



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!



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130 Watts

JPS Series



- High Efficiency – up to 90%
- Medical Approval (JPS130-M Versions)
- 3" x 5" Footprint
- 100 W Convection-cooled
- 130 W Forced-cooled
- Single & Multi Outputs
- 3 Year Warranty

Specification

Input

Input Voltage	• 90-264 VAC (130-370 VDC)
Input Frequency	• 47-63 Hz
Input Current	• 2.0/1.0 A max at 115/230 VAC (JPS130) 2.6/1.3 A max at 115/230 VAC (JPS130-M)
Inrush Current	• 30 A at 115 VAC, 60 A at 230 VAC, cold start at 25 °C
Power Factor	• 0.9 typical
Earth Leakage Current	• 1.5 mA max at 264 VAC/60 Hz (JPS130) 260 µA max at 275 VAC/63 Hz (JPS130-M)
Input Protection	• JPS130 internal T3.15 A/250 VAC fused line, JPS130-M fused line & neutral

Output

Output Voltage	• See table
Output Voltage Trim	• ±10% on single output models, ±5% on multi output models, auxiliary outputs will track by the same percentage
Initial Set Accuracy	• At 60% rated load ±1% single outputs, ±3% on V1 for multi outputs
Minimum Load	• Single output: no minimum load required Multi-outputs: (see note 1)
Start Up Rise Time	• <20 ms
Hold Up Time	• 16 ms typical at 115 VAC & rated load (JPS130) 20 ms typical at 115 VAC & rated load (JPS130-M)
Drift	• <±0.2% after 20 mins warm up
Line Regulation	• ±0.5% Vmin to Vmax
Load Regulation	• ±1%, ±5% for auxiliary outputs, 20%-100% of rated load
Transient Response	• 4% max deviation, recovery to within 1% in 500 µs for a 25% load change
Ripple & Noise	• ±1% max pk-pk (see note 4)
Overvoltage Protection	• 110-140% Vnom on V1 only, recycle input to reset
Overload Protection	• 110-150%, auto recovery
Short Circuit Protection	• Trip & restart (hiccup mode), auto recovery
Temperature Coefficient	• 0.05%/°C
Remote Sense	• Single output models only, compensates for up to 0.5 V drop
Fan Output	• 12 V, 450 mA multi-output models only

General

Efficiency	• Up to 90% nominal line, full load
Isolation	• 3000 VAC Input to Output (JPS130), 4000 VAC Input to Output (JPS130-M 2 x MOPP), 1500 VAC Input to Ground (JPS130-M 1 x MOPP), 500 VAC Output to Ground
Switching Frequency	• 120 kHz, ±10% for both active PFC & PWM
Power Density	• 6.7 W/In ³
MTBF	• 200 kHrs to MIL-HDBK-217F at 50 °C, GB

Environmental

Operating Temperature	• 0 °C to +70 °C, (see derating curves)
Cooling	• JPS130PS03 83 W convection-cooling, 100 W, with 18 CFM airflow. All others, 100 W with convection cooling, 130 W with 18 CFM airflow
Operating Humidity	• 5-95% RH, non-condensing
Storage Temperature	• -40 °C to +85 °C (JPS130) -20 °C to +85 °C (JPS130-M)
Operating Altitude	• 3000 m

EMC & Safety

Emissions	• EN55022, Class B conducted FCC 20780, level B conducted EN60601-1-2, (JPS130-M)
Harmonic Currents	• EN61000-3-2 Class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 3 contact, level 3 air, 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, level 2, Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% 10 ms, 60% 100 ms, 95% 5000 ms Perf Criteria A, B, B
Safety Approvals	• JPS130: EN60950-1, UL60950-1, CSA C22.2 No. 60950-1, CE Mark LVD. JPS130-M: UL60601-1, EN60601-1, CSA C22.2 No. 601.1 CE Mark LVD.

