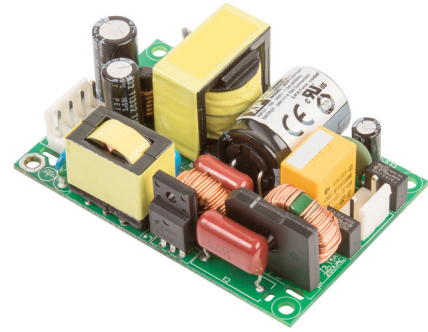


130 Watts

- 100 W Convection/130 W Forced-cooled Ratings
- 2" by 3" Footprint
- Low 1.1" Profile
- High Efficiency, up to 95%
- Medical and ITE Approvals
- High Power Density
- Less than 0.5 W No Load Input Power
- 3 Year Warranty



The ECP130 series is designed to minimize the no load power consumption and maximize 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 1.1" height with a foot print of just 2" by 3". The ECP130 provides up to 130 W force-cooled or | 100 W convection-cooled leading to very high power densities of 19.7 W/in³ or 15.1 W/in³ respectively.

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 to EN55011/32 level B allow the versatile ECP130 series to be used in a vast range of applications.

Dimensions:

ECP130:

3.00 x 2.00 x 1.10" (76.2 x 50.8 x 28.0 mm)

Models & Ratings

Output Power	Output Voltage	Output Current		Efficiency ⁽²⁾	Model Number ⁽³⁾
		Convection-cooled	Forced-cooled ⁽¹⁾		
130 W	12.0 V	8.33 A	10.83 A	93%	ECP130PS12
130 W	15.0 V	6.66 A	8.66 A	93%	ECP130PS15
130 W	18.0 V	5.55 A	7.22 A	93%	ECP130PS18
130 W	24.0 V	4.16 A	5.41 A	93%	ECP130PS24
130 W	28.0 V	3.57 A	4.64 A	93%	ECP130PS28
130 W	36.0 V	2.77 A	3.61 A	93%	ECP130PS36
130 W	48.0 V	2.08 A	2.70 A	93%	ECP130PS48

Notes

1. Requires 10 CFM.
2. Typical efficiency measured at full load and 230VAC input.
3. Add suffix '-S' for input and output screw terminals e.g. ECP130PS24-S

Summary

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Range	85	115/230	264	VAC	Derate load from 100% at 90 VAC to 85% at 85 VAC
No Load Input Power			0.5	W	
Efficiency		95		%	230 VAC (see fig.1 & 2)
Operating Temperature	-30		+70	°C	See derating curve (fig.3)
Safety Approvals	ITE	IEC62368-1, UL62368-1, CSA 22.2 No.62368-1-11 Ed 2, EN62368-1, LVD			
	Medical	IEC60601-1 Ed 3.1 Including Risk Management, ANSI/AAMI ES60601-1 & CSA C22.2 No.6061-1:08, EN60601-1			

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85	115/230	264	VAC	Derate output from 100% at 90 VAC to 85% at 85 VAC
Input Frequency	47	50/60	63	Hz	Agency approval, 47-63 Hz
Power Factor	0.8				230 VAC, 100% load EN61000-3-2 class A
Input Current - Full Load		1.3/0.65		A	115/230 VAC
Inrush Current		120		A	230 VAC cold start, 25 °C
Earth Leakage Current		20/40	50	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 - Main Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±1	%	50% load, 115/230 VAC
Output Voltage Adjustment				%	None
Minimum Load	0			A	No minimum load required
Start Up Delay			2	s	115/230 VAC full load.
Hold Up Time	10	15/11		ms	Min at full load, 115 VAC. Typical at 100W/ 130W
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			7	%	Full load
Ripple & Noise			1	% pk-pk	<2% from no load to 10% load, <1% above 10% load. 20 MHz bandwidth and 10 µF electrolytic capacitor in parallel with 0.1 µF ceramic capacitor.
Overvoltage Protection	110		140	%	Vnom, recycle input to reset
Overload Protection	110		170	% I nom	
Short Circuit Protection					Trip & Restart
Temperature Coefficient			0.02	%/°C	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		95		%	230 VAC (see fig. 1 & 2)
Isolation: Input to Output Input to Ground Output to Ground	4000			VAC	2 MOPP
	1500			VAC	1 MOPP
	1500			VAC	1 MOPP
Switching Frequency	40		130	kHz	PFC
	50		135	kHz	Main converter
Power Density			19.7/15.1	W/in³	Forced/convection-cooled
Mean Time Between Failure		680		kHrs	MIL-HDBK-217F, Notice 2 +25 °C GB
Weight		0.25(115)		lb(g)	