Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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150 Watts
ECP Series

GREEN XP POWER

- 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

Specification

Input

Input Voltage	• 90-264 VAC (120-370 VDC), Derate from 100% load at 100 VAC to 90% load at 90 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.5 A max at 115 VAC, 0.75 A max at 230 VAC
Inrush Current	• 60 A max at 230 VAC, cold start at 25 °C
Power Factor	• >0.95 at full load, 230 VAC
Earth Leakage Current	• 230 µA at 264 VAC, 60 Hz.
No Load Input Power	• <0.5 W
Input Protection	• Internal T3.15A/250VAC fitted in line and neutral

Output

Output Voltage	• See tables
Output Voltage Trim	• ±10%
Initial Set Accuracy	• ±1% at 50 % load
Minimum Load	• No minimum load requirement
Start Up Delay	• 550 ms typical
Start Up Rise Time	• 35 ms typical
Hold Up Time	• 16 ms minimum at full load and 115 VAC
Line Regulation	• ±0.5% max
Load Regulation	• ±0.5% max
Transient Response	• 4% maximum deviation, recovering to less than 1% within 500 µs for 25% step load
Ripple & Noise	• 1% max pk-pk, 20 MHz bandwidth, (see note 2)
Overvoltage Protection	• 115% - 140% of nominal voltage on main output. Recycle mains to reset.
Overload Protection	• 110-150%
Short Circuit Protection	• Trip and restart (hiccup)
Temperature Coefficient	• 0.02%/°C
Fan Supply	• 12 V at 500 mA

General

Efficiency	• See table
Isolation	• 4000 VAC Input to Output 1500 VAC Input to Ground 500 VDC Output to Ground
Protection Level	• Primary to Secondary: 2 MOPP Primary to Earth: 1 MOPP
Switching Frequency	• 60 kHz ± 10 kHz
MTBF	• 300 kHrs to MIL-HDBK-217F at 25 °C, GB

Environmental

Operating Temperature	• -20 °C to +70 °C derate from 100% load at 50 °C to 50% load at 70 °C
Cooling	• Convection cooled: 100 W Forced cooled: 150 W with 10 CFM
Operating Humidity	• 5% to 90% RH, non condensing
Operating Altitude	• 3000 m
Storage Temperature	• -40 °C to +85 °C
Shock	• IEC68-2-6, 30 g, 11 mins half sine, 3 times in each of 6 axes
Vibration	• IEC68-2-27, 10-55 Hz, 2 g 10 mins / sweep. 60 mins for each of 3 axes

EMC & Safety

Emissions	• EN55022/11, Level B conducted & Level A radiated
Harmonic Currents	• EN61000-3-2 Class A EN61000-3-2 Class C for load >60 W
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, ±8 kV air, ±4 kV contact, Perf Criteria A
Radiated Immunity	• EN61000-4-3, 10 V/m, Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3, Perf Criteria A
Surge	• EN61000-4-5, installation class 3, Perf Criteria A
Conducted Immunity	• EN61000-4-6, 10 V, Perf Criteria A
Dips & Interruptions	• EN55024, 100% 10 ms, 30%, 500 ms, 100%, 5000 ms Perf Criteria A, A, B for high line, A, B, B for low line at full load, EN60601-1-2, 30% 500 ms, 60% 100 ms, 100% 10 ms, 100% 5000 ms, Perf Criteria A, A, A, B for high line, A, B, A, B for low line at full load
Safety Approvals	• UL60950-1, IEC60950-1, EN60950-1, ANSI/AAMI ES 60601-1, IEC60601-1, EN60601-1

Models and 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

TB1 - Input Connector	
Pin 1	Line
Pin 2	Not Fitted
Pin 3	Neutral

Mates with JST housing
VHR-3N and JST Series
SVH-21T-P1.1 crimp terminals

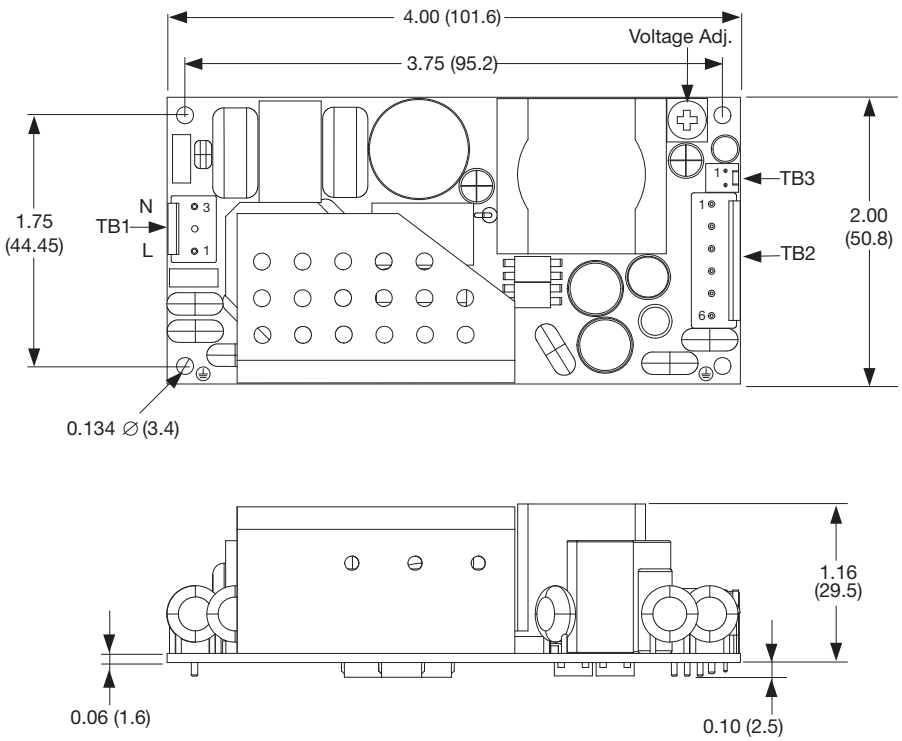
Mounting holes marked with
⏚ must be connected to safety earth

TB2 - Output Connector	
Pin 1	+Vout
Pin 2	+Vout
Pin 3	+Vout
Pin 4	-Vout
Pin 5	-Vout
Pin 6	-Vout

Mates with JST housing
VHR-6N and JST Series
SVH-21T-P1.1 crimp terminals

TB3 - Fan Connector	
Pin 1	Fan +
Pin 2	Fan -

Mates with Molex housing
22-01-1022 and 2759 crimp terminals



Notes

1. All dimensions shown in inches (mm).
Tolerance: ±0.02 (0.5)

2. Weight: 0.42 lbs (190 g) approx.

Derating Curve