LTSYS

SN-150-24-G1A

0-10V

LED Driver (Constant Voltage)

- Ultra-thin volume; The shell is made of PC flame retardant V0 grade raw material, and the clamshell is integrated.
- Automatically recognize 0-10V and 1-10V input signal.
- Ultra-low consumption of 0-10V ports <0.05mA.
- Dimming from 0~100%, down to 0.01%.
- Flicker-Free (0-100% Dimming), meeting high-frequency exemption compliance level.
- High-performance power supply: 93% efficiency, PF>0.97, THD<10%.
- In line with the EU Energy Efficiency ERP Directive, the power consumption of no-load and network standby < 0.5W.
- Innovative thermal management technology intelligently protects the life of the power supply.
- Overheat, overload, short circuit protection and automatic recovery
- Suitable for ClassI/II/III indoor light fixtures.
- Suitable for indoor lighting such as light strips and magnetic track light.
- 5-year warranty.

Flicker-Free

IEEE 1789

Achieve the exemption level.

Dimmable:

1：10000

4 in 1 dimming

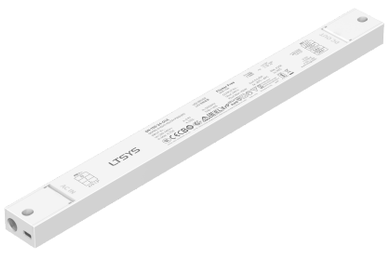
0-10V

1-10V

10V PWM

RX

The current consumption of the 0-10V interface < 0.05mA



The certification icon represents undergoing certification applications only, and final certification qualification subject to actual product.

