



Size: 7.44in x 3.52in x 1.79in (188.9mm x 89.5mm x 45.5mm)

OPTIONS

- Output Voltage
- Output Cable
- ON/OFF Switch

FEATURES

- Class I
- Single Output
- RoHS Compliant
- IEC-320-C14 Input Inlet
- Over Voltage, Short Circuit, and Over Load Protection
- Efficiency Level VI (12V and 24V models)
- Active Power Factor Correction
- Optional Output Connectors Available
- Output Voltages available from 12VDC to 55VDC
- Optional On/Off Switch
- Wide Input Voltage Range: 90 to 260VAC, 47~63Hz

APPLICATIONS

- Printer
- Industrial PC
- Power Tools
- DC Moto
- AV Equipment
- LED Lighting

DESCRIPTION

The DTSPU131 series of AC/DC desktop switching power supplies provides 130 watts of continuous output power. This series consists of single output models with a 90~260VAC input voltage range and an IEC-320-C14 input inlet connector for worldwide applications. These supplies also have short circuit, over voltage, and over load protection. All units are UL94V-1, RoHS compliant, and 12V and 24V models are Energy Star 2.0 Level VI compliant, while the rest are compliant to Level V. All models meet FCC Part-15 class B and CISPR-22 EN55022 class B emission limits and have UL/cUL (UL 60950-1) and TUV/T-mark (EN 60950-1) safety approvals. This series also meets new CE requirements and are 100% burn-in tested.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage ⁽¹⁾	Output Current		Ripple & Noise ⁽²⁾	Total Regulation	Output Power	No Load Power Consumption	Efficiency
			Min Load	Max Load					
DTSPU131-105	90~260VAC	12~13VDC	10A	10.84A	100 mVp-p	±5%	130W	0.21W	VI
DTSPU131-106		13~16VDC	8.12A	10A		±5%			V
DTSPU131-107		16~21VDC	6.19A	8.12A		±5%			V
DTSPU131-108		21~27VDC	4.81A	6.19A		±3%			VI
DTSPU131-109		27~33VDC	3.93A	4.81A		±3%			V
DTSPU131-110		33~40VDC	3.25A	3.93A		±3%			V
DTSPU131-111		40~50VDC	2.60A	3.25A		±3%			V
DTSPU131-112		50~55VDC	2.36A	2.60A		±3%			V

SPECIFICATIONS

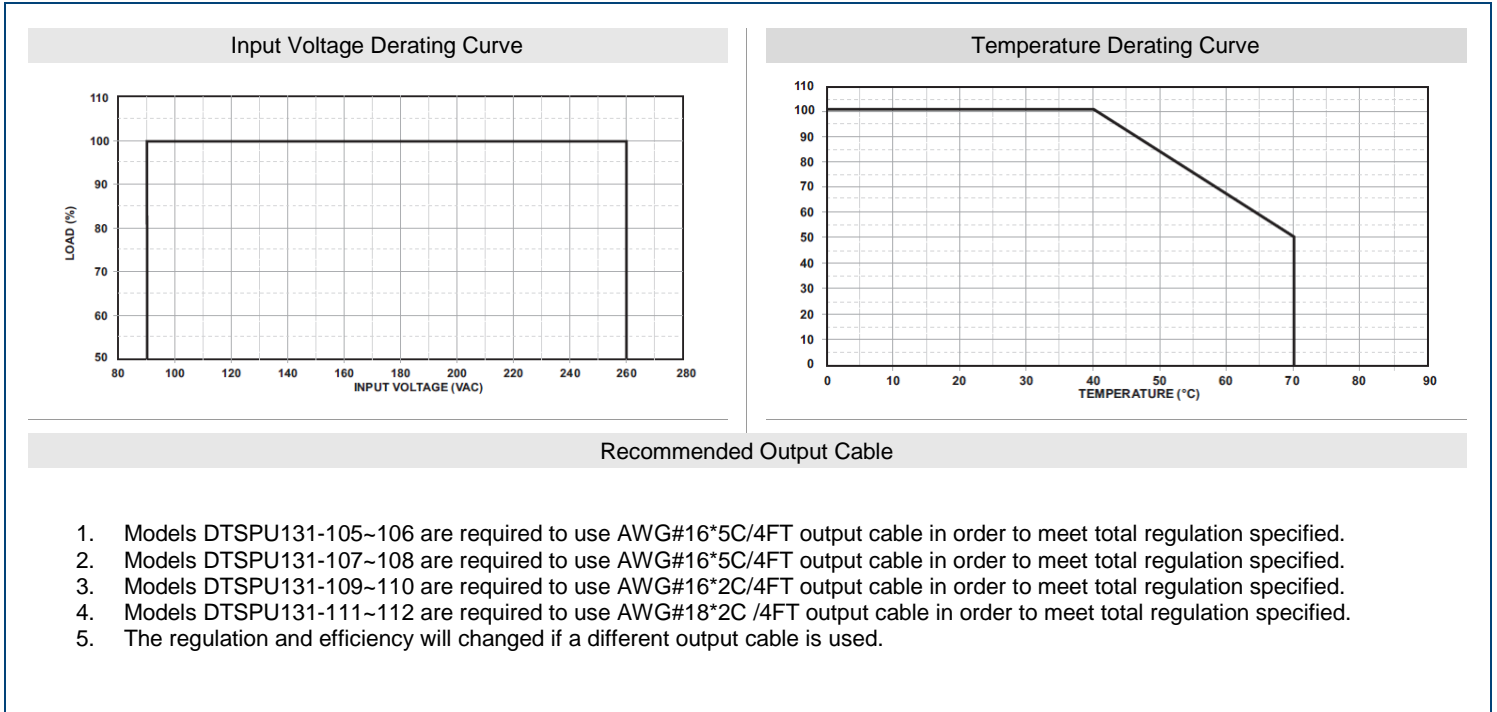
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
 We reserve the right to change specifications based on technological advances.

