

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%)
- Selectable dimming function (0~10V / PWM)
- 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

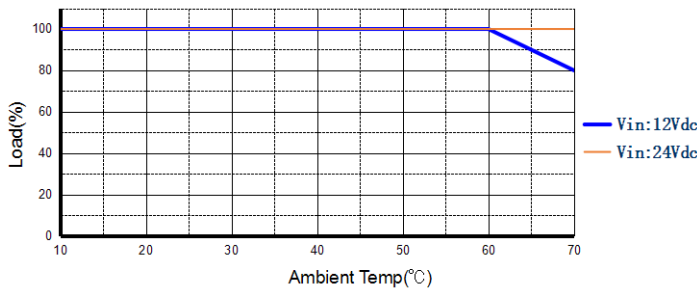
 Approvals: **CE IP67 RoHS2**
SPECIFICATION

| 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 | | | |

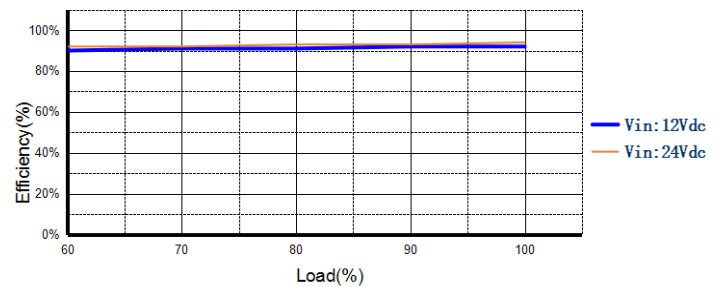
| | | |
|-------------------------|---|---|
| SAFETY & EMC | SATETY STANDARDS Note.6 | Meet UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13 |
| | ISOLTATION RESISTANCE | I/P – FG: 100M Ohms / 500VDC /25°C / 70% RH |
| | EMC EMISSION | Compliance to EN55015, EN61000-3-2 Class C (60% 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±10g |
| NOTE | <ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 24Vdc input, rated load and 25 of ambient temperature. Ripple & noise are measured at 20MHz of bandw idth by using a 12" tw isted pair-w ire terminated w ith a 0.1uf & 47uf parallel capacitor. Tolerance: includes set up tolerance, line regulation & load regulation. Please refer to "DRIVING METHODS OF LED MODULE". Derating may bee 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 pow er supply is considered as a component that will be operated in combination w ith final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufactures 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

