

Intelligent LED Driver (Constant Current)

- The housing is made from V0 flame retardant PC materials from SAMSUNG/COVESTRO.
- Small size and light weight. The clamshell design and screwless type for strain-relief.
- Support Leading edge(Triac), Trailing edge(ELV).
- With soft-on and fade-in dimming function, enhancing your visual comfort.
- T-PWM™ dimming technology allows continuous and flicker-free images under high-speed photography.
- Dimming from 0-100%, down to 0.01%.
- The whole dimming process is flicker-free with high frequency exemption level.
- Multiple current levels and wide voltage range. Suitable for different power of LEDs.
- Class 2 LED driver, Safety Extra Low Voltage (SELV).
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Overheat, overload, short circuit protection and automatic recovery.
- Suitable for Class I / II / III indoor light fixtures.
- Up to 50,000-hour life time.
- 5-year warranty (Rubycon capacitor).

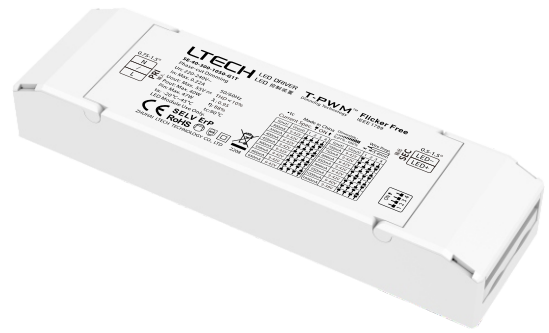
T-PWM™
Dimming Technology

Flicker Free
IEEE 1789

Dimmable:
0.01% - 100%



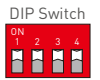
The certification icon represents on-going certification applications only, and final certification qualification is subject to actual products.



Technical Specs

Model		SE-40-300-1050-G1T	SE-30-150-900-G1T	
Features	Output Type	Constant Current		
	Dimming Interface	Triac/ELV		
	Output Feature	Isolation		
	Protection Grade	IP20		
OUTPUT	Insulation Grade	Class II (Suitable for class I/ II /III light fixtures)		
	Output Voltage	9-42Vdc		
	Maximum output voltage	≤55V		
	Output Current Range	300-1050mA	150-900mA	
	Output Power Range	2.7W-40W	1.35W-30W	
	Dimming Range	0-100%, down to 0.01%		
	LF Current Ripple(<120Hz)	<3%		
	Current Accuracy	±5%		
	Ripple & Noise	≤5V		
	PWM Frequency	3600Hz		
INPUT	DC Voltage Range	200-280Vdc		
	Input Voltage	220-240Vac		
	Frequency	50/60Hz		
	Input Current	≤0.22A/230Vac	≤0.17A/230Vac	
	Power Factor	PF>0.95/230Vac, at full load		
	THD	THD<10%/230Vac, at full load		
	Efficiency (Typ.)	>88%@950mA	>86%@750mA	
	Inrush Current	Cold start 16A[Test twidth=90us tested under 50% Ipeak]/230Vac		
	Anti Surge	L-N: 2kV		
ENVIRONMENT	Leakage Current	<0.5mA/230Vac		
	Working Temperature	ta: -20 ~ 45°C tc: 90°C		
	Working Humidity	20 ~ 95%RH, non-condensing		
	Storage Temperature/Humidity	-40 ~ 80°C/10-95%RH		
	Temperature Coefficient	±0.03%/°C [-20-45°C]		
PROTECTION	Vibration	10-500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively		
	Overload Protection	Shut down the output and recover automatically once it exceeds 1.02-1.35 times of the rated power		
	Overheat Protection	Intelligently adjust or turn off the current output if the PCB temperature ≥110°C. When the PCB temperature <90°C, automatically recover normal output		
SAFETY & EMC	Short Circuit Protection	When short circuit occurs, shut down the output and recover automatically		
	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
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493
		CE	European Union	EN61347-1, EN61347-2-13, EN62384
		KC	Korea	KC61347-1, KC61347-2-13
		RCM	Australia	AS61347-1, AS61347-2-13
		ENEC	Europe	EN61347-1, EN61347-2-13, EN62384
		CB	CB Member States	IEC61347-1, IEC61347-2-13
		EAC	Russia	IEC61347-1, IEC61347-2-13
	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	
RCM		Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
EAC		Russia	IEC 62493, IEC 61547, EH 55015, IEC 61000-3-2, IEC 61000-3-3	
EMC Immunity	EN6100-4-2,3,4,5,6,8,11, EN61547			
ErP	Power Consumption	Standby power consumption	No standby mode	
		Networked standby	No networked standby mode (No Phase-cut signal, no power consumption)	
		No-load power consumption	Without no-load mode	
	Flicker/Stroboscopic Effect	IEEE 1789	Meet IEEE 1789 standard/High frequency exemption level	
DF	CIE SVM	Pst LM≤1.0, SVM≤0.4		
OTHERS	Phase factor	DF≥0.9		
	Weight(N.W.)	163g±10g		
Dimensions	142×40×23mm(L×W×H)			

