

Features

LED Driver

- 6W AC-DC Class II LED Power Supply
- 350mA to 700mA CC/CV Output
- ENEC, UL, RCM and CB Certified
- Universal Input Voltage Range
- Fused Input, Protected Output
- 3.75kVAC Isolation
- Low Cost
- 3 Year Warranty

Description

A compact universal input 6W constant current switching power module suitable for driving up to 12 high power LEDs. The output (dual constant voltage / constant current mode) current limit is fixed at 350mA, 500mA or 700mA. At lower output currents, the output is constant voltage.

Selection Guide

Part Number	Nominal Input Voltage (VAC)	Input Current at full load (mA)	Output Voltage Range (VDC)	Output Current (mA)	Max # LEDs	Efficiency typ. (%)
RACD06-350	universal	120	2.5-24	350	6 x 1W	79
RACD06-500	universal	120	2.5-15	500	12 x 0.5W	70
RACD06-700	universal	120	2.5-12	700	3 x 2W	72

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

Input Voltage Range	90-264VAC or 120-370VDC	
Rated Power	6W nom. / 7.5W max.	
Input Frequency Range	47-63 Hz	
Power Factor	Full Load, 115VAC/230VAC	0.4
Output Voltage Range	350mA CC	2.5 - 22VDC
	0-300mA CV	24V typ.
	500mA CC	2.5 - 13VDC
	0-490mA CV	15V typ.
	700mA CC	2.5 - 10VDC
	0-600mA CV	12V typ.
Inrush Current (<2mS)	115VAC/230VAC	10A max.
Leakage Current	115VAC/240VAC - 60/50Hz	0.4mA typ.
Input Fuse (Built-in)	Standard	T2A
Input Current	Full Load, Nominal Vin	see table
Output Current Accuracy	(combined Tolerance, Load Regulation and Line Regulation)	±10%
Minimum Load	Open Circuit Protected	1 LED
Output Ripple		0.2A _{p-p} max.
Hold Up Time		18ms min.
Operating Frequency		132kHz max.
AC RMS Isolation Voltage	I/P to O/P	3.75kV / 1 minute
Temperature Coefficient		±0.02%/°C typ.
Overload Protection		120% typ.
Short Circuit Protection		Continuous Current Limit
Output Overvoltage Protection	350mA Version	24V Zener Diode Clamp
	500mA Version	14V Zener Diode Clamp
	700mA Version	12V Zener Diode Clamp
Overtemperature Protection	Shutdown, Automatic restart after cooling down	
Operating Temperature Range	Ambient Temperature	-20°C to +40°C
(free air convection, according to CE/UL)	Case Temperature	70°C max.
Operating Temperature Range	Ambient Temperature	-20°C to +50°C
(free air convection, according to ENEC)	Case Temperature	70°C max.

continued on next page

LIGHTLINE

AC/DC-Converter

with 3 year Warranty

RECOM

6 Watt Single Output



UL-8750 Certified
EN 61347 Certified
ENEC Certified

RACD06

Refer to Application Notes

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

Storage Temperature Range	-40°C to +85°C	
Humidity	95% RH max.	
IP Rating	IP20, Indoor Use Only	
Weight	34g	
Packing Quantity	10pc	
PCB Material	(UL94V-0)	Plastic Resin with Fibreglass
Case Material	(UL94V-0)	Plastic
Designed to meet Standards	Electrical Lighting, EMC Emissions Limits for Harmonics Emissions EMC Compatability: 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
Certifications	LED Lighting Safety (E340696) RCM (U21382) ENEC General Safety ENEC Safety of AC supplied Control Gear for LED Modules PSE	UL8750 AS/NZS 61347.1:2002, IEC 61347-2-13 EN 61347-1: 2008 EN 61347-2-13: 2006 J61347-1(H20), J61347-2-13(H21), J55015(H20)
Design Lifetime	25°C ambient	>20 x 10 ³ hours in operation
Connections	AC Input LED Output	Screw terminal Screw Terminal

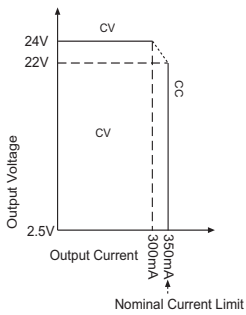
Note:

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.

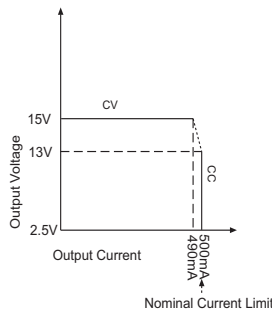
Characteristics

Constant Current (CC) and Constant Voltage (CV) Graph

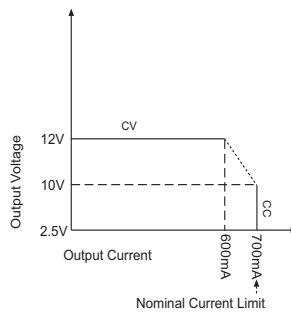
RACD06-350



RACD06-500



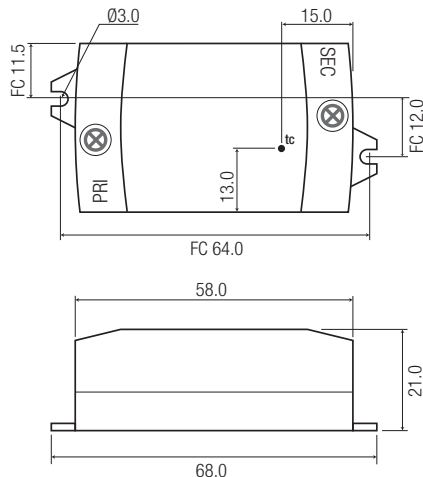
RACD06-700



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	221	247	337	430
230VAC, 10hm 90° phase angle	B	80	157	200	254
	C	265	317	437	550

Package Style and Pinning



2 Mounting screws are included
Tc = Case Temperature Measuring Point
FC = Fixing Centers

Connections

CN1	Function
L	VAC in (L)
N	VAC in (N)
CN2	Function
+	LED+
-	LED-

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