

DESCRIPTION

STRATO switch mode driver technology is designed to generate one constant voltage output from a wide range AC input. The size and performance of these products make them the ideal choice for LED lighting applications. This series is not allowed to work in standby mode and is not intended for no-load operation



MAIN FEATURES

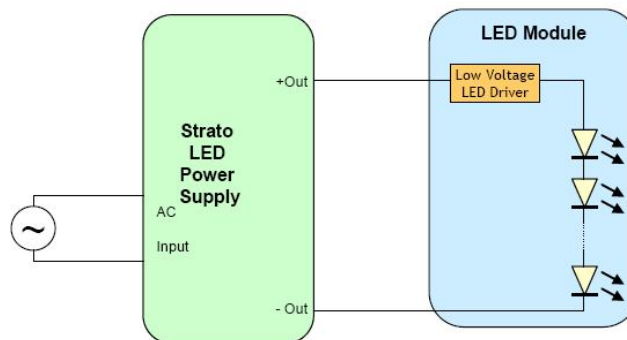
- Wide Input Range: 120/220-240/277 V_{AC}
- Constant Voltage Output: 24 or 48 V_{DC}
- High Efficiency up to 91 %
- SELV
- Compact Design
- Convection Cooled
- Wide Operating Temperature Range
- Long Life
- RoHS Compliant
- Compliance with Regulation (EU) 2019/2020 (Ecodesign)



APPLICATIONS AND BENEFITS

STRATO power supplies are designed for powering low voltage LED modules in residential and commercial 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.



MODEL CODING AND OUTPUT RATINGS

Model number	Output Power [W]	Output Voltage [V _{DC}]	Output Current [A]	Typical Efficiency ¹ (%)
RSLP070-24	72	24	3.0	91
RSLP070-48	72	48	1.5	91

Table 1: Absolute Maximum Driver Ratings

¹ at max load, 230V_{AC}

INPUT AND OUTPUT SPECIFICATION

Specification	Test Conditions / Notes	Min	Nom	Max	Units
AC Input Voltage	120/220-240/277 V _{AC} Device starts and operates at 90 V _{AC} at all load conditions	90	120/220-240/277	305	V _{AC}
Input Frequency		47	50/60	63	Hz
Input Current	120 V _{AC} Rated Load	-	-	0.65	A
	230 V _{AC} Rated Load	-	-	0.34	
	277 V _{AC} Rated Load	-	-	0.30	
Power Factor²	120 V _{AC}	0.9	-	-	
	230 V _{AC}	0.9	-	-	
	277 V _{AC}	0.9	-	-	
Inrush Current (peak)	120 V _{AC} Half Value time: 150 μs	-	-	13.4	A
	230 V _{AC} Half Value time: 200 μs	-	-	27.9	
	277 V _{AC} Half Value time: 150 μs	-	-	31.0	
Efficiency	120 V _{AC} Rated Load	-	89	-	%
	230 V _{AC} Rated Load	-	91	-	
	277 V _{AC} Rated Load	-	91	-	
Harmonic Current	Complies with EN-61000-3-2, Class C load >25 W				

² with output Load between 80 % and 100 % and rated output current

OUTPUT SPECIFICATIONS

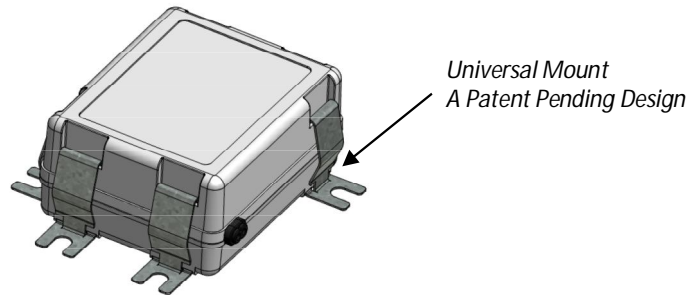
Specification	Test Conditions / Notes	Min	Nom	Max	Units
Output Power Rating	check Model Coding and Output Ratings section		72		W
Output Voltage	RSLP070-24	-	24	-	V
	RSLP070-48	-	48	-	
Output Current	RSLP070-24			3000	mA
	RSLP070-48			1500	
Ripple Voltage	All models measured (V _{OUT-pk-pk} /RMS)	-	-	10	%
Output Regulation		-	-	±4	%I _{OUT}
Start-up time		-	-	500	ms

