



2016-V1.0-0719

# Specifications

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**Constant Current LED Power Supplies**

**LCU-30C Series, 30W**

**PAIRUI ELECTRONICS**

No. 545 Museum Road  
Yangzhou, Jiangsu  
China 225009

Tel: 86 (514) 8279 1592

Fax: 86 (514) 8769 3159

**2016**

# LED Power Supplies for Outdoor Use

## LCU-30C SERIES, 30WATT, IP67 RATING

### Features

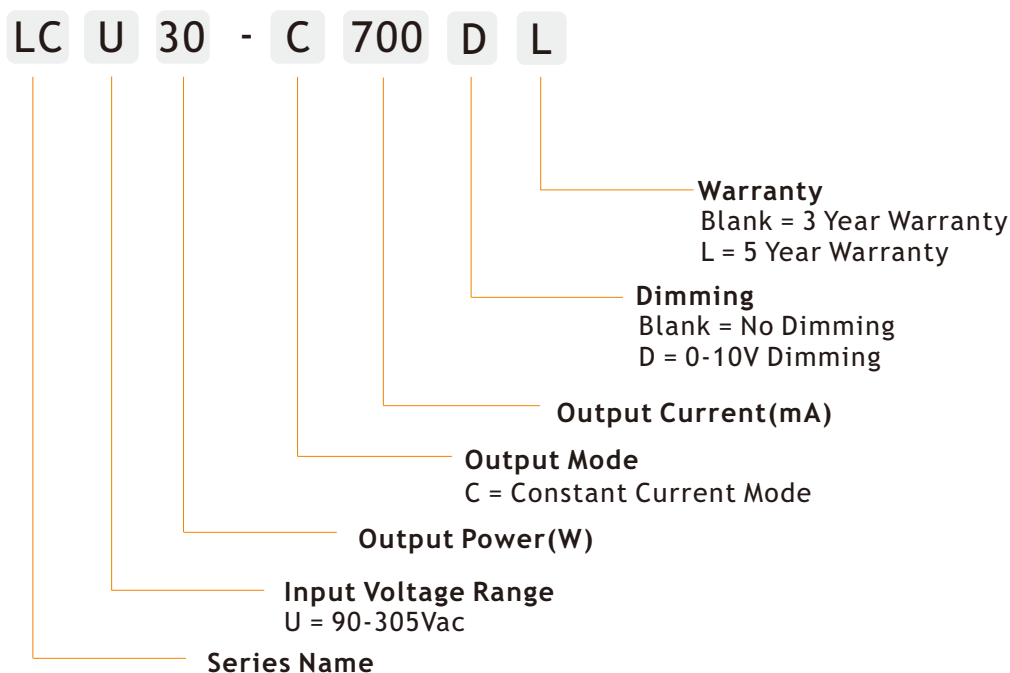
- 3 or 5 Year Warranty
- Universal Input Voltage Range: 90~305Vac
- Constant Current Output Mode
- Waterproof Rating IP67
- Built-in Active Power Factor Correction
- Class II Power, no FG
- Short Circuit, Over Voltage, Over Current Protections
- 0-10V Dimming Optional



### Applications

- ✓ Garden Light
- ✓ Landscape Light
- ✓ Stage Light
- ✓ Cabinet Light
- ✓ Other Indoor and Outdoor used Lights

### Electrical



## Electrical

Part Number	Nominal Input Voltage	Output Current Output Voltage	No Load Output Voltage	Ripple	Efficiency	Certificate
LCU30-C350	100-277VAC	350mA(52-86V)	96V	40%	89%	CE, UL
LCU30-C450	100-277VAC	450mA(40-67V)	77V	40%	89%	CE, UL
LCU30-C700	100-277VAC	700mA(26-43V)	55V	40%	88%	CE, UL
LCU30-C1050	100-277VAC	1050mA(17-29V)	37V	40%	86%	CE, UL

**NOTE:**

1. Other output models are may available on request;
2. Add suffix “D” for 0-10V dimming;
3. Above models are default to 3 year warranty, add suffix “L” for 5 year warranty.

