

## Features

- Low THD, 10% Max up to 240 Vac
- Compact Metal Case with Excellent Thermal Performance
- Input Surge Protection: DM 4kV, CM 6kV
- High Reliability & Long Lifetime: 84,000 Hrs. at 70°C Case Temperature
- Input UVP
- IP67
- SELV Output
- 5 Year Warranty



## Description

The EUC-026SxxxSVM000x series is a 26W, constant-current IP67 LED driver that operates from 90-305 Vac input with excellent power factor and THD feature. It is created for many lighting applications including low bay, tunnel and street, etc. The high efficiency of these drivers and compact metal case enable them to run cooler, significantly improving reliability and extending product life. To ensure trouble-free operation, protection is provided against input surge, input under voltage, output over voltage, short circuit, and over temperature.

## Models

| Output Current | Input Voltage Range(1)         | Output Voltage Range | Max. Output Power | Typical Efficiency (2) | Typical Power Factor |         | Model Number (3)(4) |
|----------------|--------------------------------|----------------------|-------------------|------------------------|----------------------|---------|---------------------|
|                |                                |                      |                   |                        | 120 Vac              | 220 Vac |                     |
| 350 mA         | 90 ~ 305 Vac/<br>127 ~ 250 Vdc | 37 ~ 74 Vdc          | 26 W              | 88.5%                  | 0.99                 | 0.96    | EUC-026S050SVM0003  |
| 500 mA         | 90 ~ 305 Vac/<br>127 ~ 250 Vdc | 26 ~ 52 Vdc          | 26 W              | 88.0%                  | 0.99                 | 0.96    | EUC-026S070SVM0004  |
| 600 mA         | 90 ~ 305 Vac/<br>127 ~ 250 Vdc | 22 ~ 43 Vdc          | 26 W              | 88.0%                  | 0.99                 | 0.96    | EUC-026S070SVM0002  |
| 700 mA         | 90 ~ 305 Vac/<br>127 ~ 250 Vdc | 20 ~ 37 Vdc          | 26 W              | 87.0%                  | 0.99                 | 0.96    | EUC-026S070SVM      |

**Notes:** (1) Certified input voltage range: 120-240Vac or 127-250Vdc.

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

(3) SELV output.

(4) For BIS models please click here see the: [BIS Models List](#).

## Input Specifications

| Parameter        | Min.    | Typ. | Max.    | Notes                    |
|------------------|---------|------|---------|--------------------------|
| Input AC Voltage | 90 Vac  | -    | 305 Vac |                          |
| Input DC Voltage | 127 Vdc | -    | 250 Vdc |                          |
| Input Frequency  | 47 Hz   | -    | 63 Hz   |                          |
| Leakage Current  | -       | -    | 0.70 mA | IEC60598-1; 240Vac/ 60Hz |

## Input Specifications (Continued)

| Parameter                | Min. | Typ. | Max.                  | Notes                                                                                                                |
|--------------------------|------|------|-----------------------|----------------------------------------------------------------------------------------------------------------------|
| Input AC Current         | -    | -    | 0.35 A                | Measured at 100% load and 120 Vac input.                                                                             |
| Input AC Current         | -    | -    | 0.25 A                | Measured at 100%load and 220 Vac input.                                                                              |
| Inrush Current( $I^2t$ ) | -    | -    | 0.09 A <sup>2</sup> s | At 220Vac input, 25°C cold start, duration= 296 $\mu$ s, 10%Ipk-10%Ipk. See Inrush Current Waveform for the details. |
| Power Factor             | 0.90 | -    | -                     | 120-277Vac, 50-60Hz, 75%-100% Load (19.5~26W)                                                                        |
| THD                      | -    | -    | 15%                   |                                                                                                                      |
| THD                      | -    | -    | 10%                   | 120-240Vac, 50-60Hz, 75%-100% Load (19.5~26W)                                                                        |

## Output Specifications

| Parameter                                                                                                  | Min.             | Typ.             | Max.                          | Notes                                   |
|------------------------------------------------------------------------------------------------------------|------------------|------------------|-------------------------------|-----------------------------------------|
| Output Current Tolerance                                                                                   | -8%lo            | -                | 8%lo                          | At 100%load condition                   |
| Total Output Current Ripple (pk-avg)                                                                       | -                | 50%lo            | 75%lo                         | At 100%load condition                   |
| Startup Overshoot Current                                                                                  | -                | 5%lo             | 10%lo                         | At 100%load condition                   |
| No Load Output Voltage<br>EUC-026S050SVM0003<br>EUC-026S070SVM0004<br>EUC-026S070SVM0002<br>EUC-026S070SVM | -<br>-<br>-<br>- | -<br>-<br>-<br>- | 100 V<br>67 V<br>67 V<br>67 V |                                         |
| Line Regulation                                                                                            | -                | -                | $\pm 5.0\%$                   | Measured at 100%load                    |
| Load Regulation                                                                                            | -                | -                | $\pm 5.0\%$                   |                                         |
| Turn-on Delay Time                                                                                         | -                | 1.5 s            | 2.0 s                         | Measured at 120Vac input, 75%-100%Load. |
|                                                                                                            | -                | 1.0 s            | 1.5 s                         | Measured at 220Vac input, 75%-100%Load. |
| Temperature Coefficient of Iomax                                                                           | -                | 0.08%/°C         | -                             | Case temperature = 0°C ~ Tc max         |

## General Specifications

| Parameter                                                                                                        | Min.                             | Typ.                             | Max.             | Notes                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Efficiency at 120 Vac input:<br>EUC-026S050SVM0003<br>EUC-026S070SVM0004<br>EUC-026S070SVM0002<br>EUC-026S070SVM | 87.0%<br>86.0%<br>86.0%<br>85.5% | 88.0%<br>87.0%<br>87.0%<br>86.5% | -<br>-<br>-<br>- | Measured at 100%load and steady-state temperature in 25°C ambient. (Efficiency will be about 1.0% lower if measured immediately after startup.) |
| Efficiency at 220 Vac input:<br>EUC-026S050SVM0003<br>EUC-026S070SVM0004<br>EUC-026S070SVM0002<br>EUC-026S070SVM | 87.5%<br>87.0%<br>87.0%<br>86.0% | 88.5%<br>88.0%<br>88.0%<br>87.0% | -<br>-<br>-<br>- | Measured at 100%load and steady-state temperature in 25°C ambient. (Efficiency will be about 1.0% lower if measured immediately after startup.) |

## General Specifications (Continued)

| Parameter                                                                                                        | Min.                               | Typ.                             | Max.             | Notes                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Efficiency at 277 Vac input:<br>EUC-026S050SVM0003<br>EUC-026S070SVM0004<br>EUC-026S070SVM0002<br>EUC-026S070SVM | 86.5%<br>86.0%<br>86.0%<br>85.5%   | 87.5%<br>87.0%<br>87.0%<br>86.5% | -<br>-<br>-<br>- | Measured at 100%load and steady-state temperature in 25°C ambient.<br>(Efficiency will be about 1.0% lower if measured immediately after startup.) |
| MTBF                                                                                                             | -                                  | 1610,000 Hours                   | -                | Measured at 220Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F)                                                                     |
| Lifetime                                                                                                         | -                                  | 84,000 Hours                     | -                | Measured at 120Vac input, 80%Load and 70°C case temperature; See lifetime vs. Tc curve for the details                                             |
| Operating Case Temperature for Safety Tc_s                                                                       | -40 °C                             | -                                | +85 °C           |                                                                                                                                                    |
| Operating Case Temperature for Warranty Tc_w                                                                     | -40 °C                             | -                                | +75 °C           | Case temperature for 5 years warranty. Humidity: 10% RH to 95% RH.                                                                                 |
| Storage Temperature                                                                                              | -40 °C                             | -                                | +85 °C           | Humidity: 5% RH to 95% RH                                                                                                                          |
| Dimensions<br>Inches (L × W × H)<br>Millimeters (L × W × H)                                                      | 3.15 x 2.52 x 1.26<br>80 x 64 x 32 |                                  |                  | With mounting ear<br>3.82 x 2.52 x 1.26<br>97 x 64 x 32                                                                                            |
| Net Weight                                                                                                       | -                                  | 330 g                            | -                |                                                                                                                                                    |

## Safety & EMC Compliance

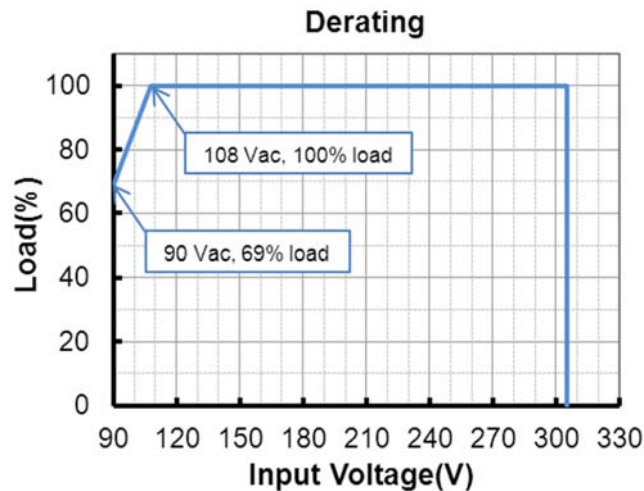
| Safety Category                  | Standard                                                                  |
|----------------------------------|---------------------------------------------------------------------------|
| ENEC & TUV & CE                  | EN 61347-1, EN 61347-2-13                                                 |
| CCC                              | GB 19510.1, GB 19510.14                                                   |
| CB                               | IEC 61347-1, IEC 61347-2-13                                               |
| KS                               | KS C 7655                                                                 |
| BIS                              | IS 15885(PART2/SEC13)                                                     |
| NOM                              | NOM-058-SCFI                                                              |
| EMI Standards                    | Notes                                                                     |
| EN 55015/GB 17743 <sup>(1)</sup> | Conducted emission Test & Radiated emission Test                          |
| EN 61000-3-2/GB 17625.1          | Harmonic current emissions                                                |
| 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                                     |

## Safety & EMC Compliance (Continued)

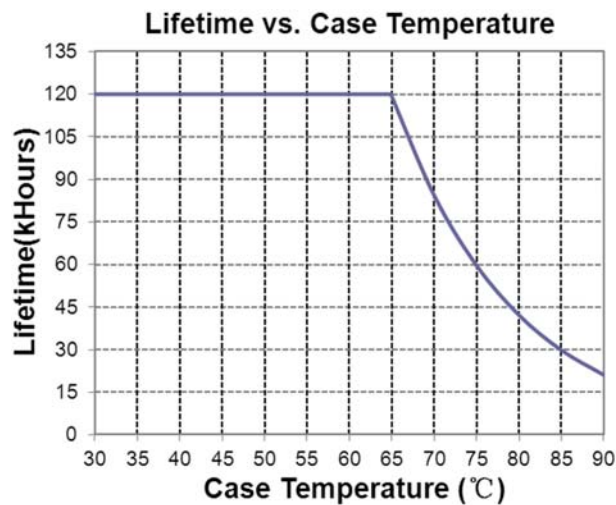
| EMS Standards | Notes                                                                        |
|---------------|------------------------------------------------------------------------------|
| EN 61000-4-5  | Surge Immunity Test: AC Power Line: Differential Mode 4 kV, Common Mode 6 kV |
| EN 61000-4-6  | 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          |

**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.

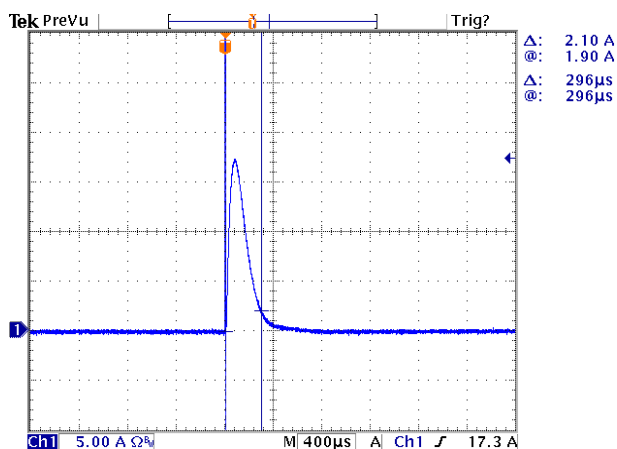
## Derating



## Lifetime vs. Case Temperature

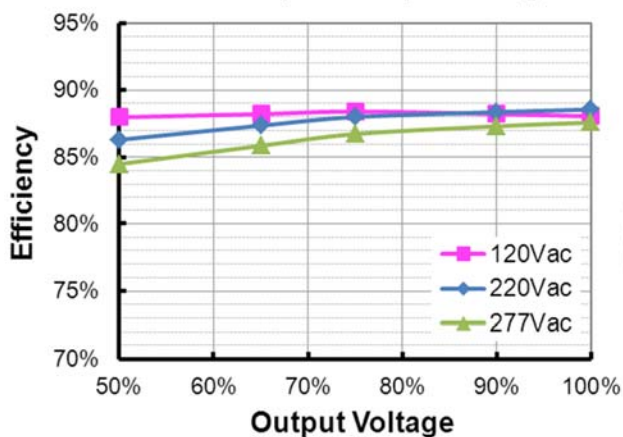


## Inrush Current Waveform

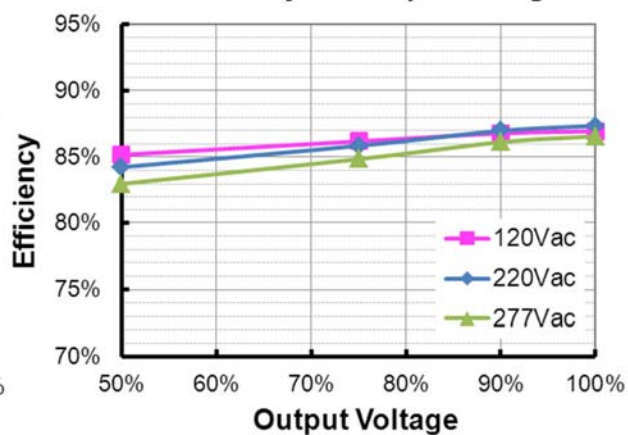


## Efficiency vs. Load

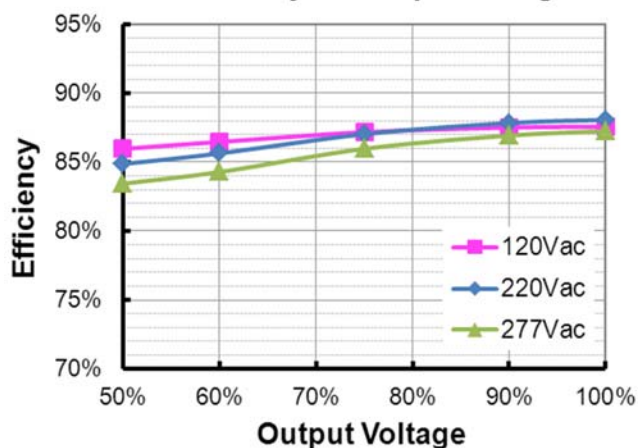
EUC-026S050SVM0003( $I_o=350\text{mA}$ )  
Efficiency vs. Output Voltage



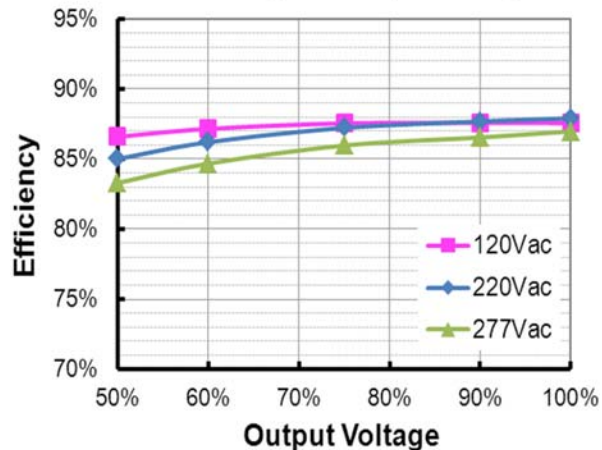
EUC-026S070SVM( $I_o=700\text{mA}$ )  
Efficiency vs. Output Voltage



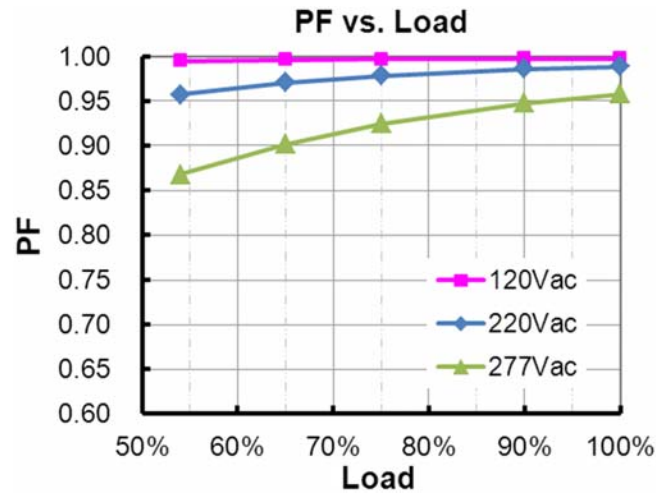
EUC-026S070SVM0002( $I_o=600\text{mA}$ )  
Efficiency vs. Output Voltage



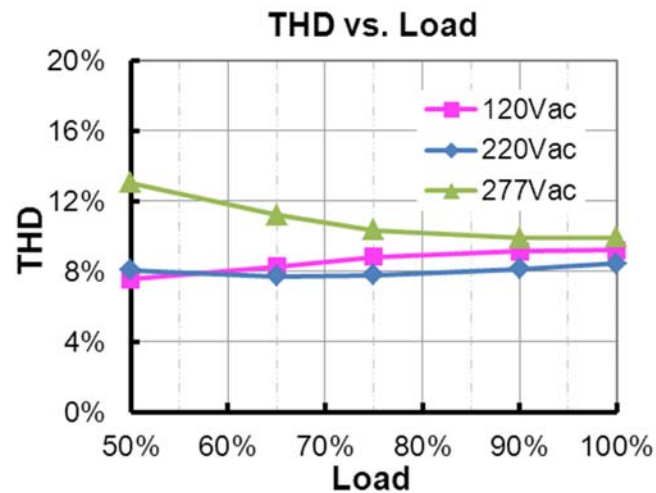
EUC-026S070SVM0004( $I_o=500\text{mA}$ )  
Efficiency vs. Output Voltage



## Power Factor



## Total Harmonic Distortion

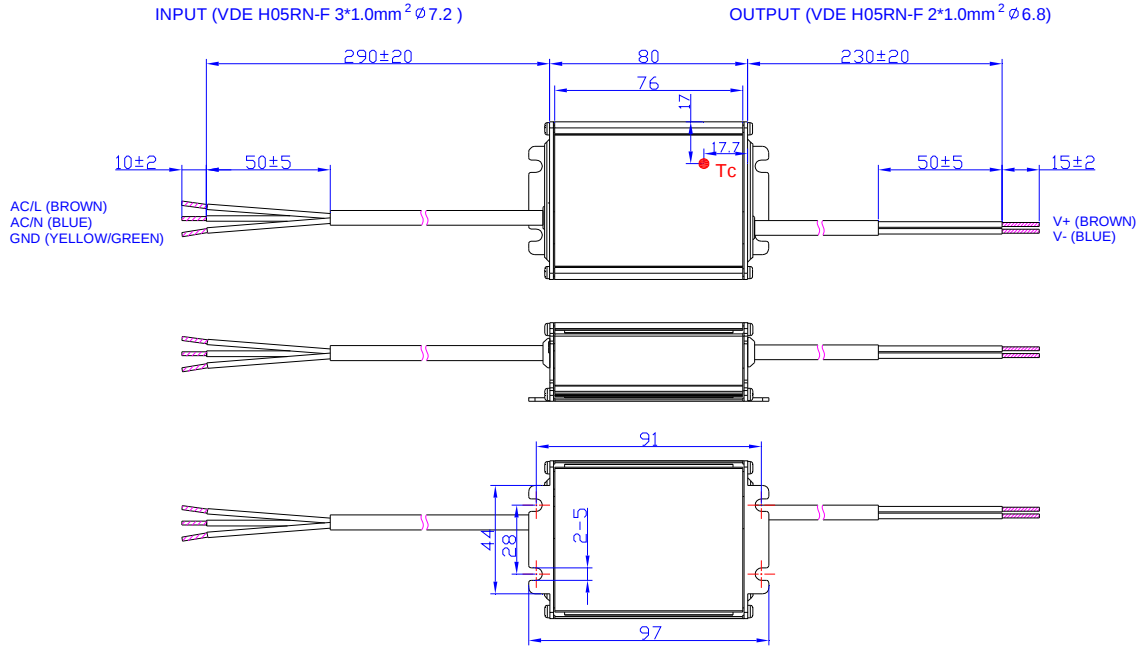


## Protection Functions

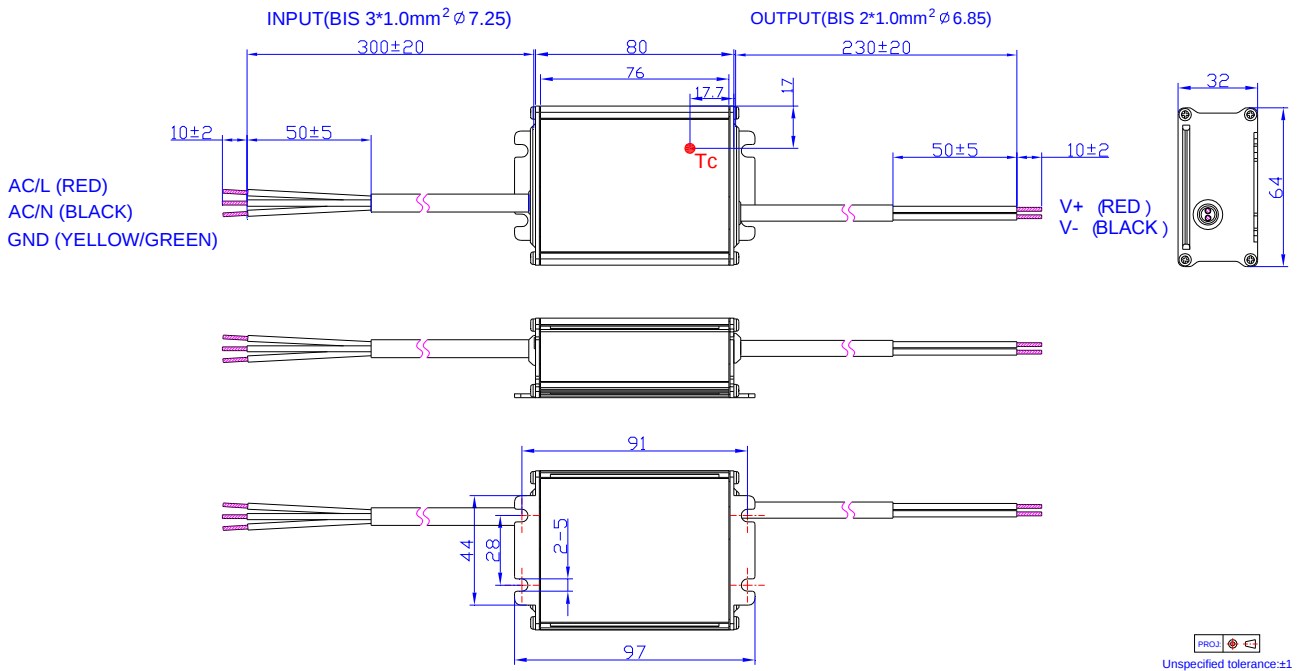
| Parameter                      | Notes                                                                                                                                                                     |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Over Voltage Protection        | Limits output voltage at no load and in case the normal voltage limit fails.                                                                                              |
| 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. |
| Over Temperature Protection    | Decreases output current. Returning to normal after over temperature is removed.                                                                                          |
| Input Under Voltage Protection | Auto Recovery. Turn off the output when the input voltage falls below 80±10V. And the driver will restart when the input voltage exceeds 85±10V.                          |

## Mechanical Outline

### EUC-026SxxxSVM000x



### EUC-026SxxxSVM300x



## 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                                               |
| 2016-07-04  | A    | Datasheet Release                                                                                 | /                                                     | /                                                |
| 2016-12-26  | B    | Input Voltage Range(Vac)                                                                          | 108 ~ 305 Vac                                         | 90 ~ 305 Vac                                     |
|             |      | Input Voltage Range(Vdc)                                                                          | 127 ~ 300 Vdc                                         | Deleted                                          |
|             |      | Model Number - EUC-026S070SVM(Io=700mA)                                                           | EUC-026S070SVM0000                                    | EUC-026S070SVM                                   |
|             |      | Total Output Current Ripple                                                                       | Total Output Current Ripple (pk-pk) Max.= 150%Io      | Total Output Current Ripple (pk-avg) Max.= 75%Io |
|             |      | Derating Curve                                                                                    | /                                                     | Added                                            |
| 2017-03-21  | C    | Features                                                                                          | /                                                     | Updated                                          |
|             |      | Description                                                                                       | /                                                     | Updated                                          |
|             |      | MTBF                                                                                              | Min.=600,000Hours                                     | Typ.= 1610,000 Hours                             |
|             |      | Protection Functions - Input Under Voltage Protection                                             | /                                                     | Added                                            |
| 2019-03-19  | D    | ENEC                                                                                              | /                                                     | Added                                            |
|             |      | Description                                                                                       | /                                                     | Updated                                          |
|             |      | Input Specifications- Power Factor/THD                                                            | 50-60Hz                                               | Added                                            |
|             |      | Safety &EMC Compliance                                                                            | /                                                     | Updated                                          |
| 2020-09-18  | E    | Features                                                                                          | Input Surge Protection: 4kV line-line, 6kV line-earth | Input Surge Protection: DM 4kV, CM 6kV           |
|             |      | Features                                                                                          | Suitable for Independent Use and Class I Luminaires   | Deleted                                          |
|             |      | Features                                                                                          | Waterproof(IP67)                                      | IP67                                             |
|             |      | BIS certificate                                                                                   | /                                                     | Added                                            |
|             |      | NOM certificate                                                                                   | /                                                     | Added                                            |
|             |      | Independent symbol                                                                                | /                                                     | Added                                            |
|             |      | Notes of models - (4) For BIS models please click here see the: <a href="#">BIS Models List</a> . | /                                                     | Added                                            |
|             |      | General Specifications - Humidity                                                                 | /                                                     | Updated                                          |
|             |      | Safety &EMC Compliance                                                                            | BIS                                                   | Added                                            |
|             |      | Safety &EMC Compliance                                                                            | NOM                                                   | Added                                            |
|             |      | Mechanical Outline - EUC-026SxxxSVM300x                                                           | /                                                     | Added                                            |
|             |      | RoHS Compliance                                                                                   | /                                                     | Updated                                          |
|             |      | Format                                                                                            | /                                                     | Updated                                          |

## Revision History (Continued)

| Change Date | Rev. | Description of Change |                     |         |
|-------------|------|-----------------------|---------------------|---------|
|             |      | Item                  | From                | To      |
| 2021-08-19  | F    | Models                | Input Voltage Range | Updated |
|             |      | Models                | Notes: (1)          | Updated |
|             |      | Input Specifications  | Input DC Voltage    | Added   |