

KV2-DP2W Series 10W

Whole Family: KV2-XX010-DP2W (XX=12/24/48VDC) [10W 15W 20W 25W 30W 36W 40W]



ICES-005

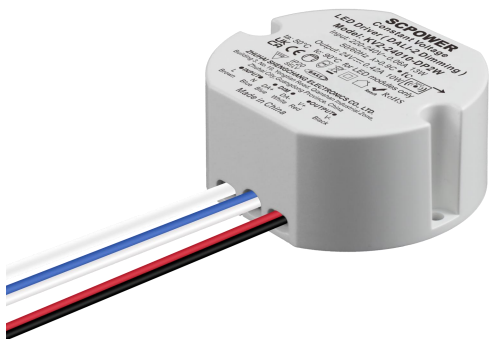


Class P

Class 2

IP20
SELV

RoHS



Features

Output Type:	Constant Voltage
Input Range:	220-240VAC(EU) & 120-277VAC(US)
PFC design:	Built-in active PFC function
Efficiency:	Up to 83.7%
Protections:	Short circuit / Over load / Over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	IP20 can be used indoor.(EU) Full plastic protection housing, for dry & damp locations.(US)
Design features:	1. Flicker-free dimming 2. Small volume 3. Output voltage and address can be adjusted by NFC APP.
Dimming function:	DALI-2 dimming
Dimming range:	0.1%-100% dimming depth 0.1%
Min load:	Min load is 10%.
Application:	Suitable for LED lighting and moving sign applications
Warranty:	5 years warranty
Others:	PWM output frequency 4KHz

DALI-2 Dimmable LED Driver - Constant Voltage Output - KV2-DP2W Series 10W
Specification

Model		KV2-12010-DP2W	KV2-24010-DP2W	KV2-48010-DP2W
Certificate		UL / FCC / ICES-005 / CE / UKCA / Class P / Class 2 / SELV / ROHS / REACH		
Output	DC Rate Voltage	12V	24V	48V
	Voltage Tolerance	±3%	±2%	±2%
	Load Regulation	±2%	±1%	±1%
	Voltage Regulation	±0.5%		
	Rated current	0.833A	0.417A	0.208A
	Rated power	10W		
	Overshoot	+8%	+5%	+5%
Input	Voltage Range	220-240VAC(EU) & 120-277VAC(US)		
	Frequency Range	50 / 60Hz		
	Power Factor @ full load	>0.85		
	THD(Typ.) @ full load	≤8%@120VAC ≤15%@230VAC ≤18%@277VAC		
	Efficiency @ full load	79.7%@120VAC	82.8%@120VAC	79.5%@120VAC
		80.6%@230VAC	83.7%@230VAC	82.5%@230VAC
		80.1%@277VAC	83.1%@277VAC	83%@277VAC
	AC Current (Max.)	0.11A		
Protection	Short Circuit	Shut down o/p voltage, recovers automatically after fault condition is removed.		
	Over Load	105%~110% Hiccup mode, recovers automatically after fault condition is removed.		
	Over temperature	When the ambient temperature exceeds 50°C±5°C, the output is turned off.		
Environment	Working TEMP. (Ta)	-40~+50°C (see below derating curve)		
	Case Temperature (Tc)	90°C		
	Working Humidity	20 - 90%RH non-condensing		
	Storage TEM.,Humidity	-40 - +80°C,10 - 95% RH non-condensing		
	TEMP.coefficient	±0.03%/°C(0 - 50°C)		
	Vibration	10 ~ 500Hz, 2G 10 minutes/cycle, X Y Z axis 72minutes each		
Safety & EMC	Safety standards	EN61347-1; EN61347-2-13 UL8750; CAN/CSA-C22.2 No.250.13		
	Withstand voltage	I/P-O/P: 3.75KVAC (EU) I/P-O/P: 1.88KVAC (US)		
	Isolation resistance	I/P-O/P:100MΩ / 500VDC / 25°C / 70% RH		
	EMC Immunity	EN61547; EN61000-4-2,3,4,5,6,11 FCC/ICES do not request this test.		
	EMC Emission	EN55015; EN61000-3-2,3 FCC Part 15 Subpart B; ANSI C63.4:2014+A1:2017; ICES-005 Issue 5; NMB-005		
	Surge Immunity Test	AC Power Line: Differential Mode 2 kV		

