

## Features

### LED Driver

- 3W Class II AC-DC LED Power Supply
- 350mA to 700mA CC/CV Output
- ENEC, RCM and EAC Certified
- UL1310/8750, EN61347 Certified
- Universal Input Voltage Range
- Fused Input and Protected Output
- 3kVAC Isolation
- IP66
- Low Cost

**LIGHTLINE**  
AC/DC-Converter  
with 3 year Warranty

**RECOM**

### Description

A compact universal AC input 3W constant current switching power module suitable for driving 1 - 6 high power LEDs. The output (dual constant voltage / constant current mode) current limit is fixed at 350mA, 500mA or 700mA. At lower output currents, the output is constant voltage. Connections are via 215mm long flying leads.

### Selection Guide

Part Number	CV Mode (VDC)	CV Mode (mA)	CC Mode (VDC)	CC Mode (mA)	Efficiency typ. (%)
RACD03-350	15	0-350	2.5-15	350	72
RACD03-500	11	0-500	2.5-11	500	71
RACD03-700	6	0-700	2.5-6	700	62

### Specifications (typical at 25°C and after warm up time unless otherwise specified )

Input Voltage Range	90-264VAC or 120-370VDC
Rated Power	3W nom. / 5.5W max.
Input Frequency Range	47-63 Hz
Output Voltage Range	2.5 - 15VDC max.
Inrush Current (<2mS)	230VAC
Leakage Current	240VAC/50Hz
Input Fuse	Built-in
Input Current	130mA max.
Output Current Accuracy (combined Tolerance, Load Regulation and Line Regulation)	±10%
Minimum Load	Open Circuit Protected
Output Ripple	0.1Ap-p max.
Hold Up Time	18ms min.
Operating Frequency	66kHz typ.
AC RMS Isolation Voltage	I/P to O/P
Temperature Coefficient	±0.02%/°C typ.
Overload Protection	120% typ.
Short Circuit Protection	Continuous Current Limit
Output Overvoltage Protection	Zener Diode Clamp
Overtemperature Protection	Shutdown, Automatic restart after cooling down
Operating Temperature Range (free air convection, according to CE/UL)	Ambient Temperature
Operating Temperature Range (free air convection, according to ENEC)	Case Temperature
Storage Temperature Range	-20°C to +50°C
Humidity	75°C max.
IP Rating	95% RH max.
PCB Material	IP66
Case Material	Plastic Resin with Fibreglass (UL94V-0)
Weight	Plastic

continued on next page

**3 Watt**  
**Single**  
**Output**



**UL8750 certified**  
**UL1310 certified**

**EN61347 certified**  
**IEC/EN61347-2-13 certified**

**IEC/EN62384-1**  
**EAC; ENEC**

**RACD03**

**Specifications** (typical at 25°C and after warm up time unless otherwise specified )

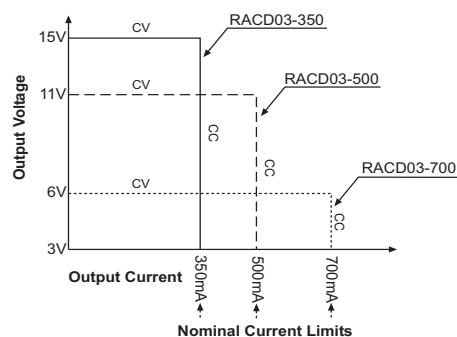
Packing Quantity	10pc		
Certifications	Standard for LED Equipment for use in Lighting Products	UL8750, 1st Edition 2009	
	Standard for Class 2 Power Units	UL1310, 6th Edition 2011	
	Extra Low Voltage Class 2 Outputs	CSA C22.2 No. 223-M91	
	Lamp Controlgear General Requirements for Safety (ENEC)	EN 61347-1, 2008+A1:2011+A2:2013	
	Power Supply or Charger for lighting purposes electronic type (RCM)	AS/NZS 61347.1:2002 + IEC61347-2-13, 1st Edition	
	Lamp Controlgear Particular Requirements (ENEC)	EN 61347-2-13: 2014	
	D.C. or A.C. Controlgears for LED Performance Requirements	IEC/EN62384, 1st-Edition+A1:2009	
	Safety of Low-Voltage Equipment (EAC)	TP TC 004/020, 2011	
EMC			
	Limits and methods of measurement of radio disturbance characteristics of electrical lighting	EN55015:2013, A1:2015	
	Equipment for general Lighting Purpose EMC Immunity Requirements	EN61547:2009	
	ESD Electrostatic discharge immunity test	Air: $\pm 8\text{kV}$ ; Contact: $\pm 4\text{kV}$ IEC61000-4-2: 2008, Criteria B	
	Radiated, radio-frequency, electromagnetic field immunity test	3V/m IEC61000-4-3:2006+A1:2007, Criteria A	
	Voltage Dips and Interruptions	Voltage Dips: >95% IEC61000-4-11:2004, Criteria B	
		Voltage Dips: 30% IEC61000-4-11:2004, Criteria C	
	Limits of Harmonic Current Emissions	EN61000-3-2:2014	
	Voltage Fluctuations and Flicker in Public Low-Voltage Systems <=16A per phase	EN61000-3-3:2013	
	Telecommunication Part 18 - Industrial, Scientific and Medical Equipment	FCC47 CFR Part 18, Class A	
Design Lifetime	25°C ambient	>20 x 10 <sup>3</sup> hours in operation	
Connections (please refer to „Package Style and Pinning“)	AC Input Live	Brown Wire, AWG18, 215mm + 6mm stripped and tinned	
	AC Input Neutral	Blue Wire, AWG18, 215mm + 6mm stripped and tinned	
	LED +	Red Wire, AWG18, 215mm + 10mm stripped and tinned	
	LED -	Black Wire, AWG18, 215mm + 10mm stripped and tinned	

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.

**Characteristics**

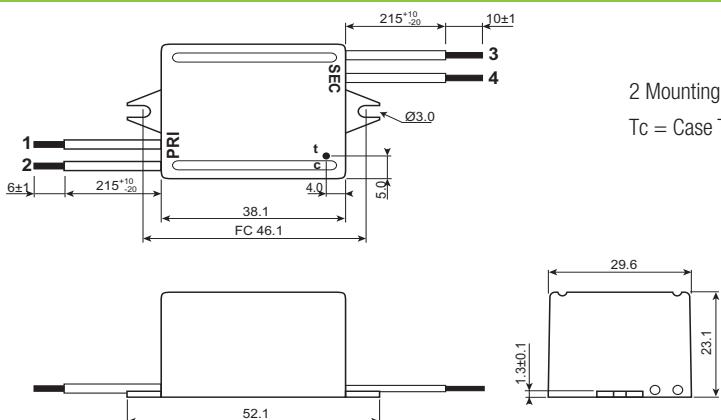
**Constant Current (CC) and Constant Voltage (CV) Graph**



**Maximum Number of LED drivers per circuit breakers**

Condition	Circuit Breaker	Circuit Breaker Current				
		Typ	10A	16A	20A	25A
115VAC, 10hm 90° phase angle	C	221	247	337	430	
230VAC, 10hm 90° phase angle	B	80	157	200	254	
	C	265	317	437	550	

**Package Style and Pinning**



2 Mounting screws are included  
Tc = Case Temperature Measuring Point

**Wire Connections**

Wire	Function
(1) blue	VAC in (N)
(2) brown	VAC in (L)
(3) black	LED-
(4) red	LED+

**Tolerance**

XX = +1mm/-0.5mm

XX.X = +/- 0.25mm

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