KV-DP2A series 300W

Whole Family: KV-XX300-YC-DP2A (xx=12V 24V 36V 48V) Y=3 4 5 [80W 96W 100W 120W 150W 200W 300W]

Features

Output:	Constant Voltage
Range:	100-277VAC
PFC design:	Two-stage PFC function
Efficiency:	Up to 93.5%
Protections:	Short circuit/ over load/ over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	Full Iron protection housing,for dry,damp & wet locations(US)
Design features:	Linear design, perfect profile and it also conforms to the safety regulations
Dimming function:	DALI dimming
Dimming range:	0.1-100%
Application:	Suitable for the application of LED lighting
Warranty:	5 years warranty
Others:	High power factor PF≥0.95, flicker-free dimming

Specification

Model		KV-12300-XC-DP2A	KV-24300-XC-DP2A	KV-48300-XC-DP2A
Certificate		UL / cUL / Class P / FCC / ENEC / CE /TYPE HL / DALI2		
Output	DC Voltage	12V	24V	48V
	Voltage Tolerance	±4%	±2%	±2%
	Voltage Regulation	⩽1%	⩽0.5%	⩽0.5%
	Rated current	25A	12.5A	6.25A
	Rated power	300W		
	Load Regulation	±3%	±2%	±1%
Input	Voltage Range	100-277VAC		
	Frequency Range	47 - 63Hz		
	Power Factor (Typ.) @ full load	0.99@120VAC 0.97@230VAC 0.95@277VAC		
	THD(Typ.) @ full load	⩽4%@120VAC ⩽12%@230VAC ⩽13%@277VAC		
	Efficiency(Typ.) @ full load	89.5%@120VAC 91.8%@2300VAC 92%@277VAC	90.7%@120VAC 93.5%@230VAC 93.5%@277VAC	90.7%@120VAC 93.1%@230VAC 93.3%@277VAC
	AC Current (Max.)	＜2.85A@120VAC ＜1.5A@230VAC ＜1.25A@277VAC		
	Standby power	⩽0.5W		
	Inrush Current (Typ.)	58A,120us@50%Ipeak 120VAC 98A,120us@50%Ipeak230VAC 135A,109us@50%Ipeak 277VAC		
	Leakage current	<0.5mA		
Protection	Short Circuit	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		
	Over Load	⩾110% Hiccup mode, recovers automatically after fault condition is removed		
Environment	Working TEMP	-40~+40℃ (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 12 minutes/cycle, X Y Z axis 72 minutes each		
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) I/P-O/P:1.80KVAC I/P-FG:1.8KVAC O/P-FG:1.8KVAC (US)		
	Isolation resistance	I/P-O/P: 100MΩ/ 500VDC/ 25℃/ 70% RH		
	Surge Immunity Test	AC Power Line:Differential Mode 2 kV, Common Mode 4 kV		
	EMC Immunity	FCC/ICES do not request this test(EU)&FCC Part 15,Subpart B;ANSI C63.4-2014 (US)		
	EMC Emission	EN55015 EN61000-3-2,3 (⩾50%) (EU) & FCC Part 15, Subpart B(US)		
Others	Net Weight	1.25KG		
	Dimension	322mm*78mm*25mm		
	Packing	365*270*305mm 10pcs /CTN		

Notes	1. Unless otherwise specified, all specifications are measured at 120V input, rated load, and 25℃ ambient temperature. 2. Default states:Output voltage is DC Rate Voltage. 3. LED driver Meets the harmonic emissions requirements of ANSI C82.77-10.

