

Features

- High Efficiency (Up to 86%)
- Active Power Factor Correction (Typical 0.95)
- Constant Output Voltage
- IP66 and UL Dry / Damp Location
- All-Around Protection: OVP, SCP, OCP
- Class 2 & SELV Output



Description

The EUV-026SxxxPS Series operates 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(1) | Output Current Range | Max. Output Power | Typical Efficiency (2) | Power Factor | | Model Number(5) |
|----------------|------------------------|----------------------|-------------------|------------------------|--------------|--------|------------------------------|
| | | | | | 120Vac | 220Vac | |
| 24 Vdc | 90 ~ 305 Vac | 0~1080mA | 26 W | 84% | 0.96 | 0.95 | EUV-026S024PS ⁽³⁾ |
| 36 Vdc | 90 ~ 305 Vac | 0~720 mA | 26 W | 85% | 0.96 | 0.95 | EUV-026S036PS ⁽³⁾ |
| 48 Vdc | 90 ~ 305 Vac | 0~540 mA | 26 W | 86% | 0.96 | 0.95 | EUV-026S048PS ⁽⁴⁾ |

Notes: (1) Certified input voltage range: UL, FCC 100-277Vac; otherwise 100-240Vac.

(2) Measured at 100% load and 220 Vac input.

(3) Class 2 output (USR & CNR).

(4) Class 2 output (USR), Non-Class 2 output (CNR).

(5) For built-in double insulation models add suffix -00K0.

Input Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|----------------------------------|--------|------|------------------------|---|
| Input Voltage | 90 Vac | - | 305 Vac | |
| Input Frequency | 47 Hz | - | 63 Hz | |
| Leakage Current | - | - | 0.75 MIU | UL8750; 277Vac/60Hz |
| | - | - | 0.70 mA | IEC60598-1; 240Vac/60Hz |
| Input AC Current | - | - | 0.4 A | Measured at 100% load and 100 Vac input. |
| | - | - | 0.2 A | Measured at 100% load and 220 Vac input. |
| Inrush Current | - | - | 40 A | At 220Vac input 25°C Cold Start. |
| Inrush Current(I ² t) | - | - | 0.043 A ² s | Duration=100 μs, 10%l _{pk} -10%l _{pk} . |

Input Specifications (Continued)

| Parameter | Min. | Typ. | Max. | Notes |
|--------------|------|------|------|---|
| Power Factor | 0.90 | - | - | At 100Vac-277Vac, 50-60Hz, 75%load-100%load(19.5~26W) |
| THD | - | - | 20% | |

Output Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|---|-------------|-------------|----------------------|--|
| Output Voltage Tolerance | -5%Vo | | 5%Vo | |
| Output Voltage Ripple Vo = 24 V Vo = 36 V Vo = 48 V | - - - | - - - | 3 V 4 V 4 V | Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 μF ceramic capacitor and a 10 μF electrolytic capacitor. |
| No Load Output Voltage Vo = 24 V Vo = 36 V Vo = 48 V | - - - | - - - | 28 V 40 V 52 V | |
| Output Voltage Overshoot / Undershoot | - | - | 10%Vo | At 100% load condition. |
| Line Regulation | - | - | ±2% | Measured at 100% load. |
| Load Regulation | - | - | ±3% | |
| Turn-on Delay Time | - | 0.40 s | 0.75 s | Measured at 120Vac input, 75%load-100% load |
| | - | 0.30 s | 0.50 s | Measured at 220Vac input, 75%load-100% load |
| Temperature coefficient | - | - | 0.2%/°C | Case temperature = 0°C~Tc max |

General Specifications

| Parameter | Min. | Typ. | Max. | Notes |
|---|-------------------|-------------------|-------------|---|
| Efficiency at 120 Vac input: Vo = 24 V Vo = 36 V Vo = 48 V | 82% 83% 84% | 83% 84% 85% | - - - | Measured at 100% load and steady-state temperature in 25°C ambient. |
| Efficiency at 220 Vac input: Vo = 24 V Vo = 36 V Vo = 48 V | 83% 84% 85% | 84% 85% 86% | - - - | Measured at 100% load and steady-state temperature in 25°C ambient. |
| No Load Power Dissipation | - | - | 5 W | |
| MTBF | 200,000 hours | - | - | Measured at 120Vac input, 80%load and 25°C ambient temperature (MIL-HDBK-217F) |
| Lifetime | - | 91,100 Hours | - | Measured at 120Vac input, 80%load and 60°C case temperature; See lifetime vs. Tc curve for the details. |

