

## LED Driver (Constant Current)

- The housing is made from V0 flame retardant PC materials.
- Ultra-small, thin and light screwless end cap.
- High performance, high efficiency, low THD.
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Overheat, overvoltage, overload, short circuit protection and automatic recovery.
- Suitable for Class I / II / III indoor light fixtures.
- Indoor office lighting, decorative lighting and commercial lighting.
- 5-year warranty.



**Flicker-Free**  
IEEE 1789

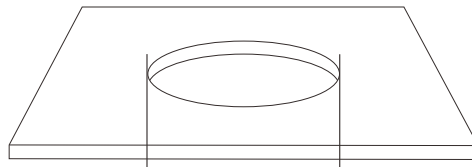
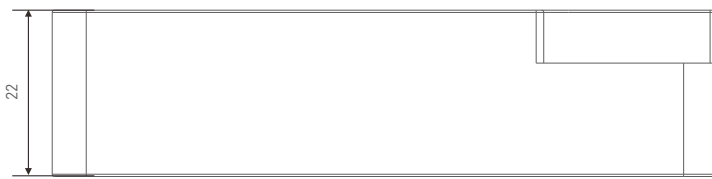
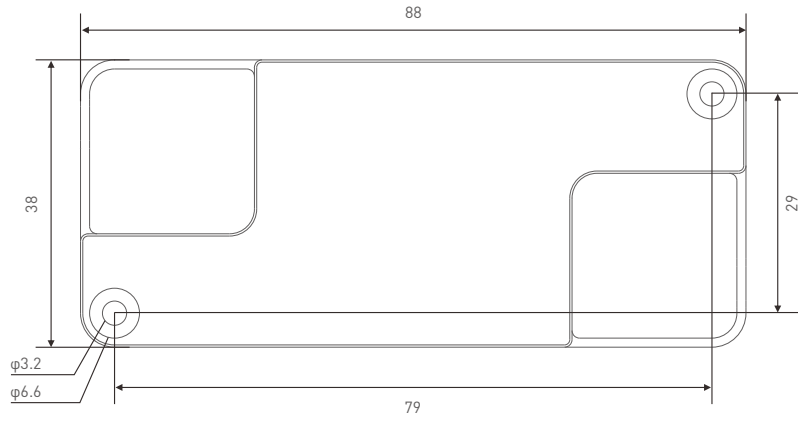


## Technical Specs

Model	SN-15-350-G1N	SN-15-300-G1N	SN-15-250-G1N	SN-15-220-G1N	SN-15-200-G1N	SN-15-180-G1N	SN-15-150-G1N	
<b>Features</b>	Output Type	Constant Current						
	Output Feature	Isolation						
	Protection Grade	IP20						
	Insulation Grade	Class II (Suitable for class I / II / III light fixtures)						
<b>OUTPUT</b>	Output Voltage	9-42Vdc						
	Maximum output voltage	≤50Vdc						
	Output Current	350mA	300mA	250mA	220mA	200mA	180mA	150mA
	Output Power Range	3.15W-14.7W	2.7W-12.6W	2.25W-10.5W	1.98W-9.24W	1.8W-8.4W	1.62W-7.56W	1.35W-6.3W
	Current Accuracy	±5%						
	PWM Frequency	Non dimming						
<b>INPUT</b>	DC Voltage Range	200-280Vdc						
	Input Voltage	220-240Vac						
	Frequency	50/60Hz						
	Input Current	≤0.09A	≤0.08A	≤0.07A	≤0.06A	≤0.055A	≤0.05A	≤0.045A
	Power Factor	PF>0.95 at full load	PF>0.95 at full load	PF>0.9 at full load	PF>0.9 at full load	PF>0.9 at full load	PF>0.9 at full load	PF>0.9 at full load
	THD	THD<10% at full load	THD<10% at full load	THD<15% at full load	THD<15% at full load	THD<15% at full load	THD<15% at full load	THD<15% at full load
	Efficiency (Typ.)	≥87% at full load	≥87% at full load	≥86% at full load	≥86% at full load	≥86% at full load	≥85% at full load	≥84% at full load
	Inrush Current	Cold start 3A[Test twidth=30us tested under 50% Ipeak]/230Vac						
	Anti Surge	L-N: 1KV						
Leakage Current	Max. 0.5mA							
<b>ENVIRONMENT</b>	Working Temperature	ta: -20 ~ 50°C tc: 85°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						
<b>PROTECTION</b>	Overload Protection	When the output load is ≥ 43.5V, the output current and output power decrease gradually and can be recovered automatically.						
	Overheat Protection	Intelligently adjust or turn off the current output if the PCB temperature>130°C. intelligently adjust the current output or close, and automatically recover						
	Short Circuit Protection	When short circuit occurs, shut down the output and recover automatically						
<b>SAFETY &amp; EMC</b>	Withstand Voltage	I/P-0/P: 3750Vac						
	Insulation Resistance	I/P-0/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	AS 61347-1, AS 61347-2-13				
		ENEC	Europe	EN61347-1, EN61347-2-13, EN62384				
		UKCA	Britain	BS EN 61347-1, BS EN 61347-2-13, BS EN 62493				
	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		Britain	BS EN IEC 55015, BS EN IEC 61000-3-2, BS EN 61000-3-3, BS EN 61547					
EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547							
<b>ErP</b>	Power Consumption	Standby power consumption	No standby mode					
		Networked standby	No networked standby mode					
		No-load power consumption	≤0.3W					
	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						
<b>OTHERS</b>	Weight(N.W.)	55g±10g						
	Dimensions	88×38×22mm(L×W×H)						

