

Wall Industries, Inc.

DTIPU45E SERIES

90~264VAC Input Voltage Range
Class I, Up to 50 Watts
Single, Dual, and Triple Outputs
“Economy” Version of the DTIPU45 Series
AC/DC Desktop Power Supplies



Agree to apply for the
PSE if order on hand

FEATURES

- “Economy” Version of our DTIPU45 Series
- Class I
- RoHS Compliant
- UL 94V-1 Compliant
- Splash Proof
- IEC-320-C14 AC Input Inlet Connector
- 100% Burn-in Tested
- Single, Dual, and Triple Outputs
- Output Voltages Available from 3 to 50VDC
- Wide Input Voltage Range: 90~264VAC
- Input Surge Current, Over Voltage, and Over Load Protection
- Over Voltage Protection (Crowbar Design)
- -20°C to +70°C Operating Temperature Range
- Meets FCC Part-15 Class B and CISPR-22 Class B Emission Limits
- UL/cUL (UL60950-1: 2nd Edition) and TUV/GS (EN 60950-1: 2nd Edition) Safety Approvals
- Optional Output Connectors Available

DESCRIPTION

The DTIPU45E series of class I AC/DC desktop switching power supplies provides up to 50 Watts of continuous output power in a 5.75” x 2.99” x 1.69” package. This series consists of single, dual, and triple output models with a 90~264VAC input voltage range and an IEC-320-C14 input inlet connector. These power supplies have an industrial operating temperature range of -20°C to +70°C and are protected against input surge current, over voltage, and over load conditions. All units are UL 94V-1 and RoHS compliant and meet FCC Part-15 class B and CISPR-22 class B emission limits. The DTIPU45E series also meets new CE requirements and has UL/cUL (UL 60950-1: 2nd edition) and TUV/GS (EN 60950-1: 2nd edition) safety approvals. All units are 100% burn-in tested.



SPECIFICATIONS: DTIPU45E SERIES						
<p>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.</p>						
SPECIFICATION	TEST CONDITIONS	Min	Nom	Max	Unit	
INPUT SPECIFICATIONS						
Operating Voltage Range	Operating Input Voltage Range	90		264	VAC	
	Safety Approvals Input Voltage Range	100		240		
Input Frequency		47		63	Hz	
Input Current	Io = Full Load, Vin = 115VAC			1.35	A	
	Io = Full Load, Vin = 230VAC			0.8	A	
Inrush Current	Io = Full Load, 25°C, Cool Start, Vin = 115VAC		16	20	A	
	Io = Full Load, 25°C, Cool Start, Vin = 230VAC		32	40	A	
No Load Power Consumption	Single Output Models	No Load, Vin = 230VAC		4.5	W	
	Dual Output Models			5		
	Triple Output Models			5.5		
OUTPUT SPECIFICATIONS						
Output Voltage		See Table				
Line Regulation	Io = Full Load		0.5	1	%	
Load Regulation	Vin = 230VAC		3	5	%	
Output Power	Vin = 90 to 264VAC	0		50	W	
Output Current Range		See Table				
Ripple & Noise (peak to peak)	Outputs under 3.3VDC	Full Load, Vin = 90VAC		2	%	
	All other outputs			0.5		
Transient Response Time	Io = Full Load to Half Load, Vin = 100VAC			4	ms	
Hold-Up Time	Io = Full Load, Vin = 110VAC	12			ms	
Start-Up Time	Io = Full Load, Vin = 100VAC	0.3	1	2	s	
Temperature Coefficient		-0.04		+0.04	%/°C	
PROTECTION						
Over Voltage Protection		112		132	%	
Over Current Protection		110		150	%	
Input Surge Voltage		yes				
GENERAL SPECIFICATIONS						
Efficiency	Io = Full Load, Vin = 230VAC	See Table				
Dielectric Withstanding Voltage	Primary to Secondary	4242			VDC	
	Primary to Ground	2121				
Isolation Resistance	Test Voltage = 500VDC	50			MΩ	
Safety Ground Leakage Current	Io = Full Load, Vin = 240VAC		0.5	0.75	mA	
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature	Derating linearly from 100% Load at 40°C to 50% load at 70°C	-20	40	70	°C	
Storage Temperature		-40		85	°C	
Operating Humidity		0		95	%	
Storage Humidity		0		95	%	
MTBF	Operating Temp. at 25°C; calculated per MIL-HDBK-217F	100,000 hours				
PHYSICAL SPECIFICATIONS						
Weight		approx. 1.18~1.23 lbs (535~560g)				
Dimensions (L x W x H)		5.75 x 2.99 x 1.69 inches (146.0 x 76.0 x 43.0 mm)				
AC Inlet Connector		IEC-320-C14				
SAFETY & COMPLIANCE						
Safety Approvals	UL/cUL (UL60950-1: 2 nd edition.) ⁽⁴⁾ , TUV/GS (EN60950-1: 2 nd edition), CE					
EMI Requirements for CISPR-22	Vin = 230VAC	B			Class	
EMI Requirements for FCC PART-15	Vin = 120VAC	B			Class	
Compliance	RoHS and UL 94V-1					

