

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 V_{AC}
- Constant Current Output for Powering LEDs Directly
- High Efficiency ~90%
- Compact Design
- Adjustable Output Current Settings
- Dimmable with (1-10V_{DC}) Input
- Temperature Protection for LEDs
- Convection Cooled
- Long Life
- Wide Temperature Range
- ROHS Compliant



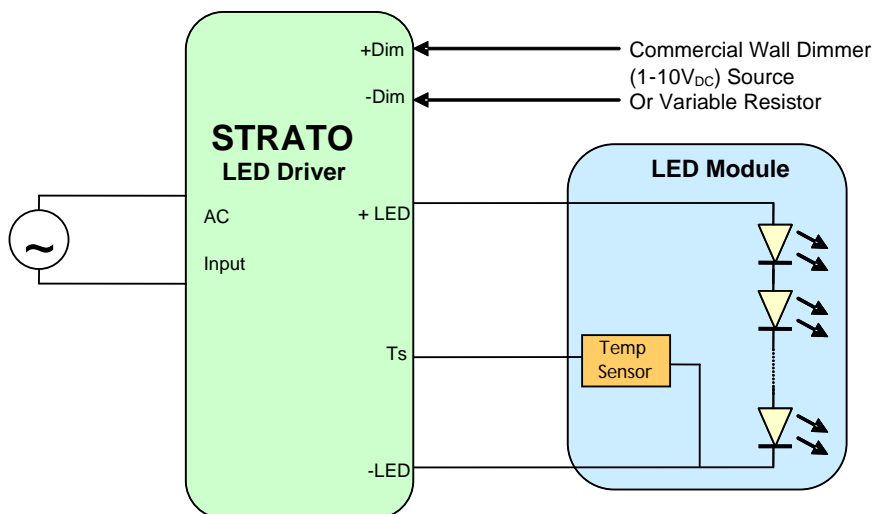
Applications and Benefits

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% I_{out} Dimming function.



Input and Output Specification

Input Voltage: 120 / 240 / 277 V_{AC} nominal
47-63 Hz Frequency Range

Efficiency: 90% typical *

Isolation:  Class II, reinforced insulation

Input Power Factor: >0.90 *

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

* @ Vin Nominal and >80% load for models
>20W and >90% for models <20W

Output Voltage: 7.5 to 73.5 V_{DC}
See Table 1 for details

Output Current: 0.50 to 1.75 Amps
See Table 1 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
RSLD035	-21	500	36.75	52.5	73.5	88.2
RSLD035	-16	700	39.2	40.0	56.0	60.0
RSLD035	-15	700	36.8	37.5	52.5	60.0
RSLD035	-14	700	34.3	35.0	49.0	59.5
RSLD035	-13	700	31.9	32.5	45.5	54.6
RSLD035	-12	700	29.4	30.0	42.0	50.0
RSLD035	-11	700	27	27.5	38.5	46.2
RSLD035	-10	700	24.5	25.0	35.0	42.0
RSLD035	-09	1000	31.5	22.5	31.5	37.8
RSLD035	-9A	700	22.1	22.5	31.5	37.8
RSLD035	-08	1150	32.2	20.0	28.0	33.6
RSLD035	-07	1400	34.3	17.5	24.5	29.4
*RSLD035	-7A	720	17.6	17.5	24.5	29.4
RSLD035	-6A	1240	25	14.5	20.1	24.2
RSLD035	-06	1400	29.4	15.0	21.0	25.0
RSLD035	-05	1750	30.6	12.5	17.5	21.0
RSLD035	-04	1750	24.5	10.0	14.0	16.0
*RSLD035	-4A	1300	18.2	10.0	14.0	16.0
*RSLD035	-03	1750	18.4	7.5	10.5	12.6

* 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.

