

AC/DC Switching Power Supplies

XPiQ inc.

Intelligent Design Quality Product

120 Watts JPM120 Series



- CE Marked LVD
-
- Low Cost
-
- High Reliability
-
- Power Factor Corrected
-
- Low Ripple Noise
-
- Adjustable Output
-
- Remote On/Off Standard

Specification

Input

AC Input Voltage	• 85-264 VAC
Input Frequency	• 47-63 Hz
DC Input Voltage	• 120-370 VDC
Power Factor	• 0.98 at 115 VAC, 0.96 at 230 VAC
Input Current	• 2.2 A max at 115 VAC
Inrush Current	• 40A at 230 VAC cold start
Set-Up time	• 600 ms
Rise Time	• 30ms

Output

Output Voltage	• 3.3 V to 48 V single outputs
Output Power	• 120 Watts, see table
Output Voltage Adjustment	• +10%, -5%
Minimum Load	• 0 minimum load required
Tolerance	• $\pm 2\%$ max
Line Regulation	• $\pm 0.5\%$
Load Regulation	• $\pm 1\%$ max, see table
Ripple & Noise	• 100mV typical, see table
Transient Response	• 5% max deviation, 500 μ s recovery time for a 50% load change
Temperature Coefficient	• 0.05%/°C
Hold Up Time	• 20ms minimum at 230 VAC
Overvoltage Protection	• 110% to 135 %
Overcurrent Protection	• 140% - 170%, constant current auto restart
Remote On/Off	• On = 3 to 15 VDC, Off = <1 VDC

General

Efficiency	• See Table
MTBF	• 100,000 hrs min
Leakage Current	• <2 mA at 240 VAC
Isolation Voltage	• 3000 VAC Input to Output 1500 VAC Input to Ground 500 VAC Output to Ground
Size	• 199 x 99 x 50mm
Weight	• 750 grams

Environmental

Operating Temperature	• -10°C to +50°C (see derating curves)
Cooling	• Convection cooled
Humidity	• 20-90% RH non condensing
Storage Temperature	• -20°C to +85°C
Shock & Vibration	• 10-500Hz 2G 10 min/cycle for 60 min each axis

Safety and EMC

Safety	• UL1950, CSA C22.2 No 950 per cUL EN60950, CE Mark LVD
EMI/EMC	• Meets EN61000-3-2, -3, EN50204, CISPR22 (EN55022) Class B
Immunity & Surge	• Meets EN61000-4-2, -3, -4, -5, -6, -8, -11
Warranty	• 1 Year

OUTPUT VOLTAGE & CURRENT RATINGS						JPM 120
Output Voltage	Output Current	Output Power ¹	Ripple & Noise (P-P)	Load Regulation	Efficiency	Model Number ^{2,3}
3.3 V	24 A	79 W	100 mV	±1%	67%	JPM120PS03
5.0 V	24 A	120 W	100 mV	±1%	75%	JPM120PS05
7.5 V	16 A	120 W	100 mV	±1%	79%	JPM120PS07
12.0 V	10 A	120 W	100 mV	±0.5%	80%	JPM120PS12
13.5 V	8.9 A	120 W	100 mV	±0.5%	80%	JPM120PS13
15.0 V	8 A	120 W	100 mV	±0.5%	81%	JPM120PS15
24.0 V	5 A	120 W	150 mV	±0.5%	83%	JPM120PS24
27.0 V	4.4 A	120 W	150 mV	±0.5%	84%	JPM120PS27
48.0 V	2.5 A	120 W	250 mV	±0.5 %	84%	JPM120PS48

Notes

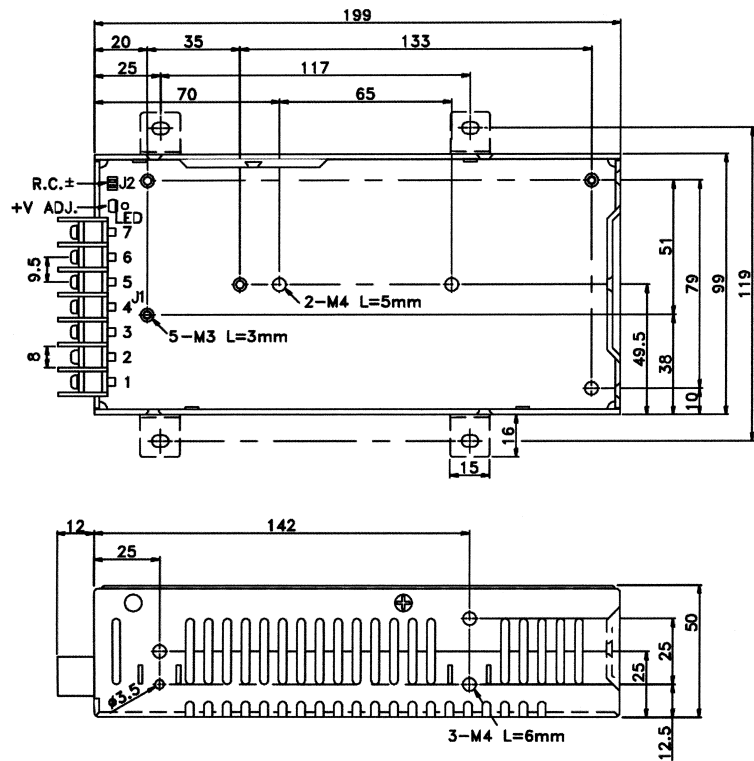
1. Max output increases to 125% of rated power when input voltage is between 180 VAC to 264 VAC and ambient temperature is less than 40°C convection cooled or 47°C with 18°C FM airflow.
2. Part numbers in bold type are standard stock models, all others are build to order.
- 3 Add suffix "T" to part number for overtemperature protection

Mechanical Details - 120 Watts

Dimensions (mm)

TERMINAL Pin No.Assignment

PIN 1,2: AC Input
 Pin 3: FG 
 Pin 4,5: DC Output -V
 Pin 6,7: DC Output +V
 J2 Remote Control
 (Molex 5046 Compatible)
 Weight: 750 grams



Derating Graph 120 Watts

