

INSTALLATION INSTRUCTIONS



IllumaDIM 6 – 6 Channel DMX Dimmer Constant Voltage

SKU: CONTILDM6CH12V24VLED
Revision 1.0 - 241203

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This Installation Instructions manual refers to IllumaDIM 6 V1.1

1 Definitions

- a. Mains: AC circuit feeding the PSUs
- b. PSU or power supply unit or driver: an AC to DC converter feeding the controllers and LEDs
- c. Controllers or Dimmers: devices capable of changing their outputs based on a control signal or local settings. They can have 1 or multiple independent output channels.
- d. LED fixture: a luminaire typically containing several LEDs arranged in groups to match the dimmer specifications
- e. AC or DC load: maximum Volts / Amperes / Watts in an AC or DC circuit

2 Safety notes

- It is recommended that the unit is installed in an electrical enclosure with input and output wires secured with strain reliefs
- Before commencing any installation or maintenance work, please disconnect the unit from the mains
- Do not stack any object on top of the controller. A 10-15 cm clearance must be kept when the adjacent device is a heat source
- Make sure the installation components match the ingress protection (IP) ratings of the drivers, PSUs, LEDs, cabling etc.
- Do not install on combustible materials
- Current rating of an approved cable should be greater than or equal to the maximum connected load
- Make sure that the power supply has sufficient output power to drive the load(s) connected to it
- Make sure that your controller is capable of powering the luminaires
- Make sure the total power supply AC requirement (under full load) is within the AC circuit capacity
- Long wire runs in the input and output circuits must be properly sized to prevent performance degradation, power loss, overheating, and voltage drop
- Do not open the drivers or controllers: there are no user serviceable parts inside
- Do not open the drivers or controllers: risk of electric shock
- Always refer to the unit's specifications
- Avoid installing electric equipment where mounting failure may result in personal injury and property damage
- Always refer to a Certified Electrician in your jurisdiction
- Always follow local Electrical Safety Standards and Guidelines

- Failure to follow above Safety Notes may cause personal injury and/or property damage
- Moss LED Inc. will not be held responsible for any damage caused

3 Wiring diagram

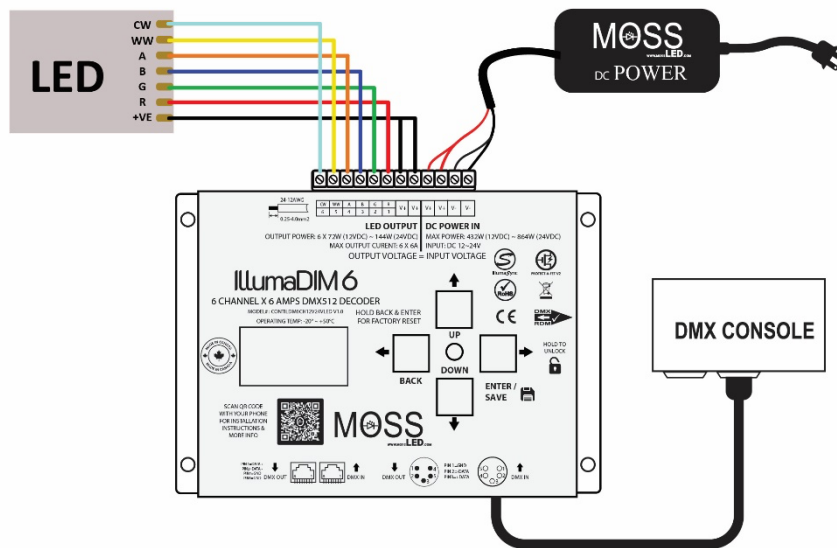
-Connect the negative load wires to the DC Output terminals 1 to 6 and the positive load wire to DC output terminal V+

-For total loads above 15A you should use the extra V+ output terminal to prevent overheating

Please ensure the output V+ terminals carry the load of all 6 channels.

-Connect the Power Supply to V+ and V- input terminals. For total loads above 15A you should use the extra V+ and V- input terminals to prevent failure of the terminal block and overheating

Please see Specifications for more details.



3.1 Wire Gauges

- Use appropriate gauge wires capable of handling the supply and load currents according to your choice of load
- In case of long wire runs, consider oversizing them in order to minimize voltage losses: the constant voltage LEDs' brightness usually drops 10% or more for a 5% drop in voltage

4 Important notes

- 1- Always turn off the power supply before disconnecting a dimmer that is under load!
- 2- When you connect the dimmer to a PSU that is under power a small spark may happen. That is normal and is due to the advanced filtering of the IllumaDIM product family. To prevent sparking, turn off the PSU before connecting to the dimmer

3: When you power the IllumaDIM, it will briefly illuminate all channels and measure the loads connected to it. This determines if there are any overloads or short circuits. You will see a brief flash when energizing.

Please refer to the user manual for more details.

5 Installation

- a. It is recommended that the unit is installed in an electrical enclosure with input and output wires secured with strain reliefs.
- b. Do not stack. A 10-15 cm clearance must be kept when the adjacent device is a heat source
- c. Use the provided mounting holes to secure the unit
- d. Make sure the ambient temperature is within specification
- e. Do not install on combustible materials
- f. Periodically check that all screws are tight (mechanical and electrical)

6 Check list

- ❖ Mains AC circuit must be rated for the total power draw from all PSU(s) at maximum load
- ❖ Incoming and outgoing wires are secured with strain reliefs
- ❖ PSU input volts must match the mains AC
- ❖ Each PSU input AC cable must be of appropriate gauge and rating for the PSU at maximum load
- ❖ PSU output specification must match dimmers and LED luminaires' Volts / Amps requirements
- ❖ PSU output cables must match the total load of all dimmer(s) connected to it (all at maximum load)
- ❖ Each dimmer output cable must be rated to match all the LEDs connected to that individual output
- ❖ Individual and total dimmer loads must be within dimmer specification

7 Specifications

Parameter	Specification
Input	12 to 24VDC – Max load 36A
Output Voltage	12 to 24VDC (output voltage follows input voltage)
Output Channels	6 PWM controlled
Output Current	6A maximum per channel
Maximum Power	432W at 12V and 864W at 24V
PWM frequency	1kHz to 35kHz
Gamma Settings	From 0.1 to 10 in 0.1 increments
Bit rate	8 or 16 bit
Output connector	12 position pluggable terminal block, 18A max per position, 24 - 12AWG 0.25 – 4.0mm ² , wire strip 0.24 – 0.31" / 6 – 8mm
Control signal	DMX512 with Remote Device Management (RDM) capabilities
Control signal connectors	2x RJ45, 2x 5 pin XLR
Ambient temperature	-20°C to +50°C -4°F to +122° F
IP rating	20 (indoor use only)