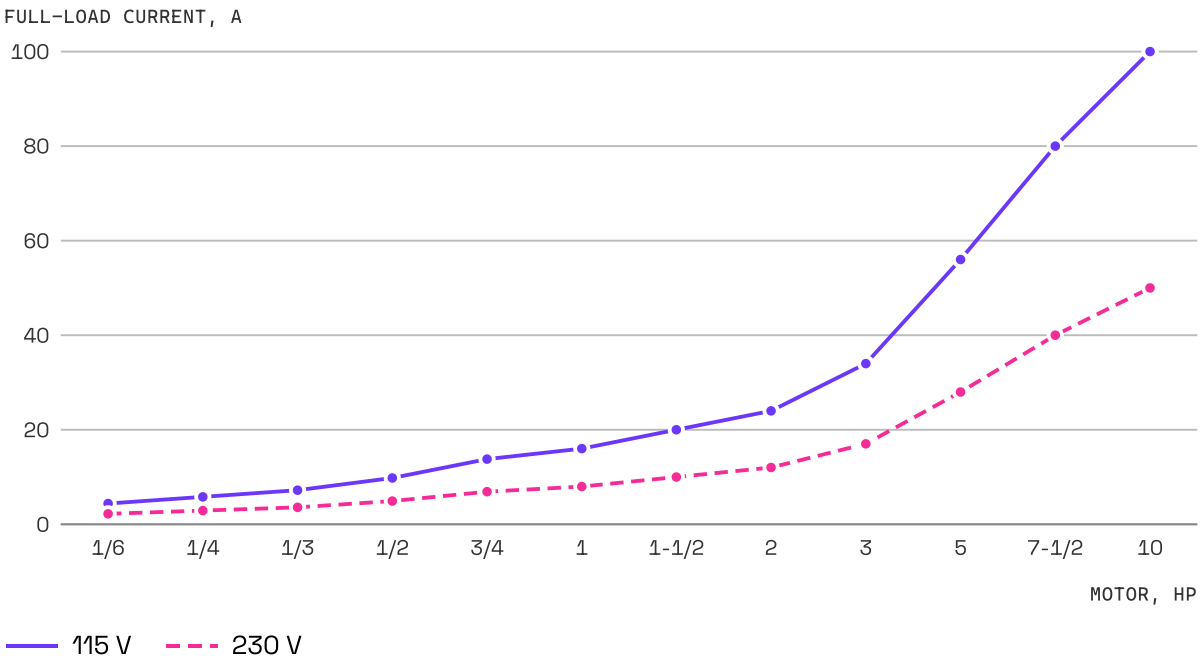
Motor FLA chart

A 1 hp single-phase motor draws 8 A at 230 V and a 5 hp motor 28 A. A 10 hp three-phase motor draws 14 A at 460 V. The branch circuit wire must carry 125% of the full-load amps: 35 A for the 5 hp motor.

Single-phase motor full-load amps

Full-load amps of single-phase motors by horsepower at 115, 200, 208 and 230 V

HP	115 V	200 V	208 V	230 V	125% AT 230 V
1/6	4.4	2.5	2.4	2.2	2.8
1/4	5.8	3.3	3.2	2.9	3.6
1/3	7.2	4.1	4	3.6	4.5
1/2	9.8	5.6	5.4	4.9	6.1
3/4	13.8	7.9	7.6	6.9	8.6
1	16	9.2	8.8	8	10
1-1/2	20	11.5	11	10	12.5
2	24	13.8	13.2	12	15
3	34	19.6	18.7	17	21.3
5	56	32.2	30.8	28	35
7-1/2	80	46	44	40	50
10	100	57.5	55	50	62.5