MODEL SELECTION TABLE
SINGLE OUTPUT MODELS

Model Number	Input Voltage Range	Output Voltage Range ⁽²⁾	Output Current Range	Total Regulation	Efficiency	Max. Output Power
DTIPU45E-101	90 ~ 264 VAC	3 ~ 5 VDC	8.00 A max.	5%	60%	40W
*DTIPU45E-102	90 ~ 264 VAC	5 ~ 6 VDC	8.00 ~ 6.66 A	5%	70%	40W
*DTIPU45E-103	90 ~ 264 VAC	6 ~ 8 VDC	7.00 ~ 5.25 A	5%	70%	42W
*DTIPU45E-104	90 ~ 264 VAC	8 ~ 11 VDC	5.63 ~ 4.00 A	5%	75%	45W
*DTIPU45E-105	90 ~ 264 VAC	11 ~ 13 VDC	4.00 ~ 3.46 A	5%	75%	45W
*DTIPU45E-106	90 ~ 264 VAC	13 ~ 16 VDC	3.46 ~ 2.81 A	5%	75%	45W
*DTIPU45E-107	90 ~ 264 VAC	16 ~ 21 VDC	3.12 ~ 2.38 A	5%	78%	50W
DTIPU45E-108	90 ~ 264 VAC	21 ~ 27 VDC	2.30 ~ 1.85 A	3%	78%	50W
DTIPU45E-109	90 ~ 264 VAC	27 ~ 33 VDC	1.85 ~ 1.51 A	3%	78%	50W
DTIPU45E-110	90 ~ 264 VAC	33 ~ 40 VDC	1.51 ~ 1.25 A	3%	80%	50W
DTIPU45E-111	90 ~ 264 VAC	40 ~ 50 VDC	1.25 ~ 1.00 A	3%	80%	50W

