

Features

- Support Customized Output Current
- Constant Current Output
- High Efficiency (Up to 86%)
- Active Power Factor Correction
- All-Round Protection: OLP, SCP and Open Lamp Protection
- EN61347, UL8750 Safety Certifications Approved



Description

The LWC-024SxxxSSP series operate from a 90 ~ 264 Vac input range. They are designed to be highly efficient and reliable. Features include open lamp, short circuit and over load protections.

Model List

Output Current	Input Voltage Range	Output Voltage Range	Max. Output Power	Efficiency (1)	Power Factor (1)	Model Number
350 mA	90 ~ 264 Vac	36~72 Vdc	25.2 W	86%	0.95	LWC-024S035SSP
500 mA	90 ~ 264 Vac	24~48 Vdc	24 W	86%	0.95	LWC-024S050SSP (2)
700 mA	90 ~ 264 Vac	18~36 Vdc	25.2 W	85%	0.95	LWC-024S070SSP (2)
1050 mA	90 ~ 264 Vac	12~24 Vdc	25.2 W	84%	0.95	LWC-024S105SSP (2) (3)

Notes: (1) Measured in 220 Vac input at full load.
(2) UL Class 2 (US)
(3) cUL Class 2 (Canada)

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90Vac	-	264Vac	
Input Frequency	47 Hz	-	63 Hz	
Leakage Current	-	-	0.5 mA	At 220Vac, 50Hz input
Input AC Current	-	-	0.32A	Measured at full load and 120 Vac input
Inrush Current	-	-	40 A	At 220Vac input Ta=25°C cold start, duration = 240μs

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-10%	-	10%	
Startup Overshoot Current	-	-	10%	Full load condition
Output Current Ripple		30%Io	50%Io	Full load condition
Line Regulation	-	-	5%	Input voltage from min to max
Load Regulation	-	-	5%	Output voltage from min to max
Turn-on Delay Time	-	0.8 s	1 s	Measured at 120Vac input

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

Specifications are subject to changes without notice.

Protection Functions

Parameter	Min.	Typ.	Max.	Notes
No Load Voltage	Vomax	120% Vomax	140% Vomax	Vomax is the maximum operation output voltage
Short Circuit Protection	Hiccup. The power supply shall be self-recovery when the fault condition is removed.			

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency $I_o = 350 \text{ mA}$ $I_o = 500 \text{ mA}$ $I_o = 700 \text{ mA}$ $I_o = 1050 \text{ mA}$	85% 85% 84% 83%	86% 86% 85% 84%	- - - -	Measured at full load and 220 Vac input
Efficiency $I_o = 350 \text{ mA}$ $I_o = 500 \text{ mA}$ $I_o = 700 \text{ mA}$ $I_o = 1050 \text{ mA}$	84% 84% 83% 82%	85% 85% 84% 83%	- - - -	Measured at full load and 120 Vac input
Power Factor $I_o = 350 \text{ mA}$ $I_o = 500 \text{ mA}$ $I_o = 700 \text{ mA}$ $I_o = 1050 \text{ mA}$	0.9 0.9 0.9 0.9	0.92 0.92 0.92 0.92	- - - -	Measured at 70% maximum output voltage and 220 Vac input
Power Factor $I_o = 350 \text{ mA}$ $I_o = 500 \text{ mA}$ $I_o = 700 \text{ mA}$ $I_o = 1050 \text{ mA}$	0.92 0.92 0.92 0.92	0.96 0.96 0.96 0.96	- - - -	Measured at 70% maximum output voltage and 120 Vac input
No Load Power Dissipation	-	-	1 W	
MTBF	300,000 Hours			Measured at 120Vac input, 80%load and 25°C ambient temperature (MIL-HDBK-217F)
Life Time	50,000 Hours			Measured at 120Vac input, 80%load; Case temperature=60°C @ Tc point. See the life vs. Tc curve for the details
Dimensions Inches (L x W x H) Millimeters (L x W x H)	4.73 x 1.65 x 1.20 120 x 42 x 30.5			
Net Weight		180g		

