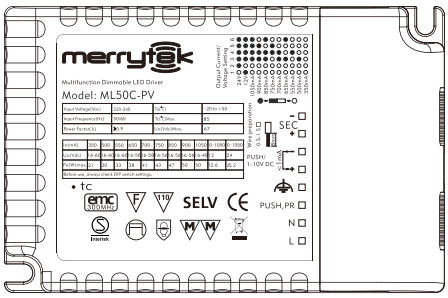
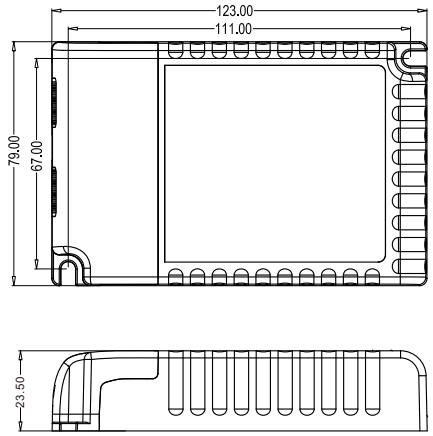
User's manual for multifunction dimmable LED driver
Model NO.: ML50C-PV



- Multi output current and voltage selectable via DIP switch
- Primary dimmable by PUSH button
- Secondary dimmable by PUSH button
- Secondary dimmable by 1-10Vdc
- Memory function: Light returns to previous dimming level when switched off an on again, even at power failures
- Protection: Short circuit / Over voltage / Over temperature
- 5 years guaranty

SPECIFICATIONS



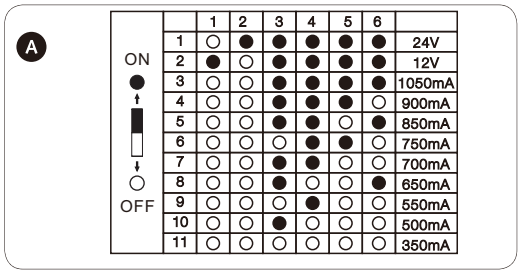
unit:mm

Model	ML50C-PV, 1x50W
Rated voltage	220-240V AC, 50/60Hz
Rated current	0.26A (max)
Output voltage	67V DC (max)
Operating temperature	Ta: 50°C Tc: 85°C
Output current/voltage & load	350mA 16~60V DC 21W max 500mA 16~60V DC 30W max 550mA 16~60V DC 33W max 650mA 16~58V DC 41W max 700mA 16~58V DC 41W max 750mA 16~56V DC 43W max 850mA 16~56V DC 47W max 900mA 16~56V DC 50W max 1050mA 16~48V DC 50W max 12V DC 0-1050mA 12.6W max 24V DC 0-1050mA 25.2W max
Abnormal protection	Output short-circuit protection with auto reset
Overheating protection	Overheating protection with auto-reset
EMC standard	EN55015, EN61547
Safety standard	EN61347-1, EN61347-2-13
Certification	SEMKO, CE, EMC
Dims	123 x 79 x 23.5mm
Protection class	IP20, built-in type

OUTPUT SELECTION

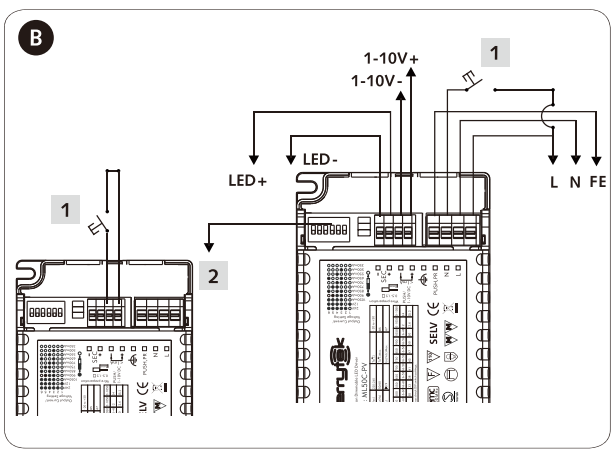
Different configurations of DIP switches are used for different LEDs.
NOTE:
1, Before use, please make sure the correct selection of DIP switches!
2, 12Vdc /24Vdc is not constant voltage strictly, it is a limit that the output voltage will not exceed 12Vdc /24Vdc when output 1050mA.

