

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
- SELV



Description

The LWC-018SxxxSSP series operate from a 90 ~ 264 Vac input range. They are designed to be highly efficient and reliable. Features include over load, short circuit and open lamp 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	26~51 Vdc	18 W	86%	0.95	LWC-018S035SSP (2)
500 mA	90 ~ 264 Vac	18~36 Vdc	18 W	85%	0.95	LWC-018S050SSP (2) (3)
700 mA	90 ~ 264 Vac	13~26 Vdc	18 W	84%	0.95	LWC-018S070SSP (2) (3)
1050 mA	90 ~ 264 Vac	9 ~17 Vdc	18 W	83%	0.95	LWC-018S105SSP (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	-	-	0.22 A	Measured at full load and 120 Vac input
Inrush Current	-	-	40 A	At 220Vac input, 25°C cold start, duration=240 μs, 10%Ipk-10%Ipk.
Inrush Current(I ² t)	-	-	0.128 A ² s	
Power Factor	0.90	-	-	At 100Vac-220Vac, 75%load-100%load
THD	-	-	20%	

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-10%	-	10%	
Startup Overshoot Current	-	-	10%	Full load condition

Specifications are subject to changes without notice.

Output Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Output Current Ripple		30%Io	50%Io	Full load condition
Line Regulation	-	-	±5%	/
Load Regulation	-	-	±5%	/
Turn-on Delay Time	-	0.8 s	1.0 s	Measured at 120Vac input
Temperature coefficient	-	-	0.03%/°C	Case temperature = 0°C ~Tc max

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

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 Io = 350 mA Io = 500 mA Io = 700 mA Io = 1050 mA	85% 84% 83% 82%	86% 85% 84% 83%	- - - -	Measured at full load and 220 Vac input It will be lower about 1%, if measured immediately after startup.
Efficiency Io = 350 mA Io = 500 mA Io = 700 mA Io = 1050 mA	84% 83% 82% 81%	85% 84% 83% 82%	- - - -	Measured at full load and 120 Vac input It will be lower about 1%, if measured immediately after startup.
Power Factor Io = 350 mA Io = 500 mA Io = 700 mA Io = 1050 mA	0.90 0.90 0.90 0.90	0.92 0.92 0.92 0.92	- - - -	Measured at 70% Load and 220 Vac input
Power Factor Io = 350 mA Io = 500 mA Io = 700 mA Io = 1050 mA	0.95 0.95 0.95 0.95	0.98 0.98 0.98 0.98	- - - -	Measured at 70%Load and 120 Vac input
No Load Power Dissipation	-	-	1 W	
MTBF	-	433,900 Hours	-	Measured at 120Vac input, 80%load and 25°C ambient temperature (MIL-HDBK-217F)
Life Time	-	77,800 Hours	-	Measured at 120Vac input, 80%load; Case Temperature = 60°C @ Tc point. See life time vs. Tc curve for the details
Case temperature			85°C	

Specifications are subject to changes without notice.

General Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Dimensions Inches (L × W × H) Millimeters (L × W × H)	4.72 × 1.65 × 1.20 120 × 42 × 30.5			
Net Weight		180 g		

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

Environmental Specifications

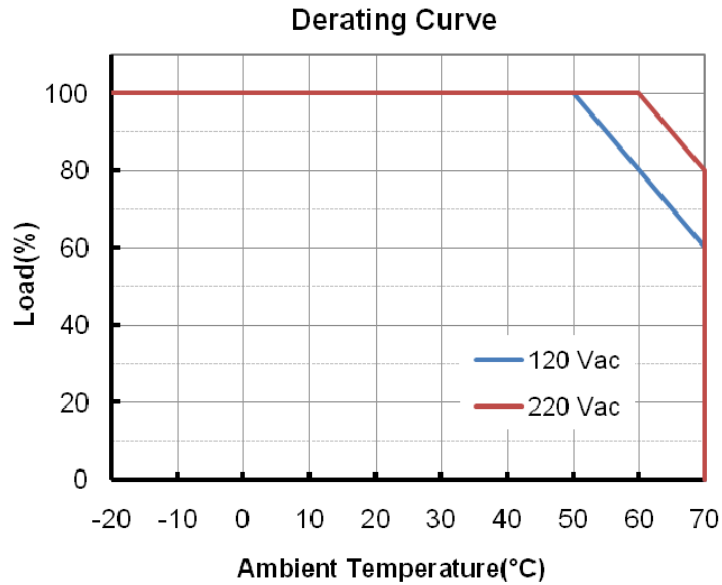
Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-20 °C	-	+70 °C	Humidity: 10% RH to 90% RH. See Derating Curve for more details
Storage Temperature	-30 °C	-	+85 °C	Humidity: 5% RH to 90% RH

