

Features

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



Description

The EUC-075SxxxST 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 214 V for 75 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 (1)	Power Factor		Model Number (2)
					110Vac	220Vac	
350 mA	90 ~ 305 Vac	214 Vdc	75 W	92%	0.99	0.96	EUC-075S035ST (3)
450 mA	90 ~ 305 Vac	166 Vdc	75 W	92%	0.99	0.96	EUC-075S045ST (3)
700 mA	90 ~ 305 Vac	108 Vdc	75 W	91%	0.99	0.96	EUC-075S070ST (3)
1050 mA	90 ~ 305 Vac	72 Vdc	75 W	90%	0.99	0.96	EUC-075S105ST (3)
1400 mA	90 ~ 305 Vac	54 Vdc	75 W	90%	0.99	0.96	EUC-075S140ST (3)
2100 mA	90 ~ 305 Vac	36 Vdc	75 W	89%	0.99	0.96	EUC-075S210ST (3)
2800 mA	90 ~ 305 Vac	27 Vdc	75 W	89%	0.99	0.96	EUC-075S280ST (4)
3750 mA	90 ~ 305 Vac	20 Vdc	75 W	88%	0.99	0.96	EUC-075S375ST (3)
5000 mA	90 ~ 305 Vac	15 Vdc	75 W	88%	0.99	0.96	EUC-075S500ST (4)

Notes: (1) Measured at full load and 220 Vac input.

(2) A suffix –xxx may be added to denote variations or modifications to the base product, where x can be any alphanumeric character or blank.

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

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

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90 V	-	305 V	
Input Frequency	47 Hz	-	63 Hz	
Input AC Current	-	-	0.9 A	Measured at full load and 100 Vac input.
	-	-	0.4 A	Measured at full load and 220 Vac input.
Inrush Current	-	-	50 A	At 230Vac input 25°C Cold Start

Specifications are subject to changes without notice.

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Range				
$I_o = 350 \text{ mA}$	332 mA	350 mA	368 mA	
$I_o = 450 \text{ mA}$	428 mA	450 mA	472 mA	
$I_o = 700 \text{ mA}$	665 mA	700 mA	735 mA	
$I_o = 1050 \text{ mA}$	1000 mA	1050 mA	1100 mA	
$I_o = 1400 \text{ mA}$	1330 mA	1400 mA	1470 mA	
$I_o = 2100 \text{ mA}$	1995 mA	2100 mA	2205 mA	
$I_o = 2800 \text{ mA}$	2660 mA	2800 mA	2940 mA	
$I_o = 3750 \text{ mA}$	3565 mA	3750 mA	3935 mA	
$I_o = 5000 \text{ mA}$	4750 mA	5000 mA	5250 mA	
Output Voltage Range				
$I_o = 350 \text{ mA}$	107 V	-	214 V	
$I_o = 450 \text{ mA}$	83 V	-	166 V	
$I_o = 700 \text{ mA}$	54 V	-	108 V	
$I_o = 1050 \text{ mA}$	36 V	-	72 V	
$I_o = 1400 \text{ mA}$	27 V	-	54 V	
$I_o = 2100 \text{ mA}$	18 V	-	36 V	
$I_o = 2800 \text{ mA}$	13 V	-	27 V	
$I_o = 3750 \text{ mA}$	10 V	-	20 V	
$I_o = 5000 \text{ mA}$	7 V	-	15 V	
Ripple and Noise (pk-pk)	-	-	5% V_o	Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 μF ceramic capacitor and a 10 μF electrolytic capacitor.
Line Regulation	-	-	1%	
Load Regulation	-	-	3%	
Turn-on Delay Time	-	0.5 S	0.6 S	Measured at 110Vac input.
	-	0.4 S	0.5 S	Measured at 220Vac input.
Output Overshoot / Undershoot	-	-	10%	When power on or off.

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

Protection Functions

Parameter	Min.	Typ.	Max.	Notes
Over Voltage Protection				
$I_o = 350 \text{ mA}$	-	235 V	250 V	Latch mode. The power supply shall return to normal operation only after the power is turn-on again.
$I_o = 450 \text{ mA}$	-	195 V	215 V	
$I_o = 700 \text{ mA}$	-	118 V	130 V	
$I_o = 1050 \text{ mA}$	-	80 V	88 V	
$I_o = 1400 \text{ mA}$	-	61 V	70 V	
$I_o = 2100 \text{ mA}$	-	40 V	45 V	
$I_o = 2800 \text{ mA}$	-	35 V	38 V	
$I_o = 3750 \text{ mA}$	-	23 V	30 V	
$I_o = 5000 \text{ mA}$	-	18 V	25 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.			

