

Wall Industries, Inc.

DTIPU40 SERIES

90~264VAC Input Voltage Range
Class I, Single Outputs
Up to 40 Watts Output Power
-20°C to +70°C Operating Temperature Range
AC/DC Desktop Switching Power Supplies



FEATURES

- Class I
- Splash Proof
- RoHS Compliant
- UL 94V-1 Compliant
- CEC and Energy Star Compliance
- Approved as Limited Power Source (LPS)
- IEC-320-C14 AC Inlet Connector
- 100% Burn-in Tested
- Single Output Voltages Available from 5 to 50VDC
- Wide Input Voltage Range: 90~264VAC
- Over Current 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 DTIPU40 series of class I AC/DC desktop switching power supplies provides up to 40 Watts of continuous output power in a 4.65" x 2.05" x 1.36" package. This series consists of single output models with a 90~264VAC input voltage range and an IEC-320-C14 AC inlet connector. These power supplies have an industrial operating temperature range of -20°C to +70°C and are protected against over voltage and over current conditions. All units are UL 94V-1, RoHS, CEC and Energy Star compliant and meet FCC Part-15 class B and CISPR-22 class B emission limits. The DTIPU40 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: DTIPU40 SERIES

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	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	A
	Io = Full Load, Vin = 230VAC			0.5	
Inrush Current	Io = Full Load, 25°C, Cool Start, Vin = 115VAC		20	25	A
	Io = Full Load, 25°C, Cool Start, Vin = 230VAC		42	50	
No Load Power Consumption	DTIPU40-102~104 models	No Load, Vin = 230VAC		0.5	W
	DTIPU40-105~111 models			0.3	
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Line Regulation	Io = Full Load		0.5	1	%
Load Regulation	Vin = 230VAC		3	7	%
Output Power	Vin = 90 to 264VAC	0		40	W
Output Current Range		See Table			
Ripple & Noise (peak to peak)	Full Load, Vin = 90VAC		0.5	1	%
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		0.5	s
Temperature Coefficient		-0.04		+0.04	%/°C
PROTECTION					
Over Voltage Protection		112		132	%
Over Current Protection		110		150	%
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. 9.7oz (275g)			
Dimensions (L x W x H)		4.65 x 2.05 x 1.36 inches (118.0 x 52.0 x 34.5 mm)			
AC Inlet Connector		IEC-320-C14			
SAFETY & COMPLIANCE					
Safety Approvals	UL/cUL (UL60950-1: 2 nd edition.) ⁽⁶⁾ , TUV/GS (EN60950-1: 2 nd edition), CE				
EMI Requirements for CISPR-22	Vin = 220VAC	B			Class
EMI Requirements for FCC PART-15	Vin = 120VAC	B			Class
Compliance	RoHS and UL 94V-1				
CEC & Energy Star Compliance	DTIPU40-102~104 models	CEC Level IV			
	DTIPU40-105~111 models	CEC Level V			

MODEL SELECTION TABLE

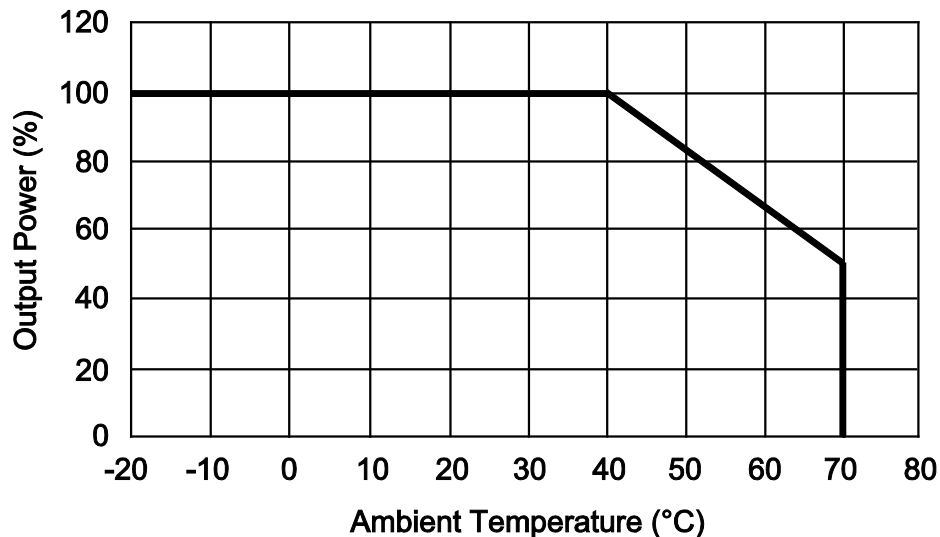
Model Number	Input Voltage Range	Output Voltage ⁽¹⁾	Output Current	Total Regulation ⁽⁴⁾	Efficiency	Maximum Output Power
DTIPU40-102	90 ~ 264 VAC	5 ~ 6 VDC	5.00 ~ 4.16 A	5%	79%	25W
DTIPU40-103	90 ~ 264 VAC	7 ~ 8 VDC	4.28 ~ 3.75 A	5%	81%	30W
DTIPU40-104	90 ~ 264 VAC	8 ~ 11 VDC	4.37 ~ 3.18 A	5%	82%	35W
DTIPU40-105	90 ~ 264 VAC	11 ~ 13 VDC	3.63 ~ 3.07 A	5%	85%	40W
DTIPU40-106	90 ~ 264 VAC	13 ~ 16 VDC	3.07 ~ 2.50 A	4%	85%	40W
DTIPU40-107	90 ~ 264 VAC	16 ~ 21 VDC	2.50 ~ 1.90 A	4%	85%	40W
DTIPU40-108	90 ~ 264 VAC	21 ~ 27 VDC	1.90 ~ 1.48 A	3%	85%	40W
DTIPU40-109	90 ~ 264 VAC	27 ~ 33 VDC	1.48 ~ 1.21 A	3%	85%	40W
DTIPU40-110	90 ~ 264 VAC	33 ~ 40 VDC	1.21 ~ 1.00 A	3%	85%	40W
DTIPU40-111	90 ~ 264 VAC	40 ~ 50 VDC	1.00 ~ 0.80 A	3%	85%	40W

