ALFA TRANSFORMER

TRANSFORMERS
It's What We Do.

ELECTRICAL AND POWER FORMULAS

TO FIND	SINGLE-PHASE	THREE-PHASE	DIRECT CURRENT
KVA	$\frac{E \times I}{1000}$	$\frac{E \times I \times 1.732}{1000}$	-
Kilowatts	$\frac{E \times I \times PF}{1000}$	$\frac{E \times I \times 1.732 \times PF}{1000}$	$\frac{E \times I}{1000}$
Horsepower (Output)	$\frac{E \times I \times \%EFF \times PF}{746}$	$\frac{E \times I \times \%EFF \times 1.732 \times PF}{746}$	$\frac{E \times I \times \%EFF}{746}$
Amperes when HP is known	$\frac{HP \times 746}{E \times \%EFF \times PF}$	$\frac{HP \times 746}{1.732 \times E \times \%EFF \times PF}$	$\frac{HP \times 746}{E \times \%EFF}$
Amperes when KW is known	$\frac{KW \times 1000}{E \times PF}$	$\frac{KW \times 1000}{1.732 \times E \times PF}$	$\frac{KW \times 1000}{E}$
Amperes when KVA is known	$\frac{KVA \times 1000}{E}$	$\frac{KVA \times 1000}{E \times 1.732}$	-
Efficiency	$\frac{746 \times HP}{E \times I \times PF}$	$\frac{746 \times HP}{E \times I \times PF \times 1.732}$	-
Power Factor	$\frac{\text{Input watts}}{E \times I}$	$\frac{\text{Input watts}}{E \times I \times 1.732}$	-

E = Volts I = Amperes %EFF = Percent Efficiency PF = Power Factor

** The information contained in this reference is not intended as a substitute for the advice of qualified electrical personnel. Consult an electrician or electrical engineer for verification of any calculations.*