

Features

LED Driver

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

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 118mm long flying leads.

Selection Guide

Part Number	CV Mode		CC Mode		Efficiency typ. (%)
	(VDC)	(mA)	(VDC)	(mA)	
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. / 5W max.	
Input Frequency Range	47-63 Hz	
Output Voltage Range	2.5 - 15VDC max.	
Inrush Current (<2mS)	230VAC	10A max.
Leakage Current	240VAC/50Hz	0.2mA typ.
Input Fuse	Built-in	T1A
Input Current	350mA Version	20mA
	500mA Version	25mA
	700mA Version	38mA
Output Current Accuracy	(combined Tolerance, Load Regulation and Line Regulation)	±10%
Minimum Load	Open Circuit Protected	1 LED
Output Ripple	0.1A _{p-p} max.	
Hold Up Time	18ms min.	
Operating Frequency	66kHz typ.	
AC RMS Isolation Voltage (input to output)	3.75kV / 1 minute typ., 3kV / 1 minute min.	
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)	Ambient Temperature	-20°C to +50°C
	Case Temperature	85°C max.
Storage Temperature Range	-25°C to +85°C	
Humidity	95% RH max.	
IP Rating	IP66	

continued on next page

LIGHTLINE

AC/DC-Converter

with 3 year Warranty

RECOM

3 Watt Single Output



UL-8750 Certified
EN-61347 Certified
ENEC Certified

RACD03

Please Read Application Notes

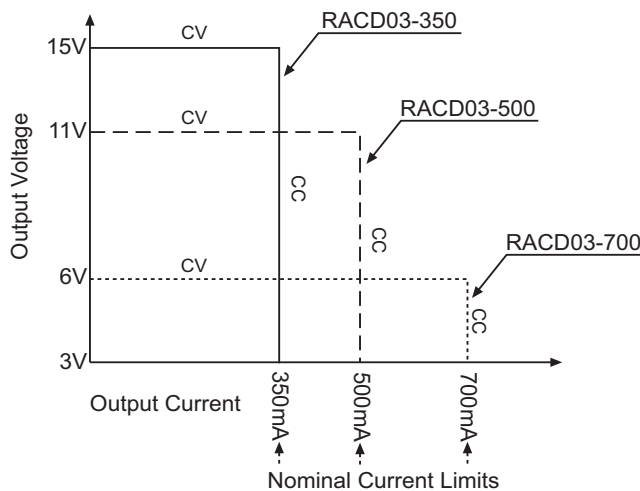
Specifications cont. (typical at 25°C and after warm up time unless otherwise specified)

PCB Material	Plastic Resin with Fibreglass (UL94V-0)	
Case Material	Plastic	
Weight	45g	
Packing Quantity	10pc	
Designed to meet Standards	Electrical Lighting, EMC Emissions Limits for Harmonics Emissions EMC Compatibility: Flicker and Voltage Variations Electrical Lighting: EMC Immunity Class II Power Supply Safety FCC	EN55015:2006 + A1: 2007 + A2:2009 EN 61000-3-2:2006 EN 61000-3-3:2006 EN 61547:1995 + A1:2000 UL1310 FCC18A
Certifications	LED Lighting Safety (E340696) RCM (U21376) ENEC General Safety ENEC Safety of AC supplied Control Gear for LED Modules	UL8750 AS/NZS 61347.1:2002, IEC 61347-2-13 EN 61347-1: 2008 EN 61347-2-13: 2006
Design Lifetime	25°C ambient	>20 x 10 ³ hours in operation
Connections	AC Input Live AC Input Neutral LED + LED -	Brown Wire, AWG18, 172mm + 5-7mm stripped and tinned Blue Wire, AWG18, 172mm + 5-7mm stripped and tinned Red Wire, AWG18, 128mm + 5-7mm stripped and tinned* Black Wire, AWG18, 128mm + 5-7mm stripped and tinned*

* Do not connect or disconnect the LED load while the converter is on. This may damage the LED or reduce its life.

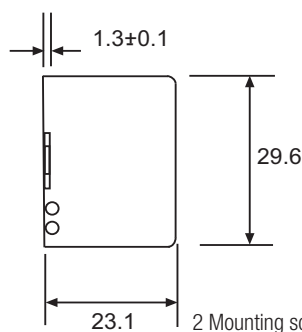
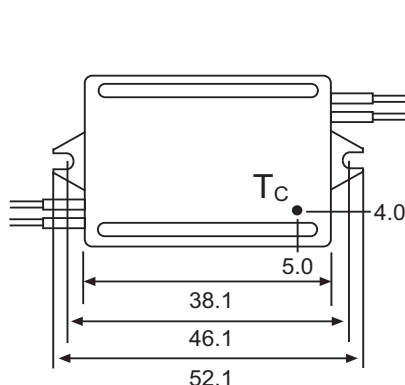
Characteristics

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



RACD03

Package Style and Pinning



T_c = Case Temperature Measuring Point

3rd angle projection

Wire Connections

Wire	Function
Brown	VAC in (L)
Blue	VAC in (N)
Red	LED+
Black	LED-

Tolerance

XX = +1mm/ -0.5mm

XX.X = +/- 0.25mm