Features

- High Efficiency (Up to 91%)
- Active Power Factor Correction (Up to 0.99)
- Constant Current Output
- Lightning Protection
- All-Round Protection: OVP, SCP, OTP
- Waterproof (IP67)
- Comply With UL8750 & EN61347 Safety Regulations

Description

The EUC-060SxxxST 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 170 V for 60 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 Current	Input Voltage	Max. Output Voltage	Max. Output Power	Typical Efficiency (2)	Power Factor		Model Number (3)
					110Vac	220Vac	
350 mA (1)	90 ~ 305 Vac	170 Vdc	60 W	91%	0.99	0.95	EUC-060S035ST (4)☆
450 mA (1)	90 ~ 305 Vac	134 Vdc	60 W	91%	0.99	0.95	EUC-060S045ST (4)
700 mA (1)	90 ~ 305 Vac	86 Vdc	60 W	91%	0.99	0.95	EUC-060S070ST (4)
1050 mA (1)	90 ~ 305 Vac	58 Vdc	60 W	90%	0.99	0.95	EUC-060S105ST (4)
1400 mA (1)	90 ~ 305 Vac	43 Vdc	60 W	90%	0.99	0.95	EUC-060S140ST (4)☆
1700 mA (1)	90 ~ 305 Vac	36 Vdc	60 W	90%	0.99	0.95	EUC-060S170ST (4)☆
2300 mA (1)	90 ~ 305 Vac	27 Vdc	60 W	89%	0.99	0.95	EUC-060S230ST (5)☆
3300 mA (1)	90 ~ 305 Vac	18 Vdc	60 W	88%	0.99	0.95	EUC-060S330ST (5)
5000 mA	90 ~ 305 Vac	12 Vdc	60 W	87%	0.99	0.95	EUC-060S500ST (5)

Notes: (1) The output current is adjustable at factory from 50% to 100%.
(2) Measured at full load and 220 Vac 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) Non-Class 2 output (USR & CNR).
(5) Class 2 output (USR & CNR).
(6) ☆: Popular model.

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	-	-	0.8 A	Measured at full load and 100 Vac input.
	-	-	0.36 A	Measured at full load and 220 Vac input.
Inrush Current	-	-	50 A	At 230Vac input 25°C Cold Start

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Range				
I_O = 350 mA	332 mA	350 mA	368 mA	
I_O = 450 mA	428 mA	450 mA	472 mA	
I_O = 700 mA	665 mA	700 mA	735 mA	
I_O = 1050 mA	1000 mA	1050 mA	1100 mA	
I_O = 1400 mA	1330 mA	1400 mA	1470 mA	
I_O = 1700 mA	1615 mA	1700 mA	1785 mA	
I_O = 2300 mA	2185 mA	2300 mA	2415 mA	
I_O = 3300 mA	3135 mA	3300 mA	3465 mA	
I_O = 5000 mA	4750 mA	5000 mA	5250 mA	
Output Voltage Range				
I_O = 350 mA	85 V	-	170 V	
I_O = 450 mA	67 V	-	134 V	
I_O = 700 mA	43 V	-	86 V	
I_O = 1050 mA	29 V	-	58 V	
I_O = 1400 mA	21 V	-	43 V	
I_O = 1700 mA	18 V	-	36 V	
I_O = 2300 mA	13 V	-	27 V	
I_O = 3300 mA	9 V	-	18 V	
I_O = 5000 mA	6 V	-	12 V	
Ripple and Noise (pk-pk)	-	-	5% 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	-	-	3%	
Turn-on Delay Time	-	0.8 S	1.2 S	Measured at 110Vac input.
	-	0.4 S	0.6 S	Measured at 220Vac input.

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

Protection Functions

Parameter	Min.	Typ.	Max.	Notes
Over Voltage Protection				
I_O = 350 mA	-	195 V	215 V	Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
I_O = 450 mA	-	145 V	160 V	
I_O = 700 mA	-	92 V	102 V	
I_O = 1050 mA	-	65 V	70 V	
I_O = 1400 mA	-	50 V	55 V	
I_O = 1700 mA	-	42 V	45 V	
I_O = 2300 mA	-	31 V	38 V	
I_O = 3300 mA	-	22 V	25 V	
I_O = 5000 mA	-	15 V	17 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.			

