

Intelligent Tunable White LED Driver (constant voltage)

- Small size and light weight. The housing is made from V0 flame retardant PC materials from SAMSUNG/COVESTRO.
- The clamshell design and screwless type for strain-relief. The design of dismountable end cap allows you to adjust the length of housing depending on your needs.
- 2 SELV output channels with common anode.
- Constant power design, adjust different color temperature to keep the same brightness.
- Dimming from 0~100%, down to 0.1%.
- With soft-on and fade in function, visual more comfortable.
- Color temperature adjusting range: 2700-6500K
- Automatic recognition of 0-10V, 1-10V input signal.
- Ultra-low consumption of 0-10V ports: < 0.05mA.
- Innovative thermal management technology, intelligent power life protection.
- Over-heat / Over voltage / Over load / Short circuit protection, recover automatically.
- Fully-protected plastic housing with design of dismountable end cover.
- Compliant with Safety Extra Low Voltage standard.
- Suitable for indoor I / II / III type lamps application.
- Up to 50,000-hour life time.
- 5 years warranty (Rubycon capacitor).

Flicker-Free

IEEE 1789
High frequency exemption level

Dimmable:
0.1%-100%

5 in 1 DIM & CT adjustment

0-10V
1-10V
10V PWM
RX
Push

Ultra-low consumption of 0-10V ports: < 0.05mA.



