Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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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

LIGHTLINE
AC/DC-Converter
with 5 year Warranty

RECOM

20 Watt PFC Single/Dual Dimmable

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 selction 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	230VAC	260	2x (3-34)	2x (50~350)	2x (10 x 1W)
(700mA single output mode)			3-34	100~700	10 x 2W
RACD20-350D-US	110VAC	510	2x (3-34)	2x (50~350)	2x (10 x 1W)
(700mA single output mode)			3-34	100~700	10 x 2W

RoHS 2011/65/EU 6/6

CE

EN 61347 Compliant

RACD20-D

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

Input Voltage Range		230VAC	200-264VAC
		110VAC	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	3-34VDC + 3-34VDC
		700mA Single Output Mode	3-34VDC
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
Dimming Control	Rheostat (15%~100%) / 0-150kOhm / External Voltage (15%-100%) / 1-10VDC		
Overtemperature Protection			Shutdown, Automatic restart after cooling down
Operating Temperature Range		Ambient Temperature	-20°C to +40°C
(free air convection)		Case Temp.	+85°C max.
Weight			140g

continued on next page

Refer to Application Notes

LIGHTLINE
AC/DC-Converter

RACD20-D Series

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

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 Compatibilty: Flicker and Voltage Variations	EN 61000-3-3:2006
	Electrical Lighting: EMC Immunity	EN 61547:1995 + A1:2000
	Class II Power Supply Safety	UL1310
	FCC	FCC18A
THD		<20%
Certifications	LED Lighting Safety	designed to meet UL8750
	Certification, General Safety	designed to meet EN 61347-1: 2008
Design Lifetime	25°C ambient	>70 x 10^3 hours in operation
Connections	AC Input	Screw terminal
	AC Output (loop through)	Screw terminal
	LED Outputs	Screw Terminal

Note:

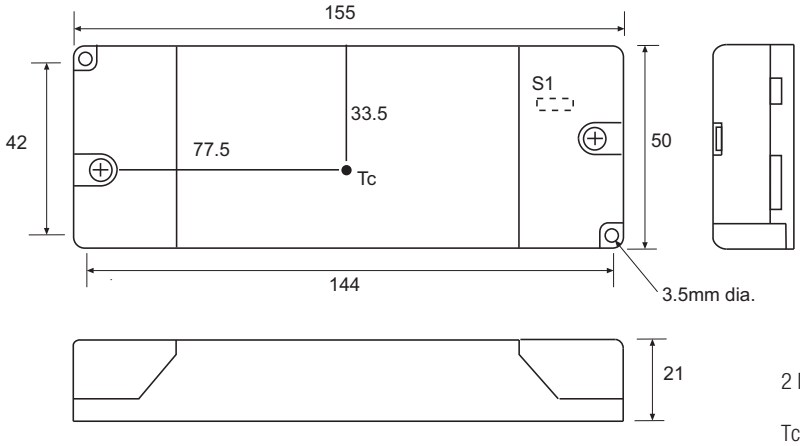
All LED Drivers may not be used without a load. They must be switched on the primary side only. Noncompliance may damage the LED or reduce its lifetime.

Characteristic

Maximum Number of LED drivers per circuit breakers

Condition	Circuit Breaker	Circuit Breaker Current			
	Typ	10A	16A	20A	25A
115VAC, 10hm 90° phase angle	C	**47**	**68**	**84**	**105**
230VAC, 10hm 90° phase angle	B	**36**	**57**	**69**	**85**
	C	**57**	**87**	**109**	**134**
277VAC, 10hm 90° phase angle	B	**41**	**65**	**80**	**98**
	C	**65**	**99**	**125**	**154**

Package Style and Pinning



Connections	
CN1	**Function**
L (loopthrough)	VAC out (L)
N (loopthrough)	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

Connections	
CN4	**Function**
Ch1 -	LED+
Ch1 +	LED-
CN5	**Function**
Ch2 +	LED+
Ch2 -	LED-

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

S1			
350	**Ch1**	**350**	
	Ch2	**350**	**700**

2 Mounting screws are included

Tc=Case Temperature Measurement Point