LED Current Selection

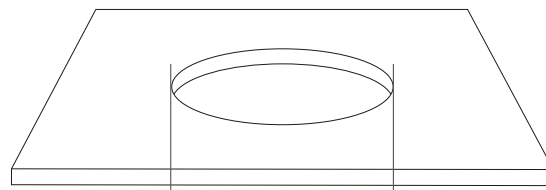
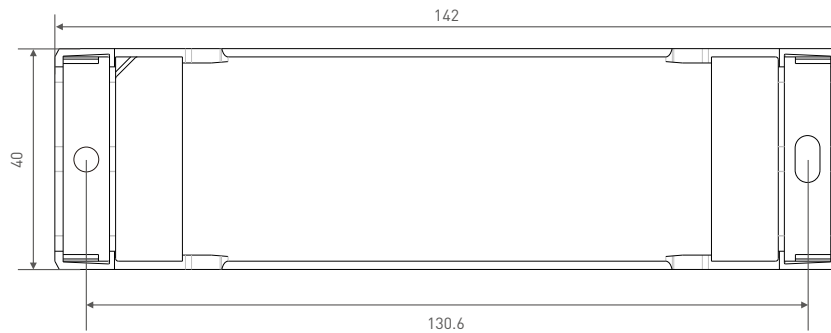


SE-40-300-1050-G1T	DIP Switch	⬇️⬇️⬇️⬇️	⬇️⬇️⬇️⬆️	⬇️⬇️⬆️⬇️	⬇️⬆️⬆️⬆️	⬆️⬆️⬆️⬇️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️ ON ⬇️ OFF
	Output Current	300mA	350mA	400mA	450mA	500mA	550mA	600mA	650mA	
	Output Voltage	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	
	Output Power	2.7-12.6W	3.15-14.7W	3.6-16.8W	4.05-18.9W	4.5-21W	4.95-23.1W	5.4-25.2W	5.85-27.3W	
	DIP Switch	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	
	Output Current	700mA	750mA	800mA	850mA	900mA	950mA	1000mA	1050mA	
	Output Power	6.3-29.4W	6.75-31.5W	7.2-33.6W	7.65-35.7W	8.1-37.8W	8.55-39.9W	9-40W	9.45-39.9W	
SE-30-150-900-G1T	DIP Switch	⬇️⬇️⬇️⬇️	⬇️⬇️⬇️⬆️	⬇️⬇️⬆️⬇️	⬇️⬆️⬆️⬆️	⬆️⬆️⬆️⬇️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️ ON ⬇️ OFF
	Output Current	150mA	200mA	250mA	300mA	350mA	400mA	450mA	500mA	
	Output Voltage	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	9-42V	
	Output Power	1.35-6.3W	1.8-8.4W	2.25-10.5W	2.7-12.6W	3.15-14.7W	3.6-16.8W	4.05-18.9W	4.5-21W	
	DIP Switch	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	⬆️⬆️⬆️⬆️	
	Output Current	550mA	600mA	650mA	700mA	750mA	800mA	850mA	900mA	
	Output Power	4.95-23.1W	5.4-25.2W	5.85-27.3W	6.3-29.4W	6.75-30W	7.2-29.6W	7.65-29.75W	8.1-29.7W	

