

### 500 Watts

- Convection/Forced-cooled Ratings
- Universal 80 - 264VAC Input
- IT & Medical Safety Approvals
- <1W Standby Power
- -40 °C to +70 °C Operation
- Remote On/Off
- 5V/2A Standby Output
- 3 Year Warranty



The GSP500 has been designed to offer a full 500W of output power in a very small mechanical footprint, whilst still providing peak power to 650W, a 5V standby output with 2Amps of current capability and an input standby power draw of <1W when the inhibit is activated.

Approved for both IT and medical applications the series has output versions from 12V to 48V and can be supplied as a U channel for system cooling or with optional very quiet integral fans (-EF). These fans are intelligently controlled to provide the most optimised acoustic noise in the system and further more the GSP500 can provide up to 180W without forced cooling, thus allowing fans to be switched off during periods of lower system loading.

#### Dimensions:

**GSP:**  
 6.00 x 4.00 x 1.65" (152.4 x 101.6 x 41.9 mm)  
 (-EF): 6.71 x 4.00 x 1.65" (170.4 x 101.6 x 41.9 mm)

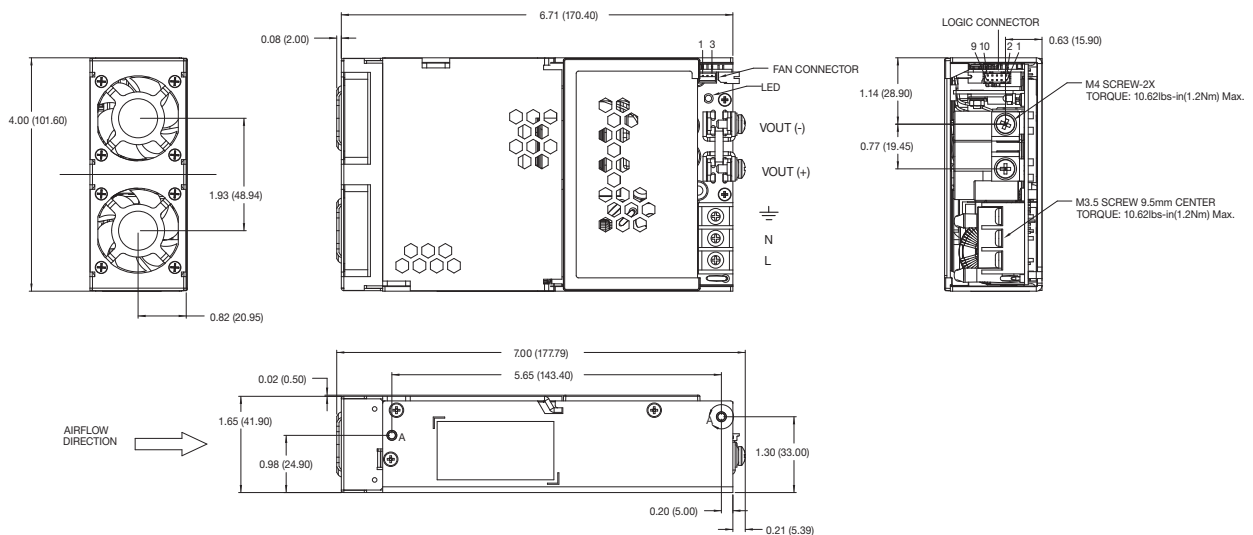
### Models & Ratings

Output Voltage	Output Current V1		Standby Supply		Fan Supply	Max Output Power		Model Number <sup>(1-3)</sup>
	Convection	Forced	Convection	Forced		Nom	Peak <sup>(2)</sup>	
12.0 VDC	15.00 A	42.0 A	5 V/1 A	5 V/2 A	12 V/0.3 A	500 W	650 W	GSP500PS12-EF
24.0 VDC	7.50 A	21.0 A	5 V/1 A	5 V/2 A	12 V/0.3 A	500 W	650 W	GSP500PS24-EF
48.0 VDC	3.75 A	10.5 A	5 V/1 A	5 V/2 A	12 V/0.3 A	500 W	650 W	GSP500PS48-EF

#### Notes

1. Remove suffix -EF (EndFan) for use with integral system cooling.
2. Peak power available for 100 ms maximum with a 10% duty cycle. The average power in a period should be equal or less than the normal power.
3. For optional current share version, add suffix 'P', e.g. GSP500PS24P or GSP500PS24P-EF.

### Mechanical Details



### Input

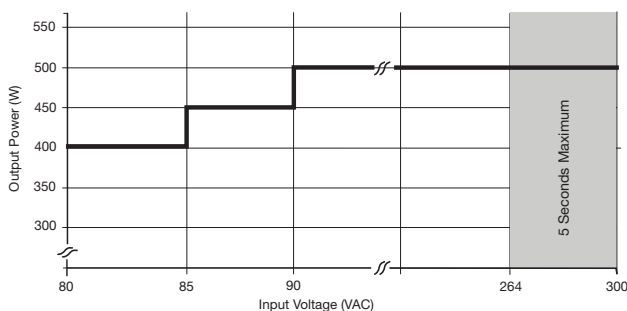
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	80	115/230	264	VAC	Derate output power <90 VAC. See fig 1.
Input Voltage - Fault condition			300	VAC	5 second max
Input Frequency	47	50/60	63	Hz	
Power Factor		>0.9			230 VAC, 100% load
Input Current - Full Load		5.0/2.4		A	115/230 VAC
Inrush Current		60		A	
No Load Input Power			0.5	W	All models, when inhibit activated
			3.0		GSP500PS12 - 115 VAC
			1.3		GSP500PS12 - 230 VAC
			3.0		GSP500PS24 - 115 VAC
			1.2		GSP500PS24 - 230 VAC
			4.8		GSP500PS48 - 115 VAC
		2.3	GSP500PS48 - 230 VAC		
Earth Leakage Current		80/220	250	μA	115/230 VAC/50 Hz Typ., 264 VAC/60 Hz Max.
Input Protection	F16 A/250 V internal fuse in both lines				

### Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage - V1	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±1	%	50% load, 115/230 VAC
Output Voltage Adjustment			+1,-3	%	
Minimum Load	0			A	
Start Up Delay		0.5	2	s	115/230 VAC full load from input AC turn on
Hold Up Time	20			ms	
Drift			±0.2	%	After 20 min warm up
Line Regulation		0.01	0.5	%	90-264 VAC
Load Regulation		0.2	1.0	%	0-100% load
Transient Response			4	%	Recovery within 1% in less than 500 μs for a 50-75% and 75-50% load step
Over/Undershoot		0		%	
Ripple & Noise		0.5	1.5	% pk-pk	20 MHz bandwidth
Overvoltage Protection	115		140	%	Vnom DC. Output 1, recycle input to reset
Overload Protection	110		150	% I nom	See fig. 2. Trip and Restart
Short Circuit Protection					Shutdown & auto recovery
Temperature Coefficient			0.05	%/°C	
Overtemperature Protection					Shutdown & auto recovery

### Input Voltage Derating Curve

Figure 1



### Output Overload Characteristic

Figure 2  
GSP500PS12 example (others similar).

