



■ Model Name : PSDV900101U

■ Features :

- Suitable for LED lighting application
- UL8750\_UL1310 Class 2
- Suitable for dry and damp locations
- Full-protection provided : OCP/OLP/OTP/SCP
- Dimming
- Non potting product



**SAMSUNG ELECTRO-MECHANICS CO., LTD**

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TEL: +82-31-210-5114, [www.samsungsem.co.kr](http://www.samsungsem.co.kr)

■ Electrical specification

No.	Item	Min	Typ	Max	Unit	Remark
1	Nominal Input Voltage	120		277	Vac	
2	Wide Input Voltage	108		305	Vac	
3	Maximum Input Current			1.2	Arms	
4	Nominal Input Frequency	50		60	Hz	
5	Wide Input Frequency	47		63	Hz	
6	Power Factor (PF)	0.9				1)
7	Total Harmonic Distortion (THD)			20	%	1)
8	Inrush Current	NEMA410				8)
9	Earth Leakage Current			1000	μA	
10	Output Voltage	34	38.8	42	Vdc	
11	Output Current	2197	2300	2404	mA	±4.5%
12	Output Current Ripple			10	%	1)
13	Output Peak Current			3500	mA	Cold start, 1)
14	Output Aging Current Differential			115	mA	2hr Aging
15	Turn-on Delay Time			750	ms	2)
16	Electrical Efficiency	89			%	3)
17	Dimming Control	10		100	%	10)
18	Output Open LED Protection	-	-	-	Vdc	Auto-recovery
19	Output Short Circuit Protection	-	-	-	-	Auto-recovery
20	12V Output Short Circuit Protection	-	-	-	-	Auto-recovery
21	Over-temperature Protection	105			°C	Auto-recovery
22	Case Temperature (Tc)			85	°C	@Amb.50°C, Input 120Vac, Load(Typ.)
23	Storage Temperature	-40		90	°C	
24	Operating Temperature	-40		50	°C	
25	Insulation Resistance	100			MΩ	500Vdc between Input & Output
26	Differential Mode (Line to Line)	-4		4	kV	4)
27	Common Mode (Line to Ground)	-6		6	kV	4) 5)
28	Contact Discharge Test Voltage	-4		4	kV	6)
29	Air Discharge Test Voltage	-8		8	kV	6) 7)
30	Dielectric Withstand Voltage	Input to Output	1554		Vac	Apply for 1 minute 9)
31		Input to Case	1554		Vac	
32		Output to Case	500		Vdc	

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No.	Item	Min	Typ	Max	Unit	Remark
33	Vibration			3	G	
34	Humidity			90	%	

☞ **Application Notes**

- 1) Test Condition: 120/277Vac 50/60Hz Input, LED Typ Load, Ambient Temperature 25°C, at cold start  
Cold start : After the all capacitors have been discharged
- 2) Test Condition: Input voltage 277Vac 60Hz, Room Temperature, at cold start
- 3) Test Condition: 240Vac Input, 2hr Aging, LED Typ Load and I<sub>max</sub>, Ambient Temperature 25°C
- 4) Surge Specification above is higher than IEC/EN 61000-4-5 (Differential 1kV, Common 2kV)
- 5) The metal case of the LED driver must be connected with F.G
- 6) ESD Specification above meets IEC/EN 61000-4-2 Requirements (Contact 4KV, Air 8KV)
- 7) The metal case of the driver should be grounded.
- 8) Input 120Vac, < 144A<sub>peak</sub>, < 0.7ms, < 41A<sub>2sec</sub>
- 9) Determined by Paragraph 8.4.2, UL8750, IEC/EN61347-1, IEC/EN61347-2-13
- 10) Dimming by Source & Sink Dimmer

☞ **Safety Standards**

Including safety requirements above, the LED driver complies with the following safety standards:

No.	Item	Description
1	UL8750	UL Safety Standards
2	IEC/EN 61000-3-2	Harmonic current emissions: Class C
3	IEC/EN 61000-3-3	Voltage Fluctuations and Flicker
4	IEC/EN 61000-4-2	Electrostatic Discharge (ESD): Contact 4kV, Air 8kV
5	IEC/EN 61000-4-3	Radio-frequency Electromagnetic Fields
6	IEC/EN 61000-4-4	Electrical Fast Transients (EFT)
7	IEC/EN 61000-4-5	Surges: Differential 1kV, Common 2kV
8	IEC/EN 61000-4-6	Injected Currents
9	IEC/EN 61000-4-8	Power Frequency Magnetic Fields
10	IEC/EN 61000-4-11	Voltage Dips and Short Interruptions

