

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	Max. Output Current	Max. Output Power	Typical Efficiency (1)	Power Factor		Model Number (AC 2pin Input) (2, 3)	Model Number (AC 3pin Input) (2, 3)
					110Vac	220Vac		
12 V	90 ~ 305 Vac	5.00 A	60 W	87%	0.99	0.96	EUV-076S012SS(4)	EUV-076S012ST(4)
24 V	90 ~ 305 Vac	3.17 A	76 W	88%	0.99	0.96	EUV-076S024SS(4)	EUV-076S024ST(4)
36 V	90 ~ 305 Vac	2.11 A	76 W	89%	0.99	0.96	EUV-076S036SS(4)	EUV-076S036ST(4)
42 V	90 ~ 305 Vac	1.81 A	76 W	89%	0.99	0.96	EUV-076S042SS(5)	EUV-076S042ST(5)
48 V	90 ~ 305 Vac	1.58 A	76 W	90%	0.99	0.96	EUV-076S048SS(5)	EUV-076S048ST(5)
54 V	90 ~ 305 Vac	1.41 A	76 W	91%	0.99	0.96	EUV-076S054SS(5)	EUV-076S054ST(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 50Hz 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
Output Voltage Range				Measured at the end of output cable, including line, load and temperature regulations.
$V_o = 12\text{ V}$	11.40 V	12 V	12.60 V	
$V_o = 24\text{ V}$	22.80 V	24 V	25.20 V	
$V_o = 36\text{ V}$	34.20 V	36 V	37.80 V	
$V_o = 42\text{ V}$	39.90 V	42 V	44.10 V	
$V_o = 48\text{ V}$	45.60 V	48 V	50.40 V	
$V_o = 54\text{ V}$	51.30 V	54 V	56.70 V	
Output Current Range				
$V_o = 12\text{ V}$	0 A	-	5.00 A	
$V_o = 24\text{ V}$	0 A	-	3.17 A	
$V_o = 36\text{ V}$	0 A	-	2.11 A	
$V_o = 42\text{ V}$	0 A	-	1.81 A	
$V_o = 48\text{ V}$	0 A	-	1.58 A	
$V_o = 54\text{ V}$	0 A	-	1.41 A	
Ripple and Noise (pk-pk)	-	-	2% V_o	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_o	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				Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
$V_o = 12\text{ V}$	-	18 V	22 V	
$V_o = 24\text{ V}$	-	35 V	40 V	
$V_o = 36\text{ V}$	-	50 V	55 V	
$V_o = 42\text{ V}$	-	58 V	63 V	
$V_o = 48\text{ V}$	-	60 V	65 V	
$V_o = 54\text{ V}$	-	65 V	70 V	
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.			

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General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency				
Vo = 12 V	83%	85%	-	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.
Vo = 24 V	84%	86%	-	
Vo = 36 V	85%	87%	-	
Vo = 42 V	85%	87%	-	
Vo = 48 V	86%	88%	-	
Vo = 54 V	87%	89%	-	
Efficiency				
Vo = 12 V	85%	87%	-	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.
Vo = 24 V	86%	88%	-	
Vo = 36 V	87%	89%	-	
Vo = 42 V	87%	89%	-	
Vo = 48 V	88%	90%	-	
Vo = 54 V	89%	91%	-	
MTBF	450,000 hours			For 36V output model, measured at 110Vac input, 80% load and 25°C ambient temperature (MIL-HDBK-217F)
Life Time	65,000 hours			For 36V output model, measured at 110Vac input, 80% load and 45°C ambient temperature
Dimensions				
Inches (L x W x H)	5.91 x 2.66 x 1.46			
Millimeters (L x W x H)	150 x 67.5 x 37			
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

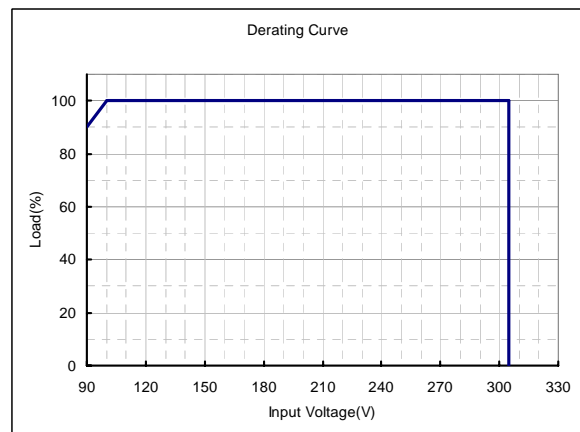
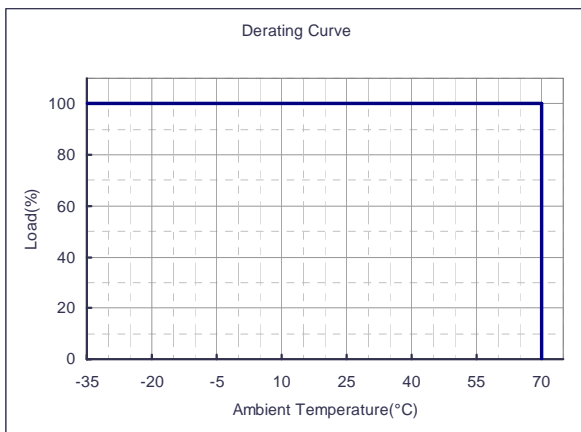
Safety Category	Country	Standard
CUL	USA & Canada	UL8750 Compliance to UL1310 Class2, UL1012 UL935, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
CE	Europe	EN61347-1, EN61347-2-13
EMI Standards		Notes
EN 55015		Conducted emission Test & Radiated emission Test with 6 dB margin

