

SPECIFICATION

Product Name: LED Driver

Model No: ML50C-PV

Issue Date: April 9, 2019

CUSTOMER APPROVED

Type	Model	Updating	Date
A0	ML50C-PV	NO	2019.04.09

1. Features



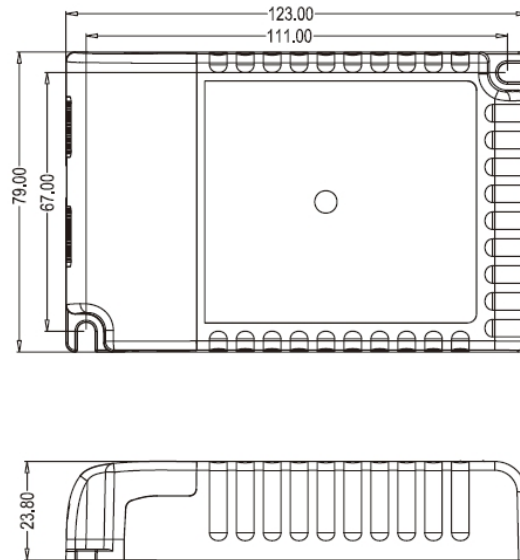
- Flicker-free for whole dimming range;
- Primary dimming function with status memory;
- Secondary dimming function with 1-10V;
- Protection: short circuit/over temperature/over voltage;
- Stand-by power below 0.5W;
- 5-year warranty;

2. Parameters

Input	Operating voltage range	198-264V AC 50/60Hz
	DC input voltage	200-240V DC
	Rated voltage	220-240V AC 50/60Hz
	Input current	0.27A
	Input surge current	15A(twidth=100us measured at 50% Ipeak @230Vac, Cold start 100% load)
	Total harmonic distortion	≤20% (@230Vac, 100% load)
	Power factor	≥0.9 (@230Vac, 100% load)
	Stand-by power	≤0.5W
	Idle load power	≤1W
	Working efficiency	84%Max. @230V AC (full load) (1200mA files)
Output	Working mode	Constant current
	Type of load	LED
	Starting time	<0.5S (AC charging,output current up to 90% rated current)
	Ripple current	±7% (@230Vac, 100% load: LED load)
	Flicker requirements(flickering or flickering-free)	Flicker-free,less than 2%
	Idle load voltage	68V DC Max.
	Load voltage	60V DC MAX
	Full load power	50W
	Load current	350mA(6-60V), 500mA(6-60V), 550mA(6-60V), 650mA(6-58V), 700mA(6-58V), 750mA(6-56V), 850mA(6-56V), 900mA(6-56V) 1050mA(6-48V), 0-1050mA(12V), 0-1050mA(24V)
	Constant current/voltage accuracy	Constant current ±5%
Dim Interface	Output auxiliary current	N/A

