

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



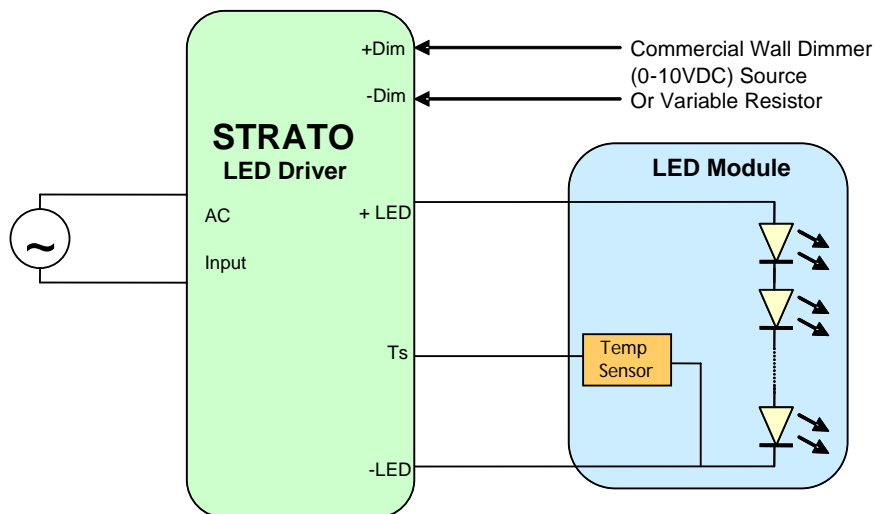
Applications and Benefits

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 @ nominal input voltages with the output voltage
between nom and max values in Table 1 and rated
output current.

Note 1: For models rated <20W, PF at 277VAC is >0.9
with max output voltage and rated current only.

Note 2: Power factor for models RSLD035-8B and
RSLD035-7B shall be ≥ 0.88 at 230Vac and 240Vac
when measured with max LED load and ≥ 0.85 at
277Vac max LED load due to lower input power
($\approx 10W$).

Input Harmonics: Meets EN61000-3-2, -3 @ nominal
input voltages with the output voltage between nom
and max values in Table 1 and rated output current.

THD: <20% @ 120VAC with output voltage between
nom and max values in table 1 and rated output current

Output Voltage: 17.5 to 54.5 VDC
See Table 1 for details

Output Current: 0.350 to 1.200 Amps
See Table 1 for details

Output Current
Regulation: +/- 5% 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

Eu and RoW

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Table 1
Absolute Maximum Driver Ratings

Model number		Iout Max	Pout max	Vout (min)	Vout (Nom)	Vout (max)	Vout No Load max
Package	Dash #	mA	watts	vdc	vdc	vdc	vdc
RSLD035	-16A	350	19.1	41.0	52.0	54.5	60.0
RSLD035	-13A	850	38.7	34.0	42.3	45.5	59.2
RSLD035	-12A	350	14.7	31.5	39.0	42.0	50.0
RSLD035	-12B	450	18.9	31.5	39.0	42.0	50.0
RSLD035	-12C	600	25.2	31.5	39.0	42.0	50.0
RSLD035	-12E	800	33.6	31.5	39.0	42.0	50.0
RSLD035	-12F	550	23.1	31.5	39.0	42.0	50.0
RSLD035	-12G	850	35.7	31.5	39.0	42.0	50.0
RSLD035	-12H	900	37.8	31.5	39.0	42.0	50.0
RSLD035	-12J	500	21.0	31.5	39.0	42.0	50.0
RSLD035	-11A	1050	39.9	28.5	35.3	38.0	49.4
RSLD035	-10A	440	15.0	26.0	31.6	34.0	44.2
RSLD035	-9B	1200	38.4	24.0	29.0	32.0	38.0
RSLD035	-8A	900	24.3	20.0	25.1	27.0	35.0
RSLD035	-8B	350	9.8	21.0	26.0	28.0	35.0
RSLD035	-7B	440	10.3	17.5	21.9	23.5	30.6
RSLD035	-7C	700	16.5	17.5	21.9	23.5	30.6

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

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.

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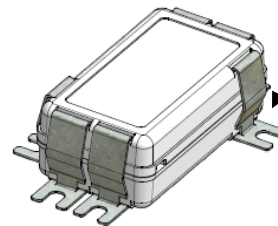
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Mechanical Details

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 mounting feet.
Ingress Protection:	IP64 Rated

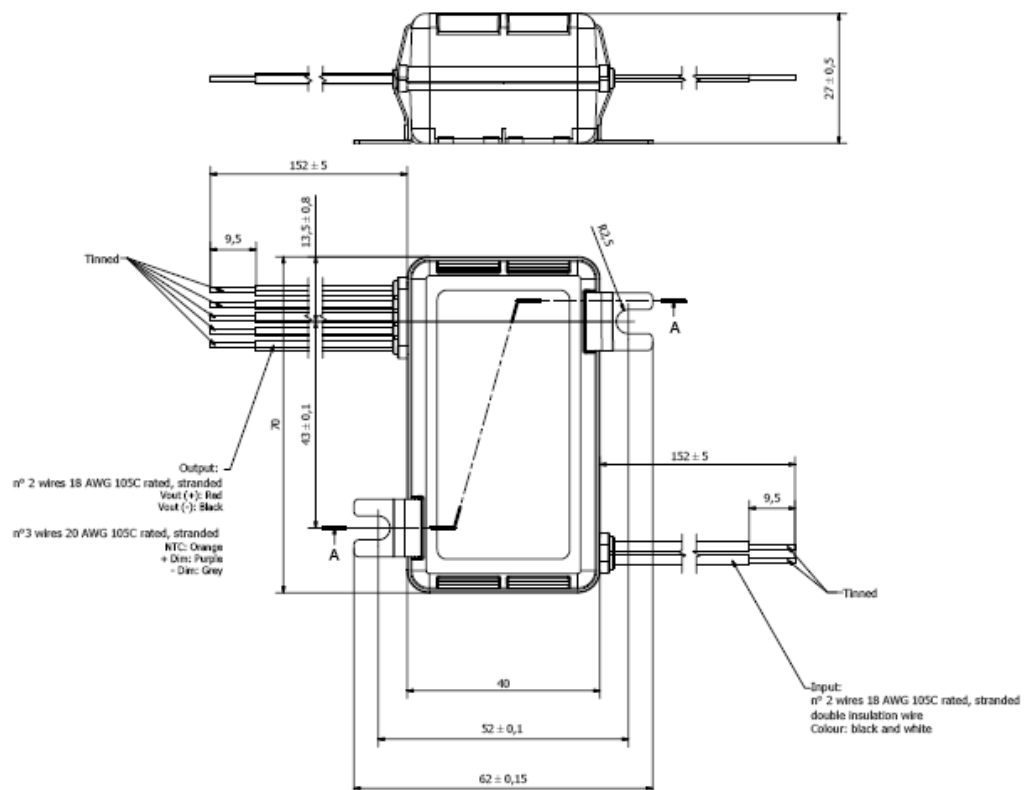
Universal Mount
A Patent Pending Design



Outline Drawings

Package: RSLD035

Max Dimensions: 70mm x 4
2.76" x 1.57" x 1.06"
Volume : 75.6 cm³, 4.59 in.
Mass : 142 grams, 5 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, 120/230-240VAC: EN55015, FCC 47CFR Part 15 Class B
277VAC: FCC 47CFR Part 15 Class A

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 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 are considered "Isolated Control Gear" per EN61347-2-13

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