

With Mounting Flange ("A" Type)



Size: 7.60 x 1.94 x 1.36 inches
(193.0 x 49.3 x 34.5 mm)

Without Mounting Flange ("B" Type)



Size: 6.81 x 1.94 x 1.36 inches
(173.0 x 49.3 x 34.5 mm)

FEATURES

- Class I
- RoHS Compliant
- IP68 Rated
- C.C. Mode and C.V. Mode
- Constant Current: 0.1~4.04A
- Constant Voltage: 21~50VDC
- 4242VDC I/O Isolation
- Active Power Factor Correction
- 85 Watts Maximum Output Power
- Wide Input Voltage Range: 90~305VAC, 47~63Hz
- Internal EMI Filter
- Over Voltage, Over Current, & Over Temp. Protection
- Up to 92% High Efficiency
- Two types of Mechanical Options Available

APPROVALS



DESCRIPTION

The PLSU85 series of AC/DC LED switching power supplies provides a maximum power rating of 85W, with constant current ratings ranging from 0.1~4.04A and constant voltage ranging from 21~50VDC. These supplies have a 90-305VAC input voltage range, active PFC, an internal EMI filter, and high efficiency up to 92%. These supplies are housed in a 6.81" x 1.94" x 1.36" enclosure, rated to IP68 waterproof standards, which makes them suitable for harsh environments in industrial or commercial outdoor lighting applications. This series is RoHS compliant and has over voltage, over current, and over temperature protection. These supplies are available with a mounting flange ("A" Type) or without the mounting flange ("B" type).

MODEL SELECTION TABLE

Model Number ⁽²⁾	Input Voltage Range	Output Voltage ⁽¹⁾	Output Current	Ripple & Noise	Load Regulation		Output Power
					C.C.	C.V.	
PSLSU85X-108-21V	90 ~ 305 VAC	21 VDC	0.1 ~ 4.04 A	1%	3%	3%	85W
PSLSU85X-108-22V		22 VDC	0.1 ~ 3.86 A	1%	3%	3%	85W
PSLSU85X-108-23V		23 VDC	0.1 ~ 3.69 A	1%	3%	3%	85W
PSLSU85X-108-24V		24 VDC	0.1 ~ 3.54 A	1%	3%	3%	85W
PSLSU85X-108-25V		25 VDC	0.1 ~ 3.40 A	1%	3%	3%	85W
PSLSU85X-108-26V		26 VDC	0.1 ~ 3.26 A	1%	3%	3%	85W
PSLSU85X-108-27V	90 ~ 305 VAC	27 VDC	0.1 ~ 3.14 A	1%	3%	3%	85W
PSLSU85X-109-27V		27 VDC	0.1 ~ 3.14 A	1%	3%	3%	85W
PSLSU85X-109-28V		28 VDC	0.1 ~ 3.03 A	1%	3%	3%	85W
PSLSU85X-109-29V		29 VDC	0.1 ~ 2.93 A	1%	3%	3%	85W
PSLSU85X-109-30V		30 VDC	0.1 ~ 2.83 A	1%	3%	3%	85W
PSLSU85X-109-31V		31 VDC	0.1 ~ 2.74 A	1%	3%	3%	85W
PSLSU85X-109-32V	90 ~ 305 VAC	32 VDC	0.1 ~ 2.65 A	1%	3%	3%	85W
PSLSU85X-109-33V		33 VDC	0.1 ~ 2.57 A	1%	3%	3%	85W
PSLSU85X-110-33V		33 VDC	0.1 ~ 2.57 A	1%	3%	3%	85W
PSLSU85X-110-34V		34 VDC	0.1 ~ 2.50 A	1%	3%	3%	85W
PSLSU85X-110-35V		35 VDC	0.1 ~ 2.42 A	1%	3%	3%	85W
PSLSU85X-110-36V		36 VDC	0.1 ~ 2.36 A	1%	3%	3%	85W
PSLSU85X-110-37V	90 ~ 305 VAC	37 VDC	0.1 ~ 2.29 A	1%	3%	3%	85W
PSLSU85X-110-38V		38 VDC	0.1 ~ 2.23 A	1%	3%	3%	85W
PSLSU85X-110-39V		39 VDC	0.1 ~ 2.17 A	1%	3%	3%	85W
PSLSU85X-110-40V		40 VDC	0.1 ~ 2.12 A	1%	3%	3%	85W
PSLSU85X-111-40V		40 VDC	0.1 ~ 2.12 A	1%	3%	3%	85W
PSLSU85X-111-41V		41 VDC	0.1 ~ 2.07 A	1%	3%	3%	85W
PSLSU85X-111-42V	90 ~ 305 VAC	42 VDC	0.1 ~ 2.02 A	1%	3%	3%	85W
PSLSU85X-111-43V		43 VDC	0.1 ~ 1.97 A	1%	3%	3%	85W
PSLSU85X-111-44V		44 VDC	0.1 ~ 1.93 A	1%	3%	3%	85W
PSLSU85X-111-45V		45 VDC	0.1 ~ 1.88 A	1%	3%	3%	85W
PSLSU85X-111-46V		46 VDC	0.1 ~ 1.84 A	1%	3%	3%	85W
PSLSU85X-111-47V		47 VDC	0.1 ~ 1.80 A	1%	3%	3%	85W
PSLSU85X-111-48V	90 ~ 305 VAC	48 VDC	0.1 ~ 1.77 A	1%	3%	3%	85W
PSLSU85X-111-49V		49 VDC	0.1 ~ 1.73 A	1%	3%	3%	85W
PSLSU85X-111-50V		50 VDC	0.1 ~ 1.70 A	1%	3%	3%	85W

