



ELECTRO-MECHANICS

CV24V/96W Constant Voltage Power supply

**PSDV960101U**



■ **Model Name : PSDV960101U**

■ **Features :**

- UL8750 / UL1310 Class 2 and CE Class II
- Full-protection provided: OCP/OVP/OTP/SCP
- Meets safety requirements for lighting
- Constant Voltage Type
- 5 years warranty
- IP67 Grade



**IP 67**

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

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**■ Electrical specification**

No.	Item	Min	Typ	Max	Unit	Remark
1	Nominal Input Voltage	100		277	Vac	
2	Wide Input Voltage	90		305	Vac	
3	Maximum Input Current			1.5	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	Meets NEMA 410				8)
9	Earth Leakage Current			500	μA	
10	Output Voltage	23	24	25	Vdc	3)
11	Output Current	100		4,000	mA	
12	Ripple and Noise			0.5	Vp-p	20MHz Bandwidth, 2)
13	Turn-on Delay			1,000	ms	@Cold Start
14	Electrical Efficiency	85			%	2)
15	Output Open LED Protection	-	-	42.4	Vdc	Auto-recovery
16	Output Short Circuit Protection	-	-	-	-	Auto-recovery
17	Over-temperature Protection	105			°C	Case Temperature, Auto-recovery
18	Case Temperature (Tc)			85	°C	Ambient (Ta) 25°C
19	Storage Temperature	-30		85	°C	
20	Operating Temperature	-20		50	°C	
21	Humidity			90	%	
22	Vibration			3	G	
23	Insulation Resistance	100			MΩ	500Vdc between Input & Output
24	Differential Mode (Line to Line)	-4		4	kV	4)
25	Common Mode (Line to Ground)	-6		6	kV	4) 5)
26	Contact Discharge Test Voltage	-4		4	kV	6)
27	Air Discharge Test Voltage	-8		8	kV	6) 7)
28	Dielectric Withstand Voltage	Input to Output	3,858		Vac	Apply for 1 minute 9)
29		Input to Case	1,554		Vac	
30		Output to Case	500		Vdc	

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**☞ Application Notes**

- 1) Test Condition:100/277Vac 50/60Hz Input,Typical Electric Load ,Ambient Temperature 25°C, Measure at the cable-end
- 2) Test Condition: 240Vac 60Hz Input, LED Max. Load, 30min Aging, Ambient Temperature 25°C
- 3) Minimum and maximum value is  $\pm 5\%$  of typical value
- 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, < 192Apeak, < 1.2ms, < 74A2sec
- 9) Determined by Paragraph 34.1.2, UL1310 or Paragraph 8.4.2, UL8750, EN61347-1, EN61347-2-13

**☞ Safety Standards**

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

No.	Item	Description
1	UL8750, UL1310	UL Safety Standards (Class 2, Dry and Damp Location)
2	FCC Part 15, Class A	Conducted and Radiated Emission Test
3	IEC/EN 61347-1, IEC/EN 61347-2-13	IEC/EN Safety Standards
4	IEC/EN 55015	Conducted and Radiated Emission Test
5	IEC/EN 61000-3-2	Harmonic current emissions: Class C
6	IEC/EN 61000-3-3	Voltage Fluctuations and Flicker
7	IEC/EN 61000-4-2	Electrostatic Discharge (ESD): Contact 4kV, Air 8kV
8	IEC/EN 61000-4-3	Radio-frequency Electromagnetic Fields
9	IEC/EN 61000-4-4	Electrical Fast Transients (EFT)
10	IEC/EN 61000-4-5	Surges: Differential 1kV, Common 2kV
11	IEC/EN 61000-4-6	Injected Currents
12	IEC/EN 61000-4-8	Power Frequency Magnetic Fields
13	IEC/EN 61000-4-11	Voltage Dips and Short Interruptions
14	IP Grade	IP67

