

Features

LED DRIVER

- 30W Class II AC-DC LED Power Supply
- 500mA or 700mA Constant Current
- Drives 3 - 15 High brightness LEDs
- Active Power Factor Correction >0.95
- Fused Input, Protected Output
- 3kVAC Isolation
- UL-8750 Certified
- Output Connector to avoid miswiring
- Low Cost
- Long 5 Year Warranty

Description

A compact 30W constant current switching power module suitable for driving up to 15 high power LEDs ($V_f = 3.6V$). The output current is fixed at 500mA or 700mA. 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)	Output Voltage Range (VDC)	Output Current (mA)	Max # LEDs
RACD30-500	universal	390	10-56	500	15 x 2W
RACD30-700	universal	390	10-43	700	12 x 3W, 12+12 x 1W

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

Input Voltage Range	Standard	90-264VAC
Rated Power		30 Watts max.
Input Frequency Range		47-63 Hz
Power Factor	Full Load, 115VAC/230VAC	0.9
THD	Full Load, 115VAC	13% max.
	Full Load, 230VAC	11% max.
Open Circuit Voltage (Zener Clamp)	500mA Version	58VDC
	700mA Version	48VDC
Inrush Current (<2mS)	115VAC/230VAC	10A max.
Input Current	230VAC, Full Load	390mA 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	3 LEDs
Hold Up Time		18ms min.
Operating Frequency		40 - 100 kHz typ.
Efficiency at Full Load		85%
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	500mA Version	56V Zener Diode Clamp
	700mA Version	43V Zener Diode Clamp
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. (500mA version: 90°C max.)
Storage Temperature Range		-40°C to +100°C
Weight		200g
Packing Quantity		1pcs

continued on next page

LIGHTLINE

AC/DC-Converter

with 5 year Warranty

RECOM

30 Watt PFC

Single Output



UL-8750 Certified
EN 61347 Certified

RACD30

Refer to Application Notes

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

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 Compatability: 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	UL8750
	SEMKO CE Certification, General Safety	EN 61347-1: 2008
	SEMKO CE Certification, Safety of AC supplied Control Gear for LED Modules	EN 61347-2-13: 2006
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:

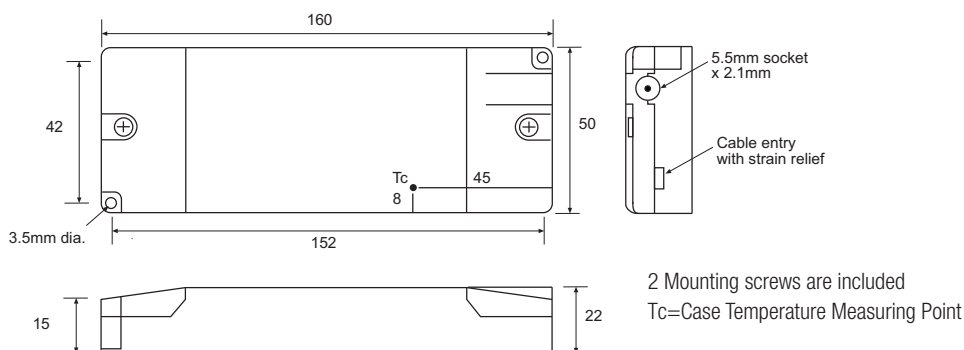
All LED Drivers may not be used without a load. They must be switched on the primary side only. Noncompliance may damage the LED or reduce its lifetime.

Characteristic

Maximum Number of LED drivers per circuit breakers

Condition	Circuit Breaker	Circuit Breaker Current			
	Typ	10A	16A	20A	25A
115VAC, 10hm 90° phase angle	C	32	48	57	72
230VAC, 10hm 90° phase angle	B	24	38	46	58
	C	38	62	74	92
277VAC, 10hm 90° phase angle	B	28	44	53	66
	C	44	71	84	106

Package Style and Pinning



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	

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