KV-XC-DP2A Series 100W

Whole Family: KV-XX100-XC-DP2A (XX=12/24VDC; XC=3C/4C/5C) [80W 96W 100W 120W 150W 200W 300W]

Features

Output:	Constant Voltage
Range:	100-277VAC
PFC design:	Two-stage PFC function
Efficiency:	Up to 89%
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:	Linear design, perfect profile and it also conforms to the safety regulations.
Dimming function:	DALI-2 dimming
Dimming range:	0.1-100%
Application:	Suitable for LED lighting and moving sign applications
Warranty:	5 years warranty
Others:	High power factor PF>0.95, flicker-free dimming

Specification

Model		KV-12100-XC-DP2A	KV-24100-XC-DP2A
Certificate		UL/FCC/CE/UKCA/ENEC/ICES-005/SAA/Class P/TYPE HL/SELV/ROHS/REACH	
Output	DC Voltage	12V	24V
	Voltage Tolerance	±4%	±2%
	Voltage Regulation	⩽1%	⩽0.5%
	Rated current	8.33A	4.17A
	Rated power	100W	
	Load Regulation	±2%	±1%
Input	Voltage Range	100-277VAC	
	Frequency Range	50 / 60Hz	
	Power Factor (Typ.) @ full load	>0.95	
	THD(Typ.) @ full load	⩽5%@120VAC ⩽8%@230VAC ⩽11%@277VAC	
	Efficiency(Typ.) @ full load	87%@120VAC 88%@230VAC 88%@277VAC	87%@120VAC 88%@230VAC 89%@277VAC
	AC Current (Max.)	1.3A	
	Standby power	⩽0.5W	
	Inrush Current (Typ.)	52A,150us@50%Ipeak 120VAC; 100A,256us@50%Ipeak 230VAC 120A,356us@50%Ipeak 277VAC	
	Leakage current	<0.5mA	
Protection	Short Circuit	Hiccup mode, 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	-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	UL8750; CAN/CSA-C22.2 No.250.13 EN61347-1; EN61347-2-13	
	Withstand voltage	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC (EU) I/P-O/P:1.88KVAC I/P-FG:1.88KVAC O/P-FG:1.88KVAC (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	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; ICES-005 Issue 5	
Others	Net Weight	1.65KG	
	Dimension	232*78*25.1mm(L*W*H)	

	Packing	300*280*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 is DC Rate Voltage. 3. LED driver Meets the harmonic emissions requirements of ANSI C82.77-10.	

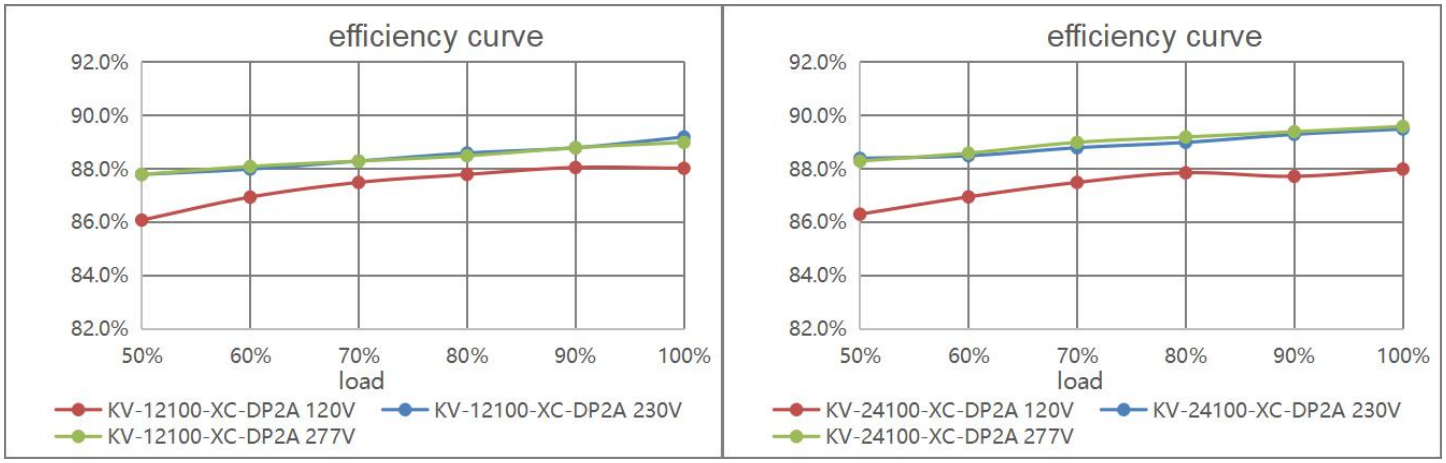
MCB recommendation

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	6
	13A	8
	16A	10
	20A	13
	25A	15
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	12
	13A	16
	16A	19
	20A	24
	25A	31
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	14
	13A	19
	16A	23
	20A	29
	25A	30