Over Temp. Protection

Over voltage protection

Over Load Protection

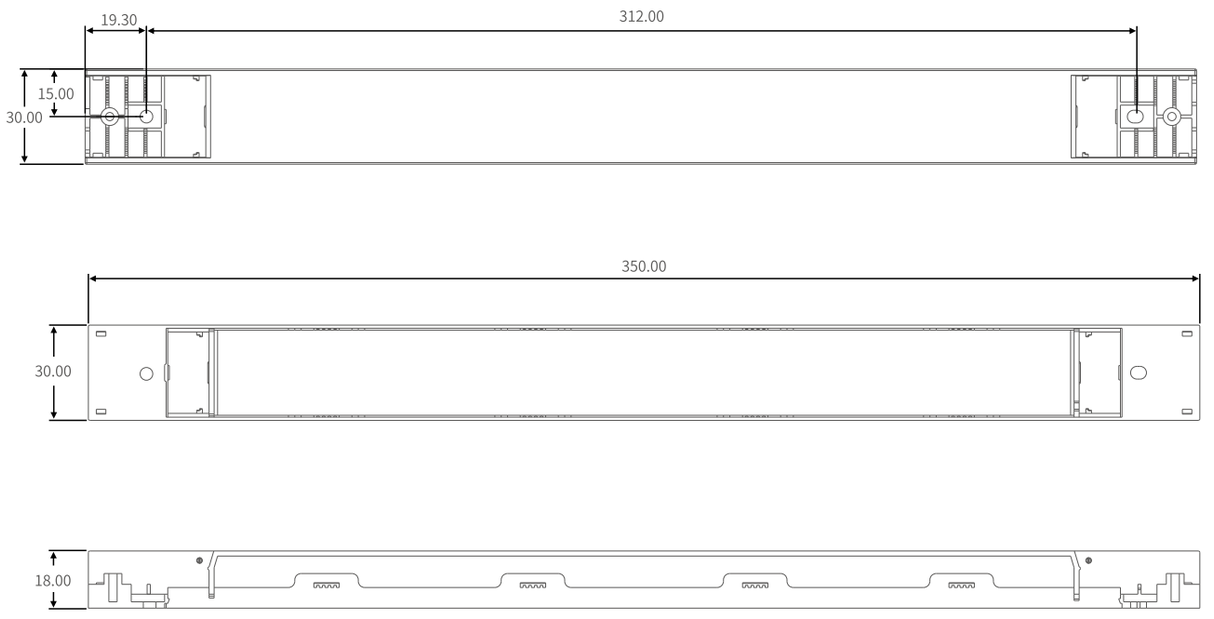
Short Circuit Protection

Technical Specs

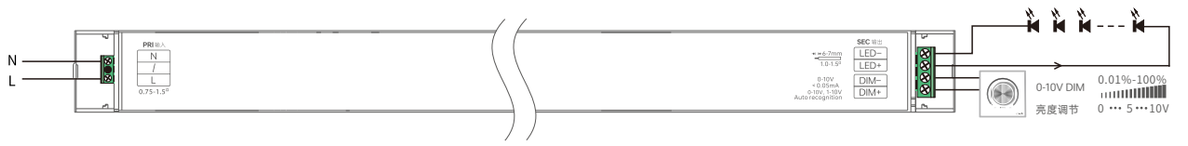
Model		SN-150-24-G1A		
Features	Output Type	Constant voltage		
	Dimming Interface	0-10V(1-10V,10V PWM,RX)		
	Output Feature	Isolation		
	Protection Grade	IP20		
	Insulation Grade	Class II (Suitable for class I/ II /III light fixtures)		
OUTPUT	Output Voltage	24Vdc		
	Output Voltage Range	24Vdc±0.5Vdc		
	Output Current	Max. 6.25A		
	Output Power	Max. 150W		
	Output Power Range	0-150W		
	Overload Power Limitation	≥102%		
	Ripple & Noise	Ripple≤500mV，Noise≤500mV		
INPUT	AC Voltage Range	220-240Vac		
	DC Voltage Range	220-240Vdc(EMI needs to be evaluated after the luminaire is installed)		
	Frequency	50/60Hz		
	Input Current	Max. 0.75A/230Vac		
	Power Factor	PF > 0.97(at full load)		
	THD	THD < 10%(at full load)		
	Maximum input power	Max. 162W		
	Efficiency (Typ.)	93%		
	Inrush Current	Cold start 45A(Test twidth=350us tested under 50% Ipeak)/230Vac		
	Anti Surge	L-N: 2KV		
	Leakage Current	Max. 0.5mA		
ENVIRONMENT	Working Temperature	ta: -20 ~ 45℃ tc: 90℃		
	Working Humidity	20 ~ 95%RH, non-condensing		
	Storage Temperature/Humidity	-40 ~ 80℃/10~95%RH		
	Temperature Coefficient	±0.03%/℃(0-45℃)		
	Vibration	10~500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively		
PROTECTION	Overload Protection	Shut down the output when rated power≥102%, auto recovers		
	Overheat Protection	Intelligently adjust or turn off the output current if the PCB temperature ≥110°C, and recover automatically		
	Overvoltage Protection	Shut down the output when voltage≥30V, and recover automatically		
	Short Circuit Protection	Enter hiccup mode if short circuit occurs, and recover automatically		
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac		
	Insulation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH		
	Safety Standards	CCC	China	GB19510.1，GB19510.14，GB19510.213
		TUV	Germany	EN61347-1，EN61347-2-13，EN62493
		CB	CB Member States	IEC61347-1，IEC61347-2-13
		CE	European Union	EN61347-1，EN61347-2-13，EN62384
		KC	Korea	KC61347-1，KC61347-2-13
		EAC	Russia	IEC61347-1，IEC61347-2-13
		RCM	Australia	AS 61347-1，AS 61347-2-13
		ENEC	Europe	EN61347-1，EN61347-2-13，EN62384
		BIS	India	IS 15885 (PART 2/SEC 13)
	EMC Emission	CCC	China	GB/T17743，GB17625.1
		CE	European Union	EN55015，EN61000-3-2，EN61000-3-3，EN61547
		KC	Korea	KN15，KN61547
		EAC	Russia	IEC62493，IEC61547，EH55015
		RCM	Australia	EN55015，EN61000-3-2，EN61000-3-3，EN61547
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11，EN61547		
ErP	Power Consumption	Networked standby		< 0.5W(After shutdown by command)
		No-load power consumption		< 0.5W(When the lamp is not connected)
	Flicker/Stroboscopic Effect	IEEE 1789		Meet IEEE 1789 standard/High frequency exemption level
		CIE SVM		Pst LM≤1.0，SVM≤0.4
	DF	Phase factor		DF≥0.9
OTHERS	Weight(N.W.)	211g±10g		
	Dimensions	350×30×18mm(L×W×H)		

