

Features

LED DRIVER

- 12W AC-DC LED Power Supply
- 350mA, 450mA or 700mA Constant Current Output
- Drives 1 - 10 High Brightness LEDs
- Universal AC Input
- Power Factor Correction
- Fused Input, Protected Output
- 3kVAC Isolation
- Output Socket Connector
- Low Cost

GREENLINE
AC/DC-Converter

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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, 450mA or 700mA. The 450mA output is specifically designed to match the CREE MPL X-Lamp LED. Power factor correction is standard.

This series 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 preassembled into a wiring harness or lamp fitting.

Selection Guide

Part Number	Nominal Input Voltage (VAC)	Input Current at full load (mA)	Output Voltage Range (mA)	Output Current (mA)	Max # LEDs
RACD12-350	110-240VAC	200	3-36	350	10 x 1W
RACD12-450	110-240VAC	200	3-27.5	450	6 x 1.5W
RACD12-700	110-240VAC	200	3-15	700	4 x 2W, 8 x 1W



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

Input Voltage Range	Standard	100VAC-240VAC
Rated Power		12 Watts max.
Input Frequency Range		47-63 Hz
Power Factor	Full Load, 115VAC/230VAC	0.95
Output Voltage Range	350mA Version	3 - 36VDC
	450mA Version	3 - 27.5VDC
	700mA Version	3-15VDC
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 min.
Temperature Coefficient		±0.02%/°C typ.
Overload Protection		120% typ.
Short Circuit Protection		Continuous Current Limit
Output Overvoltage Protection	350mA Version	36V Zener Diode Clamp
	450mA Version	28V Zener Diode Clamp
	700mA Version	15V Zener Diode Clamp

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RACD12

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Please Read Application Notes

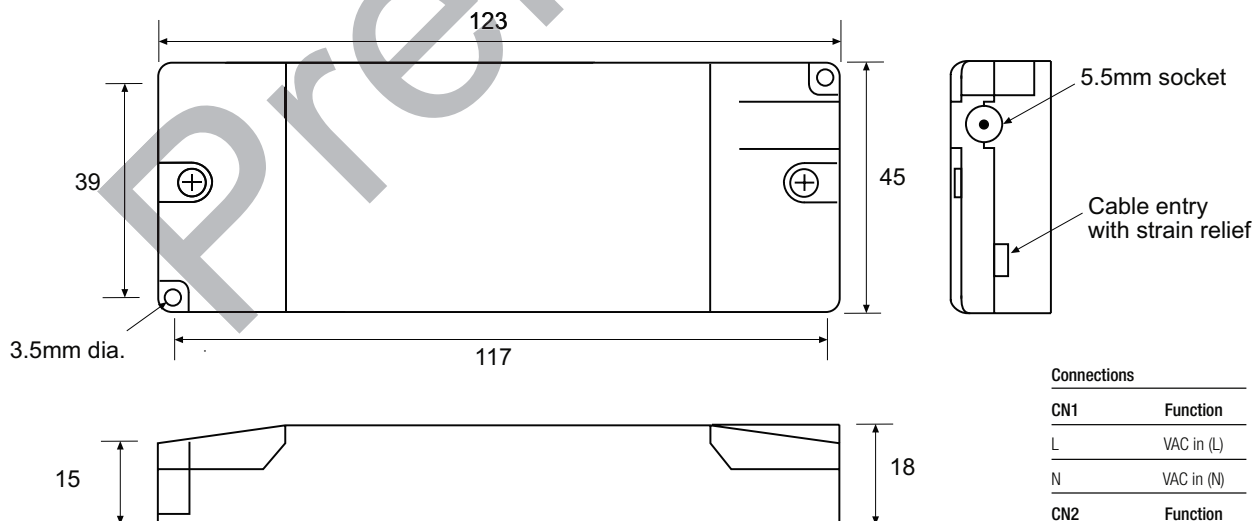
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Specifications cont. (typical at 25°C and after warm up time unless otherwise specified)

Weight	100g	
Packing Quantity	1pc	
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	-40°C to +100°C	
Humidity	95% RH max.	
IPRating	IP20	
PCB Material	Plastic Resin with Fibreglass (UL94V-0)	
Case Material	Plastic	
Designed to meet Standards	Lamp Control Gear, General Safety	EN 61347-1:2001
	Lamp Control Gear for LED Modules	EN 61347-2-13:2006
	Electrical Lighting, EMC Emissions	EN55015:2001
	Limits for Harmonics Emissions	EN 61000-3-2:2006
	EMC Compatibility: Flicker and Voltage Variations	EN 61000-3-3:2001
	Electrical Lighting: EMC Immunity	EN 61547:1995 + A1: 2000
	Class II Power Supply Safety	UL1310
	LED Lighting Safety	UL8750
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

Package Style and Pinning

RACD12



2 Mounting screws are included

Connections

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