

# 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



# RACD03-PSE

**3 Watt  
CC/CV  
Single Output**



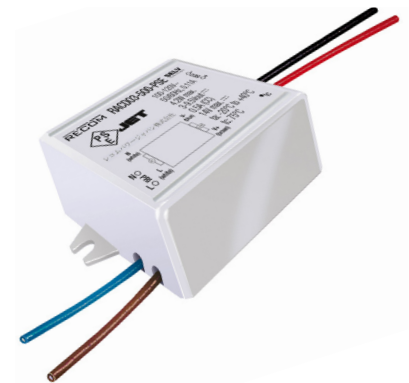
## Description

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 <sup>(1)</sup> 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.

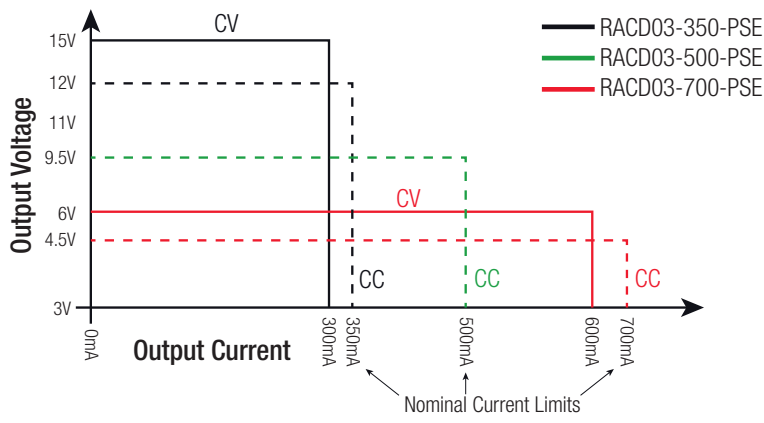


## Specifications (measured at T<sub>a</sub>= 25°C, nominal input voltage, rated load after warm up)

### 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) <sup>(1)</sup>



**Notes:**

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



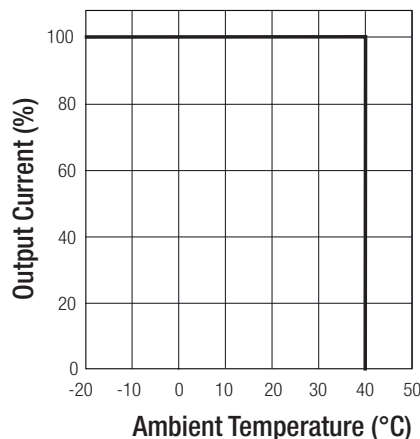
J61347-1(H20) Certified  
J61347-2-13(H21) Certified  
J55015(H20) Certified

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	17V max.															
		500mA	14V max.															
		700mA	8V max.															
Over Temperature Protection (OTP)			Shutdown, automatic resatart after cooling down															
Isolation Voltage	I/P to O/P		3.75kVAC / 1 minute															
<b>Maximum loading of automatic circuit breakers*</b>																		
* @ 115VAC, 10hm, 90° phase angle and max. load																		
		<table border="1"> <thead> <tr> <th>Circuit Breaker</th> <th colspan="4">Circuit Breaker Current</th> </tr> <tr> <th>Typ</th> <th>10A</th> <th>16A</th> <th>20A</th> <th>25A</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>221</td> <td>247</td> <td>337</td> <td>430</td> </tr> </tbody> </table>		Circuit Breaker	Circuit Breaker Current				Typ	10A	16A	20A	25A	C	221	247	337	430
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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 <sup>3</sup> hours

