



USA

# Technical

## AMPERAGE CONVERSION

Watts	Volts Single Phase			Volts 3 Phase Balanced Load		Watts
	120	240	480	240	480	
100	.83	.42	.21	.24	.13	100
150	1.25	.63	.31	.36	.18	150
200	1.67	.83	.42	.49	.25	200
250	2.08	1.04	.52	.61	.30	250
300	2.50	1.25	.63	.73	.37	300
350	2.92	1.46	.73	.85	.43	350
400	3.33	1.67	.84	.97	.49	400
450	3.75	1.88	.93	1.10	.55	450
500	4.17	2.08	1.04	1.20	.60	500
600	5.00	2.50	1.25	1.45	.73	600
700	5.83	2.92	1.46	1.70	.85	700
750	6.25	3.13	1.56	1.81	.91	750
800	6.67	3.33	1.67	1.93	.97	800
900	7.50	3.75	1.87	2.17	1.09	900
1000	8.33	4.17	2.10	2.41	1.21	1000
1100	9.17	4.58	2.30	2.65	1.33	1100
1200	10.0	5.00	2.51	2.90	1.45	1200
1250	10.4	5.21	2.61	3.10	1.55	1250
1300	10.8	5.42	2.71	3.13	1.57	1300
1400	11.7	5.83	2.91	3.38	1.69	1400

Watts	Volts Single Phase			Volts 3 Phase Balanced Load		Watts
	120	240	480	240	480	
1500	12.5	6.25	3.12	3.62	1.82	1500
1600	13.3	6.67	3.34	3.86	1.93	1600
1700	14.2	7.08	3.54	4.10	2.05	1700
1750	14.6	7.29	3.65	4.22	2.10	1750
1800	15.0	7.50	3.75	4.34	2.17	1800
1900	15.8	7.92	3.96	4.58	2.29	1900
2000	16.7	8.33	4.17	4.82	2.41	2000
2200	18.3	9.17	4.59	5.30	2.65	2200
2500	20.8	10.4	5.21	6.10	3.05	2500
2750	23.0	11.5	5.73	6.63	3.32	2750
3000	25.0	12.5	6.25	7.23	3.62	3000
3500	29.2	14.6	7.30	8.45	4.23	3500
4000	33.3	16.7	8.33	9.64	4.82	4000
4500	37.5	18.8	9.38	10.84	5.42	4500
5000	41.7	20.8	10.42	12.1	6.1	5000
6000	50.0	25.0	12.50	14.50	7.25	6000
7000	58.3	29.2	14.59	16.9	8.5	7000
8000	66.7	33.3	16.67	19.3	9.65	8000
9000	75.0	37.5	18.75	21.7	10.85	9000
10000	83.3	41.7	20.85	24.1	12.1	10000

## FORMULAS FOR OBTAINING KILOWATTS, KILOVOLTAMPS, HORSEPOWER AND AMPERES

Wanted	Single Phase	Alternating 2-Phase 4-Phase	Three-Phase	Direct Current
Kilowatts	$\frac{I \times V \times PF}{1000}$	$\frac{I \times 2 \times PF \times V}{1000}$	$\frac{I \times V \times 1.73 \times PF}{1000}$	$\frac{I \times V}{1000}$
Kilovoltamps	$\frac{I \times V}{1000}$	$\frac{I \times V \times 2}{1000}$	$\frac{I \times V \times 1.73}{1000}$	$\frac{I \times V}{1000}$
Horsepower	$\frac{I \times V \times \%Eff. \times PF}{746}$	$\frac{I \times V \times 2 \times \%Eff. \times PF}{746}$	$\frac{I \times V \times 1.73 \times \%Eff. \times PF}{746}$	$\frac{I \times V \times \%Eff.}{746}$
Amperes from kVA	$\frac{kVA \times 1000}{V}$	$\frac{kVA \times 1000}{2 \times V}$	$\frac{kVA \times 1000}{1.73 \times V}$	$\frac{kVA \times 1000}{V}$
Amperes from kW	$\frac{kW \times 1000}{V \times PF}$	$\frac{kW \times 1000}{2 \times V \times PF}$	$\frac{kW \times 1000}{1.73 \times V \times PF}$	$\frac{kW \times 1000}{V}$
Amperes from HP	$\frac{HP \times 746}{V \times \%Eff. \times PF}$	$\frac{HP \times 746}{2 \times V \times \%Eff. \times PF}$	$\frac{HP \times 746}{1.73 \times V \times \%Eff. \times PF}$	$\frac{HP \times 746}{V \times \%Eff.}$

V = Volts      I = Amperes      %Eff. = Percent Efficiency      PF = Power Factor