

Intelligent LED Driver (Constant Current)

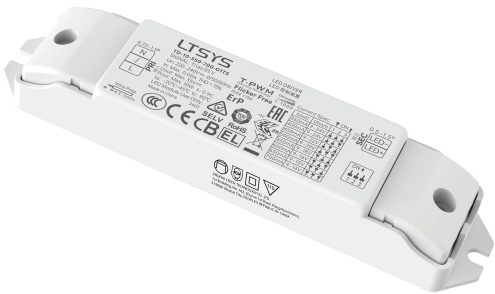
- Small size and light weight. The housing is made from V0 flame retardant PC materials from SAMSUNG/COVESTRO.
- Support Leading edge(Triac), Trailing edge(ELV).
- With soft-on and fade-in dimming function, enhancing your visual comfort.
- T-PWM™ dimming technology allows continuous and flicker-free images under high-speed photography.
- Dimming from 0~100%, down to 0.1%.
- 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).

0~100% Diming

T-PWM™
Dimming Technology

Flicker Free
IEEE 1789

Dimmable:
1 : 1000



Triac
ELV

T-PWM™
Dimming Technology

Flicker Free
IEEE 1789

Multiple
Current

Short Circuit
Protection

Over Load
Protection

Overheat
Protection

Technical Specs

Model		TD-10-100-450-G1TS		TD-10-350-700-G1TS		TD-10-650-1000-G1TS	
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	Output Voltage	≤54Vdc			≤35Vdc		≤22Vdc
	Output Voltage Range	9-42Vdc			9-24Vdc		2-12Vdc
	Output Current	100-450mA			350-700mA		650-1000mA
	Output Power	Max. 10W					
	Output Power Range	0.9-10W			3.15-10W		1.3-10W
	Dimming Range	0~100%, down to 0.1%					
	LF Current Ripple	<3%					
	Current Accuracy	±5%					
INPUT	PWM Frequency	≤3600Hz					
	DC Voltage Range	200-280Vdc (Dimming is not available)					
	AC Voltage Range	220-240Vac					
	Rated Voltage	230Vac					
	Frequency	0/50/60Hz					
	Input Current	≤0.08A/230Vac				≤0.12A/230Vac	
	Power Factor	PF>0.9/230Vac, at full load					
	Efficiency (Typ.)	THD<15%@230Vac, at full load				THD<18%@230Vac, at full load	
	Efficiency (Typ.)	>78%@250mA			>76%@400mA		>75%@900mA
ENVIRONMENT	Inrush Current	Cold start 10A@230Vac (Test twidth=300us tested under 50% Ipeak)					
	Anti Surge	L-N: 1KV					
	Leakage Current	Max. 0.5mA					
	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	GB19510.1, GB19510.14, GB19510.213			
		CE	European Union	EN 61347-1, EN 61347-2-13, EN 62493			
		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			
	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			
		RCM	Australia	EN IEC 55015, EN IEC 61000-3-2, EN 61000-3-3			
	EMC Immunity	EAC	Russia	IEC 62493, IEC 61547, EH 55015, IEC 61000-3-2, IEC 61000-3-3			
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	DF	Phase factor		DF≥0.9			
	Life Time	50000 hours					
	Warranty	5 years					

LED Current Selection

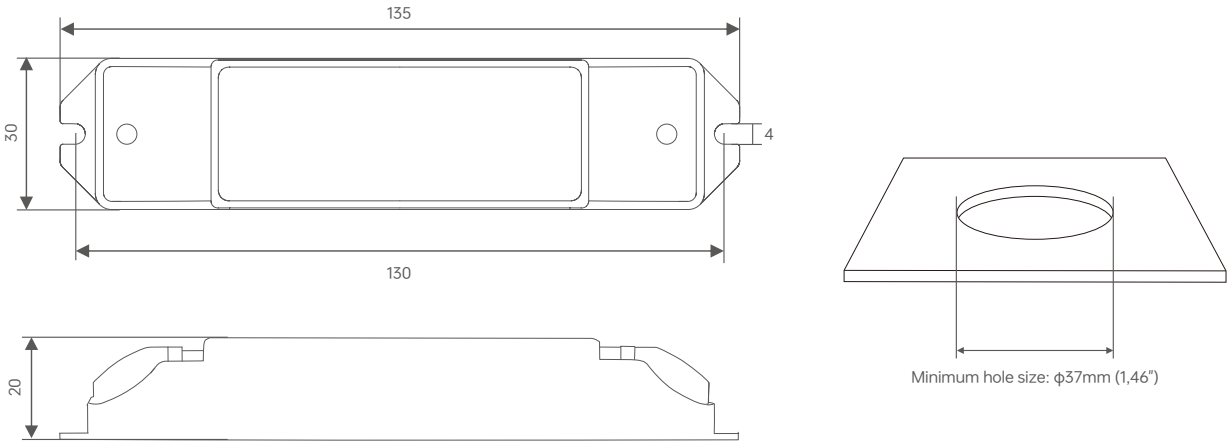
8 current levels are optional by DIP switch setting

