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.

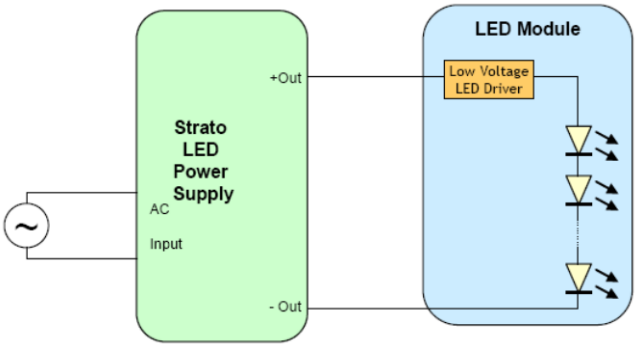
KEY FEATURES

- Wide Input Range: 120/220-240/277V_{AC}
- Constant Voltage Output: 12, 24, 48V
- High Efficiency up to 89%
- Compact Design
- Convection Cooled
- Wide Operating Temperature Range
- Long Life
- RoHS Compliant

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	Pout max	Vout	Iout Max
	W	*V_{DC}*	*mA*
RSLP035-12	21	12	1750
RSLP035-24	36	24	1500
RSLP035-48	36	48	750

Table 1: Absolute Maximum Driver Ratings

INPUT AND OUTPUT SPECIFICATION

Specification	Test Conditions / Notes	Min	Nom	Max	Units
AC Input Voltage	120/220-240/277V_{AC} Device starts and operates at 90V_{AC} at all load conditions	90	120/220-240/277	305	V_{AC}
Input Frequency		47	50/60	63	Hz
Input Current	120V_{AC} Rated Load	-	-	0.50	A
	230V_{AC} Rated Load	-	-	0.26	
	277V_{AC} Rated Load	-	-	0.22	
Power Factor	120V_{AC}	0.9	-	-	
	230V_{AC} with output Load between 80% and 100%	0.9	-	-	
	277V_{AC} and rated output current	0.9	-	-	
Inrush Current	120V_{AC} Half Value time: 100µs	-	-	11.0	Apk
	230V_{AC} Half Value time: 100µs	-	-	25.5	
	277V_{AC} Half Value time: 100µs	-	-	28.0	
Efficiency	120V_{AC} Rated Load	84	-	87	%
	230V_{AC} Rated Load	84	-	89	
	277V_{AC} Rated Load	84	-	88	
Harmonic Current	Complies with EN-61000-3-2, Class C load >25W				

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 (Vout_Pk-pk/RMS)	-	-	10	%
Output Regulation		-	-	±4	%Iout
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				

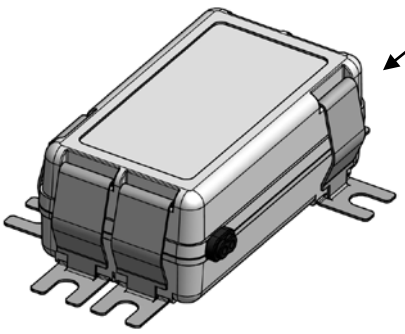
MECHANICAL DETAILS

Packaging Options: Partially Encapsulated with ABS plastic body enclosure

I/O Connections: Flying leads, 18AWG on power leads, 152mm long, 105°C 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.

