VeraSol
Standardized Specifications Book

Manufacturer: Bboxx Ltd

Component Family Name: bPower50 Family

Date of Standardized Specifications Book Expiration: June 30, 2025

Verify Online: https://data.verasol.org/products/sek/bb-bpower

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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.

<u>NOTICE</u>: 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 IEC TS 62257-9-8.

Quality Standards Framework Version: 2024
Revision: 2025.06

Component-Level Standardized Specifications Sheet
Bboxx Ltd
bPower50 Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (mAh)	Measured Battery Capacity (mAh)
bPower50 (PW-B05)	Lithium iron phosphate	12.8	13200	13300
bPower50 (PW-B07)	Lithium iron phosphate	12.8	9900	10000
Torch Battery	Lithium ion	3.7	2500	2550
Radio Battery	Lithium ion	3.7	2400	2400

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
50 W PV module / SP00020101	50	51
80 W PV module / SP00030101	80	76

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)			Measured Luminous Flux (lm)			Measured Lamp Efficacy (lm/W)		
	low	medium	high	low	medium	high	low	medium	high
LED lamp / LI02070101	85	120	170	Not tested	Not tested	180	Not tested	Not tested	130
Tube light / LI02060101	70	140	200	Not tested	Not tested	230	Not tested	Not tested	150
Torch / LI0204	50	110	160	Not tested	Not tested	180	Not tested	Not tested	130

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (mAh)	Measured Battery Capacity (mAh)
Torch / LI0204	180 lumens torch, (Li-ion battery: 2.6 Ah, 3.7 V)	1.5	1.4	2500	2550
Optimized TV 24" / TV00080101	24" diagonal (9.6 W power consumption while in-use)	16	9.6	--	--
Radio / AC0094	portable (Li-ion battery: 2.4 Ah, 3.7 V), with a power consumption of 3.4 W while in-use	3	3.4	2400	2400

*Light points and appliances may perform differently when used with different systems.

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 IEC TS 62257-9-8:2020. 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).

List of Covered Systems
Bboxx Ltd
bPower50 Family

System Name	Number of each component included in each system								
	LED lamp (LI0202)	Torch (LI02070101)	Tube light (LI02060101)	Radio (AC0094)	Optimized TV 24" (TV00080101)	Control Unit 13.2 Ah (BW-B05)	Control Unit 9.9 Ah (PW-B07)	50 W PV module (SP00020101)	80 W PV module (SP00030101)
bPower50-80W PW-B05º	4	1	1	1	1	1	--	--	1
bPower50-50W PW-B05º **	4	1	1	1	1	1	--	1	--
bPower50-80W PW-B07º	3	1	1	1	1	--	1	--	1
bPower50-50W PW-B07º	3	1	1	1	1	--	1	1	--

**Tested as full systems. Individual SSS available on VeraSol website.
ºKit has PAYG function

NOTICE:

Only the kits denoted with ** were tested as full systems according to Edition 4 of IEC 62257-9-5 and passed IEC 62257-9-8 standards. An Individual Standardized Specification Sheet (SSS) that reports system-level performance is available for these systems at 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 IEC 62257-9-8.

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

Warranty Information

A 2-year warranty covering manufacturing defects in the control unit, PV module, and lights and a 1-year warranty for all other accessories.

Available Daily Electrical Energy and Port Information
Bboxx Ltd
bPower50 Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
bPower50-80W PW-B05º	180	yes
bPower50-50W PW-B05º**	160	yes
bPower50-80W PW-B07º	130	yes
bPower50-50W PW-B07º	130	yes

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

ºKit has PAYG function

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.