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

Eu and RoW

ROAL Electronics S.p.A
Via Jesina 56/A
60022 – Castelfidardo (AN) - Italy
Tel: +39 071 721461
Fax: +39 071 72146 480

Subject to Change without Notice

www.roallivingenergy.com

North America

ROAL Electronics USA, Inc.
701 Main St., Suite 405
Stroudsburg, PA18360
Phone: +1 570 421 5750
Fax: +1 570 421 5687

DS1_Strato35 CC Plastic_Rev12NL - Page. 2/6

Controls

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

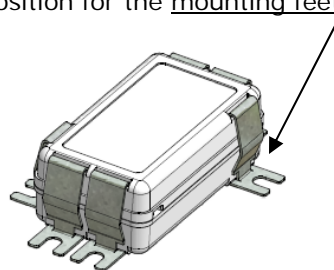
Dim: A dimming input can be used to adjust the output setting via a standard commercial wall dimmer, an external control voltage source (1 to 10V_{DC}), or a variable resistor when using the recommended number of LEDs. The input permits 100% to 80% trimming and 100% to 10% dimming. This permits active 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> .

*Universal Mount
A Patent Pending Design*



Eu and RoW

ROAL Electronics S.p.A
Via Jesina 56/A
60022 – Castelfidardo (AN) - Italy
Tel: +39 071 721461
Fax: +39 071 72146 480

Subject to Change without Notice

www.roallivingenergy.com

North America

ROAL Electronics USA, Inc.
701 Main St., Suite 405
Stroudsburg, PA18360
Phone: +1 570 421 5750
Fax: +1 570 421 5687

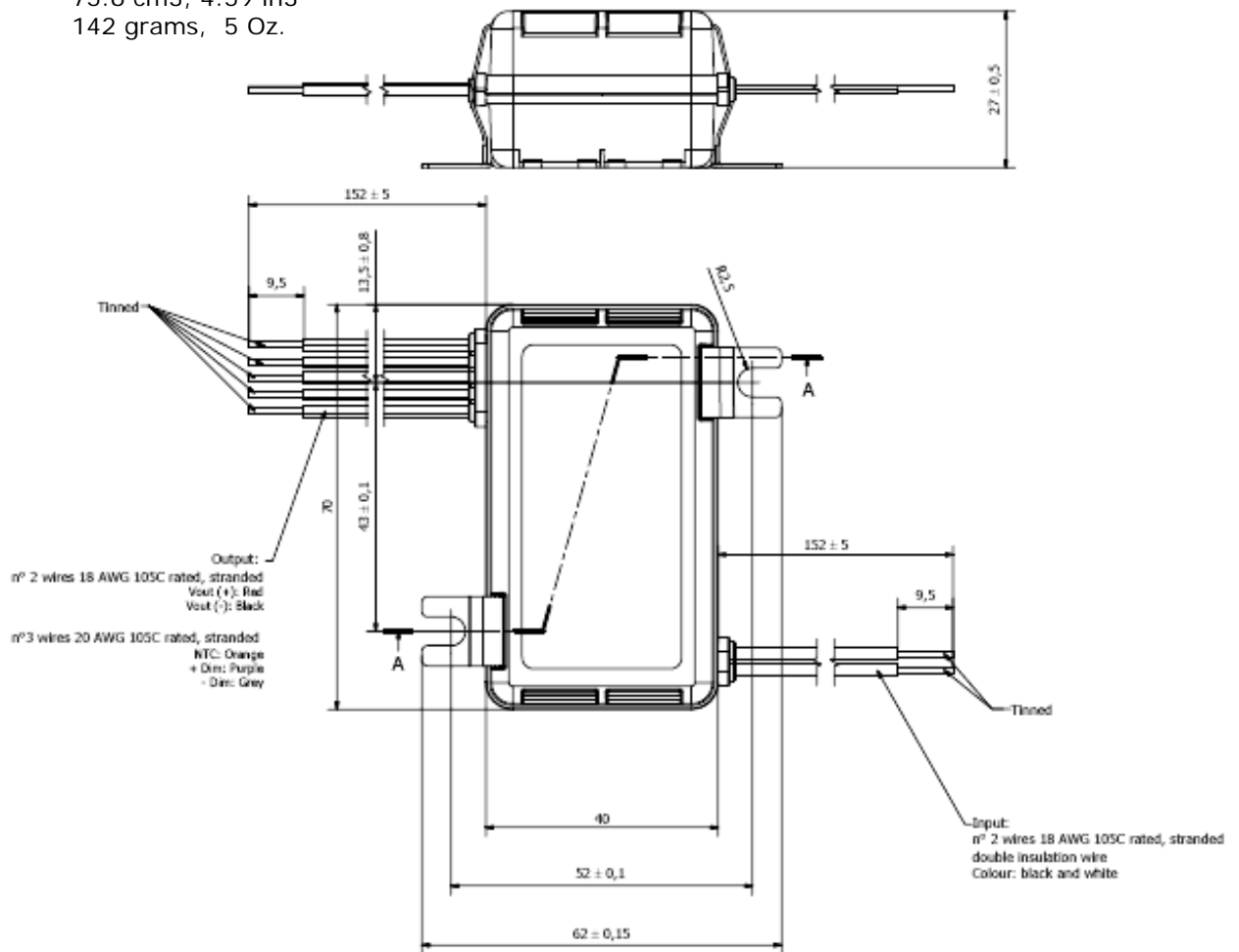
DS1_Strato35 CC Plastic_Rev12NL - Page. 3/6

