

KV-5C-DP2D Series 300W

Whole Family: KV-XXXXX-5C-DP2D 12V/ 24V/ 36V/ 48V DC - [60W 100W 120W 150W 200W 300W]



Features

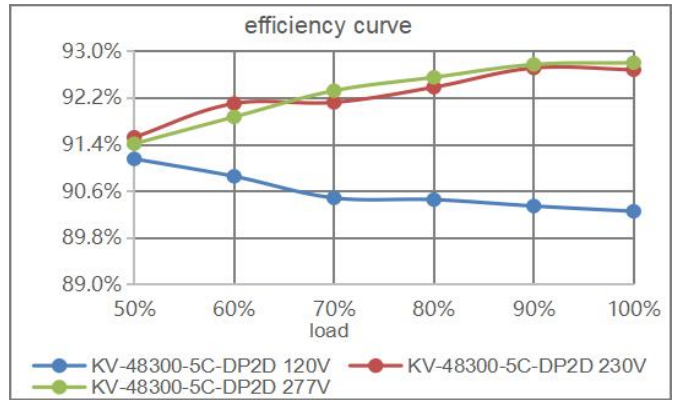
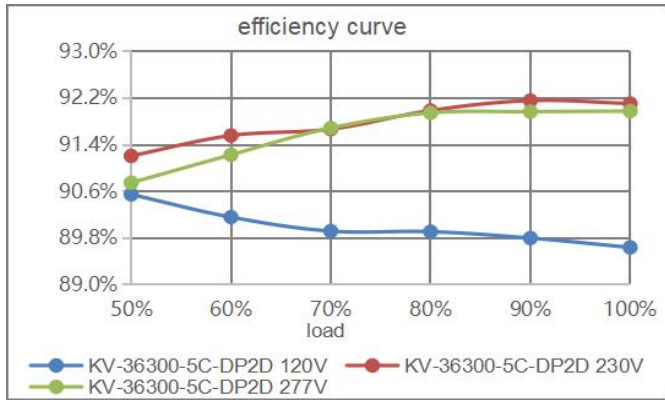
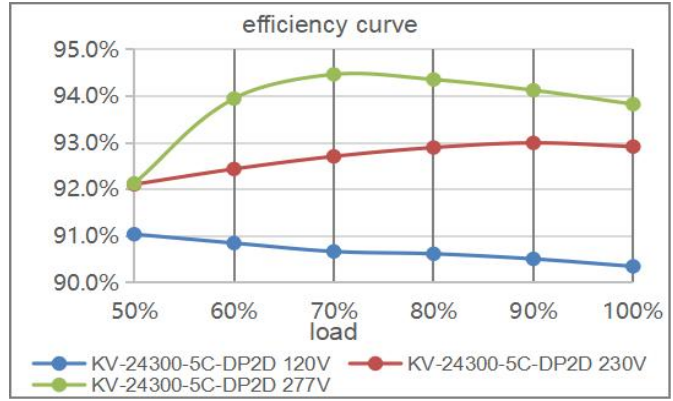
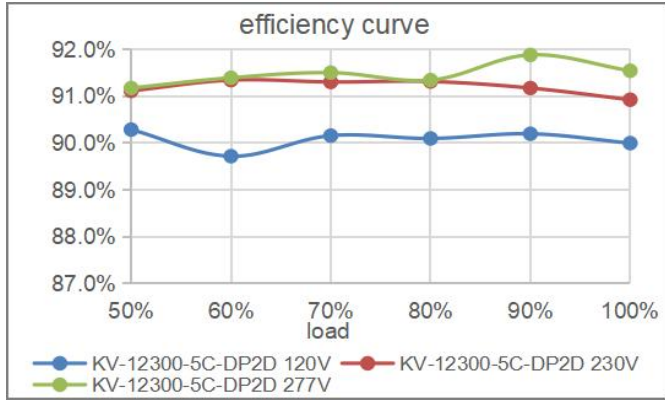
Output:	Constant Voltage
Range:	110-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 93.8%
Protections:	Short circuit/ over load/ over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	IP66(EU); Full Aluminum housing, for dry and damp location (US)
Design features:	Add NFC function to set address and adjust output voltage slightly; Flicker free, 4KHZ PWM output to reach the exemption level
Dimming function:	DALI-2 dimming. Digital dimming with Logarithmic curve (default) or Linear curve
Dimming range:	0-100% dimming depth: 0.1%
Application:	Suitable for LED lighting and moving sign applications
Warranty:	5 years warranty

DALI-2 Dimmable Constant Voltage LED driver 300W 5CH for RGBTW/RGBCW
Specification