- * After setting the current via DIP switches, power off and then power on the driver to make the new current setting effective.
- * E.g. LED 3V/pcs: 9-42V can power 3-14pcs LEDs in series, 9-21.5V can power 3-7pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LEDs.

Product Size

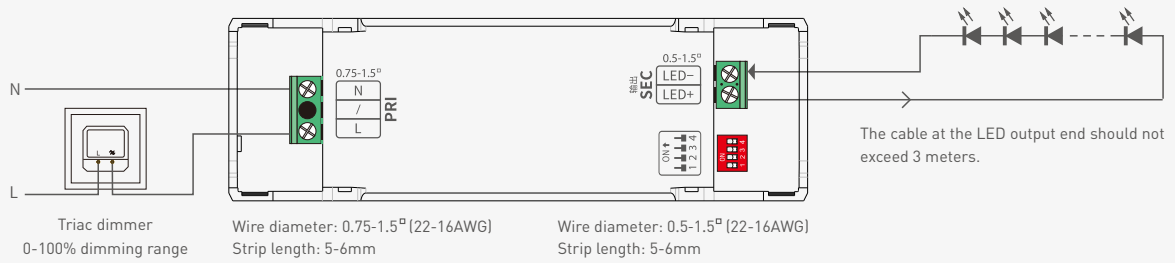
Unit: mm



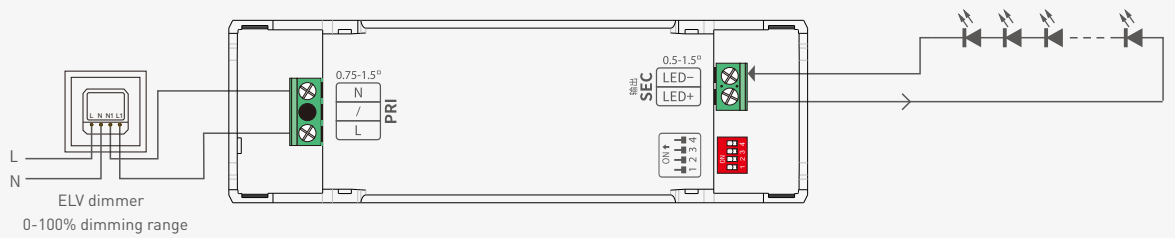
Minimum hole size: $\varnothing 48\text{mm}$ (1,89")

Wiring Diagram

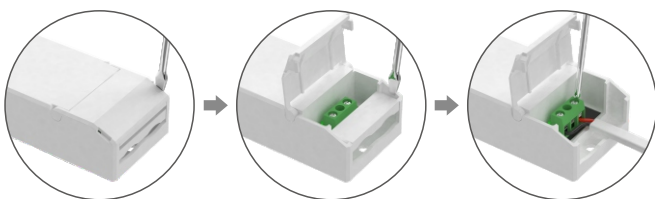
Triac Connection



ELV Connection



Application Diagram of Protective Cover

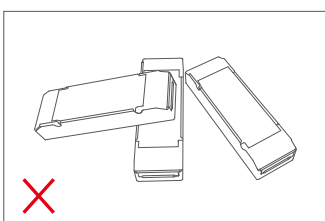


1. Put the head of a screwdriver on the side of the housing to pry up both the protective cover and wire fixing board. Then remove the wire fixing board and connect to the wires as wiring diagram shows.

