

# VeraSol

## Standardized Specifications Book

**Manufacturer:** Roofstar Technology Company Limited

**Component Family Name:** Flex 3e Family

**Date of Standardized Specifications Book Expiration:** May 31, 2024

**Verify Online:** <https://data.verasol.org/products/sek/me-flexefamily>

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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 requirements in IEC 62257-9-8.

**Revision:** 2023.08

# Component-Level Standardized Specifications Sheet

Roofstar Technology Company Limited

Flex 3e Family

## Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
LED Lantern	LiFePO4	3.2	3.3	3.4
Torch	LiFePO4	3.2	0.45	0.55
Radio	Li-Ion	3.7	1.5	1.5

## PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
3 W PV module	3	3.4
8 W PV module	8	7.6

## Light Sources\*

Name / Model Number	Luminous Flux Rating (lm)	Measured Luminous Flux (lm)	Measured Lamp Efficacy (lm/W)
	High	High	High
LED Lantern	160	180	110
Torch	30	28	110

## Appliances\*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (Ah)	Measured Battery Capacity (Ah)
Radio	Portable	3	0.4	1.5	1.5

**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 applicable 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

Roofstar Technology Company Limited

Flex 3e Family

System Name	Number of each component included in each system				
	LED Lantern	Torch	Radio	3 W PV	8 W PV
Flex 3e**	3	1	1	1	1
Flex 3	3	1		1	1
Flex 2e	2	1	1		1
Flex 2	2	1			1
Flex 1	1	1		1	

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

## **NOTICE:**

Only the Flex 3e Solar Home System 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 Flex 3e Solar Home System 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 applicable requirements in IEC 62257-9-8.

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

## **Warranty Information**

Two year warranty on all kits, and a one year warranty on all appliances

# Available Daily Electrical Energy and Port Information

Roofstar Technology Company Limited

Flex 3e Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
Flex 3e**	29	yes
Flex 2e	21	yes
Flex 1	9	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.