



2016-V1.0-0628

# Specifications

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**Constant Current LED Power Supplies**

**LLMU-20C Series, 20W**

**PAIRUI ELECTRONICS**

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China 225009

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**2016**

# LED Power Supplies for Indoor Use

## LLMU-20C SERIES, 20WATT, IP20 RATING

### Features

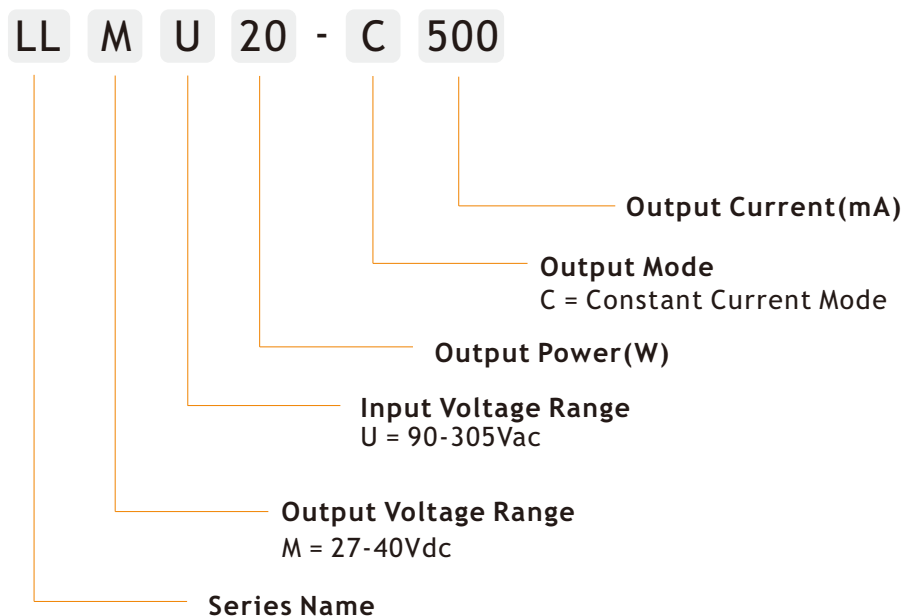
- 3 Year Warranty
- Universal Input Voltage Range: 90~305Vac
- Constant Current Output Mode
- Waterproof Rating IP20
- Can be used for Lighting Equipment in Protection Class I and II
- Short Circuit, Open Circuit Protections
- Built-in Active Power Factor Correction
- No Flickering



### Applications

- ✓ Panel Light
- ✓ Cabinet Light
- ✓ Strip Light
- ✓ Other Indoor used Lights
- ✓ Tri-Proof Light

### Electrical



## Electrical

Part Number	Nominal Input Voltage	Output Current Output Voltage	Power	PF	Ripple	Efficiency	Certificate
LLMU20-C350	100-277VAC	350mA(27-40V)	14W	0.92	5%	84%	CE
LLMU20-C400	100-277VAC	400mA(27-40V)	16W	0.93	5%	84%	CE
LLMU20-C450	100-277VAC	450mA(27-40V)	18W	0.95	5%	86%	CE
LLMU20-C500	100-277VAC	500mA(27-40V)	20W	0.95	5%	86%	CE
LLMU20-C550	100-277VAC	550mA(27-40V)	22W	0.95	5%	86%	CE

NOTE: Other output models are may available on request.

**INPUT**

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Input voltage		90		305	Vac
Input frequency		47		63	Hz
Input current	Full load, Vin=230Vac			0.4	A
Inrush current	Cold start, Vin=230Vac(200us)			60	A
Surge voltage	L-N		2		KV
	L-FG		4		KV
	N-FG		4		KV

**OUTPUT**

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Output current accuracy			±5		%
Line regulation	Vin from 100Vac to 277Vac		±5		%
Turn-on delay time	Cold start, power on			0.5	S
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
Open circuit	<55V In hiccup mode, it will recover automatically after fault condition is removed

