

Triac/0-10V/1-10V/Potentiometer/10V PWM 5 in 1 Dimmable LED driver 96W

KVG-DWJ Series 96W

Whole Family: KVG-XXXXX-DWJ 24V/48VDC - [30W 60W 80W 96W 100W 120W 150W 200W 300W]



FCC Class 2 TYPE HL SELV CE RoHS ✓ Reach



Features

Output:	Constant Voltage
Range:	100-277V
PFC design:	Built-in active PFC function
Efficiency:	Up to 89%
Protections:	Short circuit/ over load/ over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	Driver built-in Junction box, For dry, damp and wet locations
Dimming function:	<u>Phase dimming</u> : work with Forward phase, MLV and Reverse phase, ELV, TRIAC dimmers. <u>0-10V dimming</u> : 0-10V/1-10V/Potentiometer/10V PWM 4 in 1
Dimming range:	0-100%
Application:	Suitable for LED lighting and moving sign applications
Warranty:	5 years warranty

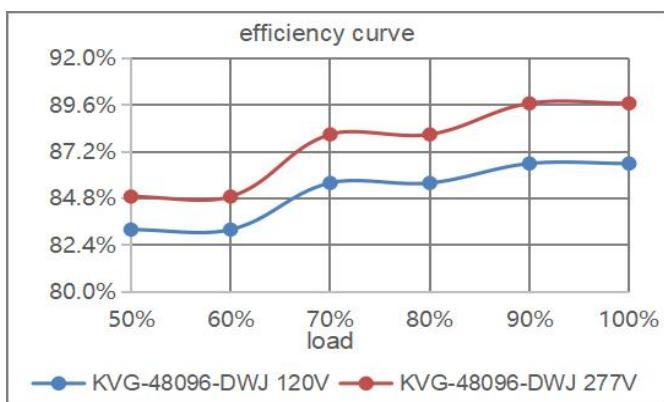
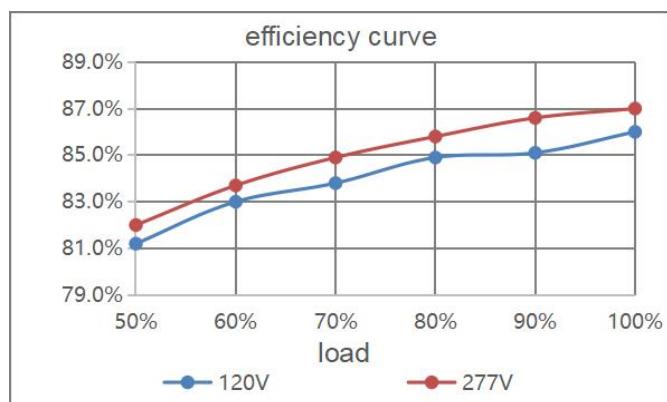
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Specification