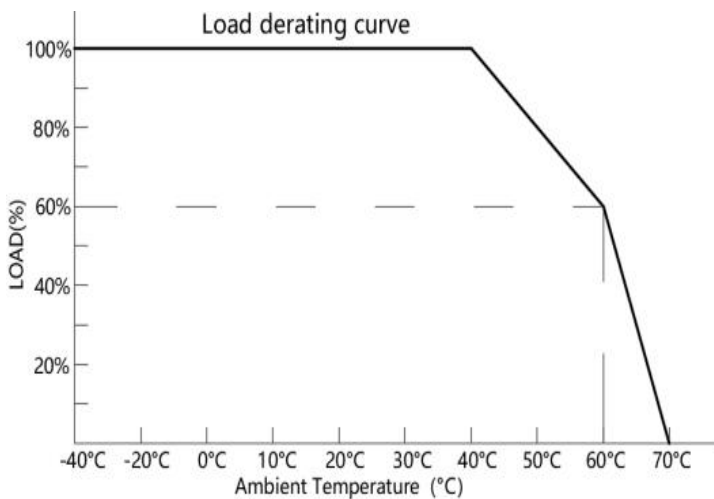
Model		KV-12300-5C-DP2D	KV-24300-5C-DP2D	KV-36300-5C-DP2D	KV-48300-5C-DP2D
Certificate		UL / FCC / Class P / ENEC(Pending) / CE / ROHS / Reach / DALI2			
Output	DC Voltage	12V (12-13Vadjust by NFC)	24V (24-25.5V adjust by NFC)	36V (36-38V adjust by NFC)	48V (48-50V adjust by NFC)
	Voltage Tolerance	±0.5V			
	Voltage Regulation	0.5%			
	Rated current	R+G+B+CW+WW =25A	R+G+B+CW+WW =12.5A	R+G+B+CW+WW =8.33A	R+G+B+CW+WW =6.25A
	Rated power	300W			
	Load Regulation	2%	1%		
Input	Voltage Range	110-277VAC			
	Frequency Range	47 - 63Hz			
	Power Factor (Typ.)	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	90.0%@120VAC	90.4%@120VAC	89.6%@120VAC	90.4%@120VAC
		91.3%@230VAC	92.9%@230VAC	92.1%@230VAC	92.7%@230VAC
		91.6%@277VAC	93.8%@277VAC	92%@277VAC	92.8%@277VAC
	AC Current (Max.)	3.4A			
Inrush Current (Typ.)	26A, 104us@50%120VAC	98A, 26us@50%230VAC	118A, 92us@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			
	Ambient temperature	Shell surface temp.100℃±10℃ shut down o/p voltage, automatically recover after 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 UL1310(US)			
	Withstand voltage	I/P-O/P:3.75KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC (EU)			
		I/P-O/P:1.8KVAC 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 EN61000-3-2,3 (≥50%load) (EU) & FCC Part 15 Subpart B(US)				
Others	Net Weight	1.05Kg			
	Dimension	322*78*25.1mm (L*W*H)			
	Packing	20pcs /CTN			
Notes	1. All parameters NOT specially mentioned are measured at rated load and 25℃ of ambient temperature. 2. Under low input voltage, derating output is required to ensure a long life.				

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Efficiency Curve (efficiency vs output load)



