

## Features

## PPLC100 Series 100W LED Power Supplies

- Ultra High Efficiency (92% Typical)
- Active Power Factor Correction  
(0.99 @ 110 Vac, 0.96 @ 220 Vac)
- Constant Current Output
- Lightning Protection
- Protection: SCP, OTP
- Waterproof (IP67)
- Certified To Worldwide Safety & EMC Regulations



## Description

The PPLC100SxxxSS Series operate from a 90 ~ 264 Vac input range. These units will provide up to a 4 A of output current and a maximum output voltage of 140 V for 100 W maximum output power. They are designed to be highly efficient and highly reliable. The standard features include lightning protection, short circuit protection and over temperature protection.

## Models

Output Current (1)	Input Voltage	Max. Output Voltage	Max. Output Power	Typical Efficiency (2)	Power Factor		Model Number
					120Vac	220Vac	
715 mA	90 ~ 264 Vac	140 Vdc	100 W	92%	0.99	0.96	PPLC100S071SS
870 mA	90 ~ 264 Vac	115 Vdc	100 W	92%	0.99	0.96	PPLC100S087SS
1160 mA	90 ~ 264 Vac	86 Vdc	100 W	92%	0.99	0.96	PPLC100S116SS
1430 mA	90 ~ 264 Vac	70 Vdc	100 W	92%	0.99	0.96	PPLC100S143SS
2000 mA	90 ~ 264 Vac	50 Vdc	100 W	91%	0.99	0.96	PPLC100S200SS
2780 mA	90 ~ 264 Vac	36 Vdc	100 W	91%	0.99	0.96	PPLC100S278SS
4000 mA	90 ~ 264 Vac	25 Vdc	100 W	90%	0.99	0.96	PPLC100S400SS

**Notes:** (1) Output current is adjustable at the factory from 50% to 100%.

(2) Measured at full load and 220 Vac input.

## Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90 V	-	264 V	
Input Frequency	47 Hz	-	63 Hz	
Input AC Current	-	-	0.65 A	Measured at full load and 220 Vac input.

*Specifications are subject to changes without notice.*

## Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Range				
$I_o = 715 \text{ mA}$	680 mA	715 mA	750 mA	
$I_o = 870 \text{ mA}$	826 mA	870 mA	913 mA	
$I_o = 1160 \text{ mA}$	1100 mA	1160 mA	1218 mA	
$I_o = 1430 \text{ mA}$	1358 mA	1430 mA	1500 mA	
$I_o = 2000 \text{ mA}$	1900 mA	2000 mA	2100 mA	
$I_o = 2780 \text{ mA}$	2640 mA	2780 mA	2920 mA	
$I_o = 4000 \text{ mA}$	3800 mA	4000 mA	4200 mA	
Output Voltage Range				
	103 V	-	140 V	
	85 V	-	115 V	
	64 V	-	86 V	
	52 V	-	70 V	
	37 V	-	50 V	
	27 V	-	36 V	
	19 V	-	25 V	
Ripple and Noise (pk-pk)	-	-	2% $V_o$	Measured by 20 MHz bandwidth oscilloscope and a 0.1 $\mu\text{F}$ ceramic capacitor and a 10 $\mu\text{F}$ electrolytic capacitor across the output.
Line Regulation	-	-	1%	
Load Regulation	-	-	3%	
Turn-on Delay Time	-	-	3 S	Measured at full load and 220 Vac input.
Output Overshoot / Undershoot	-	-	10%	When unit powers on or off.

**Note:** All specifications are typical at 25 °C unless otherwise stated.

## Protection Functions

Parameter	Min.	Typ.	Max.	Notes
Over Temperature Protection	-	110 °C	-	Maximum temperature of components inside the case.
Short Circuit Protection	No damage shall occur when any output operates in a short circuit condition. The power supply shall self-recover when the fault condition is removed.			

