

Features

STRATO 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: 120, 240, or 277 VAC
- Constant Current Output for Powering LEDs Directly
- High Efficiency ~90%
- Compact Design
- Adjustable Output Current Settings
- Dimmable with (0-10VDC) Input
- Temperature Protection for LEDs
- Convection Cooled
- Long Life
- Wide Temperature Range
- ROHS Compliant



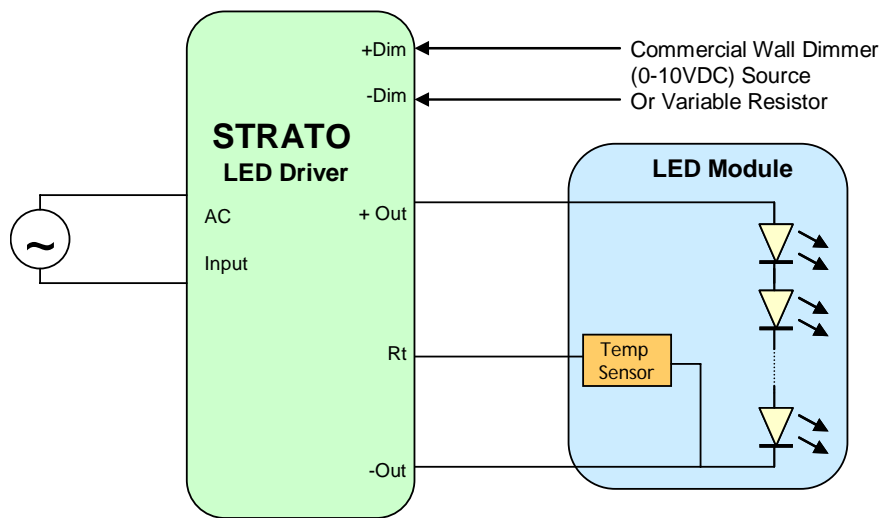
Applications and Benefits

STRATO is 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



STRATO's versatile control features:

- A Temperature sensor (NTC thermistor) protects the LED from over-temperature.
- A 2 wire Dimming input provides both output trimming, and 10-100% Iout Dimming function.



Input and Output Specification

Input Voltage: 120 / 240 / 277 VAC nominal
47-63 Hz Frequency Range

Efficiency: 90% typical *

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

Input Power Factor: >0.90 *

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

* @ Vin Nominal and >80% load

Output Voltage: 33 to 210 VDC
See Model Table for details

Output Current: 0.35 to 1.40 Amps
See Model Table for details

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

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

Output Over-voltage, Over-Current and Short-Circuit
Protection (hiccup), and over-temperature protection with
auto recovery

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

Table 1
Absolute Maximum Driver Ratings

| Model number | | Iout Max | Pout max | Vout (min) | Vout (max) | Vout No Load max |
|--------------|-----------|-------------|-------------|---------------|---------------|------------------------|
| Package | Dash # | mA | watts | vdc | vdc | vdc |
| RSLD070 | -60 | 350 | 74 | 150 | 210 | 250 |
| RSLD070 | -55 | 350 | 67 | 138 | 193 | 231 |
| RSLD070 | -50 | 350 | 61 | 125 | 175 | 210 |
| RSLD070 | -45 | 350 | 55 | 113 | 158 | 190 |
| RSLD070 | -40 | 500 | 70 | 100 | 140 | 160 |
| RSLD070 | -35 | 500 | 61 | 88 | 123 | 147 |
| RSLD070 | -30 | 700 | 74 | 75 | 105 | 120 |
| RSLD070 | -25 | 700 | 61 | 63 | 88 | 100 |
| RSLD070 | -20 | 1000 | 70 | 50 | 70 | 84 |
| RSLD070 | -14 | 1400 | 65.8 | 33 | 47 | 60 |

Refer to Strato Application Note #3, Output Voltage Range for proper device selection.

Eu and RoW

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Controls

Output Controls: Two dedicated inputs provide control and safety features.

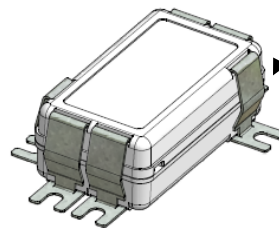
Dim: A dimming input can be used to adjust the output setting via a standard commercial wall dimmer, an external control voltage source (1 to 10VDC), or a variable resistor when using the recommended number of LEDs. The input permits 100% to 80% trimming and 100% to 10% dimming. This permits active control of the driver and may be used for trimming and dimming purposes. See Roal Strato Application Note 1 for details on functionality and compatibility with standard industry practices.

