

Features

LED DRIVER

- 20W Class II AC-DC LED Power Supply
- 350mA , 500mA, 700mA or 1050mA Outputs
- ENEC, UL, RCM and CB Certified
- Universal AC Input
- Active Power Factor Correction >0.95
- Fused Input, Protected Output
- 3kVAC Isolation
- cUL/UL8750 Certified, CE Marked
- Output Connector to avoid miswiring
- Low Cost
- Long 5 Year Warranty

Description

A compact 20W constant current switching power module suitable for driving high power LEDs ($V_f = 3.6V$). The output current is fixed at 350mA, 500mA, 700mA or 1050mA. Active 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 | Input Voltage Range (VAC) | Input Current at full load (mA) | Nom. Output Voltage Range (VDC) | Output Current (mA) | Max # LEDs |
|-------------|---------------------------|---------------------------------|---------------------------------|---------------------|------------------|
| RACD20-350 | universal | 260 | 6-56 | 350 | 15 x 1W |
| RACD20-500 | universal | 260 | 6-40 | 500 | 11 x 2W |
| RACD20-700 | universal | 260 | 6-29 | 700 | 8 x 2W, 8+8 x 1W |
| RACD20-1050 | universal | 260 | 5-17 | 1050 | 6 x 3W, 5+5 x 2W |

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

| | | |
|---|---|--------------------------|
| Input Voltage Range | Standard | 90-264VAC |
| Rated Power | | 20 Watts max. |
| Input Frequency Range | | 47-63 Hz |
| Power Factor | Full Load, 115VAC/230VAC | 0.95 |
| THD | Full Load, 115VAC/230VAC | 12% max. |
| Open Circuit Voltage | 350mA Version | 57VDC |
| (Zener Clamp) | 500mA Version | 43VDC |
| | 700mA Version | 32VDC |
| | 1050mA Version | 19VDC |
| | Inrush Current (<2mS) | 115VAC/230VAC |
| Input Current | 230VAC, Full Load | 260mA typ. |
| 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 | 2 LEDs |
| Hold Up Time | | 18ms min. |
| Operating Frequency | | 40 - 100 kHz typ. |
| Efficiency at Full Load | | 83% |
| 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

20 Watt PFC Single Output



UL 8750 Certified
cUL 8750 Certified*
ENEC 61347 Certified

RACD20

* RACD20-700 and -1050 only has cUL

Refer to Application Notes

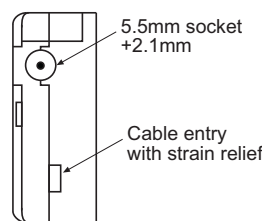
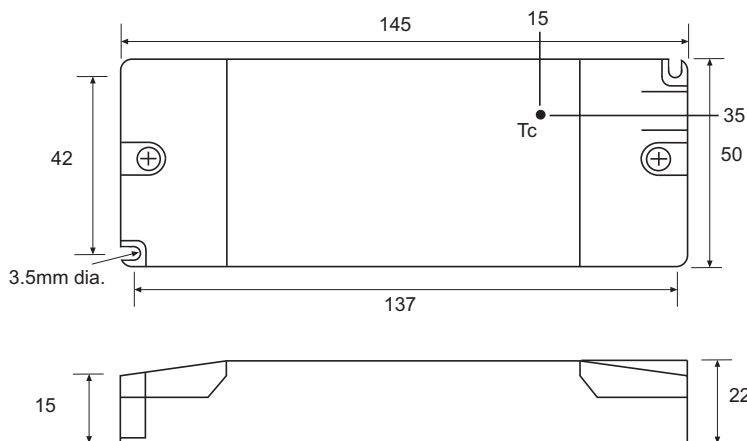
Specifications (typical at 25°C and after warm up time unless otherwise specified)

| | | |
|--|---|--|
| Overtemperature Protection | Shutdown, Automatic restart after cooling down | |
| Operating Temperature Range (free air convection, according to CE/UL) | Ambient Temperature | -20°C to +50°C |
| | Case Temperature | 78.6°C max. |
| Operating Temperature Range (free air convection, according to ENEC) | Ambient Temperature | -20°C to +50°C |
| | Case Temperature | 85°C max. |
| Weight | 160g | |
| 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 | complies with UL1310 |
| | FCC | complies with FCC18A |
| THD | <20% | |
| Certifications | LED Lighting Safety (E340696) | UL8750 |
| | LED Lighting Safety (Canada) | cUL8750 (RACD20-700 only) |
| | RCM (U21380) | AS/NZS 61347.1:2002, IEC 61347-2-13 |
| | ENEC CE Certification, General Safety | EN 61347-1: 2008 |
| | ENEC 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) |

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- |

Tolerance
XX = +/-1mm
XX.X = +/-0.5mm

2 Mounting screws are included

Tc=Case Temperature Measuring Point

The product information and specifications are subject to change without prior notice. All products are designed for non-safety critical commercial and industrial applications. The Buyer agrees to implement safeguards that anticipate the consequences of any failures that might cause harm, loss of life and/or damage property.