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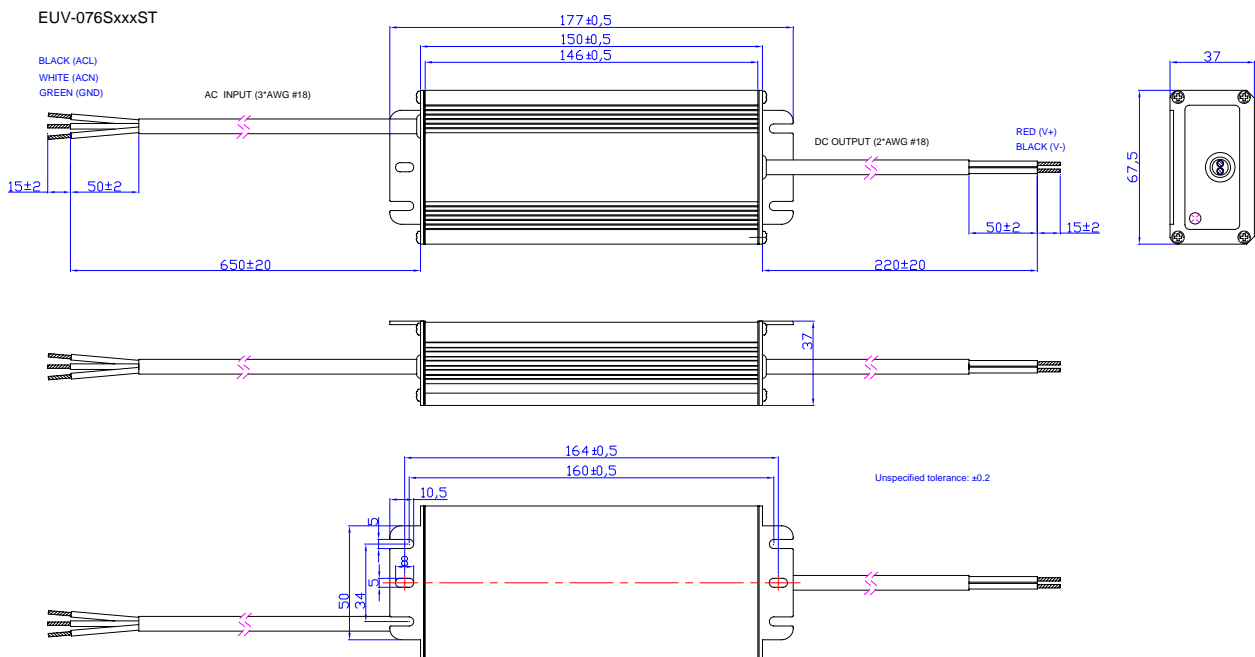
LED Driver EUV-076SxxxSS/ST 20100303 A

EMS Standards	Notes
EN 61000-3-2	Harmonic current emissions: Class C
EN 61000-3-3	Voltage fluctuations & flicker
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

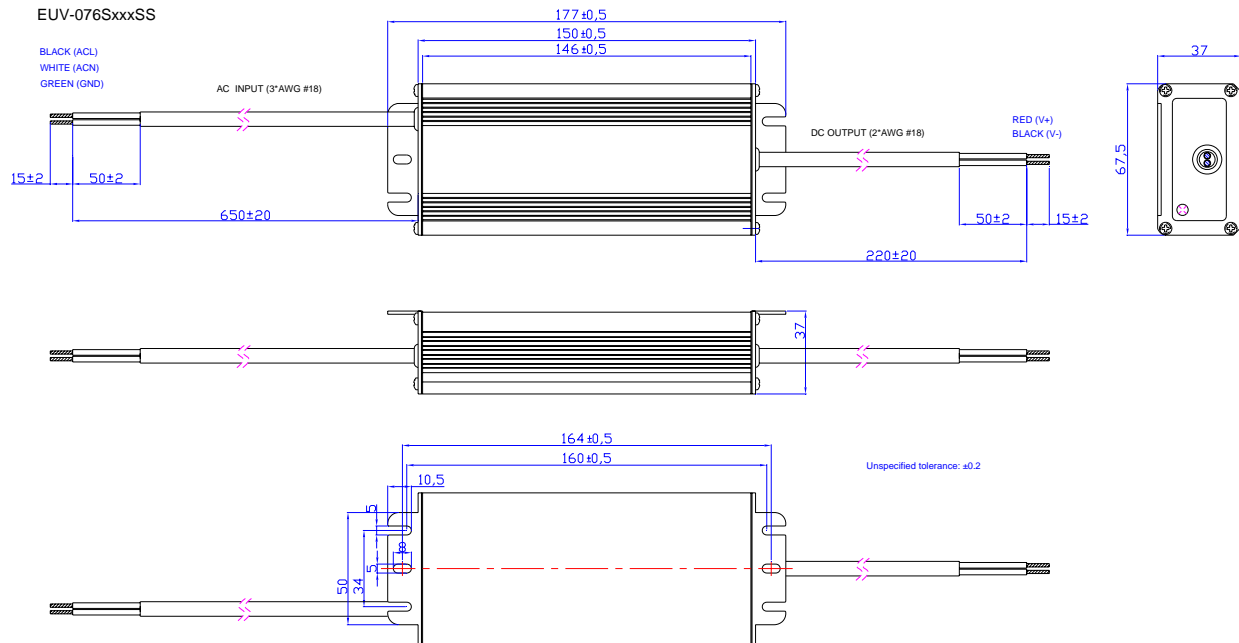
Derating Curve



Mechanical Outline



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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)	Min. Typ.	Min. Typ.
		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)	Min. Typ.	Min. Typ.
		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		

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