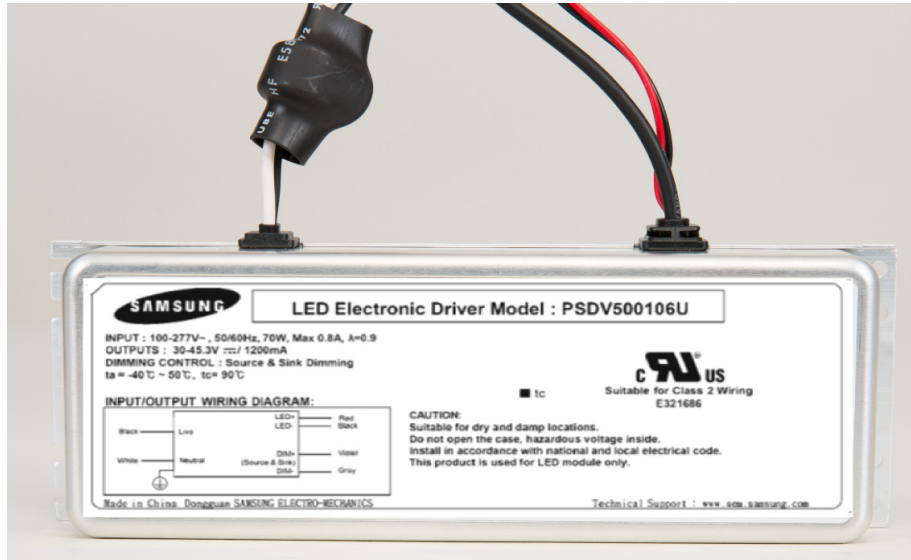




ELECTRO-MECHANICS

50W Dimmable Single Output LED Driver

PSDV500106U



■ Model Name : PSDV500106U

■ Features :

- Suitable for LED lighting application
- UL8750, UL1310 Class 2
- For use in Dry and Damp Location
- Full-protection provided: OCP/OLP/OTP/SCP
- Sink & Source Dimming Control
- Non potting product



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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				0.8	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				@Cold Start, 8)
9	Earth Leakage Current				500	μA	
10	Output Voltage		30	38	45.3	Vdc	
11	Output Current		1,080	1,200	1,320	mA	@30min Aging, 2)
12	Output Peak Current				1,500	mA	2)
13	Output Current Ripple				120	mA	2)
14	LED Output Aging Current Differential				60	mA	@2hr Aging
15	Turn-on Delay Time				750	ms	10)
16	Electrical Efficiency		86.5			%	3)
17	Dimming Ratio w/Source Dimming		10		100	%	
18	Dimming Ratio w/Sink Dimming		10		100	%	
19	Output Open LED Protection		-	-	-	Vdc	Auto-recovery
20	Output Short Circuit Protection		-	-	-	-	Auto-recovery
21	Over-temperature Protection		105			°C	Auto-recovery
22	Case Temperature (Tc)				90	°C	
23	Storage Temperature		-30		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	1,554			Vac	Apply for 1 minute 9)
31		Input to Case	1,554			Vac	
32		Output to Case	500			Vdc	
33	Humidity				90	%	
34	Vibration				3	G	

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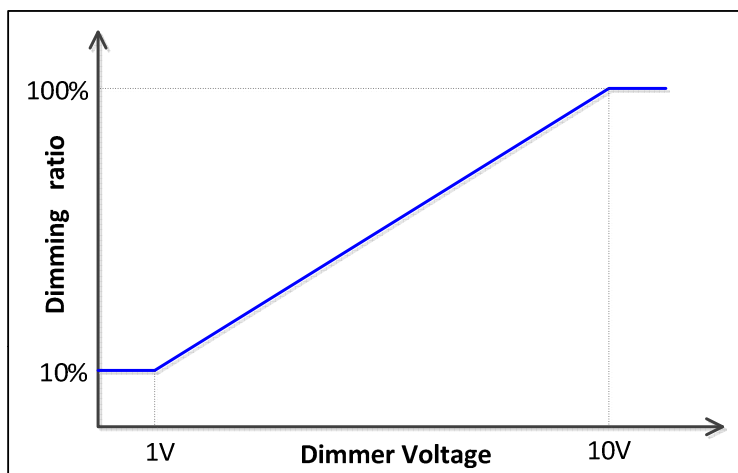
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Application Notes

