

VeraSol Standardized Specifications Book

Manufacturer: Niwa Next Energy Products Ltd.

Component Family Name: HOME X Series Family

Date of Standardized Specifications

Book Expiration: August 31, 2022

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

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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.

Quality Standards Framework Version: 2020

Revision: 2021.02

Component-Level Standardized Specifications Sheet

Niwa Next Energy Products Ltd.

HOME X Series Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
3500 mAh Battery	Lithium iron phosphate	3.2	3.5	3.5
6500 mAh Battery	Lithium iron phosphate	3.2	6.5	6.5
12 Ah Battery	Lithium iron phosphate	3.2	12	12

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
4 W PV Module	4	3.9
8 W PV Module	8	8.2
15 W PV Module	15	14.1

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)		Measured Luminous Flux (lm)		Measured Lamp Efficacy (lm/W)	
	High	Low	High	Low	High	Low
LED Lamp	100	50	150	60	140	150

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (Ah)	Measured Battery Capacity (Ah)
Radio	3.7 V Li-ion Battery	--	0.34	1.0	1.0

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. 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.

HOME X Series Family

System Name	Number of each component included in each system							
	3500 mAh Battery	6500 mAh Battery	12 Ah Battery	4 W PV Module	8 W PV Module	15 W PV Module	LED Lamp	Radio
HOME X Family** (item number 5800)	--	1	--	--	1	-	4	0-1
PAYG HOME X Family	--	1	--	--	1	-	2-6	0-1
HOME X Starter (item number 0540)	1	--	--	1	--	-	2-4	0-1
PAYG HOME X Starter	1	--	--	1	--	-	2-4	0-1
HOME X Pro (item number 5150)	--	--	1	--	--	1	3-9	0-1
PAYG HOME X Pro	--	--	1	--	--	1	3-9	0-1

**Tested as full systems without a radio. Individual SSS available on VeraSol website.

NOTICE:

Only the HOME X Family was fully tested as systems according to Edition 4 of IEC 62257-9-5. An Individual Standardized Specifications Sheet (SSS) that reports system-level performance is available for the HOME X Family 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 Lighting Global Quality Standards.

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

Warranty Information

Two year warranty on all kits and components

Marks and Certifications

Factory certification	ISO 9001:2015
Safety certification	--
Other certification	--

Available Daily Electrical Energy

Niwa Next Energy Products Ltd.

HOME X Series Family

System Name	Available Daily Electrical Energy (Wh/day)
HOME X Family** (item number 5800)	20
HOME X Starter (item number 0540)	11
HOME X Pro (item number 5150)	39

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

This result is taken from the ESC calculations and is reported in its SSS

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.