



FEATURES

- Wide Operating Voltage 90 to 264VAC
- 47 to 63Hz Input Frequency
- Optional Output Connectors Available
- Single, Dual, and Triple Outputs
- High Efficiency Up to 84.2%
- IEC-320-C14 Input Inlet
- Over Voltage, Over Load, and Short Circuit Protection
- Class I
- UL 60950-1:2nd Edition, IEC 60950-1:2005/A2:2013, EN60950-1:2005/A2:2013 Safety Approvals
- Dual and Triple Models Meet Level VI Efficiency

APPLICATIONS

- POS System
- AV Equipment
- Note PC
- Charger
- LED Lighting

DESCRIPTION

The DTSPU45 series of AC DC desktop power supplies offers up to 50 watts of output power in a 5.75in x 2.99in x 1.69in package. This series consists of single, dual, and triple output models with wide operating voltage of 90 to 264VAC. Each model in this series is protected against over voltage, over load, and input surge current conditions and has UL 60950-1:2nd Edition, IEC 60950-1:2005/A2:2013, EN60950-1:2005/A2:2013 safety approvals.



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

MODEL SELECTION TABLE

Single Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current		Total Regulation	Ripple & Noise	Max. Output Power	Efficiency	No Load Power Consumption
			Min Load	Max Load					
DTSPU45-101	90~264VAC	3~5VDC	8.00A		±5%	50mVp-p	40W	75%	4W
DTSPU45-102		5~6VDC	6.66A	8.00A	±5%	50mVp-p	42W		
DTSPU45-103		6~8VDC	5.25A	7.00A	±5%	65mVp-p	42W		
DTSPU45-104		8~11VDC	4.00A	5.63A	±5%	80mVp-p	45W		
DTSPU45-105		11~13VDC	3.46A	4.00A	±5%	100mVp-p	45W		
DTSPU45-106		13~16VDC	2.81A	3.46A	±5%	100mVp-p	45W		
DTSPU45-107		16~21VDC	2.38A	3.12A	±5%	100mVp-p	50W		
DTSPU45-108		21~27VDC	1.85A	2.30A	±3%	100mVp-p	50W		
DTSPU45-109		27~33VDC	1.51A	1.85A	±3%	100mVp-p	50W		
DTSPU45-110		33~40VDC	1.25A	1.51A	±3%	100mVp-p	50W		
DTSPU45-111		40~50VDC	1.00A	1.25A	±3%	100mVp-p	50W		

MODEL SELECTION TABLE

Dual Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current		Total Regulation	Ripple & Noise	Max. Output Power	Efficiency	No Load Power Consumption
			Min Load	Max Load					
DTSPU45-200	90~264VAC	+3.3VDC	0.5A	5A	±7%	50mVp-p	40W	83.8%	0.3W
DTSPU45-201		+12VDC	0.3A	2A	±5%	120mVp-p			
		+5VDC	0.5A	5A	±5%	50mVp-p			
DTSPU45-202		+12VDC	0.3A	2A	±5%	120mVp-p	42W	84.2%	
		+5VDC	0.8A	5A	±7%	50mVp-p			
DTSPU45-203		+15VDC	0.3A	1.5A	±5%	150mVp-p	42W	84.2%	
		+5VDC	0.5A	5A	±5%	50mVp-p			
DTSPU45-204		+24VDC	0.1A	1A	±5%	200mVp-p	45W	84.2%	
		+3.3VDC	0.5A	5A	±7%	50mVp-p			
DTSPU45-209		+5VDC	0.2A	2A	±5%	60mVp-p	26.5W	80.7%	
		+12VDC	0.3A	3A	±5%	120mVp-p			
DTSPU45-210		-12VDC	0.1A	1A	±5%	130mVp-p	42W	84.2%	
		+15VDC	0.2A	2A	±5%	150mVp-p			
DTSPU45-215		-15VDC	0.1A	1A	±5%	150mVp-p	42W	84.2%	
		+5VDC	0.5A	5A	±5%	50mVp-p			
DTSPU45-216		-24VDC	0.1A	1A	±5%	200mVp-p	42W	84.2%	
		+5.1VDC	0A	1A	±5%	50mVp-p			
		+7.2VDC	0.2A	2.6A	±5%	72mVp-p	23.82W	79.9%	