### Derating Graph



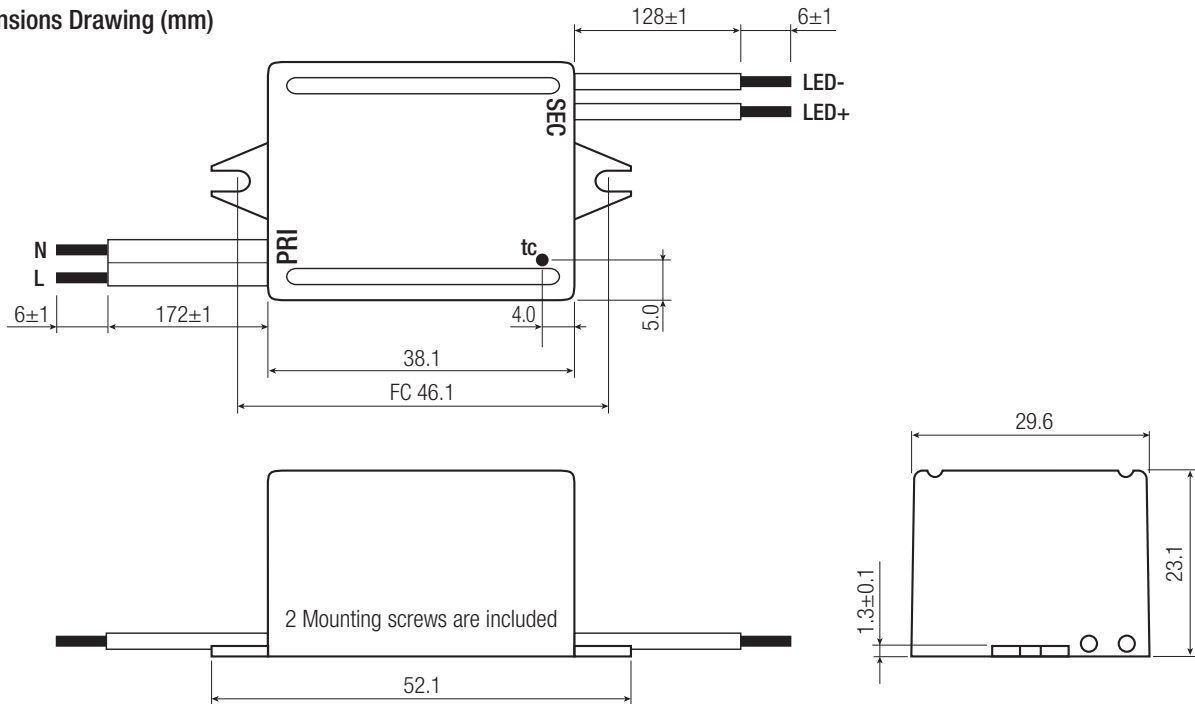
SAFETY AND CERTIFICATIONS	
Certificate Type (Safety)	Standard
Safety of control gear for LED modules	J61347-1(H20) J61347-2-13(H20)
EMC Compliance	Standard / Criterion
Radio disturbance characteristics of electrical lighting equipment	J55015(H20)

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)



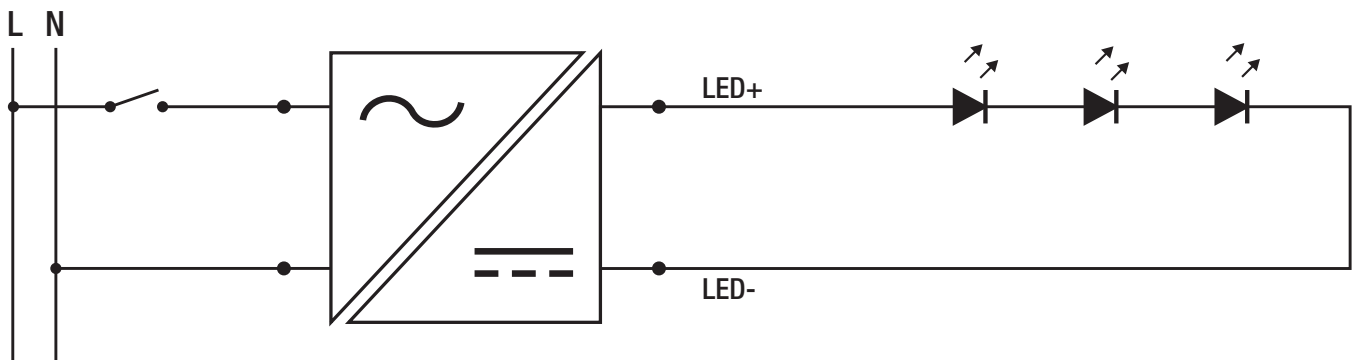
#### Connection

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

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