KV-2C-DP2A Series 300W (DT8)

Whole Family: KV-XX300-2C-DP2A (XX=12/24/48VDC) [60W 80W 96W 100W 120W 150W 200W 300W 320W 360W]



Features

Output:	Constant Voltage
Range:	110-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 93%
Protections:	Short circuit / Over load / Over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	IP66 can be used indoor and outdoor.(EU)
	Full aluminum protection housing, for dry, damp & wet locations.(US)
Design features:	CCT brightness and color temperature adjustment.
Dimming function:	DALI-2 & PUSH 2 in 1 dimming
Dimming range:	0.2-100% dimming depth 0.2%
Min load:	Min load is 10%
Application:	Suitable for LED lighting and moving sign applications
Warranty:	5 years warranty
Others:	PWM output, flicker-free dimming

DALI-2 & PUSH Dimmable LED Driver - Constant Voltage Output - KV-2C-DP2A Series 300W

Specification

Model		KV-12300-2C-DP2A	KV-24300-2C-DP2A	KV-48300-2C-DP2A
Certificate		UL / cUL / FCC / CE / ENEC / ICES-005 / SAA / Class P / TYPE HL / SELV / ROHS / Reach		
Output	DC Voltage	12V	24V	48V
	Voltage Tolerance	±4%	±2%	±2%
	Voltage Regulation	≤0.5%	≤0.5%	≤0.5%
	Load Regulation	±2%	±1%	±1%
	RIPPLE & NOISE (max.)	260mVp-p	420mVp-p	570mVp-p
	Overshoot voltage	＜10% （full load）		
	Rated current	25A	12.5A	6.25A
	Rated power	300W		
Input	Voltage Range	110-277VAC		
	Frequency Range	50 / 60Hz		
	Power Factor (Typ.) @ full load	0.95		
	THD(Typ.) @ full load	≤10%@120VAC ≤10%@230VAC ≤15%@277VAC		
	Efficiency(Typ.) @ full load	≥88%@120VAC ≥90%@230VAC ≥91%@277VAC	≥90%@120VAC ≥92%@230VAC ≥93%@277VAC	≥90%@120VAC ≥92%@230VAC ≥93%@277VAC
	AC Current (Max.)	3.5A		
	Standby power	≤0.5W		
	Inrush Current (Typ.)	38.8A, 490us @50%Ipeak 120VAC 132A, 31.2us @50%Ipeak 230VAC 68A, 171us @50%Ipeak 277VAC		
	Leakage current	<0.5mA		
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 60°C, the output is turned off.		
Environment	Working TEMP.	-40~+50℃ (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 12 minutes/cycle, X Y Z axis 72 minutes 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 I/P-FG:1.5KVAC O/P-FG:0.5KVAC (EU) I/P-O/P:1.88KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC (US)		
	Isolation resistance	I/P-O/P: 100MΩ/ 500VDC/ 25℃/ 70% RH		
	Surge Immunity Test	AC Power Line: Differential Mode 2KV, Common Mode 4KV		
	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 Part15 Subpart B; ANSI C63.4a-2017; ICES-005 Issue 5		

Others	Net Weight	1.18KG
	Dimension	302*78*25.1mm(L*W*H)
	Packing	350*300*215mm 20pcs /CTN
Notes	1. Unless otherwise specified, all specifications are measured at 120V input, rated load, and 25℃ ambient temperature. 2. Default states: Output voltage level is level 1. (see below NFC voltage regulation level table) Output frequency is 4KHZ. 3. LED driver Meets the harmonic emissions requirements of ANSI C82.77-10.	