DIP Switch										ON OFF
TD-10-100-450-G1TS	Output Current	100mA	150mA	200mA	250mA	300mA	350mA	400mA	450mA	
	Output Voltage	9-42V	9-42V	9-42V	9-40V	9-33V	9-28V	9-25V	9-22V	
	Output Power	0.9-4.2W	1.4-6.3W	1.8-8.4W	2.3-10W	2.7-9.9W	3.2-9.8W	3.6-10W	4.1-9.9W	
TD-10-350-700-G1TS	Output Current	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
	Output Voltage	9-24V	9-24V	9-22V	9-20V	9-18V	9-16V	9-15V	9-14V	
	Output Power	3.15-8.4W	3.6-9.6W	4.05-9.9W	4.5-10W	4.95-9.9W	5.4-9.6W	5.85-9.8W	6.3-9.8W	
TD-10-650-1000-G1TS	Output Current	650mA	700mA	750mA	800mA	850mA	900mA	950mA	1000mA	
	Output Voltage	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	
	Output Power	1.3-7.8W	0.4-8.4W	1.5-9W	1.6-9.6W	1.7-9.35W	1.8-9.9W	1.9-9.5W	2-10W	

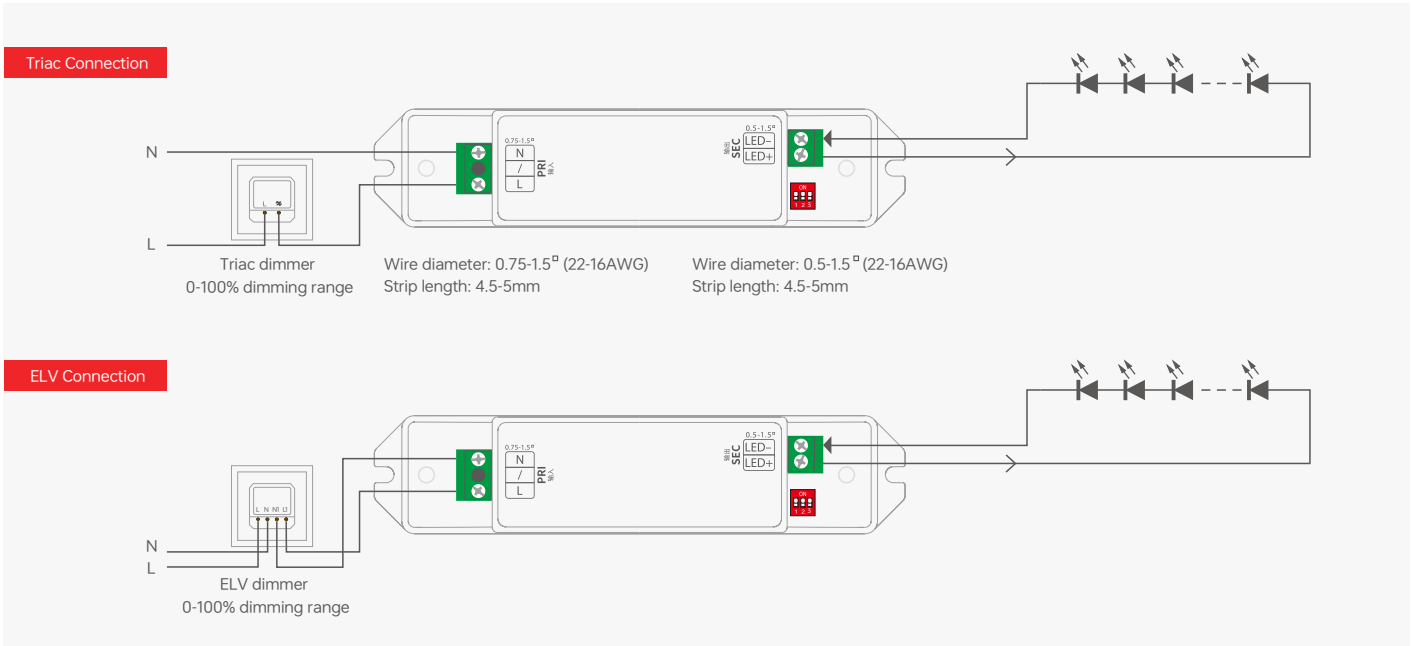
- ★ After setting the current via DIP switches, power off and then power on the driver to make the new current setting effective.
- ★ E.g. LED 3.2V/pcs: 3-24V can power 1-7pcs LEDs in series, 3-14V can power 1-4pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LEDs.

Product Size

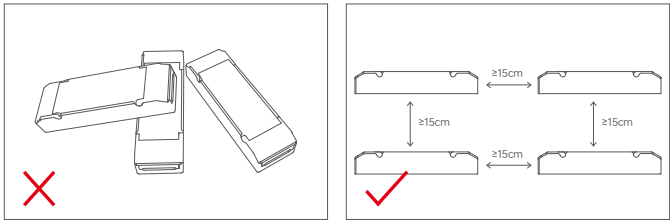
Unit: mm



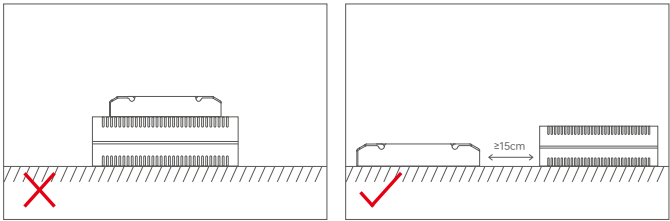
Wiring Diagram



Installation Precautions

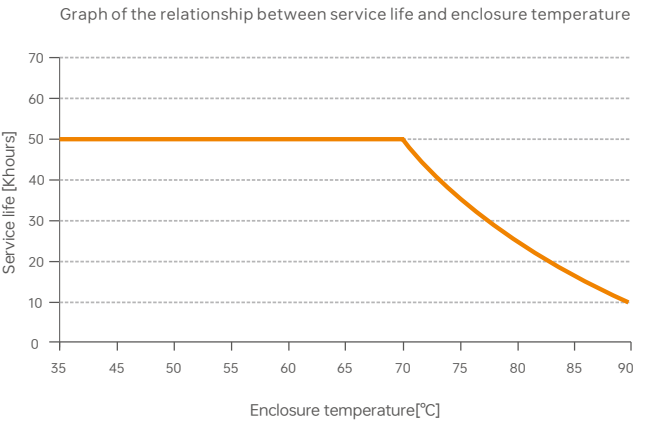
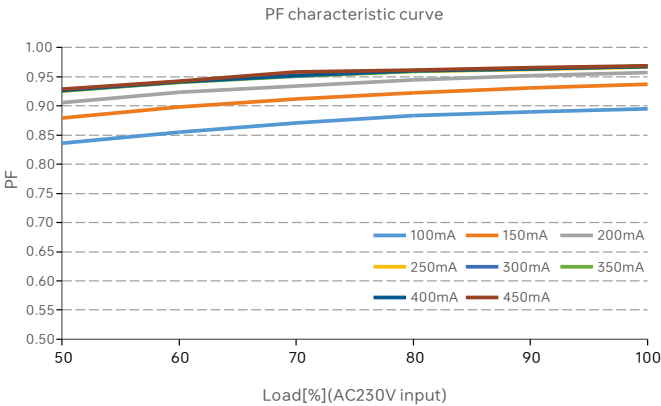
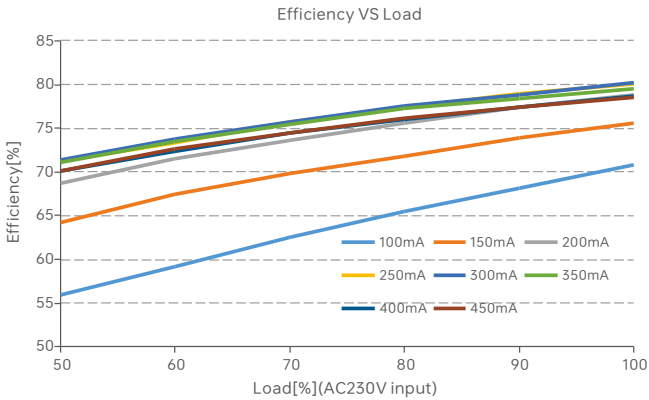
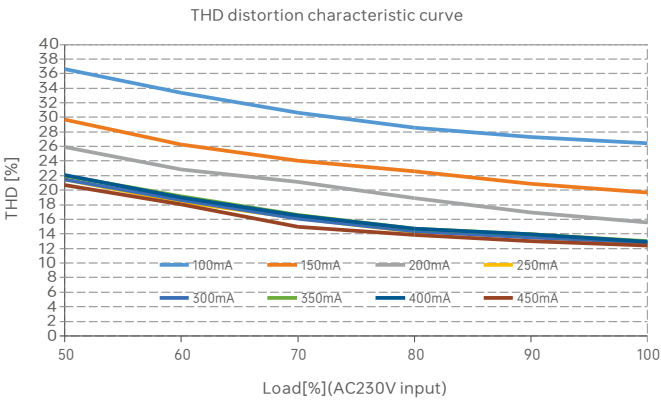


Please do not stack the products. The distance between two products should be $\geq 15\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.

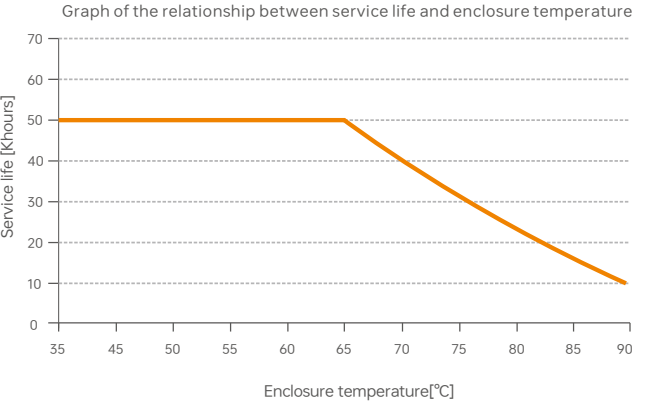
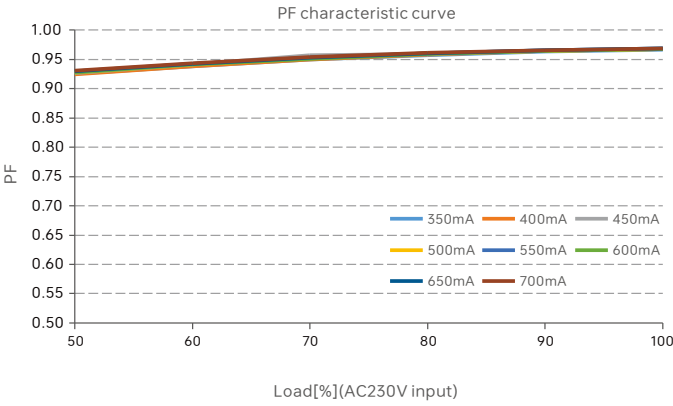
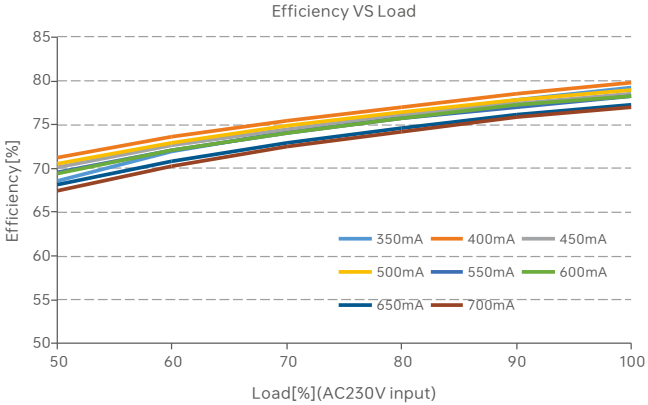
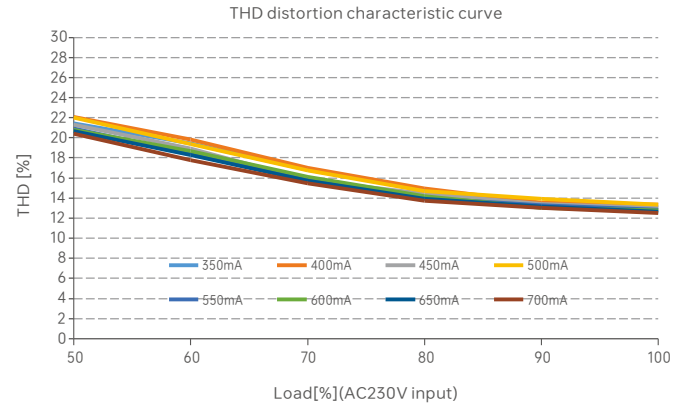


Please not place the products on LED drivers. The distance between the product and the driver should be $\geq 15\text{cm}$ so as not to affect heat dissipation and shorten the lifespan of the products.

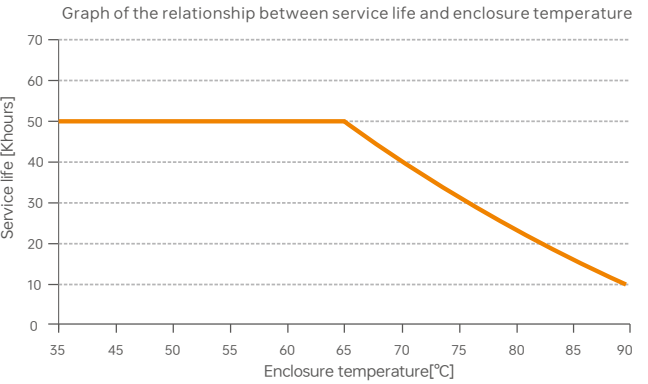
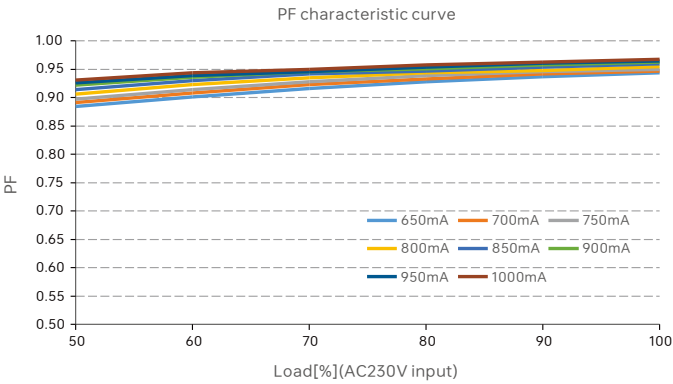
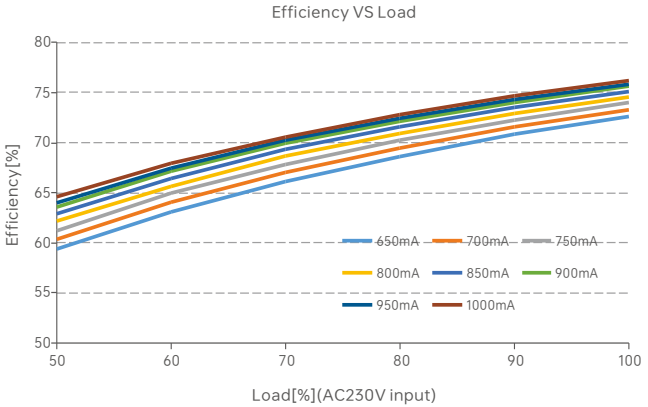
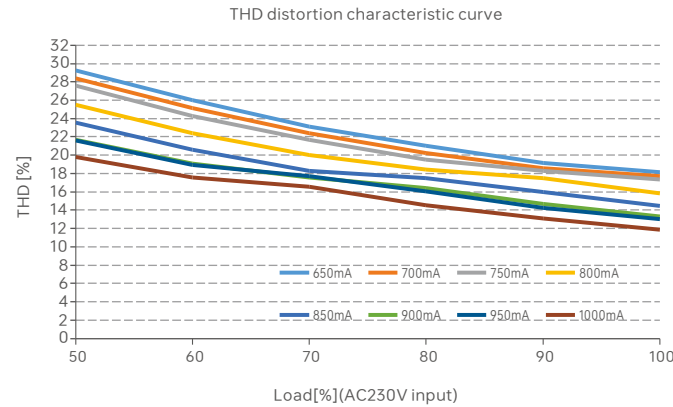
Relationship Diagrams



