

Triac/0-10V/1-10V/Potentiometer/10V PWM 5 in 1 Dimmable LED driver 60W

KVG-DH Series 60W

Whole Family: KVG-XXXXX-DH 12V/ 24V / 48VDC - [30W 60W 80W 100W 120W 150W 200W 300W 320W 360W]





Features

Output: Constant Voltage Range: 200-240VAC

PFC design: Built-in active PFC function

Efficiency: Up to 88%

Protections: Short circuit/ over load/ over temperature

Heat dissipation: Cooling by free air convection

Waterproof performance: IP20

Dimming function: Phase dimming: work with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV,

TRIAC dimmers

 $\underline{\text{0-10V dimming}}\textsc{:}$ 0-10V/ 1-10V/ Potentiometer/ 10V PWM 4 in 1

Dimming range: 0-100% PWM frequency: 20K Hz

Application: Suitable for LED lighting and moving sign applications

Warranty: 5 years warranty



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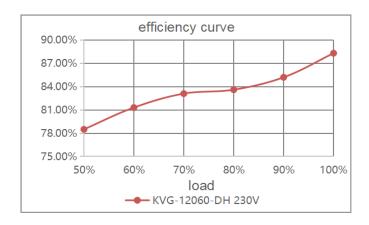
Specification

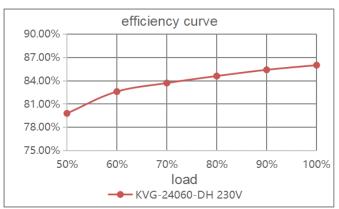
Model		KVG-12060-DH	KVG-24060-DH	KVG-48060-DH
Certificate		CE / ROHS / Reach		
Output	DC Voltage	12V	24V	48V
	Adjustable rated voltage range	10V-13V	21.5V-25.5V	48V-50V
	Voltage Tolerance	±0.5V		
	Voltage Regulation	±0.5%		
	Rated current	5A	2.5A	1.25A
	Rated power	60W		
	Load Regulation	±2% ±1%		
Input	Voltage Range	200-240VAC		
	Frequency Range	47 - 63Hz		
	Power Factor (Typ.) @ full load	0.96@230VAC	0.96@230VAC	0.97@230VAC
	THD(Typ.) @ full load	≤20%		
	Efficiency(Typ.) @ full load	88%@230VAC	86%@230VAC	85%@230VAC
	AC Current (Max.)	0.5A		
	Inrush Current (Typ.)	45.2A, 376us @50%lpeak 49.6A, 136us @50%lpeak		
	illusii Cultelii (Typ.)	80.8A,186us @50%lpeak		
	Leakage current	<0.5mA		
Protection	Short Circuit	Hiccup mode, re-power on to recover after fault condition removed		
	Over Load	≤120% Hiccup mode,recovers automatically after fault condition is removed		
	Over temperature	100 ℃±10 ℃ shut down o/p voltage, automatically recover after cooling		
Environment	Working TEMP.	-40~+70℃ (see below derating curve)		
	Working Humidity	20 - 90%RH non-condensing		
	Storage TEM.,Humidity	-40 - +80℃,10 - 95% RH non-condensing		
	TEMP.coefficient	±0.03%/℃(0 - 50℃)		
	Vibration	10~500Hz, 2G 10min./1 cycle, period for 60min. each along X,Y,Z axes		
Safety & EMC	Safety standards	EN61347-1; EN61347-2-13		
	Withstand voltage	I/P-O/P:3.75KVAC (EU)		
	Isolation resistance	I/P-O/P:100MΩ/500VDC/25°C/70%RH		
	EMC Emission	EN55015 EN61000	-3-2 EN61000-3-3	
Others	Net Weight	0.35Kg		
	Dimension	178*61.1*24mm(L*W*H)		
	Packing	290*215*140mm 20	pcs /CTN	
Notes	 All parameters NOT specially mentioned are measured at rated load and 25°C of ambient temperature. Tolerance: includes set up tolerance and load regulation . 			

