

MOTOR and WIRE RATING DATA **Ampere Rating of A-c and D-c Motors**



The ampere ratings of motors vary somewhat, depending upon the type of motor. The values given below can be considered average for the various types and are to be used only when the actual full load current is not known. In the case of high torque squirrel cage motors, the ampere ratings will be at least 10% greater than the values given below:

For 25 cycle motors the current in most cases will be equivalent to the current

of a 60 cycle motor having the same number of poles, i.e., for 1500 R.P.M., 25 cycles, use data for 3600 R.P.M., 60 cycles; for 750 R.P.M., 25 cycles, use data for 1800 R.P.M., 60 cycles; etc. This rule will be found quite accurate for 25 cycle motors above 500 R.P.M. For motors 500 R.P.M. or less, particularly the smaller sizes below 20 Hp, the current will be somewhat higher (5% to 15%) than the equivalent 60 cycle motor.

AMPERE RATINGS OF THREE PHASE, 60 CYCLE, A-C INDUCTION MOTORS

Hp	Syn. Speed RPM	Current in Amperes					
		110 Volts	220 Volts	380 Volts	440 Volts	550 Volts	2200 Volts
1/4	1800	1.9	.95	.55	.48	.38	
	1200	2.8	1.40	.81	.70	.56	
	900	3.2	1.60	.93	.80	.64	
1/2	1800	2.38	1.19	.69	.60	.48	
	1200	3.18	1.59	.92	.80	.64	
	900	3.60	1.80	1.04	.90	.72	
3/4	1800	3.36	1.68	.973	.84	.67	
	1200	4.14	2.07	1.20	1.04	.83	
	900	5.80	2.90	1.68	1.45	1.16	
1	1800	4.66	2.33	1.35	1.17	.93	
	1200	5.70	2.85	1.66	1.43	1.14	
	900	6.90	3.45	2.00	1.73	1.38	
1 1/2	3600	5.50	2.75	1.60	1.38	1.10	
	1800	6.10	3.05	1.77	1.53	1.22	
	1200	7.08	3.54	2.05	1.77	1.42	
	900	7.48	3.74	2.17	1.87	1.50	
2	3600	8.34	4.17	2.42	2.09	1.67	
	1800	8.56	4.28	2.48	2.14	1.71	
	1200	9.70	4.85	2.81	2.43	1.94	
	900	11.60	5.81	3.37	2.91	2.32	
3	3600	11.1	5.56	3.22	2.78	2.22	
	1800	11.5	5.76	3.34	2.88	2.30	
	1200	12.7	6.35	3.68	3.18	2.54	
	900	14.4	7.21	4.18	3.61	2.88	
5	3600	15.7	7.87	4.56	3.94	3.14	
	1800	16.6	8.29	4.79	4.14	3.32	
	1200	17.8	8.92	5.16	4.46	3.56	
	900	20.4	10.20	5.89	5.09	4.08	
7 1/2	3600	25.4	12.7	7.34	6.34	5.08	
	1800	26.4	13.2	7.64	6.60	5.28	
	1200	28.2	14.1	8.16	7.05	5.64	
	900	31.2	15.6	9.03	7.80	6.24	
10	3600	38.4	19.2	11.1	9.6	7.68	
	1800	38.6	19.3	11.2	9.7	7.72	
	1200	40.6	20.3	11.8	10.2	8.12	
	900	47.6	23.8	13.8	11.9	9.51	
15	3600	49.0	24.5	14.2	12.3	9.8	
	1800	50.4	25.2	14.6	12.6	10.1	
	1200	53.2	26.6	15.4	13.3	10.6	
	900	57.8	28.9	16.8	14.5	11.6	
20	3600	67.6	33.8	19.6	16.9	13.5	
	1800	73.4	36.7	21.3	18.4	14.7	
	1200	76.2	38.1	22.1	19.1	15.2	
	900	79.8	39.9	23.2	20.0	16.0	
25	3600	83.8	41.9	24.3	21.0	16.8	
	1800	96.6	48.3	28.0	24.2	19.3	
	1200	101.	50.5	29.3	25.3	20.2	5.2
	900	103.	51.7	30.0	25.9	20.6	5.4
30	3600	109.	54.6	31.6	27.3	21.8	5.8
	1800	123.	61.5	35.7	30.8	24.6	6.4
	1200	125.	62.7	36.2	31.3	25.0	6.5
	900	129.	64.7	37.4	32.3	25.8	6.7
40	3600	135.	67.4	39.0	33.7	27.0	6.9
	1800	144.	71.9	41.6	35.9	28.8	8.1
	1200	146.	72.8	42.2	36.4	29.2	7.8
	900	154.	77.1	44.7	38.6	30.8	8.0
50	3600	159.	79.4	46.0	39.7	31.8	8.2
	1800	176.	87.9	50.8	43.9	35.2	9.3