NOTES

1. For constant current (C.C.) mode, the output voltage will vary from Vo to 0.6 x Vo (See C.V. vs C.C. curve on page 4).
2. The red "X" in the model number can either be "A" for models with a mounting flange or "B" for models without a mounting flange.
3. This product is Listed to applicable standards and requirements by UL.

**Due to advances in technology, specifications subject to change without notice.*

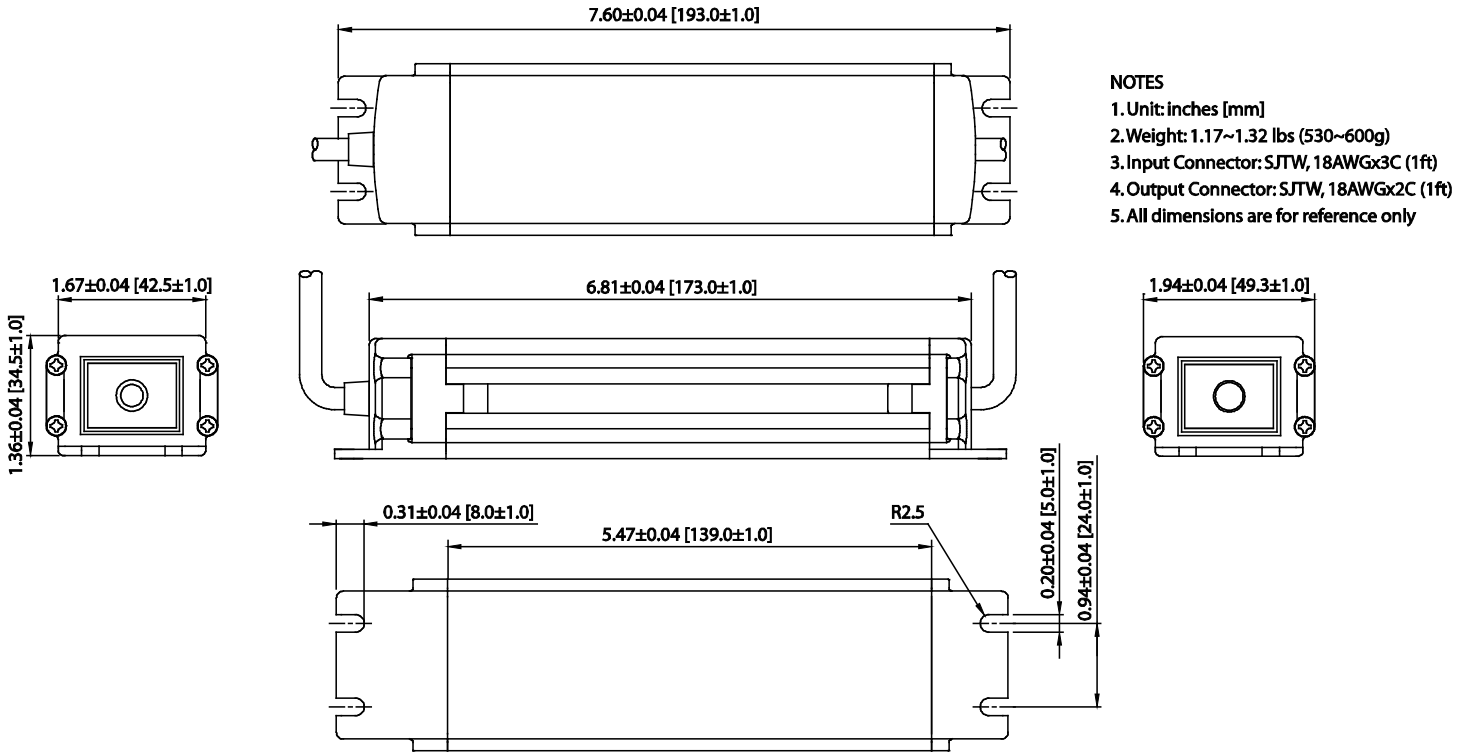
SPECIFICATIONS: PLSU85 SERIES

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.

