

Features

LED DRIVER

- 20W Class II AC-DC LED Power Supply
- 2x Independent Constant Current Outputs or Single High Current Output (Jumper selectable)
- 1-10V or Rheostat Dimmable (15%~100%)
- 3kVAC Isolation
- Active Power Factor Correction >0.95
- Fused Input, Protected Outputs
- CE Marked
- Long 5 Year Warranty

Description

A compact 20W constant current switching power module suitable for driving either two independent strings of LEDs or a single string high power LEDs (mode selection is via a jumper under the output cover plate). When used in dual output mode, the two outputs are independently regulated and can be used with asymmetric LED loads. The output current can be dimmed using either an external 150kOhm rheostat or via a 1-10V external voltage. Active power factor correction is standard. Connections are via screw terminals and the AC input feature loop-through connections to allow daisy-chaining of the converters.

Selection Guide

Part Number	Input Voltage Range (Nominal VAC)	Input Current at full load (mA)	Output Voltage Range (VDC)	Output Current (mA)	Max # LEDs
RACD20-350D (700mA single output mode)	230VAC	260	2x (3-34) 3-34	2x (50~350) 100~700	2x (10 x 1W) 10 x 2W
RACD20-350D-US (700mA single output mode)	110VAC	510	2x (3-34) 3-34	2x (50~350) 100~700	2x (10 x 1W) 10 x 2W
RACD20-500D (1050mA single output mode)	230VAC	260	2x (3-20) 3-20	2x (50~500) 100~1050	2x (6 x 2W) 6 x 3W
RACD20-500D-US (1050mA single output mode)	110VAC	510	2x (3-20) 3-20	2x (50~500) 100~1050	2x (6 x 2W) 6 x 3W

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

Input Voltage Range	230VAC 110VAC	200-264VAC 90-130VAC
Rated Power		20 Watts max.
Input Frequency Range		47-63 Hz
Power Factor	Full Load, 115VAC/230VAC	0.95
Output Voltage Range	350mA Dual Output Mode 700mA Single Output Mode 500mA Dual Output Mode 1050mA Single Output Mode	3-34VDC + 3-34VDC 3-34VDC 3-20VDC + 3-20VDC 3-20VDC
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	115VAC/230VAC	T2A/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		40 - 100 kHz typ.
Efficiency at Full Load	230VAC	>80%
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

continued on next page

LIGHTLINE

AC/DC-Converter

with 5 year Warranty

RECOM

20 Watt PFC Single/Dual Dimmable



EN 61347 Compliant

RACD20-D

Please Read Application Notes

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

Dimming Control	Rheostat (15%~100%)	0-150kOhm	External Voltage (15%-100%)	1-10VDC
Overtemperature Protection				Shutdown, Automatic restart after cooling down
Operating Temperature Range (free air convection)				Ambient Temperature -20°C to +40°C Case Temp. 85°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 UL1310 FCC18A
THD				<20%
Certifications	LED Lighting Safety Certification, General Safety			designed to meet UL8750 designed to meet EN 61347-1: 2008
Design Lifetime	25°C ambient			>70 x 10 ³ hours in operation
Connections	AC Input AC Output (loop through) LED Outputs			Screw terminal Screw terminal Screw Terminal*

* 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

Mode Select S1

350mA + 700mA or 350mA

500mA + 1050mA or 500mA

3rd angle projection

Connections	Function
CN1	Function
L (loophthrough)	VAC out (L)
N (loophthrough)	VAC out (N)
CN2	Function
L	VAC in (L)
N	VAC in (N)
S1	Function
1+2	Dual Mode
2+3	Single Mode
CN3	Function
-	common
+	1-10V or 150k
CN4	Function
Ch1 -	LED+
Ch1 +	LED-
CN5	Function
Ch2 +	LED+
Ch2 -	LED-

350	Ch1	350	350
	Ch2		700
500	Ch1	500	500
	Ch2		1050

2 Mounting screws are included

Tc=Case Temperature Measurement Point