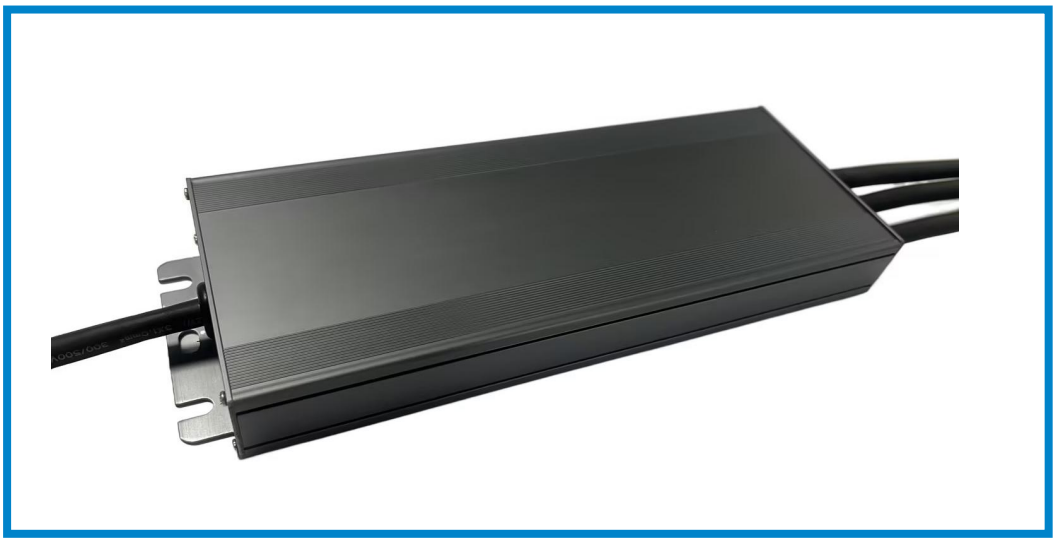
PSCD-300W24V KVE

c UL us LISTED E495946 FC Class P



Features

Output:	Constant Voltage
Range:	120-277VAC
PFC design:	Built-in active PFC function
Protections:	Short circuit/ over load/ over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	Full aluminum protection housing,for dry, damp & wet locations
Design features:	1. With PFC power factor correction,PF⩾0.97. 2. Output conversion efficiency up to 93.5%. 3. Low standby power consumption, standby power consumption <0.5W (0-10V dimming). 4. Optional dimming modes:Triac/Phase/MLV/ELV/0-10V/1-10V/10VPWM/Potentiometer dimming. 5. The output PWM mode and voltage adjustment mode can be switched.
Dimming function:	TRIAC&0-10V dimming
Dimming range:	0-100% dimming depth 0.1%
Min load	Min load is 20%
Application:	Suitable for the application of LED lighting
Warranty:	2 years warranty

