

# VeraSol Standardized Specifications Book

**Manufacturer:** Omnivoltaic Energy Solutions Co., Ltd

**Component Family Name:** ovCamp

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**Verify Online:** <https://data.verasol.org/products/sek/omni-ovcampfamily>

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This VeraSol 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:** 2021.03

# Component-Level Standardized Specifications Sheet

Omnivoltaic Energy Solutions Co., Ltd

ovCamp

## Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (mAh)	Measured Battery Capacity (mAh)
3.2 Ah battery	Lithium Iron Phosphate	12.8	3200	3200
6 Ah battery	Lithium Iron Phosphate	12.8	6000	5960
9.6 Ah battery	Lithium Iron Phosphate	12.8	9600	Not Tested
12.8 Ah battery	Lithium Iron Phosphate	12.8	12800	Not Tested
18 Ah battery	Lithium Iron Phosphate	12.8	18000	18000
Torch battery	Lithium Iron Phosphate	3.2	500	630

## PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
12 W PV Module	12	12
20 W PV Module	20	22
30 W PV Module	30	Not Tested
35 W PV Module	35	Not Tested
40 W (2 X 20 W) PV Module	40	Not Tested
55 W PV Module	55	52
75 W PV Module	75	75

## Light Sources\*

Name / Model Number	Luminous Flux Rating (lm)	Measured Luminous Flux (lm)	Measured Lamp Efficacy (lm/W)
	On	On	On
1 W bulb	100	120	110
2 W bulb	200	210	110
4 W bulb	390	410	100
L190	190	190	140
Torch Side Light (High)	40	46	140
Torch Front Light	33	39	120

## Appliances\*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (mAh)	Measured Battery Capacity (mAh)
olar Powered Radio (RD/SPRD-)	portable radio with internal battery charges via USB	3	0.39*	1000	970
24" TV	12 V Television	10	10	--	--
32" TV	12 V Television	15	10	--	--

\*The power test is conducted according to IEC 62087-6:2015 (test procedure) and IEC 62087-1:2015 (test equipment requirement)

