



Table 7.68: Selection Tables for Conductors, Safety Switches and Thermal-Magnetic Circuit Breakers Based on 2005 NEC® Tables 430.147, 430.148 & 430.150

Horsepower Ratings									Full Load AmperageΔ	Amperage of Thermal-Magnetic◇▽ Inverse Time Circuit Breaker			QMB and Heavy Duty Switch with Time Delay Fuses□	Minimum Size metallic Conduit 75° C, C Wire Field-Installed Sized for 125% FLA▽																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Squirrel-Cage and Wound-Rotor Motors with Norm. Torque Characteristics Operating at usual Speeds				1Ø 10 Hz ac			Average Direct Current Motors Operating at Base Speed			For Motor Code Letter B to E		For Motor Code Letter F to V★		AWG kcmil	Conduit 3 W																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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200 Vac■	230 Vac	460 Vac	575 Vac	115 Vac	200 Vac■	230 Vac	120 Vdc	240 Vdc		Ordinary Service◆	Heavy Service and Energy Efficient★	For Motor Code Letter F to V★		AWG kcmil	THHN THWN XHHW	THW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
2		5	7-1/2	1/3	3/4	1	3.4	2	15 A	15 A	20 A	14	1/2 in.	N/A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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3	3	7-1/2	10	1/2	1-1/2	2	1-1/2	3	15.2 A	20 A	35 A	40 A	45 A	50 A	60 A				70 A	80 A	90 A	100 A	110 A	120 A	130 A	140 A	150 A	160 A	170 A	180 A	190 A	200 A	210 A	220 A	230 A	240 A	250 A	260 A	270 A	280 A	290 A	300 A	310 A	320 A	330 A	340 A	350 A	360 A	370 A	380 A	390 A	400 A	410 A	420 A	430 A	440 A	450 A	460 A	470 A	480 A	490 A	500 A	510 A	520 A	530 A	540 A	550 A	560 A	570 A	580 A	590 A	600 A	610 A	620 A	630 A	640 A	650 A	660 A	670 A	680 A	690 A	700 A	710 A	720 A	730 A	740 A	750 A	760 A	770 A	780 A	790 A	800 A	810 A	820 A	830 A	840 A	850 A	860 A	870 A	880 A	890 A	900 A	910 A	920 A	930 A	940 A	950 A	960 A	970 A	980 A	990 A	1000 A	1010 A	1020 A	1030 A	1040 A	1050 A	1060 A	1070 A	1080 A	1090 A	1100 A	1110 A	1120 A	1130 A	1140 A	1150 A	1160 A	1170 A	1180 A	1190 A	1200 A	1210 A	1220 A	1230 A	1240 A	1250 A	1260 A	1270 A	1280 A	1290 A	1300 A	1310 A	1320 A	1330 A	1340 A	1350 A	1360 A	1370 A	1380 A	1390 A	1400 A	1410 A	1420 A	1430 A	1440 A	1450 A	1460 A	1470 A	1480 A	1490 A	1500 A	1510 A	1520 A	1530 A	1540 A	1550 A	1560 A	1570 A	1580 A	1590 A	1600 A	1610 A	1620 A	1630 A	1640 A	1650 A	1660 A	1670 A	1680 A	1690 A	1700 A	1710 A	1720 A	1730 A	1740 A	1750 A	1760 A	1770 A	1780 A	1790 A	1800 A	1810 A	1820 A	1830 A	1840 A	1850 A	1860 A	1870 A	1880 A	1890 A	1900 A	1910 A	1920 A	1930 A	