

VeraSol

Standardized Specifications Book

Company Name: Venus Energy Limited

Brand Name: VENUS

Component Family Name: Solar Home System Family

Family Expiration Date: August 31, 2028

Verify Online: <https://data.verasol.org/products/sek/vel-shsfam>

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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

Venus Energy Limited
Solar Home System Family

Batteries / Control Boxes

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (mAh)	Measured Battery Capacity (mAh)
12 Ah main unit battery	Lithium iron phosphate	12.8	12000	12000
18 Ah main unit battery	Lithium iron phosphate	12.8	18000	not tested
24 Ah main unit battery	Lithium iron phosphate	12.8	24000	24000
30 Ah main unit battery	Lithium iron phosphate	12.8	30000	not tested
36 Ah main unit battery	Lithium iron phosphate	12.8	36000	not tested
42 Ah main unit battery	Lithium iron phosphate	12.8	42000	not tested
48 Ah main unit battery	Lithium iron phosphate	12.8	48000	48000

PV Modules

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
40 W monocrystalline PV module (VE-40-36M)	40	41
50 W monocrystalline PV module (VE-50-36M)	50	56
60 W monocrystalline PV module (VE-60-36M)	60	not tested
80 W monocrystalline PV module (VE-80-36M)	80	not tested
100 W monocrystalline PV module (VE-100-36M)	100	110
120 W monocrystalline PV module (VE-120-36M)	120	not tested
150 W monocrystalline PV module (VE-150-36M)	150	150

Light Sources^

Name / Model Number	Luminous Flux Rating (lm)	Measured Luminous Flux (lm)	Measured Lamp Efficacy (lm/W)
	on	on	on
2 W bulb (VE2151D)	200	350	150
3 W bulb (VE3151D)	300	Not tested	Not tested
5 W bulb (VE5151D)	500	Not tested	Not tested
7 W bulb (VE7151D)	700	880	140

Appliances^

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (mAh)	Measured Battery Capacity (mAh)
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16" fan (LST-DC 16B)	16" diameter table fan (16 W power consumption while in use)	15	16	--	--
32" TV (LYED32A5)	32" diagonal television (30 W power consumption while in use)	30	30	--	--

^ 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

Venus Energy Limited

Solar Home System Family

Number of each component included in each system																				
System Name	2 W bulb	3 W bulb	5 W bulb	7 W bulb	40 W monocrystalline PV module	50 W monocrystalline PV module	60 W monocrystalline PV module	80 W monocrystalline PV module	100 W monocrystalline PV module	120 W monocrystalline PV module	150 W monocrystalline PV module	12 Ah main unit	18 Ah main unit	24 Ah main unit	30 Ah main unit	36 Ah main unit	42 Ah main unit	48 Ah main unit	16" fan	32" TV
Solar Home System (VE-SHS-1224-PAYG (100W)) [°] **	4	--	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--
VE-SHS-1212 (40W) [°]	4	0-4	0-4	0-4	1	--	--	--	--	--	--	1	--	--	--	--	--	--	0-1	0-1
VE-SHS-1212 (50W) [°]	4	0-4	0-4	0-4	--	1	--	--	--	--	--	1	--	--	--	--	--	--	0-1	0-1
VE-SHS-1218 (50W) [°]	4	0-4	0-4	0-4	--	1	--	--	--	--	--	--	1	--	--	--	--	--	0-1	0-1
VE-SHS-1218 (60W) [°]	4	0-4	0-4	0-4	--	--	1	--	--	--	--	--	1	--	--	--	--	--	0-1	0-1
VE-SHS-1224 (80W) [°]	4	0-4	0-4	0-4	--	--	--	1	--	--	--	--	--	1	--	--	--	--	0-1	0-1
VE-SHS-1224 (100W) (Optional lights) [°]	4	0-4	0-4	0-4	--	--	--	--	1	--	--	--	--	1	--	--	--	--	0-1	0-1
VE-SHS-1230 (100W) [°]	4	0-4	0-4	0-4	--	--	--	--	1	--	--	--	--	--	1	--	--	--	0-1	0-1
VE-SHS-1230 (120W) [°]	4	0-4	0-4	0-4	--	--	--	--	--	1	--	--	--	--	1	--	--	--	0-1	0-1
VE-SHS-1236 (120W) [°]	4	0-4	0-4	0-4	--	--	--	--	--	1	--	--	--	--	--	1	--	--	0-1	0-1
VE-SHS-1236 (150W) [°]	4	0-4	0-4	0-4	--	--	--	--	--	--	1	--	--	--	--	1	--	--	0-1	0-1
VE-SHS-1242 (150W) [°]	4	0-4	0-4	0-4	--	--	--	--	--	--	1	--	--	--	--	--	1	--	0-1	0-1
VE-SHS-1248 (150W) [°]	4	0-4	0-4	0-4	--	--	--	--	--	--	1	--	--	--	--	--	--	1	0-1	0-1

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

[°]Kits can come with or without PAYG function

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

Venus Energy Limited
Solar Home System Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
Solar Home System (VE-SHS-1224-PAYG (100W))^{° **}	370	yes

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

[°] Kits can come with or without PAYG function

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.