Safety & EMC Compliance

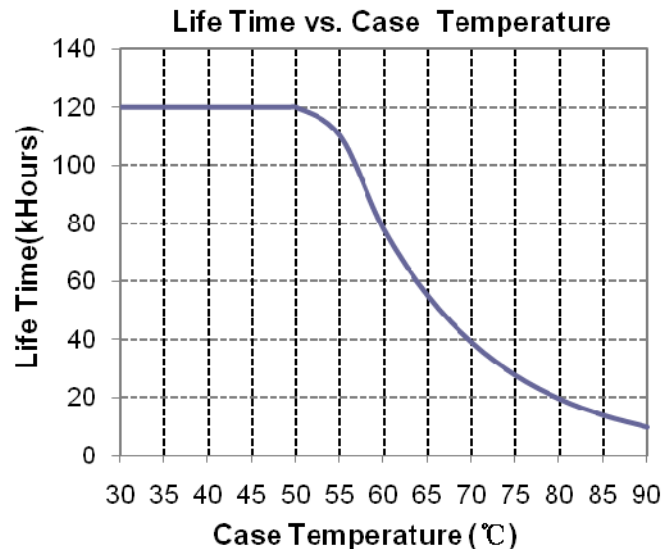
Safety Category	Standard
CE	EN 61347-1, EN61347-2-13
UL/CUL	UL8750, UL1310, CAN/CSA-C22.2 No. 223-M91,
PSE	J61347-1(H20),J61347-2-13(H21)
EMI Standards	Notes
EN 55015/J55015(H20)	Conducted Emission Test & Radiated Emission Test
EN 61000-3-2	Harmonic Current Emissions Class C
EN 61000-3-3	Voltage Fluctuations & Flicker
FCC Part 15	ANSI C63.4:2009 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

Specifications are subject to changes without notice.