General Specifications (Continued)

| Parameter | Min. | Typ. | Max. | Notes |
|---|------------------------------------|-------|--------|--|
| Operating Case Temperature for Safety Tc_s | -40 °C | - | +90°C | |
| Operating Case Temperature for Warranty Tc_w | -40 °C | - | +70 °C | Humidity: 10% RH to 90% RH; No condensation |
| Storage Temperature | -40 °C | - | +85 °C | Humidity: 5% RH to 95% RH; No condensation |
| Dimensions Inches (L × W × H) Millimeters (L × W × H) | 3.07 × 3.15 × 1.06 78 × 80 × 27 | | | |
| Net Weight | - | 220 g | - | |

Safety & EMC Compliance

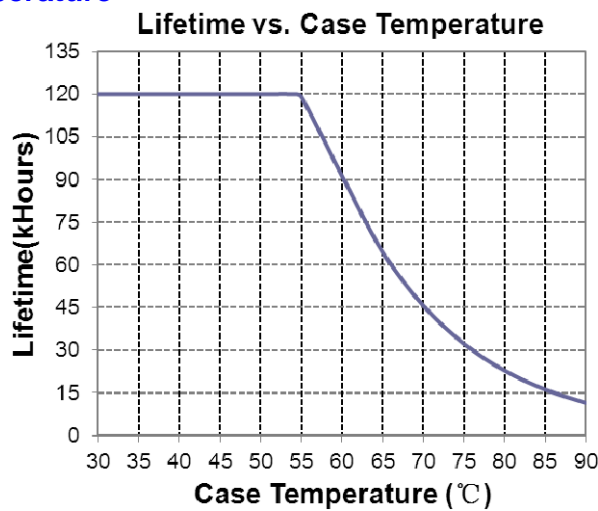
| Safety Category | Standard |
|-------------------------------|---|
| UL/CUL | UL8750, UL 1310, CAN/CSA-C22.2 No. 250.13, CAN/CSA-C22.2 No. 223-M91 |
| CE | EN 61347-1, EN61347-2-13 |
| BIS | IS 15885(Part2/Sec13) |
| EAC | ГОСТ Р МЭК 61347-1, ГОСТ IEC 61347-2-13 |
| KS | KS C 7655 |
| EMI Standards | Notes |
| EN 55015/KN 15 ⁽¹⁾ | Conducted emission Test & Radiated emission Test |
| EN 61000-3-2 | Harmonic current emissions |
| EN 61000-3-3 | Voltage fluctuations & flicker |
| FCC Part 15 ⁽¹⁾ | ANSI C63.4 Class B |
| | This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: [1] this device may not cause harmful interference, and [2] this device must accept any interference received, including interference that may cause undesired operation. |
| 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: Differential Mode 2 kV |
| EN 61000-4-6 | Conducted Radio Frequency Disturbances Test-CS |

Safety & EMC Compliance (Continued)

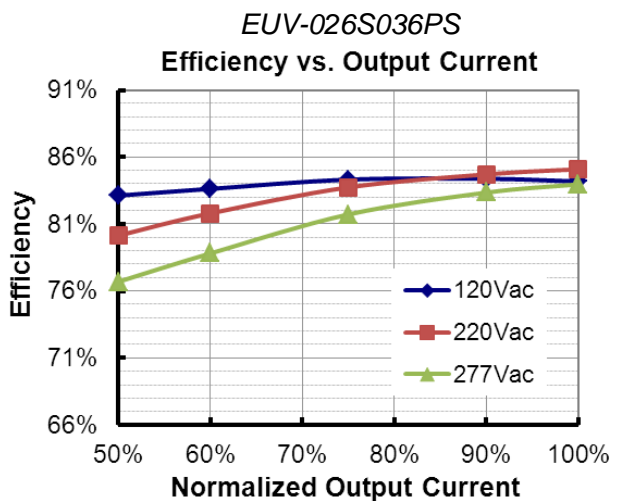
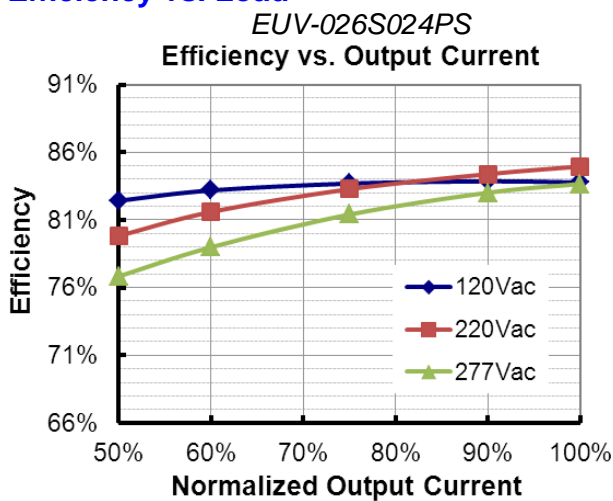
| EMS Standards | Notes |
|---------------|---|
| EN 61000-4-8 | Power Frequency Magnetic Field Test |
| EN 61000-4-11 | Voltage Dips |
| EN 61547 | Electromagnetic Immunity Requirements Applies To Lighting Equipment |

