## VeraSol Standardized Specifications Book

Company Name: Rural Spark B.V.

Brand Name: 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.

**<u>NOTICE</u>**: 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: 2025.06

### Component-Level Standardized Specifications Sheet

Rural Spark B.V. Spark Start Family

| Battery / Control Box               |                        |                        |                                     |                                       |  |  |  |  |  |  |
|-------------------------------------|------------------------|------------------------|-------------------------------------|---------------------------------------|--|--|--|--|--|--|
| Name /<br>Model Number              | Battery Chemistry      | Nominal Voltage<br>(V) | Battery Capacity<br>Rating<br>(mAh) | Measured Battery<br>Capacity<br>(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                                   |  |  |  |  |  |  |
| FM Radio                            | Lithium ion            | 3.7                    | 1200                                | not tested                            |  |  |  |  |  |  |
| 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                             |  |  |  |  |  |  |  |  |
| 12 W PV             | 12                           | Not tested                     |  |  |  |  |  |  |  |  |
| 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 |      | Flux Rating<br>m) |      | Luminous<br>(lm) | Measured Lamp<br>Efficacy (Im/W) |     |  |
|                     | high | on                | high | on               | high                             | on  |  |
| Spark Lights        | 200  |                   | 190  |                  | 140                              |     |  |
| Motion Lights       |      | 240               |      | 260              |                                  | 150 |  |
| Radio Light         |      |                   |      | 56               |                                  | 61  |  |

| Appliances*                 |   |   |                                  |                                 |                                    |  |  |  |  |  |
|-----------------------------|---|---|----------------------------------|---------------------------------|------------------------------------|--|--|--|--|--|
| Name / Model<br>Number      | Description   | Rated Power (W)   | Measured Power<br>During Use (W) | Rated Battery<br>Capacity (mAh) | Measured Battery<br>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                             | 800                             | 820                                |  |  |  |  |  |
| FM Radio                    | portable (Li-ion battery: 1.2 Ah, 3.7 V), with a power consumption of 3 W while in-use  | 3   |                                  | 1200                            |                                    |  |  |  |  |  |
| Radio with integrated light | portable (Li-ion battery: 1.2 Ah, 3.7 V), with a power consumption of 0.38 W while in-use for the radio function, 0.91 W while in-use for the light | 7 V), with a power consumption of 0.38 W while in-use for the adio function, 0.91 W while in- |                                  | 1200                            | 1300                               |  |  |  |  |  |
| 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:<br>1.8 Ah, 3.7 V)   | 1   | 1                                | 2000                            | 1800                               |  |  |  |  |  |

<sup>\*</sup>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).

# List of Covered Systems Rural Spark B.V.

| Charle | Ctout | E a sea ils |
|--------|-------|-------------|
| Spark  | Start | Family      |
|        |       |             |

