

## POWER CABLES - COPPER / ALUMINIUM

POLARIS - POWER SOLID / STRANDED COPPER CONDUCTOR ARMoured & UNARMoured, PVC INSULATED & SHEATHED CABLES 1100 V AS PER IS-1554 (1)

CABLE SIZE	No of Cond. Wires	Thick of PVC Insul. (Nom.) mm	Thick of Inner Sheath (Min.) mm	Dia. Of Armour Wire mm	Thick of Outer Sheath (Min.)		Approx. Overall Diameter		Approx. Net Wt. of Cable				Max. D.C. resistance at 20°C		Approx. A.C. resistance at 70°C		Approx. reactance at 50 Hz		Approx. capacitance per phase		Current Rating						Short Circuit rating for 1 sec.	
					Arm. mm	Unarm. mm	Arm. mm	Unarm. mm	Arm.		Unarm.		Ohm/Km	Ohm/Km	Ohm/Km	Ohm/Km	Arm. mf/Km	Unarm. mf/Km	Direct in Ground		In Duct		In Air		Kilo Amps	Kilo Amps		
									Kg/Km	Kg/Km	Amps	Amps							Amps	Amps	Amps	Amps						
Sq.mm	No.	mm	mm	G.I mm	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu/Al	Cu/Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al	Cu	Al
<b>SOLID</b>																												
2 X 4.00 MM <sup>2</sup>	1	1.00	0.30	1.40	1.24	1.80	15.50	13.80	530	480	283	232	4.61	7.41	5.52	8.89	0.116	0.116	0.16	0.41	41	32	35	27	35	27	0.460	0.304
3 X 4.00 MM <sup>2</sup>	1	1.00	0.30	1.40	1.24	1.80	16.00	14.35	588	513	330	255	4.61	7.41	5.52	8.89	0.116	0.116	0.41	0.41	36	28	30	23	30	23	0.460	0.304
4 X 4.00 MM <sup>2</sup>	1	1.00	0.30	1.40	1.24	1.80	17.30	15.60	694	594	403	303	4.61	7.41	5.52	8.89	0.116	0.116	0.41	0.41	36	28	30	23	30	23	0.460	0.304
2 X 6.00 MM <sup>2</sup>	1	1.00	0.30	1.40	1.24	1.80	16.50	14.80	617	542	345	271	3.08	4.61	3.69	5.53	0.110	0.110	0.19	0.47	50	40	44	34	45	35	0.690	0.456
3 X 6.00 MM <sup>2</sup>	1	1.00	0.30	1.40	1.24	1.80	17.10	15.40	696	584	410	298	3.08	4.61	3.69	5.53	0.110	0.110	0.47	0.47	45	35	38	30	39	30	0.690	0.456
4 X 6.00 MM <sup>2</sup>	1	1.00	0.30	1.40	1.24	1.80	18.50	16.80	827	678	507	358	3.08	4.61	3.69	5.53	0.110	0.110	0.47	0.47	45	35	38	30	39	30	0.690	0.456
2 X 10.0 MM <sup>2</sup>	1	1.00	0.30	1.40	1.24	1.80	18.10	16.45	0	650	0	341	1.83	3.08	2.19	3.70	0.100	0.100	0.22	0.56	70	55	58	45	60	47	1.150	0.760
3 X 10.0 MM <sup>2</sup>	1	1.00	0.30	4 x 0.80	1.40	1.80	17.90	17.10	0	588	0	378	1.83	3.08	2.19	3.70	0.100	0.100	0.56	0.56	60	46	50	39	52	40	1.150	0.760
4 X 10.0 MM <sup>2</sup>	1	1.00	0.30	4 x 0.80	1.40	2.00	19.55	19.15	0	695	0	476	1.83	3.08	2.19	3.70	0.100	0.100	0.56	0.56	60	46	50	39	52	40	1.150	0.760
<b>STRANDED</b>																												
2 X 4.00 MM <sup>2</sup>	7	1.00	0.30	1.40	1.24	1.80	16.00	14.40	556	506	298	249	4.61	7.41	5.52	8.89	0.116	0.116	0.16	0.41	41	32	35	27	35	27	0.460	0.304
3 X 4.00 MM <sup>2</sup>	7	1.00	0.30	1.40	1.24	1.80	16.70	14.95	621	547	344	270	4.61	7.41	5.52	8.89	0.116	0.116	0.41	0.41	36	28	30	23	30	23	0.460	0.304
4 X 4.00 MM <sup>2</sup>	7	1.00	0.30	1.40	1.24	1.80	17.90	16.30	725	625	421	322	4.61	7.41	5.52	8.89	0.116	0.116	0.41	0.41	36	28	30	23	30	23	0.460	0.304
2 X 6.00 MM <sup>2</sup>	7	1.00	0.30	1.40	1.24	1.80	17.10	15.55	650	575	366	292	3.08	4.61	3.69	5.53	0.110	0.110	0.19	0.47	50	40	44	34	45	35	0.690	0.456