A



	1	2	3	4	5	6	
1	○	●	●	●	●	●	24V
2	●	○	●	●	●	●	12V
3	○	○	●	●	●	●	1050mA
4	○	○	●	●	●	○	900mA
5	○	○	●	●	○	●	850mA
6	○	○	○	●	●	○	750mA
7	○	○	●	●	○	○	700mA
8	○	○	●	○	○	●	650mA
9	○	○	○	●	○	○	550mA
10	○	○	●	○	○	○	500mA
11	○	○	○	○	○	○	350mA

B

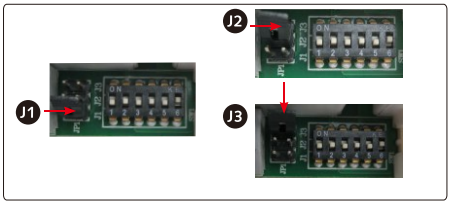


CONNECTION

1. Start with setting the output current/voltage. The current/voltage can be easily configured by choosing the correct combination of the DIP switches (see table, fig. A).
2. Connect the luminaires to the driver according to the wiring diagram (see fig. B). Note: The functional earth(FE) is used for interference suppression.

PUSH BUTTON SWITCH FOR DIMMING (No. 1 fig. B and C)

- When the jumper is on J2, secondary push dimming is active. Primary push dimming is always active, except when the jumper is on J3. On/Off: Short push on the switch.
- Stepless dimming: Long push on the switch.
- For fine tuning of light level: With every other long push, the light level goes the opposite direction.
- Built-in with permanent memory: Light returns to the previous dimming level when switched off and on again, even at power failure.



1-10V DIMMER (fig. B)

Note! Using the push dimming will make 1-10V dimming inactivated. The driver has to be reset to activate the 1-10V dimming function again.

1. Reset: Turn off the LED driver and move the jumper to J3, then power on LED driver for at least 3 seconds.
2. Disconnect the LED driver from the power. Move the jumper from J3 to J1. The 1-10V dimming function is active again.

SYNCHRONIZATION (see wiring diagram, fig. C)

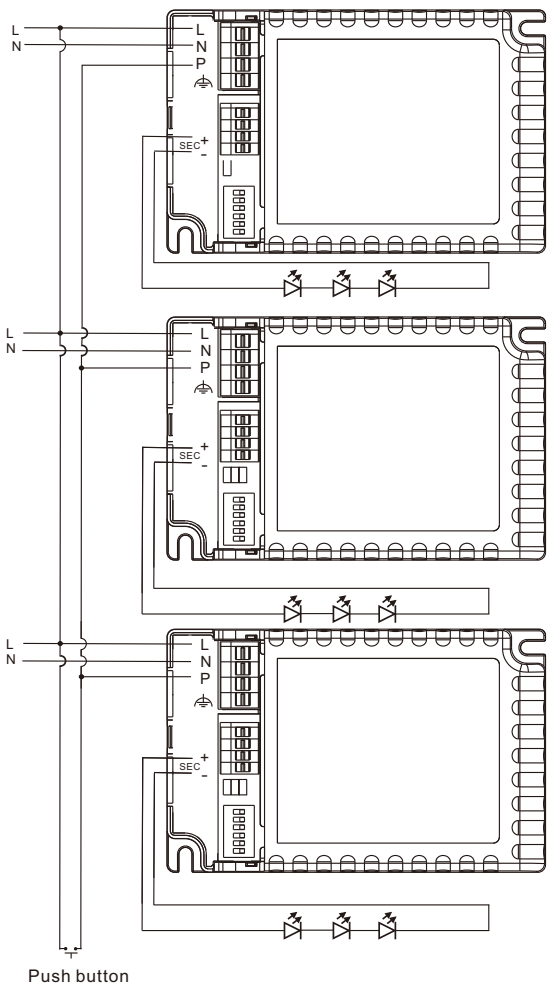
No limitation on the number of drivers when connected to the same switch, thanks to the MCU programme. This means there is no need for any additional synchrony wire in larger installations, where many drivers should be controlled by one switch.

For the resynchronization to work correctly when more than one driver is connected to the same push button, please follow the steps below after the drivers are connected:

- Press the push button for more than one second (long push), followed by a short push (<1s).
- Now that the devices are switched off, do a long push, the system will now be resynchronized.

C

Primary push dim



Secondary push dim