

# Features

## LED DRIVER

- Universal AC Input
- Constant Voltage / Constant Current Operation
- Active Power Factor Correction
- IP67 Design for Indoor and Outdoor Use
- Cooling by Free Air Convection
- PSE Certified for Japan market

### Description

The RACD100-PSE LED driver series offers 100W of power with a universal input voltage range of 90-130VAC and constant current output up to 8.3A at a voltage of approximately 12V. The series features a unique dual mode operation for either constant current or constant voltage making it suitable for driving LEDs directly or via local constant-current DC/DC modules directly on the light engine board. The RACD100-PSE series are fully sealed IP67 LED drivers and therefore ideally suited for indoor and outdoor applications including road, street and walkway lighting, high-bay, LED signage, and outdoor area lighting for car parks, public buildings, and tunnels. The LED drivers are PSE certified and come with a 5 year warranty.

### Selection Guide

Part Number	CV Mode		CC Mode		Efficiency (115VAC) (%)
	Constant Voltage (V)	Current Range (A)	DC Voltage Range (V)	Constant Current (A)	
RACD100-12-PSE	12	0-8.3	9-12	8.3	87
RACD100-24-PSE	24	0-4.2	14-24	4.2	87
RACD100-36-PSE	36	0-2.8	26-36	2.8	89
RACD100-48-PSE	48	0-2.1	34-48	2.1	88

### Specifications

Input Voltage Range	90-130 VAC or 127-184VDC	
Input Frequency Range	47-63Hz.	
Power Factor	Full Load, 115VAC	>0.98
THD	Full Load, 115VAC	8% max.
AC Current	115VAC	1.4A max.
Input/Output Isolation	3.75kVAC / 1minute	
Input/Case Isolation	1.8kVAC / 1minute	
Output/Case Isolation	0.5kVAC / 1minute	
Leakage Current	<0.75mA	
Voltage Tolerance	-1% to 5%	
Start-up Time	Full Load, 115VAC	1.5s
Ripple & Noise (at 20MHz bandwidth)	150mVp-p max.	
Over Current Protection	95%-105% rated current	Auto-Recovery
Short Circuit Protection	Hiccup Mode	
Over Voltage Protection	12V	15V typ.
Latch Mode	24V	31V typ.
(Power off to recover)	36V	45V typ.
	48V	58V typ.
Over Temperature Protection	Tcase 95°C ±10°C	
Operating Temperature Range	without derating	-20°C to +50°C (see graph)
(free air convection, according to PSE)	Case Temperature	75°C max.
Operation Humidity	20%-90% RH Non-Condensing	
Storage Temperature	-40°C to +80°C	
Storage Humidity	10%-90% RH	
Vibration	10-500Hz, 2G, 60 Min. along X, Y and Z	
IP Rating	IP67	
EMC Standards (designed to meet)	EMC Compatibility	EN55015 FCC, Part 15
	Harmonic Current	EN61000-3-2 Class C (≥75% load) EN61000-3-3
	EMC Immunity	EN61000-4-2, 3, 4, 5, 6, 11

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**LIGHTLINE**  
AC/DC-Converter  
with 5 year Warranty

**RECOM**

**100 Watt  
Single  
Output**



**RACD100-PSE**

#### Note:

All LED Drivers may not be used without a load. They must be switched on the primary side only. Noncompliance may damage the LED or reduce its lifetime.

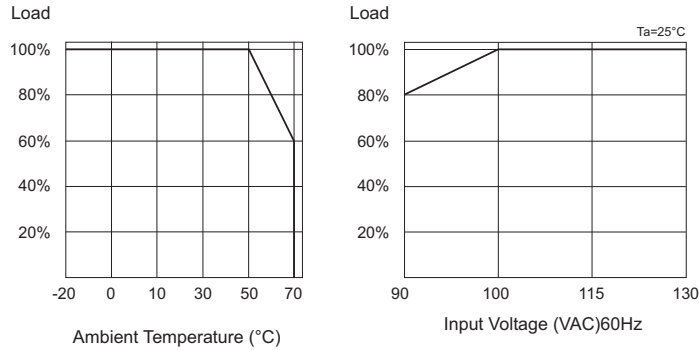
**Refer to Application Notes**

## Specifications

PSE Certification	J61347-1(H20), J61347-2-13(H21), J55015(H20)
Dimension	222*68*39mm
Weight	1020g
MTBF	using MIL-HDBK-217F (25°C) 250 x 10 <sup>3</sup> hours
Design Lifetime	70 x 10 <sup>3</sup> hours