- 1) Test Condition: 100/277Vac 50/60Hz Input, Typical LED Load, Ambient Temperature 25°C
- 2) Test Condition: 100/277Vac 50/60Hz Input, LED Typ. Load, Ambient Temperature 25°C
- 3) Efficiency Test Condition: 240Vac Input, 30min. Aging, LED Typ. Load, 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, < 107Apeak, < 0.48ms, < 24A2sec
- 9) Determined by Paragraph 34.1.2, UL1310 or Paragraph 8.4.2, UL8750, EN61347-1, EN61347-2-13
- 10) Test Condition : Input 277Vac 60Hz, Typ. Load@25°C, Cold Start

Dimming Curve : Compatible sink & source dimming



Safety Standards

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

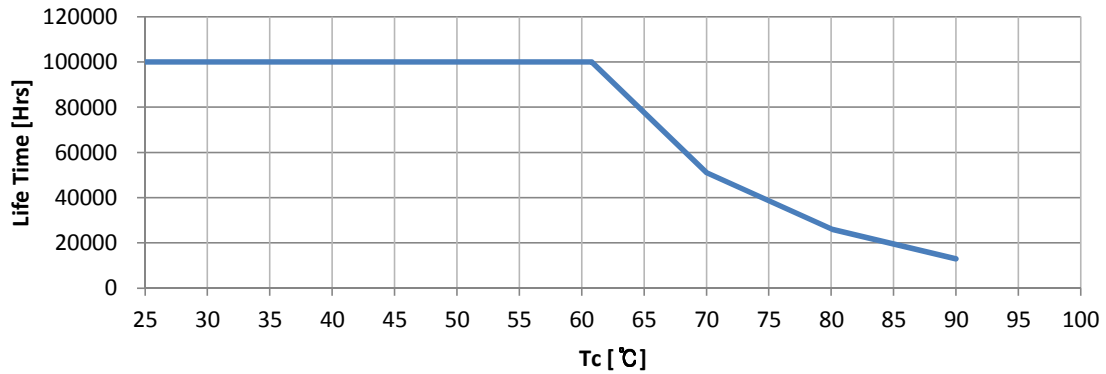
No.	Item	Description
1	UL8750, UL1310	UL Safety Standards (Class 2, Dry and Damp Location)
2	IEC 61000-3-2	Harmonic current emissions: Class C
3	IEC 61000-3-3	Voltage Fluctuations and Flicker
4	IEC/EN 61000-4-2	Electrostatic Discharge (ESD): Contact 4kV, Air 8kV
5	IEC 61000-4-3	Radio-frequency Electromagnetic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

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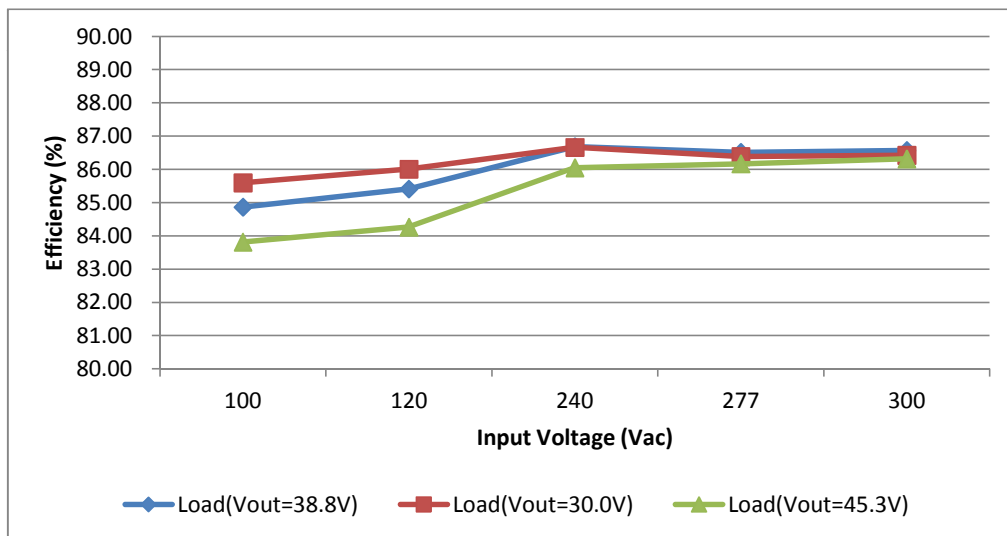
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Life Time vs Tcase



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

Efficiency(%)

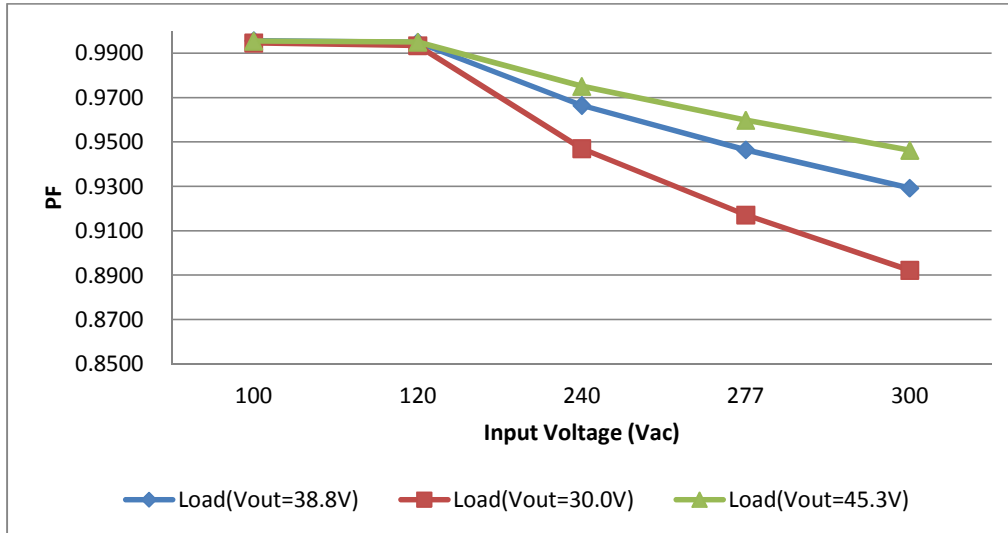


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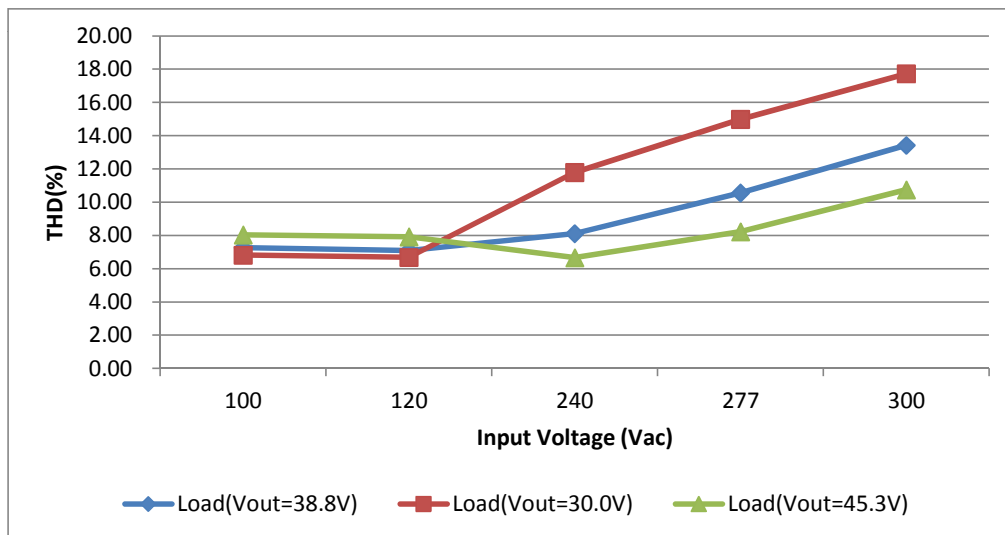
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■ Power Factor



