

## KV-DP2A Series 500W 600W

Whole Family: KV-DP2A 12V/ 24V/ 48VDC - [ 60W 75W 80W 90W 96W 100W 120W 150W 200W 300W 320W 360W 500W 600W ]



### Features

|                         |   |
|-------------------------|---|
| Output:                 | Constant Voltage  |
| Range:                  | 110-277VAC  |
| PFC design:             | Built-in active PFC function  |
| Efficiency:             | Up to 95%   |
| Protections:            | Short circuit/ over temperature/ over load                            |
| Heat dissipation:       | Cooling by free air convection  |
| Waterproof performance: | IP66(EU); Full aluminum housing, for dry, damp and wet locations(US)  |
| Dimming function:       | DALI-2 & PUSH (2 in 1) dimming. Digital dimming, flicker-free dimming |
| Dimming range:          | 0-100% dimming depth: 0.1%  |
| Application:            | Suitable for LED lighting and moving sign applications                |
| Warranty:               | 5 years warranty  |

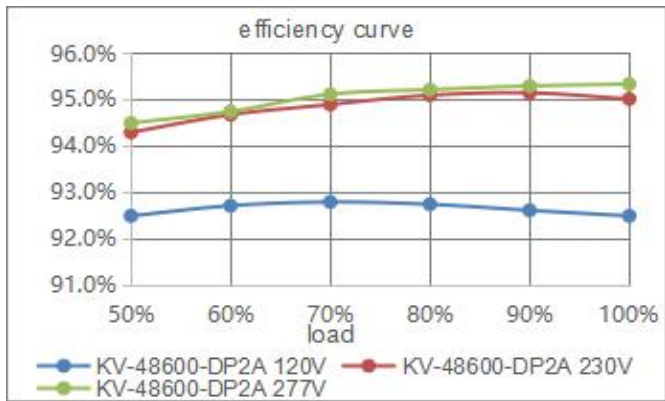
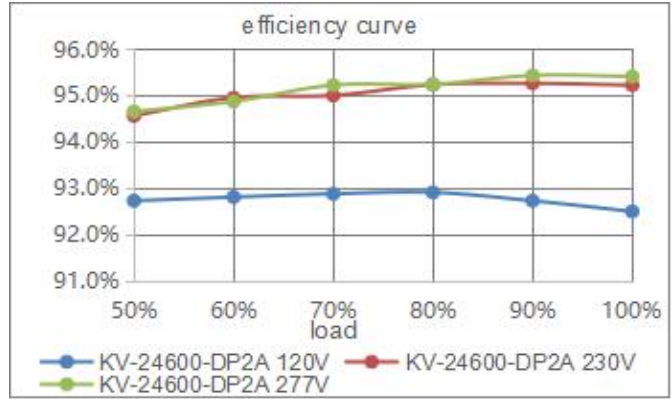
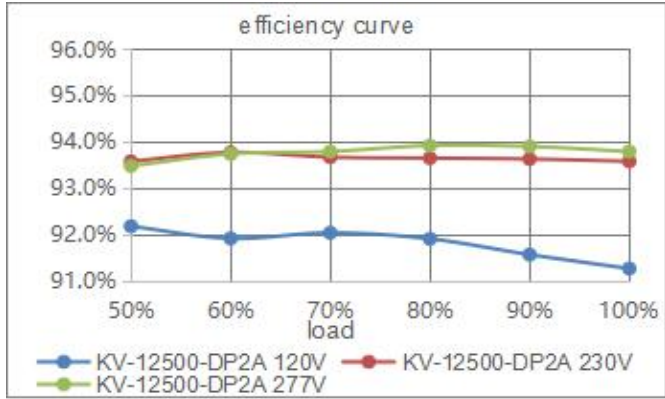
**DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W**
**Specification**

| Model        |                                 | KV-12500-DP2A  | KV-24600-DP2A   | KV-48600-DP2A   |
|--------------|---------------------------------|--|---|---|
| Certificate  |                                 | UL / cUL / Class P / FCC / ENEC / SAA / CE / SELV / ROHS / Reach / DALI2   |   |   |
| Output       | DC Voltage                      | 12V<br>(12-13Vadjust by NFC)   | 24V<br>(24-25.5Vadjust by NFC)  | 48V<br>(48-50Vadjust by NFC)  |
|              | Voltage Tolerance               | ±0.5V  |   |   |
|              | Voltage Regulation              | ±0.5%  |   |   |
|              | Rated current                   | 41.67A   | 25A   | 16.67A  |
|              | Rated power                     | 500W 600W  |   |   |
|              | Load Regulation                 | 2%   | 1%  |   |
| Input        | Voltage Range                   | 110-277VAC   |   |   |
|              | Frequency Range                 | 47 - 63Hz  |   |   |
|              | Power Factor (Typ.)             | PF≥0.98@120VAC   | PF≥0.98@120VAC230VAC  | PF≥0.96@277VAC  |
|              | THD(Typ.) @ full load           | ≤10%@120VAC  | ≤10%@230VAC   | ≤15%@277VAC   |
|              | Efficiency(Typ.)<br>@ full load | 91%@120VAC<br>93.5%@230VAC<br>93.5%@277VAC   | 92.5%@120VAC<br>95%@230VAC<br>95%@277VAC                              | 92.5%@120VAC<br>95%@230VAC<br>95%@277VAC                              |
|              | AC Current (Max.)               | 7A   |   |   |
|              | Inrush Current (Typ.)           | 46A, 39us@50%120VAC<br>89A, 75us@50%230VAC<br>107A, 90us@50%277VAC   | 36.5A, 53us@50%120VAC<br>70A, 102us@50%230VAC<br>84A, 116us@50%277VAC | 36.5A, 53us@50%120VAC<br>70A, 102us@50%230VAC<br>84A, 116us@50%277VAC |
|              | Leakage current                 | <0.5mA   |   |   |
| Protection   | Short Circuit                   | Hiccup mode, automatically recover after fault condition removed   |   |   |
|              | Over Load                       | ≤120% Hiccup mode, recovers automatically after fault condition is removed   |   |   |
|              | Over temperature                | Ambient temp.40℃±5℃, output current will be reduced to 50%, recovers automatically after the temp drops; Ambient temp.55℃±5℃, shut down output, recovers automatically after the temp drops. |   |   |
| 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, 5G 12min./1 cycle, period for 72min. each along X,Y,Z axes   |   |   |
| Safety & EMC | Safety standards                | EN61347-1 EN61347-2-13 (EU) & UL8750 CAN/CSA-C22.2 No. 250.13 (US)   |   |   |
|              | Withstand voltage               | I/P-O/P:3.75KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC(EU)<br>I/P-O/P:1.8KVAC I/P-FG:1.8KVAC O/P-FG:1.8KVAC(US)  |   |   |
|              | Isolation resistance            | I/P-O/P:100MΩ / 500VDC / 25℃ / 70%RH   |   |   |
|              | EMC Emission                    | EN55015 EN61000-3-2 EN61000-3-3(EU) & FCC Part 15 Subpart B(US)  |   |   |
| Others       | Net Weight                      | 1.68Kg   |   |   |
|              | Dimension                       | 284*109*48.5mm(L*W*H)  |   |   |

