



2016-V1.0-0720

# Specifications

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**LED Power Supplies for Outdoor Use**

**LGEU-100CV Series, 100W**

**PAIRUI ELECTRONICS**

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**2016**

# LED Power Supplies for Outdoor Use

## LGEU-100CV SERIES, 100WATT, IP65 RATING

### Features

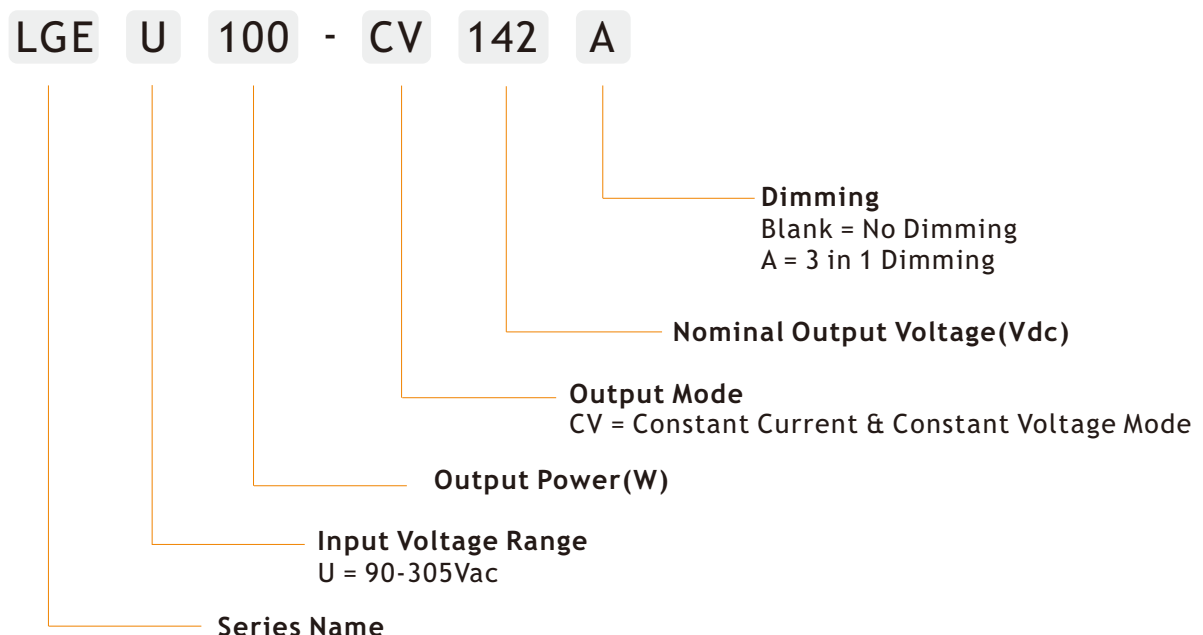
- 5 Year Warranty
- Universal Input Voltage Range: 90~305Vac
- Constant Current & Constant Voltage Mode
- Adjustable Output Current 60%~100%
- High PF up to 0.98
- Rating IP65, Suitable for Outdoor Applications
- All Round Protections: Short Circuit, Over Voltage, Over Current, Over Temperature
- 3 in 1 Dimming(0-10V/Resistor/PWM)



### Applications

- ✓ Street Light
- ✓ Tunnel Light
- ✓ Flood Light
- ✓ Refrigeration Equipment
- ✓ Other Light Fixtures for Outdoor Use

### Electrical



## Electrical

Part Number	Nominal Input Voltage	Nominal Output Voltage & Current	Constant Current Range	Output Voltage Adjustable Range	Output Current Adjustable Range	Ripple	Efficiency	Certificate
LGEU100-CV142	100-277VAC	142V 700mA	107-142VDC	100-142VDC	420-700mA	5%	91%	CE
LGEU100-CV95	100-277VAC	95V 1100mA	71-95VDC	67-95VDC	600-1100mA	5%	91%	CE
LGEU100-CV71	100-277VAC	71V 1400mA	53-71VDC	50-71VDC	800-1400mA	5%	90%	CE
LGEU100-CV48	100-277VAC	48V 2100mA	36-48VDC	34-48VDC	1200-2100mA	5%	89%	CE
LGEU100-CV36	100-277VAC	36V 2800mA	27-36VDC	25-36VDC	1700-2800mA	5%	88%	CE
LGEU100-CV24	100-277VAC	24V 4200mA	18-24VDC	17-24VDC	2500-4200mA	5%	86%	CE

