

VeraSol

Standardized Specifications Book

Manufacturer: Niwa - Next Energy Products Ltd.

Component Family Name: ENERGY 50 Family

Date of Standardized

Specifications Book Expiration: November 30, 2022

Verify Online: <https://data.verasol.org/products/sek/niwa-e50family>

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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*.

Quality Standards Framework Version: 2021

Revision: 2021.08

Component-Level Standardized Specifications Sheet

Niwa - Next Energy Products Ltd.

ENERGY 50 Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
10.4 Ah Main Unit Battery	Lithium iron phosphate	12.8	9.9	10
Mouse	Lithium-ion	3.7	0.5	--

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
50 W PV module	50	48

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)			Measured Luminous Flux (lm)			Measured Lamp Efficacy (lm/W)		
	High	Medium	Low	High	Medium	Low	High	Medium	Low
Home 300	300	100	50	290	100	--	150	110	--

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (Ah)	Measured Battery Capacity (Ah)
Desktop Computer	24" screen diagonal with power consumption of 12 W on (On).	13	12	--	--
15.6" Solar LED TV	12 V 15.6" TV	12	9.8	--	--
19" Solar LED TV	12 V 19" TV	--	not tested	--	--
24" Solar LED TV	12 V 24" TV	--	not tested	--	--
32" Solar LED TV	12 V 32" TV	35	14	--	--
Eco Air 9	12 V 9" Table Fan	6	6.2	--	--
Eco Air 16	12 V 16" Table Fan	9	9.6	--	--
Eco Air 16 Up	12 V 16" Stand Fan	9	9.6	--	--
Radio	3.7 V Li-Ion battery	--	0.34	1000	1000

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 Lighting Global Quality Standards or 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

Niwa - Next Energy Products Ltd.
ENERGY 50 Family

System Name	Number of each component included in each system									
	Home 300 Lamp	10.4 Ah battery	50 W PV Module	Computer	15.6" TV	32" TV	Eco Air 9 (9" table fan)	Eco Air 16 (16" table fan)	Eco Air 16 Up (16" stand fan)	Radio
ENERGY 50/ 3356** (ENERGY 50W)	3	1	1	1	0	0-1	0-1	0-1	0-1	0-1
ENERGY 50/ 3355 (ENERGY 50W)	3-10	1	1	--	0-1	0-1	0-1	0-1	0-1	0-1

**The Energy 50 3356 was tested as a full system. with computer, 32" TV and 16" Stand Fan. Individual SSS available on VeraSol website.

NOTICE:

Only the ENERGY 50 3356 was fully tested as a system according to Edition 4 of IEC 62257-9-5. Individual Standardized Specifications Sheets (SSS) that report system-level performance are available for the ENERGY 50 3356 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 Lighting Global Quality Standards or the 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 components except the TV and fan, which have a one-year warranty.

Marks and Certifications

Factory certification

ISO 9001:2015, ISO 14001:2015

Available Daily Electrical Energy and Port Information

Niwa - Next Energy Products Ltd.

ENERGY 50 Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
ENERGY 50/ 3356* (ENERGY 50W)	140	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.