

Features

LED DRIVER

- 20W AC-DC LED Power Supply
- 350mA or 700mA Constant Current Output
- Drives 1 - 15 High brightness LEDs
- Universal AC Input
- Power Factor Correction
- Fused Input, Protected Output
- 3kVAC Isolation
- UL-8750 Certified
- Output Connector to avoid miswiring
- Low Cost

Description

A compact 20W constant current switching power module suitable for driving up to 15 high power LEDs ($V_f = 3.6V$). The output current is fixed at 350mA or 700mA. 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 | Input Voltage Range (VAC) | Input Current at full load (mA) | Output Voltage Range (VDC) | Output Current (mA) | Max # LEDs |
|-------------|---------------------------|---------------------------------|----------------------------|---------------------|------------------|
| RACD20-350 | 100-240VAC | 260 | 6-56 | 350 | 15 x 1W |
| RACD20-700 | 100-240VAC | 260 | 6-29 | 700 | 8 x 2W, 8+8 x 1W |

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

| | | |
|---|---|--|
| Input Voltage Range | Standard | 100VAC-240VAC |
| Rated Power | | 20 Watts max. |
| Input Frequency Range | | 47-63 Hz |
| Power Factor | Full Load, 115VAC/230VAC | 0.95 |
| Output Voltage Range | 350mA Version | 6 - 56VDC |
| | 700mA Version | 6 - 29VDC |
| Inrush Current (<2mS) | 115VAC/230VAC | 10A max. |
| 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 |
| Output Ripple | | 150mA max. |
| 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 | 350mA Version | 56V Zener Diode Clamp |
| | 700mA Version | 29V 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 Temp. | 85°C max. (350mA version: 90°C max.) |

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LIGHTLINE AC/DC-Converter

RECOM

20 Watt PFC Single Output



UL-8750 Certified

RACD20

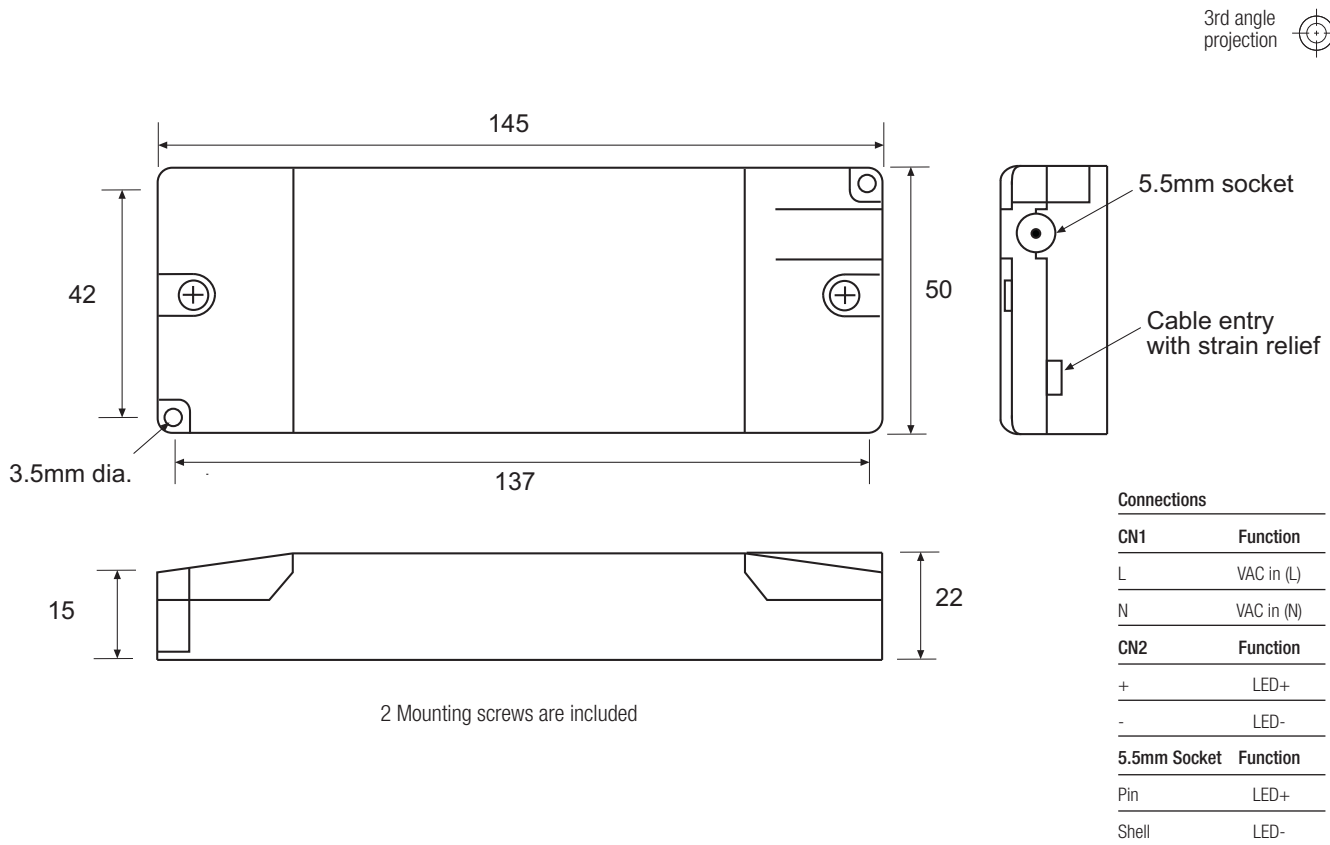
Please Read Application Notes

www.recom-electronic.com

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

| | | |
|----------------------------|---|--|
| Weight | | 140g |
| 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, FCC18A |
| | 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 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



RACD20