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General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency Io = 350 mA Io = 450 mA Io = 700 mA Io = 1050 mA Io = 1400 mA Io = 2100 mA Io = 2800 mA Io = 3750 mA Io = 5000 mA	88% 88% 87% 86% 86% 85% 85% 84% 84%	90% 90% 89% 88% 88% 87% 87% 86% 86%	- - - - - - - - -	Measured at full load, 110Vac input, 25°C ambient temperature, after the unit is thermally stabilized. It will be lower about 2%, if measured immediately after startup.
Efficiency Io = 350 mA Io = 450 mA Io = 700 mA Io = 1050 mA Io = 1400 mA Io = 2100 mA Io = 2800 mA Io = 3750 mA Io = 5000 mA	90% 90% 89% 88% 88% 87% 87% 86% 86%	92% 92% 91% 90% 90% 89% 89% 88% 88%	- - - - - - - - -	Measured at full load, 220Vac input, 25°C ambient temperature, after the unit is thermally stabilized. It will be lower about 2%, if measured immediately after startup.
MTBF	498,000 hours			For 2800 mA output model, measured at 110Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F).
Life Time	65,000 hours			For 2800 mA output model, measured at 110Vac input, 80%Load and 45°C ambient temperature
Dimensions Inches (L x W x H) Millimeters (L x W x H)	5.91 x 2.66 x 1.46 150 x 67.5 x 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

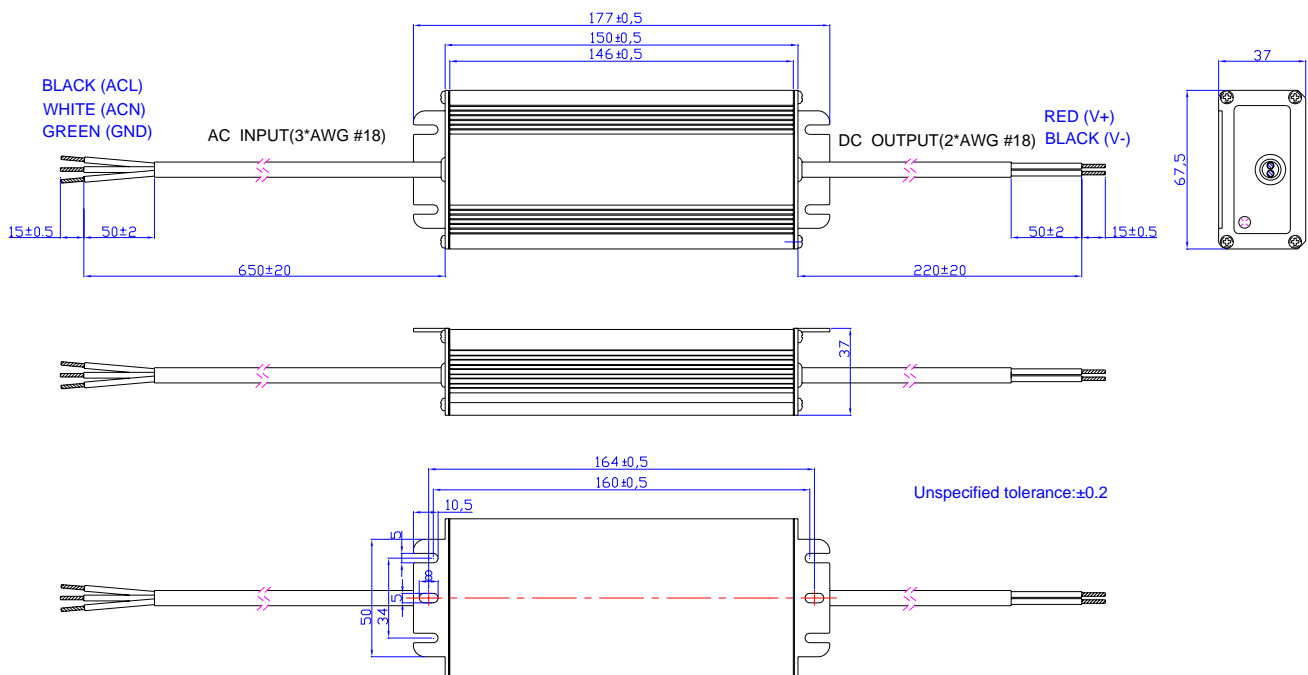
Safety Category	Country	Standard
CUL	USA & Canada	UL8750 Compliance to UL1310 Class2, UL1012 UL953, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
CE	Europe	EN61347-1, EN61347-2-13
EMI Standards		Notes
EN 55015		Conducted emission Test & Radiated emission Test with 6 dB margin

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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

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.

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Revision History

Rev.	Description of Change	Changed Date	Note
V3.1	Change MTBF and Life Time	2009-09-02	
V3.2	Change Turn-on Delay Time	2009-09-11	
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.	2009-10-15	
B	Change notes of efficiency.	2009-11-10	