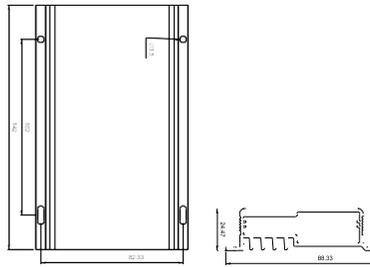


DM Series

MPPT Integrated Constant-Current Charge Controller for Solar Street Lights

SR-DM160/SR-DM160-U



DM160/DM160-U 's dimensions are as follows: External dimensions: 142x88.3x24.5(mm) Installation dimensions: 102x82.33(mm) Installation hole diameter: 3.5(mm)

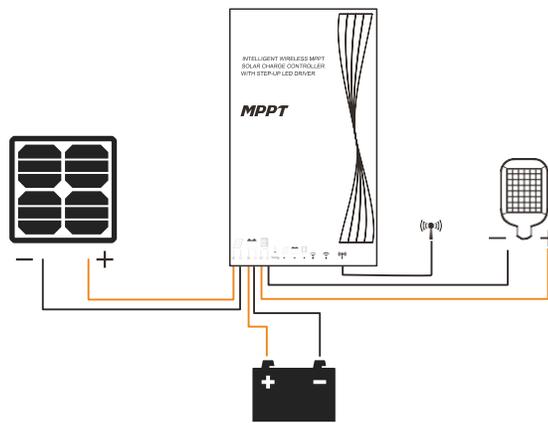


- Features true MPPT functions, applicable to monocrystalline, polycrystalline and amorphous silicon solar panels serially connected in various numbers, significantly improving the solar panels' energy utilization ratio.
 - MPPT solar charging technology , the maximum solar input voltage $V_{oc} \leq 60V$.
 - The load is stepping up and constant current output which can support maximum 18pcs of LED beads connected in series .
 - Adopts an improved charging algorithm that supports 12 V and 24 V lead-acid batteries and lithium batteries, and the user can set the operating modes for lead-acid batteries or lithium batteries accordingly.
 - Boasts a load triple-stage brightness adjustment and morning on design, with an operating duration adjustable from 0 to 15 hours and a power settable from 0 to 100%.
 - Features a system status log function, able to record a maximum of 7 days of system status, comprehensively and effectively monitoring the system's conditions.
 - Data communication adopts a multi-time two-way handshake protocol and a data compression algorithm, realizing precise and fast data transmission.
 - Features an intelligent power mode which can extend the battery life to its top limit by adjusting the load power automatically according to the remaining battery capacity.
 - True constant current rather than current-limiting control ensures smooth and stable output current, effectively reducing LED light attenuation and extending LED service life.
 - With an infrared remote control function, operations including setting parameters, reading status and viewing historical data can be conducted.
 - A metal case and an IP68 waterproof level enable the device to operate in various kinds of tough conditions.
 - An overheat protection function enables the device to scale down the load or shut off the load completely when its temperature exceeds a certain point.
 - A range of protection measures such as battery reverse-connection protection, LED short-circuit and open-circuit protection, etc., put the system under comprehensive and constant guard.
- The following are functions of "-U" series
- Boasts a wireless Internet communication function, able to conduct remote monitoring and real-time management on street lights via the solar power street light management system.
 - Supports remote light on/off switching and dimming, as well as modification of battery and load parameters.

- Monitors solar panel voltage, current and power, battery charging and discharging current and voltage, load operating status, controller operating status and other data, and automatically triggers alarms when failures are detected.

Parameter	Value		Adjustable or not	Default
Model	DM160	DM160-U		
No-load loss	28mA/12V; 17mA/24V	42mA/12V; 23mA/24V		
System voltage	12V/24V			
Charging current	15A			
Max. solar panel power	200W/12V;400W/24V			
Solar panel input voltage	< 60V			
MPPT tracking efficiency	> 99%			
Charging conversion efficiency	90% ~ 96%			
Load conversion efficiency	90% ~ 96%			
Output current	70mA ~ 5600mA		✓	900mA
Load current accuracy	±3% (load current > 300 mA)			
Max. load power	80W/12V;160W/24V			
Load output voltage	< 60V			
Over-voltage protection	17.0V ; *2/24V			
Charging voltage limit	15.5V ; *2/24V			
Equalizing charging voltage	(Boost charging voltage+0.2V; *2/24 V (25 °C)			14.6V
Equalizing charging time	1 hour			
Equalizing charging interval	30 days			
Boost charging voltage	7.5V ~ 15.5V ; *2/24V(25°C)		✓	14.4V
Boost charging time	4 hours			
Floating charging voltage	7.5V ~ 15.5V ; *2/24V(25°C)		✓	13.8V
Temperature compensation factor	-3.0mV/°C/2V			
Over-voltage protection	(over charge voltage+2V) ; *2/24V(25°C)		✓	16.6V
Whether charging is prohibited below 0 °C	Yes, No		✓	No
Overcharge voltage	7.5V ~ 15.5V ; *2/24V(25°C)		✓	14.6V
Overcharge recovery voltage	7.5V ~ 15.5V ; *2/24V(25°C)		✓	13.6V
Over-discharge voltage	7.5V ~ 15.5V ; *2/24V(25°C)		✓	11.0V
Over-discharge recovery voltage	7.5V ~ 15.5V ; *2/24V(25°C)		✓	12.6V
Light control voltage	5V ~ 15V ; *2/24V		✓	10V
Light control delay	1 ~ 50min		✓	1min
Operating temperature	-35°C ~ +65°C			
Protection degree	IP68			
Weight(g)	480			
Dimensions (mm)	142x88.3x24.5			

Note: parameter settings shall comply with the following rule, i.e. Boost charging voltage > floating charging voltage > over-discharge recovery voltage > over-discharge voltage.



SR-CU-ALL



Battery model	(AA) x 2pcs
power supply voltage	3.0V< Sm< 0.2uA
Effective distance	<Sm
power consumed of sleep mode	< 0.2uA
Normal power consumed	SmA<50mA<12mA<15mA
Send instant power consumed	< S0mA
Light consumption	< 12mA
Backlight consumption	< 1 SmA
Size	122mm 61.5mm 22mm (L W H) 60g (Not including the battery) 1 min
Weight	60g (Not including the battery) 1 min
Auto power off time	1 min
Backlight time	10 S
Lighting time	10 S
2000mAh battery setting quantity	50000 pcs (back light and lights both are closed)
Working temperature	-25°C - 55°C

1. Wireless IR remote control Can set up all SRNE solar street lamps controllers.
 2. The data communication s ba se on the multiple handshake protoc ol and compression algorithm which made the data transfer fast and accurate.
 3. Work on two batteries (Model: AA).
 4. LCD indicator shows the parameter and data.
 5. The remote control will enter intelligent sleep state after One min no any operate, and press any key to resume.
 6. Low-energy sleep mode, less than 0.1uA.
. Fast wake-up function.
 8. Battery capacity indicator.
 9. Emergency light and hazard light s.
 10. with ergonomic design, suitable for the hand-held operation.
- Panel graphics