

# ***SPECIFICATION***

## **HPJ Series**

### **5 in 1 Dimming LED DRIVER**

MODEL NO.: KS-96AW-XX#

DESIGN NO.: KS96W

VERSION NO.: 001



## ■ Features

- Universal AC input voltage 100-277VAC
- Efficiency up to 90%
- High power factor,  $PF \geq 0.95$
- Single channel & constant voltage mode and PWM style output
- Protection: OCP, OVP, SCP, OTP
- Limited Power Source
- UL/cUL, RoHS, CE, ENEC, GS, Class P, Type HL Approved
- 5 in 1 dimming:(0-10V,1-10V,TRIAC,PWM,resistance)
- Compatible with Forward phase, Reverse phase, Triac, MLV, ELV Dimmers
- Flicker free
- Typical lifetime > 50000 hours
- 5 years warranty
- IP65 IP67 Rated Enclosure for Indoor and Outdoor Use

## 96W 5 in 1 dimming LED DRIVER

**24VDC****CLASS P CLASS 2 RoHS**

## Description

**KS-96AW** HPJ Series is one 96W LED variable AC-DC driver, with constant voltage output design as the main characteristics. This HPJ series model can work at input voltage 100~277 VAC, and provide a variety of rated output voltage between 12V, 24V, 36V, 48V. It is created for many lighting applications including advertising sign, led light-box. The high efficiency of the driver and compact metal case enables them to run cooler, significantly improving reliability and extending product life. To ensure trouble-free operation, protection is provided against input surge, over current, output over voltage, short circuit, and over temperature.

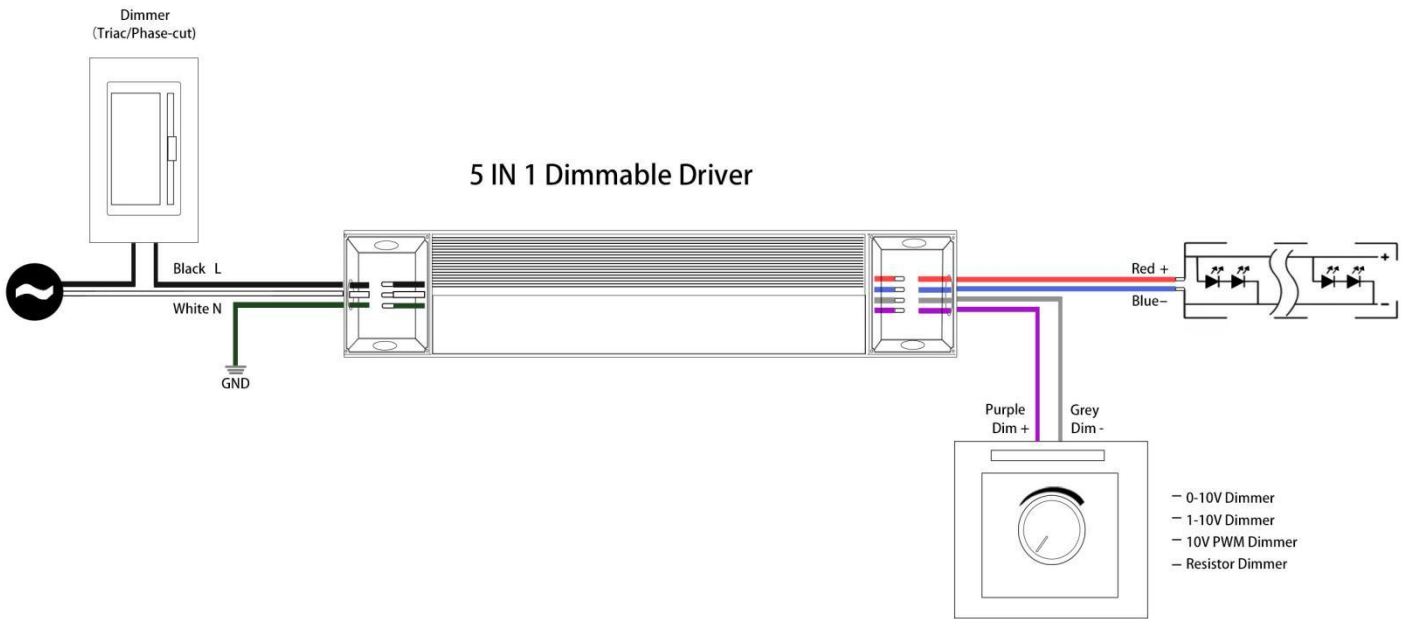
## Warning

The dimming product is only suitable for direct drive LEDs. In the dimming state, the dim+ dim- ports are PWM output. If there is a circuit drive LED or load with capacitance inside the LED, it is not suitable for this dimming power supply.