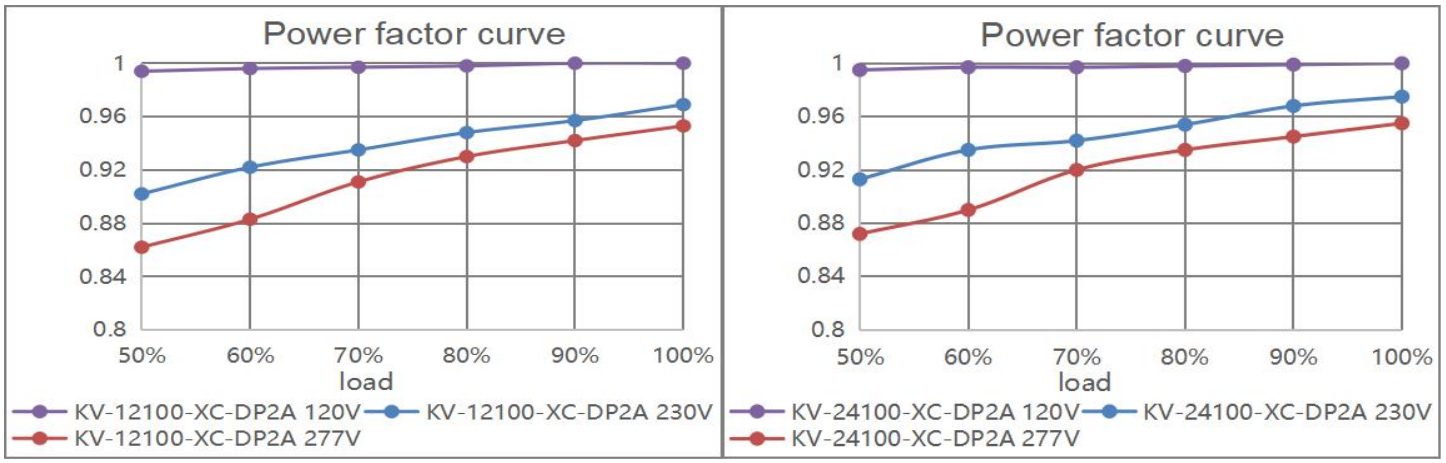
Note:

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.

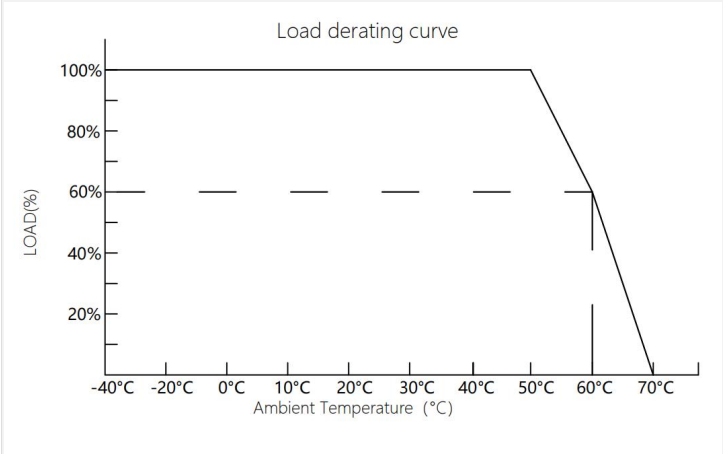
Efficiency Curve (efficiency vs output load)



Power Factor Curve (power factor vs output load)

