



PWRPAK Series (< 8 A)

AC/DC Power Supplies



GENERAL DESCRIPTION:

Wavelength Electronics provides a variety of low profile AC/DC power supplies in various output voltages to supply switched power for fast, reliable, off-the-shelf test and development.

In order to match the appropriate voltage and current requirements for a specific application, Wavelength offers four different PowerPak models. The following products include a 2.5 mm jack for quick connection:

Laser Diode Driver:
PLDEVAL -- Evaluation PCB for the PLD Series

Temperature Controllers:
PIDEVAL -- Evaluation PCB for the PID1500
HTCEVAL -- Evaluation PCB for the HTC Series
WTC3243-1400x -- 2 A Controller with Display

FEATURES:

- Low Profile
- High Power Density
- Short Circuit Protection
- 1% Noise and Ripple
- 100-240 VAC, 50-60 Hz Input Voltage

ORDERING INFORMATION:

MODEL #	DC VOLT	DC AMP
PWRPAK-5V	5 V	8.0 A
PWRPAK-7V	7.2 V	3.0 A
PWRPAK-9V	9 V	3.0 A
PWRPAK-12V	12 V	2.5 A

COMPONENT COMPATIBILITY TABLE

Several PWRPAK models are available. The table below indicates the various compatibilities.

WAVELENGTH PRODUCT	PWRPAK-5V	PWRPAK-7V	PWRPAK-9V	PWRPAK-12V	NOTES
LASER DIODE DRIVER EVALUATION BOARDS					
PLDEVALPCB	X	X	X	X	For PLD200, PLD500, PLD1250, and PLD5000. Driver circuitry must be 5 V. Use external circuit to limit high voltage power supplies to the appropriate value. Reference pages 16-21 of the PLD datasheet.
TEMPERATURE CONTROLLER EVALUATION BOARDS					
HTCEVALPCB	X	X	X	X	
PIDEVALPCB	X	X	X	X	
WTC3293-14001		X	X	X	

PERFORMANCE SPECIFICATIONS

PWRPAK SERIES POWER SUPPLIES (< 8A)