1940 A	1950 A	1960 A	1970 A	1980 A	1990 A	2000 A	2010 A	2020 A	2030 A	2040 A	2050 A	2060 A	2070 A	2080 A	2090 A	2100 A	2110 A	2120 A	2130 A	2140 A	2150 A	2160 A	2170 A	2180 A	2190 A	2200 A	2210 A	2220 A	2230 A	2240 A	2250 A	2260 A	2270 A	2280 A	2290 A	2300 A	2310 A	2320 A	2330 A	2340 A	2350 A	2360 A	2370 A	2380 A	2390 A	2400 A	2410 A	2420 A	2430 A	2440 A	2450 A	2460 A	2470 A	2480 A	2490 A	2500 A	2510 A	2520 A	2530 A	2540 A	2550 A	2560 A	2570 A	2580 A	2590 A	2600 A	2610 A	2620 A	2630 A	2640 A	2650 A	2660 A	2670 A	2680 A	2690 A	2700 A	2710 A	2720 A	2730 A	2740 A	2750 A	2760 A	2770 A	2780 A	2790 A	2800 A	2810 A	2820 A	2830 A	2840 A	2850 A	2860 A	2870 A	2880 A	2890 A	2900 A	2910 A	2920 A	2930 A	2940 A	2950 A	2960 A	2970 A	2980 A	2990 A	3000 A	3010 A	3020 A	3030 A	3040 A	3050 A	3060 A	3070 A	3080 A	3090 A	3100 A	3110 A	3120 A	3130 A	3140 A	3150 A	3160 A	3170 A	3180 A	3190 A	3200 A	3210 A	3220 A	3230 A	3240 A	3250 A	3260 A	3270 A	3280 A	3290 A	3300 A	3310 A	3320 A	3330 A	3340 A	3350 A	3360 A	3370 A	3380 A	3390 A	3400 A	3410 A	3420 A	3430 A	3440 A	3450 A	3460 A	3470 A	3480 A	3490 A	3500 A	3510 A	3520 A	3530 A	3540 A	3550 A	3560 A	3570 A	3580 A	3590 A	3600 A	3610 A	3620 A	3630 A	3640 A	3650 A	3660 A	3670 A	3680 A	3690 A	3700 A	3710 A	3720 A	3730 A	3740 A	3750 A	3760 A	3770 A	3780 A	3790 A	3800 A	3810 A	3820 A	3830 A	3840 A	3850 A	3860 A	3870 A	3880 A	3890 A	3900 A	3910 A	3920 A	3930 A	3940 A	3950 A	3960 A	3970 A	3980 A	3990 A	4000 A	4010 A	4020 A	4030 A	4040 A	4050 A	4060 A	4070 A	4080 A	4090 A	4100 A	4110 A	4120 A	4130 A	4140 A	4150 A	4160 A	4170 A	4180 A	4190 A	4200 A	4210 A	4220 A	4230 A	4240 A	4250 A	4260 A	4270 A	4280 A	4290 A	4300 A	4310 A	4320 A	4330 A	4340 A	4350 A	4360 A	4370 A	4380 A	4390 A	4400 A	4410 A	4420 A	4430 A	4440 A	4450 A	4460 A	4470 A	4480 A	4490 A	4500 A	4510 A	4520 A	4530 A	4540 A	4550 A	4560 A	4570 A	4580 A	4590 A	4600 A	4610 A	4620 A	4630 A	4640 A	4650 A	4660 A	4670 A	4680 A	4690 A	4700 A	4710 A	4720 A	4730 A	4740 A	4750 A	4760 A	4770 A	4780 A	4790 A	4800 A	4810 A	4820 A	4830 A	4840 A	4850 A	4860 A	4870 A	4880 A	4890 A	4900 A	4910 A	4920 A	4930 A	4940 A	4950 A	4960 A	4970 A	4980 A	4990 A	5000 A	5010 A	5020 A	5030 A	5040 A	5050 A	5060 A	5070 A	5080 A	5090 A	5100 A	5110 A	5120 A	5130 A	5140 A	5150 A	5160 A	5170 A	5180 A	5190 A	5200 A	5210 A	5220 A	5230 A	5240 A	5250 A	5260 A	5270 A	5280 A	5290 A	5300 A	5310 A	5320 A	5330 A	5340 A	5350 A	5360 A	5370 A	5380 A	5390 A	5400 A	5410 A	5420 A	5430 A	5440 A	5450 A	5460 A	5470 A	5480 A	5490 A	5500 A	5510 A	5520 A	5530 A	5540 A	5550 