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

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 Re	gulation) ±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, Automat	ic restart after cooling down		
Operating Temperature Range	Ambient Temperature	-20°C to +40°C		
(free air convection)	Case Temp.	+85°C max.		
Weight		140g		
		and the second s		

LIGHTLINE AC/DC-Converter



with 5 year Warranty

20 Watt PFC Single/Dual Dimmable





CE

EN 61347 Compliant

RACD20-D

Refer to Application Notes

continued on next page



RACD20-D Series

Specifications (typical at 25°C a	nd 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 10³ hours in operation
Connections	AC Input	Screw terminal
	AC Output (loop through)	Screw terminal
	LED Outputs	Screw Terminal
Note:		

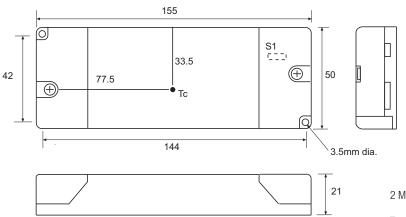
Characteristic

Maximum Number of LED drivers per circuit breakers

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.

Condition	Circuit Breaker	Circuit Breaker Current			
	Тур	10A	16A	20A	25A
115VAC, 10hm 90° phase angle	С	47	68	84	105
230VAC, 10hm	В	36	57	69	85
90° phase angle	С	57	87	109	134
277VAC, 10hm	В	41	65	80	98
90° phase angle	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

2 Mounting screws are included

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

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

S1			
350	Ch1	350	
35	Ch2	350	700

Tc=Case Temperature Measurement Point

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