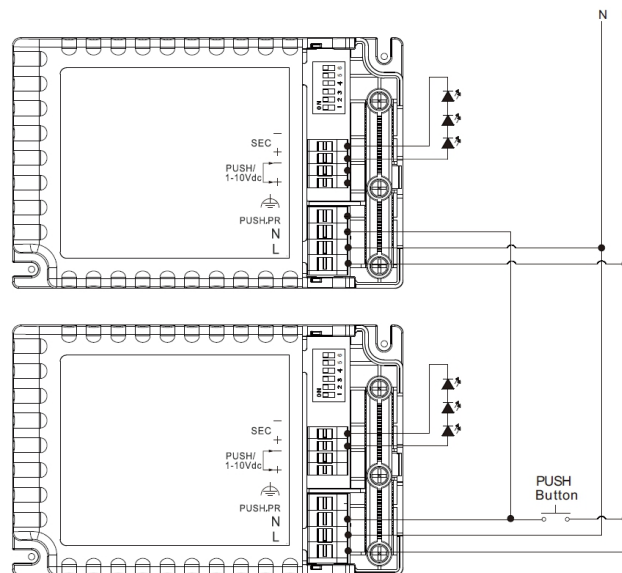
	port	
	Sensor dimming port	N/A
	Primary PUSH dimming	Primary PUSH Dimming
	1-10V (0-10V) dimming	1-10V dimming (port current < 1mA) without turn off function
	Dimming range	Primary PUSH 0%-100% , 1-10V dimming: 2%-100%
	Primary PWM dimming	1-10V port PWM dimming (3KHz-8KHz)
	Potentiometer	Yes: 100KΩ
Abnormal Protection Requirements	Input over-voltage protection	300V AC 50Hz/60Hz 2h
	Output over-voltage protection	N/A
	Output overload protection	N/A
	Output no-load protection	Yes,self-recover,with query function.
	Output over-temperature protection	Yes,with query function.
	Output short circuit protection	Yes,with query function.
Operating Environment	Operating temperature/humidity	-20℃ - +50℃
	Storage temperature/humidity	-20℃ - +80℃ 10~93%RH(Non-condensing)
	Case Max.Temp (Tc)	85℃
Certificate Standards	Safety standard	EN61347-1, EN61347-2-13
	EMC standard	EN55015, EN61547, EN61000-3-2, EN61000-3-3
	Environmental protection requirements	Compliant to RoHS
	Certification	CE ROHS
Others	Withstand voltage	3750V AC 5mA 60S
	Input/output(terminal/wiring)specification	按压式端子台
	IP rating	IP20
	Protection class	Class II
	Installation type	Independent installation
	Installation dimension	123*79*23.8MM
	Components	NA
	Package	气泡袋+隔板+外箱 (K=A)
	Net weight	204g
	Lifespan	50000h @Ta 230V full load
Notes : All parameters are tested on the input voltage 230Vac,environment temperature 25℃ ,unless otherwise specified.		