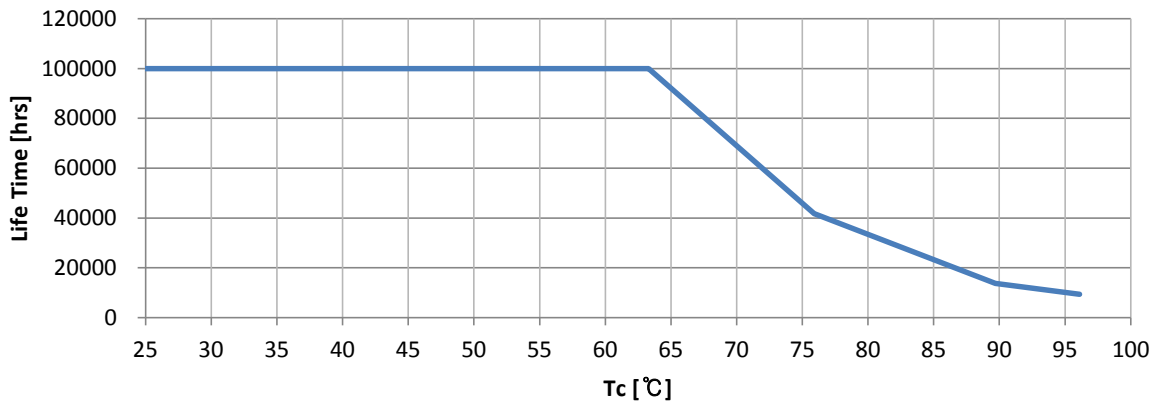
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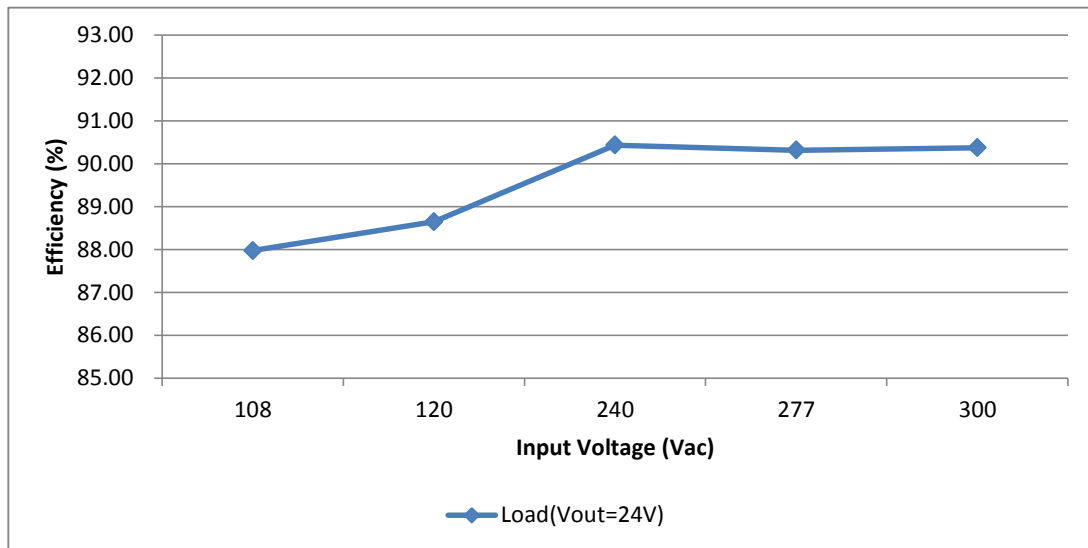