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Others	Net Weight	0.11KG
	Dimension	54*48.2*24.0mm (Φ*W*H)
	Packing	380*290*155mm 100pcs/CTN
Notes	1. Unless otherwise specified, all specifications are measured at 230V input, rated load, and 25°C ambient temperature. 2. Default states: Output voltage level is level 1. (see below NFC voltage regulation level table) Output frequency is 4KHZ. The dimming curve is a logarithmic curve. 3. Use only within an enclosure; DOIT ÊTRE INSTALLÉ DANS UNE ENCEINTE.	

MCB recommendation

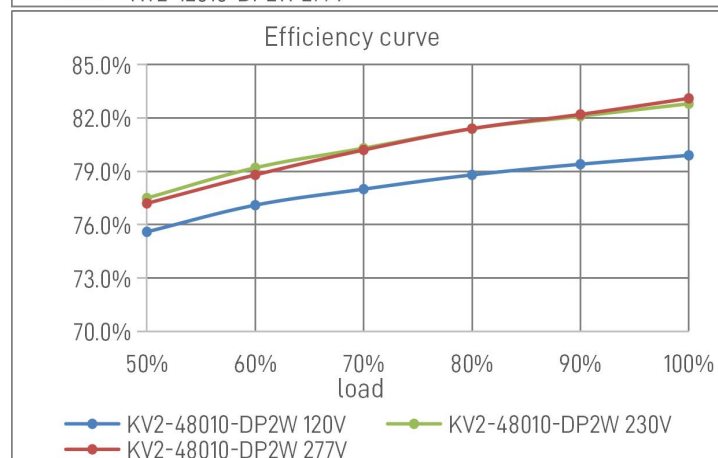
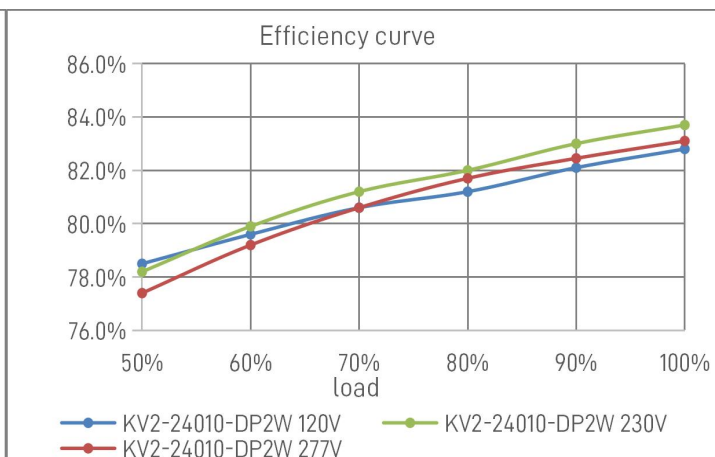
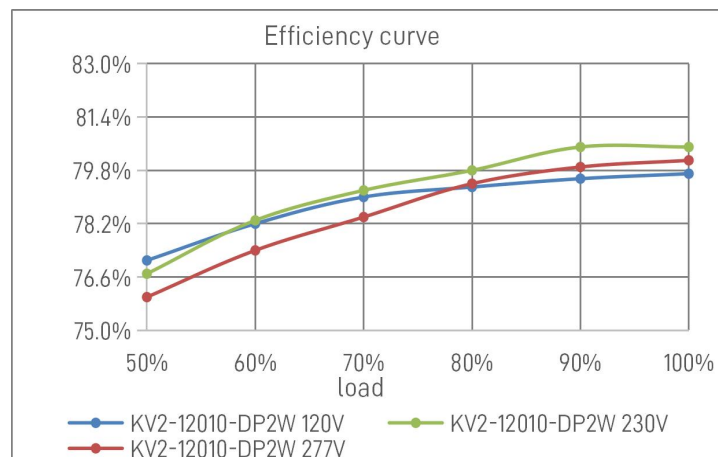
When the input voltage is 120Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	55
	13A	71
	16A	88
	20A	110
	25A	138
When the input voltage is 230Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	43
	13A	56
	16A	69
	20A	86
	25A	108
When the input voltage is 277Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	152
	13A	197
	16A	243
	20A	304
	25A	380

