

## Features

- High Efficiency (Up to 86%)
- Second Generation with Improved Performance
- Active Power Factor Correction (Typical 0.92)
- Constant Output Current
- Waterproof (IP66)
- Dimming Control
- All-Round Protection: OVP, SCP, OLP,OTP
- Comply With UL8750 & EN61347 Safety Regulations



## Description

The EUC-026SxxxDS/PS series operate from a 90 ~ 305 Vac input range. These units will provide up to a 1750 mA of output current and a maximum output voltage of 75 V for 26 W maximum output power. They are designed to be highly efficient and highly reliable. Features include over voltage protection, short circuit protection and over load protection.

## Models

Output Current	Input Voltage	Output Voltage Range	Max. Output Power	Typical Efficiency (1)	Power Factor		Model Number (2, 3)
					110Vac	220Vac	
350 mA	90 ~ 305 Vac	38-75 Vdc	26 W	86%	0.98	0.92	EUC-026S035PS/DS (4)
450 mA	90 ~ 305 Vac	29-58 Vdc	26 W	86%	0.98	0.92	EUC-026S045PS/DS (4)
700 mA	90 ~ 305 Vac	19-37 Vdc	26 W	85%	0.98	0.92	EUC-026S070PS/DS (5)
1050 mA	90 ~ 305 Vac	13-25 Vdc	26 W	84%	0.98	0.92	EUC-026S105PS/DS (5)
1400 mA	90 ~ 305 Vac	10-19 Vdc	26 W	83%	0.98	0.92	EUC-026S140PS/DS (5)
1750 mA	90 ~ 305 Vac	8-15 Vdc	26 W	83%	0.98	0.92	EUC-026S175PS/DS (5)

- Notes:**
- (1) Measured at full load and 220 Vac input.
  - (2) The DS suffix may be changed to PS to omit the dimming function and remove the three wires associated with that function.
  - (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) Non-Class 2 output (USR & CNR).
  - (5) Class 2 output (USR & CNR).

## Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90 V	-	305 V	
Input Frequency	47Hz	-	63 Hz	
Leakage Current	-	-	0.75 mA	At 277Vac 50Hz input
Input AC Current	-	-	0.4 A	Measured at full load and 100 Vac input.
	-	-	0.2 A	Measured at full load and 220 Vac input.
Inrush Current	-	-	60 A	At 230Vac input 25°C Cold Start. Duration=100µs

Specifications are subject to changes without notice.

## Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-5%	-	5%	
No Load Output Voltage				
$I_o = 350$ mA	-	-	85 V	
$I_o = 450$ mA	-	-	66 V	
$I_o = 700$ mA	-	-	42 V	
$I_o = 1050$ mA	-	-	32 V	
$I_o = 1400$ mA	-	-	26 V	
$I_o = 1750$ mA	-	-	22 V	
Over Current Ripple	-	-	50% $I_o$	
Overshoot/Output Current	-	-	10% $I_o$	
Line Regulation	-	-	1%	
Load Regulation	-	-	3%	
Turn-on Delay Time	-	0.6 s	1.0 s	Measured at 110Vac input.
	-	0.3 s	0.5 s	Measured at 220Vac input.

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

## Protection Functions

Parameter	Min.	Typ.	Max.	Notes
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.
Over Temperature Protection				Hiccup mode. When the case temperature is higher than $110 \pm 15^\circ\text{C}$ , the power supply will turn off automatically; when the case temperature is lower than $110 \pm 15^\circ\text{C}$ , the power supply will start again.

## General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency				
$I_o = 350$ mA	84%	85%	-	Measured at full load and 110 Vac input.
$I_o = 450$ mA	84%	85%	-	
$I_o = 700$ mA	83%	84%	-	
$I_o = 1050$ mA	82%	83%	-	
$I_o = 1400$ mA	81%	82%	-	
$I_o = 1750$ mA	81%	82%	-	
Efficiency				
$I_o = 350$ mA	85%	86%	-	Measured at full load and 220 Vac input.
$I_o = 450$ mA	85%	86%	-	
$I_o = 700$ mA	84%	85%	-	
$I_o = 1050$ mA	83%	84%	-	
$I_o = 1400$ mA	82%	83%	-	
$I_o = 1750$ mA	82%	83%	-	
No Load Power Dissipation			5 W	

Specifications are subject to changes without notice.