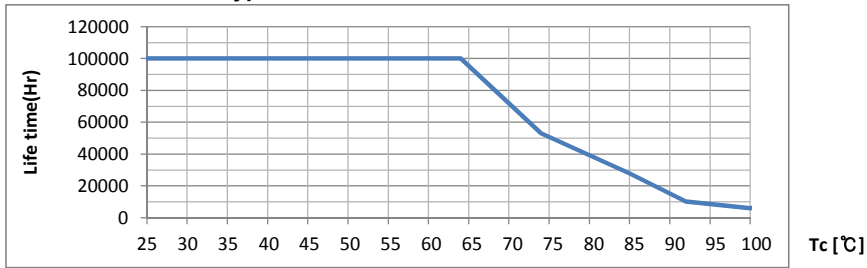


ELECTRO-MECHANICS

90W Single Output Switching Power Supply

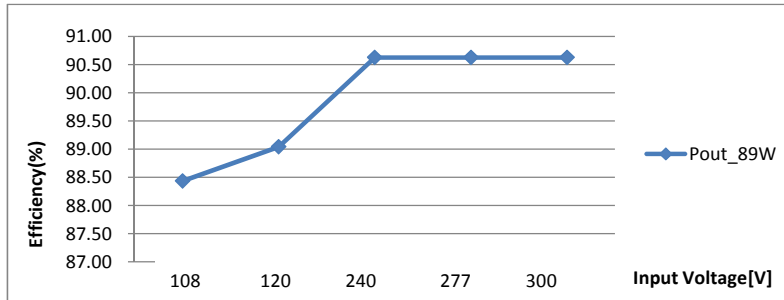
# PSDV900101U

## Life Time vs Tcase\_Typical Load

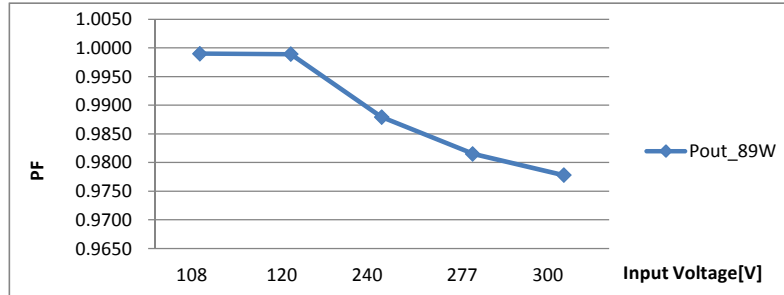


Remark) LED Driver has a rated lifetime of 50,000 hours @  $T_c \leq 75^\circ\text{C}$

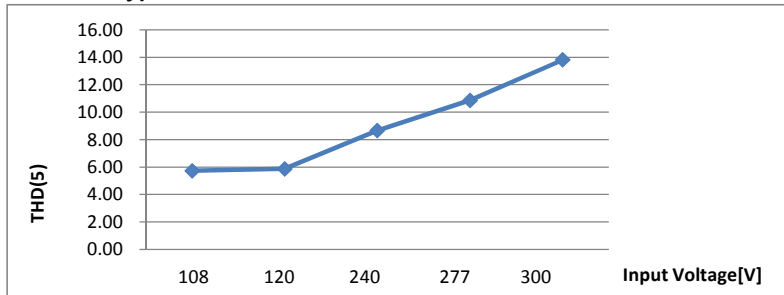
## Efficiency(%)\_Typical Load



## Power Factor\_Typical Load



## THD(%)\_Typical Load



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■ Mechanical Specification

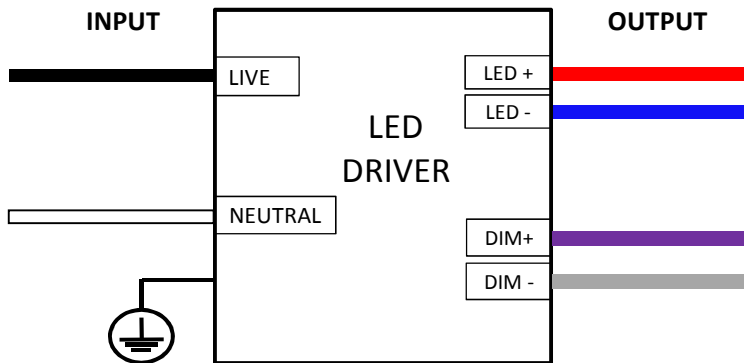


■ Enclosure Size

Unit	Case Width	Case Length	Case Height	Mounting Width	Mounting Length	Overall Length
mm	60	211	32	42.9	226	240
inch	2.362	8.307	1.26	1.689	8.898	9.449

■ Case Material : Aluminium

■ Wiring Diagram



Remark) Output wiring specifications can be changed.

■ Rating Label Drawing

**SAMSUNG** LED Electronic Driver Model : PSDV900101U

INPUT : 120-277 V~, 50/60 Hz, 120 W, Max 1.2 A, A(PF)=0.9 CAUTION: Suitable for dry and damp locations. Do not open the case, hazardous voltage inside. Install in accordance with national and local electrical code. This product is used for LED module only.

OUTPUT : 34-42 V ~ / 2300 mA(constant current type)  
DIMMING CONTROL : Source & Sink Dimming  
tc = 85°C

Made in China Dongguan SAMSUNG ELECTRO-MECHANICS Technical Support : [www.sem.samsung.com](http://www.sem.samsung.com)

tc

**C** **UL** **US**  
Suitable for Class 2 Wiring  
E321686

DIAGRAM OF INPUT/OUTPUT CONNECTION:

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