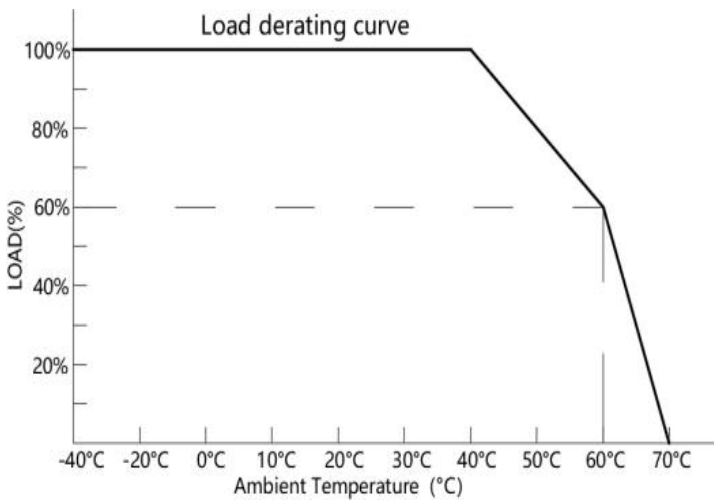
DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W

|              |  |                          |
|--------------|--|--------------------------|
|              | Packing  | 305*262*283mm 10pcs /CTN |
| <b>Notes</b> | 1. All parameters NOT specially mentioned are measured at rated load and 25°C of ambient temperature.<br>2. Under low input voltage, reduced output is required to ensure a long life. |                          |

**Efficiency Curve (efficiency vs output load)**



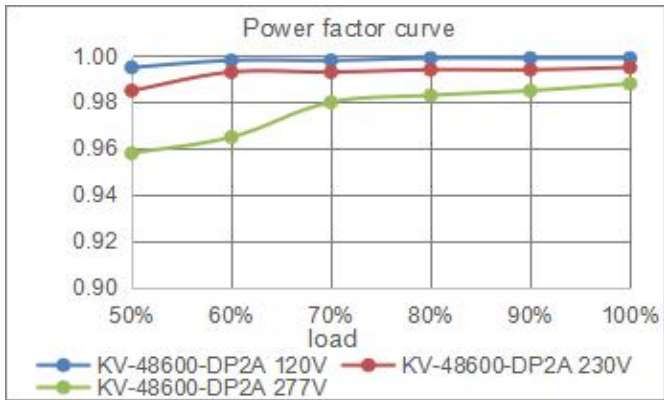
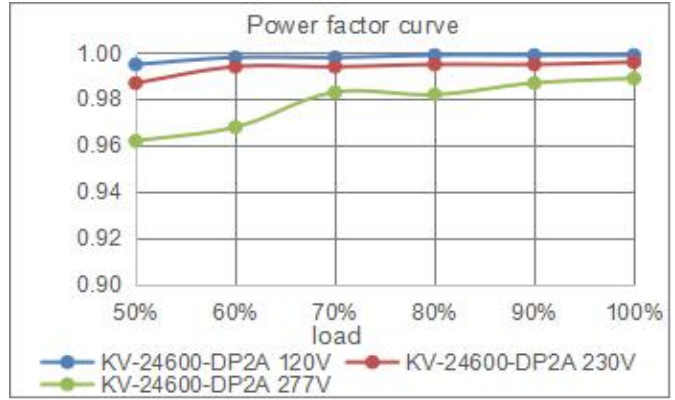
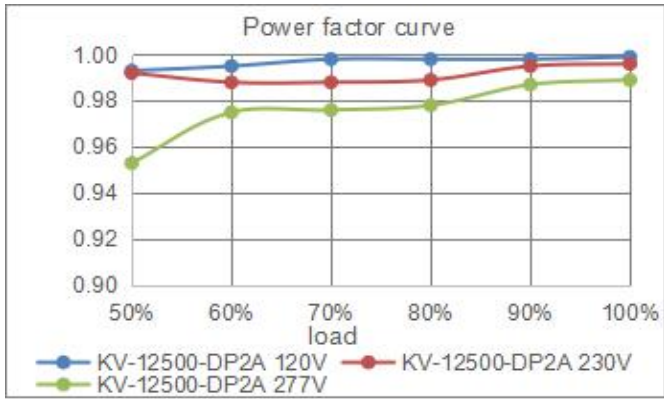
**Derating Curve (output load vs TEMP.)**



- To extend their life, please refer to the Derating Curve and derate according to the temperature.
- Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to avoid overloading .

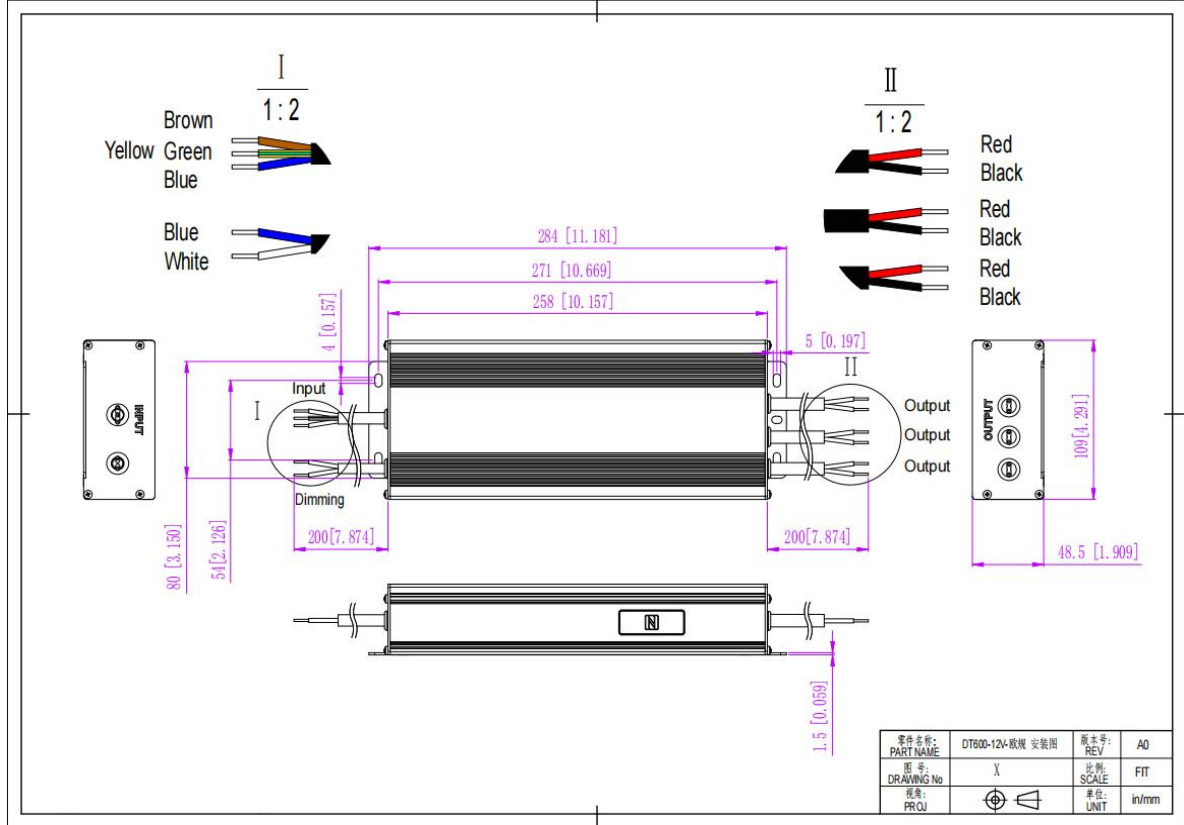
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Power Factor Curve (PF vs output load)



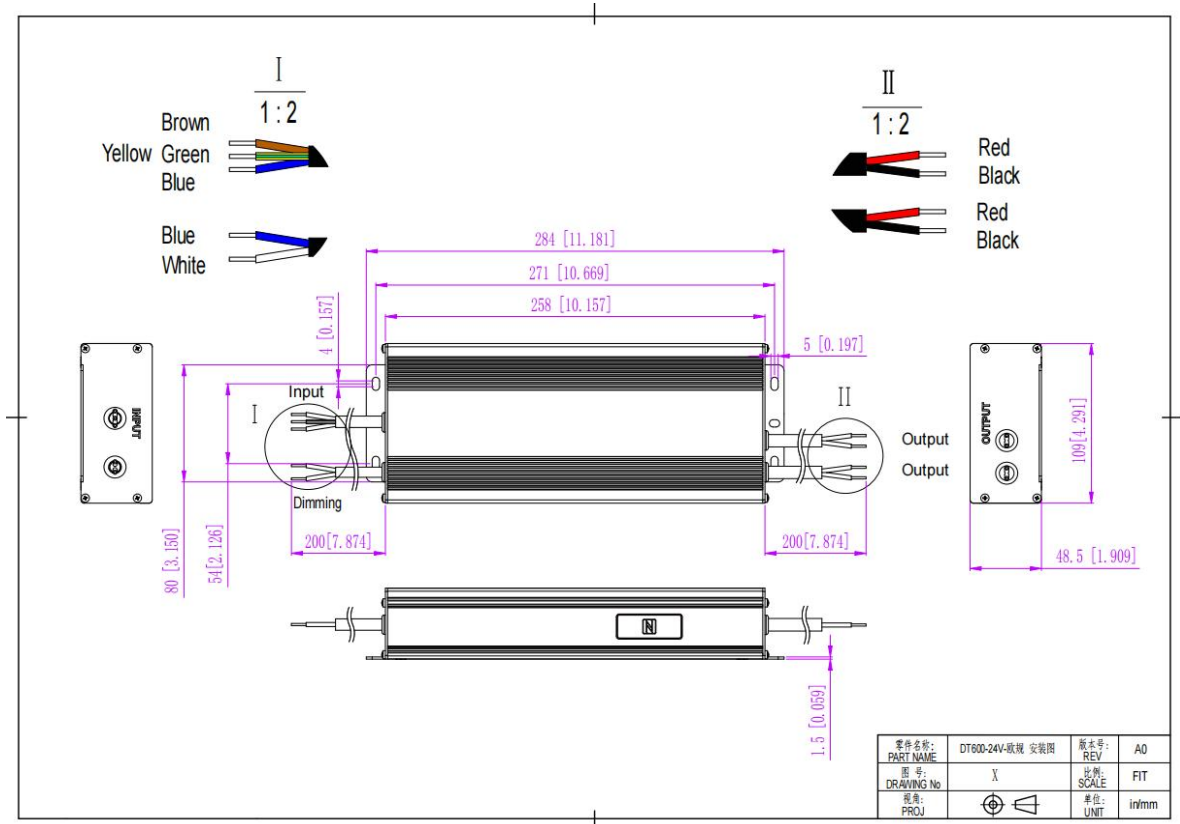
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Mechanical Specification ( For European Market )



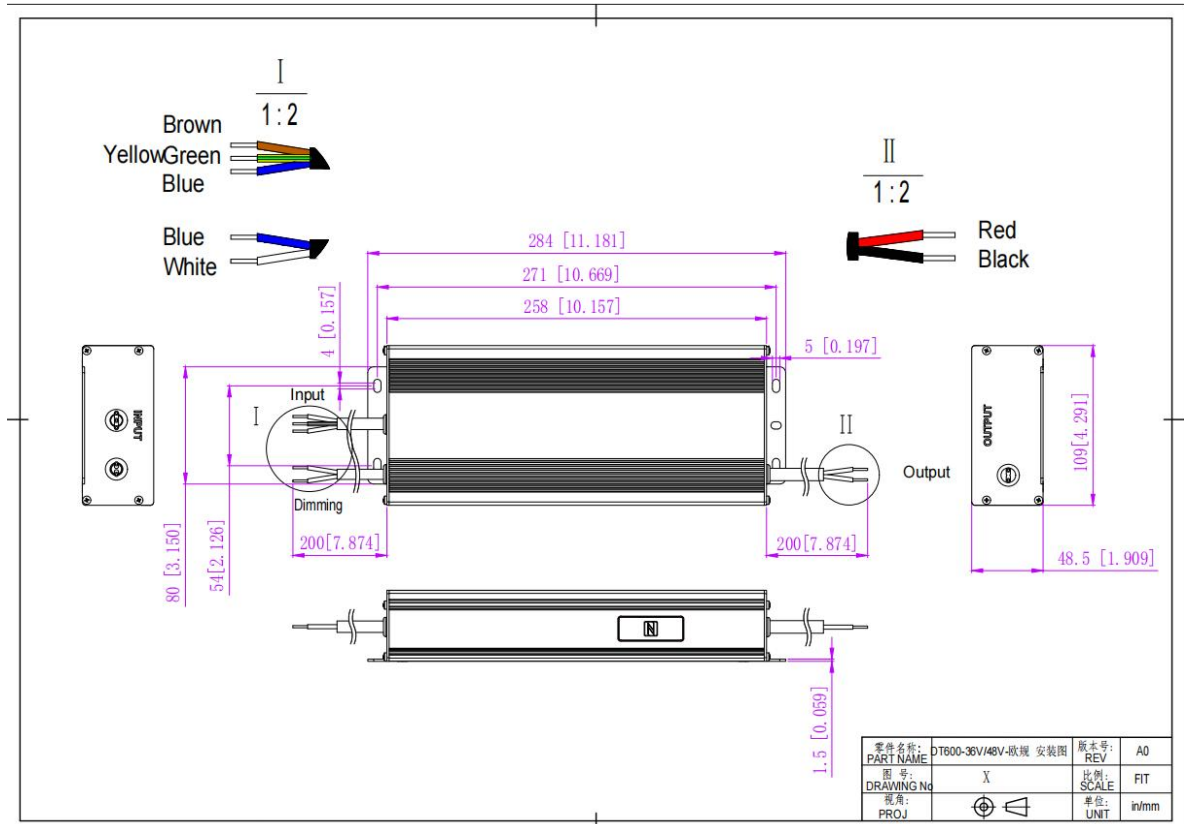
12V Version

DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W



24V Version

DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W



**48V Version**

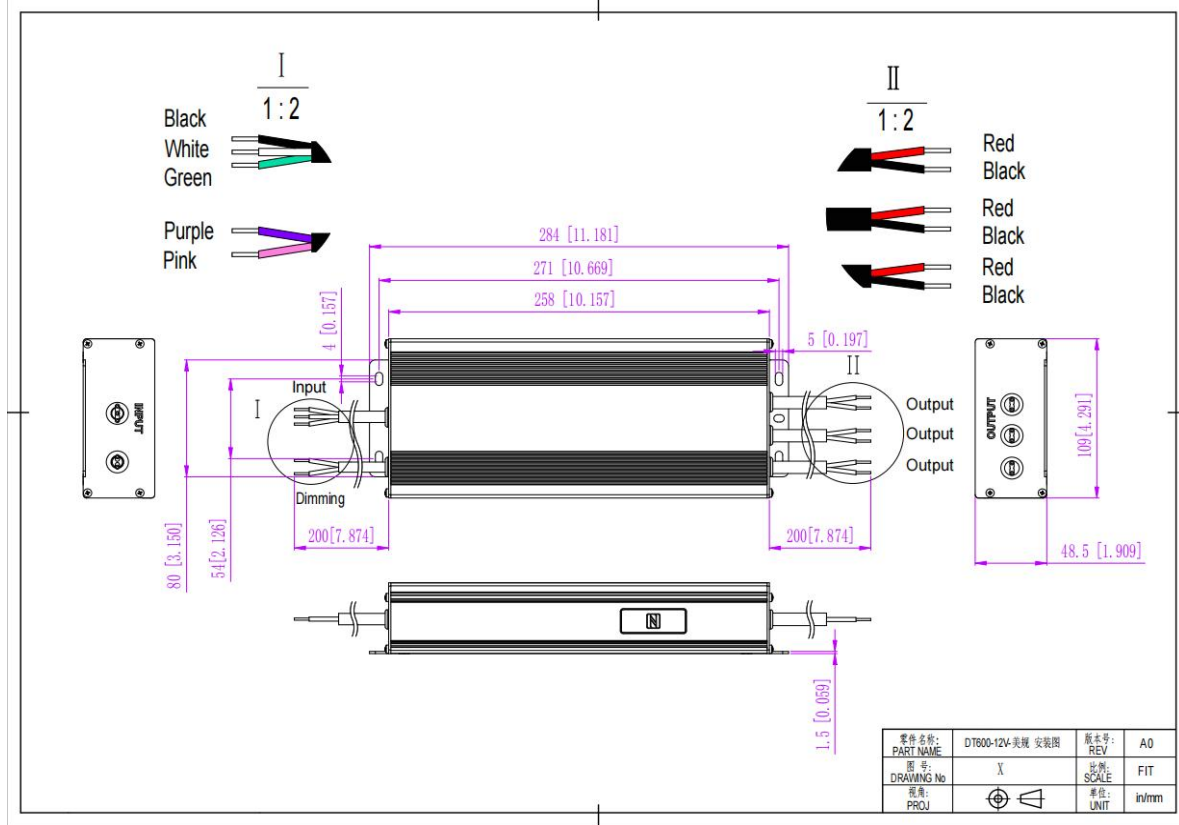
1. Input 3\*1.0mm<sup>2</sup>, Brown cable (L), Blue cable (N) and Yellow&Green cable (G).
2. Output 2\*2.08mm<sup>2</sup> (three cables on 12V) 2\*2.08mm<sup>2</sup> (two