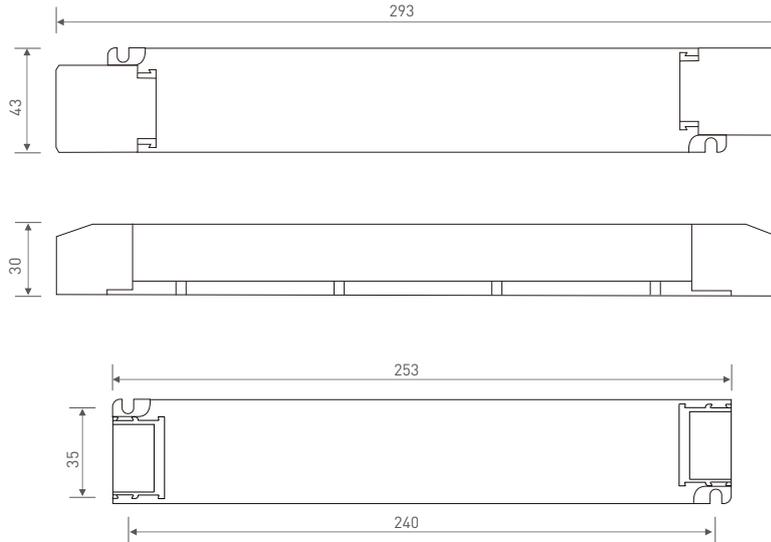
Specification

Model	LM-75-12-G2A2	LM-75-24-G2A2	LM-100-24-G2A2		
OUTPUT	Output Voltage	12Vdc	24Vdc		
	Output Voltage Range	12Vdc ±0.5Vdc	24Vdc ±0.5Vdc		
	Output Current	Max. 6.25A	Max. 3.125A	Max. 4.17A	
	Output Power	Max. 75W		Max. 100W	
	Output Power Range	0~75W		0~100W	
	Strobe Level	High frequency exemption level.			
	Dimming Range	0~100%, dimming depth: Max. 0.1%			
	Overload Power Limitation	≥102%			
	Ripple & Noise	≤200mV	≤300mV		
PWM Frequency	3600Hz				
INPUT	Dimming Interface	0-10V(1-10V/10V PWM/RX) DIM/CCT, Push DIM/CCT			
	Input Voltage	220-240Vac			
	Frequency	50/60Hz			
	Input Current	Max. 0.4A/230Vac		Max. 0.5A/230Vac	
	Power Factor	PF>0.97/230Vac, at full load		PF>0.98/230Vac, at full load	
	THD	≤14% at 230Vac, at full load		≤12% at 230Vac, at full load	
	Efficiency (typ.)	91%	92%	93%	
	Inrush Current(typ.)	Cold start 30A at 230Vac		Cold start 45A at 230Vac	
	Control surge capability	L-N:2KV			
Leakage Current	Max. 0.5mA				
ENVIRONMENT	Working Temperature	ta: -20°C ~ 50°C tc: 80°C			
	Working Humidity	20 ~ 95%RH, non-condensing			
	Storage Temp., Humidity	-40°C ~ 80°C, 10~95%RH			
	Temp. Coefficient	±0.03%/°C (0-50°C)			
	Vibration	10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes			
PROTECTION	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, auto recovers			
	Over Voltage Protection	Shut down the output when non-load voltage ≥13V, re-power on to recover after fault condition is removed	Shut down the output when non-load voltage ≥26V, re-power on to recover after fault condition is removed		
	Over Load Protection	Shut down the output when current load ≥102%, auto recovers.			
	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers.			
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac			
	Isolation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH			
	Safety Standards	CCC	China	GB19510.1, GB19510.14	
		CB	CB member states	IEC61347-1, IEC61347-2-13	
		RCM	Australia	AS 61347-1, AS 61347-2-13	
		UKCA	Britain	BS EN 61347-2-13:2014+A1:2017, BS EN 61347-1:2015+A1:2021	
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493	
		CE	European Union	EN61347-1, EN61347-2-13, EN62384	
	EMC Emission	CCC	China	GB/T17743, GB17625.1	
		RCM	Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
		UKCA	Britain	BS EN IEC 55015:2019/A11:2020, BS EN 61547:2009, BS EN IEC 61000-3-2:2019, BS EN 61000-3-3:2013/A1:2019	
		CE	European Union	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11 EN61547			
Strobe Test Standard	IEEE 1789				
OTHERS	Dimension	293×43×30mm(L×W×H)			
	Packing	296×44×33mm(L×W×H)			
	Weight(G.W.)	300g±10g			

*The driver is suitable for connecting resistor current-limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-limiting LED fixtures, the driver will activate the overloaded protection (hiccup flickering). When you order, please remark controlling the constant current LED fixture (e.g. MR16 lamp, underground light, LED wall washer, constant current LED strip, etc.), then we can prepare the special programs.

Dimensions

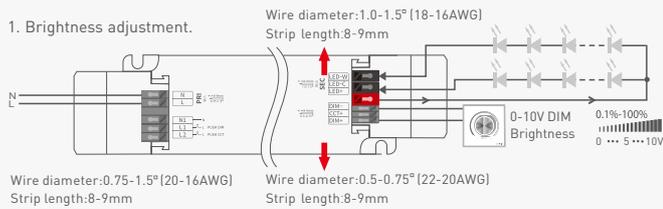
Unit: mm



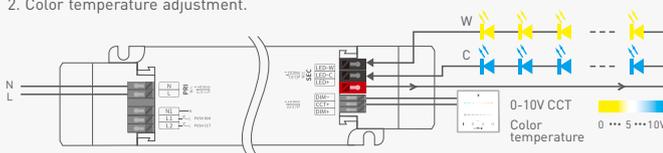
Wiring Diagram

0-10V Connection

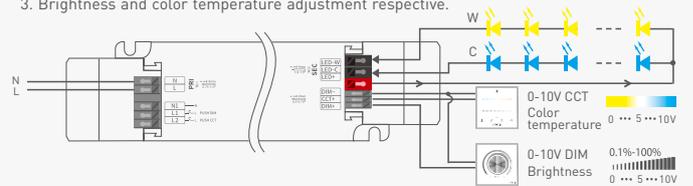
1. Brightness adjustment.



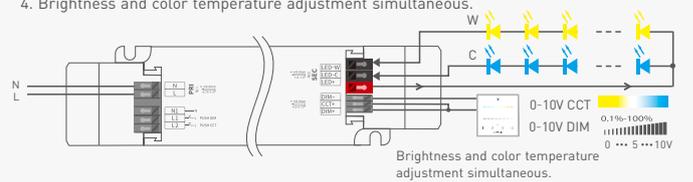
2. Color temperature adjustment.



