Wall Industries, Inc.

Rev A

DTIPU30 Series
Single Output
Up to 30 Watts
AC/DC Desktop Power Supply

FEATURES

- Splash Proof
- 100% Burn-in
- Class I Insulation
- IEC-320-C14 Input Inlet
- Optional Output Connectors Available
- Over Voltage Protection (Crowbar Design)
- -20°C ~ +70°C Operating Temperature Range
- Wide Input Voltage Range: 90 to 264VAC, 47~63Hz
- Input Surge Current, Over Voltage, and Over Load Protection

APPLICATIONS

- Scanners
- LCD Monitors
- Thermal Printers
- Humidity Temperature Meters



DESCRIPTION

The DTIPU30 series of AC/DC desktop switching mode power supplies provide up to 30 watts of continuous output power. All models have a single output, universal input voltage range, and an operating temperature range of –20°C ~ +70°C. These supplies are also protected against input surge current, over voltage, and over load conditions. All supplies are also UL 94V-1 compliant and include an IEC-320-C14 input connector for worldwide applications. All models meet FCC-Part-15 class B and CISPR-22 class B emission limits and are designed to comply with UL/c-UL (UL 60950-1), TUV/GS (EN 60950-1), and new CE requirements. These supplies are 100% burn-in tested.

SPECIFICATIONS: *DTIPU30 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 (V_{in})					
Operating Voltage Range		90		264	VAC
Input Frequency		47		63	Hz
Input Current (Low Line)	Io = Full Load, Vin = 115VAC			0.8	A
Input Current (High Line)	Io = Full Load, Vin = 230VAC			0.5	A
Inrush Current (Low Line)	Io = Full Load, 25°C, Cool Start, Vin = 115VAC		12	15	A
Inrush Current (High Line)	Io = Full Load, 25°C, Cool Start, Vin = 230VAC		26	30	A
Safety Ground Leakage Current	Io = Full Load, Vin = 240VAC		0.5	0.75	mA
Start-Up Time	Io = Full Load, Vin = 100VAC	0.3	1	2	s
OUTPUT (V_o)					
Output Voltage		See Rating Chart			VDC
Load Regulation	Vin = 230VAC		3	7	%
Line Regulation	Io = Full Load		0.5	1	%
Output Power	Vin = 90 to 264VAC	0		30	W
Output Current		See Rating Chart			A
*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 = 100VAC	12			ms
Temperature Coefficient	All Outputs	-0.04		+0.04	%/°C
PROTECTION					
Over Voltage Protection		112		132	%
Over Current Protection		110		150	%
GENERAL					
Efficiency	Io = Full Load, Vin = 230VAC	65	75	85	%
Dielectric Withstanding Voltage For Primary to Secondary	Primary to Secondary	4242			VDC
Dielectric Withstanding Voltage For Primary to Ground	Primary to Ground	2121			VDC
Isolation Resistance	Test Voltage = 500VDC	50			MΩ
ENVIRONMENTAL					
Operating Temperature	Derates linearly from 100% Load at 40°C to 50% load at 70°C	-20		+70	°C
Storage Temperature		-40		+85	°C
Relative Humidity		5		95	%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F	100,000 hours			
PHYSICAL					
Weight		Approximately 265 ~ 280 grams			
Dimensions (L x W x H)		4.65 x 2.05 x 1.36 inches 118.0 x 52.0 x 34.5 mm			
Warranty		2 years			
SAFETY					
EMI Requirements for CISPR-22	Vin = 220VAC	B			Class
EMI Requirements for FCC PART-15	Vin = 110VAC	B			Class

Note: The Ripple & Noise for output voltages under 3.3VDC is 2% max.

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OUTPUT VOLTAGE / CURRENT RATING CHART

Model Number	Input Current	Preset Voltage	Output Voltage Range	Output Current	Total Regulation[3]	Output Power
*DTIPU30-101	90 ~ 264VAC	5 VDC	3 ~ 5 VDC	5.00 A max	7%	20W
*DTIPU30-102	90 ~ 264VAC	6 VDC	5 ~ 6 VDC	5.00 ~ 4.16 A	5%	25W
DTIPU30-103	90 ~ 264VAC	8 VDC	6 ~ 8 VDC	4.16 ~ 3.12 A	5%	25W
DTIPU30-104	90 ~ 264VAC	11 VDC	8 ~ 11 VDC	3.75 ~ 2.72 A	5%	30W
DTIPU30-105	90 ~ 264VAC	13 VDC	11 ~ 13 VDC	2.72 ~ 2.30 A	5%	30W
DTIPU30-106	90 ~ 264VAC	16 VDC	13 ~ 16 VDC	2.30 ~ 1.87 A	5%	30W
DTIPU30-107	90 ~ 264VAC	21 VDC	16 ~ 21 VDC	1.87 ~ 1.42 A	5%	30W
DTIPU30-108	90 ~ 264VAC	27 VDC	21 ~ 27 VDC	1.42 ~ 1.11 A	5%	30W
DTIPU30-109	90 ~ 264VAC	33 VDC	27 ~ 33 VDC	1.11 ~ 0.90 A	5%	30W
DTIPU30-110	90 ~ 264VAC	40 VDC	33 ~ 40 VDC	0.90 ~ 0.75 A	3%	30W
DTIPU30-111	90 ~ 264VAC	50 VDC	40 ~ 50 VDC	0.75 ~ 0.60 A	3%	30W

NOTES

1. For single output models the output voltage is specified as a range (Ex: 40 ~ 50VDC); the preset voltage will be set as standard models if nothing different is requested. Please contact factory for ordering details.
2. The " * " symbol means PSE approval.
3. Models 101~102 need to use AWG#16/4FT output cable in order to meet the total regulation. Models 103~111 need to use AWG#18/6FT output cable in order to meet the total regulation.
4. Optional output connectors are available. Please call factory for ordering details.

MECHANICAL DRAWING

Unit: inches [mm]