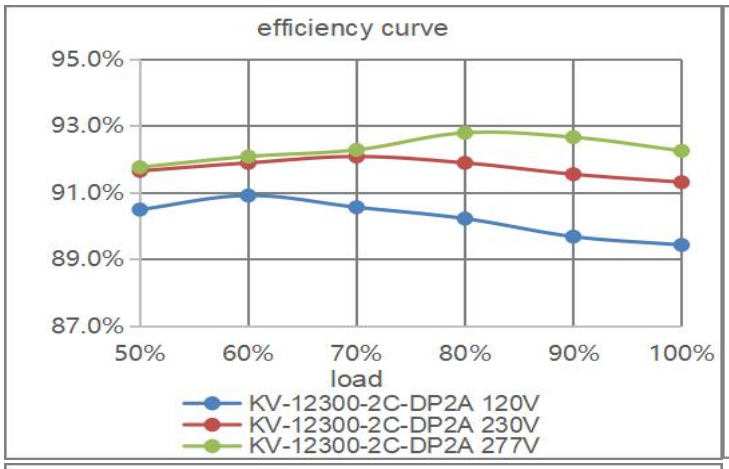
MCB recommendation

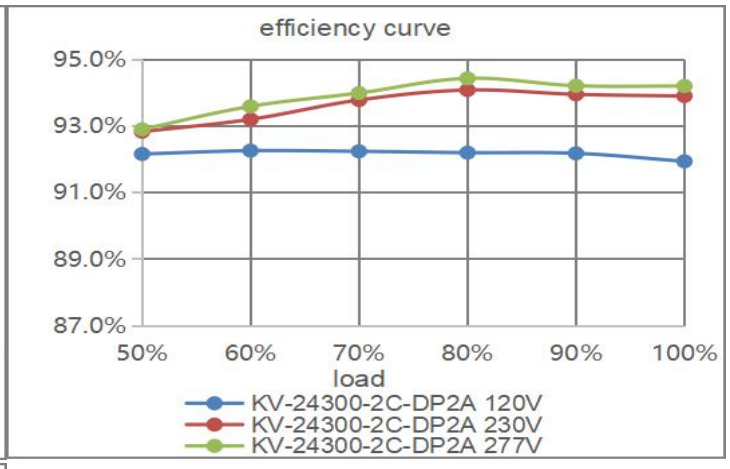
When the input voltage is 120Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	3
	13A	4
	16A	5
	20A	6
	25A	8
When the input voltage is 230Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type(breaking capacity:6KA)	10A	6
	13A	7
	16A	9
	20A	12
	25A	15
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	7
	13A	9
	16A	11
	20A	14
	25A	18

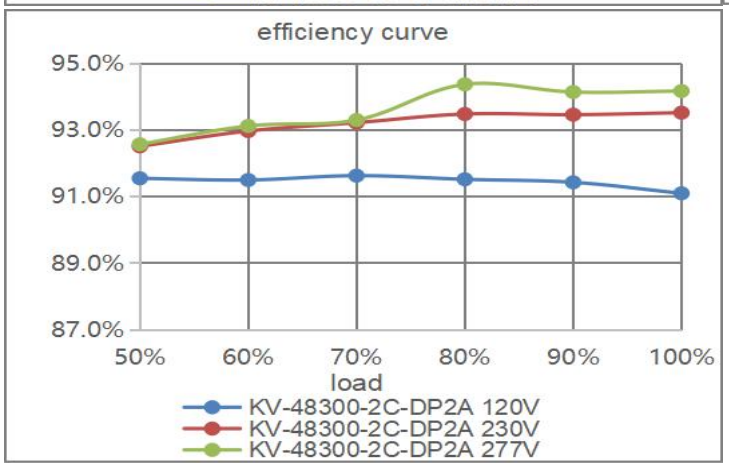
Note：

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.

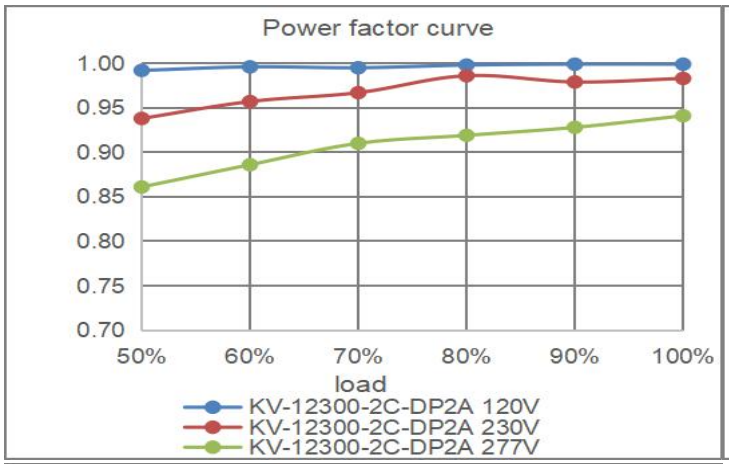
Efficiency Curve (efficiency vs output load)

