

## MPPT SOLAR CHARGER DRIVER - IDEAL FOR SOLAR FLOODLIGHT

The SCD150-40M series is a Combined MPPT Solar charge controller and LED driver controller bundled in one package.

Fully automatic operation based on dusk to dawn control. The Maximum Power Point Tracking (MPPT) algorithm tracks the peak power delivered by the solar panel and maximizes the energy harvested by the panels. It can track multiple MPPT points based on the dynamic condition of the solar panel.

This is ideal for Li-Fe and Li-ion battery LED floodlights.

### • Features

- Timed Dimming Control
- Low idle current
- Automatic Dusk to Dawn operation
- Motion Sensor Interface Option
- Electronic protection for reverse connection of Panel or Battery
- Driver protected from open circuit
- Auto recovery from deep discharge trip at sunrise
- Temperature compensated Charging
- Charge and battery status indication

### • Complies with MNRE specification

- **The Smart MPPT Algorithm** tracks the peak power point of a solar panel and delivers about 15 to 30% more charge when compared to conventional PWM based charge controllers.
- **Three stage charging** using microcontrollers delivers constant current, constant voltage and float/trickle charge.
- **LED driver with dimming control.** High efficiency constant current LED drivers with Automatic Dusk to Dawn Control, timed dimming and motion sensor control.
- **Deep discharge trip** feature protects battery with only micro-amp idle current under prolonged storage in discharged state.
- **Fully protected** from reverse polarity of battery and panel, over charge, over heat, reverse discharge and LED short.

### TECHNICAL SPECIFICATION

Parameter	Range/ Value
Solar panel	Mono/ Polly crystalline
Panel VOC	38/42V
Panel rating	150Wp/200Wp
Conversion efficiency	97% (min)
Driver max voltage	55V (max)
Battery voltage	12.8V
Battery type	Lead acid/ Li-Ion/ LFP
Motion sensor (Option)	Passive Infra red sensor
Motion sensor logic	Returns to full power and times out
Idle current	<15mA
MPPT tracking range	27/36V
Dimming control	Customized for Full/ Half / Quarter power
LED Driver type	Constant current
LED power	30/ 40W
LED driver output	0.85A to 1.25A
LED driver max voltage	40V
Temperature compensation	-4mV/ cell/degree Celsius (for Lead Acid battery)

