

## Flicker-Free Dimmable 96W LED Driver



MODEL: FFDCV-24096-DDW : Constant Voltage

**Class 2 Class P**  **US LISTED**   
E500434

The Flicker-Free Dimmable LED Driver range from Moss LED boasts 0 - 100% dimming range, a high refresh dimming frequency of 20khz resulting in smooth dimming and no noticeable flicker to discerning eyes, or the camera. Wide compatibility range with numerous dimmers including forward phase (leading edge), reverse phase (trailing edge), magnetic low voltage (MLV), electronic low voltage (ELV), standard house-hold TRIAC dimmers, 0-10V dimming, 1-10V dimming, potentiometer, and 10V PWM 4-in-1. Certified for use anywhere in North America by Underwriters Laboratory it is a Class 2, Class P dimmer with short circuit, over load, and over temperature protection. Metal housing provides efficient, fanless heat dissipation for 86% efficiency. Wide input voltage range of 100-277VAC, built-in active PFC function, suitable for use in dry, damp, and wet locations. Our FFDC dimmable driver range is suitable for all of our constant voltage FlexLED lighting products.

## Flicker-Free Dimmable Driver SKU Builder

<b>FFD</b>	<b>CV</b>	<b>24</b>	<b>096</b>	<b>XX</b>	<b>DDW</b>
I	I	I	I	I	I
1	2	3	4	5	6
Series	Output Type	Voltage	Wattage	Output Count	Wiring Style

### 1 Series

FFD Flicker Free Dimmable

### 2 Output Type

CV Constant Voltage

### 3 Voltage

12	12 Volt DC
24	24 Volt DC
48	48 Volt DC

### 4 Wattage

30	30 Watts
60	60 Watts
80	80 Watts
96	96 Watts
100	100 Watts
120	120 Watts
180	180 Watts (Multi-Out)
192	192 Watts (Multi-Out)
150	150 Watts
288	288 Watts (Multi-Out)
200	200 Watts
300	300 Watts
384	384 Watts (Multi-Out)

### 5 Output Count - Class 2

XXX	Non-Existent = Single Output
24A	2 X 4 A Outputs (24VDC)
34A	3 X 4 A Outputs (24VDC)
35A	3 X 5 A Outputs (12VDC)
44A	4 X 4 A Outputs (24VDC)
42A	4 X 2 A Outputs (48VDC)
55A	5 X 5 A Outputs (12VDC)

### 6 DDW

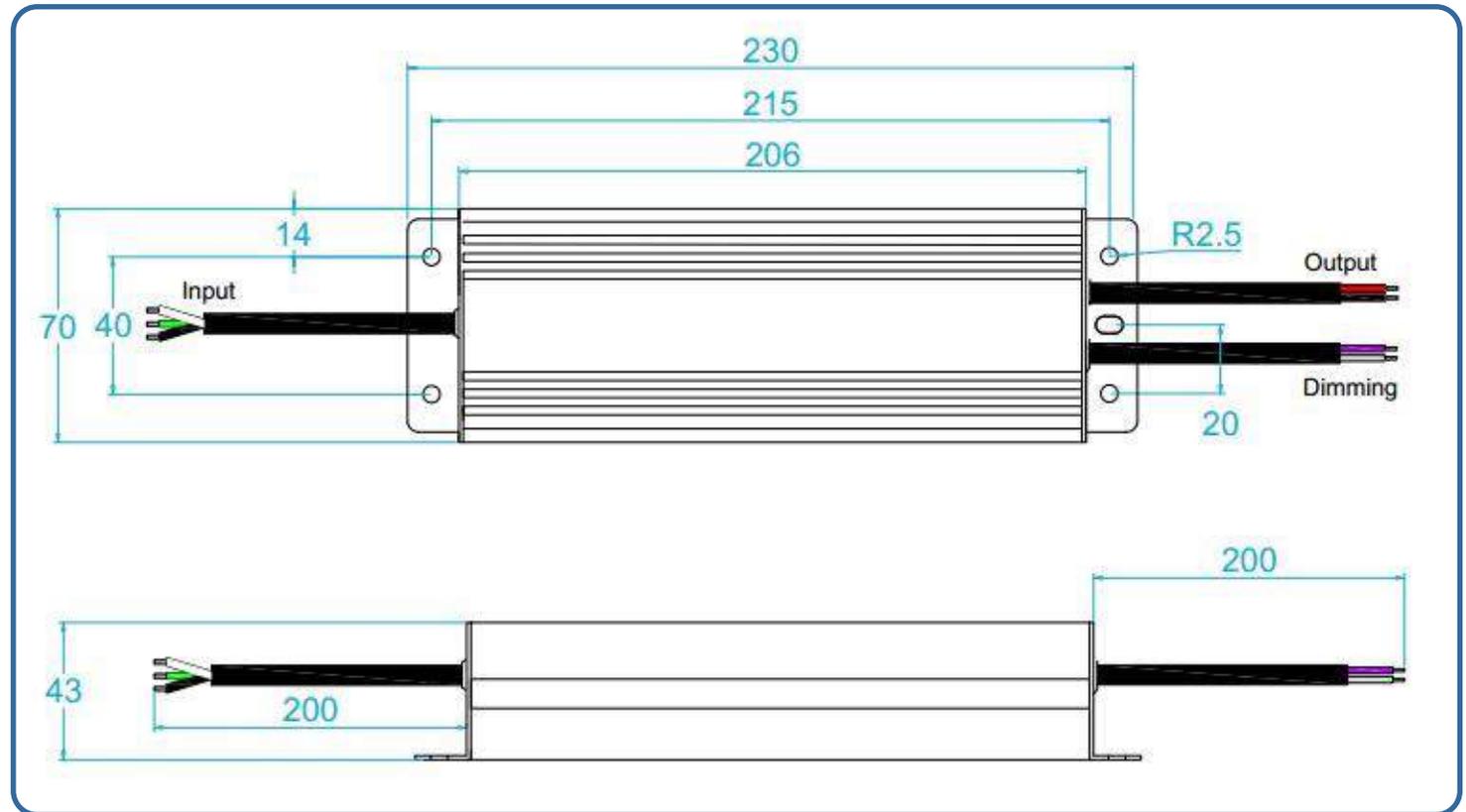
DDW Dry Damp Wet Locations

**TECHNICAL SPECIFICATIONS**

<b>Model</b>		FFDCV-24096-DDW
<b>Certificates</b>		FCC UL cUL Class 2
<b>Output</b>	DC Voltage	24V
	Voltage Tolerance	±0.5V
	Voltage Regulation	±0.5%
	Rated current	4A
	Rated power	96W
	Load Regulation	±1 %
<b>Input</b>	Voltage Range	100-277VAC
	Frequency Range	47 - 63Hz
	Power Factor(Typ.)@ full load	0.98@120VAC 0.95@277VAC
	THD(Typ. ) @ full load	<20%@120VAC &277VAC
	Efficiency(Typ.)@ full load	83%@120VAC 86%@277VAC
	AC Current(Max.)	1.3A
	Inrush Current (Typ.)	20A, 50%, 1.6ms @120VAC; 25A, 50% 1.2ms @277VAC
	Leakage current	<0.5mA
<b>Protection</b>	Short Circuit	shut down o/p voltage, re-power on to recover after fault condition removed
	Over Load	≤120% constant current limiting, auto-recovery
	Over temperature	100°C±10°C shut down o/p voltage, automatically recover after cooling.
<b>Environment</b>	Working TEMP.	-40~+60°C (see below derating curve)
	Working Humidity	20 - 95%RH,non-condensing
	Storage TEM.,Humidity	-40 - +80°C,10 - 95%RH
	TEMP.coefficient	±0.03%/°C(0 - 50°C)
	Vibration	10~500Hz, 5G 10min./1 cycle,period for 60min. each along X,Y,Z axes
<b>Safety &amp; EMC</b>	Safety standards	UL8750 + UL1310, class 2 CAN/CSA-C22.2 No.250.13
	Withstand voltage	I/P-O/P:1.88KVac
	Isolation resistance	I/P-O/P:100MΩ/500VDC/25°C/70%RH
	EMC Emission	FCC 47 CFR Part 15 ,Subpart B
<b>Others</b>	Net Weight	1.1Kg
	Dimension	230*70*43mm(L*W*H)
	packing	340*275*170mm 10pcs /CTN