MCB recommendation

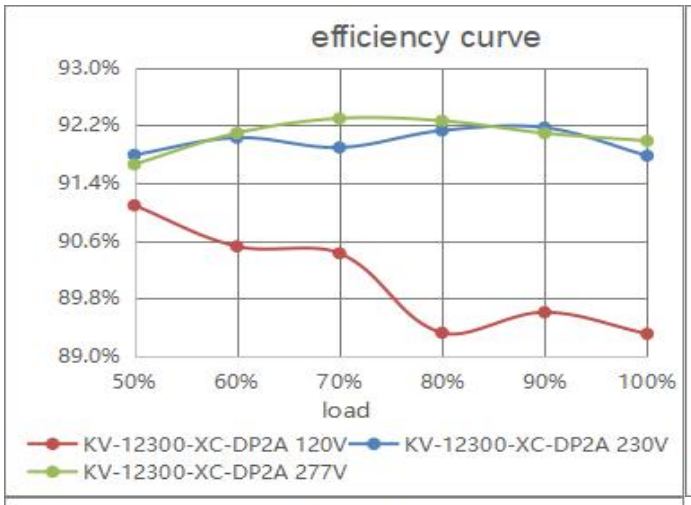
When the input voltage is 120Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	2
	13A	2
	16A	3
	20A	4
	25A	5
When the input voltage is 230Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	3
	13A	4
	16A	5
	20A	6
	25A	8
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	4
	13A	6
	16A	7
	20A	9
	25A	12

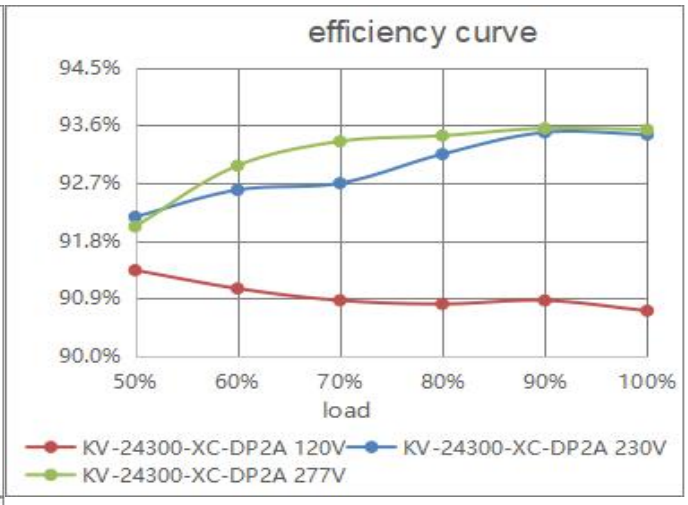
Note：

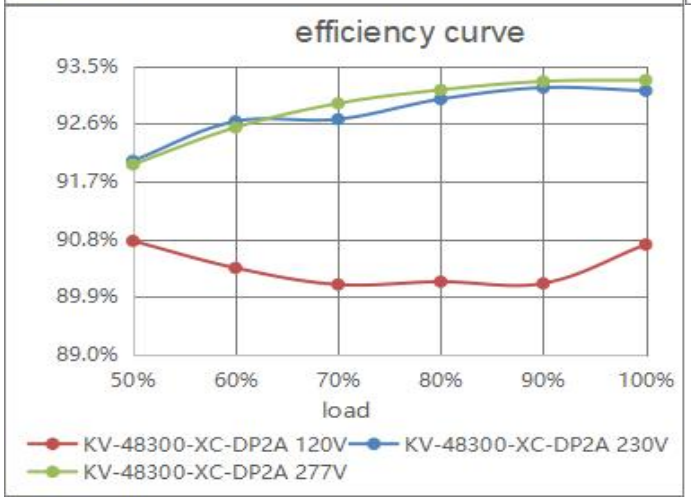
1.The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 ° C

2.The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.