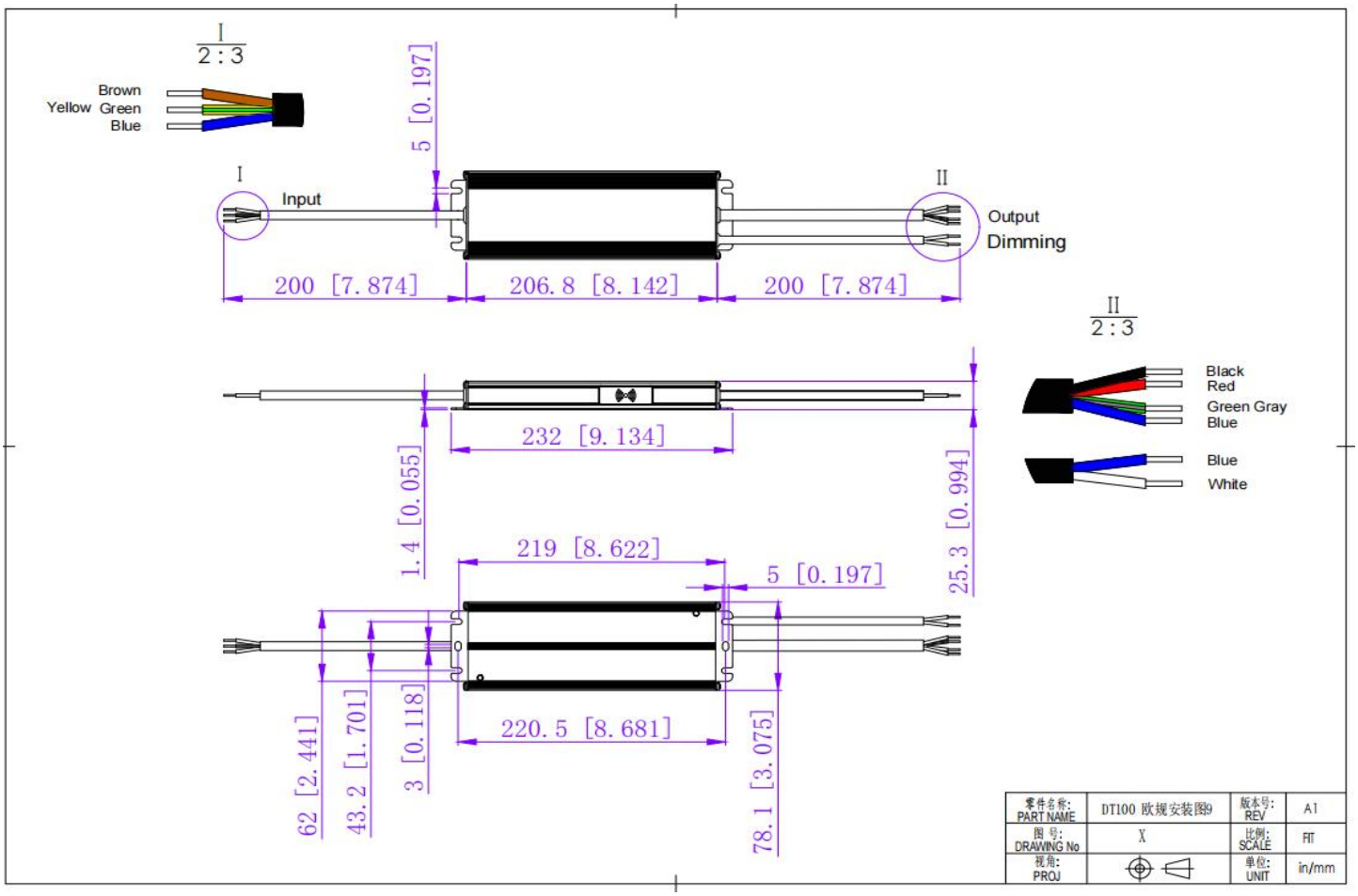


Derating Curve (output load vs TEMP)



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)