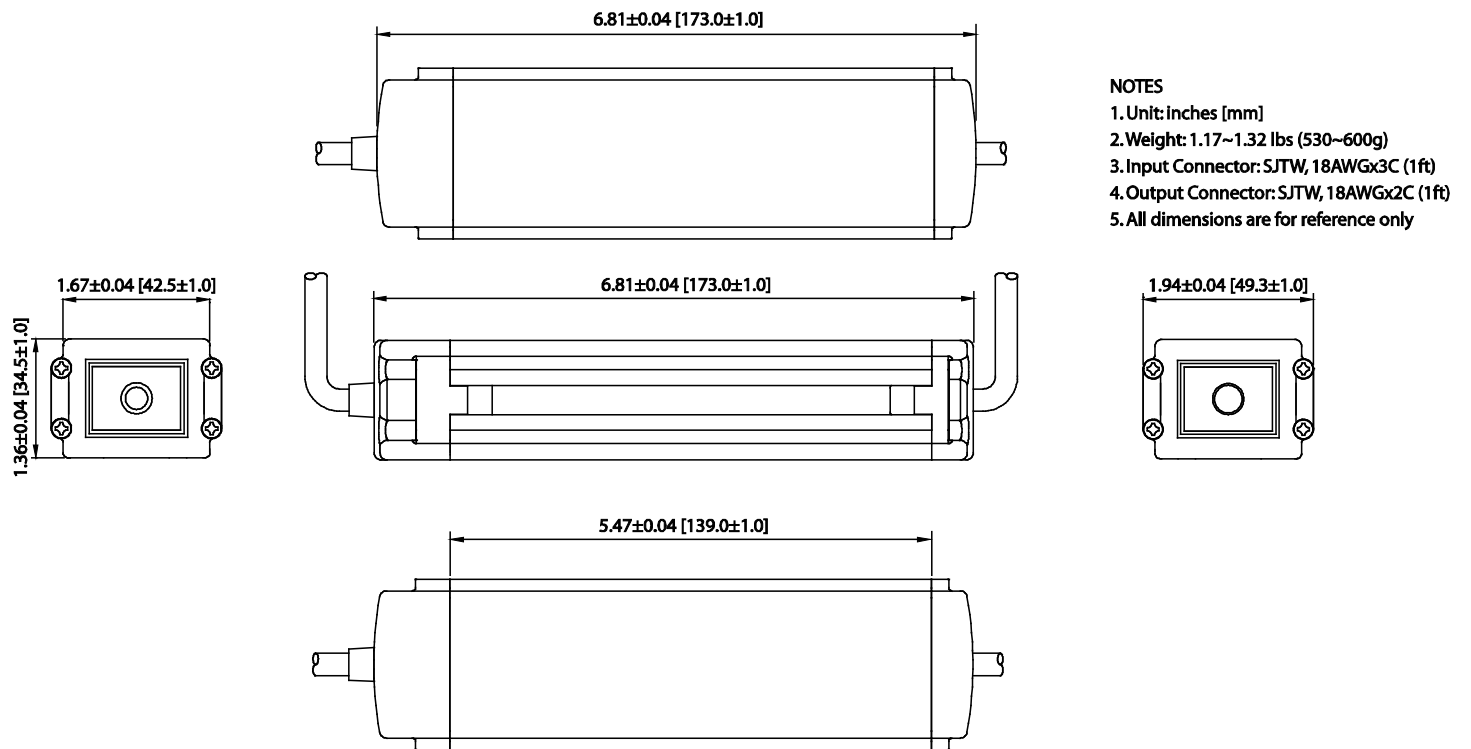
SPECIFICATION	TEST CONDITIONS	Min	Nom	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range	Safety Approvals Input Voltage Range	100		277	VAC
	Operating Input Voltage Range	90		305	
Input Frequency		47		63	Hz
Input Current	Io = Full Load, Vin = 100VAC		1.3		A
	Io = Full Load, Vin = 240VAC		0.5		
Inrush Current	Io = Full Load, 25°C, Cold Start, Vin = 115VAC			35	A
	Io = Full Load, 25°C, Cold Start, Vin = 230VAC			70	
No Load Power Consumption	Io = No Load, Vin = 230VAC			1	W
Power Factor Correction (PFC)	Io = Full Load, Vin = 90~280VAC	0.90		1.0	
OUTPUT SPECIFICATIONS					
Output Voltage Range	See Note 1		See Table		
Output Current Range			See Table		
Output Power				85	W
Load Regulation	Vin = 230VAC		See Table		
Line Regulation	Io = Full Load	0.5		1	%
Ripple & Noise (peak to peak)	Full Load, Vin = 90VAC			1	%
Transient Response Time	Full Load to Half Load, Vin = 100VAC			4	ms
Hold-Up Time (C.V. Mode)	Io = Full Load, Vin = 110VAC	8			ms
Start-Up Time	Io = Full Load, Vin = 100VAC			1	s
Temperature Coefficient		-0.04		+0.04	%/°C
PROTECTION					
Over Voltage Protection		103		105	%
Over Current Protection		103		105	%