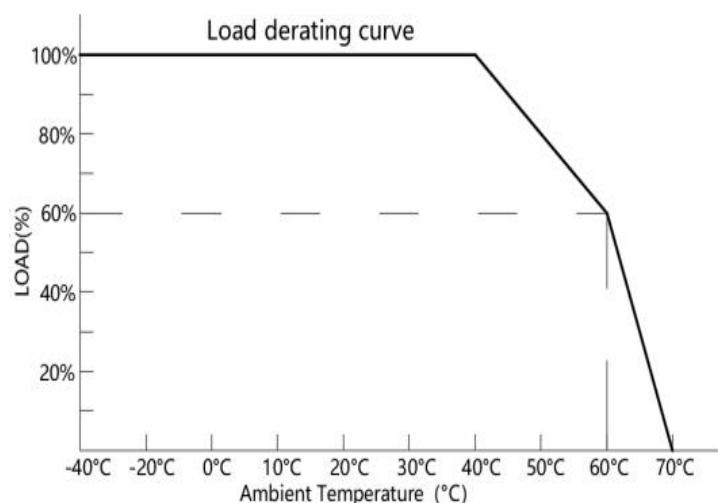
Model	KVG-24096-DWJ		KVG-48096-DWJ	
Certificate	(24V/48V): UL / cUL / FCC / Class 2 / CE / Rohs / REACH			
Output	DC Voltage	24V	48V	
	Voltage Tolerance	±0.5V		
	Voltage Regulation	±0.5%		
	Rated current	4A	2A	
	Rated power	96W		
	Load Regulation	±1%		
Input	Voltage Range	100-277VAC		
	Frequency Range	47 - 63Hz		
	Power Factor @ full load	0.98@120VAC 0.95@277VAC	0.99@120VAC 0.97@277VAC	
	THD(Typ.) @ full load	<20%@120VAC & 277VAC		
	Efficiency @ full load	≥83%@120VAC ≥86%@277VAC	≥86%@120VAC ≥89%@277VAC	
	AC Current (Max.)	1.3A		
	Inrush Current (Typ.)	20A, 1.6ms@50%120VAC 25A, 1.2ms@50%277VAC		
	Leakage current	<0.5mA		
Protection	Short Circuit	Shut down o/p voltage, re-power on to recover after fault condition removed		
	Over Load	≤120% constant current limiting, auto-recovery after fault condition removed		
	Over temperature	Shell surface temp.100°C±10°C shut down o/p voltage, automatically recover after cooling		
Environment	Working TEMP.	-40~+60°C (see below derating curve)		
	Working Humidity	20 - 95%RH non-condensing		
	Storage TEM.,Humidity	-40 - +80°C,10 - 95% RH non-condensing		
	TEMP.coefficient	±0.03%/°C(0 - 50°C)		
	Vibration	10~500Hz, 5G 12min./1 cycle, period for 72min. each along X,Y,Z axes		
Safety & EMC	Safety standards	UL8750 CAN/CSA-C22.2 No.250.13		
	Withstand voltage	I/P-O/P: 1.8KVAC I/P-FG: 1.8KVAC O/P-FG1.8KVAC		
	Isolation resistance	I/P-O/P: 100MΩ/ 500VDC/ 25°C/ 70% RH		
	EMC Emission	FCC 47 CFR Part 15 ,Subpart B		
Others	Net Weight	1.37Kg		
	Dimension	220*95.4*43.8mm(L*W*H)		
	Packing	298*265*220mm 10pcs /CTN 14.77KG/CTN		
Notes	1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25°C of ambient temperature. 2. Tolerance: includes set up tolerance and load regulation .			

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Efficiency Curve (efficiency vs output load)

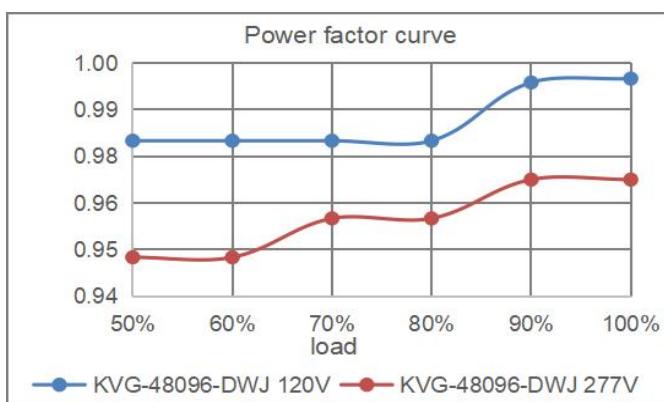
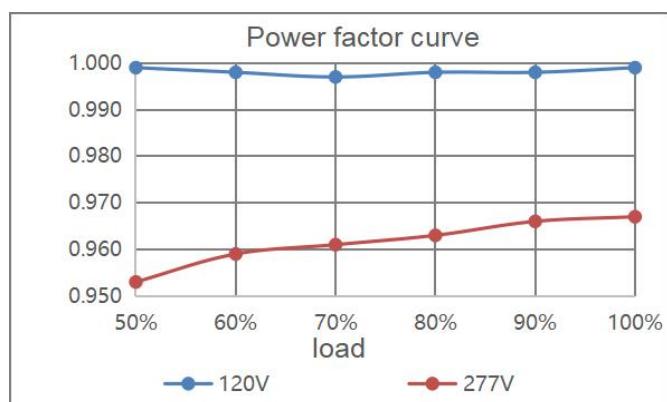


Derating Curve (output load vs TEMP.)



