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LED Driver (Constant Current)

- The housing is made from V0 flame retardant PC materials.
- Ultra-small, thin and light screwless end cap.
- Change the output current, Max Level and other parameters via the APP.
- Adjustable output current with 1mA step.
- Soft-on and fade-in dimming function enhances your visual comfort.
- High performance, high efficiency, low THD.
- Innovative thermal management technologyintelligently protects the life of the LED driver.
- Overheat, overvoltage, overload, short circuit protection and automatic recovery.
- Suitable for ClassⅠ/Ⅱ/Ⅲ indoor light fixtures.
- Indoor office lighting, decorative lighting and commercial lighting.
- 5-year warranty.
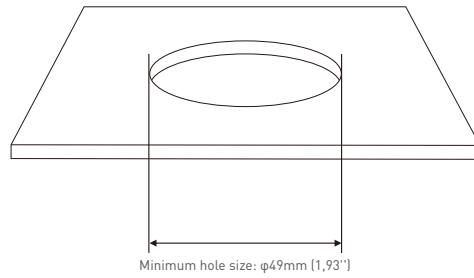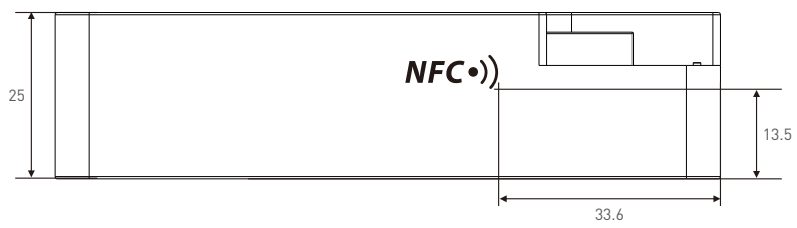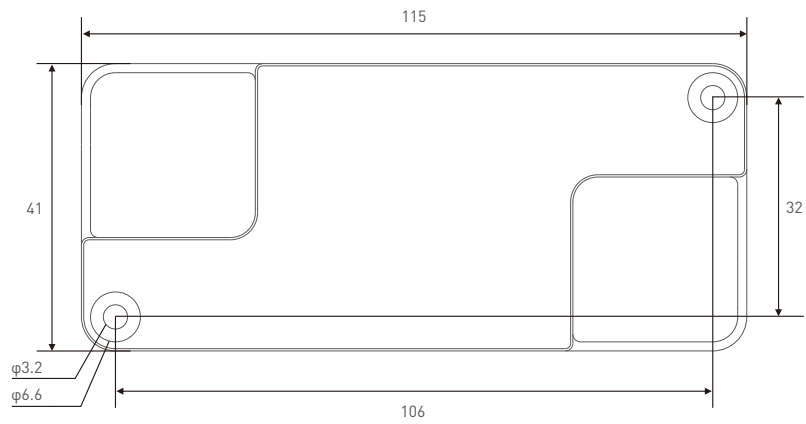
Flicker-Free
IEEE 1789

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

NFC•)) Multicurrent setting

Overheat Protection

V Overvoltage protection

OverLoad Protection

Short Circuit Protection

Technical Specs

Model		SN-45-300-1050-G1NF		
Features	Output Type	Constant Current		
	Output Feature	Isolation		
	Protection Grade	IP20		
	Insulation Grade	Class II (Suitable for class I/ II /III light fixtures)		
OUTPUT	Output Voltage	9-42Vdc		
	Maximum output voltage	≤55Vdc		
	Output Current Range	300-1050mA		
	Output Power Range	Max.45W		
	Current Accuracy	±5%		
	Current Ripple	<5% (When outputting maximum current)		
INPUT	DC Voltage Range	220-240Vdc		
	Input Voltage	220-240Vac		
	Frequency	50/60Hz		
	Input Current	≤0.09A		
	Power Factor	PF>0.9at full load)		
	THD	THD<10%a(t full load)		
	Efficiency (Typ.)	≥88% a(t full load)		
	Inrush Current	Cold start 15A(Test twidth=us tested under 50% Ipeak)/230Vac		
	Anti Surge	L-N: 2KV		
	Leakage Current	Max. 0.5mA		
ENVIRONMENT	Working Temperature	ta: -20~45°Ctc: 90°C		
	Working Humidity	20~95%RH,non-condensing		
	Storage Temperature/Humidity	-40~80°C/10~95%RH		
	Temperature Coefficient	±0.03%/°C(0-50°C)		
	Vibration	10~500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively		
PROTECTION	Overload Protection	Automatically protect the device when the load exceeds 102% of the rated power. Automatically recover once load is reduced		
	Overheat Protection	Intelligently adjust or turn off the current output if the PCB temperature ≥110°C. automatically recover normal output		
	Overvoltage Protection	Automatically protect the device when voltage exceeds the no-load voltage. It can be recovered 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: 1 Insulation Resistance 00MΩ/500VDC/25°C/70%RH		
	Safety Standards	CCC	China	GB19510.1, GB19510.14
		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	AS61347-1, AS61347-2-13
		ENEC	Europe	EN61347-1, EN61347-2-13, EN62384
		UKCA	England	BS EN61347-1,BSEN61347-2-13,BSEN62493
		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
		UKCA	England	BS EN IEC 55015, BS EN IE C61000-3-2, BS EN 61000-3-3, BS EN 61547
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547		
ErP	Power Consumption	No-load power consumption	<0.5W	
	Flicker/Stroboscopic Effect	IEEE1789	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.)	112g±10g		
	Dimensions	115×41×25mm(L×W×H)		

