18W, Single output, 120/240/277VAC LED Driver
Cooper Lighting

Features

The switch mode driver technology is designed to generate one constant current output from a wide range AC input. The size and performance of these products make them the ideal choice for LED lighting applications.

- Wide Range Input: 90 - 305 VAC
- Nominal Input Rating 120/230/240/277 VAC
- Constant Current Output for Powering LEDs Directly
- High Efficiency ~84%
- Dimmable with (0-10VDC) Input
- Convection Cooled
- Low Output Ripple Current
- Long Life
- Wide Temperature Range
- ROHS Compliant
- THD < 33% @ 277VAC
- Cooper defined label

Picture for Reference Only

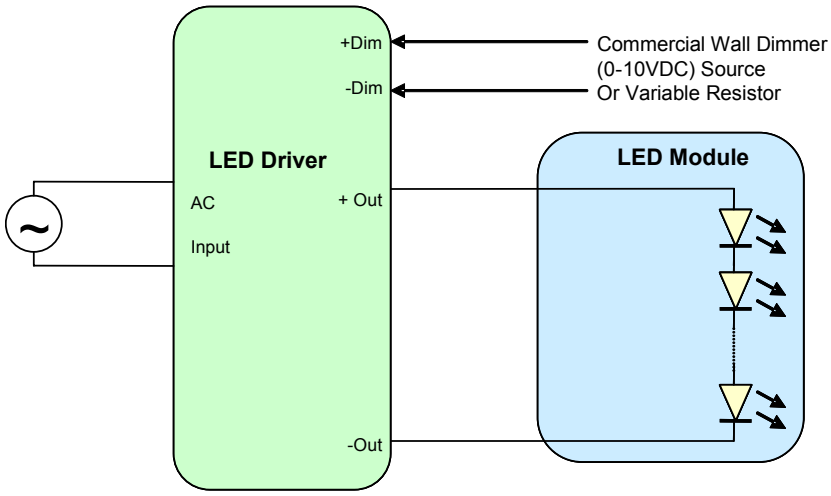
Applications and Benefits

Designed for directly powering LEDs in commercial & industrial lighting applications.

The product's extremely **small form factor** and **high efficiency** makes it suitable for integration into most light fixtures and standard electrical junction boxes.

A host of integrated **control features:**

- Simplify Light Fixture Design
- Ease Safety Approval Cycles
- Lower Fixture Complexity and Cost



Versatile control features:

- A 2 wire Dimming input provides both output trimming, and 10-100% Iout Dimming function.

Input and Output Specification

Input Voltage: 90 to 305VAC
47-63 Hz Frequency Range

Efficiency: 84% typical for @ nominal input (120/230/240/277 VAC) and 100% of Rated Output Power

Isolation: Meets UL60950-1 Reinforced/double insulation
NEC (Class 2)
EN60598-1 Class II

Input Power Factor: >0.90 at nominal input (120/230/240/277VAC) at full load

Input Harmonics: Meets EN61000-3-2, -3

THD: <30% at 120VAC/ 277VAC input and full load

Output Voltage: See Model Table for details

Output Current: See Model Table for details

Output Current Regulation: +/- 3% of max rating

Ripple Current: <45% (P-P) of maximum Output Current

Output Protections

Overvoltage: Output voltage limited to <24.2V

Overcurrent / Short Circuit: If the output voltage of the driver is operated outside the voltage range indicated in the model table, the output shall hiccup. No damage shall occur to the driver during this condition.

Overtermperature: The output shall hiccup in an overtemperature condition. The on/off time shall be >250ms and the frequency < 2Hz.

Output Controls:

Dim: A dimming input can be used to adjust the output setting via a standard commercial wall dimmer, an external control voltage source (1 to 10VDC), or a variable resistor when using the recommended number of LEDs. The input permits 100% to 12%* dimming.

This permits active control of the driver and may be used for trimming and dimming purposes. See Application Notes for details on functionality and compatibility with standard industry practices.

*Since this driver is based on the RHPS314D-CL0 (rated at 1240mA), the minimum dimming level at 1V results in a current of 124mA nominal (not 10% of the rating of this driver).