■ THD(%)

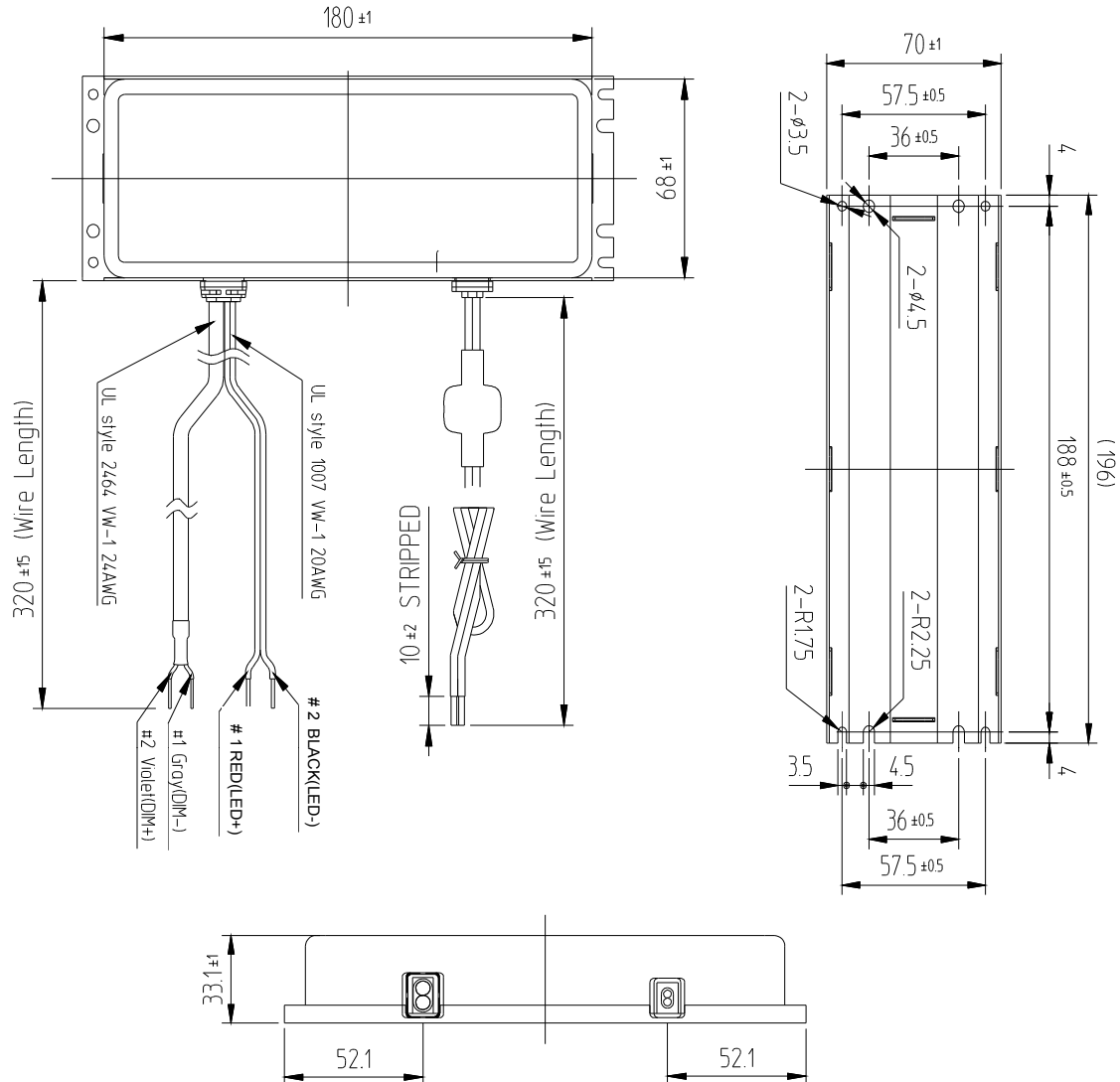


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Mechanical Specification



Metal Enclosure Size

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

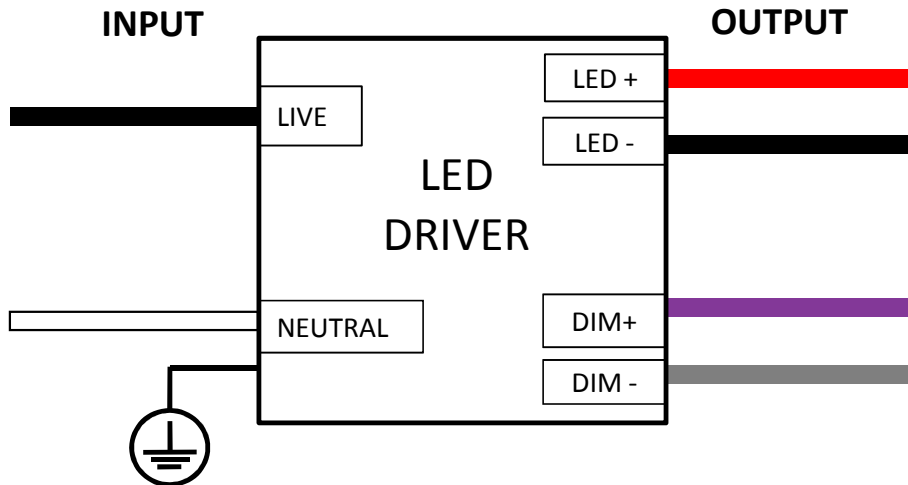
Case Material : Aluminium