MODEL SELECTION TABLE

Triple Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current		Total Regulation	Ripple & Noise	Max. Output Power	Efficiency	No Load Power Consumption
			Min Load	Max Load					
DTSPU45-300	90~264VAC	+3.3VDC	1.0A	5A	±7%	50mVp-p	42W	84.2%	0.3W
		+12VDC	0.3A	2A	±5%	120mVp-p			
		-12VDC	0.1A	0.8A	±5%	120mVp-p			
DTSPU45-301		+5VDC	0.5A	5A	±5%	50mVp-p	42W	84.2%	
		+12VDC	0.2A	2A	±5%	100mVp-p			
		-5VDC	0A	0.8A	±5%	50mVp-p			
DTSPU45-302		+5VDC	0.5A	5A	±5%	50mVp-p	42W	84.2%	
		+12VDC	0.2A	2A	±5%	120mVp-p			
		-12VDC	0A	0.8A	±5%	120mVp-p			
DTSPU45-303		+5V	0.5A	5A	±5%	50mVp-p	42W	84.2%	
		+15V	0.4A	2A	±6%	150mVp-p			
		-15V	0A	0.8A	±5%	150mVp-p			
DTSPU45-304	+5V	0.5A	5A	±5%	50mVp-p	42W	84.2%		
	+24V	0.2A	1A	±5%	200mVp-p				
	-24V	0A	0.5A	±5%	200mVp-p				
DTSPU45-305	+5V	0.5A	5A	±5%	50mVp-p	42W	84.2%		
	+24V	0.1A	1A	±5%	200mVp-p				
	-12V	0A	0.8A	±5%	120mVp-p				
DTSPU45-306	+3.3V	0.5A	5A	±7%	50mVp-p	42W	84.2%		
	+12V	0.4A	2A	±5%	120mVp-p				
	-5V	0A	0.8A	±5%	50mVp-p				

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					
Input Voltage Range	Safety Approval Input Voltage Range	100		240	VAC
	Operate Voltage Range	90		264	
Input Frequency		47		63	Hz
Input Current	Low Line	Full Load, 100VAC		1.35	A
	High Line	Full Load, 240VAC		0.80	
Inrush Current	Low Line	Full Load, Cool Start @25°C 100VAC		20	A
	High Line	Full Load, Cool Start @25°C, 240VAC		40	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation ⁽³⁾	Full Load, Vin=100~120VAC	0.5		1	%
Load Regulation ⁽⁴⁾	Vin=230VAC, 10~90% Load Change at Condition	3		7	%
Output Power		See Table			
Output Current		See Table			
Ripple & Noise ⁽⁵⁾		See Table			
Transient Response Time	Full Load, Vin=110VAC			4	mS
Start-Up Time	Full Load, 100~240VAC			3	S
Hold-Up Time ⁽⁶⁾	Single Output		16		mS
	Dual & Triple Output		12		
Temperature Coefficient	Full Load, Vin=100~240VAC	-0.04		+0.04	°C
PROTECTION					
Short Circuit Protection		Automatic Recovery			
Over Load Protection		110		150	%
Over Voltage Protection		112		132	%
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	%
Vibration	10~500Hz, 10min./1cycle, 60min. each along X, Y, Z axes			5	G
Operating Altitude	All Conditions			5000	M
Cooling		Free Air Convection			
MTBF	Operating temperature at 25°C, calculated per MIL-HDBK-217F	100,000			hours

