

Features

- High Efficiency (Up to 86%)
- Active Power Factor Correction (Typical 0.92)
- Constant Output Voltage
- Waterproof (IP67) and Damp & Wet Location
- All-Round Protection: OVP, SCP, OCP



Description

The EUV-035SxxxST Series operate from a 90 ~ 305 Vac input range. They are designed to be highly efficient and highly reliable. Features include over voltage protection, short circuit protection and over current protection.

Models

Output Voltage	Input Voltage Range	Output Voltage Range	Output Current Range	Max. Output Power	Typical Efficiency (1)	Power Factor		Model Number (2)
						110Vac	220Vac	
12 Vdc	90 ~ 305 Vac	10.8~13.2V	0~2900mA	35 W	82%	0.98	0.92	EUV-035S012ST(3)
18 Vdc	90 ~ 305 Vac	16.2~19.8V	0~1900mA	35 W	83%	0.98	0.92	EUV-035S018ST(3)
24 Vdc	90 ~ 305 Vac	21.6~26.4V	0~1460mA	35 W	85%	0.98	0.92	EUV-035S024ST(3)
36 Vdc	90 ~ 305 Vac	32.4~39.6V	0~970 mA	35 W	86%	0.98	0.92	EUV-035S036ST(3)

- Notes:** (1) Measured at full load and 220 Vac input.
 (2) A suffix -xxx may be added to denote variations or modifications to the base product, where x can be any alphanumeric character or blank.
 (3) Class 2 output (USR & CNR).

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90 V	-	305 V	
Input Frequency	47 Hz	-	63 Hz	
Leakage Current	-	-	0.5 mA	At 277Vac 60Hz input
Input AC Current	-	-	0.49 A	Measured at full load and 100 Vac input.
	-	-	0.25 A	Measured at full load and 220 Vac input.
Inrush Current	-	-	60 A	At 230Vac input 25°C Cold Start

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Ripple and Noise				Load conditions, Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 uF ceramic capacitor and a 10 uF electrolytic capacitor.
Vo = 12 V	-	-	4 V	
Vo = 18 V	-	-	4 V	
Vo = 24 V	-	-	4 V	
Vo = 36 V	-	-	4 V	

Specifications are subject to changes without notice.

Output Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Line Regulation	-	-	3%	
Load Regulation	-	-	10%	
Turn-on Delay Time	-	2.5 s	3.0 s	Measured at 110Vac input.
	-	1.5 s	2.0 s	Measured at 220Vac input.
Output Overshoot / Undershoot	-	-	40%	When power on or off.

Note: All specifications are typical at 25 °C unless otherwise stated.

Protection Functions

Parameter	Min.	Typ.	Max.	Notes
Over Voltage Protection $V_o = 12\text{ V}$ $V_o = 18\text{ V}$ $V_o = 24\text{ V}$ $V_o = 36\text{ V}$	15 V 21 V 26 V 38 V	16 V 22 V 28 V 40 V	17 V 23 V 30 V 42 V	Hiccup mode. The power supply shall be self-recovery when the fault condition is removed.
Over Current Protection	1.1 I_o	1.25 I_o	1.7 I_o	Hiccup mode. The power supply shall be self-recovery when the fault condition is removed.
Short Circuit Protection	No damage shall occur when any output operating in a short circuit condition. The power supply shall be self-recovery when the fault condition is removed.			

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency $V_o = 12\text{ V}$ $V_o = 18\text{ V}$ $V_o = 24\text{ V}$ $V_o = 36\text{ V}$	80% 81% 83% 85%	81% 82% 84% 86%	- - - -	Measured at full load and 110 Vac input.
Efficiency $V_o = 12\text{ V}$ $V_o = 18\text{ V}$ $V_o = 24\text{ V}$ $V_o = 36\text{ V}$	81% 82% 84% 85%	82% 83% 85% 86%	- - - -	Measured at full load and 220 Vac input.
No Load Power Dissipation	-	-	4 W	
MTBF	541,000 hours	-	-	Measured at 110Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F)
Life Time	87,000 hours	-	-	Measured at 110Vac input, 80%Load and 45°C ambient temperature
Case Temperature	-	-	85°C	
Dimensions Inches (L × W × H) Millimeters (L × W × H)	6.77 × 1.67 × 1.34 172 × 42.4 × 34.0			
Net Weight	-	480 g	-	

Note: All specifications are typical at 25 °C unless otherwise stated.

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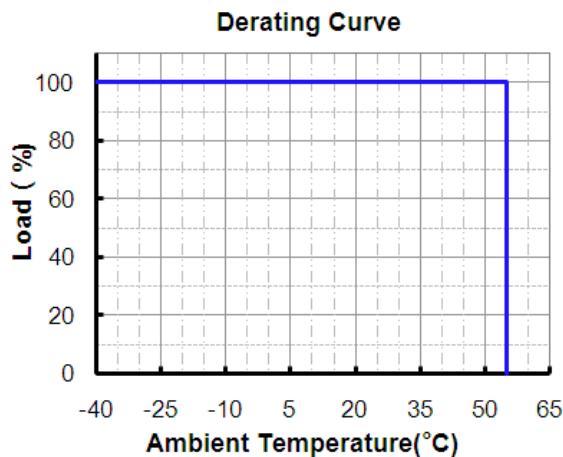
Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-40 °C	-	+55 °C	Humidity: 10% RH to 100% RH See Derating Curve for more details
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5% RH to 100% RH