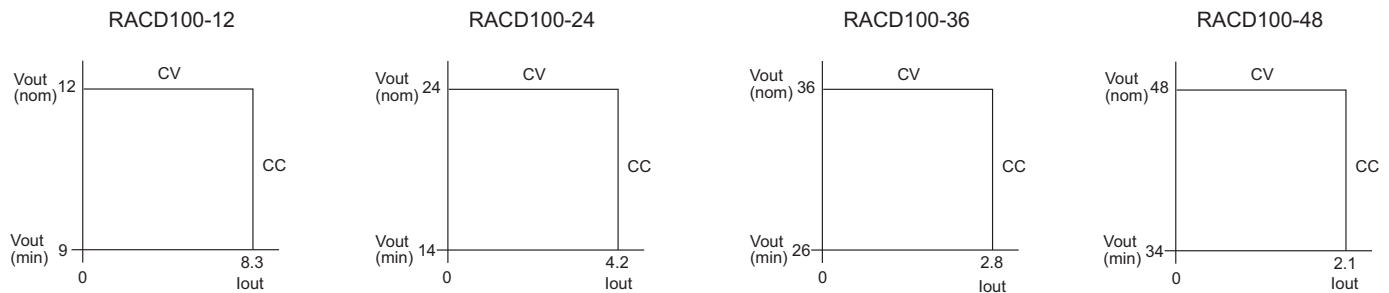
The use of a circuit breaker with C-characteristic is recommended.

## Derating Curves



## Typical Characteristics

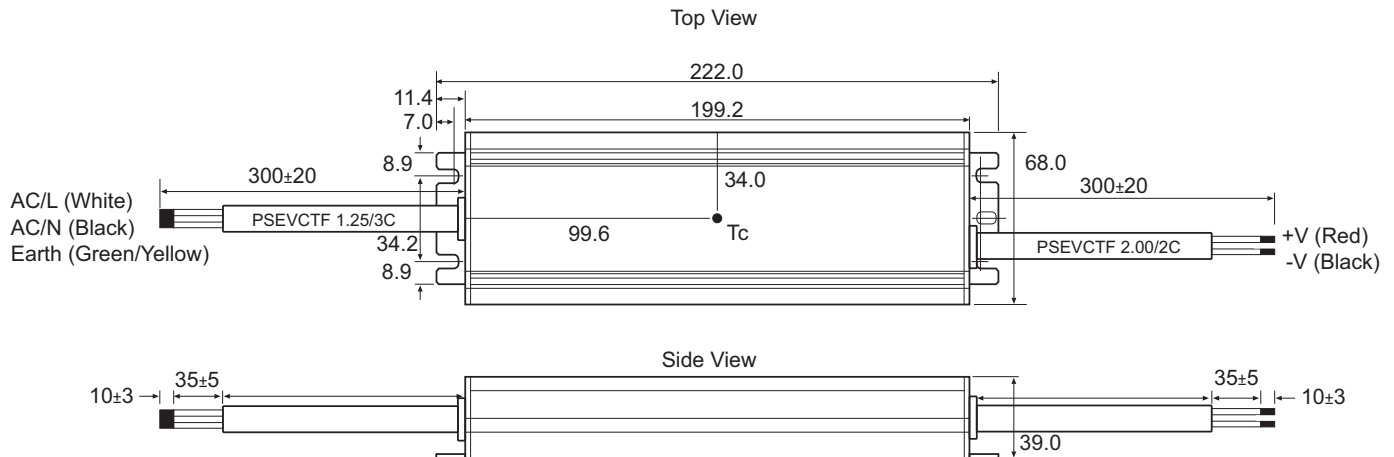
### Constant Voltage / Constant Current Curve



### Maximum Number of LED drivers per circuit breakers

Condition	Circuit Breaker	Circuit Breaker Current			
		10A	16A	20A	25A
115VAC, 10hm 90° phase angle	Typ	7	12	14	18
	C	7	12	14	18

## Package Style and Pinning



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