3. Brightness and color temperature adjustment respective.

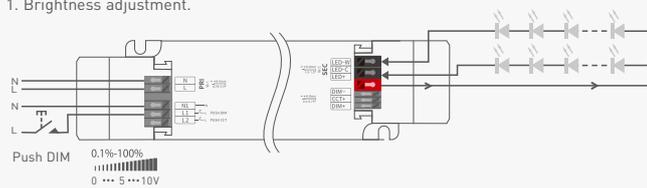


4. Brightness and color temperature adjustment simultaneous.

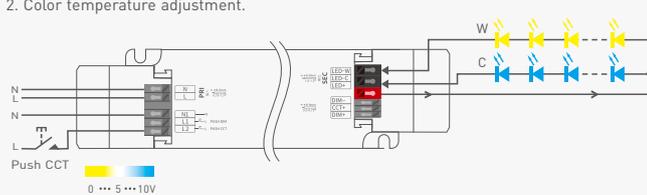


Push DIM/CCT Connection

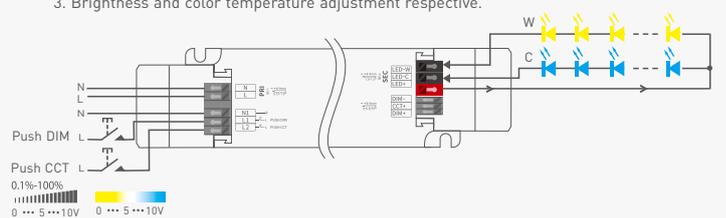
1. Brightness adjustment.



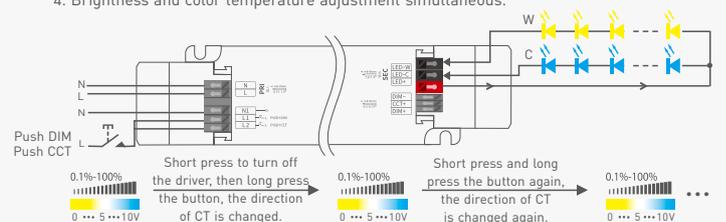
2. Color temperature adjustment.



3. Brightness and color temperature adjustment respective.

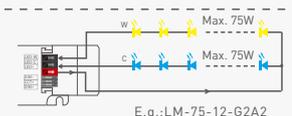


4. Brightness and color temperature adjustment simultaneous.

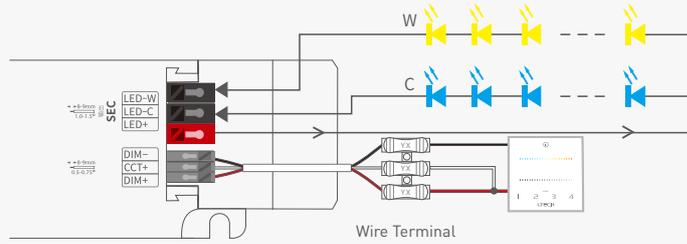


* Dimming interface priority: First 0-10V, next Push DIM/CCT.

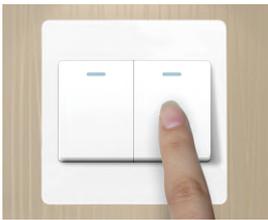
* Adopting constant power program design, it keeps the same brightness in color temperature dimming, twice the rated power load can be connected.
75W driver, 75W X 2CH load can be connected, the total power of the 2 channels will be kept in 75W.
100W driver, 100W X 2CH load can be connected, the total power of the 2 channels will be kept in 100W.



Wire Terminal Connection (used in signal port only)



Push DIM/CCT



Reset switch

DIM

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning on again.

CCT

- Color temperature adjustment: Long press.
- With every other long press, the color temperature level goes to the opposite direction.
- Color temperature memory: Color temperature will be the same as previously adjusted when turning on again.