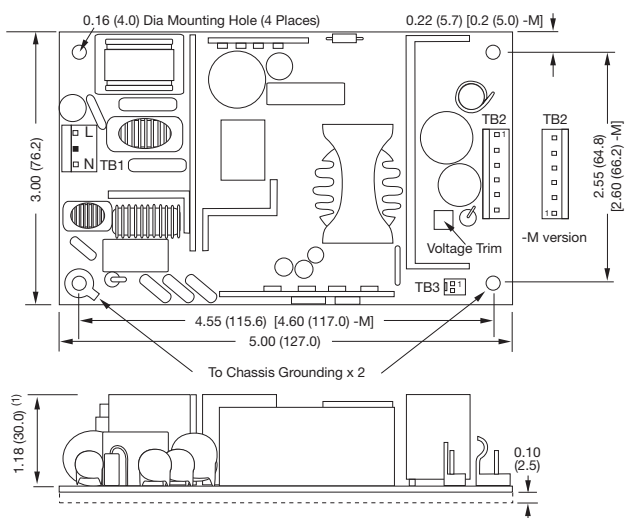
Models and Ratings

Output Power ⁽³⁾	Output Voltage	Output Current		Ripple & Noise Pk-Pk ⁽⁴⁾	Standard Model Number	Medical Model Number	
		Convection-cooled	18 CFM				
100 W	3.3 V	25.0 A	30.0 A	50 mV	JPS130PS03		
	5.0 V	20.0 A	26.0 A	50 mV	JPS130PS05	JPS130PS05-M	
	12.0 V	9.0 A	10.8 A	120 mV	JPS130PS12	JPS130PS12-M	
	15.0 V	7.0 A	8.7 A	120 mV	JPS130PS15	JPS130PS15-M	
	24.0 V	4.5 A	5.4 A	200 mV	JPS130PS24	JPS130PS24-M	
	28.0 V	3.8 A	4.6 A	200 mV		JPS130PS28-M	
130 W	48.0 V	2.1 A	2.7 A	200 mV	JPS130PS48	JPS130PS48-M	
	+5.0 V ⁽¹⁾	11.5 A	15.0 A	50 mV	JPS130PT31		
	+12.0 V ⁽²⁾	3.0 A	5.0 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			
130 W	+5.0 V ⁽¹⁾	10.0 A	15.0 A	50 mV		JPS130PT31-M	
	+12.0 V ⁽²⁾	3.0 A	4.1 A	120 mV			
	-12.0 V ⁽²⁾	0.8 A	1.1 A	120 mV			
130 W	+5.0 V ⁽¹⁾	10.0 A	15.0 A	50 mV		JPS130PT32-M	
	+15.0 V ⁽²⁾	2.5 A	4.1 A	150 mV			
	-15.0 V ⁽²⁾	0.8 A	1.1 A	150 mV			
130 W	+5.0 V ⁽¹⁾	2.5 A	4.0 A	50 mV		JPS130PT34-M	
	+24.0 V ⁽²⁾	2.8 A	4.0 A	240 mV			
	+12.0 V ⁽²⁾	0.7 A	1.0 A	120 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 20%-100% of rated load.
- Maximum power with 18 CFM of forced air.
- Ripple and noise measured over 15 MHz bandwidth with a 47 µF electrolytic capacitor and 0.47 µF ceramic capacitor.
- Covers available, order part number 'JPS130-M COVER' or add suffix '-C' to receive the unit with cover fitted. Overall dimensions 89.5 x 143.0 x 40.0 mm. For industrial units order part number 'JPS130 COVER' or add suffix '-C' to receive the unit with cover fitted. Overall dimensions 90.6 x 142.9 x 39.8 mm. Fixing screws M3, maximum penetration depth 3mm from cover outer surface.
- Connector kits and cable harnesses available. Consult sales for options.

Mechanical Details



All dimensions are in inches (mm).
 Tolerance: 0.02 (0.4) max.
 Weight: 0.5 lbs (240 g) approx.

TB3 PIN CONNECTIONS		
Pin	Single	Multi
1	- Sense	0 V
2	+ Sense	+12 V Fan

Notes

- Single output industrial model shown, add extra 0.08" (2.0 mm) to overall height for multi-output models. Dimensions followed by '-M' apply for medical units (note output connector orientation).
- AC input connector (TB1): Molex 5277-02A or equivalent. Mates with 5196-N housings/5194/5225 crimps.
- DC output connector (TB2): Molex 5273 or equivalent, mates with 5195-N housing/5194/5225 crimps and 5239-N housing/5167/5168/2478/2578 crimps. Except JPS130PS03 which has a 6-position terminal screw block: Dinkle part number EHK508V Series accepts 24-12 AWG wire. Terminal screw tightening torque 4 lbs-in (0.45 Nm) maximum.
- TB3: Molex 5045-02A or equivalent. Mates with KK 51191 housings/50802 crimps and KK 5051 housings/2759/5159 crimps. Single output units - TB3 is remote sense. Multi-output units - TB3 is 12 V, 450 mA fan output.

JPS130-M PIN CONNECTIONS					
TB2	PS05	PS 12 - 48	PT31	PT32	PT34
1	Return	Return	-12 V	-15 V	+12 V
2	Return	Return	+12 V	+15 V	+24 V
3	Return	Return	Return	Return	Return
4	Return	+V	Return	Return	Return
5	+V	+V	Return	Return	Return
6	+V	+V	Return	Return	Return
7	+V		+5 V	+5 V	+5 V
8	+V		+5 V	+5 V	+5 V
9			+5 V	+5 V	+5 V
Type	*5273-08A	*5273-06A	*5273-09A		

JPS130 PIN CONNECTIONS				
TB2	PS05	PS03, 12 - 48	PT31	PT30
1	+V	+V	+5 V	+3.3 V
2	+V	+V	+5 V	+3.3 V
3	+V	+V	+5 V	Return
4	+V	Return	Return	Return
5	Return	Return	Return	Return
6	Return	Return	Return	Return
7	Return		Return	Return
8	Return		+12 V	+5 V
9			-12 V	+5 V
10				+12 V
Type	*5273-08A	*5273-06A	*5273-09A	*5273-10A

* Note: MOLEX connector type

Derating Curves