Specification

Model		PSCD-300W12V KVE	PSCD-300W24V KVE	PSCD-300W36V KVE	PSCD-300W48V KVE
Certificate		UL / FCC / Class P			
Output	DC Voltage	12V	24V	36V	48V
	Voltage Tolerance	±4%	±2%	±2.8%	±2%
	Voltage Regulation	≤0.5%	≤0.5%	≤0.5%	≤0.5%
	Rated current	25A	12.5A	8.33A	6.25A
	Rated power	300W	300W	300W	300W
	Load Regulation	±2%	±2%	±2%	±2%
	Voltage Ripple	240mVp-p	400mVp-p	352mVp-p	330mVp-p
	Overshoot voltage	＜1%（full load） ＜2%（no load）			
	Output mode selection	When the blue&white wire and the yellow&gray wire at the output terminal are short-circuited, it indicates the Pulse-Width Modulation (PWM) mode. When they are disconnected, it indicates the Voltage Regulation (VR) mode of direct current voltage modulation.			
		Switching the output mode requires the power to be cut off for 3 seconds and then powered on again for the mode switching to take effect.			
Input	Voltage Range	120-277VAC			
	Frequency Range	47 - 63Hz			
	Power Factor (Typ.) @ full load	0.99@120VAC 0.97@277VAC	0.99@120VAC 0.97@277VAC	0.99@120VAC 0.97@277VAC	0.99@120VAC 0.97@277VAC
	THD(Typ.) @ full load	≤15%@120VAC ≤15%@277VAC			
	Efficiency(Typ.) @ full load	89.5%@120VAC 92%@277VAC	91.0%@120VAC 93.5%@277VAC	90.0%@120VAC 92.5%@277VAC	90.0%@120VAC 92.5%@277VAC
	AC Current (Max.)	≤3.1A @120VAC ≤1.4A@277VAC			
	Inrush Current (Typ.)	58.4A, 50%, 560us @120VAC; 132A, 50% 180us @277VAC			
	Leakage current	<0.5mA			
Protection	Short Circuit	Hiccup mode, can be automatically restored after abnormal removal			
	Over Load	≥120% Hiccup mode,recovers automatically after fault condition is removed			
	Over temperature	When the ambient temperature exceeds 45℃ ±5℃, the output is turned off			
Environment	Working TEMP.	-40~+40℃ (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			
	Withstand voltage	I/P-O/P:1.88KVAC;I/P-FG:1.5KVAC;O/P-FG:0.5KVAC			
	Isolation resistance	I/P-O/P: 100MΩ/ 500VDC/ 25℃/ 70% RH			
	EMC Immunity	FCC/ICES do not request this test			
	EMC Emission	FCC Part15 Subpart B；ANSI C63.4:2017；ICES-005 Issue 5			

	Surge Immunity Test	AC Power Line:Differential Mode 2KV,Common Mode 4KV
Others	Net Weight	1KG
	Dimension	232*78.1*25.3mm(L*W*H)
	Packing	300*280*215mm 20 pcs / CTN
Notes	1. Unless otherwise specified, all specifications are measured at 120V input, rated load, and 25℃ ambient temperature. 2. In the case of low input voltage, derated output should be used to ensure a long service life. 3. Default states: The output mode is Voltage Regulation output by default. The dimming curve is a gamma2.2 curve. 4. Regarding LED driver load types where the driver meets the harmonic emissions requirements of ANSI C82.77-10.	

MCB recommendation

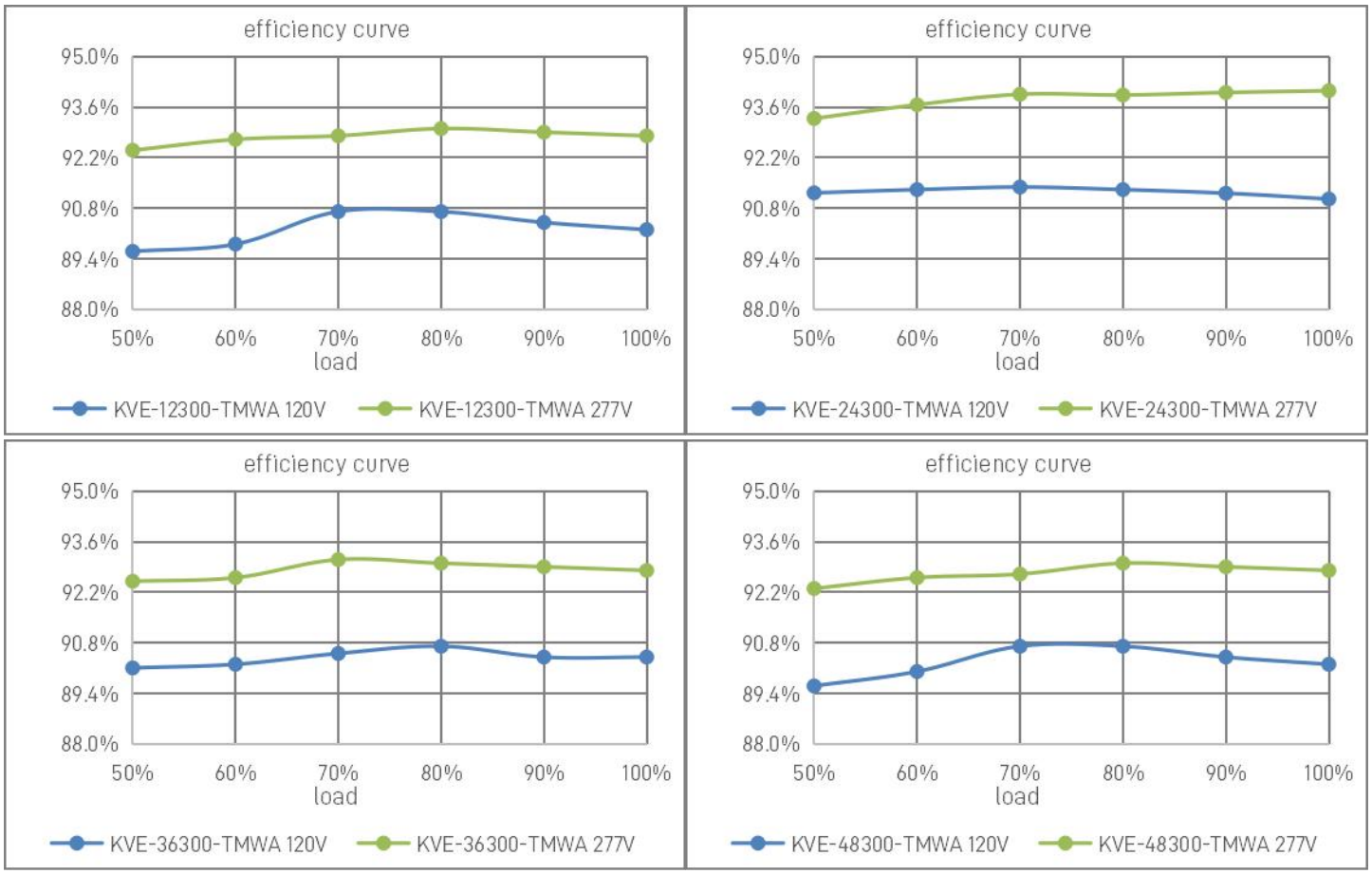
When the input voltage is 120Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	1
	13A	2
	16A	3
	20A	3
	25A	4
When the input voltage is 277Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	4
	13A	5
	16A	6
	20A	8
	25A	10

Note:

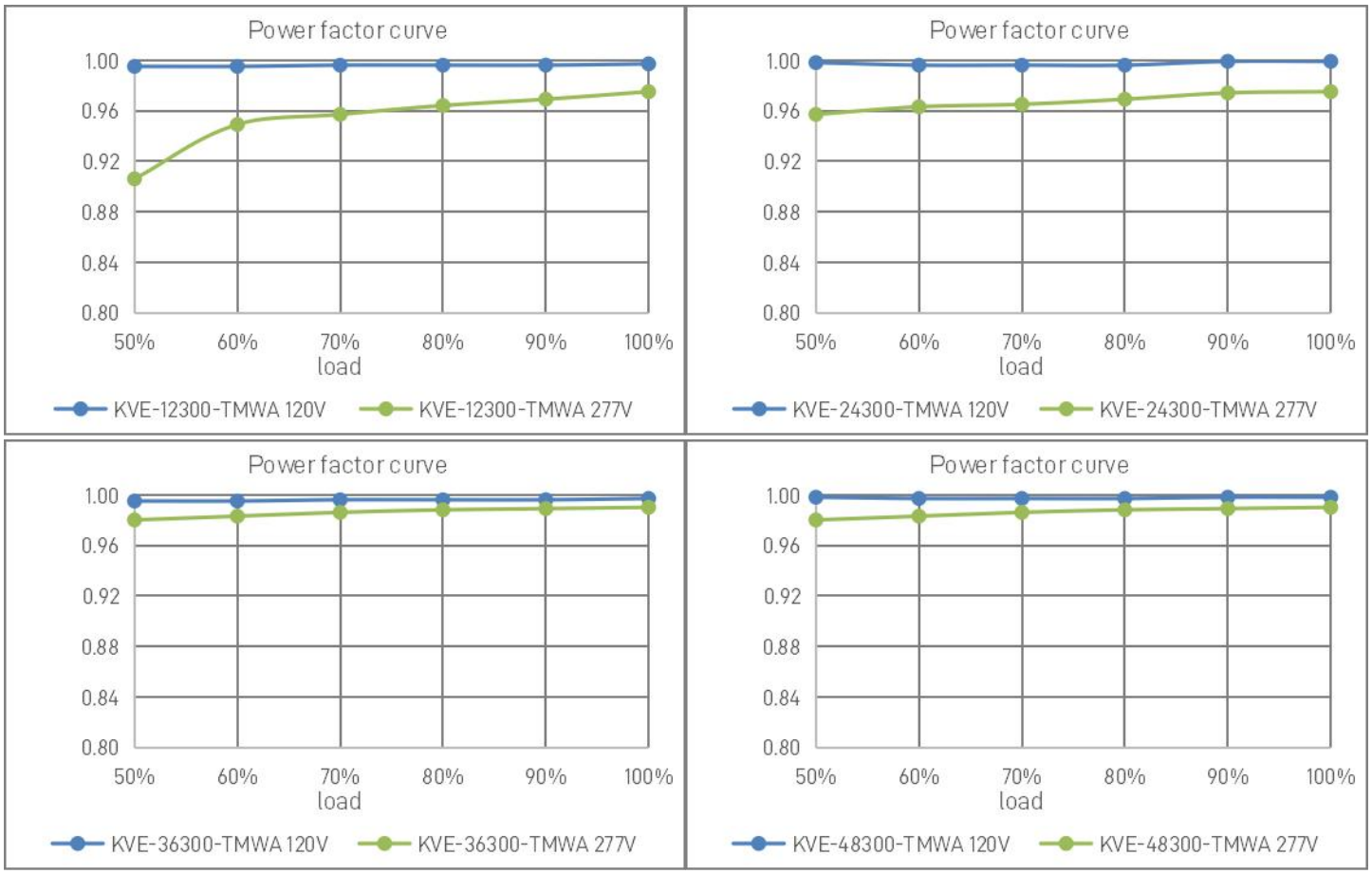
The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 ° C

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

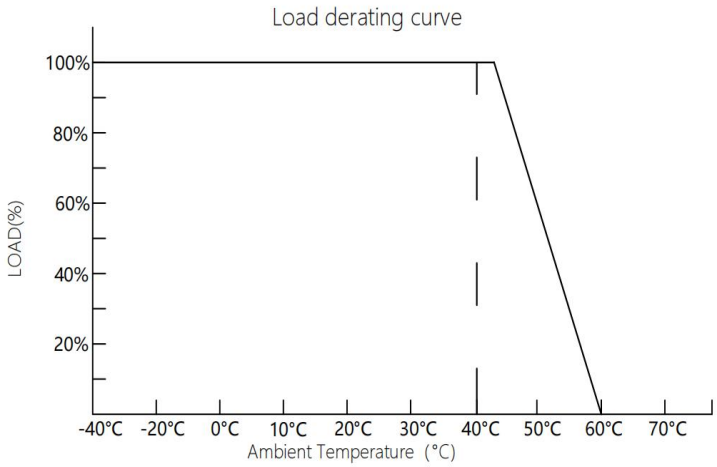
Efficiency Curve (efficiency vs output load)



Power factor curve(Power factor vs output load)

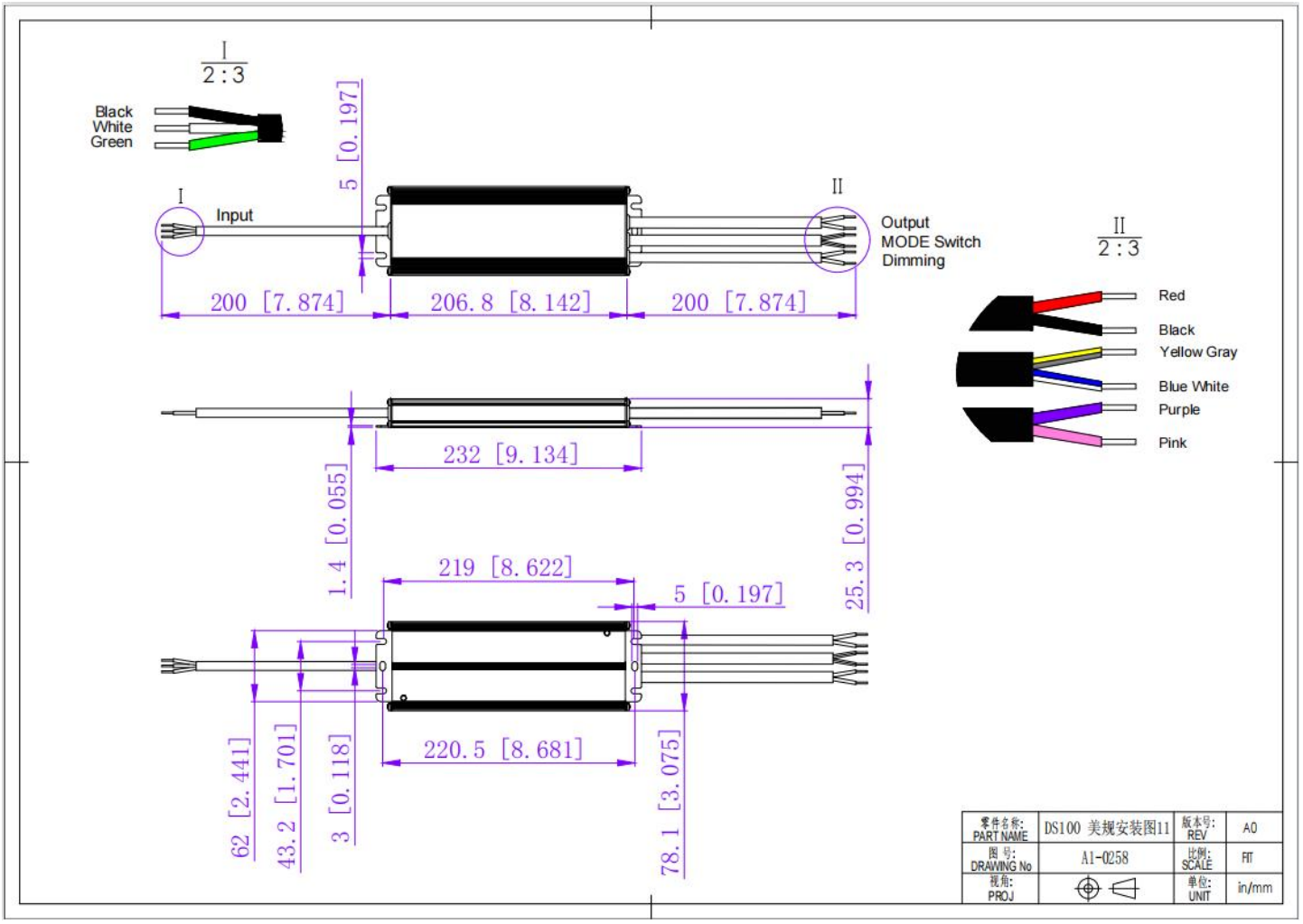


Derating Curve (output load vs TEMP.)



To extend their life, please refer to the Derating Curve and derate according to the temperature.