A	5560 A	5570 A	5580 A	5590 A	5600 A	5610 A	5620 A	5630 A	5640 A	5650 A	5660 A	5670 A	5680 A	5690 A	5700 A	5710 A	5720 A	5730 A	5740 A	5750 A	5760 A	5770 A	5780 A	5790 A	5800 A	5810 A	5820 A	5830 A	5840 A	5850 A	5860 A	5870 A	5880 A	5890 A	5900 A	5910 A	5920 A	5930 A	5940 A	5950 A	5960 A	5970 A	5980 A	5990 A	6000 A	6010 A	6020 A	6030 A	6040 A	6050 A	6060 A	6070 A	6080 A	6090 A	6100 A	6110 A	6120 A	6130 A	6140 A	6150 A	6160 A	6170 A	6180 A	6190 A	6200 A	6210 A	6220 A	6230 A	6240 A	6250 A	6260 A	6270 A	6280 A	6290 A	6300 A	6310 A	6320 A	6330 A	6340 A	6350 A	6360 A	6370 A	6380 A	6390 A	6400 A	6410 A	6420 A	6430 A	6440 A	6450 A	6460 A	6470 A	6480 A	6490 A	6500 A	6510 A	6520 A	6530 A	6540 A	6550 A	6560 A	6570 A	6580 A	6590 A	6600 A	6610 A	6620 A	6630 A	6640 A	6650 A	6660 A	6670 A	6680 A	6690 A	6700 A	6710 A	6720 A	6730 A	6740 A	6750 A	6760 A	6770 A	6780 A	6790 A	6800 A	6810 A	6820 A	6830 A	6840 A	6850 A	6860 A	6870 A	6880 A	6890 A	6900 A	6910 A	6920 A	6930 A	6940 A	6950 A	6960 A	6970 A	6980 A	6990 A	7000 A	7010 A	7020 A	7030 A	7040 A	7050 A	7060 A	7070 A	7080 A	7090 A	7100 A	7110 A	7120 A	7130 A	7140 A	7150 A	7160 A	7170 A	7180 A	7190 A	7200 A	7210 A	7220 A	7230 A	7240 A	7250 A	7260 A	7270 A	7280 A	7290 A	7300 A	7310 A	7320 A	7330 A	7340 A	7350 A	7360 A	7370 A	7380 A	7390 A	7400 A	7410 A	7420 A	7430 A	7440 A	7450 A	7460 A	7470 A	7480 A	7490 A	7500 A	7510 A	7520 A	7530 A	7540 A	7550 A	7560 A	7570 A	7580 A	7590 A	7600 A	7610 A	7620 A	7630 A	7640 A	7650 A	7660 A	7670 A	7680 A	7690 A	7700 A	7710 A	7720 A	7730 A	7740 A	7750 A	7760 A	7770 A	7780 A	7790 A	7800 A	7810 A	7820 A	7830 A	7840 A	7850 A	7860 A	7870 A	7880 A	7890 A	7900 A	7910 A	7920 A	7930 A	7940 A	7950 A	7960 A	7970 A	7980 A	7990 A	8000 A	8010 A	8020 A	8030 A	8040 A	8050 A	8060 A	8070 A	8080 A	8090 A	8100 A	8110 A	8120 A	8130 A	8140 A	8150 A	8160 A	8170 A	8180 A	8190 A	8200 A	8210 A	8220 A	8230 A	8240 A	8250 A	8260 A	8270 A	8280 A	8290 A	8300 A	8310 A	8320 A	8330 A	8340 A	8350 A	8360 A	8370 A	8380 A	8390 A	8400 A	8410 A	8420 A	8430 A	8440 A	8450 A	8460 A	8470 A	8480 A	8490 A	8500 A	8510 A	8520 A	8530 A	8540 A	8550 A	8560 A	8570 A	8580 A	8590 A	8600 A	8610 A	8620 A	8630 A	8640 A	8650 A	8660 A	8670 A	8680 A	8690 A	8700 A	8710 A	8720 A	8730 A	8740 A	8750 A	8760 A	8770 A	8780 A	8790 A	8800 A	8810 A	8820 A	8830 A	8840 A	8850 A	8860 A	8870 A	8880 A	8890 A	8900 A	8910 A	8920 A	8930 A	8940 A	8950 A	8960 A	8970 A	8980 A	8990 A	9000 A	9010 A

Contact your local Field Office for circuit breaker selection on constant horsepower multi-speed motors.