* Applicable to brightness adjustment, color temperature adjustment and brightness/CT adjustment respective of Push DIM/CCT connection.



Reset switch

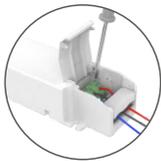
DIM/CCT

- On/off control: Short press.
- Stepless dimming and changing color: Long press.
- With every other long press, the CT goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning on again.

* Applicable to brightness and CT adjustment simultaneous of Push DIM/CCT connection.

Protective Housing Application Diagram

Tension plate

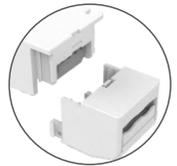
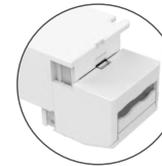


1. Pry up the protecting housing in the side plate position with a tool.

2. Connect to electrical wires with a screwdriver as wiring diagram shows.

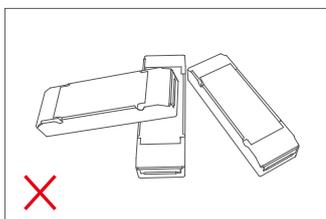
3. Press down the tension plate to fix the the electrical wires, then close the protective housing.

Remove the protective housing

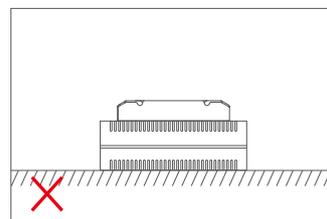
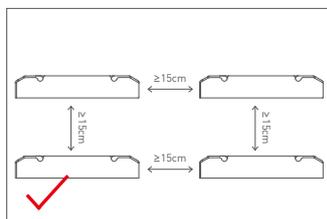


Pull the housing left and right from the bottom to remove it.