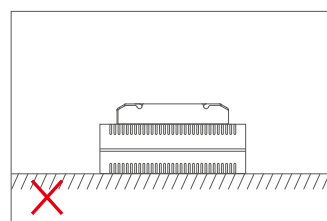
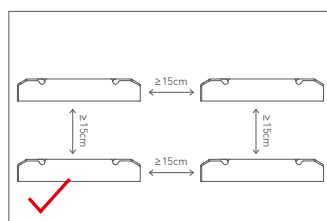


2. Install the wire fixing board and press it down. Then snap on the protective cover while pressing the wire fixing board with a small flat-head screwdriver

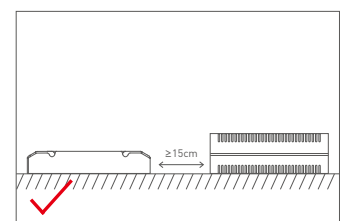
Installation Precautions



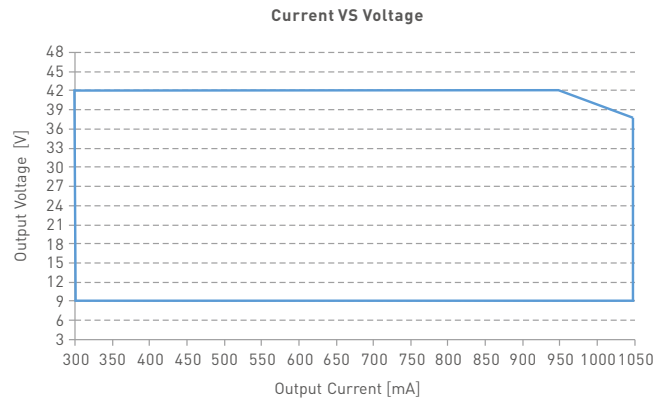
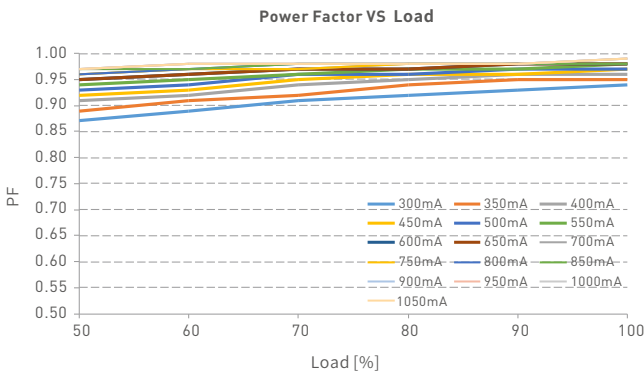
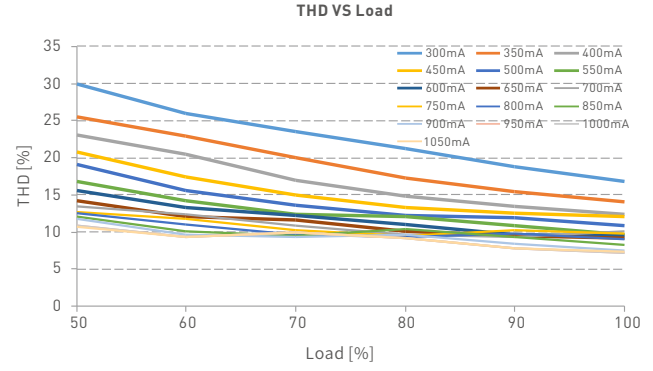
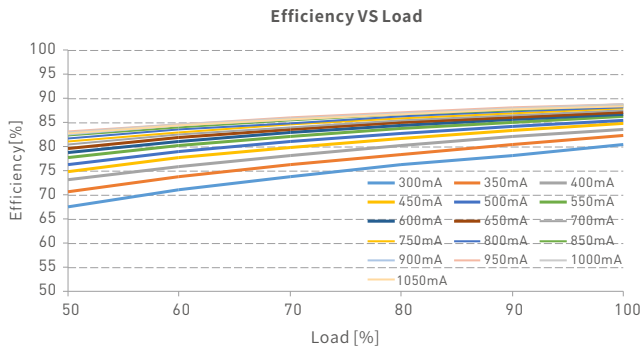
Please do not stack the products. The distance between two products should be $\geq 15\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.



