

KVG-DWJ SERIES 96W

DIMMABLE LED DRIVER SPECIFICATIONS



Note: The information shown on the product label in the image may not exactly represent the actual product specifications.



Job Information

Project Name	
Type	
Location	
Quantity	
Date	

DESCRIPTION

KVG-DWJ-96W is a 96W constant-voltage dimmable LED driver designed for professional LED lighting and magnetic track lighting systems. It features flicker-free and noise-free dimming for smooth, silent operation, along with Hiccup Mode for enhanced protection against short circuit, overload, and over-temperature conditions. Operating from 120–277VAC, it is available with 24VDC output. It supports forward-phase, MLV, reverse-phase, ELV and TRIAC dimming, as well as 0–10V, 1–10V, 10V PWM and potentiometer control. Additional features include active PFC, PWM output, and integrated short-circuit, overload, and over-temperature protection.

PERFORMANCE

SERIES NAME	KVG-DWJ-96W
OUTPUT	Constant Voltage
INPUT VOLTAGE RANGE	120VAC, 50/60 HZ
PFC DESIGN	Built-in Active PFC Function
EFFICACY	Up to 88%
PROTECTIONS	Short Circuit / Over Load / Over Temperature
HEAT DISSIPATION	Cooling by Free Air Convection
ENVIRONMENT	Dry, Damp & Wet Location
DIMMING FUNCTION (5 in 1)	High-frequency PWM Dimmable LED Driver, 20 kHz, Providing Flicker-free, Noise-free Dimming Performance. Phase-cut Dimming: Compatible with Forward Phase, MLV and Reverse Phase, ELV TRIAC Dimmers. 0-10V Dimming: 0-10V/1-10V/Potentiometer/10V PWM
DIMMING RANGE	0-100% Dimming Depth 0.1%
APPLICATIONS	Suitable for LED Lighting / Magnetic Track Lighting Systems
OPERATION TEMPERATURE	-25 TO +40°C (-13°F TO +104°F)
CERTIFICATIONS	cULus Listed
WARRANTY	5 Years

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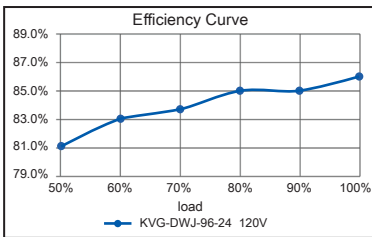
SPECIFICATION

MODEL NAME		KVG-DWJ-96-24
OUTPUT	DC Voltage	24V
	Voltage Tolerance	±0.5V
	Voltage Regulation	±0.5%
	Rated Current	4A
	Rated Power	96W
	Load Regulation	±1%
INPUT	Voltage Range	120VAC
	Frequency Range	50/60Hz
	Power Factor @ full load	>0.9
	THD(Typ.) @ full load	<20%@120VAC
	Efficiency(Typ.) @ full load	≥83%@120VAC
	AC Current (Max.)	1.3A
	Inrush Current (Typ.)	37.4A, 170us @50%Ipeak 120VAC
	Leakage Current	<0.5mA
PROTECTION	Short Circuit	Shut down o/p voltage, re-power on to recover after fault condition is removed. Or, hiccup mode, automatically recovers after fault condition is removed.
	Over Load	105%~125% Constant current mode, automatically recovers after fault condition is removed.
	Over Temperature	Shell surface temp. 100°C±10°C shut down o/p voltage, re-power on to recover after fault condition is removed. Or,hiccup mode, automatically recovers after fault condition is removed.
ENVIRONMENT	Working TEMP. (Ta)	-13°F TO +104°F (-25°C TO +40°C) (see below derating curve)
	Working Humidity	20 - 95%RH non-condensing
	Storage TEM.,Humidity	-40°F TO +176°F (-40°C TO +80°C),10 - 95% RH non-condensing
	TEMP. Coefficient	±0.03%/°C(0 - 50°C)
	Vibration	10 ~ 500Hz, 5G 12 min/cycle, X Y Z axis 72 minutes each
SAFETY & EMC	Safety Standards	UL379
	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°C / 70% RH
	EMC Immunity	FCC/ICES do not request this test.
	EMC Emission	FCC 47 CFR Part 15 ,Subpart B
OTHERS	Net Weight	1.79KG
	Dimension	L8.72"xW4.598"xH1.996" (221.4*116.8*50.7mm)
	Packing	L12.28"xW11.61"xH10.31" (312*295*262mm) 10pcs/CTN
CERTIFICATE		UL379 / cUL / FCC / Class 2 / TYPE HL / SELV / ROHS / REACH
NOTES		1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 77°F (25°C) of ambient temperature. 2. Tolerance: includes set up tolerance and load regulation .