Is: The Temperature input may be connected to a 100k NTC thermistor. The thermistor should be located on the LED assembly to monitor its temperature. If the temperature exceeds a predetermined set point, the output current of the module is automatically reduced to regulate the temperature of the LED at a safe level. See Roal Strato Application Note 1 for details.

Mechanical Details

| | |
|---------------------|--|
| Packaging Options: | Partially 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 <u>mounting feet</u> . |
| Ingress Protection: | IP64 Rated |

*Universal Mount
A Patent Pending Design*



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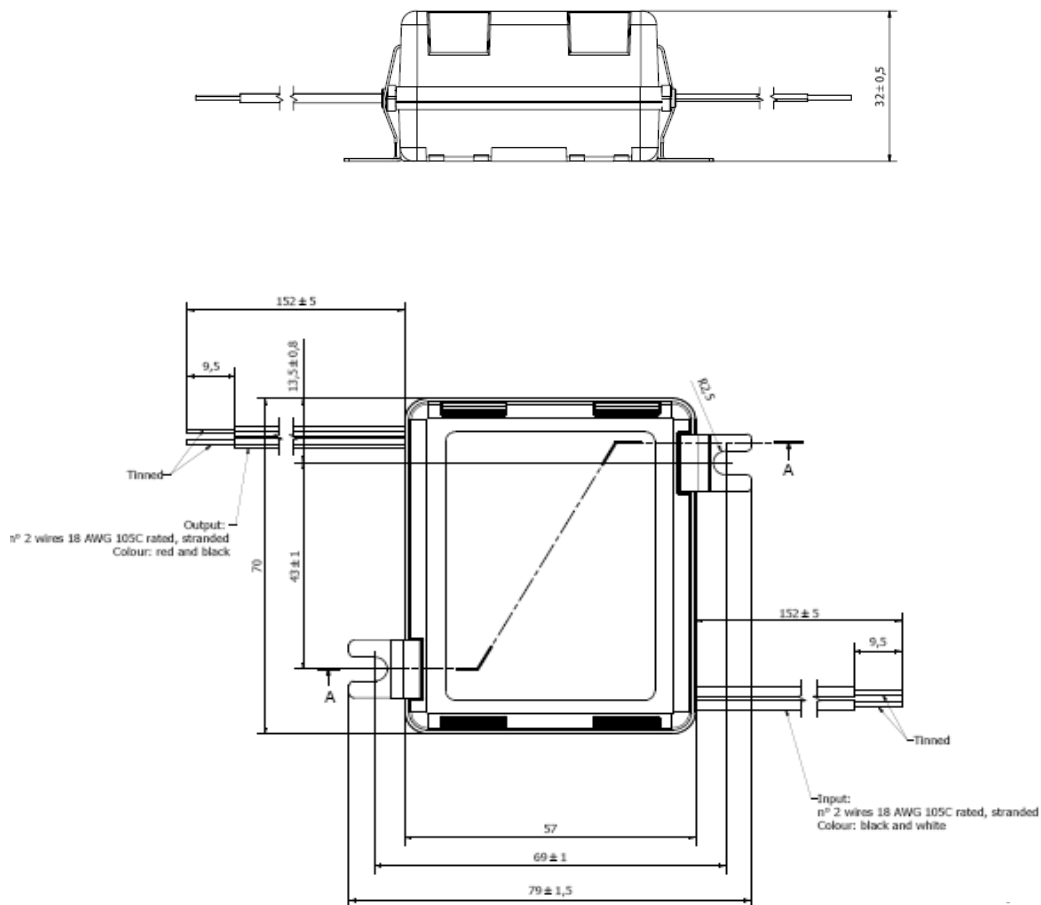
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Outline Drawings

Package: RSLD070

Max Dimensions: 70mm x 57mm x 32mm,
 2.76" x 2.24" x 1.26"
 Volume : 128 cm³, 7.54
 Mass : 170 grams, 6.0 Oz.



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Environmental / EMC

| | |
|------------------------------|---|
| 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 |

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

Safety Agency Approvals

UL60950-1 Recognized, UL8750 recognized, approved for damp locations

EN61347-2-13 electronic control gear for LED Modules

ENEC Mark and CE Mark for EU.

Notes Regarding European (ENEC) approvals:

1. All models with $V_{out} > 25VDC$ are considered "Isolated Control Gear" per EN61347-2-13

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