**INPUT**

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Input voltage		90		305	Vac
Input frequency		47		63	Hz
Input current	Full load, Vin=110Vac Full load, Vin=220Vac		0.36 0.18		A A
Inrush current	Cold start, Vin=230Vac			35	A
Power factor(PF)	Full load, Vin=110Vac Full load, Vin=220Vac		0.98 0.94		
Surge voltage	L-N		2		KV

**OUTPUT**

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Output current accuracy			5		%
Line regulation	Vin from 100Vac to 277Vac		1		%
Load regulation	Vout from min. to max.		3		%
Output current overshoot	Turning on			10	%
Turn-on delay time	Cold start, power on		1000		ms
Ripple	Please refer to below measurement method		40%Io		mAp-p
THD	Output load≥60%			20	%

NOTE: The values are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1uF & 47uF parallel capacitor under ambient temperature 25°C at rated input voltage and rated load.

**Protection**

Short circuit	In hiccup mode, it will recover automatically after fault condition is removed
Over voltage	110-150% Vout, the driver shall return to normal operation after the power is turn-on again
Over current	In hiccup mode, it will recover automatically after fault condition is removed

## Environment

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Ambient operating temperature	Startup at rated voltage (Derating required)	-35		+70	°C
Operating relative humidity	Non condensing	20		90	%
Storage temperature	Humidity 10 ~ 95% RH	-40		+80	°C
Maximum case temperature	Hot-spot on case			+75	°C
MTBF	Full load, 220Vac input, 25°C ambient temperature	200			Khrs
Waterproof rating	IP67				
Dimension(LxWxH)	113.0 x 41.5 x 30.0mm				
Weight	220g				

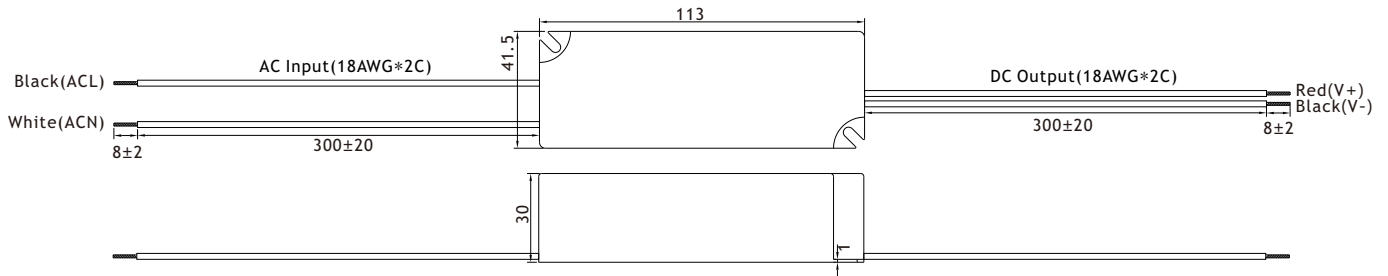
## Safety/EMC

Safety	Design refer to UL1310, EN61347, EN61347-2-13
EMC	Compliance to EN55015, FCC Part 15 Class B, EN61000-3-2, EN61000-3-3, EN61000-4-2, 3, 4, 6, 8, 11, EN61547