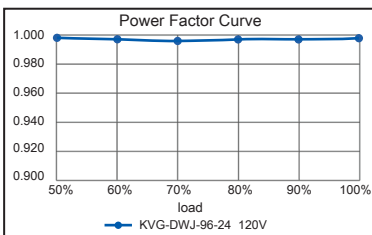
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DIMMABLE LED DRIVER SPECIFICATIONS

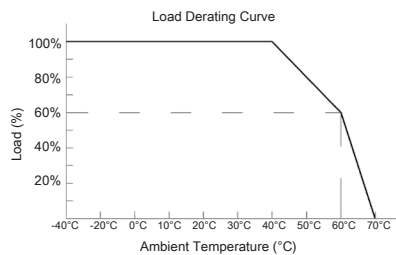
EFFICIENCY CURVE (EFFICIENCY VS OUTPUT LOAD)



POWER FACTOR CURVE (POWER FACTOR VS OUTPUT LOAD)



DERATING CURVE (OUTPUT LOAD VS TEMP.)

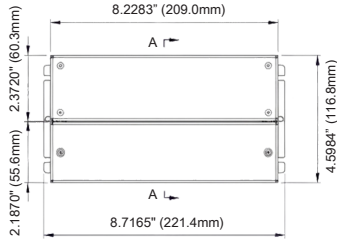


- 1.To extend their life, please refer to the Derating Curve and derate according to the temperature.
- 2.Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to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

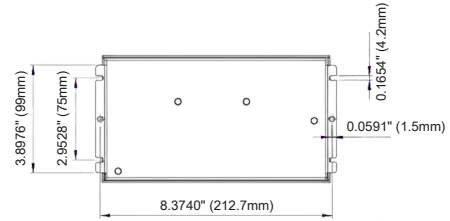
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MECHANICAL SPECIFICATION (24V VERSION)



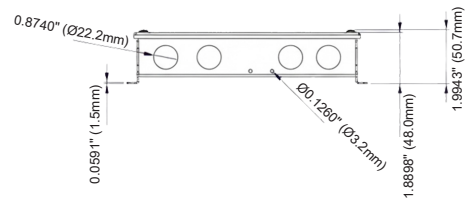
Top View



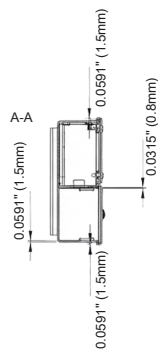
Bottom View



Rear View



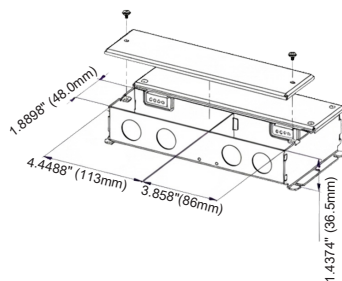
Front View



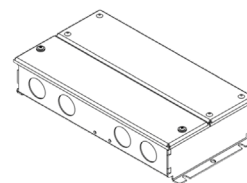
Left Side Views



Right Side Views



Open View



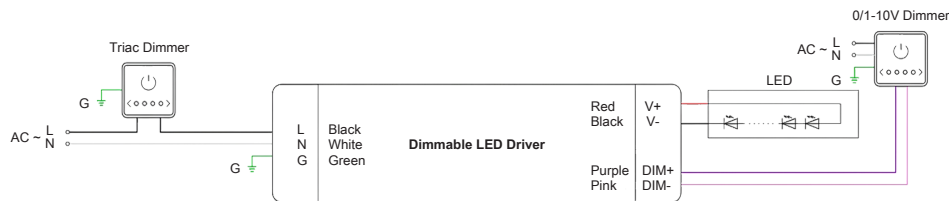
Isometric View

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;

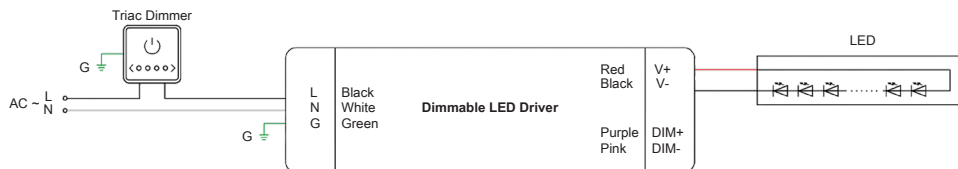
Triac & 0/1-10V



• 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, MLV and Reverse phase , ELV, TRIAC dimmers or light system.
3. Min. loading is about 10%.
4. Please try to use dimmers with power at least 1.5 times as the output power of the driver.

