



■ Model Name : PSDV850101A

■ Features :

- Suitable for LED lighting application
- UL8750/UL1012 Non Class 2
- For use in Dry and Damp Location
- Full-protection provided : OCP/OLP/OTP/SCP
- Sink & Source Dimming Control
- Non potting product



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

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■ 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				10)
9	Earth Leakage Current			500	μA	
10	Output Voltage	60		80	Vdc	2)
11	Output Voltage	60		100	Vdc	3)
12	Output Current	998	1050	1102	mA	
13	Output Current Ripple			110	mA	1)
14	Output Peak Current			2100	mA	1)
15	Output Aging Current Differential			55	mA	2hr Aging
16	Turn-on Delay Time			750	ms	4)
17	Electrical Efficiency	87			%	5)
18	Dimming Control	10		100	%	
19	Output Open LED Protection	-	-	-	-	Auto-recovery
20	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	6)
27	Common Mode (Line to Ground)	-6		6	kV	6) 7)
28	Contact Discharge Test Voltage	-4		4	kV	8)
29	Air Discharge Test Voltage	-8		8	kV	8) 9)
30	Dielectric Withstand Voltage	Input to Output	3854		Vac	Apply for 1 minute 11)
31		Input to Case	1554		Vac	
32		Output to Case	500		Vdc	
33	Vibration			3	G	
34	Humidity			90	%	

☞ Application Notes

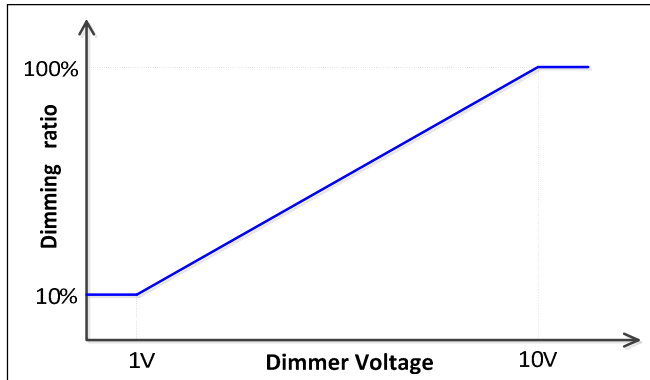
- 1) Test Condition: 120/277Vac 50/60Hz Input, LED Load\_80V, Ambient Temperature 25°C
- 2) Output Voltage of 60Vdc~80Vdc can be applied at Output Current 1050mA
- 3) LED load having Vf of this range can be driven until Vf drop to below 80V by self-heating.
- 4) Test Condition: Input voltage 277Vac 60Hz, Room Temperature, Cold start
- 5) Test Condition: 240Vac Input, 1hr Aging, LED Load\_80V, Ambient Temperature 25°C
- 6) Surge Specification above is higher than IEC/EN 61000-4-5 (Differential 1kV, Common 2kV)
- 7) The metal case of the LED driver must be connected with F.G
- 8) ESD Specification above meets IEC/EN 61000-4-2 Requirements (Contact 4KV, Air 8KV)
- 9) The metal case of the driver should be grounded.
- 10) Input 120Vac, < 144Apeak, < 0.7ms, < 41A2sec
- 11) Determined by Paragraph 8.4.2, UL8750, IEC/EN61347-1, IEC/EN61347-2-13

