

## Features

- High Efficiency (Up to 91%)
- Active Power Factor Correction (0.99 Typical)
- Constant Voltage Output
- Lightning Protection
- All-Round Protection: OVP, SCP, OTP
- Waterproof (IP67)
- Meet UL1310 Class2
- Comply With UL8750 & EN61347 Safety Regulations



## Description

The EUV-076SxxxSS(ST) series operate from a 90 ~ 305 Vac input range. These units will provide up to a 5 A of output current and a maximum output voltage of 54 V for 76 W maximum output power. They are designed to be highly efficient and highly reliable. Features include over voltage protection, short circuit protection and over temperature protection.

## Models

Output Voltage	Input Voltage	Output Voltage Range	Output Current Range	Max. Output Power	Typical Efficiency (1)	Power Factor		Model Number (2, 3)
						110Vac	220Vac	
12 V	90 ~ 305 Vac	11.4~12.6V	0~5.00 A	60 W	87%	0.99	0.96	EUV-076S012SS(ST)(4)
24 V	90 ~ 305 Vac	22.8~25.2V	0~3.17 A	76 W	88%	0.99	0.96	EUV-076S024SS(ST)(4)
36 V	90 ~ 305 Vac	34.2~37.8V	0~2.11 A	76 W	89%	0.99	0.96	EUV-076S036SS(ST)(4)
42 V	90 ~ 305 Vac	39.9~44.1V	0~1.81 A	76 W	89%	0.99	0.96	EUV-076S042SS(ST)(5)
48 V	90 ~ 305 Vac	45.6~50.4V	0~1.58 A	76 W	90%	0.99	0.96	EUV-076S048SS(ST)(5)
54 V	90 ~ 305 Vac	51.3~56.7V	0~1.41 A	76 W	91%	0.99	0.96	EUV-076S054SS(ST)(5)

- Notes:**
- (1) Measured at full load and 220 Vac input.
  - (2) The suffix 'SS' stands for AC 2pin input and 'ST' stands for AC 3pin input.
  - (3) A suffix -xxxx may be added to denote variations or modifications to the base product, where x can be any alphanumeric character or blank.
  - (4) Class 2 output (USR & CNR).
  - (5) Class 2 output (USR), Non-Class 2 output (CNR).

## Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90 V	-	305 V	
Input Frequency	47 Hz	-	63 Hz	
Leakage Current	-	-	1 mA	At 277Vac 60Hz input
Input AC Current	-	-	0.9 A	Measured at full load and 100 Vac input.
	-	-	0.42 A	Measured at full load and 220 Vac input.
Inrush Current	-	-	50 A	At 230Vac input 25°C Cold Start

Specifications are subject to changes without notice.

## Output Specifications

Parameter		Min.	Typ.	Max.	Notes
Ripple and Noise (pk-pk)		-	-	2% V <sub>O</sub>	Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 uF ceramic capacitor and a 10 uF electrolytic capacitor.
Line Regulation		-	-	1%	
Load Regulation		-	-	2%	
Turn-on Delay Time		-	0.5 s	0.8 s	Measured at 110Vac input.
		-	0.4 s	0.6 s	Measured at 220Vac input.
Output Overshoot / Undershoot		-	-	10%	When power on or off.
Load Dynamic Response	Output Deviation	-	-	5% V <sub>O</sub>	R/S: 1 A/uS Load: 25% ~ 75% full load.
	Settling Time	-	-	10 mS	

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

## Protection Functions

Parameter	Min.	Typ.	Max.	Notes
Over Voltage Protection V <sub>O</sub> = 12 V V <sub>O</sub> = 24 V V <sub>O</sub> = 36 V V <sub>O</sub> = 42 V V <sub>O</sub> = 48 V V <sub>O</sub> = 54 V	- - - - - -	18 V 35 V 50 V 58 V 60 V 65 V	22 V 40 V 55 V 63 V 65 V 70 V	Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
Over Temperature Protection	-	110 °C	-	Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
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 <sub>O</sub> = 12 V V <sub>O</sub> = 24 V V <sub>O</sub> = 36 V V <sub>O</sub> = 42 V V <sub>O</sub> = 48 V V <sub>O</sub> = 54 V	83% 84% 85% 85% 86% 87%	85% 86% 87% 87% 88% 89%	- - - - - -	Measured at full load, 110Vac input, 25°C ambient temperature, after the unit is thermally stabilized. It will be lower about 2%, if measured immediately after startup.

Specifications are subject to changes without notice.