Note:

- The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 °C.
- The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.

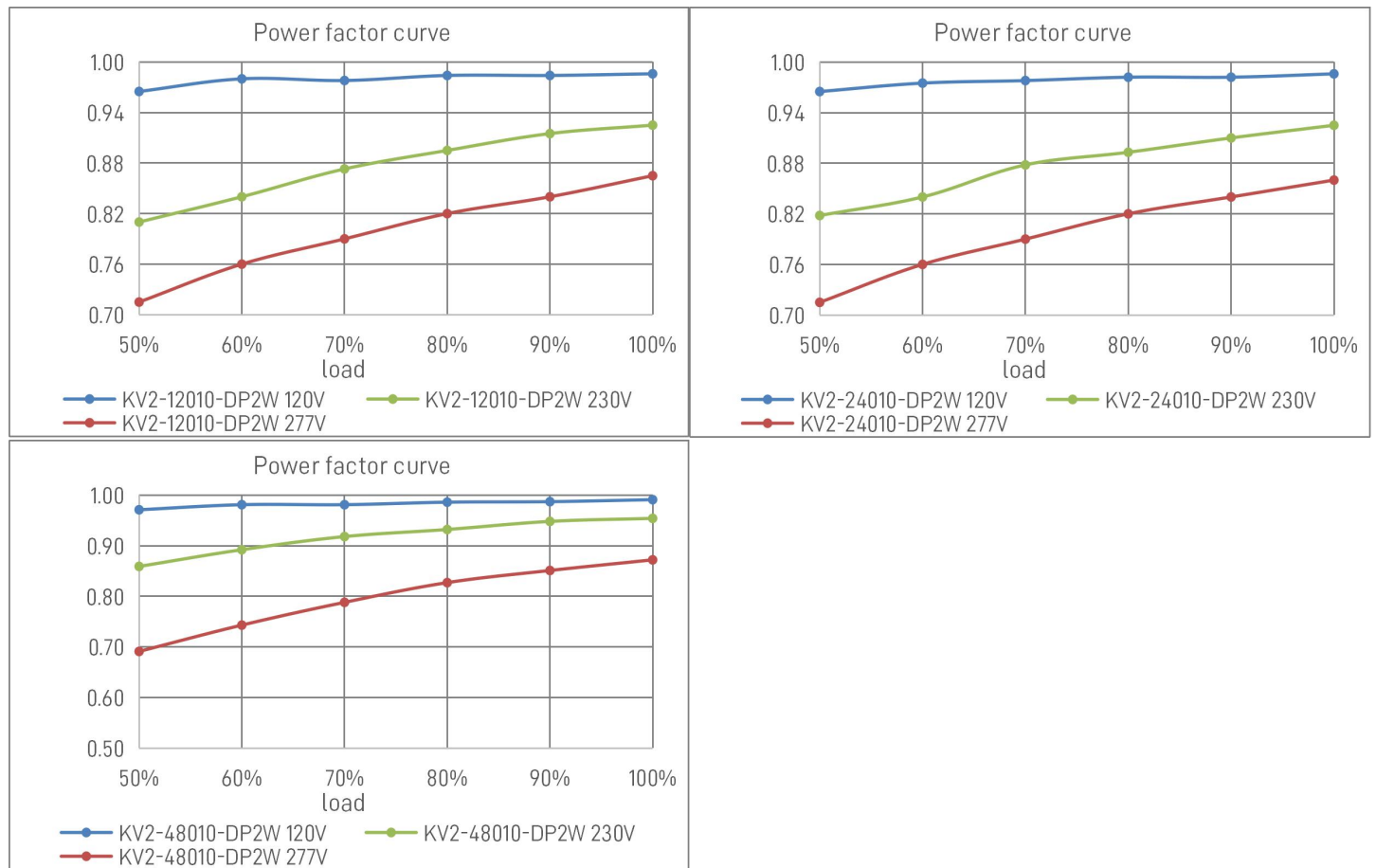
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Efficiency Curve (efficiency vs output load)