## General Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
MTBF	130,000 Hours			For 1750 mA output model, measured at 110Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F).
Life Time	70,000 Hours			Case Temperature=70°C
Dimensions Inches (L × W × H) Millimeters (L × W × H)	3.07 × 3.15 × 1.06 78 × 80 × 27			
Net Weight	-	200 g	-	

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

## Environmental Specifications

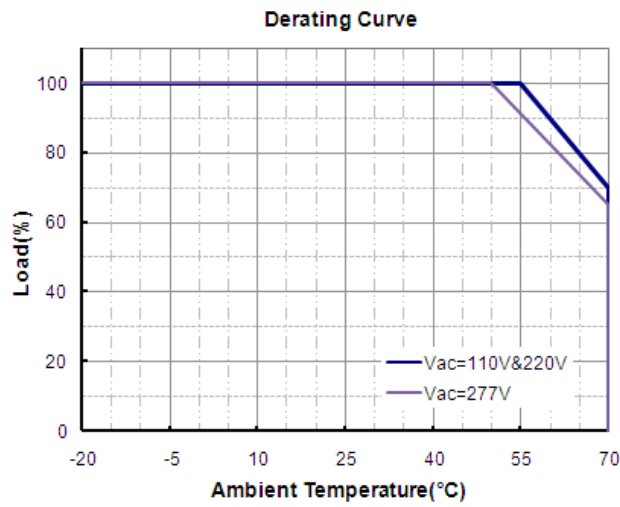
Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-20 °C	-	+70 °C	Humidity: 10% RH to 100% RH Derating: 1.5% per °C from 50°C to 70°C
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5% RH to 100% RH

## Safety & EMC Compliance

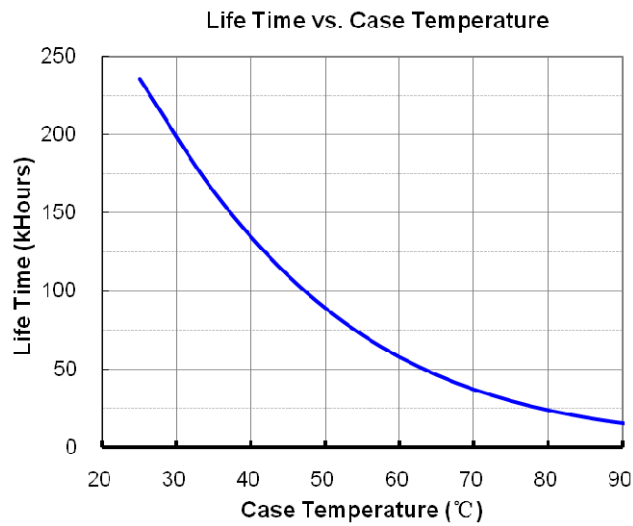
Safety Category	Standard
CUL	UL8750, UL935, UL1012, UL1310 Class 2, CSA-C22.2 No. 107.1, CSA C22.2 NO. 223-M91 Class 2
CE	EN 61347-1, EN61347-2-13
EMI Standards	Notes
EN 55015	Conducted emission Test & Radiated emission Test with 6 dB margin
EMS Standards	Notes
EN 61000-3-2	Harmonic Current Emissions
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 : level 3, criteria A
EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 2 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

