

Features

LED Driver

- 3W Class II AC-DC LED Power Supply
- 350mA, 500mA and 700mA CC/CV Output
- Fused Input and SCP, OVP, OLP, OTP
- 3.75kVAC Isolation
- IP66 Rated
- Low Cost

RECOM
AC/DC Converter

RACD03-PSE

**3 Watt
CC/CV
Single Output**



Description

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 118mm long flying leads.

Selection Guide

Part Number	nom. Input Voltage Range (VAC)	CC Mode (VDC) (mA)	CV ⁽¹⁾ Mode (VDC) (mA)	Efficiency typ. (%)	Rated Power nom./max. (W)
RACD03-350-PSE	100-120	3-12 350	15 0-300	72	3 / 4.2
RACD03-500-PSE	100-120	3-9.5 500	none	71	3 / 4.6
RACD03-700-PSE	100-120	3-4.5 700	6 0-600	62	3 / 3.15

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.

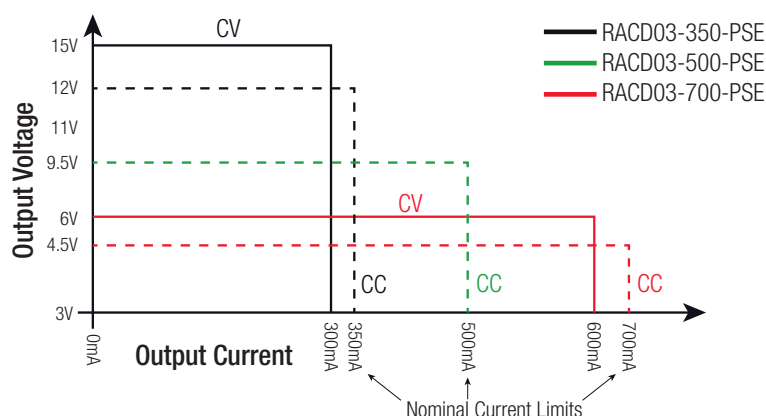


Specifications (measured at T_a= 25°C, nominal input voltage, rated load after warm up)

BASIC CHARACTERISTICS

Parameter	Condition	Min.	Typ.	Max.
Input Voltage Range		-10%		+10%
Output Voltage Range		3VDC		15VDC
Input Current	full load, 100VAC			110mA
Input Frequency Range		47Hz		63Hz
Hold-up Time		18ms		
Output Ripple Current				0.1Ap-p

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



Notes:

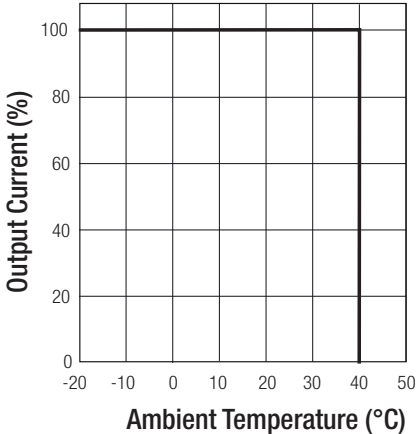
Note1: CV Mode is approved by Recom internal quality standard, but not certified according UL.



J61347-1(H20) Certified
J61347-2-13(H21) Certified
J55015(H20) Certified

Specifications (measured at $T_a = 25^\circ\text{C}$, nominal input voltage, rated load after warm up)

PROTECTION				
Parameter	Condition			Value
Input Fuse				T1A, slow blow
Short Circuit Protection (SCP)				continuous, current limit
Overload Protection (OLP)				120% typ.
Output Over Voltage Protection (OVP)	Zener Diode Clamp	350mA 500mA 700mA	17V max. 14V max. 8V max.	
Over Temperature Protection (OTP)				Shutdown, automatic resatart after cooling down
Isolation Voltage	I/P to O/P			3.75kVAC / 1 minute
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

ENVIRONMENTAL		
Parameter	Condition	Value
Operating Temperature Range		-20°C to +40°C, Ambient
Max. Case Temperature		+75°C
IP Rating		IP66
Operating Humidity		5%-85% RH, non condensing
Design Lifetime	+25°C ambient	20 x 10 ³ hours
Derating Graph  The graph plots Output Current (%) on the y-axis (0 to 100) against Ambient Temperature (°C) on the x-axis (-20 to 50). A horizontal line at 100% output current extends from -20°C to 40°C. At 40°C, the current begins to drop, reaching 0% at 50°C.		