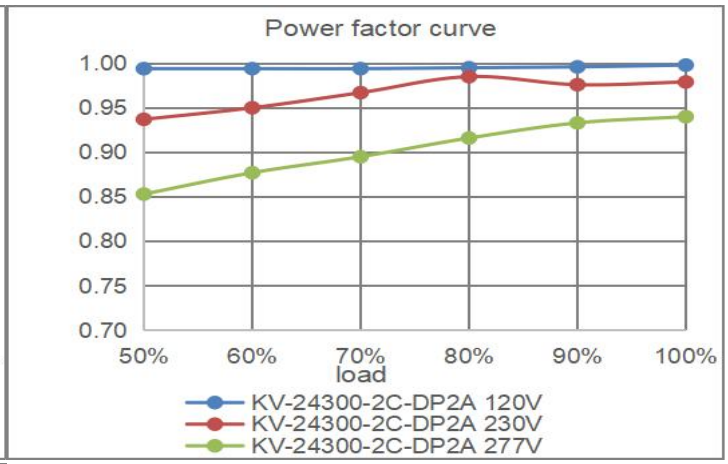


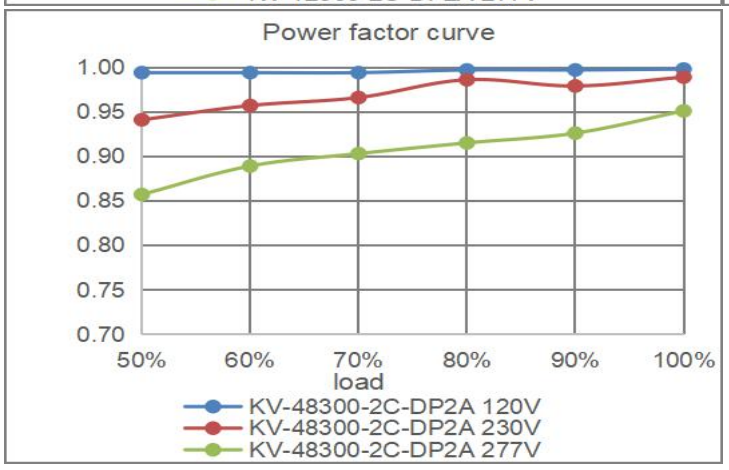




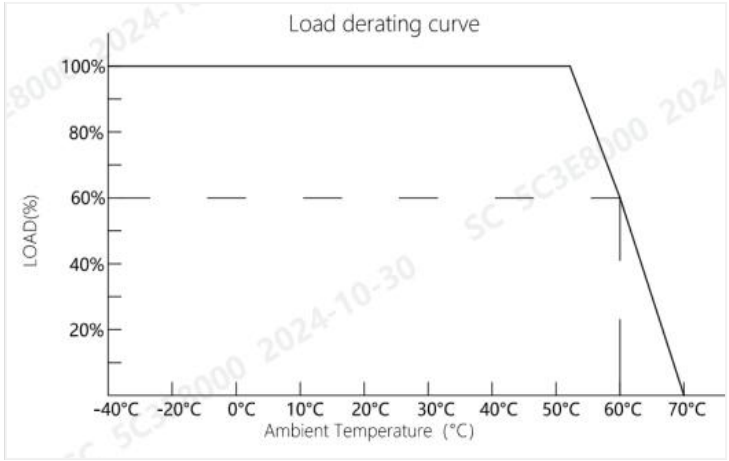
Power Factor Curve (power factor vs output load)