### Life Time vs Tcase



Remark) LED Driver has a rated lifetime of 50,000 hours @ Tc≤70°C

### Efficiency(%)



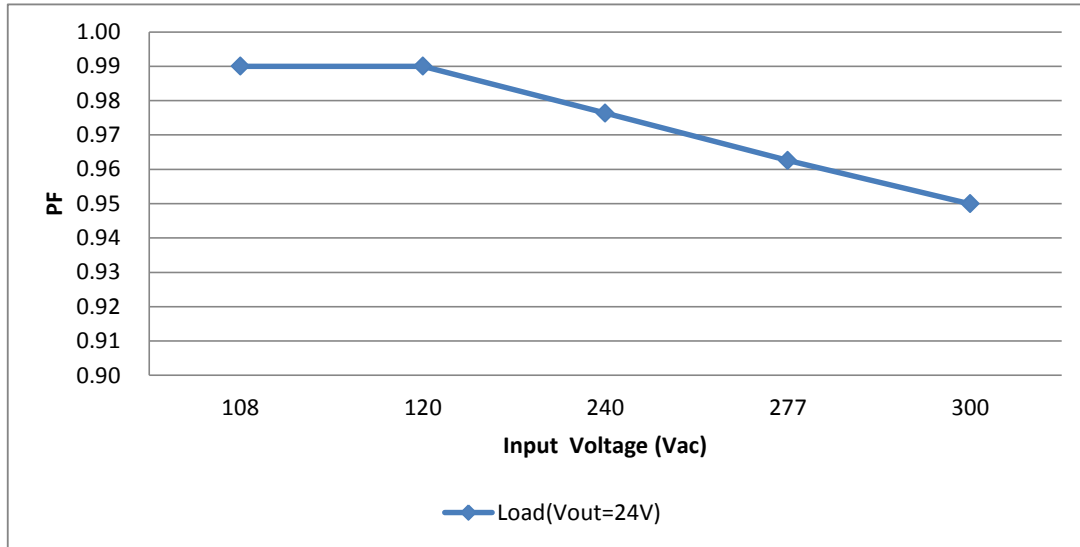
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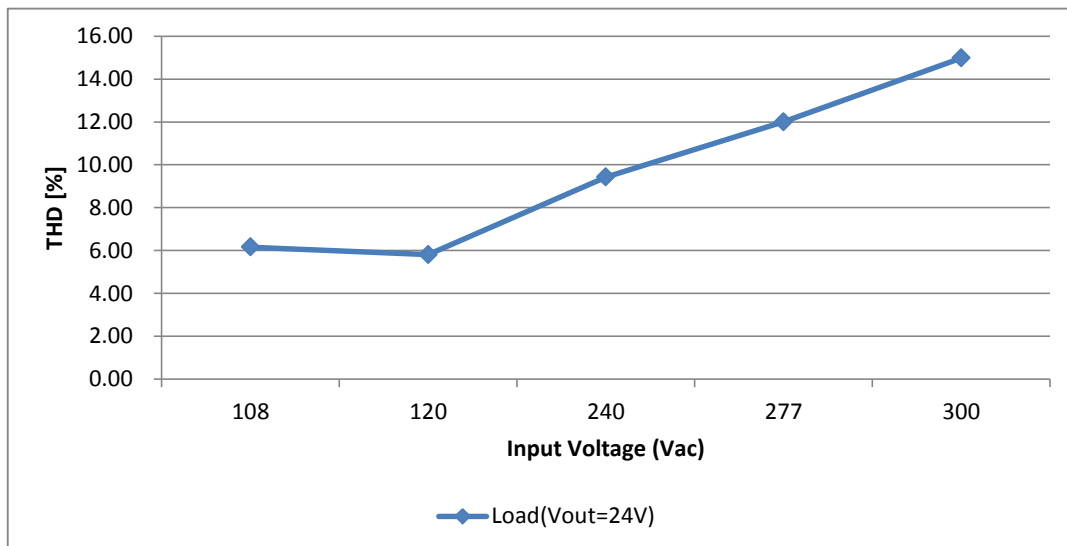
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■ Power Factor



■ THD(%)



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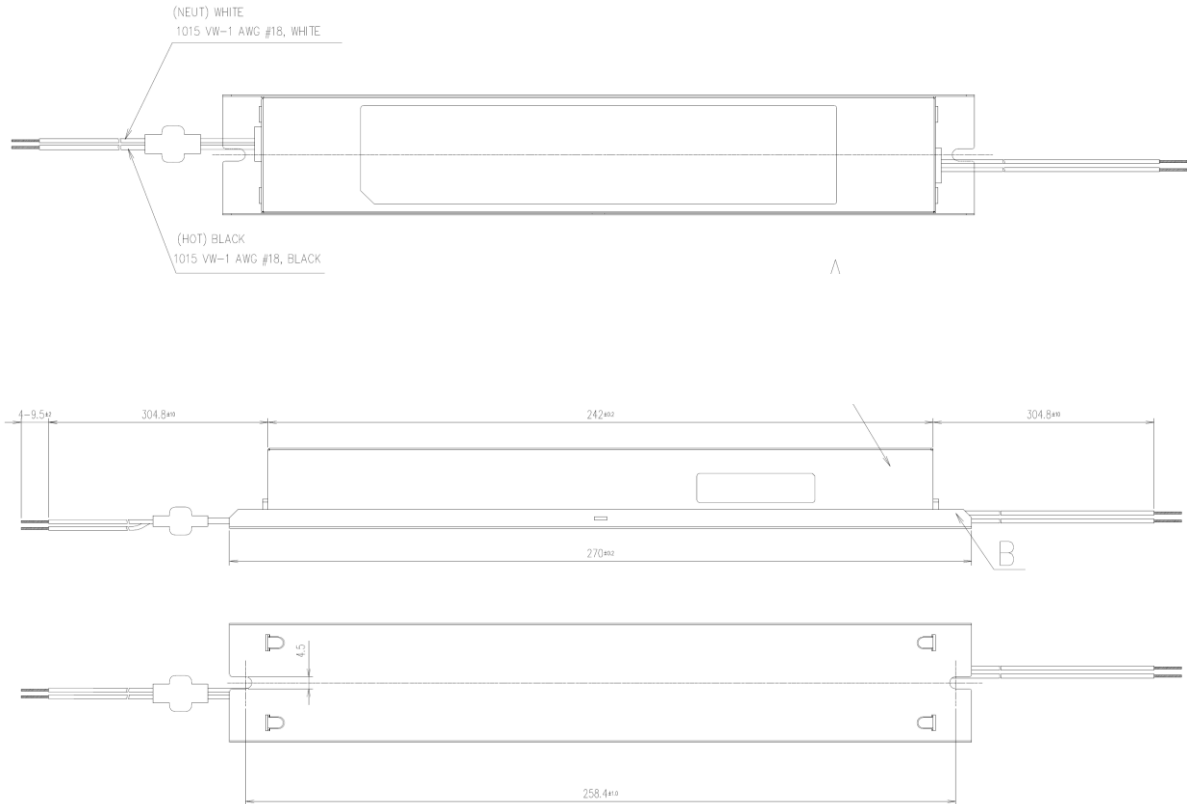


