E347942 LEVEL3

Size:
4.12 x 2.07 x 1.06 inches
104.7 x 52.6 x 27.0 mm

FEATURES

- RoHS Compliant
- 75.6 Watts Output Power
- Double Layered PCB
- Single Outputs
- PFC Function, PF > 0.9
- Up to 90% High Efficiency
- Free Air Convection Cooling
- MTBF > 450,000 Hours
- -30°C~+70°C Operating Temperature Range
- Open Frame LED Power Supply
- 90-295VAC Input Voltage Range
- Constant Current and Constant Voltage (CC & CV) Modes
- Short Circuit, Over Load, and Over Voltage Protection
- UL8750, IEC/EN 61347-2-13, and IEC/EN 61347-1 Approvals

DESCRIPTION

The PSZLF75 series of AC/DC switching power supplies provides up to 75.6 Watts of output power in an ultra compact 4.12" x 2.07" x 1.06" open frame package. This 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 load, and over voltage protection. The PSZLF75 series has both constant current (CC) and constant voltage (CV) modes available 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.

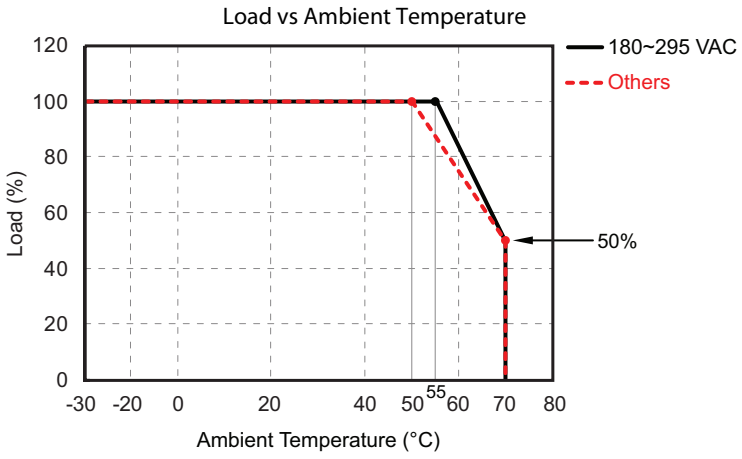
MODEL SELECTION TABLE

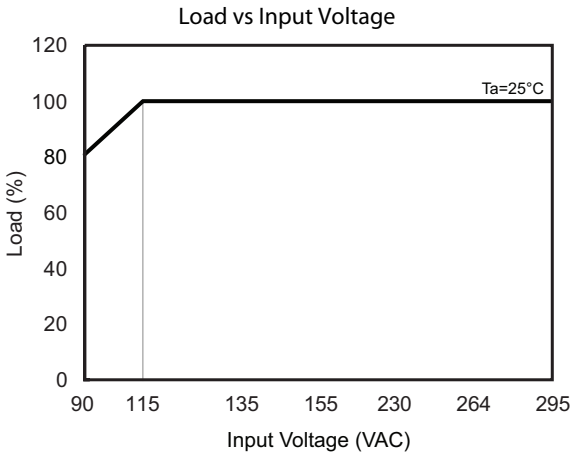
Model Number	Input Voltage Range	Output Voltage [2]	Output Current		Output Power	Ripple & Noise [1]	Efficiency
			Min	Max			
PSZLF75-24S	90 ~ 295 VAC	24 VDC (15.6~24 VDC)	2.0 A	2.8 A (2.0~3.15 A)	75.6 W	2.7Vp-p	89%
PSZLF75-36S		36 VDC (23.4~36 VDC)	1.35 A	2.1 A (1.35~2.1 A)	75.6 W	5Vp-p	90%
PSZLF75-48S		48 VDC (36~48 VDC)	1.0 A	1.4 A (1.0~1.57 A)	75.36 W	5Vp-p	89%
PSZLF75-54S		54 VDC (35.1~54 VDC)	0.9 A	1.4 A (0.9~1.4 A)	75.6 W	5Vp-p	90%