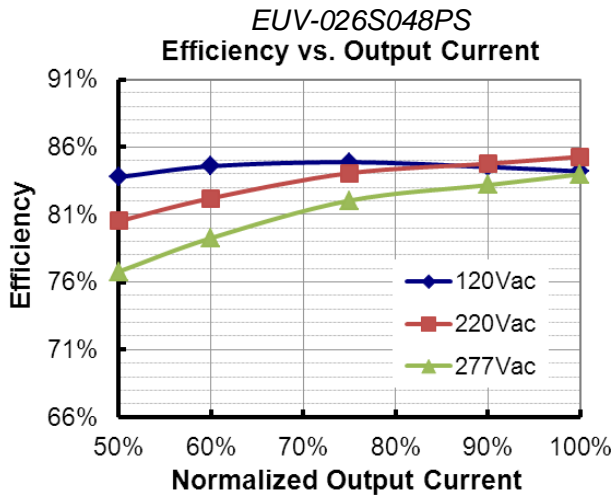
Note: (1) This LED driver meets the EMI specifications above, but EMI performance of a luminaire that contains it depends also on the other devices connected to the driver and on the fixture itself.

Lifetime vs. Case Temperature

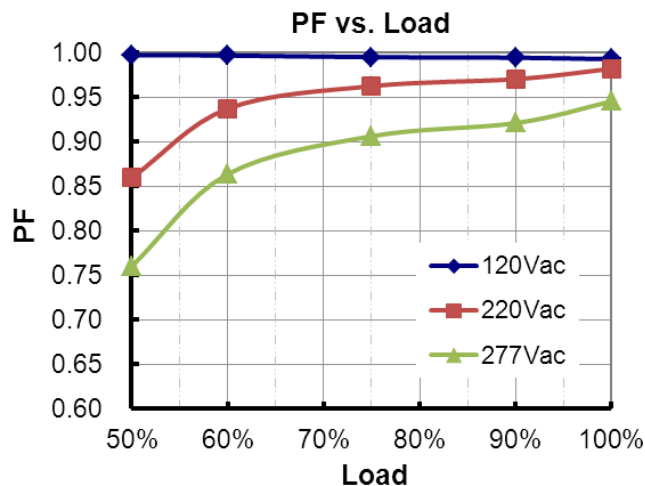


Efficiency vs. Load





Power Factor

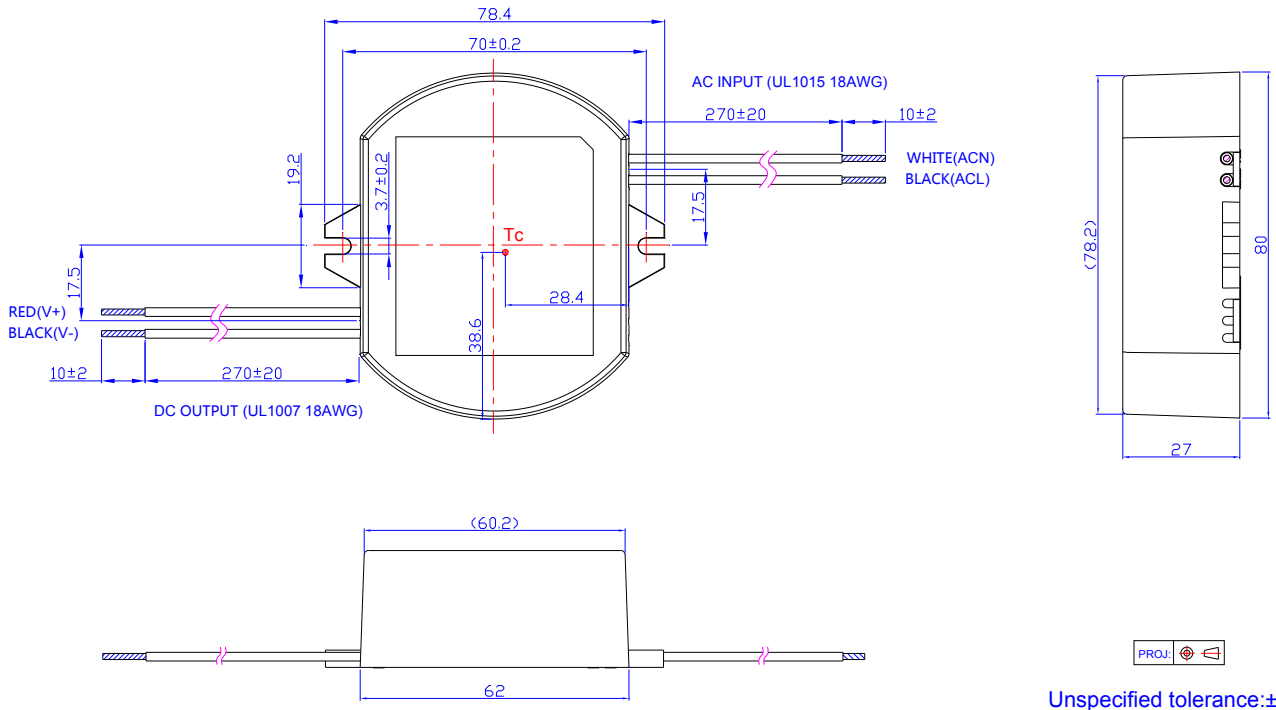


Protection Functions

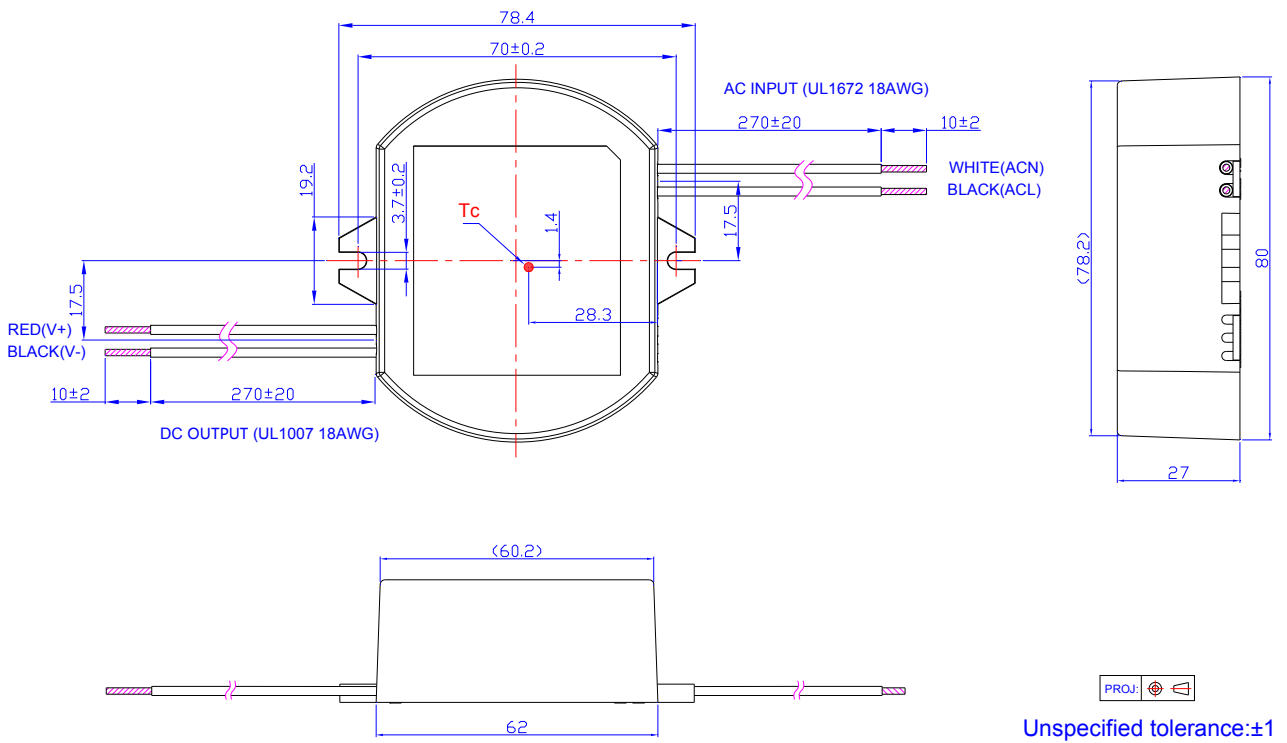
| Parameter | Min. | Typ. | Max. | Notes |
|--------------------------|---|-------|-------|---|
| Over Voltage Protection | 110% | 120% | 130% | Hiccup mode. The power supply shall be self-recovery when the fault condition is removed. |
| Over Current Protection | 1.1Io | 1.4Io | 1.7Io | Hiccup mode. The power supply shall be self-recovery when the fault condition is removed. |
| Short Circuit Protection | Auto Recovery. 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. | | | |