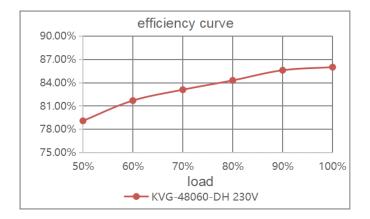


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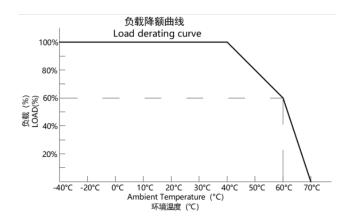
Efficiency Curve (efficiency vs output load)







Derating Curve (output load vs TEMP.)

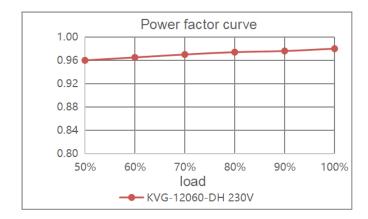


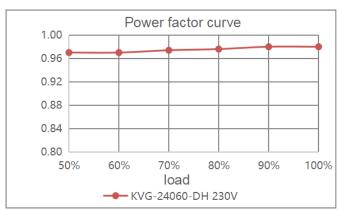
To extend their life, please refer to the Derating Curve and derate according to the temperature.

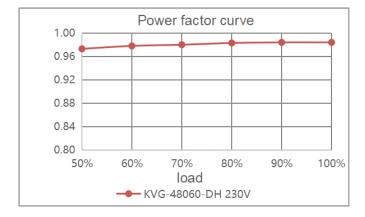


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Power Factor Curve



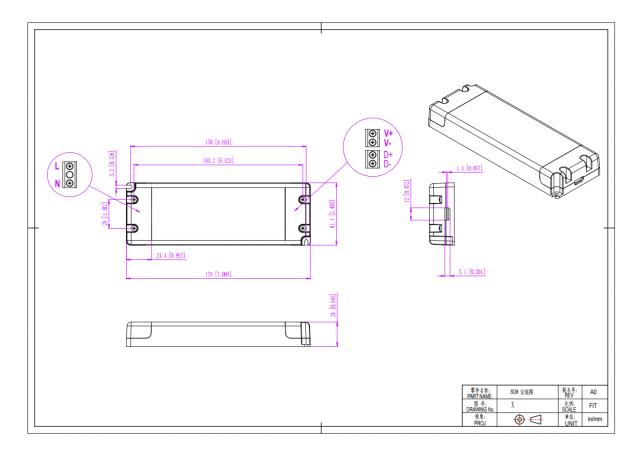






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Mechanical Specification



12V&24V&48V Version

- 1. Input with DG126 terminals 3P: Live Wire AC (L), Neutral Wire AC(N)
- 2. Output LED SEC with DG126 terminals 2P: output Positive (LED+), output negative (LED-). Connected to LED Lamps.
- 1. Dimming terminals with DG126 2P: DIM(+) and DIM(-).
- 2. Please DO NOT connect "DIM-" to "LED-", "DIM+" to "LED+", or other incorrect connection.
- 3. Please make sure your connect these correctly otherwise your product will not function correctly and could be damaged.

Warm tips:

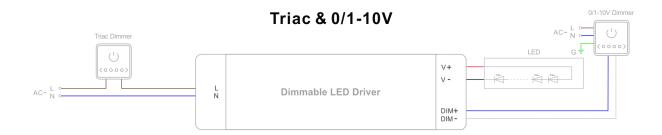
- 1. Suggested wire diameter: Input 0.75-2mm²; Output:0.5-2mm².
- 2. Any other requests for cable, we can customized.



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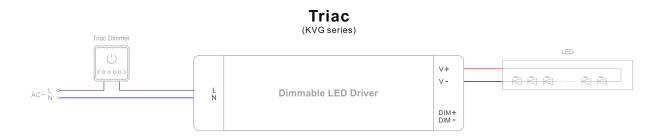
Dimming Operation and Connecting Diagram

• **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

- 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 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.