

Features

LED DRIVER

- 12W Class II AC/DC LED Power Supply
- ENEC, UL, RCM and CB Certified
- Active Power Factor Corrected >0.95
- Fused Input, Protected Output
- 3kVAC Input/Output Isolation
- Output Socket Connector
- cUL/UL-8750 Certified
- Low Cost
- Long 5 Year Warranty

Description

A compact 12W constant current switching power module suitable for driving up to ten high power LEDs ($V_f = 3.6V$). The output current is fixed at 350mA, 500mA or 700mA. Active power factor correction is standard and the converters are UL8750 certified for use with LED assemblies. The driver module 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 pre-assembled into a wiring harness or lamp fitting.

Selection Guide

Part Number	Nominal Input Voltage (VAC)	Input Current at 230VAC (mA)	Output Voltage Range (VDC)	Output Current (mA)	Max # LEDs
RACD12-350	universal	200	3-36	350	10 x 1W
RACD12-500	universal	200	3-24	500	6 x 2W
RACD12-700	universal	200	3-17	700	4 x 2W, 8 x 1W

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

Input Voltage Range	90-264VAC	
Rated Power	12 Watts max.	
Input Frequency Range	47-63 Hz	
Power Factor	Full Load, 115VAC/230VAC	0.95
THD	Full Load, 115VAC	7% max.
	Full Load, 230VAC	14% max.
Open Circuit Voltage (Zener Clamp)	350mA Version	42VDC
	500mA Version	28VDC
	700mA Version	24VDC
Inrush Current (<2ms)	115VAC/230VAC	10A max.
Input Current	230VAC, Full Load	200mA max.
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	1 LED
Hold Up Time	18ms min.	
Operating Frequency	50-120kHz typ.	
Efficiency at Full Load	78%	
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	
Overtemperature Protection	Shutdown, Automatic restart after cooling down	
Operating Temperature Range (free air convection, according to CE/UL)	Ambient Temperature	-20°C to +50°C
	Case Temperature	81°C max.
Operating Temperature Range (free air convection, according to ENEC)	Ambient Temperature	-20°C to +50°C
	Case Temperature	85°C max.
Storage Temperature Range	-40°C to +100°C	
Weight	100g	
Packing Quantity	1pc	
Humidity	95% RH max.	

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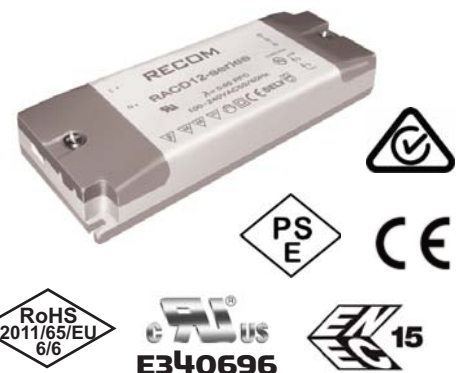
LIGHTLINE

AC/DC-Converter

with 5 year Warranty

RECOM

12 Watt PFC Single Output



UL-8750 Certified
cUL-8750 Certified
ENEC 61347 Certified

RACD12

Refer to Application Notes

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

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 Compatability: Flicker and Voltage Variations	EN 61000-3-3:2006	
	Electrical Lighting: EMC Immunity	EN 61547:1995 + A1:2000	
	Class II Power Supply Safety	complies with UL1310	
	FCC	complies with FCC18A	
THD	<20%		
Certifications	LED Lighting Safety	UL8750	
	LED Lighting Safety (Canada)	cUL8750	
	RCM (U21381)	AS/NZS 61347.1:2002, IEC 61347-2-13	
	ENEC Certification, General Safety	EN 61347-1: 2008	
	ENEC Certification, Safety of AC supplied Control Gear for LED Modules	EN 61347-2-13: 2006	
	PSE	J61347-1(H20), J61347-2-13(H21), J55015(H20)	
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 (Suitable matching plug Switchcraft S760 or similar)*	

Note:

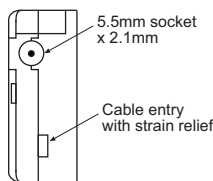
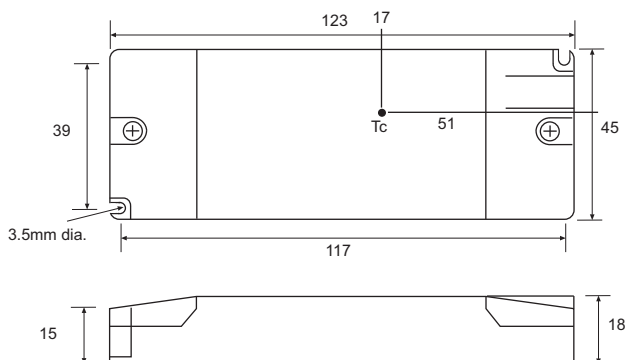
All LED Drivers may not be used without a load. They must be switched on the primary side only. Noncompliance may damage the LED or reduce its lifetime.

Characteristic

**Maximum Number of LED drivers
per circuit breakers**

Condition	Circuit Breaker	Circuit Breaker Current			
		10A	16A	20A	25A
115VAC, 10hm 90° phase angle	Typ				
	C	101	128	171	228
230VAC, 10hm 90° phase angle	B	61	100	121	150
	C	121	164	221	291
277VAC, 10hm 90° phase angle	B	70	115	139	172
	C	139	188	254	334

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 = +/-0.5mm
XX.X = +/-0.25mm

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