VeraSol
Standardized Specifications Book

Manufacturer: Omnivoltaic Energy Solutions Co. Ltd. / Omnivoltaic (Shenzhen) Co. Ltd.

Component Family Name: LUMNS Family

Date of Standardized Specifications Book Expiration: August 31, 2025

Verify Online: https://data.verasol.org/products/sek/omni-lumnfamily

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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 4 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 the requirements in IEC 62257-9-8.

Revision: 2025.04

Component-Level Standardized Specifications Sheet
Omnivoltaic Energy Solutions Co. Ltd. / Omnivoltaic (Shenzhen) Co. Ltd.
LUMNS Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
2500 mAh battery	Li-Ion	7.2	2.6	2.5
5000 mAh battery	Li-Ion	7.2	5.2	5.0
Torch Battery	Lithium iron phosphate	3.2	0.5	0.5

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
4 W PV Module	4	4.9
6 W PV Module	6	5.7
12 W PV Module	12	12

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)			Measured Luminous Flux (lm)			Measured Lamp Efficacy (lm/W)		
	Super	Normal	Night	Super	Normal	Night	Super	Normal	Night
Main Lamp 200 lm	200	--	25	210	--	21	160	--	110
Main Lamp 300 lm	300	--	25	320	--	25	160	--	130
Main Lamp 500 lm	500	--	51	500	--	51	150	--	140
Secondary Lamp 100 lm	100	--	25	110	--	25	160	--	160
Torch (front light)	--	33	--	--	39	--	--	120	--

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (Ah)	Measured Battery Capacity (Ah)
Solar Powered Radio (RD/SPRD-A)	portable radio with internal battery, charges via USB	3	0.39	1	1

NOTICE: As indicated, not all components listed on this page were tested according to the Quality Test Method (QTM) in Edition 4 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 the applicable requirements in IEC 62257-9-8. 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).
 *Light points and appliances may perform differently when used with different systems.

List of Covered Systems

Omnivoltaic Energy Solutions Co. Ltd. / Omnivoltaic (Shenzhen) Co. Ltd.

LUMNS Family

System Name	Number of each component included in each system										
	Main Lamp 500 lm 5000 mAh battery	Main Lamp 320 lm 5000 mAh battery	Main Lamp 300 lm 2500 mAh battery	Main Lamp 200 lm 2500 mAh battery	Secondary Lamp 110 lm	4 W PV Module	6 W PV Module	12 W PV Module	Torch	Keypad	Radio
L300			1			1					
L300_KEYP			1			1				1	
L300X_KEYP_RD			1			1			1	1	1
L500	1						1				
L500_KEYP**	1						1			1	
L500X_KEYP_RD	1						1		1	1	1
M300				1	1	1					
M300X				1	1	1			1		
M300_KEYP				1	1	1				1	
M300X_KEYP				1	1	1			1	1	
M300X_KEYP_RD				1	1	1			1	1	1
M400				1	2	1					
M400X				1	2	1			1		
M400_KEYP				1	2	1				1	
M400X_KEYP				1	2	1			1	1	
M400X_KEYP_RD				1	2	1			1	1	1
M500		1			2			1			
M500X		1			2			1	1		
M500_KEYP		1			2			1		1	
M500X_KEYP		1			2			1	1	1	
M500X_KEYP_RD		1			2			1	1	1	1
M600		1			3			1			
M600X		1			3			1	1		
M600_KEYP**		1			3			1		1	
M600X_KEYP		1			3			1	1	1	
M600X_RD		1			3			1	1		1
M600X_KEYP_RD		1			3			1	1	1	1
M630				3				1			
M630X				3				1	1		
M630_KEYP				3				1		1	
M630X_KEYP				3				1	1	1	
M630X_KEYP_RD				3				1	1	1	1
M700		1			4			1			
M700X		1			4			1	1		
M700_KEYP		1			4			1		1	
M700X_KEYP		1			4			1	1	1	
M700X_KEYP_RD		1			4			1	1	1	1

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

NOTICE:

Only the M600, L500, and were fully tested as systems according to Edition 4 of IEC 62257-9-5. Individual Standardized Specifications Sheets (SSS) that report system-level performance are available for the M600, the L500, and the at https.data.verasol.org/products/sek/ 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 the applicable requirements in IEC 62257-9-8.

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

Warranty Information
Two year warranty on all kits and components. Radio has a 1 year warranty

Available Daily Electrical Energy and Port Information

Omnivoltaic Energy Solutions Co. Ltd. / Omnivoltaic (Shenzhen) Co. Ltd.

LUMNS Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
L500**	21	yes
M600**	35	yes

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

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 Ed. 4. 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. Estimating Wh/day values requires making assumptions about system efficiencies, power consumption, and user behavior. As with any calculation based on multiple assumptions, there is some degree of error in the Wh/day estimate, which may be greater or less than the actual value