

# 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

### Selection Guide

Part Number	Nominal Voltage (VAC)	Rated Voltage (V)	Output Voltage Range (VDC)	Rated Current (mA)	Efficiency typ. (%)
RACD100-700A	100-277	142	100-142	700	91
RACD100-1400A	100-277	71	50-71	1400	91

### Specifications (measured at 240V AC and 25°C ambient temperature)

2/ Input Voltage Range	90-305 VAC or 127-430VDC	
Input Frequency Range	47-63Hz	
Power Factor	Full Load, 115VAC	>0.98
	Full Load, 230VAC	>0.94
	70% Load	>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	Full Load, 115VAC	8% max.
	Full Load, 230VAC	15% max.
	Full Load, 277VAC	17% max.
AC Current	115VAC	1.2A max.
	230VAC	0.6A max.
Input/Output Isolation	3.75kVAC / 1minute	
Input/Case Isolation	1.8kVAC / 1minute	
Output/Case Isolation	0.5kVAC / 1minute	
Leakage Current	230VAC	<0.75mA
Inrush Current	230VAC	50A
(Class C Circuit Breaker is recommended)		
Voltage Tolerance	-1% to 5%	
Current Tolerance	±5%	
Start-up Time (@ Full Load)	230VAC	2s
Ripple & Noise (@20MHz bandwidth)	142V Version	1000mV max.
	71V Version	500mV max.
Over Voltage	110 - 140% Rated Voltage	Shutdown Mode
Short Circuit Protection	Hiccup Mode	
Over Temperature Protection	100°C ±10°C	
Operation Temperature	without derating	-30°C to +55°C (see graph)
Operation Humidity	20%-90% RH Non-Condensing	
Storage Temperature	-40°C to +80°C	
Storage Humidity	10%-95% RH	
Vibration	10-500Hz, 2G, 60 Min. along X, Y and Z	
IP Rating	IP67	
Safety Standards	UL/cUL LED Lighting Safety	UL8750
	CE LVD Directive, Safety	EN61347-2-13
	CB	Report: 1103631 001 IEC61347-2-13

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

**RECOM**

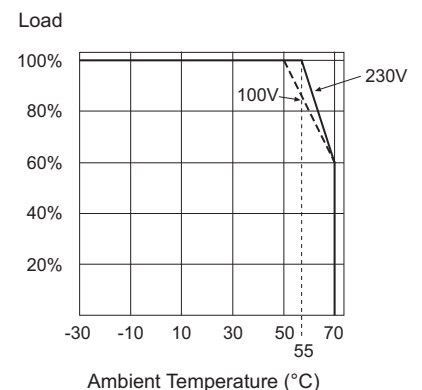
**100 Watt  
Single  
Output**



**UL 8750 Certified  
EN 61347 Certified**

**RACD100-A**

## Derating-Graph (Ambient Temperature)



Refer to Application Notes

# LIGHTLINE

## AC/DC-Converter

# RACD100-A Series

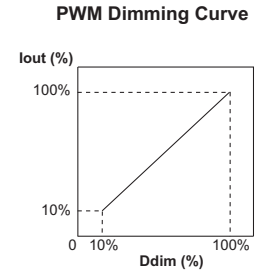
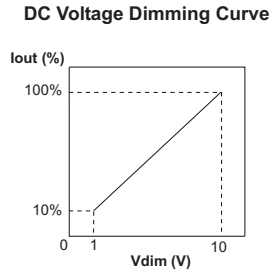
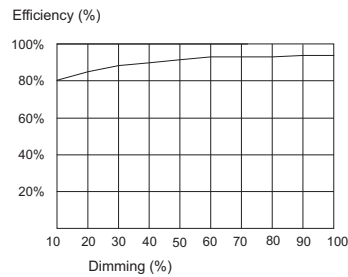
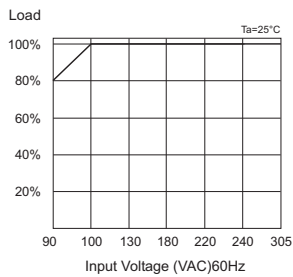
### Specifications (measured at 240V AC and 25°C ambient temperature)

EMC 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		177*57*37mm
Weight		750g
Design Lifetime		70 x 10 <sup>3</sup> hours max.
MTBF	using MIL-HDBK-217F (25°C)	200 x 10 <sup>3</sup> hours min.

**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.

### Derating Curves



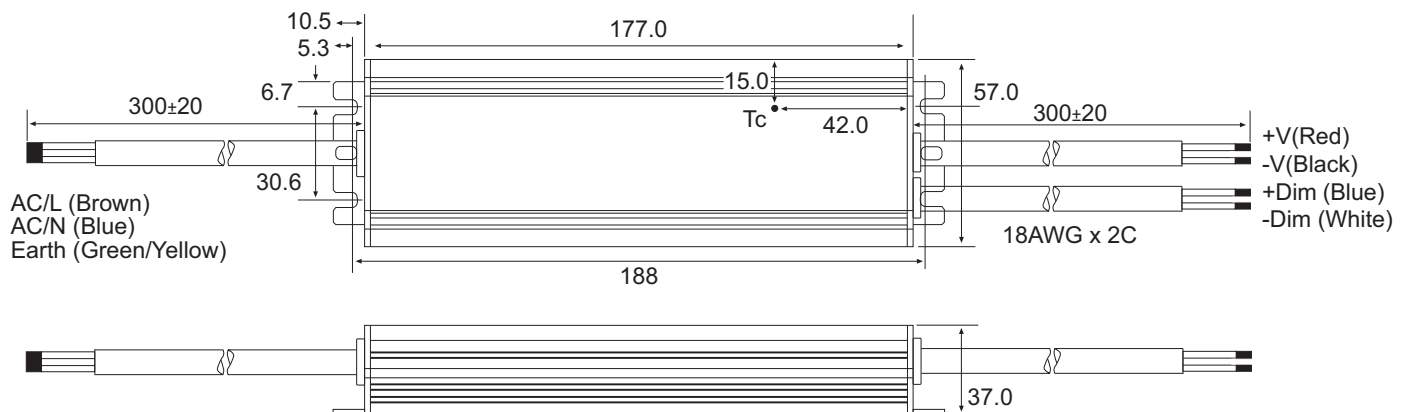
Note: Resistor dimming is only possible with a digital potentiometer (current sink), like the RECOM REPOT

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

### 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
230VAC, 10hm 90° phase angle	B	6	10	12	14
	C	13	22	24	31
277VAC, 10hm 90° phase angle	B	7	11	14	17
	C	15	25	29	36

### Package Style and Pinning



The product information and specifications are subject to change without prior notice. RECOM products are not authorized for use in safety-critical applications (such as life support) without RECOM's explicit written consent. A safety-critical application is defined as an application where a failure of a RECOM product may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The buyer shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.