

KV-DP2L Series 100W

Whole Family: KV-xy-DP2L 12V/ 24V/ 36V/ 48V DC - [30W 36W 60W 100W 150W]



Features

| | |
|-------------------------|---|
| Output: | Constant Voltage |
| Range: | 100-277VAC |
| PFC design: | Built-in active PFC function |
| Efficiency: | Up to 91.5% |
| Protections: | Short circuit/ over load/ over temperature |
| Heat dissipation: | Cooling by free air convection |
| Waterproof performance: | IP66 for indoor and outdoor |
| Dimming function: | DALI Protocol IEC62386; PUSH-DIM |
| Dimming range: | 0-100% dimming depth: 0.1% |
| PWM output: | Frequency 4K Hz, reaching the exemption level |
| NFC function | Adjust slightly, read & write output voltage, and set address |
| Application: | Suitable for LED lighting and moving sign applications |
| Warranty: | 5 years warranty |

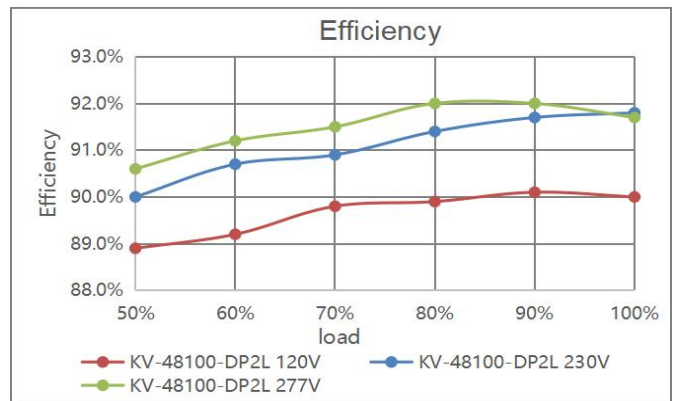
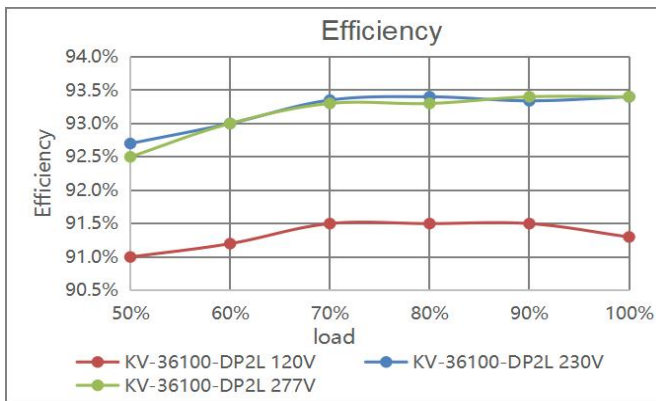
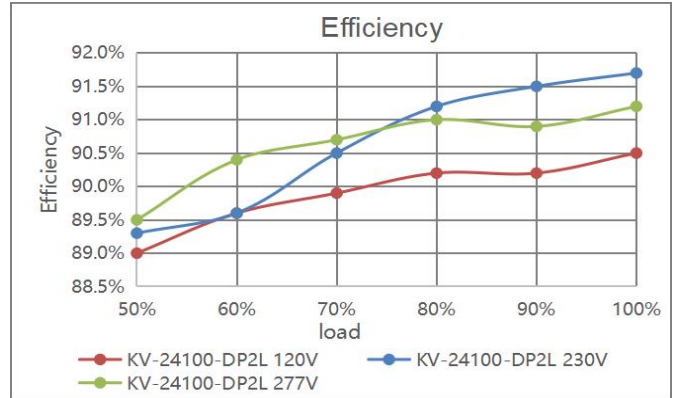
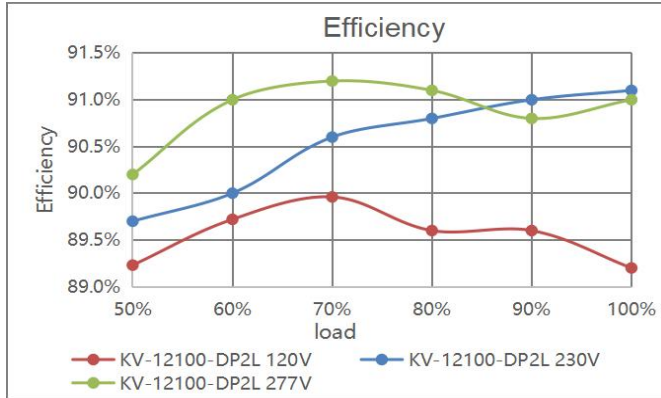
DALI-2/PUSH 2 in 1 Linear Dimmable LED driver 100W

