LED Intelligent Driver (constant voltage)

- Dimming interface: DMX512/RDM, Push DIM
- Supports RDM remote device management protocol.
- High frequency exemption level.
- Dimming range from 0-100%, LED start at 0.1% possible.
- With soft-on and fade in function, visual more comfortable.
- In line with the EU energy efficiency ERP directive, standby power consumption <0.5W.
- Over-heat / Over voltage / Over load / Short circuit protection, recover automatically.
- Innovative thermal management technology, intelligent power life protection.
- Fully-protected plastic housing with design of dismountable end cover.
- Suitable for indoor Ⅰ / Ⅱ /Ⅲ type lamps application.
- 5 years warranty (Rubycon capacitor).

RDM
DMX

Flicker-free
IEEE 1789
Achieve the exemption level.

Dimmable:
0.1%-100%

RoHS SELV

DMX/RDM PUSH | PWM Digital Dimming | Over-heat Protection | Over voltage protection | Over Load Protection | Short Circuit Protection

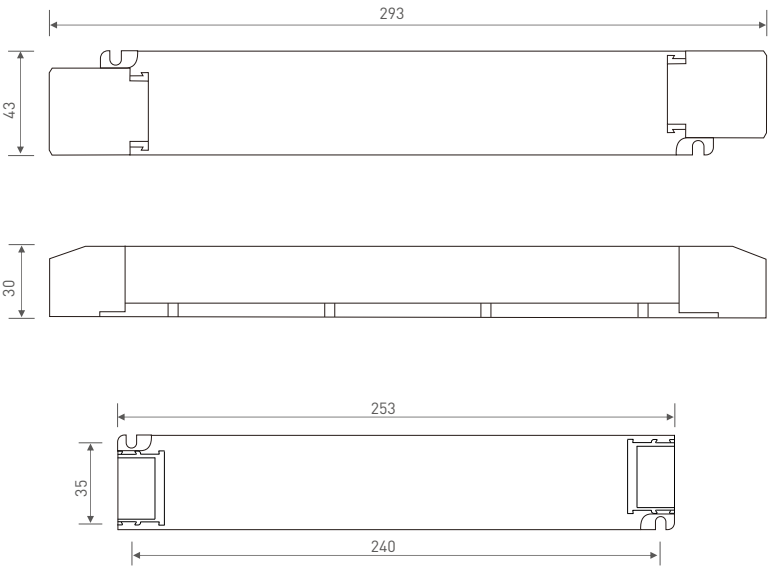
Specification

Model		LM-75-12-G1M2	LM-75-24-G1M2	LM-100-24-G1M2
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	DMX/RDM, Push DIM		
	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 (hiccups 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.

