Features

LED Driver

- 3W Class II AC-DC LED Power Supply
- 350mA Constant Current Output
- Drives 1 - 3 High brightness LEDs
- Universal Input Voltage Range
- Fused Input and Protected Output
- 3kVAC Isolation
- IP66
- Low Cost
- 3 Year Warranty

LIGHTLINE
AC/DC-Converter
with 3 year Warranty

RECOM

3 Watt Single Output

RoHS 2002/95/EC 6/6

CE

UL-8750 Pending
EN 61347 Certified

RACD03

Description

A compact universal AC input 3W constant current switching power module suitable for driving 1 - 3 high power LEDs (Vf = 3.6V). The output current is fixed at 350mA or 700mA. Connections are via 130mm long flying leads.

Selection Guide

Part Number	Nominal Input Voltage (VAC)	Input Current (mA)	Output Voltage Range (VDC)	Output Current (mA)	Max # LEDs
RACD03-350	universal	38	3-12	350	3 x 1W
RACD03-700	universal	20	3-6	700	1 x 2W

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

Input Voltage Range		90-264VAC
Rated Power		3 Watts max.
Input Frequency Range		47-63 Hz
Power Factor	Full Load, 230VAC	0.5
Output Voltage Range		3 - 12VDC max.
Inrush Current (<2mS)	230VAC	10A max.
Leakage Current	240VAC/50Hz	0.2mA typ.
Input Fuse	Built-in	T1A
Input Current	Full Load, 230VAC	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		12V Zener Diode Clamp
Overtemperature Protection		Shutdown, Automatic restart after cooling down
Operating Temperature Range	Ambient Temperature	0°C to +50°C
(free air convection)	Case Temperature	80°C max.
Storage Temperature Range		-25°C to +85°C
Humidity		95% RH max.
IP Rating		IP66

continued on next page

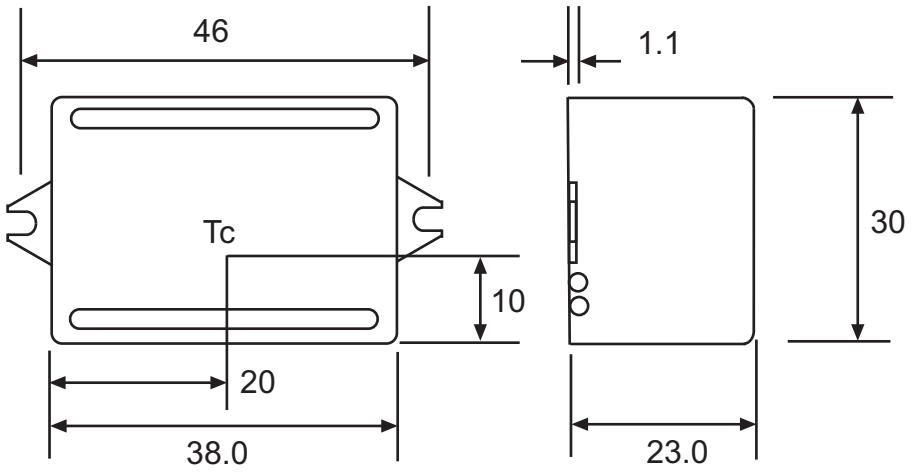
Please Read Application Notes

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 Compatibilty: 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	designed to meet UL8750
	SEMKO CE Certification, General Safety	EN 61347-1: 2008
	SEMKO CE Certification, 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, 130mm + 5mm stripped and tinned
	AC Input Neutral	Blue Wire, AWG22, 130mm + 5mm stripped and tinned
	LED +	White Striped Black Wire, AWG24, 130mm + 5mm stripped and tinned*
	LED -	Black Wire, AWG24, 130mm + 5mm 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.

Package Style and Pinning



3rd angle projection

Wire Connections	
Wire	**Function**
Brown	VAC in (L)
Blue	VAC in (N)
White	LED+
Black	LED-

Tolerance
XX = +1mm/ -0.5mm
XX.X = +/- 0.25mm

2 Mounting screws are included

Tc = Case Temperature Measuring Point