	compactd	1.4	1.8	34.8	2173	348	1000
70	12	compactd	1.4	1.9	38.9	2691	389	1000
95	15	compactd	1.6	2.1	43.6	3328	436	1000
120	15	compactd	1.6	2.1	47.9	4186	479	1000
150	15	compactd	1.8	2.3	52.4	4944	524	500
185	30	compactd	2.0	2.5	59.2	5908	592	500
240	30	compactd	2.2	2.7	63.8	7112	638	500
300	30	compactd	2.4	3.0	72.6	8604	726	500
400	53	compactd	2.6	3.70	86.60	11905	866	500

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying		Voltage drop	
	DC Conductor Max	Insulation Min	In Air (on Perforated Cable Tray)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	5.8330	61	-	4.5	3.9
25	1.200	5.4070	80	77.5	2.9	2.5
35	0.868	4.8380	99	93.2	2.1	1.8
50	0.641	3.7230	119	110.1	1.55	1.35
70	0.443	3.1390	151	135.5	1.05	0.92
95	0.320	3.0310	186	159.8	0.79	0.68
120	0.253	2.7850	216	181.5	-	0.55
150	0.206	2.7910	250	204.5	-	0.44
185	0.164	2.7300	287	229.9	-	0.37
240	0.125	2.6780	342	263.8	-	0.3
300	0.100	2.7220	399	298.9	-	0.25
400	0.0778	3.31	462	346.1	-	0.21

Note: For condition of current carrying capacity please refer to Table 1 Page 18





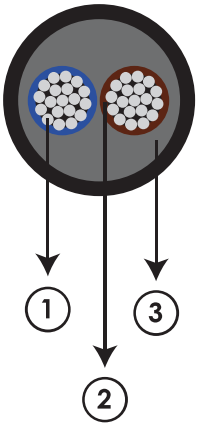
AL / XLPE / PVC - 600 / 1000 VOLT (NA2XY)		IEC 60502-1
1-CORE : ALUMINIUM CONDUCTOR, XLPE INSULATED AND PVC INSULATED CABLE		
Application : This cable is used in light fitting, and in switching and control equipment. It can be installed in conduit, in cable trunking and on cable trays		Construction : 1 - Aluminium Conductor 2 - XLPE Insulated 3 - PVC Sheathed
Voltage Rating : 600 / 1000 Volt		Sheathed Colour : Black or as per order
Specification : IEC 60502-1		
Conductor Operating Temperature : 90°C		Insulation Colour : Natural or as per order

DIMENSIONAL & MECHANICAL DATA							
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min
			Insulation	Outer Sheath	Overall Diameter	Net Weight	
mm²	min	shape	mm		mm	Kg/Km	mm
16	7	compacted	0.7	1.4	9.0	107	72
25	7	compacted	0.9	1.4	10.6	149	84.8
35	7	compacted	0.9	1.4	11.7	184	93.6
50	7	compacted	1.0	1.4	13.0	231	104
70	12	compacted	1.1	1.4	14.7	305	117.6
95	15	compacted	1.1	1.4	16.6	393	132.8
120	15	compacted	1.2	1.5	18.1	483	144.8
150	15	compacted	1.4	1.5	20.0	583	160
185	30	compacted	1.6	1.6	22.60	730	180.8
240	30	compacted	1.7	1.7	25.1	928	200.8
300	30	compacted	1.8	1.8	27.6	1133	220.8
400	53	compacted	2.0	1.9	30.8	1430	246.4
500	53	compacted	2.2	2.0	34.5	1803	276
630	53	compacted	2.4	2.2	38.9	2300	311.2

ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage drop	
	DC Conductor Max	Insulation Min (Calculated)	In Air (on Perforated Cable Tray)	Clipped Direct (Flat Touching or Trefoil)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.9100	431.337	-	94	-	4.2
25	1.2000	418.172	97	123	-	2.7
35	0.8680	375.935	120	136	-	1.95
50	0.6410	365.456	159	148	1.72	1.48
70	0.4430	334.042	206	174	1.21	1.02
95	0.3200	282.301	253	211	0.91	0.78
120	0.2530	275.886	296	245	0.74	0.64
150	0.2060	286.849	343	283	0.61	0.54
185	0.1640	292.239	395	323	0.53	0.47
240	0.1250	279.470	471	382	0.43	0.41
300	0.1000	259.033	547	440	0.38	0.37
400	0.0778	259.033	638	594	-	0.34
500	0.0605	248.310	743	692	-	0.32
630	0.0469	238.780	849	791	-	0.31