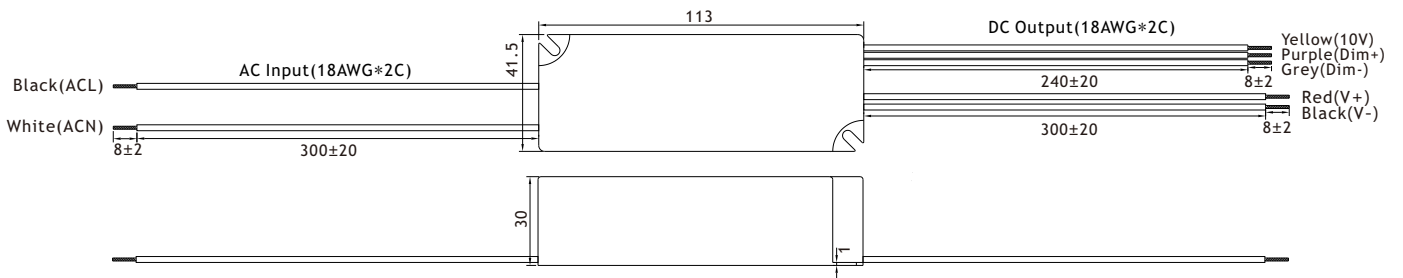
NOTE: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and Vin=100Vac to 277Vac.

# Mechanical

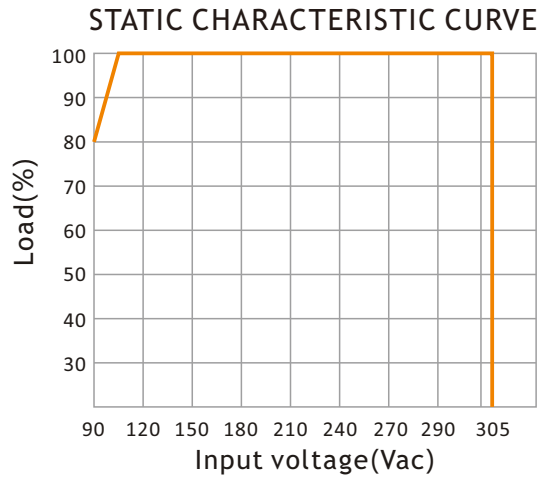
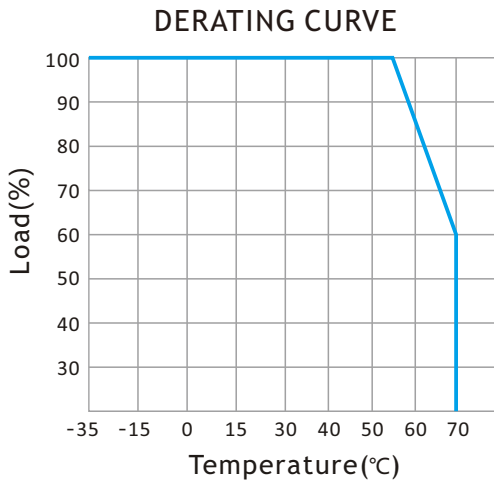
## No Dimming



## 0-10V Dimming

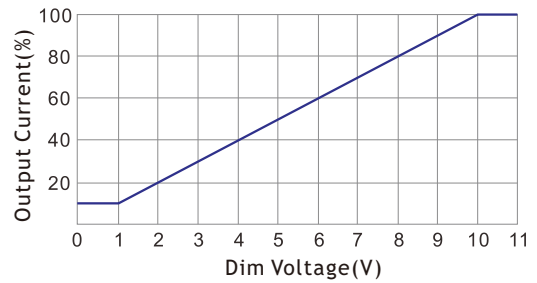
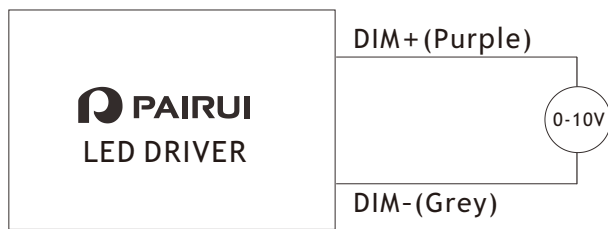


