Features

LED DRIVER

- 12W Class II AC/DC LED Power Supply
- 350mA, 500mA or 700mA Constant Current Output
- ENEC, UL, RCM and CB Certified
- Universal AC Input
- Active Power Factor Corrected >0.95
- Fused Input, Protected Output
- 3kVAC Input/Output Isolation
- Output Socket Connector
- cUL/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 (Vf = 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 connecter 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
THD	Full Load, 115VAC	7% max.
	Full Load, 230VAC	14% max.
Open Circuit Voltage	350mA Version	39VDC
(Zener Clamp)	500mA Version	26VDC
	700mA Version	19VDC
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
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

RoHS 2011/65/EU 6/6

E340696

UL-8750 Certified
cUL-8750 Certified
ENEC 61347 Certified

RACD12

Refer to Application Notes

RACD12 Series

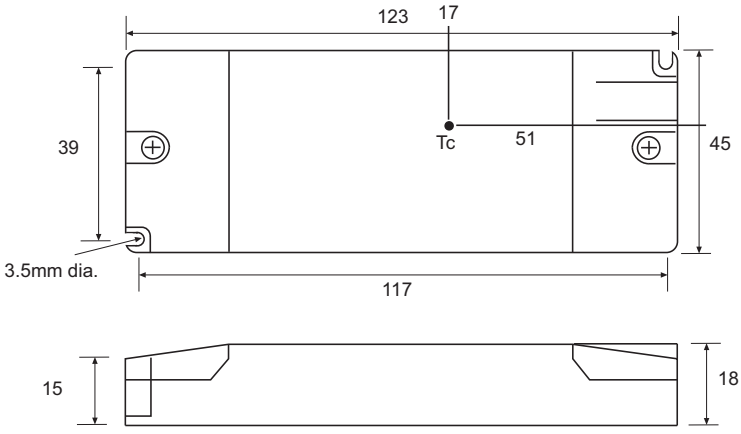
Specifications (typical at 25°C and after warm up time unless otherwise specified)

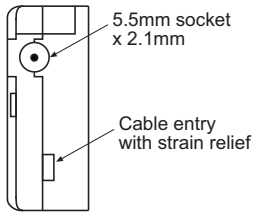
Overtemperature Protection		Shutdown, Automatic restart after cooling down
Operating Temperature Range	Ambient Temperature	-20°C to +50°C
(free air convection, according to CE/UL)	Case Temperature	81°C max.
Operating Temperature Range	Ambient Temperature	-20°C to +50°C
(free air convection, according to ENEC)	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 Compatibilty: Flicker and Voltage Variations	EN 61000-3-3:2006
	Electrical Lighting: EMC Immunity	EN 61547:1995 + A1:2000
	Class II Power Supply Safety	complies with UL1310
	FCC	complies with FCC18A
THD		<20%
Certifications	LED Lighting Safety	UL8750
	LED Lighting Safety (Canada)	cUL8750
	RCM (U21381)	AS/NZS 61347.1:2002, IEC 61347-2-13
	ENEC Certification, General Safety	EN 61347-1: 2008
	ENEC 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)*

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.

Package Style and Pinning





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

Tolerenace
XX = +/-0.5mm
XX.X =+/-0.25mm

2 Mounting screws are included

Tc= Case Temperature Measuring Point