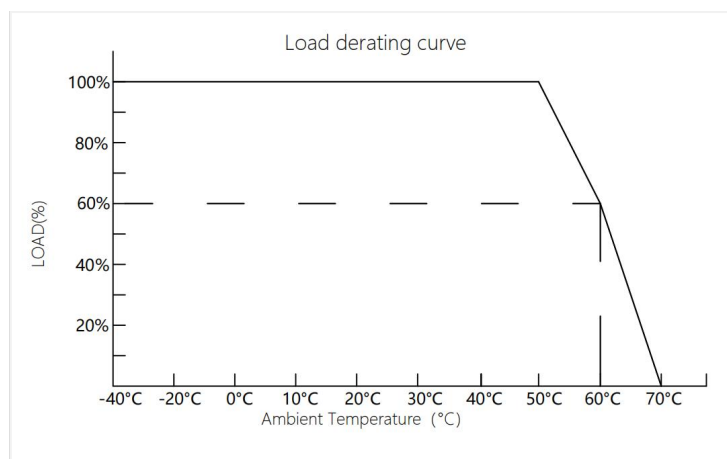


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Power Factor Curve (power factor vs output load)



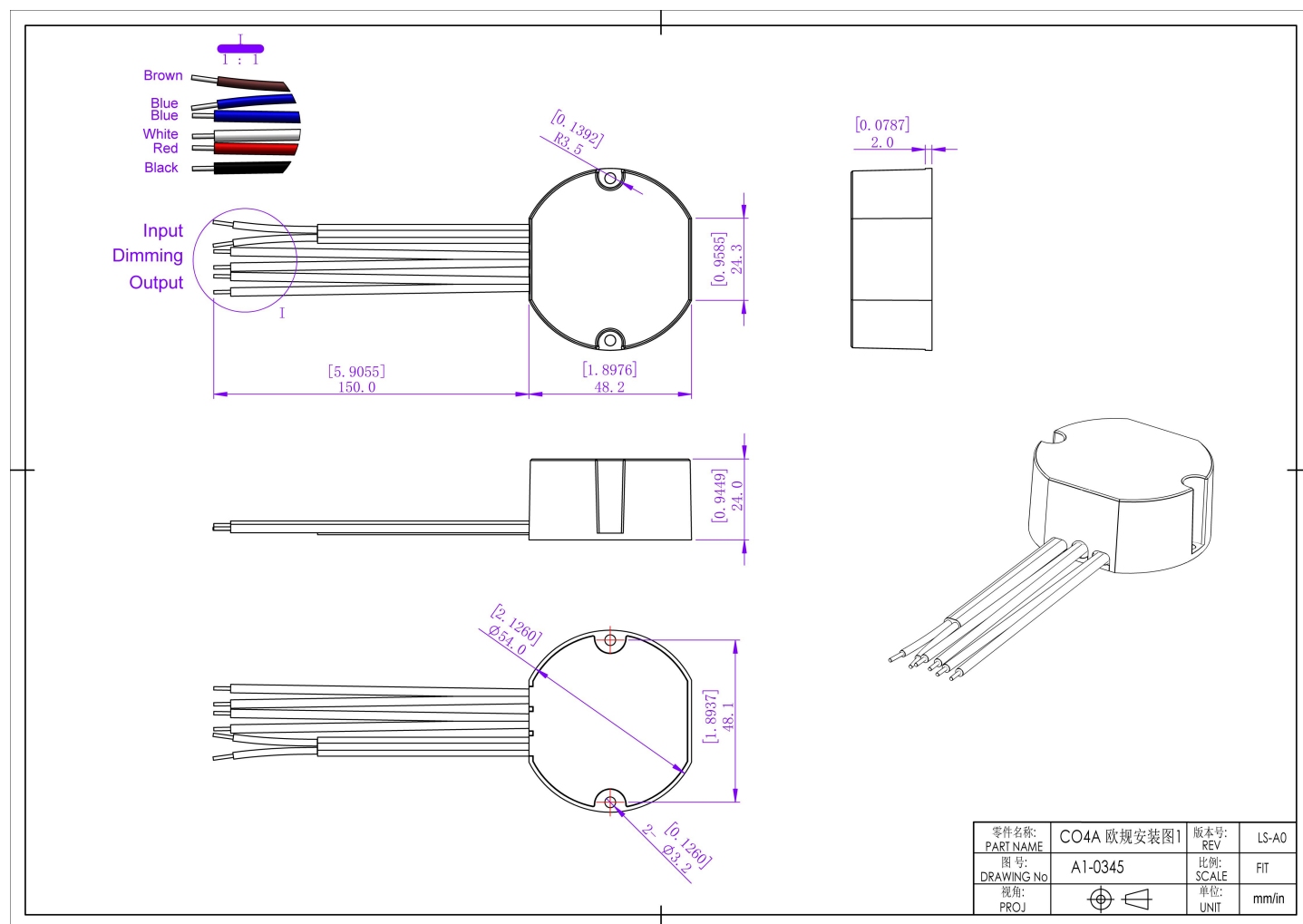
Derating Curve (Output power VS Ambient TEMP)



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.

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Mechanical Specification (For European Market)



