

KLPA96JV SERIES

96W Single Output Programmable LED Driver



- NFC technology programmable without driver power on
- Constant power programmable design, CC/CV hybrid output
- High efficiency, active power factor correction
- Ultra low THD at light load
- 0~10V/ PWM/ Timer, Dim to off option, Programmable timer
- 12V/200mA AUX Output
- UL recognized with HL/ TL/Surge(Diff:4kV, Common:6kV)
- UL8750 / EMC: EN55015, EN61000-4-2,3,4,5,6,8,11 / EN61000-3-2 Class C

5 Year Warranty

Approvals:

ELECTRICAL SPECIFICATIONS

Part Number	Output Voltage Range Without Dimming	Programmable Constant Current Region	Programmable Constant Current Region	Max Output Power	Input Current	Power Factor	Efficiency 110V 220V		Line Regulation	Load Regulation
							90%	91%		
KLPA96JV-S024036P	24-36 V	24-36 V	1.6-4 A	96W	0.94A (115VAC) 0.45A (230VAC)	0.99 (115VAC) 0.97 (230VAC)	90%	91%	±1%	±1%
KLPA96JV-S036048P	36-48 V	36-48 V	1.07-2.67 A	96W			89%	91%		
KLPA96JV-S048080P	48-80 V	48-80 V	0.8-2 A	96W			91%	93%		
KLPA96JV-S080140P	80-140 V	80-140 V	0.48-1.2 A	96W			91%	93%		
KLPA96JV-S140233P	140-233 V	140-233 V	0.27-0.69 A	96W			91%	92%		

Note: Efficiency value is typical value.

PROTECTIONS & CONDITIONS

PROTECTION	OVER CURRENT	95~108% Protection type: Constant current limiting, recovers automatically after fault condition is removed
	SHORT CURRENT	Hiccup mode, recovers automatically after fault condition is removed
	OVER VOLTAGE	1.3Vo, Protection type: Hiccup mode, recovers automatically after fault condition is removed
	OVER TEMP.	Hiccup mode, recovers automatically after fault condition is removed
ENVIRONMENT	WORKING TEMP.	-35 ~ +70°C (Refer to "Derating Curve")
	WORKING HUMIDITY	10 ~ 100% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 5 ~ 100% RH
	TEMP. COEFFICIENT	±0.05%/°C (0~50°C)
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
	Max T-case TEMP	85°C