PROTECTION FEATURES

Specification	Test Conditions / Notes	Min	Nom	Max	Units
Output Over Voltage	Hiccup, auto Recovery	110	-	130	%V _{MAX}
Output Short-Circuit	Hiccup, auto Recovery	-	-	-	-
Over-Temperature Tc	Hiccup, auto Recovery if the PSU exceeds the rated Tc temperature	-	90	-	°C
No Load	RSLP070-24	-	-	24.9	V
	RSLP070-48	-	-	49.9	
Isolation Primary-to-Secondary	Reinforced/double Insulation meets IEC/EN61347-2-13 Class II				

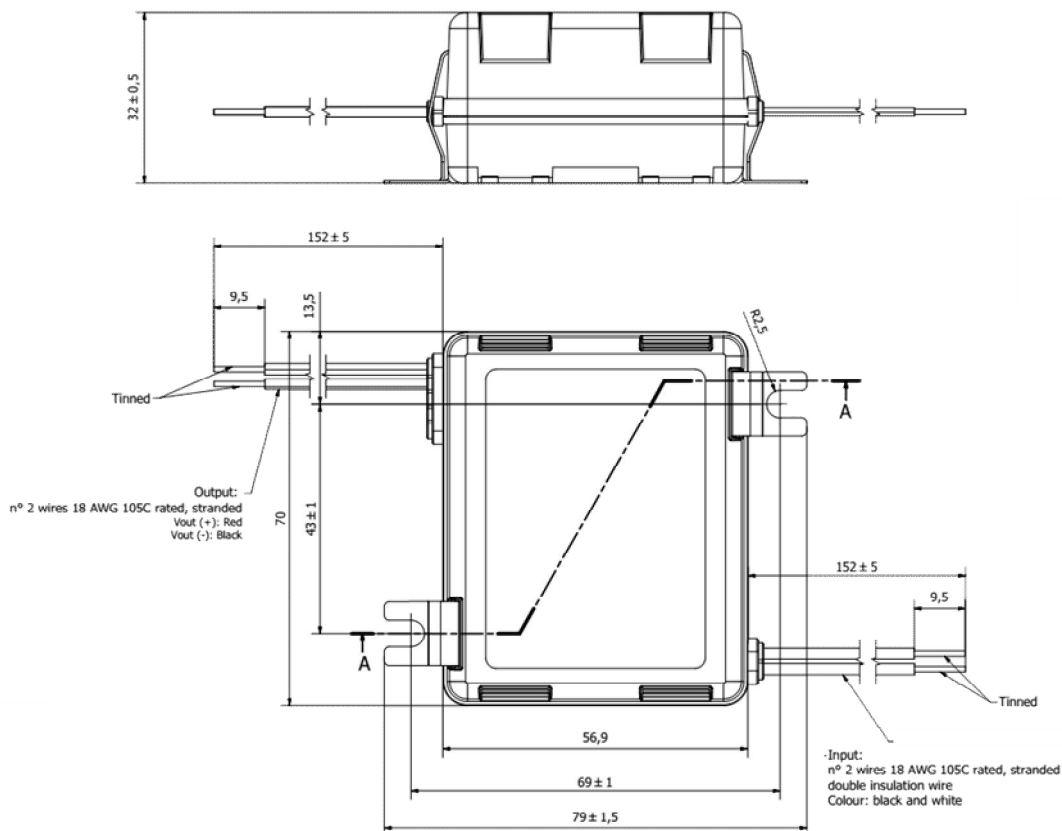
MECHANICAL DETAILS

- Packaging Options:** Partially Encapsulated with ABS plastic body enclosure
- I/O Connections:** Flying leads, 18AWG on power leads, 152 mm long, 105 °C Rated, Stranded, Stripped by approximately 9.5 mm and tinned. Double insulation input wires.
- Ingress Protection:** IP20, UL damp rated
- Mounting Details:** Universal Mounting Clips, and 6 mounting locations per package allow installer to choose the most suitable position for the mounting feet. 2x clips RHML000686-xx included (additional clips upon request).



