VeraSol
Standardized Specifications Book

Manufacturer: Spark

Component Family Name: Spark Start Family

Date of Standardized Specifications Book Expiration: March 31, 2026

Verify Online: https://data.verasol.org/products/sek/rs-ssfamily

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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 IEC TS 62257-9-8.

Quality Standards Framework Version: 2024
Revision: 2024.04

Component-Level Standardized Specifications Sheet
Spark
Spark Start Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (mAh)	Measured Battery Capacity (mAh)
Spark Battery main unit with screen	Lithium iron phosphate	12.8	3300	3400
Torch	Lithium ion	3.7	2000	1800
Radio	Lithium ion	3.7	800	820
Radio with integrated light	Lithium ion	3.7	1200	1300

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
10.5 W PV	11	10
21 W PV	20	19
30 W PV	30	Not tested
50 W PV	50	Not tested
80 W PV	80	81

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)		Measured Luminous Flux (lm)		Measured Lamp Efficacy (lm/W)	
	high	on	high	on	high	on
Spark Lights	200	--	190	--	140	--
Motion Lights	--	240	--	260	--	150
Radio Light	--	--	--	56	--	61

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (mAh)	Measured Battery Capacity (mAh)
Radio	portable (Li-ion battery: 0.82 Ah, 3.7 V), with a power consumption of 1 W while in-use	2.25	0.49	80	82
16" Fan	16 " pedestal fan (6.9 W power)	9	7.8	--	--
24" TV	24" diagonal (8.1 W power consumption while in-use)	8.4	8.1	--	--
32" TV	32" diagonal (11 W power consumption while in-use)	15	11	--	--
40" TV	40" diagonal (12 W power consumption while in-use)	18	12	--	--
43" TV	43" diagonal (17 W power consumption while in-use)	19	17	--	--
Torch	96 lumens torch, (Li-ion battery: 1.8 Ah, 3.7 V)	1	1	2000	1800

*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 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 IEC TS 62257-9-8:2020. 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).

System Name	Spark Lights	Motion Lights	10W PV Panel	21W PV Panel	30W PV Panel	50W PV Panel	80W PV Panel	Spark Battery main unit with screen	Additional Spark Batteries	24" TV with Remote Control	32" TV with Remote Control	40" TV with Remote Control	43" TV with Remote Control	16" Fan	Torch	Radio	Radio with Light	Phone Charging Cable
Spark Start 10 **	3-4	0-1	1	--	--	--	--	1	--	--	--	--	--	--	--	1	--	1
Spark Start 10W_2L	1-2	0-1	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1
Spark Start 10W_3L_R	2-3	0-1	1	--	--	--	--	1	--	--	--	--	--	--	--	0-1	0-1	1
Spark Start 20	3-4	0-1	--	1	--	--	--	1	--	--	--	--	--	--	--	0-1	0-1	1
Spark Start 20W_3L	2-3	0-1	--	1	--	--	--	1	--	--	--	--	--	--	1	--	--	1
Spark Start 20_4L	3-4	0-1	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	1
Spark Start 20_R	3-4	0-1	--	1	--	--	--	1	--	--	--	--	--	--	--	0-1	0-1	1
Spark Start 20W_3L_R	2-3	0-1	--	1	--	--	--	1	--	--	--	--	--	--	1	--	--	1
Spark Start 20_4L_R	3-4	0-1	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	1
Spark Steady 30	3-4	0-1	--	--	1	--	--	1	1	--	--	--	--	1	--	0-1	0-1	1
Spark Steady 40	2-3	0-1	--	2	--	--	--	1	1	--	--	--	--	1	1	--	--	1
Spark Steady 50	3-4	0-1	--	--	--	1	--	1	1	--	--	--	--	1	--	0-1	0-1	1
Spark Strong 50_24TV	3-4	0-1	--	--	--	1	--	1	2	1	--	--	--	--	--	0-1	0-1	1
Spark Strong 50_32TV	3-4	0-1	--	--	--	1	--	1	2	--	1	--	--	--	--	0-1	0-1	1
Spark Strong 50_40TV	3-4	0-1	--	--	--	1	--	1	2	--	--	1	--	--	--	0-1	0-1	1
Spark Strong 50_43TV	3-4	0-1	--	--	--	1	--	1	2	--	--	--	1	--	--	0-1	0-1	1
Spark Strong 80_24TV	3-4	0-1	--	--	--	--	1	1	2	1	--	--	--	--	1	0-1	0-1	1
Spark Strong 80_32TV	3-4	0-1	--	--	--	--	1	1	2	--	1	--	--	--	1	0-1	0-1	1
Spark Strong 80_40TV	3-4	0-1	--	--	--	--	1	1	2	--	--	1	--	--	--	0-1	0-1	1
Spark Strong 80_43TV	3-4	0-1	--	--	--	--	1	1	2	--	--	--	1	--	--	0-1	0-1	1
Spark Strong 80_40TV_6L	5-6	0-1	--	--	--	--	1	1	2	--	--	1	--	--	1	0-1	0-1	1
Spark Strong 80_43TV_6L	5-6	0-1	--	--	--	--	1	1	2	--	--	--	1	--	1	0-1	0-1	1
Spark Supreme 60_32TV	2-3	0-1	--	3	--	--	--	1	2	--	1	--	--	1	1	--	--	1
Spark Supreme 100_32TV	4-5	0-1	--	--	--	2	--	1	5	--	1	--	--	1	1	0-1	0-1	1
Spark Supreme 100_40TV	4-5	0-1	--	--	--	2	--	1	5	--	--	1	--	1	1	0-1	0-1	1
Spark Strong 50_24TV_i	3-4	0-1	--	--	--	1	--	1	2	1	--	--	--	--	--	0-1	0-1	1
Spark Strong 50_32TV_i	3-4	0-1	--	--	--	1	--	1	2	--	1	--	--	--	--	0-1	0-1	1
Spark Strong 50_40TV_i	3-4	0-1	--	--	--	1	--	1	2	--	--	1	--	--	--	0-1	0-1	1