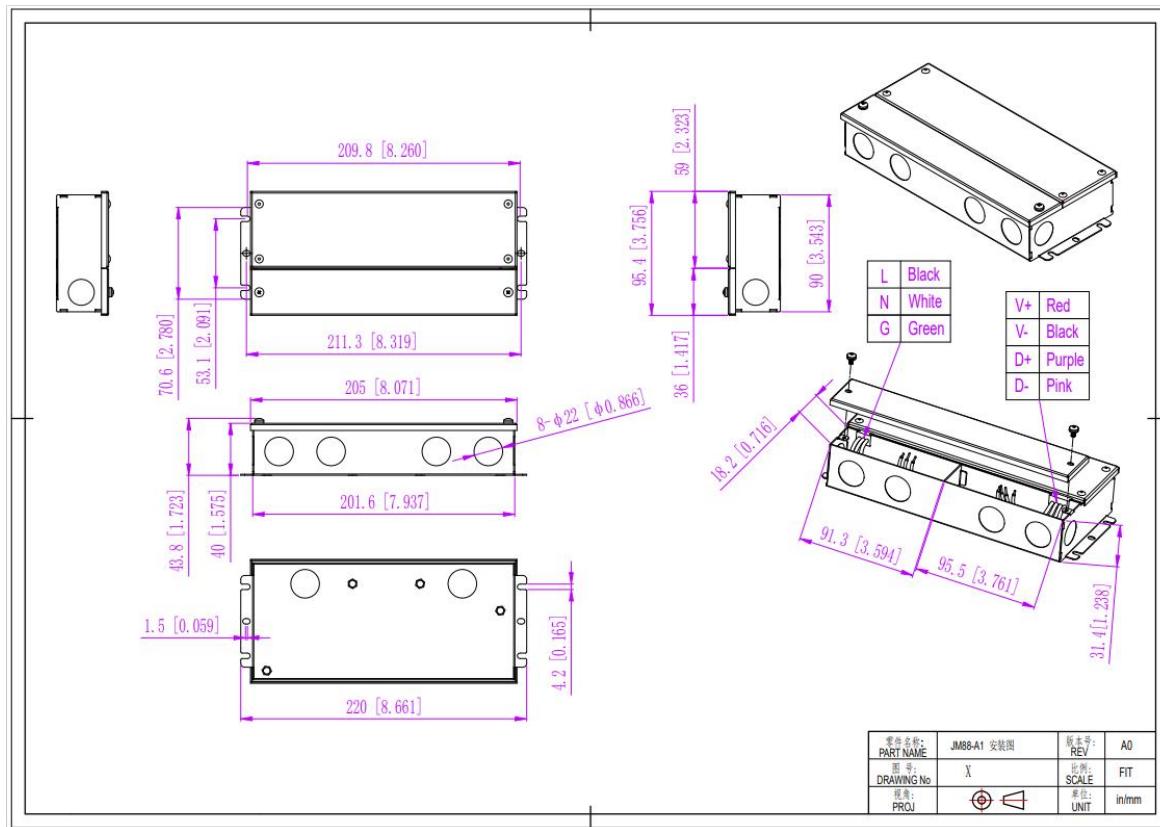
1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to avoid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

Power Factor Curve



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Mechanical Specification



24V&48V Version

1. Input cable 3*18AWG, the Green cable to (G), Black cable to L, and White cable to N of Mains AC.
2. Output cable 2*16AWG, Red cable (+) to LED Positive side (+), Black cable (-) to LED Negative side (-).
3. Dimming cable 2*18AWG, Purple cable DIM (+) to 0/1-10V dimmer signal(+), Pink cable DIM (-) to 0/1-10V dimmer signal (-).
4. Please DO NOT connect "DIM-" to "LED-", "DIM+" to "LED+", or other incorrect connection.
5. Please make sure your connect these correctly otherwise your product will not function correctly and could be damaged.

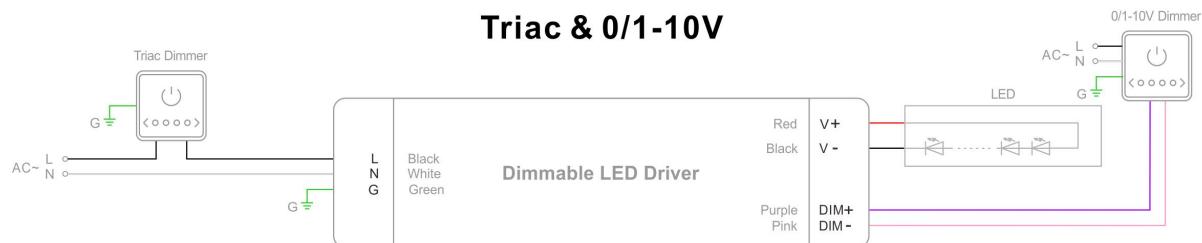
Warm tips:

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

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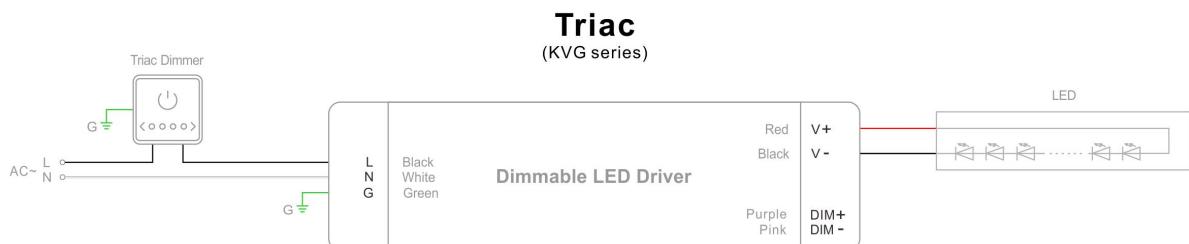
Dimming Operation and Connecting Diagram

- 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;

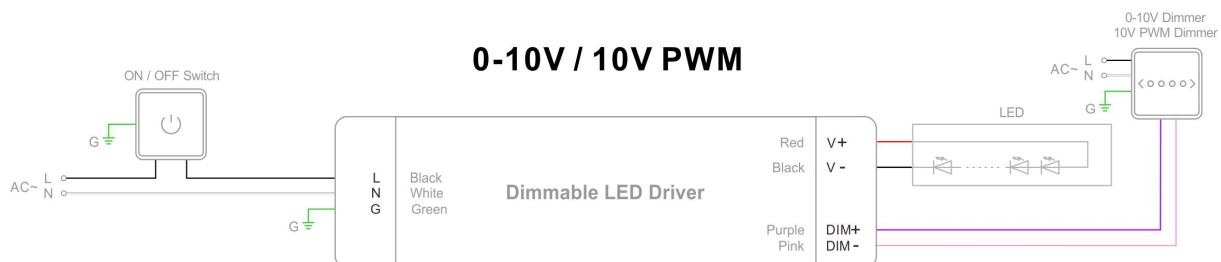


- Using one dimming ---TRIAC/Phase cut dimming**

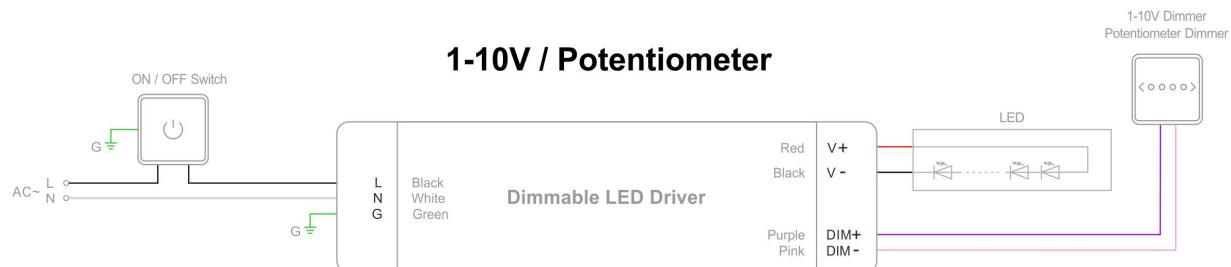
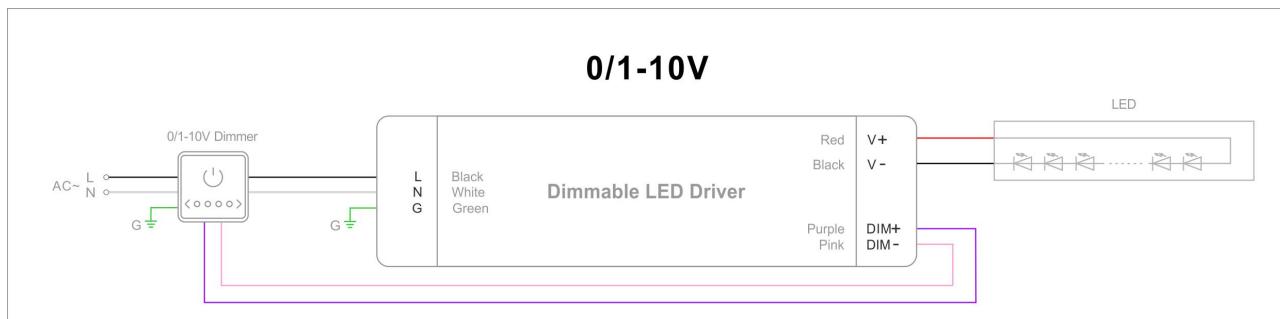
- The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.
- Working with Forward phase, MLV and Reverse phase , ELV, TRIAC dimmers or light system.
- Min. loading is about 10%.
- Please try 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**



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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