**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

Omnivoltaic Energy Solutions Co., Ltd  
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System Name*	Number of each component included in each system																			
	1 W Bulb	2 W Bulb	4 W Bulb	L190	Torch	Radio	3.2 Ah battery	6 Ah battery**	9.6 Ah battery	12.8 Ah battery**	18 Ah battery	12 W PV Module	20 W PV Module	30 W PV Module	35 W PV Module	40 W (2 x 20 W) PV Module	55 W PV Module	75 W PV Module	24" TV	32" TV
HS2-36_LB1122	2	2	--	--	1	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--
HS2-36_LBxxxxxx	--	--	--	--	1	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--
HS2-36_LB1122_RD	2	2	--	--	1	1	1	--	--	--	1	--	--	--	--	--	--	--	--	--
HS2-72_LBxxxxxx	--	--	--	--	1	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--
HS2-72_LB2222_KEYP_RD (SW80 Lite)†	--	4	--	--	--	0-1	--	1	--	--	1	--	--	--	--	--	--	--	--	--
HS2-72_LB2222_KEYP_RD (SW80 Lite)	--	4	--	--	--	0-1	--	1	--	--	--	1	--	--	--	--	--	--	--	--
HS2-72_LB222222_RD_EX33_TC33	--	6	--	--	1	1	--	1	--	--	--	1	--	--	--	--	--	--	--	--
HS2-108_LBxxxxxx	--	--	--	--	1	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--
HS2-144_LB2244	--	2	2	--	1	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--
HS2-144_LBxxxxxx	--	--	--	--	1	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--
HS2-180_LBxxxxxx	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--
HS2-230_LBXXXXXX	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--
HS2-230_LB2_RD	--	1	--	--	1	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--
HS2-230_LB124_KEYP***	1	1	1	--	1	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--
HS2-23055_LB444_L190_KEYP	--	--	3	1	1	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--
HS2A-72_LBxxxxxx	--	--	--	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--
HS2A-108_LBxxxxxx	--	--	--	--	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--
HS2A-144_LBxxxxxx	--	--	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--
HS2A-180_LBxxxxxx	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--
HS2A-230_LBXXXXXX	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--
HS2A-23055_LB444_L190_KEYP	--	--	3	1	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--
HS2B-72_LBxxxxxx	--	--	--	--	1	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--
HS2B-108_LBxxxxxx	--	--	--	--	1	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--
System Name*	1 W Bulb	2 W Bulb	4 W Bulb	L190	Torch	Radio	3.2 Ah battery	6 Ah battery**	9.6 Ah battery	12.8 Ah battery**	18 Ah battery	12 W PV Module	20 W PV Module	30 W PV Module	35 W PV Module	40 W (2 x 20 W) PV Module	55 W PV Module	75 W PV Module	24" TV	32" TV
HS2B-144_LBxxxxxx	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--
HS2B-144_LB222_TV24_SRF	--	3	--	--	1	--	--	--	--	1	--	--	--	--	--	--	1	--	1	--
HS2B-144_LB2222_RD_TV24_SRF_EX3_TC3	--	4	--	--	1	1	--	--	--	1	--	--	--	--	--	--	1	--	1	--
HS2B-144_LB2222_TV24_SRF_EX3_TC3	--	4	--	--	1	--	--	--	--	1	--	--	--	--	--	--	1	--	1	--
HS2B-144_LB2222_TV24_EX3_TC3_DP15	--	4	--	--	1	--	--	--	--	1	--	--	--	--	--	--	1	--	1	--
HS2B-180_LBxxxxxx	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--
HS2C-72_LBxxxxxx	--	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--
HS2C-72_LB224_RD	--	2	1	--	--	1	--	1	--	--	--	--	1	--	--	--	--	--	--	--
HS2C-108_LBxxxxxx	--	--	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--
HS2C-144_LBxxxxxx	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--
HS2C-144_LB4_RD	--	--	1	--	--	1	--	--	--	1	--	--	--	--	--	--	1	--	--	--
HS2C-144_LB2222_KEYP_P (SW155)‡	--	4	--	--	1	0-1	--	--	--	1	--	--	--	--	--	--	1	--	0-1	0-1
HS2C-180_LBxxxxxx	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
HS2C-180_LB222	--	3	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
HS2D-72_LBxxxxxx	--	--	--	--	1	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--
HS2D-108_LBxxxxxx	--	--	--	--	1	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--
HS2D-108_LB222_TV24_SRF	--	3	--	--	1	--	--	1	--	--	--	--	--	--	--	--	1	--	1	--
HS2D-108_LB2222_RD_TV24_SRF_EX3_TC3	--	4	--	--	1	1	--	--	1	--	--	--	--	--	--	--	1	--	1	--
HS2D-108_LB2222_TV24_EX3_TC3_DP15	--	4	--	--	1	--	--	1	--	--	--	--	--	--	--	--	1	--	1	--
HS2D-108_LB2222_TV24_SRF_EX3_TC3_DP15	--	4	--	--	1	--	--	1	--	--	--	--	--	--	--	--	1	--	1	--
HS2D-144_LBxxxxxx	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--
HS2D-144_LB2224_EX3_TC3	--	3	1	--	1	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--
HS2D-144_LB222222_TV32_SRF_EX333_TC333	--	6	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	1	--	1

