Features

- Ultra High Efficiency (Up to 92%)
- Active Power Factor Correction (0.99 Typical)
- Constant Current Output
- Lightning Protection
- All-Round Protection: SCP, OTP, OVP
- Waterproof (IP67)
- Comply With UL8750 & EN61347 Safety Regulations

Description

The EUC-150SxxxST Series operate from a 90 ~ 305 Vac input range. These units will provide up to a 5.95 A of output current and a maximum output voltage of 428 V for 150 W maximum output power. They are designed to be highly efficient and highly reliable. The standard features include lightning protection, over voltage protection, short circuit protection, and over temperature protection.

Models

Output Current	Input Voltage	Max. Output Voltage	Max. Output Power	Typical Efficiency (1)	Power Factor		Model Number (2)
					110Vac	220Vac	
350 mA	90 ~ 305 Vac	428 Vdc	150 W	92%	0.99	0.96	EUC-150S035ST
450 mA	90 ~ 305 Vac	333 Vdc	150 W	92%	0.99	0.96	EUC-150S045ST
700 mA	90 ~ 305 Vac	214 Vdc	150 W	92%	0.99	0.96	EUC-150S070ST☆
1050 mA	90 ~ 305 Vac	142 Vdc	150 W	92%	0.99	0.96	EUC-150S105ST☆
1400 mA	90 ~ 305 Vac	107 Vdc	150 W	91%	0.99	0.96	EUC-150S140ST
1750 mA	90 ~ 305 Vac	85 Vdc	150 W	91%	0.99	0.96	EUC-150S175ST
2100 mA	90 ~ 305 Vac	71 Vdc	150 W	91%	0.99	0.96	EUC-150S210ST
2450 mA	90 ~ 305 Vac	61 Vdc	150 W	91%	0.99	0.96	EUC-150S245ST☆
2800 mA	90 ~ 305 Vac	53 Vdc	150 W	91%	0.99	0.96	EUC-150S280ST
3150 mA	90 ~ 305 Vac	47 Vdc	150 W	91%	0.99	0.96	EUC-150S315ST
3500 mA	90 ~ 305 Vac	42 Vdc	150 W	91%	0.99	0.96	EUC-150S350ST☆
4200 mA	90 ~ 305 Vac	35 Vdc	150 W	90%	0.99	0.96	EUC-150S420ST
4900 mA	90 ~ 305 Vac	30 Vdc	150 W	90%	0.99	0.96	EUC-150S490ST
5950 mA	90 ~ 305 Vac	25 Vdc	150 W	90%	0.99	0.96	EUC-150S595ST