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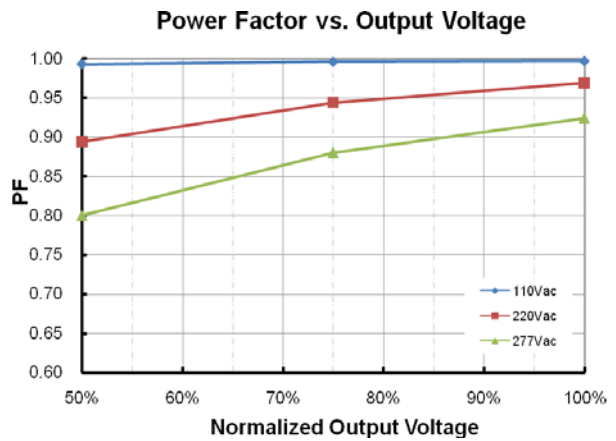
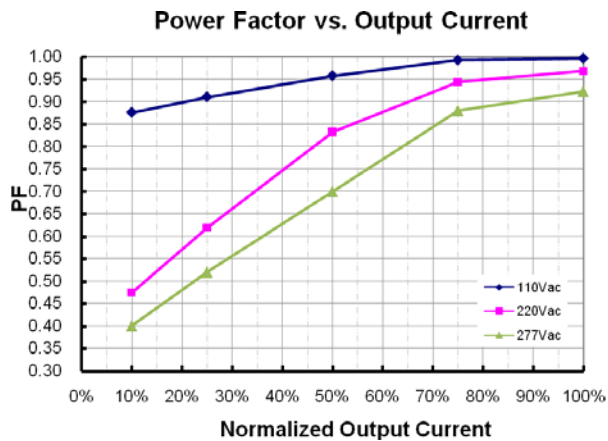
## Derating Curve



## Life Time

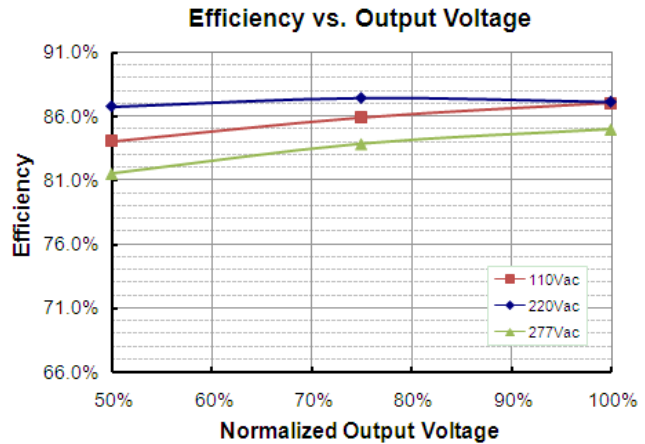
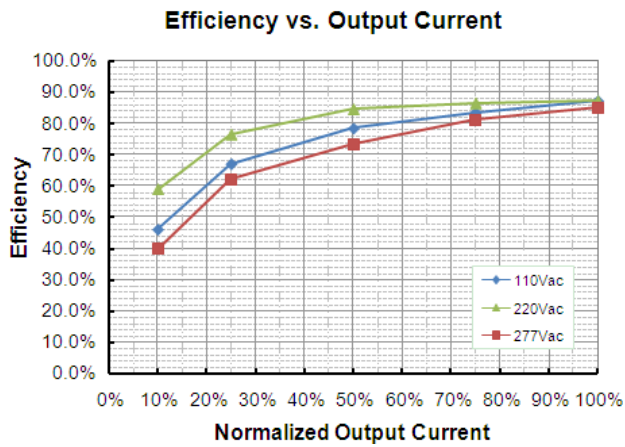


