

AC/DC DESKTOP ADAPTER

12 - 56VDC 250W

PEAD250B



Features:

- Slim size
- Class I and Class II input versions
- 100 - 240VAC universal input
- Active PFC function
- Short circuit/over-voltage/over-current/over-temperature
- Energy Efficiency Level VI or CoC Tier II
- No load power consumption $\leq 0.21\text{W}$ (VI), $\leq 0.15\text{W}$ (Tier II)



*Safety approvals may be model dependent. Consult TT Electronics for specifics or for additional safety approvals required.

Description:

The PEAD250B series of AC/DC switching power supplies provide 210 - 250 watts of continuous power. They are available as Class I or Class II input devices with IEC320 C14, C6, C8, or C18 inlets that mate with interchangeable AC cords for world-wide use. All models meet FCC PART 15, EN55032, EN61000, and CISPR32 Class B emissions limits and comply with IEC62368 standards.

Model	Voltage	Current	Total Power	Load Regulation	Line Regulation	Ripple & Noise (P-P)
PEAD250B-12	12VDC	17.50A	210W	±5%	±1%	360mV
PEAD250B-13	15VDC	14.00A	210W	±5%	±1%	360mV
PEAD250B-13-1	18VDC	11.66A	210W	±5%	±1%	360mV
PEAD250B-13-2	19VDC	13.15A	250W	±5%	±1%	360mV
PEAD250B-14	24VDC	10.41A	250W	±5%	±1%	480mV
PEAD250B-17	36VDC	6.94A	250W	±5%	±1%	630mV
PEAD250B-18	48VDC	5.20A	250W	±5%	±1%	840mV
PEAD250B-19-1	56VDC	4.56A	250W	±5%	±1%	840mV

Notes:

1. Output ripple and noise is measured within a limited bandwidth of 20MHz, with a 0.1μF ceramic capacitor and a 47μF electrolytic capacitor in parallel with the device output.
2. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
3. Max. Power (W) $\geq V_o \times I_o$
4. Output connector 6-pin Mini-Fit with female terminals as standard. Others available upon request.
5. C14 input receptacle is standard.

For C18 input receptacle, add "F" to the end of the model number.

For C6 input receptacle, add "S" to the end of the model number.

For C8 input receptacle, add "SF" to the end of the model number.

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Specifications:

Input	
Input Voltage	90 - 264VAC
Input Frequency	47 - 63Hz
Input Current	≤3.5A at 115VAC ≤1.75A at 230VAC
Inrush Current (Typical)	≤70A at 115VAC, cold start ≤140A at 230VAC, cold start
No Load Power Consumption	Meets DOE Level VI requirements
Output	
Total Output Power	See Table
Output Voltage	See Table
Hold Up Time (Typical)	≥8.3mS at 115VAC, full load
Turn on Delay	≤3S
Protection Features	
Over-voltage	170%. Latching mode. Cycle power to reset.
Over-current	110 - 170%. Latching mode. Cycle power to reset.
Over-temperature	Latching mode. Cycle power to reset.
Short Circuit	Latching mode. Cycle power to reset.
Environmental	
Operating Temperature	0° - +60°C (See Derating Curve)
Storage Temperature	-20° - +85°C
Operating Humidity	10 - 90% non-condensing
Altitude	<5000m operational and storage

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Specifications (continued):

General Specifications	
Dimensions	6.69" (170mm) L x 3.31" (84mm) W x 1.18" (30mm) H
Weight	2.09lb (950g)
MTBF	>100,000 hours per MIL-HDBK-217F at full load and 25°C ambient
AC Input Connector	IEC320: C6, C8, C14, C18
DC Output Connector	6-pin Mini-Fit with female terminals <i>Other connectors available upon request</i>
Safety	
Approvals*	IEC62638 UL, cUL, EN, CB, CE, PSE, CCC, RCM, UKCA
*Safety approvals may be model dependent. Consult TT Electronics for specifics or for additional safety approvals required.	
EMC	
Conducted Emission	EN55032:2015 + AC:2016, FCC PART 15, Class B
Radiated Emission	EN55032:2015 + AC:2016, FCC PART 15, Class B
Harmonic Currents	EN61000-3-2, Class A
Voltage Flicker	EN61000-3-3:2013
Electrostatic Discharge	IEC61000-4-2:2008 (±8kV air, ±4kV contact)
Radiated Immunity	IEC61000-4-3:2006+A1:2007+A2:2010 (3V/m)
EFT/Burst	IEC61000-4-4:2012 (±1kV)
Surge Immunity	IEC61000-4-5:2014/AMD1:2017 (1kV diff)
Conducted Immunity	IEC61000-4-6:2013 (3Vrms)
Power Frequency Magnetic Field Immunity	IEC61000-4-8:2009 (1A/m)
Dips/Interruptions	IEC61000-4-11:2004 (<5% dip 0.5 periods, 70% dip 25 periods, <5% interruptions 250 periods)