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■ Dimming Curve

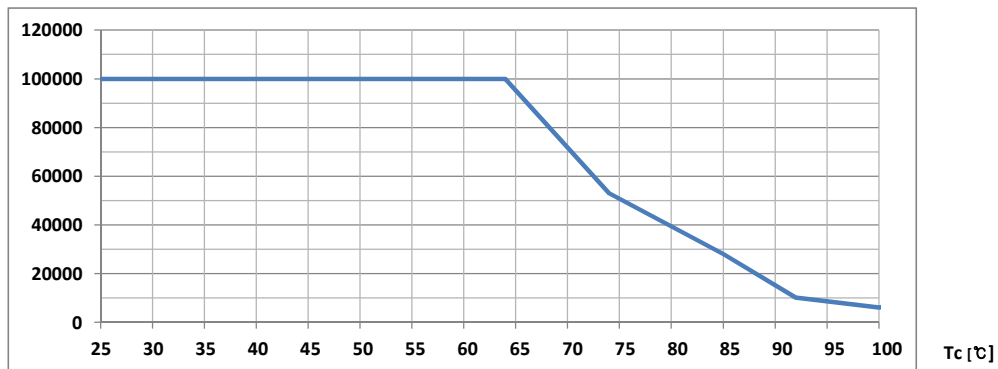


☞ Safety Standards

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

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

■ Life Time vs Tcase



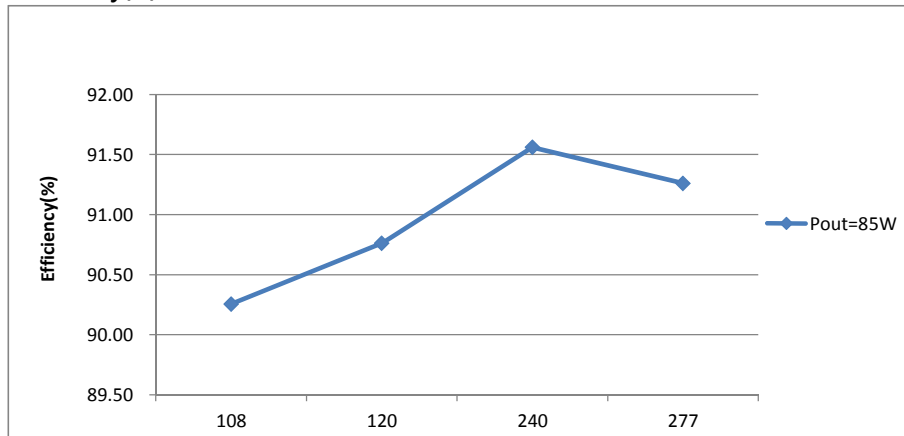
Remark) LED Driver has a rated lifetime of 50,000 hours @ T<sub>c</sub> ≤ 75°C

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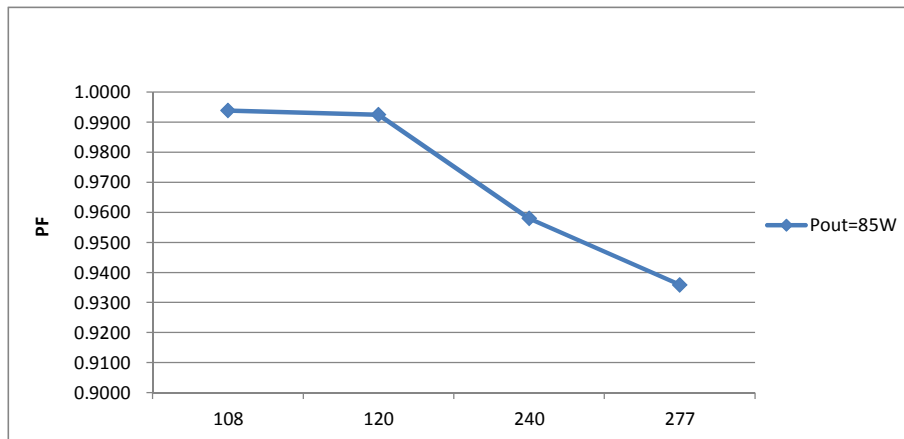
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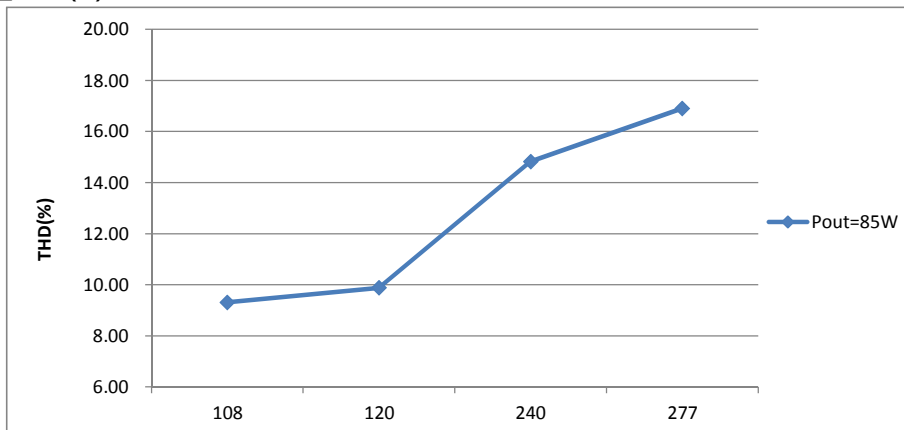
■ Efficiency(%)