Specification

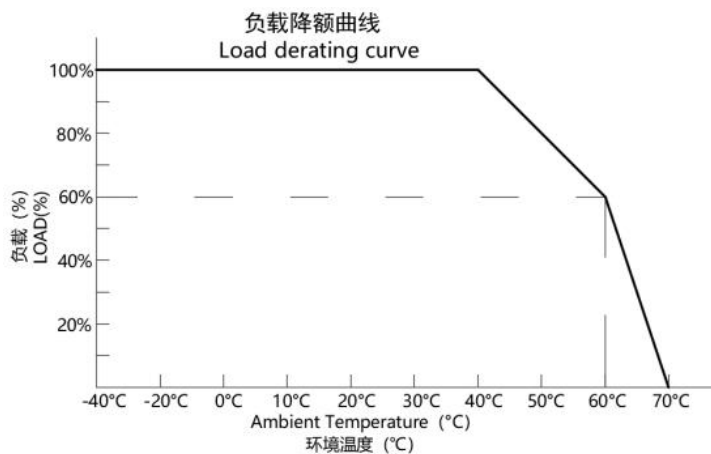
| Model | | KV-12100-DP2L | KV-24100-DP2L | KV-36100-DP2L | KV-48100-DP2L |
|-----------------------|--|--|-------------------------------|-------------------------------|-------------------------------|
| Certificate | | CE、RoHS、Reach | | | |
| Output | DC Voltage | 12V (12-13.5V adjust by NFC) | 24V (24-26V adjust by NFC) | 36V (36-38V adjust by NFC) | 48V (48-50V adjust by NFC) |
| | Voltage Tolerance | ±0.2V | | | |
| | Voltage Regulation | ±0.5% | | | |
| | Rated current | 8.33A | 4.17A | 2.78A | 2.08A |
| | Rated power | 100W | | | |
| | Load Regulation | 2% | 1% | 1% | 1% |
| | Standby power | ≤ 0.5W | | | |
| Input | Voltage Range | 100-277VAC | | | |
| | Frequency Range | 47 - 63Hz | | | |
| | Power Factor (Typ.) @ full load | PF≥0.98@120VAC PF≥0.97@230VAC PF≥0.95@277VAC | | | |
| | THD(Typ.) @ full load | ≤10%@120VAC | ≤10%@230VAC | ≤15%@277VAC | |
| | Efficiency(Typ.) @ full load | 89.2%@120VAC | 90.5%@120VAC | 90%@120VAC | 90%@120VAC |
| | | 91%@230VAC | 91.7%@230VAC | 91.8%@230VAC | 91.7%@230VAC |
| | | 91%@277VAC | 91.7%@277VAC | 91.7%@277VAC | 91.7%@277VAC |
| | AC Current (Max.) | 1.2A | | | |
| Inrush Current (Typ.) | 17A, 266us @50% 120VAC 60A,128us @50% 230VAC 42.4A, 286us @50% 277VAC | | | | |
| Leakage current | <0.5mA | | | | |
| Protection | Short Circuit | Hiccup mode, recover automatically after fault condition is removed | | | |
| | Over Load | ≤120% ,hiccup mode, recover automatically after fault condition is removed | | | |
| | Over temperature | Ambient temp. over 65℃±10℃, output will be off; recovers automatically after temp. drops. | | | |
| Environment | Working TEMP. | -40~+70℃ (see below derating curve) | | | |
| | Working Humidity | 20 - 90%RH non-condensing | | | |
| | Storage TEM.,Humidity | -40 - +80℃,10 - 95% RH non-condensing | | | |
| | TEMP.coefficient | ±0.03%/℃(0 - 50℃) | | | |
| | Vibration | 10~500Hz, 5G 10min./1 cycle, period for 60min. each along X,Y,Z axes | | | |
| Safety & EMC | Safety standards | EN61347-1 EN61347-2-13 & UL8750 UL1310 | | | |
| | Withstand voltage | I/P-O/P:3.75KVAC (EU) I/P-O/P:1.8KVAC (US) | | | |
| | Isolation resistance | I/P-O/P: 100MΩ / 500VDC / 25℃ / 70%RH | | | |
| | EMC immunity | EN61000-4-2,3,4,5,6,11 EN61547 | | | |
| | EMC Emission | EN55015 EN61000-3-2,3 (≥50%) FCC Part 15 Subpart B | | | |
| Others | Net Weight | 0.49Kg | | | |
| | Dimension | 338*38.5*23.6mm (L*W*H) | | | |
| | Packing | 360*270*175mm 30pcs /CTN | | | |
| Notes | 1. All parameters NOT specially mentioned are measured at rated load and 25℃of ambient temperature. 2. Tolerance: includes set up tolerance and load regulation . | | | | |