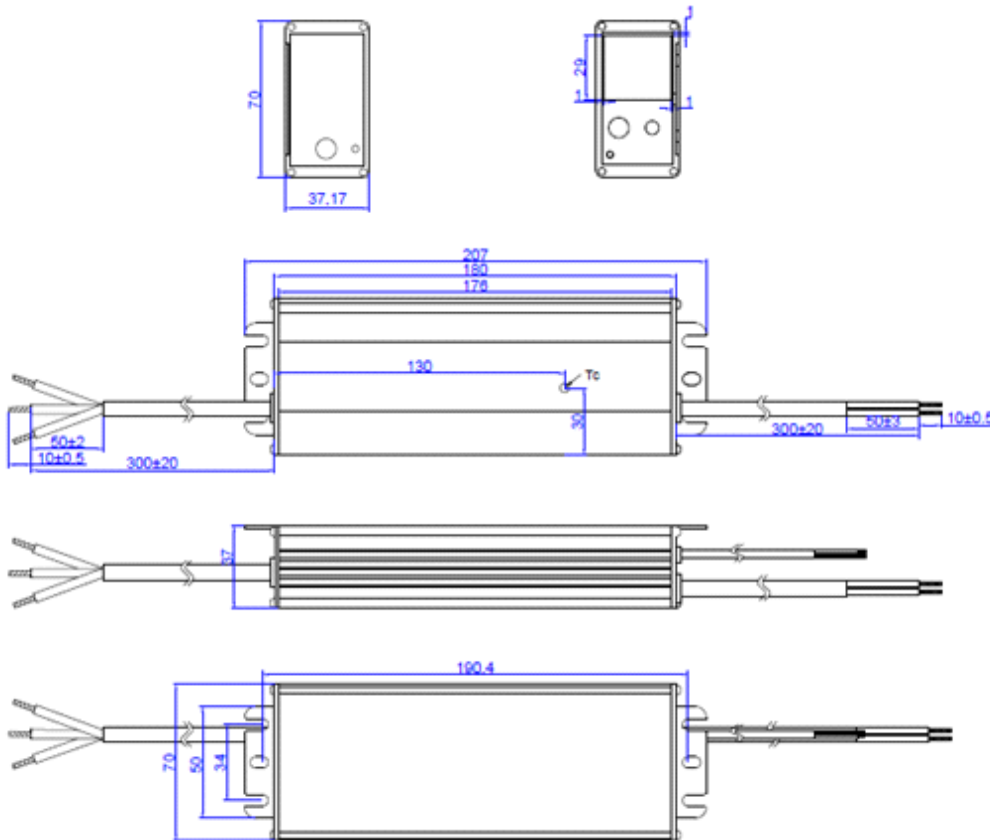
GENERAL INFORMATION

LED Driver Type	Constant Current / Constant Voltage
Maximum Wattage	96 W
Input Voltage	90 ~ 305 VAC
Input Frequency	47 ~ 63 Hz
Total Harmonic Distortion	<20%
WARRANTY	5 year limited warranty
Inrush Current	65A at 230VAC cold start +25°C
MTBF	> 200kHrs to MIL-HDBK-217 at25°C,GB
Protection	Overload/Overtemperature/Short circuit protection
Weight	900g
Packaging	12pcs/carton

CERTIFICATES & COMPLIANCE

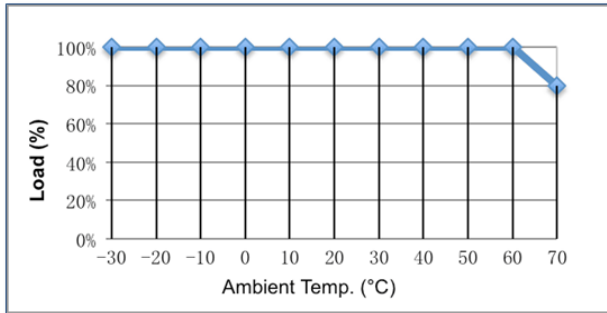
SAFETY & EMC	SAFETY STANDARDS	UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13
	WITHSTAND VOLTAGE	I/P – O/P: 3.75kVAC
	ISOLATION RESISTANCE	I/P – O/P: 100M Ohms / 500VDC /25°C / 70% RH
	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C ($\geq 60\%$ load); EN61000-3-3
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024

