

KLDC40JU(D) SERIES
40W DC Input Constant Current LED Driver


- Wide Input Voltage 10 to 30VDC
- Over Voltage / Short Circuit / Over Temperature Protection
- High Efficiency (up to 94%)
- Dimming function Optional (0~10V /PWM/ Timer)
- IP67 Waterproof Rating, Fully isolated
- Comply to worldwide safety regulations for lighting
- Cooling by free air convection
- Suitable for LED lighting & moving sign applications, for dry / damp / wet locations

3 Year Warranty

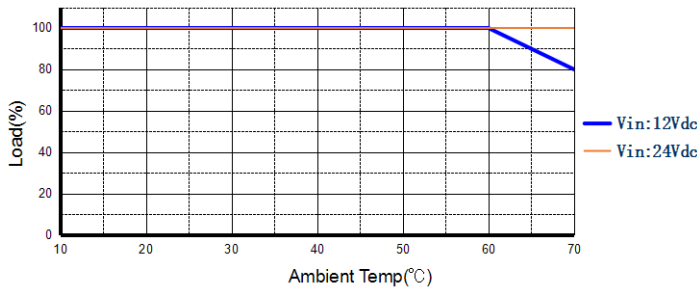
 Approvals: **CE IP67 RoHS2**
SPECIFICATION

PART NUMBER		KLDC40JU(D)-S0450M	KLDC40JU(D)-S0700M	KLDC40JU(D)-S1050M	KLDC40JU(D)-S1200M
OUTPUT	DC VOLTAGE	33-88V	33-58V	33-39V	33-36V
	CONSTANT CURRENT REGION Note.4	450mA	700mA	1050mA	1200mA
	RATED POWER	40W			
	RIPPLE & NOISE(max.) Note.2	0.35V	0.25V	0.25V	0.25V
	VOLTAGE TOLERANCE Note.3	±5.0%			
	LINE REGULATION	±1.0%			
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME(Typ.) Note.7	250ms/50ms 12VDC at full load		250ms/100ms 24VDC at full load	
INPUT	VOLTAGE RANGE Note.5	10 ~ 30VDC			
	EFFICIENCY(Typ.)	94%	94%	94%	94%
	DC CURRENT(Typ.)	3.7A/12VDC 1.8A/24VDC			
	INRUSH CURRENT(Typ.)	COLD START 68A at 12VDC			
	LEAKAGE CURRENT	<0.6mA/12VDC			
PROTECTION	OVER CURRENT Note.4	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	99V	66V	44V	44V
		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	±0.3%/°C (0~50°C)			
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes			

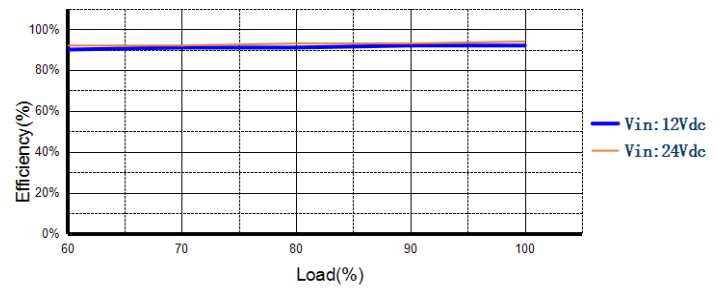
SAFETY & EMC	SATETY STANDARDS Note.6	EN61347-1, EN61347-2-13
	ISOLTATION RESISTANCE	I/P – FG: 100M Ohms / 500VDC /25°C / 70% RH
	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C (60% load); EN61000-3-3
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024
OTHERS	MTBF	430khrs min. MIL-HDBK-217F (25°C)
	DIMENSIION	104(124)*49*33MM (L*W*H)
	PACKING	310g
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandw idth by using a 12" twisted pair-w ire terminated w ith a 0.1uf & 47uf parallel capacitor. Tolerance: includes set up tolerance, line regulation & load regulation. Derating may be needed under low input voltages. Please check the static characteristics for details. Suitable for indoor use or outdoor use w ithout direct sunlight exposure. Please avoid immerse in the w ater over 30 minutes. Length of set up time is measured at cold first start. Turning ON/OFF the pow er supply may lead to increase of the set up time. The power supply is considered as a component that will be operated in combination w ith final equipment. Since EMC performance w ill be affected by the complete installation, the final equipment manufacturers must re-qualify EMC DIRECTIVE on the complete installation again. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. To fulfill requirements of the latest ERP regulation for lighting fixtures, this LED pow er supply can only be used behind sw itch w ithout permanently connected to the mains. 	