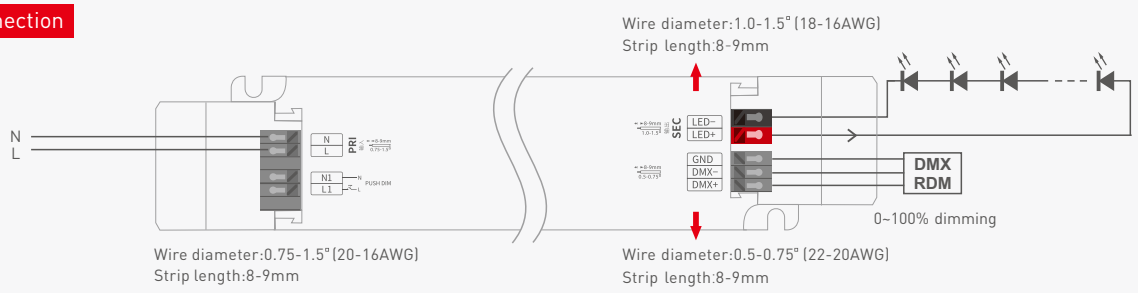
Dimensions

Unit: mm

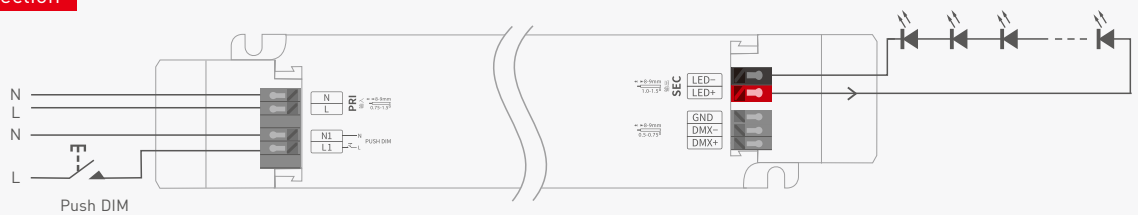


Wiring Diagram

DMX/RDM connection



Push DIM connection



✻ Dimming interface priority: First DMX/RDM, next Push DIM.

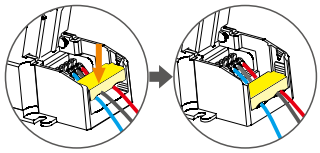
Push DIM

Reset switch

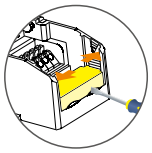
- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning on again.

Application of Protective Cover

Wire pressing board:

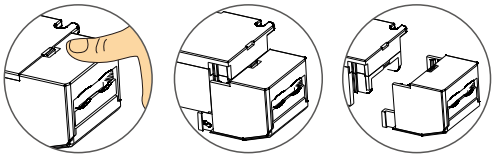


Push the wire pressing board to fix the wire.



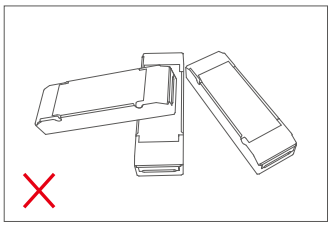
Push outward the side plate, meanwhile use the tool to uninstall the wire pressing board.

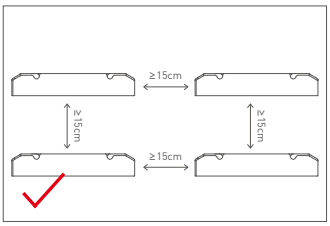
Uninstall protective cover:



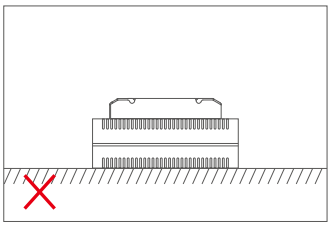
Break off the bottom left and right to remove the protective cover.

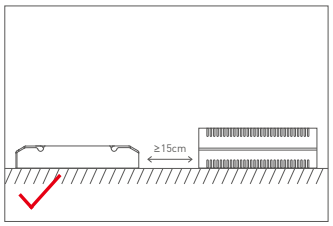
Installation Precautions





Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation and the lifespan of the products.

