60 Watts
ECP Series



- Low Profile Design
- Compact Size, 4” x 2”
- IT & Medical Approvals
- Dual and Triple Output
- <0.5 W No Load Input Power
- Peak Load Capability
- 3 Year Warranty

GREEN XP POWER

Specification

Input

Input Voltage	• 85-264 VAC, derate from 100% load at 90 VAC to 90% load at 85 VAC
Input Frequency	• 47-63 Hz
Input Current	• 0.85 A max at 115 VAC
Inrush Current	• 100 A max at 230 VAC, cold start at 25 °C
Power Factor	• EN61000-3-2, class A
No Load Input Power	• <0.5 W
Earth Leakage Current	• <250 µA at 264 VAC, 60 Hz
Input Protection	• Internal T2 A/250 V fuse in both line and neutral

Output

Output Voltage	• See table
Output Voltage Trim	• ±10% on V1 only, output 2 on multi output models will track by the same percentage
Minimum Load	• 10% minimum load required on all outputs of multi output models
Start Up Delay	• 1.3 s max
Start Up Rise Time	• 15 ms typical
Hold Up Time	• 16 ms min at full load at 115 VAC
Total Regulation	• Output 1: 2% from 0% load to 100% load Output 2: 5% from 20% load to 100% load Output 3: 5% from 10% load to 100% load
Transient Response	• 4% max deviation, recovering to less than 1% within 500 µs for 50% step load change at 1 A/µs
Ripple & Noise	• 1% pk-pk measured with 20 MHz bandwidth
Overvoltage Protection	• 115-140% of nominal output voltage on V1 only, recycle input to reset
Overload Protection	• 120-160% of nominal power
Short Circuit Protection	• Trip and restart (hiccup mode)
Temperature Coefficient	• ±0.02%/°C max

General

Efficiency	• 88% typical at 230 VAC and full load
Isolation	• 4000 VAC Input to Output 1500 VAC Input to Ground 500 VDC Output to Ground
Switching Frequency	• 30-130 kHz variable
MTBF	• >400 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	• Natural convection
Operating Humidity	• 5% to 95% RH, non condensing
Operating Altitude	• 3000 m max
Storage Temperature	• -40 °C to +85 °C
Shock	• 30 g pk, half sine, 6 axes
Vibration	• 2 g rms, 5 Hz to 500 Hz, 3 axes

EMC & Safety

Emissions	• EN55011/32, level B conducted & level A radiated
Harmonic Currents	• EN61000-3-2, class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, ±4 kV indirect contact, Perf Criteria A
Radiated Immunity	• EN61000-4-3, 3 V/m, Perf Criteria A
EFT / Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, level 2 Perf Criteria A
Conducted Immunity	• EN61000-4-6, 3 V Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% 10 ms, 60% 100 ms, 100% 5000 ms, Perf Criteria A, B, B EN60601-1-2, 30% 500 ms, 60% 100 ms, 100% 10 ms, 100% 5000 ms, Perf Criteria A, A, A, B
Safety Approvals	• UL62368-1, IEC62368-1, EN62368-1, ANSI/AAMI ES 60601-1, IEC60601-1, EN60601-1, CE & UKCA meets all applicable directives & legislation.

Models and Ratings

Output Power	Output 1			Output 2			Output 3		Model Number
	Voltage	Current	Peak[1]	Voltage	Current	Peak[1]	Voltage	Current	
60 W	+5.0 VDC	7.0 A	9.1 A	+12.0 VDC	3.0 A	3.90 A			ECP60UD01
60 W	+5.0 VDC	7.0 A	9.1 A	+15.0 VDC	2.0 A	2.60 A			ECP60UD02
60 W	+5.0 VDC	7.0 A	9.1 A	+24.0 VDC	1.5 A	1.95 A			ECP60UD03
60 W	+5.0 VDC	7.0 A	9.1 A	+15.0 VDC	2.0 A	2.60 A	-15.0 V	0.30 A	ECP60UT02
60 W	+5.0 VDC	7.0 A	9.1 A	+24.0 VDC	1.5 A	1.95 A	-12.0 V	0.30 A	ECP60UT04

Notes

1. Peak load lasting <30 s with a maximum duty cycle of 10%, average output power not to exceed nominal.

Mechanical Details

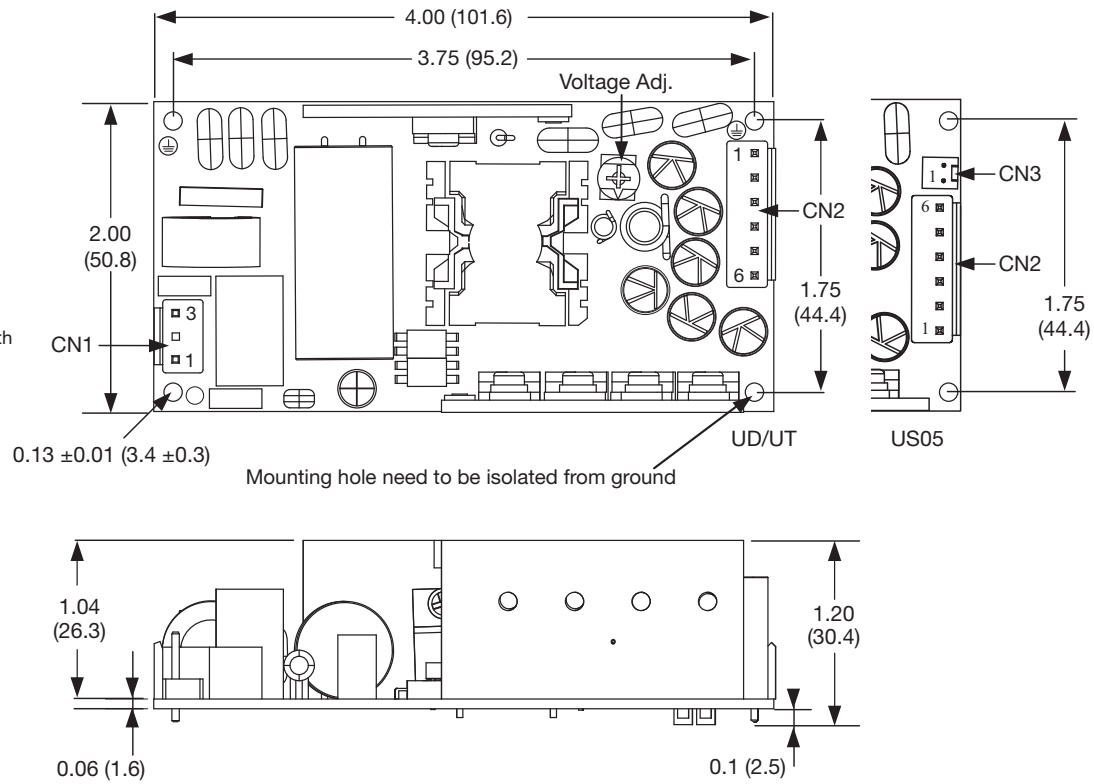
CN1 - Input Connector	
Pin 1	Neutral
Pin 2	Not Fitted
Pin 3	Line

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

CN2 Output Connector	
	UD/UT
Pin 1	V2
Pin 2	V1
Pin 3	V1
Pin 4	RTN
Pin 5	RTN
Pin 6	V3

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



Notes

1. All dimensions are in inches (mm).
2. Weight: 0.34 lbs (155 g) approx.
3. Tolerance: ±0.02 (±0.5) unless stated

Derating Curve