## Power Factor Characteristics



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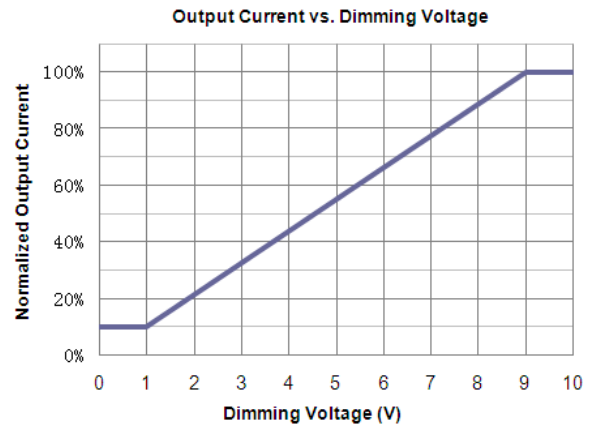
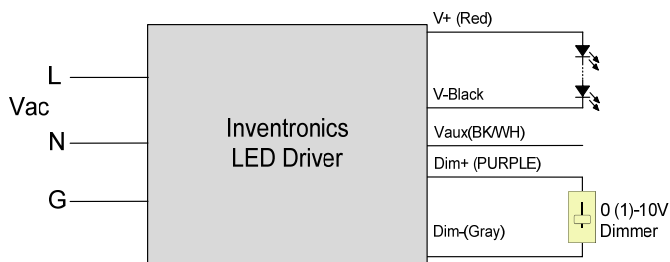
## Efficiency vs. Load (350mA Model)



## Dimming Control (On secondary side)

Parameter	Min.	Typ.	Max.	Notes
12V Output Voltage	10.8 V	12 V	13.2 V	
12V Output Source Current	0 mA	-	20 mA	
Absolute Maximum Voltage on the 0~10V Input Pin	-2 V	-	15 V	
Source Current on 0~10V Input Pin	0 uA	-	200 uA	

The dimmer control may be operated from either a dimmer or from an input signal of 0 – 10 Vdc. The recommended implementation is provided below.