## General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency	-	90%	-	For 25V output models, measured at full load and 220 Vac input.
	-	92%	-	For 140V output models, measured at full load and 220 Vac input.
MTBF	480,000 hours			At 25°C ambient temperature.
Life Time	100,000 hours			At 25°C ambient temperature.
Dimensions Inches (L x W x H) Millimeters ( L x W x H )	7.40 x 3.35 x 1.65 188 x 85 x 42			
Weight	-	1305 g	-	

**Note:** All specifications are typical at 25 °C unless otherwise stated.

## Environmental Specifications

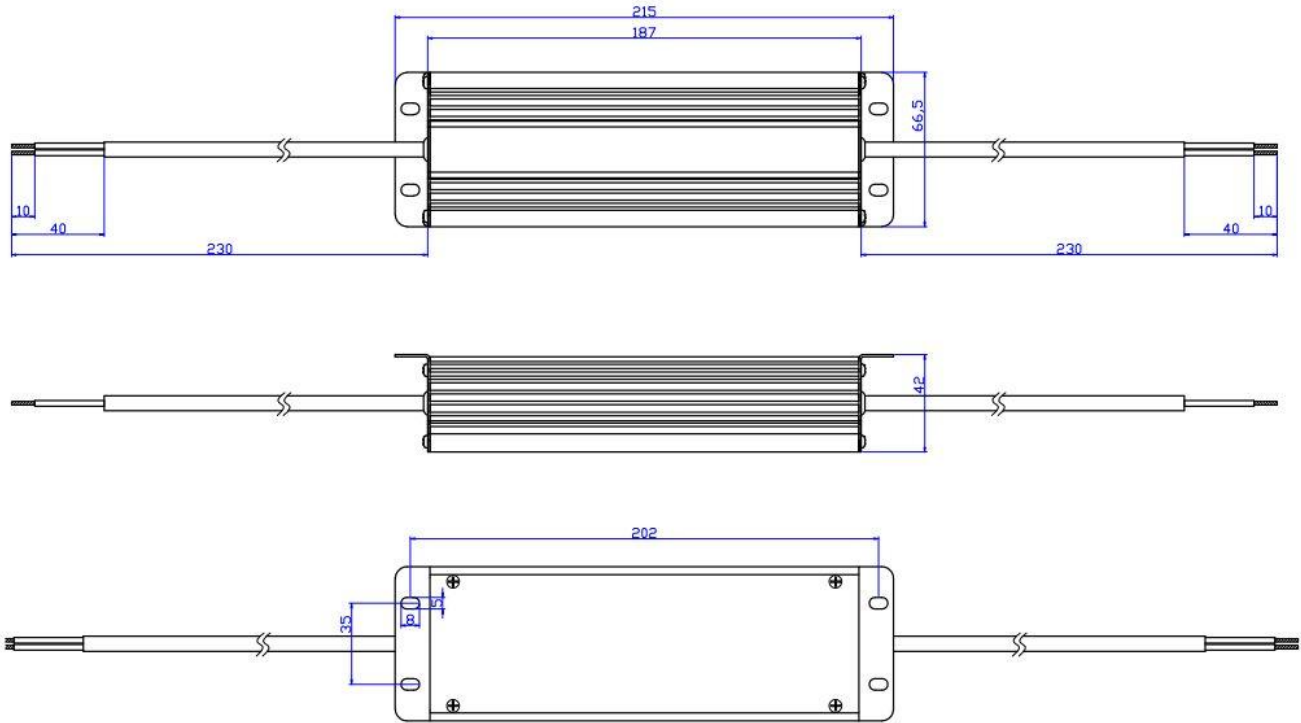
Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-25 °C	-	+60 °C	Humidity: 10% RH to 100% RH
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5% RH to 100% RH

## Safety & EMC Compliance

Safety Category	Country	Standard
UL	USA	UL60950-1 (pending)
CE	Europe	EN60950-1
EMI Standards		Notes
EN 55022:1998, +A1:2000 +A2:2003, Class B CISPR 22:2003, Class B AS/NZS CISPR 22: 2004, Class B		Conducted & Radiated emission with 6 dB margin
EMS Standards		Notes
EN 61000-3-2		Harmonic current emissions
EN 61000-3-3		Voltage fluctuations & flicker
EN 61000-4-2		Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3		Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4		Electrical Fast Transient / Burst-EFT
EN 61000-4-5		Surge Immunity Test: AC Power Line: line to line 2 kV, line to earth 4 kV
EN 61000-4-6		Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8		Power Frequency Magnetic Field Test
EN 61000-4-11		Voltage Dips

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## Mechanical Outline



## RoHS Compliance

Our products comply with the European Directive 2002/95/EC, calling for the elimination of lead and other hazardous substances from electronic products.