DUAL OUTPUT MODELS

Model Number	Input Voltage Range	Output Voltage	Output Current		Total Regulation	Efficiency	Max. Output Power	
			Min	Max				
*DTIPU45E-200	90 ~ 264 VAC	V _{O1}	+3.3 VDC	0.7A	5A	7%	68%	40W
		V _{O2}	+12 VDC	0.4A	2A	5%		
*DTIPU45E-201	90 ~ 264 VAC	V _{O1}	+5 VDC	0.5A	5A	5%	70%	42W
		V _{O2}	+12 VDC	0.3A	2A	5%		
*DTIPU45E-202	90 ~ 264 VAC	V _{O1}	+5 VDC	0.8A	5A	5%	70%	42W
		V _{O2}	+15 VDC	0.3A	1.5A	6%		
DTIPU45E-203	90 ~ 264 VAC	V _{O1}	+5 VDC	0.5A	5A	5%	70%	42W
		V _{O2}	+24 VDC	0.2A	1A	5%		
DTIPU45E-204	90 ~ 264 VAC	V _{O1}	+3.3 VDC	0.8A	5A	7%	65%	26.5W
		V _{O2}	+5 VDC	0.4A	2A	5%		
*DTIPU45E-209	90 ~ 264 VAC	V _{O1}	+12 VDC	0.3A	3A	5%	75%	42W
		V _{O2}	-12 VDC	0A	1A	10%		
*DTIPU45E-210	90 ~ 264 VAC	V _{O1}	+15 VDC	0.5A	2A	5%	75%	42W
		V _{O2}	-15 VDC	0.3A	1A	10%		
DTIPU45E-215	90 ~ 264 VAC	V _{O1}	+5 VDC	0.5A	5A	5%	70%	42W
		V _{O2}	-24 VDC	0.1A	1A	10%		
DTIPU45E-216	90 ~ 264 VAC	V _{O1}	+5.1 VDC	0A	1A	5%	65%	23.82W
		V _{O2}	+7.2 VDC	0.2A	2.6A	5%		

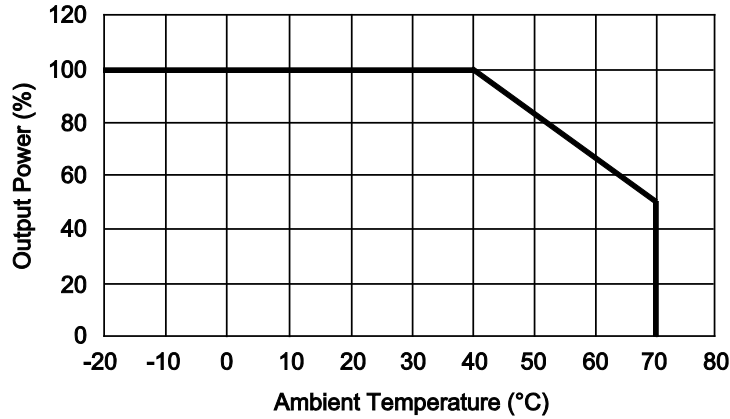
TRIPLE OUTPUT MODELS

Model Number	Input Voltage Range	Output Voltage	Output Current		Total Regulation	Efficiency	Max. Output Power	
			Min	Max				
DTIPU45E-300	90 ~ 264 VAC	V _{O1}	+3.3 VDC	1.0A	5A	7%	70%	42W
		V _{O2}	+12 VDC	0.3A	2A	5%		
		V _{O3}	-12 VDC	0.15A	0.8A	10%		
*DTIPU45E-301	90 ~ 264 VAC	V _{O1}	+5 VDC	0.5A	5A	5%	70%	42W
		V _{O2}	+12 VDC	0.8A	2A	5%		
		V _{O3}	-5 VDC	0.16A	0.8A	10%		
*DTIPU45E-302	90 ~ 264 VAC	V _{O1}	+5 VDC	0.6A	5A	5%	70%	42W
		V _{O2}	+12 VDC	0.45A	2A	5%		
		V _{O3}	-12 VDC	0.2A	0.8A	10%		
*DTIPU45E-303	90 ~ 264 VAC	V _{O1}	+5 VDC	0.5A	5A	5%	70%	42W
		V _{O2}	+15 VDC	0.3A	2A	6%		
		V _{O3}	-15 VDC	0.16A	0.8A	10%		
DTIPU45E-304	90 ~ 264 VAC	V _{O1}	+5 VDC	0.5A	5A	5%	70%	42W
		V _{O2}	+24 VDC	0.1A	1A	5%		
		V _{O3}	-24 VDC	0.1A	0.5A	10%		
DTIPU45E-305	90 ~ 264 VAC	V _{O1}	+5 VDC	0.5A	5A	5%	68%	42W
		V _{O2}	+24 VDC	0.1A	1A	5%		
		V _{O3}	-12 VDC	0.16A	0.8A	10%		
DTIPU45E-306	90 ~ 264 VAC	V _{O1}	+3.3 VDC	0.5A	5A	7%	70%	42W
		V _{O2}	+12 VDC	0.2A	2A	5%		
		V _{O3}	-5 VDC	0.16A	0.8A	10%		