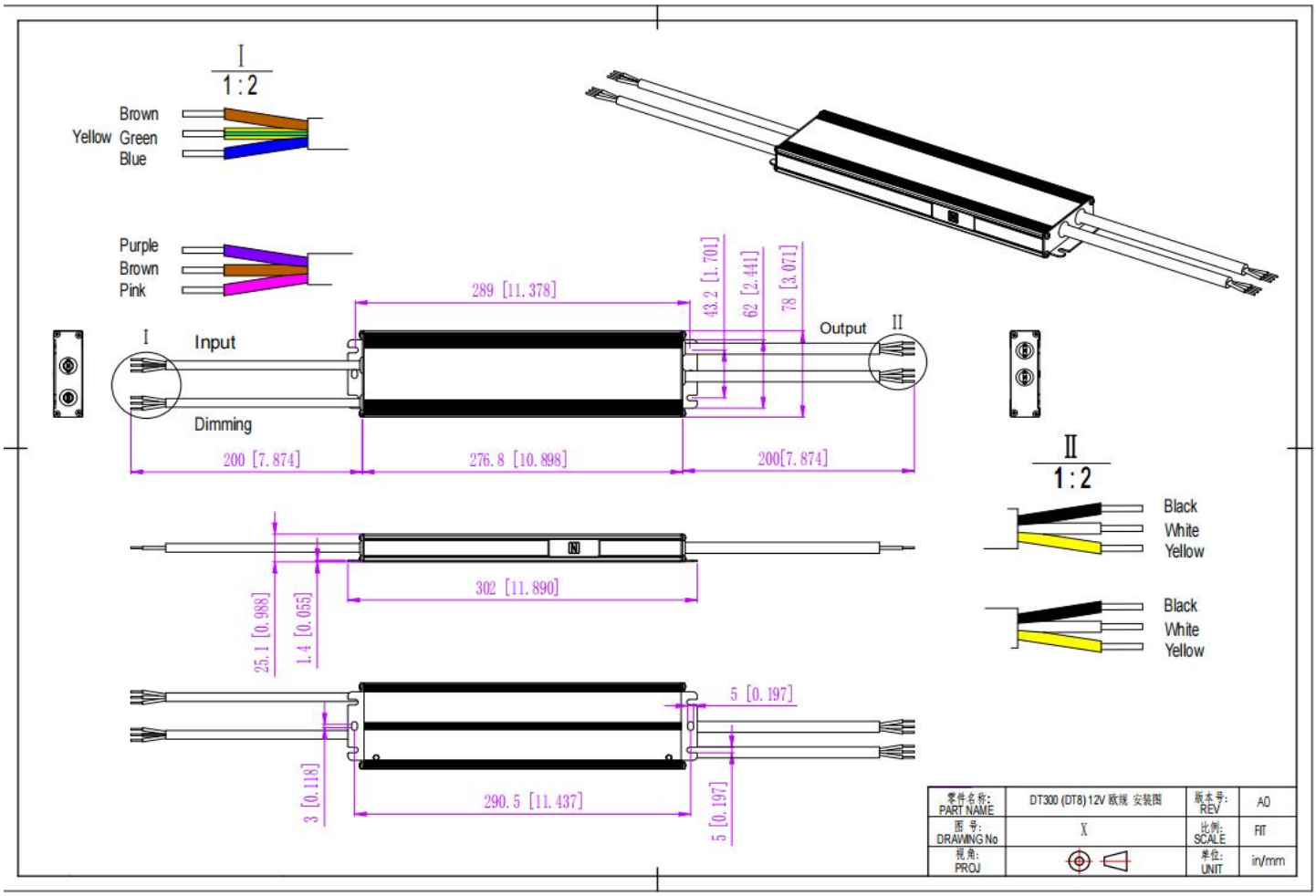


Derating Curve (output load vs TEMP.)



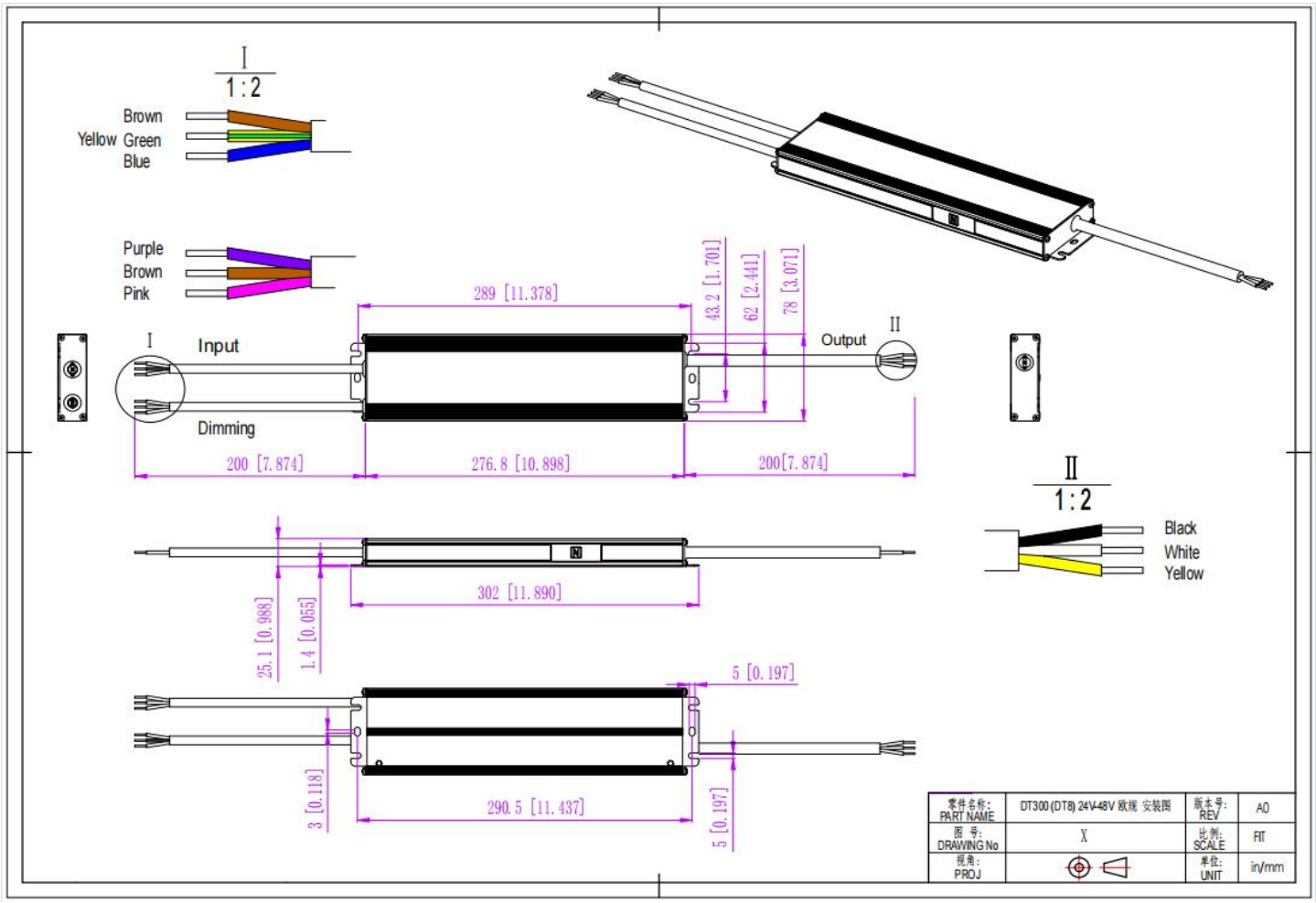
1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. The output current of the LED driver should be selected according to the rated current of the lamp and the ambient temperature. Normally, we recommend the power supply to reserve a certain amount of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