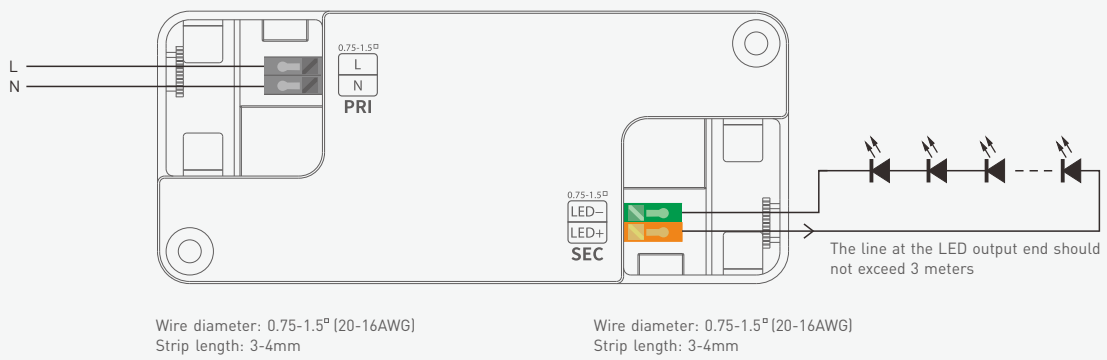
## Product Size

Unit: mm



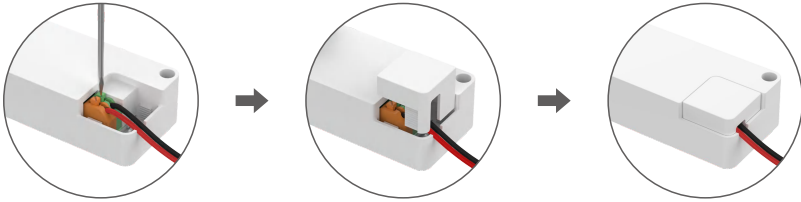
Minimum hole size:  $\phi 45\text{mm}$  (1.77")

## Wiring Diagram



## Protective Housing Application Diagram

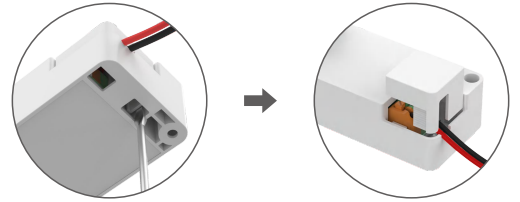
### Crimping cover buckle



Use a screwdriver to wire according to the wiring diagram.

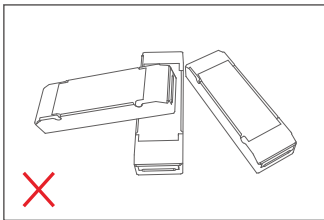
Snap together the terminals on both sides with protective covers, and press down until it is flat with the housing.

### Removal of crimping cover

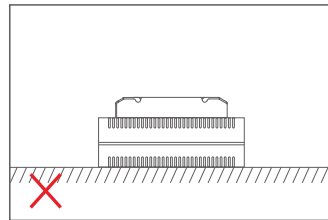
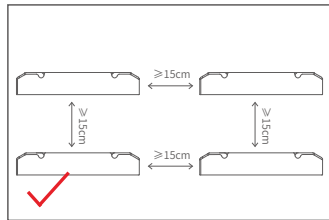


Pry the protective cover at the bottom of the housing left/right with a screwdriver to remove it.

