

VeraSol

Standardized Specifications Book

Manufacturer: Fosera Solar Systems Gmbh & Co.KGaA

Component Family Name: Spark Solar Home System Family

Date of Standardized Specifications February 28, 2024
Book Expiration:

Verify Online: <https://data.verasol.org/products/sek/fs-sshsfamily>

Contact Information: info@fosera.com

Website: www.fosera.com



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: 2023.07

Component-Level Standardized Specifications Sheet

Fosera Solar Systems GmbH & Co.KG&A

Spark Solar Home System Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
Spark 10	Lithium iron phosphate	3.2	3.8	3.8
Spark 20	Lithium iron phosphate	3.2	7.6	not tested
Spark 30	Lithium iron phosphate	3.2	11.4	11

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
4 W module	4	3.8
6 W module	6	not tested
10 W module	10	9

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)		Measured Luminous Flux (lm)		Measured Lamp Efficacy (lm/W)	
	High	Medium	High	Medium	High	Medium
Lamp mini 100	100	--	94	--	140	--
Lamp mini 150	150	75	140	72	130	130

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 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

Fosera Solar Systems GmbH & Co.KGaA

Spark Solar Home System Family

System Name	Number of each component included in each system							
	Main Unit with 3.8 Ah battery	Main Unit with 7.6 Ah battery	Main Unit with 11.4 Ah battery	4 W PV module	6 W PV module	10 W PV Module	Lamp Mini 100	Lamp Mini 150
Fosera Spark 10**	1			1			2	
Fosera Spark 10 6W2L	1				1		2	
Fosera Spark 10- 150	1			1				2
Fosera Spark 20		1			1		2	
Fosera Spark 20 10W3L		1				1	3	
Fosera Spark 20- 150		1			1			2
Fosera Spark 30			1			1	2	
Fosera Spark 30- 150			1			1		2
Fosera Spark 30- Multi			1			1	1-2	1-2
Fosera Spark 30 EEA			1			1		3

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

NOTICE:

Only the Spark 10 was 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 Spark 10 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 requirements in IEC 62257-9-8.

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

Warranty Information

A three-year warranty covers defects in materials or manufacturing.

Available Daily Electrical Energy and Port Information

Fosera Solar Systems GmbH & Co.KGaA

Spark Solar Home System Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
Fosera Spark 10**	11	yes
Fosera Spark 20	20	yes
Fosera Spark 30	29	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 for a given product.