



**FEATURES**

- 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
- 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
- IP66/67 Design for Indoor or Outdoor LED Installations

**DESCRIPTION**

The PSQLF100 series of AC/DC LED switching power supplies provides a maximum power rating of 96W in a 4.76" x 2.36" x 1.38" fully isolated plastic case. These supplies meet IP66/67 waterproof standards, which makes them suitable for harsh environments in industrial or commercial outdoor lighting applications. The PSQLF100 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 PSQLF100 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.



**Size:**  
4.76 x 2.36 x 1.38 inches  
120.9 x 60.0 x 35.0 mm

**MODEL SELECTION TABLE**

**IP66 RATED MODELS**

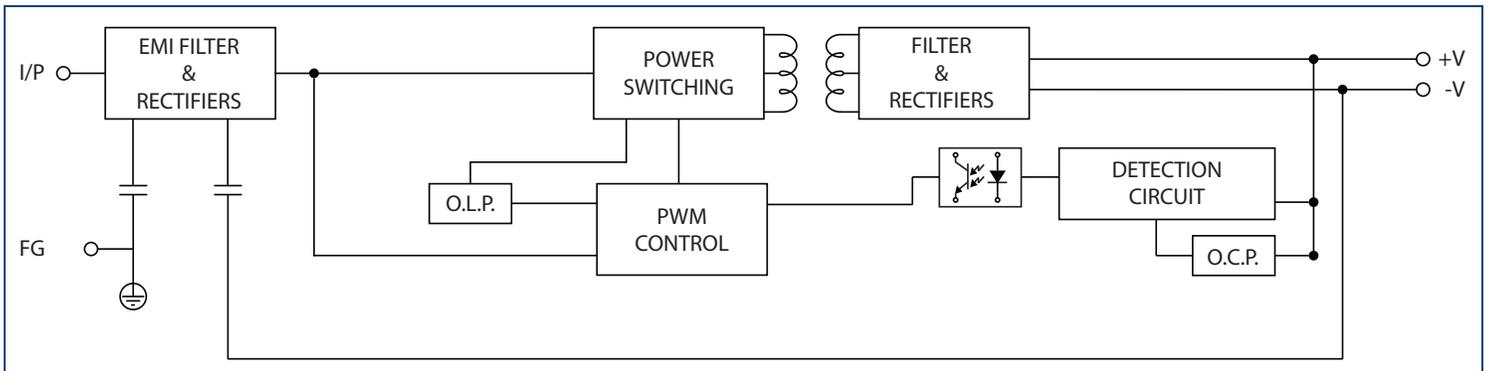
Model Number	Input Voltage Range	Output Voltage <sup>(2)</sup>	Output Current		Output Power	Ripple & Noise <sup>(1)</sup>	Efficiency
			Min	Current Adj. Range			
PSQLF100-24S-IP66	90 ~ 295 VAC	24 VDC (15.6~24 VDC)	2.6 A	3.5 A (2.6~4.0 A)	96 W	2.7Vp-p	89%
PSQLF100-36S-IP66		36 VDC (23.4~36 VDC)	1.72 A	2.1 A (1.72~2.65 A)	96 W	5Vp-p	90%
PSQLF100-48S-IP66		48 VDC (31.2~48 VDC)	1.3 A	1.75 A (1.3~2.0 A)	96 W	5Vp-p	89%
PSQLF100-54S-IP66		54 VDC (35.1~54 VDC)	1.15 A	1.4 A (1.15~1.77 A)	95.6 W	5Vp-p	90%

**IP67 RATED MODELS**

Model Number	Input Voltage Range	Output Voltage <sup>(2)</sup>	Output Current		Output Power	Ripple & Noise <sup>(1)</sup>	Efficiency
			Min	Preset Current (fixed)			
PSQLF100-24S-IP67	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%
PSQLF100-36S-IP67		36 VDC (23.4~36 VDC)	1.72 A	2.1 A (1.72~2.65 A)	96 W	5Vp-p	90%
PSQLF100-48S-IP67		48 VDC (31.2~48 VDC)	1.3 A	1.75 A (1.3~2.0 A)	96 W	5Vp-p	89%
PSQLF100-54S-IP67		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.

