



ELECTRO-MECHANICS

ILW130N281N1B Flickerless Power supply

PSDV130281B



■ **Model Name : PSDV130281B**  
**ILW130N281N1B**

■ **Features :**

- Class II
- UL8750 / UL1310 Class 2
- Flickerless
- Full-protection provided: OCP/OVP/OTP/SCP/OLP
- Low Power Dissipation @ No Load : <1.0W
- Wide Vout : 25 ~ 40Vdc
- Meets safety requirements for lighting
- Constant Current Type



## 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	100		240	Vac	
2	Wide Input Voltage	90		264	Vac	
3	Maximum Input Current			0.35	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)			13	%	1)
8	Inrush Current	Meets NEMA 410				2)
9	Output Voltage	25	37	40	Vdc	
10	Output Current	265	285	305	mA	@40Vdc Load
		265	285	305	mA	@37Vdc Load
		274	295	316	mA	@25Vdc Load
11	Ripple Current			28.5	mA	20MHz Bandwidth, 3)
12	Turn-on Delay			1,000	ms	@Cold Start, 4)
13	Electrical Efficiency	80	83		%	3)
14	No Load Power Dissipation			1	W	@ LED OPEN
15	Output Open LED Protection		42.5	50	Vdc	Auto-recovery
16	Output Short Circuit Protection	-	-	-	-	Auto-recovery
17	Over-temperature Protection	-	-	-	°C	Auto-recovery
18	Case Temperature (Tc)			80	°C	
19	Storage Temperature	-20		80	°C	
20	Operating Temperature	-20		50	°C	
21	Humidity	20		85	%	
22	Insulation Resistance	10			MΩ	500Vdc between Input & Output
23	Differential Mode (Line to Line)	2.5	5		kV	5)
24	Common Mode (Line to Ground)	8			kV	5) 6)
25	Contact Discharge Test Voltage	2	4		kV	7)
26	Air Discharge Test Voltage	4	8		kV	7) 8)
27	Dielectric Withstand Voltage	Input to Output	3,750			Apply for 1 minute 9)
28		Input to Case	-	-	-	
29		Output to Case	-	-	-	

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**Application Notes**

- 1) Test Condition: 90/264Vac 50/60Hz Input, Typical Electric Load, Ambient Temperature 25°C, Measure at the cable-end
- 2) Input 120Vac, < 192A<sub>peak</sub>@1.2ms, < 74I<sup>2</sup>t
- 3) Test Condition: 240Vac 60Hz Input, LED Max. Load, 30min Aging, Ambient Temperature 25°C
- 4) At least, Turn-on Time should be continued for 1sec.
- 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 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 B	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

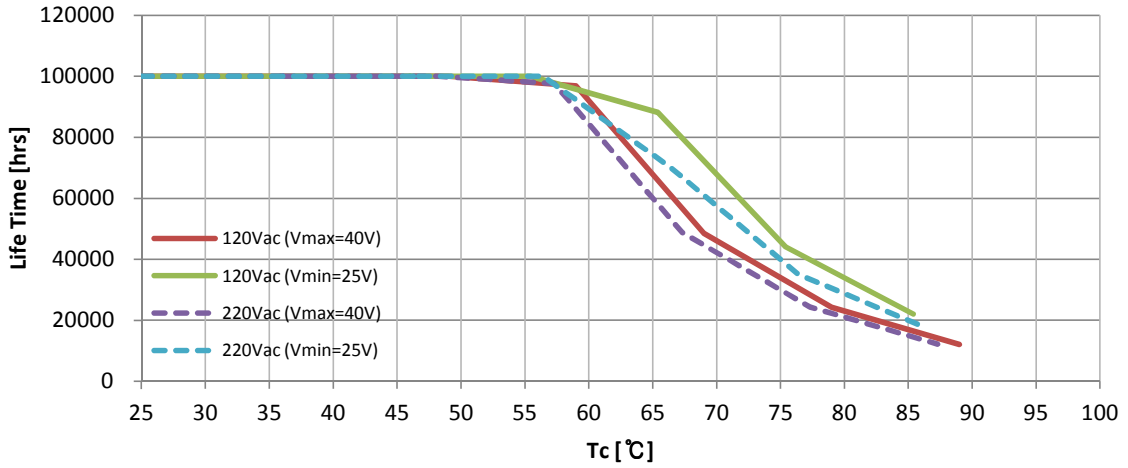
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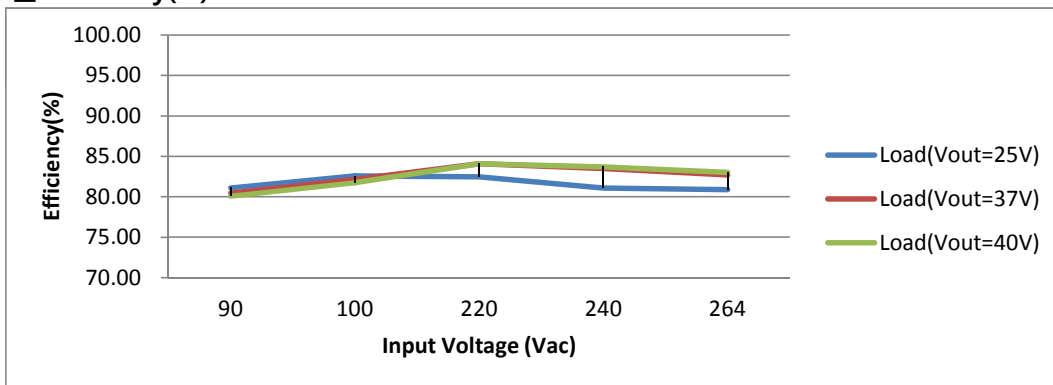