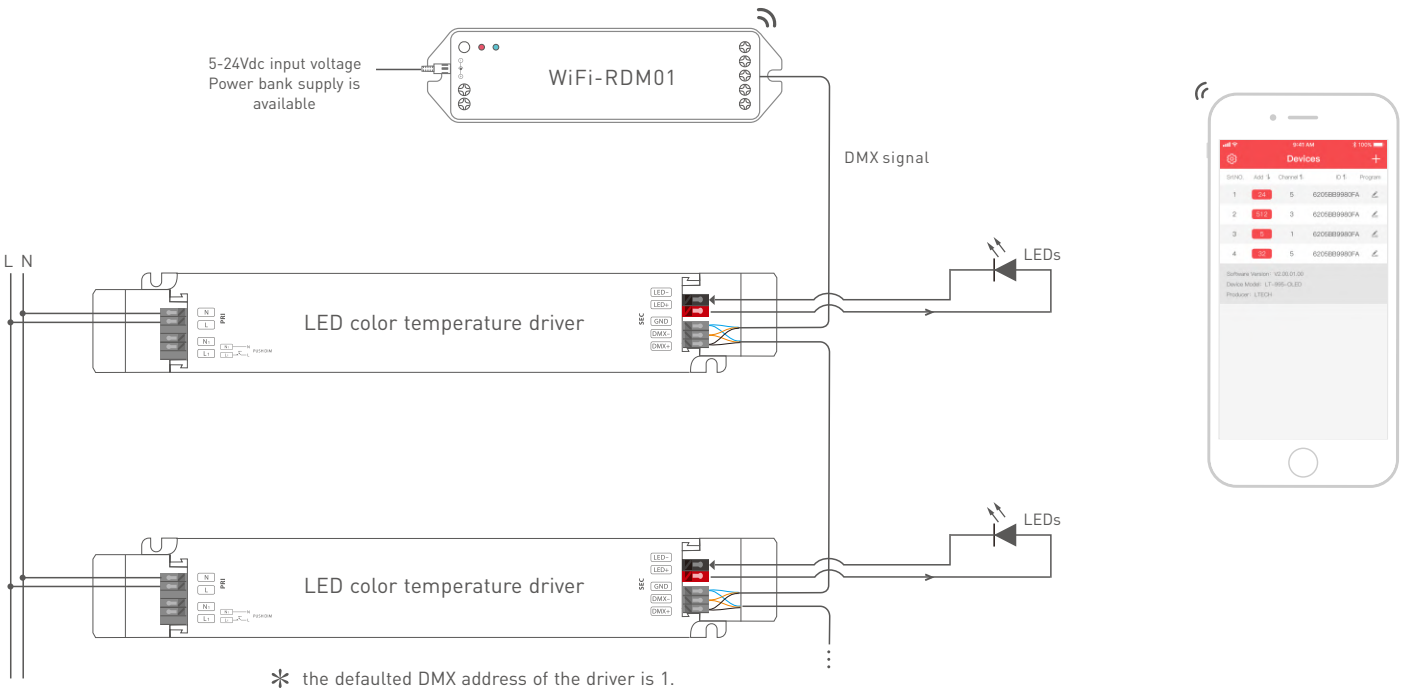




Please not place the products on LED drivers. The distance between the product and the driver should be ≥15cm so as not to affect heat dissipation and shorten the lifespan of the products.

DMX Address Setting

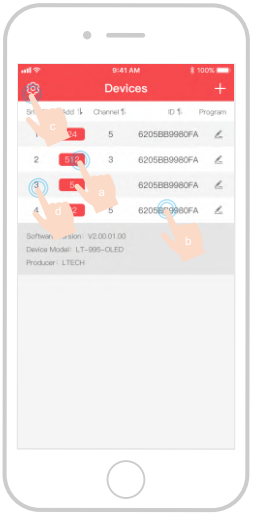
The DMX driver can work with the address editor that complies with standard RDM protocol.
It is recommended to use LTECH's RDM editor (model WiFi-RDM01), which can achieve more functions such as remote browsing and parameter setting. Wiring diagram as below:

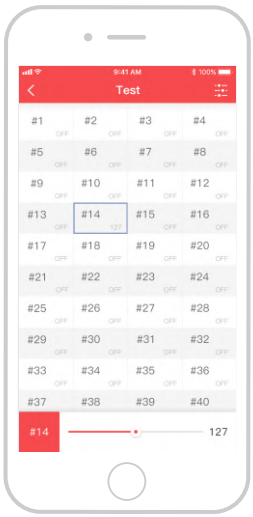


✻ the defaulted DMX address of the driver is 1.

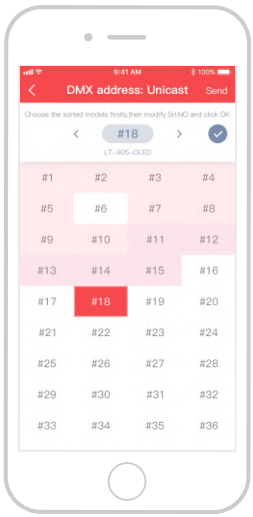
LTECH RDM editor App interface instruction

Download the App, setting the parameters after well connecting the RDM editor, please check the manual of WiFi-RDM01 for more details.