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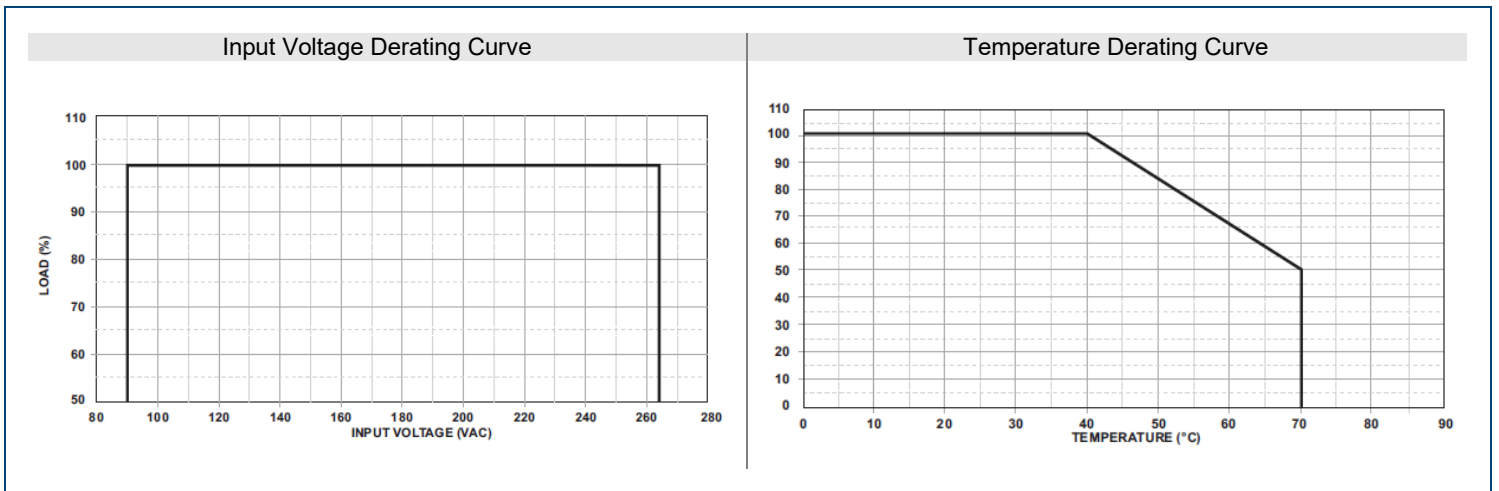
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
GENERAL SPECIFICATIONS					
Efficiency	Full Load, Vin=230VAC	75		84.2	%
Safety Ground Leakage Current	240VAC/60Hz			0.75	mA
Dielectric Withstanding Voltage	Primary to Secondary			4242	VDC
	Primary to PE			2677	
Isolation Resistance	Test Voltage=500VDC	50			MΩ
No Load Power Consumption	No load, 230VAC	See Table			
Surge Voltage	Line-Neutral			1	kV
	Line-PE & Neutral-PE			2	
PHYSICAL SPECIFICATIONS					
Weight		18.87~19.75oz (535~560g)			
Dimensions (L x W x H)		5.75in x 2.99in x 1.69in (146mm x 76mm x 43mm)			
Flammability Rating		UL94V-1			
SAFETY & EMC CHARACTERISTICS					
Safety Approvals ⁽⁷⁾		UL60950-1L:2 nd Edition ⁽⁸⁾ IEC 60950-1:2005/A2:2013 EN60950-1:2006/A2:2013			
EMC Emission		B Class			
Protection Classes		Class I			

