

Outdoor LED Driver

5in1 Dimming Constant Voltage

CL-ODR2-CV-96W-24V-DIM



LMFV-96-24A005

Feature

- Meet U.S.,Canada standard
- Universal input range:100-277Vac
- short circuit,over voltage and overload protection
- Suitable for dry,damp,wet locations
- UL/cUL,FCC,Class 2
- 5 years warranty
- Applied to LED advertising signs,cabinet

LMFV-96-24A005

- 005:5in1DIM;003:0-10V DIM;001:TRIAIC DIM;000:no DIM
- case:A:waterproof;J;junction box;P:plastic
- Output Voltage
- Output Watts
- Model Name



Class P



Class 2

IP68



Technical Specs

LMFV-96-24A005	
OUTPUT	
Output Voltage	24Vdc
Output Voltage Range	24Vdc±0.5Vdc
Output Current	4A Max
Output Power	96W
Output Ripple & Noise	≤400mV
INPUT	
Input Voltage Range	100Vac-277Vac
Input Frequency Range	50 ~ 60HZ
Input Current	≤1.0A(120Vac)
Surge Current (cold start)	45A @230Vac
Power Efficiency (TYP)	85%
Leakage Current	<0.75mA/240Vac
PROTECTION	
Over-Current Protection	Shut down the output when current load ≥ 110% ,and recover automatically
Short-Circuit Protection	Hiccup Mode,and recover automatically and recover automatically
Over-Voltage Protection	Shut down the output then non-load voltage≥26v,and recover automatically
ENVIRONMENT	
Working Temperature	-30°C~+50°C (See below output load VS temperature profile)
Working Humidity	10%~95%RH
Approved Enviroments location	For dry,damp,wet locations
Storage Temperature	-35°C~+65°C
Storage Humidity	10%~95%RH
IP Rating	IP68(note 1)
Vibration	10~500Hz , 1.0mm , 15 minutes(for X、 Y、 Z each axis)
Tcase	+85°C
SAFETY&EMC	
Safety Standard	Design refer to UL8750,UL879,CSA C22.2 NO. 250.13,CSA C22.2 NO.207-15 Design refer to EN61347-1,EN61347-2-13,EN62493
Dielectric Strength (Hi-Pot)	I/P-O/P 2KVAC/5mA/1min
	I/P-Case 1.5KVAC/5mA/1min
Insulation Resistance	100MΩ / 500VDC/ 1min
Grounding Resistance	≤0.5Ω
EMC /FCC	Design refer to FCC Part 15 Subpart B
	Design refer to EN55015,EN61000-3-2,EN61000-3-3,EN61547
EFT	2kv on AC power line
Surge	2kv(L-N) 4kv(L-GND, N-GND) (IEC61000-4-5)
OTHERS	
MTBF	200Khrs.MIL-HDBK-217F(25 °C)
DIMMER COMPATIBILITY	MLV/Triac Dimmer LUTRON(DVLV-600P,DVCL-153P,PD-5NE,MAELV-600,DELV-300P,PD-6WCL,DSL06,PH703TPU,RHCL453P,RCL-153PNL)
LIFE TIME	50,000 hours at Tc ≤ 80°C maximum case hot spot temperature
Dimensions	8.78 " *2.52 " *1.26 " (L*W*H) ; 223*64*32mm(L*W*H)
Weight	0.77kg
Outer Box Specifications	17.32**10.83**7.68" (L*W*H); 440*275*195mm (L*W*H)/25pcs/ctn
	Total 5 layer,each layer 5pcs/G.W21.5kg/N.W20kg(1+10%)

Remarks:

Note 1: IP68 can be used in dry, damp, wet locations. Avoid installing in submerged environments or applications