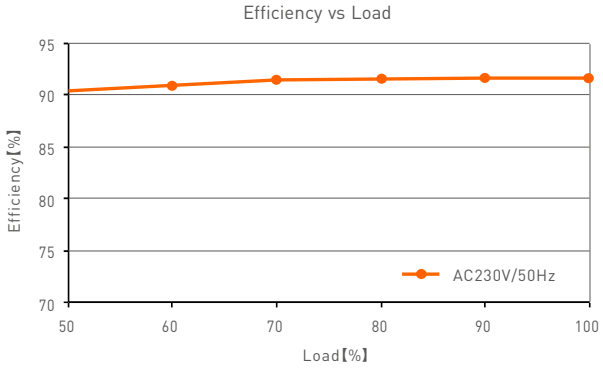
Test

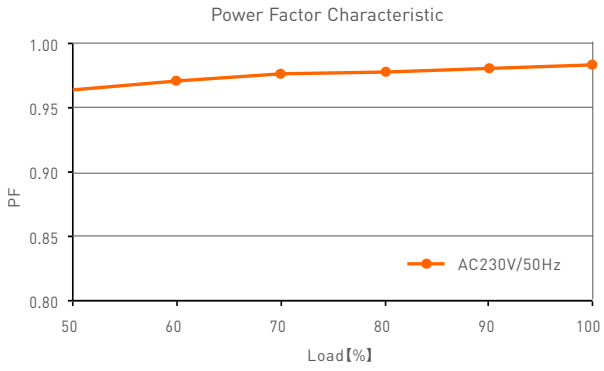


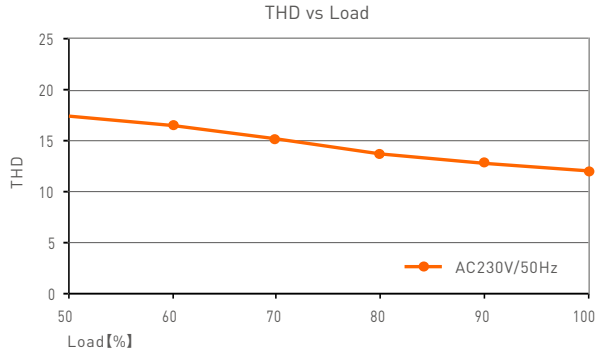
DMX address setting

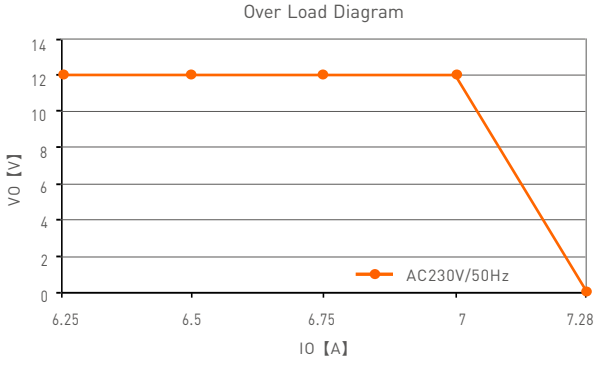
a: Click"Add", edited the address in corresponding box.
b: Click"ID", get more product details.
c: Click"⚙", enter setting interface
d: Click"No.", issue the recognizing command.