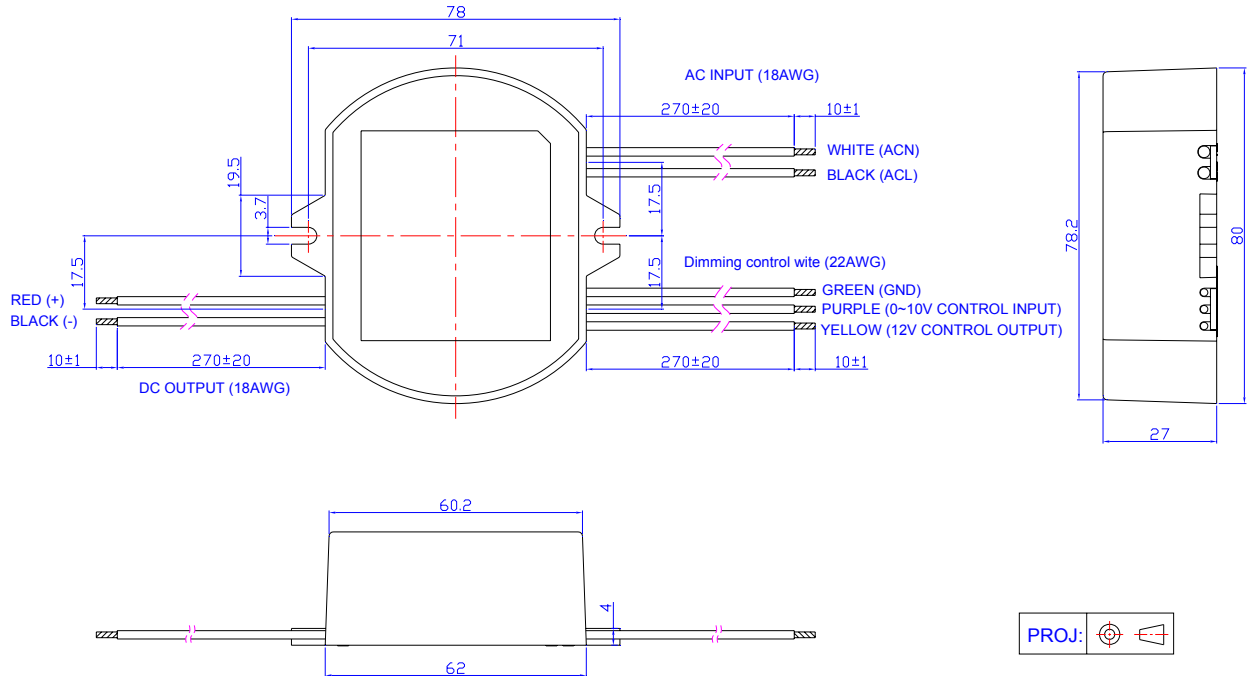


### Notes:

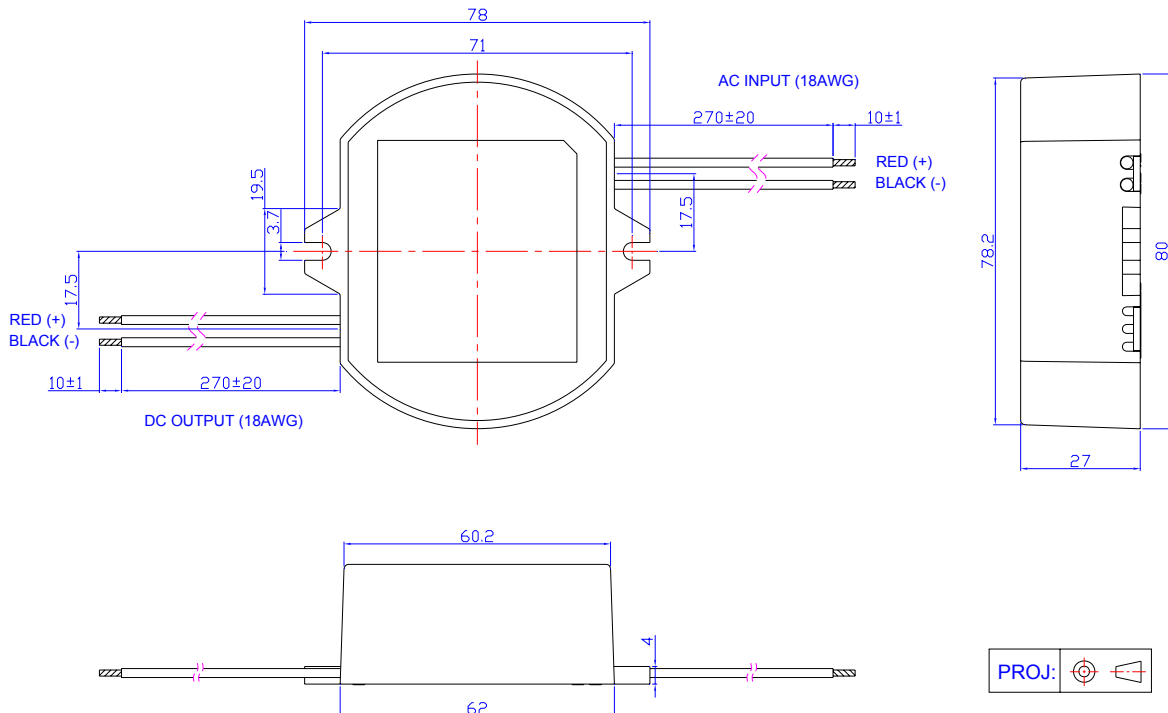
Do not connect the GND of dimming to the output; otherwise, the LED driver can not work normally.

## Mechanical Outline

### EUC-026SxxxDS



### EUC-026SxxxPS



## 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.

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## Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2010-04-07	V1.0	First Release	/	/
2010-10-20	V2.0	Update the part of dimming control	/	/
2011-7-20	V4.0	Power Factor	0.99;0.95	0.98;0.92
		Input AC Current	0.32A;0.15A	0.4A;0.2A
		MTBF	/	130,000 Hours
		Life Time	/	70,000 Hours
		Life Time Curve; PF Curve; Efficiency Curve;	/	Added
		Derating Curve	/	Add 277V,220V Curve
2011-7-28	V4.1	Power Factor:110 Vac	0.99	0.98
2011-11-14	V4.2	Mechanical outline---center to center distance and slot Width	70MM & 4MM	71MM & 3.7MM
2011-12-2	V4.3	OTP	/	Added