ROAL living energy

STRATO LED Drivers
70W, Single output

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, 230, 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

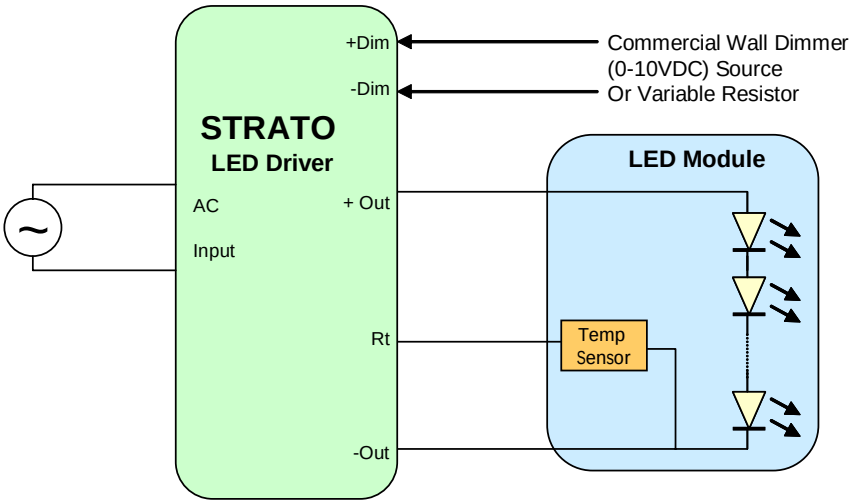
Applications and Benefits

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.

digitallight

Input and Output Specification

Input Voltage: 120 / 230 / 240 / 277 VAC nominal
47-63 Hz Frequency Range

Efficiency: 90% typical for @ Vin Nominal
and >80% of Rated Output Power

Isolation: Meets UL60950-1 Reinforced/double insulation
EN60598-1 Class II

Input Power Factor: >.90 Vin Nominal above 80% of rated Output Power

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

Output Voltage: 34 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

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 Application Notes for details on functionality and compatibility with standard industry practices.

Rt: 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 Application Notes for details.

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

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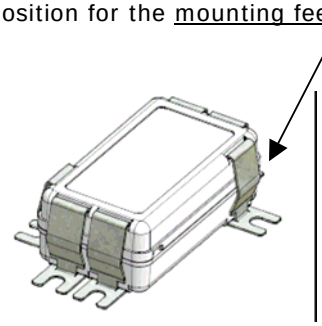
Mechanical Details

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 mounting feet.
Ingress Protection:	IP64 Rated

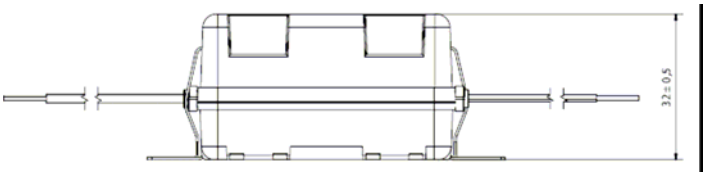
Universal Mount
A Patent Pending Design

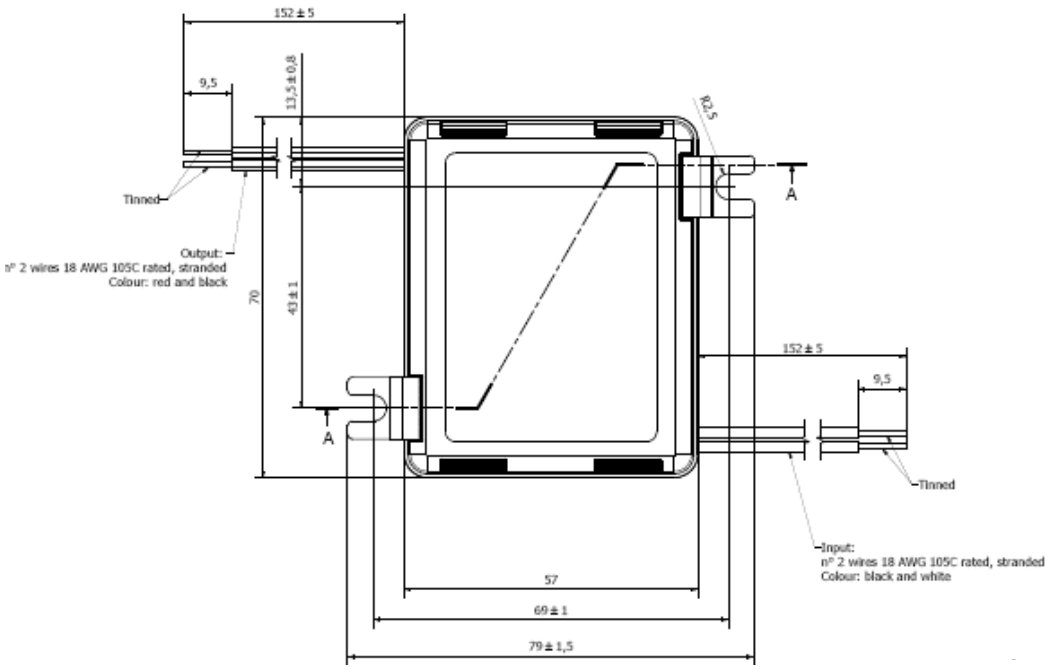


Outline Drawings

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.





Environmental

Operating Temperature:	**-40** 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.

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 Vout < 25VDC are SELV equivalent per EN61347-2-13.
2. All models with Vout > 25VDC are considered “Isolated Control Gear” per EN61347-2-13

Model Table

Model number		Pout max	Vout min	Vout max	Iout Max	Recommended Number of Discrete LEDs in Output String
Package	***Dash #***	***watts***	***vdc***	***vdc***	***mA***	
RSLD070	-60	74	150	210	350	60
RSLD070	-55	67	138	193	350	55
RSLD070	-50	61	125	175	350	50
RSLD070	-45	55	113	158	350	45
RSLD070	-40	70	100	140	500	40
RSLD070	-35	61	88	123	500	35
RSLD070	-30	74	75	105	700	30
RSLD070	-25	61	63	88	700	25
RSLD070	-20	70	50	70	1000	20
RSLD070	-14	67.2	34	48	1400	14

Recommended number of LEDs is based on a typical Vf of 2.5 to 3.5V during normal operation and temperature. Operation outside of the voltage window is not guaranteed. Care should be taken during the design phase to assure good alignment between LED string voltage and the dynamic output range for the driver. See application notes.

* Certain models have lower output set points for compatibility with specific LED modules and arrays. As a result, these units will exhibit lower efficiency than the base models.

Eu and RoW

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