Mechanical Specification (For European Market)



12V Version

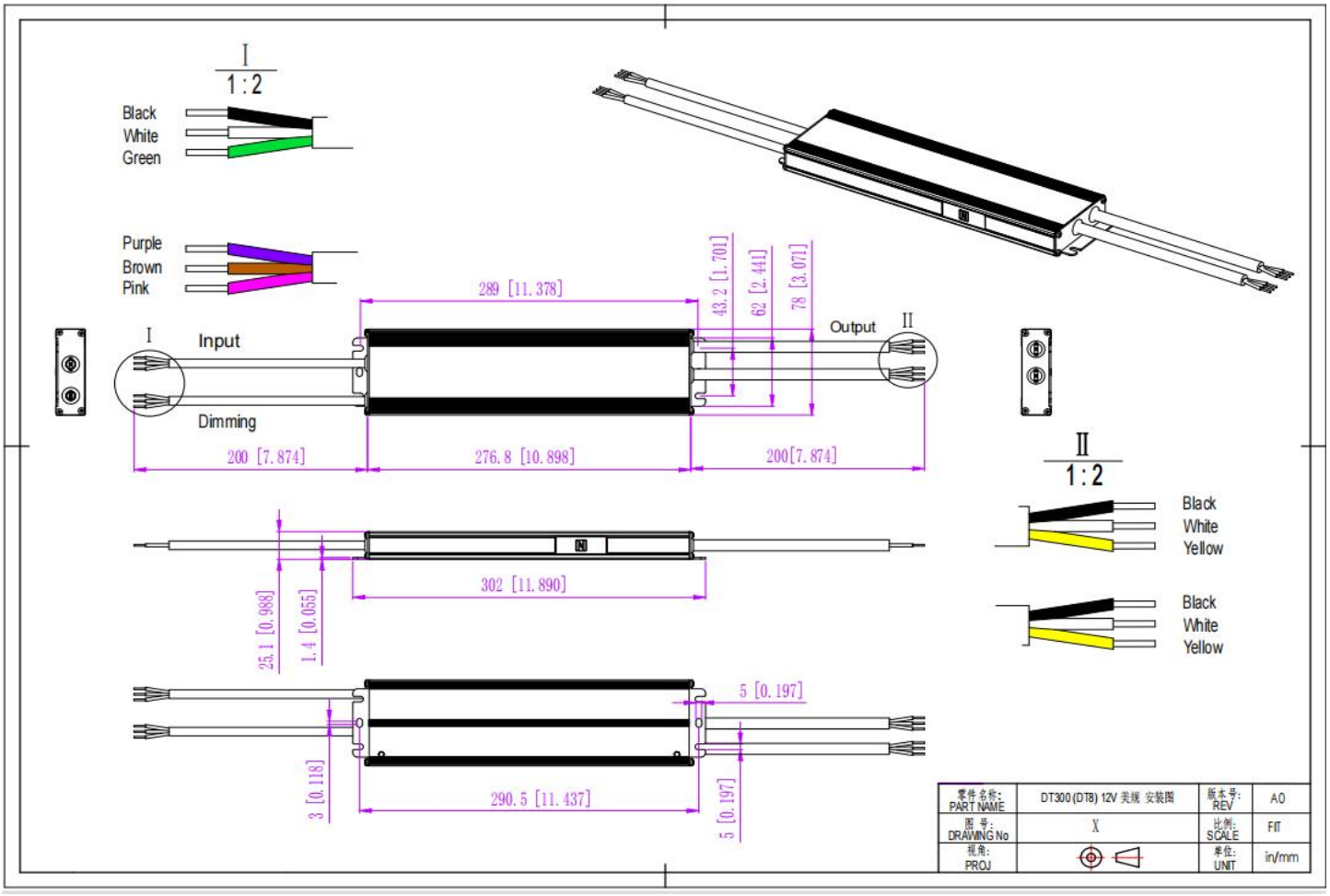
DALI-2 & PUSH Dimmable LED Driver - Constant Voltage Output - KV-2C-DP2A Series 300W