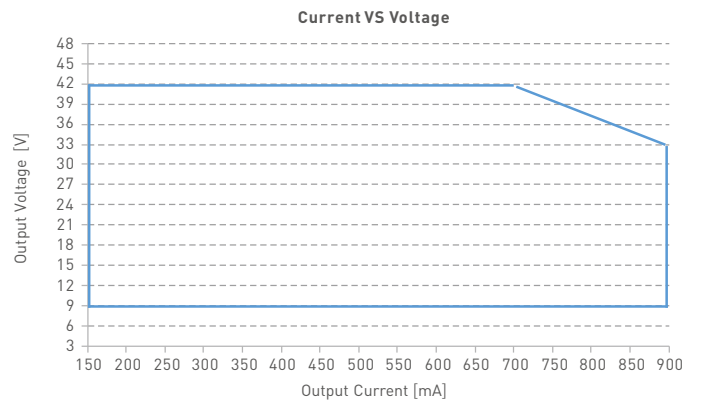
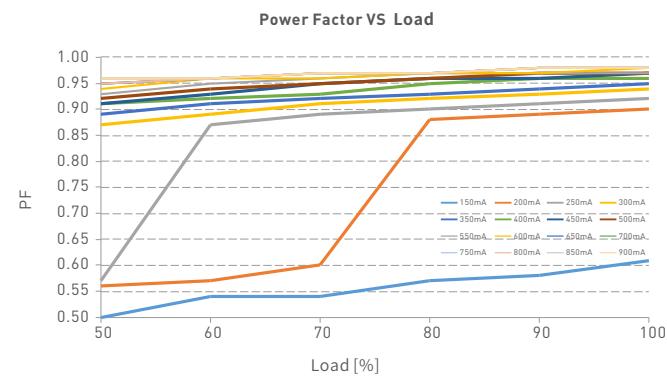
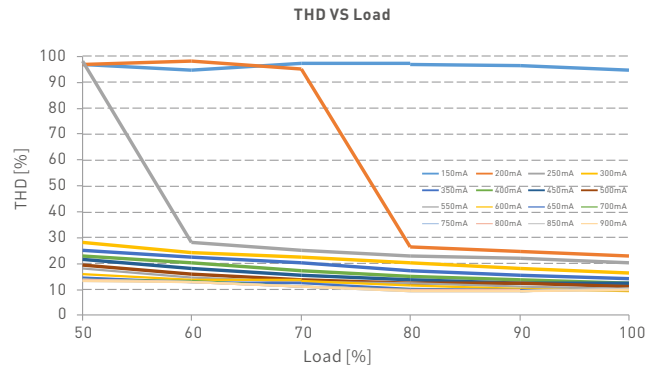
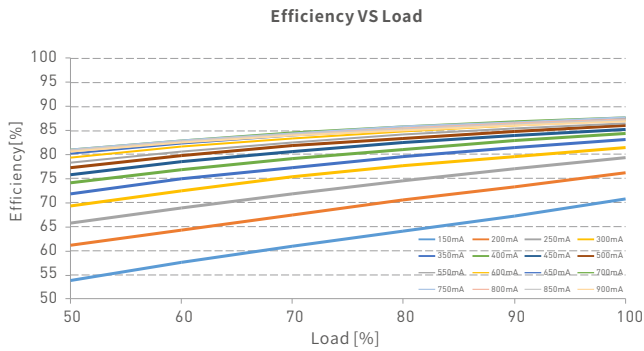
Please not place the products on LED drivers. The distance between the product and the driver should be $\geq 15\text{cm}$ so as not to affect heat dissipation and shorten the lifespan of the products.



