



ELECTRO-MECHANICS

90W Dimmable Single Output LED Driver

PSDV900101A



■ Model Name : PSDV900101A

■ Features :

- Suitable for LED lighting application
- KC/CE
- Full-protection provided: OCP/OVP/OTP/SCP
- 0-10V Dimming Control
- 5-years warranty
- IP67



KTL SU11315-10003



# SAMSUNG ELECTRO-MECHANICS CO., LTD

150, Maeyoung-Ro, Youngtong-Gu, Suwon-Si, Gyeonggi-Do, Republic of Korea 443-743

TEL: +82-31-210-5114, www.samsungsem.co.kr



### ■ Electrical specification

No.	Item	Min	Typ	Max	Unit	Remark
1	Nominal Input Voltage	100		240	Vac	
2	Wide Input Voltage	90		264	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			75	Arms	@Cold Start
9	Earth Leakage Current			500	μA	
10	Insulation Resistance	100			MΩ	500Vdc between Input & Output
11	Output Voltage	52	58	64	Vdc	
12	Output Current	1,283	1,350	1,417	mA	@30min Aging, 2)
13	Output Current Ripple			300	mA	2)
14	Output Peak Current			2,500	mA	2)
15	LED Output Aging Current Differential			±67.5	mA	@2hr Aging
16	Turn-on Delay			1,350	ms	3)
17	Electrical Efficiency	90			%	4)
18	12V Output Voltage	10.8	12	13.2	Vdc	12V Max and No Load, 2)
19	12V Output Current		50	100	mA	
20	Dimming Control	0		10	Vdc	
21	Output Over Voltage Protection	-	-	90	Vdc	Auto-recovery
22	Output Short Circuit Protection	-	-	-	-	Auto-recovery or Latch-off
23	12V Output Short Circuit Protection	-	-	-	-	Auto-recovery or Latch-off
24	Over-temperature Protection	105			°C	Case Temperature, Auto-recovery
25	Case Temperature (Tc)			90	°C	
26	Storage Temperature	-40		85	°C	
27	Operating Temperature	-40		60	°C	
28	Differential Mode (Line to Line)	-4		4	kV	5)
29	Common Mode (Line to Ground)	-6		6	kV	5) 6)
30	Contact Discharge Test Voltage	-4		4	kV	7)
31	Air Discharge Test Voltage	-8		8	kV	7) 8)
32	Vibration			3	G	
33	Humidity			90	%	
34	Dielectric Withstand Voltage	Input to Output	3,858		Vac	Apply for 1 minute 9)
35		Input to Case	1,554		Vac	
36		Output to Case	500		Vdc	

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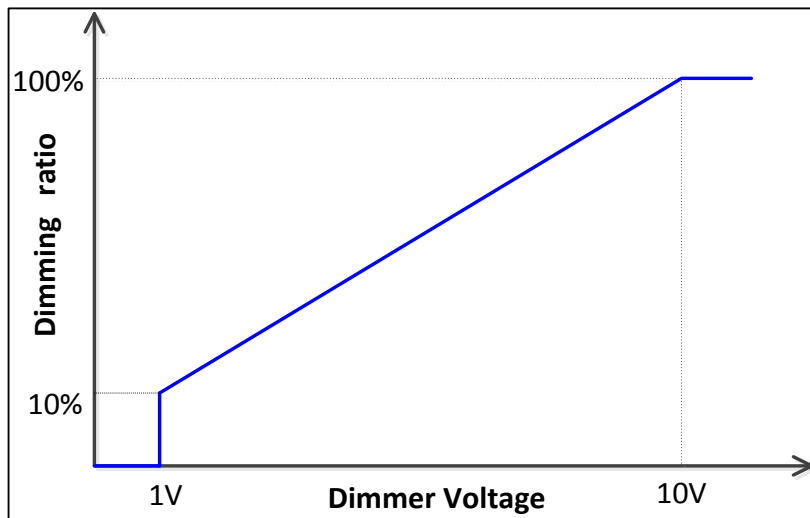
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**Application Notes**

- 1) Test Condition : 90~264Vac 50/60Hz Input, LED Max. Load, Ambient Temperature 25°C
- 2) Test Condition : 100/240Vac 50/60Hz Input, Typical LED Load, Ambient Temp. 25°C
- 3) Test Condition : Input 90Vac 60Hz, Max Load, Cold start
- 4) Test Condition : 240Vac Input, 30min Aging, LED Typ. Load, 12V Output no Load
- 5) Surge Specification above is higher than IEC/EN 61000-4-5 (Differential 1kV, Common 2kV)
- 6) The metal case of the LED driver must be connected with F.G
- 7) ESD Specification above meets IEC/EN 61000-4-2 Requirements (Contact 4KV, Air 8KV)
- 8) The metal case of the driver should be grounded.
- 9) Determined by IEC/EN 61347-1 and IEC/EN 61347-2-13.

**Dimming Curve**



**Safety Standards**

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

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

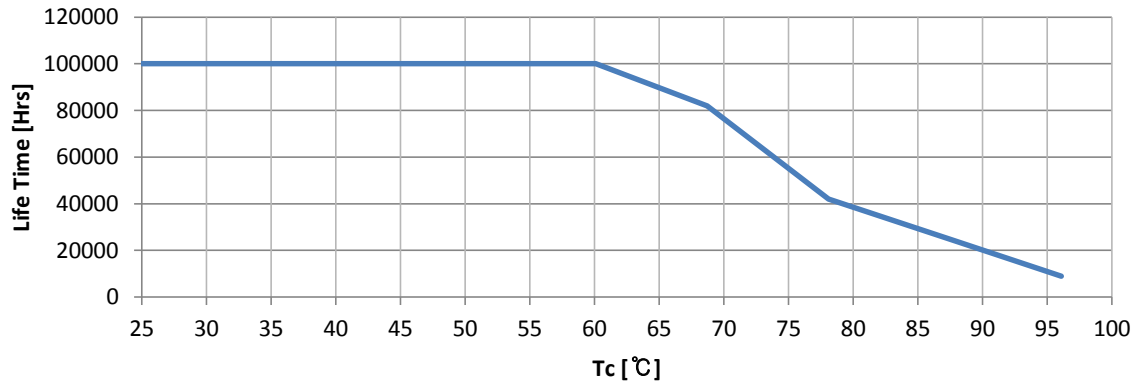
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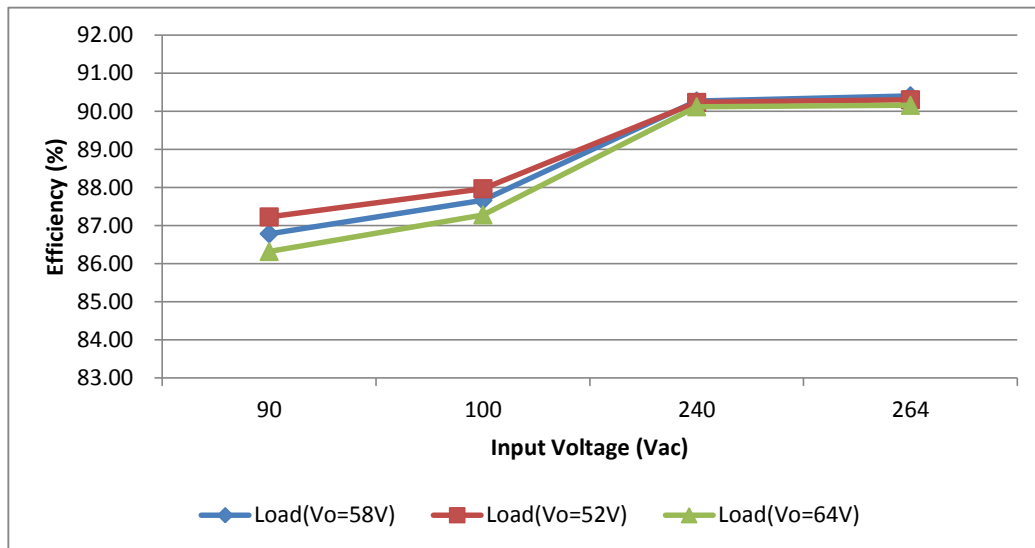