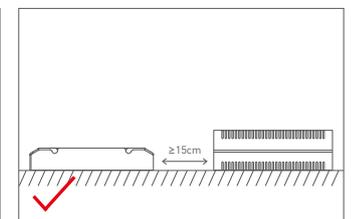
Installation Precautions



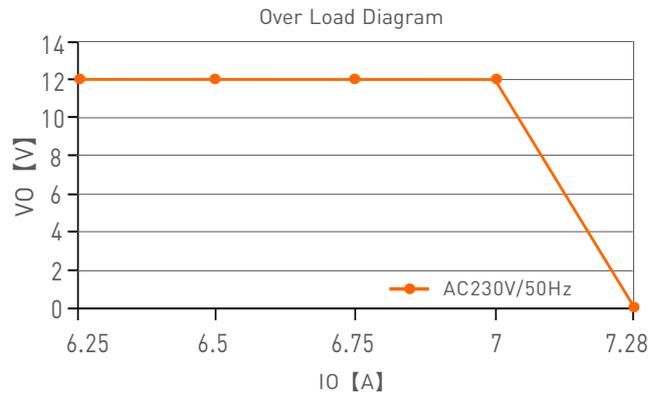
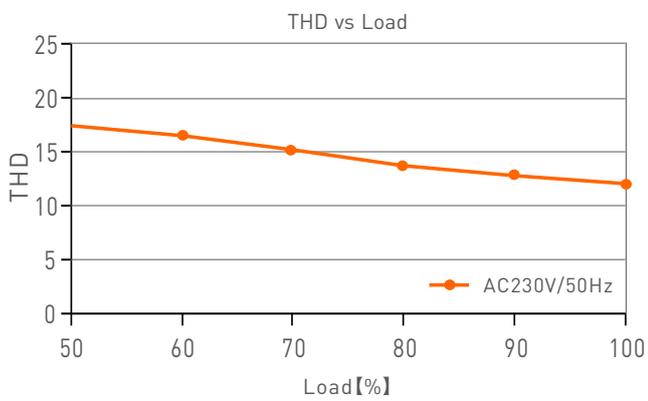
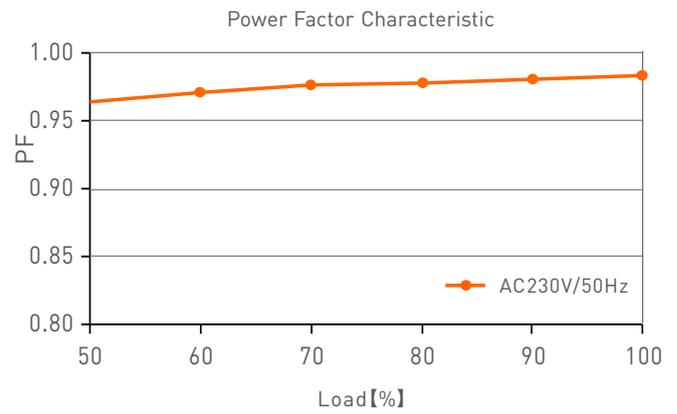
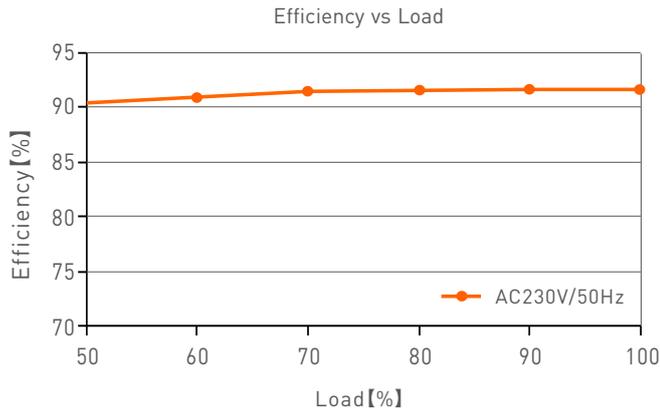
Please do not stack the products. The distance between two products should be $\geq 15\text{cm}$ so as not to affect heat dissipation and the lifespan of the products.



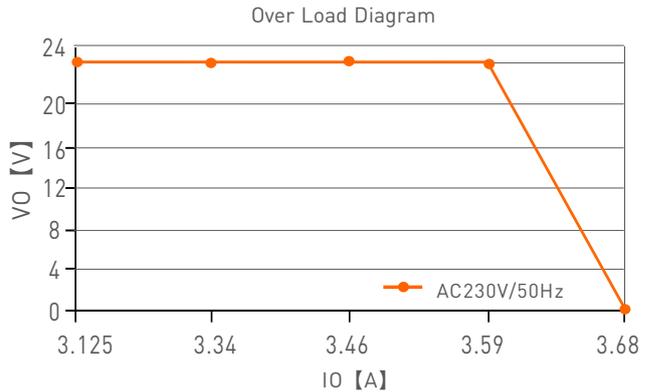
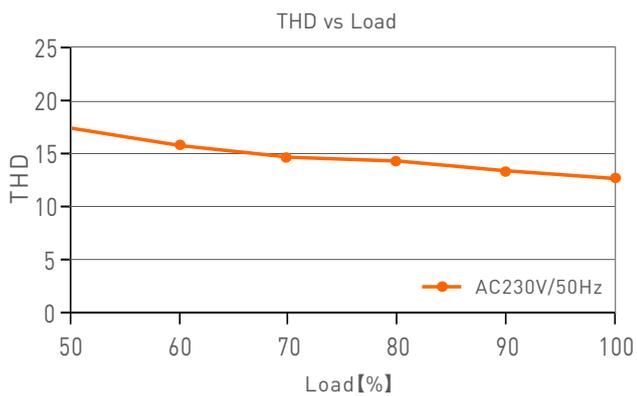
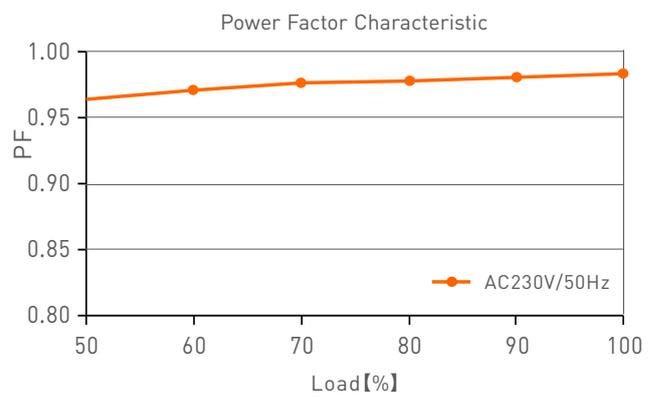
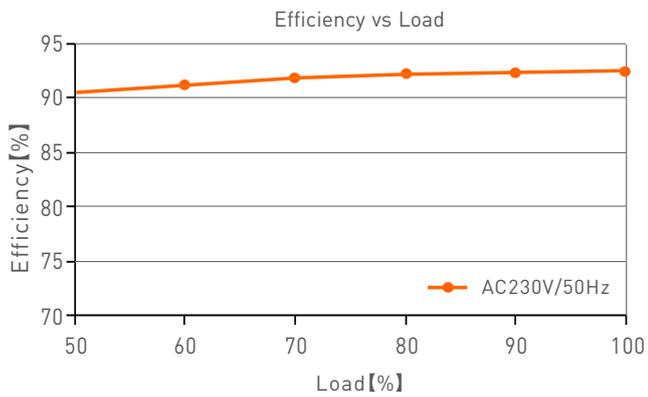
Please not place the products on LED drivers. The distance between the product and the driver should be $\geq 15\text{cm}$ so as not to affect heat dissipation and shorten the lifespan of the products.



