Technical Notes

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Product Part	Description	
UPS Battery Backup	Power Formulas	
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Subject
Calculating and converting power components and measurements

Power Formulas

Establishing size of a transformer

Volts (V) x Amps (A)   =   VA   (eg; 208VAC X 100 Amps = 20KVA)

Converting VA to KVA

Divide VA x 1000   (eg; 1000 VA = 1KVA)

Converting KVA to Watts

Multiply KVA, or VA x .8   (eg; 1KVA = .8KW or 800 Watts)

Converting Watts to VA

Multiply Watts by 1.2   (eg; 800 Watts = approx. 1000VA)

Establishing electrical consumption cost

Find your KW load.   (eg; 10KVA = 8KW)
Multiply your KW load by $.07/Hour   (eg; $.07 X 8KW = $.56/hour)

Useful Formulas

Electrical Consumption costs $.07/ KW Hour Arizona
Electrical Consumption costs $.08/ KW Hour Nevada
Electrical Consumption costs $.09/ KW Hour California

Hours of operation per year   8760 Hours per year (24 x 7)