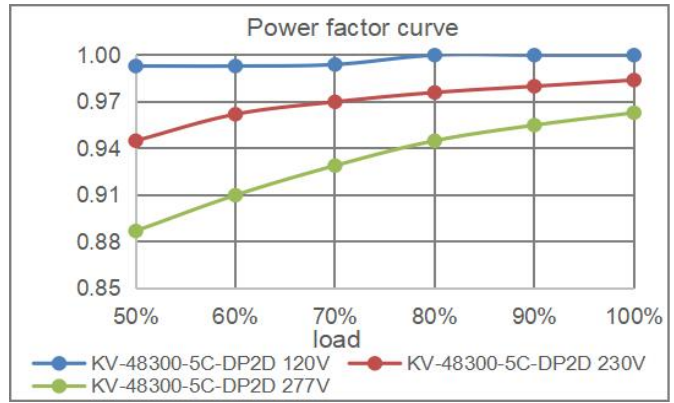
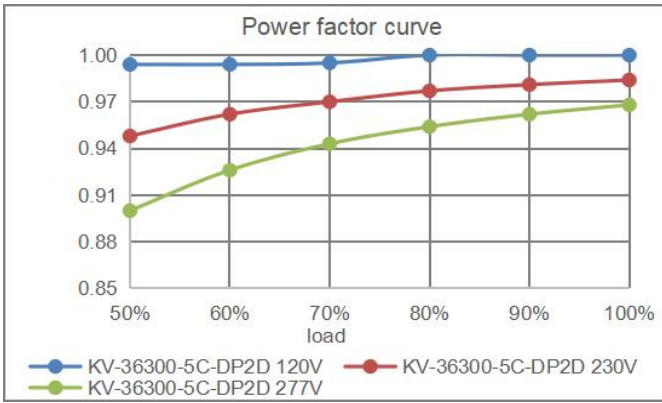
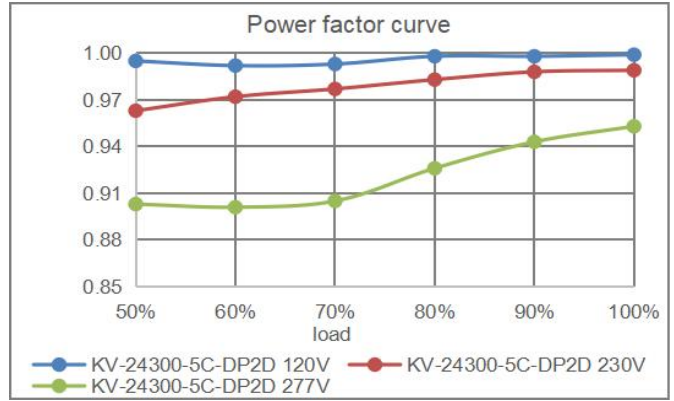
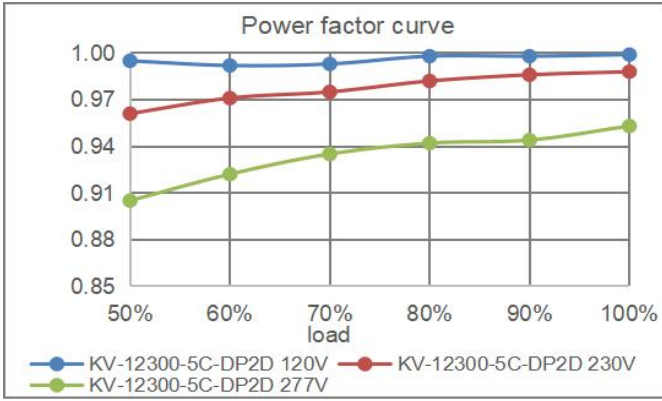
Derating Curve (output load vs TEMP.)



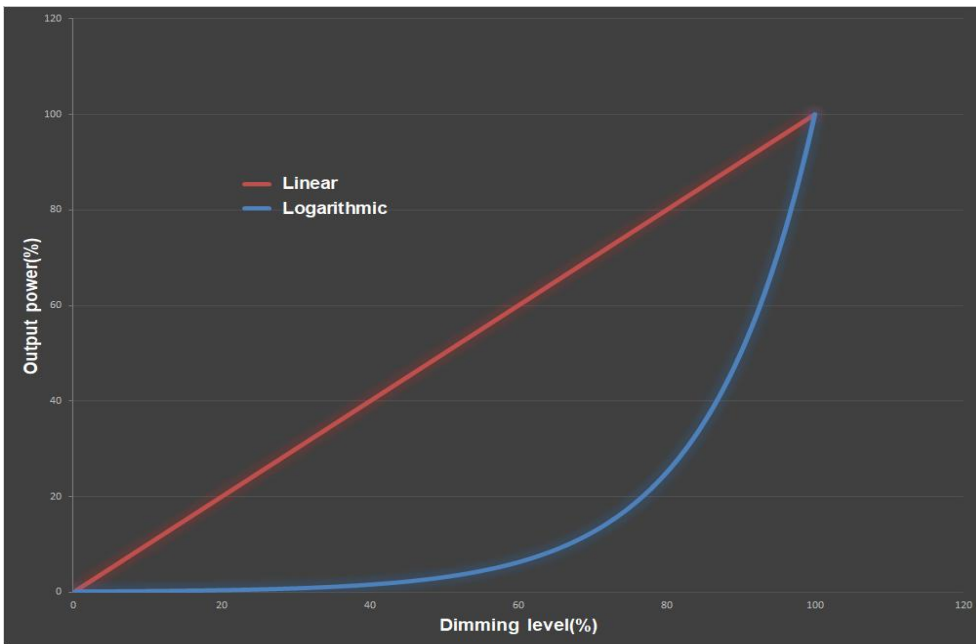
1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to avoid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