cables on 24V) 2\*2.08mm<sup>2</sup> (one cable on 48V) Black cable (V+) connect to positive(+), Red cable(V-) connect to negative(-).
3. Dimming wire 2\*1.0mm<sup>2</sup> Blue cable(L), White cable (N).

Warm tips:

1. Any other requests for, we can customized.

DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W

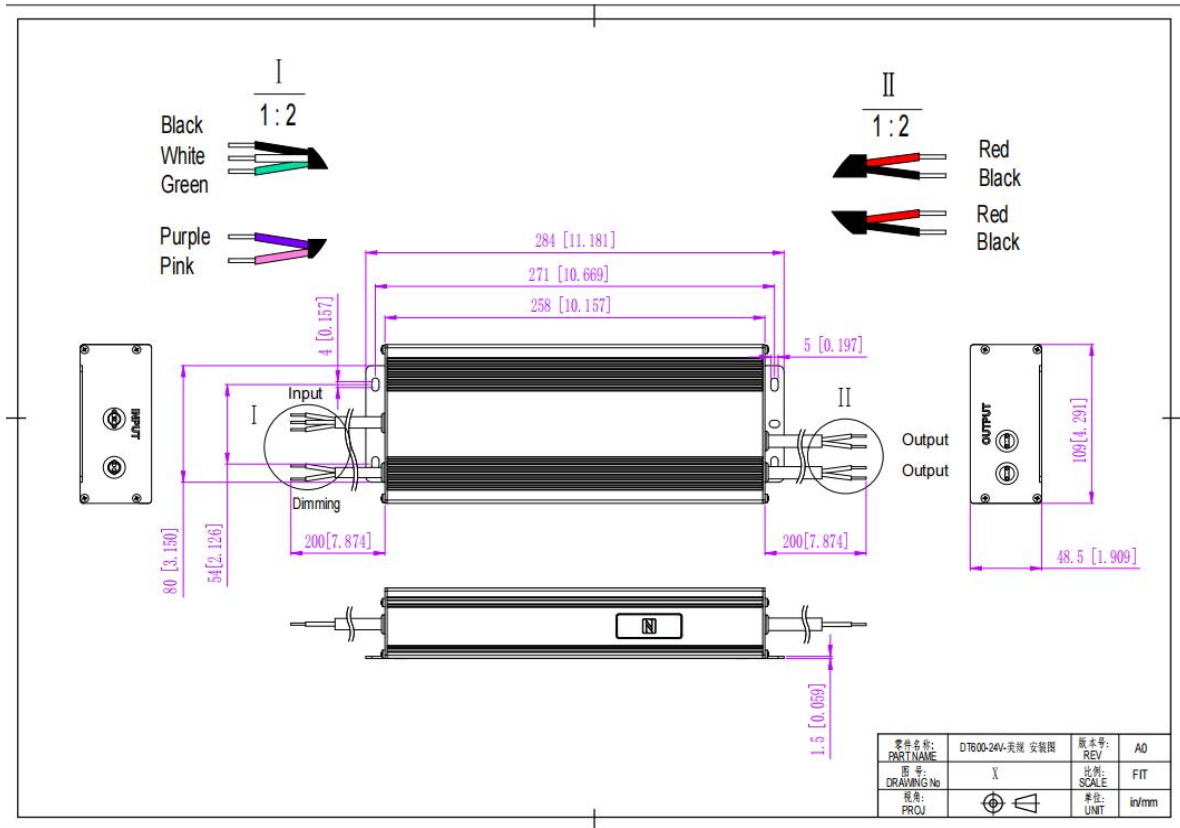
Mechanical Specification ( North America Market )



