LED Driver DMX 150W 24V - LM-150-24-G1M2 2812800

General

Product Type	Constant Voltage Driver
Length (mm)	352
Width (mm)	43
Height (mm)	30
Housing Color	White
Housing Material	Plastic
Mounting	Surface mounted
Weight (g)	300

Electronics

Input Domain	AC
Input Voltage	220 ~ 240V AC
Input Current max (A)	0.75A @ 230V AC
Output Voltage	24V DC
Output Current (mA) max/output	6250
Output Current Max. (A)	6.25
Output Power Range (W)	0~150
Power Factor at Full Load	+0.98 @ 230VAC
Standby Power Loss Max. (W)	0.5
THD (at full load)	6% @ 230V AC
Input Frequency	50 ~ 60Hz
Inrush Current	45A @ 230VAC

Lighting

Color Range	Single Color

Control

Output Signal	PWM-CV
Control	DMX
RDM Support	Yes
Dimming Range	0~100%
Driver Configuration	Remote Device Management
Number of Channels	1

Protection

Overload	Yes
Restart after Protection	Yes
Protection Class	II

Environmental

Storage Temperature	-40 ~ +80 °C
Operating Temperature	-20 ~ +50 °C
Ingress Protection	IP20

CE RoHS COMPLIANT IP20 5 year warranty

Disclaimer

Due to the technical evolution and improvement of our products, the data provided in this document may be updated on a regular basis, and as such, confirmation of this information is strongly recommended prior to the order process. OneEightyOne is not responsible for any discrepancies in this document following changes in our products. We reserve the right to make technical changes to our products and to change information, at its sole discretion, without notice.

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Paper size: A4

LTECH

LM-150-12-G1M2
LM-150-24-G1M2

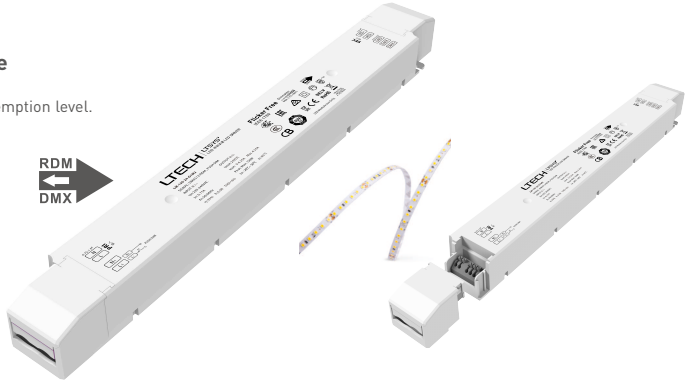
DMX/RDM
PUSH DIM

LED Intelligent Driver (constant voltage)

- Dimming interface: DMX512/RDM、Push DIM
- Dimming range from 0-100%, LED start at 0.1% possible.
- With soft-on and fade in function, visual more comfortable.
- Supports RDM remote device management protocol.
- 0-100% flicker-free ,High Frequency Exemption
- High efficient driver: efficiency 93%, PF>0.98, THD<6%.
- 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 internal lights application for Ⅰ/Ⅱ/Ⅲ
- 5 years warranty (Rubycon capacitor).

Flicker-free
IEEE 1789
Achieve the exemption level.

Dimmable:
0.1%-100%
RDM
DMX



SELV Class 2
RoHS

(The certification icon represents undergoing certification applications only, and final certification qualification subject to actual product.)