Over Temperature Protection			optional		
GENERAL SPECIFICATIONS					
Efficiency	Io = Full Load, Vin = 230VAC	86		92	%
Dielectric Withstanding Voltage	Primary to Secondary	4242			VDC
	Primary to PE	2121			
Isolation Resistance	Test Voltage = 500VDC	50			MΩ
Safety Ground Leakage Current	Vin = 240VAC/60Hz			0.75	mA
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Derating linearly from 100% Load at 60°C to 50% load at 70°C	-20		+70	°C
Storage Temperature		-40		+85	°C
Operating Humidity		0		95	%
Storage Humidity		0		95	%
Cooling			Free air convection		
MTBF	Operating Temperature at 25°C, calculated per MIL-HDBK-217F	100,000			hours
PHYSICAL SPECIFICATIONS					
Input Connector			SJTW, 18AWGx3C (1ft)		
Output Connector			SJTW, 18AWGx2C (1ft)		
Weight			Approx. 1.17~1.32 lbs (530~600g)		
Dimensions (L x W x H)	With Mounting Flange ("A" Type)	7.60 x 1.94 x 1.36 in (193.0 x 49.3 x 34.5 mm)			
	Without Mounting Flange ("B" Type)	6.81 x 1.94 x 1.36 in (173.0 x 49.3 x 34.5 mm)			
SAFETY & EMC					
Safety Approvals		UL/cUL UL8750: 1st edition ⁽¹⁾			
		TUV (EN61347-1: 2008, IEC61347-1: 2007, EN/IEC61347-2-13: 2006)			
		CE-EMC (EN55015: 2006+A2: 2009 & EN61547: 2009)			

