



Size: 5.75in x 2.99in x 1.69in (146mm x 76mm x 43mm)

FEATURES

- Class I
- Single Output
- RoHS Compliant
- IEC-320-C14 Input Inlet
- Optional Output Connectors
- Over Voltage Protection (Crowbar Design)
- Energy Star Efficiency Level V, VI Compliant
- Output Voltages Available from 5-50VDC
- Wide Input Voltage Range: 90~264VAC
- Over Voltage, Over Load and Short Circuit Protection

DESCRIPTION

The DTSPU46 series of AC/DC desktop switching power supplies provides up to 50 watts of continuous output power. This series consists of single output models with a 90~264VAC input voltage range and an IEC-320-C14 input inlet connector for worldwide applications. These supplies also have short circuit, over voltage, and over load protection. All units are UL94V-1, RoHS, and Energy Star 2.0 Level V, VI compliant. All models meet FCC Part-15 class B and CISPR-22 class B emission limits and have UL/cUL (UL 60950-1:2nd Edition) and TUV/GS (EN 60950-1:2nd Edition) certifications. This series also meets new CE requirements. All units are 100% burn-in tested.

MODEL SELECTION TABLE

Model Number ⁽¹⁾	Input Voltage Range	Output Voltage	Output Current		Total Regulation	Output Power	Efficiency Level
			Min Load	Max Load			
DTSPU46-102	90~264VAC	5 ~ 5.99 VDC	8.00A		±5%	40W	Level VI
*DTSPU46-103		6 ~ 8 VDC	5.62A	7.50A	±5%	45W	Level V
*DTSPU46-104		8 ~ 11 VDC	4.09A	5.62A	±5%	45W	Level V
*DTSPU46-105		11 ~ 13 VDC	3.46A	4.09A	±5%	45W	Level VI
*DTSPU46-106		13 ~ 16 VDC	2.81A	3.46A	±5%	45W	Level VI
*DTSPU46-107		16 ~ 21 VDC	2.38A	3.12A	±5%	50W	Level V
*DTSPU46-108		21 ~ 27 VDC	1.85A	2.38A	±5%	50W	Level VI
*DTSPU46-109		27 ~ 33 VDC	1.51A	1.85A	±4%	50W	Level V
*DTSPU46-110		33 ~ 40 VDC	1.25A	1.51A	±4%	50W	Level V
*DTSPU46-111		40 ~ 50 VDC	1.00A	1.25A	±3%	50W	Level V

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
Input Voltage Range		90		264	VAc
Input Frequency		47		63	Hz
Input Current	Low Line	Full Load, Vin=100VAC		1.2	A
	High Line	Full Load, Vin=240VAC		1.2	
Inrush Current	Low Line	Full Load, 25°C, Cool Start, Vin=100VAC		26	A
	High Line	Full Load, 25°C, Cool Start, Vin=240VAC		45	
Input Current					
Input Filter					
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation	Full Load, Vin=100~120VAC	0.5		1	%
Load Regulation	230VAC, 10~90% Load Change at Condition	3		5	%
Output Power Range		0		50	W
Output Current		See Table			
Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
Transient Response Time	Full Load, Vin=110VAC			4	Ms
Start-Up Time	Full Load, Vin=100~240VAC			2	S
Hold-Up Time	Full Load, Vin=100VAC		16		ms
Temperature Coefficient	Full Load, Vin=100~240VAC			±0.04	%/°C
PROTECTION					
Short Circuit Protection		Automatic Recovery			
Over Load Protection	Automatic Recovery	110		150	%
Over Voltage Protection		112		132	%

