

60W 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

Approvals: IP67  

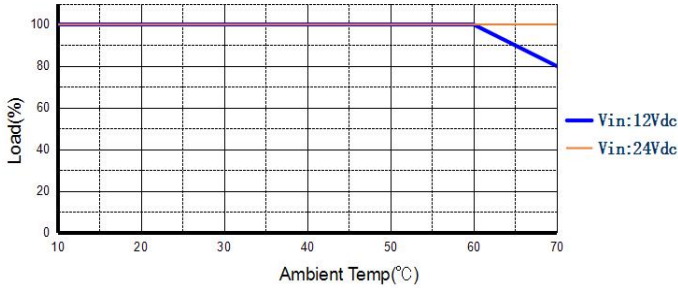
SPECIFICATION

Part Number		PLDC060-0640M	PLDC060-0700M	PLDC060-1050M
OUTPUT	DC VOLTAGE	33-94V	33-87V	33-57V
	CONSTANT CURRENT REGION Note.4	640mA	700mA	1050mA
	RATED POWER	60W		
	RIPPLE & NOISE(max.) Note.2	0.42V	0.46V	0.25V
	CURRENT TOLERANCE Note.3	±5.0%		
	LINE REGULATION	±1.0%		
	LOAD REGULATION	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME(Typ.) Note.7	240ms/40ms 12VDC at full load		250ms/98ms 24VDC at full load
INPUT	VOLTAGE RANGE Note.5	10 ~ 30VDC		
	EFFICIENCY(Typ.)	94%	94%	94%
	DC CURRENT(Typ.)	5.4A/12VDC	2.6A/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	99V	67V
	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	390khrs min. MIL-HDBK-217F (25°C)		
	DIMENSIION	104(124)*49*33MM (L*W*H) (L*W*H)		
	PACKING	310±10g		

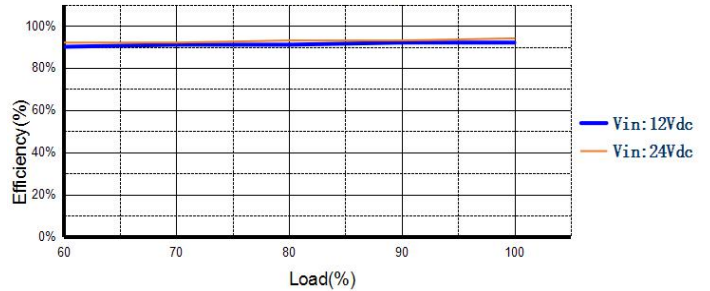
NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 24VDC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance: includes set up tolerance, line regulation & load regulation. 4. Please refer to "DRIVING METHODS OF LED MODULE". 5. Derating may be needed under low input voltages. Please check the static characteristics for details. 6. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minutes. 7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. 8. The power supply is considered as a component that will be operated in combination with 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. 9. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. 10. To fulfill requirements of the latest ERP regulation for lighting fixtures, this LED power supply can only be used behind switch without permanently connected to the mains.
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Derating Curve

