# LTECH

LM-75-12-G2M2 LM-75-24-G2M2

LM-100-24-G2M2

DMX/RDM Push DIM/CCT

#### LED Intelligent CT Driver (constant voltage)

- Dimming interface: DMX512/RDM, Push DIM/CCT
- 2-CH SELV output channel with common anode.
- Constant power design, adjust different color temperature to keep the same brightness.
- Supports RDM remote device management protocol.
- Dimming range from 0-100%, LED start at 0.1% possible.
- With soft-on and fade in function, visual more comfortable.
- Color temperature adjusting range: 2700-6500K
- In line with the EU energy efficiency ERP directive, standby power consumption < 0.5W
- 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.
- Suitable for indoor I / II / III type lamps application.
- 5 years warranty (Rubycon capacitor).



# Specification

Model		LM-75-	12-G2M2		LM-75-24-G2M2		LM-100-24-G2M2	
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. 75V	/				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/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 star	start 30A at 230Vac Cold start 45A at 230Vac				Cold start 45A at 230Vac	
	Control surge capability	L-N:2KV						
	Leakage Current	Max. 0.5mA						
	Working Temperature	ta: -20°C ~ 50°C tc: 80°C						
	Working Humidity	20 ~ 95%RH, non-condensing						
ENVIRONMENT	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	≥13V, re	n the output when nor -power on to recover a 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-0/P: 3750Vac						
	Isolation Resistance	I/P-0/P: 100MΩ/500VDC/25°C/70%RH						
	Safety Standards	CCC	China	GB19510.1, GB	19510.14			
		СВ	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	000	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 r 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 fixt						

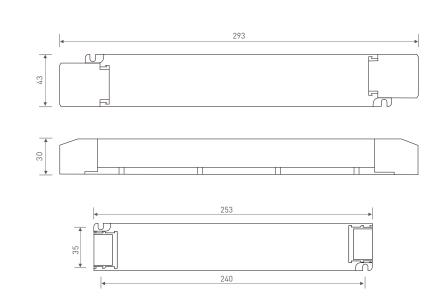
\* The driver is suitable for connecting resistor current-limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-limiting LED fixtures, the driver will activate the overloaded protection (hiccups flickering). When 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.



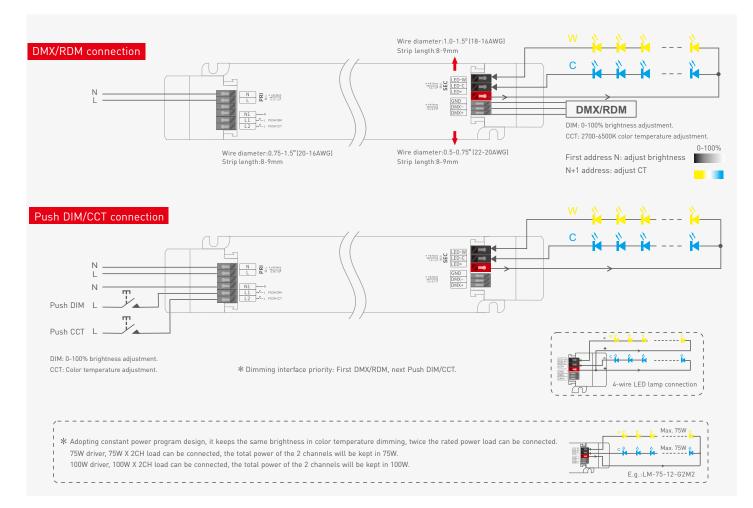


#### **Dimensions**

Unit: mm



## Wiring diagram



# Push DIM/CCT



#### DIM

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

when turning off and 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 off and on again.

Reset switch



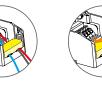
LM-75-12-G2M2

LM-100-24-G2M2

# 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.

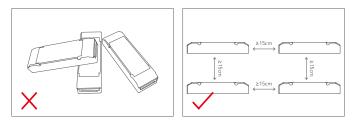
Uninstall protective cover:

LM-75-24-G2M2

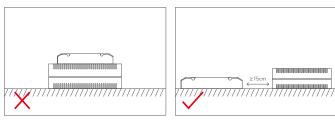


Break off the bottom left and right to remove the protective cover

# **Installation Precautions**



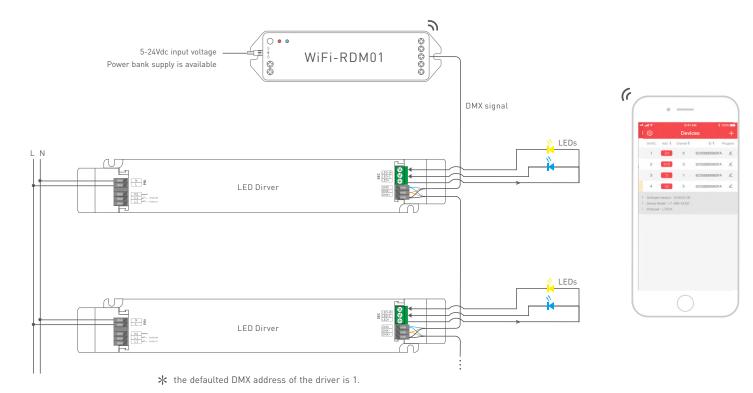
Please do not stack the products. The distance between two products should be >15cm so as not to affect heat dissipation and the lifespan of the products.



