Three-Phase Motors

APPLICATION

TABLE 14 Three and Six Wire Cable, 50 Hz Service Entrance to Motor - Maximum Length in Meters 70°C

Motor Rating			Metric Cable Size, Square Millimeters, Copper Wire - 70°C Rated Insulation																
Volts	KW	HP	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
220v 50Hz 3Ø 3 - Lead (230V may use 110% of table) (240V may use 119% of table)	.37	1/2	300	510	820	1230	2010	3160	4810	6540	8890								
	.55	3/4	200	350	550	830	1370	2150	3280	4460	6060	8060							
	.75	1	160	270	430	650	1070	1680	2550	3470	4710	6250	7970	9510					
	1.1	1 1/2	110	190	300	450	750	1170	1790	2430	3310	4400	5620	6700	7790	8970			
	1.5	2	80	140	230	340	570	900	1380	1880	2570	3430	4410	5290	6180	7150	8470	9670	
	2.2	3	50	90	150	230	380	600	920	1270	1740	2330	3000	3610	4230	4910	5840	6700	7790
	3	4	40	70	110	170	280	440	670	920	1270	1700	2180	2630	3080	3570	4240	4850	5630
	3.7	5	30	50	90	130	220	360	550	750	1030	1390	1790	2150	2520	2930	3480	4000	4640
	4	5 1/2	30	50	80	120	200	320	490	670	920	1240	1590	1910	2240	2590	3070	3520	4070
	5.5	7 1/2	0	30	60	90	150	240	380	520	710	960	1240	1490	1750	2040	2430	2790	3250
	7.5	10	0	0	40	60	110	170	270	370	500	680	870	1050	1230	1420	1690	1930	2230
	11	15	0	0	0	**40**	80	120	190	270	370	500	650	790	930	1080	1290	1490	1740
	15	20	0	0	0	0	60	90	150	200	280	380	500	610	720	840	1010	1170	1370
	18.5	25	0	0	0	0	0	70	110	160	220	300	390	480	570	660	800	920	1090
	22	30	0	0	0	0	0	**60**	100	130	190	260	330	400	480	560	670	780	910
380v 50Hz 3Ø 3 - Lead (400V may use 110% of table) (415V may use 119% of table)	.37	1/2	930	1550	2460	3670	6030	9460											
	.55	3/4	630	1050	1670	2500	4100	6440	9790										
	.75	1	490	820	1300	1950	3200	5020	7620										
	1.1	1 1/2	340	570	910	1360	2240	3520	5350	7280	9890								
	1.5	2	260	430	700	1040	1720	2700	4120	5630	7690								
	2.2	3	170	290	460	700	1150	1810	2770	3790	5190	6950	8950						
	3	4	120	210	340	510	840	1330	2030	2770	3790	5070	6530	7840	9190				
	3.7	5	100	170	270	410	680	1080	1650	2260	3090	4140	5340	6420	7540	8750			
	4	5 1/2	90	150	250	370	610	970	1480	2020	2770	3700	4750	5710	6680	7740	9180		
	5.5	7 1/2	70	110	190	280	470	740	1140	1560	2140	2870	3700	4460	5240	6090	7250	8330	9700
	7.5	10	**50**	80	130	200	330	530	810	1110	1510	2030	2610	3130	3670	4250	5040	5770	6680
	11	15	0	60	90	140	240	380	590	810	1120	1510	1950	2350	2770	3230	3860	4450	5200
	15	20	0	0	70	110	180	290	450	620	860	1160	1500	1820	2150	2520	3020	3490	4110
	18.5	25	0	0	0	80	140	230	350	490	680	910	1190	1440	1700	1990	2390	2770	3260
	22	30	0	0	0	0	120	190	300	410	570	770	1000	1210	1440	1680	2010	2330	2740
	30	40	0	0	0	0	0	140	220	310	420	570	740	900	1060	1230	1470	1700	1990
	37	50	0	0	0	0	0	**110**	180	240	340	460	590	710	840	980	1170	1350	1580
	45	60	0	0	0	0	0	0	150	200	280	380	490	600	700	820	980	1130	1330
	55	75	0	0	0	0	0	0	**120**	170	240	330	420	510	610	710	860	990	1170
	75	100	0	0	0	0	0	0	0	0	**180**	240	320	390	460	530	640	740	880
	90	125	0	0	0	0	0	0	0	0	0	**190**	240	290	350	400	480	550	650
	110	150	0	0	0	0	0	0	0	0	0	0	210	250	290	340	410	470	550
	130	175	0	0	0	0	0	0	0	0	0	0	**180**	220	260	300	360	420	500
	150	200	0	0	0	0	0	0	0	0	0	0	0	**190**	230	270	320	370	440