Notes: (1) Measured at full load and 220 Vac input.
(2) A suffix –xxxx may be added to denote variations or modifications to the base product, where x can be any alphanumeric character or blank.
(3) The two models have passed UL8750 Safety Standard.
(4) ☆: 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	-	-	1.8 A	Measured at full load and 100 Vac input.
	-	-	0.9 A	Measured at full load and 220 Vac input.
Inrush Current	-	-	65 A	At 230Vac input 25℃ 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	427 mA	450 mA	473 mA	
I_O = 700 mA	665 mA	700 mA	735 mA	
I_O = 1050 mA	997 mA	1050 mA	1103 mA	
I_O = 1400 mA	1330 mA	1400 mA	1470 mA	
I_O = 1750 mA	1662 mA	1750 mA	1838 mA	
I_O = 2100 mA	1995 mA	2100 mA	2205 mA	
I_O = 2450 mA	2327 mA	2450 mA	2573 mA	
I_O = 2800 mA	2660 mA	2800 mA	2940 mA	
I_O = 3150 mA	2992 mA	3150 mA	3308 mA	
I_O = 3500 mA	3325 mA	3500 mA	3675 mA	
I_O = 4200 mA	3990 mA	4200 mA	4410 mA	
I_O = 4900 mA	4655 mA	4900 mA	5145 mA	
I_O = 5950 mA	5652 mA	5950 mA	6248 mA	
Output Voltage Range				
I_O = 350 mA	256 V	-	428 V	
I_O = 450 mA	200 V	-	333 V	
I_O = 700 mA	128 V	-	214 V	
I_O = 1050 mA	85 V	-	142 V	
I_O = 1400 mA	64 V	-	107 V	
I_O = 1750 mA	51 V	-	85 V	
I_O = 2100 mA	42 V	-	71 V	
I_O = 2450 mA	36 V	-	61 V	
I_O = 2800 mA	31 V	-	53 V	
I_O = 3150 mA	28 V	-	47 V	
I_O = 3500 mA	25 V	-	42 V	
I_O = 4200 mA	21 V	-	35 V	
I_O = 4900 mA	18 V	-	30 V	
I_O = 5950 mA	15 V	-	25 V	
Ripple and Noise (pk-pk)	-	-	3% 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	-	1.0 S	2.0 S	Measured at 110Vac input.
	-	1.0 S	2.0 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				Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
I_O = 350 mA	514 V	578 V	642 V	
I_O = 450 mA	400 V	450 V	500 V	
I_O = 700 mA	257 V	289 V	321 V	
I_O = 1050 mA	170 V	192 V	213 V	
I_O = 1400 mA	128 V	144 V	161 V	
I_O = 1750 mA	102 V	115 V	128 V	
I_O = 2100 mA	85 V	96 V	107 V	
I_O = 2450 mA	73 V	82 V	92 V	
I_O = 2800 mA	64 V	72 V	80 V	
I_O = 3150 mA	56 V	63 V	71 V	
I_O = 3500 mA	50 V	57 V	63 V	
I_O = 4200 mA	42 V	47 V	53 V	
I_O = 4900 mA	36 V	41 V	45 V	
I_O = 5950 mA	30 V	34 V	38 V	
Over Temperature Protection	-	110 °C	-	Maximum temperature of components inside the case.
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				Measured at full load, 110Vac input, 25℃ ambient temperature, after the unit is thermally stabilized. It will be lower about 1%, if measured immediately after startup.
I_O = 350 mA	89%	90%	-	
I_O = 450 mA	89%	90%	-	
I_O = 700 mA	89%	90%	-	
I_O = 1050 mA	89%	90%	-	
I_O = 1400 mA	88%	89%	-	
I_O = 1750 mA	88%	89%	-	
I_O = 2100 mA	88%	89%	-	
I_O = 2450 mA	88%	89%	-	
I_O = 2800 mA	88%	89%	-	
I_O = 3150 mA	88%	89%	-	
I_O = 3500 mA	88%	89%	-	
I_O = 4200 mA	87%	88%	-	
I_O = 4900 mA	87%	88%	-	
I_O = 5950 mA	87%	88%	-	
Efficiency				Measured at full load, 220Vac input, 25℃ ambient temperature, after the unit is thermally stabilized. It will be lower about 1%, if measured immediately after startup.
I_O = 350 mA	91%	92%	-	
I_O = 450 mA	91%	92%	-	
I_O = 700 mA	91%	92%	-	
I_O = 1050 mA	91%	92%	-	
I_O = 1400 mA	90%	91%	-	
I_O = 1750 mA	90%	91%	-	
I_O = 2100 mA	90%	91%	-	
I_O = 2450 mA	90%	91%	-	
I_O = 2800 mA	90%	91%	-	
I_O = 3150 mA	90%	91%	-	
I_O = 3500 mA	90%	91%	-	
I_O = 4200 mA	89%	90%	-	
I_O = 4900 mA	89%	90%	-	
I_O = 5950 mA	89%	90%	-	

General Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
MTBF I_O = 5950 mA I_O = 350 mA	195,000 hours 271,000 hours			Measured at 110Vac input, 80%Load and 25° C ambient temperature (MIL-HDBK-217F).
Life Time I_O = 5950 mA I_O = 350 mA	90,000 hours 100,000 hours			Measured at 220Vac input, 80%Load and 45° C ambient temperature.
Dimensions Inches (L × W × H) Millimeters (L × W × H)	9.37 × 3.13 × 1.81 238 × 79.5 × 46			
Net Weight	-	1500 g	-	

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

Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-35 ℃	-	+70 ℃	Humidity: 10% RH to 100% RH
Storage Temperature	-40 ℃	-	+85 ℃	Humidity: 5% RH to 100% RH

