



Size:
5.66 x 2.79 x 1.48 inches
143.8 x 70.8 x 37.5 mm

FEATURES

- Isolation Class II
- RoHS Compliant
- PFC Function, PF>0.9
- Single Outputs
- Double Layered PCB
- Free Air Convection
- Up to 90% High Efficiency
- 96 Watts Maximum Output Power
- Fully Isolated Plastic Case with IP67 Level
- 90~295VAC Input Voltage Range
- Short Circuit, Over Voltage, and Over Load Protection
- Constant Current (CC) & Constant Voltage (CV) Modes
- UL8750, IEC/EN 61347-2-13, & IEC/EN 61347-1 Approvals
- LED Power Applications

DESCRIPTION

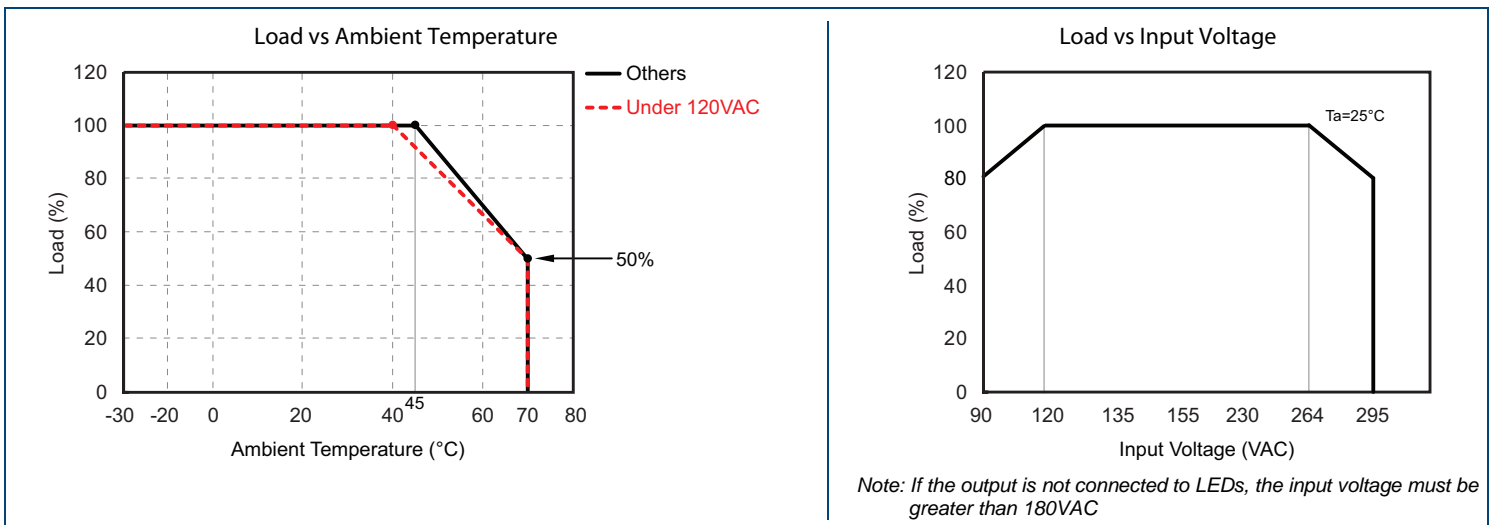
The PSPSF100 series of AC/DC LED switching power supplies provides a maximum power rating of 96W in a 5.66" x 2.79" x 1.48" fully isolated plastic case. These supplies meet IP67 waterproof standards, which makes them suitable for harsh environments in industrial or commercial outdoor lighting applications. The PSPSF100 series consists of single output models with an input voltage range of 90-295VAC. Some features include high efficiency up to 90%, power factor > 0.9, and short circuit, over voltage, and over load protection. The PSPSF100 series has both constant current (CC) and constant voltage (CV) modes and is suitable for LED lighting applications. This series is also RoHS compliant and has UL8750, IEC/EN 61347-1, and IEC/EN 61347-2-13 safety approvals.