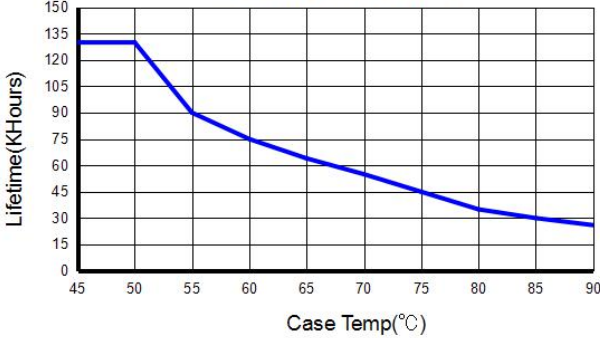
Derating Characteristics



Efficiency vs Output

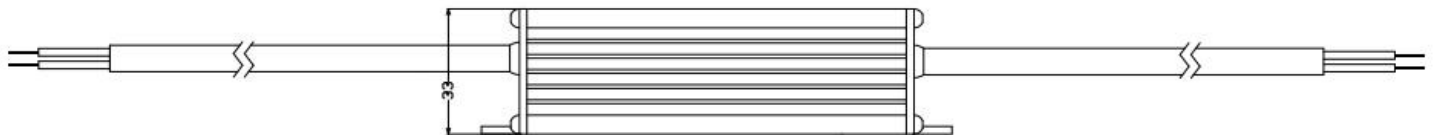
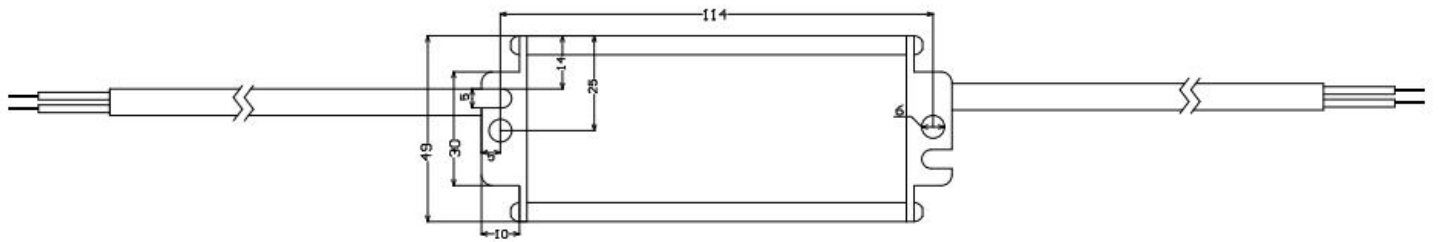
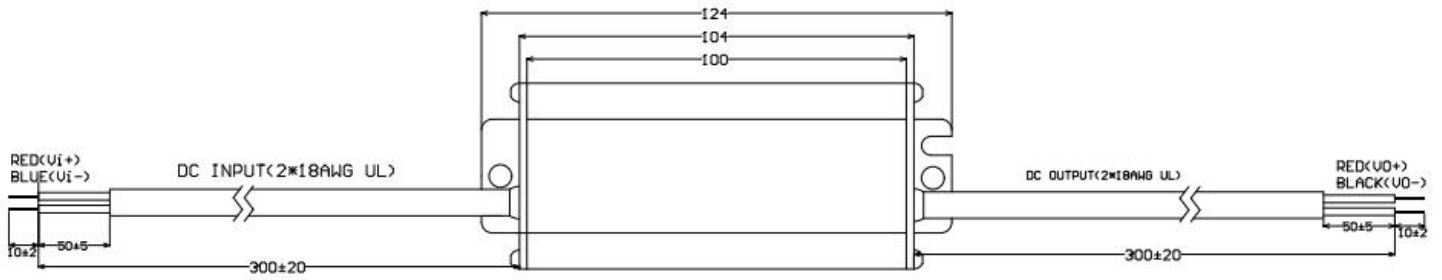
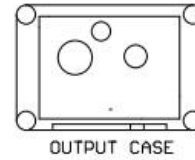
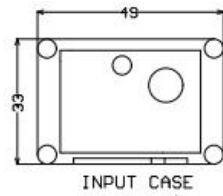