Note: For condition of current carrying capacity please refer to Table 1 Page 18

AL / XLPE / PVC - 600 / 1000 VOLT (NA2XY)		IEC 60502-1	
2-CORE : ALUMINIUM CONDUCTOR, XLPE INSULATED 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- Aluminium Conductor 2 - XLPE Insulated 3 - PVC Sheathed	
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1			
Conductor Operating Temperature : 90°C		Insulation : 2-core (Brown & Blue) Colour (Red & Black)	



DIMENSIONAL & MECHANICAL DATA							
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min
			Insulation	Outer Sheath	Overall Diameter	Net Weight	
mm²	min	shape	mm		mm	Kg/Km	m
16	7	compacted	0.7	1.8	1.8	270	14.4
25	7	compacted	0.9	1.8	1.8	383	14.4
35	7	compacted	0.9	1.8	1.8	471	14.4
50	7	compacted	1.0	1.8	1.8	594	14.4
70	12	compacted	1.1	1.8	1.8	784	14.4
95	15	compacted	1.1	1.9	1.9	1025	15.2
120	15	compacted	1.2	2.0	2.0	1251	16.0
150	15	compacted	1.4	2.1	2.2	1552	17.6
185	30	compacted	1.6	2.2	2.3	1939	18.4
240	30	compacted	1.7	2.4	2.5	2456	20.0
300	30	compacted	1.8	2.6	2.6	2976	20.8
400	53	compacted	2.0	2.9	2.9	3784	23.2



ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min (Calculated)	In Air (Perforated Cable Tray)	Clipped Direct	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	431.337	77	76	4.8	4.2
25	1.200	418.172	97	90	3.1	2.7
35	0.868	375.935	120	112	2.2	1.95
50	0.641	365.456	146	136	1.165	1.45
70	0.443	334.042	187	174	1.15	0.97
95	0.320	282.301	227	211	0.84	0.72
120	0.253	275.886	263	245	-	0.58
150	0.206	286.849	304	283	-	0.47
185	0.164	292.239	347	323	-	0.39
240	0.125	279.470	409	382	-	0.31
300	0.100	259.033	471	440	-	0.26
400	0.078	259.033	546	510	-	0.21

Note: For condition of current carrying capacity please refer to Table 1 Page 18



+606 316 1111



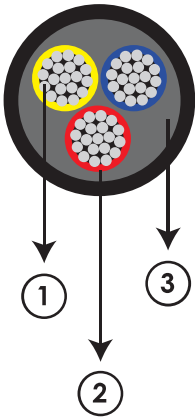
+606 316 2888



www.mastertec-wirecable.com



sales@mastertec.my



AL / XLPE / PVC - 600 / 1000 VOLT (NA2XY)		IEC 60502-1
3-CORE : ALUMINIUM CONDUCTOR, XLPE INSULATED 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- Aluminium conductor 2 - XLPE Insulated 3- PVC Sheathed
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order
Specification : IEC 60502-1		
Conductor Operating Temperature : 90°C		Insulation : 3-core (Brown, Black & Grey) Colour (Red, Yellow & Blue)

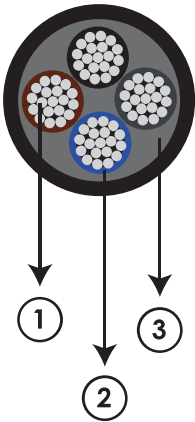
DIMENSIONAL & MECHANICAL DATA							
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min
			Insulation	Outer Sheath	Overall Diameter	Net Weight	
mm²	min	shape	mm		mm	Kg/Km	m
16	7	compacted	0.7	1.8	17.2	329	138
25	7	compacted	0.9	1.8	20.7	474	166
35	7	compacted	0.9	1.8	23.0	586	184
50	7	compacted*	1.0	1.8	25.8	744	206
70	12	compacted*	1.1	1.9	30.1	1017	241
95	15	compacted*	1.1	2.0	34.3	1325	274
120	15	compacted*	1.2	2.1	37.4	1621	299
150	15	compacted*	1.4	2.3	41.8	2001	334
185	30	compacted*	1.6	2.4	47.2	2503	378
240	30	compacted*	1.7	2.6	52.6	3187	421
300	30	compacted*	1.8	2.8	57.9	3890	463
400	53	compacted*	2.0	3.0	64.8	4925	518