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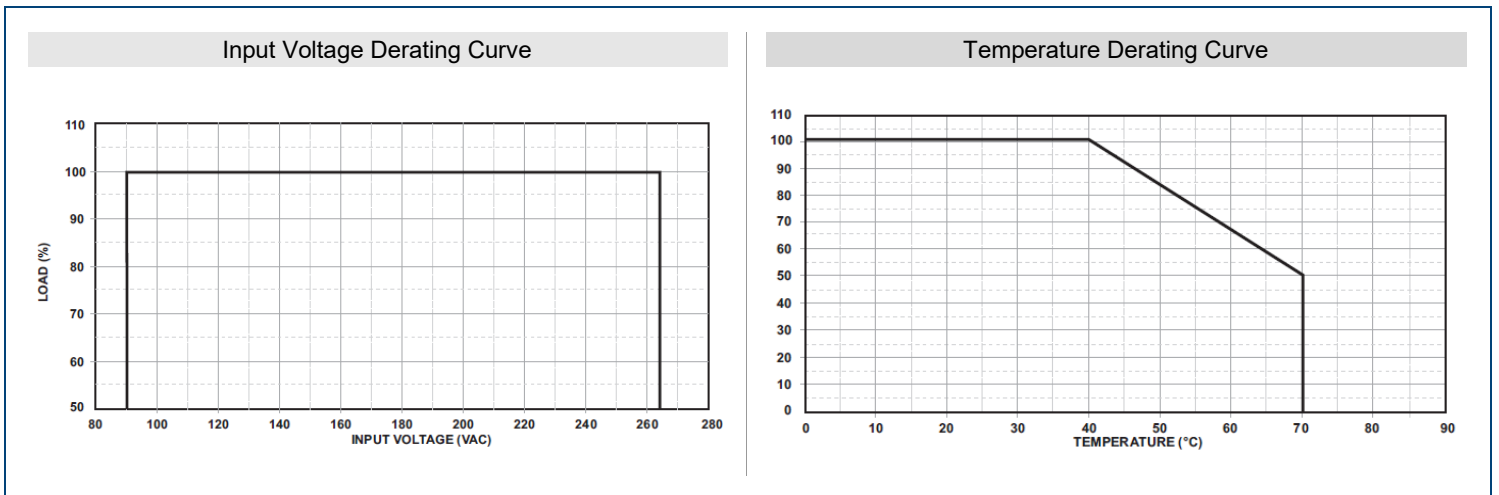
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
ENVIRONMENTAL SPECIFICATIONS					
Operating Case Temperature	Derate linearly from 100% load at 40°C to 50% load at 70°C	0		70	°C
Storage Temperature	10-95%RH	-40		85	°C
Operating Humidity	Non-Condensing	0		95	%RH
Storage Humidity		0		95	%RH
Operating Altitude	All conditions			2000	m
Vibration	10~500Hz, 10min./1cycle, 60 min. each along X, Y, Z axes			5	G
Cooling		Free Air Convection			
Flammability Rating		UL94V-1			
MTBF	At 25°C, calculated per MIL-HDBK-217F	100,000			Hours
GENERAL SPECIFICATIONS					
Efficiency	Full Load, Vin=230VAC	83	85	88	%
Safety Ground Leakage Current	Full Load, Vin=240VAC		0.5	0.75	mA
Dielectric Withstanding Voltage	Primary to Secondary			4242	VDC
	Primary to PE			2594	
Electro Static Discharge	Air Discharge, IEC61000-4-2			8	kV
	Contact Discharge, IEC61000-4-2			6	
PHYSICAL SPECIFICATIONS					
Weight		Approx. 1.18~1.23lbs (535~560g)			
Dimensions (L x W x H)		5.75in x 2.99in x 1.69in (146.0mm x 76.0mm x 43.0mm)			
AC Inlet		IEC-320-C14			
SAFETY CHARACTERISTICS					
Safety Approvals	UL/c-UL (UL 60950-1:2 nd Edition) ⁽⁵⁾ , TUV/GS (EN 60950-1:2 nd Edition)				
EMC Emission					Class B
Protection Class					Class I

