

## Features

### LED DRIVER

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

### 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 or 700mA and 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 with a mating plug.

### Selection Guide

| Part Number | Nominal Input Voltage (VAC) | Input Current at 230VAC (mA) | Output Voltage Range (mA) | Output Current (mA) | Max # LEDs     |
|-------------|-----------------------------|------------------------------|---------------------------|---------------------|----------------|
| RACD12-350  | 110-240VAC                  | 200                          | 3-36                      | 350                 | 10 x 1W        |
| 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                |
|   | 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    |
|   | 700mA Version   | 15V Zener Diode Clamp    |
| 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.                |

continued on next page

## LIGHTLINE AC/DC-Converter

RECOM

## 12 Watt PFC Single Output



UL-8750 Certified

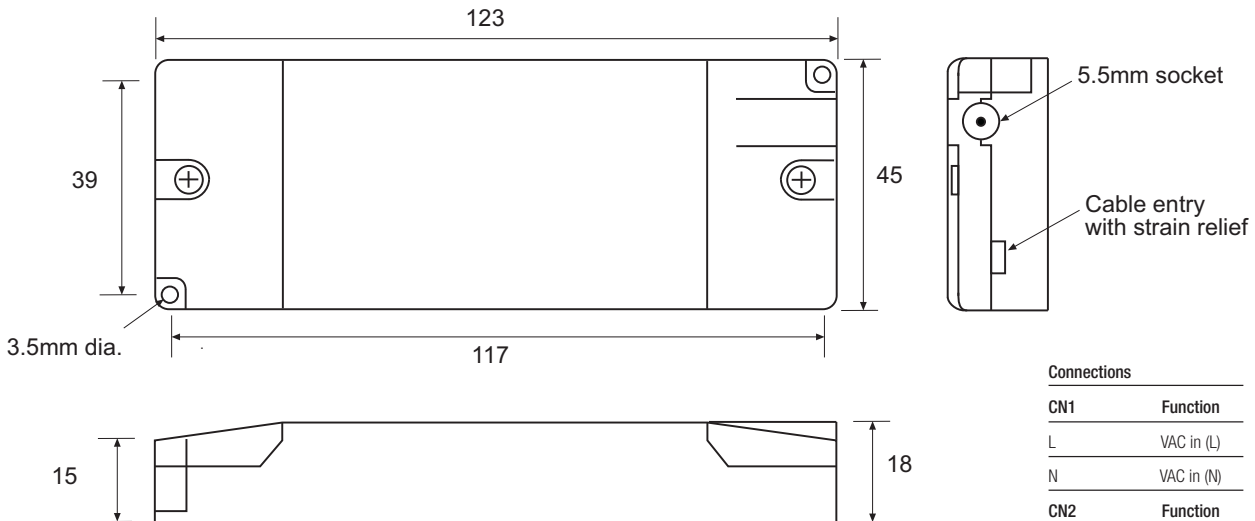
# RACD12

RACD12

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

|                            |   |  |
|----------------------------|---|--|
| Weight                     |   | 100g                                     |
| Packing Quantity           |   | 1pc                                      |
| 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                                   |
| Certifications             | LED Lighting Safety                               | UL8750                                   |
| Design Lifetime            | 25°C ambient                                      | >70 x 10 <sup>3</sup> hours in operation |
| Connections                | AC Input  | Screw terminal                           |
|                            | LED Output  | Screw Terminal                           |
|                            | LED Output  | 5.5mm Socket with 2mm Pin                |

### Package Style and Pinning



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-       |