

Features

LED Driver

- 6W Class II AC-DC LED power supply
- 350mA, 500mA and 700mA CC/CV output
- Fused input and SCP, OVP, OLP, OTP
- 3kVAC isolation
- Universal input voltage range
- Low cost

RECOM

AC/DC Converter

RACD06

6 Watt CC/CV Single Output



Description

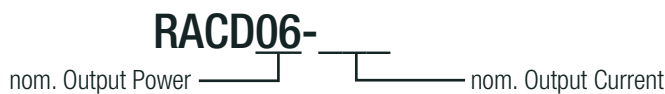
A compact universal input 6W constant current switching power module suitable for driving up to 12 high power LEDs. The output (dual constant voltage / constant current mode) current limit is fixed at 350mA, 500mA or 700mA. At lower output currents, the output is constant voltage.

Selection Guide

Part Number	Input Voltage Range [VAC]	CC Mode		CV Mode ⁽¹⁾		Efficiency typ. [%]	Rated Power nom./max. [W]
		[VDC]	[mA]	[VDC]	[mA]		
RACD06-350	90-264	3-22	350	24	0-300	79	6 / 7.2
RACD06-500	90-264	3-12	500	none		70	6
RACD06-700	90-264	3-8.4	700	12	0-600	72	6 / 7.2

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.

Model Numbering



Specifications (measured @ Ta= 25°C, nom. Vin, rated load and after warm-up unless otherwise stated)

BASIC CHARACTERISTICS				
Parameter	Condition	Min.	Typ.	Max.
Input Voltage Range		90VAC	230VAC	264VAC
		120VDC		370VDC
Input Current	full load, 100VAC			200mA
Inrush Current	115VAC/230VAC, <2ms			10A
Open Circuit Voltage	no load	350mA		26VDC
		500mA		17VDC
		700mA		14VDC
Input Frequency Range		47Hz		63Hz
Power Factor	full load	115VAC	0.40	
		230VAC	0.55	
Hold-up Time		18ms		
Output Ripple Current				200mAp-p

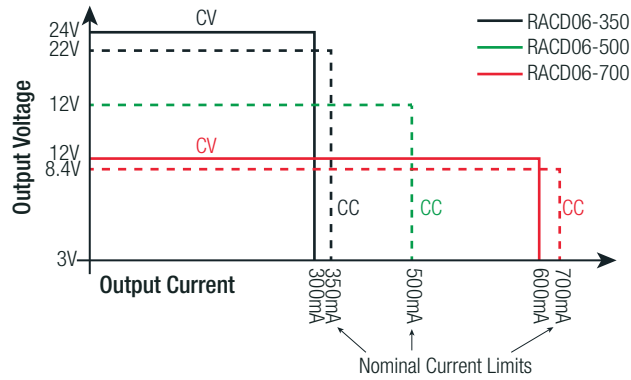
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UL8750 certified
 UL1310 certified
 CAN/CSA-C22.2 No. 223-M91 certified
 IEC/EN61347 certified
 IEC/EN61347-2-13 certified
 ENEC certified
 PSE certified
 CB Report

Specifications (measured @ Ta= 25°C, nom. Vin, rated load and after warm-up unless otherwise stated)

Constant Current (CC) and Constant Voltage (CV) ⁽¹⁾



Notes:

Note1: CV Mode is approved by Recom internal quality standard, but not certified

PROTECTION

Parameter	Condition	Value
Input Fuse		T2A, slow blow
Short Circuit Protection (SCP)		continuous, current limit
Overload Protection (OLP)		120% typ.
Over Temperature Protection (OTP)		shutdown, automatic resatart after cooling down
Isolation Voltage	I/P to O/P	3.75kVAC / 1 minute

Notes:

Note2: Refer to local safety regulations if input over-current protection is also required

Maximum loading of automatic circuit breakers*

* @ 115VAC, 10hm, 90° phase angle and max. load

Circuit Breaker	Circuit Breaker Current				
	Typ	10A	16A	20A	25A
C		221	247	337	430

* @ 230VAC, 10hm, 90° phase angle and max. load

Circuit Breaker	Circuit Breaker Current				
	Typ	10A	16A	20A	25A
B		80	157	200	254
C		265	317	437	550