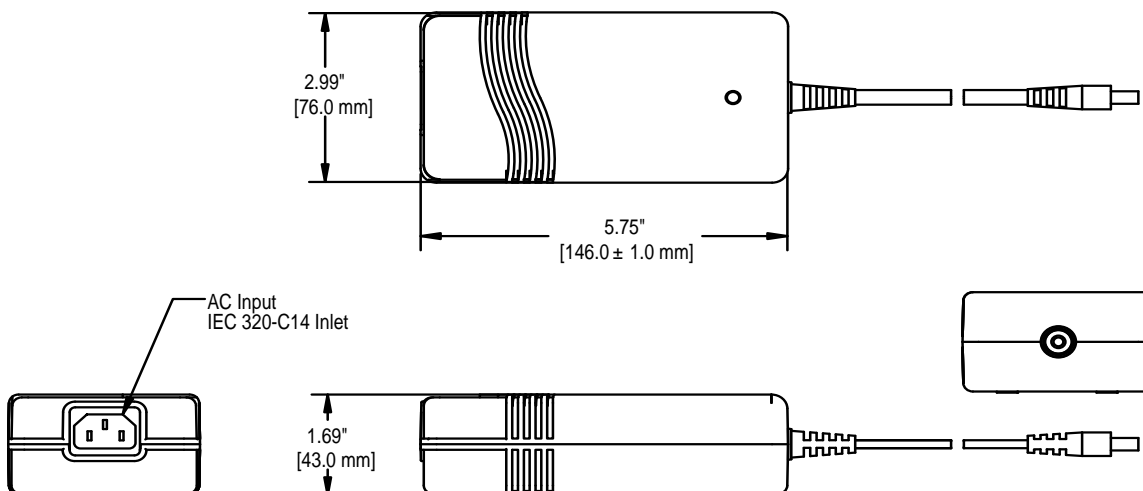
PARAMETER DESCRIPTION	PARAMETER VALUE			
	PWRPAK-5V	PWRPAK-7V	PWRPAK-9V	PWRPAK-12V
INPUT				
Input Voltage	90-264 VAC	90-264 VAC	90-264 VAC	90-264 VAC
Frequency	47-63 Hz	47-63 Hz	47-63 Hz	47-63 Hz
Input Current Maximum @ 115/230 VAC	1.5/0.7 A	0.7A	1.0 A	1.0 A
Earth Leakage Current @115VAC/60 Hz	<0.5 mA	<0.5 mA	Class II	Class II
OUTPUT				
Output Power Maximum	40 W	21.6 W	27 W	30 W
Output Voltage	5.0 V	7.2 V	9.0 V	12.0 V
Output Current	8.0 A	3.0 A	3.0 A	2.5 A
Initial Set Accuracy	± 5%	± 5%	± 2%	± 2%
Minimum Hold Up Time @ 115 VAC	16 ms	20 ms	8 ms	8 ms
Line Regulation	± 3%	NA	± 1%	± 1%
Load Regulation	± 3%	± 5%	± 5%	± 5%
Ripple & Noise @ 20 MHz BW, > 3.3 V	1% peak-to-peak	1% peak-to-peak	1% peak-to-peak	1% peak-to-peak
Overvoltage Protection	112-132%	110-135%	125%	125%
Overload Protection, hiccup/trip & auto restart	110-150%	90-110%	120-150%	120-150%
Short Circuit Protection	N/A	Continuous	Continuous	Continuous
Temperature Coefficient	± 0.04% / °C	± 0.04% / °C	± 0.04% / °C	± 0.04% / °C
GENERAL				
Efficiency @ 230 VAC & 100% load	up to 80%	up to 80%	85%	85%
Isolation, Input to Output	3000 VAC	3000 VAC	3000 VAC	3000 VAC
Switching Frequency	67-83 kHz	60-97 kHz	60 ± 10 kHz	60 ± 10 kHz
Operating Temperature ⁽¹⁾	0 to 70°C	0 to 50°C	0 to 65°C	0 to 65°C
EMC				
Emissions, FCC 20780	N/A	N/A	Level B	Level B
EN55022/ CISPR22	Level B	Level B	Level B	Level B
ESD Immunity, EN61000-4-2	Level 2	Level 2	8 kV air	8 kV air
Performance Criteria A		Perf. Criteria B	4 kV contact	4 kV contact
Radiated Immunity, EN61000-4-3	Level 3	Level 3	3 V / m	3 V / m
Perf. Criteria A		Perf. Criteria B		
EFT/Burst, EN61000-4-4	Level 2	Level 2	Level 2	Level 2
Performance Criteria A		Perf. Criteria B		
Harmonic Currents, EN61000-3-2	Class A	Class A	N/A	N/A
Voltage Flicker	EN61000-3-2	EN61000-3-2	N/A	N/A
Surge, EN61000-4-5,	Level 3	Level 3	N/A	N/A
Performance Criteria A		Perf. Criteria B		
Conducted Immunity, EN61000-4-6	Level 2	Level 2	N/A	N/A
Perf. Criteria A		Perf. Criteria B		
Dips & Interruptions, EN61000-4-11	30% 10 ms	30% 10 ms	N/A	N/A
Perf Criteria A, B, B	60% 100 ms	60% 100 ms		
	100% 5000 ms	100% 5000 ms		

(1) For PWRPAK-5V and PWRPAK-7V, derate linearly from full load at +40°C to half load at +70°C. For PWRPAK-9V and PWRPAK-12V, derate linearly from 100% load at +40°C to 50% load at +55°C.

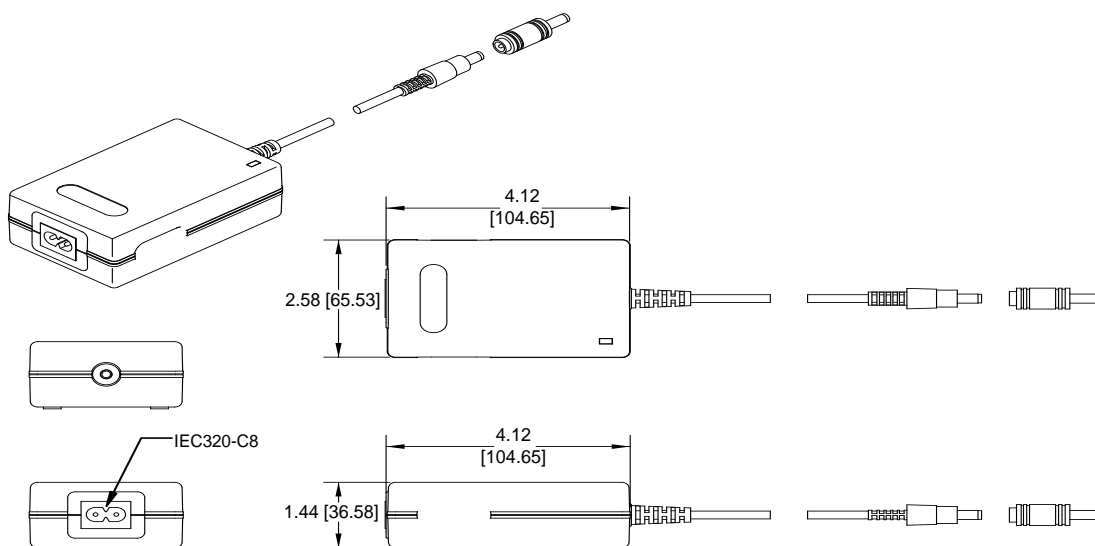
MECHANICAL SPECIFICATIONS

PWRPAK SERIES POWER SUPPLIES (< 8A)