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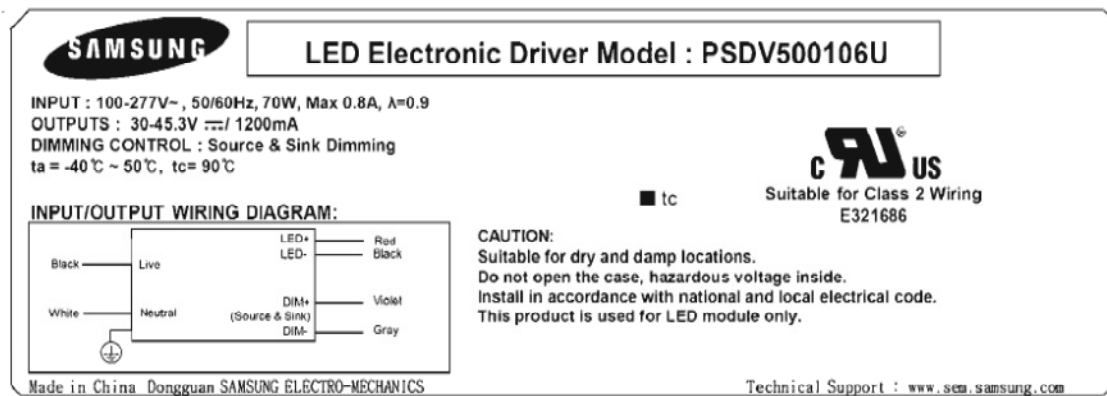
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■ Wiring Diagram



Remark) Output wiring specifications can be changed.

■ Rating Label Drawing



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