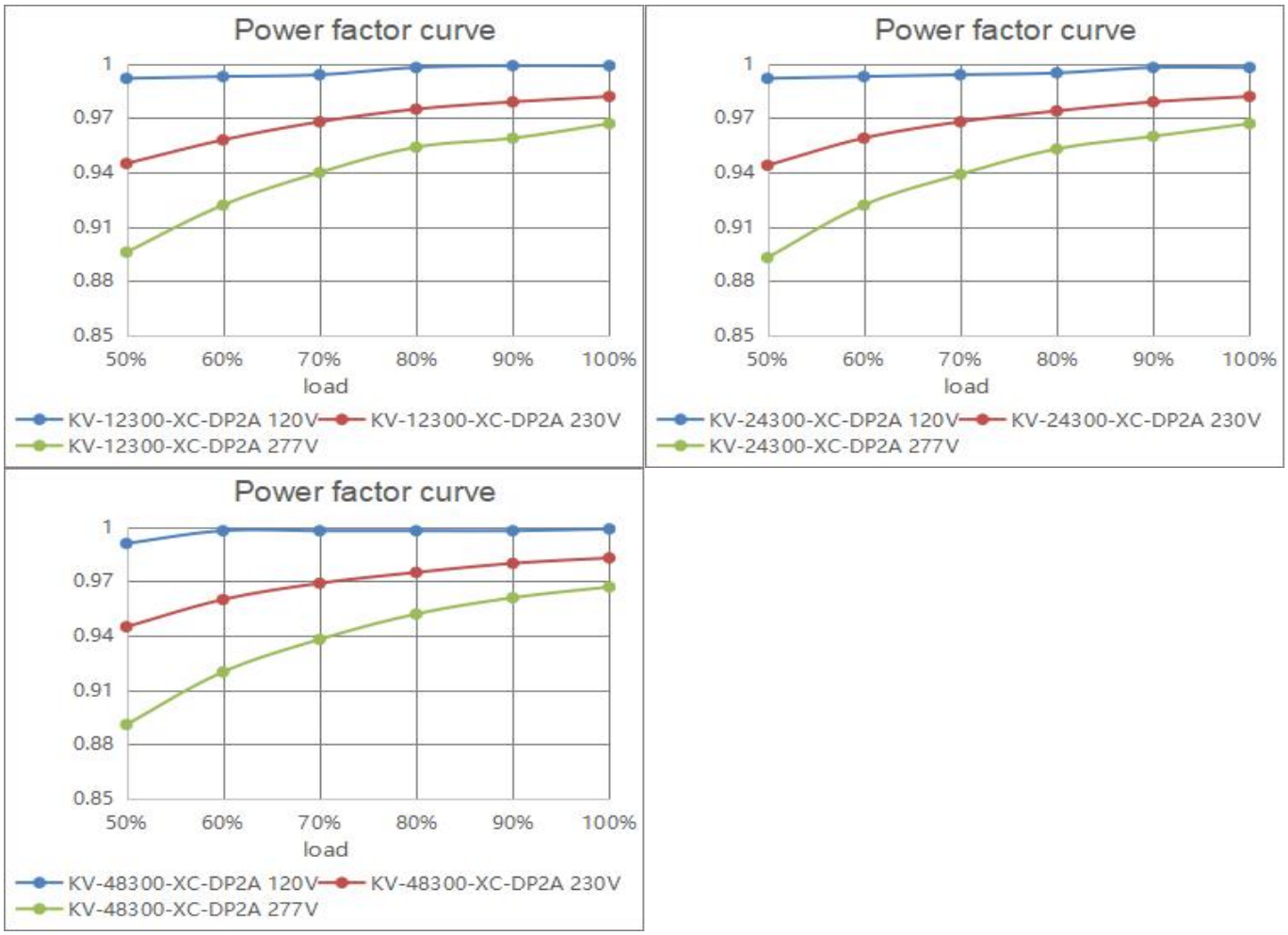
Efficiency Curve (efficiency vs output load)



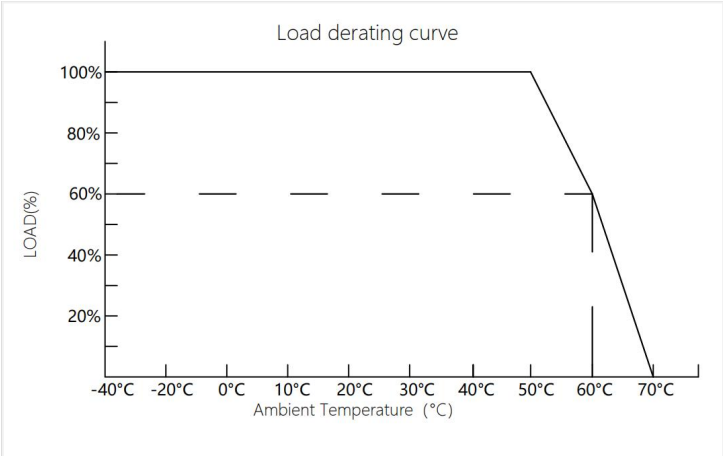




Power factor curve(Power factor vs output load)



