



2016-V1.0-0719

Specifications

Constant Current LED Power Supplies

LCU-20C Series, 20W

PAIRUI ELECTRONICS

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2016

LED Power Supplies for Outdoor Use

LCU-20C SERIES, 20WATT, IP67 RATING

Features

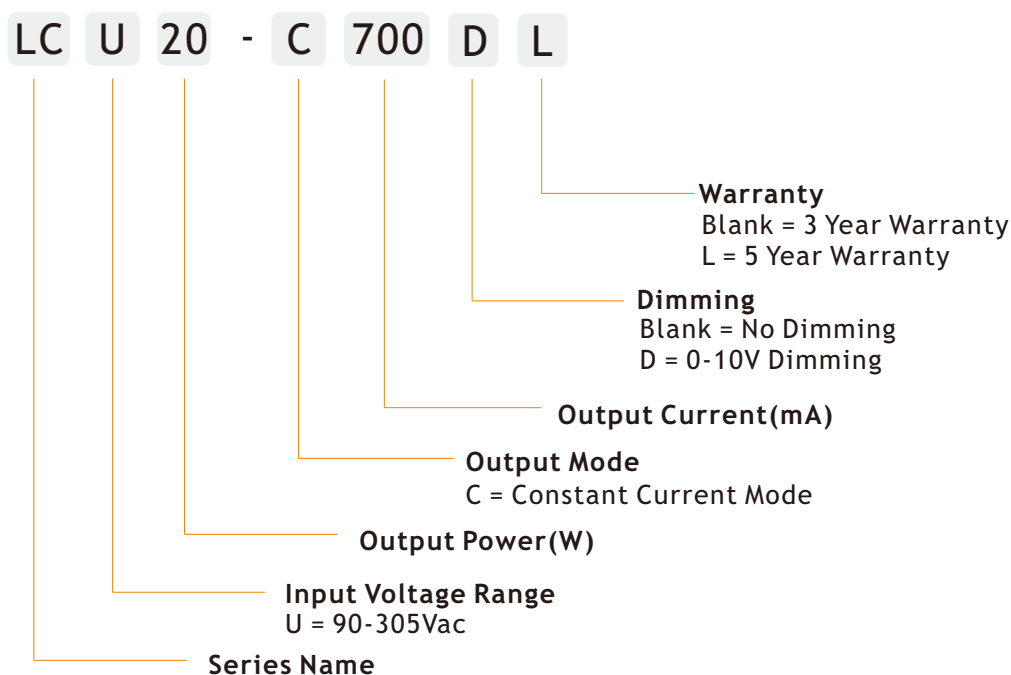
- 3 or 5 Year Warranty
- Universal Input Voltage Range: 90~305Vac
- Constant Current Output Mode
- Waterproof Rating IP67
- Built-in Active Power Factor Correction
- Class II Power, no FG
- Short Circuit, Over Voltage, Over Current Protections
- 0-10V Dimming Optional



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
LCU20-C350	100-277VAC	350mA(34-57V)	63V	40%	88%	CE
LCU20-C450	100-277VAC	450mA(27-45V)	53V	40%	88%	CE
LCU20-C700	100-277VAC	700mA(18-29V)	37V	40%	87%	CE
LCU20-C1050	100-277VAC	1050mA(12-19V)	24V	40%	85%	CE

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		0.26 0.13		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				