24V&48V Version

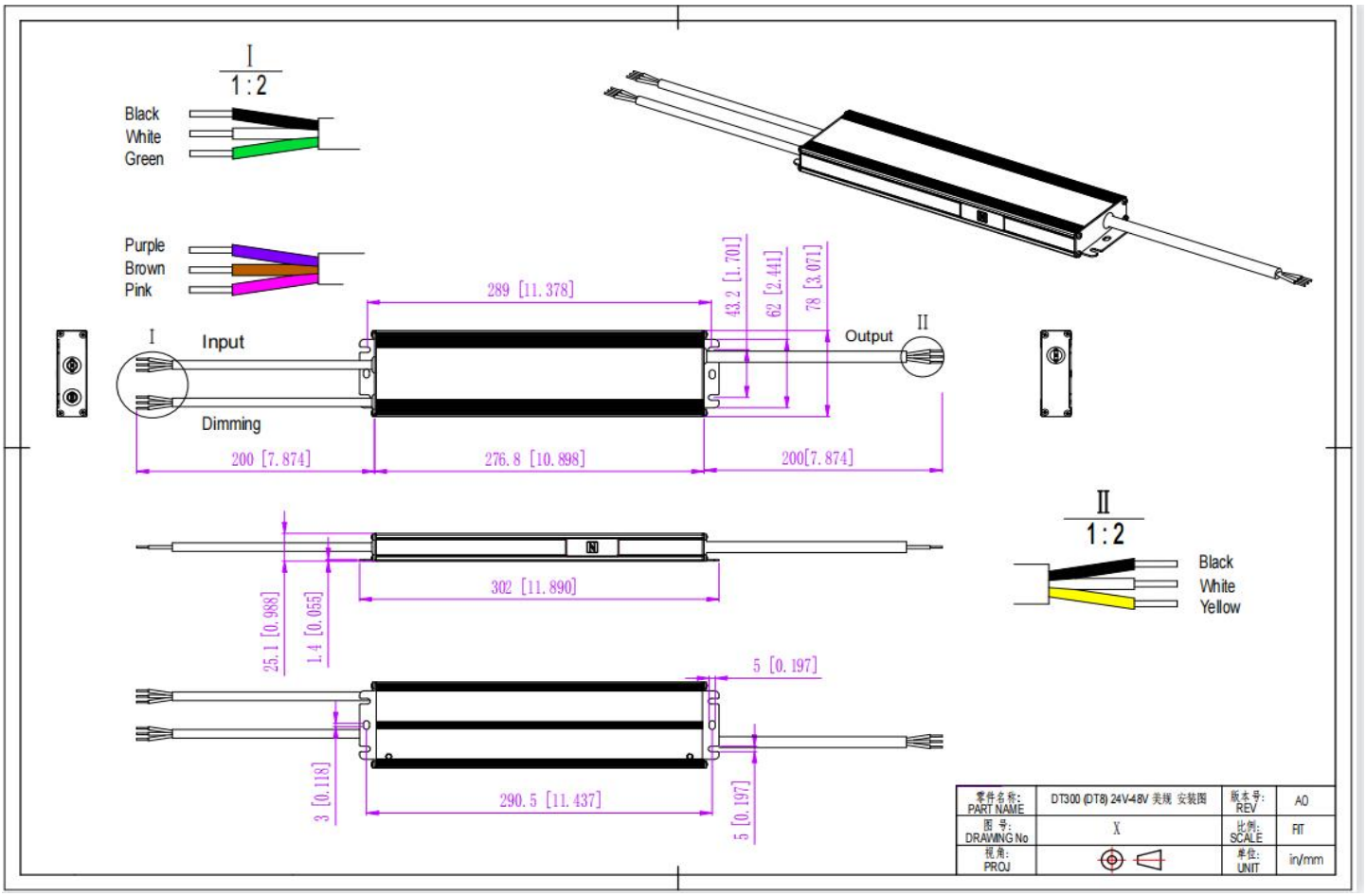
European wire gauge	
DT300	
Input wire	Brown(L) Blue(N) Yellow Green(G) (3*1.0mm²)
Output wire	12V: Black(V+) White Gray(CW-) Yellow(WW-) (3*2.08mm²)*2 24V/48V: Black(V+) White Gray(CW-) Yellow(WW-) (3*2.08mm²)
Dimming wire	Purple(DA+) Pink(DA-) Brown(CCT/L) (3*0.824mm²)
Remarks: Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.	