Spark Strong 50_43TV_i	3-4	0-1	--	--	--	1	--	1	2	--	--	--	1	--	--	0-1	0-1	1
Spark Strong 80_24TV_i	3-4	0-1	--	--	--	--	1	1	2	1	--	--	--	--	1	0-1	0-1	1
Spark Strong 80_32TV_i	3-4	0-1	--	--	--	--	1	1	2	--	1	--	--	--	1	0-1	0-1	1
Spark Strong 80_40TV_i	3-4	0-1	--	--	--	--	1	1	2	--	--	1	--	--	--	0-1	0-1	1
Spark Strong 80_43TV_i	3-4	0-1	--	--	--	--	1	1	2	--	--	--	1	--	--	0-1	0-1	1
Spark Strong 80_40TV_6L_i	5-6	0-1	--	--	--	--	1	1	2	--	--	1	--	--	1	0-1	0-1	1
Spark Strong 80_43TV_6L_i	5-6	0-1	--	--	--	--	1	1	2	--	--	--	1	--	1	0-1	0-1	1
Spark Supreme 60_32TV_i_F	2-3	0-1	--	3	--	--	--	1	2	--	1	--	--	1	1	--	--	1
Spark Supreme 100_32TV_i_F	4-5	0-1	--	--	--	2	--	1	5	--	1	--	--	1	1	0-1	0-1	1
Spark Supreme 100_40TV_i_F	4-5	0-1	--	--	--	2	--	1	5	--	--	1	--	1	1	0-1	0-1	1
Spark Strong 80_43TV_6L_i_F	5-6	0-1	--	--	--	--	1	1	2	--	--	--	1	1	1	0-1	0-1	1

**Tested as full systems. Individual SSS available on VeraSol website.
The customer is permitted to configure a system using any
components that have been certified

<u>NOTICE:</u>

Only the kits denoted with ** were tested as full systems according to Edition 4 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 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**	36	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 100_40	310	yes

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

The customer is permitted to configure a system using any components that have been certified

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.