# 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 RACD150-PSE LED driver series offers 150W of power with a universal input voltage range of 90-130VAC and constant current output up to 11A 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 RACD150-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	CV Mode		CC N	Efficiency	
Number	Constant Voltage	<b>Current Range</b>	DC Voltage Range	<b>Constant Current</b>	(115VAC)
	(V)	(A)	(V)	(A)	(typ.)
RACD150-12-PSE	12	0-11	9-12	11	85%
RACD150-24-PSE	24	0-6.3	14-24	6.3	87%
RACD150-36-PSE	36	0-4.2	26-36	4.2	90%
RACD150-48-PSE	48	0-3.2	34-48	3.2	90%

### **Specifications**

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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	2A max.		
Input / Output Isolation		3.75kVAC / 1minute		
Input / Case Isolation		1.8kVAC / 1minute		
Output / Case Isolation		0.5kVAC / 1minute		
Leakage Current		<0.5mA		
Current Tolerance		±5%		
Voltage Tolerance		-1% to 5%		
Start-up Time	Full Load, 115VAC	1.0s		
Ripple & Noise (at 20MHz bandwit	h)	150mVp-p max.		
Over Current Protection	95%-105% rated current	Auto-Recovery		
Short Circuit Protection		Hiccup Mode		
Over Voltage Protection	12V	12.5V typ.		
Latch Mode	24V	24.5V typ.		
(Power off to recover)	36V	36.5V typ.		
	48V	48.5V typ.		
Over Temperature Protection		Tcase 95°C ±10°C		
Operating Temperature Range	-20°C to +50°C (see graph)			
(free air convection, according to F	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		

# LIGHTLINE

AC/DC-Converter with 5 Year Warranty



# 150 Watt Single Output







# RACD150-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** 

continued on next Page



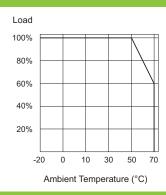
# RACD150-PSE Series

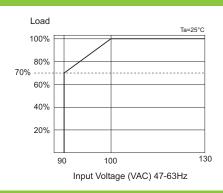
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PSE Certification		J61347-1(H20), J61347-2-13(H21), J55015(H20)
Dimension		222*68*39mm
Weight		1080g
MTBF	using MIL-HDBK-217F (25°C)	200 x 10 <sup>3</sup> hours
Design Lifetime		70 x 10 <sup>3</sup> hours

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

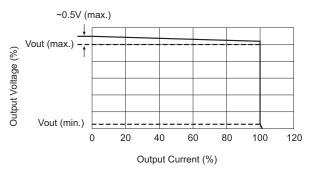
## **Derating Curves**





## **Typical Characteristics**

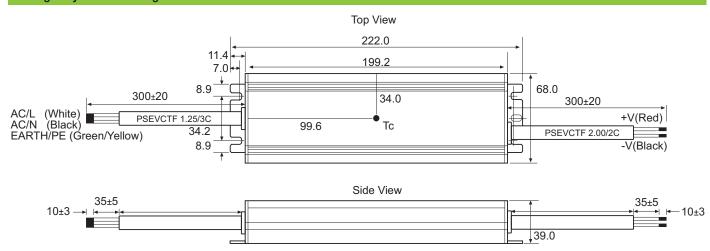
## Constant Voltage / Constant Current Curve



# Maximum Number of LED drivers per circuit breakers

Condition Circuit Breaker		Circuit Breaker Current			
	Тур	10A	16A	20A	25A
115VAC, 10hm 90° phase angle	С	5	8	9	12

## **Package Style and Pinning**



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