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

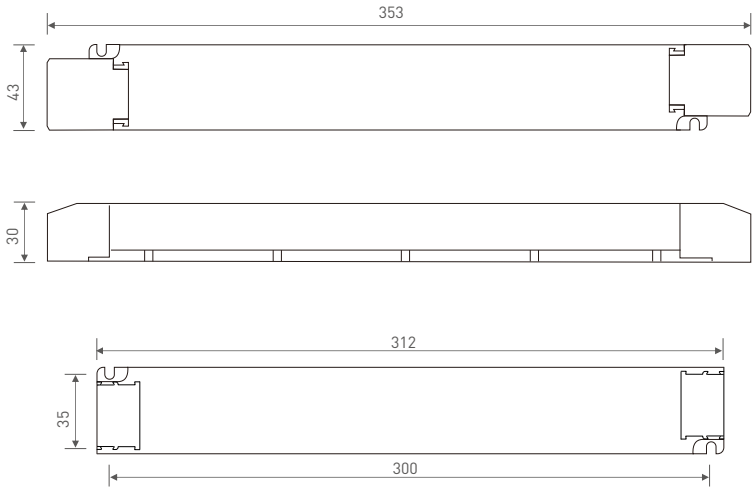
Specification

Model		LM-150-12-G1M2	LM-150-24-G1M2
OUTPUT	Output Voltage	12Vdc	24Vdc
	Output Voltage Range	12Vdc ±0.5Vdc	24Vdc ± 0.5Vdc
	Output Current	Max. 12.5A	Max. 6.25A
	Output Power	Max. 150W	
	Output Power Range	0~150W	
	Strobe Level	High frequency exemption level.	
	PWM Frequency	3600Hz	
	Dimming Range	0~100%, dimming depth: Max. 0.1%	
	Overload Power Limitation	⩾102%	
	Ripple & Noise	Switch ripple⩽200mV, noise⩽800mV	Switch ripple⩽200mV, noise⩽500mV
INPUT	Dimming Interface	DMX/RDM, Push DIM	
	Input Voltage	220-240Vac 200-280Vdc	
	Frequency	50/60Hz	
	Input Current	Max. 0.75A/230Vac	
	Power Factor	PF>0.98/230Vac, at full load	
	THD	<6% at 230Vac, at full load	
	Efficiency (typ.)	92%	93%
	Standby Power Loss	＜0.5W	
	Inrush Current(typ.)	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: 85°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⩾16V, re-power on to recover after fault condition is removed.	Shut down the output when non-load voltage⩾28V, 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	Enter hiccup mode 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	IEC/EN61347-1, IEC/EN61347-2-13	
	EMC Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-3	
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11 EN61547	
	Strobe Test Standard	IEEE 1789	
OTHERS	Dimension	352×43×30mm(L×W×H)	
	Packing	355×44×33mm(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.

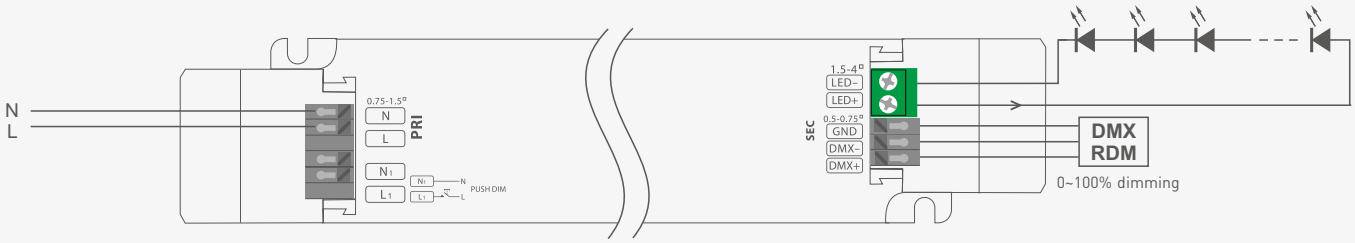
Dimensions

Unit: mm

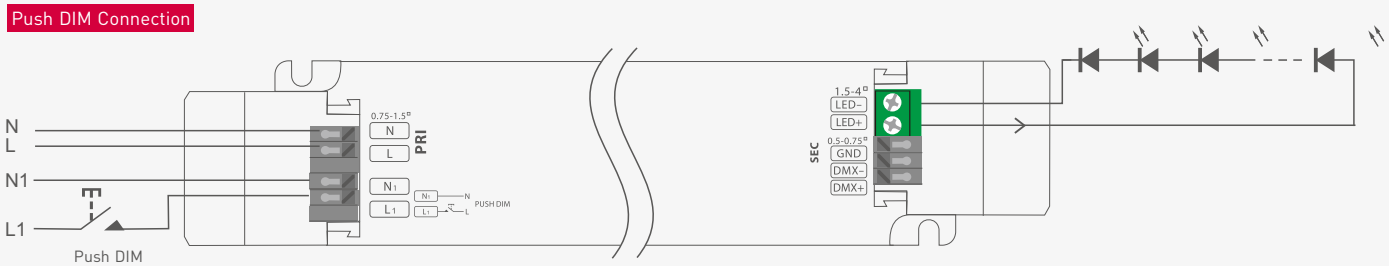


Wiring Diagram

DMX/RDM Connection



Push DIM Connection



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

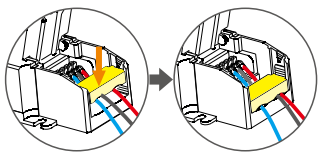
Push Dimming

Reset switch

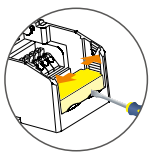
- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning on again.