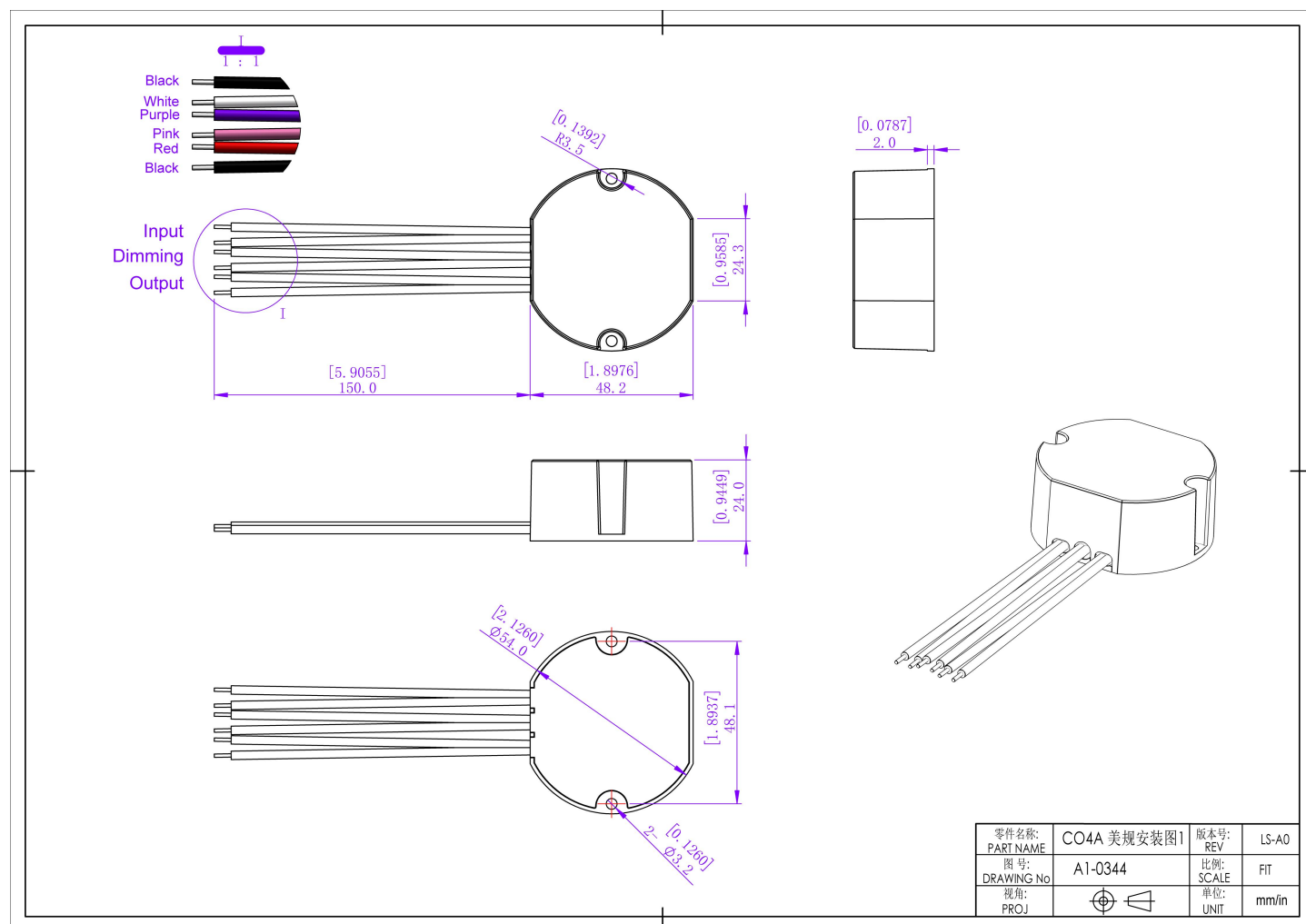
European wire gauge	
CO4A	
Input wire	Brown(L) Blue(N) (2*0.75mm ²)
Output wire	Red(V+) Black(V-) (2*0.326mm ²)
Dimming wire	Blue(DALI/L) White(DALI/N) (2*0.326mm ²)

Warm tip:

Any other requests for cable, we can customize.

DALI-2 Dimmable LED Driver - Constant Voltage Output - KV2-DP2W Series 10W

Mechanical Specification (For North American Market)



American wire gauge	
CO4A	
Input wire	Black(L) White(N) (2*18AWG)
Output wire	Red(V+) Black(V-) (2*22AWG)
Dimming wire	Purple(DALI/L) Pink(DALI/N) (2*22AWG)

