



# Three-Phase Motors

## MOTOR APPLICATION

75 °C

Table 19 Three-Phase 75 °C Cable, 60 Hz (Service Entrance to Motor) Maximum Length in Feet

MOTOR RATING			75 °C INSULATION - AWG COPPER WIRE SIZE												MCM COPPER WIRE SIZE						
VOLTS	HP	KW	14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500	
200 V 60 Hz Three-Phase 3 - Lead	1/2	0.37	710	1140	1800	2840	4420														
	3/4	0.55	510	810	1280	2030	3160														
	1	0.75	430	690	1080	1710	2670	4140	5140												
	1.5	1.1	310	500	790	1260	1960	3050	3780												
	2	1.5	240	390	610	970	1520	2360	2940	3610	4430	5420									
	3	2.2	180	290	470	740	1160	1810	2250	2760	3390	4130									
	5	3.7	<b>110</b>	170	280	440	690	1080	1350	1660	2040	2490	3050	3670	4440	5030					
	7.5	5.5	0	0	200	310	490	770	960	1180	1450	1770	2170	2600	3150	3560					
	10	7.5	0	0	<b>150</b>	230	370	570	720	880	1090	1330	1640	1970	2390	2720	3100	3480	3800	4420	
	15	11	0	0	0	<b>160</b>	250	390	490	600	740	910	1110	1340	1630	1850	2100	2350	2570	2980	
	20	15	0	0	0	0	<b>190</b>	300	380	460	570	700	860	1050	1270	1440	1650	1850	2020	2360	
	25	18.5	0	0	0	0	0	<b>240</b>	300	370	460	570	700	840	1030	1170	1330	1500	1640	1900	
30	22	0	0	0	0	0	<b>200</b>	<b>250</b>	310	380	470	580	700	850	970	1110	1250	1360	1590		
230 V 60 Hz Three-Phase 3 - Lead	1/2	0.37	930	1490	2350	3700	5760	8910													
	3/4	0.55	670	1080	1700	2580	4190	6490	8060	9860											
	1	0.75	560	910	1430	2260	3520	5460	6780	8290											
	1.5	1.1	420	670	1060	1670	2610	4050	5030	6160	7530	9170									
	2	1.5	320	510	810	1280	2010	3130	3890	4770	5860	7170	8780								
	3	2.2	240	390	620	990	1540	2400	2980	3660	4480	5470	6690	8020	9680						
	5	3.7	<b>140</b>	230	370	590	920	1430	1790	2190	2690	3290	4030	4850	5870	6650	7560	8460	9220		
	7.5	5.5	0	<b>160</b>	260	420	650	1020	1270	1560	1920	2340	2870	3440	4160	4710	5340	5970	6500	7510	
	10	7.5	0	0	<b>190</b>	310	490	760	950	1170	1440	1760	2160	2610	3160	3590	4100	4600	5020	5840	
	15	11	0	0	0	<b>210</b>	330	520	650	800	980	1200	1470	1780	2150	2440	2780	3110	3400	3940	
	20	15	0	0	0	<b>160</b>	<b>250</b>	400	500	610	760	930	1140	1380	1680	1910	2180	2450	2680	3120	
	25	18.5	0	0	0	0	<b>200</b>	320	400	500	610	750	920	1120	1360	1540	1760	1980	2160	2520	
30	22	0	0	0	0	0	<b>260</b>	330	410	510	620	760	930	1130	1280	1470	1650	1800	2110		
380 V 60 Hz Three-Phase 3 - Lead	1/2	0.37	2690	4290	6730																
	3/4	0.55	2000	3190	5010	7860															
	1	0.75	1620	2580	4060	6390	9980														
	1.5	1.1	1230	1970	3100	4890	7630														
	2	1.5	870	1390	2180	3450	5400	8380													
	3	2.2	680	1090	1710	2690	4200	6500	8020	9830											
	5	3.7	400	640	1010	1590	2490	3870	4780	5870	7230	8830									
	7.5	5.5	270	440	690	1090	1710	2640	3260	4000	4930	6010	7290	8780							
	10	7.5	<b>200</b>	320	510	800	1250	1930	2380	2910	3570	4330	5230	6260	7390	8280	9340				
	15	11	0	0	370	590	920	1430	1770	2170	2690	3290	4000	4840	5770	6520	7430	8250	8990		
	20	15	0	0	<b>280</b>	440	700	1090	1350	1670	2060	2530	3090	3760	4500	5110	2840	6510	7120	8190	
	25	18.5	0	0	0	<b>360</b>	570	880	1100	1350	1670	2050	2510	3040	3640	4130	4720	5250	5740	6590	
	30	22	0	0	0	<b>290</b>	470	730	910	1120	1380	1700	2080	2520	3020	3430	3920	4360	4770	5490	
	40	30	0	0	0	0	0	<b>530</b>	660	820	1010	1240	1520	1840	2200	2500	2850	3170	3470	3990	
	50	37	0	0	0	0	0	<b>440</b>	<b>540</b>	660	820	1000	1220	1480	1770	2010	2290	2550	2780	3190	
	60	45	0	0	0	0	0	<b>370</b>	<b>460</b>	<b>560</b>	690	850	1030	1250	1500	1700	1940	2150	2350	2700	
	75	55	0	0	0	0	0	0	0	<b>460</b>	<b>570</b>	700	860	1050	1270	1440	1660	1850	2030	2350	
	100	75	0	0	0	0	0	0	0	0	<b>420</b>	<b>510</b>	<b>630</b>	760	910	1030	1180	1310	1430	1650	
125	93	0	0	0	0	0	0	0	0	0	0	<b>510</b>	<b>620</b>	<b>740</b>	840	950	1060	1160	1330		
150	110	0	0	0	0	0	0	0	0	0	0	0	<b>520</b>	<b>620</b>	<b>700</b>	<b>790</b>	880	960	1090		
175	130	0	0	0	0	0	0	0	0	0	0	0	0	<b>560</b>	<b>650</b>	<b>750</b>	<b>840</b>	920	1070		
200	150	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>550</b>	<b>630</b>	<b>700</b>	<b>760</b>	880		

Lengths in **BOLD** only meet the US National Electrical Code ampacity requirements for individual conductors in free air or water. Lengths NOT in bold meet NEC ampacity requirements for either individual conductors or jacketed cable. See page 11 for additional details.

