## **Features**

**LED** 

**Driver** 

Description

118mm long flying leads.

• 3W Class II AC-DC LED power supply

350mA, 500mA and 700mA CC/CV output

Fused input and SCP, OVP, OLP, OTP

- 3kVAC isolation
- IP66 rated
- Low cost

# RECOM AC/DC Converter

### RACD03

# 3 Watt CC/CV **Single Output**



#### **Selection Guide** Input CC CV (1) Rated Part Efficiency Mode Mode Power nom./max. Number Voltage Range typ. [VDC] [VAC] [VDC] [mA] [mA] [%] [W] 15 72 3 / 4.2 RACD03-350 90-264 3-12 350 0-300 RACD03-500 90-264 3-9.5 500 none 71 3 / 4.6 RACD03-700 90-264 3-4.5 700 6 0-600 62 3/3.1

A compact universal AC input 3W constant current switching power module suitable for driving 1 - 6

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. Connections are via

> 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.











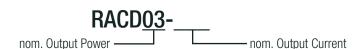






**UL8750** certified **UL1310** certified CAN/CSA-C22.2 No. 223-M91 certified IEC/EN61347 certified IEC/EN61347-2-13 certified **ENEC** certified **CB** report

# **Model Numbering**



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

Parameter	Condition	Min.	Тур.	Max.
Input Voltage Range		90VAC	230VAC	264VAC
		120VDC		370VDC
Input Current	full load, 100VAC			110mA
Inrush Current	230VAC, <2ms			10A
Input Frequency Range		47Hz		63Hz
Power Factor	full load, 230VAC	0.55		
Hold-up Time		18ms		
Output Ripple Current				100mAp-r

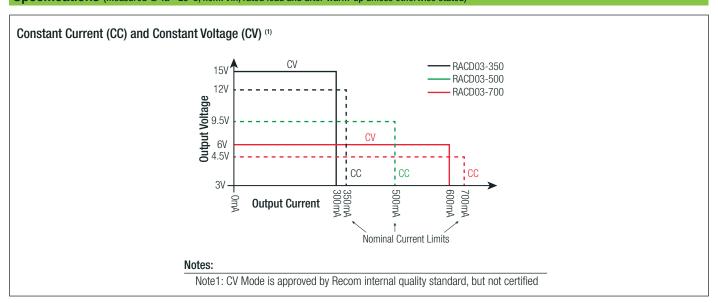
continued on next page



# RACD03

### **Series**

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



PROTECTION			
Parameter	Condi	tion	Value
Input Fuse (2)			T1A, slow blow
Short Circuit Protection (SCP)			continuous, current limit
Overload Protection (OLP)			120% typ.
		RACD03-350	17VDC max.
Output Over Voltage Protection (OVP)	zener diode clamp	RACD03-500	14VDC max.
		RACD03-700	8VDC max.
Over Temperature Protection (OTP)			shutdown, automatic resatart after cooling down
Isolation Voltage	I/P to 0	O/P	3.75kVAC/1 minute typ. / 3kVAC/1 minute min.
Leakage Current			0.2mA typ.

#### Notes:

Note2: Refer to local wiring 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			
Тур	10A	16A	20A	25A
С	221	247	337	430

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

Circuit Breaker	Circuit Breaker Current			
Тур	10A	16A	20A	25A
В	80	157	200	254
С	265	317	437	550

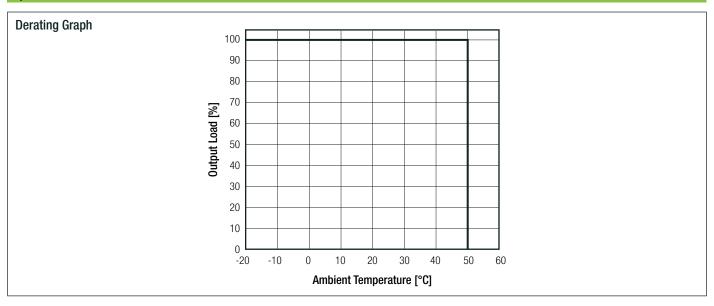
ENVIRONMENTAL			
Parameter	Condition	Value	
Operating Temperature Range	according to UL	-20°C to +50°C	
Operating remperature hange	according to ENEC	-20°C to +40°C	
	according to UL RACD03-350, RACD03-700	+67°C	
Max. Case Temperature	RACD03-500	+65°C	
	according to ENEC	+75°C	
IP Rating		IP66	
Operating Humidity	non condensing	5% - 85% RH max.	
Design Lifetime	+25°C ambient	20 x 10 <sup>3</sup> hours	
continued on next page			