<b>Notes</b>	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 120VAC input , rated load and 25°C of ambient temperature.</li> <li>2. Tolerance: includes set up tolerance, line regulation and load regulation .</li> <li>3. The power supply is considered as a component that will be operated in combination with final Equipment. Since EMC performance will be affected by the complete installation, the final equipment manufactures must be-qualify EMC Directive on the complete installation again.</li> </ol>
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**■ Mechanical Specification**



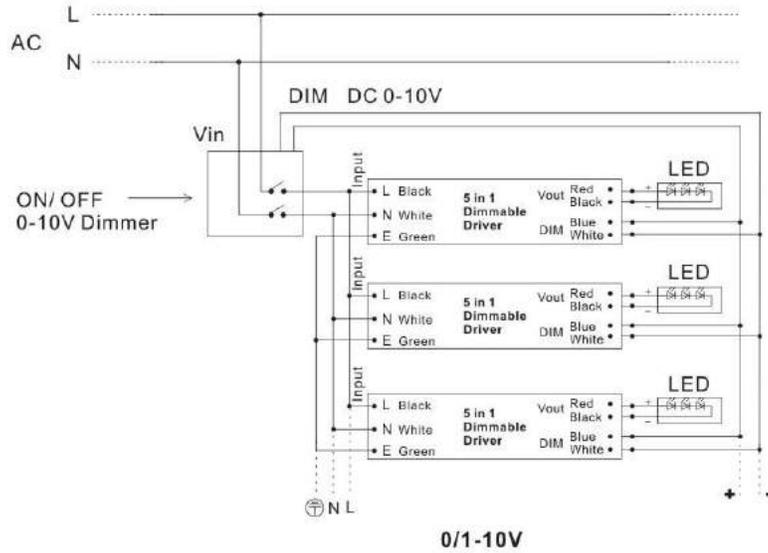
- ※ Input cable 3\*18AWG,the green cable to (FG) "Black" to L ,and "White" to N of Mains AC
- ※Output cable 2\*16AWG,Red" (+) to LED Positive side (+) , "Black"(-) to LED Negative side (-).
- ※Dimming cable 2\*18AWG,DIM (+) Purple to 0/1-10V dimmer signal(+ ),DIM (-) Grey to 0/1-10V dimmer signal (-) ※Please DO NOT connect "DIM-" to "LED-", "DIM+" to " LED+" ,or other incorrect connection.
- ※Please make sure your connect these correctly otherwise your product will not function correctly and could be damaged.
- ※Note: Any other requests we can customized.

**■ Dimming Operation and Connecting Diagram**

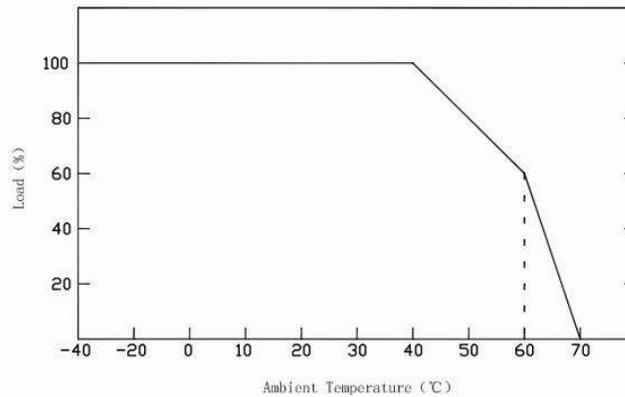
※Using two ways of dimming at the same time, you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming;

**※Using one dimming ---TRIAC/Phase cut dimming**

1.The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer of lighting system.



### ■ Derating Curve



※To extend their life, please refer to the Derating Curve and derate according to the temperature.