## General Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Efficiency Vo = 12 V Vo = 24 V Vo = 36 V Vo = 42 V Vo = 48 V Vo = 54 V	85% 86% 87% 87% 88% 89%	87% 88% 89% 89% 90% 91%	- - - - - -	Measured at full load, 220Vac input, 25°C ambient temperature, after the unit is thermally stabilized. It will be lower about 2%, if measured immediately after startup.
MTBF	450,000 hours			Measured at 110Vac input, 80% load and 25°C ambient temperature (MIL-HDBK-217F)
Life Time	65,000 hours			Measured at 110Vac input, 80% load and 45°C ambient temperature
Dimensions Inches (L × W × H) Millimeters (L × W × H)	5.91 × 2.66 × 1.44 150 × 67.5 × 36.5			
Net Weight	-	750 g	-	

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

## Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-35 °C	-	+70 °C	Humidity: 10% RH to 100% RH
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5% RH to 100% RH

## Safety & EMC Compliance

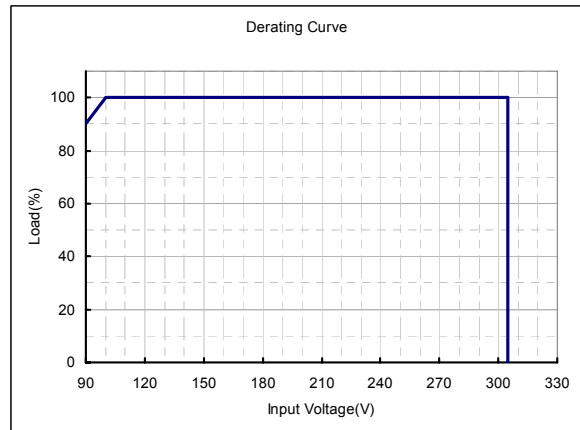
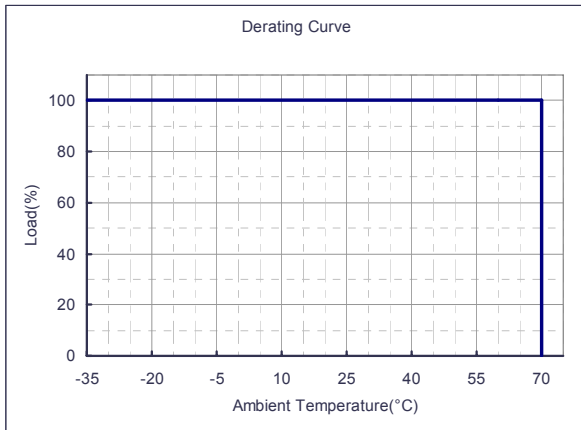
Safety Category	Standard
CUL	UL8750 Compliance to UL1310 Class2, UL1012 UL935, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
CE	EN61347-1, EN61347-2-13
EMI Standards	Notes
EN 55015	Conducted emission Test & Radiated emission Test
EN 61000-3-2	Harmonic current emissions: Class C
EN 61000-3-3	Voltage fluctuations & flicker
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

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## Safety & EMC Compliance (Continued)

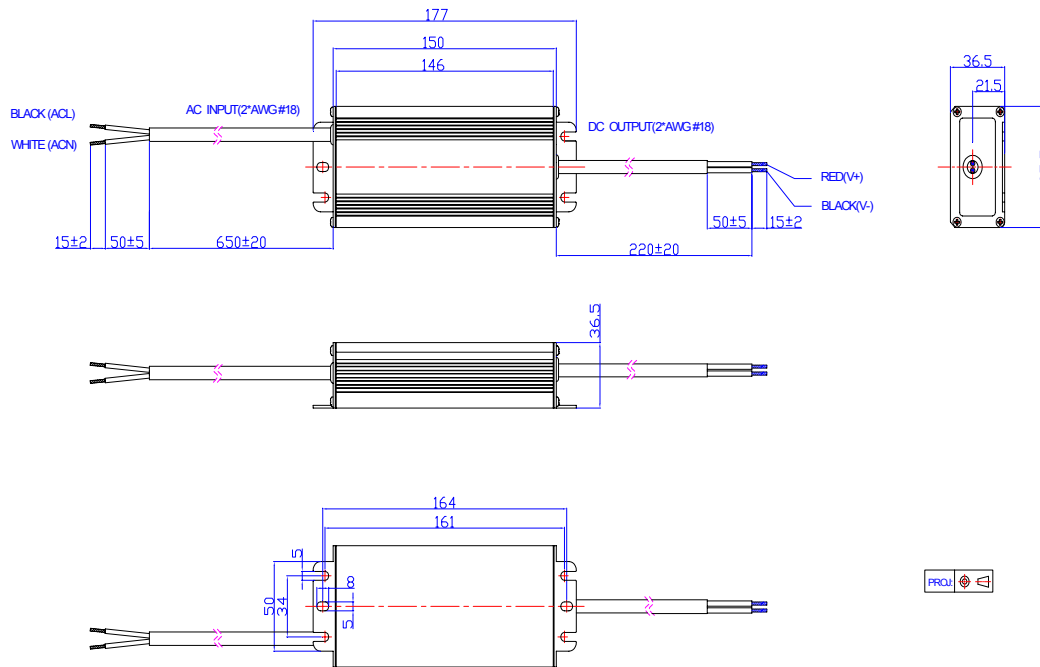
EMS Standards	Notes
EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 2 kV, line to earth 4 kV
EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8	Power Frequency Magnetic Field Test
EN 61000-4-11	Voltage Dips
EN 61547	Electromagnetic Immunity Requirements Applies to Lighting Equipment

