

40W Desktop Switching Power Supplies

VPU40 series



4.21" x 1.85" x 1.19"

- Universal 90-264VAC Input
- IEC-320-C14 3 Prong Inlet
- Single Outputs from 5 to 48VDC
- 4242VDC Isolation
- DoE 6, CoC V5 (Tier2)
- Class I System



Model Number	Output Watts	Output Volts	Output Amps	Total Regulation
VPU40A-102	30	5V	6A	±5%
VPU40A-103	30	6V	5A	±5%
VPU40A-104	35	10V	3.5A	±5%
VPU40A-105	40	12V	3.33A	±5%
VPU40A-106	40	15V	2.66A	±5%
VPU40A-107	40	18V	2.22A	±5%
VPU40A-108	40	24V	1.66A	±3%
VPU40A-109	40	30V	1.33A	±3%
VPU40A-110	40	36V	1.11A	±2%
VPU40A-111	40	48V	0.83A	±2%

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INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC (100-240 nom.)	
Frequency Range	47-63 Hz	
Input Current	Low Line (100VAC)	0.9A
	High Line (240VAC)	0.52A
Inrush Current, typ (Cold Start)	Low Line (100VAC)	50A max.
	High Line (240VAC)	100A max.
Leakage Current	0.75mA MAX. @ 240 VAC, FL	
No Load Power Consumption	<0.1W Max	

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart	
Output Power Range	0 to FL Rating	
Load Regulation (230Vin)	±5%, max.	
Line Regulation	±1%, max.	
Transient Response	100Vin, FL to 1/2L	4mS
Temperature Coefficient	±0.04%/°C, typ	
Ripple/Noise	FL, 90Vin	1% Pk-Pk, max.
Over Load Protection	110-150%, Auto Recovery *	
Start Up / Hold Up Time	100Vin, FL	3S max. / 8mS min.

GENERAL SPECIFICATIONS

Input-Out Isolation	4242 VAC
Input-Ground Isolation	2550VAC
Efficiency (FL, 230Vin)	87%, typ
Safety	UL/c-UL: UL 60950-1:2ndEdition
	TUV/GS EN 60950-1:2ndEdition

NOTE: Low cost 3 Wire IEC320/C13 (Part Number ACCRD-C13) Input Power Cords are available for these products. Inquire to the Astrodyne Sales Depart.

PHYSICAL SPECIFICATIONS

Size	4.21" x 1.85" x 1.19"
Construction	Desktop Style
Weight	9.88oz (280g)

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	0 to +40°C (FL) *
	50% Load @ 70°C (See Derate Curve)
Storage Temperature	-40 to +85°C 0~95% RH *
Operating Humidity	0% to 95%, non-condensing *
EMC	Compliance to EN55022 (CISPR22)
	Class B
ESD	Air Discharge: IEC6100-4-2, 8kV
	Contact Discharge: IEC6100-4-2, 6kV
MTBF (MIL-HDBK-217F, 25°C)	100,000 Hrs
Operating Altitude	3000m elevation
Vibration	10 ~ 500Hz, 10min./1cycle, 60min.
	each along X, Y, Z axes, 5G
Surge Voltage	Line-Neutral: 1kV
	Line-PE & Neutral-PE: 2kV

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

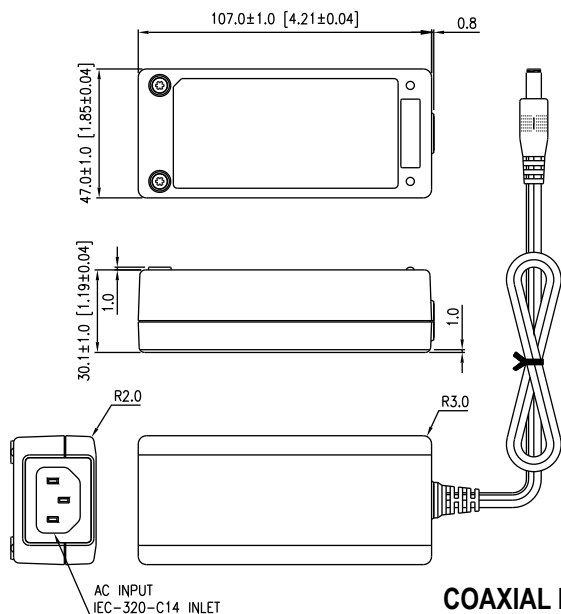
* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

MECHANICAL DIMENSIONS - VPU40A IEC-320-C14 INLET

SPECIFICATION NOTE :

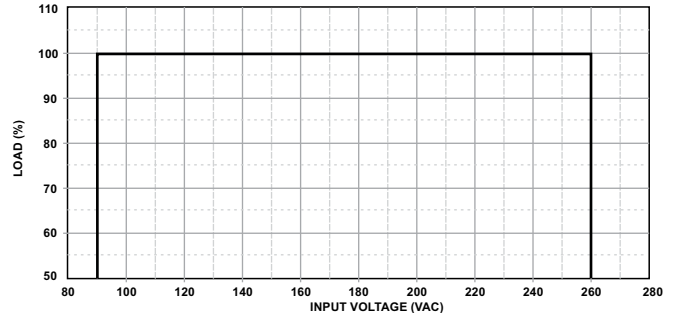
1. Output can provide up to peak load when the power supply starts up. Continuous operation in more than rated load is not warranted.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
4. Load regulation is defined by changing $\pm 40\%$ of measured output load from 60% rated load.
5. Ripple & noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
7. Efficiency is measured at rated load, and nominal line.
8. The specifics for testing the energy efficiency of this Series are outlined in a separate document titled "Test Method for Calculating the Energy Efficiency of Single-Voltage Interchangeable AC-DC and AC-AC Power Supplies (August 11, 2004)," which is available on the ENERGY STAR Website.

MECHANICAL DIMENSIONS: (UNIT: mm)

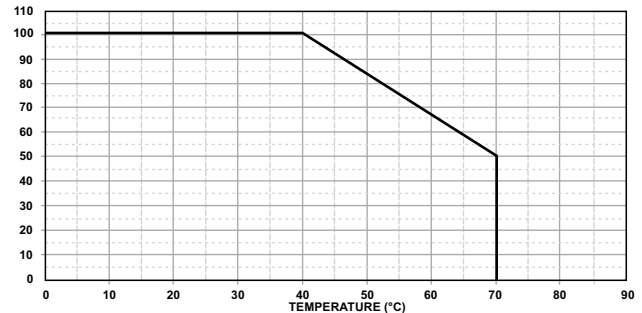


COAXIAL PLUG:

5.5mm outer diameter
2.1mm inner diameter, female
11mm length, center "+"



(FIG.1) INPUT VOLTAGE DERATING CURVE



(FIG.2) TEMPERATURE DERATING CURVE

OUTPUT CABLE RECOMMEND :

1. VPU40A-102~104 are required to use AWG#14 / 4FT output cable.
2. VPU40A-105~110 are required to use AWG#18 / 4FT output cable.
3. VPU40A-111 is required to use AWG#20 / 4FT output cable.
4. The regulation and efficiency will be changed by modified output cable.

PACKING :

1. Net weight: 265~280g approx.
2. Optional output connectors available contact sales for details.