Note: * shape can be sector or compacted

ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min	In Air (Perforated Cable Tray)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.9100	431.337	77	76	4.8	4.2
25	1.2000	418.172	97	90	3.1	2.7
35	0.8680	375.935	120	112	2.2	1.95
50	0.6410	375.935	146	136	1.165	1.45
70	0.4430	365.456	187	174	1.15	0.97
95	0.3200	282.301	227	211	0.84	0.72
120	0.2530	275.886	263	245	-	0.58
150	0.2060	286.849	304	283	-	0.47
185	0.1640	292.239	347	323	-	0.39
240	0.1250	279.470	409	382	-	0.31
300	0.1000	259.033	471	440	-	0.26
400	0.0778	259.033	546	510	-	0.21

Note: For condition of current carrying capacity please refer to Table 1 Page 18

AL / XLPE / PVC - 600 / 1000 VOLT (NA2XY)		IEC 60502-1	
4-CORE : ALUMINIUM CONDUCTOR, XLPE INSULATED 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- Aluminium Conductor 2 - XLPE Insulated 3 - PVC Sheathed	
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1			
Conductor Operating Temperature : 90°C		Insulation : 4-core (Brown, Black, Grey & Blue) Colour (Red, Yellow, Blue & Black)	



DIMENSIONAL & MECHANICAL DATA

Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Radius Min
			Insulation	Outer Sheath	Overall Diameter	Net Weight	
mm²	min	shape	mm		mm	Kg/Km	m
16	7	compacted	0.7	1.8	18.8	401	150
25	7	compacted	0.9	1.8	22.7	583	182
35	7	compacted	0.9	1.8	25.3	724	202
50	7	sector*	1.0	1.8	25.7	846	206
70	12	sector*	1.1	1.9	29.7	1156	238
95	15	sector*	1.1	2.0	33.4	1509	267
120	15	sector*	1.2	2.1	36.9	1864	295
150	15	sector*	1.4	2.2	41.0	2281	328
185	30	sector*	1.6	2.4	47.4	2881	379
240	30	sector*	1.7	2.6	51.5	3661	412
300	30	sector*	1.8	2.9	60.3	4570	482
400	53	sector*	2.0	3.0	63.7	5703	510

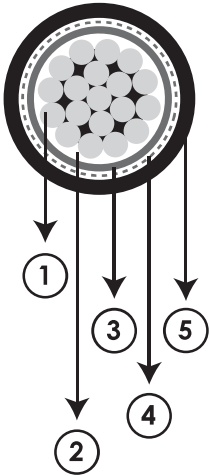
Note: * shape can be sector or compacted

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min	In Air (Perforated Cable Tray)	Trunking (in Conduit on Wall)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.9100	431.337	77	76	4.8	4.2
25	1.2000	418.172	97	90	3.1	2.7
35	0.8680	375.935	120	112	2.2	1.95
50	0.6410	274.103	146	136	1.165	1.45
70	0.4430	250.458	187	174	1.15	0.97
95	0.3200	213.079	227	211	0.84	0.72
120	0.2530	213.435	263	245	-	0.58
150	0.2060	220.421	304	283	-	0.47
185	0.1640	220.192	347	323	-	0.39
240	0.1250	210.271	409	382	-	0.31
300	0.1000	206.688	471	440	-	0.26
400	0.0778	195.053	546	510	-	0.21

Note: For condition of current carrying capacity please refer to Table 1 Page 18





AL / XLPE / PVC / AWA / PVC - 600 / 1000 VOLT (NA2XRY)		IEC 60502-1
1-CORE : ALUMINIUM CONDUCTOR, XLPE INSULATED, PVC BEDDING, ALUMINIUM WIRE ARMoured AND PVC SHEATHED CABLE		
Application : This cable is primarily used for main power supply. It can be installed in cable ducts, in cabletrunking, on cable trays, and on cable ladders.		Construction : 1- Aluminium conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order
Specification : IEC 60502-1		
Conductor Operating Temperature : 90°C		Insulation : Natural or as per order