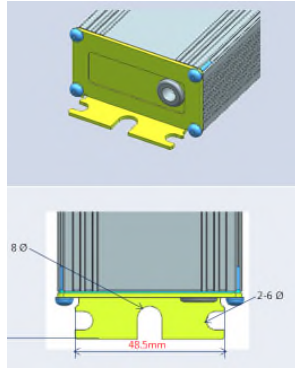
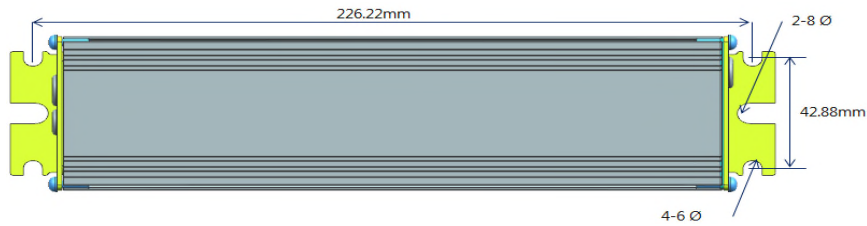
■ Power Factor



■ THD(%)



■ Mechanical Specification

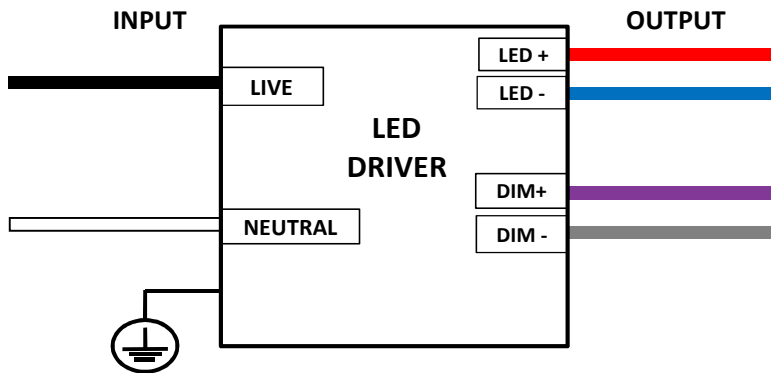


■ Enclosure Size

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

<p><b>SAMSUNG</b></p> <p>INPUT : 120-277V~ 50/60 Hz, 420W, Max 1.2 A, N(PF)=0.9 CAUTION :                  OUTPUT : 80-80 V ~ / 1050 mA(constant current type) Suitable for dry and damp locations.                  DIMMING CONTROL : Source &amp; Sink Dimming Do not open the case, hazardous voltage inside.                  tc= 85°C Install in accordance with national and local electrical code.                  This product is used for LED module only.</p> <p>Made in China Dongguan SAMSUNG ELECTRO-MECHANICS Technical Support : <a href="http://www.sem.samsung.com">www.sem.samsung.com</a></p>	<p>LED Electronic Driver Model : PSDV850101A</p>	<p>DIAGRAM OF INPUT/OUTPUT CONNECTION:</p>
	<p>tc</p> <p><b>UL</b> <b>US</b> E321686</p>	

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