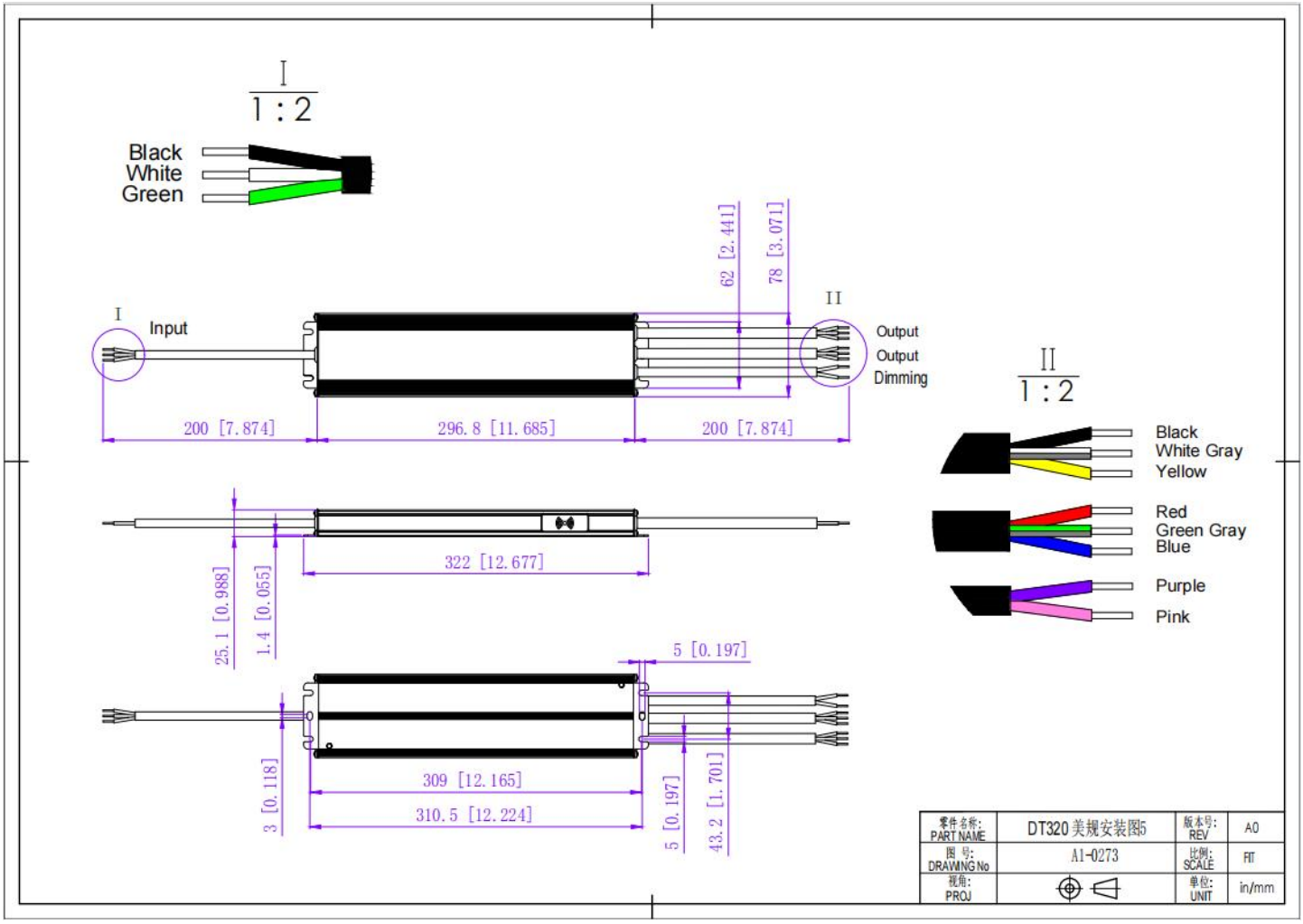
Derating Curve (output load vs TEMP)



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 .