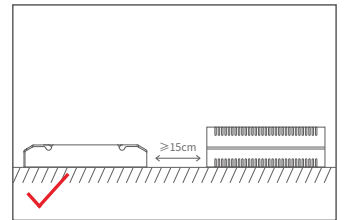
## Installation Precautions



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

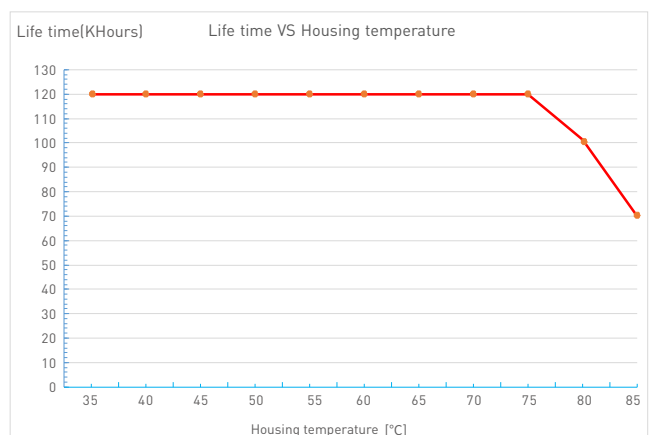
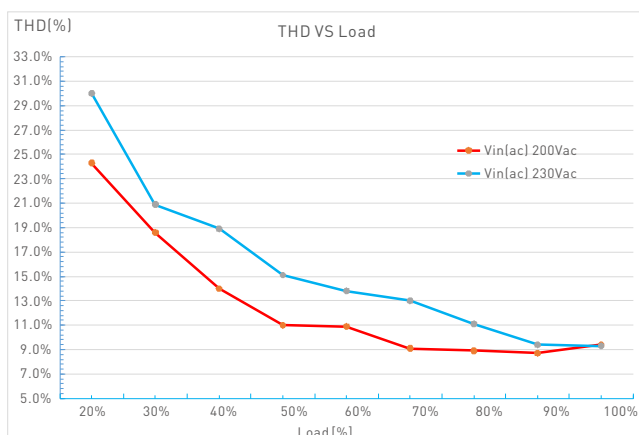
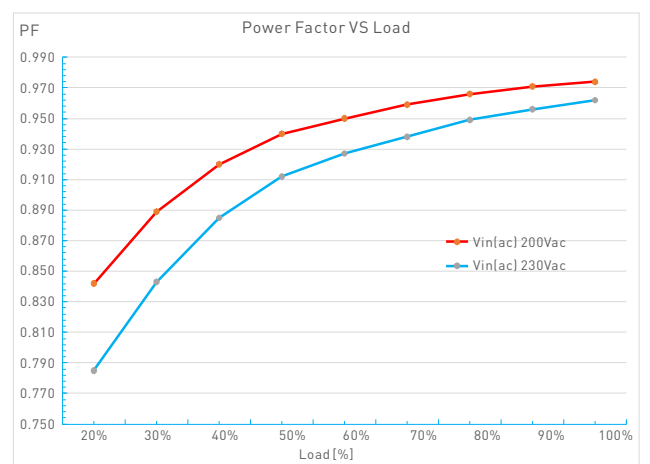
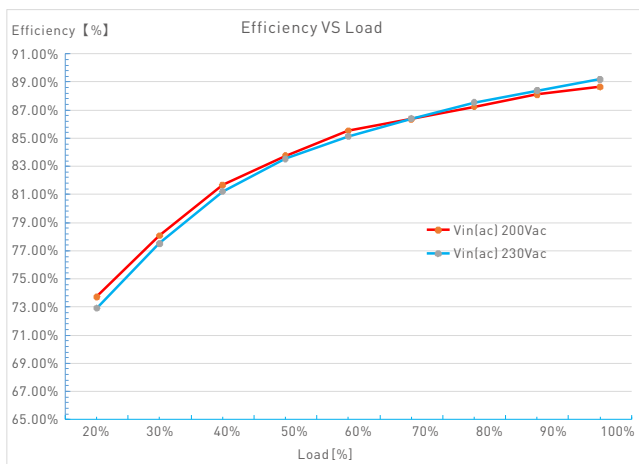


Please not place the products on LED drivers. The distance between the product and the driver should be  $\geq 15\text{cm}$  so as not to affect heat dissipation and shorten the lifespan of the products.

