

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		90		%	230 VAC Full load (see fig.3-5)
Isolation: Input to Output Input to Ground Output to Ground	4000			VAC	2 x MOPP
	1500			VAC	1 x MOPP
	500			VDC	
Switching Frequency		65		kHz	PFC Converter
	50	90	200		Main Converter
		100			Standby Converter
Power Density			12.6	W/in ³	
Mean Time Between Failure		216		kHrs	MIL-HDBK-217F, Notice 2 +25 °C GB
Weight		1.87 (0.85)		lb (kg)	GSP500PSxx models
		1.98 (0.90)			GSP500PSxx-EF models

Efficiency Vs Load

Figure 3
12 V Models

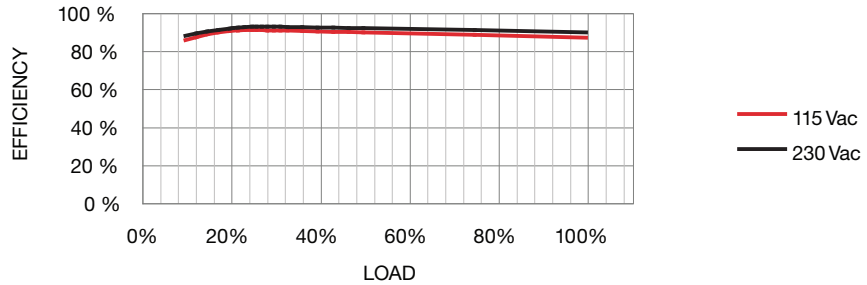


Figure 4
24 V Models

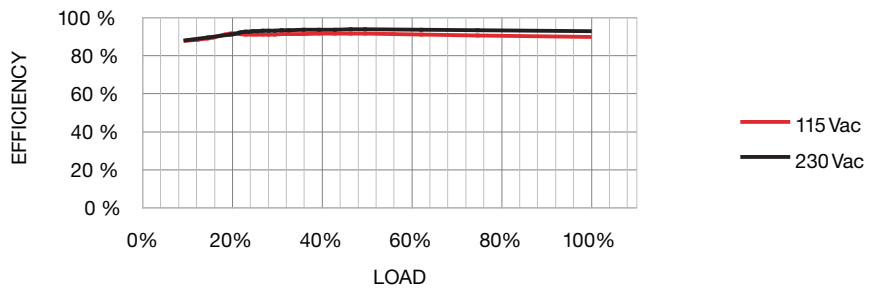
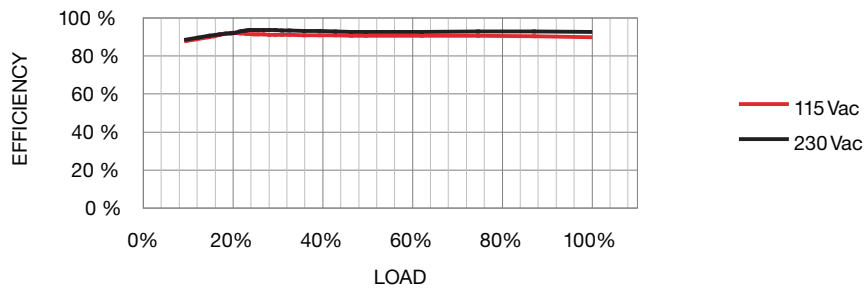


Figure 5
48 V Models

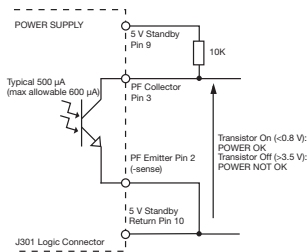


Signals & Controls

Characteristic	Notes & Conditions
Power Fail (PF)	Open collector referenced to negative sense, transistor normally on when power is good (see fig. 5); power is considered good when PFC bulk capacitor voltage is normal. PF: Provides ≥ 5 ms warning of loss of output from power failure.
Inhibit	Uncommitted isolated optocoupler diode, powered diode inhibits both V1 and fan supply (see fig. 6). During inhibit the standby supply and current should be limited to 1 A for thermal reasons.
Output Good	LED Indicator
Fan Speed Control GSP500PSxx-EF Models	The fan speed is set to one of 4 states (high, mid, low or off) dependant on the internal power supply ambient temperature, input voltage and output load at any given time.
Standby Supply	5V/2A Isolated supply present when AC applied.
Remote Sense	Compensates for 0.5 V total voltage drop.
Current Share	Optional, on 'P' version only. Connecting pins 5 or 6 on one unit to pins 5 or 6 on another like voltage unit will force the current to be shared within 10% between the two outputs. Up to three units can share current. (see fig. 7)

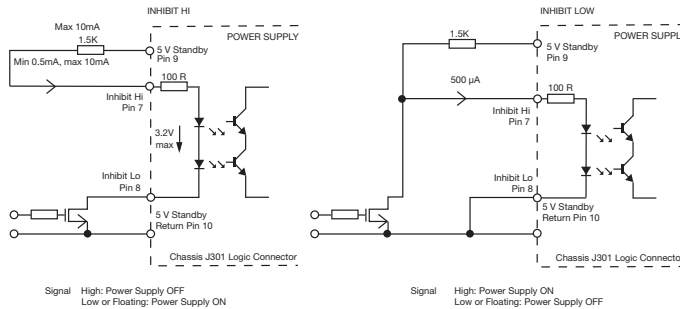
Power Fail (PF)

Figure 5



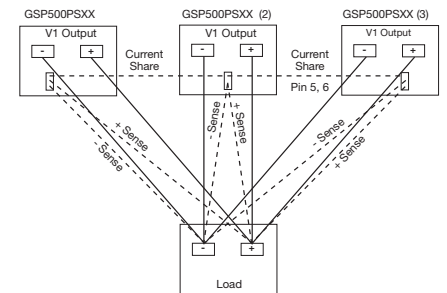
Remote On/Off (Inhibit)

Figure 6



Current Share

Figure 7



Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-20		+70	°C	Start up at -40 °C. See derating curve, fig. 8
Storage Temperature	-40		+85	°C	
Cooling	12			CFM	GSP500PSxx models
Humidity	5		95	%RH	Non-condensing
Operating Altitude			5000	m	
Acoustic Fan Noise GSP500PSxx-EF Models		59.9		Lw db(A)	Full Speed
		52.2		Lw db(A)	Mid Speed
		36.6		Lw db(A)	Low Speed
Shock					$\pm 3 \times 30g$ shocks in each plane, total 18 shocks. 30g = 11ms (+/-0.5msec), half sine. Conforms to EN60068-2-27 & EN60068-2-47
Vibration					Single axis 10 - 500 Hz at 2g sweep and endurance at resonance in all 3 planes. Conforms to EN60068-2-6

Thermal Derating Curve

Figure 8