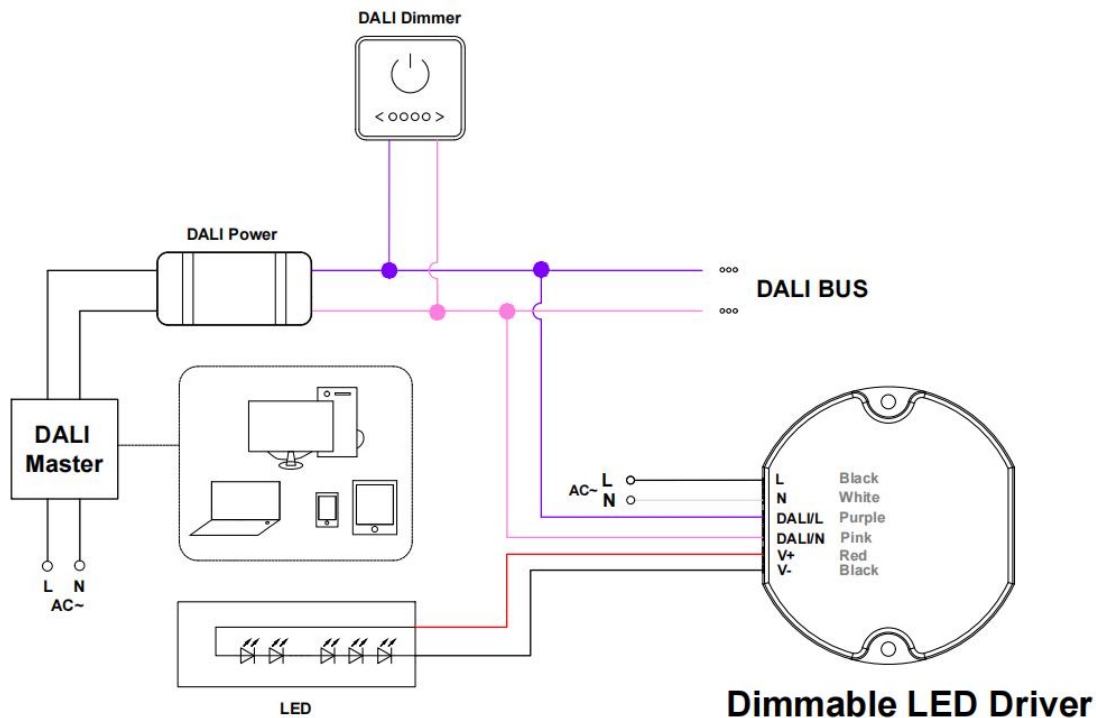
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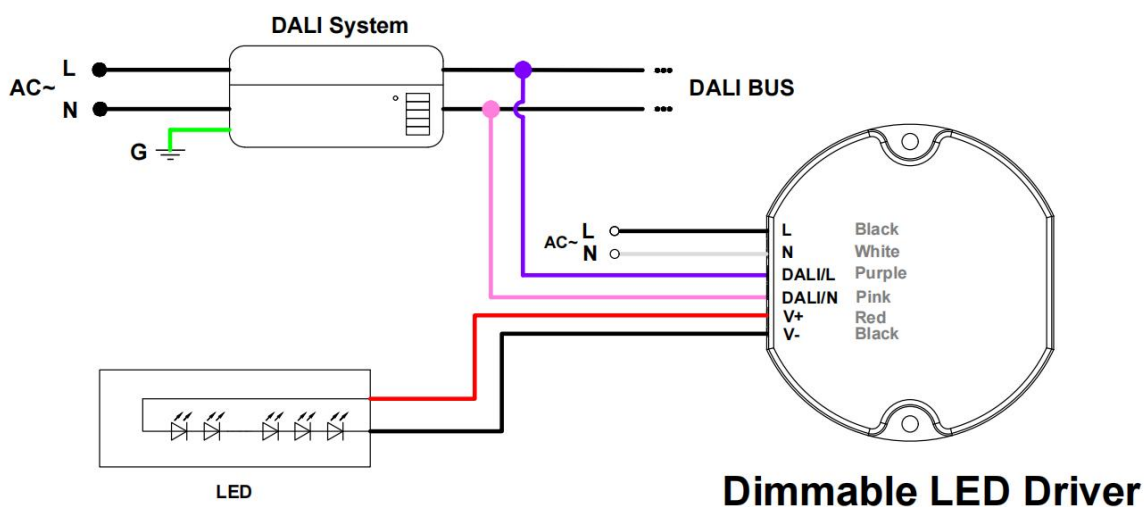
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Dimming Operation and Connecting Diagram (For North American Market)