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency				
Io = 350 mA	87%	89%	-	
Io = 450 mA	87%	89%	-	Measured at full load, 110Vac input, 25℃ ambient temperature, after the unit is thermally stabilized.
Io = 700 mA	87%	89%	-	
Io = 1050 mA	86%	88%	-	
Io = 1400 mA	86%	88%	-	
Io = 1700 mA	86%	88%	-	It will be lower about 2%, if measured immediately after startup.
Io = 2300 mA	85%	87%	-	
Io = 3300 mA	84%	86%	-	
Io = 5000 mA	83%	85%	-	
Efficiency				
Io = 350 mA	89%	91%	-	
Io = 450 mA	89%	91%	-	Measured at full load, 220Vac input, 25℃ ambient temperature, after the unit is thermally stabilized.
Io = 700 mA	89%	91%	-	
Io = 1050 mA	88%	90%	-	
Io = 1400 mA	88%	90%	-	
Io = 1700 mA	88%	90%	-	It will be lower about 2%, if measured immediately after startup.
Io = 2300 mA	87%	89%	-	
Io = 3300 mA	86%	88%	-	
Io = 5000 mA	85%	87%	-	
MTBF	546,000 hours			For 2300 mA output model, measured at 110Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F).
Life Time	80,000 hours			For 2300 mA output model, measured at 110Vac input, 80%Load and 45°C ambient temperature
Dimensions				
Inches (L × W × H)	5.91 × 2.66 × 1.46			
Millimeters (L × W × H)	150 × 67.5 × 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

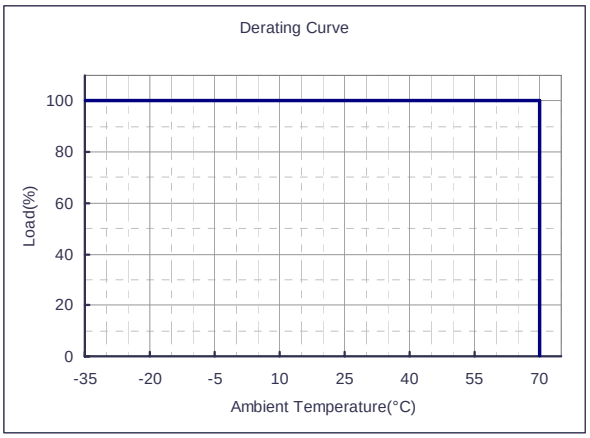
Safety & EMC Compliance

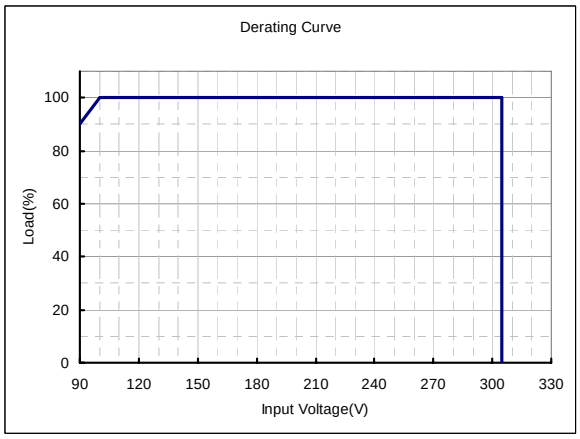
Safety Category	Country	Standard
CUL	USA & Canada	UL8750 Compliance to UL1310 Class2, UL1012 UL935, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
CE	Europe	EN61347-1, EN61347-2-13

EMI Standards	Notes
EN 55015	Conducted emission Test & Radiated emission Test with 6 dB margin