### Life Time vs Tcase



Remark) LED Driver has a rated lifetime of 50,000 hours @ Tc≤65°C

### Efficiency(%)



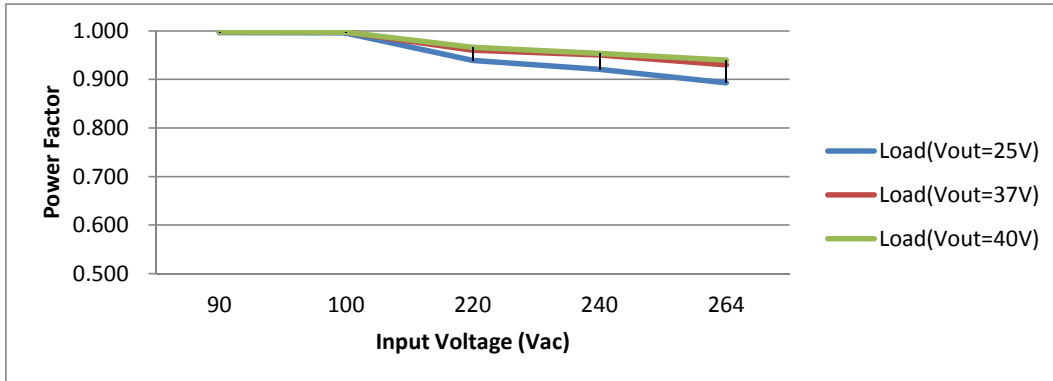
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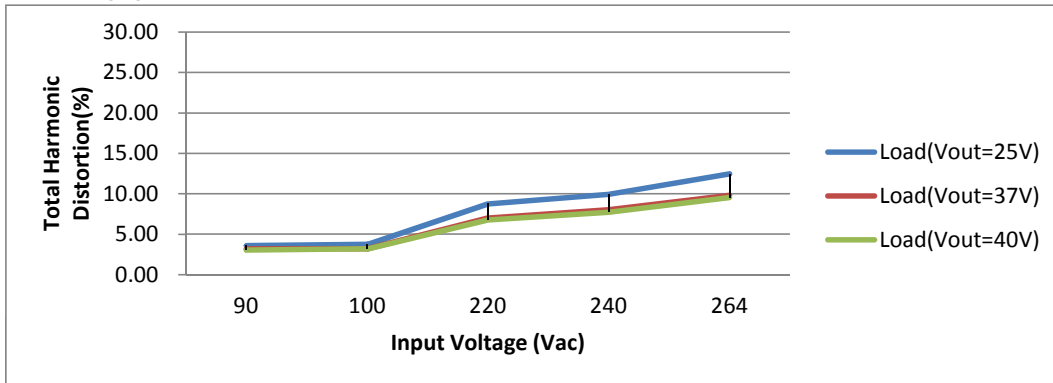
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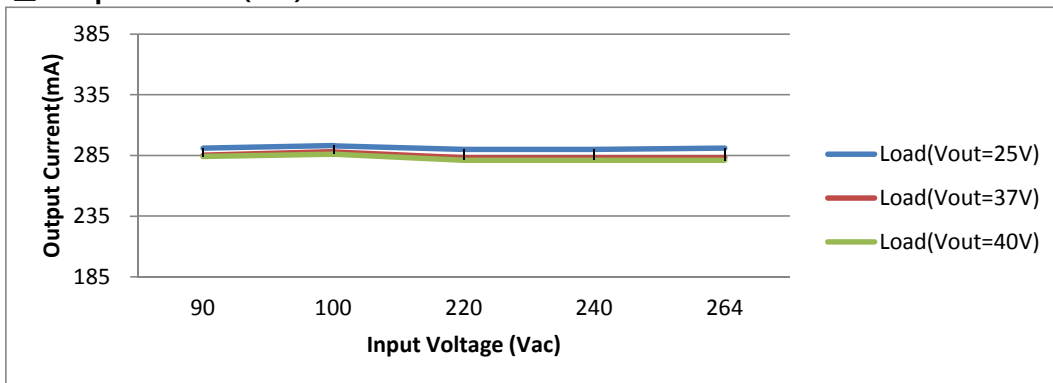
### Power Factor



### THD(%)



### Output Current(mA)



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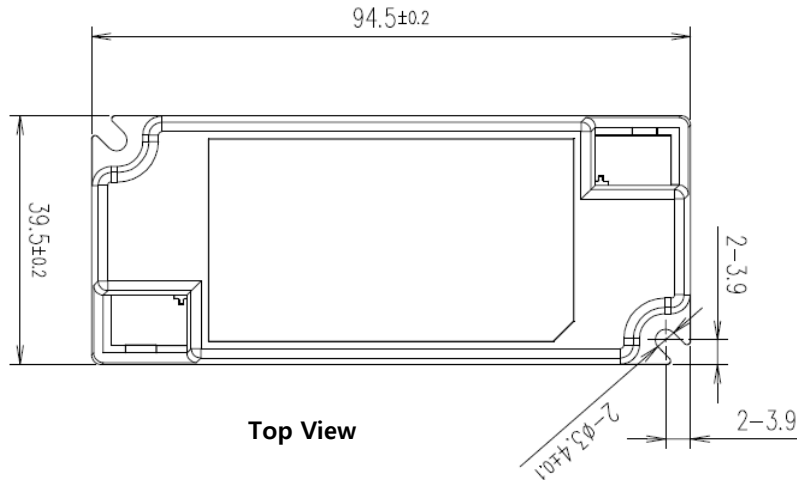


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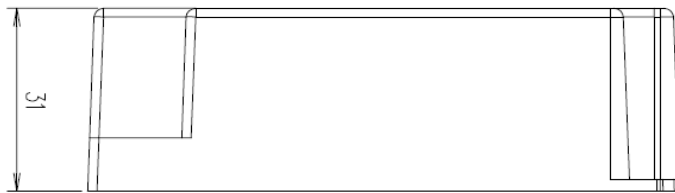
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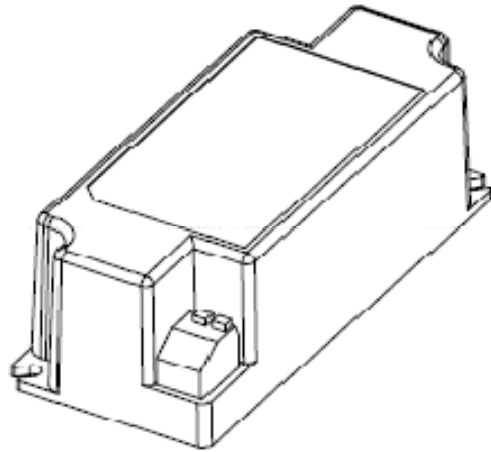
■ Mechanical Specification



Top View



Side View



■ Enclosure Size

Unit	Width	Length	Height	Mount Length	Overall Length
mm	39.5	94.5	31.0	86.7	94.5
inch	1.56	3.72	1.22	3.41	3.72

■ Case Material : PC

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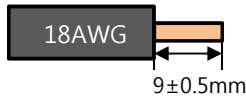


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■ Wiring Diagram



CNT (B Type)	
Input	Output
Terminal Block (Pitch 3.5)	CNT (Pitch 2.0mm, 1R 3P)
Wire 18AWG	Wire 22-26AWG

Connector	Housing	Wire
SMW250-03A (yeonho)	SMH250-03A (yeonho)	22AWG
A2515WV0-3P-D (JWT)	A2515H00-3P (JWT)	

■ Rating Label Drawing



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Barcode Label

DATE / PRODUCTION  
 BARCODE  
 LOT NO

- 7 DEVELOPMENT Rev X01~99
- MP Rev A01~99
- 6 SERIAL No 4 Digit
- 5 MODEL CODE 3 Digit
- 4 PRODUCTION DATE 2 Digit
- 3 PRODUCTION MONTH 1 Digit
- 2 PRODUCTION YEAR 2 Digit
- 1 PRODUCTION COUNTI 2 Digit

Mean	1.PLANT	2. YEAR	3. MONTH	4. DATE	5. CODE	6. SERIAL	7. Revision No
Digit	2	2	1	2	3	4	
EX.	C1 : DSEM C2 : Solytech C3 : IM C4 : Ap tech K1 : Korea	00~99	1...9,A,B	01~31	140	0001.. 9999	X01~99 : DEVELOPMENT  A01~99: MP

Box Label

Material Code	ILW130N281N1B		USER Model Code
ITEM	PSDV130281B REV. A**		SEMCO Model Code
LOT No	*****	MAKER	SEMCO LOT NO & Quantity of Products
Quantity [PCS]	84	SEMCO	
EXP. Date	20**.**.** ~ 20**.**.**		Product Date ~ After 5 years
*****			USER Barcode

Digit	Year			Month		Data		Factory		Fixed	
	1	2	3	4	5	6	7	8	9		
N	0	5	1	2	D	0	0	1			
M→2014	01~12月		01~31日		D : DSEM						
N→2015					S : Solytech						
P→2016					M : IM						
Q→2017					A : Aptech						

Digit	Quantity Per BOX									BOX Size	Serial No.	Blank	Vender Code	Blank	Year	Month	Data	Factory	Fixed											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	0	0	0	0	0	0	0	4	2	B	0	0	1		E	6	0	1				N	0	5	1	2	D	0	0	1
											A : Pallet B : BOX	001~999				M→2014 N→2015 P→2016 Q→2017	01~12月	01~31日	D : DSEM S : Solytech M : IM A : Aptech											

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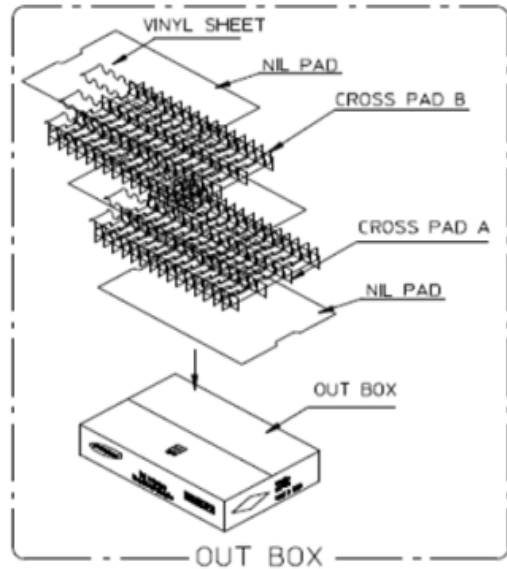
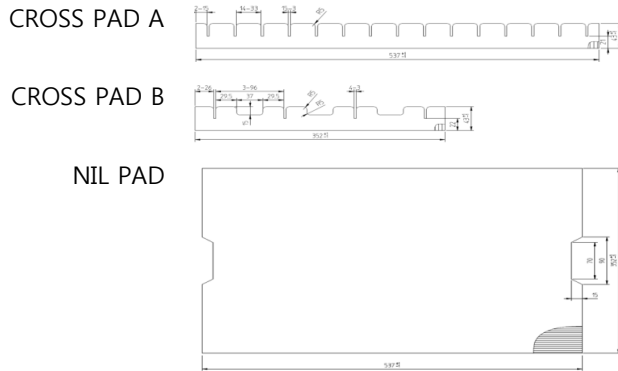
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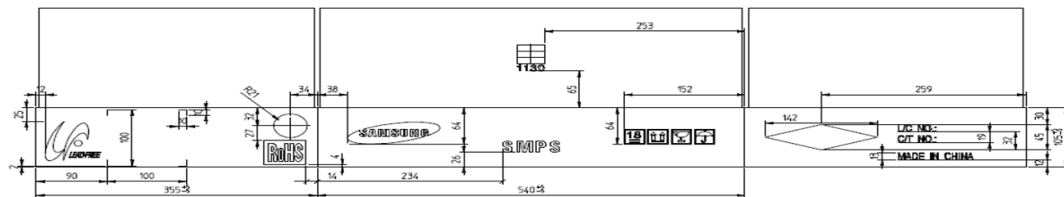
■ Packing Drawing

1. Out Box

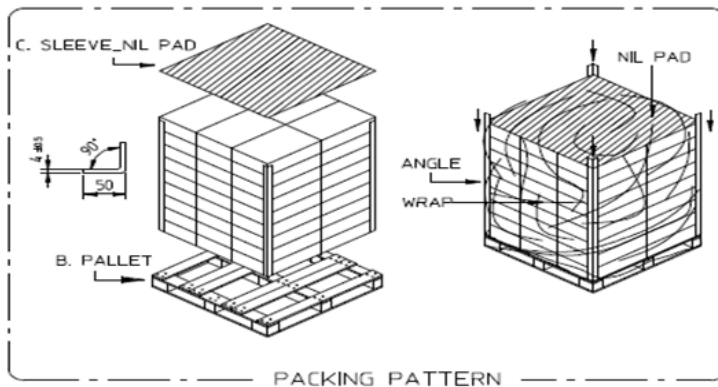
Dimension	540(L) 355(W) 105(H) [mm]
Weight	< 10Kg
Quantity	84EA / 1Box



OUT BOX



2. Pallet



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