VeraSol
Standardized Specifications Book

Company Name: Shenzhen LEMI Technology Development Co., Ltd.

Brand Name: Shenzhen LEMI

Component Family Name: SHS LFP Family

Date of Standardized Specifications Book Expiration: December 31, 2025

Verify Online: https://data.verasol.org/products/sek/lemi-lfpfamily

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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 IEC TS 62257-9-8.

Quality Standards Framework Version: 2024

Revision: 2025.1

Component-Level Standardized Specifications Sheet

Shenzhen LEMI Technology Development Co., Ltd.

SHS LFP Family

Battery / Control Box

Name / Model Number	Battery Chemistry	Nominal Voltage (V)	Battery Capacity Rating (Ah)	Measured Battery Capacity (Ah)
LM-LFP010	LiFePO4	12.8	4	4
LM-LFP015	LiFePO4	12.8	6	not tested
LM-LFP020	LiFePO4	12.8	8	not tested
LM-LFP030	LiFePO4	12.8	12	12
LM-LFP045	LiFePO4	12.8	16	not tested
LM-LFP060	LiFePO4	12.8	24	24
LM-LFP080	LiFePO4	12.8	30	not tested
LM-LFP100	LiFePO4	12.8	36	35
LM-SHSLFP-050	LiFePO4	12.8	18	19
Torch	Li-Ion	3.7	2	1.9

PV Module

Name / Model Number	Peak Power at STC Rating (W)	Measured Peak Power at STC (W)
10 W PV module (poly-si)	10	9.5
10 W PV module (mono-si)	10	9.4
15 W PV module (poly-si)	15	14
15 W PV module (mono-si)	15	14
20 W PV module (poly-si)	20	not tested
20 W PV module (mono-si)	20	not tested
30 W PV module (poly-si)	30	28
30 W PV module (mono-si)	30	28
45 W PV module (poly-si)	45	not tested
45 W PV module (mono-si)	45	not tested
50 W PV module (poly-si)	50	44
50 W PV module (mono-si)	50	47
60 W PV module (poly-si)	60	not tested
60 W PV module (mono-si)	60	not tested
80 W PV module (poly-si)	80	not tested
80 W PV module (mono-si)	80	not tested
100 W PV module (poly-si)	100	96
100 W PV module (mono-si)	100	92

Light Sources*

Name / Model Number	Luminous Flux Rating (lm)	Measured Luminous Flux (lm)	Measured Lamp Efficacy (lm/W)
	On	On	On
2 W lamp	190	250	120
3 W lamp	280	not tested	not tested
5 W lamp	550	520	120
5 W Tubelight	--	630	130
Torch	--	56	87

Appliances*

Name / Model Number	Description	Rated Power (W)	Measured Power During Use (W)	Rated Battery Capacity (Ah)	Measured Battery Capacity (Ah)
Radio	Portable radio with 1.2 Ah Li-Ion (3.2 V) battery	3	1.8	1.2	1.2
12" fan	12" table fan	12	12	--	--
16" fan	16" pedestal fan	14	14	--	--
24" TV	24" diagonal TV	15	11	--	--
32" TV	32" diagonal TV	26	20	--	--

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 Quality Standards or 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

Shenzhen LEMI Technology Development Co., Ltd.