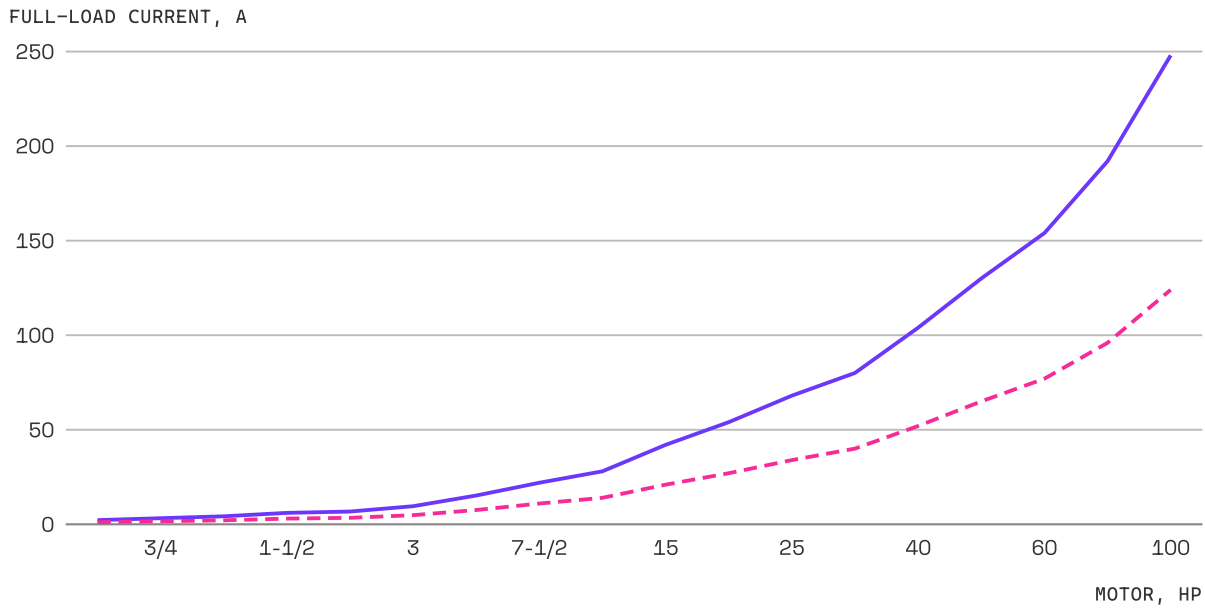
Full-load current of single-phase motors at 115 V and 230 V.

Three-phase motor full-load amps

Full-load amps of three-phase motors by horsepower at 200, 208, 230, 460 and 575 V

HP	200 V	208 V	230 V	460 V	575 V	125% AT 460 V
1/2	2.5	2.4	2.2	1.1	0.9	1.4
3/4	3.7	3.5	3.2	1.6	1.3	2
1	4.8	4.6	4.2	2.1	1.7	2.6
1-1/2	6.9	6.6	6	3	2.4	3.8
2	7.8	7.5	6.8	3.4	2.7	4.3
3	11	10.6	9.6	4.8	3.9	6
5	17.5	16.7	15.2	7.6	6.1	9.5
7-1/2	25.3	24.2	22	11	9	13.8
10	32.2	30.8	28	14	11	17.5
15	48.3	46.2	42	21	17	26.3
20	62.1	59.4	54	27	22	33.8

HP	200 V	208 V	230 V	460 V	575 V	125% AT 460 V
25	78.2	74.8	68	34	27	42.5
30	92	88	80	40	32	50
40	120	114	104	52	41	65
50	150	143	130	65	52	81.3
60	177	169	154	77	62	96.3
75	221	211	192	96	77	120
100	285	273	248	124	99	155



Full-load current of three-phase motors at 230 V and 460 V.

Table amps versus nameplate amps

Branch circuit conductors, breakers and disconnects are sized from these table values, not from the nameplate. The nameplate current (FLA) is used to set the motor's overload protection. Three-phase values are for induction motors at normal speed.

SOURCES

- NFPA 70, National Electrical Code (2023): Full-load current, single-phase AC motors, Table 430.248
- NFPA 70, National Electrical Code (2023): Full-load current, three-phase AC motors, Table 430.250

▶ Compared with 3 published documents, last on 2026-11-13

Calculated by Calculate.diy with the method of the National Electrical Code® (NEC®), 2023 edition; not the NEC text. Methodology. For planning only: check local code and use a licensed electrician.