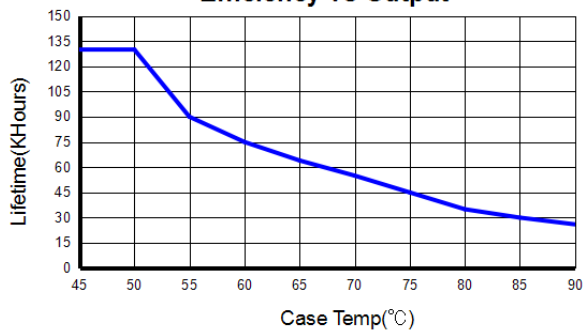
Derating Characteristics



Efficiency vs Output

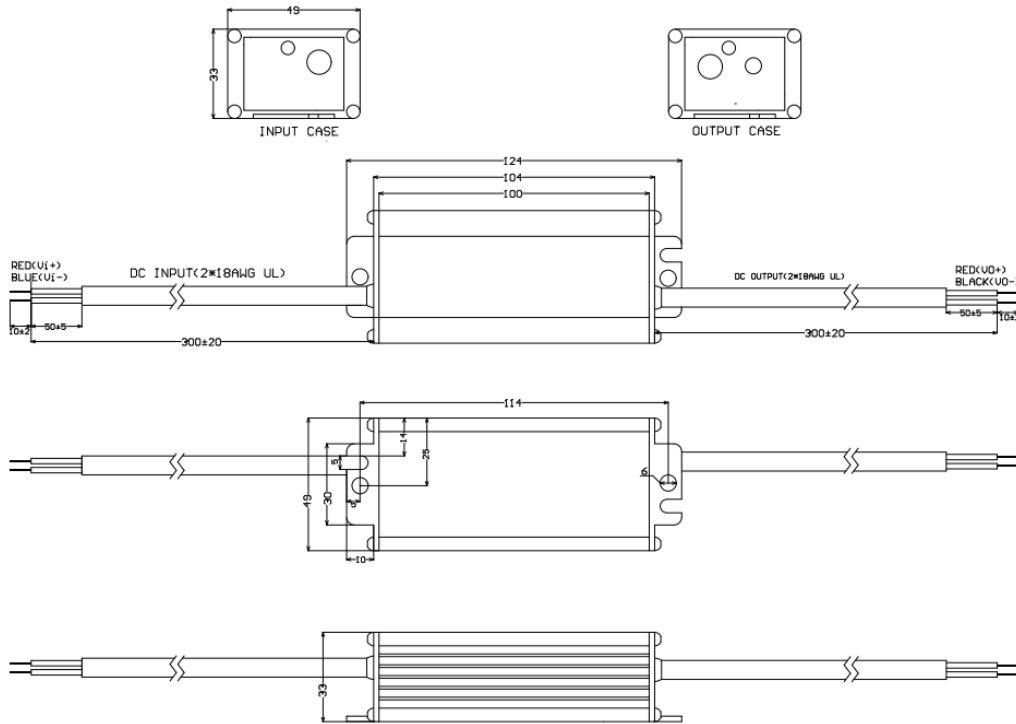


Efficiency vs Output

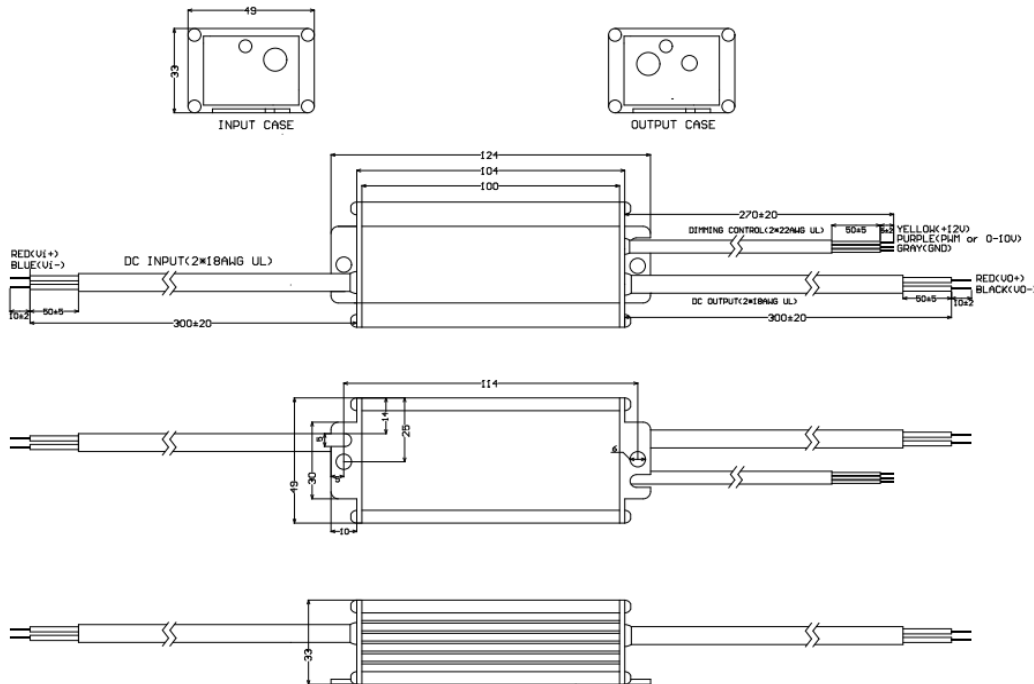


MECHANICAL DIAGRAMS

KLDC40JU SERIES Non-Dimming Function

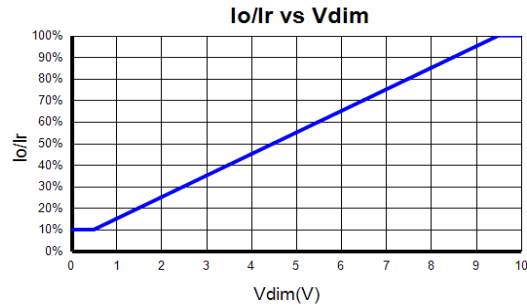
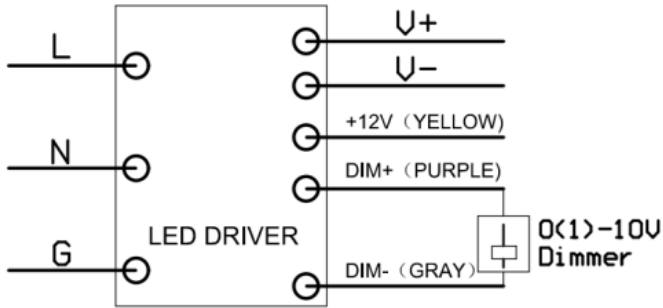


KLDC40JUD SERIES Dimming Function



Dimming Function

0-10V Analog Dimming



| DIMMING SPECIFICATIONS | 12V AUXILIARY OUTPUT VOLTAGE | 10.8-13.2V |
|------------------------|--|------------|
| | 12V AUXILIARY OUTPUT SOURCE CURRENT(MAX) | 200mA |
| | DIM+ PIN SOURCE CURRENT(MAX) | 250uA |
| | DIMMING INPUT RANG | 0-10V |

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. The dimmer can also be replaced by an active 0-10V voltage source signal or passive components like resistors and zener
4. Do not connect the **GND of DIM-(gray)** to the output. Otherwise, the LED driver can not work normally.