

VeraSol

Standardized Specifications Book

Company Name: OmniVoltaic Energy Solutions Company Limited /
(Omnivoltaic (Shenzhen) Co., Ltd.

Brand Name: Omnivoltaic

Component Family Name: LUMN Home family

Family Expiration Date: July 31, 2028

Verify Online: <https://data.verasol.org/products/sek/omni-homefam>

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This VeraSol Standardized Specifications Book presents a component-level Standardized Specifications Sheet listing the available components in the product family by component type, each individual component's performance rating, and performance results for each component tested according to the Edition 5 of IEC 62257-9-5. Following the component-level Standardized Specifications Sheet is a list of the systems covered by this Specifications Book that use combinations of these components.

NOTICE: Systems or kits developed using components from the component family will each perform differently and have not all been evaluated on a system-level basis. All systems listed in this Specifications Book are regarded to have passed IEC TS 62257-9-8.

Quality Standards Framework Version: 2025

Revision: 2025.11

Component-Level Standardized Specifications Sheet

OmniVoltaic Energy Solutions Company Limited / (Omnivoltaic (Shenzhen) Co., Ltd.
LUMN Home family

Batteries / Control Boxes				
Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (mAh)	Measured Battery Capacity (mAh)
6 Ah main unit battery	Lithium iron phosphate	3.3	6000	6200
12 Ah main unit battery	Lithium iron phosphate	3.3	12000	12400
Torch battery	Lithium iron phosphate	3.2	600	640

PV Modules		
Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
12 W Polycrystalline PV module	12	12
6 W Polycrystalline PV module	6.0	6.1

Light Sources^												
Name / Model Number	Luminous Flux Rating (lm)				Measured Luminous Flux (lm)				Measured Lamp Efficacy (lm/W)			
	High	Low	On	front light	High	Low	On	front light	High	Low	On	front light
LED tube	410	not rated	-	-	370	not tested	-	-	180	-	-	-
LED lamp	210	not rated	-	-	200	not tested	-	-	190	-	-	-
Security light	-	-	200	-	-	-	200	-	-	-	180	-
Torch	-	-	-	40	-	-	-	38	-	-	-	150

Appliances^					
Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (mAh)	Measured Battery Capacity (mAh)
Torch	38 lm torch (LiFePO4 battery: 0.64 Ah, 3.2 V)	0.33	0.26	600	640

^ Light points and appliances may perform differently when used with different systems.

NOTICE: As indicated, not all components listed on this page were tested according to the Quality Test Method (QTM) in Edition 5 of IEC 62257-9-5. However, based on the satisfactory performance of the tested components in the family, the components that were not tested are regarded to have passed IEC TS 62257-9-8:2025. In addition, all tested components passed an internal inspection, the full array of applicable QTM durability tests, as well as ingress protection testing (where applicable).

List of Covered Systems

OmniVoltaic Energy Solutions Company Limited / (Omnivoltaic (Shenzhen) Co., Ltd.

LUMN Home family

Number of each component included in each system								
System Name	LED Lamp	Security lamp	LED tube	Torch	6 W PV	12 W PV	6 Ah main unit	12 Ah main unit
LUMN Home Series Solar lighting System (SHS40_12W_T4_L2_S2) **	1	1	1	1	--	1	--	1
SHS20_06W_T4_L2†	1	--	1	--	1	--	1	--
SHS20_06W_L2_S2†	--	1	1	--	1	--	1	--
SHS20_06W_T4_L22†	2	--	1	--	1	--	1	--
SHS20_06W_L22_S2†	2	1	--	--	1	--	1	--
SHS20_06W_L222†	3	--	--	--	1	--	1	--
SHS20_06W_L222_S2†	3	1	--	--	1	--	1	--
SHS20X_06W_L22†	2	--	--	1	1	--	1	--
SHS20X_06W_L22_S2†	2	1	--	1	1	--	1	--
SHS20X_06W_L222†	3	--	--	1	1	--	1	--
SHS40_12W_L222†	3	--	--	--	--	1	--	1
SHS40_12W_L222_S2†	3	1	--	--	--	1	--	1
SHS40_12W_L2222†	4	--	--	--	--	1	--	1
SHS40_12W_L2222_S2†	4	1	--	--	--	1	--	1
SHS40_12W_T4_L22†	2	--	1	--	--	1	--	1
SHS40_12W_T4_L222†	3	--	1	--	--	1	--	1
SHS40_12W_T4_L2222†	4	--	1	--	--	1	--	1
SHS40_12W_T444†	--	--	3	--	--	1	--	1
SHS40_12W_T444_S2†	--	1	3	--	--	1	--	1
SHS40_12W_T444_L2_S2†	1	1	3	--	--	1	--	1
SHS40_12W_T4444_S2†	--	1	4	--	--	1	--	1
SHS40_12W_L22_S2†	2	1	--	--	--	1	--	1
SHS40_12W_T4_L222†	3	--	1	--	--	1	--	1
SHS40_12W_T4_L2_S2†	1	1	1	--	--	1	--	1
SHS40_12W_T4_L22_S2†	2	1	1	--	--	1	--	1
SHS40_12W_T4_L222_S2†	3	1	1	--	--	1	--	1
SHS40X_12W_T4444_S2†	--	1	4	1	--	1	--	1
SHS40X_12W_L22_S2†	2	1	--	1	--	1	--	1
SHS40X_12W_T4_L22_S2†	2	1	1	1	--	1	--	1
SHS40X_12W_T4_L222_S2†	3	1	1	1	--	1	--	1

SHS40X_12W_T4_L222†	3	--	1	1	--	1	--	1
SHS40X_12W_L222†	3	--	--	1	--	1	--	1
SHS40X_12W_L2222†	4	--	--	1	--	1	--	1
SHS40X_12W_T4_L2222_S2†	4	1	1	1	--	1	--	1
SHS40X_12W_T444_S2†	--	1	3	1	--	1	--	1
SHS40X_12W_T444_L2_S2†	1	1	3	1	--	1	--	1

**Tested as full systems. Individual SSS available on VeraSol website.

† Kit is available with and without PAYG feature.

NOTICE:

Only the kits denoted with ** were tested as full systems according to Edition 5 of IEC 62257-9-5 and passed IEC 62257-9-8 standards. An Individual Standardized Specification Sheet (SSS) that reports system-level performance is available for these systems at VeraSol.org. Systems that were not tested, but that were developed using components from the component family will perform differently than the system(s) shown in the individual system-level SSS. All systems listed above are regarded to have passed IEC TS 62257-9-8:2025.

Unless otherwise noted, the following information applies to all listed systems and components:

Warranty Information

A 2-year warranty covering manufacturing defects in the system.

Available Daily Electrical Energy and Port Information

Omnivoltaic Energy Solutions Company Limited / (Omnivoltaic (Shenzhen) Co., Ltd)
LUMN Home family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
LUMN Home Series Solar lighting System (SHS40_12W_T4_L2_S2)**	32	yes
SHS20X_06W_L22†	15	yes
SHS40_12W_L222_S2†	32	yes
SHS40_12W_T4_L2_S2†	32	yes

**Tested as full systems. Individual SSS available on VeraSol website.

† Kit is available with and without PAYG feature.

NOTICE:

The available daily electrical energy (Wh/day) is calculated for fully tested systems following the energy service calculations as described in IEC/TS 62257-9-5 Edition 5. For products in a family that are not tested as a full system, estimations of available daily electrical energy (Wh/day) are calculated according to an alternative method using data from the test reports of fully-tested products and components.