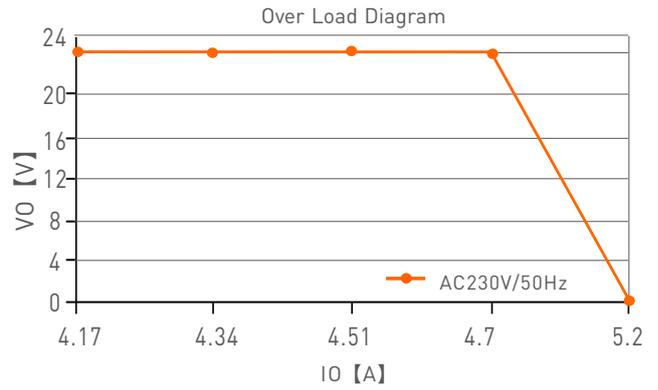
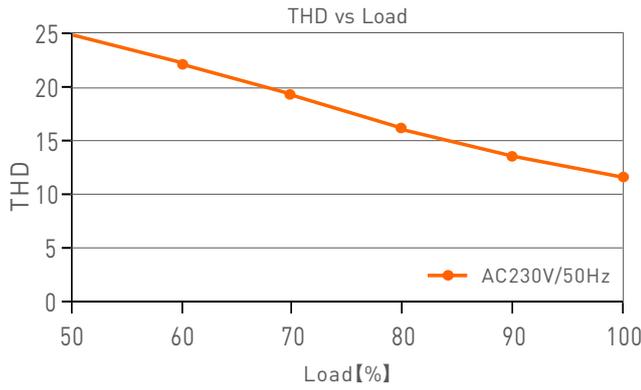
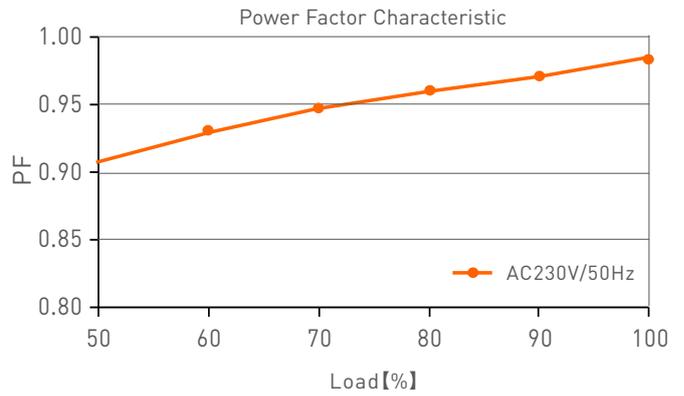
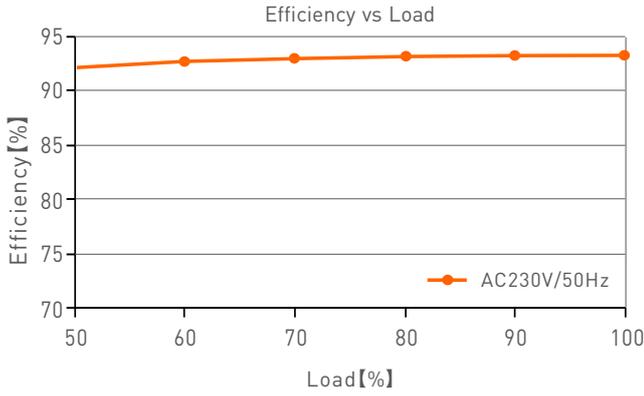
Relationship Diagrams



