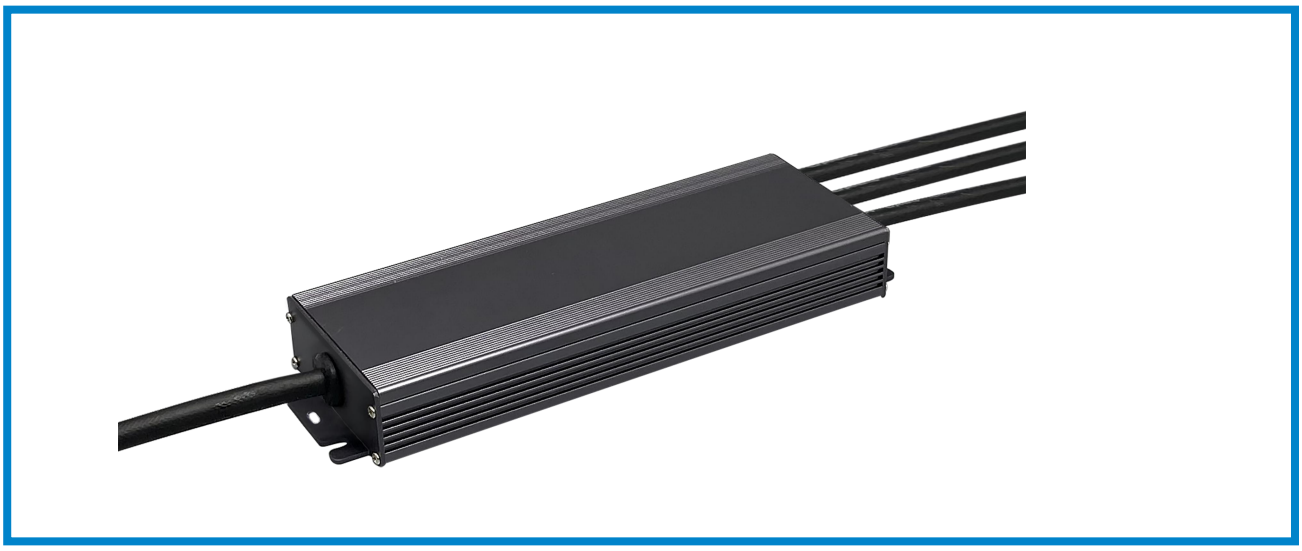
PSCD-96W24V KVE

c UL us LISTED E495946 FC Class P Class 2 TYPE HL ICES-005



Features

Output:	Constant Voltage
Range:	100-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 91%
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(US)
Dimming function:	Phase dimming: work with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers. 0-10V dimming: 0-10V/1-10V/Potentiometer/10V PWM 4 in 1
Min load	Min load is 20%
Dimming range:	0-100% dimming depth 0.1%
Application:	Suitable for LED lighting and moving sign applications
Warranty:	2 years warranty

Specification

Model		PSCD-96W24V KVE	PSCD-96W48V KVE
Certificate		UL / cUL / FCC / Class P / Class 2/Type HL/ICES-005	
Output	DC Voltage	24V	48V
	Voltage Tolerance	±2%	±2%
	Voltage Regulation	≤0.5%	≤0.5%
	Load Regulation	≤0.5%	≤0.5%
	Rated current	4A	2A
	Rated power	96W	
	Voltage Ripple	296mv	176mv
	Overshoot voltage	<3%(full load)	<3%(full 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	100-277VAC	
	Frequency Range	47 - 63Hz	
	Power Factor (Typ.) @ full load	>0.98@120VAC >0.97@277VAC	>0.98@120VAC >0.97@277VAC
	THD(Typ.) @ full load	<15%@120V <15%@277V	
	Efficiency(Typ.) @ full load	≥88%@120VAC ≥91.5%@277VAC	≥87%@120VAC ≥90.5%@277VAC
	AC Current (Max.)	≤1.0A @120VAC ≤0.43A@277VAC	
	Standby power	≤0.5W	
	Inrush Current (Typ.)	51A,208us@50%Ipeak 120VAC 118A,452us@50%Ipeak 277VAC	
	Leakage current	<0.5mA	
Protection	Short Circuit	Hiccup mode, can be automatically restored after abnormal removal	
	Over Load	≥120%,Constant - Current Mode, automatic recovery after exception	
	Over temperature	When the ambient temperature exceeds 55℃ ±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:：1.88KVac；O/P-FG：0.5KVac	
	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	FCC/ICES do not request this test
	EMC Emission	FCC Part15 Subpart B；ANSI C63.4:2017；ICES-005 Issue 5
Others	Net Weight	0.56KG
	Dimension	188*61.4*25.5mm(L*W*H)
	Packing	415*230*170mm 20 pcs / CTN
Notes	1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25℃of ambient temperature. 2. Tolerance: includes set up tolerance and load regulation . 3. The power supply is considered as a component that will be operated in combination with final Equipment. Since EMC performance will be affected by the complete installation, the final equipment manufactures must be-qualify EMC Directive on the complete installation again. 4. Default states: The output mode is VR output by default. The dimming curve is a gamma2.2 curve. 5. Regarding LED driver load types where the driver meets the harmonic emissions requirements of ANSI C82.77-10.	

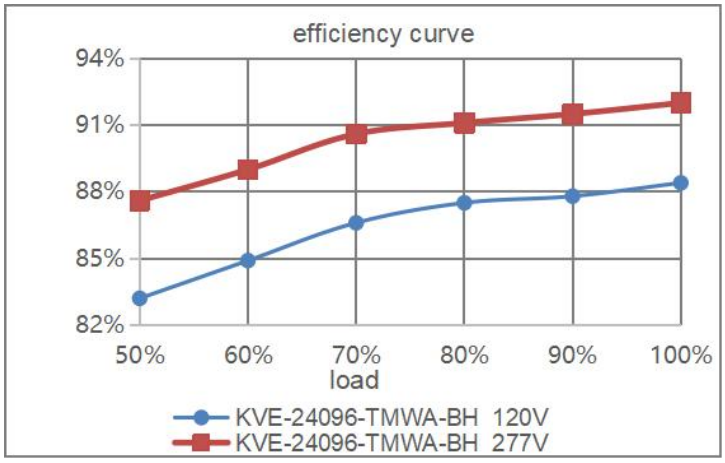
MCB recommendation

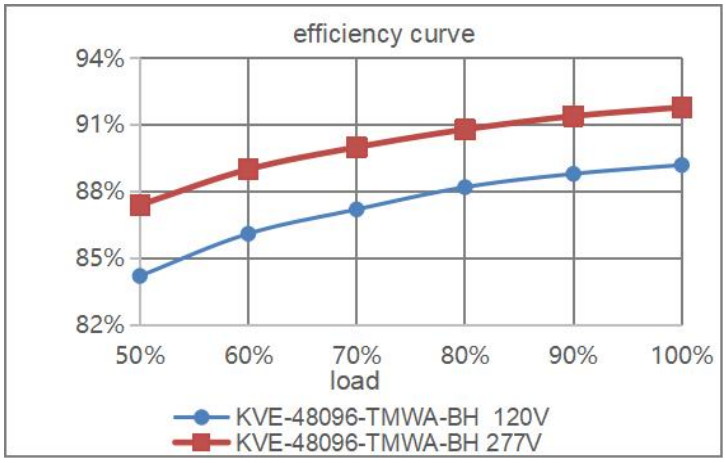
When the input voltage is 120Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	7
	13A	10
	16A	12
	20A	15
	25A	19
When the input voltage is 277Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	18
	13A	23
	16A	29
	20A	36
	25A	45