Mechanical Outline

EUV-026SxxxPS



EUV-026SxxxPS-00K0



RoHS Compliance

Our products comply with reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.

Revision History

| Change Date | Rev. | Description of Change | | |
|-------------|------|---|-------------------------|-------------------------------|
| | | Item | From | To |
| 2012-04-24 | A | Datasheet Release | / | / |
| 2012-05-25 | B | EN 61000-4-5--- line to line 2 kV, line to earth 4 kV | / | Corrected |
| 2012-06-06 | C | Lifetime vs. Tc Curve | / | Added |
| | | Notes of lifetime | / | Updated |
| 2012-07-17 | D | Max Case Temperature | / | Updated |
| 2012-07-30 | E | Min Operating Temperature | -20°C | -40°C |
| 2012-08-20 | F | Derating Curve | / | Updated |
| | | Inrush Current | 60A | 40A |
| | | Inrush Current(I2t) | / | Added |
| | | Temperature Coefficient | / | Added |
| 2012-11-26 | G | Lifetime | Min 50,000hrs | Typical 91,100hrs |
| | | Lifetime Curve | / | Updated |
| 2013-07-01 | H | Energy star | / | Deleted |
| 2016-08-08 | I | Turn-on Delay Time at 120Vac | Max.=1.0 s | Max.=0.75 s |
| | | Operating Case Temperature for Warranty Tc_w | / | Added |
| | | Net Weight | 200 g | 220 g |
| | | Environmental Specifications | / | Deleted |
| | | KS Certificate Regulation | / | Added |
| | | Note of EMI Standard | / | Added |
| | | Derating Curve | / | Deleted |
| 2019-08-14 | J | KCC Logo | / | Added |
| | | Input Specifications(PF/THD) | 50-60Hz | Added |
| | | Safety &EMC Compliance | UL/CUL | Updated |
| | | Safety &EMC Compliance | KS | Updated |
| | | Safety &EMC Compliance | EN 55015 ⁽¹⁾ | EN 55015/KN 15 ⁽¹⁾ |
| | | Safety &EMC Compliance | FCC | Updated |
| | | Safety &EMC Compliance | EN 61000-4-4 | Updated |
| | | Safety &EMC Compliance | EN 61000-4-5 | Updated |
| | | RoHS Compliance | / | Updated |
| 2021-03-26 | K | Features | / | Updated |
| | | EAC logo | / | Added |

Revision History (Continued)

| Change Date | Rev. | Description of Change | | |
|-------------|------|--|------|---------|
| | | Item | From | To |
| 2021-03-26 | K | BIS logo | / | Added |
| | | Double insulation logo | / | Added |
| | | Models - Notes: (6) For double insulation models add suffix -00K0. | / | Added |
| | | Humidity | / | Updated |
| | | Safety & EMC Compliance - Safety Category - BIS & EAC | BIS | Added |
| | | Mechanical Outline - EUV-026SxxxPS-00K0 | / | Added |