


# LM-LI010-020

Li (NiCoMn) O<sub>2</sub>  
PWM Solar Charge Controller



 Meets Lighting Global  
Quality Standards for  
SHS kits

 Mobile Charging

Light Points

3 years warranty

Model	LM-LI010	LM-LI020
<b>General Information</b>		
PV Module	10W/18V	20W/18V
Battery Capacity	11.1V/4000 mAh, 44.4Wh	11.1V/7500 mAh, 76.8Wh
LED Lamp	2W*3, 190lm	2W*3, 190lm
Working hours (Full battery run time)	8 hrs for 3*2W LED	15 hrs for 3*2W LED
Port	5V/1A USB port*2, 11.1V/0.5A LED port*4	
<b>PV Module Details</b>		
PV Module type	Polycrystalline silicon	Polycrystalline silicon
Maximum Power	10 watts	20 watts
Nominal Voltage	18V	18V
Optimum Power Voltage(Vmp)	18.36V	18.50V
Optimum Operating Current(Imp)	0.54A	1.08A
Open Circuit Voltage(Voc)	22.00V	22.14V
Short Circuit Current(Isc)	0.58A	1.16A
Size of Module (L.N.W)	260*380*18mm	485*360*25mm
<b>Battery Details</b>		
Battery Replaceability	Easily replaceable with common tools. Warranty is void if battery is replaced by end user	
Battery Chemistry	Lithium-ion	
Battery Package Type	18650	
Battery Nominal Voltage	11.1V	
Battery Charging Voltage	12.6V	
Cycle Performance	1000 times (with 80% of its original capacity remaining)	
PCM (Protective Circuit Module)	Overcharge/deep discharge/over current/short circuit protection, battery balance	
PCM Overcharge Protection	4.25±0.05V	
PCM Deep Discharge Protection	2.7±0.1V	
<b>Controller Details</b>		
Controller Nominal Voltage	11.1V	
Controller Max.Charge Current	3A	
Controller Load Current	3A	
LED Indicators	Solar Charging, Battery Capacity, Load Status	
Controller Protection	Overcharge/deep discharge/over current/short circuit protection, reverse polarity protection	
Max. Charging Cut-off Voltage	12.4±0.2V	
PV Input Voltage	9-18V	
Deep discharge Voltage Protection	10.0±0.2V	
Deep discharge Voltage Protection Recover	11.1±0.2V	
Over Voltage Protection	>13.5±0.2V	
Over Voltage Protection Recover	<13.4±0.2V	
Short Circuit Protection	Cut off the output immediately	
<b>Lighting Details</b>		
Lamp Type	LED	
Description of Light Points	12 LEDs in each of 3 light points	
Colour Characteristics	CRI 86, CCT 'Daylight' (>5000 k)	
Distribution Type	Wide	
Lumen Maintenance	100% of the original output remains after 2000 hours run time	
<b>Durability</b>		
Durability tests passed	Switch and connector cycling, strain relief test, physical ingress protection test. Indoor use.	
<b>Special Features</b>		
Mobile charging	Charge mobile phone, torch, radio and other devices	
AC charging (optional)	Using AC adaptor to charge the system with grid electricity.	