Note：

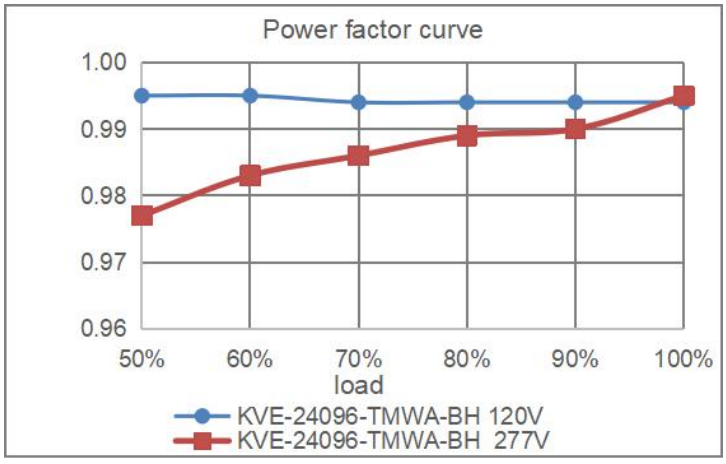
1. The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 ℃.
2. The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.

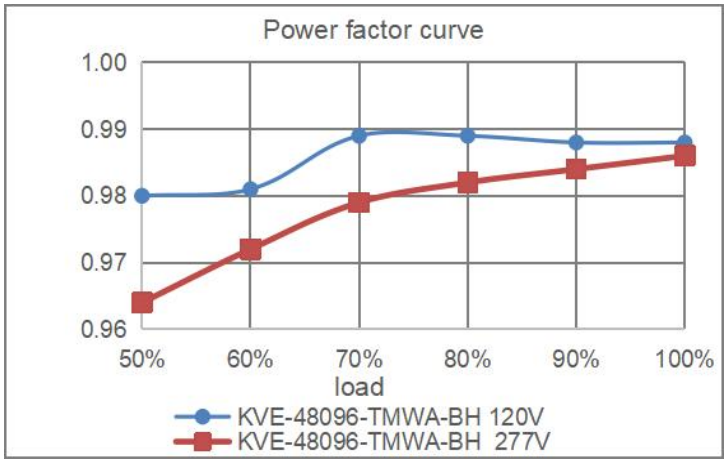
Efficiency Curve (efficiency vs output load)



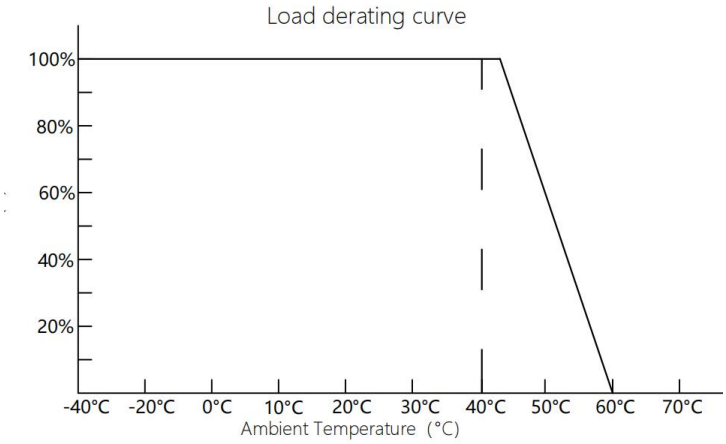


Power factor curve(Power factor vs output load)



