

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



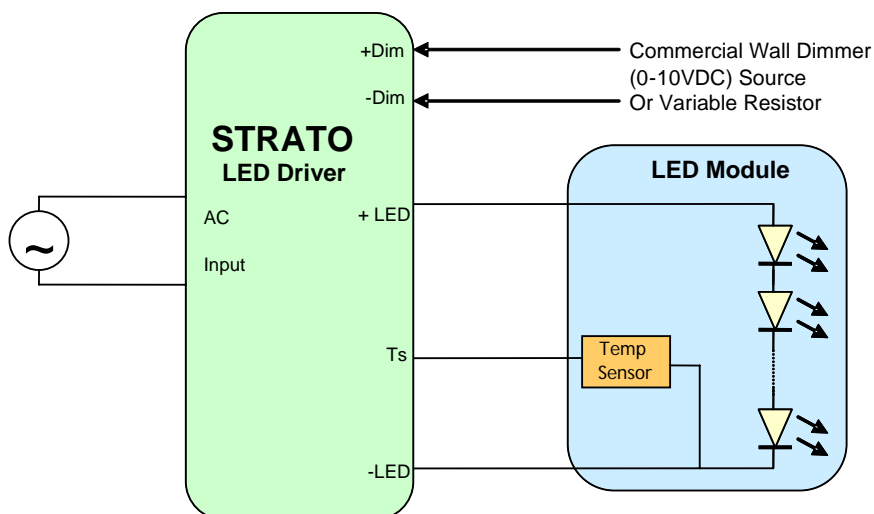
Applications and Benefits

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 @ Vin Nominal
and >80% of rated Output Power

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

Input Power Factor: >0.90 @ Vin Nominal
Load must be above 80% of
rated output power for units
>20W
Load must be above 90% of
rated output power for units
rated <20W

Output Voltage: 7.5 to 56 VDC
See Model Table for details

Output Current: 0.70 to 1.75 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

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

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.

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

Eu and RoW

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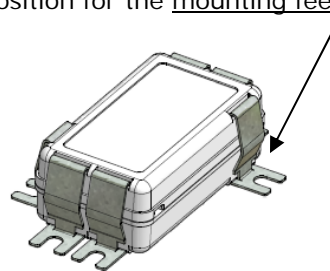
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Mechanical Details

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 <u>mounting feet</u> .
Ingress Protection:	IP64 Rated

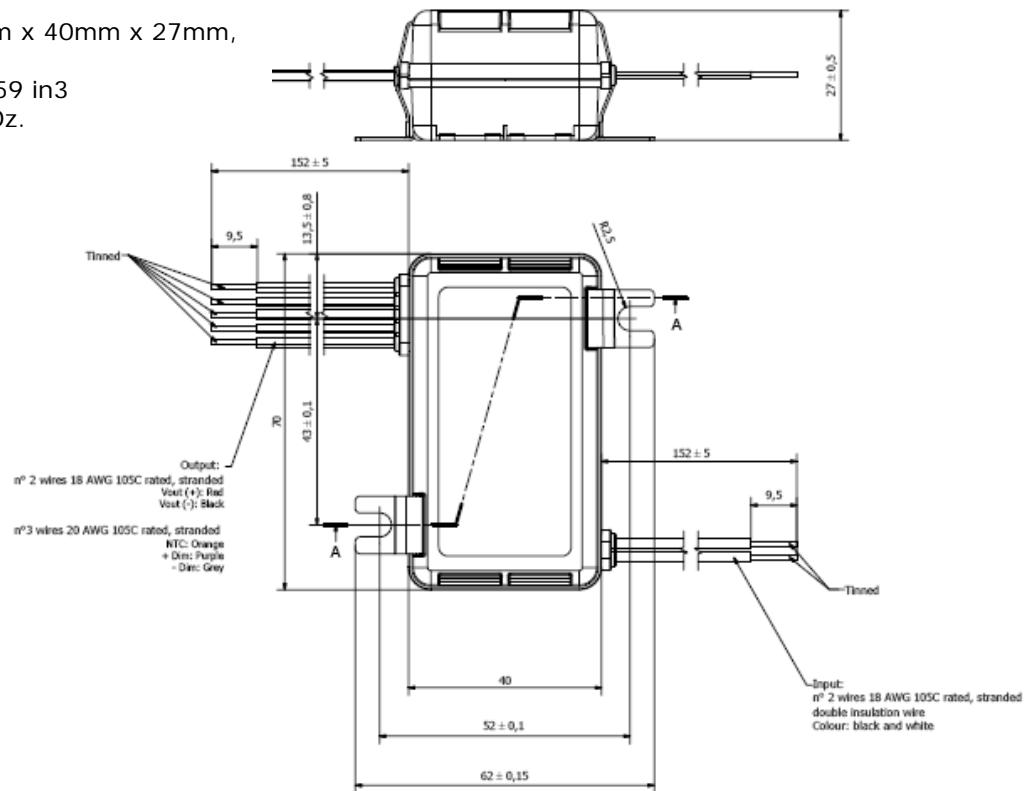
*Universal Mount
A Patent Pending Design*



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 : 142 grams, 5 Oz.



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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

UL60950-1 Recognized, UL8750 recognized Class 2 Output. 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 SELV equivalent per EN61347-2-13.
2. All models with $V_{out} > 25VDC$ are considered "Isolated Control Gear" per EN61347-2-13

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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	
RSLD035	-16	39.2	40	56	700	16
RSLD035	-15	36.8	37.5	52.5	700	15
RSLD035	-14	34.3	35	49	700	14
RSLD035	-13	31.9	32.5	45.5	700	13
RSLD035	-12	29.4	30	42	700	12
RSLD035	-11	27	27.5	38.5	700	11
RSLD035	-10	24.5	25	35	700	10
RSLD035	-09	31.5	22.5	31.5	1000	9
RSLD035	-08	32.2	20	28	1150	8
RSLD035	-07	34.3	17.5	24.5	1400	7
*RSLD035	-7A	17.6	17.5	24.5	720	7
RSLD035	-6A	25	14.5	20.1	1240	6
RSLD035	-06	29.4	15	21	1400	6
RSLD035	-05	30.6	12.5	17.5	1750	5
RSLD035	-04	24.5	10	14	1750	4
*RSLD035	-4A	18.2	10	14	1300	4
*RSLD035	-03	18.4	7.5	10.5	1750	3

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 and lower power factor than specified herein.

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