NOTES

1. Measured at 20MHz BW 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





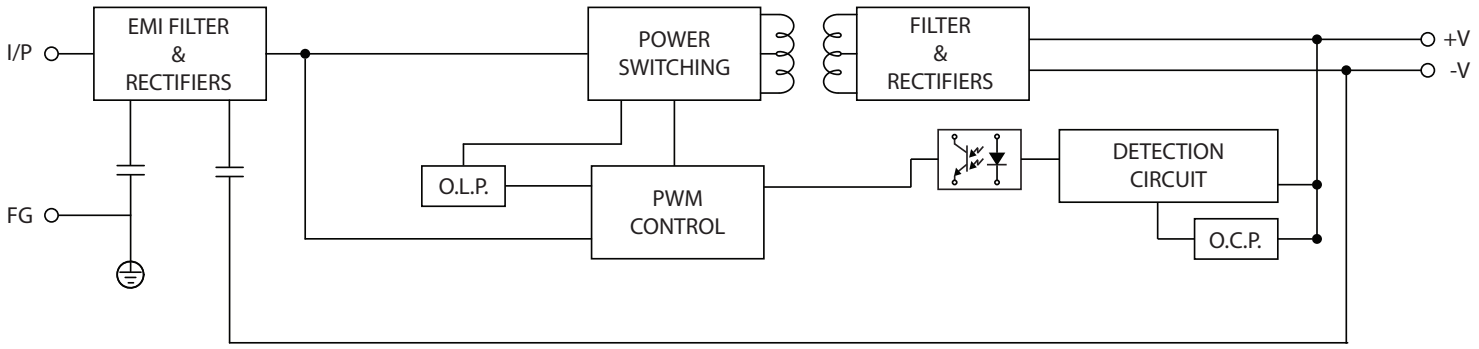
Note: If the output is not connected to LEDs, the input voltage must be greater than 180VAC

SPECIFICATIONS: PSZLF75 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.