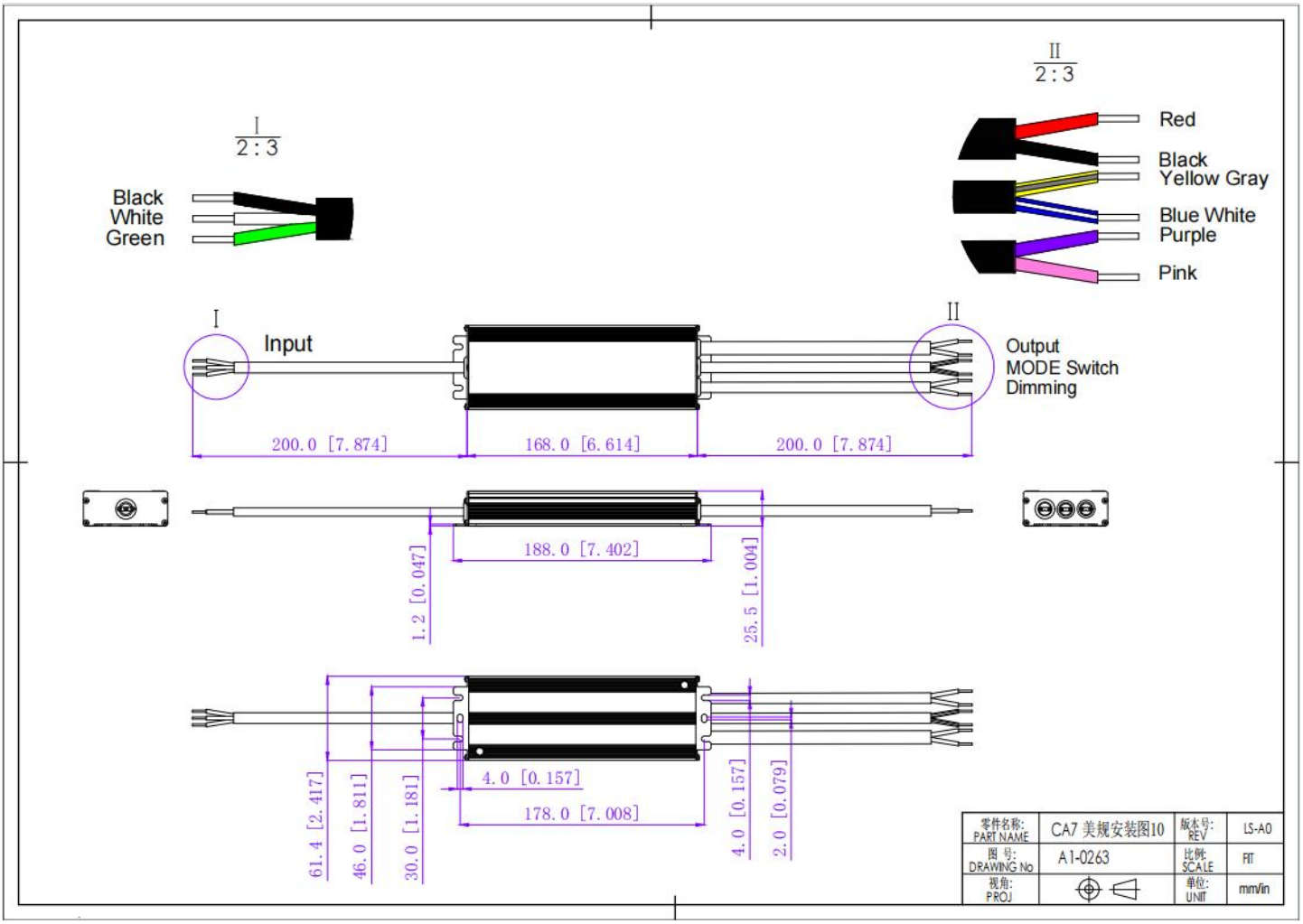


Derating Curve (output load vs TEMP.)