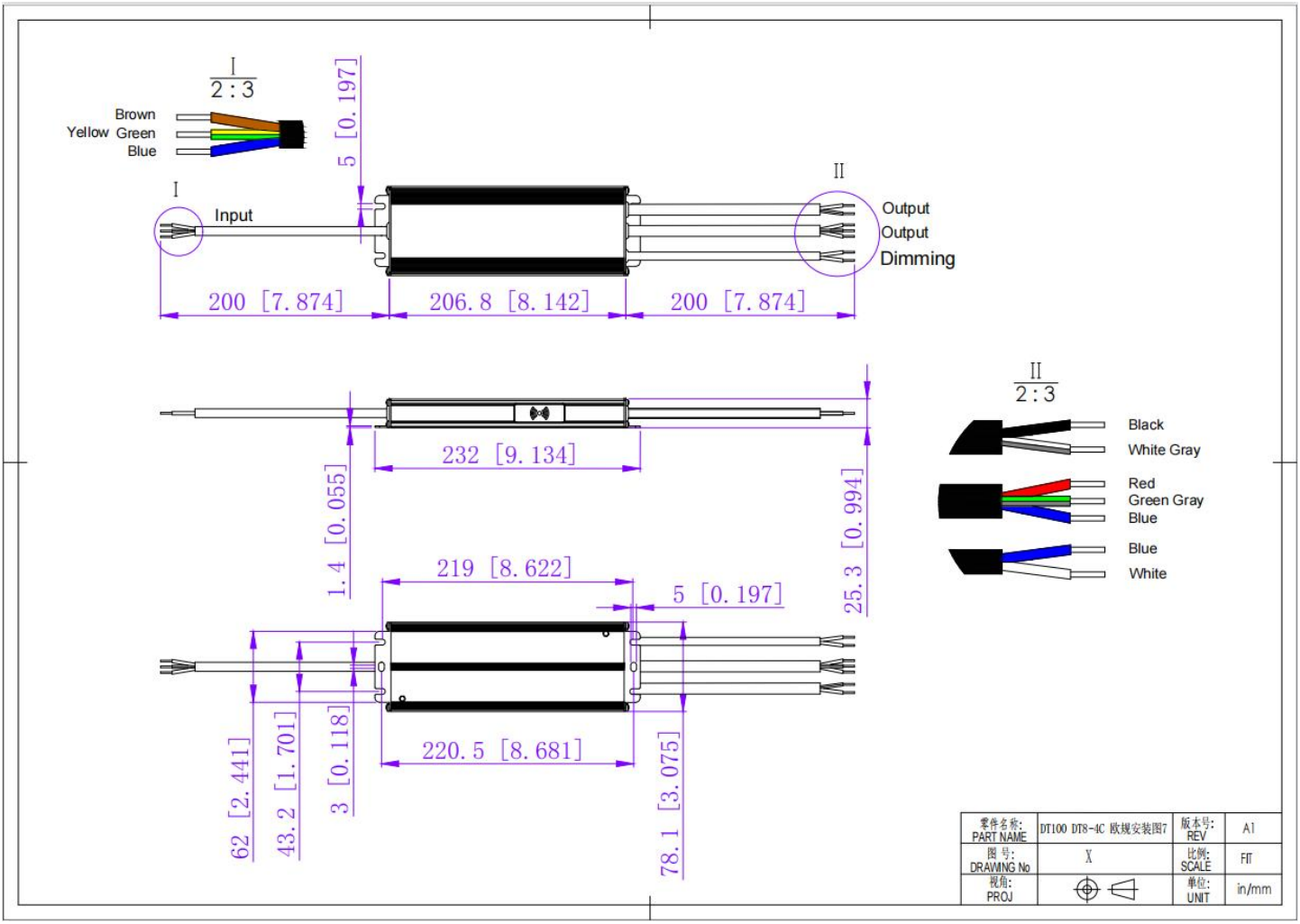
3C (R G B) Version

European wire gauge	
DT100	
Input wire	Brown(L) Blue(N) Yellow Green(G) (3*1.0mm²)
Output wire	12V: Black(V+) Red(R-) Green gray(G-) Blue(B-) (4*1.31mm²) 24V: Black(V+) Red(R-) Green gray(G-) Blue(B-) (4*0.824mm²)
Dimming wire	Blue(DA+) White(DA-) (2*0.824mm²)
Remarks: 3C: R G B	4C: R G B CW 5C: R G B CW WW

Warm tip:

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

Mechanical Specification (For European Market)