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Efficiency Curve (efficiency vs output load)



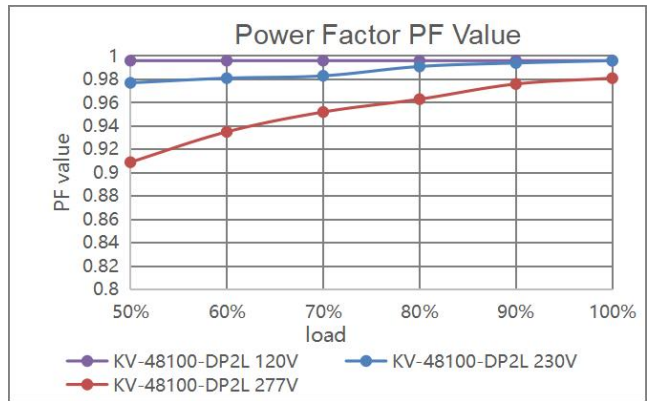
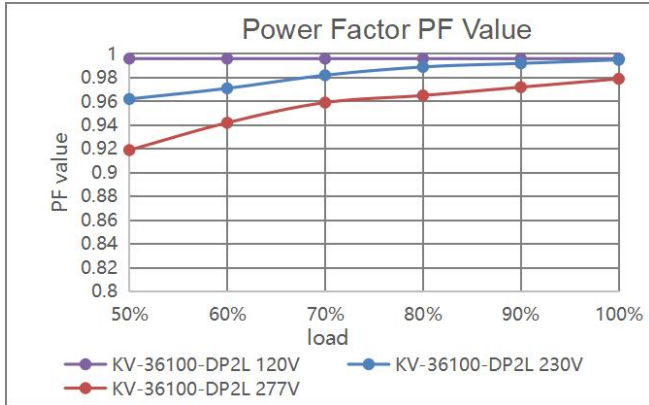
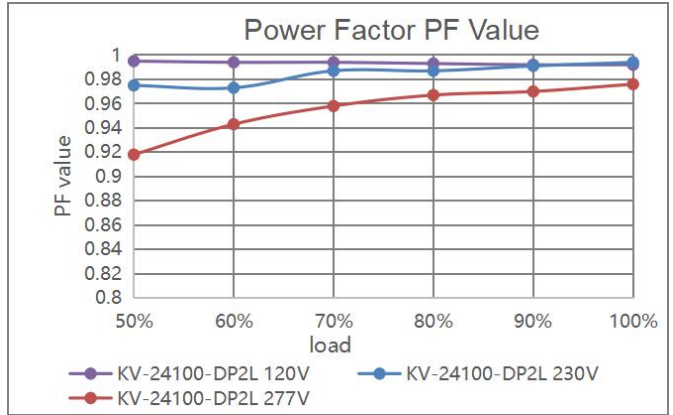
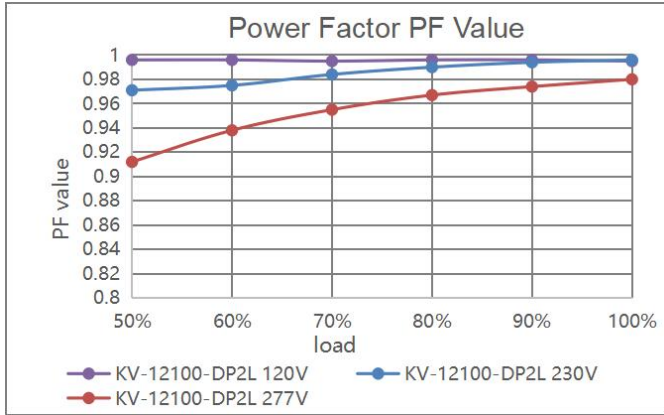
Derating Curve (output load vs TEMP.)