NOTES

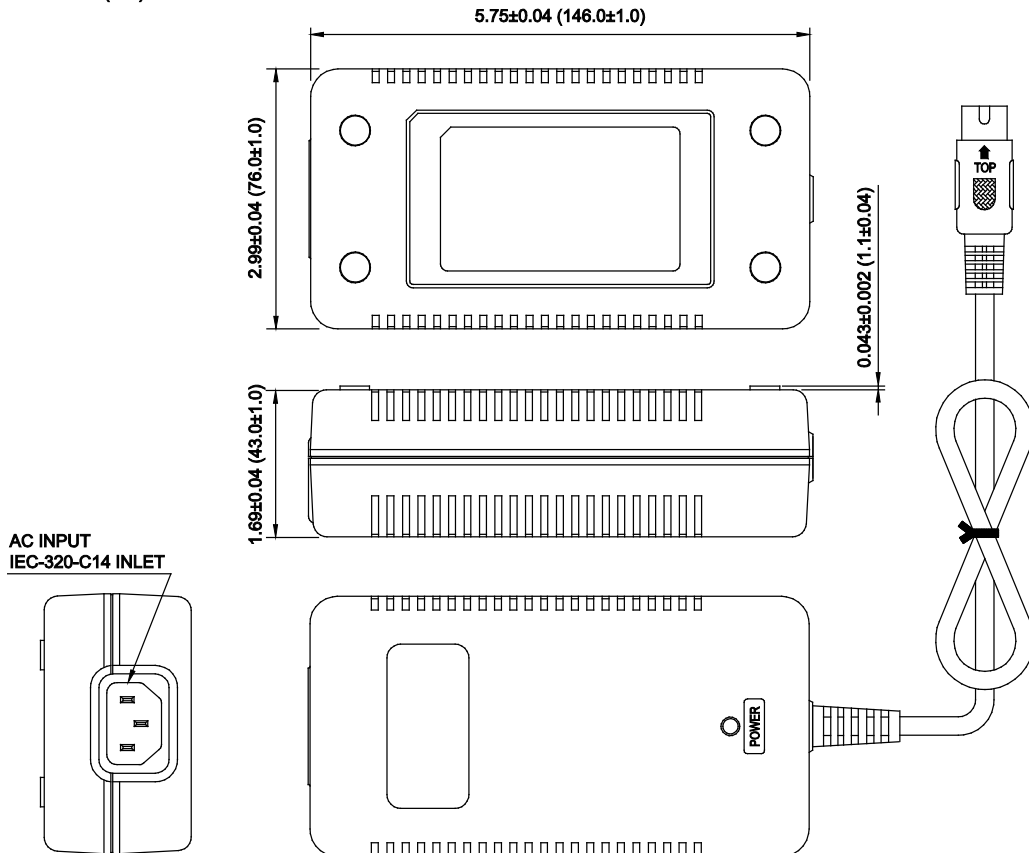
1. The "*" next to the model number means PSE Approval.
 2. For single output models the output voltage is specified as a range (ex: 40~50VDC); the customer must specify what they would like the output voltage set at.
 3. Optional output connectors available. Please call factory for ordering details.
 4. This product is Listed to applicable standards and requirements by UL.
- *Due to advances in technology, specifications subject to change without notice.*

DERATING CURVE



MECHANICAL DRAWING

Unit: Inches (mm)





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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