**BLOCK DIAGRAM**

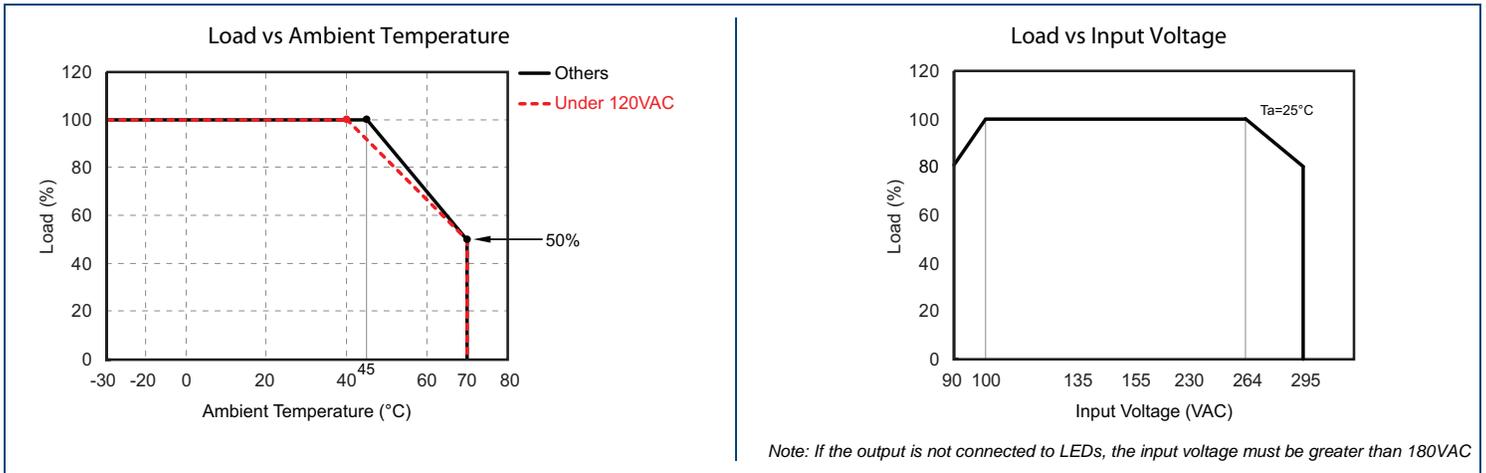


**SPECIFICATIONS: PSQLF100 SERIES**

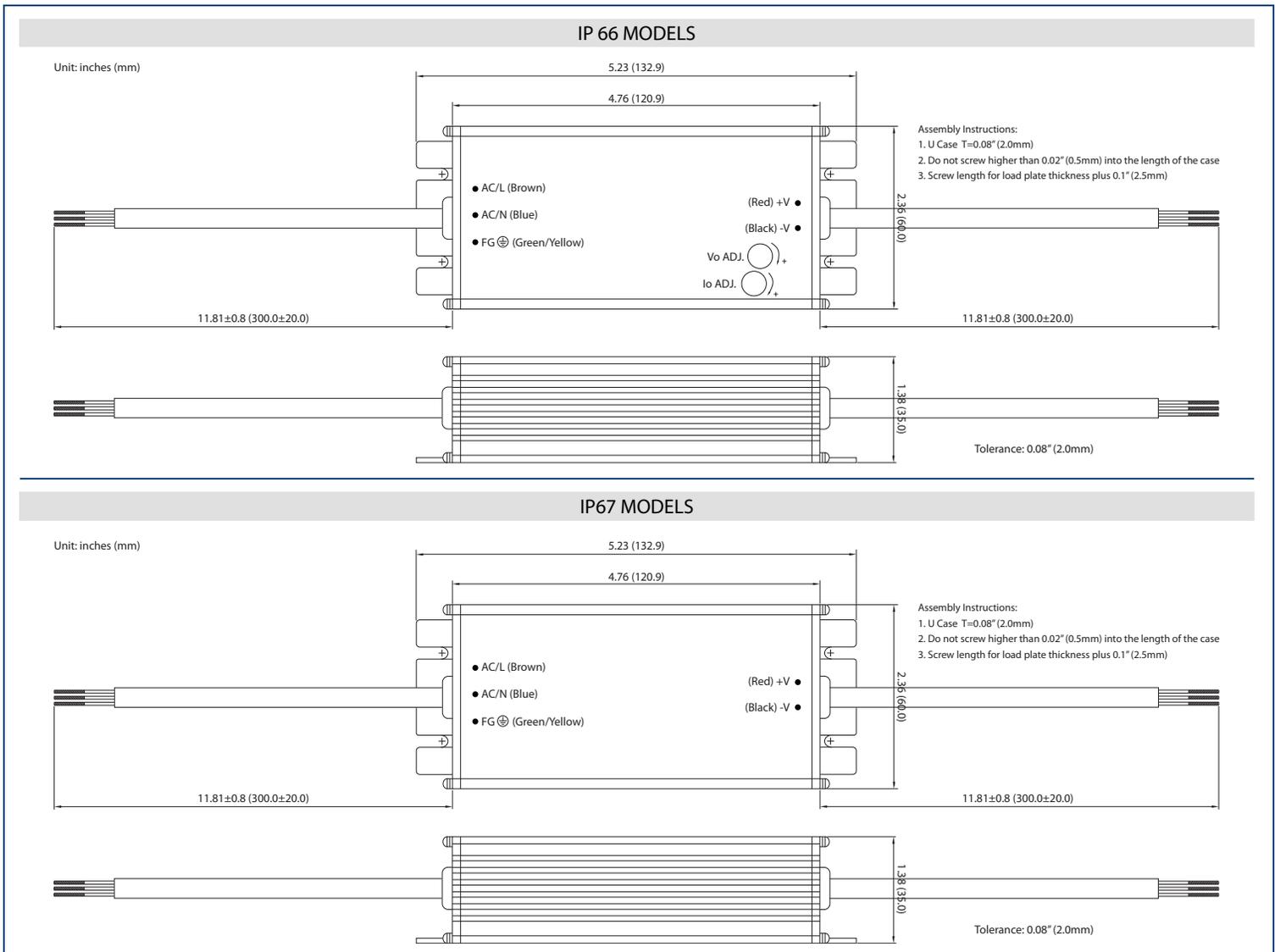
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.  
We reserve the right to change specifications based on technological advances.

