



Application - Three-Phase Motors

TABLE 15 Three and Six Wire Cable, 50 Hz Service Entrance to Motor – Maximum Length in Metres

90°C

Motor Rating			Metric Cable Size, Square Millimeters, Copper Wire - 90°C Rated Insulation																
Volts	kW	HP	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400	
415v 50Hz 3Ø 3-Lead	4	5.5	190	300	460	750													
	5.5	7.5	140	220	340	560	880												
	7.5	10	100	160	250	410	650	990											
	9.3	12.5	80	140	210	340	540	830											
	11	15	70	110	170	290	460	700	950										
	13	17.5	60	100	150	250	390	600	810										
	15	20	50	80	130	220	340	520	710	970									
	18.5	25	40	70	100	170	270	420	570	780	1020								
	22	30		60	90	150	230	360	490	660	880								
	26	35		50	70	120	200	300	410	560	750	950							
	30	40			60	110	170	260	360	490	640	820	970						
	37	50				80	140	210	290	390	520	660	780	900					
	45	60				70	120	180	250	350	470	600	720	850	980				
	52	70				100	160	220	310	410	530	640	750	860	1020				
	55	75				100	150	210	290	380	490	590	690	800	940				
	60	80				90	140	190	270	360	460	560	660	760	900				
	67	90				80	120	170	240	320	410	490	570	660	780	890			
	75	100				110	150	210	280	360	440	510	590	700	800	920			
	83	111				100	140	200	260	340	410	480	560	660	760	880			
	85	114				90	130	190	240	310	370	440	510	600	680	780			
93	125				120	170	230	290	350	410	470	550	630	730					
110	150				100	130	180	230	280	320	370	430	490	550					
130	175					120	160	210	250	290	340	400	450	520					
150	200						140	180	210	250	290	340	400	450	520				
185	250								140	180	210	250	290	340	400	450	520		

6 - Lead Star (Wye) - Delta

90°C

Motor Rating			Metric Cable Size, Square Millimeters, Copper Wire - 90°C Rated Insulation																
Volts	kW	HP	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400	
415v 50Hz 3Ø 6-Lead	4	5.5	280	450	690														
	5.5	7.5	210	330	510	840													
	7.5	10	150	240	370	610	970												
	9.3	12.5	120	210	310	510	810												
	11	15	100	160	250	430	690												
	13	17.5	90	150	220	370	580	900											
	15	20	70	120	190	330	510	780											
	18.5	25	60	100	150	250	400	630	850										
	22	30	40	90	130	220	340	540	730	990									
	26	35	40	70	100	180	300	450	610	840									
	30	40	30	60	90	160	250	390	540	730	960								
	37	50		40	70	120	210	310	430	580	780	990							
	45	60		40	60	100	180	270	370	520	700	900							
	52	70			60	90	150	240	330	460	610	790	960						
	55	75			40	90	150	220	310	430	570	730	880						
	60	80			40	70	130	210	280	400	540	690	840	990					
	67	90				70	120	180	250	360	480	610	730	850	990				
	75	100				60	100	160	220	310	420	540	660	760	880				
	83	111				60	90	150	210	300	390	510	610	720	840	990			
	85	114				60	90	130	190	270	360	460	550	660	760	900	1020		
93	125				70	130	180	250	340	430	520	610	700	820	940				
110	150				60	100	150	190	270	340	420	480	550	640	730	820			
130	175					90	130	180	240	310	370	430	510	600	670	780			
150	200					70	100	150	210	270	310	370	430	510	580	670			
185	250						90	120	160	210	240	280	330	390	430	490			

Lengths in meters for noted voltage drop from motor to service entrance.

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

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

Jacketed cable based on Table 52-B1, Installation Method C using Column C in Tables 52-C3 (70°C and 52-C4 (90°C).

Individual conductors based on Table 52-B2, Installation Method G using Column 6 in Tables 52-C10 (70°C and 52-C11 (90°C).