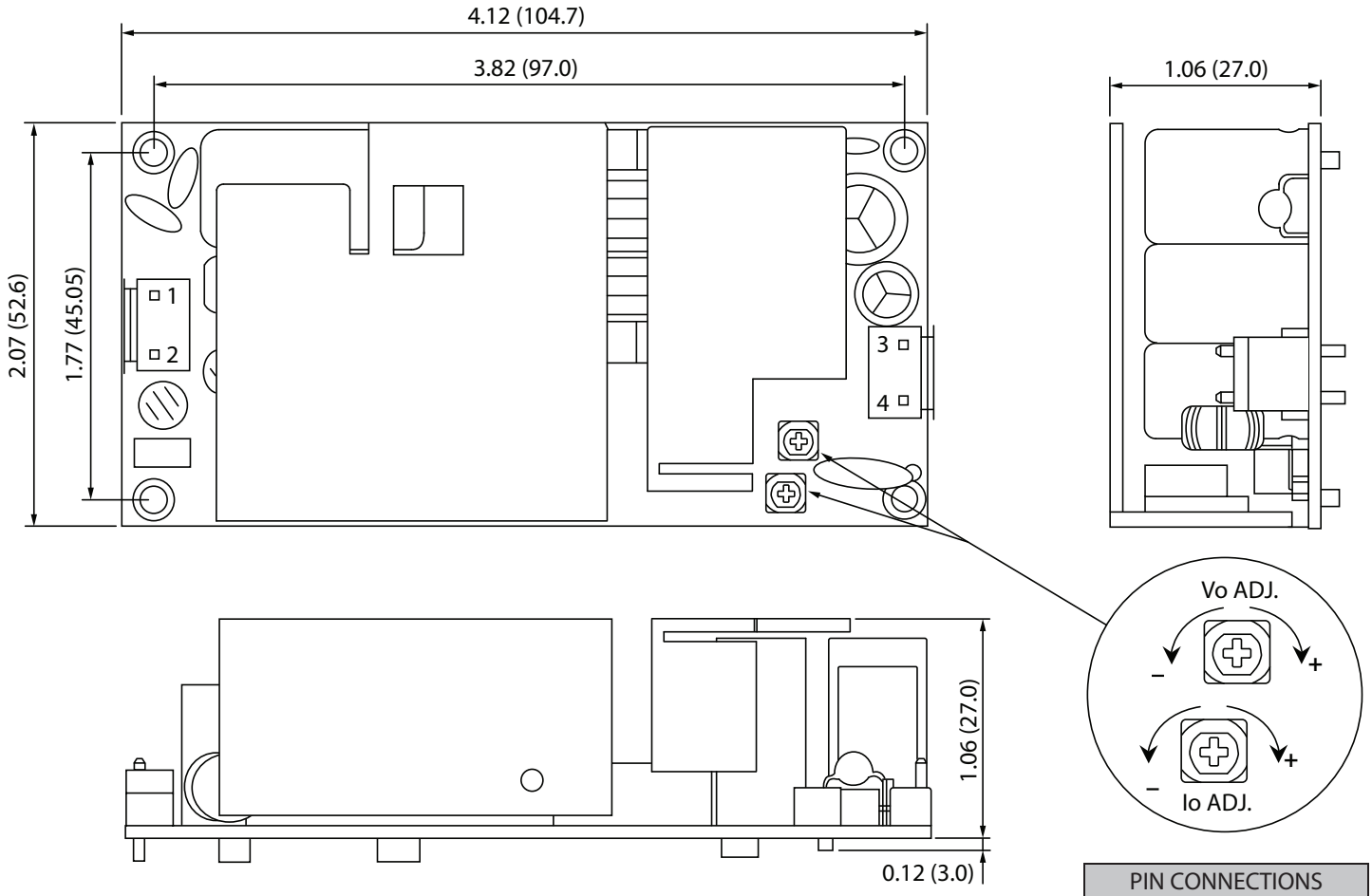
SPECIFICATION	TEST CONDITIONS		Min	Typ	Max	Unit
INPUT SPECIFICATIONS						
Input Voltage			90		295	VAC
Input Frequency				50/60		Hz
Input Current	At 115 VAC and full load			11		A
	At 230 VAC and full load			0.55		
Inrush Current					45	A
Power Factor	At 115/230 VAC and full load		0.9			
OUTPUT SPECIFICATIONS						
Output Voltage			See Table			
Voltage Adjustment Setup (CV Mode)	PSZLF75-24S		22		26.5	VDC
	PSZLF75-36S		33		39.5	
	PSZLF75-48S		44		51.5	
	PSZLF75-54S		49		55	
Constant Current Operation Voltage (CC Mode)	PSZLF75-24S	See Note 2	15.6		24	VDC
	PSZLF75-36S		23.4		36	
	PSZLF75-48S		36		48	
	PSZLF75-54S		35.1		54	
Voltage Tolerance			-10		+10	%
Preset Current (CC Mode)	PSZLF75-24S	At 230 VAC		2.8		A
	PSZLF75-36S			2.1		
	PSZLF75-48S			1.4		
	PSZLF75-54S			1.4		
Current Adjustment Range (CC Mode)	PSZLF75-24S		2.0		3.15	A
	PSZLF75-36S		1.35		2.10	
	PSZLF75-48S		1.0		1.57	
	PSZLF75-54S		0.9		1.4	
Minimum Load			See Table			
Line Regulation	LL to HL			±4		%
Load Regulation	Min load to max load			±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
	Input to FG		1880			
	Output to FG		500			
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			6.88oz (195g)			
Dimensions (L x W x H)	4.12 x 2.07 x 1.06 inches (104.7 x 52.6 x 27.0 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

Unit: inches (mm)



NOTES:

1. Tolerance: ±0.04" (±1mm)
2. Weight: 6.88oz (195g)
3. All dimensions are for reference only

PIN CONNECTIONS	
Pin	Assignment
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

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.

Contact **Wall Industries** for further information:

Phone: ☎(603)778-2300
Toll Free: ☎(888)597-9255
Fax: ☎(603)778-9797
E-mail: sales@wallindustries.com
Web: www.wallindustries.com
Address: 37 Industrial Drive
Exeter, NH 03833