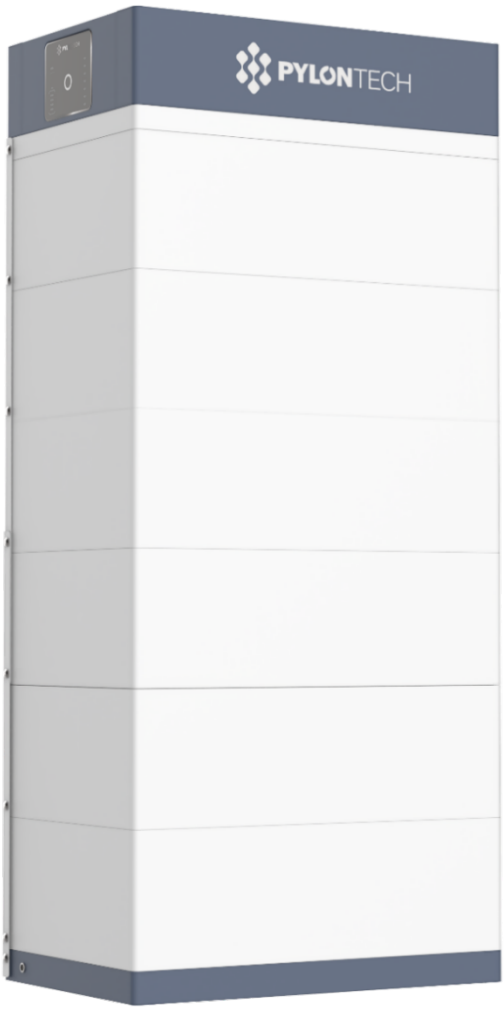
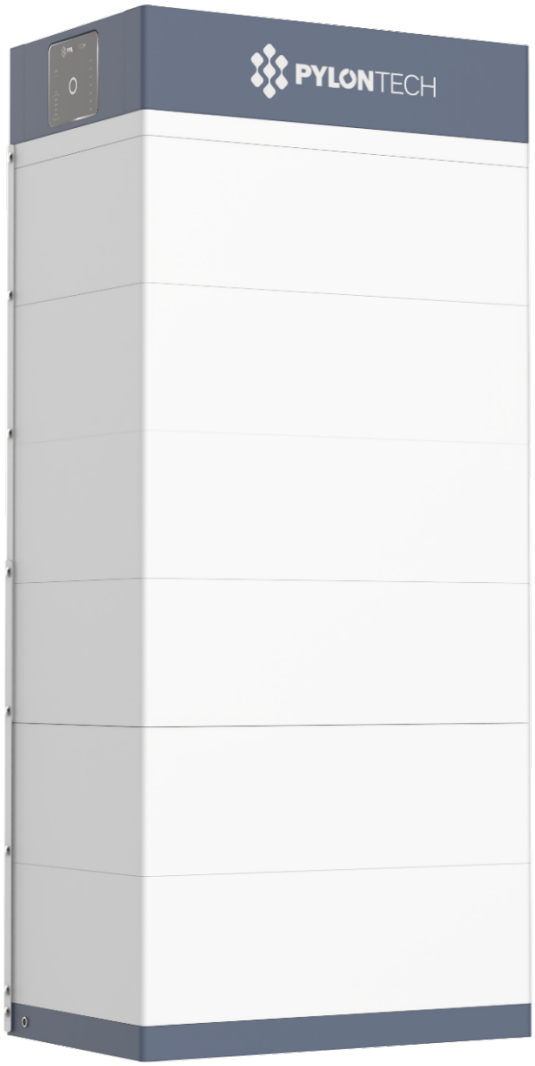


Lithium Iron Phosphate (LFP)
Battery Energy Storage System
Force-H3 Datasheet

Information Version: 0.2

System Overview

Force-H3 is a high voltage battery storage system based on lithium iron phosphate battery, which is one of the new energy storage products developed and produced by Pylontech. It can be used to provide reliable power for various types of equipment and systems. The system enables multiple strings parallel operation feature, which provides tremendous flexibility in system design and configuration. The system is especially suitable for those application scenarios which require flexible capacity extension, high power output, limited installation space, restricted load-bearing and long cycle life.



NOTE: The above picture is just for reference. The quantity of the battery modules is based on your practical system.

Single String System Specifications

Specifications	Force-H3 in Single String						
Model Name	Force-H3-102.4/102.4	Force-H3-102.4/204.8	Force-H3-102.4/307.2	Force-H3-102.4/409.6	Force-H3-102.4/512	Force-H3-102.4/614.4	Force-H3-102.4/716.8
Battery System Energy (kWh)	5.12	10.24	15.36	20.48	25.6	30.72	35.84
Usable Energy of the Battery System (kWh)	5.12	10.24	15.36	20.48	25.6	30.72	35.84
Battery System Voltage (VDC)	102.4	204.8	307.2	409.6	512	614.4	716.8
Battery System Capacity (Ah)	50						
Control Module Model	FC1000						
Battery Module Model	FH10050						
Battery Module Quantity (pc)	1	2	3	4	5	6	7
Battery Module Energy (kWh)	5.12						
Rated DC power (kW)	5.12	10.24	15.36	20.48	25.6	30.72	35.84
Battery Module Voltage (VDC)	102.4						
Battery Module Capacity (Ah)	50						
Usable battery capacity (Ah)	47.5						
Battery System Charge Upper Voltage (VDC)	116.8	233.6	350.4	467.2	584	700.8	817.6
Battery System Charge Current (Amps, Standard)	10						
Battery System Charge Current (Amps, Rated)	50						
Battery System Charge Current (Amps, maximum @15minutes)	55						
Battery System Discharge Lower Voltage (VDC)	92.8	185.6	278.4	371.2	464	556.8	649.6

