

AC/DC DESKTOP ADAPTER

12 - 56V 50W

PEAD50B



Features:

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



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

Description:

The PEAD50B series of AC/DC switching power supplies provide 50 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)
PEAD50B-12	12VDC	4.16A	50W	±5%	±1%	240mV
PEAD50B-13	15VDC	3.33A	50W	±5%	±1%	240mV
PEAD50B-13-1	18VDC	2.77A	50W	±5%	±1%	240mV
PEAD50B-13-2	19VDC	2.63A	50W	±5%	±1%	360mV
PEAD50B-14	24VDC	2.08A	50W	±5%	±1%	360mV
PEAD50B-17	36VDC	1.38A	50W	±5%	±1%	630mV
PEAD50B-18	48VDC	1.04A	50W	±5%	±1%	840mV
PEAD50B-19-1	56VDC	0.89A	50W	±5%	±1%	840mV

Notes:

1. Output ripple and noise is measured within a limited bandwidth of 20MHz, with a 0.1 μ F ceramic capacitor and a 47 μ F electrolytic capacitor in parallel with the device output.
2. Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
3. Max. Power (W) $\geq V_o \times I_o$
4. Output connector 5.5 mm OD, 2.5 mm ID as standard (-B2 suffix). 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.

AC/DC DESKTOP ADAPTER SERIES

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Specifications:

Input	
Input Voltage	90 - 264VAC
Input Frequency	47 - 63Hz
Input Current	≤2.0A at 115VAC ≤1.0A at 230VAC
Inrush Current (Typical)	≤60A at 115VAC, cold start ≤120A 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	175%. Auto-recovery.
Over-current	110 - 200%. Auto-recovery.
Over-temperature	Auto-recovery.
Short Circuit	Auto-recovery.
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):

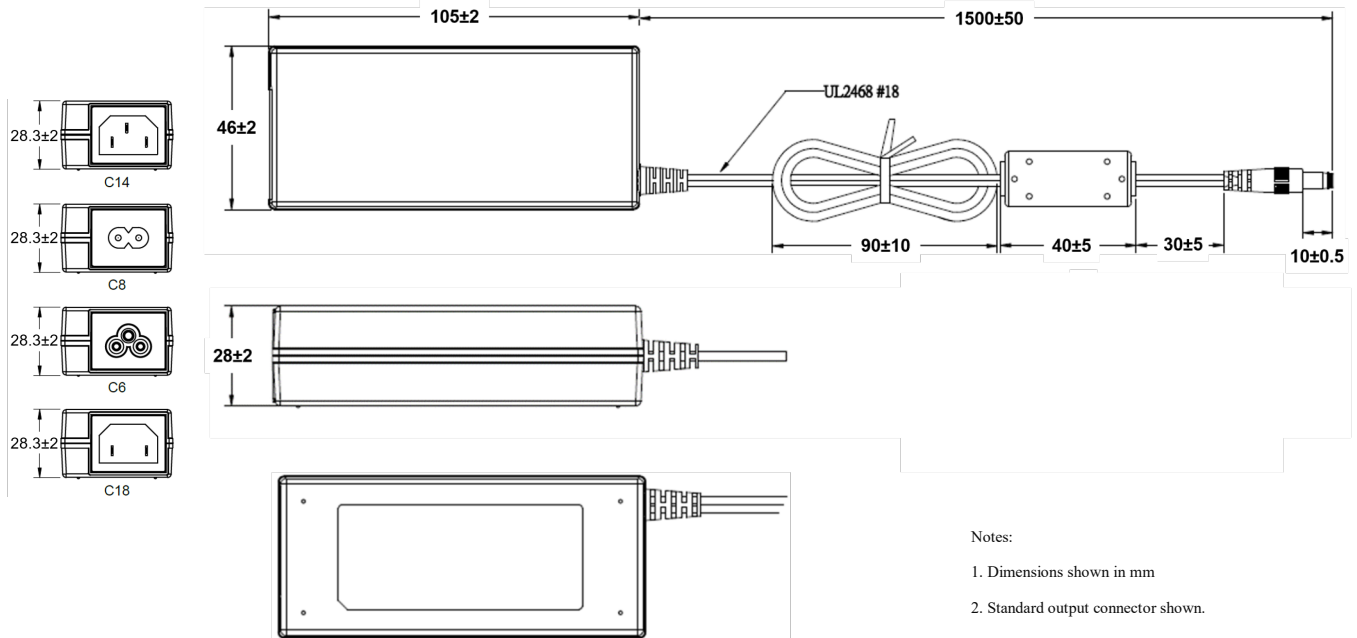
General Specifications	
Dimensions	4.15"(105.5mm)L x 1.83"(46.4mm)W x 1.11"(28.3mm)H 0.66lb (300g)
Weight	1.36lb (620g)
MTBF	>100,000 hours per MIL-HDBK-217F at full load and 25°C ambient
AC Input Connector	IEC320: C6, C8, C14, C18
DC Output Connector	Barrel connector Type A: 5.5 mm OD, 2.5 mm ID <i>Other connectors available upon request</i>
Safety	
Approvals*	IEC62638 UL, cUL, EN, CB, CE, PSE, CCC, RCM, UKCA
<small>*Safety approvals may be model dependent. Consult TT Electronics for specifics or for additional safety approvals required.</small>	
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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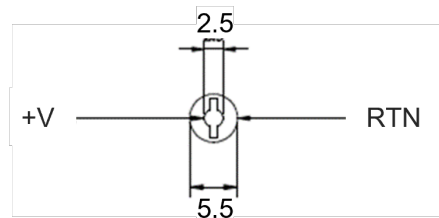
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Mechanical Outline:



Pin Chart:



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

Derating Curve:

