

## Features

- Low THD, 10% Max up to 240 Vac
- Compact Metal Case with Excellent Thermal Performance
- Input Surge Protection: 4kV line-line, 6kV line-earth
- High Reliability & Long Lifetime: 120,000 hrs. at 60°C
- Suitable for Built-in Use and Class I Luminaires
- Input UVP and Input OVP
- Waterproof(IP66)



## Description

The EUC-060SxxxSTM000x series is a 60W, constant-current outdoor LED driver that operates from 108-305 Vac input with excellent power factor. It is created for low bay, tunnel and street lights. 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, over voltage, short circuit, and over temperature.

## Models

Output Current Range (1)	Input Voltage Range(1)	Output Voltage Range	Max. Output Power	Typical Efficiency (2)	Power Factor		Model Number
					120Vac	220Vac	
500 mA	108 ~ 305 Vac 127~ 300 Vdc	60~120 Vdc	60W	90%	0.99	0.96	EUC-060S070STM0004
550 mA	108 ~ 305 Vac 127~ 300 Vdc	54-109 Vdc	60W	90%	0.99	0.96	EUC-060S070STM0003
600 mA	108 ~ 305 Vac 127~ 300 Vdc	50~100 Vdc	60W	90%	0.99	0.96	EUC-060S070STM0002
650 mA	108 ~ 305 Vac 127~ 300 Vdc	48~92 Vdc	60W	90%	0.99	0.96	EUC-060S070STM0001
700 mA	108 ~ 305 Vac 127~ 300 Vdc	48~86 Vdc	60W	90%	0.99	0.96	EUC-060S070STM0000
750 mA	108 ~ 305 Vac 127~ 300 Vdc	40~80 Vdc	60W	89%	0.99	0.96	EUC-060S105STM0006 (3)
800 mA	108 ~ 305 Vac 127~ 300 Vdc	37~75 Vdc	60W	89%	0.99	0.96	EUC-060S105STM0005 (3)
860 mA	108 ~ 305 Vac 127~ 300 Vdc	35~70 Vdc	60W	89%	0.99	0.96	EUC-060S105STM0004 (3)
900 mA	108 ~ 305 Vac 127~ 300 Vdc	34~67 Vdc	60W	89%	0.99	0.96	EUC-060S105STM0003 (3)
950 mA	108 ~ 305 Vac 127~ 300 Vdc	34~63 Vdc	60W	89%	0.99	0.96	EUC-060S105STM0002 (3)
1000 mA	108 ~ 305 Vac 127~ 300 Vdc	34~60 Vdc	60W	89%	0.99	0.96	EUC-060S105STM0001 (3)
1050 mA	108 ~ 305 Vac 127~ 300 Vdc	34~57 Vdc	60W	89%	0.99	0.96	EUC-060S105STM0000 (3)
1200 mA	108 ~ 305 Vac 127~ 300 Vdc	25~50 Vdc	60W	88%	0.99	0.96	EUC-060S180STM0006 (3)
1300 mA	108 ~ 305 Vac 127~ 300 Vdc	23~46 Vdc	60W	88%	0.99	0.96	EUC-060S180STM0005 (3)
1400 mA	108 ~ 305 Vac 127~ 300 Vdc	21~43 Vdc	60W	88%	0.99	0.96	EUC-060S180STM0004 (3)
1500 mA	108 ~ 305 Vac 127~ 300 Vdc	20~40 Vdc	60W	88%	0.99	0.96	EUC-060S180STM0003 (3)

## Models (Continued)

Output Current Range (1)	Input Voltage Range(1)	Output Voltage Range	Max. Output Power	Typical Efficiency (2)	Power Factor		Model Number
					120Vac	220Vac	
1600 mA	108 ~ 305 Vac 127~ 300 Vdc	20~38 Vdc	60W	88%	0.99	0.96	EUC-060S180STM0002 (3)
1700 mA	108 ~ 305 Vac 127~ 300 Vdc	20~35 Vdc	60W	88%	0.99	0.96	EUC-060S180STM0001 (3)
1800 mA	108 ~ 305 Vac 127~ 300 Vdc	20~33 Vdc	60W	88%	0.99	0.96	EUC-060S180STM0000 (3)

**Notes:** (1) UL, FCC certified input voltage range: 120-277Vac/127-300Vdc; other certified input voltage range except UL & FCC: 120-240Vac/127-250Vdc.

(2) Measured at full load and 220 Vac input.

(3) SELV Output.

## Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	108 Vac	-	305 Vac	127~ 300 Vdc
Input Frequency	47 Hz	-	63 Hz	
Leakage Current	-	-	0.75mIU	UL8750; 277Vac/ 60Hz
			0.70mA	IEC60598-1; 240Vac/ 60Hz
Input AC Current	-	-	TBD A	Measured at full load and 120 Vac input.
			TBD A	Measured at full load and 220 Vac input.
Inrush Current(I <sup>2</sup> t)	-	-	TBD A <sup>2</sup> s	At 220Vac input, 25°C cold start, duration= TBD μs, 10%Ipk-10%Ipk. See Inrush Current Waveform for the details.
Power Factor	0.90	-	-	120-277Vac,75%-100%Load(45~60W)
THD	-	-	15%	
THD			10%	120-240Vac,75%-100%Load(45~60W)

## Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-8%lo	-	8%lo	
Total Output Current Ripple (pk-pk)	-	100%lo	150%lo	At full load condition
Output Current Overshoot / Undershoot	-	5%lo	10%lo	At full load condition
No Load Output Voltage EUC-060S070STM000x EUC-060S105STM000x EUC-060S180STM000x	-	-	140V 100V 63V	
Line Regulation	-	-	±5.0%	Measured at full load

## Output Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Load Regulation	-	-	±3.0%	Measured at full load
Turn-on Delay Time		1.5s	2.0s	Measured at 120Vac input.
	-	1.0s	1.5s	Measured at 220Vac input.
Temperature Coefficient of I <sub>omax</sub>	-	-	0.06%/°C	Case temperature = 0°C ~T <sub>c</sub> max

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

## General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency at 120 Vac input: EUC-060S070STM000x x=4:500 mA x=0:700 mA EUC-060S105STM000x x=4: 860 mA x=0:1050 mA EUC-060S180STM000x x=6:1200 mA x=4:1400 mA x=0:1800 mA		89.0% 88.0% 88.0% 87.0% 87.0% 87.0% 86.0%	-	Measured at full 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: EUC-060S070STM000x x=4:500 mA x=0:700 mA EUC-060S105STM000x x=4: 860 mA x=0:1050 mA EUC-060S180STM000x x=6:1200 mA x=4:1400 mA x=0:1800 mA		90.0% 89.0% 89.0% 88.0% 88.0% 88.0% 87.0%	-	Measured at full load and steady-state temperature in 25°C ambient. (Efficiency will be about 1.0% lower if measured immediately after startup.)
Efficiency at 277 Vac input: EUC-060S070STM000x x=4:500 mA x=0:700 mA EUC-060S105STM000x x=4: 860 mA x=0:1050 mA EUC-060S180STM000x x=6:1200 mA x=4:1400 mA x=0:1800 mA		90.0% 89.0% 89.0% 88.0% 88.0% 88.0% 87.0%	-	Measured at full load and steady-state temperature in 25°C ambient. (Efficiency will be about 1.0% lower if measured immediately after startup.)
MTBF	200,000 Hours		-	Measured at 220Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F)
Lifetime	120,000 Hours		-	Measured at 120Vac input, 80%Load and 60°C case temperature; See lifetime vs. T <sub>c</sub> curve for the details
Operating Case Temperature for Safety T <sub>c_s</sub>	-40°C	-	+90°C	

## General Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Operating Case Temperature for Warranty Tc_w	-40°C	-	+75°C	Humidity: 10% RH to 100% RH.
Storage Temperature	-40°C	-	+85°C	Humidity: 5% RH to 100% RH
Dimensions Inches (L x W x H) Millimeters (L x W x H)	4.41 x 2.52 x 1.26 112 x 64 x 32			
Net Weight	-	TBD g	-	

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

## Safety & EMC Compliance

Safety Category	Standard
UL/CUL	UL 8750, CAN/CSA-C22.2 No. 250.13-12
CE	EN 61347-1, EN61347-2-13
EMI Standards	Notes
EN 55015	Conducted emission Test & Radiated emission Test
EN 61000-3-2	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
EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 4 kV, line to earth 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

## Lifetime vs. Case Temperature

TBD

## Inrush Current Waveform

TBD

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Specifications are subject to changes without notice.

## Efficiency vs. Load

TBD

## Power Factor

TBD

## Total Harmonic Distortion

TBD

## 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.
IOVP	TBD
IUVP	TBD

## Mechanical Outline

EUC-060SxxxSTM000x

TBD

## RoHS Compliance

Our products comply with the European Directive 2011/65/EC, calling for the elimination of lead and other hazardous substances from electronic products.