|                         | Number of       | each comp        | onent includ      | ed in each s | system |        |        |        |   |                                  |                                     |                                     |                                     |                                     |         |       |       |          |                     |                            |   |
|-------------------------|-----------------|------------------|-------------------|--------------|--------|--------|--------|--------|---|----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------|-------|-------|----------|---------------------|----------------------------|---|
| System Name             | Spark<br>Lights | Motion<br>Lights | 10.5W PV<br>Panel | 12 W PV      | 21W PV | 30W PV | 50W PV | 80W PV | Spark<br>Battery<br>main unit<br>with<br>screen | Additional<br>Spark<br>Batteries | 24" TV<br>with<br>Remote<br>Control | 32" TV<br>with<br>Remote<br>Control | 40" TV<br>with<br>Remote<br>Control | 43" TV<br>with<br>Remote<br>Control | 16" Fan | Torch | Radio | FM Radio | Radio with<br>Light | Phone<br>Charging<br>Cable | Alternative<br>Phone<br>Charging<br>Cable |
| Spark Start 10 **       | 3               | 1                | 1                 | 1            | -      | ı      | -      | 1      | 1   |                                  | -                                   |                                     |                                     | -                                   | -       | -     | 1     |          | 1                   | 1                          |   |
| Spark Start 10W_2L      | 1-2             | 0-1              | 1                 | 1            |        | 1      | -      | 1      | 1   |                                  | •                                   |                                     | -                                   | -                                   |         | -     | -     |          | 1                   | 0-1                        | 0-1                                       |
| Spark Start 10W_3L_R    | 2-3             | 0-1              | 1                 |              |        | -      |        | -      | 1   |                                  |                                     |                                     |                                     |                                     |         |       | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Start 12W_2L      | 1-2             | 0-1              |                   | 1            |        | -      |        | -      | 1   |                                  | -                                   |                                     |                                     |                                     |         |       |       |          | -                   | 0-1                        | 0-1                                       |
| Spark Start 12W_3L      | 2-3             | 0-1              |                   | 1            |        | -      |        | -      | 1   |                                  | -                                   |                                     |                                     |                                     |         |       |       |          |                     | 0-1                        | 0-1                                       |
| Spark Start 12W_3L_R    | 2-3             | 0-1              |                   | 1            |        | -      |        | -      | 1   |                                  | -                                   |                                     |                                     |                                     |         |       | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Start 12_4L_R     | 3-4             | 0-1              |                   | 1            | -      | -      |        | -      | 1   |                                  |                                     |                                     |                                     |                                     |         | -     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Start 20          | 3-4             | 0-1              |                   |              | 1      | -      |        | -      | 1   |                                  |                                     |                                     |                                     |                                     |         | -     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Start 20W_3L      | 2-3             | 0-1              |                   | -            | 1      | -      |        | -      | 1   |                                  |                                     |                                     |                                     |                                     |         | 1     |       |          | -                   | 0-1                        | 0-1                                       |
| Spark Start 20_4L       | 3-4             | 0-1              |                   |              | 1      | -      |        | -      | 1   |                                  |                                     |                                     |                                     |                                     |         |       |       |          |                     | 0-1                        | 0-1                                       |
| Spark Start 20_R        | 3-4             | 0-1              |                   |              | 1      | -      |        | -      | 1   |                                  | -                                   |                                     | -                                   |                                     |         |       | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Start 20W_3L_R    | 2-3             | 0-1              |                   |              | 1      | -      |        | -      | 1   |                                  | -                                   |                                     | -                                   | -                                   |         | 1     |       |          |                     | 0-1                        | 0-1                                       |
| Spark Start 20_4L_R     | 3-4             | 0-1              |                   |              | 1      | -      |        | -      | 1   |                                  |                                     |                                     |                                     |                                     |         |       |       |          |                     | 0-1                        | 0-1                                       |
| Spark Steady 30         | 3-4             | 0-1              |                   |              |        | 1      |        | -      | 1   | 1                                |                                     |                                     |                                     |                                     | 1       |       | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Steady 40         | 2-3             | 0-1              |                   |              | 2      | -      |        | -      | 1   | 1                                |                                     |                                     |                                     |                                     | 1       | 1     |       |          |                     | 0-1                        | 0-1                                       |
| Spark Steady 50         | 3-4             | 0-1              |                   |              |        | -      | 1      | -      | 1   | 1                                |                                     |                                     |                                     |                                     | 1       |       | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 50_24TV    | 3-4             | 0-1              |                   |              |        | -      | 1      | -      | 1   | 2                                | 1                                   |                                     |                                     |                                     |         |       | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 50_32TV    | 3-4             | 0-1              |                   | 1            |        | 1      | 1      | 1      | 1   | 2                                | 1                                   | 1                                   |                                     | -                                   |         |       | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 50_40TV    | 3-4             | 0-1              |                   | -            |        | 1      | 1      | -      | 1   | 2                                |                                     |                                     | 1                                   |                                     | -       | -     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 50_43TV    | 3-4             | 0-1              |                   |              |        |        | 1      | -      | 1   | 2                                |                                     |                                     |                                     | 1                                   |         | -     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 80_24TV    | 3-4             | 0-1              |                   | -            |        | -      |        | 1      | 1   | 2                                | 1                                   |                                     |                                     |                                     |         | 1     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 80_32TV    | 3-4             | 0-1              |                   |              |        | -      |        | 1      | 1   | 2                                |                                     | 1                                   |                                     |                                     |         | 1     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 80_40TV    | 3-4             | 0-1              |                   |              |        |        |        | 1      | 1   | 2                                |                                     |                                     | 1                                   |                                     |         |       | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 80_43TV    | 3-4             | 0-1              |                   |              |        | -      |        | 1      | 1   | 2                                | -                                   |                                     |                                     | 1                                   |         | -     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 80_40TV_6L | 5-6             | 0-1              | -                 | •            | -      | ı      | -      | 1      | 1   | 2                                |                                     |                                     | 1                                   | -                                   | -       | 1     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Strong 80_43TV_6L | 5-6             | 0-1              |                   | -            | -      | •      | -      | 1      | 1   | 2                                | -                                   |                                     |                                     | 1                                   |         | 1     | 0-1   | 0-1      | 0-1                 | 0-1                        | 0-1                                       |
| Spark Supreme 60_32TV   | 2-3             | 0-1              |                   | -            | 3      | -      |        | -      | 1   | 2                                |                                     | 1                                   |                                     |                                     | 1       | 1     |       |          |                     | 0-1                        | 0-1                                       |