## ■ Specification

MODE		■	KS-96AW-24#	
OUTPUT	Output Voltage	24V		
	Rated current	4A		
	Rated power	96W		
	Ripple & Noise (max.)	250mVp-p		
	Voltage accuracy	±2.0%		
	Linear adjustment rate	±0.5%		
	Load adjustment rate	±0.5%		
	Start, rise time	500ms, 100ms/230VAC, 1000ms, 100ms/115VAC		
	Hold time	10ms/115VAC, 230VAC		
INPUT	Voltage range	100 ~ 277VAC		
	Frequency range	47 ~ 63Hz		
	Power factor	PF≥0.98/115VAC, PF≥0.95/230VAC, PF≥0.9/277VAC, Full load		
	Total harmonic distortion	THD< 20% (@ load ≥50%/115VAC,230VAC; @ load ≥75%/277VAC)		
	Efficiency	Vin: 115VAC	≥90.5%	
		Vin: 230VAC	≥92.68%	
	AC current	1.06A		
	Inrush current	Cold start 75A(width=350us measured at 50% I peak)/230Vac		
Leakage current	< 1 m A			
No load/ standby power consumption	< 3.4W			
Protection	Over current	95 ~ 110%		
		95 ~ 110% Constant current limit, load abnormal condition can be removed after automatic recovery		
	Short circuit	Burp mode, load abnormal conditions can be removed after automatic recovery		
	Over voltage	26 ~ 32 V		
Turn off the output voltage, restart and resume				
Over temperature	Turn off the output voltage, restart and resume			
Environment	Working Temp	T case= -40 ~ +50°C		
	Max.Case Temp	T case= +90°C		
	Working Humidity	20 ~ 95% RH, non-condensing		
	Storage Temp.,Humidity	-40 ~ +90°C, 10 ~ 95% RH		
	Temp.Coefficient	±0.03%/°C (0 ~60°C)		
Vibration	10~500Hz, 5G 12min./1 cycle, period for 72 min. each along X,Y,Z axes			
Safety & EMC	Safety standards:UL8750+UL1310			
	Withstand voltage:I/P-O/P:1.88KVac			
	Isolation resistance:I/P-O/P:100MΩ/500VDC/25°C/70%RH			
	EMC EMISSION:Confirms to FCC			

## ■ Dimming Connect Drawing

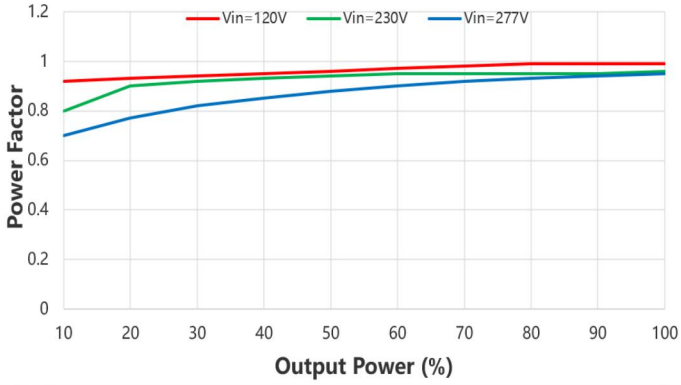


### Warning:

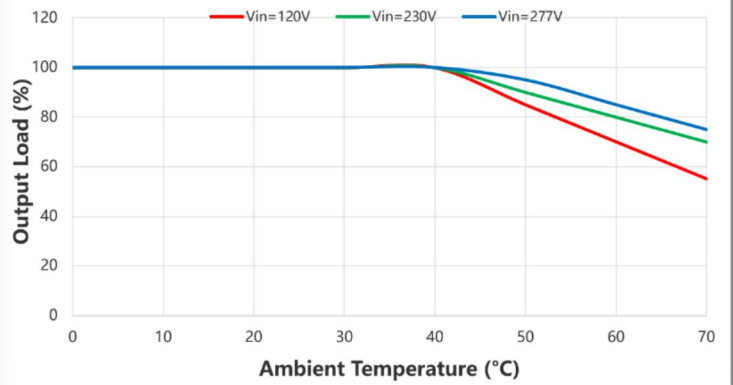
- \* This driver should be installed by qualified and professional person;
- \* Suitable for indoor use without direct sunlight exposure; Good ventilation are need;
- \* Ensure that wiring is correct before test in order to avoid light damage;
- \* If driver cannot work normally, don't maintain privately; Have any questions, please contact "Keysun".