Triac (KVC series)



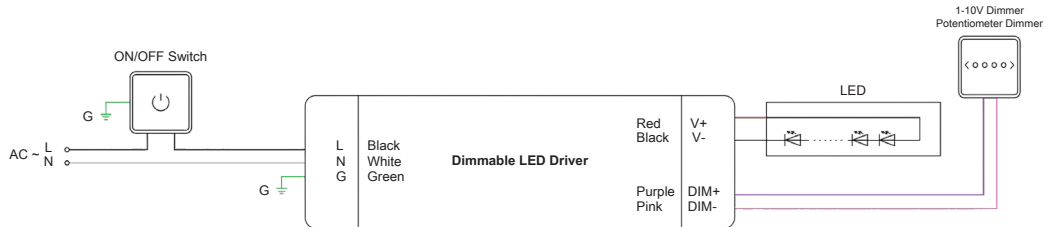
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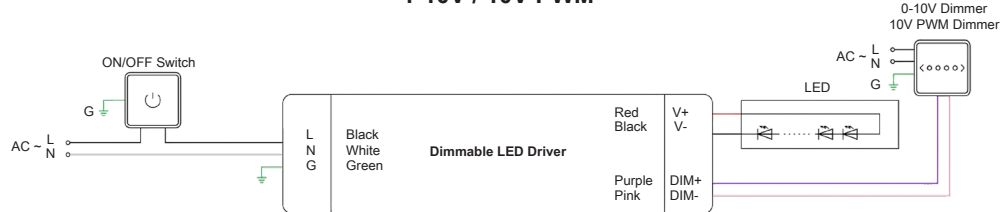
DIMMING OPERATION AND CONNECTING DIAGRAM

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

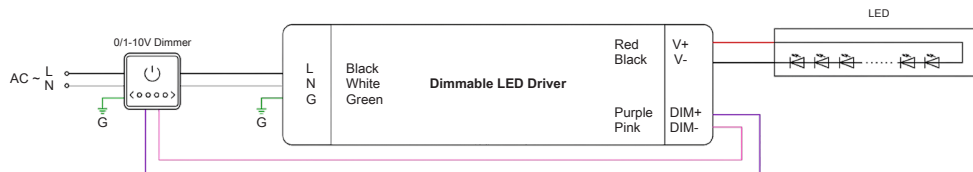
1-10V / Potentiometer



1-10V / 10V PWM



0/1-10V



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WIRING SPECIFICATION (AMERICAN WIRE GAUGE)

JM8803	
Input Wire	Black(L) White(N) Green(G) (3*14AWG)
Output Wire	Red(V+) Black(V-) (2*14AWG)
Dimming Wire	Purple(DIM+) Pink(DIM-) (2*18AWG)

Warm tips:

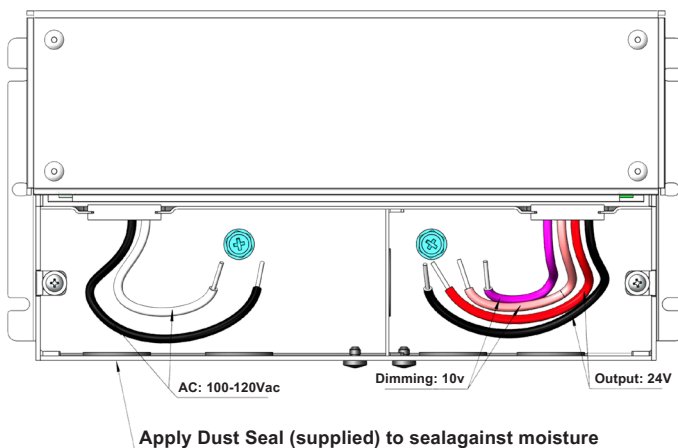
- 1.Recommended Max. Carrying Current (A) = wire diameter(mm²) x 10A/mm².
For example: 1mm² output cable, Recommended Max. Carrying Current (A) = 1mm² x 10A/mm²=10A.
- 2.Any other requests for, we can customized.

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 tested in order to avoid light and power supply damage.
4. If driver Cannot work normally, don't maintain privately.
5. LED drive is suitable for indoor and outdoor use.
6. The maximum operating temperature of the LED driver is about 40 °C.
7. LED driver has short circuit protection, overload protection, and overtemperature protection functions.
8. Protect the lifespan of the driver by installing it in well-ventilated area and free of excessive heat and gasses and do not full load.

How do install the LED driver?

1. For direct wiring of underwater lights, the installation must comply with provisions of the National Electric Code, ANSI/NFPA 70, including those in Article 680- Swimming Pools, Foun-tains, and Similar Installation, or articles 68-060, 062 and 066 of the Canadian Electric Code.
2. WARNING – RISK OF ELECTRIC SHOCK, Install the unit at least 1.5 m (5 ft)
3. All unused openings in the LED Driver must be closed with acceptable plugs.horizontally from the inside walls of a pool unless separated from the pool by a solid fence, wall, or other permanent barrier.
4. Install to permit access for servicing.
5. Wiring buckle is required for installation.



6. Please refer above product dimension to leave enough space to the driver. Use four pieces Φ3*8mm self-tapping screw to install catercorner on the surface which facilitates heat dissipation.