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

Environmental Specifications

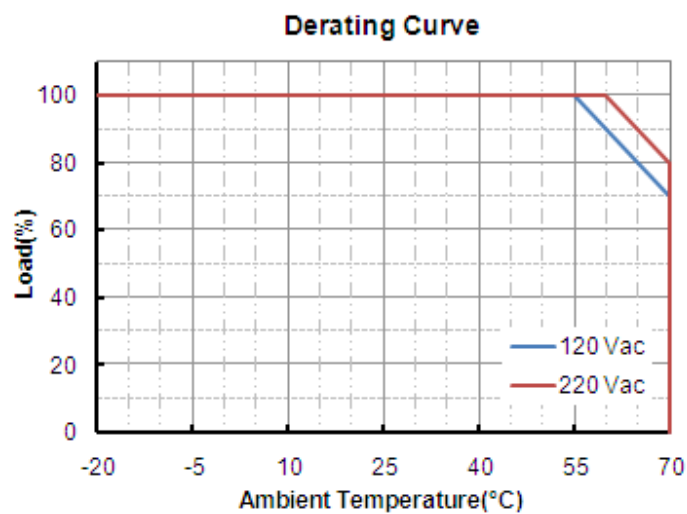
Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-20 °C	-	+60 °C	Humidity: 10% RH to 90% RH.
Storage Temperature	-30 °C	-	+85 °C	Humidity: 5% RH to 90% RH

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Safety & EMC Compliance

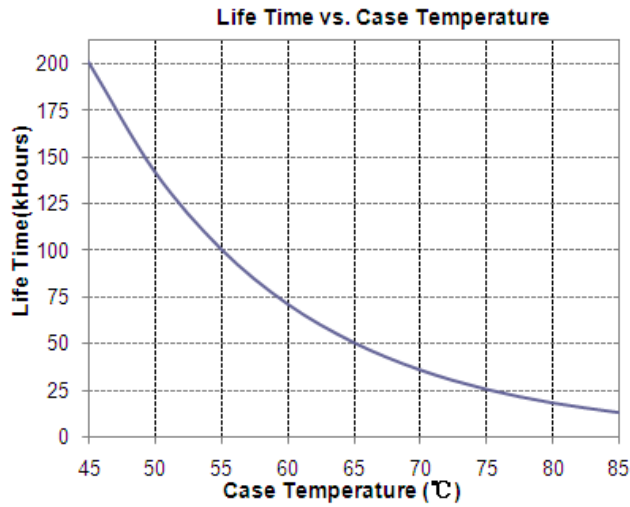
Safety Category	Standard
CE	EN 61347-1, EN61347-2-13
UL/Cul	UL8750, UL1310, UL1012, CAN/CSA-C22.2 No. 223-M91, CSA C22.2 No. 107.1-01
EMI Standards	Notes
EN55015/CISPR15	Conducted Emission Test & Radiated Emission Test
EN 61000-3-2	Harmonic Current Emissions Class C
EN 61000-3-3	Voltage Fluctuations & Flicker
FCC Part 15	Class B
EMS Standards	Notes
EN 61000-4-2	Electrostatic Discharge (ESD): 8 Kv air discharge, 4 Kv contact discharge Level 3, Criteria A
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS Level 3, Criteria A
EN 61000-4-4	Electrical Fast Transient / Burst-EFT Level 3, Criteria A
EN 61000-4-5	Surge Immunity Test: AC Power Line: Line to Line 1 Kv
EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS Level 3, Criteria A
EN 61000-4-8	Power Frequency Magnetic Field Test 3A/m , Criteria A
EN 61000-4-11	Voltage Dips Criteria B
EN 61547	Electromagnetic Immunity Requirements Applies to Lighting Equipment