3 X 6.00 MM <sup>2</sup>	7	1.00	0.30	1.40	1.24	1.80	17.90	16.20	736	625	431	320	3.08	4.61	3.69	5.53	0.110	0.110	0.47	0.47	45	35	38	30	39	30	0.690	0.456
4 X 6.00 MM <sup>2</sup>	7	1.00	0.30	1.40	1.24	1.80	19.30	17.70	869	720	532	383	3.08	4.61	3.69	5.53	0.110	0.110	0.47	0.47	45	35	38	30	39	30	0.690	0.456
2 X 10.0 MM <sup>2</sup>	7	1.00	0.30	1.40	1.24	1.80	19.00	17.40	825	700	495	370	1.83	3.08	2.19	3.70	0.100	0.100	0.22	0.56	70	55	58	45	60	47	1.150	0.760
3 X 10.0 MM <sup>2</sup>	7	1.00	0.30	4 x 0.80	1.40	1.80	19.05	18.15	827	639	596	408	1.83	3.08	2.19	3.70	0.100	0.100	0.56	0.56	60	46	50	39	52	40	1.150	0.760
4 X 10.0 MM <sup>2</sup>	7	1.00	0.30	4 x 0.80	1.40	2.00	20.70	20.30	998	748	762	512	1.83	3.08	2.19	3.70	0.100	0.100	0.56	0.56	60	46	50	39	52	40	1.150	0.760
2 X 16.0 MM <sup>2</sup>	7	1.00	0.30	4 x 0.80	1.40	2.00	20.70	20.40	936	738	711	512	1.15	1.91	1.38	2.29	0.097	0.097	0.29	0.76	90	70	75	58	78	59	1.840	1.220
3 X 16.0 MM <sup>2</sup>	7	1.00	0.30	4 x 0.80	1.40	2.00	21.80	21.25	1113	816	863	565	1.15	1.91	1.38	2.29	0.097	0.097	0.76	0.76	77	60	64	50	66	51	1.840	1.220
4 X 16.0 MM <sup>2</sup>	7	1.00	0.30	4 x 0.80	1.40	2.00	23.70	23.35	1355	957	1084	686	1.15	1.91	1.38	2.29	0.097	0.097	0.76	0.76	77	60	64	50	66	51	1.840	1.220
2 X 25.0 MM <sup>2</sup>	7	1.20	0.30	4 x 0.80	1.40	2.00	23.90	23.65	1281	967	1009	694	0.727	1.20	0.87	1.44	0.097	0.097	0.32	0.86	115	90	97	76	105	78	2.880	1.900
3 X 25.0 MM <sup>2</sup>	7	1.20	0.30	4 x 0.80	1.40	2.00	25.40	24.90	1558	1086	1255	783	0.727	1.20	0.87	1.44	0.097	0.097	0.86	0.86	99	76	81	63	90	70	2.880	1.900
4 X 25.0 MM <sup>2</sup>	7	1.20	0.30	4 x 0.80	1.40	2.00	27.70	27.30	1913	1284	1578	949	0.727	1.20	0.87	1.44	0.097	0.097	0.86	0.86	99	76	81	63	90	70	2.880	1.900
2 X 35.0 MM <sup>2</sup>	7	1.20	0.30	4 x 0.80	1.40	2.00	26.30	26.00	1591	1155	1283	847	0.524	0.868	0.627	1.04	0.097	0.097	0.37	0.98	140	110	120	92	125	99	4.030	2.660
3 X 35.0 MM <sup>2</sup>	7	1.20	0.30	4 x 0.80	1.40	2.00	27.95	27.35	1957	1302	1611	956	0.524	0.868	0.627	1.04	0.097	0.097	0.98	0.98	120	92	99	77	110	86	4.030	2.660
4 X 35.0 MM <sup>2</sup>	7	1.20	0.30	4 x 0.80	1.56	2.20	31.00	30.65	2452	1580	2080	1207	0.524	0.868	0.627	1.04	0.097	0.097	0.98	0.98	120	92	99	77	110	86	4.030	2.660
2 X 50.0 MM <sup>2</sup>	7	1.40	0.30	4 x 0.80	1.56	2.00	30.60	29.85	2139	1517	1744	1121	0.387	0.641	0.463	0.770	0.094	0.094	0.37	1.02	165	135	145	115	155	125	5.750	3.800
3 X 50.0 MM <sup>2</sup>	7	1.40	0.30	4 x 0.80	1.56	2.20	32.00	31.70	2610	1676	2225	1291	0.387	0.641	0.463	0.770	0.094	0.094	1.02	1.02	145	110	125	95	135	105	5.750	3.800
4 X 50.0 MM <sup>2</sup>	7	1.40	0.40	4 x 0.80	1.56	2.20	35.50	35.15	3283	2038	2844	1599	0.387	0.641	0.463	0.770	0.094	0.094	1.02	1.02	145	110	125	95	135	105	5.750	3.800

**Notes : Colour Code**

Two core : Red & Black

Three core : Red, Yellow & Blue

Four core : Red, Yellow, Blue & Black