NOTES

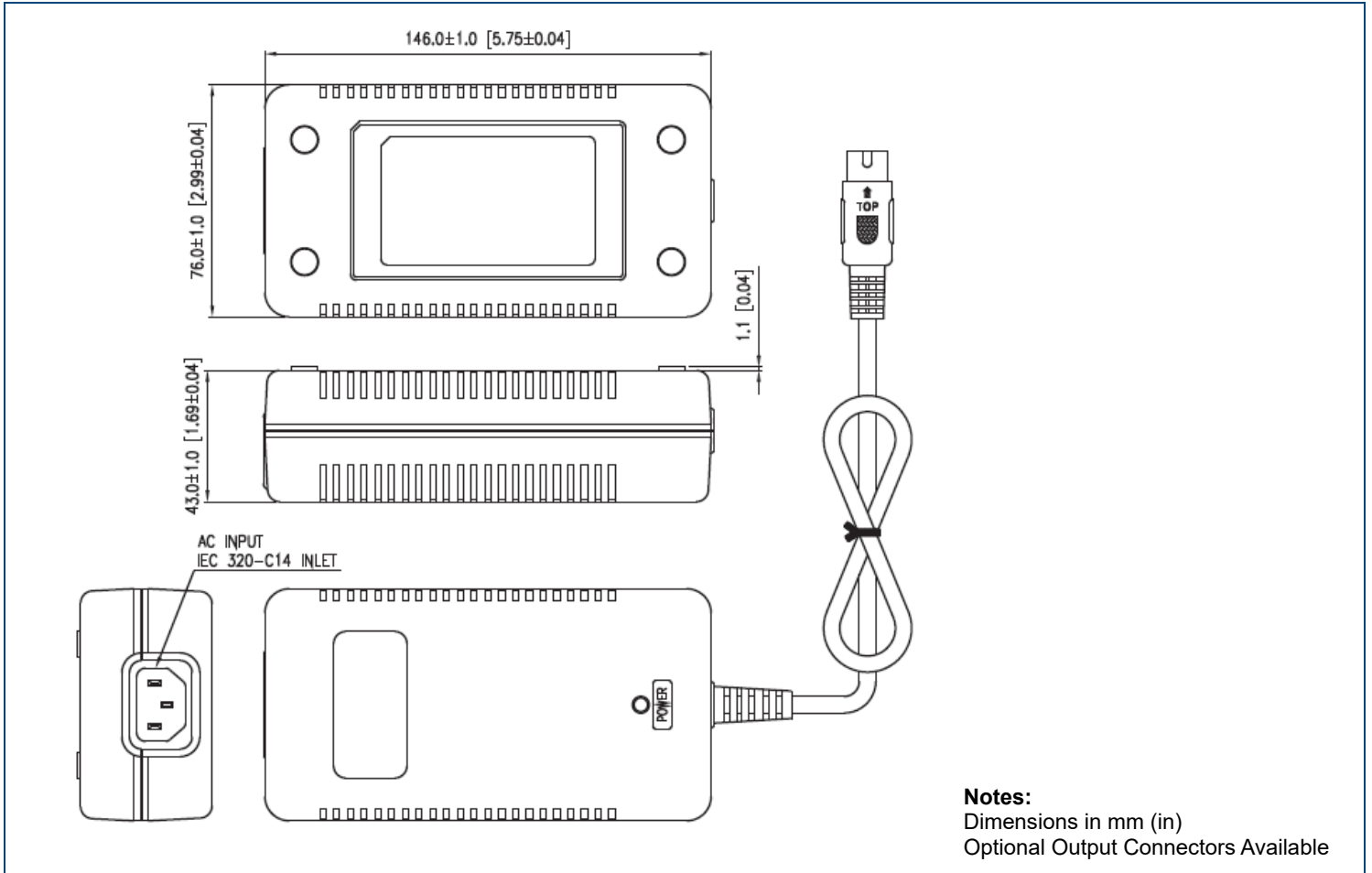
- (1) Output can provide up to peak load when the power supply starts up. Staying in more than rated load continually is not allowed.
- (2) At factory, each output is checked to be within voltage accuracy in 60% rated load condition.
- (3) Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
- (4) Load regulation is defined by changing ±40% of measured output load from 60% rated load.
- (5) Ripple and Noise 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) DTSPU45-101~111 are available on CCC mark
- (8) This product is Listed to applicable standards and requirements by UL.

Due to advances in technology, specifications are 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.

Contact **Wall Industries** for further information:

Phone: ☎ (603)778-2300
Toll Free: ☎ (888)597-9255
Fax: ☎ (603)778-9797
E-mail: sales@wallindustries.com
Web: www.wallindustries.com
Address: 37 Industrial Drive
Exeter, NH 03833

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