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Product Size

Unit: mm

115

41

32

φ3.2

φ6.6

106

25

NFC•)))

13.5

33.6

Minimum hole size: φ49mm (1.93'')

Wiring Diagram

L
N

0.75-1.5□
L
N
PRI

0.75-1.5□
LED−
LED+
SEC

The line at the LED output end
should not exceed 3 meters

Wirediameter:0.75-1.5 □(20-16AWG)
Strip length: 3-4mm

Wirediameter:0.75-1.5 □(20-16AWG)
Strip length: 3-4mm

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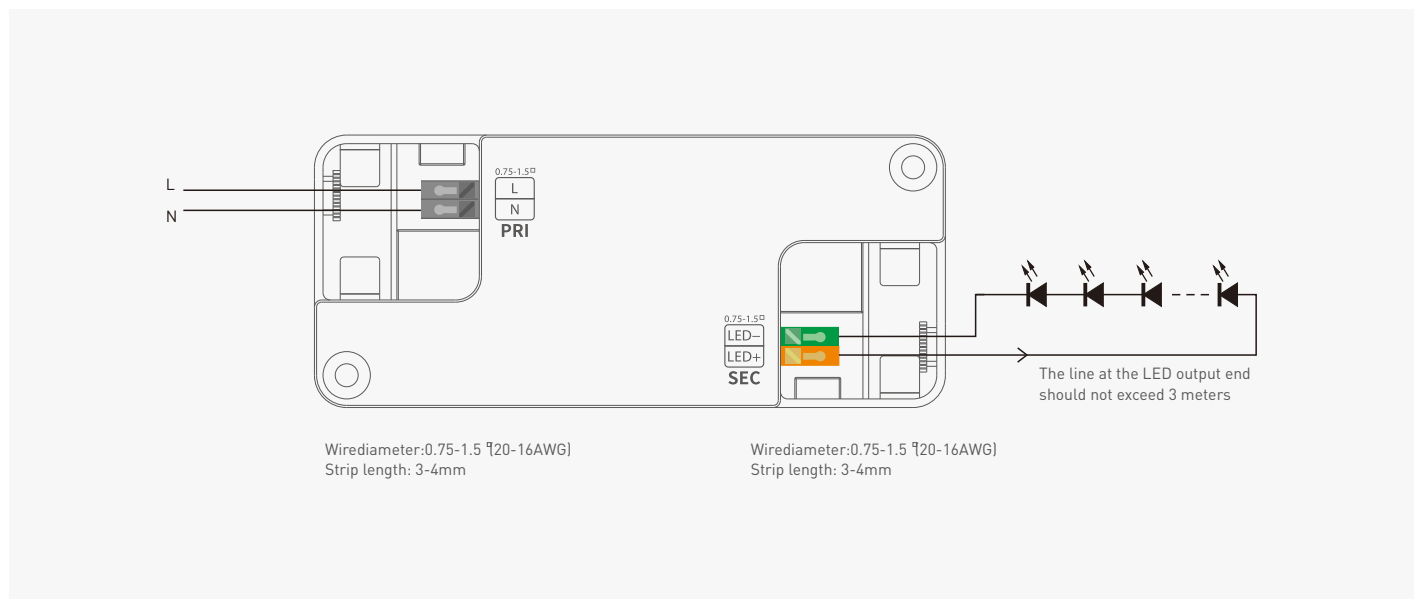
Table of Typical Corresponding Parameters for Current

| The typical 16 current data sets below are for reference when selecting LED fixture models. More current levels can be set by NFC using mobile APP with 300-1050mA adjustable in 1mA step								
Output Current	**300mA**	**350mA**	**400mA**	**450mA**	**500mA**	550mA	600mA	650mA
Output Voltage	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc
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
Output Current	**700mA**	**750mA**	**800mA**	**850mA**	**900mA**	950mA	1000mA	1050mA
Output Voltage	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc	9-42Vdc
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	9-42W	9.45-44.1W