Product Size

Unit: mm



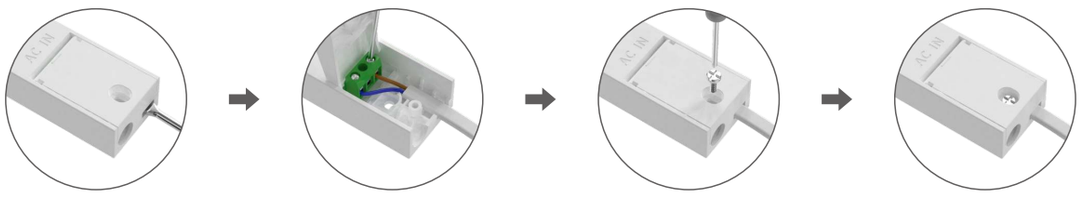
Wiring Diagram



Wire diameter:0.75-1.5²(20-16AWG)
Strip length: 6-7mm

Wire diameter: 1.0-1.5²(20-16AWG)
Strip length: 6-7mm

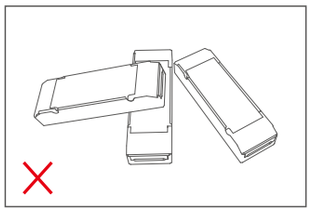
Application Diagram of Protective Cover

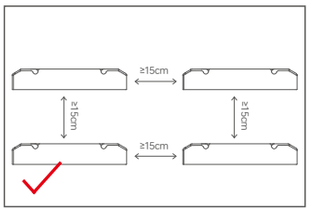


1. Put the head of the screwdriver at the cable entry to pry up the protective cover, then connect the wires as the wiring diagram shown.

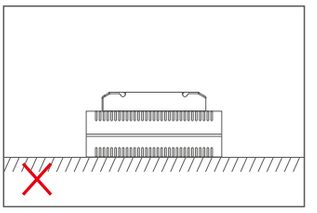
2. After closing the protective cover, tighten the protective cover with the PA screws.

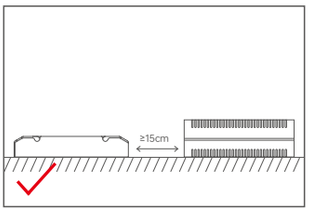
Installation Precautions





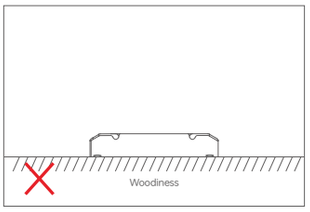
Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation or the lifetime of the products.

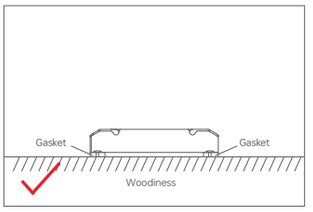




Please not place the products on power supplies. The distance between the product and the power supplies should be ≥15cm so as not to affect heat dissipation or shorten the lifetime of the products.

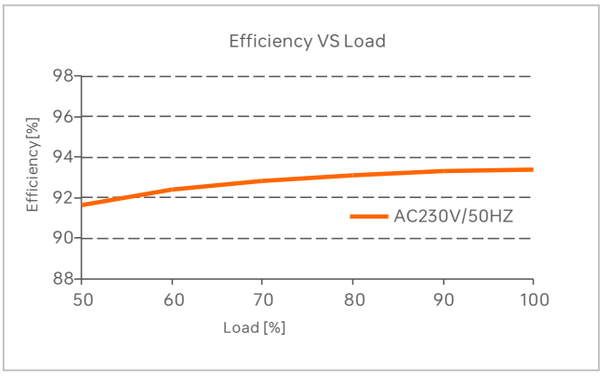
Note: The temperature within the installation area should be within the working temperature range of the products. Please do not install products inside LED fixtures to avoid temperature exceeding the working temperature that may affect the product lifetime.

