Output Characteristics

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage - V1	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±1 (V1), ±5 (V2)	%	50% load, 115/230 VAC
Output Voltage Adjustment			±10	%	V1 only. See mechanical details.
Minimum Load	0			A	
Start Up Delay		0.5		s	230 VAC full load
Hold Up Time	20			ms	
Drift			±0.2	%	After 20 min warm up
Line Regulation			±0.5	%	90-264 VAC
Load Regulation			±1 (V1), ±5 (V2)	%	0-100% load.
Transient Response - V1			4	%	Recovery within 1% in less than 500 µs for a 50-75% and 75-50% load step
Ripple & Noise		1%		% pk-pk	V1: 20 MHz bandwidth
Overvoltage Protection	115		145	%	Vnom DC. Output 1 only, recycle input to reset
Overload Protection	110		140	% I nom	Output 1 only, auto reset. See fig 2.
Short Circuit Protection					Auto Recovery, hiccup mode
Temperature Coefficient			0.02	%/°C	
Overtemperature Protection				°C	Protects unit from overtemperature. Auto reset.

Output Overload Characteristic

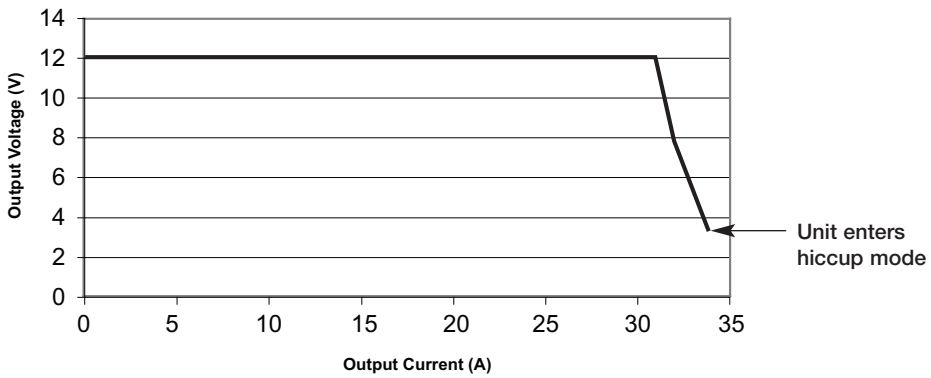


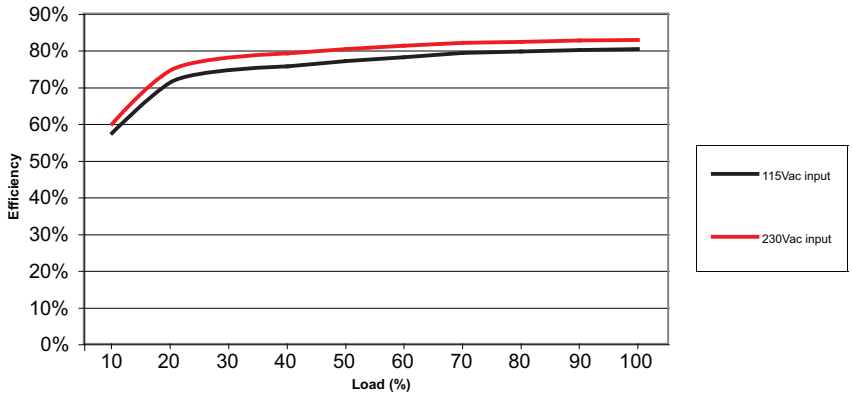
Figure 2
Typical V1 Overload Characteristic (SHP350PS12 shown)

General Specifications

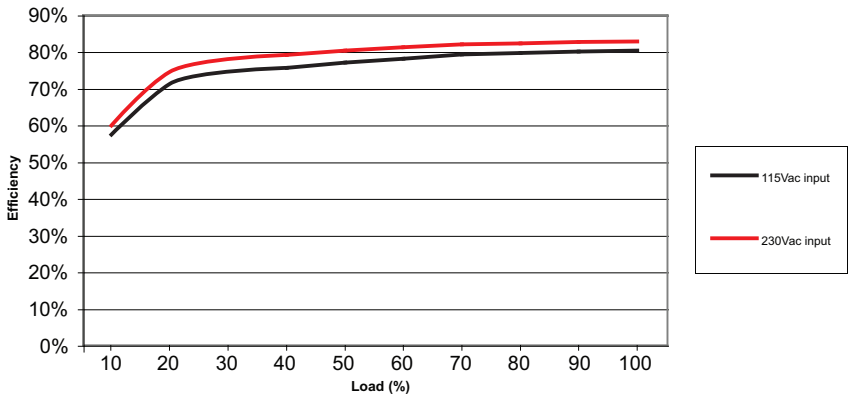
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		85		%	See fig 3 & 4
Isolation: Input to Output	3000			VAC	
Input to Ground	1500			VAC	
Output to Ground	500			VDC	
Switching Frequency		70/200/130		kHz	PFC converter / Main converter / Standby
Power Density			6.6	W/in^3	
Mean Time Between Failure		216		kHrs	MIL-HDBK-217F at 25 °C GB
Weight		2.1 (940)		lb (g)	See mechanical details

Efficiency vs Load

SHP350PS12
Figure 3



SHP350PS48
Figure 4



Signals & Control

Characteristic	Notes & Conditions
Signals & Control	
Remote Sense	Compensates for 0.5 V total voltage drop
AC OK / Power Fail	Open collector referenced to negative sense, transistor normally off when AC is good (see fig. 5 & 8) AC OK: Provides ≥ 5 ms warning of loss of output from AC failure
Remote On/Off (Inhibit/Enable)	Uncommited isolated optocoupler diode, powered diode inhibits both V1 & V2 (fan supply) (see fig.6 & 9)
Current Share	When more than one unit (with the same output voltage) is used in parallel to increase output current, the current share pins 5/6 of one unit should be connected to pins 5/6 of the other unit(s). This will force the current to share between the outputs. Similarly pins 2/4 of each unit should also be connected as a ground reference. Units share current within 10% of each other at full load. See fig 7.
Standby Supply V2	Isolated 5 V/0.2 A supply, always present when AC supplied.