

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: 2022.11

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.