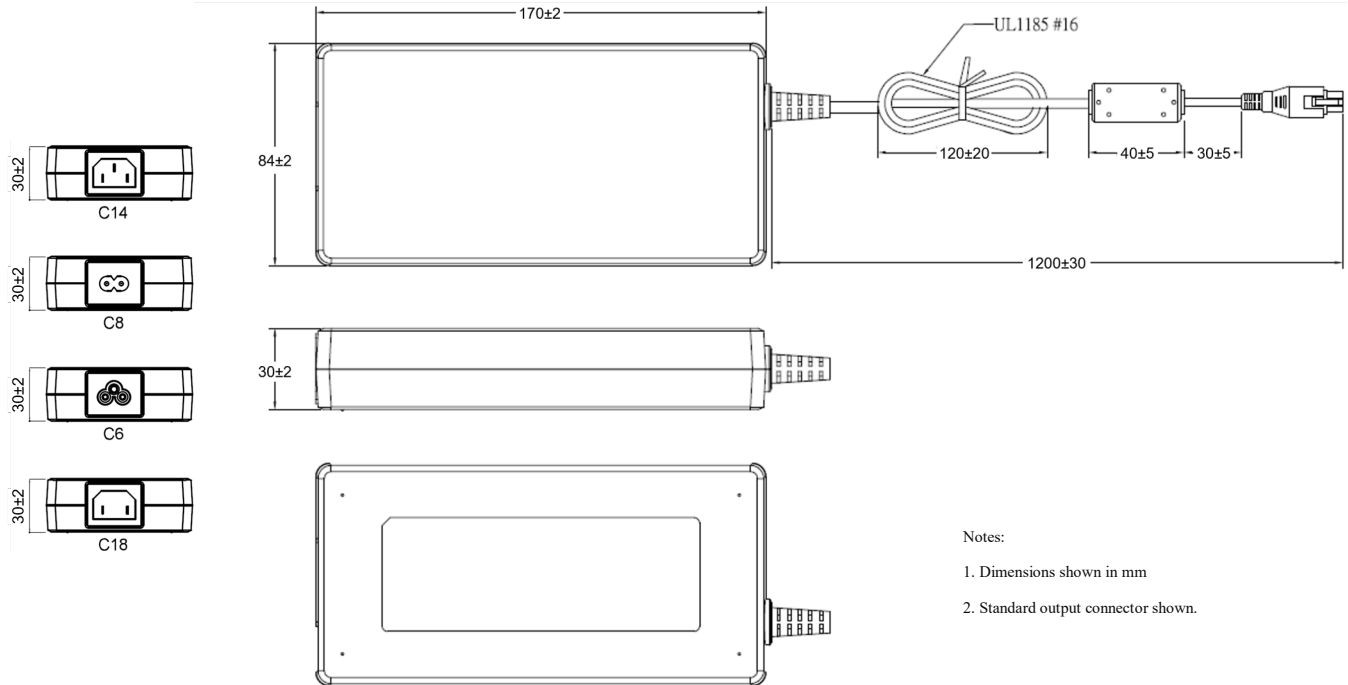
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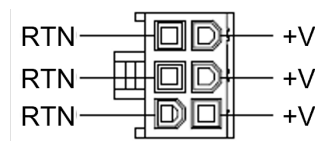
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Mechanical Outline:



Pin Chart:



RTN is connected to earth ground on standard models.
Contact TT Electronics for isolated version.

Derating Curve:

