

## SDD-DIM series

Whole Family: SDD-xx096-DIM 24V / 48V - 96W



Class P

SELV

RoHS



The driver is inside

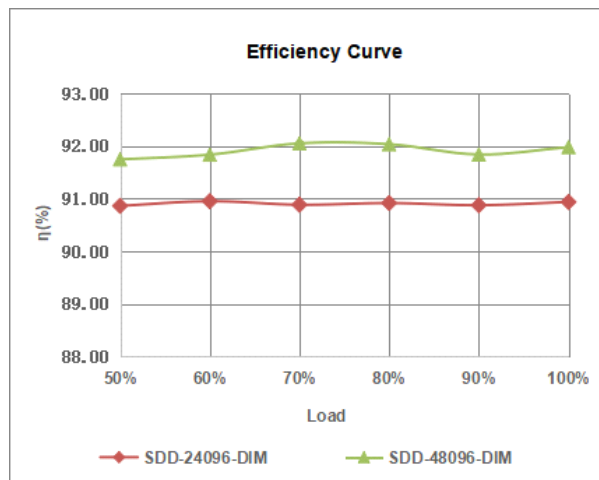
## Features

|                         |                                                                                                                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output:                 | Constant Voltage                                                                                                                                                                    |
| Input Range:            | 120VAC                                                                                                                                                                              |
| PFC design:             | Built-in active PFC function                                                                                                                                                        |
| Protections:            | Short circuit/ Over load/ Over temperature                                                                                                                                          |
| Heat dissipation:       | Cooling by free air convection                                                                                                                                                      |
| Waterproof performance: | For dry and damp locations (US)                                                                                                                                                     |
| Design features:        | 1) Fine-tune output voltage can be adjusted slightly<br>2) Preset dimmer with on/off switch<br>3) 3-Way switches<br>4) Eliminated compatibility issues between drivers and switches |
| Dimming range:          | 0.3%-100%                                                                                                                                                                           |
| Application:            | Suitable for the application of LED lighting                                                                                                                                        |
| Warranty:               | 2 years warranty                                                                                                                                                                    |
| Others:                 | 16KHZ PWM output with dimming curve is a gamma 2.2 curve      Flicker-free                                                                                                          |

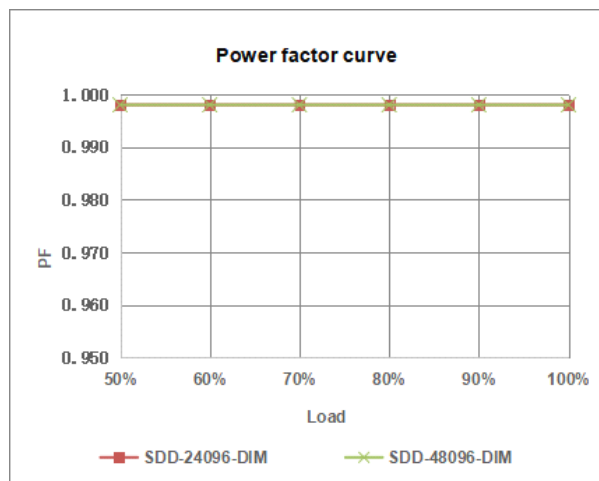
## Specification

| Model        |                                                                                                                                                                                          | SDD-24096-DIM                                                                                 | SDD-48096-DIM                   |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------|
| Certificate  |                                                                                                                                                                                          | UL / cUL / FCC / Class P / SELV / RoHS / Reach                                                |                                 |
| Output       | DC Rate Voltage                                                                                                                                                                          | 24V    (24V-26V adjust by knob)                                                               | 48V    (48V-50V adjust by knob) |
|              | Voltage Tolerance                                                                                                                                                                        | ±0.5V                                                                                         |                                 |
|              | Load Regulation                                                                                                                                                                          | ≤1%                                                                                           | ≤1%                             |
|              | Line Regulation                                                                                                                                                                          | ≤0.5%                                                                                         |                                 |
|              | Rated current                                                                                                                                                                            | 4A                                                                                            | 2A                              |
|              | Rated power                                                                                                                                                                              | 96W                                                                                           | 96W                             |
| Input        | Voltage Range                                                                                                                                                                            | 120VAC                                                                                        |                                 |
|              | Frequency Range                                                                                                                                                                          | 60Hz                                                                                          |                                 |
|              | Power Factor @ full load                                                                                                                                                                 | ≥0.99                                                                                         |                                 |
|              | THD(Typ.) @ full load                                                                                                                                                                    | ≤10%                                                                                          |                                 |
|              | Efficiency @ full load                                                                                                                                                                   | 91.0%                                                                                         | 92.0%                           |
|              | AC Current (Max.)                                                                                                                                                                        | 0.9A                                                                                          | 0.9A                            |
|              | Inrush Current (Typ.)                                                                                                                                                                    | 50A, 150us@50%Ipeak                                                                           |                                 |
|              | Leakage current                                                                                                                                                                          | <0.5mA                                                                                        |                                 |
| Protection   | Short Circuit                                                                                                                                                                            | Hiccup mode, recovers automatically after fault condition is removed                          |                                 |
|              | Over Load                                                                                                                                                                                | ≥110% Hiccup mode, recovers automatically after fault condition is removed                    |                                 |
|              | Over temperature                                                                                                                                                                         | Shell surface temperature 100℃±10℃ shut down o/p voltage, automatically recover after cooling |                                 |
| Environment  | Working TEMP.                                                                                                                                                                            | -40~+60℃ (see below derating curve)                                                           |                                 |
|              | Working Humidity                                                                                                                                                                         | 20 - 95%RH    non-condensing                                                                  |                                 |
|              | Storage TEM.,Humidity                                                                                                                                                                    | -40 - +80℃,10 - 95% RH non-condensing                                                         |                                 |
|              | TEMP.coefficient                                                                                                                                                                         | ±0.03%/℃(0 - 50℃)                                                                             |                                 |
|              | Vibration                                                                                                                                                                                | 10~500Hz, 2G 12min./1 cycle, period for 72 min. each along X,Y,Z axes                         |                                 |
| Safety & EMC | Safety standards                                                                                                                                                                         | UL8750    CAN/CSA-C22.2 No.250.13 (US)                                                        |                                 |
|              | Withstand voltage                                                                                                                                                                        | I/P-O/P:1.8KVAC    I/P-F/G:1.8KVAC    O/P-F/G:0.5KVAC (US)                                    |                                 |
|              | Isolation resistance                                                                                                                                                                     | I/P-O/P:100MΩ / 500VDC / 25℃ / 70% RH                                                         |                                 |
|              | EMC Immunity                                                                                                                                                                             | FCC/ICES do not request this test (US)                                                        |                                 |
|              | EMC Emission                                                                                                                                                                             | FCC Part15 Subpart B    ANSI C63.4:2014 (US)                                                  |                                 |
| Others       | Net Weight                                                                                                                                                                               | 0.25KG                                                                                        |                                 |
|              | Dimension                                                                                                                                                                                | 105*54*51mm /    4.134"x2.126"x1.996" (Inch)                                                  |                                 |
|              | Packing                                                                                                                                                                                  |                                                                                               |                                 |
| Notes        | 1.    All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25℃of ambient temperature.<br>2.    Tolerance: includes set up tolerance and load regulation . |                                                                                               |                                 |

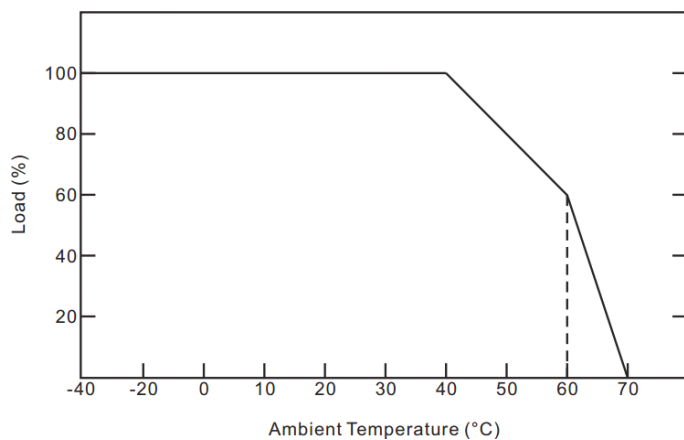
## Efficiency Curve (efficiency vs output load)



## Power factor curve

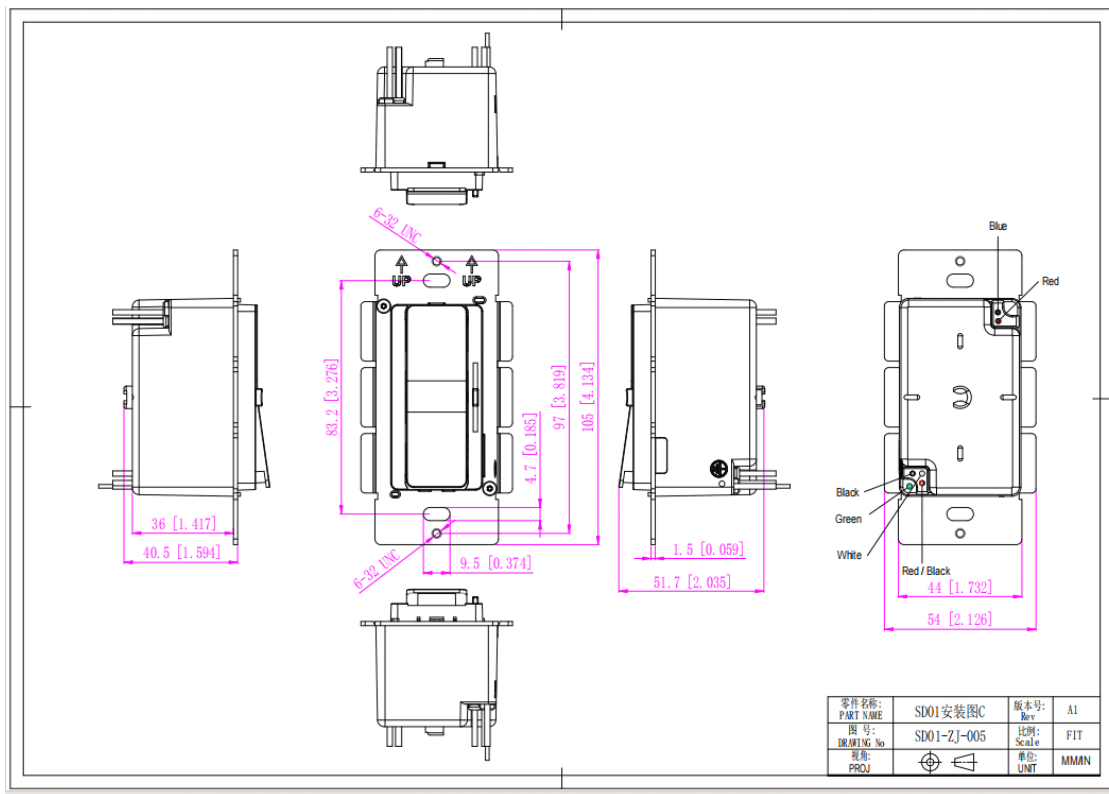


## Derating Curve (Output power VS Ambient TEMP)



1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. The output current of the LED driver should be selected according to the rated current of the lamp and the ambient temperature. Normally, we recommend the power supply to reserve a certain amount of load to extend LED driver's life .

### Mechanical Specification



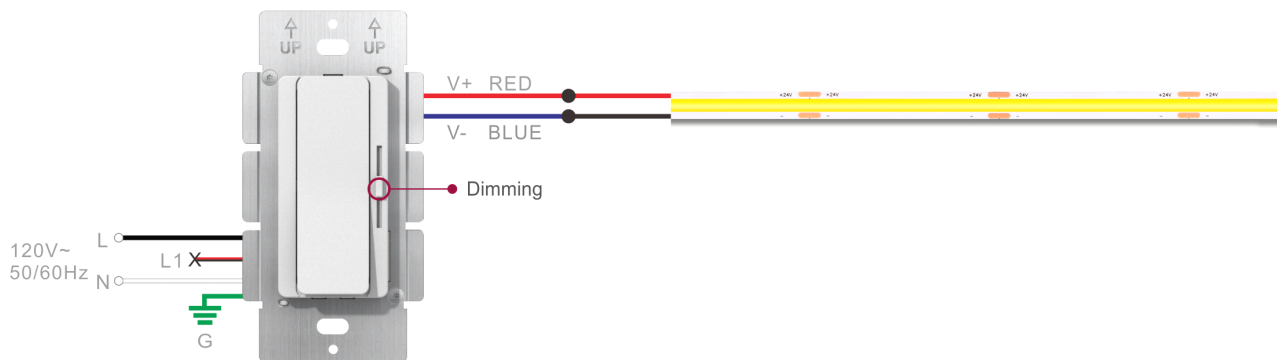
| American Wire Gauge |                                                                                        |
|---------------------|----------------------------------------------------------------------------------------|
|                     | SD01                                                                                   |
| Input wires         | Black cable (L), Red black cable (L1) , White cable (N) and Green cable (FG) (4*18AWG) |
| Output wires        | Red cable (V+), Blue cable (V-) (2*18AWG)                                              |