**NOTE:**

1. Other output models are may available on request;
2. Add suffix "A" for 3 in 1 dimming(0-10V/Resistor/PWM).

**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		1.2 0.6		A A
Inrush current	Cold start, Vin=230Vac			65	A
Power factor(PF)	Full load, Vin=110Vac Full load, Vin=220Vac		0.98 0.96		
Leakage current	Vin=230Vac, 50Hz		0.75		mA
Surge voltage	L-N L, N-FG		4 6		KV KV

## OUTPUT

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Output voltage adjustable range				±10	%
Output current adjustable range		60		100	%
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		5%Io		mAp-p
THD	Output load≥50%			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
Over temperature	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	-35		+70	°C
Operating relative humidity	Non condensing	10		95	%
Storage temperature	Humidity 5 ~ 100% RH	-40		+85	°C
Maximum case temperature	Hot-spot on case			+90	°C
MTBF	Full load, 220Vac input, 25°C ambient temperature	258.5			Khrs
Waterproof rating	IP65				
Dimension(LxWxH)	215.0 x 68.0 x 38.8mm				
Weight	950g				

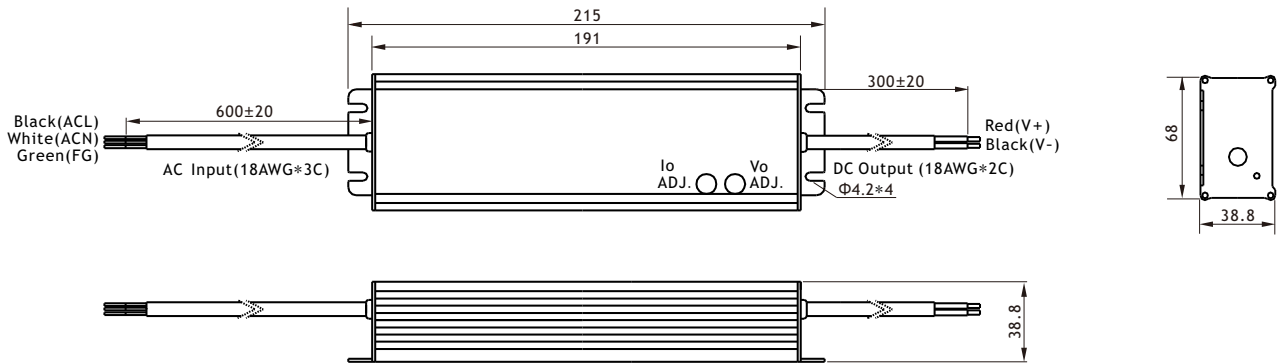
## Safety/EMC

Safety	Design refer to UL8750, UL935, UL1012, UL1310 Class 2, 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

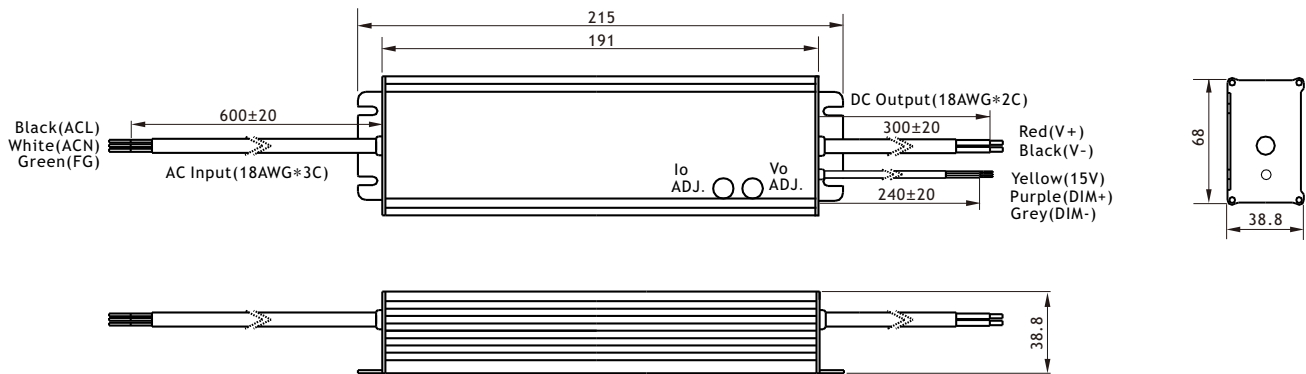
NOTE: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and Vin=100Vac to 277Vac.