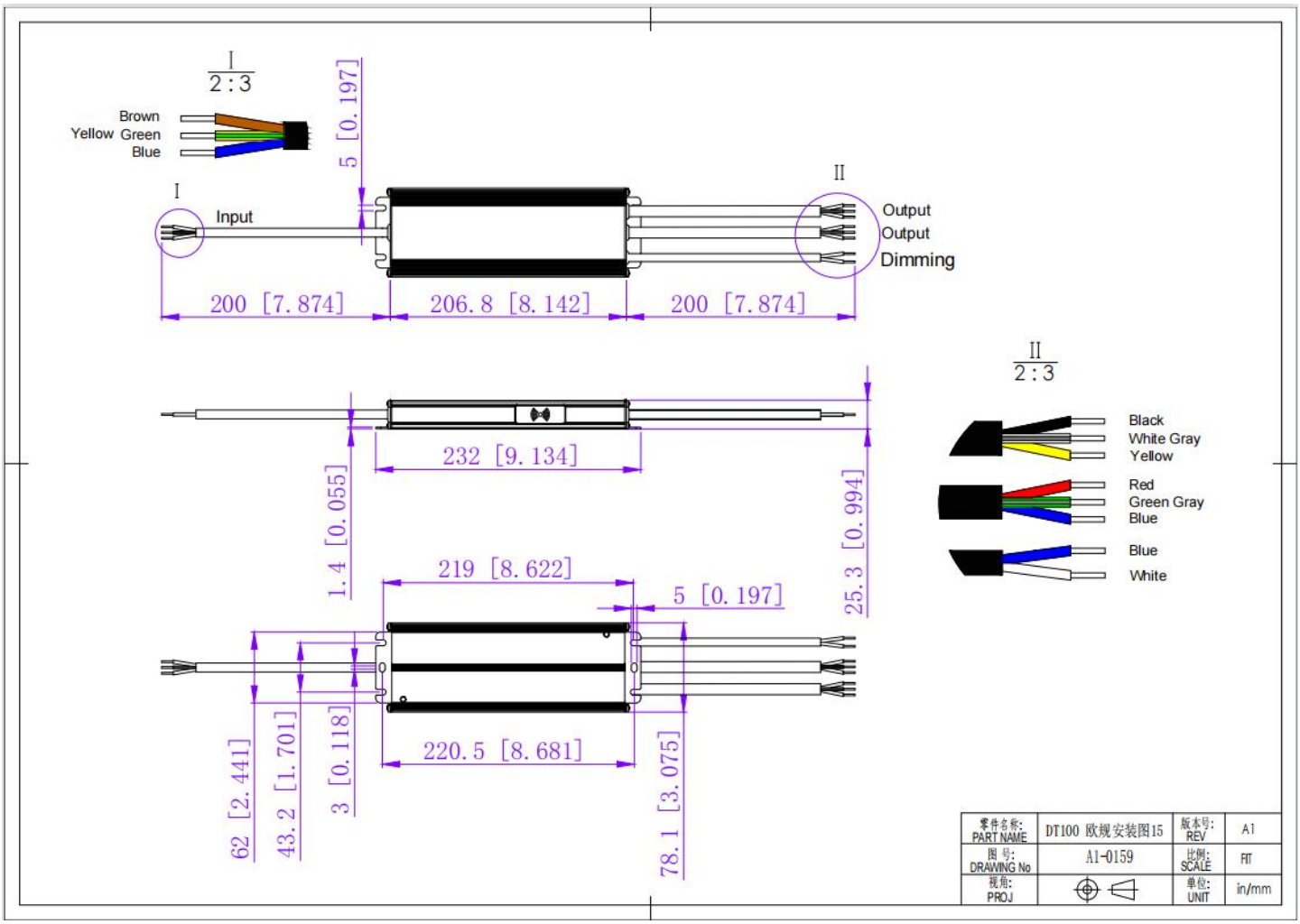
4C (R G B CW) Version

European wire gauge	
DT100	
Input wire	Brown(L) Blue(N) Yellow Green(G) (3*1.0mm²)
Output wire	12V: Black(V+) White gray(CW-) (2*1.31mm²) Red(R-) Green gray(G-) Blue(B-) (3*1.31mm²) 24V: Black(V+) White Grey(CW-) (2*0.824mm²) Red(R-) Green gray(G-) Blue(B-) (3*0.824mm²)
Dimming wire	Blue(DA+) White(DA-) (2*0.824mm²)
Remarks: 3C: R G B 4C: R G B CW 5C: R G B CW WW	

Warm tip:

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

Mechanical Specification (For European Market)



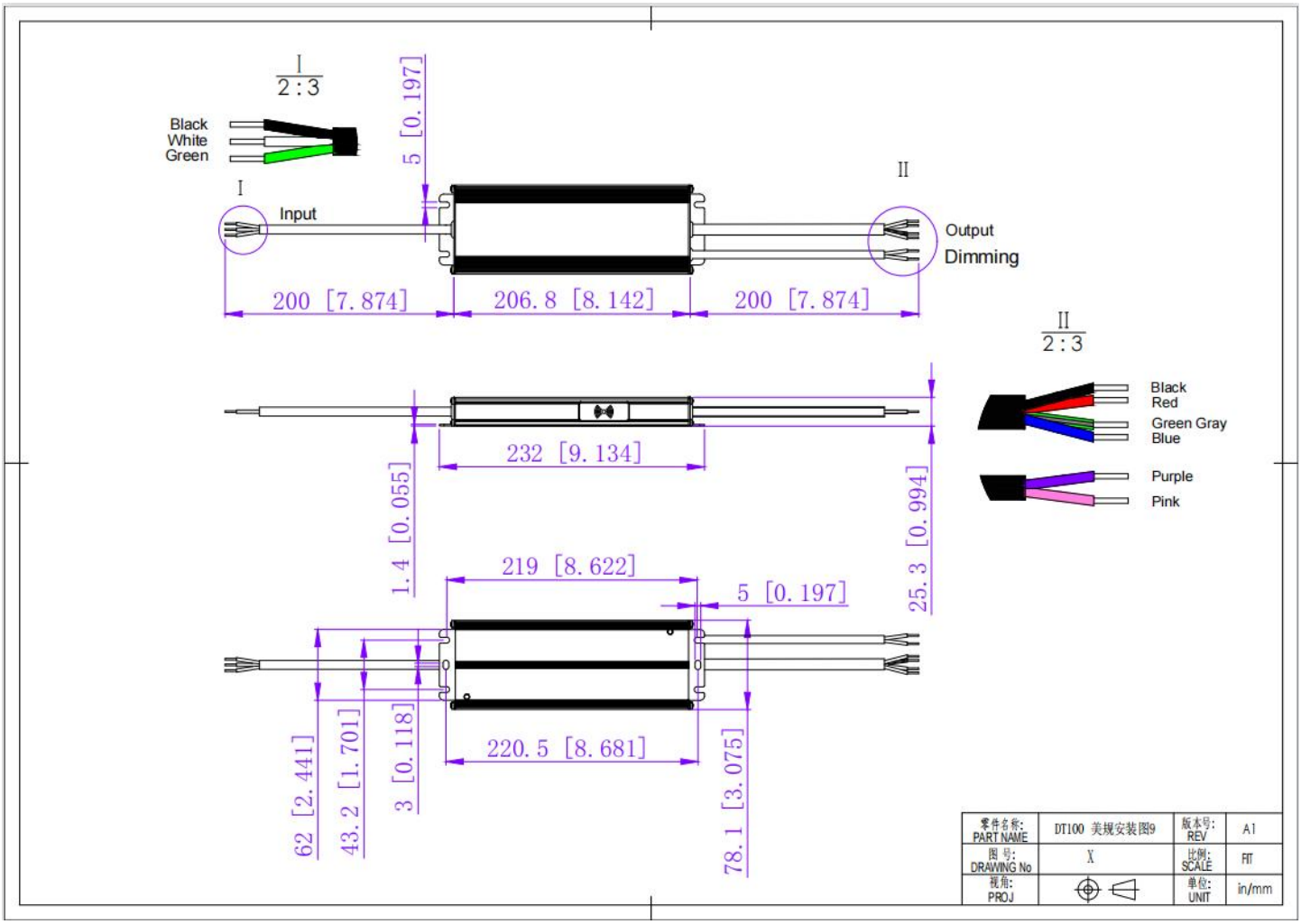
5C (R G B CW WW) Version

European wire gauge	
DT100	
Input wire	Brown(L) Blue(N) Yellow Green(G) (3*1.0mm²)
Output wire	12V: Black(V+) White gray(CW-) Yellow(WW-) (3*1.31mm²) Red(R-) Green gray(G-) Blue(B-) (3*1.31mm²) 24V: Black(V+) White Grey(CW-) Yellow(WW-) (3*0.824mm²) Red(R-) Green gray(G-) Blue(B-) (3*0.824mm²)
Dimming wire	Blue(DA+) White(DA-) (2*0.824mm²)
Remarks: 3C: R G B	4C: R G B CW 5C: R G B CW WW