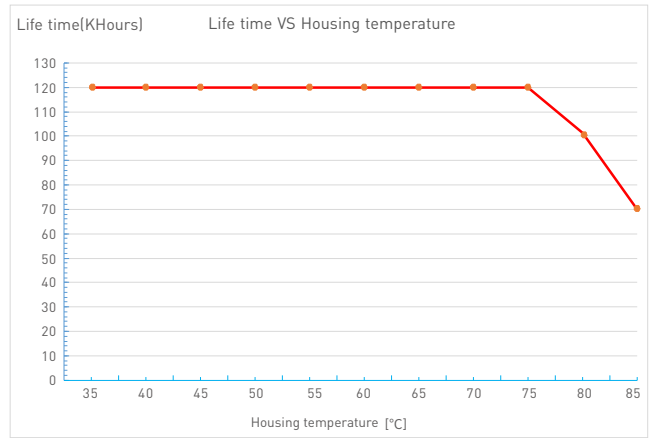
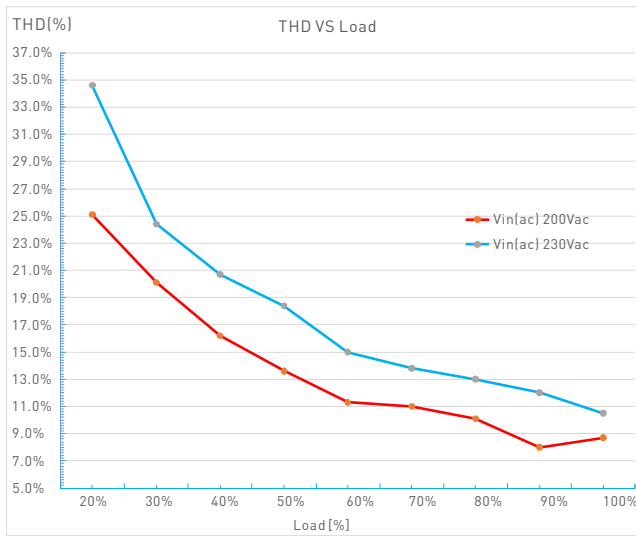
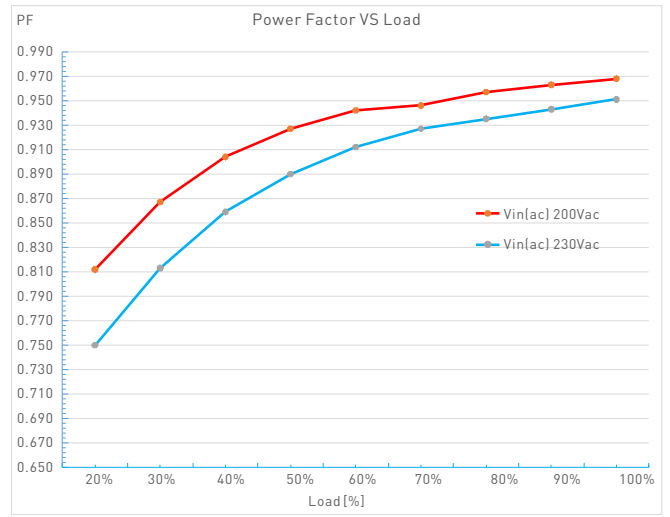
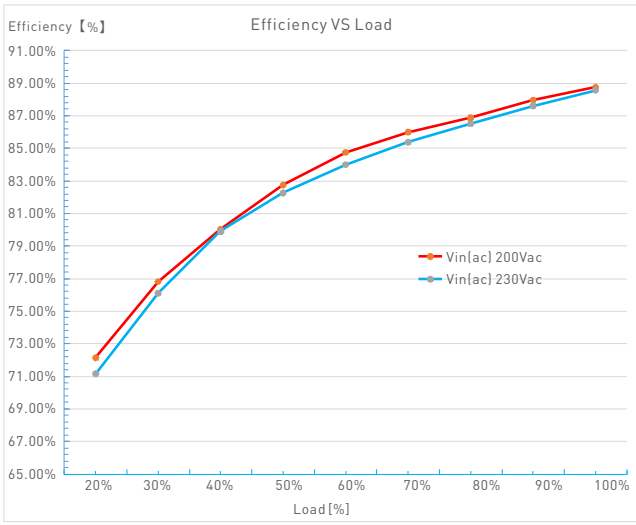


## Relationship Diagrams

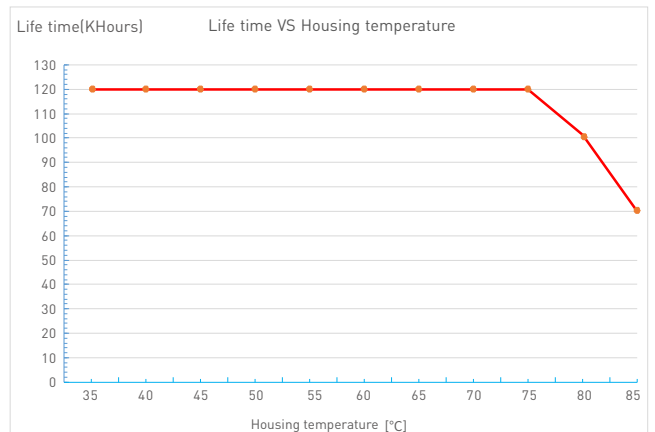
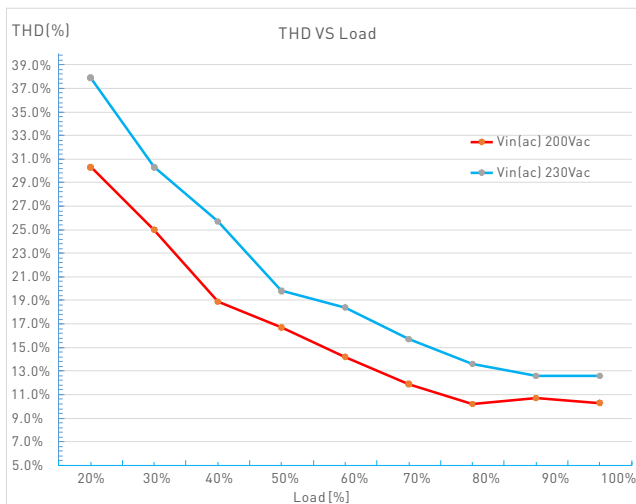
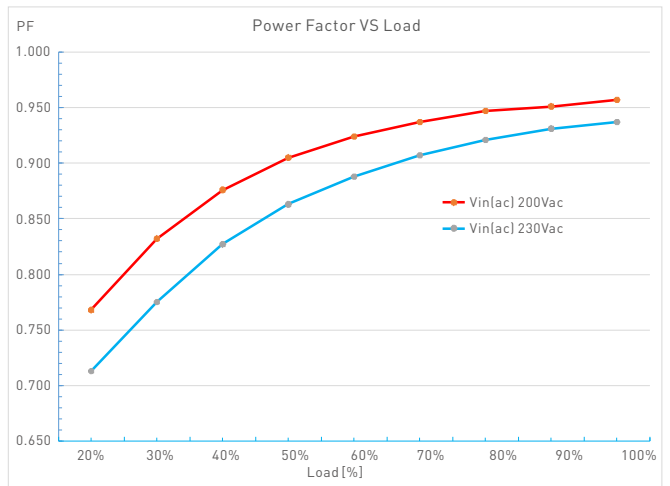
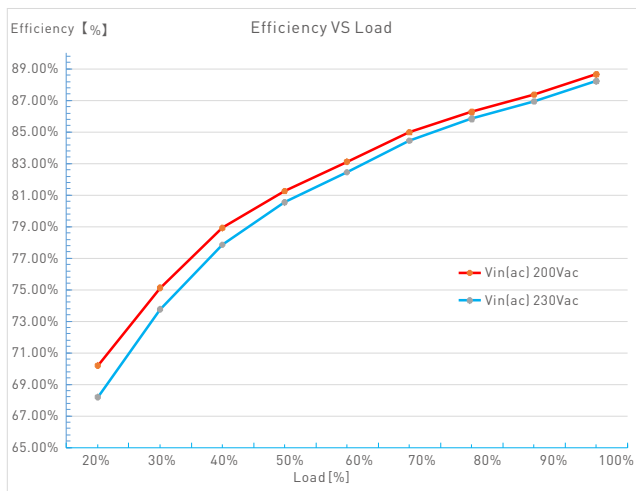
### SN-15-350-G1N