TD-10-100-450-G1TS

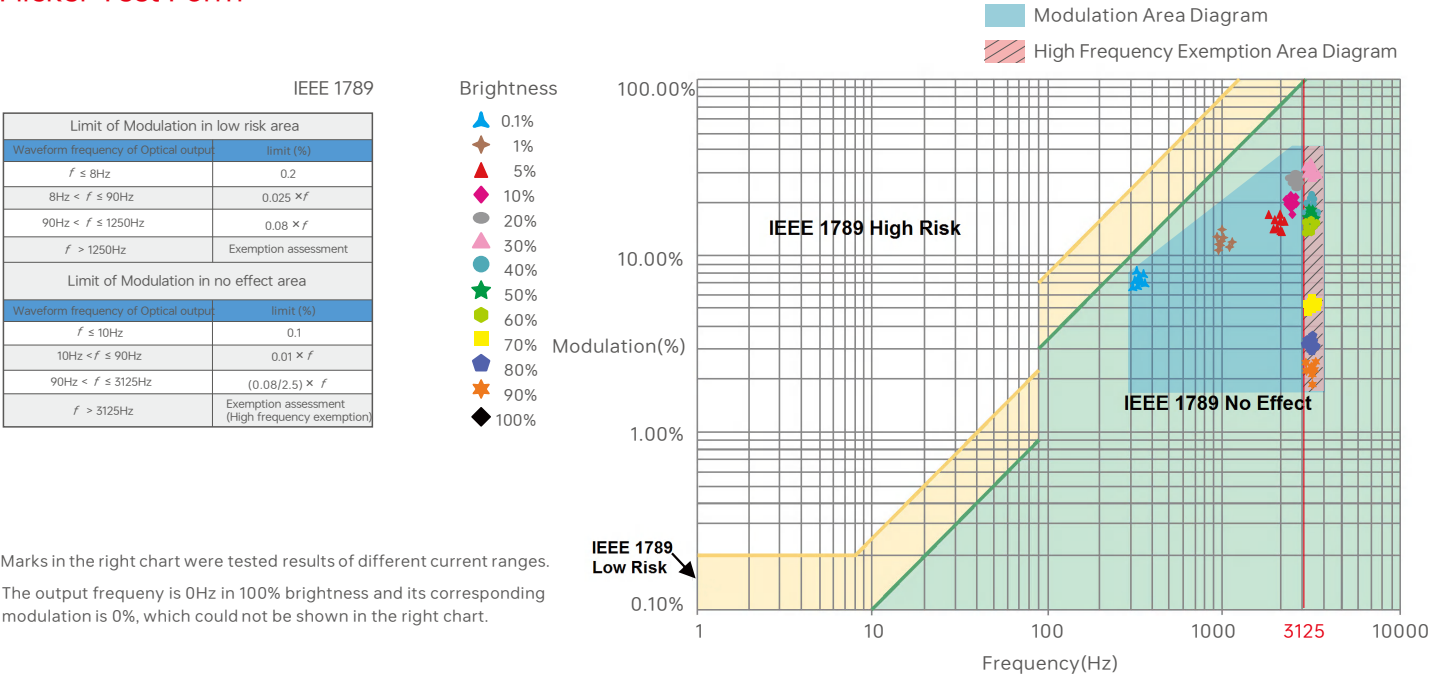


TD-10-350-700-G1TS



TD-10-650-1000-G1TS

Flicker Test Form



Packaging Specifications

Model	TD-10-100-450-G1TS / TD-10-350-700-G1TS / TD-10-650-1000-G1TS
Carton Dimensions	350×285×180mm(L×W×H)
Quantity	30 PCS/Layer; 5 Layers/Carton; 150 PCS/Carton
Weight	0.08 kg/PC; 12.8 kg/Carton

Packaging Image



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.
 - 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 aaccident.
 - 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	2024.11.01	Original version	Li Haipeng
A1	20260119	Update certification-related labels	HaipengLi