Application of Protective Cover

Wire pressing board:

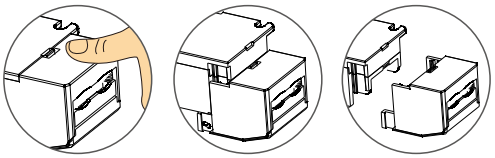


Push the wire pressing board to fix the wire.



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

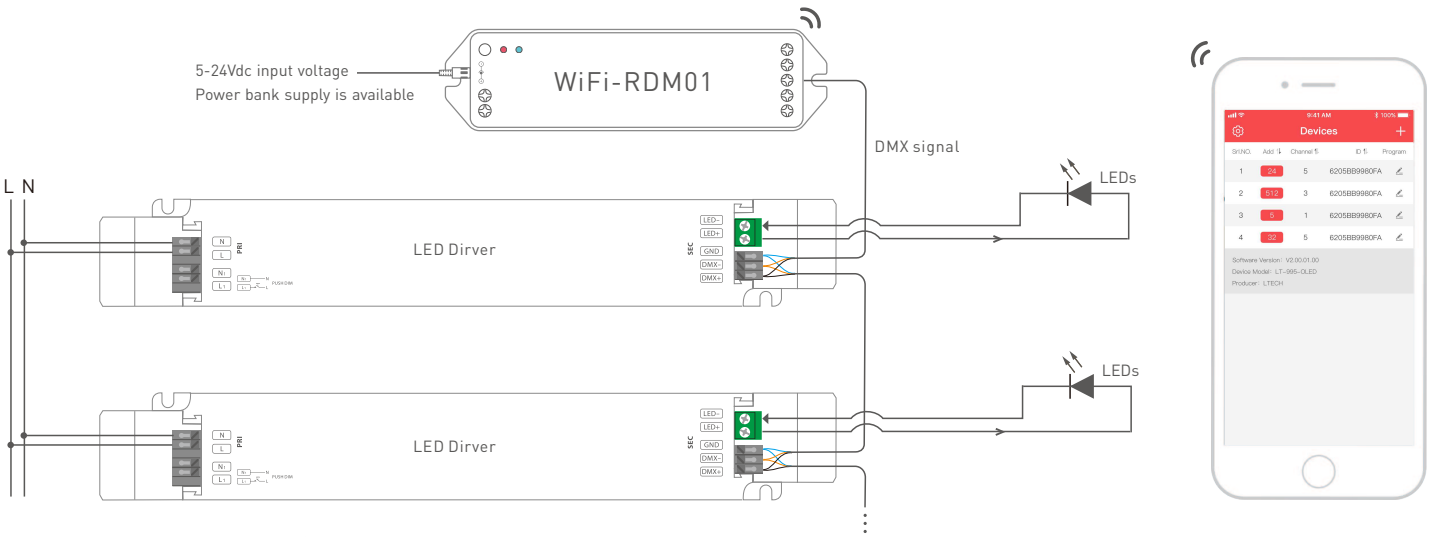
Uninstall protective cover:



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

DMX Address Setting

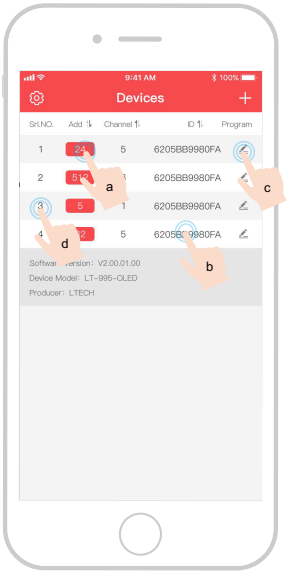
The DMX driver can work with the address editor that complies with standard RDM protocol.
It is recommended to use LTECH's RDM editor (model WiFi-RDM01), which can achieve more functions such as remote browsing and parameter setting. Wiring diagram as below:

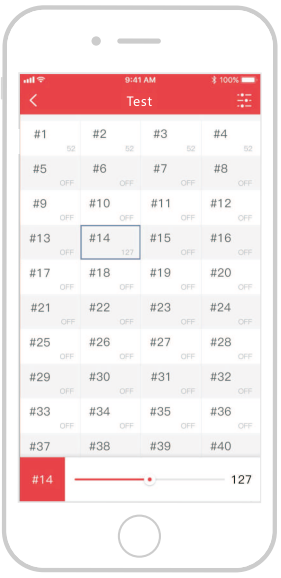


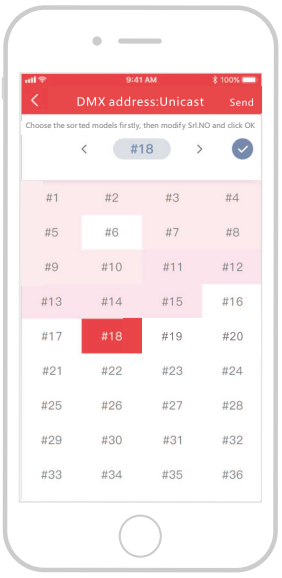
✻ the defaulted DMX address of the driver is 1.

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.





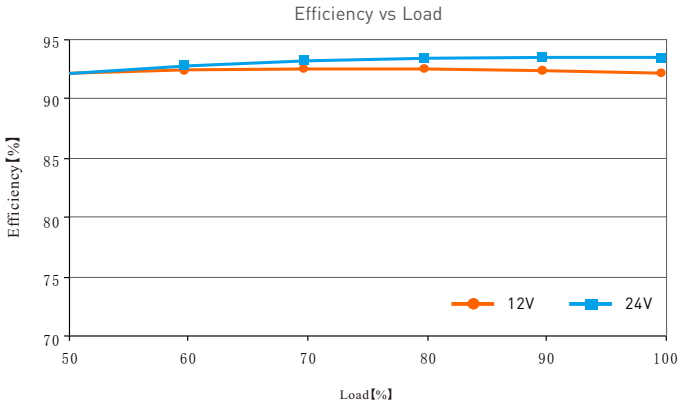


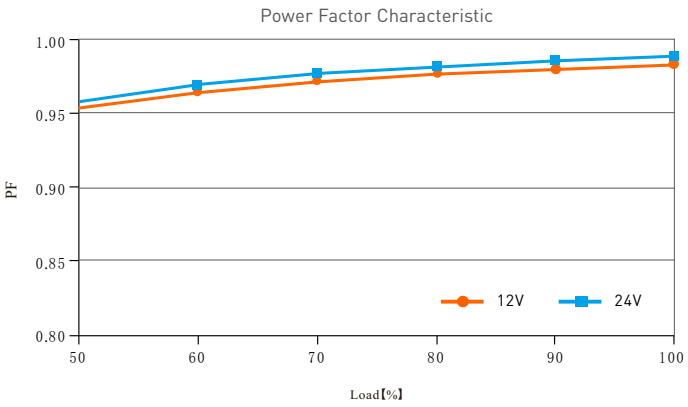
a: Click"Add", edited the address in corresponding box.
b: Click"ID", get more product details.
c: Click" ✎ ", enter edited interface
d: Click"No.", issue the recognizing command.

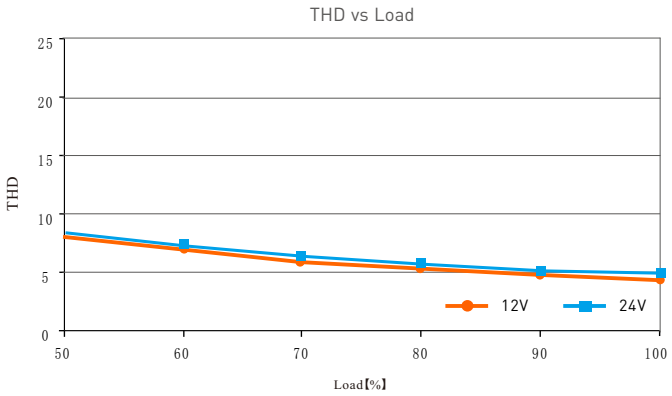
Test

DMX address setting

Relationship Diagrams







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 × f
90Hz < $f \leqslant$ 1250Hz	0.08 × 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 × f
90Hz < $f \leqslant$ 3125Hz	(0.08/2.5) × f
f > 3125Hz	Exemption assessment (High frequency exemption)