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# Three-Phase Motors

## MOTOR APPLICATION

75 °C

Table 20 Three-Phase 75 °C Cable (Continued)

MOTOR RATING			75 °C INSULATION - AWG COPPER WIRE SIZE											MCM COPPER WIRE SIZE							
VOLTS	HP	KW	14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500	
460 V 60 Hz Three- Phase 3 - Lead	1/2	0.37	3770	6020	9460																
	3/4	0.55	2730	4350	6850																
	1	0.75	2300	3670	5770	9070															
	1.5	1.1	1700	2710	4270	6730															
	2	1.5	1300	2070	3270	5150	8050														
	3	2.2	1000	1600	2520	3970	6200														
	5	3.7	590	950	1500	2360	3700	5750													
	7.5	5.5	420	680	1070	1690	2640	4100	5100	6260	7680										
	10	7.5	310	500	790	1250	1960	3050	3800	4680	5750	7050									
	15	11	0	<b>340</b>	540	850	1340	2090	2600	3200	3930	4810	5900	7110							
	20	15	0	0	410	650	1030	1610	2000	2470	3040	3730	4580	5530							
	25	18.5	0	0	<b>330</b>	530	830	1300	1620	1990	2450	3010	3700	4470	5430						
	30	22	0	0	<b>270</b>	430	680	1070	1330	1640	2030	2490	3060	3700	4500	5130	5860				
	40	30	0	0	0	<b>320</b>	<b>500</b>	790	980	1210	1490	1830	2250	2710	3290	3730	4250				
	50	37	0	0	0	0	<b>410</b>	640	800	980	1210	1480	1810	2190	2650	3010	3420	3830	4180	4850	
	60	45	0	0	0	0	0	<b>540</b>	<b>670</b>	830	1020	1250	1540	1850	2240	2540	2890	3240	3540	4100	
	75	55	0	0	0	0	0	<b>440</b>	<b>550</b>	<b>680</b>	840	1030	1260	1520	1850	2100	2400	2700	2950	3440	
	100	75	0	0	0	0	0	0	0	<b>500</b>	<b>620</b>	<b>760</b>	940	1130	1380	1560	1790	2010	2190	2550	
	125	93	0	0	0	0	0	0	0	0	0	<b>600</b>	<b>740</b>	<b>890</b>	1000	1220	1390	1560	1700	1960	
	150	110	0	0	0	0	0	0	0	0	0	0	<b>630</b>	<b>760</b>	<b>920</b>	1050	1190	1340	1460	1690	
175	130	0	0	0	0	0	0	0	0	0	0	0	<b>670</b>	<b>810</b>	<b>930</b>	1060	1190	1300	1510		
200	150	0	0	0	0	0	0	0	0	0	0	0	<b>590</b>	<b>710</b>	<b>810</b>	<b>920</b>	1030	1130	1310		
575 V 60 Hz Three- Phase 3 - Lead	1/2	0.37	5900	9410																	
	3/4	0.55	4270	6810																	
	1	0.75	3630	5800	9120																
	1.5	1.1	2620	4180	6580																
	2	1.5	2030	3250	5110	8060															
	3	2.2	1580	2530	3980	6270															
	5	3.7	920	1480	2330	3680	5750														
	7.5	5.5	660	1060	1680	2650	4150														
	10	7.5	490	780	1240	1950	3060	4770	5940												
	15	11	<b>330</b>	530	850	1340	2090	3260	4060												
	20	15	0	<b>410</b>	650	1030	1610	2520	3140	3860	4760	5830									
	25	18.5	0	0	520	830	1300	2030	2530	3110	3840	4710									
	30	22	0	0	<b>430</b>	680	1070	1670	2080	2560	3160	3880	4770	5780	7030	8000					
	40	30	0	0	0	<b>500</b>	790	1240	1540	1900	2330	2860	3510	4230	5140	5830					
	50	37	0	0	0	<b>410</b>	<b>640</b>	1000	1250	1540	1890	2310	2840	3420	4140	4700	5340	5990	6530	7580	
	60	45	0	0	0	0	<b>540</b>	850	1060	1300	1600	1960	2400	2890	3500	3970	4520	5070	5530	6410	
	75	55	0	0	0	0	0	<b>690</b>	860	1060	1310	1600	1970	2380	2890	3290	3750	5220	4610	5370	
	100	75	0	0	0	0	0	0	<b>640</b>	<b>790</b>	970	1190	1460	1770	2150	2440	2790	3140	3430	3990	
	125	93	0	0	0	0	0	0	0	<b>630</b>	<b>770</b>	<b>950</b>	1160	1400	1690	1920	2180	2440	2650	3070	
	150	110	0	0	0	0	0	0	0	0	<b>660</b>	<b>800</b>	<b>990</b>	1190	1440	1630	1860	2080	2270	2640	
175	130	0	0	0	0	0	0	0	0	<b>700</b>	<b>870</b>	<b>1050</b>	1270	1450	1650	1860	2030	2360			
200	150	0	0	0	0	0	0	0	0	0	<b>760</b>	<b>920</b>	<b>1110</b>	1260	1440	1620	1760	2050			

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