## ■ Dimming Curve

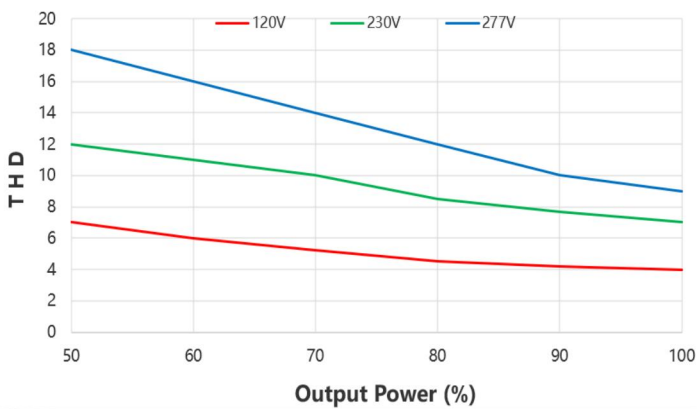
### Power Factor - Output Power Curve



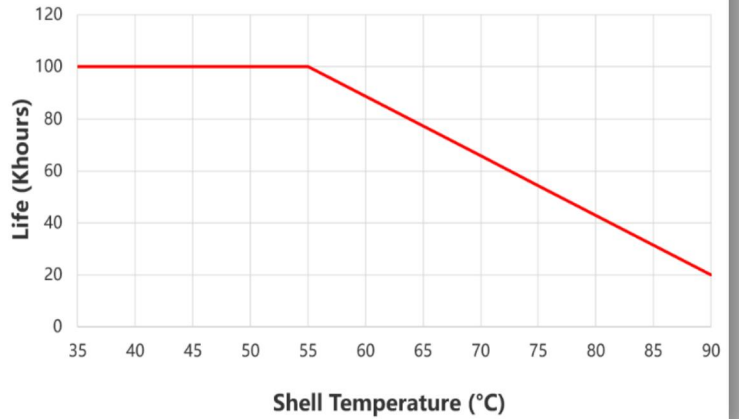
### Output Load - Ambient Temperature Curve