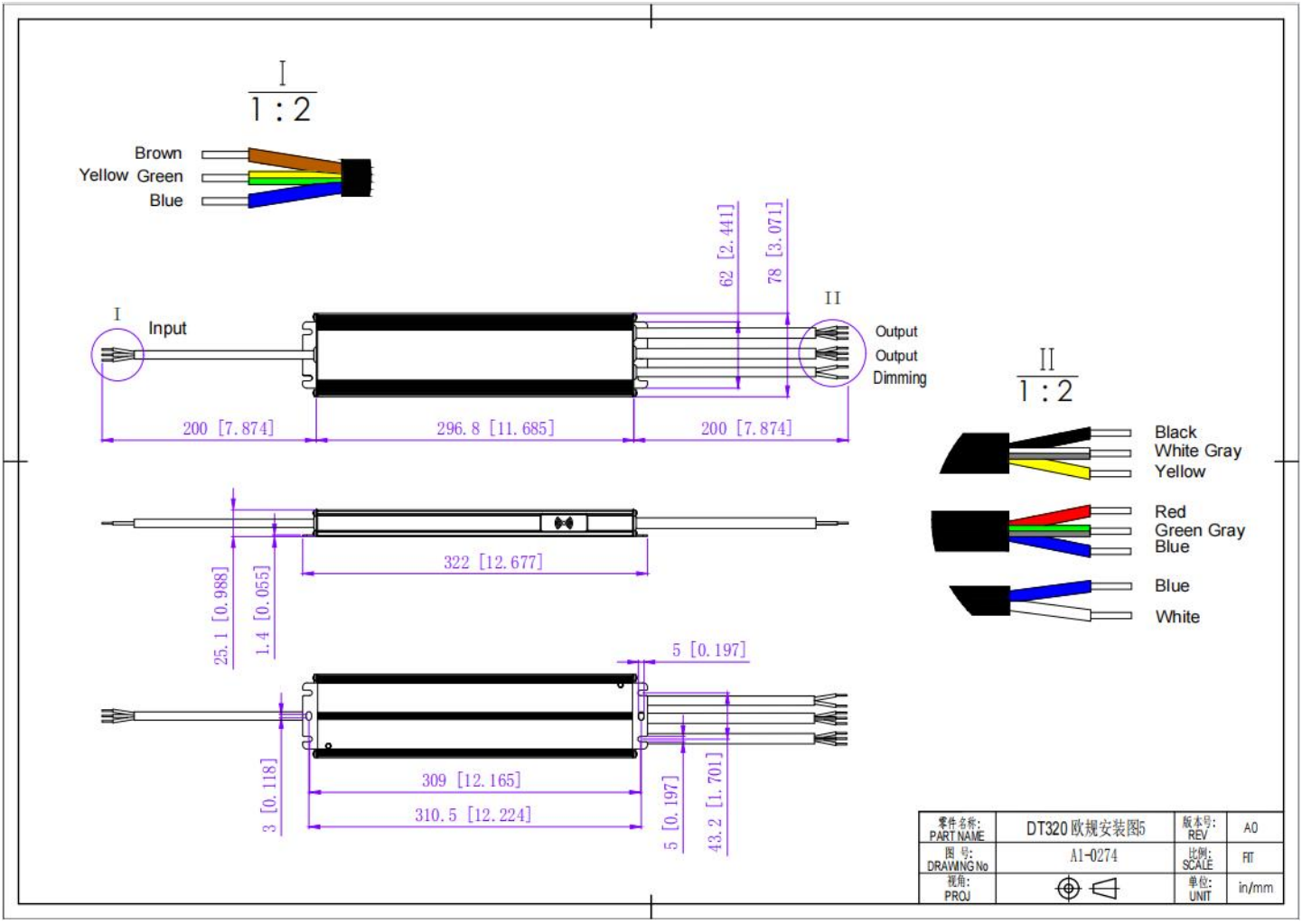
Mechanical Specification



12V/24V/36V/48V Version

American wire gauge	
DT320	
Input wire	Black(L) White(N) Green(G)(3*18AWG)
Output wire	12V：Black(V+) Red(R-) Green gray(G-) Blue(B-) White gray(CW-) Yellow(WW-)(6*12AWG) 24V：Black(V+) White gray(CW-) Yellow(WW-)3*14AWG Red(R-) Green gray(G-) Blue(B-) (3*14AWG) 48V：Black(V+) White gray(CW-) Yellow(WW-)3*16AWG Red(R-) Green gray(G-) Blue(B-) (3*16AWG)
Dimming wire	Purple(DALI+) Pink(DALI-)(2*18AWG)
Remarks：3C:R G B 4C:R G B CW 5C:R G B CW WW	

