



Size: 4.21in x 1.85in x 1.18in



FEATURES

- Wide Operating Voltage: 90 to 264VAC, 47-63Hz
- IEC-320-C14 Input Inlet
- Single Output
- Class I
- Cooling by Free Air Convection
- Optional Output Connectors Available
- Cooling by Free Air Convection
- UL/cUL (UL 60950-1:2nd Edition), TUV/GS (EN60950-1:2nd Edition) Safety Approvals
- Energy Star 2.0, Efficiency Level VI
- Short Circuit and Over Load Protection

APPLICATIONS

- POS System
- AV Equipment
- Portable Devices
- Monitor
- Charger
- LED Lighting
- Ethernet Hub

DESCRIPTION

The DTSPU41A series of single output AC DC desktop power supplies provides up to 40 watts of continuous output power. This series includes IEC-320-C14 input for worldwide applications. All supplies are UL 94V-1 min compliant and all models meet FCC Part 15- class B and CISPR-22 class B emission. Limits are designed to comply with UL/c-UL (UL 60950-1:2nd edition), TUV/GS (EN 60950-1:2nd Edition) and new CE requirements. All units are 100% burn-in tested.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage	Output Current	Ripple & Noise ⁽¹⁾	Total Regulation	Output Power	No-Load Power Consumption (max.)	Efficiency ⁽²⁾
DTSPU41A-102	100~240VAC	5~5.99 VDC	5.00A	100mVp-p	5%	30W	0.3W	83~90%
DTSPU41A-103		6.5~8 VDC	3.75~4.61A	100mVp-p	5%	30W	0.3W	83~90%
DTSPU41A-104		8~11 VDC	3.18~4.38A	100mVp-p	5%	35W	0.3W	83~90%
DTSPU41A-105		11~13 VDC	3.07~3.64A	100mVp-p	5%	40W	0.3W	83~90%
DTSPU41A-106		13~16 VDC	2.50~3.07A	100mVp-p	5%	40W	0.3W	83~90%
DTSPU41A-107		16~21 VDC	1.90~2.50A	100mVp-p	5%	40W	0.3W	83~90%
DTSPU41A-108		21~27 VDC	1.48~1.90A	100mVp-p	3%	40W	0.3W	83~90%
DTSPU41A-109		27~33 VDC	1.21~1.48A	100mVp-p	3%	40W	0.3W	83~90%
DTSPU41A-110		33~40 VDC	1.00~1.21A	100mVp-p	2%	40W	0.3W	83~90%
DTSPU41A-111		40~48 VDC	0.83~1.00A	100mVp-p	2%	40W	0.3W	83~90%

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 SPECIFICATIONS					
Safety Approval		100		240	VAC
Input Operate Voltage Range		90		264	VAC
Input Frequency		47		63	VAC
Input Current	Low Line	Io=Full Load, Vin=100VAC		0.93	A
	High Line	Io=Full Load, Vin=240VAC		0.93	
Input Inrush Current	Low Line	Full Load, 25°C, Cool Start, Vin=100VAC		45	A
	High Line	Full Load, 25°C, Cool Start, Vin=240VAC		90	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation ⁽⁶⁾	Io=Full Load, Vin=100~120VAC	0.5		1	%
Load Regulation ⁽⁶⁾	Vin=230VAC, 10~90% Load Change at Condition	4		5	%
Output Power		See Table			
Output Current		See Table			
Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC	See Table			
Transient Response Time	Full Load, Vin=100VAC			4	mS
Start-Up Time	Io=Full Load, Vin=100VAC			2	S
Hold-Up Time ⁽⁷⁾	Io=Full Load, Vin=110VAC			10	mS
Temperature Coefficient	All Outputs			±0.04	%/°C
PROTECTION					
Short Circuit Protection		Automatic Recovery			
Over Load Protection	Recovers automatically after fault condition is removed	110		150	%