SPECIFICATION		TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS						
Input Voltage Range	Safety Approval Input Voltage Range		100		264	VAC
	Operate Voltage Range		90		260	
Input Frequency			47		63	Hz
Input Current	Low Line	Full Load, Vin=100VAC			1.58	A
	High Line	Full Load, Vin=240VAC			0.64	
Input Inrush Current	Low Line	Full Load, 25°C, Cool Start, Vin=100VAC			30	A
	High Line	Full Load, 25°C, Cool Start, Vin=240VAC			50	
Power Factor Correction	Io=Full Load, Vin=240VAC		0.95		1	
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Line Regulation ⁽³⁾	Full load, Vin=100~120VAC				1	%
Load Regulation ⁽⁴⁾	Vin=230VAC, 10~90% Load Change at Condition		3		5	%
Output Power			See Table			
Output Current			See Table			
Ripple & Noise (Peak to Peak)				100		mVp-p
Transient Response Time	Full Load, Vin=110VAC				4	mS
Start-Up Time	Full Load, Vin=100~240VAC				2	S
Hold-Up Time ⁽⁵⁾	Full Load, Vin=100VAC		16			mS
Temperature Coefficient	Full Load, Vin=100~240VAC			±0.04		%/°C
PROTECTION						
Over Voltage Protection			112		132	%
Over Load Protection	Recovers Automatically After Fault is Removed		110		150	%
Short Circuit Protection			Auto Recovery			
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	%RH
Storage Humidity			0		95	%RH
Surge Voltage	All Conditions				2	kV
Electro Static Discharge	Air Discharge, IEC61000-4-2				8	kV
	Contact Discharge, IEC61000-4-2				6	
Vibration	10~500Hz, 10min./1 cycle, 60 min. each along X, Y, Z, axes				5	G
Operating Altitude (Elevation)	All Conditions				3000	m
Cooling			Free Air Convention			
Flammability Rating			UL94V-1			
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		100,000			Hours
GENERAL SPECIFICATIONS						
Efficiency ⁽⁶⁾			See Table			
Dielectric Withstanding Voltage	Primary to Secondary		4242			VDC
	Primary to Ground		2121			
Safety Ground Leakage Current	Vin=240VAC, Fi=60Hz				0.75	mA
PHYSICAL SPECIFICATIONS						
Weight			Approx. 27.4~28.2oz (778~800g)			
Dimensions (L x W x H)			7.44in x 3.52in x 1.79in (188.9mm x 89.5mm x 45.5mm)			
SAFETY & EMC CHARACTERISTICS						
Safety Approvals	UL/cUL UL60950-1: 2 nd Edition TUV/GS (EN 60950-1:2 nd Edition)					
EMC Emission	Compliance to EN55022 (CISPR22), EN61000-3-2,-3		Class B			