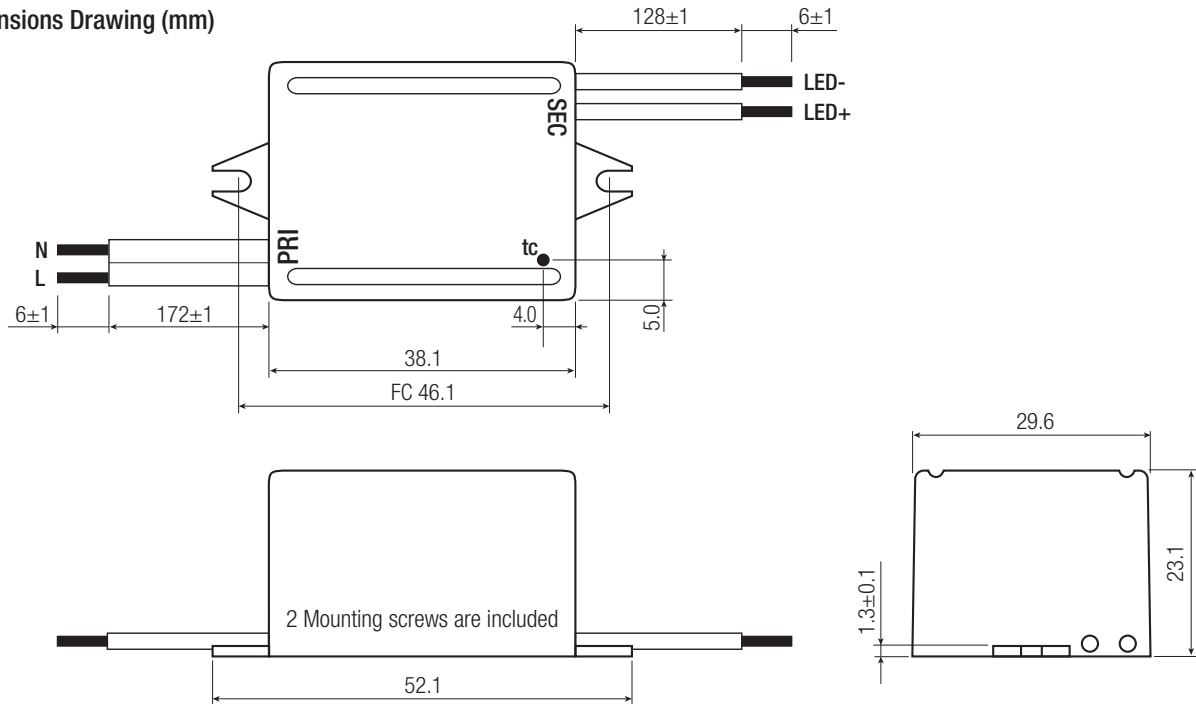
SAFETY AND CERTIFICATIONS	
Certificate Type (Safety)	Standard
Safety of control gear for LED modules	J61347-1(H20) J61347-2-13(H20)
EMC Compliance	Standard / Criterion
Radio disturbance characteristics of electrical lighting equipment	J55015(H20)

Specifications (measured at $T_a = 25^\circ\text{C}$, nominal input voltage, rated load after warm up)

DIMENSION and PHYSICAL CHARACTERISTICS

Parameter	Value
Case Material	Plastic
Package Dimension (LxWxH)	52.1 x 29.6 x 23.1mm
Package Weight	45g

Dimensions Drawing (mm)



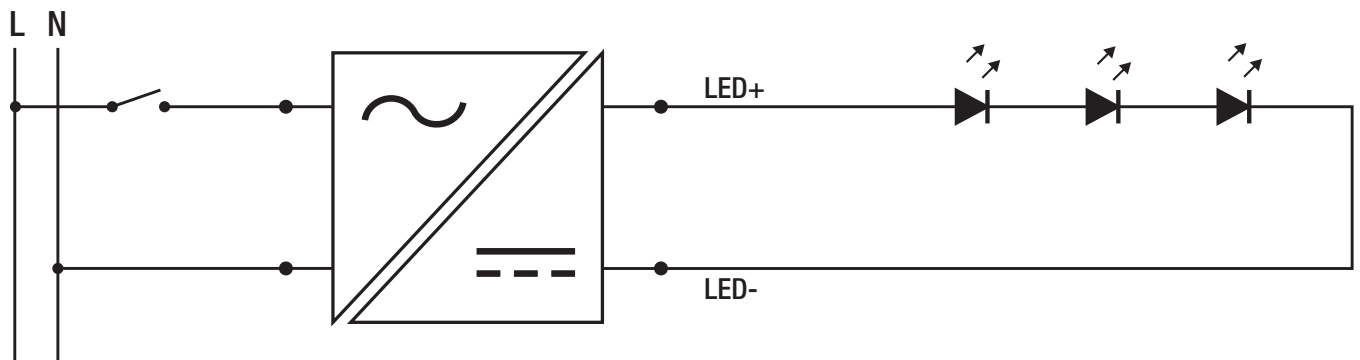
Connection

Wired Color	Type	Strands	Function
1, white	VFF	42/0.15	VAC in (N)
2, white	VFF	42/0.15	VAC in (L)
3, blue	VSF	42/0.15	LED-
4, brown	VSF	42/0.15	LED+

FC= fixing center
tc= case temperature measuring point
Tolerance: xx.x= $\pm 0.5\text{mm}$
xx.xx= $\pm 0.35\text{mm}$

INSTALLATION and APPLICATION

Connection



Specifications (measured at $T_a = 25^{\circ}\text{C}$, nominal input voltage, rated load after warm up)

PACKAGING INFORMATION		
Parameter	Type	Value
Packaging Dimension (LxWxH)	Cardboard Box	75.0 x 50.0 x 50.0mm
Packaging Quantity		1pcs
Storage Temperature Range		-30°C to +80°C, Ambient
Storage Humidity		5%-85% RH, non condensing