NOTES

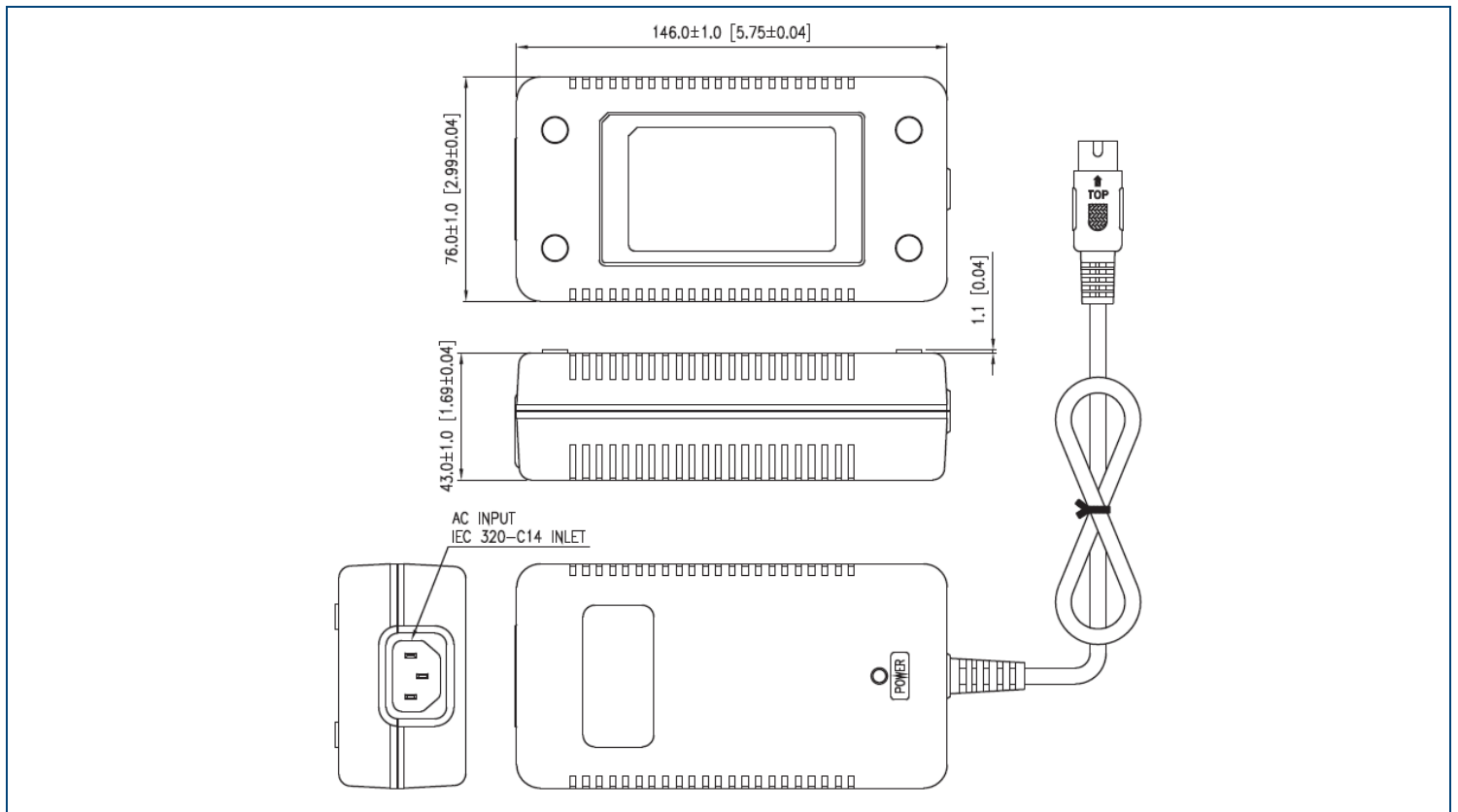
- (1) The "*" next to the model number means PSE Approval.
- (2) The output voltage is specified as a range (ex: 40~50VDC); the customer must specify what they would like the output voltage set at. Please call factory for more details.
- (3) DTSPU46-105 needs to use AWG#18/3C + AWG#20/2C/4FT cable in order to meet total regulation specified.
DTSPU46-111 needs to use AWG#18/2C/4FT output cable in order to meet total regulation specified.
- (4) Optional output connectors are available. Please call factory for ordering details.
- (5) This product is Listed to applicable standards and requirements by UL.

*Due to advances in technology, specifications subject to change without notice.

DERATING CURVES



MECHANICAL DRAWINGS



COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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