

# LM-LI020 Solar Home System

LM-LI020

Shenzhen LEMI Technology Development Co., Ltd.

Results based on test procedures detailed in IEC TS 62257-9-5 and IEC TS 62257-9-8

Verify online:

<https://data.verasol.org/products/sek/lemi-li020>

Valid until: July 31, 2023



Meets the requirements in IEC TS 62257-9-8 for Size B Kits



Mobile charging

3

Light point(s)



Plug-and-play



## WARRANTY INFORMATION

A 3-year warranty covering manufacturing and early failure defects in the system.

## PERFORMANCE DETAILS

| VeraSol Certified? | Included in Kit? | Appliance <sup>a</sup> | Description  | Run time after a typical day of solar charging<br>(assuming 5kWh/m <sup>2</sup> /day) |                                  |
|--------------------|------------------|------------------------|--|---|----------------------------------|
|                    |                  |                        |  | Used alone <sup>b</sup>   | Used in combination <sup>c</sup> |
| yes                | included         | Main lighting unit     | 3 lamps On, totaling 570 lm and 5.4 W  | 12 hours  | 3.2 hours                        |
| yes                | not included     | Tubelight              | lamp 460 lumens, 11.1 V, and 5 W power   | 13 hours  | --                               |
| yes                | not included     | Torch                  | torch 56 lumens (Li-ion battery: 1.9 Ah, 3.6 V)                                    | 55 hours  | --                               |
| no                 | not included     | Table fan              | 16" or smaller (10 W power)  | 6.5 hours   | 4 hours                          |
| no                 | not included     | Radio                  | portable radio (Li-ion battery: 1 Ah, 3.7 V) with rated power consumption of 0.5 W | 78 hours  | 2.4 hours                        |
| no                 | not included     | Mobile phone           | Basic phone (3.7 Wh battery)   | 11 full charge(s)   | 0.8 full charge(s)               |

Available daily electrical energy<sup>c</sup> (Wh/day)

62

| Performance measure   | Brightness setting: Three lights on |
|---|-------------------------------------|
| Lighting full battery run time <sup>d</sup> for main unit (hours)   | 13                                  |
| Total lighting service (lumen-hours/solar-day)<br>(includes the both main lighting unit and any lights with internal batteries included with the product) | 6840                                |

<sup>a</sup> Only included appliances were tested. Run times and power ratings for appliances sold separately come from manufacturer ratings or standard estimates.

<sup>b</sup> Without any other loads used during the run time

<sup>c</sup> Based on an example use profile with all of the appliances listed in the "Used in combination" column used simultaneously.

<sup>d</sup> Lighting full battery run time estimates do not account for mobile phone charging or other auxiliary loads; the run time is defined as the time until the output is 70% of the initial, stabilized output.

## LIGHTING DETAILS

| Lamp name | Number of lamps | Number of settings | Setting | Light output (lm) | Lumen efficacy <sup>e</sup> (lm/W) | CRI <sup>f</sup> | CCT <sup>g</sup> | Distribution type | Lumen maintenance <sup>h</sup> |
|-----------|-----------------|--------------------|---------|-------------------|------------------------------------|------------------|------------------|-------------------|--------------------------------|
| 2 W bulb  | 3               | 1                  | On      | 190               | 110                                | 86               | 6450             | Wide              | 100%                           |

<sup>e</sup> Lumen efficacy is the power consumption at a light point during the light output test.

<sup>f</sup> Color Rendering Index. An index of 100 is equivalent to viewing objects in daylight; above 80 is considered good.

<sup>g</sup> Correlated Color Temperature in degrees Kelvin. Describes color appearance as warm (2700-3000 K), cool (3000-5000 K), or daylight (>5000 K)

<sup>h</sup> Percent of the original light output that remains after 2,000 hours of run time

| SPECIAL FEATURES                       |                |   |
|--|----------------|---|
| <b>PORTS</b>                           |                |   |
| 2                                      | USB 2.0 type A |          |
| 4                                      | Barrel jack    |          |
| <b>DURABILITY</b>                      |                |   |
| Overall durability and workmanship     |                | Pass  |
| Durability tests passed                |                | Switch test, Strain relief test, Physical ingress protection, PV durability tests         |
| Level of water protection              | Main Unit      | Water ingress protection not tested, meant for indoor use only.                           |
|  | PV module      | Has protection from permanent outdoor exposure  |
|  | 2 W lamp       | Water ingress protection not tested, meant for indoor use only.                           |
| <b>SOLAR DETAILS</b>                   |                |   |
| PV module type                         |                | Polycrystalline silicon   |
| PV maximum power                       |                | 19 watts  |
| <b>MAIN UNIT BATTERY DETAILS</b>       |                |   |
| Battery replaceability                 |                | Easily replaceable with common tools; however, the warranty is void if product is opened. |
| Battery chemistry                      |                | Lithium-ion   |
| Specific Li-ion battery chemistry      |                | lithium nickel manganese cobalt oxide   |
| Battery package type                   |                | 18650   |
| Battery capacity                       |                | 7.25 Ah   |
| Battery nominal voltage                |                | 11.1 V  |
| Battery status indication              |                | Three battery capacity indicators that show 90%, 60%, and 30% battery capacity.           |
| <b>PRODUCT DETAILS</b>                 |                |   |
| Manufacturer name                      |                | Shenzhen LEMI Technology Development Co., Ltd.  |
| Product name                           |                | LM-LI020 Solar Home System  |
| Product model / ID number              |                | LM-LI020  |
| Contact information                    |                | 21988186@qq.com   |
| Website                                |                | <a href="http://www.lemi.com.cn/">http://www.lemi.com.cn/</a>                             |
| Dimensions (entire product in package) |                | 24.5 x 29 x 8.8 cm  |
| Mass                                   |                | 1950 g  |
| <b>SSS INFORMATION</b>                 |                |   |
| Specs sheet expiration date            |                | July 31, 2023   |
| Revision                               |                | 2021.08   |