3. Dimension (Unit : mm)

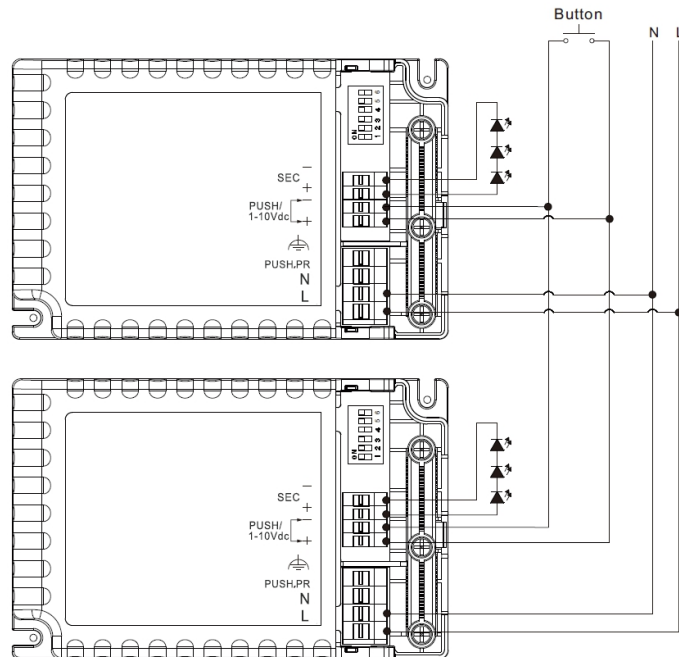


4. Wiring Diagram

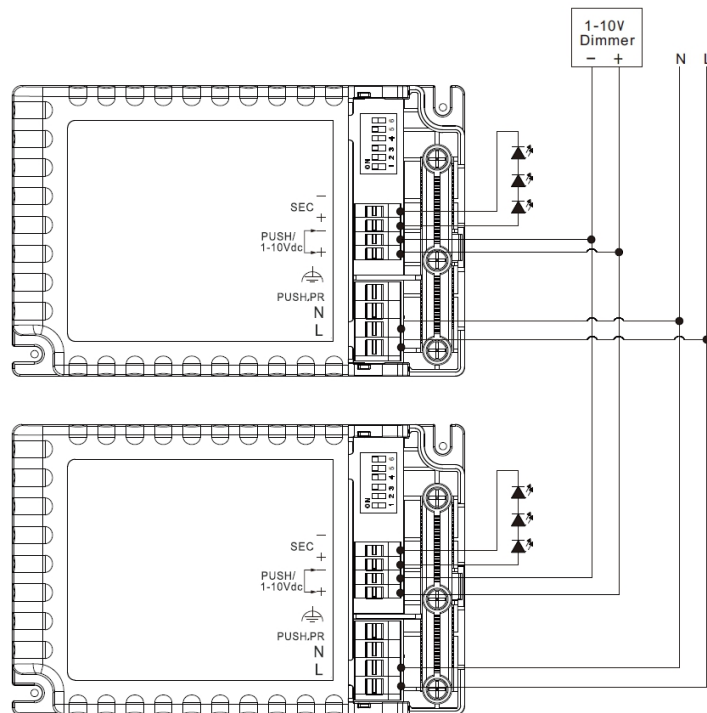
1. PUSH dimming (high voltage)



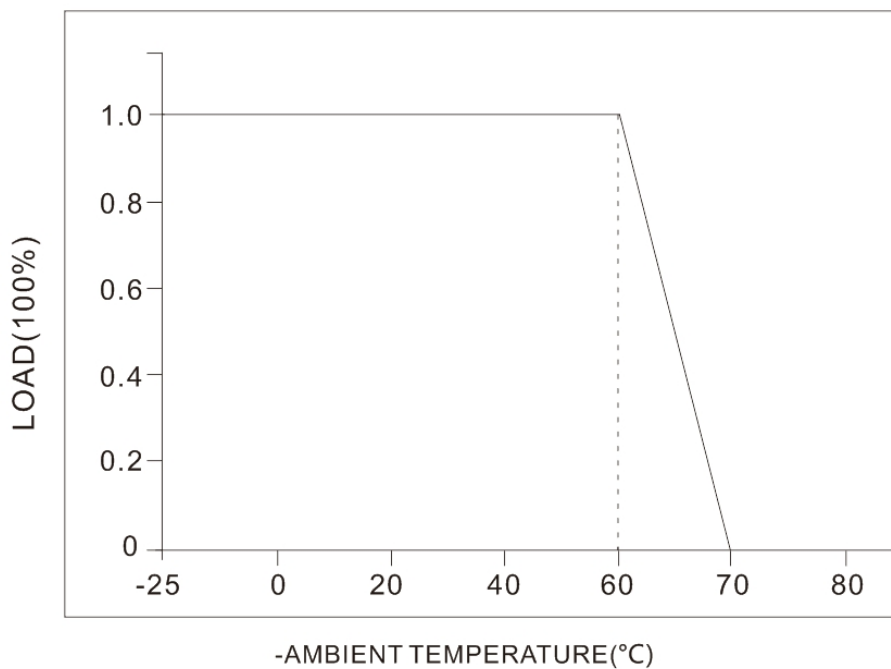
2. PUSH dimming (low voltage)