LM-75-12-G2A2



LM-75-24-G2A2



LM-100-24-G2A2

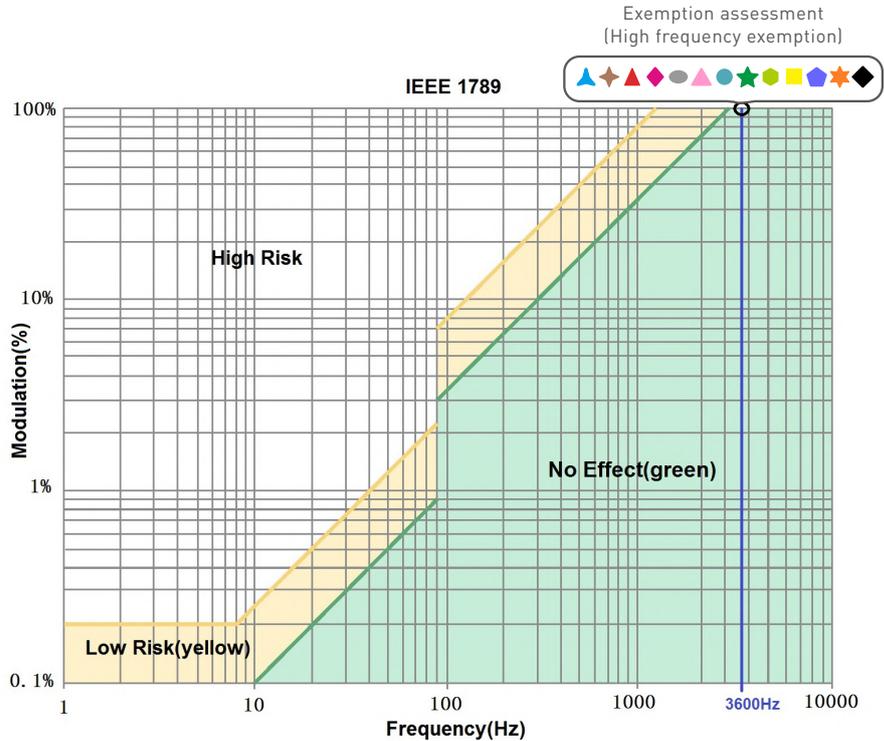
Flicker Test Form

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%



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	2019.06.25	Original version	Huang Yunting
A1	2020.03.05	Update the flicker test form	Huang Yunting
A2	2020.06.08	Update P1 product feature description	Huang Yunting
A3	2021.12.10	The color temperature panel of the wiring diagram is changed to the ECT2 panel	Liu Weili
A4	2022.06.02	The connection diagram of the terminal with wire is added to the wiring diagram	Liu Weili