Derating Curve

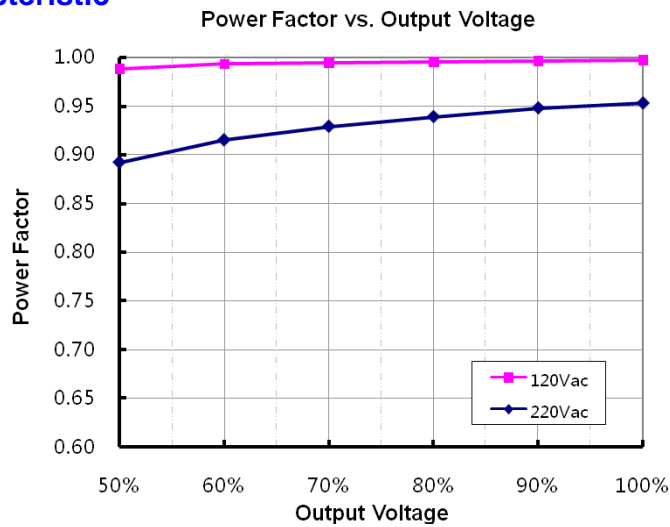


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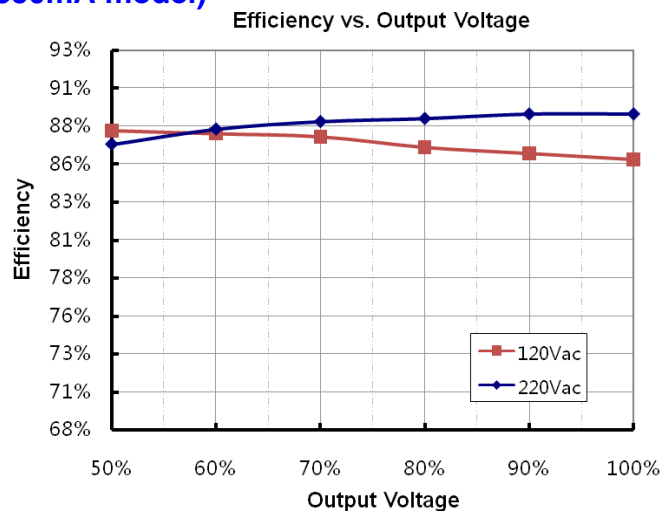
Life vs. Case Temperature Curve



Power Factor Characteristic

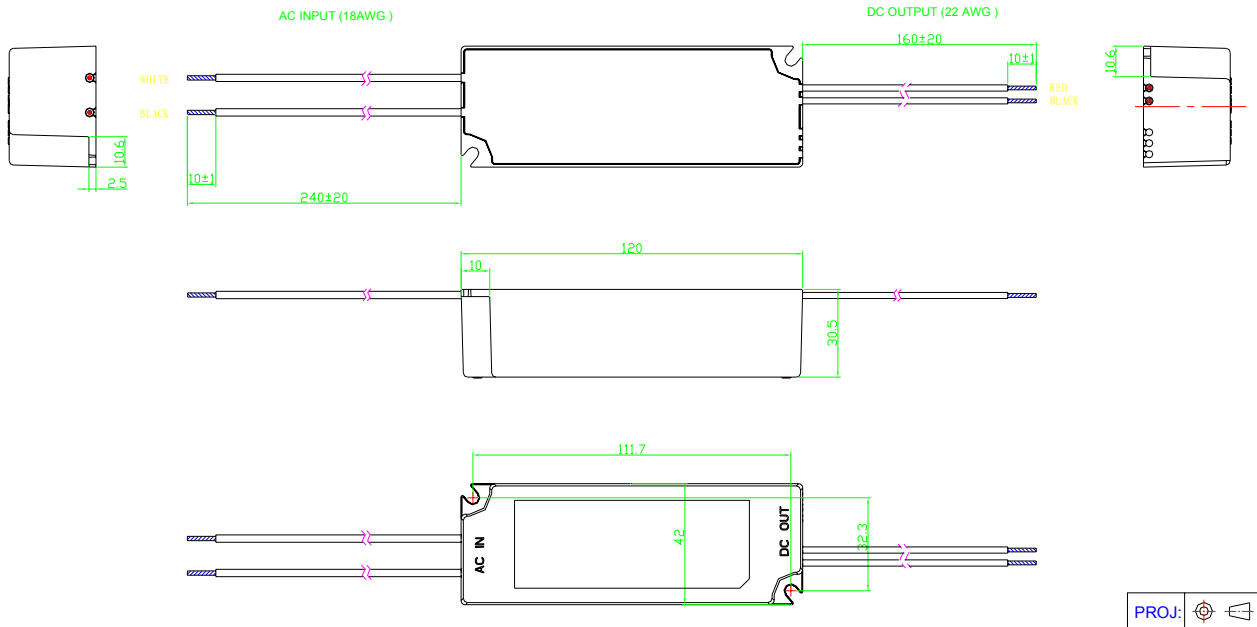


Efficiency vs. Load (350mA model)



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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
2011-9-29	A	Release	/	/
2011-10-10	B	Derating Curve, Life time Curve	/	Update
2011-12-20	C	Dimensions –inch	/	Corrected
2011-12-21	D	Typ.PF at 220V	0.92	0.95
2011-12-27	E	PF Curve	/	Changed