Mechanical Specification (For North American Market)



12V Version

DALI-2 & PUSH Dimmable LED Driver - Constant Voltage Output - KV-2C-DP2A Series 300W

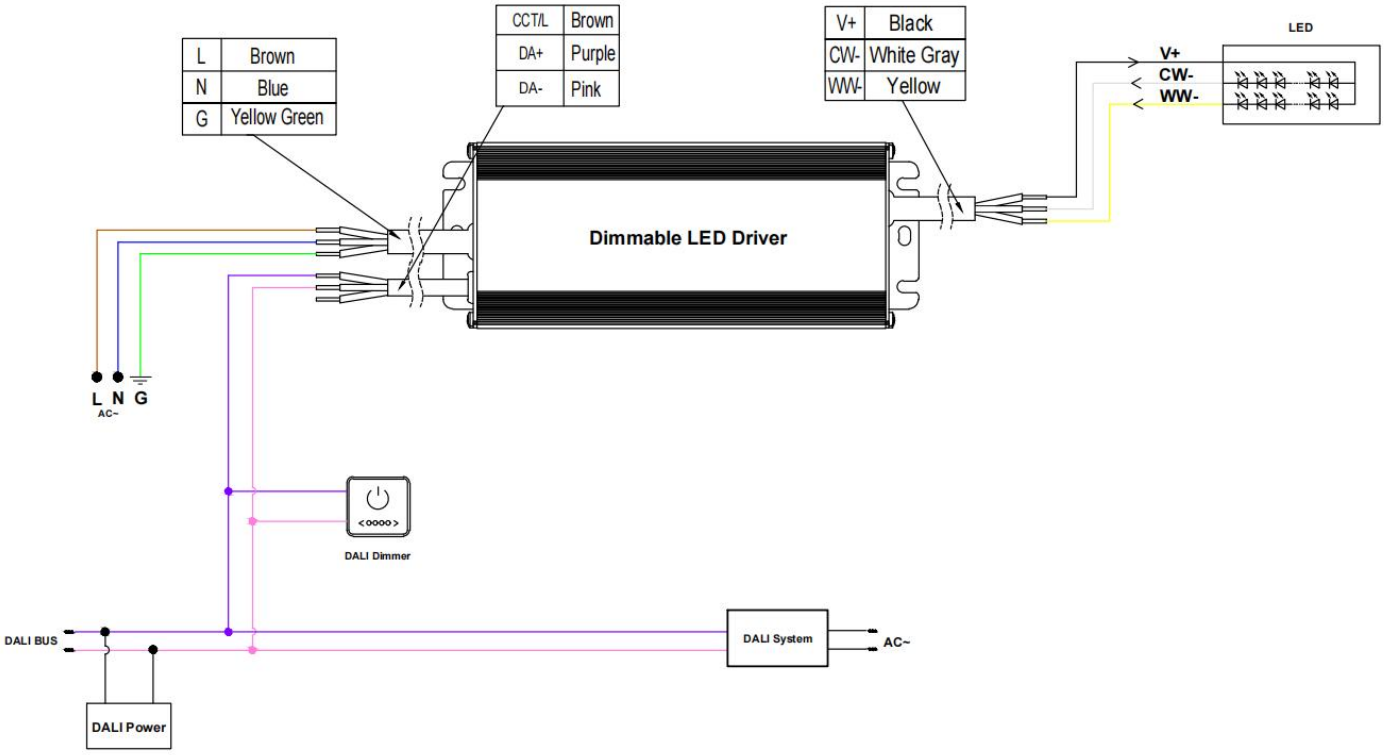


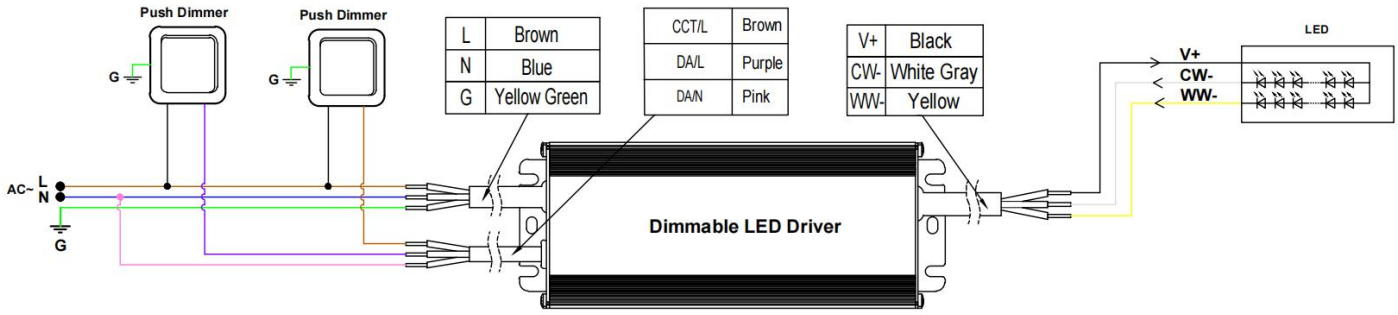
24V&48V Version

American wire gauge	
DT200	
Input wire	Black(L) White(N) Green(G) (3*18AWG)
Output wire	12V: Black(V+) White Gray(CW-) Yellow(WW-) (3*14AWG)*2 24V/48V: Black(V+) White Gray(CW-) Yellow(WW-) (3*14AWG)
Dimming wire	Purple(DA+) Pink(DA-) Brown(CCT/L) (3*18AWG)
Remarks: Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.	