Safety & EMC Compliance

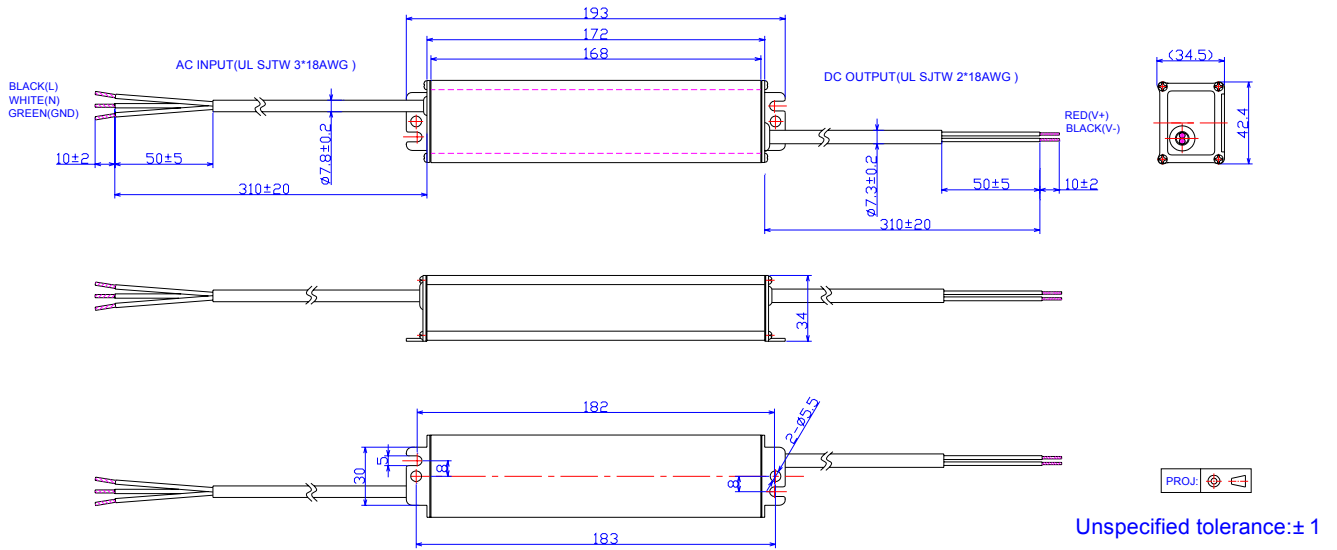
Safety Category	Standard
UL/CUL	UL8750, UL1012, UL1310 Class 2, CSA-C22.2 No. 107.1, CSA C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
EMI Standards	Notes
EN 55015	Conducted emission Test & Radiated emission Test
EN 61000-3-2	Harmonic current emissions
EN 61000-3-3	Voltage fluctuations & flicker
FCC Part 15	ANSI C63.4: 2009 Class B
EMS Standards	Notes
EN 61000-4-2	Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4	Electrical Fast Transient / Burst-EFT
EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 2 kV, line to earth 4 kV
EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8	Power Frequency Magnetic Field Test
EN 61000-4-11	Voltage Dips
EN 61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment

Derating Curve



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Mechanical Outline



RoHS Compliance

Our products comply with the European Directive 2002/95/EC, calling for the elimination of lead and other hazardous substances from electronic products.

Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2009-09-02	V2.1	Change MTBF and Life Time		
2009-09-11	V2.2	Change Turn-on Delay Time		
2009-12-08	A	Modify the output current range		
2010-01-12	B	Modify the derating curve and mechanical outline		
2010-04-12	C	Change the Power Factor 110Vac	0.99	0.98
		Add Leakage Current in Input Specifications	/	Max. 0.5 mA At 277Vac 50Hz input
		Change Inrush Current	20A	60A
		Change Ripple and Noise	Max. 25% V _O	The max. value of every model.
		Change Turn-on Delay Time 110Vac 220Vac	Typ. 1.7S Max. 2.0S 0.7S 1.0S	Typ. 2.5S Max. 3.0S 1.5S 2.0S
		Change Output Overshoot / Undershoot	Max. 10%	Max. 40%
		Change No Load Power Dissipation	≤ 3 W	≤ 4 W
		Delete part of the notes in Operating Temperature	Derating: 2% per °C from 55°C to 70°C.	/
		Change the Max. Ambient Temperature in Derating Curve	+70 °C	+55 °C
		Standardize the tolerance in Mechanical Outline	/	/
2010-10-14	D	Update the Standard of the CUL	/	UL8750, UL935, UL1012, UL1310 Class 2, CSA-C22.2 No. 107.1, CSA C22.2 NO. 223-M91 Class 2
2011-01-10	E	Change Over Voltage Protection V _O = 12 V V _O = 18 V V _O = 24 V V _O = 36 V V _O = 48 V	Min. Typ. Max. 13V 15V 17V 16V 23V 20V 30V 32V 34V 46V 48V 50V 58V 59V 60V	Min. Typ. Max. 15V 16V 17V 21V 22V 23V 26V 28V 30V 38V 40V 42V 51V 53V 55V
		Add FCC Part15 Class B	/	FCC Part 15 Class B, ANSI C63.4: 2009
2012-07-17	F	Max Case Temperature	/	Updated
2012-07-30	G	Min Operating Temperature	-35°C	-40°C
2012-12-28	H	Model 48V	/	Deleted
		Derating Curve	/	Updated
		Mechanical Outline	/	Updated

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