

VeraSol

Standardized Specifications Book

Manufacturer: Bboxx Ltd

Component Family Name: bpower20 Family

Date of Standardized Specifications Book Expiration: October 31, 2022

Verify Online: <https://data.verasol.org/products/sek/bb-bpower20family>

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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: 2020

Revision: 2021.10

Component-Level Standardized Specifications Sheet

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bpower20 Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
bpower20 battery	Lithium iron phosphate	6.4	9.9	9.9
bpower10 battery	Lithium iron phosphate	6.4	6.6	6.8

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
10W PV	10	10
20W PV	20	20

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)	Measured Luminous Flux (lm)	Measured Lamp Efficacy (lm/W)
	High	High	High
Bulb	140	140	130
Torch	150	150	110

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (Ah)	Measured Battery Capacity (Ah)
Torch	150 lumen torch, Li-ion battery: 2.5Ah, 3.7V.	1.5	1.4	2.5	2.5
Radio	portable Li-ion battery: 2.2Ah, 3.7V.	--	0.66	2.4	2.2

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

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bpower20 Family

System Name	Number of each component included in each system				
	Bulb	Radio	Torch	20W PV	10W PV
bpower20 Solar Home System (PW-A01)**	3	1	1	1	--
bpower10 Solar Home System (PW-A02)	3	--	--	--	1

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

NOTICE:

Only the bpower20 (PW-A01) was fully tested as a system according to Edition 4 of IEC 62257-9-5. An individual Standardized Specifications Sheets (SSS) that reports system-level performance is available for the bpower20 (PW-A01) 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 or the requirements in IEC 62257-9-8.

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

Warranty Information

A minimum of 3 years warranty for the main units, solar panel and light, and 1 year warranty for other accessories.

Marks and Certifications

Factory certification

ISO 9001:2015 and ISO 14001:2015

Available Daily Electrical Energy and Port Information

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bpower20 Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
bpower20 Solar Home System (PW-A01)**	58	yes
bpower10 Solar Home System (PW-A02)	34	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.