Relationship Diagrams



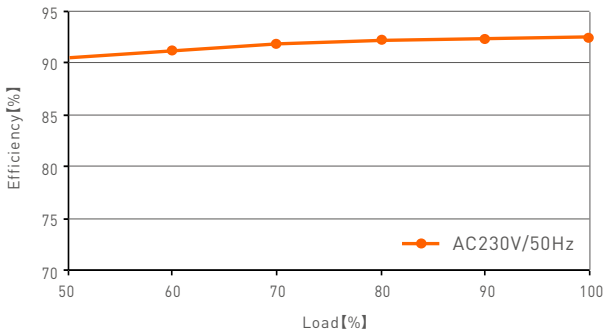




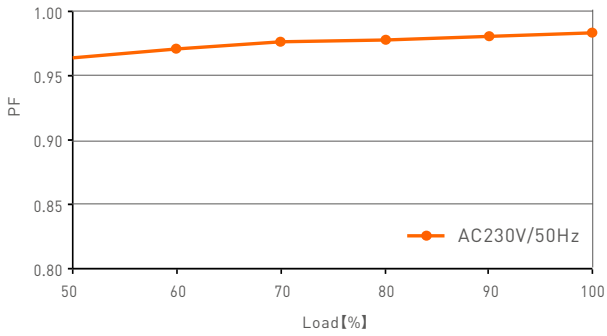


LM-75-12-G1M2

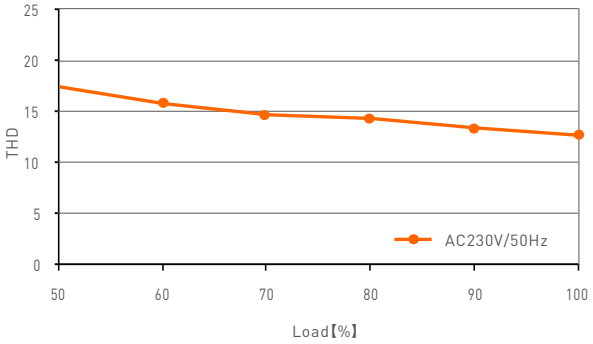
Efficiency vs Load



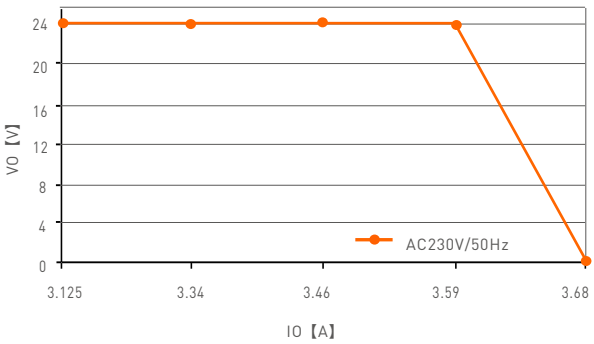
Power Factor Characteristic



THD vs Load

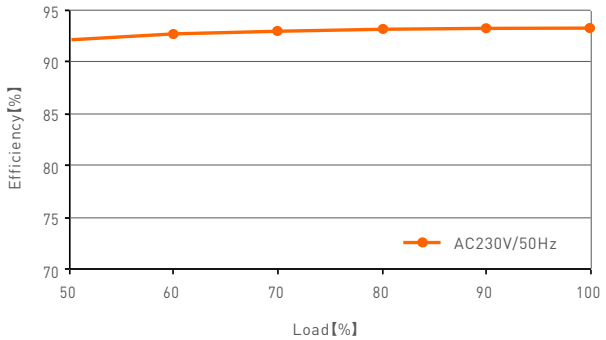


Over Load Diagram

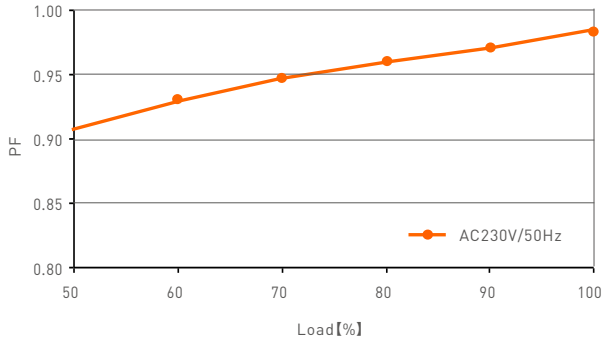


LM-75-24-G1M2

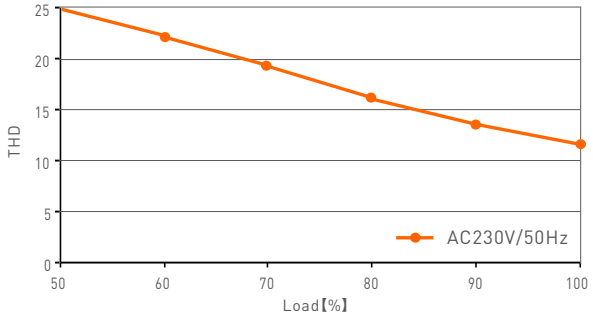
Efficiency vs Load



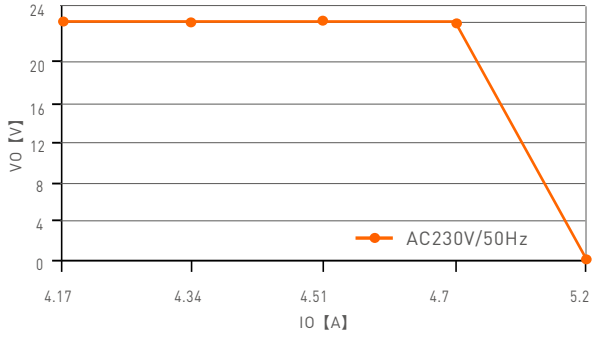
Power Factor Characteristic



THD vs Load



Over Load Diagram

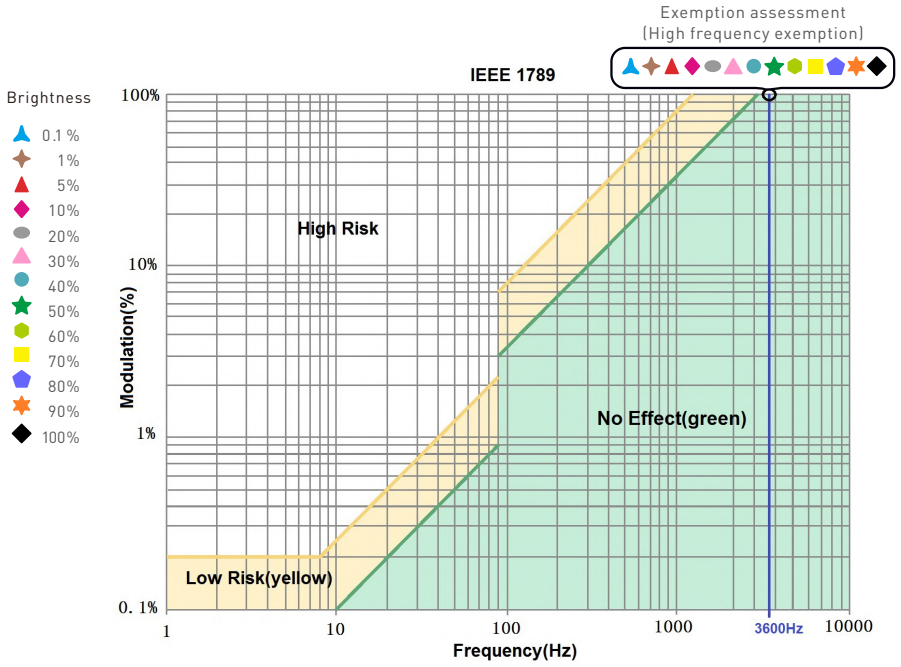


LM-100-24-G1M2

Flicker Test Form

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)



Attentions

- Products shall be installed by qualified professionals.
- LTECH products are 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 working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

* 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	2019.06.20	Original version	Huang Yunting
A1	2020.03.05	Add flicker test form	Huang Yunting
A2	2020.04.09	Update APP interface introduction	Huang Yunting
A3	2021.06.04	Change TUV certification icon	Liu Weili
A4	2021.12.10	Update product silk screen	Liu Weili