

Features

LED DRIVER

- 12W Class II AC/DC LED Power Supply
- ENEC, UL, RCM and CB Certified
- 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 ($V_f = 3.6V$). 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 module 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 | 90-264VAC | |
| 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 (Zener Clamp) | 350mA Version | 42VDC |
| | 500mA Version | 28VDC |
| | 700mA Version | 24VDC |
| 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 | |
| Overtemperature Protection | Shutdown, Automatic restart after cooling down | |
| Operating Temperature Range (free air convection, according to CE/UL) | Ambient Temperature | -20°C to +50°C |
| | Case Temperature | 81°C max. |
| Operating Temperature Range (free air convection, according to ENEC) | Ambient Temperature | -20°C to +50°C |
| | Case Temperature | 85°C max. |
| Storage Temperature Range | -40°C to +100°C | |
| Weight | 100g | |
| Packing Quantity | 1pc | |
| Humidity | 95% RH max. | |

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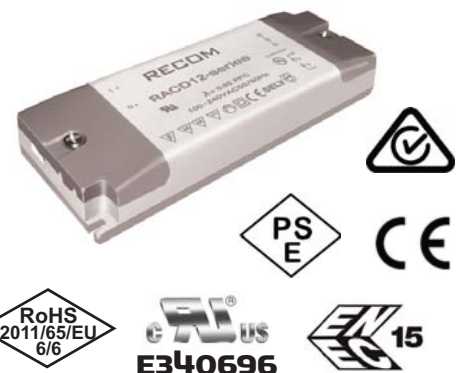
LIGHTLINE

AC/DC-Converter

with 5 year Warranty

RECOM

12 Watt PFC Single Output



UL-8750 Certified
cUL-8750 Certified
ENEC 61347 Certified

RACD12

Refer to Application Notes

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

| | | | |
|----------------------------|--|---|--|
| 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 Compatability: 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 | |
| | PSE | J61347-1(H20), J61347-2-13(H21), J55015(H20) | |
| 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:

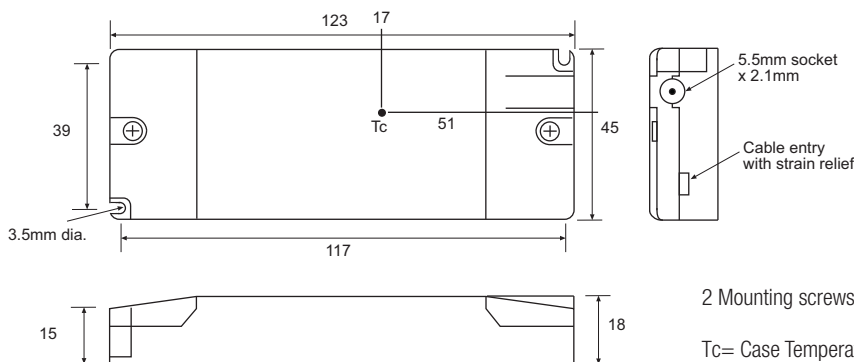
All LED Drivers may not be used without a load. They must be switched on the primary side only. Noncompliance may damage the LED or reduce its lifetime.

Characteristic

**Maximum Number of LED drivers
per circuit breakers**

| Condition | Circuit Breaker | Circuit Breaker Current | | | |
|---------------------------------|-----------------|-------------------------|-----|-----|-----|
| | | 10A | 16A | 20A | 25A |
| 115VAC, 10hm 90° phase angle | Typ | | | | |
| | C | 101 | 128 | 171 | 228 |
| 230VAC, 10hm 90° phase angle | B | 61 | 100 | 121 | 150 |
| | C | 121 | 164 | 221 | 291 |
| 277VAC, 10hm 90° phase angle | B | 70 | 115 | 139 | 172 |
| | C | 139 | 188 | 254 | 334 |

Package Style and Pinning



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