Hp	Syn. Speed RPM	Current in Amperes					
		110 Volts	220 Volts	380 Volts	440 Volts	550 Volts	2200 Volts
40	1800	196.	98.	56.7	49.0	39.2	10.0
	1200	198.	99.	57.3	49.5	39.6	10.3
	900	208.	104.	60.2	52.0	41.6	10.6
	600	226.	113.	65.4	56.5	45.2	11.5
50	1800	242.	121.	70.0	60.5	48.4	12.3
	1200	244.	122.	70.6	61.0	48.8	12.4
	900	254.	127.	73.5	63.5	50.8	13.1
	600	276.	138.	79.9	69.0	55.2	14.2
60	1800	286.	143.	82.8	71.5	57.2	14.6
	1200	296.	148.	85.7	74.0	59.2	14.9
	900	302.	151.	87.4	75.5	60.4	15.4
	600	324.	162.	93.8	81.0	64.8	16.7
75	1800	356.	178.	103.	89.0	71.2	18.0
	1200	362.	181.	105.	90.5	72.4	18.2
	900	374.	187.	108.	93.5	74.8	19.0
	600	398.	199.	115.	99.5	79.6	21.0
100	1800	466.	233.	134.	116.	93.2	23.6
	1200	478.	239.	139.	120.	95.6	24.2
	900	490.	245.	142.	123.	98.0	24.8
	600	514.	257.	148.	128.	103.	26.4
125	450	580.	290.	168.	145.	116.	29.8
	1800	578.	289.	167.	144.	115.	29.2
	1200	596.	298.	173.	149.	119.	29.9
	900	610.	305.	177.	153.	122.	30.9
150	720	628.	314.	182.	157.	126.	31.3
	600	640.	320.	185.	160.	128.	32.8
	450	702.	351.	203.	175.	140.	36.0
	1800	692.	346.	200.	173.	138.	34.8
200	1200	700.	350.	203.	175.	140.	35.5
	900	726.	363.	211.	182.	145.	37.0
	720	752.	376.	218.	188.	150.	37.0
	600	756.	378.	219.	189.	151.	38.8
250	450	836.	418.	242.	209.	166.	42.0
	1800	920.	460.	266.	230.	184.	46.7
	1200	932.	466.	270.	233.	186.	47.0
	900	980.	490.	284.	245.	196.	49.4
300	720	988.	494.	286.	247.	197.	49.0
	600	996.	498.	288.	249.	199.	50.9
	450	1060.	528.	306.	264.	211.	53.7
	1800	1140.	572.	331.	286.	229.	57.5
400	1200	1160.	580.	336.	290.	232.	58.5
	900	1210.	604.	350.	302.	242.	61.5
	720	1250.	625.	361.	312.	250.	61.5
	600	1260.	630.	365.	315.	252.	61.0
500	450	1260.	630.	365.	315.	252.	65.3
	360	1350.	676.	391.	338.	270.	70.0
	1800	1370.	685.	396.	342.	274.	69.0
	1200	1390.	696.	403.	348.	278.	70.0
600	900	1440.	722.	418.	361.	289.	73.5
	600	1440.	722.	418.	361.	289.	72.3
	450	1520.	760.	440.	380.	304.	76.0
	360	1660.	830.	481.	415.	332.	82.8
800	1800	1820.	910.	527.	455.	364.	91.8
	1200	1870.	933.	540.	466.	373.	93.5
	900	1910.	955.	552.	477.	382.	96.0
	450	2000.	1000.	579.	500.	400.	100.
1000	360	2090.	1050.	606.	523.	418.	105.
	1800	2310.	1160.	669.	578.	462.	116.
	1200	2240.	1120.	648.	560.	448.	113.
	900	2360.	1180.	683.	590.	472.	118.
1200	450	2410.	1200.	697.	602.	482.	124.
	360	2630.	1320.	762.	658.	526.	132.