● **Connection Diagram for DALI Dimmer:**

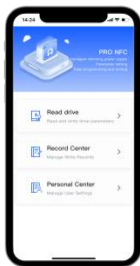


● **Connection Diagram for DALI System:**



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NFC function



ProNFC APP



NFC Handheld devices



IOS Download



Android Download

Adjust output voltage slightly by NFC

The output voltage can be read and written by a mobile with ProNFC APP or NFC handheld device (NFC read & write device: NFC-RW) by close to the NFC signal area of the Dimmable LED 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	12.0V	12.2V	12.3V	12.5V	12.6V	12.8V	13.0V	13.1V	13.3V	13.5V
24V	24.0V	24.2V	24.4V	24.7V	24.9V	25.1V	25.3V	25.6V	25.8V	26.0V
36V	36.0V	36.2V	36.4V	36.7V	36.9V	37.1V	37.3V	37.6V	37.8V	38.0V
48V	48.0V	48.2V	48.4V	48.7V	48.9V	49.1V	49.3V	49.6V	49.8V	50.0V

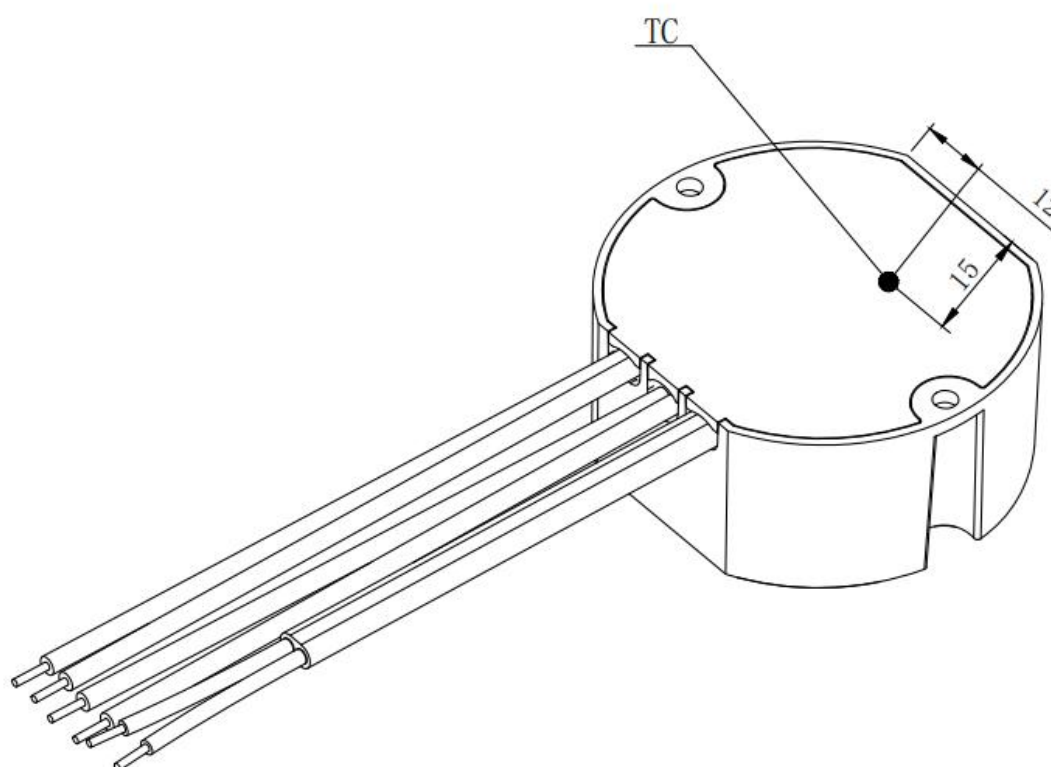
Set Address easily by NFC

The address can be read and written by a mobile with ProNFC APP or NFC handheld device (NFC read & write device: NFC-RW) by close to the NFC signal area of the Dimmable LED driver.

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Tc point

Unit: mm

**Instructions**

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