### Life Time vs Tcase



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

### Efficiency(%)

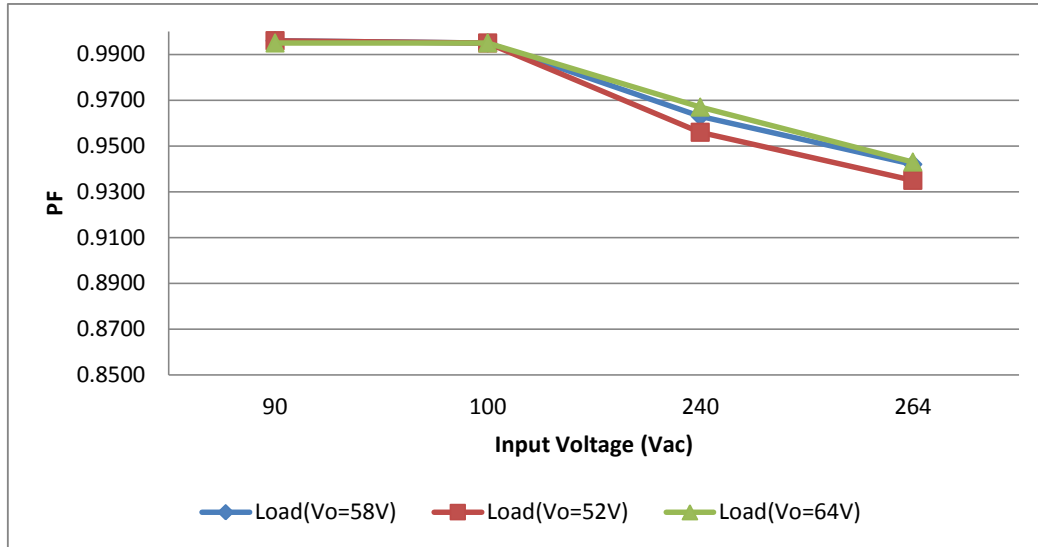


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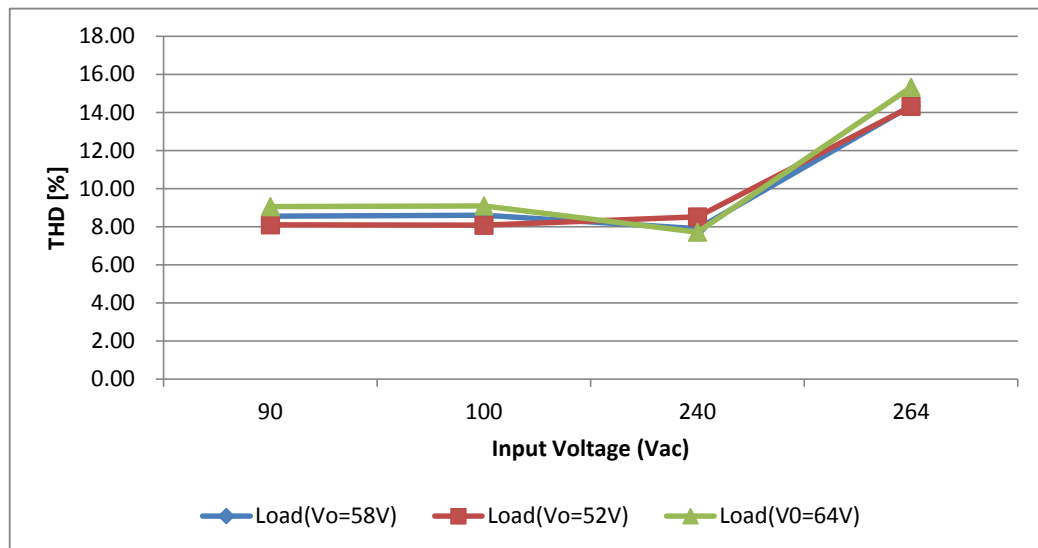
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■ Power Factor