Warm tip:

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

Mechanical Specification (For North American Market)



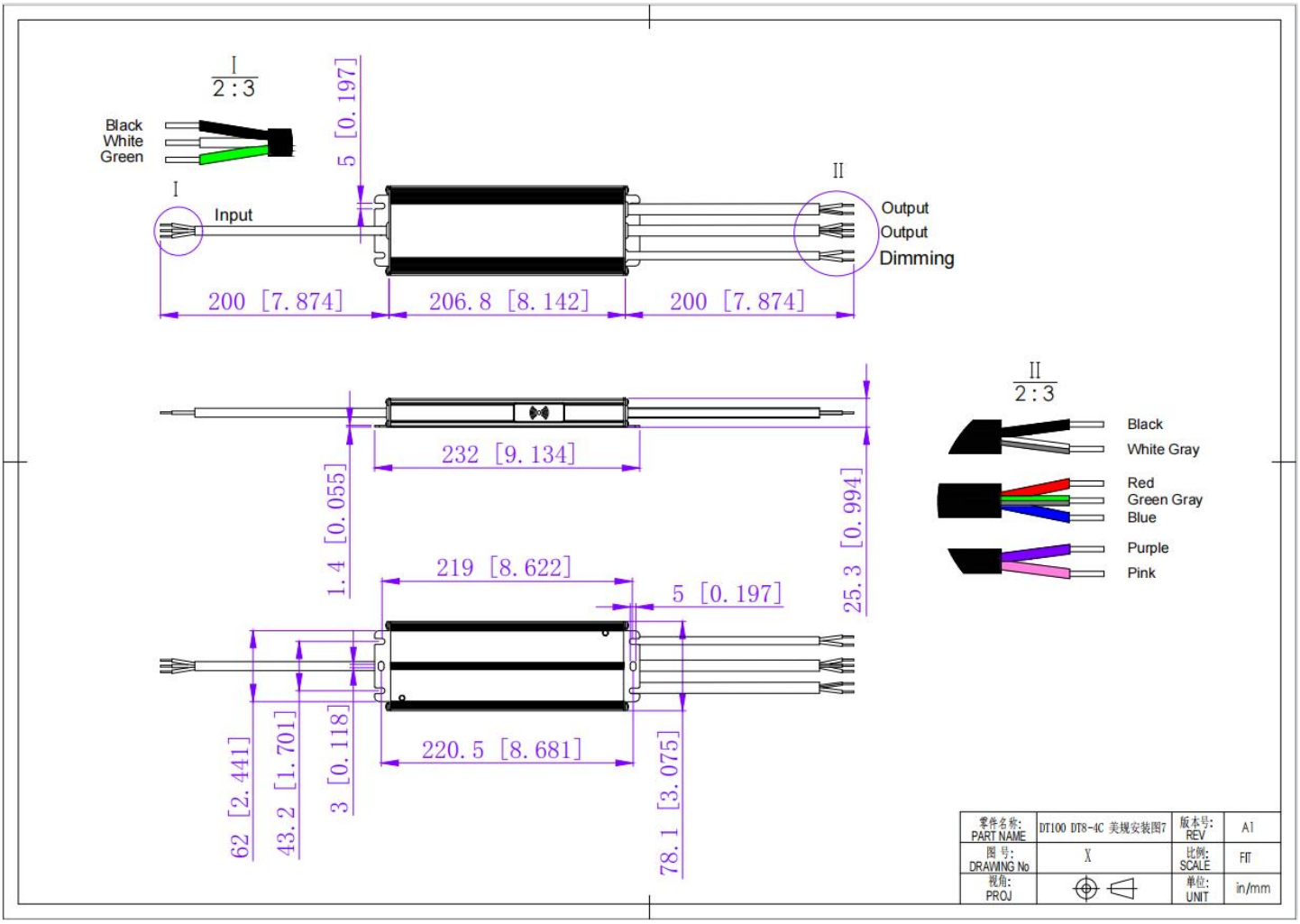
3C (R G B) Version

American wire gauge		
DT100		
Input wire	Black(L) White(N) Green(G) (3*18AWG)	
Output wire	12V: Black(V+) Red(R-) Green gray(G-) Blue(B-) (4*16AWG) 24V: Black(V+) Red(R-) Green gray(G-) Blue(B-) (4*18AWG)	
Dimming wire	Purple(DA+) Pink(DA-) (2*18AWG)	
Remarks: 3C: R G B	4C: R G B CW	5C: R G B CW WW