MECHANICAL SPECIFICATION

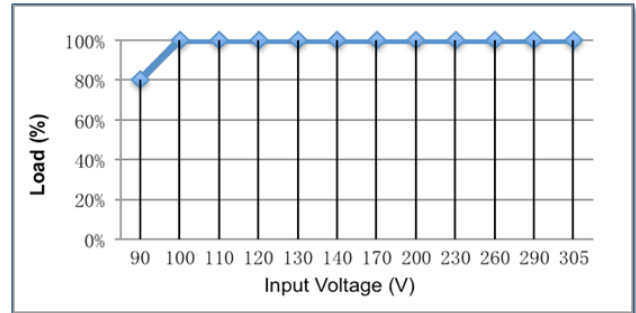


CHARACTERISTIC CHARTS

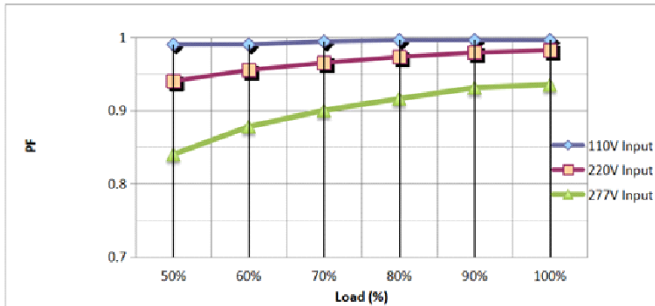
Derating Characteristics



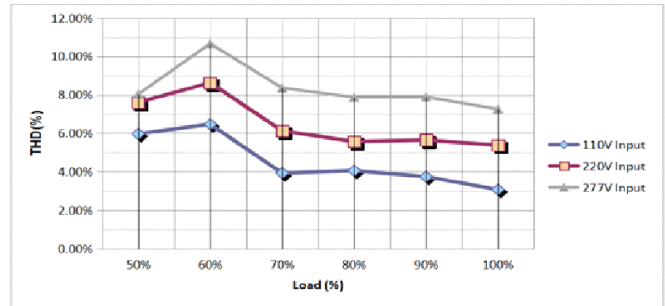
Static Characteristics



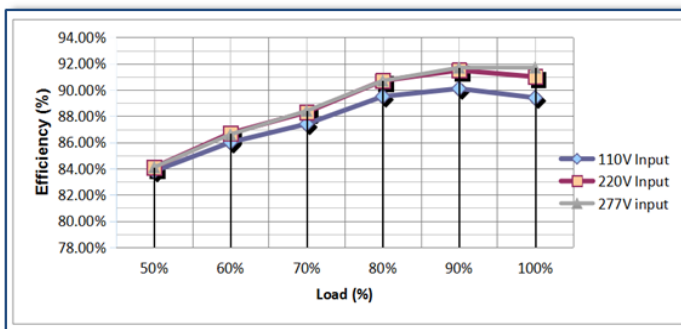
KLPA96JV-S036048P / PF vs Output



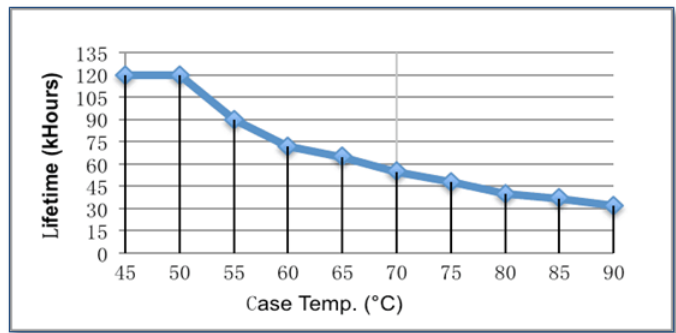
KLPA96JV-S036048P / THD vs Output



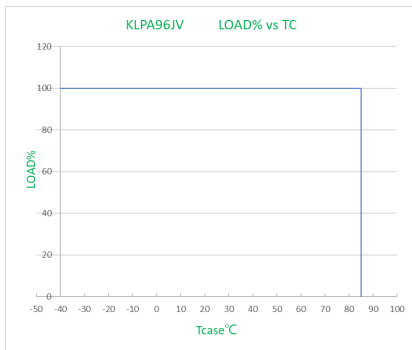
KLPA96JV-S036048P / Efficiency vs Output



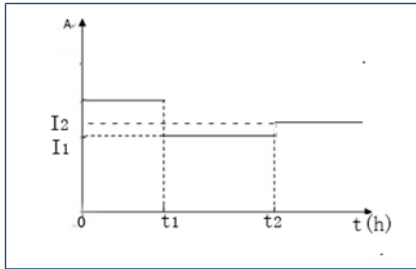
KLPA96JV / Lifetime vs Case Temp



KLPA96JV LOAD% vs Tc



TIMER DIMMING

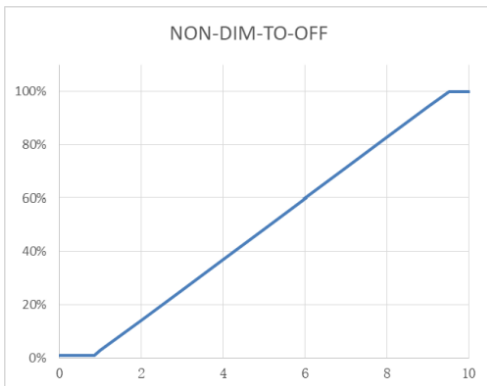


NOTE:

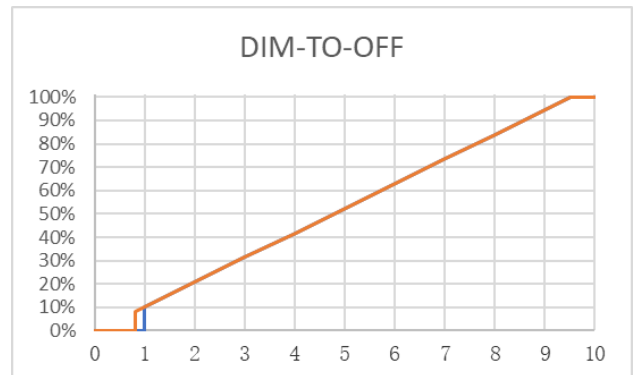
1. The dimming time can be programmed by the NFC controller.
2. The time of t_1 and t_2 can be set by the NFC programmer. (0.5h step)
3. The value of I_1 and I_2 can be set by the NFC programmer.
4. Current change from I_1 to I_2 need a few minutes.

0-10V ANALOG & PWM DIMMING

Io/Ir vs Vdim



Io/Ir vs Vdim



GND	Grey
Dimming wire 0-10V&PWM	Purple
10V AUX	Yellow
Input Dimming Voltage	0-10V
DIM+ Source Current	0-1mA
12V AUX Source Current	200mA
PWM Frequency Range	0.5 ~ 3 kHz
PWM high level	10V

NOTE:

1. I_o is actual output current and I_r is rated current without dimming control.
2. For the driver to operate properly, the load voltage must be in the working voltage range.
3. We have DIM-TO-OFF option can be programmed by the programmer.
4. Maximum input voltage at dimming wire is 12V.
5. AUX wire is only for source, can't connect to other voltage source.

NFC CONTROLLER

NOTE:

1. The NFC controller can program the output current, voltage and timer delays.
2. The NFC programming is a non-contact process, therefore much safer compared to traditional programming methods.
3. Power devices can be programmed without AC power applied to the driver.