Outline Drawings

Package: RSLD035

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.



Eu and RoW

ROAL Electronics S.p.A
Via Jesina 56/A
60022 – Castelfidardo (AN) - Italy
Tel: +39 071 721461
Fax: +39 071 72146 480

Subject to Change without Notice

www.roallivingenergy.com

North America

ROAL Electronics USA, Inc.
701 Main St., Suite 405
Stroudsburg, PA18360
Phone: +1 570 421 5750
Fax: +1 570 421 5687

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

EMC Compliance

Emission Tests

Conducted Emissions 9kHz – 30MHz (120/230-240V _{AC})	EN55015
Radiated Emissions 30MHz – 300MHz (120/230-240V _{AC})	EN55015
Conducted and Radiated Emissions (120/230-240V _{AC})	FCC CFR47-Part 15/Subpart B
Conducted and Radiated Emissions (277V _{AC})	FCC CFR47-Part 15/Subpart A
Harmonic Current Emissions	EN61000-3-2, Class C
Voltage Changes, Fluctuation and Flicker	EN61000-3-3

Immunity Tests

Equipment for general lighting purposes -	
EMC Immunity Requirements	EN61547
ESD (Electrostatic Discharge)	EN61000-4-2
Radiated Radio-Frequency electromagnetic field	EN61000-4-3
Electrical Fast Transient/Burst	EN61000-4-4 (±1kV L-L)
Surge	EN61000-4-5 (Level 3, ±1kV L-L)
Conducted disturbances induced by Radio Frequency Fields	EN61000-4-6
Voltage Dips, short interruptions and Voltage Variations	EN61000-4-11
Non Repetitive damped oscillatory transient, Ring Wave	ANSI C.62.41 Category A1

Eu and RoW

ROAL Electronics S.p.A
Via Jesina 56/A
60022 – Castelfidardo (AN) - Italy
Tel: +39 071 721461
Fax: +39 071 72146 480

Subject to Change without Notice

www.roallivingenergy.com

North America

ROAL Electronics USA, Inc.
701 Main St., Suite 405
Stroudsburg, PA18360
Phone: +1 570 421 5750
Fax: +1 570 421 5687

Safety Agency Approvals

UL8750, CSA C22.2 No 250.13 (2013) recognized.

All LED drivers models are Class 2 for both USA and Canada except RSLD035-21.

All models suitable for dry and damp locations.

IEC/EN, 61347-1, IEC/EN 61347-2-13 electronic control gear for LED Modules

IECEE CB Certified.

ENEC Certified and CE Mark for EU.

Notes Regarding IEC/EN approvals:

1. All models are SELV equivalent per IEC/EN 61347-2-13.
2. All models are considered "Isolated Control Gear" per IEC/EN 61347-2-13.

Roal Electronics, S.p.A. may change product specifications and accordingly the information presented in this document. Customers are responsible for their products and applications using Roal Electronics, S.p.A. products. Roal Electronics, S.p.A. assumes no liability from the use of its products outside of specifications. No license is granted to any intellectual property rights by this document. ROAL ELECTRONICS, S.P.A. DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF NONINFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Eu and RoW

ROAL Electronics S.p.A
Via Jesina 56/A
60022 – Castelfidardo (AN) - Italy
Tel: +39 071 721461
Fax: +39 071 72146 480

Subject to Change without Notice

www.roallivingenergy.com

North America

ROAL Electronics USA, Inc.
701 Main St., Suite 405
Stroudsburg, PA18360
Phone: +1 570 421 5750
Fax: +1 570 421 5687