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### ■ Mechanical Specification



### ■ Enclosure Size

Unit	Width	Length	Height	Mount Length	Overall Length
mm	44.5	242	27.5	258.4	270
inch	1.75	9.53	1.08	101.73	106.29

### ■ Case Material : Fe

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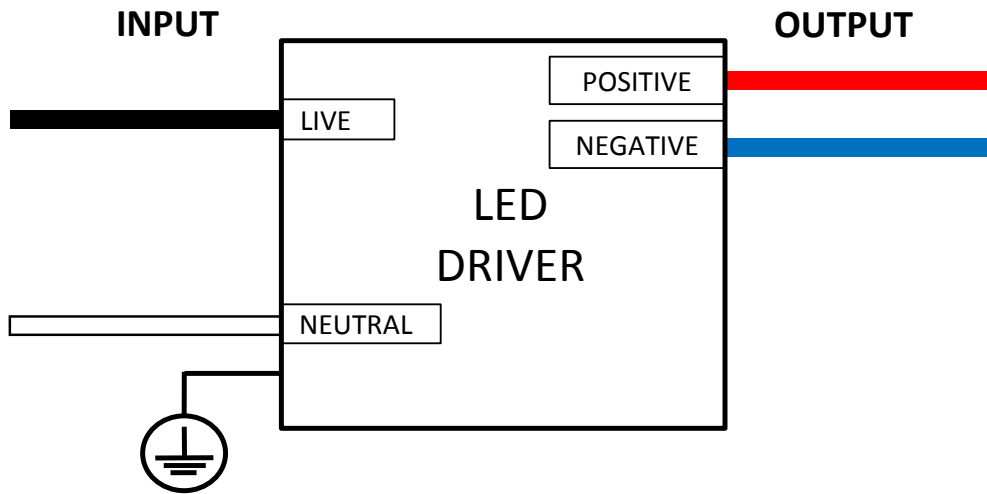


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### ■ Wiring Diagram



Remark) Output wiring specifications can be changed.

### ■ Rating Label Drawing

<b>INPUT</b> VOLTAGE 100-277 VAC 50/60 Hz, 110W, 1.5A MAX, λ=0.9 (Constant Voltage type)		<b>OUTPUTS</b> VOLTAGE 24 V --- CURRENT MAX 4 A		
BLACK (Live) — LINE 24V DC — RED (Positive) WHITE (Neutral) — DRIVER CASE MUST BE GROUNDED — BLUE (Negative)	 Suitable for Class 2 Wiring E321686	MODEL : PSDV960101U DISCONNECT POWER BEFORE SERVICING	SUITABLE FOR DRY AND DAMP LOCATIONS (IP 67 FOR CE) DRIVER EFFICIENCY TO EXCEED 85% MAX LOAD EMI : MEETS FCC CLASS A OUTPUT TYPE: NEO CLASS 2 (2-1) OUTPUT WATTAGE RATING 96 WATTS MAX. CEC GENERAL USE POWER OUTPUT This product is used for Led module only. SELV-equivalent controlgear	
INSTALL IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES DO NOT HI-POT TEST WITH AC		 ■ Tc (MAX 85 °C)		

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