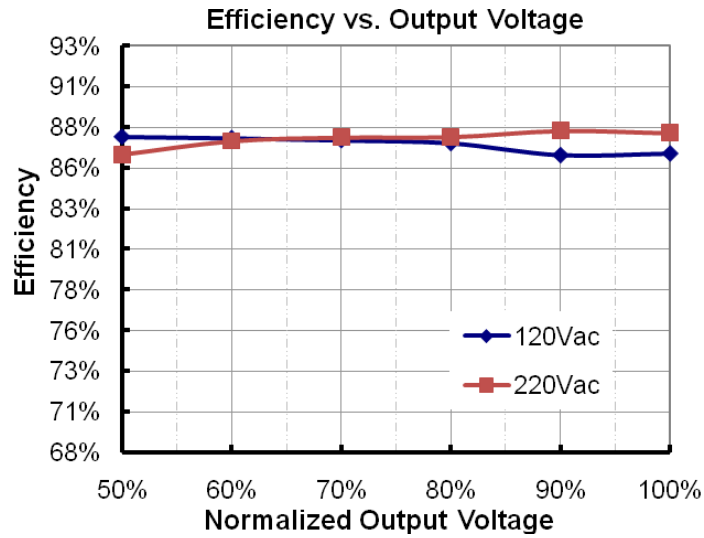
Derating Curve



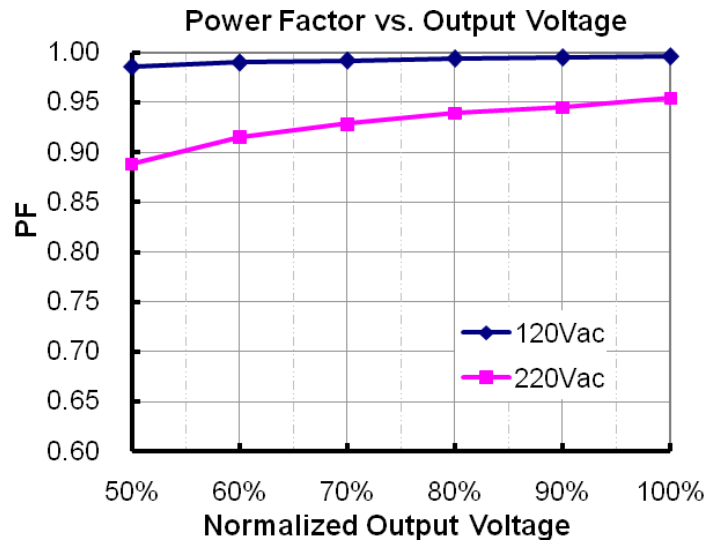
Life Time vs. Case Temperature Curve



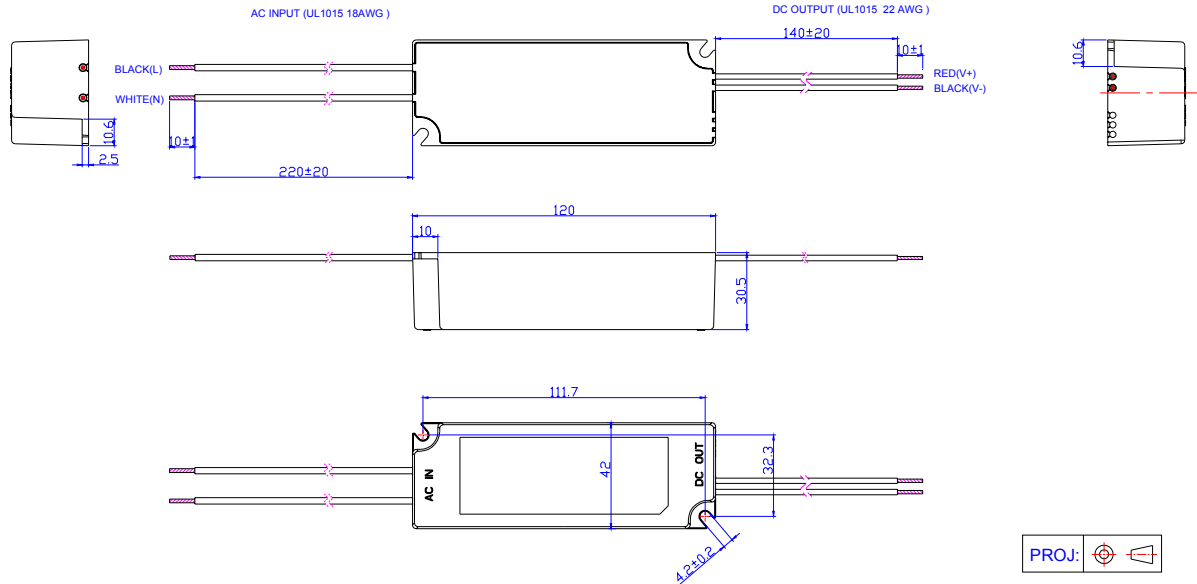
Efficiency vs. Load (350mA model)



Power Factor Characteristic



Mechanical Outline



Unspecified tolerance: ±1

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
2011-09-28	A	Release	/	/
2011-10-10	B	Derating Curve, Life time Curve	/	Update
2011-12-21	C	Dimensions- Inches	/	Corrected
2011-12-21	D	Typ. PF at 220V	0.94	0.95
2011-12-27	E	PF Curve	/	Changed
2012-7-17	F	Max Case Temperature	/	Updated
2012-8-1	G	Derating Curve	/	Updated
		EMI Standards EN 55015/J55015(H20)	/	Updated
		Net weight	180 g	230 g
2012-8-30	H	Inrush Current(I ² t)	/	Added
		Power Factor Min	/	Added
		THD Max	/	Added
		Temperature coefficient	/	Added
		Net weight	230 g	180 g
		Typical life time and MTBF	/	Added