ECP150 Series

AC-DC Power Supplies

XP Power

150 Watts

- 100 W Convection-cooled
- 150 W Forced-cooled
- 2" x 4"Foot Print
- Single Outputs from 12 V to 48 V
- Built-in Fan Supply
- <0.5 W No Load Input Power
- 3 Year Warranty

GREEN XP POWER

Dimensions:

ECP150:
4.00 x 2.00 x 1.16" (101.6 x 50.8 x 29.5 mm)

The ECP150 series minimises the no load power consumption and maximises efficiency to facilitate equipment design to meet the latest environmental legislation. Approved for medical and ITE applications, this range of single output AC/DC power supplies are packaged in a low profile 1.26" height with a foot print of just 2.0" by 4.0". The ECP150 provides up to 150W force-cooled or 100W convection-cooled leading to very high power densities of 14.9W/in^3 or 9.9W/in^3 respectively. A 12V, 500mA fan supply is included in the design.The power supply contains two fuses and low leakage currents as required by medical applications and is safety approved to operate in a 70 °C ambient.The low profile and safety approvals covering ITE and medical standards along with conducted emissions meeting EN55011/22 level B allow the versatile ECP150 series to be used in a vast range of applications.

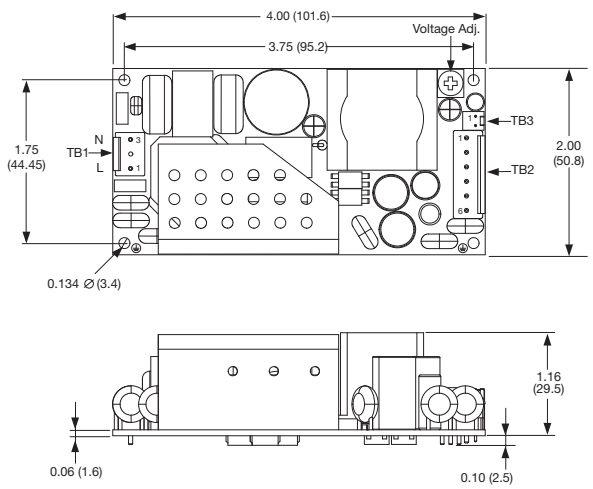
Models & Ratings

Output Voltage	Output Current		Ripple and Noise pk-pk[2]	Fan Output	Efficiency[3]	Model Number
	Convection-cooled	Forced-cooled[1]				
12.0 V	8.33 A	12.50 A	120 mV	12 V/0.5 A	91%	ECP150PS12
15.0 V	6.67 A	10.00 A	150 mV	12 V/0.5 A	91%	ECP150PS15
24.0 V	4.17 A	6.25 A	240 mV	12 V/0.5 A	91%	ECP150PS24
28.0 V	3.50 A	5.40 A	280 mV	12 V/0.5 A	92%	ECP150PS28
48.0 V	2.08 A	3.10 A	480 mV	12 V/0.5 A	92%	ECP150PS48

Notes

1. Requires 10 CFM.
2. Measured with 20 MHz bandwidth and 10 µF electrolytic capacitor in parallel with 0.1 µF ceramic capacitor
3. Minimum average efficiencies measured at 25%, 50%, 75% & 100% of 150 W load and 230 VAC input.

Mechanical Details



For full specifications visit: **www.xppower.com**

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	90	115/230	264	VAC	Derate output from 100% at 100 VAC to 90% at 90 VAC
Input Frequency	47	50/60	63	Hz	Agency approval 47-63 Hz
Power Factor	0.95				230 VAC, 100% load EN61000-3-2 class A EN61000-3-2 class C > 60W
Input Current - Full Load		1.5/0.75		A	115/230 VAC
Inrush Current			60	A	230 VAC cold start, 25 °C
Earth Leakage Current		80/140	230	µA	115/230 VAC/50 Hz (Typ.), 264 VAC/60 Hz (Max.)
No Load Input Power			0.5	W	
Input Protection	F3.15 A/250 V Internal fuse fitted in line and neutral.				

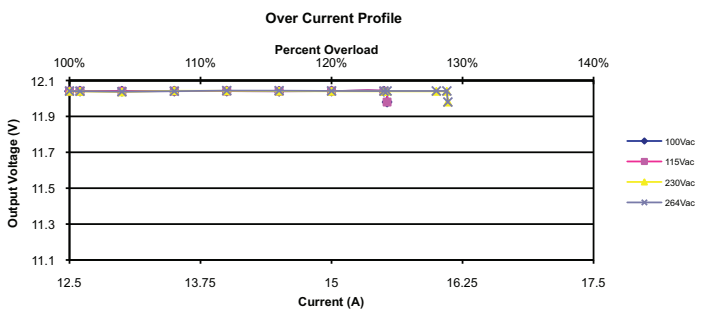
Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage - V1	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±1	%	V1 at 50% load, 115/230 VAC
Output Voltage Adjustment - V1	10			%	V1 only via potentiometer. See mech. details, Vfan will track
Minimum Load	0			A	
Start Up Delay		550		ms	115/230 VAC full load at 25° C. See fig. 3 & 4.
Rise Time		35		ms	
Hold Up Time	16	20		ms	At full load, 100 VAC, see fig. 5.
Drift			±0.02	%	After 20 min warm up
Line Regulation			±0.5	%	90-264 VAC
Load Regulation			±0.5	%	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		4		%	Full Load
Ripple & Noise			1	% pk-pk	20 MHz bandwidth & 10 µF electrolytic capacitor in parallel with 0.1 µF ceramic capacitor, See fig. 6.
Overvoltage Protection	115		140	%	Vnom, recycle input to reset
Overload Protection	110		150	% I nom	See fig. 1.
Short Circuit Protection					Trip and Restart See fig. 2.
Temperature Coefficient			0.02	%/ ° C	

Output Overload Characteristic

Figure. 1

ECP150PS12



ECP150PS24