Mechanical Specification



American wire gauge	
DS100	
Input wire	Black(L) White(N) Green(G) \ (3*18 AWG) \ (3*0.824mm²) (12V & 24V & 36V & 48V)
Output wire	Red(V+) Black(V-) \ (2*12 AWG) \ (2*3.31mm²) (12V)
	Red(V+) Black(V-) \ (2*14 AWG) \ (2*2.08mm²) (24V)
	Red(V+) Black(V-) \ (2*16 AWG) \ (2*1.31mm²) (36V & 48V)
Dimming wire	Purple(DIM+) Pink(DIM-) \ (2*18 AWG) \ (2*0.824mm²) (12V & 24V & 36V & 48V)
Function switching wire	Yellow&Gray and Blue&White \ (17 AWG) \ (2*1.0mm²) (12V & 24V & 36V & 48V)
Remarks:	

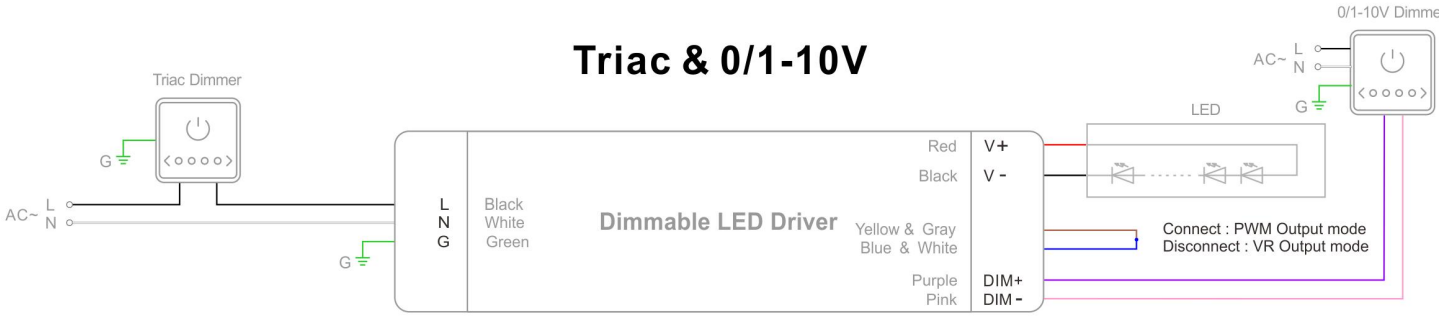
Warm tips:

1. Recommended Max. Carrying Current (A) = wire diameter(mm^2) x 10A/mm^2

   For example: 1mm^2 output cable, Recommended Max. Carrying Current (A) = 1mm^2 x 10A/mm^2=10A
2. Any other requests for cable, we can customized.

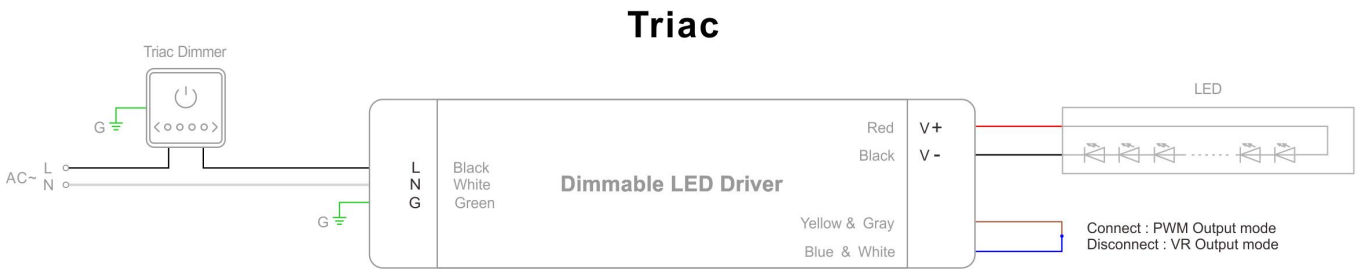
Dimming Operation and Connecting Diagram