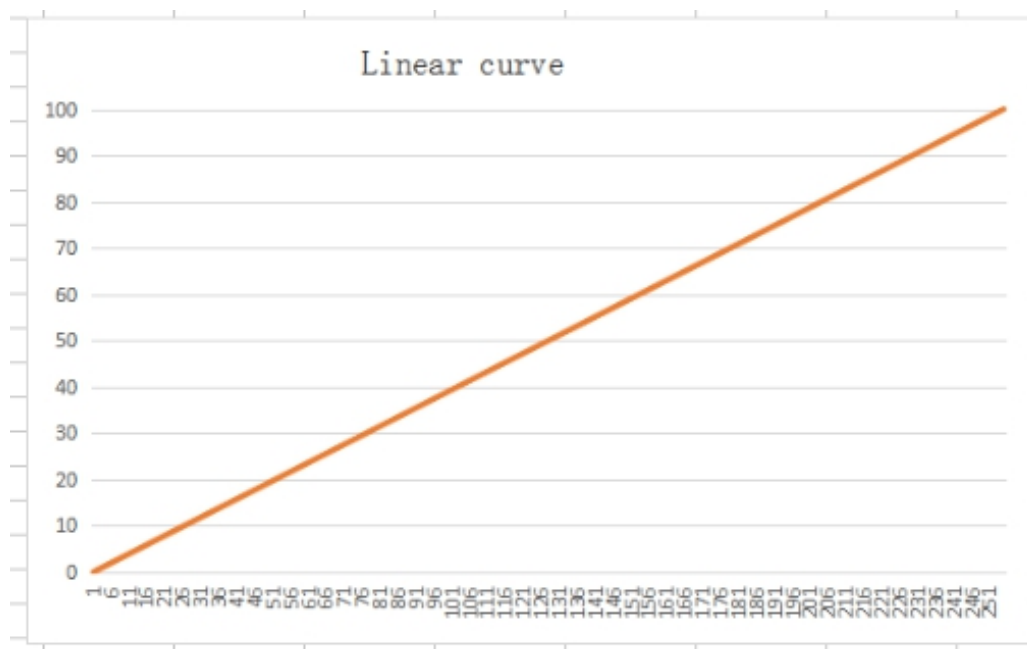
3. 1-10V dimming



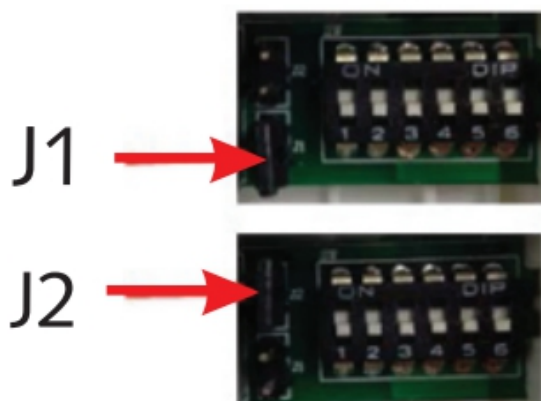
5. Derating



6. Dimming Curve



7. FACTORY SETTING



1-10V dimming is active and jumper is in J1

Warning: Please make sure the correct current is set before starting the driver!

1. The secondary push and the 1-10V dimming port are the same input port. If you want to use the secondary push for dimming control, first turn off the power, then insert the jumper cap into the J2 pin position. Perform secondary push dimming.

2. Quick press push dimmer switch has off and on function, long press push dimmer switch has dimming function, dimming process from the brightest to the darkest, or from the darkest to the brightest, dimming is one-way Not cycling.

8. Current Setting (●:ON ○:OFF)

Current Setting	1	2	3	4	5	6
24V 1050MA	○	●	●	●	●	●
12V 1050MA	●	○	●	●	●	●
1050MA	○	○	●	●	●	●
900MA	○	○	●	●	●	○
850MA	○	○	●	●	○	●
750MA	○	○	○	●	●	○
700MA	○	○	●	●	○	○
650MA	○	○	●	○	○	●
550MA	○	○	○	●	○	○
500MA	○	○	●	○	○	○
350MA	○	○	○	○	○	○

9. ON/OFF & Description of Dimming Operation

1. PUSH Dimming

- ON/OFF: Short press (0.1S-1S) on the switch, LED driver will turn on or switch off.
- Dimming: Long press (1S-8S) on the switch, LED driver switch to be dimmable and the dimming range is 0-100%.
- Memory: PUSH dim with memory function.
- Synchronization: When the dimming is inconsistent, press and hold the button for at 15sec, the brightness of all lamps will be synchronized to 50%.

2. 1-10V Dimming:

- Connect the 1-10V DC voltage (100K resistance potentiometer) to the 1-10V dimming port, adjust the voltage (value of resistance) to adjust the light, and the dimming range is 2-100%.

10. Application Notice

1. It is necessary to connect the load LED light string first, then turn on the input power; vice versa, the LED light may be damaged.
2. After the LED drive input is powered off, there is a residual voltage at the output that can last for about 3 minutes.
3. After the LED driver output is connected to the LED light, the power-on lamp is not lit, and the input power is less than 1 watt. Please short-circuit the 1-10V port (10 seconds) to restore the LED driver to the factory default value.