NOTES

- The output voltage is specified as a range (ex: 40~50VDC); the customer must specify what they would like the output voltage set at.
- Models with an output voltage less than 30VDC have been approved by TUV/PSE.
- Models DTIPU40-102~104 have been approved by CEC Level IV
Models DTIPU40-105~111 have been approved by CEC Level V
- Models DTIPU40-102~105 need to use AWG#16/4FT output cable in order to meet the total regulation specified.
Models DTIPU40-106~111 need to use AWG#18/4FT output cable in order to meet the total regulation specified.
The regulation and efficiency will change if a different output cable is used.
- Optional output connectors available. Please call factory for ordering details.
- This product is Listed to applicable standards and requirements by UL.

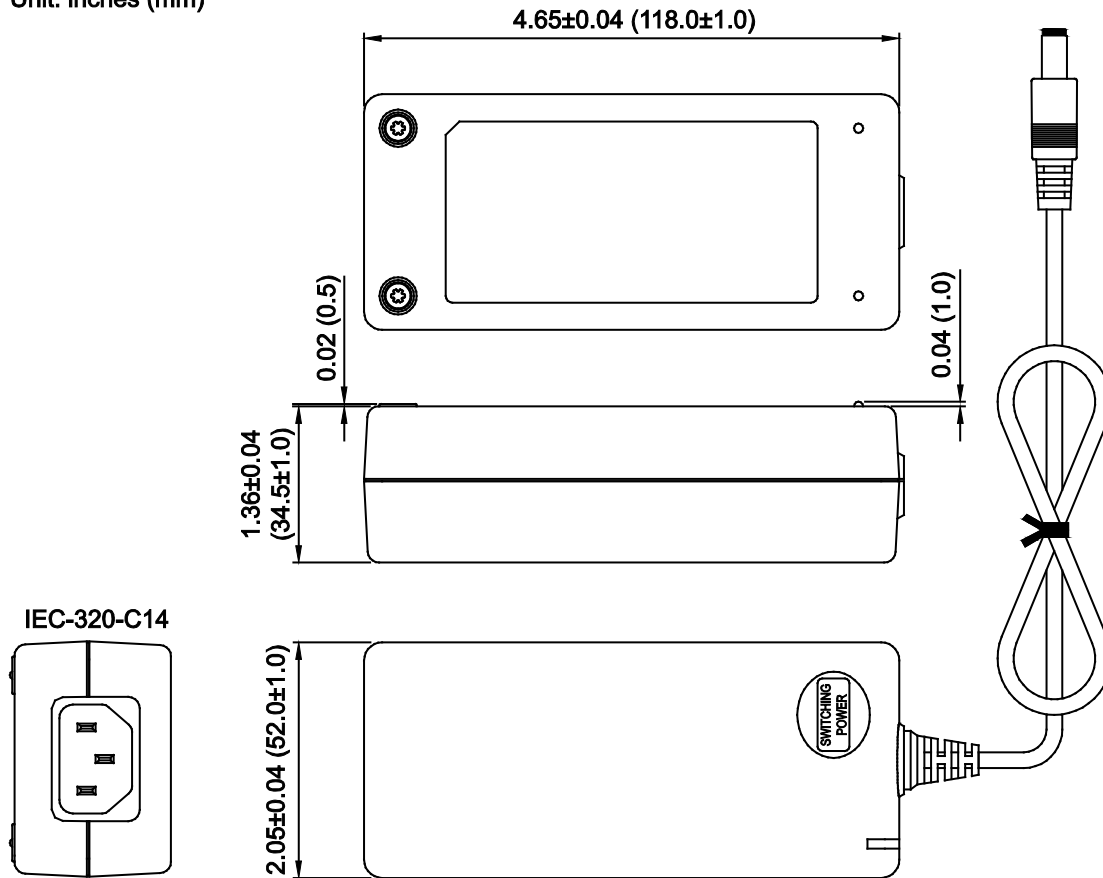
*Due to advances in technology, specifications subject to change without notice.

DERATING CURVE



MECHANICAL DRAWING

Unit: inches (mm)

*Dimensions are for reference only***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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