

Features

LED Driver

- 3W Class II AC-DC LED Power Supply
- 350mA to 700mA CC/CV Output
- Drives 1 - 6 High brightness LEDs
- 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	
	(VAC)	(mA)	(VDC)	(mA)
RACD03-350	15	0-350	3-15	350
RACD03-500	11	0-500	3-11	500
RACD03-700	6	0-700	3-6	700

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	3 - 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	0.1Ap-p max.	
Hold Up Time	18ms min.	
Operating Frequency	66kHz typ.	
Efficiency at Full Load	55% 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**



E340696

**UL-8750 Certified
EN 61347 Certified**

RACD03

Please Read Application Notes

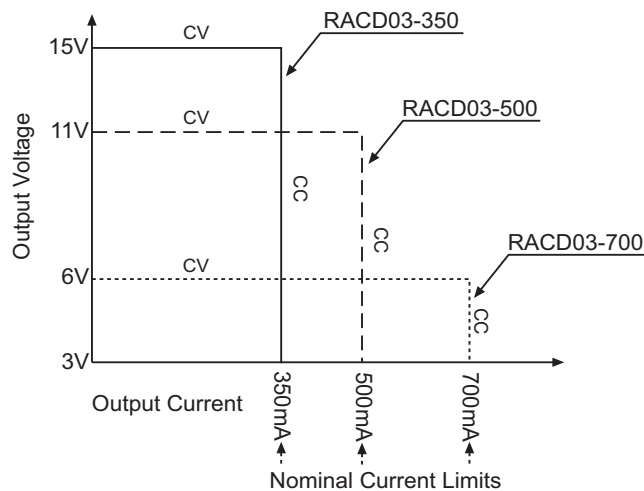
Specifications cont. (typical at 25°C and after warm up time unless otherwise specified)

PCB Material	Plastic Resin with Fibreglass (UL94V-0)	
Case Material	Plastic	
Weight	45g	
Packing Quantity	1pc	
Designed to meet Standards	Electrical Lighting, EMC Emissions	EN55015:2006 + A1: 2007 + A2:2009
	Limits for Harmonics Emissions	EN 61000-3-2:2006
	EMC Compatibility: Flicker and Voltage Variations	EN 61000-3-3:2006
	Electrical Lighting: EMC Immunity	EN 61547:1995 + A1:2000
	Class II Power Supply Safety	UL1310
	FCC	FCC18A
Certifications	LED Lighting Safety	UL8750
		(UL Report No. E340696)
	General Safety	EN 61347-1: 2008
	Safety of AC supplied Control Gear for LED Modules	EN 61347-2-13: 2006
Design Lifetime	25°C ambient	>20 x 10 ³ hours in operation
Connections	AC Input Live	Brown Wire, AWG22, 172mm + 5-7mm stripped and tinned
	AC Input Neutral	Blue Wire, AWG22, 172mm + 5-7mm stripped and tinned
	LED +	Red Wire, AWG24, 128mm + 5-7mm stripped and tinned*
	LED -	Black Wire, AWG24, 128mm + 5-7mm stripped and tinned*

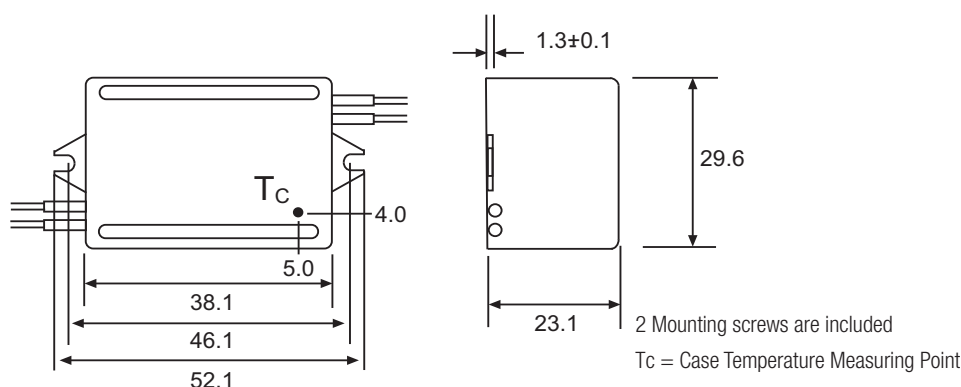
* Do not connect or disconnect the LED load while the converter is on. This may damage the LED or reduce its life.

Characteristics

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



Package Style and Pinning



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