



Board Dim 160 x 90

DCP2

Solar Dusk to Dawn
PWM Charge Controller
Dual Output
Programmable Dimming / Delay

DCP2 is a kit designed with view to providing easy and economical solution to the OEMs making Solar street lights with kiosks illuminated on the same pole . It has two independent outputs. One is usual dusk to dawn operated while second out put has programmable delay and dimming feature. Second output can be connected to LED lighted kiosks which can be dimmed after midnight. The first output can be either used to drive any dc operated light like CFL or even LED cluster (driver needed) for lighting the road.

Time delay is adjustable simply by dip switches on board while dimming can be adjusted by preset on board. Entire program of 12 hours can be simulated on board within 6 min with calibration check on the kit itself.

Charging of battery is done in PWM mode, shunt regulation to have the best SOC of battery. Input and output voltage drops are extremely low to have best efficiency of the total system.

Salient Specifications:

SYSTEM:	12V
CAPACITY:	Panel 75 Wp Max, Load 1.5A smps for led load
REGULATION:	LOW LOSS, SHUNT TYPE
NLC:	No Load Current/Quiescent current < 5 mA
OVD:	Output Voltage Drop < 150 mV at 1.5 A load
IVD:	Input Voltage Drop < 330mV at 5 A charge
LVD:	Low Voltage Disconnect, 10.7 V
HVD:	High Voltage Disconnect, 14.4 V
LVR:	Low Voltage Reconnect, 12.7 V
HVR:	High Voltage Reconnect, 14.35 V

(Battery Charging is PWM type by default)

PROTECTIONS: Short circuit and overload at load
Reverse polarity of Battery and Panel
Reverse current flow from battery to panel
Lightening protection in panel circuit

ON BOARD FUSE: 5A , glass type

APPLICATION: IN DOOR USE ONLY.
AMBIENCE: Operating Temp 0 to 50 Deg C, 90% RH
DIMENSIONS: 145 L x 98 W x 30 H (all dim in mm)

Indicators and Controls:

CHARGING: Green LED. Turns on when panel voltage is more than 12V to indicate positive charging, It starts flickering when battery is charged and goes in PWM mode of absorption.

BAT LOW: Red LED. Turns on when battery reaches LVD and disconnects the load.

Dusk to Dawn operation: It turns on the load at dusk and shuts down the load at dawn automatically.

6-WAY TERMINAL: On board connector marked PV+, PV-, BT+, BT-, LD+ and LD- to make connections to respective inputs and outputs.

CHK DIM: On board check point to instantly check the dimming

DLY OFF: Remove this link, light will totally off after preset time.

Note: LD+ and LD- are load terminals which here are to be connected to power LED cluster in fixture directly. The output is SMPS output suitable to drive with constant 1.5A drive irrespective of battery voltage between HVD and LVD thereby maintaining the constant illumination from fixture. The LED drive current can be set to any other lower value as per requirement.

The kit comes with on-board fuse for protections against accidental connection of higher wattage panel in the input. Panel current is limited to 5A only, over which fuse blows off.