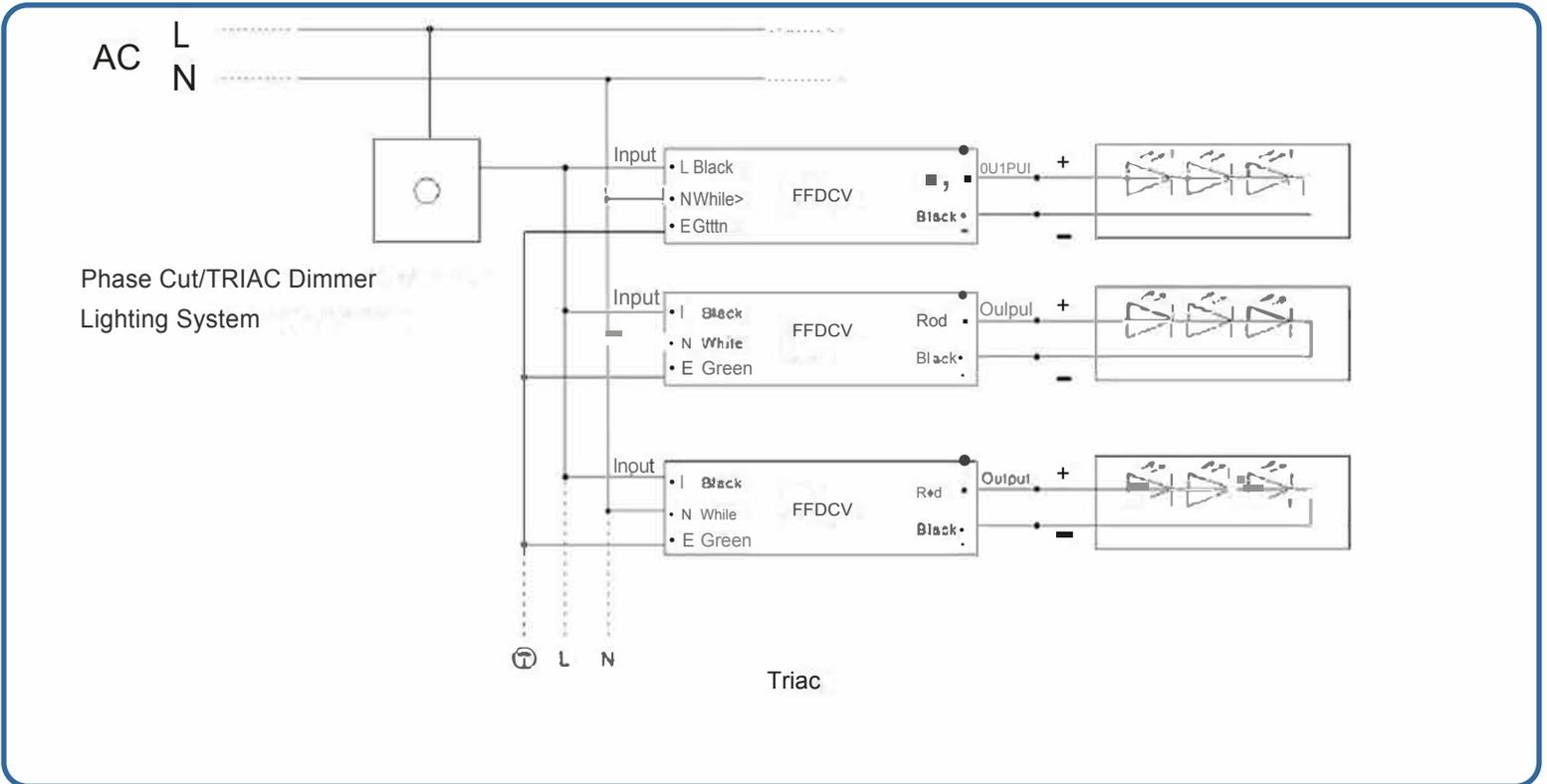
### ■ Instruction:

- 1) This driver should be installed by qualified and professional person;
- 2) Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
- 3) Ensure that wiring is correct before test in order to avoid light and power supply damage;

2. Working with forward phase /leading edge ,MLV and Reverse phase /trailing edge ,ELV, TRIAC dimmers

3. Min loading is about 10%

4. Use dimmers with power capacity at least 1.5 times as the output power of the driver.



\*Using one dimming --0-10/1-10V dimming