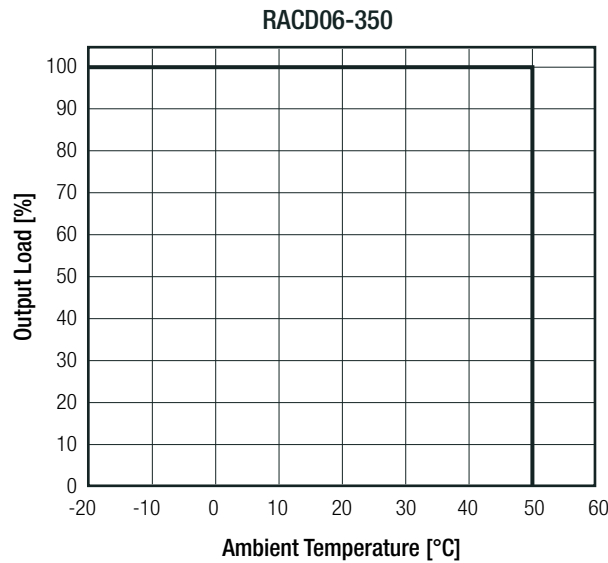
ENVIRONMENTAL

Parameter	Condition	Value
Operating Temperature Range	according to UL RACD06-350	-20°C to +50°C
	RACD06-500, RACD06-700	-20°C to +40°C
	according to ENEC all	-20°C to +50°C
Max. Case Temperature	according to UL RACD06-350	+75°C max.
	RACD06-500, RACD06-700	+70°C max.
	according to ENEC all	+70°C max.
IP Rating		IP20
Operating Humidity	non condensing	5%-85% RH
Design Lifetime	+25°C ambient	20 x 10 ³ hours

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Specifications (measured @ Ta= 25°C, nom. Vin, rated load and after warm-up unless otherwise stated)

Derating Graph



SAFETY AND CERTIFICATIONS

Certificate Type (Safety)	Report Number	Standard
Standard for LED Equipment for use in Lighting Products	E340696-1-3	UL8750, 1st Edition, 2009
Standard for Class 2 Power Units		UL1310, 5th Edition, 2010
Extra Low Voltage Class 2 Outputs		CAN/CSA-C22.2 No. 223-M91, 2nd Edition, 2009
Equipment for general Lighting Purpose EMC Immunity Requirements (CB scheme)	SH12051509-002	IEC61547, 2nd Edition, 2009
Lamp Controlgear Particular Requirements (CB scheme)	12CA61275-1	IEC/EN61347-2-13, 2006
Lamp Controlgear Particular Requirements	SH12051508-002	EN61347-2-13, 2006
Lamp Controlgear General Requirements for Safety (CB scheme)	12CA61275-1	IEC61347-1, 2nd Edition, 2010 EN61347-1, 2nd Edition, 2011
Lamp Controlgear General Requirements for Safety	SH12051508-002	EN61347-1, 2nd Edition, 2008
Luminaires General Requirements and Tests	SH12051508-003	EN60598-1, 2009
Luminaires with built-in transformers for filament lamps		EN60598-2-6, 1997
D.C. or A.C. Controlgears for LED Performance Requirements (CB scheme)	12CA61275-2	IEC/EN62384, 2009
Lamp Controlgear General Requirements for Safety (ENEC License)	ENEC-00610	EN61347-1
Lamp Controlgear Particular Requirements (ENEC License)		EN61347-2-13
Lamp Controlgear General Requirements for Safety (PSE)		J61347-1
Lamp Controlgear Particular Requirements (PSE)		J63147-2-13
RoHS		RoHS 6/6, 2011/65/EU
EAC	RU Д- АТ.А Г03. В.67369	TP TC 004/020, 2011