Please not place the products on LED drivers. The distance between the product and the driver should be  $\ge 15$ cm 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:





# 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.







a: Click"Add", edited the address in corresponding box.

b: Click"ID", get more product details.

c: Click"<sup>(</sup><sup>(</sup>), enter setting interface d: Click"No.", issue the recognizing command.

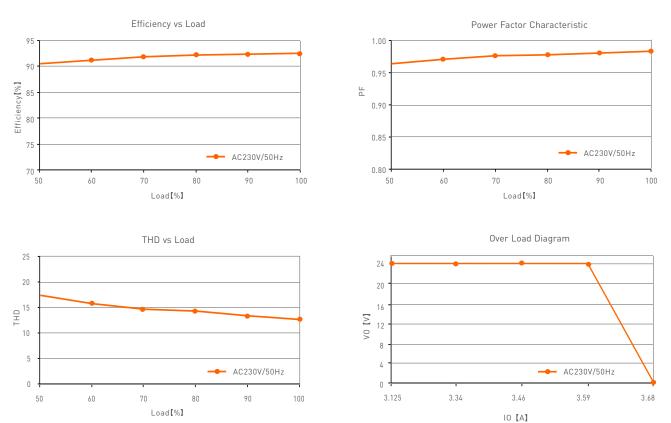
#### Efficiency vs Load Power Factor Characteristic 95 1.00 90 0.95 Efficiency[%] 8 8 0.90 Цd 0.85 75 AC230V/50Hz AC230V/50Hz 0.80 70 50 60 70 80 90 100 50 60 70 80 90 Load[%] Load【%】 Over Load Diagram THD vs Load 25 14 12 20 10 15 8 V0 [V] THD 6 10 4 5 2 AC230V/50Hz AC230V/50Hz 0. 0 60 70 90 100 6.5 50 80 6.25 6.75 7 10 [A] Load【%】 LM-75-12-G2M2

# **Relationship Diagrams**

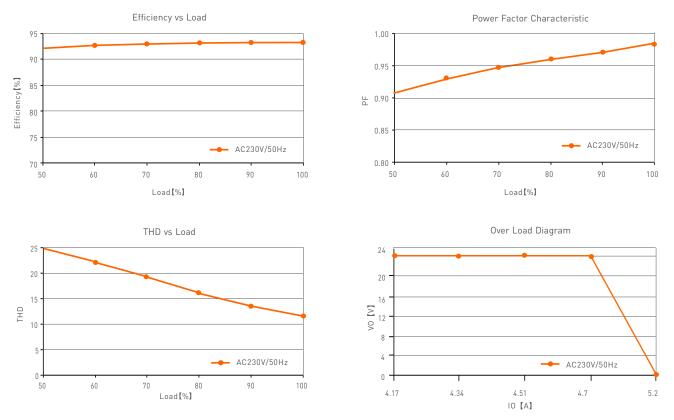
100

7.28









LM-100-24-G2M2





#### Flicker Test Form

 $f \leq 8Hz$ 

 $8Hz < f \leq 90Hz$ 

90Hz < *f* ≤ 1250Hz

f > 1250Hz

 $f \leq 10$ Hz

90H7 < f ≤ 3125Hz

f > 3125Hz

#### Exemption assessment (High frequency exemption) <u>↓+↓♦●↓●★</u>●■**☆**\*◆ **IEEE 1789** Brightness 100% Δ 01% + 1% 5% ▲ ٠ 10% High Risk 20% 30% 10% 40% Modulation(%) \* 50% ۲ 60% 70% 80% \* 90% No Effect(green) ٠ 1% 100% Low Risk(yellow) 0.1% 1000 10000 100 10 3600Hz 1

Frequency(Hz)

## 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.

**IEEE 1789** 

0.2

0.08 × /

Exemption assessment

0.1

0.01 ×

(0.08/2.5) × f

Exemption assessn (High frequency exe

Limit of Modulation in low risk area

Limit of Modulation in no effect area

- · 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
AO	2019.06.20	Original version	Huang Yunting
A1	2020.08.16	Add flicker test form	Huang Yunting
A2	2020.03.05	Update APP interface introduction	Huang Yunting
A3	2021.12.10	Update product silk screen	Liu Weili