■ THD(%)

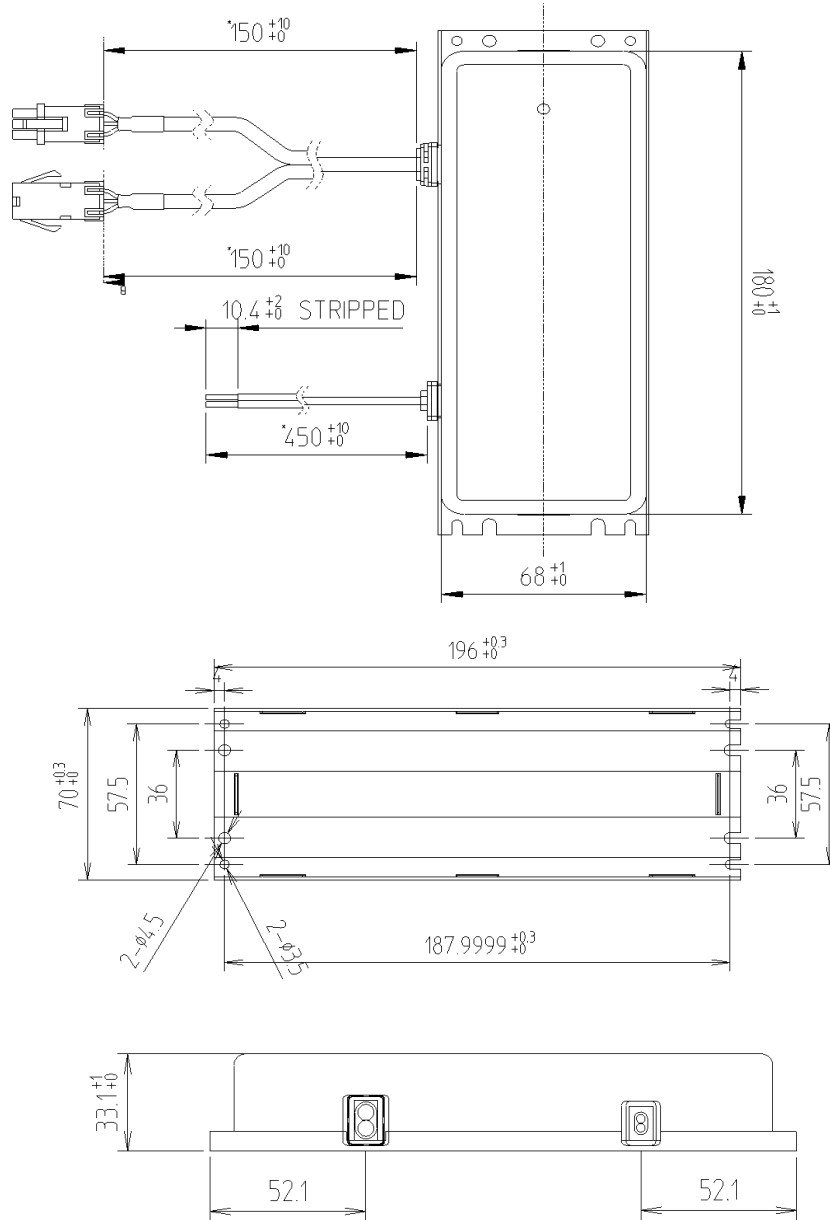


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■ Mechanical Specification



■ Enclosure Size

Unit	Width	Length	Height	Mounting Length	Overall Length
mm	70	180	33	188	196
inch	2.76	7.09	1.30	7.40	7.72