## Derating Curve



## Mechanical Outline

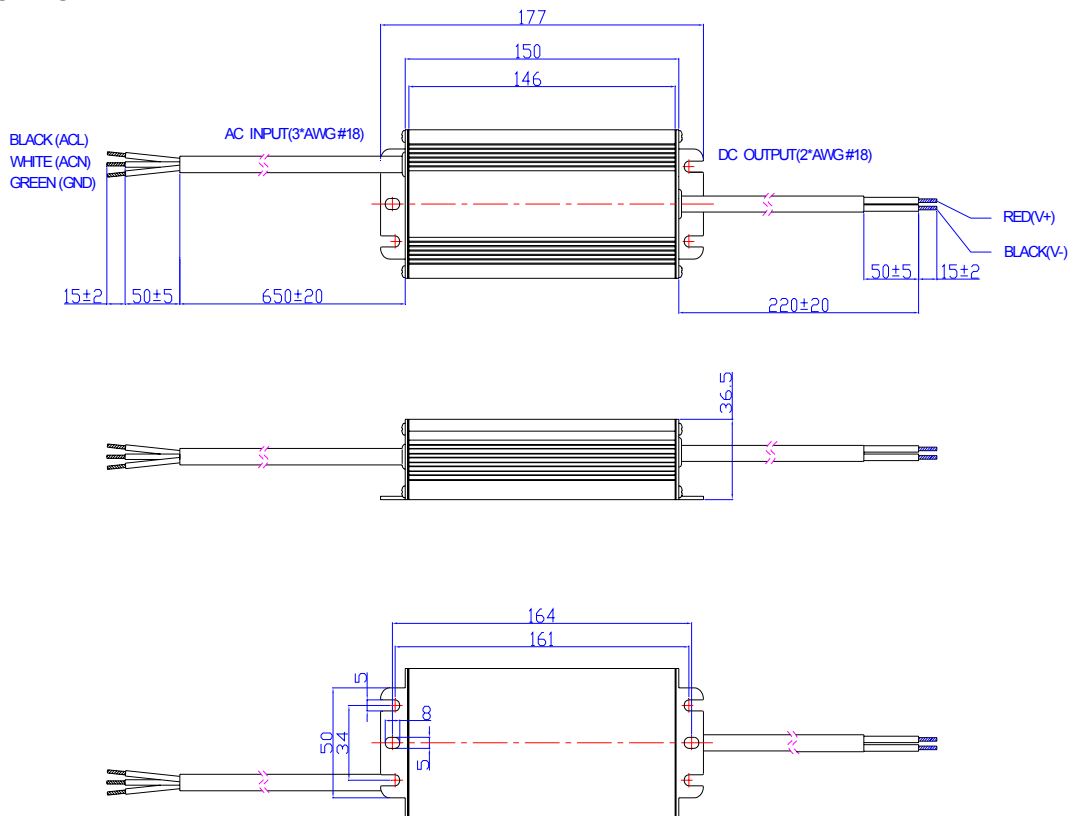
### EUV-076SxxxSS



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## Mechanical Outline (Continued)

EUV-076SxxxST



## 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
2009-09-15	V2.0	Change MTBF and Life Time		
2009-12-03	V3.0	Change turn on delay time		
2010-01-19	V3.1	Change the product photo and mechanical outline		
2010-03-03	A	Add notes of UL1310 Class 2 for all models. (4) (5)		
		Efficiency (110Vac)	<b>Min.</b> <b>Typ.</b>	<b>Min.</b> <b>Typ.</b>
		Vo = 12 V	84.5%, 86%	83%, 85%
		Vo = 24 V	85.5%, 87%	84%, 86%
		Vo = 36 V	86.5%, 88%	85%, 87%
		Vo = 42 V	86.5%, 88%	85%, 87%
		Vo = 48 V	87.5%, 89%	86%, 88%
		Vo = 54 V	87.5%, 89%	87%, 89%
		Efficiency (220Vac)	<b>Min.</b> <b>Typ.</b>	<b>Min.</b> <b>Typ.</b>
		Vo = 12 V	86.5%, 88%	85%, 87%
Vo = 24 V	87.5%, 89%	86%, 88%		
Vo = 36 V	88.5%, 90%	87%, 89%		
Vo = 42 V	88.5%, 90%	87%, 89%		
Vo = 48 V	89.5%, 91%	88%, 90%		
Vo = 54 V	89.5%, 91%	89%, 91%		
Change PF of 12V (220Vac)	0.95	0.96		
Change MTBF	498,000 hours	450,000 hours		
Add Leakage Current in Input Specifications	/	/		
Add Derating Curve	/	/		
Modify the tin-plated wire length tolerance in Mechanical Outline	±0.5	±2		