Universal Mount
A Patent Pending Design



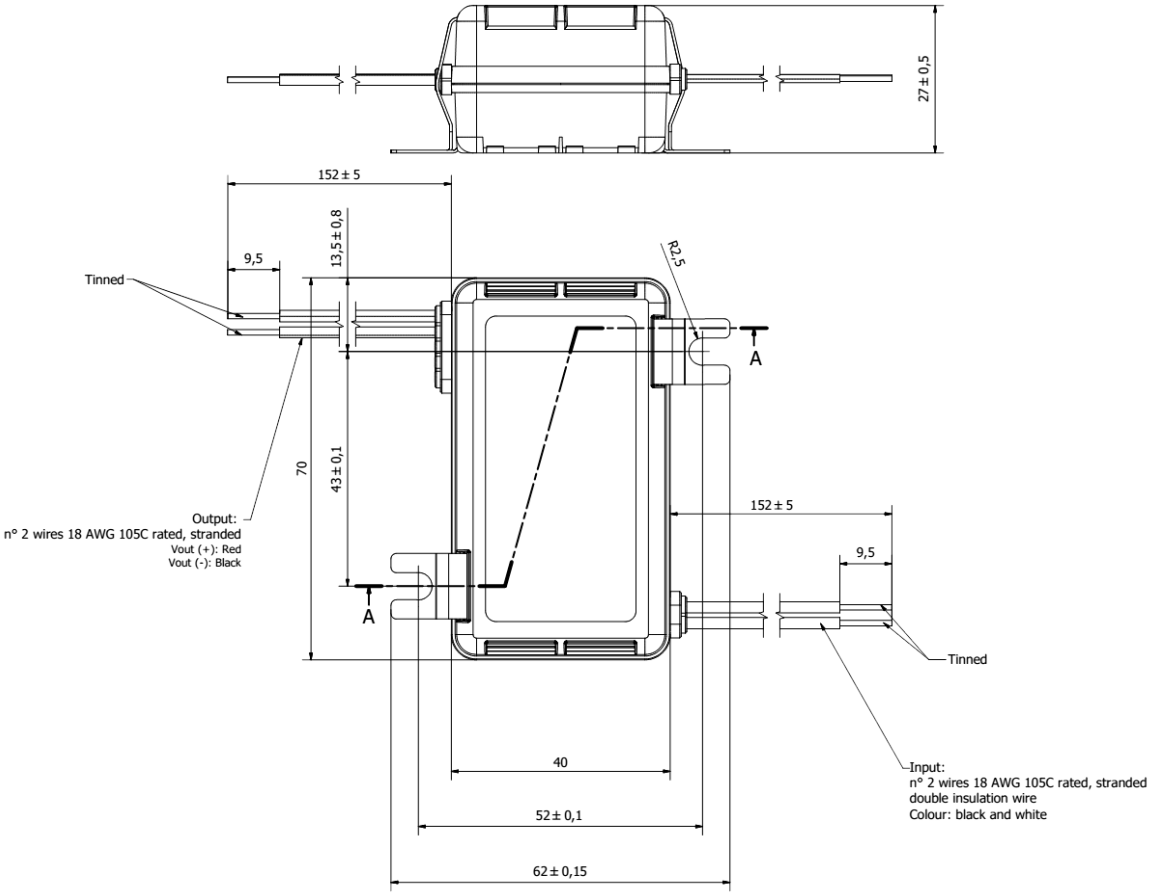
OUTLINE DRAWINGS

Package: RSLP035

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

Volume: 75.6cm^3, 4.59in^3

Mass: 142g, 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	-	250k	-	Hours
Useful Life	Nominal V_{AC}, 70°C Tc Nominal Load	-	50k	-	Hours

ELECTROMAGNETIC COMPATIBILITY (EMC) – EMISSIONS

Phenomenon	Conditions / Notes	Standard	Performance Class
Conducted Emission	Test at 120Vac	FCC Part 15	Class B
	Test at 230V_{AC}	EN55015	-
	Test at 277V_{AC}	FCC Part 15	Class A
Radiated Emission	Test at 120Vac	FCC CFR47-part15	Class B
	Test at 230V_{AC}	EN55015	-
	Test at 277V_{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 ±1.0kV L-L	EN 61000-4-4	
Surge	Level ±1.0kV 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	2.5kV	ANSI C.62.41	Category A

SAFETY AGENCY APPROVALS

Certification Body	Safety Standards
c UL us	UL Recognized ANSI / UL8750, 1st Ed., CSA C22.2 No.250-13, 7th Ed. 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@efore.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