Features

LED DRIVER

- High Output Voltage
- Universal AC Input
- Constant Current Operation
- Active Power Factor Correction
- IP67 Design for Indoor and Outdoor Use
- Compact Size
- Digital PWM and Analogue Voltage Dimming

Description

The new RACD150A LED drivers offer constant output currents of 1400mA, 1050mA or 700mA, with voltages from 60V up to 210V. The series supports dimming via PWM or 1-10V signals and is fully IP67 sealed for outdoor as well as indoor applications. With their wide input voltage range of 90 to 305VAC, the new drivers can be used worldwide on 115Vac, 230Vac and 277Vac supplies. The converters operate with full load efficiencies of more than 93%, feature low THD (15%) and active PFC with power factors exceeding 0.98, and are fully protected against short circuit, overload and over-temperature conditions. Applications include high-power area lighting as well as car parks, warehouse or security lighting. The LED drivers are UL8750 and EN61347 certified, comply with FCC and European EMC standards and come with a full 5 year warranty.

Selection Guide

Part Number	Input Voltage Range (VAC)	Rated Power (W)	Output Voltage Range (VDC)	Rated Output Current (mA)	Efficiency (%)
RACD150-700A	90-305	147	60-210	700	92
RACD150-1050A	90-305	150	60-143	1050	92
RACD150-1400A	90-305	150	60-107	1400	91

Specifications (measured at 230VAC and 25°C ambient temperature)

Input Voltage Range			90-305 VAC or 127-430VDC
Input Frequency Range			47-63Hz.
Power Factor	Full Load, 120VAC		>0.98
	Full Load, 240VAC		>0.94
	75% Load, 240VAC		>0.90
DC Dimming	Open = 100%		DC 1-10V
PWM Dimming	Open = 100%		Duty 10% - 100%
	Freq.		500Hz - 3000Hz
	Voltage		Hi=10V, Low=0V
THD (@ 230VAC/50Hz)	700A		±10%
	1050A, 1400A		±11%
Input Current	115VAC		2A max.
	240VAC		1A max.
Input/Output Isolation			3.75kVAC / 1min
Input/Case Isolation			1.8kVAC / 1min
Output/Case Isolation			0.5kVAC / 1min
Leakage Current	230VAC		<0.75mA
Inrush Current	240VAC		cold start 65A max.
Voltage Tolerance			±10%
Current Tolerance			±5%
Ripple & Noise (@20MHz bandwidth) (1)			2000mV max.
Over Voltage Protection	105 - 130% Rated Voltage		Shutdown Mode
Short Circuit Protection	Constant current limit and recovers after fault condition is removed		
Over Temperature Protection			Shutdown Mode
Operating Temperature Range (Refer to Output Load Derating Curve)		Ambient	-40°C to +55°C
(free air convection)		Case Temperature	100°C max.
Operation Humidity			20%-90% RH Non-Condensing
Storage Temperature			-40°C to +80°C
Storage Humidity			10%-95% RH
Vibration	2G 10min/1Cycle, Period for 60 min		10-500Hz

continued on next page

LIGHTLINE

AC/DC-Converter

with 5 year Warranty

RECOM

150 Watt Single Output

RoHS 2011/65/EU 6/6

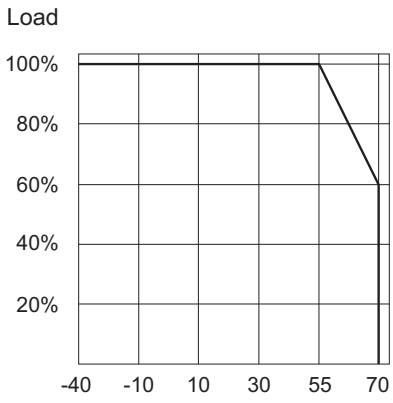
CE

UL 8750 Certified

EN 61347 Certified

RACD150-A

Derating Graph



Refer to Application Notes

LIGHTLINE
AC/DC-Converter

RACD150-A Series

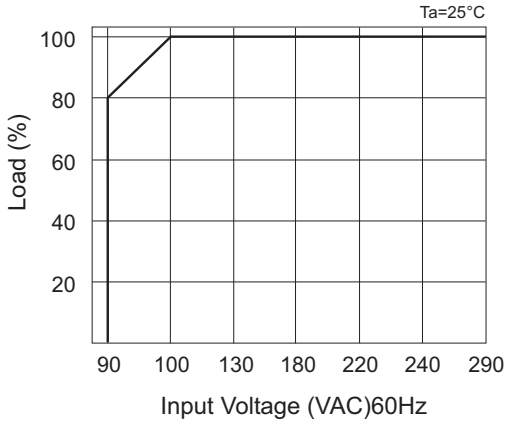
Specifications (measured at 115VAC / 230VAC and 25°C ambient temperature)

Isolation Resistance			100MΩ / 500VDC at 25°C
IP Rating			IP67
Safety Standards	UL/cUL LED Lighting Safety	Report: E340696	UL8750
	CE LVD Directive, Safety	Report: 12CA61289-1	EN61347-2-13
	CB	Report: 11036253 001	IEC61347-2-13
Standards	EMC Compatibility		EN55015
			FCC, Part 15
	Harmonic Current		EN61000-3-2 Class C
			EN61000-3-3
	EMC Immunity		EN61000-4-2, 3, 4, 5, 6, 11
			EN61547
Dimension			226*68*39mm
Weight			1.1kg
MTBF	using MIL-HDBK-217F (25°C)		200 x 10³ hours

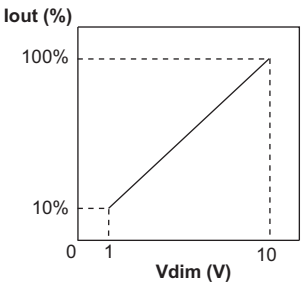
Notes:

Note1: Ripple and Noise are measured at 20MHZ bandwith by using a12“ twisted pair-wire terminated with 0.1uf & 47uf paralell application

Note2: 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.

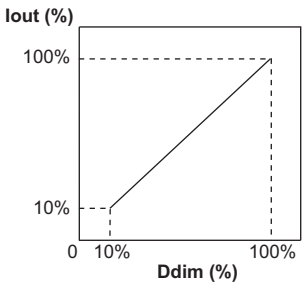


DC Voltage Dimming Curve



Note: Resistor dimming is only possible with a digital potentiometer (current sink), like the RECOM REPOT

PWM Dimming Curve



Pule: Hi = 10V, Low = 0V
Frequency: 500 - 3KHz

Package Style and Pinning