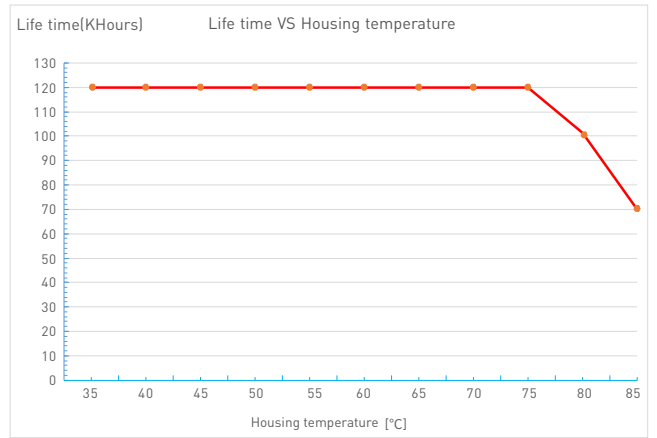
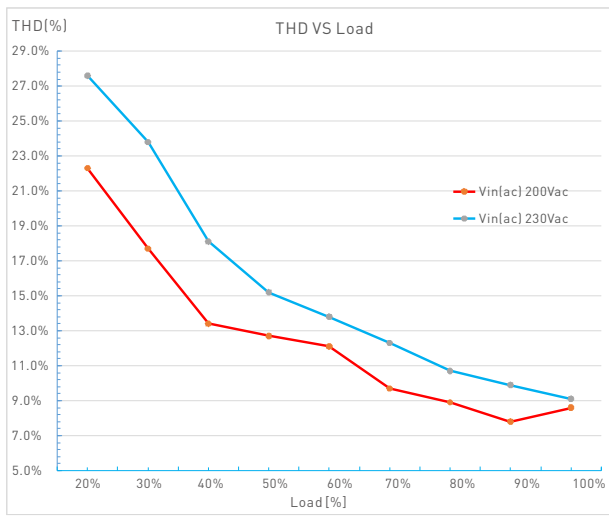
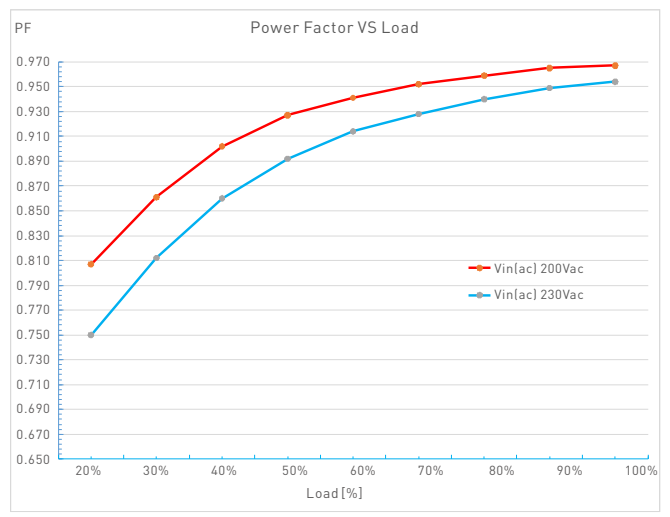
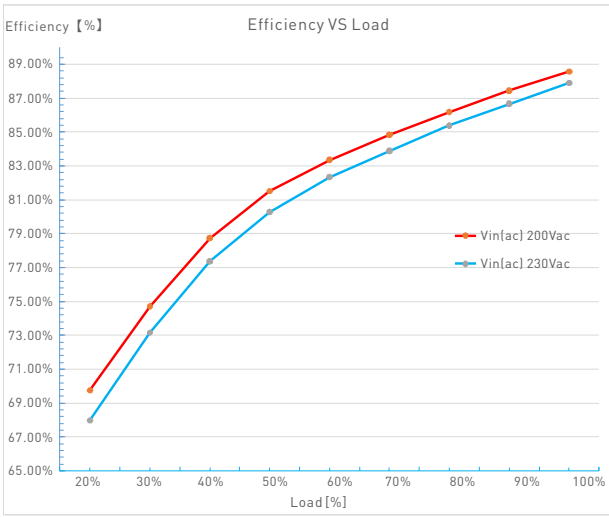
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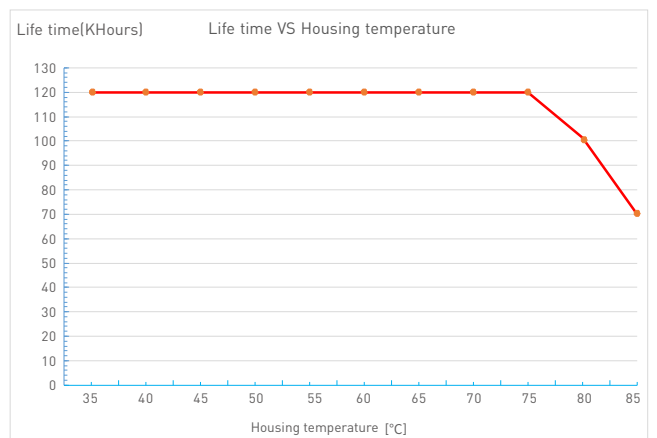