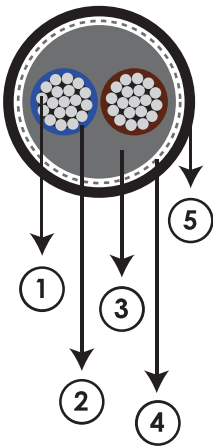
DIMENSIONAL & MECHANICAL DATA								
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness			Approximately		Bending Radius Min
			Insulation	AL Wire Armour	Outer Sheath	Overall Diameter	Net Weight	
mm²	min	shape	mm			mm	Kg/Km	m
16	7	compacted	0.7	1.6	1.8	15.6	302	156.0
25	7	compacted	0.9	1.6	1.8	17.2	372	172.0
35	7	compacted	0.9	1.6	1.8	18.3	420	183.0
50	7	compacted	1.0	1.6	1.8	19.6	493	196.0
70	12	compacted	1.1	1.6	1.8	21.3	590	213.0
95	15	compacted	1.0	1.6	1.8	23.2	713	232.0
120	15	compacted	1.2	1.6	1.8	24.5	815	245.0
150	15	compacted	1.4	1.6	1.8	26.4	944	264.0
185	30	compacted	1.6	1.6	1.8	28.8	1119	288.0
240	30	compacted	1.7	1.6	1.9	31.3	1355	313.0
300	30	compacted	1.8	2.0	2.0	34.6	1671	346.0
400	53	compacted	2.0	2.0	2.1	38.2	2056	382.0
500	53	compacted	2.2	2.0	2.3	42.1	2519	421.0
630	53	compacted	2.4	2.5	2.4	47.3	3210	473.0

Note: * shape can be sector or compacted

ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Short Circuit Current of Conductor at 1.0 sec	
	DC Conductor Max	Insulation Min	In Air (Trefoil Touching)	In Ground (Ducting or Direct)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.91	431.337	-	-	-	-
25	1.200	418.172	-	-	-	-
35	0.868	375.935	-	-	-	-
50	0.641	365.456	162	177	1.6	1.4
70	0.443	334.042	207	218	1.15	1.05
95	0.320	282.301	252	260	0.9	0.83
120	0.253	275.886	292	296	0.74	0.7
150	0.206	286.849	337	331	0.62	0.6
185	0.164	292.239	391	374	0.54	0.53
240	0.125	279.470	465	433	0.45	0.46
300	0.100	259.033	540	486	0.4	0.41
400	0.0778	259.033	625	563	0.36	0.38
500	0.0605	248.310	714	629	0.34	0.35
630	0.0469	238.780	801	701	0.31	0.33

Note: For condition of current carrying capacity please refer to Table 1 Page 18

AL / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (NA2XRY)		IEC 60502-1
2-CORE : ALUMINIUM CONDUCTOR, XLPE INSULATED, GALVANIZED STEEL WIRE ARMoured 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- Aluminium Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed	
Voltage Rating : 600/1000 Volt	Sheathed Colour : Black or as per order	
Specification : IEC 60502-1		
Conductor Operating Temperature : 90°C	Insulation : 2-core (Brown, Blue) Colour (Red, Black)	



DIMENSIONAL & MECHANICAL DATA

Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Diameter min
			Insulation	Outer Sheath	Overall Diameter	Net Weight	
mm²	min	shape	mm		mm	Kg/Km	m
16	7	compacted	0.7	1.8	21.3	704	213
25	7	compacted	0.9	1.8	25.2	1027	252
35	7	compacted	0.9	1.8	27.4	1189	274
50	7	compacted*	1.0	1.9	30.2	1403	302
70	12	compacted*	1.1	2.0	34.6	1915	346
95	15	compacted*	1.1	2.2	39.2	2356	392
120	15	compacted*	1.2	2.3	42.4	2707	424
150	15	compacted*	1.4	2.4	47.4	3515	474
185	30	compacted*	1.6	2.6	53.0	4201	530
240	30	compacted*	1.7	2.8	58.0	4957	580
300	30	compacted*	1.8	3.0	63.0	5833	634