Protective Housing Application Diagram

Crimping cover buckle
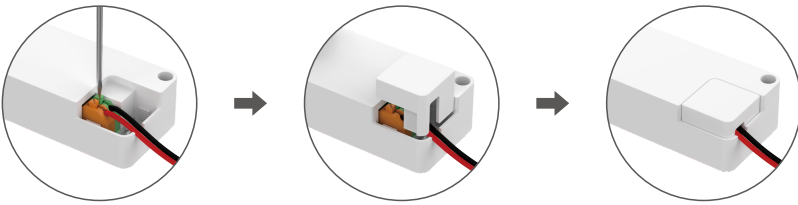
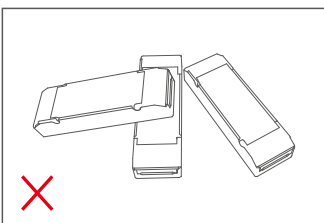Use a screwdriver to wire according to the wiring diagram.

Snap together the terminals on both sides with protective covers, nd press down until it is flat with the housing.
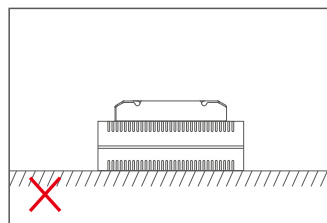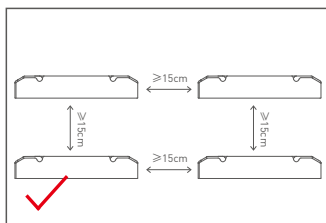
Removal of crimping cover
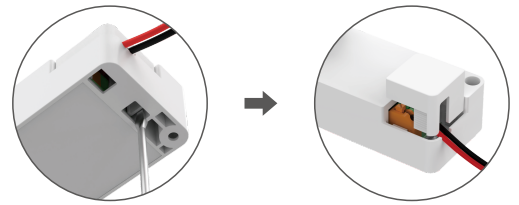
Pry the protective cover at the bottom of the housing left/right with a screwdriver to remove it.

Installation Precautions

Please do not stack the products. The distance between two products should be ≥15cm so as notto 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 ≥15cm so as not to affect heat dissipation and shorten the lifespan of the products.
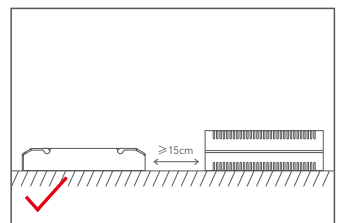
Note: The temperature within the installation area should be within the working temperature range of the products. Please do not install products inside LED fixtures to avoid temperature exceeding the working temperature that may affect the product lifetime.

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Use the NFC Lighting APP

Scan the QR code below with your mobile phone and follow the prompts to complete the APP installation (According to performance requirements, you need to use a NFC-capable Android phone, or an iphone 8 and later that are compatible with iOS 13 or higher).


✳ **Before you begin setting the parameters of the driver, please make sure the driver is powered off.**

Read/Write the LED driver

Use your NFC-capable phone to read LED driver data, then edit the parameters and they can be directly written to the driver.

1.Read the LED driver

On the APP home page, click【Read/Write LED driver】, then keep the programmer's sensing area close to the NFC logo of the driver to read the driver parameters.
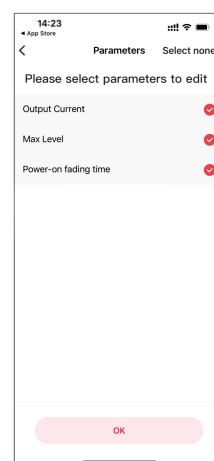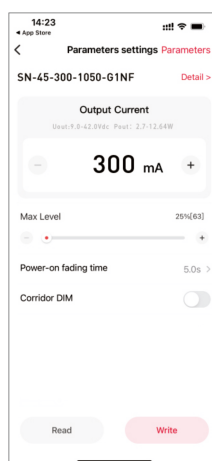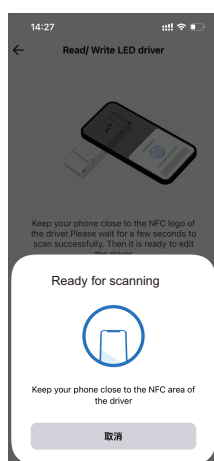

