

SPECIFICATIONS

Product Features:

- ◆ Input Voltage Range:100~277VAC;
- ◆ High Power Factor;
- ◆ Efficiency Up to 92%;
- ◆ Meet UL8750 CB CE;
- ◆ International Protection:IP66;
- ◆ For Outdoor LED lights;
- ◆ 5 Years Warranty;



Model List:

Model	Certification	Output Voltage	Output Current(Max)	Output Power(Max)	Efficiency
NI50W-66C0750	UL/CUL/CE/CB	40-66V	500mA	49.5W	≥90%
NI50W-60CXXXX					
xxxx are 4 digits from 50 to 0750, which indicates output current in mA. For example, 0750 represents output current 750mA;					

Revision History:

Change Date	Rev:	Before Change	After Change
2017/06/03	1.0	/	Datasheets Release
2017/07/14	2.0	-30-70°C	-40-60°C
2017/12/09	2.1		Add modulation and output frequency

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NI50W Series LED Driver

Input: 100-277VAC High Power Factor High efficiency IP66 UL CB CE

Electrical Specifications:

1. Input Specifications

Parameter	Notes	Min.	Typ.	Max.	Unit
Input Voltage Range		90		305	Vac
Input Frequency Range		47		63	HZ
Input AC Current	100%Load at 115V Input			0.55	A
Inrush Current	100%Load at 230V Input Cold start			20	A
Power Factor	70%-100%Load at100-277V Input	0.9			
THD	70%-100%Load at100-277V Input			20%	

2. Output Specifications

Parameter	Notes	Min.	Typ.	Max.	Unit
Output Voltage	Load at 100-277V Input	60%		100%	
	No-load at 100-277V Input			120%	
Line Regulation	60%-100%Load at100-277V Input	-5%		+5%	
Load Regulation	60%-100%Load at100-277V Input	-5%		+5%	
Current deviation	60%-100%Load at100-277V Input	-5%		+5%	
Output frequency	100%Load at120V 60HZ Input		120		HZ
Output current modulation	100%Load at120V 60HZ Input			50%	
Starup Overshoot Current	100%Load at LED load			10%	
Efficiency	100%Load at 230V Input		90%		
Turn-on Delay Time	100%Load at120V Input(Oscilloscope)			1000	ms

3. Dimming Features

Parameter	Notes	Min.	Typ.	Max.	Unit
Dimming Port input current			100		uA
Dimming ratio	At 100-277V Input	10%		100%	
DC dimming mode	Amplitude voltage	0	10	12	V
PWM dimming mode	PWM Amplitude voltage	10		12	V
	PWM Frequency	1		10	KHZ
VR dimming mode	Resistance range	0		100	K Ω

4. Environment Features

Parameter	Notes	Min.	Typ.	Max.	Unit
Operating TEMP. range		-40		60	°C
Storage TEMP. Range		-40		85	°C
International Protection:			IP66		
Case TEMP. (Tc) (2)	When Ta=60°C			80	°C

Notes:

1. Test sample model:NI50W-66C0750
2. Refer to mechanical

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5. Protection Functions

Parameter	Notes	Protection Performance
Over Voltage Protection	When the load voltage exceeds 1.2 times the rated voltage	Auto Restart
Over Load Protection	When the load power exceeds 1.2 times the rated power	Auto Restart
Short Circuit Protection	When the output is shorted	Reduce frequency mode
Over Temperature Protection	When the case temperature is over 120°C	Shutdown

6. Product Specifications

Parameter	Notes	Protection Performance
Size	97.2*41.3*26mm	
Weight	175g	
Color	White	
MTBF	200000Hours	TA=25°C (MIL-HDBK-217F)
Life Time	When Tc<80°C Life Time>50000Hours	Refer to Life Time curve

7. Safety Certification

Safety Category	Standard
UL/CUL	UL8750 ,UL1012
CE	EN61347-1:2008+A1,EN61347-2-13:2006,EN62493:2010
CB	IEC61347-1:2007+A1,IEC61347-2-13:2006

8. Electromagnetic Compatibility

EMI	Notes
EN55015B	Conducted Emission Test & Radiated Emission Test
EN61000-3-2	Harmonic current emissions
EN61000-3-3	Voltage fluctuations & flicker
FCC Part 15	ANSI C63.4:2009 Class B
EMS	Notes
EN61000-4-2	Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN61000-4-4	Electrical Fast Transient / Burst-EFT: Level 3, Criteria A
EN61000-4-5	Surge Immunity Test: AC Power Line: Line to Line 4 kV Line to GND 6KV
EN61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN61000-4-8	Power Frequency Magnetic Field Test
EN61000-4-11	Voltage Dips
EN61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment

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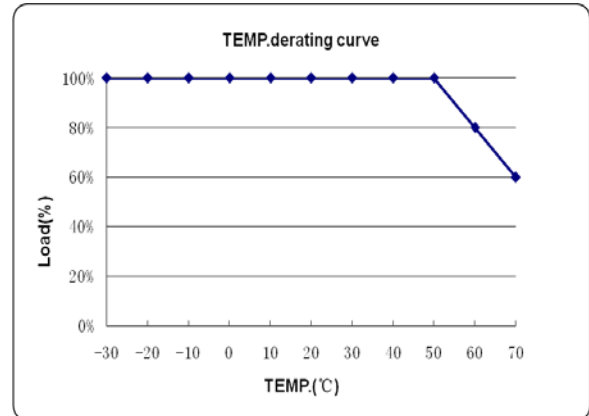
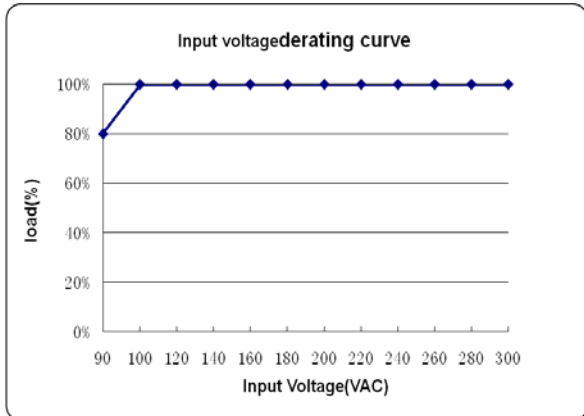
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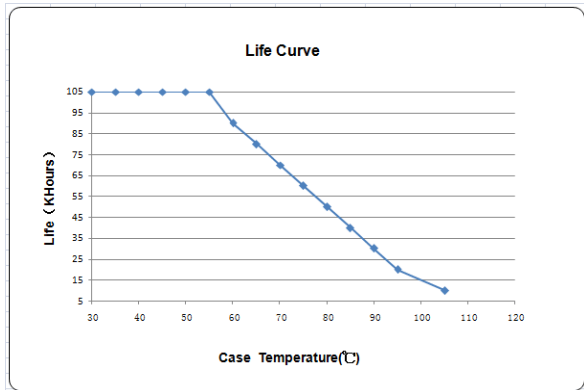
Website: <http://www.towin-driver.com/>

Curve Feature:

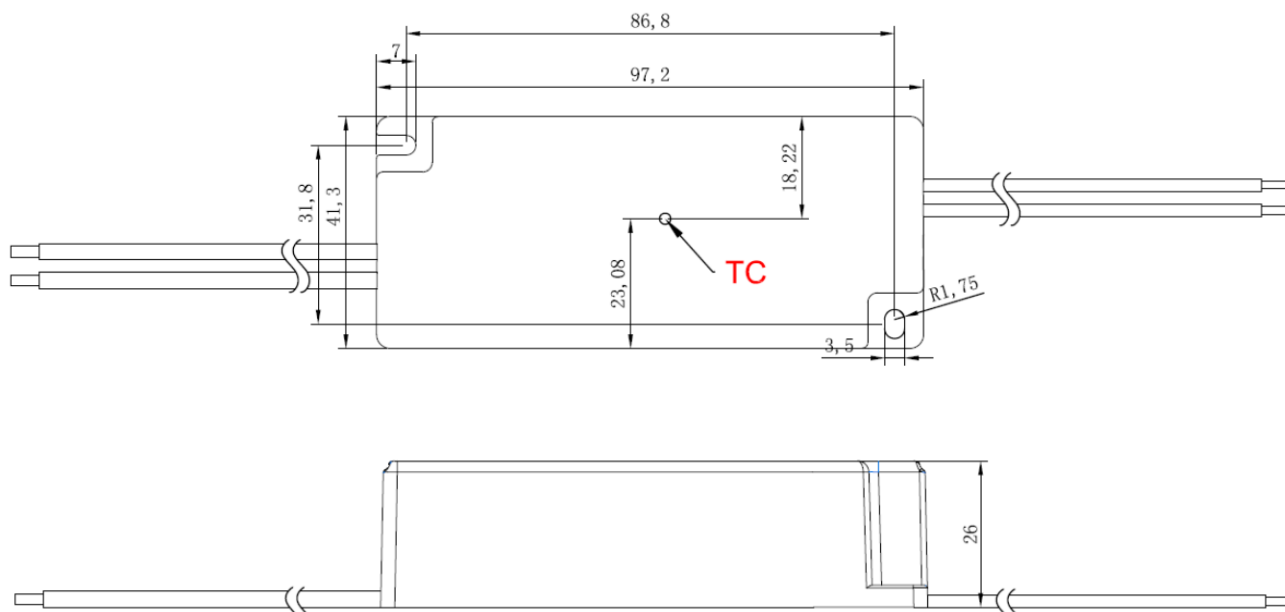
1, Derating curve



3, Life curve



Mechanical:



Parameter	Cable Specifications	Standard length	Remark
AC cable	UL1015 18AWG Blue N,Brown L	A=150mm	Length can be customized
DC cable	UL1332 18AWG White+,Gray-	B=150mm	

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