System Name*	1 W Bulb	2 W Bulb	4 W Bulb	L190	Torch	Radio	3.2 Ah battery	6 Ah battery**	9.6 Ah battery	12.8 Ah battery**	18 Ah battery	12 W PV Module	20 W PV Module	30 W PV Module	35 W PV Module	40 W (2 x 20 W) PV Module	55 W PV Module	75 W PV Module	24" TV	32" TV
HS2D-144_LB222222_RD_TV32_SRF_EX333_TC333	--	6	--	--	1	1	--	--	--	1	--	--	--	--	--	--	--	1	--	1
HS2D-144_LB222222_TV32_SRF_EX333_TC333	--	6	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	1	--	1
HS2D-144_LB222222_TV32_EX3333_TC3333_DP15	--	6	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	1	--	1
HS2E-72_LBxxxxxx	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--
HS2E-72_LB2222_KEYP_P (SW80)§	--	4	--	--	1	1	--	1	--	--	--	--	--	--	1	--	--	--	1	--
HS2E-72_LB2222_KEYP_P (SW80)§	--	4	--	--	1	1	--	1	--	--	--	--	--	--	1	--	--	--	1	--
HS2E-108_LBxxxxxx	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--
HS2Z-230_LB444_L190_KEYP	--	--	3	1	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--
HS2Z-230_LB444_L190_KEYP_EX333	--	--	3	1	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--

\*\*\*Tested as full system. Individual SSS available on VeraSol website.

These SKUs are interpreted as follows. In **HS2y-ZZPV\_LBxxxxxx\_P\_PAYG\_Q**,

- **y**: can be blank or A, B, C, D, E or Z;
  - blank, B, and D are used to represent a torch is included in the kit;
  - A, C and E are used to represent a torch is not included in the kit.
  - Z: is used to indicate that one size smaller PV module is included in the kit as compared to the equivalent kit with blank, A, B, C, D or E,
- For example, HS2-230 kit includes an 18 Ah battery and 75 W PV module, but HS2Z-230 includes an 18 Ah battery and 55 W PV module
- Each letter represents a different combination of battery and solar module; please reference the examples in the table above.
- **ZZ**: can be 36, 72, 108, 144, 180 or 230 and is used to represent different battery capacity of 3.2 Ah, 6 Ah, 9.6 Ah, 12.8 Ah or 18 Ah (180 and 230), respectively;
- **PV**: can be 12, 20, 30, 35, 40, 55 or 75 and is used to represent different PV module sizes
- **xxxxxx**: each x can be either 1, 2, 4 or blank, and is used to represent the type and number of light bulbs (1 W, 2 W or 4 W) included with the kit. For example, LB2244 includes two 2 W bulbs and two 4 W bulbs.
- **P**: can be VeraSol certified products like RD (radio) or TV24 or TV24\_SRF or TV32 or TV32\_SRF or blank
- **PAYG**: can be KEYP or GSMP, which are options for pay-as-you-go code inputs
- **Q**: can be TCx, EXx, PEx or DP15 and indicates T-type connector (TC); 3 m extension cable (EX); 3 m panel extension cable (PE); 1.5 m appliance power cable (DP15); 300 mm parallel cable (PP03); 500 mm parallel cable (PP05); and x indicates the number of connectors or cables.

\*\*These batteries are also distributed by SolarWorks! Component names: CEHP-6AHS and CEHP 12.8AHS. The SolarWorks! versions have different housing, but otherwise are the same as the Omnivoltaic batteries.

†This product is also sold by SolarWorks! (model number: SW80 Lite).

For more details visit the product's listing: <https://data.verasol.org/products/sek/omni-ovcampfamily>

‡This product is also sold by SolarWorks! (model number: SW155).

For more details visit the product's listing: <https://data.verasol.org/products/sek/omni-ovcampfamily>

§This product is also sold by SolarWorks! (model number: SW80).

#### NOTICE:

Only the HS2-230\_LB124\_KEYP was fully tested as a system according to Edition 4 of IEC 62257-9-5. Individual A Standardized Specifications Sheet (SSS) that reports system-level performance is available for the HS2-230\_LB124\_KEYP at [www.data.verasol.org/products/sek](http://www.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

A two-year warranty covers the battery, solar panel, and LED bulbs. A one-year warranty covers the TV and radio.

#### Marks and Certifications

Factory certification | ISO 9001:2015