Specifications	Force-H3 in Single String						
Battery System Discharge Current (Amps, Standard)	10						
Battery System Discharge Current (Amps, Rated)	50						
Battery System Discharge Current (Amps, maximum @15 minutes)	55						
Short circuit rating	4500 Amps /1 milliseconds						
Efficiency (% at 0.5C-rate)	96						
Depth of Discharge (%)	100						
Dimensions (W x D x H, mm)	540 x 350 x 360	540 x 350 x 530	540 x 350 x 700	540 x 350 x 870	540 x 350 x 1040	540 x 350 x 1210	540 x 350 x 1380
Communication	CANBUS/Modbus RTU						
IP Rating	IP65/I						
Pollution Degree	PD3						
Weight (kg)	53	92	131	170	209	248	287
Design Life (year)	15+						
Operation Temperature (℃) *	-10 ~ 55						
Storage Temperature (℃)	-20 ~ 60						
Altitude (m)	<4,000						
Humidity (%, RH)	5 ~ 95						
Product Certificate	UL1973, IEC62619, IEC63056, VDE-AR-E 2510-50 UL9540A, UL9540CE RED, CE LVD						
Transfer Certificate	UN38.3						
Environmental certification	RoHS, Reach, WEEE						
Country of manufacture	China						
Single Battery Controller	540 (W) x 350 (D) x 150 (H)						

Specifications	Force-H3 in Single String
Dimensions (mm)	
Single Battery Module Dimensions (mm)	540 (W) x 350 (D) x 170 (H)
Battery Bottom Base Dimensions (mm)	540 (W) x 350 (D) x 40 (H)

* In high (>40℃) or low temperature (<10℃) environment, the charging and discharging power of the battery system will be limited according to BMS operation logic.

Multi-string System Parameters (maximum 6 Strings per System)

For multi-string operation, ensure that:

- The battery type in the whole system is the same.
- The battery amount of each string is the same.

Specifications	Force-H3 in multi-strings				
Battery System Voltage (VDC)*	204.8/307.2/409.6/512/614.4/716.8				
Battery System string amount(pcs)	2	3	4	5	6
Battery System capacity (Ah)	100	150	200	250	300
Battery System Operation Current (Amps, Standard)	20	30	40	50	60
Battery System Operation Current (Amps, Rated)	80	120	160	200	240
Battery System Operation Current (Amps, maximum @15 minutes)	110	165	220	275	330
P-Combiner 3/6-V2 Operation Current (Amps, Rated)	50**		100⁂**		
P-Combiner 3/6-V2 Operation Current (Amps, maximum @15 seconds)	80**		160⁂**		

*The Battery System Voltage varies depending on battery amount in serial per string.

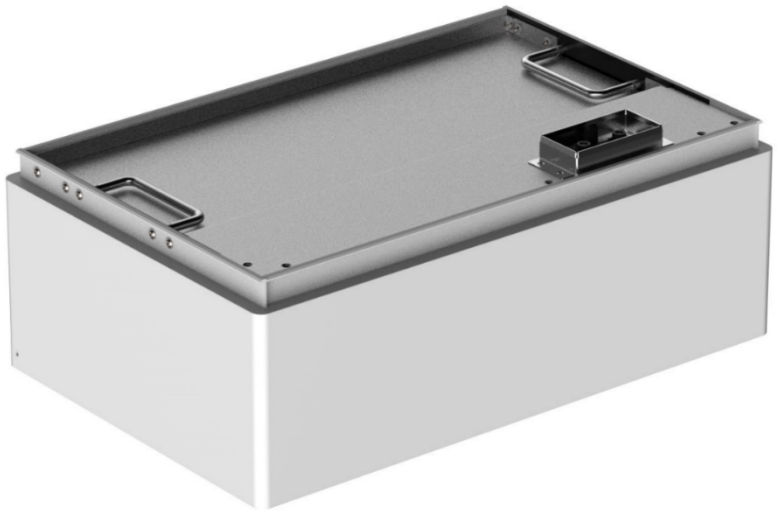
**The current is based on BMS theoretical operation current. If using P-Combiner 3-V2 as the combiner box of the multi-strings` battery system wiring connection, the maximum continuous operation current is 50 Amps, maximum peak operation current is 80 Amps for 15 seconds. Please ensure that the real operation current does not exceed the combiner box power rating.

⁂The current is based on BMS theoretical operation current. If using P-Combiner 6-V2 as the combiner box of the multi-strings` battery system wiring connection, the maximum continuous operation current is 100 Amps, maximum peak operation current is 160 Amps for 15 seconds. Please ensure that the real operation current does not exceed the combiner box power rating.

IMPORTANT: **DO NOT** use P-Combiner-HV-3/6-V2 or similar concept of multi-strings connection method in case the multiple battery strings need to be operated independently.

Battery Module

Battery Module Specifications



Specifications	FH10050
Cell Technology	Li-ion (LFP)
Battery Module Energy (kWh)	5.12
Battery Module Voltage (VDC)	102.4
Battery Module Capacity (Ah)	50
Battery Module Serial Cell Quantity (pc)	32
Battery Cell Voltage (VDC)	3.2
Battery Cell Capacity (Ah)	50
Dimension (W x D x H, mm)	540 x 350 x 170
Weight (kg)	39 kg
Design Life (year)	15+
Operation Cycle Life (cycle) *	8,000
Operation Temperature (℃) **	-10 ~ 55
Storage Temperature (℃)	-20 ~ 60
Transfer Certificate	UN38.3

* Operation Cycle Life is defined based on specific operation conditions, for more details please check with Pylontech service team.

** In high(>40℃) or low temperature(<10℃) environment, the charging and discharging power of the battery system will be limited according to BMS operation logic.

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