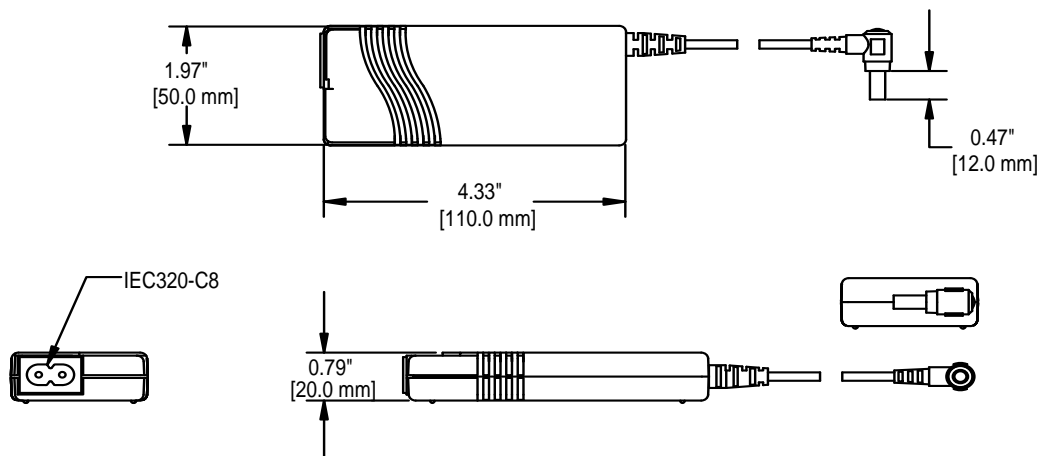
PWRPAK-5V



PWRPAK-7V



PWRPAK-9V and PWRPAK-12V



CERTIFICATION AND WARRANTY

CERTIFICATION:

Wavelength Electronics (WEI) certifies that this product met it's published specifications at the time of shipment. Wavelength further certifies that its calibration measurements are traceable to the United States National Institute of Standards and Technology, to the extent allowed by that organization's calibration facilities, and to the calibration facilities of other International Standards Organization members.

WARRANTY:

This Wavelength product is warranted against defects in materials and workmanship for a period of 90 days from date of shipment. During the warranty period, Wavelength will, at its option, either repair or replace products which prove to be defective.

WARRANTY SERVICE:

For warranty service or repair, this product must be returned to the factory. An RMA is required for products returned to Wavelength for warranty service. The Buyer shall prepay shipping charges to Wavelength and Wavelength shall pay shipping charges to return the product to the Buyer upon determination of defective materials or workmanship. However, the Buyer shall pay all shipping charges, duties, and taxes for products returned to Wavelength from another country.

LIMITATIONS OF WARRANTY:

The warranty shall not apply to defects resulting from improper use or misuse of the product or operation outside published specifications.

No other warranty is expressed or implied. Wavelength specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.

EXCLUSIVE REMEDIES:

The remedies provided herein are the Buyer's sole and exclusive remedies. Wavelength shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.



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SAFETY:

There are no user serviceable parts inside this product. Return the product to Wavelength Electronics for service and repair to ensure that safety features are maintained.

LIFE SUPPORT POLICY:

As a general policy, Wavelength Electronics, Inc. does not recommend the use of any of its products in life support applications where the failure or malfunction of the Wavelength Electronics, Inc. product can be reasonably expected to cause failure of the life support device or to significantly affect its safety or effectiveness. Wavelength Electronics, Inc. will not knowingly sell its products for use in such applications unless it receives written assurances satisfactory to Wavelength that the risks of injury or damage have been minimized, the customer assumes all such risks, and there is no product liability for Wavelength. Examples of devices considered to be life support devices are neonatal oxygen analyzers, nerve stimulators (for any use), auto transfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, ventilators of all types, and infusion pumps as well as other devices designated as "critical" by the FDA. The above are representative examples only and are not intended to be conclusive or exclusive of any other life support device.

REVISION HISTORY

REVISION	DATE	NOTES
REV. A	23-Jan-09	Initial release
REV. B	4-Feb-09	Removed Isolation to Ground specification
REV. C	25-Sep-09	Updated to reflect RoHS compliance
REV. D	18-Nov-11	Updated PWRPAK-7V specifications