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

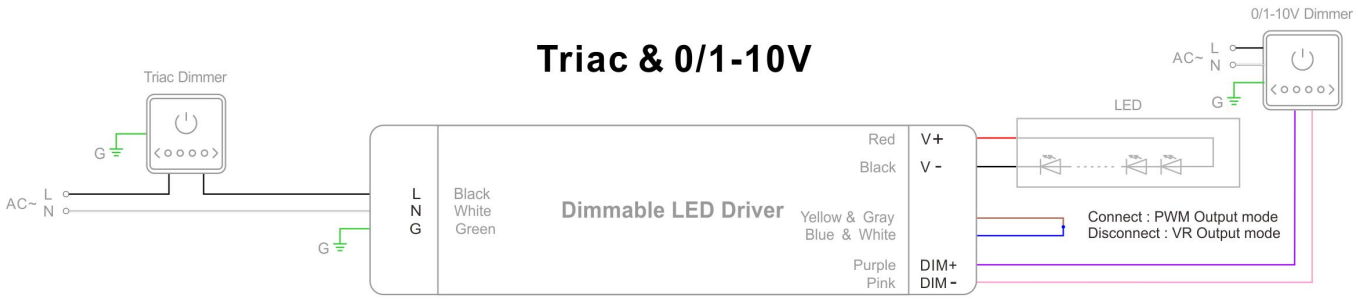


12V&24V&48V Version

American wire gauge	
CA7	
Input wire	Black(L) White(N) Green(G) (3*18 AWG)
Output wire	12V:Red(V+) Black(V-) (2*16 AWG) 24V&48V:Red(V+) Black(V-) (2*18 AWG)
Dimming wire	Purple(D+) Pink(D-) (2*18AWG)
Function switching wire	Yellow Gray and Blue White.(2*18 AWG)

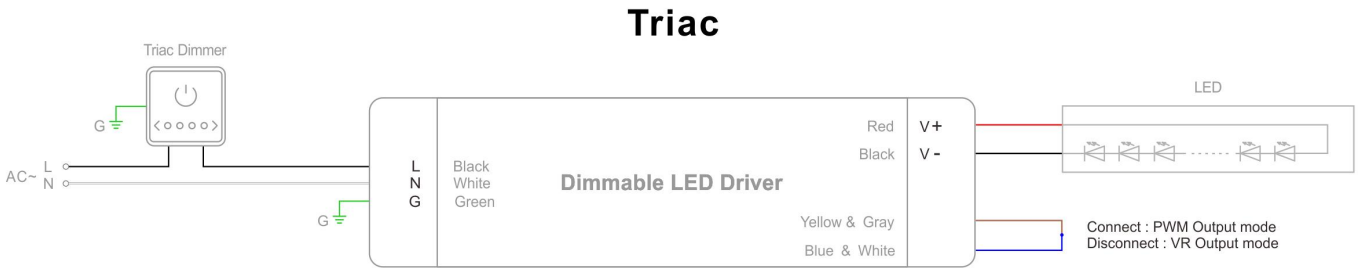
Dimming Operation and Connecting Diagram

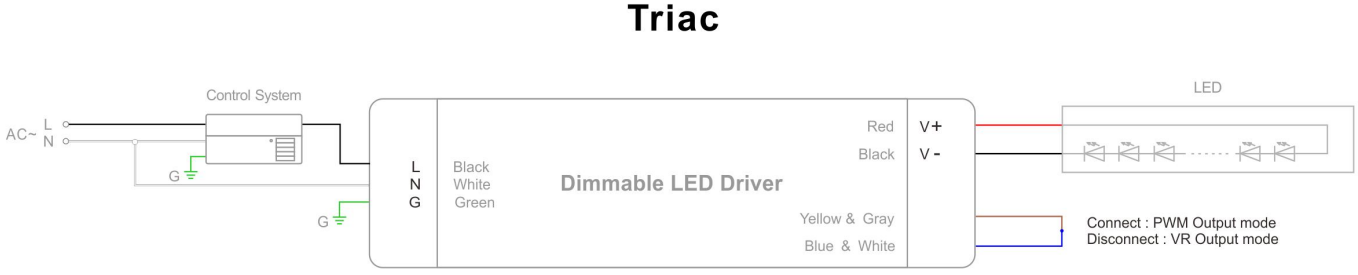
Using two ways of dimming at the same time, you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming;