SHS LFP Family

System Name	Number of each component included in each system																																								
	2 W lamp	3 W lamp	5 W lamp	5 W tubelight	Torch	Main unit with 4Ah LiFePO4 battery	Main unit with 6Ah LiFePO4 battery	Main unit with 8Ah LiFePO4 battery	Main unit with 12Ah LiFePO4 battery	Main unit with 16Ah LiFePO4 battery	Main unit with 18Ah LiFePO4 battery	Main unit with 20Ah LiFePO4 battery	Main unit with 24Ah LiFePO4 battery	Main unit with 28Ah LiFePO4 battery	Main unit with 30Ah LiFePO4 battery	Main unit with 36Ah LiFePO4 battery	10 W PV module (poly-si)	10 W PV module (mono-si)	15 W PV module (poly-si)	15 W PV module (mono-si)	20 W PV module (poly-si)	20 W PV module (mono-si)	30 W PV module (poly-si)	30 W PV module (mono-si)	45 W PV module (poly-si)	45 W PV module (mono-si)	50 W PV module (poly-si)	50 W PV module (mono-si)	60 W PV module (poly-si)	60 W PV module (mono-si)	80 W PV module (poly-si)	80 W PV module (mono-si)	100 W PV module (poly-si)	100 W PV module (mono-si)	Radio	12" fan	16" fan	24" TV	32" TV
LM-LFP010	3	--	--	0-1	0-1	1	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--
LM-LFP015	3	--	--	0-1	0-1	--	1	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--
LM-LFP020	3	--	--	0-1	0-1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--
LM-LFP020	3	--	--	0-1	0-1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--
LM-LFP030	--	3	--	0-1	0-1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--	--	--	--	--	--	--	--	0-1	0-1	0-1	0-1	0-1
LM-LFP045	--	3	--	0-1	0-1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--	--	--	--	--	--	0-1	0-1	0-1	0-1	0-1
LM-LFP060	--	3	--	0-1	0-1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	--	--	0-1	0-1	0-1	0-1	0-1
LM-LFP080	--	--	4	0-1	0-1	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	--	--	0-1	0-1	0-1	0-1	0-1
LM-LFP100**	--	--	4	0-1	0-1	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	0-1	0-1	0-1	0-1	0-1
LM-SHSLFP-050†	--	3	--	0-1	0-1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0-1	0-1	0-1	0-1	0-1
LM-LFP*-B**-2(*)3(*)5(*)**	Please refer to the descriptions below regarding this product code.																																								
LM-SHSLFP-*-B**-2(*)3(*)5(*)**	Please refer to the descriptions below regarding this product code.																																								
LM-SHSKP*-LFP**-2(*)3(*)5(*)**	Please refer to the descriptions below regarding this product code.																																								

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

†The LM-SHSLFP-050 is pay-as-you-go enabled.

These SKUs are interpreted as follows.

Kits without PAYG are labeled LM-LFP***-B**-2(*)3(*)5(*), and kits with RFID PAYG are labeled LM-SHSLFP-***-B**-2(*)3(*)5(*), and kits with KEYPAD PAYG are labeled LM-SHSKP***-LFP**-2(*)3(*)5(*).

*** stands for the power of PV module, including 010(10W), 015(15W), 020(20W), 030(30W), 045(45W), 050(50W), 060(60W), 080(80W), 100(100W); ** stands for the capacity of the LiFePO4 battery, including 4.0(4Ah), 6.0(6Ah), 8.0(8Ah), 12(12Ah), 16(16Ah), 18(18Ah), 20(20Ah), 24(24Ah), 28(28Ah), 30(30Ah), 36(36Ah);
2 stands for 2W LED bulb, 3 stands for 3W LED bulb, 5 stands for 5W LED bulb;
(*) stands for the quantity of LED bulbs.

NOTICE:

Only the LM-LFP100 was fully tested as a system according to Edition 4 of IEC 62257-9-5. Individual Standardized Specifications Sheets (SSS) that report system-level performance are available for the LM-LFP100 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

Three year warranty on all system components. One year warranty on additional appliances (torch, radio, TV, fan).

Available Daily Electrical Energy and Port Information

Shenzhen LEMI Technology Development Co., Ltd.

SHS LFP Family

System Name	Available Daily Electrical Energy (Wh/day)
LM-LFP010	37
LM-LFP015	49
LM-LFP020	76
LM-LFP030	110
LM-LFP045	160
LM-LFP060	210
LM-LFP080	310
LM-LFP100**	350
LM-SHSLFP-50	180
LM-LFP080-B18-3(3)	250
LM-LFP100-B28-2(3)	340

****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.