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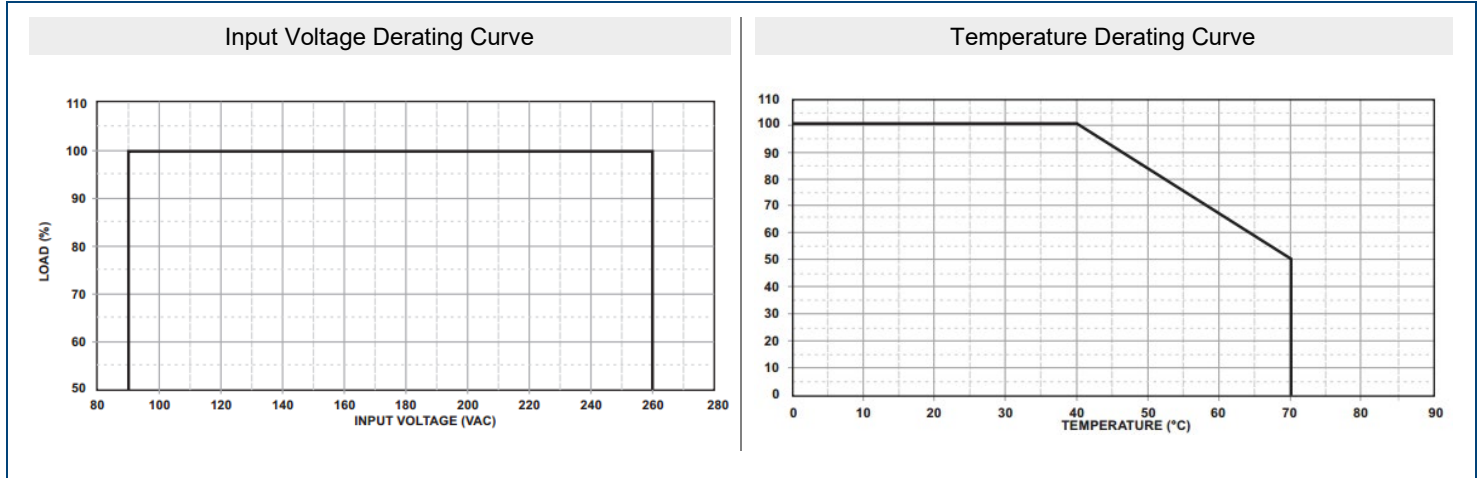
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Derate linearly from 100% load at 40°C to 50% load at 70°C	0		70	°C
Storage Temperature	10~95%RH	-40		85	°C
Operating Humidity	Non-Condensing	0		95	%
Storage Humidity		0		95	%
Electro Static Discharge	Air Discharge, IEC61000-4-2			8	kV
	Contact Discharge, IEC61000-4-2			6	
Operating Altitude	All Conditions			3000	M
Vibration	10~500Hz, 10min./1cycle, 60 min. each along X, Y, Z axes			5	G
Surge Voltage	Line-Neutral			1	KV
	Line-PE & Neutral-PE			2	
Flammability Rating		UL94V-1			
Cooling		Free Air Convection			
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F	100,000			Hours
GENERAL SPECIFICATIONS					
Efficiency	Io=Full Load, Vin=230VAC	83		90	%
Dielectric Withstanding Voltage	Primary to Secondary			4242	VDC
	Primary to PE			2550	VDC
Isolation Resistance	Test Voltage=500VDC		50		MΩ
Safety Ground Leakage Current	Vin=240VAC/60Hz			0.75	mA
PHYSICAL SPECIFICATIONS					
Weight		Approx. 9.35~9.88oz (265~280g)			
Dimensions (L x W x H)		4.21in x 1.85in x 1.18in (107±1.0mm x 47.0±1.0mm x 30.1±1.0mm)			
SAFETY & EMC CHARACTERISTICS					
Safety Approvals ⁽⁶⁾		UL/cUL (UL 60950-1:2 nd Edition) ⁽¹⁰⁾ TUV/GS (EN 60950-1:2 nd Edition)			
EMC Emission		Compliance to EN55022 (CISPR22)			
Protection Classes		Class I			

