



#### Features

- Power Rating: 50W
- Constant current design
- Output current(50mA-1000mA)
- Very high efficiency 92.7%
- Light control function, automatic lighting at night
- Automatic turn off at dawn
- Five time control
- Dimming function
- Infrared body sensor, delaying infrared body sensor
- Field programmable with IR port
- Battery reverse connection protection
- Solar panel reverse connection protection
- Battery discharge to the solar panel
- Battery low voltage disconnect protection
- LED SCP, OCP
- IP67
- 5-year warranty

## Application

- Indoor or outdoor lights
- **Model List**\*(See part number scheme for model number details)





RoHS 194

Compliant

\*Product images are for illustrative purposes only and may vary from actual design.

| Model Number  | Driver<br>Output<br>Current | Driver Output<br>Voltage | Charger<br>Output<br>Current | Charger<br>Output Voltage | Solar Panel Input<br>Voltage | Certification |
|---------------|-----------------------------|--------------------------|------------------------------|---------------------------|------------------------------|---------------|
| LSDCDMPPT-050 | 50-1000mA                   | 16-50V                   | 6A                           | 12V Batt                  | ≤25V                         | CE            |

# \*Follow the link below for complete user guide for Remote Control Unit PRLCD.

(Requires 2 AA batteries, batteries not included)

https://autec.com/wp-content/uploads/2019/03/Remote-Instructions 19-C.pdf

#### Disclaimer:

Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly of the LED Driver into the customer's assembled fixture, Autec requests advance notice. This request must be communicated to Autec in a timely manner and is recommended to be requested at time of issuing each purchase order.



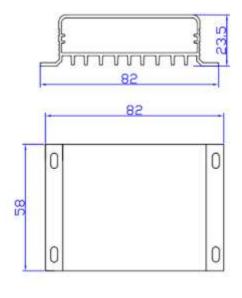
## **■** Technical Data

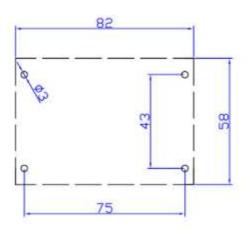
| Battery type   | Lead-acid battery or lithium battery         |
|--|--|
| Battery Voltage  | 12V  |
| Max. charge current  | 6A   |
| Boost charge   | 12.5V  |
| Low voltage disconnect                                     | 9V   |
| Low voltage reconnect                                      | 10.5V  |
| Panel voltage  | ≤25V   |
| Max. panel power   | 100W   |
| PV voltage@ lighting off                                   | ≤5V  |
| Output current range                                       | 50-1000mA                                    |
| Output voltage range                                       | 16-50V                                       |
| Max. output power  | 30W  |
| Output current error                                       | ≤3%FS  |
| Output mode  | Time control/Sensing mode/Delay sensing mode |
| Dimming phase time   | 5  |
| LED dimming range  | 0-100%                                       |
| Max LED constant current drive efficiency                  | 92.7%  |
| Consumption current  | ≤13mA  |
|  |  |
| Communication mode   | Infrared wireless                            |
| Communication mode History Data                            | Infrared wireless  1 year                    |
|  |  |
| History Data   | 1 year                                       |
| History Data Working temperature                           | 1 year<br>-30°C to 60°C                      |
| History Data Working temperature Working humidity          | 1 year<br>-30°C to 60°C<br>0-100%RH          |
| History Data Working temperature Working humidity Altitude | 1 year -30°C to 60°C 0-100%RH 3000m          |

#### Notes:

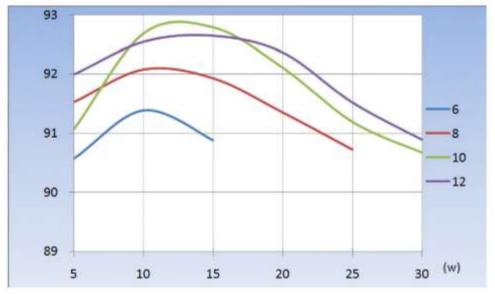
- 1. Battery Charger supports Li-Ion battery
- 2. If using 12.8V LiFePO4 battery, the solar panel needs a max power voltage of Vmp=18V
- 3. If using 11.1V LiCoMnNiO2 battery, the solar panel needs a max power voltage of Vmp=16V

## **■** Mechanical Diagram





# **■** Efficiency vs Load

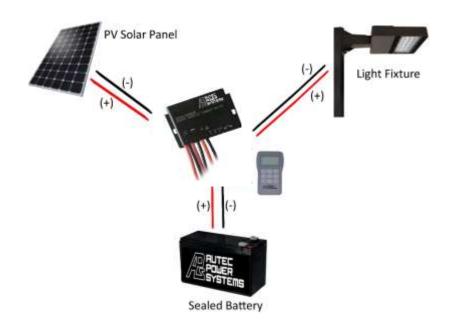


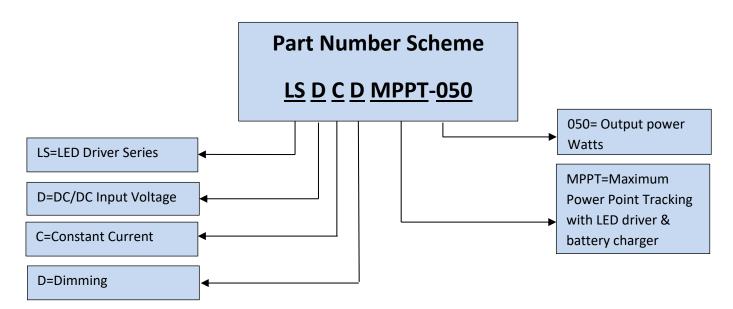
Eff using 6 LEDS in series Eff using 8 LEDS in series Eff using 10 LEDS in series Eff using 12 LEDS in series

<sup>\*</sup>Note: Efficiency curve is plotted vs load – the load based on the Vf of the LED string will result is shown Eff level. Example 6 LEDs in a string/pad will have Vf of about 18Vdc.



## Application Diagram





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\*Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.