Relationship Diagrams



SE-40-300-1050-G1T



SE-30-150-900-G1T

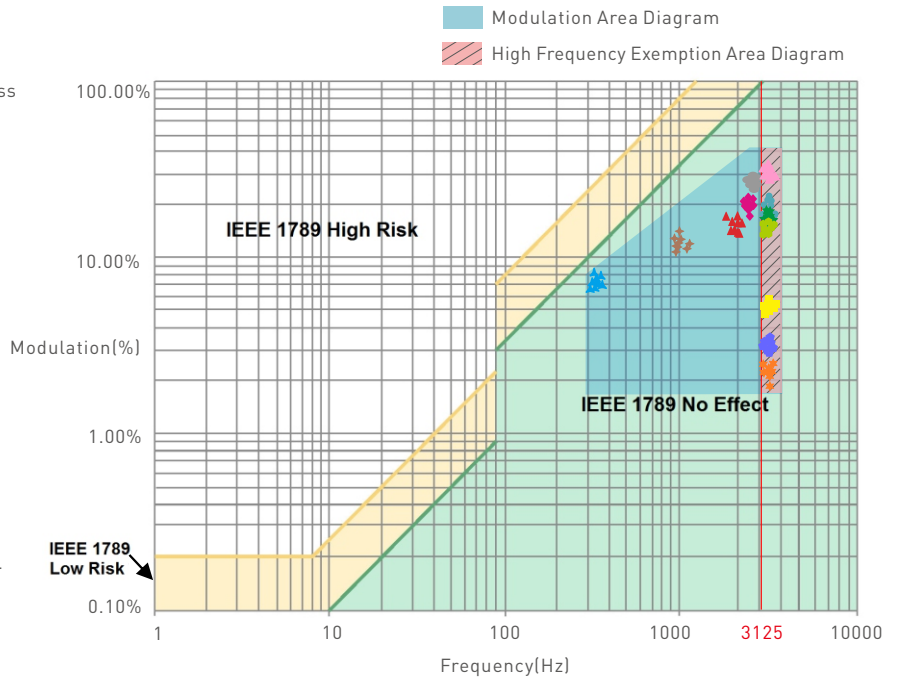
Flicker Test Form

IEEE 1789

Limit of Modulation in low risk area	
Waveform frequency of Optical output	limit (%)
$f \leq 8\text{Hz}$	0.2
$8\text{Hz} < f \leq 90\text{Hz}$	$0.025 \times f$
$90\text{Hz} < f \leq 1250\text{Hz}$	$0.08 \times f$
$f > 1250\text{Hz}$	Exemption assessment
Limit of Modulation in no effect area	
Waveform frequency of Optical output	limit (%)
$f \leq 10\text{Hz}$	0.1
$10\text{Hz} < f \leq 90\text{Hz}$	$0.01 \times f$
$90\text{Hz} < f \leq 3125\text{Hz}$	$(0.08/2.5) \times f$
$f > 3125\text{Hz}$	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 were tested results of different current ranges. The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

Packaging Specifications

Model	SE-40-300-1050-G1T / SE-30-150-900-G1T
Carton Dimensions	320×275×106mm(L×W×H)
Quantity	20 PCS/Layer; 2 Layers/Carton; 40 PCS/Carton
Weight	0.163 kg/PC; 7.32 kg/Carton

Packaging Image



Inner Packaging Box



Carton Packaging

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

- This product must be installed and adjusted by a qualified professional.
 - This product is non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure it is mounted in a water proof enclosure.
 - Good heat dissipation will extend the life the product. Please install the product in a environment with good ventilation.
 - When you install this product, please avoid being near a large area of metal objects or stacking them to prevent signal interference.
 - Please keep the product away from a intense magnetic field, a high pressure area or a place where lightning is easy to occur.
 - Please check whether the working voltage used complies with the parameter requirements of the product.
 - Before you power on the product, please make sure all the wiring is correct in case of incorrect connection that may cause a short circuit and damage the components, or trigger a accident.
 - If a fault occurs, please do not attempt to fix the product by yourself. If you have any question, please contact the supplier.
- * 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.

Update Log

Version	Updated Time	Update Content	Updated by
A0	2022.08.29	Original version	Liu Weili