Mechanical Specification



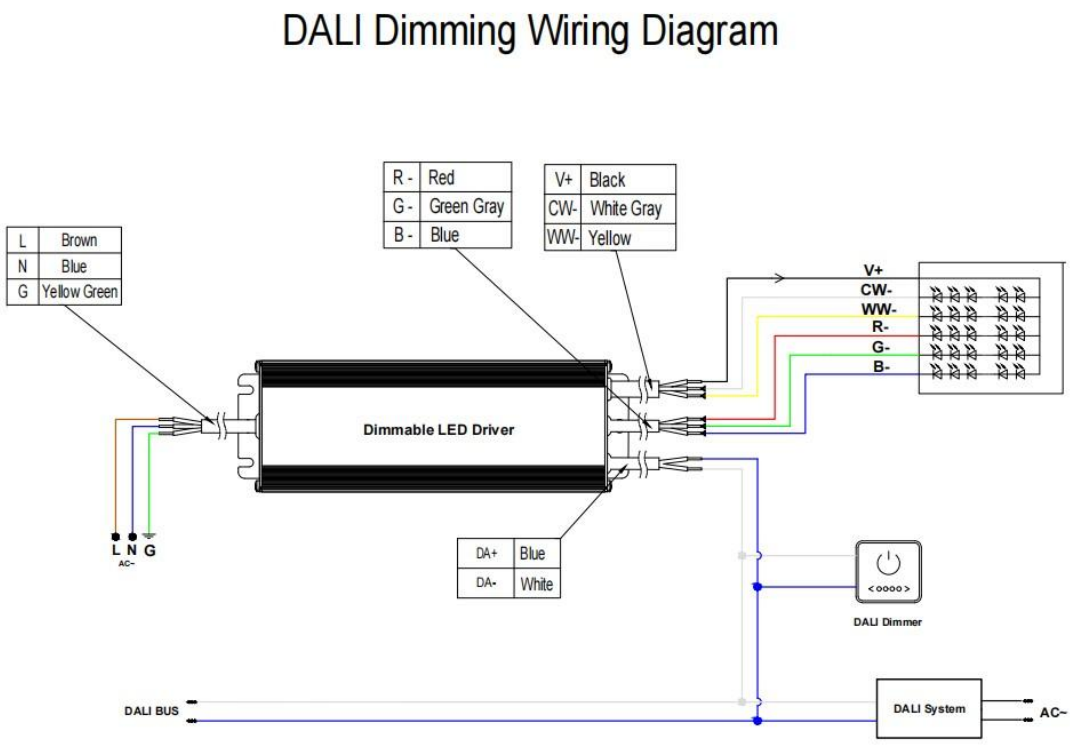
12V/24V/36V/48V Version

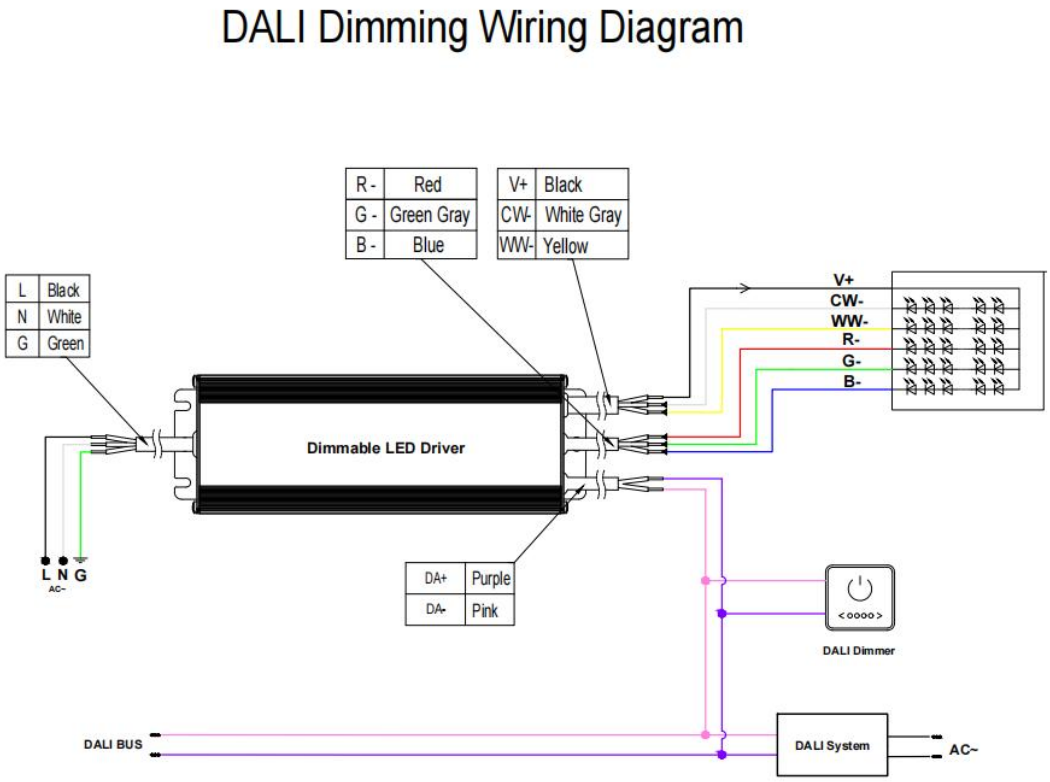
Europe wire gauge	
DT320	
Input wire	Brown(L) Blue(N) Yellow Green(G)(3*18AWG)
Output wire	12V：Black(V+) Red(R-) Green gray(G-) Blue(B-) White gray(CW-) Yellow(WW-)(6*12AWG) 24V：Black(V+) White gray(CW-) Yellow(WW-)3*14AWG Red(R-) Green gray(G-) Blue(B-) (3*14AWG) 48V：Black(V+) White gray(CW-) Yellow(WW-)3*16AWG Red(R-) Green gray(G-) Blue(B-) (3*16AWG)
Dimming wire	Blue(DALI+) White(DALI-)(2*18AWG)
Remarks：3C:R G B 4C:R G B CW 5C:R G B CW WW	

Warm tips:

Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.

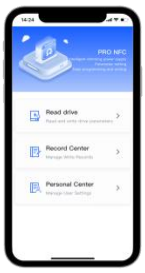
Connecting Diagram





when DALI dimming, signal dimming DA/N, DA/L (No polar) connected to the BUS of the DALI Master;can be adjusted for brightness and color temperature.

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	12.4V	12.5V	12.6V	12.7V	12.8V	12.9V	13V
24V	24.0V	24.2V	24.3V	24.5V	24.7V	24.8V	25V	25.2V	25.3V	25.5V
48V	48.0V	48.2V	48.4V	48.7V	48.9V	49.1V	49.3V	49.6V	49.8V	50V

Set Address easily by NFC

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

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