NOTES

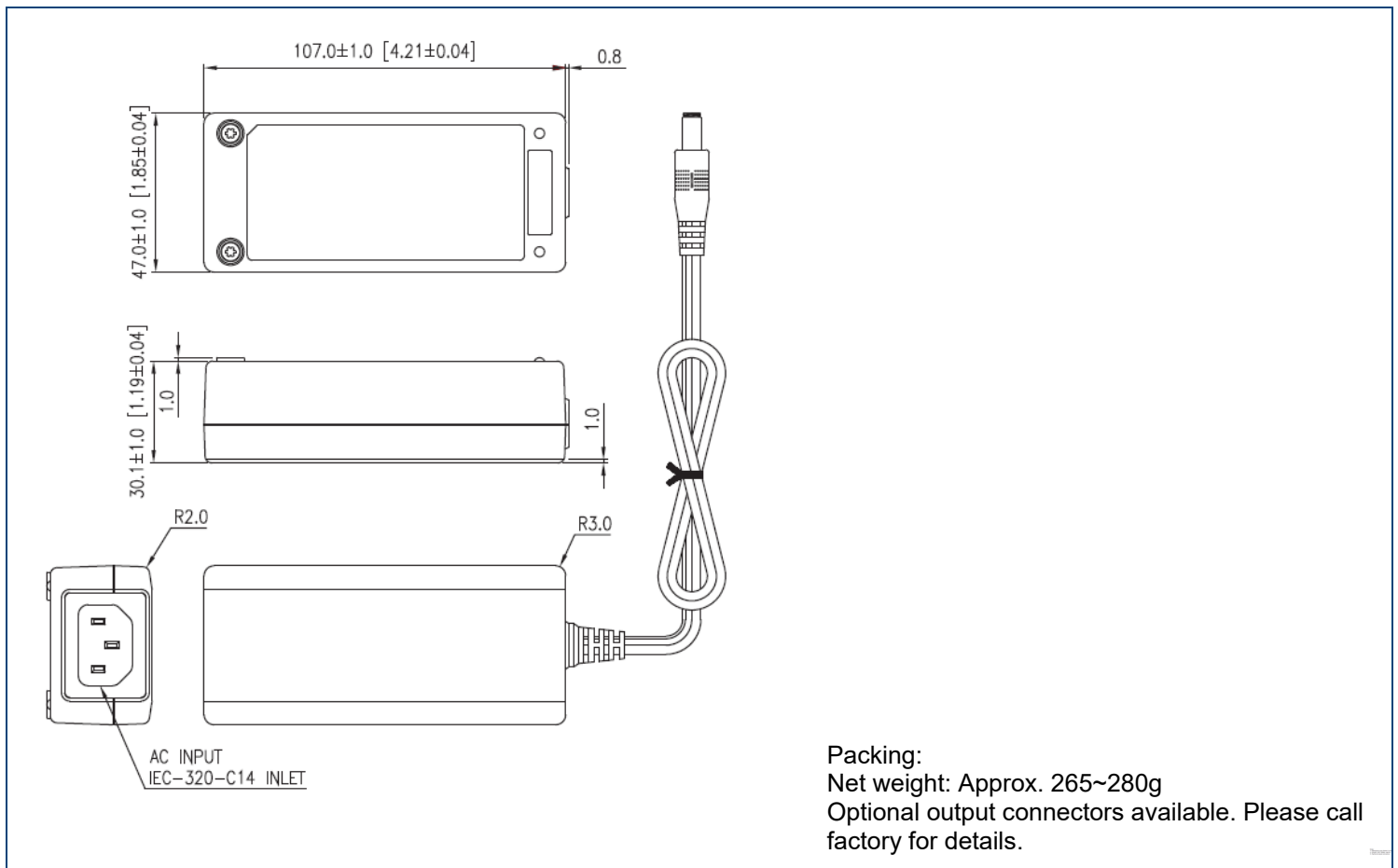
- (1) Ripple and Noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 0.47µF capacitor at rated load and nominal line.
- (2) Efficiency is measured at rated load and nominal line.
- (3) Output can provide up to peak load when the power supply starts up. Staying in more than rated load continually is not allowed.
- (4) Each output is checked to be within voltage accuracy at 60% rated load condition.
- (5) Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
- (6) Load regulation is defined by changing ±40% of measured output load from 60% rated load.
- (7) 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.
- (8) The DTSPUA-102 is available on NRCan mark.
- (9) DTSPU41-102~104 are required to use AWG#16/4FT output cable.
 DTSPU41-105~107 are required to use AWG#18/4FT output cable.
 DTSPU41-108~111 are required to use AWG#18/6FT output cable.
 Regulation and efficiency will be changed by modified output cable.
- (10) 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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