OUTLINE DRAWINGS

- Package:** RSLP070
- Dimensions:** 70 x 57 x 32 mm (2.76 x 2.24 x 1.26 in)
- Volume:** 128 cm³ (7.54 in³)
- Mass:** 170 g (6 oz)



ENVIRONMENTAL SPECIFICATIONS

Specification	Test Conditions / Notes	Min	Nom	Max	Units
Top Case Temperature Range	Top case temperature without derating	-30	-	90	°C
Ambient Temperature Range	As long as Tc temperature is within the limits	-30	-	60	°C
Storage Temperature		-40	-	85	°C
Operating Relative Humidity	Non-condensing	5	-	95	%
Surface Temperature	Exposed surfaces temperature under all operating conditions	-	-	90	°C
Cooling	Convection cooled				
Shock EN 60068-2-27	Operating: Half sine, 30g, 18ms, 3 axes, 6x each (3 positive and 3 negative). Non-Operating: Half sine, 50g, 11ms, 3 axes, 6x each (3 positive and 3 negative).				
Vibration EN 60068-2-64	Operating: 5 – 500Hz, 1gRMS (0.02 g ² /Hz), 3 axes, 30 min. Non-Operating: 5 – 500Hz, 2.46gRMS (0.0122g ² /Hz), 3 axes, 30 min.				
Vibration EN 60068-2-6	Operating Sine, 10 – 500Hz, 1g, 3 axes, 1 oct/min., 60 min.				
MTBF	Typical Load, 70 °C Tc, MIL.HDBK-217E	-	250.000	-	Hours
Useful Life	Nominal V _{AC} , 70 °C Tc Nominal Load	-	50.000	-	Hours




ELECTROMAGNETIC COMPATIBILITY (EMC) – EMISSIONS

Phenomenon	Conditions / Notes	Standard	Performance Class
Conducted Emission	Test at 120 V _{AC}	FCC Part 15	Class B
	Test at 230 V _{AC}	EN55015	-
	Test at 277 V _{AC}	FCC Part 15	Class A
Radiated Emission	Test at 120 V _{AC}	FCC CFR47-part15	Class B
	Test at 230 V _{AC}	EN55015	-
	Test at 277 V _{AC}	FCC CFR47- part 15	Class A
Harmonic Current Emissions		EN61000-3-2	Class C
Voltage Changes, Fluctuation and Flicker		EN61000-3-3	

ELECTROMAGNETIC COMPATIBILITY (EMC) – IMMUNITY

Phenomenon	Conditions / Notes	Standard	Note
Equipment for general lighting purposes -EMC Immunity Req.		EN 61547	
ESD (Electrostatic Discharge)		EN 61000-4-2	
Radiated Radio-Frequency electromagnetic field		EN 61000-4-3	
Electric Fast Transient / Burst	Level ±1.0 kV L-L	EN 61000-4-4	
Surge	Level ±1.0 kV L-L	EN 61000-4-5	
Conducted disturbances induced by Radio-Frequency fields		EN 61000-4-6	
Voltage Dips, short interruptions and Voltage Variations		EN 61000-4-11	
Non-repetitive damped oscillatory transient, Ring wave	2.5 kV	ANSI C.62.41	Category A

SAFETY AGENCY APPROVALS

Certification Body	Safety Standards
	UL Recognized ANSI / UL8750, CSA C22.2 No.250.13 UL and CSA approval (cURus) as Class 2 output. LED Driver suitable for dry and damp location
	IEC/EN 62384 Electronic control gear for LED modules – Performance Requirements. IEC/EN, 61347-1, IEC/EN 61347-2-13 Electronic control gear for LED Modules – Safety.
	To obtain the “CE Declaration of Conformity” please contact info@enedopower.com
	IECEE CB Certified, IEC/EN, 61347-1, IEC/EN 61347-2-13 electronic control gear for LED Modules. All models are isolated control gears, SELV equivalent, with internal reinforced insulation as per IEC/EN 61347-2-13. Drivers to be incorporated in the luminaire.
	Reinforced/double Insulation meets IEC/EN61347-2-13 Class II

The RSLP070-48 LED driver is also compliance to the Japan safety standard, not certified, the mark will be eventually applied by the customer.

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