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

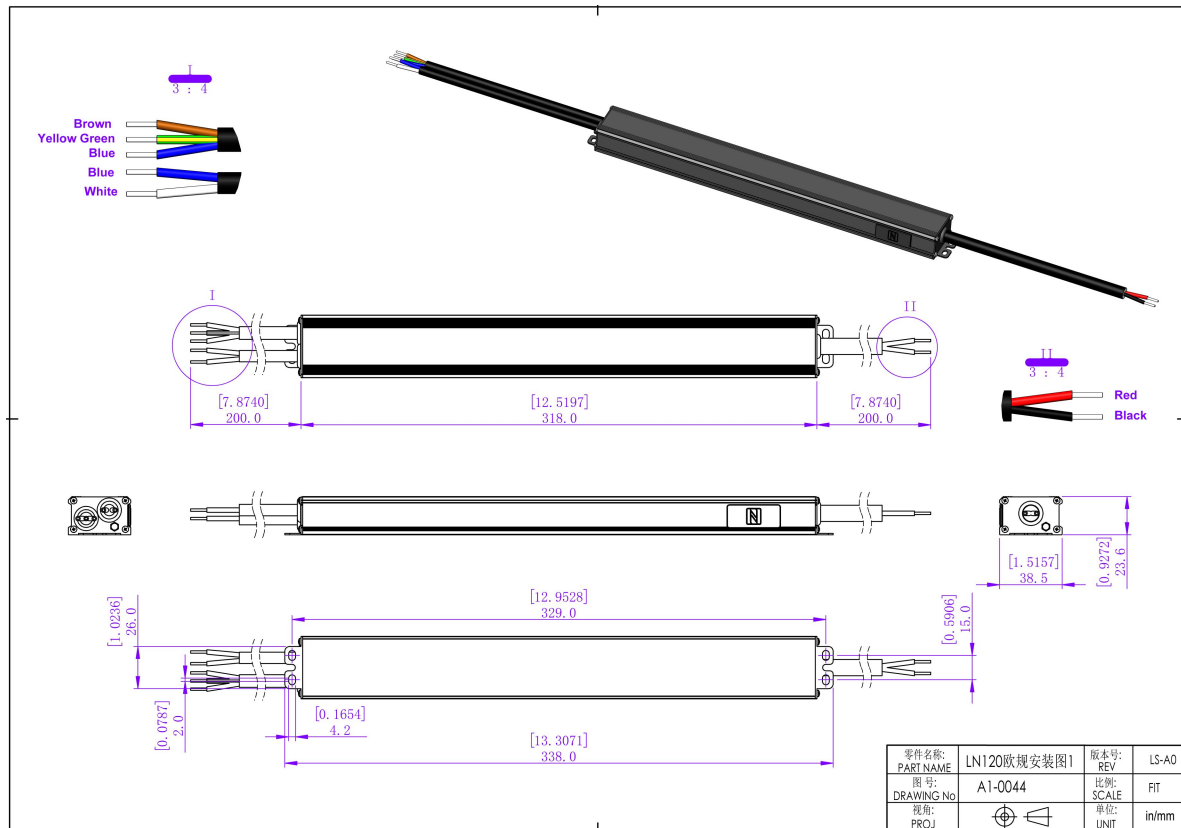
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Power Factor PF Value



