

Features

LED DRIVER

- 12W Class II AC/DC LED Power Supply
- 350mA or 700mA Constant Current Output
- Drives 1 - 10 High Brightness LEDs
- Universal AC Input
- Active Power Factor Corrected >0.95
- Fused Input, Protected Output
- 3kVAC Input/Output Isolation
- Output Socket Connector
- UL-8750 Certified
- Low Cost
- Long 5 Year Warranty

Description

A compact 12W constant current switching power module suitable for driving up to ten high power LEDs ($V_f = 3.6V$). The output current is fixed at 350mA, 500mA or 700mA. Active power factor correction is standard and the converters are UL8750 certified for use with LED assemblies. The driver modules features both screw terminal and socket output connections. The socket connector avoids the possibility of miswiring and damaging the LED load if the LEDs are pre-assembled into a wiring harness or lamp fitting.

Selection Guide

Part Number	Nominal Input Voltage (VAC)	Input Current at 230VAC (mA)	Output Voltage Range (VDC)	Output Current (mA)	Max # LEDs
RACD12-350	universal	200	3-36	350	10 x 1W
RACD12-500	universal	200	3-24	500	6 x 2W
RACD12-700	universal	200	3-17	700	4 x 2W, 8 x 1W

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

Input Voltage Range	90VAC-264VAC	
Rated Power	12 Watts max.	
Input Frequency Range	47-63 Hz	
Power Factor	Full Load, 115VAC/230VAC	0.95
Output Voltage Range	350mA Version	3VDC (min) - 36VDC (Zener Clamp)
	500mA Version	3VDC (min) - 24VDC (Zener Clamp)
	700mA Version	3VDC (min) - 17VDC (Zener Clamp)
Inrush Current (<2mS)	115VAC/230VAC	10A max.
Input Current	230VAC, Full Load	200mA max.
Leakage Current	115VAC/240VAC - 60/50Hz	0.5mA typ.
Input Fuse	Standard	T1A
Output Current Accuracy	(combined Tolerance, Load Regulation and Line Regulation)	±10%.
Minimum Load	Open Circuit Protected	1 LED
Output Ripple	150mA max.	
Hold Up Time	18ms min.	
Operating Frequency	50-120kHz typ.	
Efficiency at Full Load	78%	
RMS Isolation Voltage (input to output)	3kVAC / 1 minute	
Temperature Coefficient	±0.02%/°C typ.	
Overload Protection	120% typ.	
Short Circuit Protection	Continuous Current Limit	
Output Overvoltage Protection	Zener Diode Clamp	

continued on next page

LIGHTLINE

AC/DC-Converter

with 5 year Warranty

RECOM

12 Watt PFC

Single

Output

RECOM
E340696



UL-8750 Certified
EN 61347 Certified

RACD12

RACD12

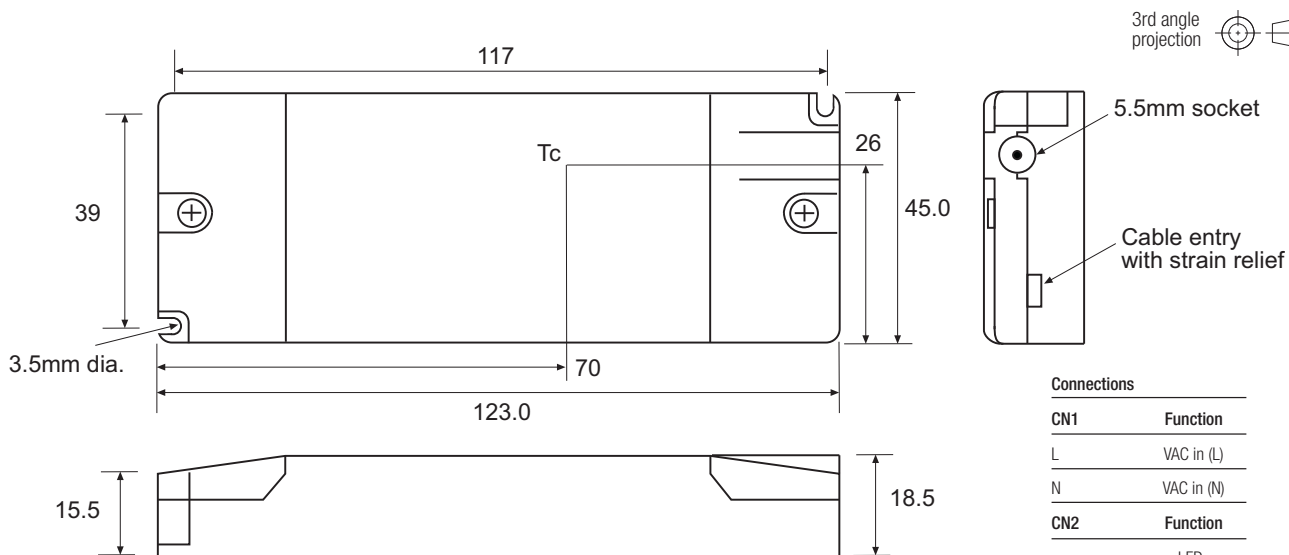
Specifications cont. (typical at 25°C and after warm up time unless otherwise specified)

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.
Weight	100g	
Packing Quantity	1pc	
Storage Temperature Range	-40°C to +100°C	
Humidity	95% RH max.	
IP Rating	IP20, Indoor Use Only	
PCB Material	Plastic Resin with Fibreglass (UL94V-0)	
Case Material	Plastic	
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
THD	<20%	
Certifications	LED Lighting Safety	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	>70 x 10 ³ hours in operation
Connections	AC Input	Screw terminal
	LED Output	Screw Terminal
	LED Output	5.5mm Socket with 2mm Pin (Suitable matching plug Switchcraft S760 or similar)*

* 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

RACD12



2 Mounting screws are included

Tc= Case Temperature Measuring Point

Connections

CN1	Function
L	VAC in (L)
N	VAC in (N)
CN2	Function
+	LED+
-	LED-
5.5mm Socket*	Function
Pin	LED+
Shell	LED-

Tolerances

XX = +/-0.5mm

XX.X = +/-0.25mm