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Power Factor Curve



Whole Brightness Dimming Curve

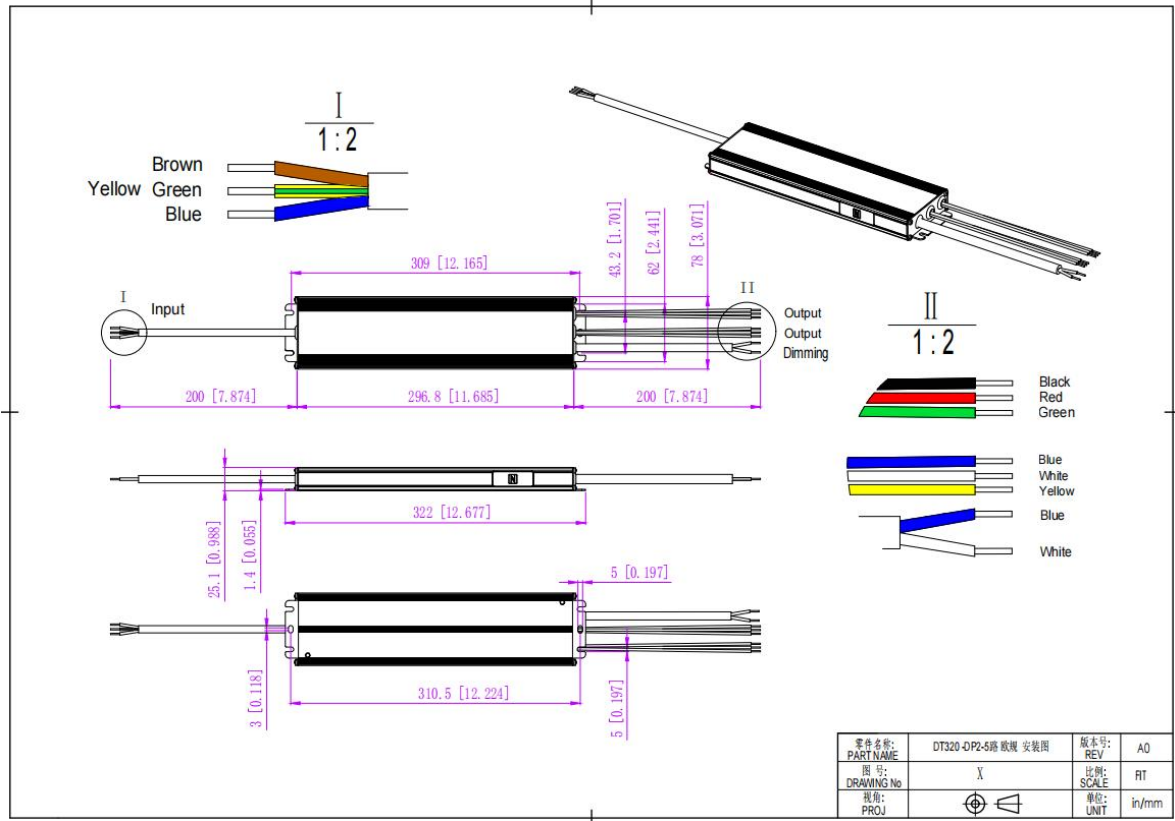


Note: Logarithmic dimming curve and Linear dimming curve for choice

Logarithmic (default)