12V Version

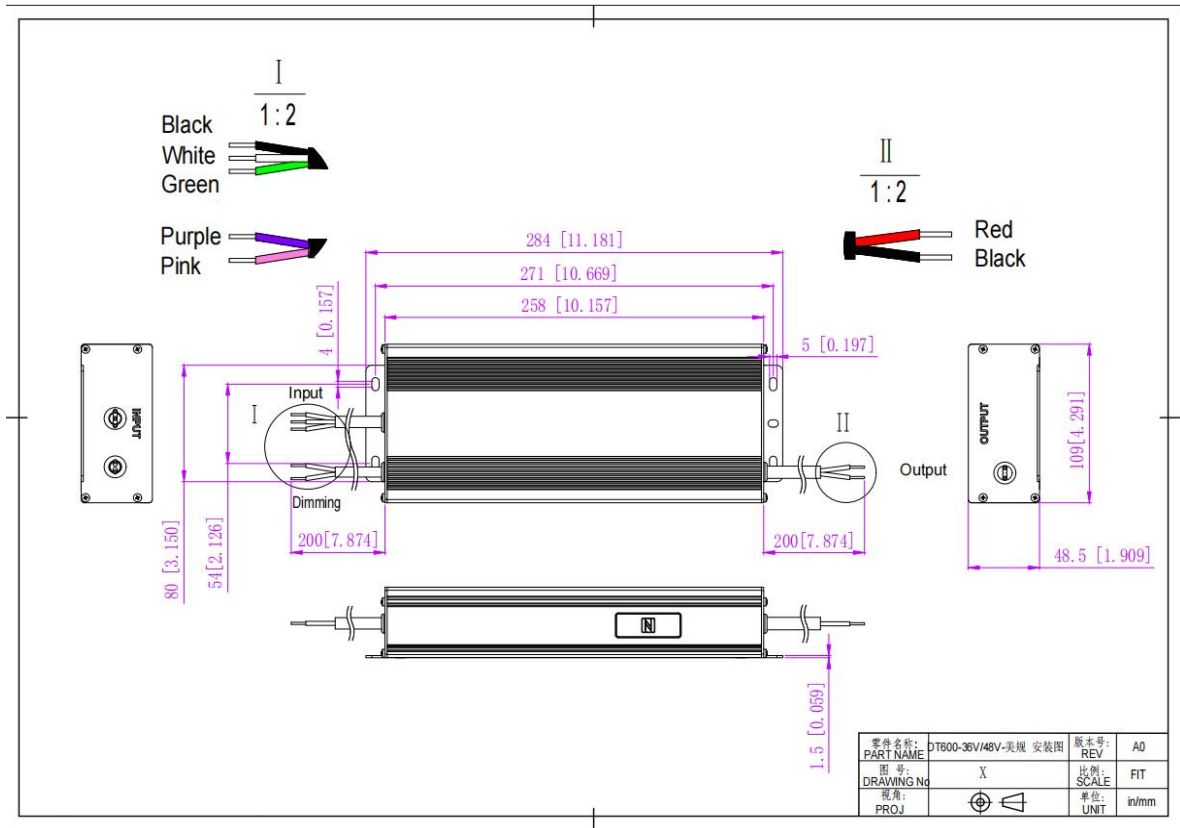


DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W



24V Version

DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W



48V Version

1. Input 3\*18AW: Black cable (L), White cable (N) and Green cable (G).
2. Output 2\*14AWG (three cables on 12V), 2\*14AWG (two cables on 24V), 2\*14AWG (one cable on 48V): Black cable (V+) connect to positive(+), Red cable(V-) connect to negative(-).
3. Dimming wire 2\*18AWG: Purple cable(L), Pink cable (N).

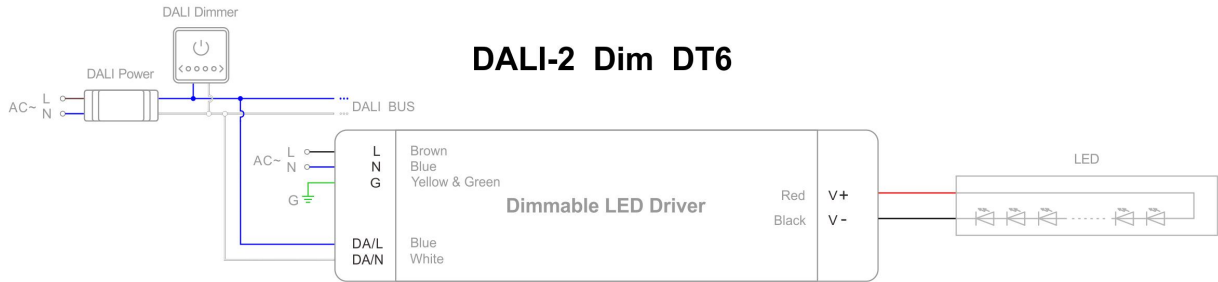
Warm tips:

1. Any other requests for, we can customized.

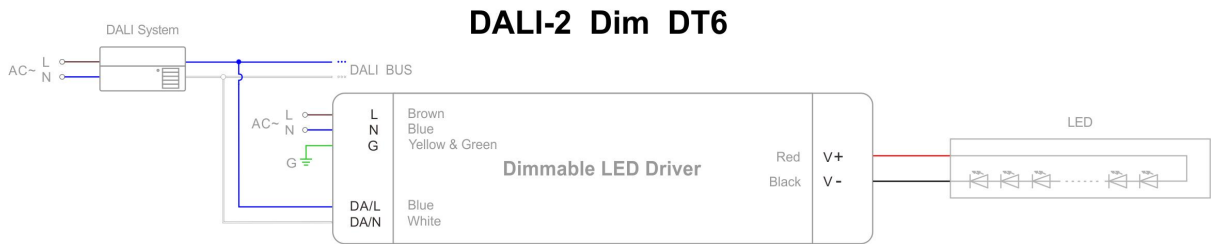
**DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W**

**Dimming Operation and Connecting Diagram ( For European Market )**

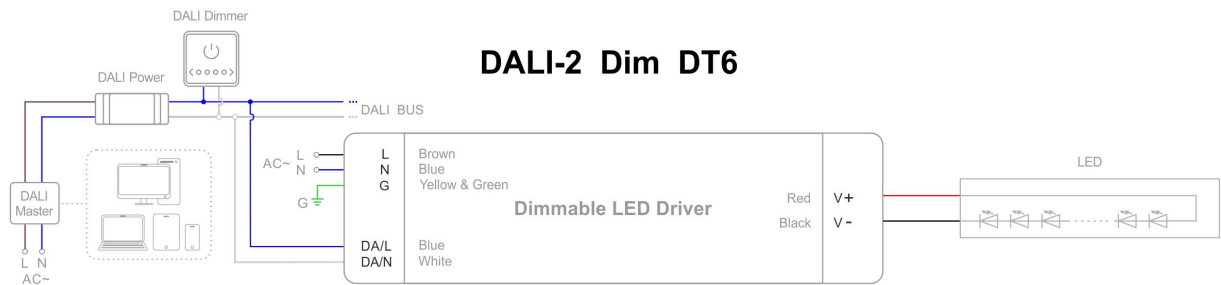
- Using DALI-2 dimming with DALI power and dimmer



- Using DALI-2 dimming with DALI system and DALI bus

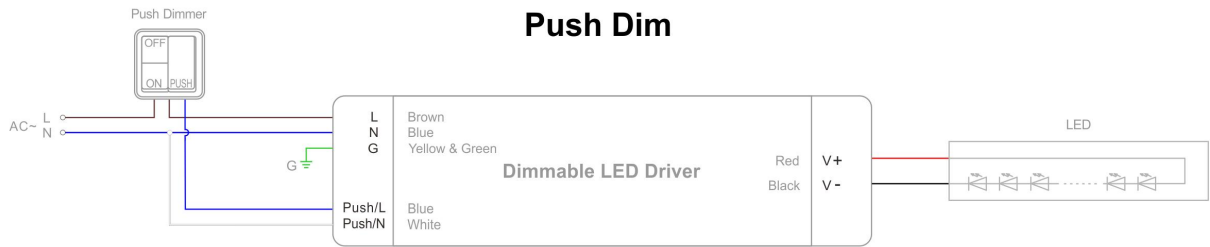
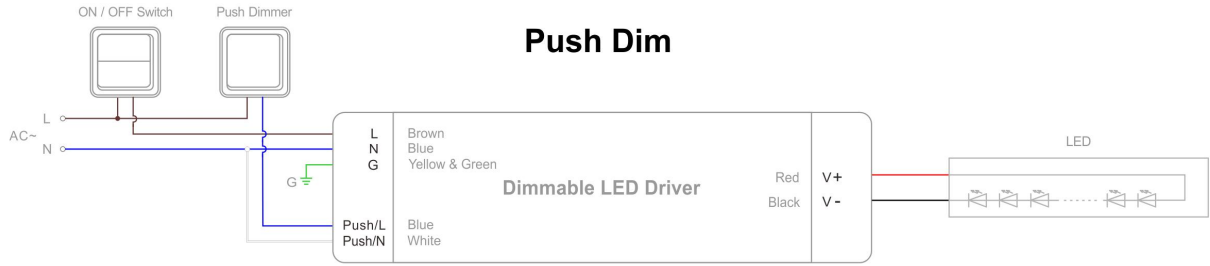


- Using DALI-2 dimming with intelligent device, DALI master and dimmer



DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W

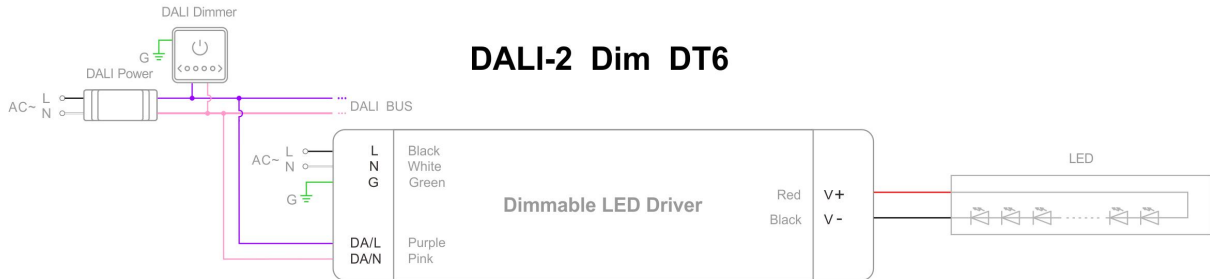
- Using PUSH dimming with dimmer (on & off function)



