

## Intelligent LED Driver (Constant Current)

- 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.
- The whole dimming process is flicker-free with high frequency exemption level.
- Dimming from 0~100%, down to 0.01%.
- Innovative thermal management technology intelligently protects the life of the LED driver.
- Overheat, overload, short circuit protection and automatic recovery.
- Normal service life can reach 100,000 hours.
- 5-year warranty (Rubycon capacitor).

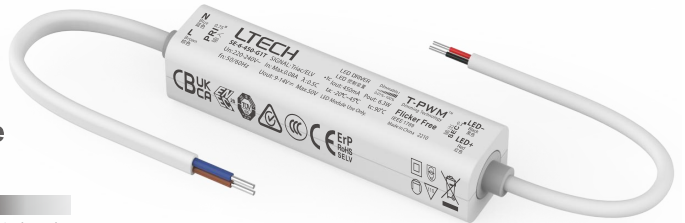
T-PWM™  
Dimming Technology

Flicker Free  
IEEE 1789

Dimmable: 0~100%Dimming



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

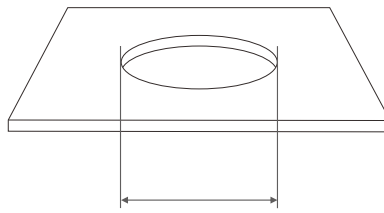
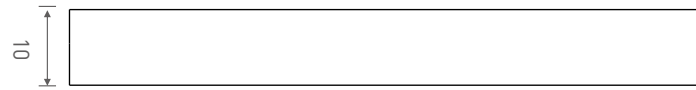
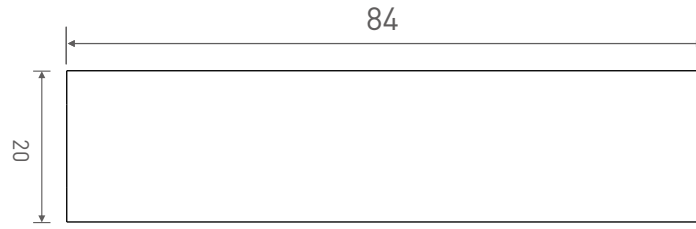


## Technical Specs

Model	SE-6-450-G1T		SE-6-700-G1T	
Features	Output Type	Constant Current		
	Dimming Interface	Triac/ELV		
	Output Feature	Isolation		
	Protection Grade	IP20		
	Insulation Grade	Class II (Suitable for class I/ II /III light fixtures)		
OUTPUT	Maximum output voltage(No-load)	≤50Vdc	≤30Vdc	
	Output Voltage	9-14Vdc	2-9Vdc	
	Output Current Range	450mA	700mA	
	Output Power	Max.6.3W		
	Output Power Range	4.05-6.3W	1.4-6.3W	
	Dimming Range	0~100%, down to 0.01%		
	LF Current Ripple	<3%		
	Current Accuracy	±5%		
	PWM Frequency	3600Hz		
INPUT	DC Voltage Range	200-280Vdc (Output power dimming unavailable)		
	Input Voltage	220-240Vac		
	Rated Voltage	230Vac		
	Frequency	50/60Hz		
	Input current	≤0.08A/230Vac		
	Power Factor	PF>0.5/230Vac (at full load)		
	Efficiency [Typ.]	>72%	>72%	
	Inrush Current	Cold start 15A(Test twidth=300us tested under 50% Ipeak)/230Vac		
	Anti Surge	L-N: 1KV		
Leakage Current	<0.5mA/230Vac			
ENVIRONMENT	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)		
	Vibration	10-500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively		
PROTECTION	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		
	Short Circuit Protection	When short circuit occurs, shut down the output 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	GB 19510.1, GB 19510.14
		CE	European Union	EN 61347-1, EN 61347-2-13, EN 62493
		KC	Korea	KC 61347-1, KC 61347-2-13
		TUV	Germany	EN 61347-1, EN 61347-2-13, EN 62493
		ENEC	Europe	EN 61347-1, EN 61347-2-13, EN 62384
		CB	CB Member States	IEC 61347-1, IEC 61347-2-13
		RCM	Australia	AS/NZS 61347.1, AS 61347.2.13
		BIS	India	IS 15885(PART 2/SEC 13)
	EMC Emission	EAC	Russia	IEC 61347-1, IEC 61347-2-13
		CCC	China	GB/T 17743, GB 17625.1
		CE	European Union	EN IEC 55015, EN IEC 61000-3-2, EN 61000-3-3
		KC	Korea	KS C 9815, KS C 9547
		RCM	Australia	EN IEC 55015, EN IEC 61000-3-2, EN 61000-3-3
EAC	Russia	IEC 62493, IEC 61547, EH 55015, IEC 61000-3-2, IEC 61000-3-3		
EMC Immunity	EN 61000-4-2,3,4,5,6,8,11, EN 61547			
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	
CIE SVM		Pst LM≤1.0, SVM≤0.4		
OTHERS	Weight(N.W.)	50g±5g		
	Dimensions	84x20x10mm(LxWxH)		