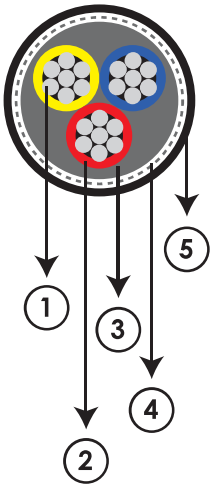
Note: * shape can be sector or compacted

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min	In Air (On Perforated Cable Tray)	In Ground (Direct)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.910	431.337	74	88	4.8	4.2
25	1.200	418.172	98	112	3.1	2.7
35	0.868	375.935	120	135	2.2	1.95
50	0.641	365.456	145	159	1.165	1.45
70	0.443	334.042	185	195	1.15	0.97
95	0.320	282.301	224	231	0.84	0.72
120	0.253	275.886	264	261	-	0.58
150	0.206	286.849	305	295	-	0.47
185	0.164	292.239	350	330	-	0.39
240	0.125	279.470	418	379	-	0.31
300	0.100	259.033	488	429	-	0.26

Note: For condition of current carrying capacity please refer to Table 1 Page 18





AL / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (NA2XRY)		IEC 60502-1
3-CORE :ALUMINIUM CONDUCTOR, XLPE INSULATED, GALVANIZED STEEL WIRE ARMoured 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- Aluminium Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed	
Voltage Rating : 600/1000 Volt	Sheathed Colour : Black or as per order	
Specification : IEC 60502-1		
Conductor Operating Temperature : 90°C	Insulation : 3-core (Brown, Black, Grey) Colour (Red, Yellow, Blue)	

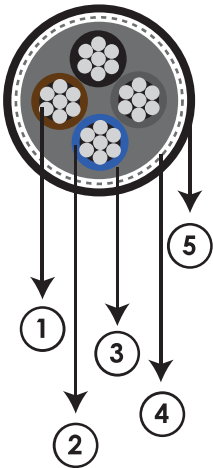
DIMENSIONAL & MECHANICAL DATA							
Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Diameter min
			Insulation	Outer Sheath	Overall Diameter	Net Weight	
mm²	min	shape	mm		mm	Kg/Km	m
16	7	compacted	0.7	1.8	22	788	223
25	7	compacted	0.9	1.8	27	1156	265
35	7	compacted	0.9	1.8	29	1343	288
50	7	compacted*	1.0	1.9	32	1609	318
70	12	compacted*	1.1	2.1	38	2271	375
95	15	compacted*	1.1	2.3	42	2777	419
120	15	compacted*	1.2	2.4	45	3197	450
150	15	compacted*	1.4	2.5	51	4143	506
185	30	compacted*	1.6	2.7	56	4909	562
240	30	compacted*	1.7	2.9	62	5927	620
300	30	compacted*	1.8	3.1	67	6876	673

Note: * shape can be sector or compacted

ELECTRICAL DATA						
Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min	In Air (On Perforated Cable Tray)	In Ground (Direct)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.91	431	74	88	4.8	4.2
25	1.200	418	98	112	3.1	2.7
35	0.868	376	120	135	2.2	1.95
50	0.641	365	145	159	1.165	1.45
70	0.443	334	185	195	1.15	0.97
95	0.320	282	224	231	0.84	0.72
120	0.253	276	264	261	-	0.58
150	0.206	287	305	295	-	0.47
185	0.164	292	350	330	-	0.39
240	0.125	279	418	379	-	0.31
300	0.100	259	488	429	-	0.26

Note: For condition of current carrying capacity please refer to Table 1 Page 18

AL / XLPE / PVC / SWA / PVC - 600 / 1000 VOLT (NA2XRY)		IEC 60502-1	
4-CORE : ALUMINIUM CONDUCTOR, XLPE INSULATED, GALVANIZED STEEL WIRE ARMoured 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- Aluminium Conductor 2 - XLPE Insulated 3 - PVC Bedding 4 - Armoured 5 - PVC Sheathed	
Voltage Rating : 600/1000 Volt		Sheathed Colour : Black or as per order	
Specification : IEC 60502-1			
Conductor Operating Temperature : 90°C		Insulation : 4-core (Brown, Black, Grey & Blue) Colour (Red, Yellow, Blue & Black)	



