

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

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.

RECOM
AC/DC Converter

RACD03-PSE

3 Watt
CC/CV
Single Output



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

Selection Guide

Part Number	nom. Input Voltage Range (VAC)	CC Mode (VDC)	CC Mode (mA)	CV (1) Mode (VDC)	CV (1) Mode (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	700	71	3 / 4.6
RACD03-700-PSE	100-120	3-4.5	700	6	0-600	62	3 / 3.15

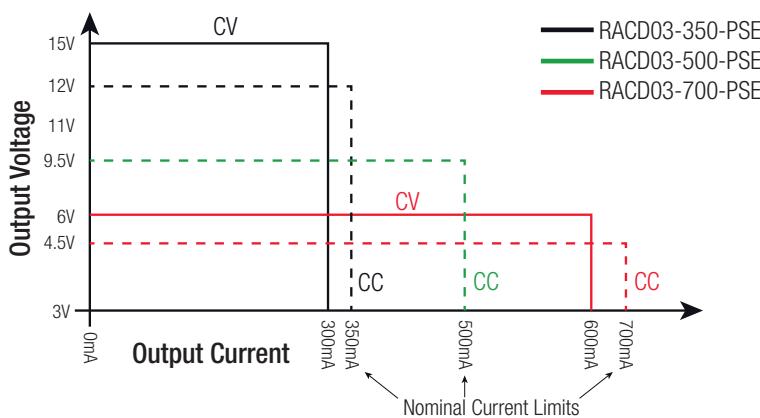
All LED Drivers may not be used without a load. They must be switched on the primary side only.
Noncompliance may damage the LED or reduce its lifetime.

Specifications (measured at $T_a = 25^\circ\text{C}$, 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.

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 resart after cooling down
Isolation Voltage	I/P to O/P		3.75kVAC / 1 minute

Maximum loading of automatic circuit breakers*

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

Circuit Breaker	Circuit Breaker Current				
	Typ	10A	16A	20A	
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

Ambient Temperature (°C)	Output Current (%)
-20	100
-10	100
0	100
10	100
20	100
30	100
40	100
41	40
50	40

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		Value																				
Parameter																						
Case Material		Plastic																				
Package Dimension (LxWxH)		52.1 x 29.6 x 23.1mm																				
Package Weight		45g																				
Dimensions Drawing (mm)																						
<p>2 Mounting screws are included</p>																						
<p>FC= fixing center tc= case temperature measuring point Tolerance: xx.x= $\pm 0.5\text{mm}$ xx.xx= $\pm 0.35\text{mm}$</p>																						
<p>Connection</p> <table border="1"> <thead> <tr> <th>Wired Color</th><th>Type</th><th>Strands</th><th>Function</th></tr> </thead> <tbody> <tr> <td>1, white</td><td>VFF</td><td>42/0.15</td><td>VAC in (N)</td></tr> <tr> <td>2, white</td><td>VFF</td><td>42/0.15</td><td>VAC in (L)</td></tr> <tr> <td>3, blue</td><td>VSF</td><td>42/0.15</td><td>LED-</td></tr> <tr> <td>4, blrown</td><td>VSF</td><td>42/0.15</td><td>LED+</td></tr> </tbody> </table>		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, blrown	VSF	42/0.15	LED+	
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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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