STRATO 35W LED POWER SUPPLIES

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.

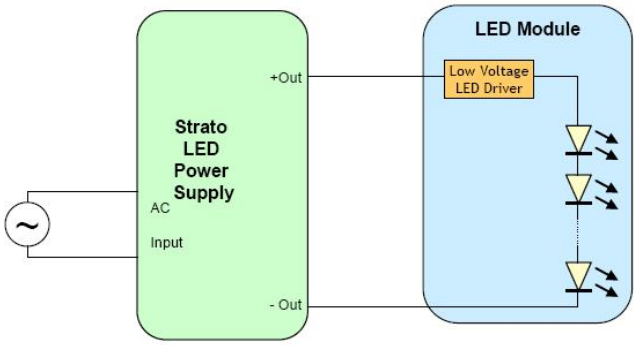
MAIN FEATURES

- Wide Input Range: 120/220-240/277 V_{AC}
- Constant Voltage Output: 12, 24 or 48 V_{DC}
- High Efficiency up to 88 %
- Compact Design
- Convection Cooled
- Wide Operating Temperature Range
- Long Life
- SELV
- 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] (%)
RSLP035-12	21	12	1.75	83
RSLP035-24	36	24	1.5	88
RSLP035-48	36	48	0.75	88

Table 1: Absolute Maximum Driver Ratings

[1] at max load, 230V_{AC}

INPUT 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	-	-	0.50	A
	230 V_{AC} Rated Load	-	-	0.26	
	277 V_{AC} Rated Load	-	-	0.22	
Power Factor[2]	120 V_{AC}	0.9	-	-	
	230 V_{AC}	0.9	-	-	
	277 V_{AC}	0.9	-	-	
Inrush Current (peak)	120 V_{AC} Half Value time: 100 µs	-	-	11.0	A
	230 V_{AC} Half Value time: 100 µs	-	-	25.5	
	277 V_{AC} Half Value time: 100 µs	-	-	28.0	
Efficiency	120 V_{AC} Rated Load	-	83 - 87	-	%
	230 V_{AC} Rated Load	-	83 - 88	-	
	277 V_{AC} Rated Load	-	83 - 88	-	
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	21	-	36	W
Output Voltage	RSLP035-12	-	12	-	V
	RSLP035-24	-	24	-	
	RSLP035-48	-	48	-	
Output Current	RSLP035-12			1750	mA
	RSLP035-24			1500	
	RSLP035-48			750	
Ripple Voltage	All models measured ($V_{OUT\_Pk\text{-}pk}$/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	RSLP035-12			12.48	V
	RSLP035-24			24.96	
	RSLP035-48			49.92	
Isolation Primary-to-Secondary	Reinforced/double Insulation meets IEC/EN61347-2-13 Class II				

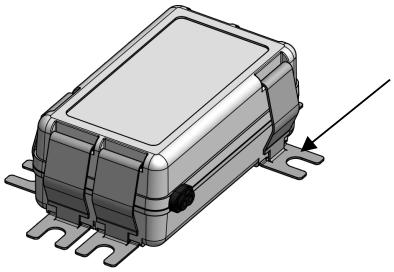
MECHANICAL DETAILS

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).



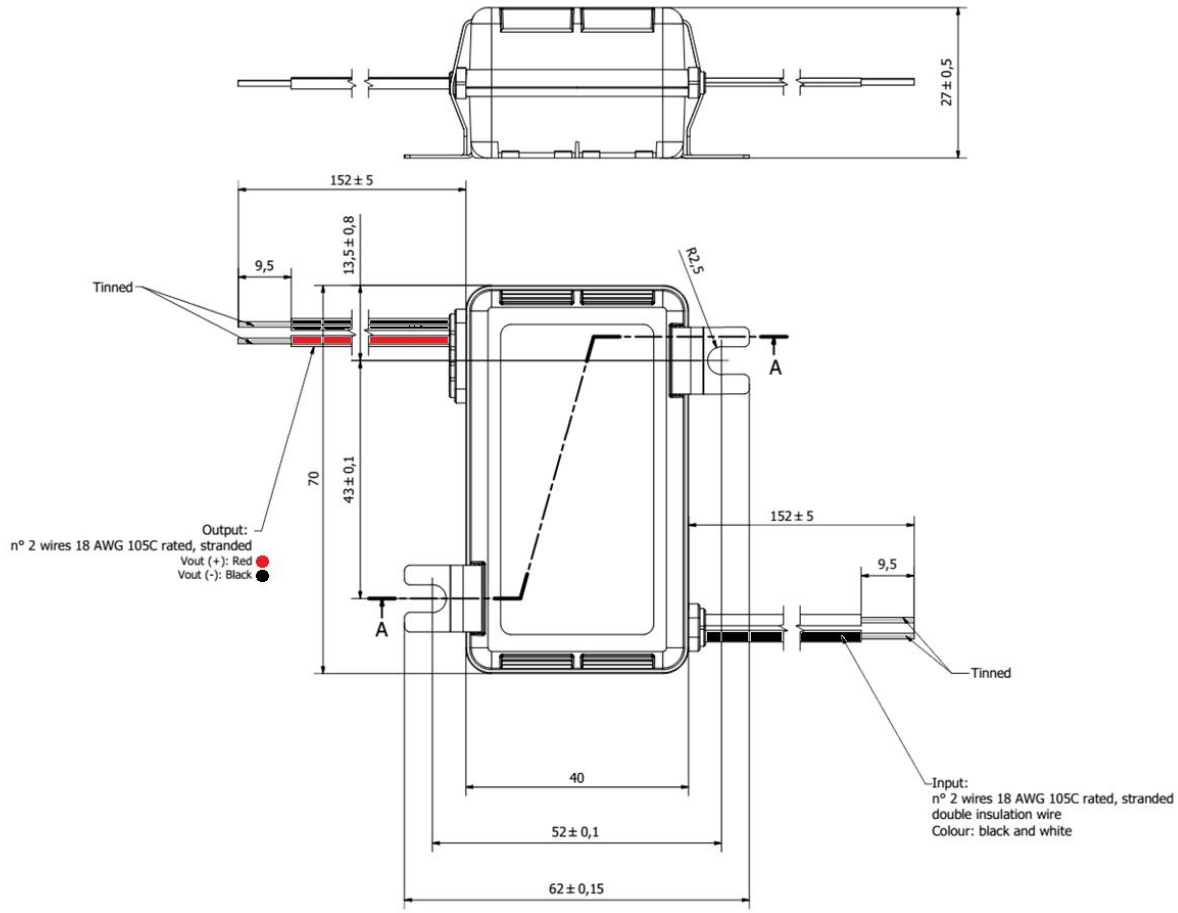
OUTLINE DRAWINGS

Package: RSLP035

Dimensions: 70 x 40 x 27 mm (2.76 x 1.57 x 1.06 in)

Volume: 75.6 cm³ (4.59 in³)

Mass: 142 g (5 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, 30 g, 18 ms, 3 axes, 6x each (3 positive and 3 negative). Non-Operating: Half sine, 50 g, 11 ms, 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 (0.0122 g^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
c UL us	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
CE	To obtain the "CE Declaration of Conformity" please contact info@enedopower.com
CB	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