

VeraSol Standardized Specifications Book

Manufacturer: Spark

Component Family Name: Spark Start Family

Date of Standardized Specifications Book Expiration: March 31, 2024

Verify Online: <https://data.verasol.org/products/sek/rs-ssfamilly>

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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 applicable Lighting Global Quality Standards or to meet the requirements in IEC 62257-9-8.

Revision: 2022.03

Component-Level Standardized Specifications Sheet

Spark

Spark Start Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
Spark Battery	Lithium iron phosphate	12.8	3.3	3.5
Torch	Lithium-ion	3.7	2	1.9

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
10W PV module	10	10
20W PV module	20	23
30W PV module	30	Not tested
50W PV module	50	Not tested
75W PV module	75	71
100W PV module	100	93

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)	Measured Luminous Flux (lm)	Measured Lamp Efficacy (lm/W)
	Maximum	Maximum	Maximum
Spark light	--	170	120
Spark light (without reflector)	200	210	150
Torch	90	95	94

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (Ah)	Measured Battery Capacity (Ah)
Radio	Li-Ion, 3.7V	--	0.27	0.8	0.76
24" TV	24" diagonal	15	11	--	--
32" TV	32" diagonal	15	11	--	--
40" TV	40" diagonal	18	12	--	--
16" Fan	16" table fan	9	7.8	--	--

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

Spark

Spark Start Family

System Name	Number of each component included in each system														
	Spark Light	10W PV	20W PV	30W PV	50W PV	75W PV	100W PV	Additional 3.5 Ah battery	Control unit with 3.5 Ah battery	Radio	24" TV	32" TV	40" TV	16" Fan	Torch
Spark Start 10**	4	1						0	1	1					
Spark Start 10_1	3	1						0	1						
Spark Start 20	4		1					0	1	1					
Spark Start 20_1	3		1					0	1						1
Spark Steady 30	4			1				1	1	1				1	
Spark Steady 40	3		2					1	1					1	1
Spark Steady 50	4				1			1	1	1				1	1
Spark Strong 50_3B_24	4				1			2	1	1	1				
Spark Strong 50_3B_32	4				1			2	1	1		1			
Spark Strong 50_3B_40	4				1			2	1	1			1		
Spark Strong 75_4B_24	4					1		3	1	1	1				1
Spark Strong 75_4B_32	4					1		3	1	1		1			1
Spark Supreme 100_40	5						1	5	1	1			1	1	1
Spark Supreme 100_32	5						1	5	1	1		1		1	1
Spark Supreme 60	3		3					3	1			1		1	1

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

NOTICE:

Only the Spark Start 10 was fully tested as a system according to Edition 4 of IEC 62257-9-5. A Individual Standardized Specifications Sheets (SSS) that reports system-level performance is available for the Spark Start 10 at <https://data.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 the applicable requirements in IEC 62257-9-8.

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

Warranty Information

A 2-year warranty covering manufacturing defects and protection from early component failure.

Available Daily Electrical Energy and Port Information

Spark

Spark Start Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
Spark Start 10**	33	yes
Spark Start 20	47	yes
Spark Start 20_1	47	yes
Spark Steady 40	100	yes
Spark Steady 50	100	yes
Spark Strong 50_3B_24	150	yes
Spark Supreme 100_32	310	yes
Spark Supreme 60	200	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.