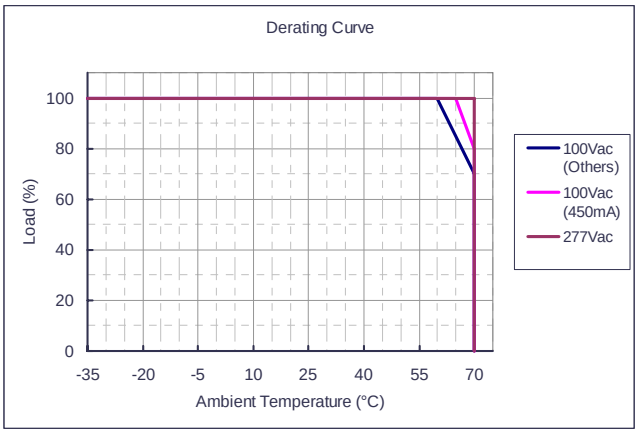
Safety & EMC Compliance

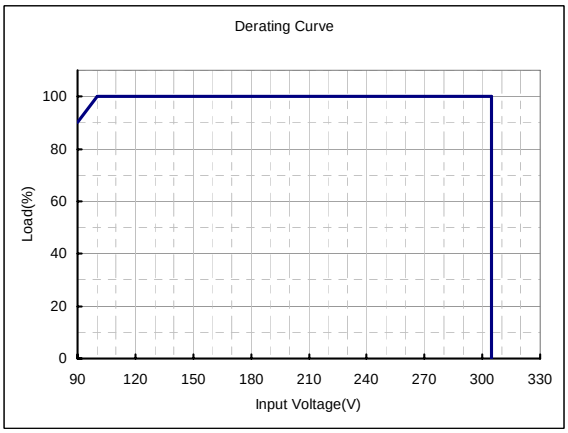
Safety Category	Country	Standard
CUL	USA & Canada	UL8750 Compliance to UL1012 UL935, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
CE	Europe	EN 61347-1, EN61347-2-13

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

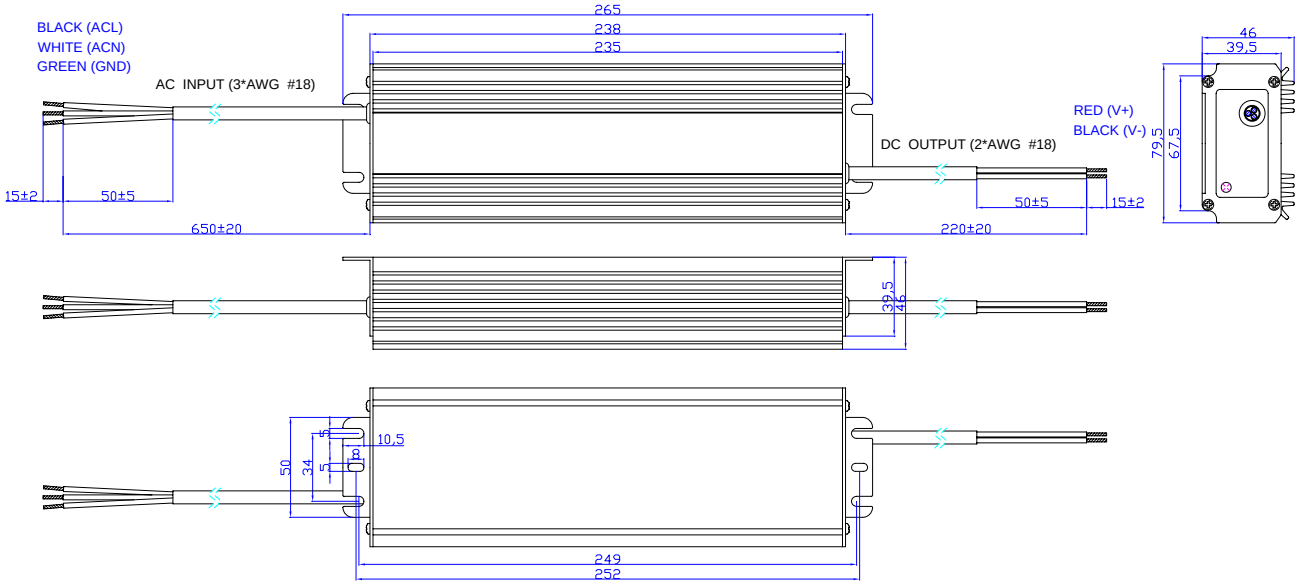
EMS Standards	Notes
EN 61000-3-2	Harmonic current emissions
EN 61000-3-3	Voltage fluctuations & flicker
EN 61000-4-2	Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4	Electrical Fast Transient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



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	V3.3	Change MTBF and Life Time		
2009-09-11	V3.4	Change Turn-on Delay Time		
2009-10-15	V3.5	Delete “UL1310 Class2” in Safety & EMC Compliance		
2009-11-10	V4.0	Change notes of efficiency.		
2009-12-04	V4.1	Add two models of 350mA & 450mA. Update Mechanical Outline.		
2010-01-15	A	Change the derating curve		
2010-05-31	B	Add star rank for recommended models	/	☆: Popular model.
		Add Leakage Current in Input Specifications	/	Max. 1 mA At 277Vac 50Hz input
		Standardize the tolerance in Mechanical Outline	/	/
2010-07-22	C	Delete Output Overshoot / Undershoot	Max. 10%	/
2011-01-14	D	Change popular models	/	/
		Update MTBF & Life Time Date	For One Model	For Two Models