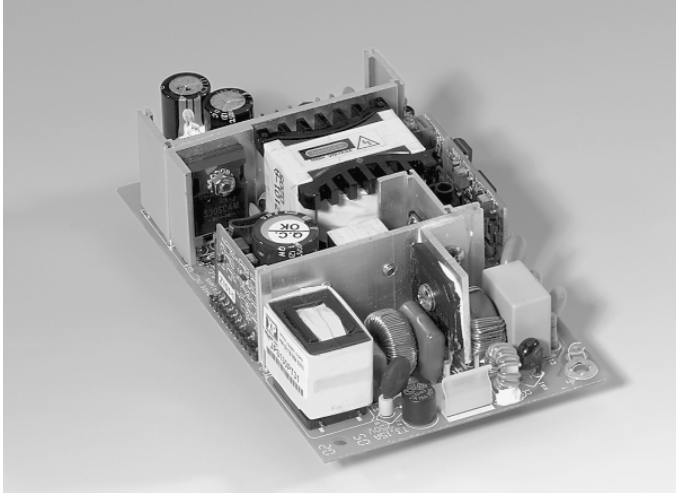


AC/DC Open Frame

130 Watts JPS130 Series

XPiQ inc.
Intelligent Design Quality Product



Active PFC - Meets EN61000-3-2, -3

Up to 90% Efficiency

Zero Voltage Switching Technology

Small size 3.00" x 5.00" x 1.28"

100 W Convection Cooled

Single & Multiple Outputs

Specification

Input

- AC Input Voltage • 85-264 VAC
- Input Frequency • 47-63 Hz
- DC Input Voltage • 127-370 VDC
- Inrush Current • 30 A max at 115 VAC, 60 A max at 230 VAC
- Input Current • 2 A max at 115 VAC, 1 A max at 230 VAC
- Power Factor • 0.9 typical

Output

- Output Voltage • See Table
- Set Point Accuracy • V1 $\pm 1\%$, V2 & V3 $\pm 5\%$, measured at 60% load
- Output Power • 130 Watts
- Minimum Load • No minimum load required (Note 1)
- Line Regulation • $\pm 0.5\%$, for nominal line $\pm 10\%$
- Load Regulation • $\pm 1\%$, $\pm 5\%$ for all secondary outputs on multiple output models (Note 2)
- Tolerance • $\pm 1\%$
- Ripple & Noise • $\pm 1\%$ max peak-peak (Note 3)
- Transient Response • 4% max deviation, 500 μ s recovery time for a 25% load change
- Temperature Coefficient • 0.05%/°C
- Hold Up Time • 16 ms typical
- Remote Sense • Single output models only, compensates for 0.5 V lead drop
- Overvoltage Protection • 115% to 140%, recycle input to reset
- Overcurrent Protection • 120% - 150%, foldback with auto recovery

General

- Efficiency (Typical) • Up to 90%, nominal line full load
- Power Density • 6.7 W/in³
- MTBF • 100,000 hrs min to MIL-HDBK-217F
- Isolation Voltage • 3000 VAC Input to Output
1500 VAC Input to Ground
500 VAC Output to Ground
- Size • 3.00" x 5.00" x 1.28", (1.35" for multi output)
- Weight • 300 g
- Switching Frequency • 120 KHz fixed $\pm 10\%$ for both active PFC and main switch

Environmental

- Operating Temperature • 0 °C to +70 °C See Derating Curve
Full power to +50 °C
- Cooling • 130 W with 18 CFM airflow
100 W with convection cooling
- Storage Temperature • -40 °C to +85 °C

EMC & Safety

- Safety Approvals • UL1950, CSA C22.2 No 234
EN60950, CE Mark LVD
- Emissions • EN55022 Class B and FCC 20780
Level B conducted
- Immunity • Meets EN61000-3-2, -3,
(EN61000-4-2,-3, -4, -6, -8)
Performance criteria A

