

Features

LED DRIVER

- 20W Class II AC-DC LED Power Supply
- 350mA , 500mA, 700mA or 1050mA Outputs
- Drives 2 - 15 high brightness LEDs
- 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
Open Circuit Voltage (Zener Clamp)	350mA Version	57VDC
	500mA Version	43VDC
	700mA Version	32VDC
	1050mA Version	19VDC
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		Zener Diode Clamp

continued on next page

LIGHTLINE

AC/DC-Converter
with 5 year Warranty

RECOM

20 Watt PFC Single Output



E340696



UL 8750 Certified
cUL 8750 Certified*
EN 61347 Certified

RACD20

* RACD20-700 and -1050 only has cUL

Please Read Application Notes

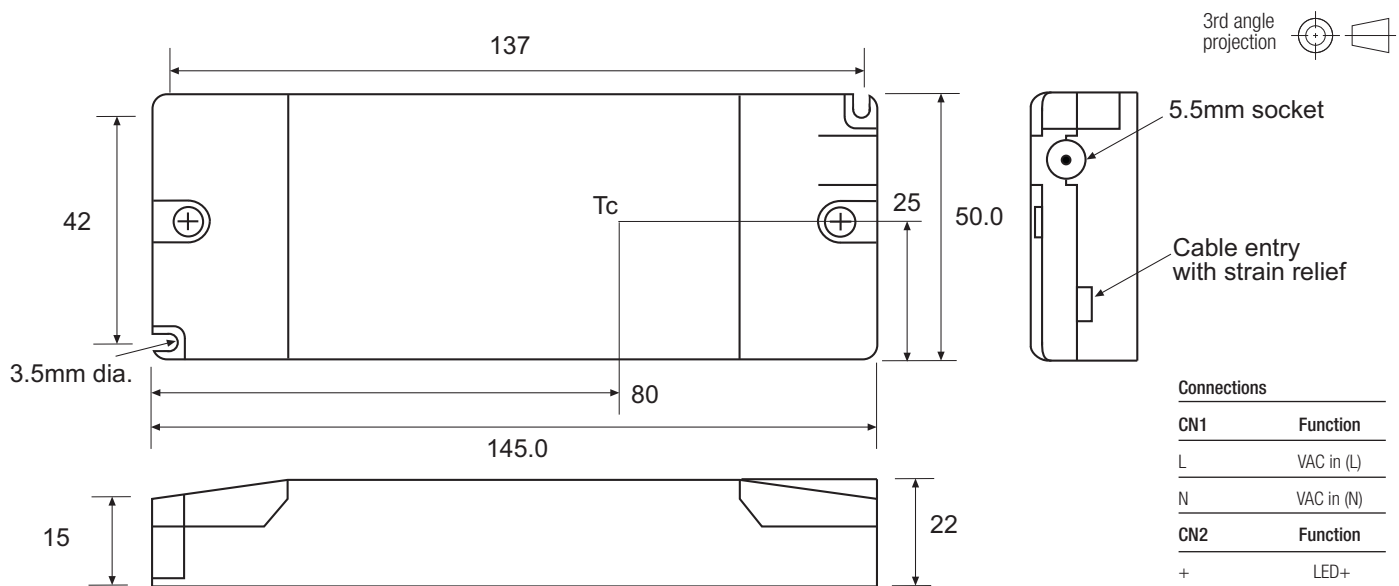
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Specifications cont. (typical at 25°C and after warm up time unless otherwise specified)

Overtemperature Protection	Shutdown, Automatic restart after cooling down	
Operating Temperature Range (free air convection)	Ambient Temperature	-20°C to +50°C
	Case Temp.	85°C max. (350mA version: 90°C max.)
Weight	140g	
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 Limits for Harmonics Emissions EMC Compatibility: Flicker and Voltage Variations Electrical Lighting: EMC Immunity Class II Power Supply Safety FCC	EN55015:2006 + A1: 2007 + A2:2009 EN 61000-3-2:2006 EN 61000-3-3:2006 EN 61547:1995 + A1:2000 complies with UL1310 complies with FCC18A
THD	<20%	
Certifications	LED Lighting Safety LED Lighting Safety (Canada) SEMKO CE Certification, General Safety SEMKO CE Certification, Safety of AC supplied Control Gear for LED Modules	UL8750 cUL8750 (RACD20-700 only) EN 61347-1: 2008 EN 61347-2-13: 2006
Design Lifetime	25°C ambient	>70 x 10 ³ hours in operation
Connections	AC Input LED Output LED Output	Screw terminal Screw Terminal 5.5mm Socket with 2mm Pin (Suitable matching plug Switchcraft S760 or similar)*

* Do not connect or disconnect the LED load while the converter is on. This may damage the LED or reduce its life.

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 = +/-1mm

XX.X = +/-0.5mm