ELECTRICAL CONVERSION FORMULAS

To Find	Direct Current	Alternating Current	
		Single Phase	Three Phase
Amperes when horsepower (Input) is known	HP X 746/E x Eff	HP X 746/E x Eff x P.F.	HP x 746/1.73 x E x Eff x P.F.
Amperes when kilowatts is known		KW x 1000/E x P.F.	KW x 1000/1.73 x E x P.F.
Amperes when Kva is known		Kva x 1000/E	Kva x 1000/1.73 x E
Kilowatts	I x E/1000	I x E x P.F./1000	1.73 x I x E x P.F./1000
Kva		I x E/1000	1.73 x I x E/1000
P.F.		KW/Kva	KW/Kva
Horsepower (Output)	I x E x Eff/746	I x E x Eff x P.F./746	1.73 x I x E x Eff x P.F./746

- I = Amperes
- Eff = Efficiency (decimal)
- Kva = Kilovolt-amperes
- E = Volts
- P.F. = Power Factor
- KW = Kilowatts
- HP = Horsepower