Performance Requirements: Meets the requirements of IEC 62384; control gear for LED modules

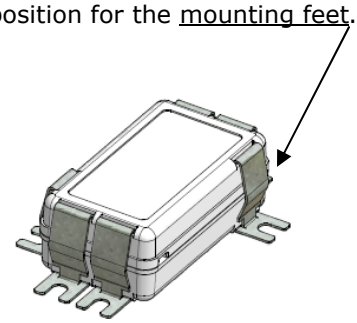
EMI and EMC:

Conducted and Radiated EMI: EN55015 Class B, FCC 47CFR Part 15 Class B

Susceptibility: EN61000-4-2, -3, -4, -5, -6, and -11
ANSI c62.41-1991 Category A1, 2.5kV Ringwave

Mechanical Details

Packaging Options:	Encapsulated with ABS plastic body enclosure
I/O Connections:	Flying leads, 18AWG on power leads, 20AWG on control leads, 152mm long, 105C Rated, Stranded, Stripped by approximately 9.5mm and tinned
Mounting Details:	Universal Mounting Clips, and 6 mounting locations per package allow installer to choose the most suitable position for the mounting feet.
Ingress Protection:	IP64 Rated

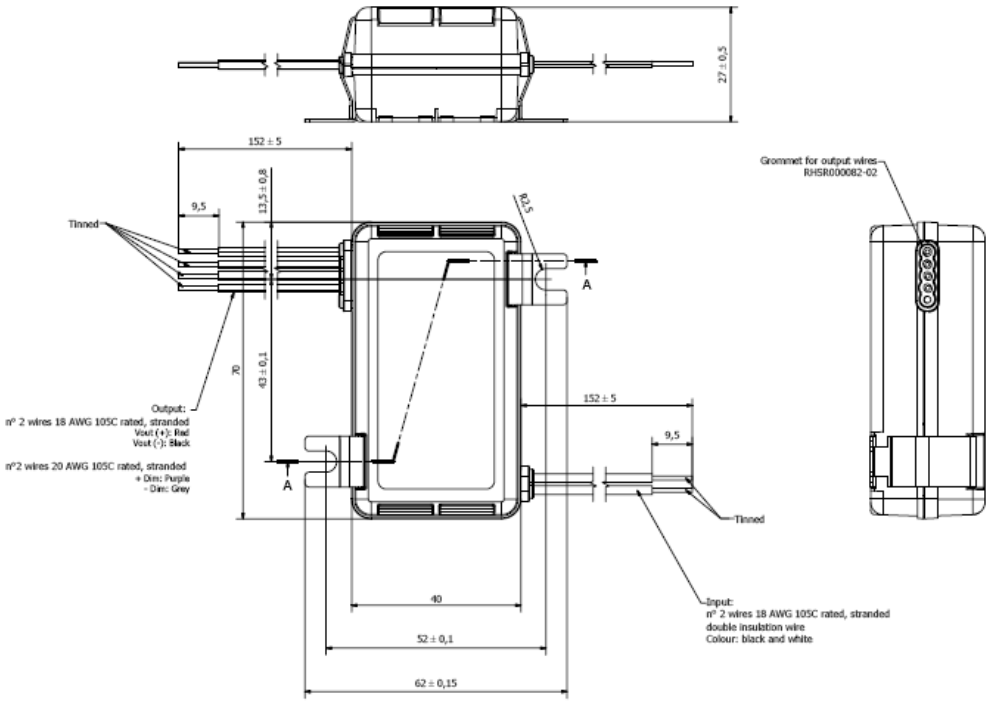


Universal Mount
A Patent Pending Design

Outline Drawings

Package: RSLD035

Max Dimensions: 70mm x 40mm x 27mm, 2.76” x 1.57” x 1.06”
Volume : 75.6 cm3, 4.59 in3
Mass : XXX grams,
YYY Oz.



Environmental

Operating Temperature:	-30 to +90C case temperature without derating
Operating Relative Humidity:	5% to 95%, non condensing
Storage Temperature:	-40°C to +85°C /
Surface Temperature:	Exposed surfaces <90°C under all operating conditions
Cooling:	Convection cooled

Safety Agency Approvals (pending)

UL60950-1 Recognized, UL8750 recognized Class 2 Output.

Model Table

Part Number	Pout max	Vout min	Vout max	Iout Max
	watts	*vdc*	*vdc*	*mA*
RHPS314D-CL3	18.1	14.0*	20.1	900

.* 14.0V @ 265VAC, derated to 14.5V @ 277VAC and 16.2V @ 305VAC