| Spark Supreme 100_32TV         | 4-5 | 0-1 |   |   |   |   | 2 |   | 1 | 5 |   | 1 |   | 1 | 1 | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
|--------------------------------|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|-----|-----|
| Spark Supreme 100_40TV         | 4-5 | 0-1 | - |   | - | - | 2 | - | 1 | 5 |   | - | 1 | - | 1 | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 50_24TV_i         | 3-4 | 0-1 |   |   | - |   | 1 |   | 1 | 2 | 1 |   |   |   | - | - | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 50_32TV_i         | 3-4 | 0-1 |   |   | - |   | 1 |   | 1 | 2 |   | 1 |   |   |   | - | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 50_40TV_i         | 3-4 | 0-1 | - | - | - | - | 1 | - | 1 | 2 | - |   | 1 | - | - |   | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 50_43TV_i         | 3-4 | 0-1 |   |   | - |   | 1 |   | 1 | 2 |   |   |   | 1 |   | - | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 80_24TV_i         | 3-4 | 0-1 | - |   | - | - | - | 1 | 1 | 2 | 1 |   | - | - | - | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 80_32TV_i         | 3-4 | 0-1 | - | - | - | - | - | 1 | 1 | 2 |   | 1 | - | - | - | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 80_40TV_i         | 3-4 | 0-1 |   |   | - |   | - | 1 | 1 | 2 |   |   | 1 |   | - | - | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 80_43TV_i         | 3-4 | 0-1 | - |   | - | - | - | 1 | 1 | 2 |   |   | - | 1 |   | - | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 80_40TV_6L_i      | 5-6 | 0-1 | - | - | - | - | - | 1 | 1 | 2 | - |   | 1 | - | - | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong 80_43TV_6L_i      | 5-6 | 0-1 | - |   | - | - | - | 1 | 1 | 2 | - | - | - | 1 |   | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Supreme 60_32TV_i_F      | 2-3 | 0-1 | - | - | 3 | - | - | - | 1 | 2 |   | 1 | - | - | 1 | 1 |     | -   |     | 0-1 | 0-1 |
| Spark Supreme 100_32TV_i_F     | 4-5 | 0-1 | - |   | - | - | 2 | - | 1 | 5 |   | 1 | - | 1 | 1 | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Supreme 100_40TV_i_F     | 4-5 | 0-1 | - |   | - | - | 2 | - | 1 | 5 |   |   | 1 |   | 1 | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| Spark Strong<br>80_43TV_6L_i_F | 5-6 | 0-1 | - |   | - | - | - | 1 | 1 | 2 |   |   | - | 1 | 1 | 1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |

\*\*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

#### NOTICE:

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**

Rural Spark B.V. Spark Start Family

| System Name                | Available Daily Electrical Energy (Wh/day) | Includes ports for charging? |
|----------------------------|--|------------------------------|
| Spark Start 10****         | 36   | , J                          |
| Spark Start 10             | 36   | yes                          |
| Spark Start 20             | 47   | yes                          |
| Spark Start 20W_3L         | 47   | yes                          |
| Spark Steady 30            | 73   | yes                          |
| Spark Steady 40            | 100  | yes                          |
| Spark Steady 50            | 100  | yes                          |
| Spark Strong 50_24TV       | 150  | yes                          |
| Spark Strong 60_32TV       | 135  | yes                          |
| Spark Strong 80_32TV       | 135  | yes                          |
| Spark Supreme 100_32TV_i_F | 310  | yes                          |

<sup>\*\*</sup>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.