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Mechanical Specification (For European Market)



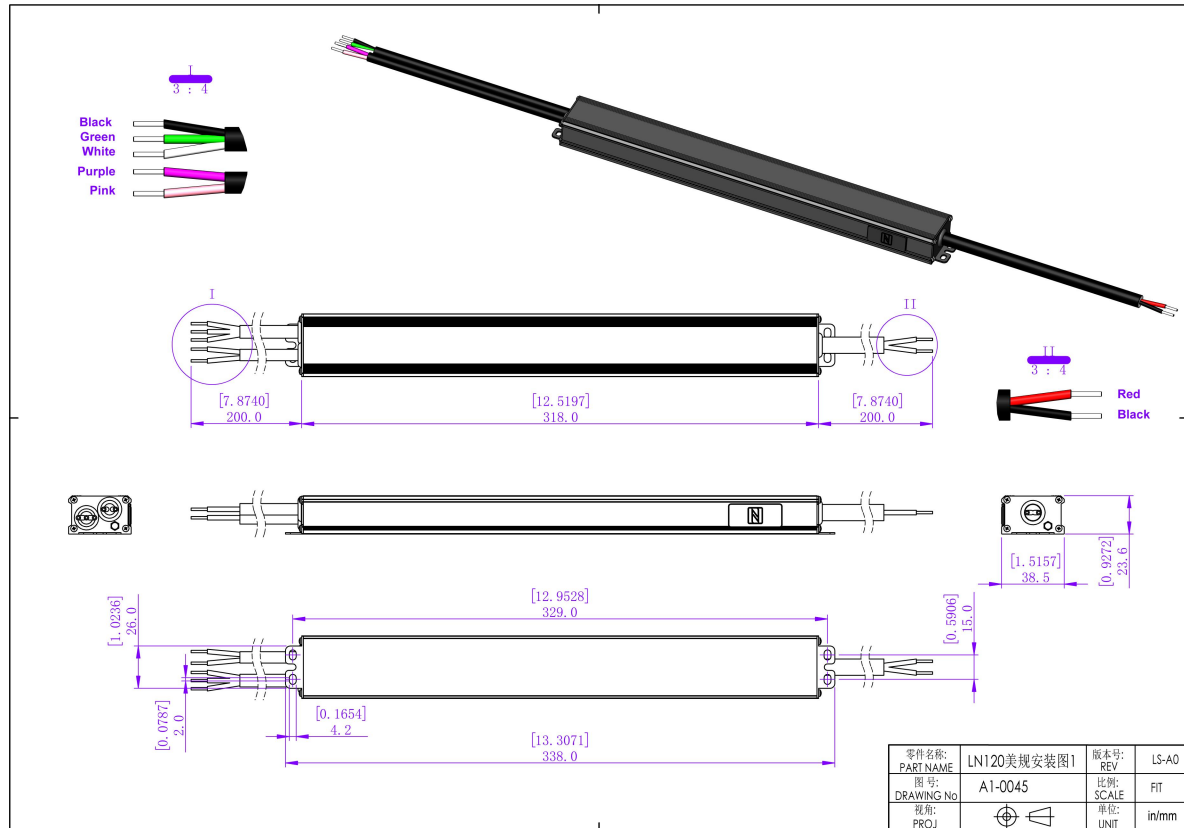
1. Input cable 3*1.0mm², the Brown cable to (L), the Blue cable to (N), and the Yellow & Green cable to (FG).
2. Output cable 12V is 2*1.5mm², 24V 36V 48V are 2*1.0 mm² Red cable (+) to Positive side(+), Black cable(-) to Negative side (-).
3. Dimming cable 2*1.0mm², White DA/N and Blue DA/L (No polar) connected to the DALI BUS.