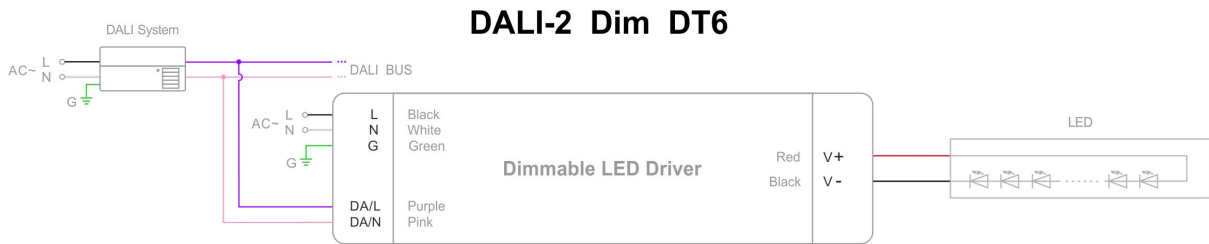
**DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W**

**Dimming Operation and Connecting Diagram ( For North American Market )**

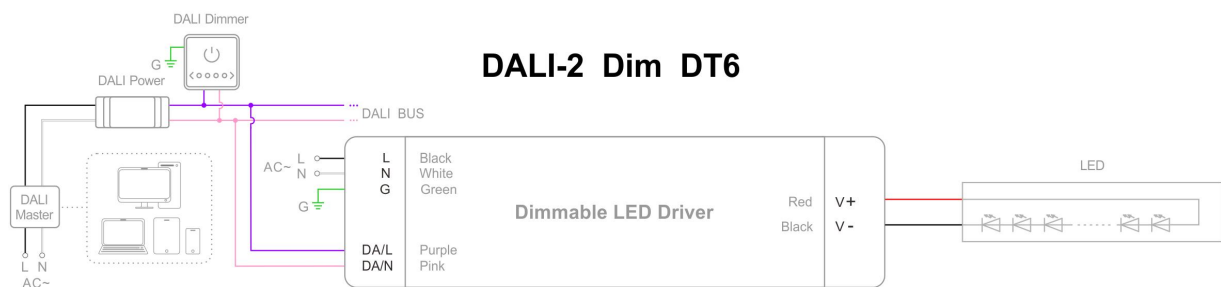
- Using DALI-2 dimming with DALI power and dimmer



- Using DALI-2 dimming with DALI system and DALI bus

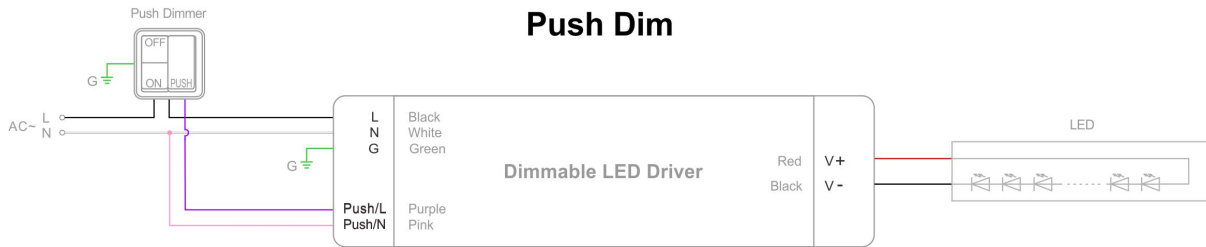
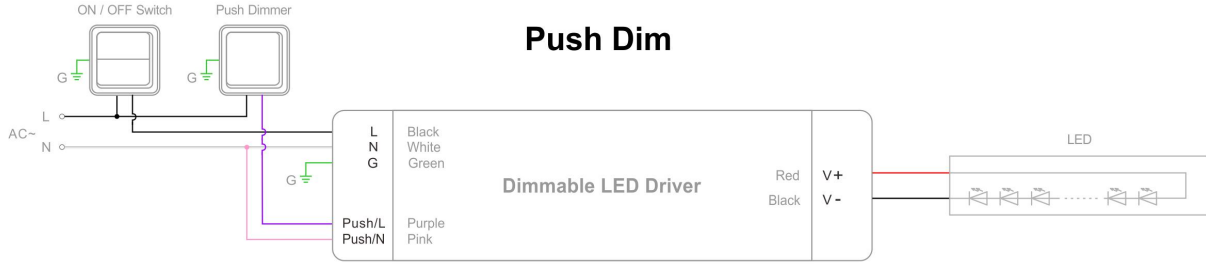


- Using DALI-2 dimming with intelligent device, DALI master and dimmer



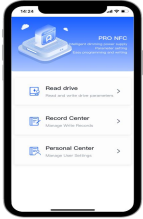
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- Using PUSH dimming with dimmer (on & off function)



**DALI-2 & PUSH (2 in 1) Dimmable Constant Voltage LED driver 500W 600W**

**NFC Function**



**ProNFC APP**



**NFC Handheld devices**

- Address settings:

NFC setting address:

The address can be read and written by a mobile with SetNFC APP or NFC handheld device (NFC read & write device: NFC-RW) by close to the NFC signal area of the DALI-2/PUSH 2 in 1 Dimmable driver.

**NFC voltage regulation level**

|            | level 1 | level 2 | level 3 | level 4 | level 5 | level 6 | level 7 | level 8 | level 9 | level 10 |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| <b>12V</b> | 12V     | 12.1V   | 12.2V   | 12.3V   | 12.4V   | 12.6V   | 12.7V   | 12.8V   | 12.9V   | 13V      |
| <b>24V</b> | 24V     | 24.2V   | 24.3V   | 24.5V   | 24.7V   | 24.8V   | 25V     | 25.2V   | 25.3V   | 25.5V    |
| <b>36V</b> | 36V     | 36.2V   | 36.4V   | 36.7V   | 36.9V   | 37.1V   | 37.3V   | 37.6V   | 37.8V   | 38.0V    |

**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.
4. If driver Cannot work normally, don't maintain privately.

Have any questions, please contact Zhuhai Shengchang.

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