DIMENSIONAL & MECHANICAL DATA

Nominal cross sectional area	No of wire and conductor shape		Nominal Thickness		Approximately		Bending Diameter min
			Insulation	Outer Sheath	Overall Diameter	Net Weight	
mm²	min	shape	mm		mm	Kg/Km	m
16	7	compacted	0.7	1.8	24.6	1026	246.0
25	7	compacted	0.9	1.8	28.5	1322	285.0
35	7	compacted	0.9	1.9	31.3	1570	313.0
50	7	sector*	1.0	1.9	31.7	1695	317.0
70	12	sector*	1.1	2.1	36.7	2352	367.0
95	15	sector*	1.1	2.2	40.8	2910	408.0
120	15	sector*	1.2	2.3	44.3	3390	443.0
150	15	sector*	1.4	2.5	50.0	4399	500.0
185	30	sector*	1.6	2.7	56.4	5327	564.0
240	30	sector*	1.7	2.9	60.9	6352	609.0
300	30	sector*	1.8	3.2	69.7	7697	697.0
400	53	sector*	2.0	3.3	73.1	8980	731.0

Note: * shape can be sector or compacted

ELECTRICAL DATA

Nominal Cross Sectional Area	Resistance at 20 °C		Current Carrying Capacity at 30 °C		Voltage Drop	
	DC Conductor Max	Insulation Min	In Air (On Perforated Cable Tray)	In Ground (Direct)	Single-phase	Three-phase
mm²	Ω/Km	MΩ.Km	A		mV/A/m	
16	1.9100	431.337	74	88	4.8	4.2
25	1.2000	418.175	98	112	3.1	2.7
35	0.8680	375.935	120	135	2.2	1.95
50	0.6410	274.103	145	159	1.165	1.45
70	0.4430	250.458	185	195	1.15	0.97
95	0.3200	213.079	224	231	0.84	0.72
120	0.2530	213.435	264	261	-	0.58
150	0.2060	220.421	305	295	-	0.47
185	0.1640	220.192	350	330	-	0.39
240	0.1250	210.271	418	379	-	0.31
300	0.1000	206.688	488	429	-	0.26
400	0.0778	195.035	551	571	-	0.21

Note: For condition of current carrying capacity please refer to Table 1 Page 18



Technical Data Rating Factors for Other Temperature Conditions

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

Table 2: Rating Factors for ambient air temperatures							
Temperature (°C)	25	30	35	40	45	50	55
70°C Thermoplastic	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	55
70°C Thermoplastic	1.05	1.00	0.95	0.90	0.85	0.80	0.73	0.68	0.60	0.52
90°C Thermosetting	1.03	1.00	0.96	0.92	0.89	0.86	0.82	0.77	0.73	0.78

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	0.94	0.93	0.93	0.92	0.91	0.90	0.89
Direct Buried	1.00	0.97	0.92	0.91	0.91	0.90	0.89	0.87	0.86

Table 6: MIN BENDING RADIUS (mm)									
----------------------------------	--	--	--	--	--	--	--	--	--

To install the cables safely without damaging the electrical and physical properties of the cables, the tabulated

TYPE OF PRODUCT	CONSTRUCTION	OVERALL DIA. (mm)	MIN BENDING
PVC Insulated Power / Control Cables	NonArmoured	Any	8D
	Armoured	Any	10D
XLPE (or LS0H) Insulated Power / Control Cable	NonArmoured	Any	8D
	Armoured	Any	10D
Fire Resistant Cables	NonArmoured	Any	10D
	Armoured	Any	10D

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

Master Tec[®]

Wire & Cable

Strive to power up everyone's life

HQ & Factory

RM1229-A, KAWASAN PERINDUSTRIAN REMBIA
78000 ALOR GAJAH, MELAKA
TEL : +606 - 316 1111 FAX : +606 - 316 2888

KL Branch

B-2-19 BLOCK B OASIS SQUARE,
JALAN PJU 1A/7A ARA DAMANSARA,
47301 PETALING JAYA, SELANGOR
TEL : +603 - 7734 1812 FAX : +603 - 2719 3167

Email : sales@mastertec.my

www.mastertec-wirecable.com