## Product Size

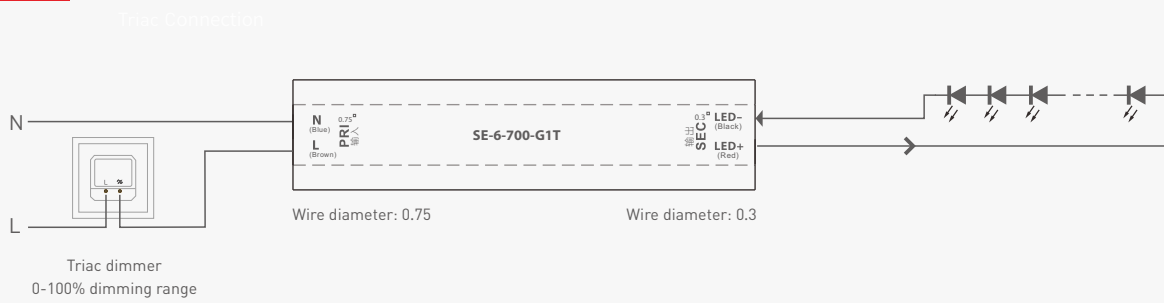
Unit: mm



Minimum hole size:  $\phi 25\text{mm}$  (1")

## Wiring Diagram

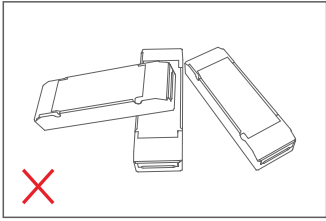
### Triac Connection



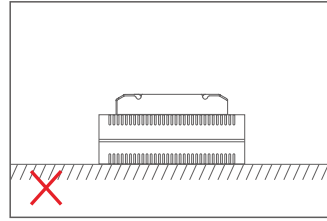
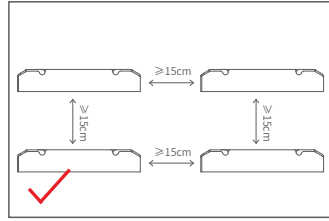
### ELV Connection



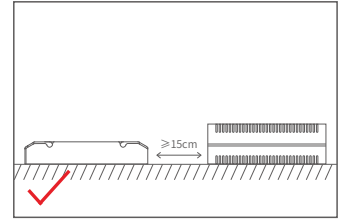
## Installation Precautions



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.

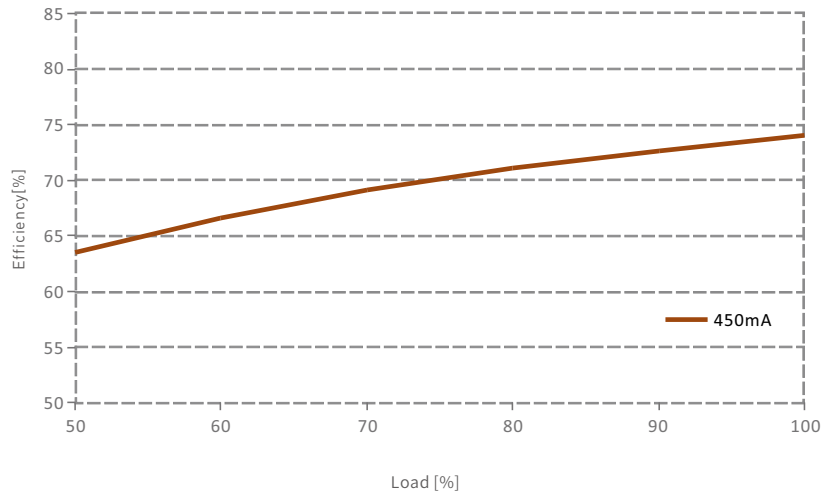


Please not place the products on LED drivers. The distance between the product and the driver should be  $\geq 15\text{cm}$  so as not to affect heat dissipation and shorten the lifespan of the products.