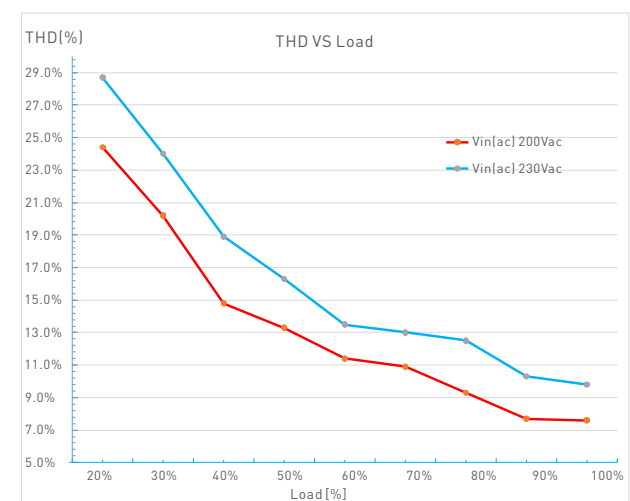
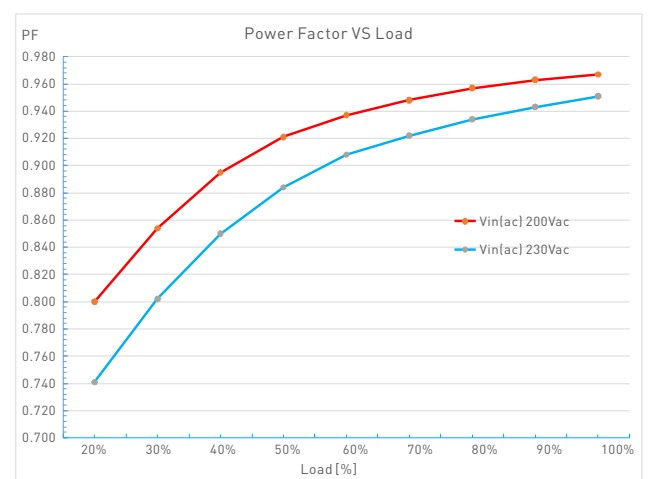
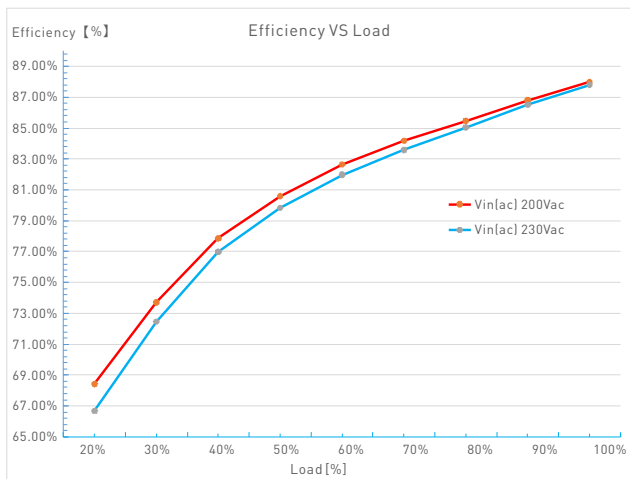
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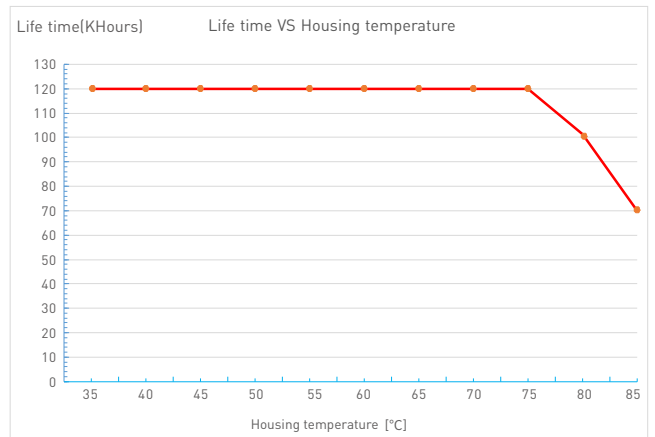
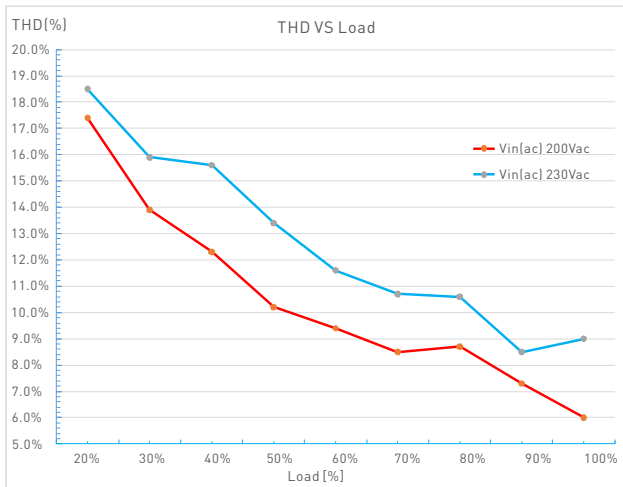