Mechanical

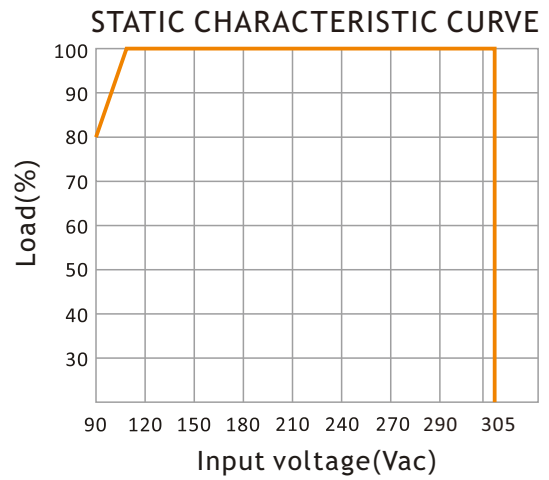
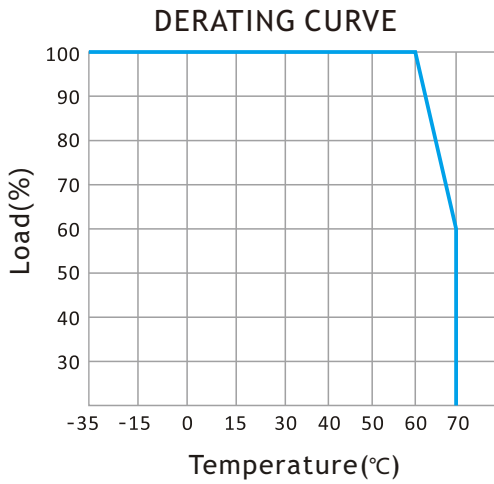
No Dimming



3 in 1 Dimming

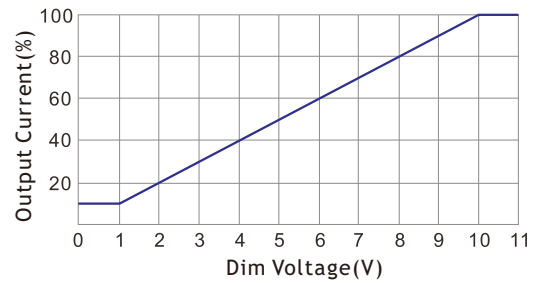
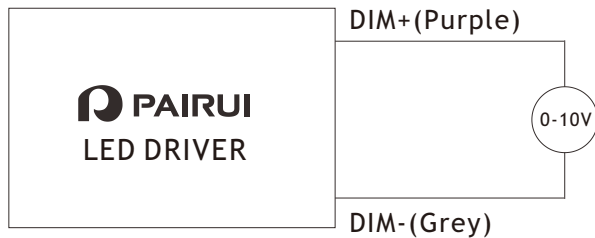