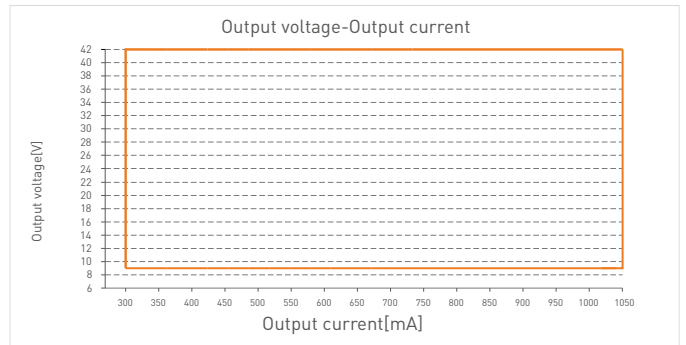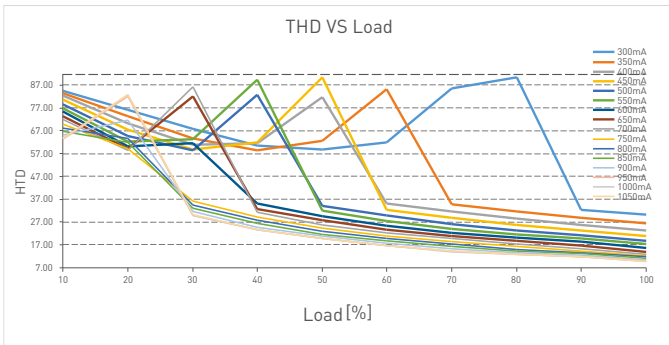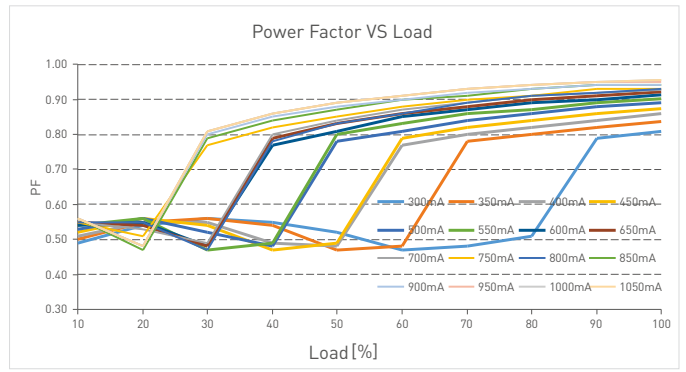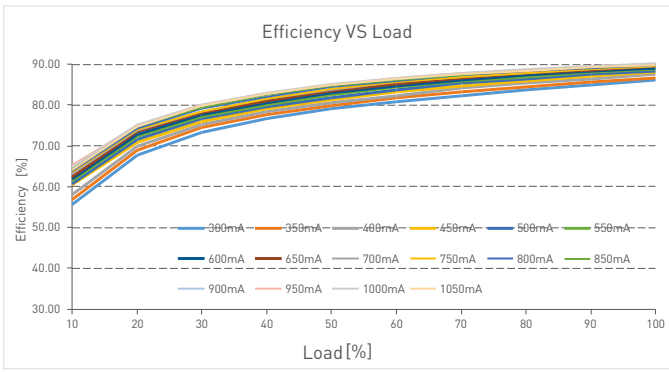NFC logo of the driver
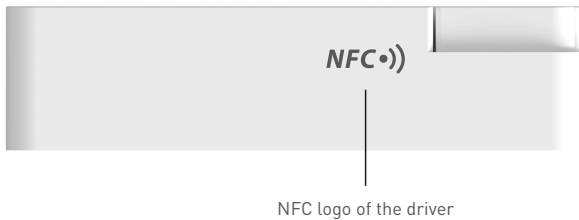
2.Edit the parameters

Click【Parameter settings】to edit the advanced parameters, like output current, Max Level, power-on fading time, etc.

3.Write to the driver

After completing the parameter settings, click 【Write】in the upper right corner, and keep the programmer's sensing area close to the NFC logo of the driver, so the parameters can be written to the driver.

