kW to Amps Conversion Chart

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kW to Amps — Standard Voltages (A)

kW	230V 1-ph (PF 1)	230V 1-ph (PF 0.8)	400V 3-ph (PF 0.85)	415V 3-ph (PF 0.85)
0.5	2.2	2.7	0.8	0.8
1	4.3	5.4	1.7	1.6
1.5	6.5	8.2	2.5	2.5
2	8.7	10.9	3.4	3.3
3	13.0	16.3	5.1	4.9
5	21.7	27.2	8.5	8.2
7.5	32.6	40.8	12.7	12.3
10	43.5	54.3	17.0	16.4
15	65.2	81.5	25.5	24.6
20	87.0	108.7	34.0	32.7
30	130.4	163.0	50.9	49.1
50	217.4	271.7	84.9	81.8
75	326.1	407.6	127.4	122.8
100	434.8	543.5	169.8	163.7

Motor Full-Load Current — 400V 3-ph, PF 0.85

Motor kW	FLA
1.1	2.7 A
2.2	5.0 A
4	8.8 A
7.5	15.2 A
15	29.5 A
22	42.5 A
37	69.8 A
55	102.0 A

Breaker Sizing Quick Reference (230V 1-ph, PF 1, continuous)

Load (kW)	Amps	Breaker (A)
2	8.7	16
3	13.0	20

5	21.7	32
7	30.4	40
9	39.1	50

Formulas: DC: I=(kW×1000)÷V | 1-ph: I=(kW×1000)÷(V×PF) | 3-ph: I=(kW×1000)÷(√3×V×PF). Verify against local electrical code before use.