MODEL SELECTION TABLE

Model Number	Input Voltage Range	Output Voltage ⁽²⁾	Output Current		Output Power	Ripple & Noise ⁽¹⁾	Efficiency
			Min	Max			
PSPSF100-24S	90 ~ 295 VAC	24 VDC (15.6~24 VDC)	2.6 A	3.5 A (2.6~4.0 A)	96 W	2.7Vp-p	89%
PSPSF100-36S		36 VDC (23.4~36 VDC)	1.72 A	2.1 A (1.72~2.65 A)	96 W	5Vp-p	90%
PSPSF100-48S		48 VDC (31.2~48 VDC)	1.3 A	1.75 A (1.3~2.0 A)	96 W	5Vp-p	89%
PSPSF100-54S		54 VDC (35.1~54 VDC)	1.15 A	1.4 A (1.15~1.77 A)	95.6 W	5Vp-p	90%

NOTES
 1. Measured at 20MHz bandwidth and with 0.1µF and 47µF capacitors in parallel.
 2. Input Voltage = 115VAC or 230VAC. This is suitable operation region for LED related applications but please reconfirm special electrical requirements for some specific system designs.

DERATING CURVES

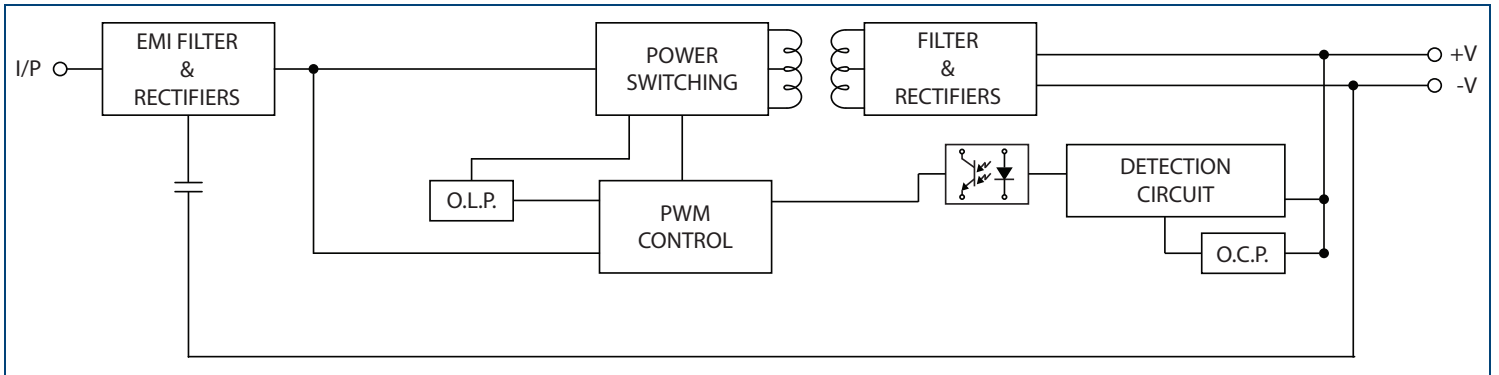


SPECIFICATIONS: PSPSF100 SERIES

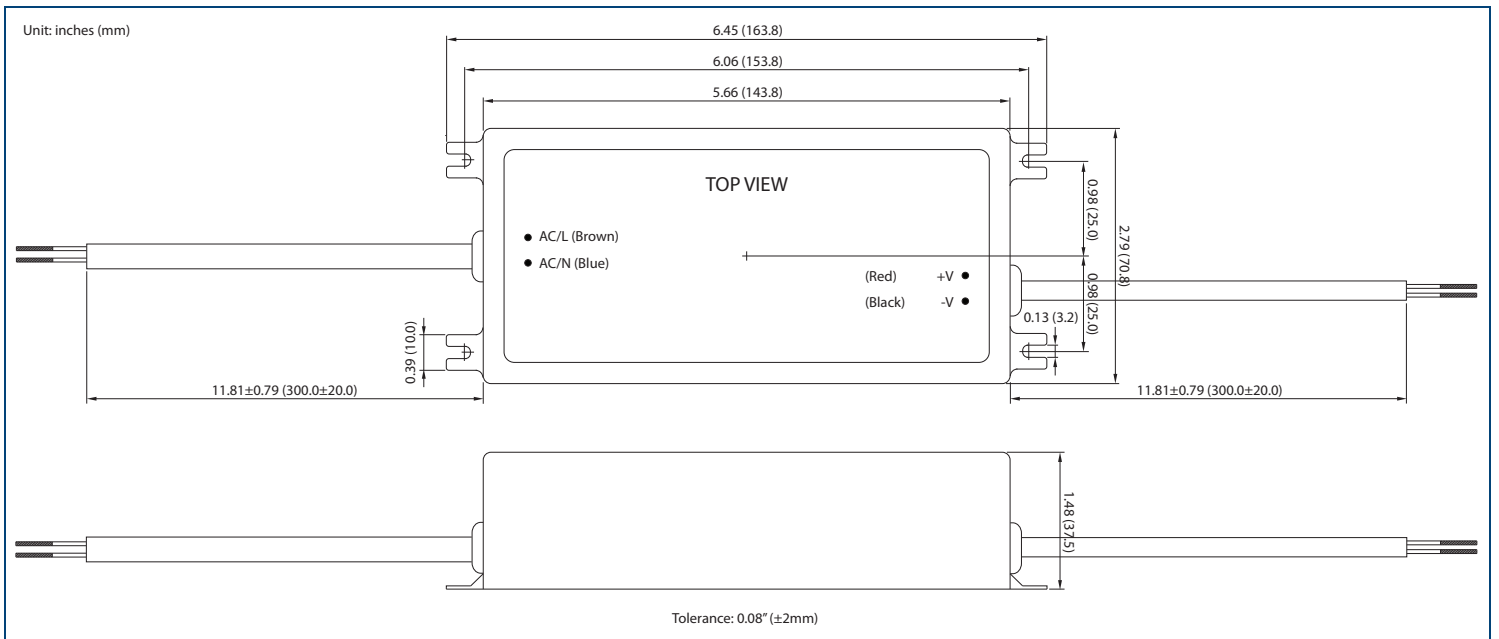
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit	
INPUT SPECIFICATIONS						
Input Voltage		90		295	VAC	
Input Frequency			50/60		Hz	
Input Current	At 115 VAC and full load At 230 VAC and full load		1.4 0.7		A	
Inrush Current				60	A	
Power Factor	At 115/230 VAC and full load	0.9				
OUTPUT SPECIFICATIONS						
Output Voltage		See Table				
Voltage Adjustment Setup (CV Mode)	PSPSF100-24S	22		26.5	VDC	
	PSPSF100-36S	33		39.5		
	PSPSF100-48S	44		51.5		
	PSPSF100-54S	49		55		
Constant Current Operation Voltage (CC Mode)	PSPSF100-24S	See Note 2	15.6	24	VDC	
	PSPSF100-36S		23.4	36		
	PSPSF100-48S		31.2	48		
	PSPSF100-54S		35.1	54		