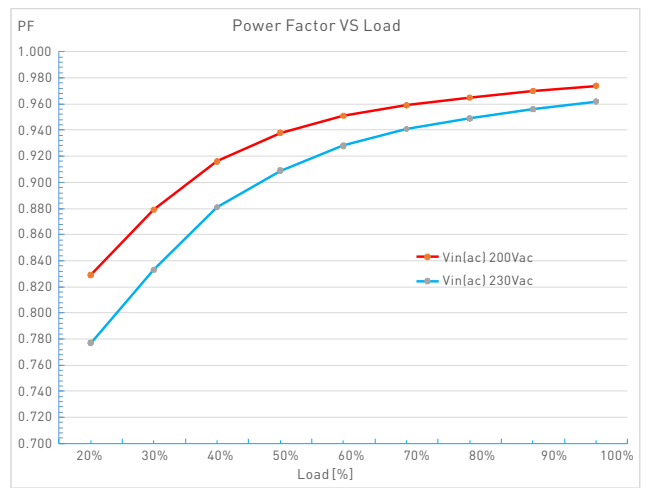
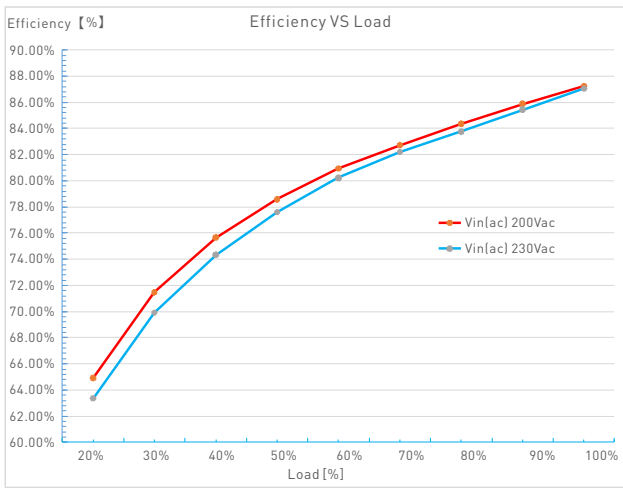
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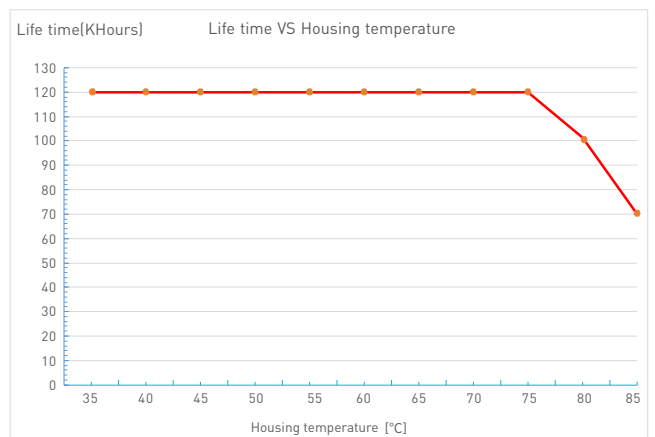
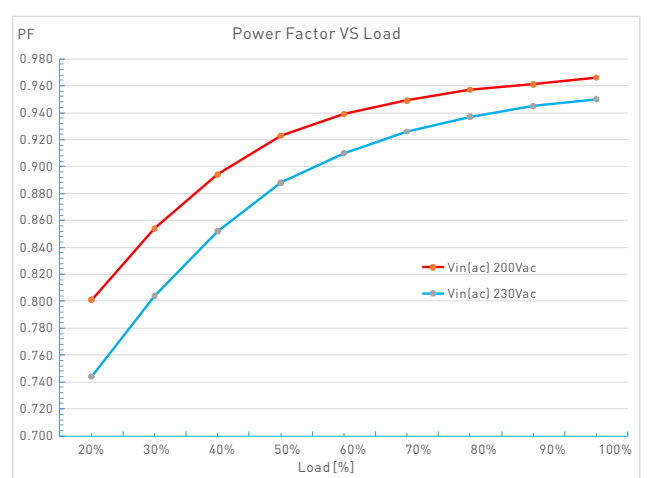
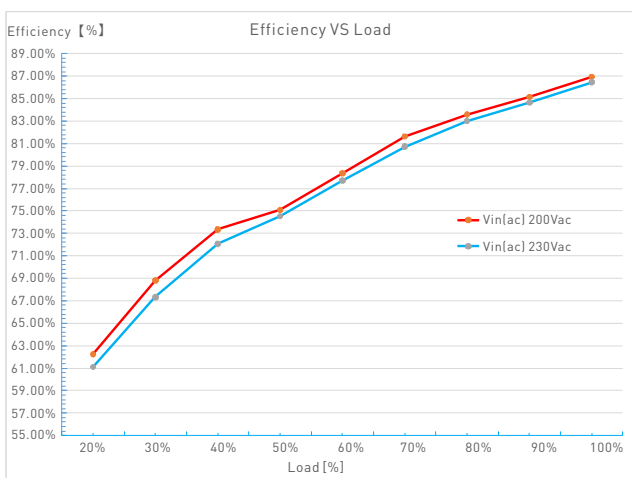
## SN-15-200-G1N