## Electrical Curve



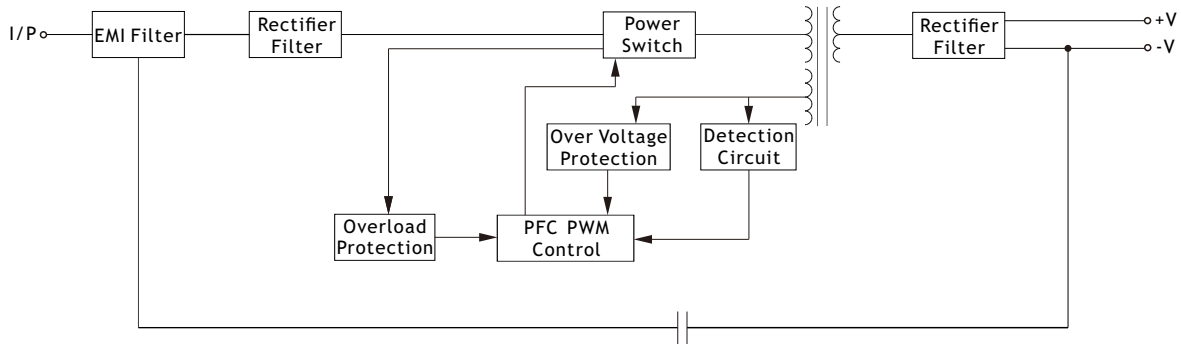
## Dimming Function

### 0-10V Dimming

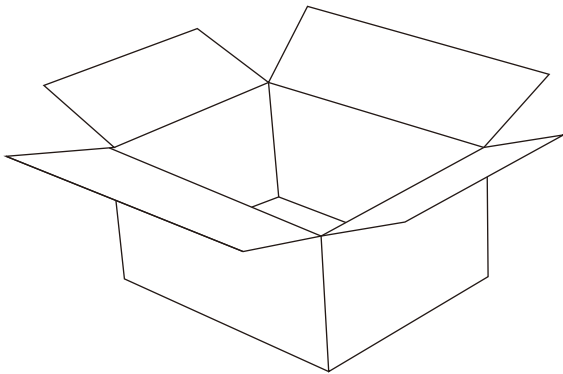




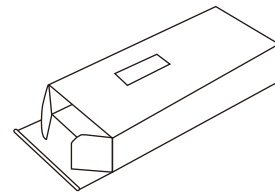
## Block Diagram



## Package



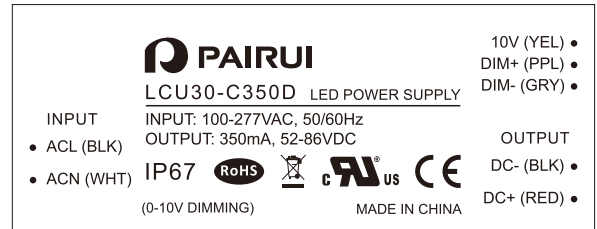
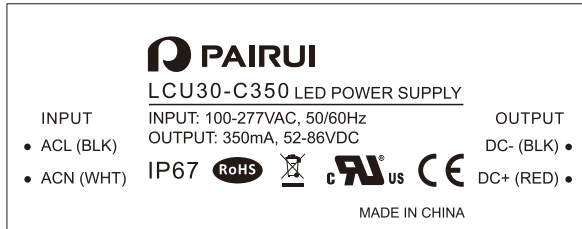
Outer Carton  
L 330 x W 290 x H 280mm







Inner Box  
L 150 x W 60 x H 30mm

SERIES	QTY/BOX	QTY/CARTON	NET WEIGHT	GROSS WEIGHT	VOLUME
LCU-30C	1 piece	56 boxes	12.3kg/carton	13.5kg/carton	0.03CBM/carton

## Labelling



Symbol	Description
IP67	Type of protection(IP67 for indoor and outdoor use)
	RoHS Mark
	WEEE Mark(Wasted Electrical and Electronic Equipment)
	CE Mark
	UL & CUL Mark