

VeraSol

Standardized Specifications Book

Manufacturer: Bboxx Ltd.

Component Family Name: bPower80/120/160/240 Family

Date of Standardized Specifications Book Expiration: May 31, 2025

Verify Online: <https://data.verasol.org/products/sek/bb-bpower160family>

Contact Information: c.baker-brian@bboxx.co.uk

Website: www.bboxx.com



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 IEC TS 62257-9-8.

Quality Standards Framework Version: 2023

Revision: 2023.10

Component-Level Standardized Specifications Sheet

Bboxx Ltd.

bPower80/120/160/240 Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
bPower80 (PW-D01) battery	Lithium iron phosphate	12.8	6.6	6.76
bPower120 (PW-D02) battery	Lithium iron phosphate	12.8	9.9	10.3
bPower160 (PW-D03) battery	Lithium iron phosphate	12.8	13.2	13.7
bPower240 (PW-D04) battery	Lithium iron phosphate	12.8	19.8	20.1
3.7 V 2.4 Ah Battery (radio)	Lithium ion	3.7	2.5	2.5

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
35 W PV (SP00010101)	35	37
50 W PV (SP00020101)	50	51
80 W PV (SP00030101)	80	76
100 W PV (SP00040101)	100	97

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
1.4 W dimmable bulb (LI0202)	160	110	50	190	130	--	150	150	--
1.3 W dimmable bulb (LI02070101)	170	120	85	180	--	--	130	--	--
1.4 W 12 V Tubelight (LI02060101)	200	140	70	230	--	--	150	--	--
Torch (LI0204)	160	110	50	180	--	--	130	--	--

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (Ah)	Measured Battery Capacity (Ah)
Torch (LI0204)	160 lumen torch, Li-ion battery: 2.5Ah, 3.7V.	1.5	1.4	2.5	2.5
Radio (AC0094)	portable Li-ion battery: 2.4Ah, 3.7V.	3	0.72	2.4	2.4
Secure 24" Television (TV00040201)	24" diagonal	10	8.7	--	--
Secure 32" Television (TV00050201)	32" diagonal	13	13	--	--
Secure 39" Television (TV00070201)	39" diagonal	15	14	--	--

*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.

bPower80/120/160/240 Family

System Name	Number of each component included in each system															
	1.4 W, 160 lm dimmable light	1.3 W, 170 lm dimmable light	Tubelight	Torch	Radio	24" TV	32" TV	39" TV	bPower80 (PW-D01) battery	bPower120 (PW-D02) battery	bPower160 (PW-D03) battery	bPower240 (PW-D04) battery	35 W PV	50 W PV	80 W PV	100 W PV
bPower80 Kit 01	3	--	--	1	1	1	--	--	1	--	--	--	1	--	--	--
bPower80 Kit 02	3	--	1	1	1	1	--	--	1	--	--	--	1	--	--	--
bPower80 Kit 03	--	3	--	1	1	1	--	--	1	--	--	--	1	--	--	--
bPower80 Kit 04	--	3	1	1	1	1	--	--	1	--	--	--	1	--	--	--
bPower120 Kit 01	4	--	--	1	1	--	1	--	--	1	--	--	--	1	--	--
bPower120 Kit 02	4	--	1	1	1	--	1	--	--	1	--	--	--	1	--	--
bPower120 Kit 03	--	4	--	1	1	--	1	--	--	1	--	--	--	1	--	--
bPower120 Kit 04	--	4	1	1	1	--	1	--	--	1	--	--	--	1	--	--
bPower160 Kit 01 **	4	--	--	1	1	--	1	--	--	--	1	--	--	--	1	--
bPower160 Kit 02	4	--	1	1	1	--	1	--	--	--	1	--	--	--	1	--
bPower160 Kit 03	--	4	--	1	1	--	1	--	--	--	1	--	--	--	1	--
bPower160 Kit 04	--	4	1	1	1	--	1	--	--	--	1	--	--	--	1	--
bPower240 Kit 01	4	--	--	1	1	--	--	1	--	--	--	1	--	--	--	1
bPower240 Kit 02	4	--	1	1	1	--	--	1	--	--	--	1	--	--	--	1
bPower240 Kit 03	--	4	--	1	1	--	--	1	--	--	--	1	--	--	--	1
bPower240 Kit 04	--	4	1	1	1	--	--	1	--	--	--	1	--	--	--	1

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

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 minimum of 2 years warranty for the main units, solar panel and lights, and 1 year warranty for other accessories.

Available Daily Electrical Energy and Port Information

Bboxx Ltd.

bPower80/120/160/240 Family

System Name	Available Daily Electrical Energy (Wh/day)	Includes ports for charging?
bPower80 Kit 01	96	yes
bPower120 Kit 01	140	yes
bPower160 Kit 01**	200	yes
bPower240 Kit 01	260	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.