EFFEKTA®

Lithium Energy Storage System

NEW

lithium

FORCE-L

Solar Lithium storage system
48 VDC, up to 24.86 kWh (L1)
48 VDC, up to 14.21 kWh (L2)

The FORCE-L systems are battery storage systems for home applications based on lithium iron phosphate batteries, some of the new energy storage products developed and manufactured by Pylontech. They can be used to support reliable power supply for various types of appliances and systems. FORCE-L systems are particularly suitable for application scenes where high power, limited installation space, limited load capacity and long life are required. They have a modular structure and can be easily installed and expanded by plugging them into each other.

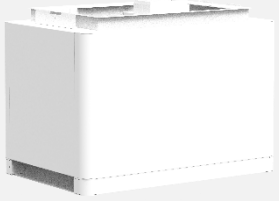
Characteristics

- Very high cycle stability of over 6000 charge/discharge cycles
- Very high depth of discharge (DoD) up to 95% @ 25°C
- Design life up to 15 years
- Extremely simple installation and commissioning for enormous time savings
- Compatible with many popular hybrid inverters
- Modular system for easy and fast capacity expansion
- Absolutely intrinsically safe lithium technology – Lithium iron phosphate / LiFePo4

FORCE L1 controller

FORCE L1 battery module

FORCE L2 controller



FORCE L2 battery module

Further features

- Very high storage density - low weight and compact design
- Up to 15 batteries can be used in a modular way *Cabinet systems and constellations on request
- Modular system for individual scaling
- 7-year warranty

The FORCE L1 and FORCE L2 storage systems consist of lithium iron phosphate (LiFePo4) accumulators with a battery management system, or BMS for short, which constantly monitors the status of the accumulators down to the individual cells and protects them from overcharging, overvoltage and overtemperature, among other things.

In this way, the BMS prevents premature failure of the batteries due to environmental influences or incorrect use.

The modular design allows the individual configuration of the storage system to the required capacity by simply interconnecting the desired number of modules.

Specifications

Battery module	L1 (FL48074)	L2 (FL4874M)
Cell technology	Lithium-Iron-phosphat (LiFePo4)	Lithium-Iron-phosphat (LiFePo4)
Battery Module Voltage	48 V	48 V
Battery Module Capacity	74 Ah / 3,552 kWh	74 Ah / 3,552 kWh
Communication	RS485, CAN	RS485, CAN
Weight / Dimensions	36,5 kg / 600 x 380 x 170 (W x D x H in mm)	35,5 kg / 450 x 296 x 296 (W x D x H in mm)
Operation Temperature	+0... +50°C	
Design life / Cycle life	> 15 years @ 25°C / > 6000 cycles @ 25°C	
Transfer Certificate	UN38.3	

Controller (BMS)	L1 (FC0048-100S)	L2 (FC0048M-100S)
Dimensions (W x D x H in mm)	600 x 380 x 150	450 x 296 x 190
Weight	appr.10 kg	
Communication	Modbus RTU\CAN	

Model overview FORCE-L1	Larger systems with up to 7 battery modules and up to 24.86 kWh / 518 Ah available on request		
Battery module quantity	2	3	4
Battery System Capacity	7,1 kWh / 148 Ah	10,65 kWh / 222 Ah	14,21 kWh / 296 Ah
Battery System Voltage	48 VDC		
Battery System Charge Upper-Voltage	53,5 VDC		
Battery System Discharge Lower-Voltage	44,5 VDC		
Battery System Charge/Discharge current	max. 75 A	max. 100 A	
Dimensions (W x D x H in mm)	600 x 380 x 530	600 x 380 x 700	600 x 380 x 870
Weight in kg	86,5	123	159,5
Protection Class	IP55		
Product Certificate	VDE2510-50, IEC62619, CE RED, IEC62477-1		
Model overview FORCE-L2	**A maximum of 4 modules can be combined to form an L2 system with max. 14.2 kWh / 296 Ah**		
Battery module quantity	2	3	4
Battery System Capacity	7,1 kWh / 148 Ah	10,65 kWh / 222 Ah	14,21 kWh / 296 Ah
Battery System Charge Upper-Voltage	53,5 VDC		
Battery System Discharge Lower-Voltage	44,5 VDC		
Battery System Charge/Discharge current	max. 75 A	max. 100 A	
Battery System Voltage	48 VDC		
Dimensions (W x D x H in mm)	450 x 296 x 822	1120 x 450 x 296	1415 x 450 x 296
Weight in kg	82	117,5	153
Protection Class	IP55		
Product Certificate	VDE2510-50, IEC62619, CE RED, IEC62477-1		