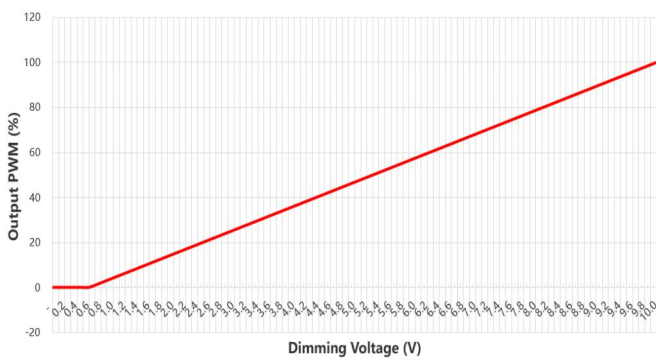
### THD - Output Power Curve



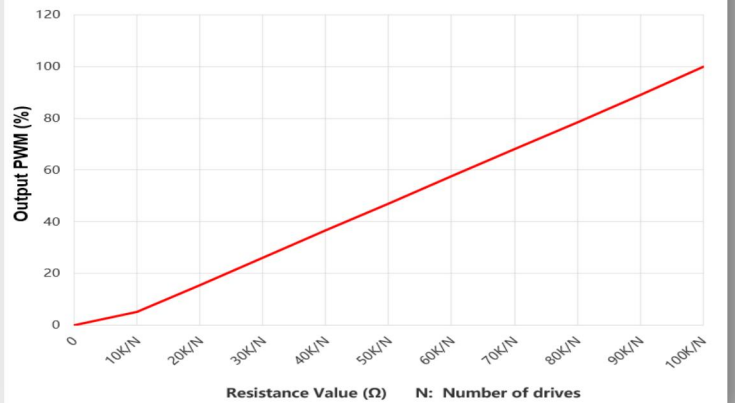
### Life - Shell Temperature Curve



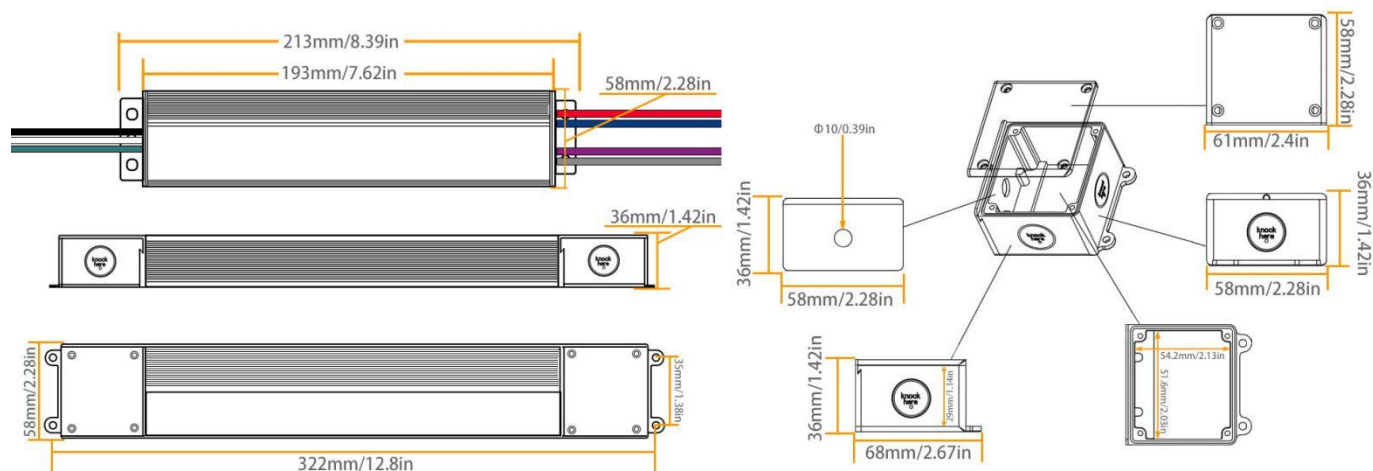
### 0-10V Dimming Curve



### Resistance Dimming Curve



## Mechanical Specification & Label



	<b>Class 2 LED Driver (5 In 1 Dimming)</b> for Triac/Phase-cut, 0-10V, 1-10V, Resistance, 10V PWM Dimmers Constant Voltage MODEL: KS-96AW-24P INPUT: 100-277V~, 1.26A max, 50/60Hz, PF $\geq$ 0.95 OUTPUT: 24V=4.0A, 96W Manufacturer: Shenzhen Keysun Technology Limited		<b>Class P TYPE HL RoHS SELV</b> CONFORMS UL cUL 8750 CONFORMS FCC CONFORMS CAN/CSA-C22.2 NO.250.13 WARNING-Risk of Fire or Electric Shock Do not interconnect output terminations SUITABLE FOR DRY, DAMP AND WET LOCATIONS For Connections Use Wire Rated for at Least 90°C (194°F)		<b>OUTPUT</b> (RED) Vo+ ● (BLUE) Vo- ● (GRAY) DIM- ● (PURPLE) DIM+ ●
	<b>INPUT</b> ● AC L (BLACK) ● AC N (WHITE) (GREEN/YELLOW)			MADE IN CHINA S/N: X1-2026XXXXXXX	

## Package Information

Brown box: 339\*65\*41mm; Carton: 360\*356\*190mm; Quantity: 20pcs/carton; G.W:18kgs/Carton.

Note:

AC Input Cord	UL SJTW #18AWG 3*0.82mm <sup>2</sup> , ØD: 7.8mm ;Green: Ground, Black: L, White: N
DC Output Cord	UL SJTW #18AWG 2*0.82mm <sup>2</sup> , ØD: 7.35mm; Red: V+, Blue: V-
Signal Cord	UL SJTW #18AWG 2*0.82mm <sup>2</sup> ; Gray Dim-, Purple Dim+