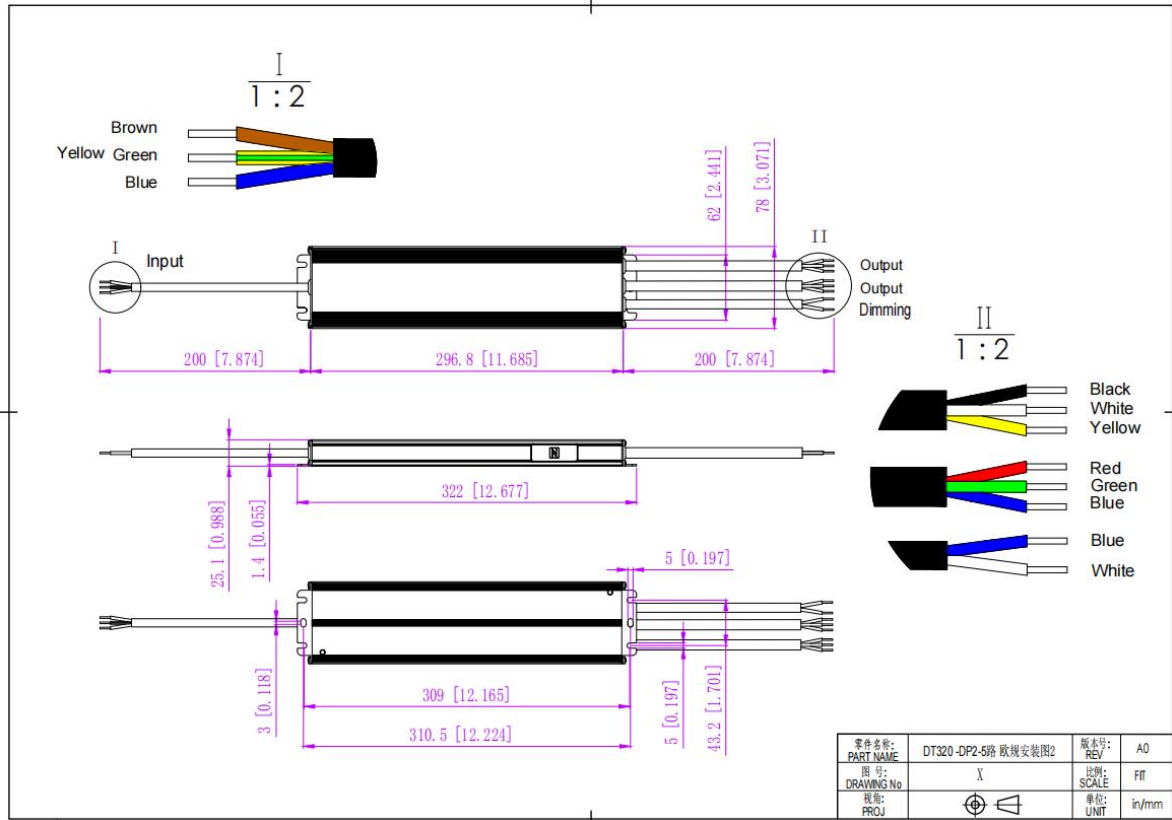
DALI-2 Dimmable Constant Voltage LED driver 300W 5CH for RGBTW/RGBCW

Mechanical Specification (For European Market)



12V&24V Version

DALI-2 Dimmable Constant Voltage LED driver 300W 5CH for RGBTW/RGBCW



36V&48V Version

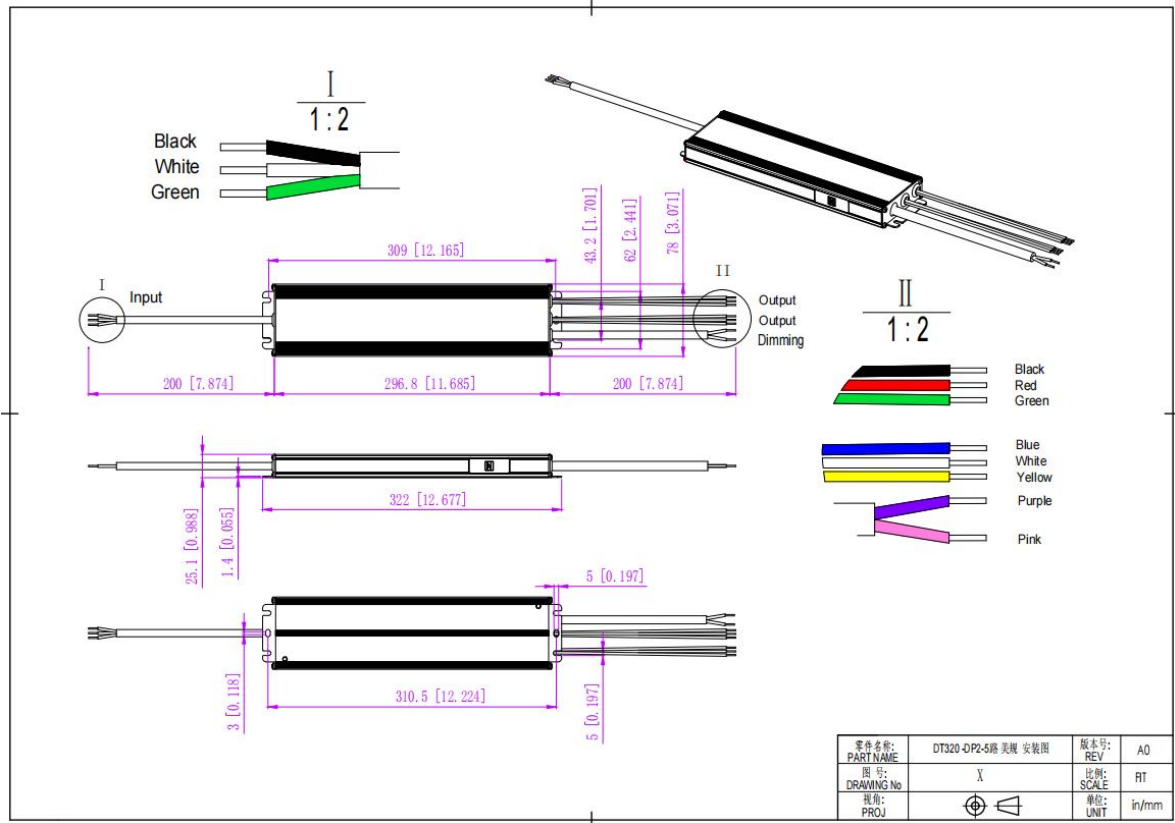
1. Input cable 3*1.0mm², the Brown cable to (L), the Blue cable to (N), and the Yellow & Green cable to (FG).
2. Output cable 6*3.3mm² (12V), 3*2.08mm²(24V), 3*1.31mm²(36V/48V),Black cable (+) to Positive side(+),Red cable(-),Green cable(-),Blue cable(-), White cable(-) and Yellow(-) to Negative side (-).
3. Dimming cable 2*1.0mm², Blue DA/N and White DA/L (No polar) connected to the DALI BUS when use DALI function.