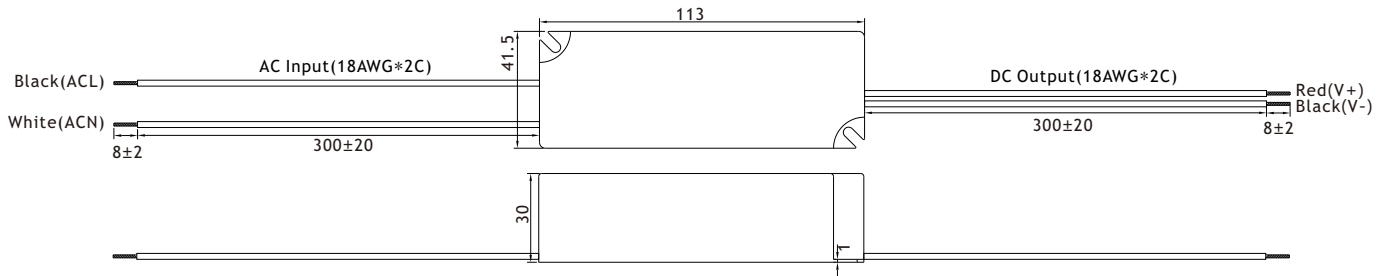
Safety/EMC

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

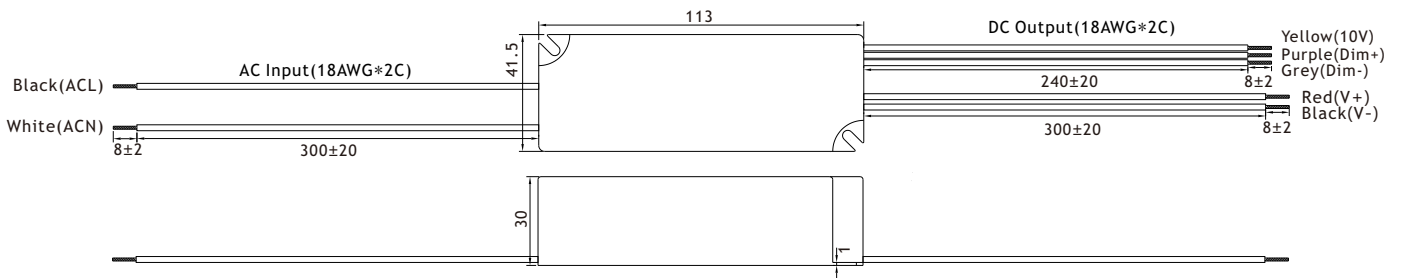
NOTE: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and Vin=100Vac to 277Vac.

Mechanical

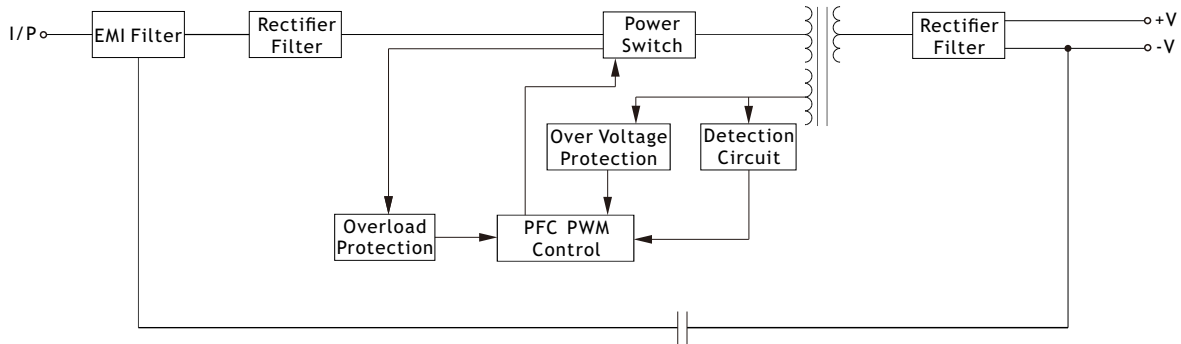
No Dimming



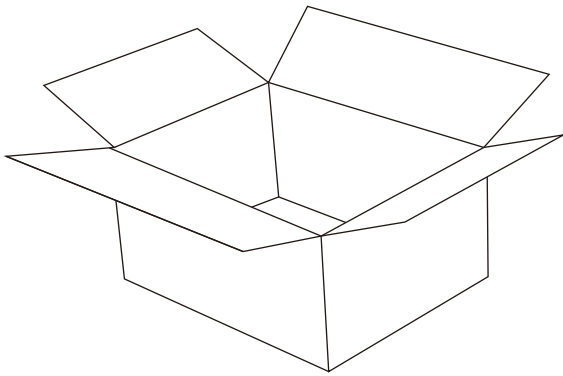
0-10V Dimming



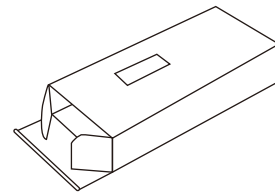
Block Diagram



Package



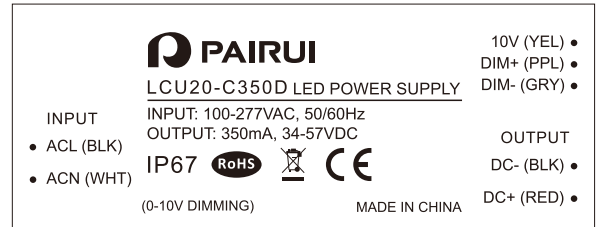
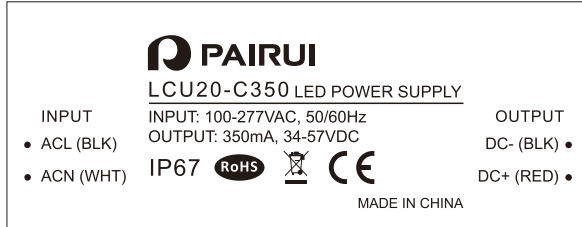
Outer Carton
L 330 x W 290 x H 280mm






Inner Box
L 150 x W 60 x H 30mm

SERIES	QTY/BOX	QTY/CARTON	NET WEIGHT	GROSS WEIGHT	VOLUME
LCU-20C	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