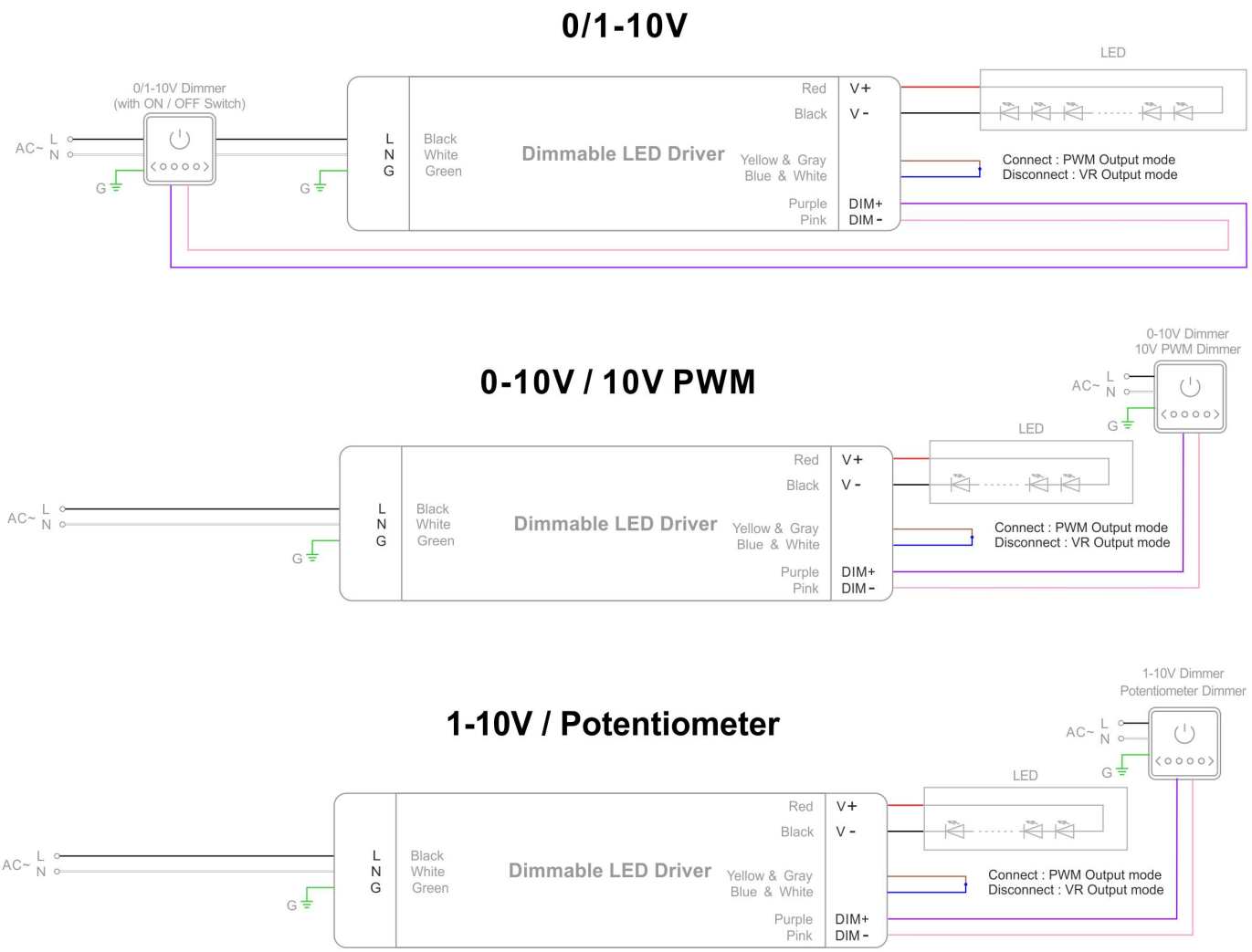
Using one dimming ---TRIAC/Phase cut dimming

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



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