Warm tips:

1. Any other requests for, we can customized.

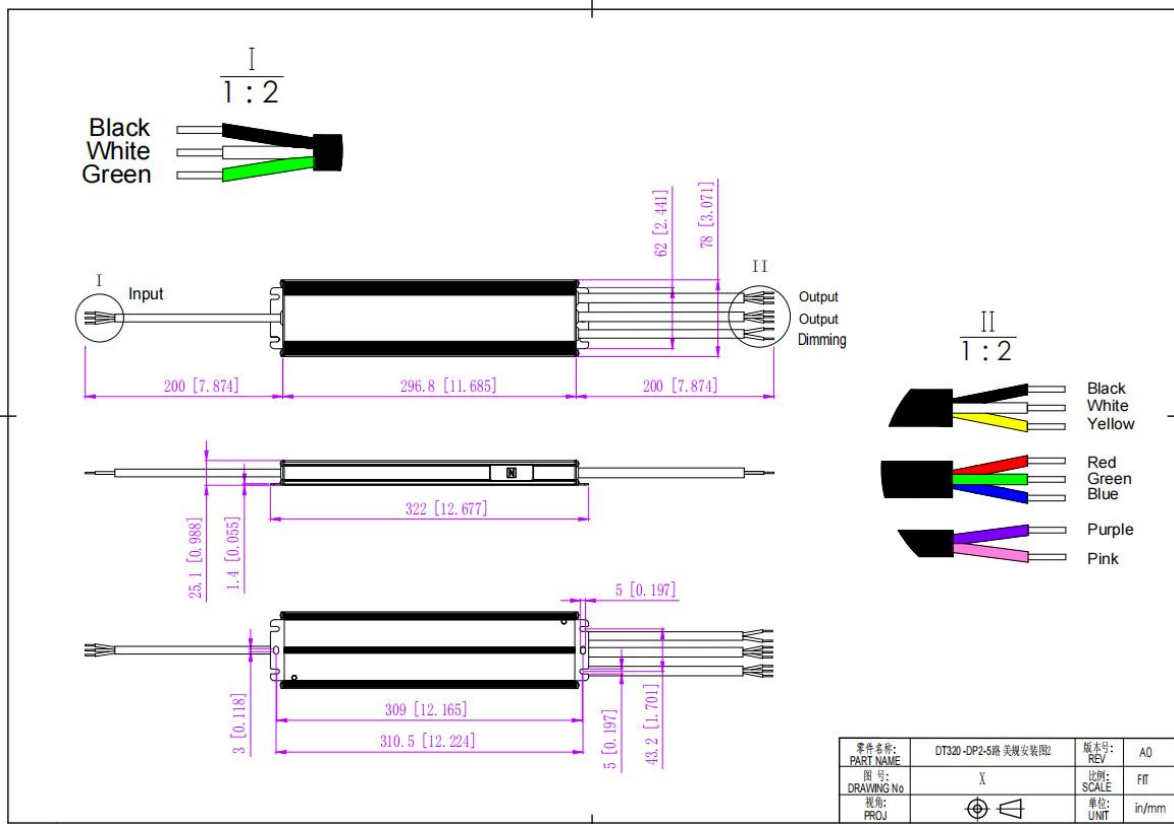
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Mechanical Specification (For North American Market)