Warm tips:

1. Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.
2. Any other requests for cable, we can customized.

DALI-2/PUSH 2 in 1 Linear Dimmable LED driver 100W

Mechanical Specification (For North American Market)



1. Input cable 3*18AWG, the Black cable to (L), the White cable to (N), and the Green cable to (FG)
2. Output cable 2*18AWG (12V), , Red cable (+) to Positive side(+), Black cable (-) to Negative side (-).
3. Dimming cable 2*18AWG, Pink DA/N and Purple DA/L (No polar) connected to the DALI BUS when use DALI function. Pink (N) is connected to AC (N) while Purple (L) is connected to Push dim switch dimmer(L) when use Push function.

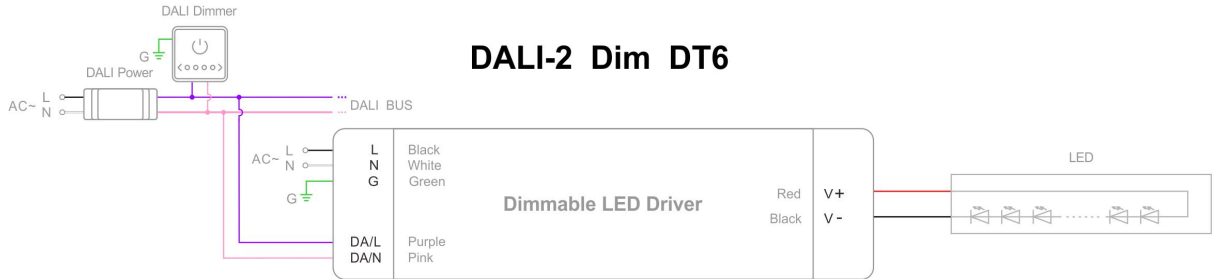
Warm tips:

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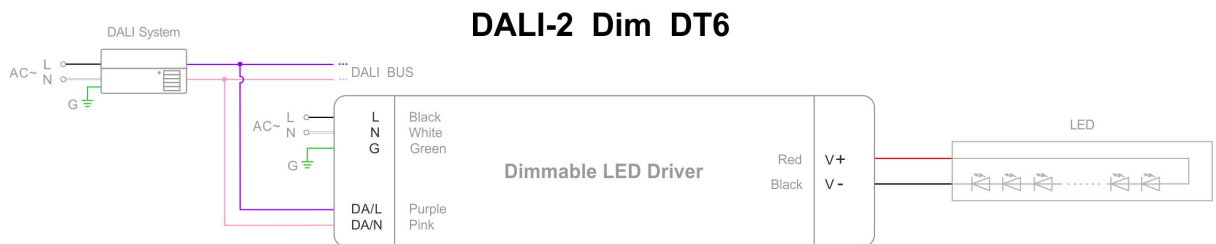
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Dimming Operation and Connecting Diagram

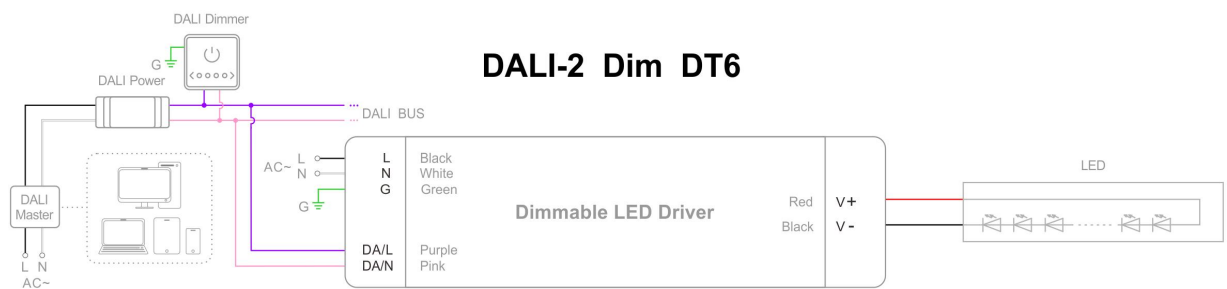
- Using DALI-2 dimming with DALI power and dimmer