## Environment

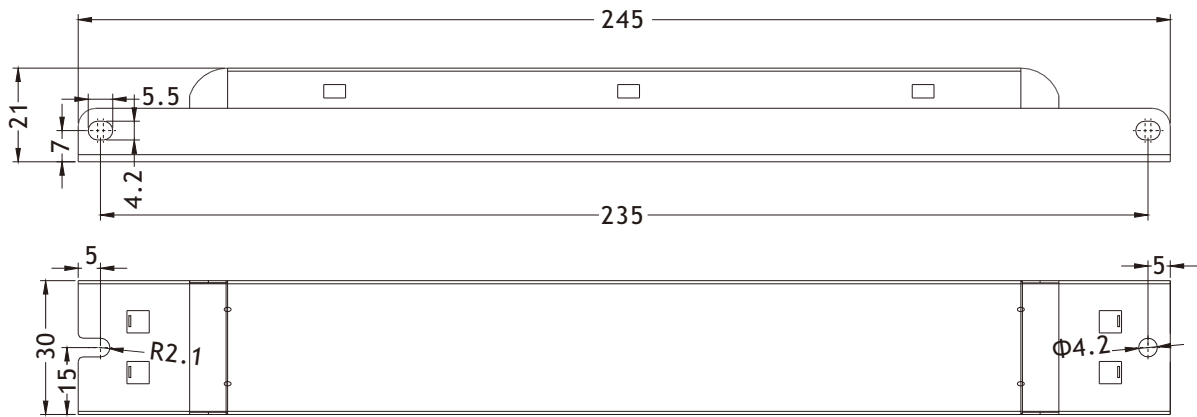
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Ambient operating temperature	Startup at rated voltage	-30		+50	°C
Operating relative humidity	Non condensing	20		90	%
Storage temperature	Humidity 10 ~ 90% RH	-40		+80	°C
MTBF	Full load, 220Vac input, 25°C ambient temperature	300			Khrs
Waterproof rating	IP20				
Dimension(LxWxH)	245.0 x 30.0 x 21.0mm				
Weight	140g				

## Safety/EMC

Withstand voltage	I/P-O/P: 3.75KVac(<5mA, 60S) I/P-FG: 1.6KVac(<5mA, 60S)
Insulation resistance	I/P-O/P: 500VDC(>100mΩ)
Safety	Design refer to EN61347-1, EN61347-2-13
EMC	Compliance to EN55015, EN61000-3-2, EN61000-4-2, 3, 4, 5, 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.

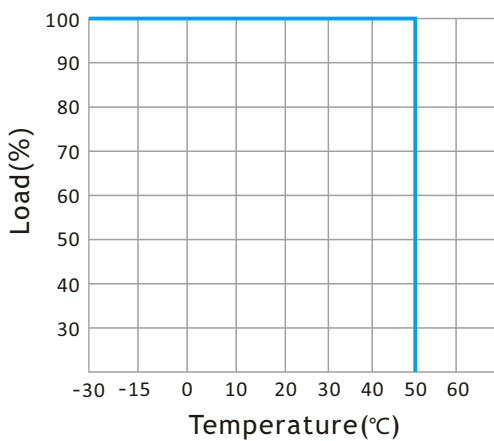
## Mechanical



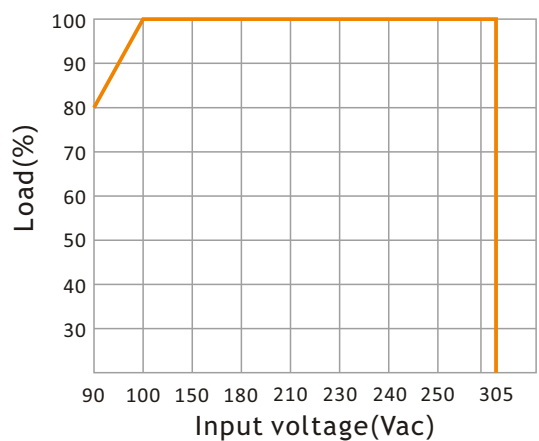
Unit: mm

## Electrical Curve


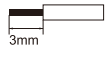

DERATING CURVE







STATIC CHARACTERISTIC CURVE







# Labelling

<b>INPUT</b> ACL ACN NC GND 0.5-1mm □	 <b>LED DRIVER</b> <b>LLMU20-C500</b>	Uin: 100-240V~ 277V~(for North America only)	In: 0.13A	<b>FOR LED MODULES ONLY</b>  Preparation for input and output  3mm OUTPUT  0.5-1.5mm □
		Frequency: 50/60Hz Output Voltage: 27-40V ~	I rated: 500mA(CC) P rated: 20W Uout: 52V ~ PF: 0.92	




 SELV 

MADE IN CHINA

Symbol	Description
	Short-circuit-proof with safety insulation
	WEEE Mark(Wasted Electrical and Electronic Equipment)
SELV	Safety Extra Low Voltage
	For Indoor Use
	CE Mark