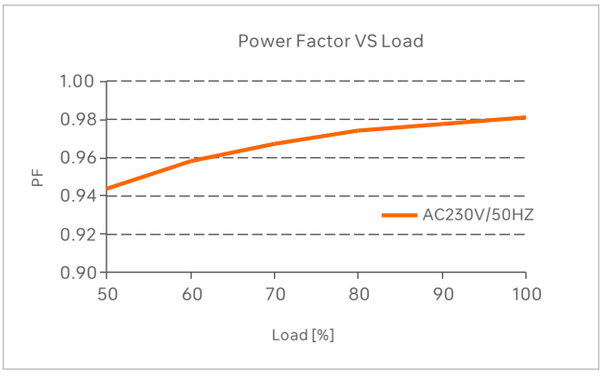


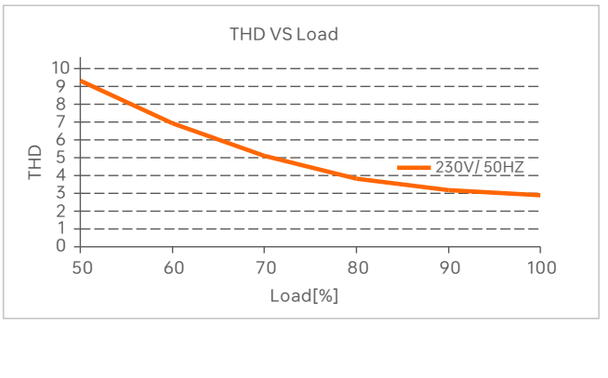


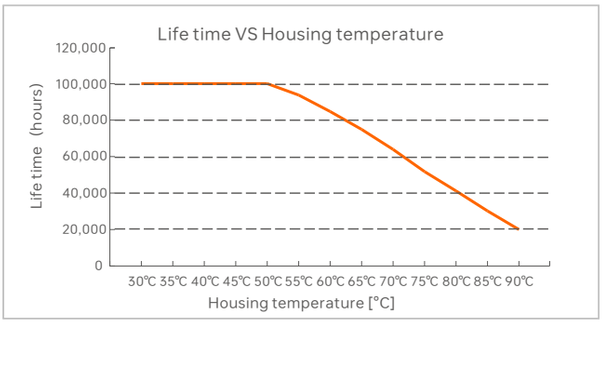
Do not fix the product screws tightly against the wooden board. Instead, add a washer with a thickness of ≥ 7mm under the fixing screws. Leaving some gaps can effectively dissipate heat, preventing any impact on the product's heat dissipation performance and service life.

Relationship Diagrams









Surge Current & Corresponding Miniature Circuit Breaker (MCB) Load Capacity Table

MCB Model	B10	B13	B16	B20	B25	C10	C13	C16	C20	C25	D10	D13	D16	D20	D25
Maximum Load Capacity	4	5	6	8	11	7	9	11	14	18	9	11	15	20	26

Remarks:

1. Test Conditions: Cold start 45A(Test twidth=350us tested under 50% Ipeak)/230Vac
2. The number of supported drivers may vary depending on the brand and model of the MCB.
3. It is recommended not to exceed the specified load capacity during on-site installation. The actual load should be determined based on field conditions.
4. If the ambient temperature exceeds 30°C or multiple MCBs are installed side by side, the number of installed drivers must be reduced and recalculated accordingly.
5. Electricians typically use Type B MCBs for residential lighting and Type C MCBs for commercial lighting applications.
6. Different testing equipment may yield variations in measured current peaks and pulse widths. Always use professional-grade instruments for accurate testing.

Flicker Test Table

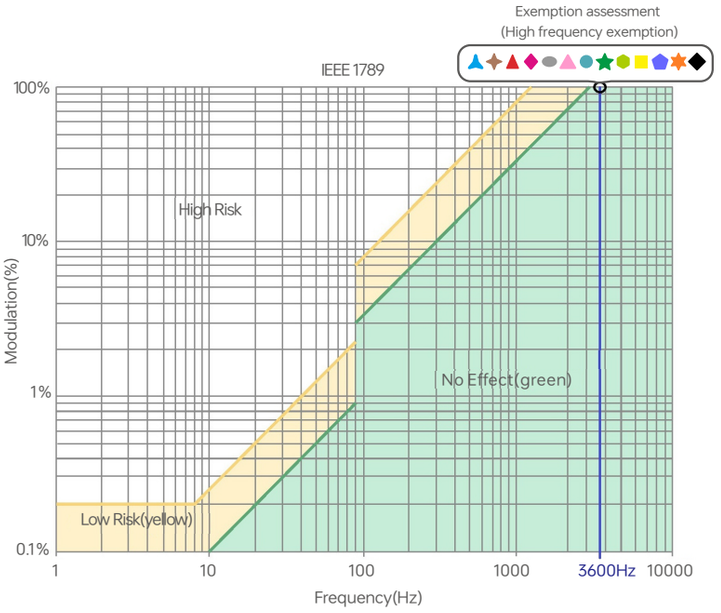
IEEE 1789

Limit Value of Modulation in Low Risk Areas	
Waveform frequency of Optical output (f)	Limit value (%)
f ≤ 8Hz	0.2
8Hz < f ≤ 90Hz	0.025 × f
90Hz < f ≤ 1250Hz	0.08 × f
f > 1250Hz	Exemption assessment
Limit Value of Modulation in No Effect Areas	
Waveform frequency of Optical output (f)	Limit value (%)
f ≤ 10Hz	0.1
10Hz < f ≤ 90Hz	0.01 × f
90Hz < f ≤ 3125Hz	(0.08/2.5) × f
f > 3125Hz	Exemption assessment (High frequency exemption)

Brightness

0.1%
1%
5%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

Marks in the right chart are tested results of different current levels. The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.



Transportation and Storage

1. Transportation

Products can be shipped via vehicles, boats and planes.

During transportation, products should be protected from rain and sun. Please avoid severe shock and vibration during the loading and unloading process.

2. Storage

The storage conditions should comply with the Class I Environmental Standards. The products that have been stored for more than six months are recommended to be re-inspected and can be used only after they have been qualified.

Attentions

- Product installation and commissioning should be done by a qualified professional.
- LTECH products are and not lightningproof non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will prolong the working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

✻ This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

Warranty Agreement

- Warranty periods from the date of delivery: 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by LTECH.

1. Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law.
2. LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.