Voltage Tolerance		-10		+10	%	
Preset Current (fixed) (CC Mode)	PSPSF100-24S	At 230 VAC	2.6	3.5	4.0	A
	PSPSF100-36S		1.72	2.1	2.65	
	PSPSF100-48S		1.3	1.75	2.0	
	PSPSF100-54S		1.15	1.4	1.77	
Minimum Load		See Table				
Line Regulation	LL to HL	-4		+4	%	
Load Regulation	Min load to max load	-5		+5	%	
Output Power		See Table				
Ripple & Noise		See Table				
Temperature Coefficient	0~50°C	-0.02		+0.02	%/°C	
PROTECTION						
Short Circuit Protection		auto-recovery				
Over Voltage Protection		Zener diode clamp				
Over Current Protection		auto-recovery				
GENERAL SPECIFICATIONS						
Efficiency	At 230 VAC and full load	See Table				
Isolation Voltage	Input to Output	3750			VAC	
Leakage Current	At 240 VAC			0.7	mA	
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature	With derating (see derating curve)	-30		+70	°C	
Storage Temperature		-40		+85	°C	
Humidity				95	% RH	
Cooling		Free air convection				
MTBF	25°C (MIL-HDBK-217F)	450,000			hours	
PHYSICAL SPECIFICATIONS						
Weight		1.41 lbs (640g)				
Dimensions (L x W x H)		5.66 x 2.79 x 1.48 inches (143.8 x 70.8 x 37.5 mm)				
SAFETY & EMC						
Safety Approvals		UL8750, IEC / EN 61347-2-13, IEC / EN 61347-1				
EMI (Conducted and Radiated Emissions)		EN 55015				
EMS (Noise Immunity)		EN61547				
Harmonic Current		EN61000-3-2 (at full load), EN 61000-3-3				
Surge		2KV (L-N), 4KV (L N – FG)				

BLOCK DIAGRAM



MECHANICAL DRAWING



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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