

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

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		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. / 5.5W 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	130mA max.	
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.	
AC RMS Isolation Voltage	I/P to O/P	3.75kV / 1 minute
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	-20°C to +50°C
	Case Temperature	75°C max.
Operating Temperature Range (free air convection, according to ENEC)	Ambient Temperature	-20°C to +40°C
	Case Temperature	75°C max.
Storage Temperature Range	-25°C to +85°C	
Humidity	95% RH max.	
IP Rating	IP66	
PCB Material	Plastic Resin with Fibreglass (UL94V-0)	
Case Material	Plastic	
Weight	45g	

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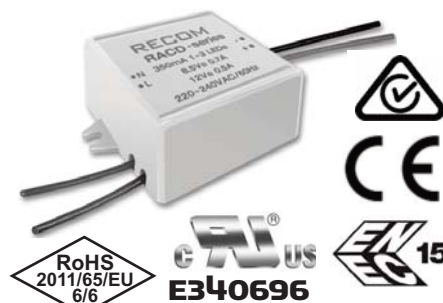
LIGHTLINE

AC/DC-Converter

with 3 year Warranty

RECOM

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)

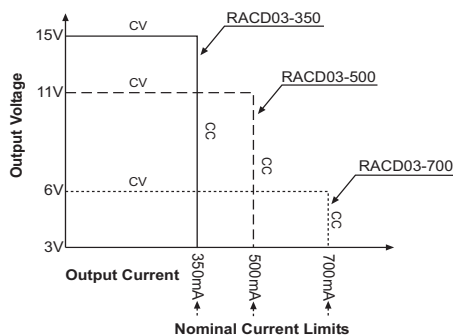
Packing Quantity		10pc
Certifications	Standard for LED Equipment for use in Lighting Products	UL8750, 1st Edition 2009
	Standard for Class 2 Power Units	UL1310, 6th Edition 2011
	Extra Low Voltage Class 2 Outputs	CSA C22.2 No. 223-M91
	Lamp Controlgear General Requirements for Safety (ENEC)	EN 61347-1, 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
EMC	Safety of Low-Voltage Equipment (EAC)	TP TC 004/020, 2011
	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: ±8kV; Contact: ±4kV 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 ³ 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

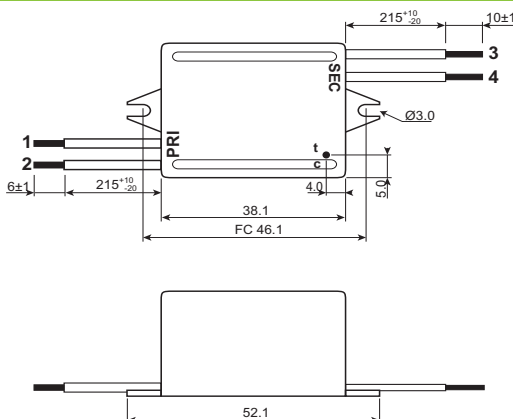
Constant Current (CC) and Constant Voltage (CV) Graph



Maximum Number of LED drivers per circuit breakers

Condition	Circuit Breaker	Circuit Breaker Current			
		10A	16A	20A	25A
115VAC, 10hm 90° phase angle	Typ				
	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