■ Case Material : Aluminium

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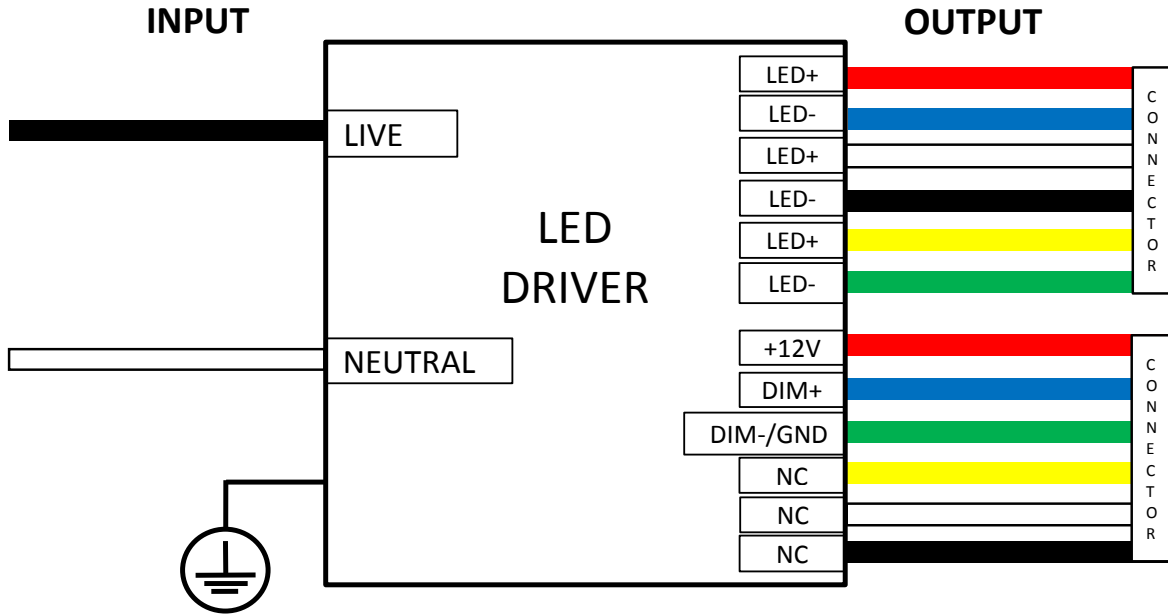


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90W Dimmable Single Output LED Driver

# PSDV900101A

## ■ Wiring Diagram



Remark) This product is a single-output LED Driver.

Remark) Output wiring specifications can be changed.

## ■ Rating Label Drawing

**SAMSUNG** LED Electronic Driver Model : PSDV900101A  
조명기구용 컨버터(LED 램프용) IP67

INPUT(입력) : 100-240Vac, 50/60Hz, 90W, Max 1.5A,  $\lambda$ (역률)=0.9 P/N : STOOPF21390Z058STD

INPUT Connection(입력결선방법): Live(Black/검정), Neutral(White/흰색)

OUTPUT(출력) : 58Vdc / 1350mA, 12Vdc / 100mA

DIMMING CONTROL(조광 제어) : 0 ~ 10Vdc

$t_a = -40^{\circ}\text{C} \sim 60^{\circ}\text{C}$ ,  $t_c = 90^{\circ}\text{C}$

**AC Wire Connection(입력결선도):**

White (흰색)	Neutral	LED+	Red (빨간)	Blue (파란)	White (흰색)	Black (검정)	Yellow (노랑)	Green (초록)
		LED-	CH1-	CH1-	CH2-	CH2-	CH3-	CH3-
Black (검정)	Live	+12V	DIM (검정)		DIM+ (파란)		DIM- (초록)	
		DIM+	+12		DIM+		DIM-	
		DIM-						

Made in china Dongguan SAMSUNG ELECTRO-MECHANICS  
 제조국 : 중국 제조자 : 동관삼성전기(주)

**CAUTION(주의사항):**  
 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.  
 설치 시 입력 결선방법에 따라 결선 하시오.  
 내부에 위험 전압이 있으니 고장 시 A/S 센터에 의뢰 바랍니다.  
 Technical Support : [www.sem.samsung.com](http://www.sem.samsung.com)  
 A/S번호 : +82-31-210-3453

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