MECHANICAL DRAWINGS

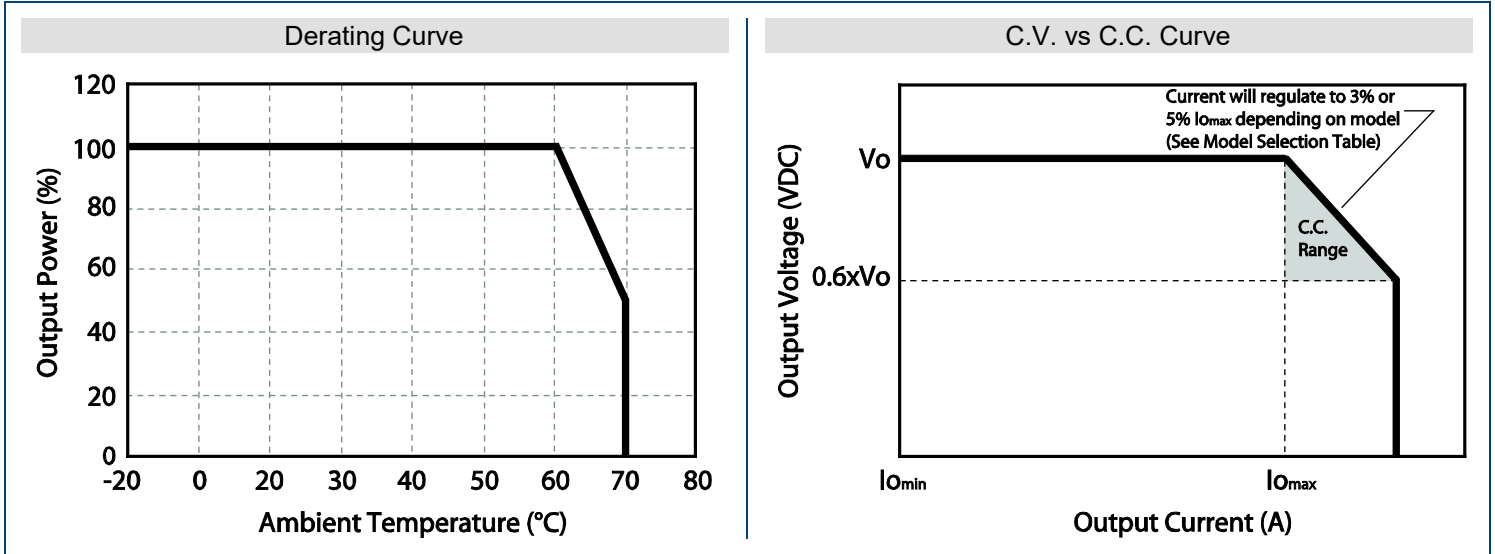
With Mounting Flange ("A" Type)



Without Mounting Flange ("B" Type)



CHARACTERISTIC CURVES



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: 2015 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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