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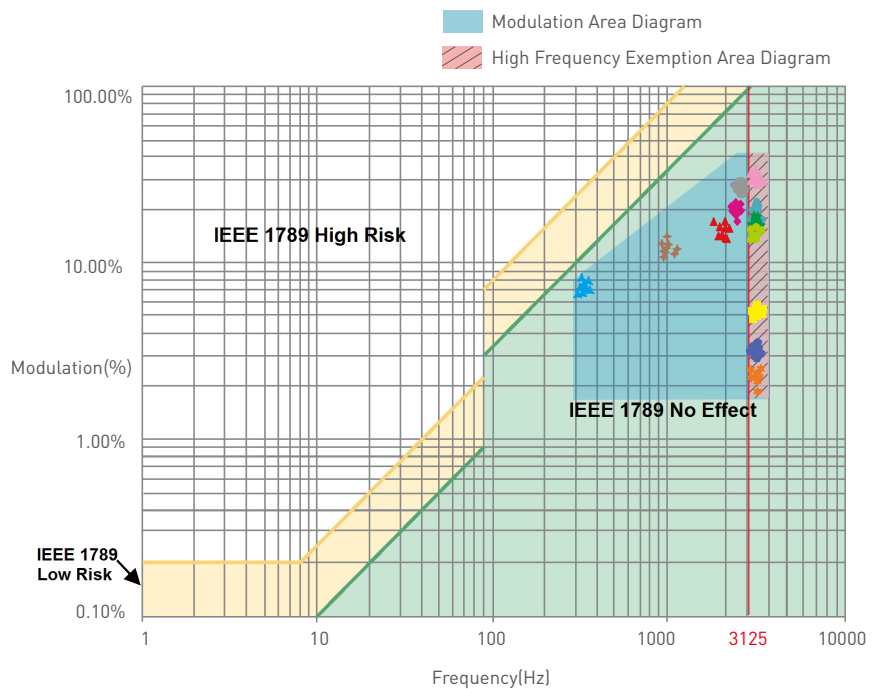## Relationship Diagrams

Efficiency VS Load

Efficiency [%] vs Load [%]

Legend: 300mA, 350mA, 400mA, 450mA, 500mA, 550mA, 600mA, 650mA, 700mA, 750mA, 800mA, 850mA, 900mA, 950mA, 1000mA, 1050mA

Power Factor VS Load

PF vs Load [%]

Legend: 300mA, 350mA, 400mA, 450mA, 500mA, 550mA, 600mA, 650mA, 700mA, 750mA, 800mA, 850mA, 900mA, 950mA, 1000mA, 1050mA

THD VS Load

HTD vs Load [%]

Legend: 300mA, 350mA, 400mA, 450mA, 500mA, 550mA, 600mA, 650mA, 700mA, 750mA, 800mA, 850mA, 900mA, 950mA, 1000mA, 1050mA

Output voltage-Output current

Output voltage[V] vs Output current[mA]

Flicker Test Sheet

IEEE 1789

Limit of modulation in low risk area	
Waveform frequency of optical output	limit [%]
$f \leqslant 8Hz$	0.2
$8Hz < f \leqslant 90Hz$	$0.025 \times f$
$90Hz < f \leqslant 1250Hz$	$0.08 \times f$
$f > 1250Hz$	Exemption assessment
Limit of modulation in no effect area	
Waveform frequency of optical output	limit [%]
$f \leqslant 10Hz$	0.1
$10Hz < f \leqslant 90Hz$	$0.01 \times f$
$90Hz < f \leqslant 3125Hz$	$[0.08/2.5] \times f$
$f > 3125Hz$	Exemption assessment (High frequency exemption)

Marks in the right chart were tested results of different current ranges.

The output frequeny is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

Modulation Area Diagram

High Frequency Exemption Area Diagram

IEEE 1789 High Risk

IEEE 1789 No Effect

IEEE 1789 Low Risk

Modulation(%) vs Frequency(Hz)

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Packaging Specifications

Model	SN-45-300-1050-G1NF
Carton Dimensions	480×230×170mm(L×W×H)
Quantity	20 PCS/Layer；4 Layers/Carton；80 PCS/Carton
Weight	0.112 kg/PCS；9.76 kg/Carton

Packaging Image

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.

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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.

Warrantyexclusionsbelow:
- 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.

ZHUHAI LTECH TECHNOLOGY CO., LTD.

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Update Log

Version	Updated Time	Update Content	Updated by
A0	2023.11.28	Original version	Li siyu