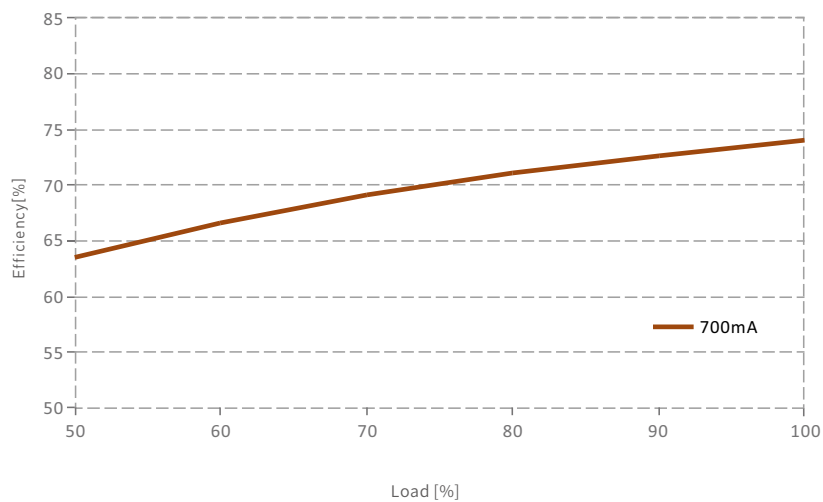
## Relationship Diagrams

Efficiency VS Load



SE-6-450-G1T

Efficiency VS Load



SE-6-700-G1T

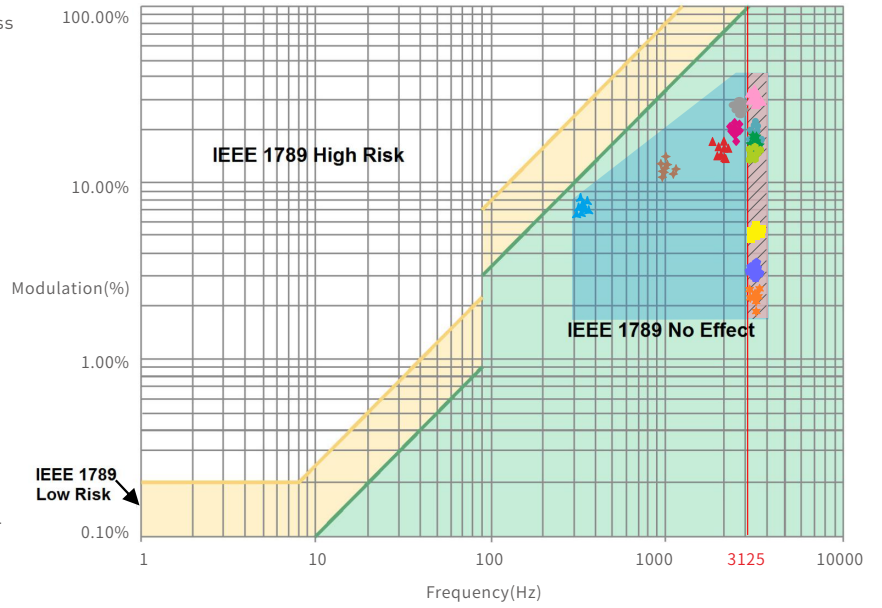
## Flicker Test Form

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%

- Modulation Area Diagram
- High Frequency Exemption Area Diagram



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-6-450-G1T / SE-6-700-G1T
Carton Dimensions	385×245×160mm(L×W×H)
Quantity	20 PCS/Layer; 5 Layers/Carton; 100 PCS/Carton
Weight	0.055kg/PC; 5.5kg±5%/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	2022.11.30	Original version	Yang Weiling
A1	2023.03.21	Update product screen printing position	Yang Weiling