Efficiency vs Output

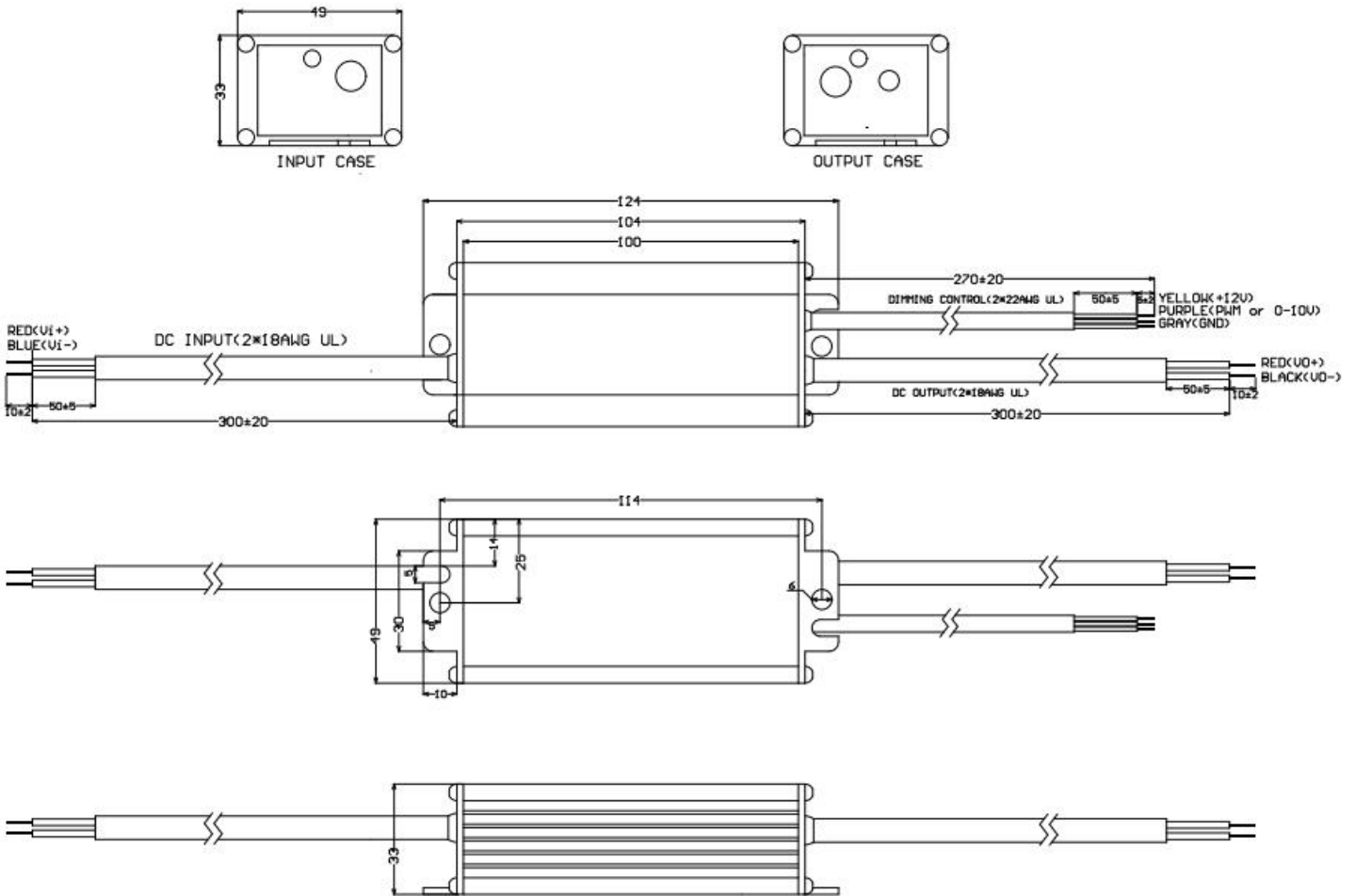


Mechanical Specification

NO Dimming Function Mechanical

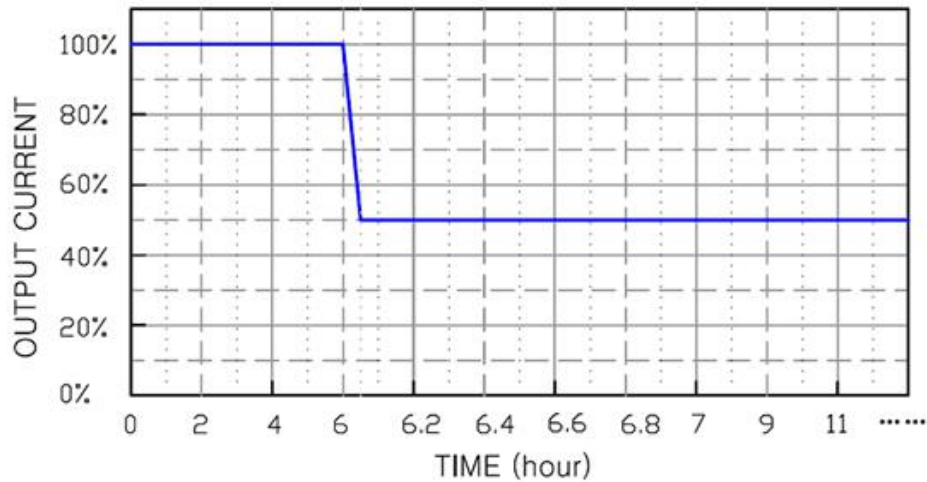


Dimming Function Mechanical



Dimming Function

TIMER Dimming

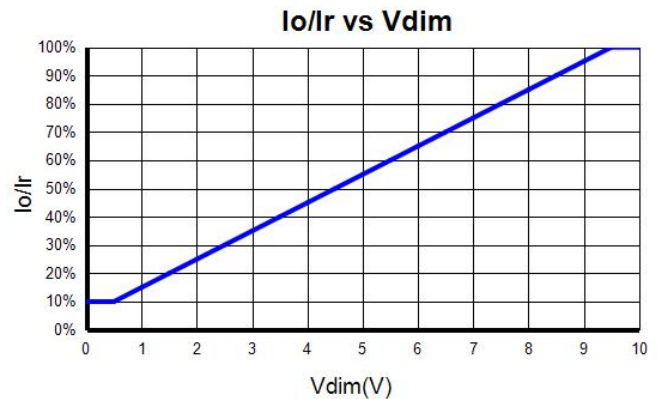


NOTE:

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

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. Io is actual output current and Ir is rated current without dimming control.
3. For the driver to operate properly, the load voltage must be maintained above the input voltage, proximately 50% of the max. output voltage for any given mode.
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