12V&24V Version

DALI-2 Dimmable Constant Voltage LED driver 300W 5CH for RGBTW/RGBCW



36V&48V Version

1. Input cable 3*18AWG, the Black cable to (L), the White cable to (N), and the Green cable to (G).
4. Output cable 6*12AWG(12V), 3*14AWG(24V), 3*16AWG(36V/48V) Black cable (+) to Positive side(+), Red cable(-), Green cable(-), Blue cable(-), White cable(-) and Yellow(-) to Negative side (-).
2. Dimming wire 2*18AWG, Purple cable(DA1), Pink cable(DA2).

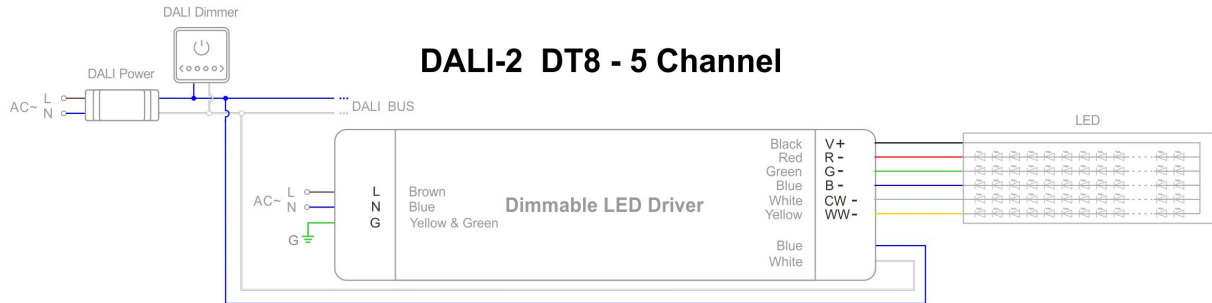
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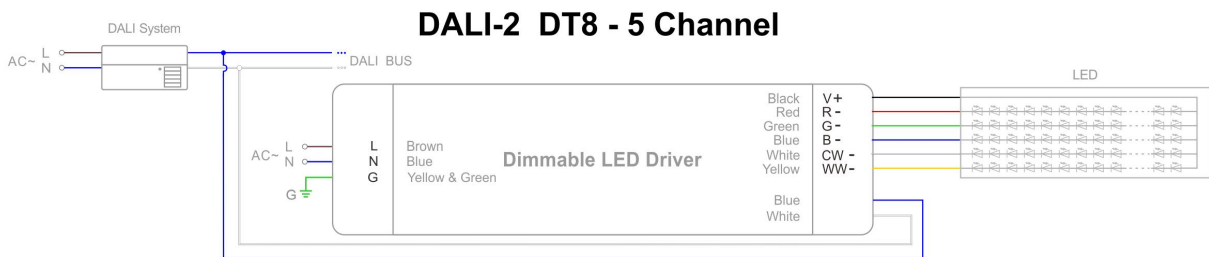
DALI-2 Dimmable Constant Voltage LED driver 300W 5CH for RGBTW/RGBCW

Dimming Operation and Connecting Diagram (For European Market)

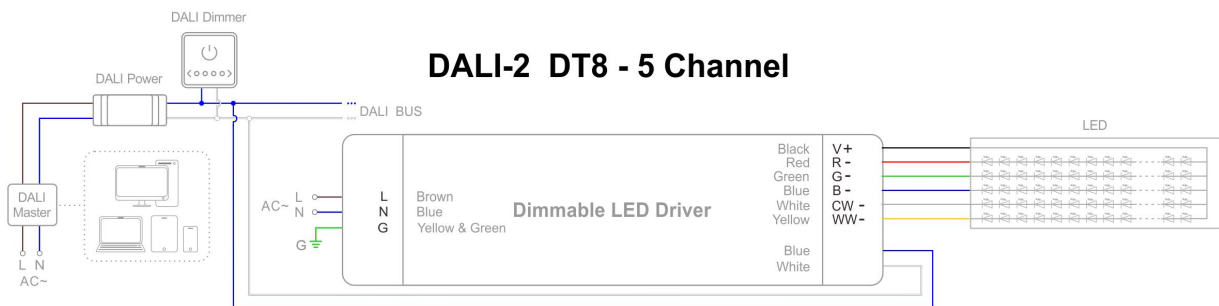
- Using DALI-2 dimming with DALI power and dimmer