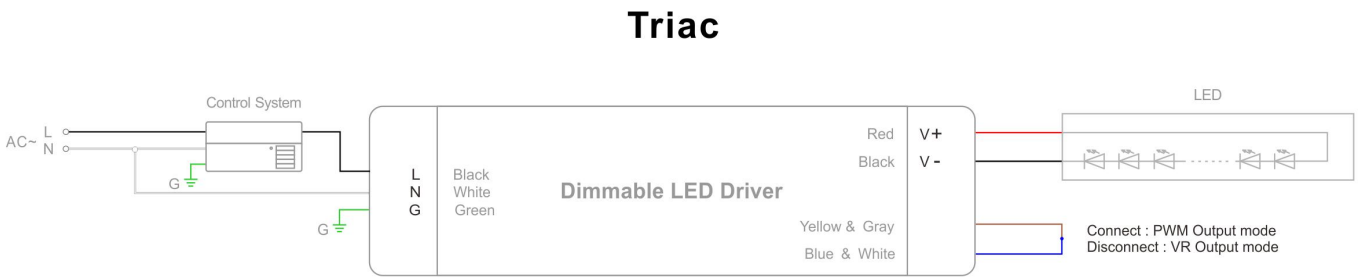
- **Using two ways of dimming at the same time,** you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming;



- **Using one dimming ---TRIAC/Phase cut dimming**

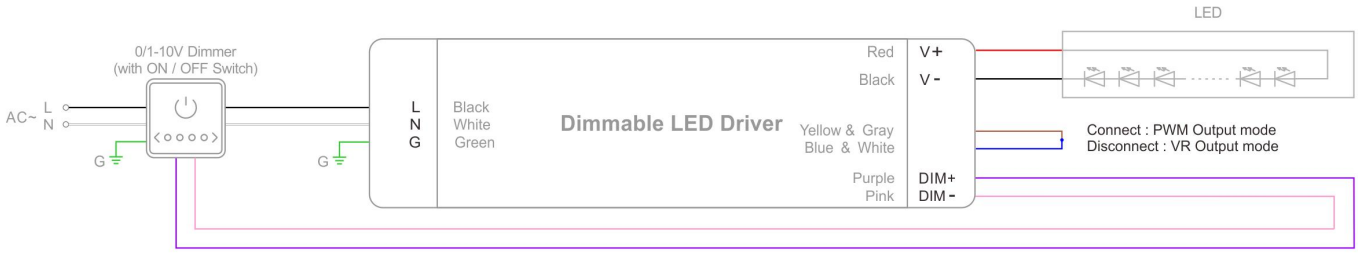
1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection
2. a phase /Triac dimmer or lighting system.
3. Working with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers or light system.
4. Min. loading is about 20%
5. Please try to use dimmers with power at least 1.5 times as the output power of the driver.





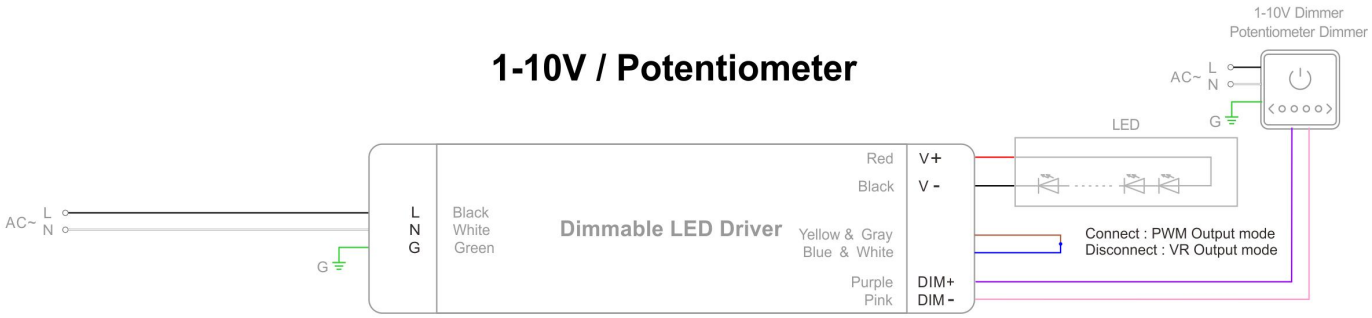
- **Using one dimming ---0-10/ 1-10V/ 10V PWM/ Potentiometer dimming**

0/1-10V



0-10V / 10V PWM

1-10V / Potentiometer



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 sjoly@axentled.com

Please visit our website or contact us for more information! www.axentled.com