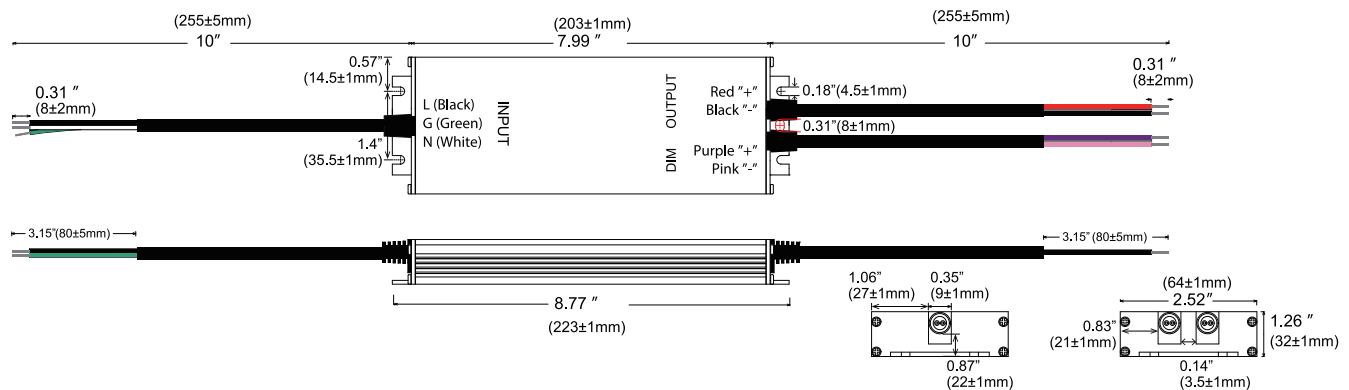
where drivers will come into direct contact with prolonged flowing or dipping water.

Test environment temperature : 25 ± 2°C;

Ripple and noise measurement methods: terminal to parallel 47uF electrolytic capacity and 0.1uF ceramic capacity, in 20 MHz Bandwidth measurement.

"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 LED fixtures, the driver will activate the overloaded protection (hiccups flickering). "

CL-ODR2-CV-96W-24V-DIM



The diagrams illustrate three different dimming methods for the LMV-66-24A005 LED driver:

- Top Diagram: Triac/MLV Dimmer (Lighting System)**
 - 100-277V INPUT WIRE (3*18#)**: AC/L (Black), G (Green), AC/N (White).
 - 24V DC OUTPUT WIRE (2*18#)**: + V (Red), - V (Black).
 - DIMMER OUTPUT WIRE (2*18#)**: + Dim (Purple), - Dim (Pink).
- Middle Diagram: Triac/ELV Dimmer (Lighting System)**
 - 100-277V INPUT WIRE (3*18#)**: AC/L (Black), G (Green), AC/N (White).
 - 24V DC OUTPUT WIRE (2*18#)**: + V (Red), - V (Black).
 - DIMMER OUTPUT WIRE (2*18#)**: + Dim (Purple), - Dim (Pink).
- Bottom Diagram: 0-10V DC Potentiometer**
 - 100-277V INPUT WIRE (3*18#)**: AC/L (Black), G (Green), AC/N (White).
 - 24V DC OUTPUT WIRE (2*18#)**: + V (Red), - V (Black).
 - DIMMER OUTPUT WIRE (2*18#)**: + Dim (Purple), - Dim (Pink).
 - 0-10V DC Potentiometer**: 0-10V DC, 1-10V DC, 10V PWM Signal.

The LED driver is a 5 in 1 Dimmable LED Driver with the following specifications:

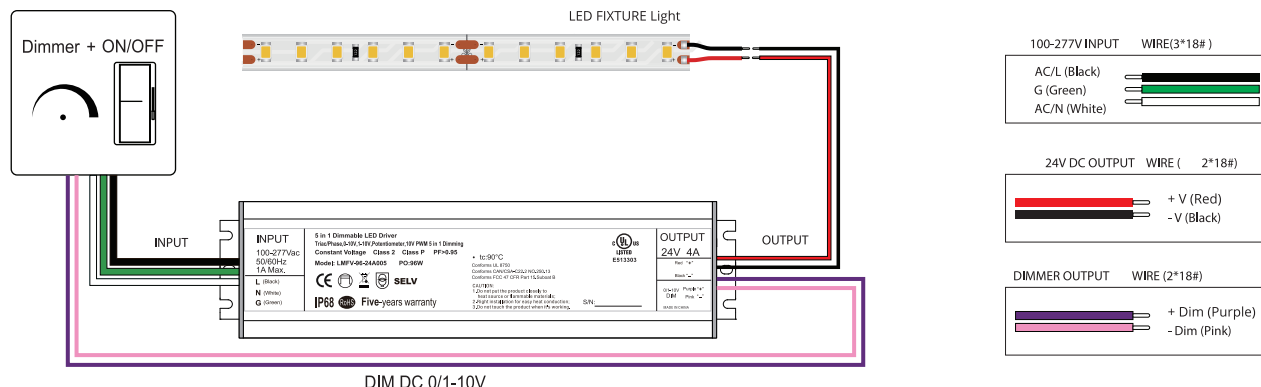
- INPUT**: 100-277V AC, 50/60Hz, 1A Max.
- OUTPUT**: 24V 4A.
- Constant Voltage**: Class 2, Class P, PF > 0.95.
- Power**: PO 36W.
- Temperature**: Tc 90°C.
- Efficiency**: η 90%.
- EMC**: Complies with FCC Part 15, Subpart B.
- CE**: Complies with CE.
- SELV**: Complies with SELV.
- IP68**: Complies with IP68.
- Five-years warranty**.

Outdoor LED Driver

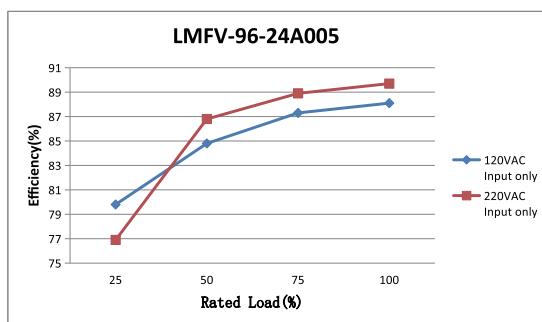
5in1 Dimming Constant Voltage

CL-ODR2-CV-96W-24V-DIM

canolight
Canadian Brightness

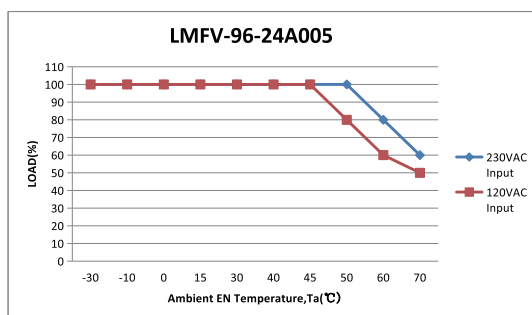


OUTPUT LOAD vs Efficiency (Input 120VAC & 230VAC)



OUTPUT LOAD vs Temperature (Input 120VAC & 230VAC)

The LMFV-96-24A005 series can be operated with cooling air temperatures between -30°C - 50°C by linearly de-rating the total maximum output power (or current) by 2.0%/°C from 50°C to 70°C (see figure).



Attentions

- Please ensure that the ground wire is properly grounded and ensure it does not come into contact with the neutral wire.
- Please make the power supply installed in a well-ventilated place, to ensure that the environment temperature is appropriate.
- Do not overload the power supply with multiple appliances.
- Please do not touch the metal shell surface to avoid high temperature scald.
- Do not install in the minefield or high pressure area.
- Do not attempt to repair privately. Please contact the supplier if you have any questions.

Tips

- To be installed by a certified electrician. Please read and follow the instructions carefully before installing. Ensure all contact points are connected firmly.
- Please pay attention to the using environment, and conduct regular check and maintenance to eliminate safety risks.