SPECIFICATION		TEST CONDITIONS	Min	Typ	Max	Unit	
<b>INPUT SPECIFICATIONS</b>							
Input Voltage		See derating curve	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		At 230 VAC			60	A	
Power Factor		At 115/230 VAC and full load	0.9				
<b>OUTPUT SPECIFICATIONS</b>							
Output Voltage			See Table				
Voltage Adjustment Setup (CV Mode)		PSQLF100-24S	22		26.5	VDC	
		PSQLF100-36S	33		39.5		
		PSQLF100-48S	44		51.5		
		PSQLF100-54S	49		55		
Constant Current Operation Voltage (CC Mode)		PSQLF100-24S	See Note 2	15.6	24	VDC	
		PSQLF100-36S		23.4	36		
		PSQLF100-48S		31.2	48		
		PSQLF100-54S		35.1	54		
Voltage Tolerance			-10		+10	%	
Preset Current (CC Mode)	IP66 Models	PSQLF100-24S	At 230 VAC		3.5	A	
		PSQLF100-36S		2.1			
		PSQLF100-48S		1.75			
		PSQLF100-54S		1.4			
Current Adj. Range (CC Mode)	IP66 Models	PSQLF100-24S	At 230 VAC	2.6	4.0	A	
		PSQLF100-36S		1.72	2.65		
		PSQLF100-48S		1.3	2.0		
		PSQLF100-54S		1.15	1.77		
Preset Current (fixed) (CC Mode)	IP67 Models	PSQLF100-24S	At 230 VAC	2.6	3.5	4.0	A
		PSQLF100-36S		1.72	2.1	2.65	
		PSQLF100-48S		1.3	1.75	2.0	
		PSQLF100-54S		1.15	1.4	1.77	
Minimum Load			See Table				
Line Regulation		110~240 VAC	-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	
<b>PROTECTION</b>							
Short Circuit Protection			auto-recovery				
Over Voltage Protection			Zener diode clamp				
Over Current Protection			auto-recovery				
<b>GENERAL SPECIFICATIONS</b>							
Efficiency		At 230 VAC and full load	See Table				
Isolation Voltage		Input to Output	3750			VAC	
		Input to FG	1880				
		Output to FG	500				
Leakage Current		At 240 VAC			0.7	mA	
<b>ENVIRONMENTAL SPECIFICATIONS</b>							
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	
<b>PHYSICAL SPECIFICATIONS</b>							
Weight			1.32 lbs (600g)				
Dimensions (L x W x H)			4.76 x 2.36 x 1.38 inches (120.9 x 60.0 x 35.0 mm)				
<b>SAFETY &amp; EMC</b>							
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)				

**DERATING CURVES**



**MECHANICAL DRAWING**



**COMPANY INFORMATION**

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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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