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

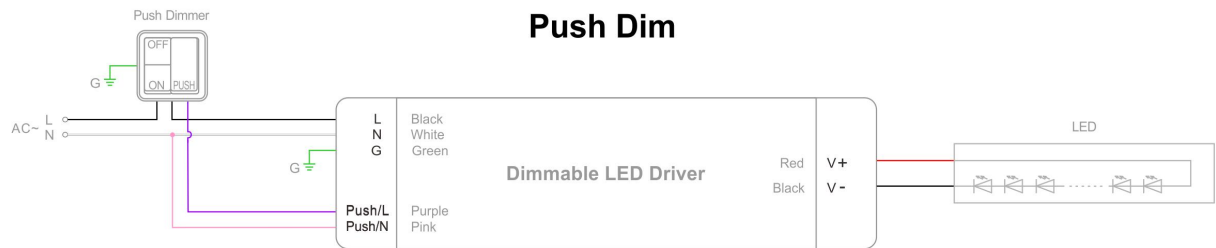
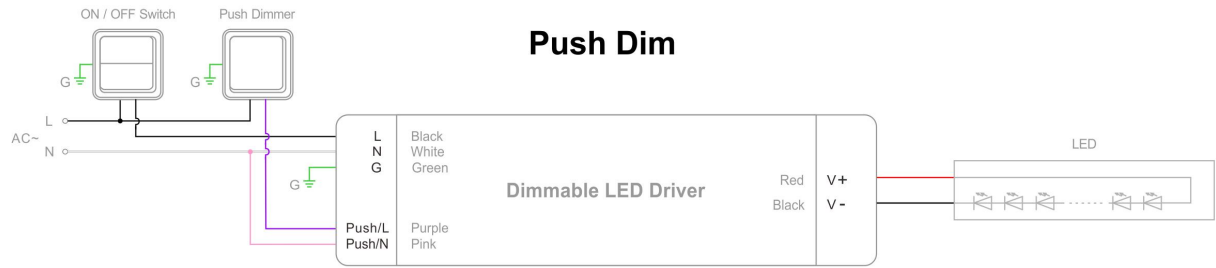


- Using DALI-2 dimming with intelligent device, DALI master and dimmer



DALI-2/PUSH 2 in 1 Linear Dimmable LED driver 100W

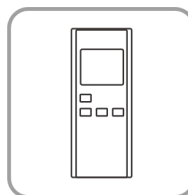
- Using PUSH dimming with dimmer (on & off function)



NFC Function



SetNFC APP



NFC Handheld devices

- Address settings:

NFC setting address:

The address can be read and written by a mobile with Easy NFC APP or NFC handheld device (NFC read & write device: NFC-RW) by close to the NFC signal area of the 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 |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 12V | 12V | 12.16V | 12.32V | 12.48V | 12.64V | 12.8V | 12.96V | 13.12V | 13.28V | 13.5V |
| 24V | 24V | 24.22V | 24.22V | 24.66V | 24.88V | 25.1V | 25.32V | 25.54V | 25.66V | 26.0V |
| 36V | 36V | 36.22V | 36.44V | 36.66V | 36.88V | 37.1V | 37.32V | 37.54V | 37.66V | 38.0V |
| 48V | 48V | 48.22V | 48.44V | 48.66V | 48..88V | 49.1V | 49.32V | 49.54V | 49.66V | 50.0V |

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.

Please visit our website or contact us for more information! www.scpower.net.cn/en