# RACD03

# **Series**

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



SAFETY AND CERTIFICATIONS		
Certificate Type (Safety)	Report Number	Standard
Standard for LED Equipment for use in Lighting Products		UL8750, 1st Edition, 2009
Standard for Class 2 Power Units	E340696-1-4	UL1310, 6th Edition, 2011
Extra Low Voltage Class 2 Outputs		CAN/CSA-C22.2 No. 223-M91, 2nd Edition, 2009
Lamp Controlgear Particular Requirements		IEC/EN61347-2-13,2006
Lamp Controlgear General Requirments for Safety	SH12051509-001	IEC61347-1, 2nd edition, 2010 EN61347-1, 2nd edition, 2011
Safety of control gear for LED modules (CB Scheme)		IEC/EN61347-2-13,2006
Safety requirements for lamp controlgear (CB Scheme)	12CA61285-1	IEC61347-1, 2nd Edition, 2010 EN61347-1, 2nd Edition, 2011
Lamp Controlgear General Requirments for Safety (ENEC License)		EN61347-1
Lamp Controlgear Particular Requirements (ENEC License)	ENEC-00611	EN61347-2-13
D.C. or A.C. Controlgears for LED Performance Requirements (ENEC License)		EN62348, 2006
RoHS		RoHS 6/6, 2011/65/EU
EAC	RU Д- АТ.А ГОЗ. 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		EN55015, Class A
electrical lighting and similar equipment (design to meet)		CISPR15, 7th Edition, 2009
Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission (design to meet)		EN55014-1
Limits of harmonic current emissions Voltage Fluctuations and Flicker in Public Low-Voltage Systems <=16A per phase		IEC61000-3-2, 3rd Edition, 2009 IEC61000-3-3, 2nd Edition, 2008

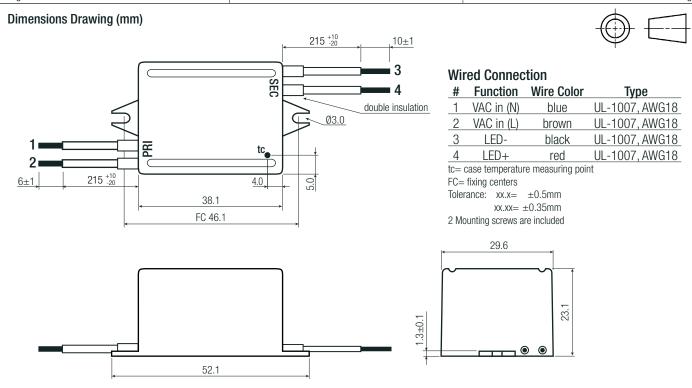


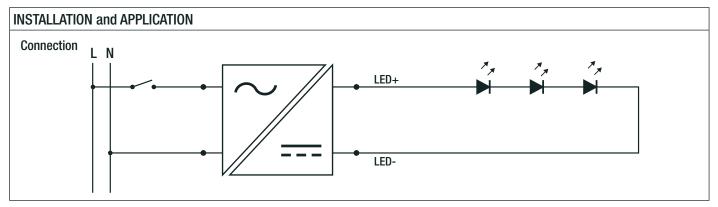
# RACD03

### **Series**

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

DIMENSION and PHYSICAL CHARACTERISTICS			
Parameter	Туре	Value	
	case	plastic (UL94V-2)	
Material	PCB	plastic resin with fibreglass (UL94V-0)	
	potting	silicone (UL94V-0)	
Dimension (LxWxH)		52.1 x 29.6 x 23.1mm	
Weight		45g	





PACKAGING INFORMATION			
Parameter	Туре	Value	
Packaging Dimension (LxWxH)	cardboard Box	265.0 x 80.0 x 115.0mm	
Packaging Quantity		10pcs	
Storage Temperature Range		-30°C to +80°C	
Storage Humidity	non-condensing	5%-85% RH	

The product information and specifications may be subject to changes even without prior written notice. The product has been designed for various applications; its suitability lies in the responsibility of each customer. The products are not authorized for use in safety-critical applications without RECOM's explicit written consent. A safety-critical application is an application where a failure may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The applicant shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.