Connecting Diagram (For European Market)

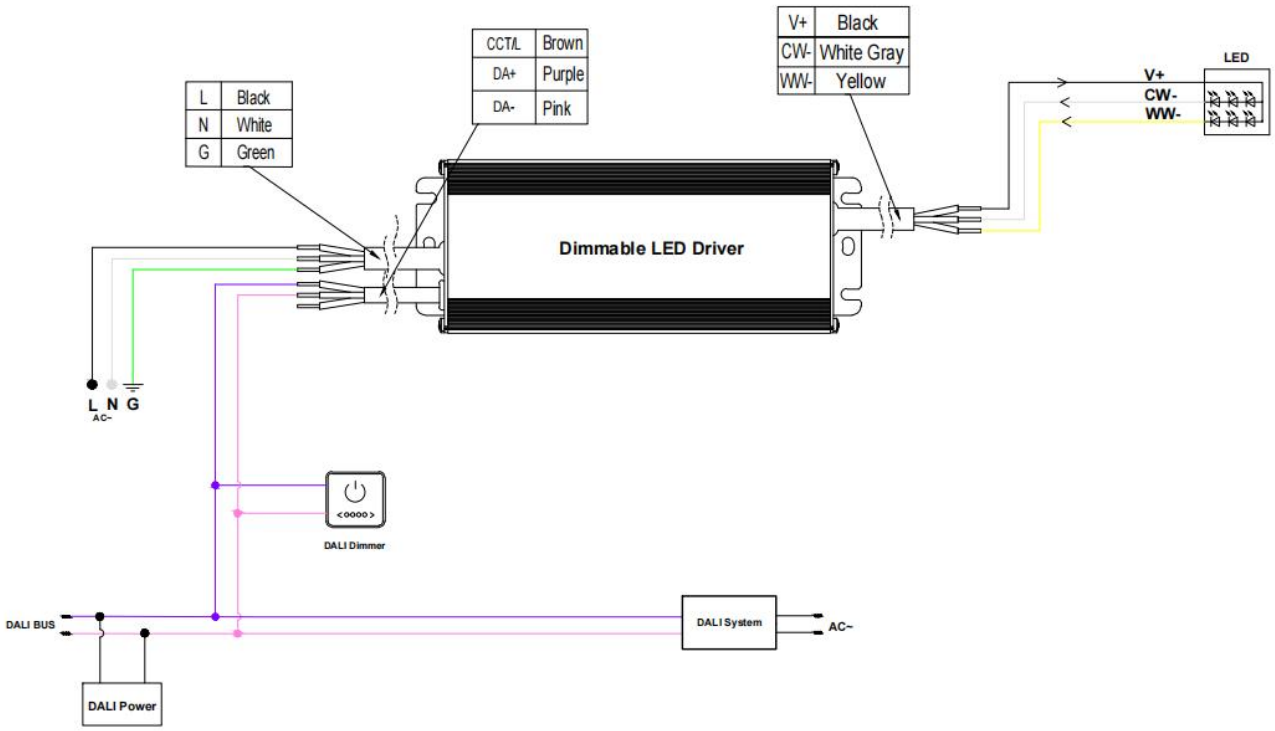
- **24V&48V Version**

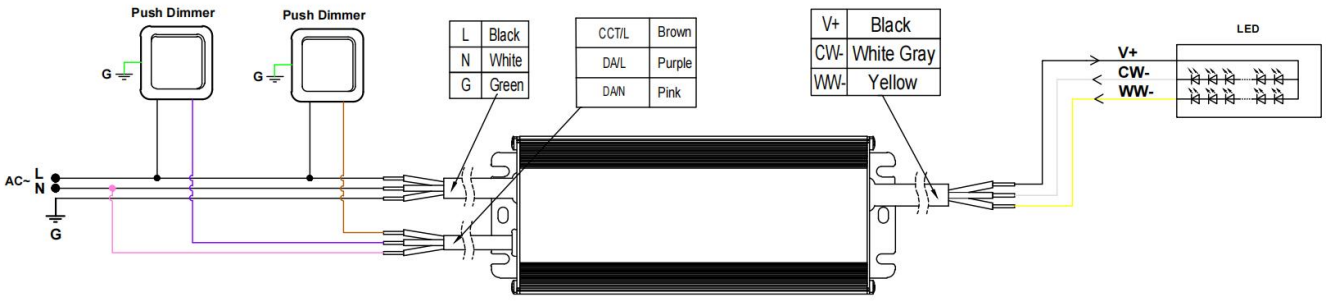




Connecting Diagram (For North American Market)

- **24V&48V Version**





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	13.0V
24V	24.0V	24.2V	24.3V	24.5V	24.7V	24.8V	25.0V	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	50.0V

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