CHARACTERISTIC CHARTS

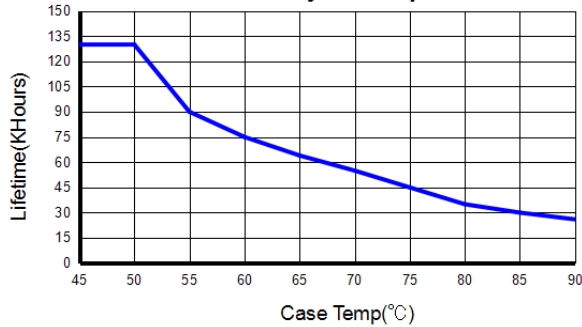
Derating Characteristics



Efficiency vs Output

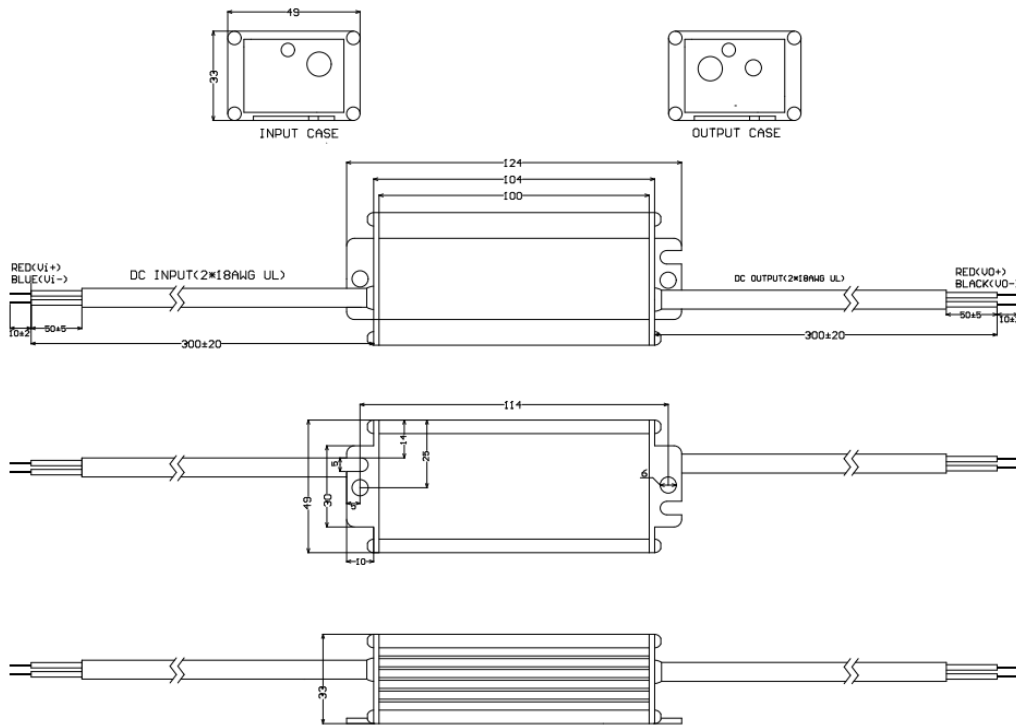


Efficiency vs Output

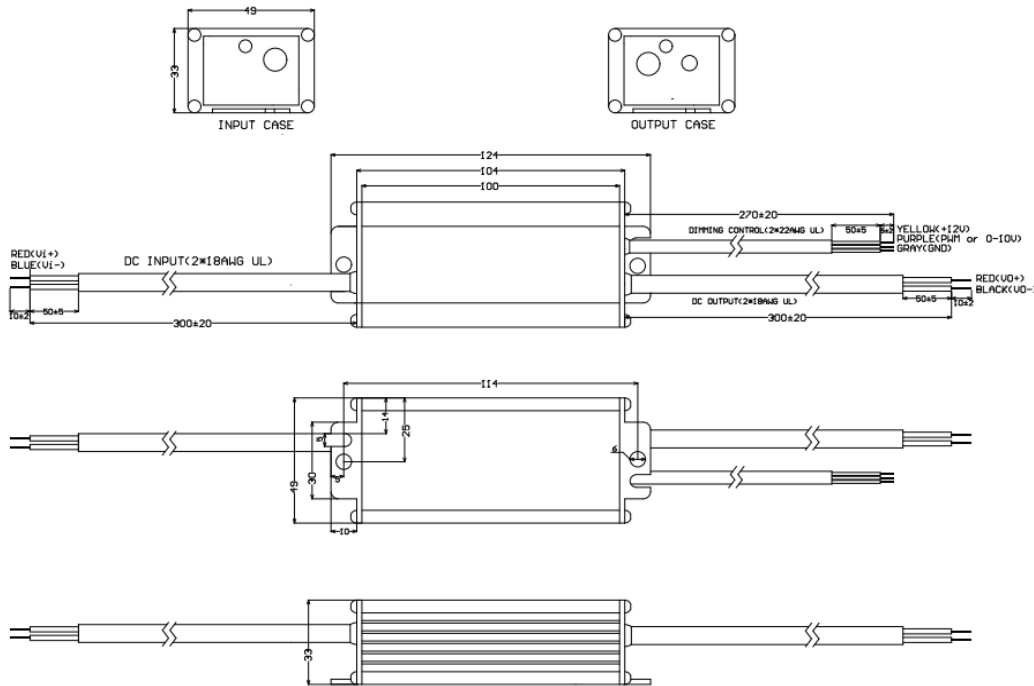


MECHANICAL DIAGRAMS

KLDC40JU SERIES Non-Dimming Function

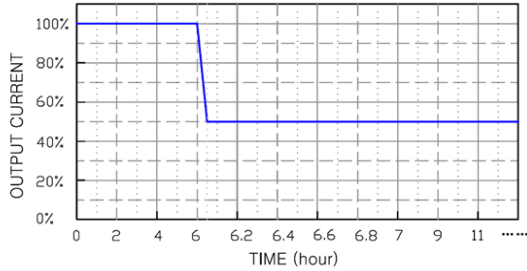


KLDC40JUD SERIES Dimming Function



Dimming Function

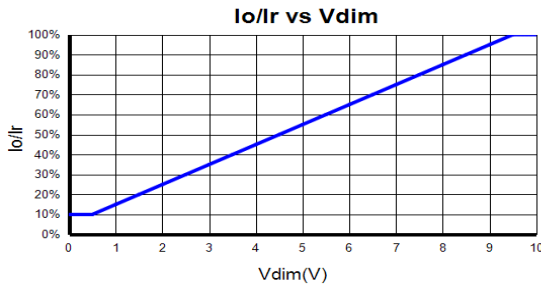
TIMER Dimming



NOTE:

1. The dimming time can be customized according to different order.

0-10V Analog Dimming



Input Dimming Voltage	0-12V	Normal 10-11V
Input Source Current	0-10mA	47 ~ 63Hz

NOTE:

1. If the dimming function is not used, all wire **NC**.
2. I_o is actual output current and I_r is rated current without dimming control.
3. For the driver to operate properly, the load voltage must be maintained above the input voltage t , proximately 50% of the max. output voltage for any given model.
4. The dimming signal is allowed to be less than 1V, when it for 0-1V, the connected LEDs may flicker. Keeping dimming voltage greater than 1V in application is strongly recommended.
5. Do not connect the **GND of dimming (gray)** to the output. Otherwise, the LED driver can not work normally.

PWM Dimming