## SN-15-180-G1N



## SN-15-150-G1N

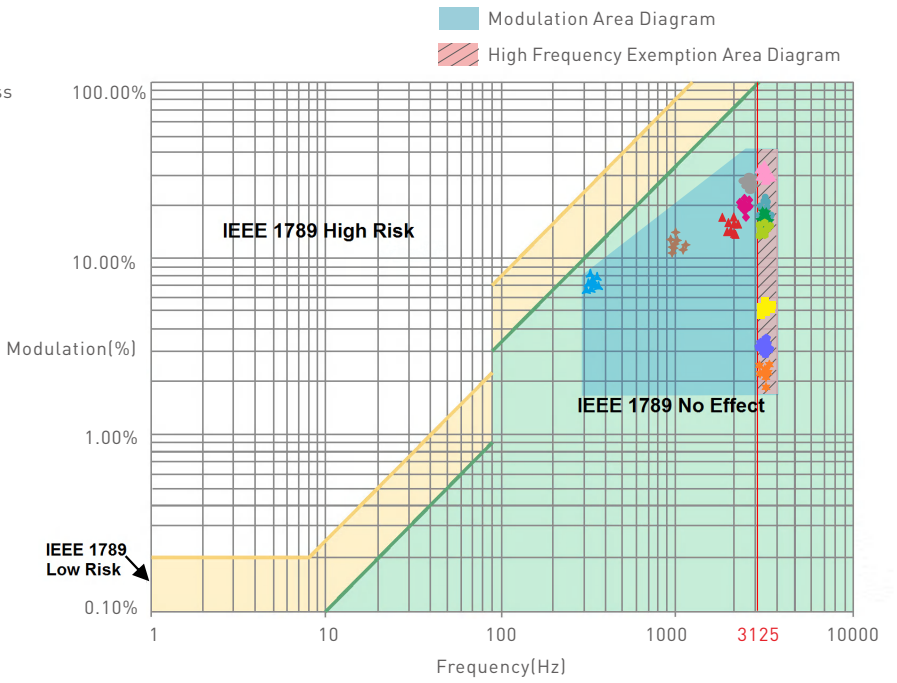


## Flicker Test Form

IEEE 1789

Limit of Modulation in low risk area	
Wavelform 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	
Wavelform 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	SN-15-350-G1N / SN-15-300-G1N / SN-15-250-G1N / SN-15-220-G1N SN-15-200-G1N / SN-15-180-G1N / SN-15-150-G1N
Carton Dimensions	365×200×190mm(L×W×H)
Quantity	20 PCS/Layer; 5 Layers/Carton; 100 PCS/Carton
Weight	0.055 kg/PC; 6.3 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.

## 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	2023.01.13	Original version	Liu Weili