6 - Lead Wye - Delta

Motor Rating			Metric Cable Size, Square Millimeters, Copper Wire - 70°C Rated Insulation																
Volts	KW	HP	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
220v 50Hz 3Ø 6 - Lead (230V = 110%) (240V = 119%)	3.7	5	40	70	130	190	330	540	820	1120	1540	2080	2680	3220	3780	4390	5220	6000	6960
	5.5	7 1/2	30	40	90	130	220	360	570	780	1060	1440	1860	2230	2620	3060	3640	4180	4870
	7.5	10	**10**	30	60	90	160	250	400	550	750	1020	1300	1570	1840	2130	2530	2890	3340
	11	15	0	30	40	60	120	180	280	400	550	750	970	1180	1390	1620	1930	2230	2610
	15	20	0	0	30	40	90	130	220	300	420	570	750	910	1080	1260	1510	1750	2050
	18.5	25	0	0	0	30	60	100	160	240	330	450	580	720	850	990	1200	1380	1630
	22	30	0	0	0	0	60	90	150	190	280	390	490	600	720	840	1000	1170	1360
380v 50Hz 3Ø 6 - Lead (400V may use 110% of table) (415V may use 119% of table)	3.7	5	150	250	400	610	1020	1620	2470	3390	4630	6210	8010	9630					
	5.5	7 1/2	100	160	280	420	700	1110	1710	2340	3210	4300	5550	6690	7860	9130			
	7.5	10	70	120	190	300	490	790	1210	1660	2260	3040	3910	4690	5500	6370	7560	8650	
	11	15	40	90	130	210	360	570	880	1210	1680	2260	2920	3520	4150	4840	5790	6670	7800
	15	20	**30**	60	100	160	270	430	670	930	1290	1740	2250	2730	3220	3780	4530	5230	6160
	18.5	25	0	40	70	120	210	340	520	730	1020	1360	1780	2160	2550	2980	3580	4150	4890
	22	30	0	0	70	100	180	280	450	610	850	1150	1500	1810	2160	2520	3010	3490	4110
	30	40	0	0	0	70	130	210	330	460	630	850	1110	1350	1590	1840	2200	2550	2980
	37	50	0	0	0	0	100	160	270	360	510	690	880	1060	1260	1470	1750	2020	2370
	45	60	0	0	0	0	90	130	220	300	420	570	730	900	1050	1230	1470	1690	1990
	55	75	0	0	0	0	0	120	180	250	360	490	630	760	910	1060	1290	1480	1750
	75	100	0	0	0	0	0	**90**	130	190	270	360	480	580	690	790	960	1110	1320
	90	125	0	0	0	0	0	0	**100**	150	210	280	360	430	520	600	720	820	970
	110	150	0	0	0	0	0	0	0	**120**	180	240	310	370	430	510	610	700	820
	130	175	0	0	0	0	0	0	0	0	**150**	210	270	330	390	450	540	630	750
	150	200	0	0	0	0	0	0	0	0	**130**	180	240	280	340	400	480	550	660

Lengths in **BOLD** meet the IEC ampacity only for individual conductor cable in free air or water, not in conduit.

Ampacities are determined from IEC publication 364-5-523 (1983 edition).

Jacketed cable is based on Table 52-B1, Installation method C using Column C in Table 52-C3 (70°C).

Individual Conductor is based on Table 52-B2, Installation method G using Column 6 in Table 52-C10 (70°C).

1 Meter = 3.3 feet

Note: Please ensure installed cable size meets AUS/NZ Standards