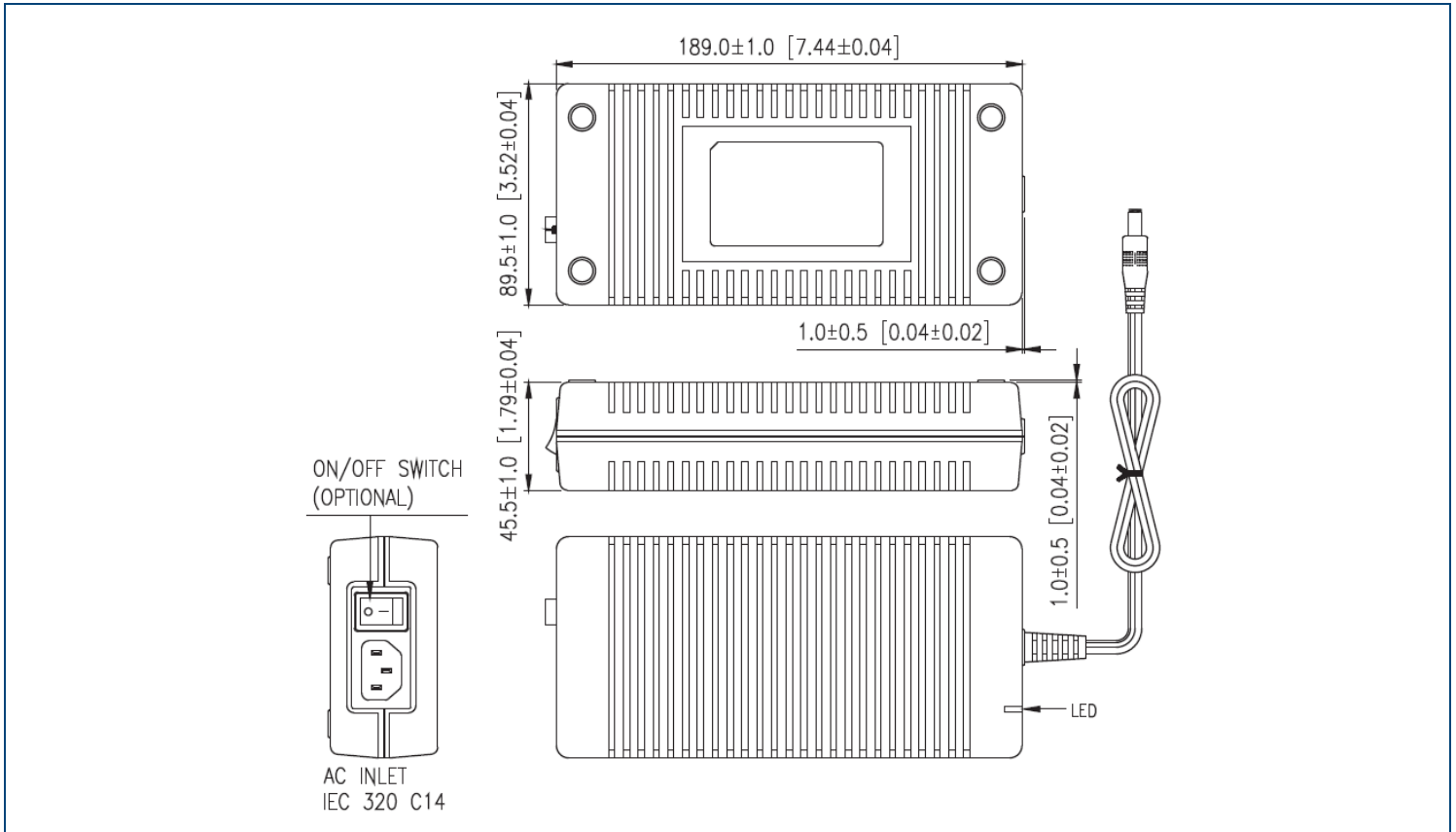
NOTES

- (1) Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- (2) Ripple and Noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor at rated load and nominal line.
- (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) 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.
- (6) Efficiency is measured at rated load, and nominal line.

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 ISO9001-2008 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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