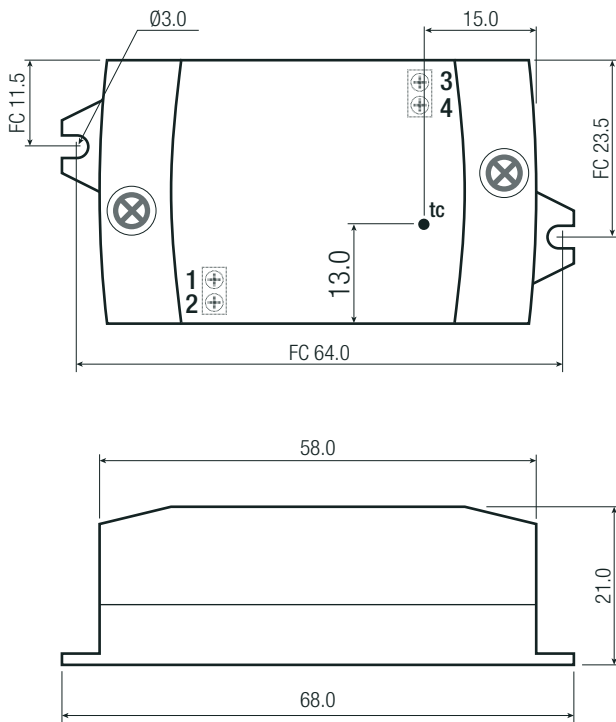
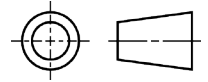
EMC Compliance	Condition	Standard / Criterion
EMC for industrial, scientific and medical equipment (design to meet)		FCC18, Class A
Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment (design to meet)		EN55015, Class A CISPR15, 7th Edition, 2009
Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment (PSE)		J55015
Limits of harmonic current emissions		IEC61000-3-2, 3rd Edition, 2009
Voltage Fluctuations and Flicker in Public Low-Voltage Systems <=16A per phase		IEC61000-3-3, 2nd Edition, 2008

Specifications (measured @ Ta= 25°C, nom. Vin, rated load and after warm-up unless otherwise stated)

DIMENSION and PHYSICAL CHARACTERISTICS

Parameter	Type	Value
Material	case	plastic (UL94V-0)
Dimension (LxWxH)		68.0 x 35.0 x 21.0mm
Weight		34g

Dimensions Drawing (mm)



Connection via Screw Terminal

#	Function	Solid Wire	Stranded Wire ⁽³⁾	AWG
1	VAC in (N)	0.75-1.5mm ²	0.75-1.5mm ²	18-16
2	VAC in (L)	0.75-1.5mm ²	0.75-1.5mm ²	18-16
3	LED+	0.75-1.5mm ²	0.75-1.5mm ²	18-16
4	LED-	0.75-1.5mm ²	0.75-1.5mm ²	18-16

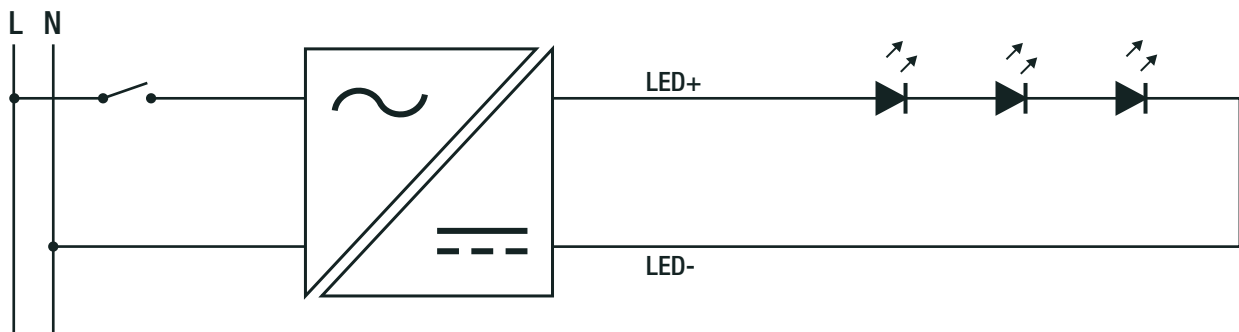
wire stripping length: 5mm
 recommended tightening torque: 0.22Nm
 tc= case temperature measuring point
 FC= fixing centers
 Tolerance: xx.x= ±0.5mm
 xx.xx= ±0.35mm
 2 Mounting screws are included

Notes:

Note3: The use of sleeve or ferrule terminations is recommended

INSTALLATION and APPLICATION

Connection



Specifications (measured @ Ta= 25°C, nom. Vin, rated load and after warm-up unless otherwise stated)

PACKAGING INFORMATION		
Parameter	Type	Value
Packaging Dimension (LxWxH)	cardboard Box	215.0 x 80.0 x 70.0mm
Packaging Quantity		10pcs
Storage Temperature Range		-30° to +80°C
Storage Humidity	non-condensing	5%-85% RH

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