Warm tip:

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

Mechanical Specification (For North American Market)



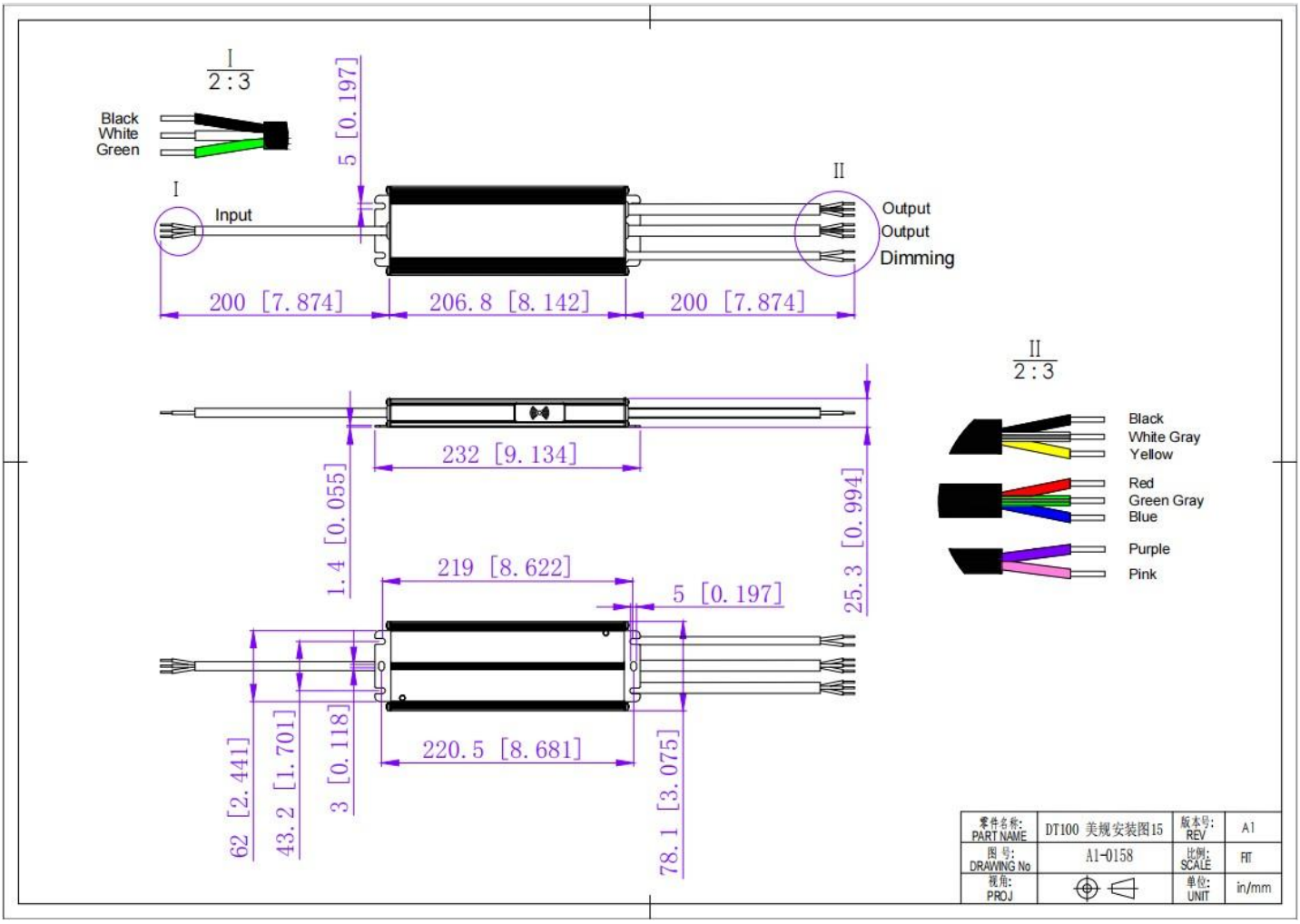
4C (R G B CW) Version

American wire gauge	
DT100	
Input wire	Black(L) White(N) Green(G) (3*18AWG)
Output wire	12V: Black(V+) White gray(CW-) (2*16AWG) Red(R-) Green gray(G-) Blue(B-) (3*16AWG) 24V: Black(V+) White gray(CW-) (2*18AWG) Red(R-) Green gray(G-) Blue(B-) (3*18AWG)
Dimming wire	Purple(DA+) Pink(DA-) (2*18AWG)
Remarks: 3C: R G B	4C: R G B CW 5C: R G B CW WW

Warm tip:

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

Mechanical Specification (For North American Market)