## Electrical Curve

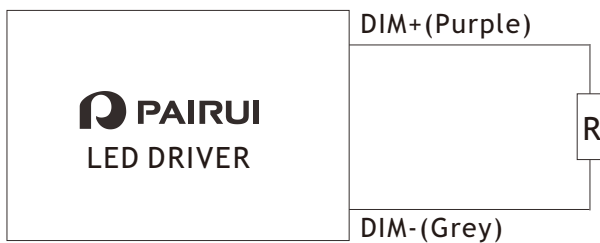


## Dimming Function

### 0-10V Dimming



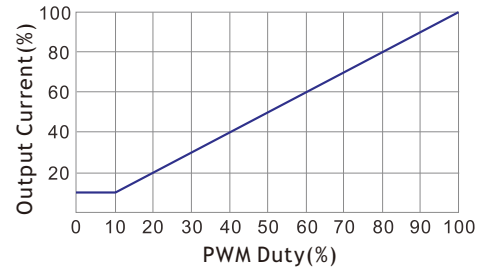
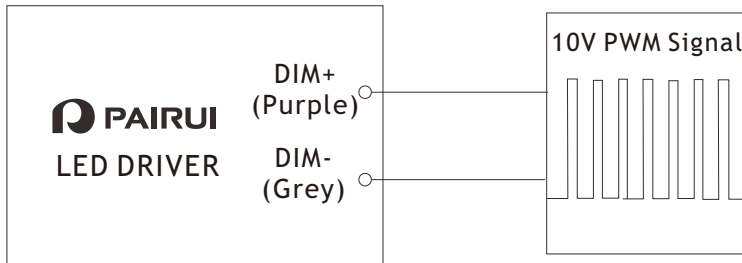
### External Resistor Dimming



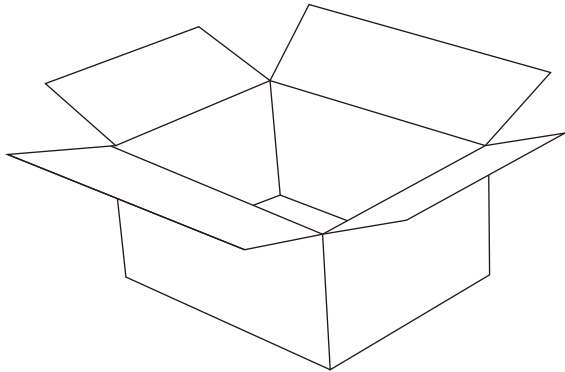


## Dimming Function

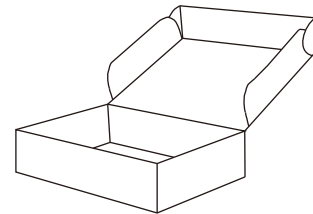
### PWM Dimming



## Package










Outer Carton  
L 620 x W 260 x H 185mm














Inner Box  
L 245 x W 102.5 x H 46mm

SERIES	QTY/BOX	QTY/CARTON	NET WEIGHT	GROSS WEIGHT	VOLUME
LGEU-100CV	1 piece	18 boxes	17.1kg/carton	19kg/carton	0.03CBM/carton

## Labelling

<p><b>INPUT</b></p> <ul style="list-style-type: none"> <li>• ACL (BLK)</li> <li>• ACN (WHT)</li> <li>• ⊕(GRN)</li> </ul>	 <p><b>PAIRUI</b></p> <p><b>LGEU100-CV48</b> LED POWER SUPPLY</p> <p>INPUT: 100-277VAC, 50/60Hz</p> <p>OUTPUT: 1200-2100mA, 36-48VDC</p> <p>MADE IN CHINA</p>	<p>• ta 70°C • tc 90°C</p> <p>                   IP65                   </p>	<p><b>OUTPUT</b></p> <ul style="list-style-type: none"> <li>• DC+ (RED)</li> <li>• DC- (BLK)</li> </ul> <p style="text-align: center;">                    IO ADJ      VO ADJ             </p>
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<p><b>INPUT</b></p> <ul style="list-style-type: none"> <li>• ACL (BLK)</li> <li>• ACN (WHT)</li> <li>• ⊕(GRN)</li> </ul>	 <p><b>PAIRUI</b></p> <p><b>LGEU100-CV48A</b> LED POWER SUPPLY</p> <p>INPUT: 100-277VAC, 50/60Hz</p> <p>OUTPUT: 1200-2100mA, 36-48VDC</p> <p>MADE IN CHINA (3 in 1 Dimming)</p>	<p>• ta 70°C • tc 90°C</p> <p>                   IP65                   </p>	<p><b>OUTPUT</b></p> <ul style="list-style-type: none"> <li>• DC+ (RED)</li> <li>• DC- (BLK)</li> <li>• 15V (YEL)</li> <li>• DIM+ (PPL)</li> <li>• DIM- (GRY)</li> </ul> <p style="text-align: center;">                    IO ADJ      VO ADJ             </p>
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Symbol	Description
	Short-circuit-proof with safety insulation
	Independent Operation
IP65	Type of protection(IP65 for indoor and outdoor use)
	RoHS Mark
	CE Mark