### Warm tips:

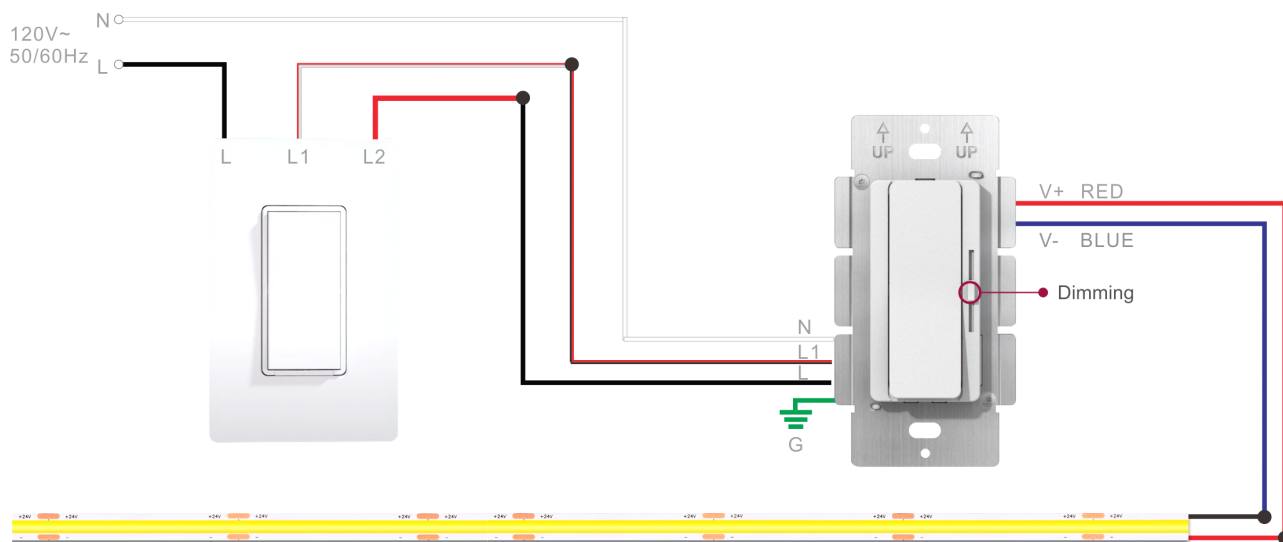
- Any other requests, we can customize.
- Please ensure that the connection is correct.

## Dimming Operation and Connecting Diagram

### ① Wiring diagram of SDD-DIM model for standard dimming system

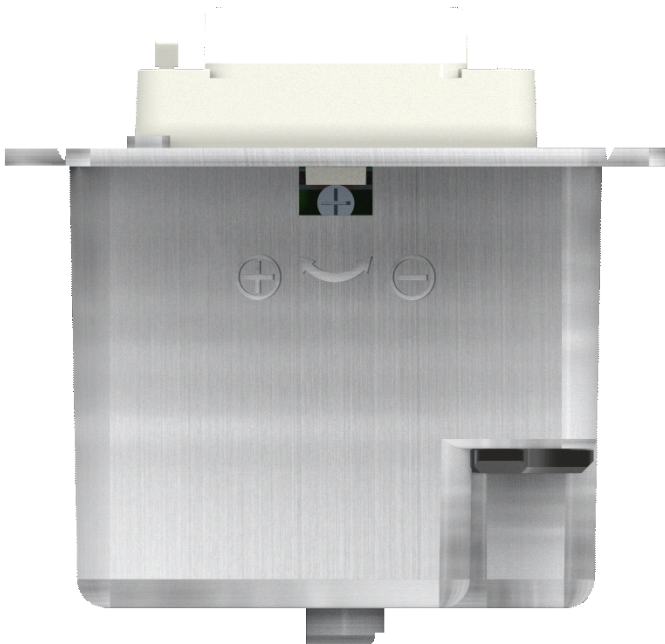


### ② Wiring diagram of SDD-DIM model for 3-way dimming system



## **Knob to adjust the voltage**

Clockwise rotation of the high voltage



## **Instructions**

1. This driver+dimmer 2 in 1 should be installed by qualified and professional person.
2. Please make sure the driver+dimmer 2 in 1 is installed with adequate ventilation around it to allow for heat dissipation.
3. Ensure that connection is correct to avoid LED light or driver+dimmer 2 in 1 be damaged.
4. If the driver+dimmer 2 in 1 cannot work normally, don't maintain privately.