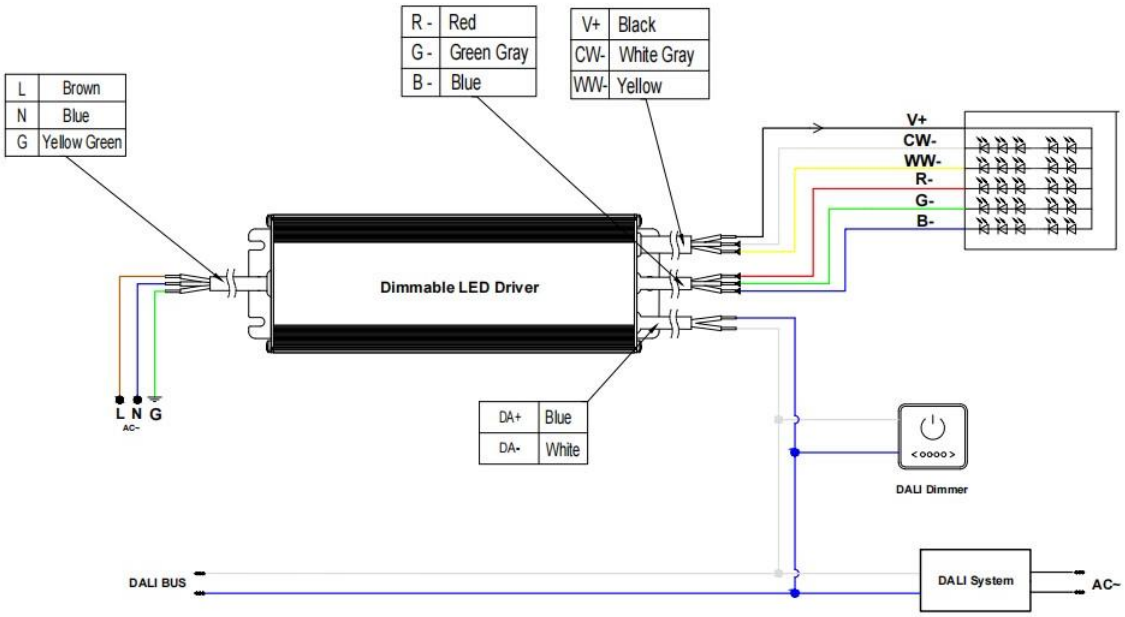
5C (R G B CW WW) Version

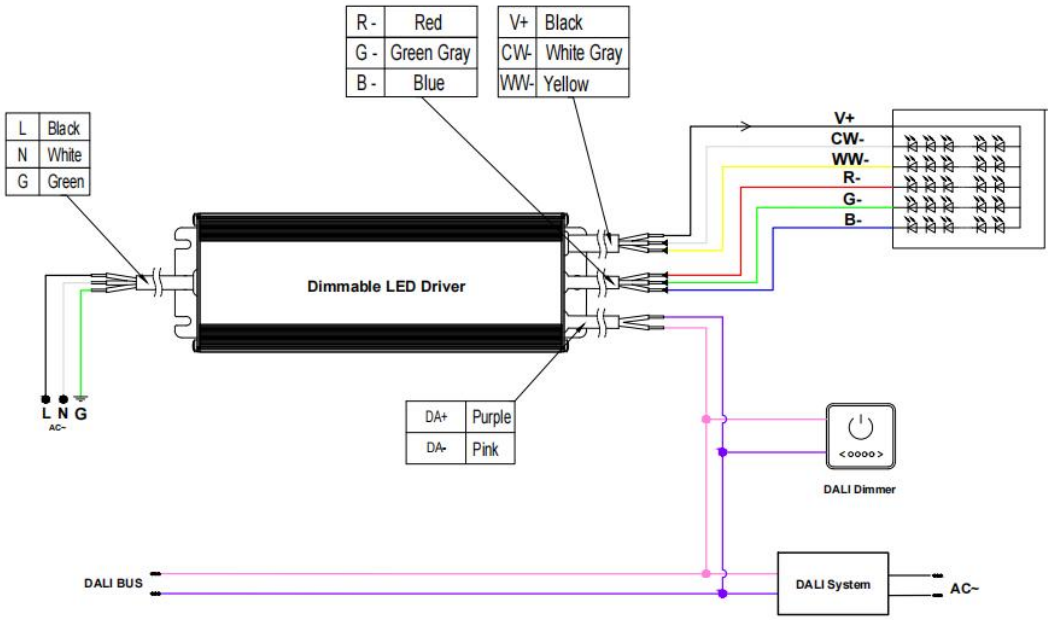
American wire gauge	
DT100	
Input wire	Black(L) White(N) Green(G) (3*18AWG)
Output wire	12V: Black(V+) White gray(CW-) Yellow(WW-) (3*16AWG) Red(R-) Green gray(G-) Blue(B-) (3*16AWG) 24V: Black(V+) White gray(CW-) Yellow(WW-) (3*18AWG) Red(R-) Green gray(G-) Blue(B-) (3*18AWG)
Dimming wire	Purple(DA+) Pink(DA-) (3*18AWG)
Remarks: 3C: R G B	4C: R G B CW 5C: R G B CW WW

Warm tip:

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

Connecting Diagram





5C (R G B CW WW) Version

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	12.5V	12.6V	12.8V	13V	13.1V	13.3V	13.5V
24V	24V	24.2V	24.4V	24.7V	24.9V	25.1V	25.3V	25.6V	25.8V	26.0V

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.