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



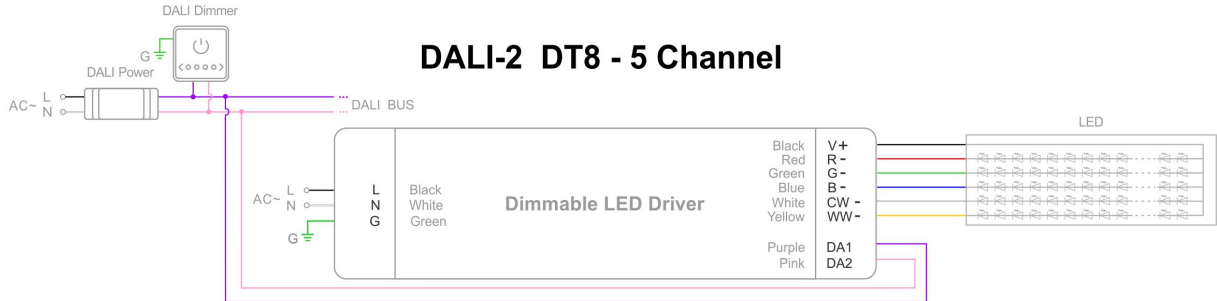
- Using DALI-2 dimming with intelligent device, DALI master and dimmer



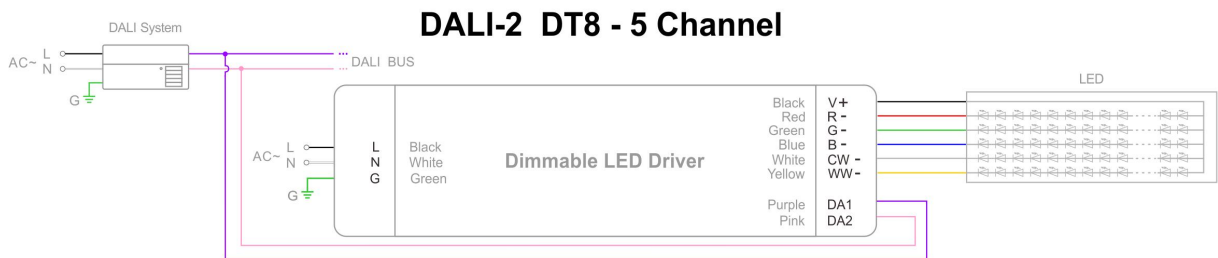
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Dimming Operation and Connecting Diagram (For North American Market)

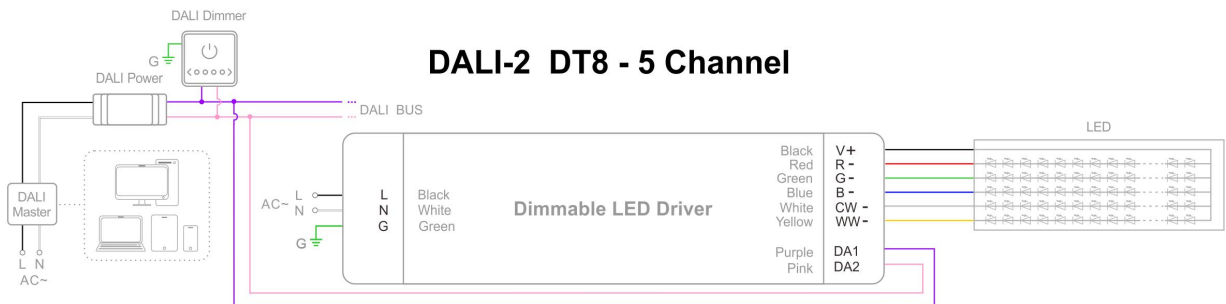
- Using DALI-2 dimming with DALI power and dimmer



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

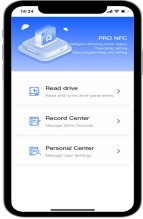


- Using DALI-2 dimming with intelligent device, DALI master and dimmer



DALI-2 Dimmable Constant Voltage LED driver 300W 5CH for RGBTW/RGBCW

NFC Function



ProNFC APP



NFC Handheld devices

- Address settings:

NFC setting address:

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 DALI-2 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	12.80V	12.96V	13.12V	13.28V	13.5V
24V	24V	24.22V	24.44V	24.66V	24.88V	25.10V	25.32V	25.54V	25.66V	26.0V
36V	36V	36.22V	36.44V	36.66V	36.88V	37.10V	37.32V	37.54V	37.66V	38.00V
48V	48V	48.22V	48.44V	48.66V	48.88V	49.1V	49.32V	49.54V	49.66V	50.00V

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