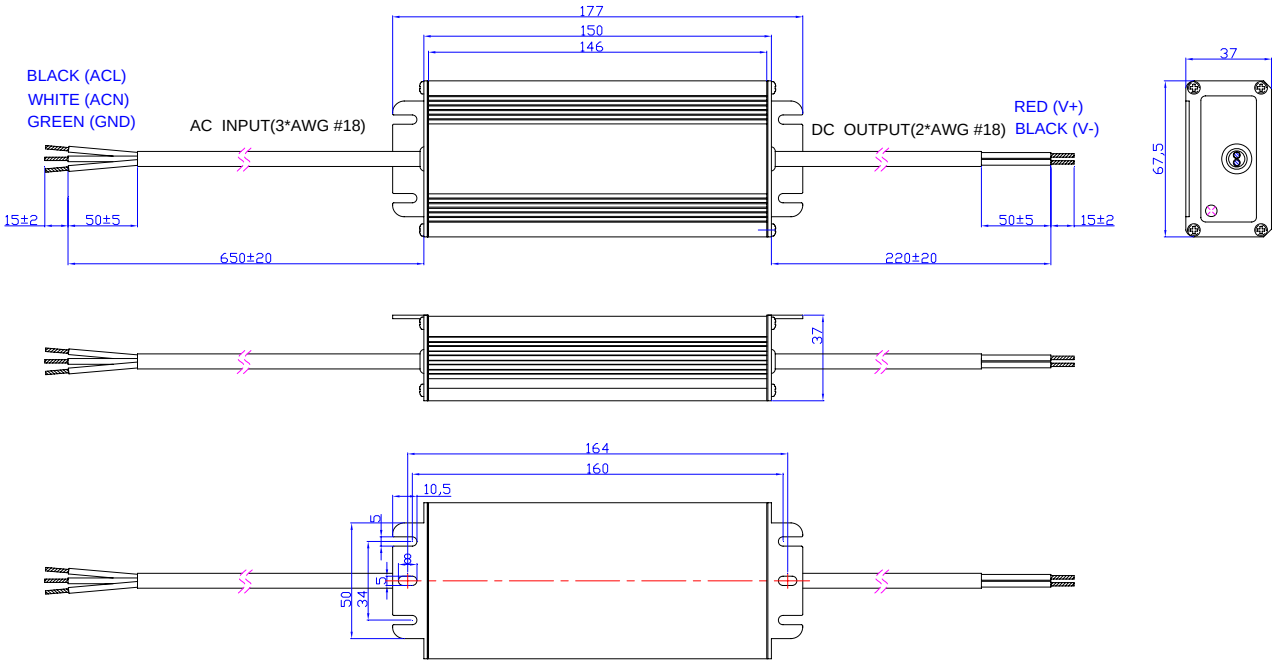
EMS Standards	Notes
EN 61000-3-2	Harmonic current emissions
EN 61000-3-3	Voltage fluctuations & flicker
EN 61000-4-2	Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4	Electrical Fast Transient / Burst-EFT
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



Specifications are subject to changes without notice.

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
2009-09-02	V3.1	Change MTBF and Life Time		
2009-09-11	V3.2	Change Turn-on Delay Time		
2009-10-15	A	1. Add notes of UL1310 Class 2 for all models. 2. Change the OVP Value; 3. Change the main value of efficiency; 4. Change the stripper length of all wires to 50mm.		
2009-11-10	B	Change notes of efficiency.		
2009-12-03	C	Add notes: the output current is adjustable at factory from 50% to 100%		
2010-03-03	D	Change Model Note: EUC-060S230ST EUC-060S330ST	(4) (4)	(5) (5)
		Add Leakage Current in Input Specifications	/	/
		Add Derating Curve	/	/
		Modify the tin-plated wire length tolerance in Mechanical Outline	±0.5	±2
2010-05-31	E	Add star rank for recommended models	/	☆: Popular model.
		Standardize the tolerance in Mechanical Outline	/	/
2010-08-10	F	Delete Output Overshoot / Undershoot	Max. 10%	/
		Change Turn-on Delay Time 110Vac input	Typ. Max. 0.5S 0.8S	Typ. Max. 0.8S 1.2S