OUTPUT VOLTAGE & CURRENT RATINGS

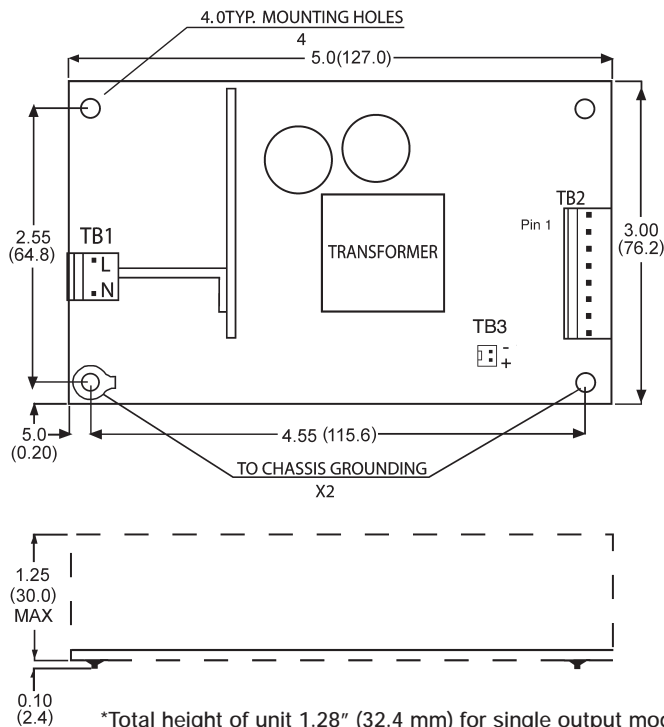
JPS130

Output Power	Output Voltage	Output Current		Ripple & Noise Pk-Pk ⁽³⁾	Model Number
		Convection Cooled	Max 18 CFM		
100 W	3.3 V	25.0 A	30.0 A	50 mV	JPS130PS03
130 W	+5.0 V	20.0 A	26.0 A	50 mV	JPS130PS05
130 W	+12.0 V	9.0 A	10.8 A	120 mV	JPS130PS12
130 W	+15.0 V	7.0 A	8.7 A	120 mV	JPS130PS15
130 W	+24.0 V	4.5 A	5.4 A	200 mV	JPS130PS24
130 W	+48.0 V	2.3 A	2.7 A	200 mV	JPS130PS48
130 W	+5.0 V ⁽¹⁾	11.5 A	15.0 A	50 mV	JPS130PT31
	+12.0 V ⁽²⁾	3.0 A	4.0 A	100 mV	
	-12.0 V ⁽²⁾	0.5 A	0.5 A	100 mV	
130 W	+3.3 V ⁽¹⁾	10.0 A	15.0 A	50 mV	JPS130PT30
	+5.0 V ⁽²⁾	8.0 A	15.0 A	50 mV	
	+12.0 V ⁽²⁾	0.5 A	0.5 A	100 mV	

Notes

- 20% minimum load required on V1 to maintain stated regulation for auxiliary rails.
- Load regulation of auxiliary rails is defined over the range of 60% of rated output $\pm 40\%$.
- Ripple & noise is measured by using 15 MHz bandwidth, each output terminated with a 0.47 μF capacitor and a 47 μF electrolytic capacitor at rated load and nominal line.

Mechanical Detail



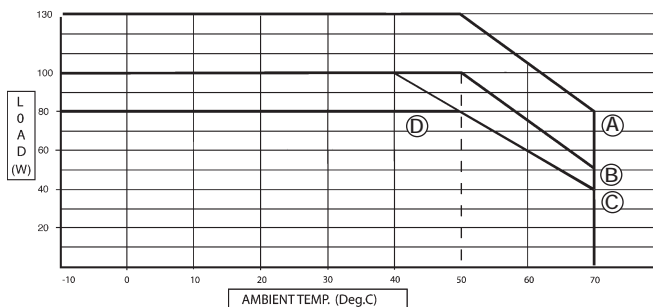
Notes:

- Dimensions in inches (mm). Tolerance is $\pm 1\text{mm}$.
- AC input connector (TB1): Molex 5277-02A or equivalent.
- DC output connector (TB2): Molex 5273 or equivalent except Model JPS130PS03 which has a 6 position terminal block.
- TB3 : Molex 5045-02A or equivalent.
Single output units - TB3 is remote sense.
Triple output units - TB3 is 12 V, 450 mA fan output.

TB2	Models			
Pins	PS05	PS03, 12, 15, 24, 48	PT31	PT30
1	+V	+V	+5 V	+3.3 V
2	+V	+V	+5 V	+3.3 V
3	+V	+V	+5 V	+3.3 V
4	+V	RET	RET	RET
5	RET	RET	RET	RET
6	RET	RET	RET	RET
7	RET	N/A	RET	RET
8	RET	N/A	+12 V	+5 V
9	N/A	N/A	-12 V	+5 V
10	N/A	N/A	N/A	+12 V

*Total height of unit 1.28" (32.4 mm) for single output models, 1.35" (34.4 mm) for triple output models.

Derating Curve



- (A) JPS130 with 18 CFM fan.
- (B) JPS130PS12, PS15, PS24, PS48 with convection cooling & JPS130PS03 with 18 CFM fan.
- (C) JPS130PS05, PT30, PT31 with convection cooling.
- (D) JPS130PS03 with convection cooling.