

2.2.1 System Parameters

2.2.1.1 Single String System Parameters

Product Type	Force-H3					
Battery System Capacity(kWh)	10.24	15.36	20.48	25.6	30.72	35.84
Battery System Voltage (VDC)	204.8	307.2	409.6	512	614.4	716.8
Battery System Capacity (Ah)	50					
Battery Controller Model	FC1000					
Battery Module Model	FH10050					
Battery Module Quantity (pc)	2	3	4	5	6	7
Battery Module Capacity(kWh)	5.12					
Battery Module Voltage (VDC)	102.4					
Battery Module Capacity (Ah)	50					
Battery System Charge Upper Voltage (VDC)	230.4	345.6	460.8	576	691.2	806.4
Battery System Charge Current (Amps, Standard)	10					
Battery System Charge Current (Amps, Rated)	50					
Battery System Charge Current (Amps @15minutes)	55					
Battery System Discharge Lower Voltage (VDC)	185.6	278.4	371.2	464	556.8	649.6
Battery System Discharge Current (Amps, Standard)	10					
Battery System Discharge Current (Amps, Rated)	50					

Product Type	Force-H3					
Battery System Discharge Current (Amps, maximum @ 15 minutes)	55					
Short circuit rating (Amps/millisecond)	4500 Amps /1 millisecond					
Efficiency (% at 0.5C-rate)	96					
Depth of Discharge (%)	95					
Dimension (W x D x H, mm)	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/ Protection Class	IP55/I					
Pollution Degree	PD3					
Weight (kg)	92	131	170	209	248	287
Design Life (year)	15+					
Operation Temperature (°C)*	-10 ~ 55					
Storage Temperature (°C)	-20 ~ 60					
Altitude(m)	<4000					
Humidity (% , RH)	5 ~ 95					
Product Certificate	UL1973, EC62619, IEC63056, VDE-AR-E 2510-50 UL9540A, CE RED, CE LVD					
Transfer Certificate	UN38.3					
Environmental certification	RoHS, Reach, WEEE					
Single Battery Controller Dimensions (mm)	540(W) x 350(D) x150(H)					
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.

2.2.1.2 Multi-strings System Parameters (maximum 6 Strings per System)

For multi-strings operation, please make sure:

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

Product Type	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, Normal)	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, Normal)	50**		100*		
P-Combiner 3/6 Operation Current (Amps, maximum @15 seconds)	80**		160*		

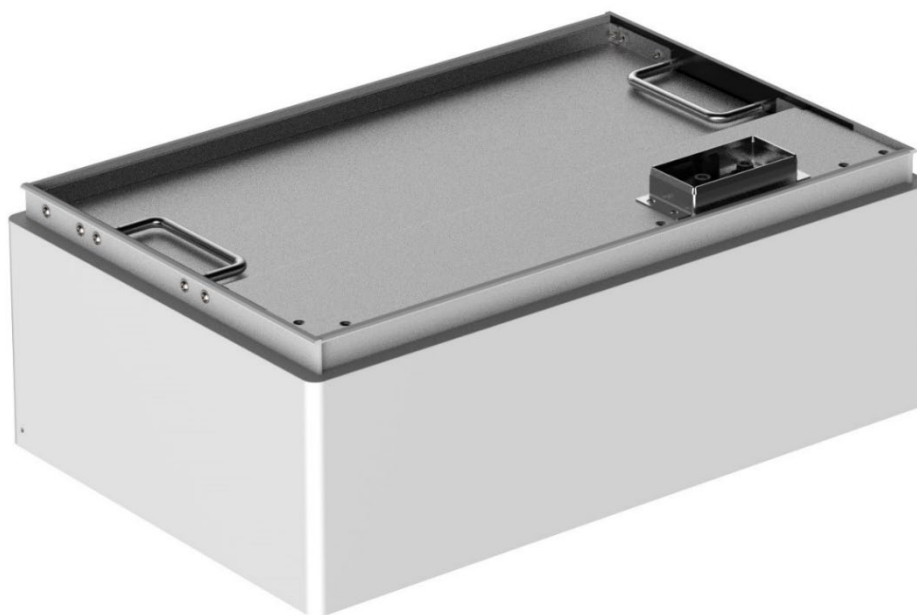
*The Battery System Voltage varies depending on battery amount in serial per string.

**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 make sure the real operation current 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 make sure the real operation current 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.

2.2.2 Battery Module Specifications



2.2.2.1 Battery Module Parameters

Product Type	FH10050
Cell Technology	Li-ion (LFP)
Battery Module Capacity (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
Operation Life (year)	15+
Operation Cycle Life (cycle) *	8,000
Operation Temperature (°C) **	-10 ~ 55
Storage Temperature (°C)	-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°C) or low temperature(<10°C) environment, the charging and discharging power of the battery system will be limited according to BMS operation logic.

2.2.3 Control Module Specifications

2.2.3.1 Control Module Parameters

Product Model	FC1000
Related Product	FH10050
Controller Working Voltage(VDC)	80 - 1000
System Operation Voltage(VDC)	172.8 - 921.6
Charge Current(Amps, maximum @15 minutes)	55
Discharge Current(Amps, maximum @15 minutes)	55
Self-consumption (W)	< 16
Dimension (W x D x H, mm)	540 x 350 x 150
Weight (kg)	12
Communication Protocol	CANBUS/Modbus RTU
Operation Life (year)	15+
Operation Temperature (°C)	-10 - 55
Storage Temperature (°C)	-20 - 60

Batterie haute tension Force H3



Configuration flexible de la capacité

- Modules de 5,12 kWh, jusqu'à 215 kWh avec extension en parallèle



Conçue pour une performance à long terme

- Jusqu'à 8 000 cycles à 95 % de profondeur de décharge
- Taux de charge et de décharge élevé de 1C



Excellence en matière de densité énergétique

- Une capacité impressionnante de 35,8 kWh sur une surface de seulement 0,19 m²
- Une densité de 125 Wh/kg spécialement conçue pour les logements à l'espace restreint



Conception modulaire et empilable

- Empilage sans outil pour une installation rapide et simple



Force H3



Module

Module	2	3	4	5	6	7
Modèle du module de commande	FC1000					
Modèle de batterie	FH10050					
Tension nominale (VDC)	102,4					
Tension du système de batterie (VDC)	204,8	307,2	409,6	512	614,4	716,8
Énergie/Capacité du système de batterie (kWh)	10,24	15,36	20,48	25,6	30,72	35,84
Capacité utilisable (kWh)	9,69	14,73	19,48	24,32	29,17	34,01
Énergie/Capacité du module de batterie (kWh)	5,12					
Profondeur de décharge	95%					
Dimensions (L*P*H mm)	540*350*530	540*350*700	540*350*870	540*350*1040	540*350*1210	540*350*1380
Poids (kg)	92	131	170	209	248	287
Courant de charge / décharge (A)	(Normal)	50				
	(Max)	55@15MIN				
Port de communication	Modbus RTU/CAN					
Groupes multiples	6 groupes maximum en parallèle					
Température de charge (°C)	-10~55					
Température de décharge (°C)	-10~55					
Température de stockage (°C)	-20~45					
Indice de protection IP	IP65					
Humidité (% HR, sans condensation)	5%~95% sans condensation					
Altitude (m)	<4000					
Durée de vie de conception (@25 °C)	15 ans					
Durée de vie en cycles (@25 °C)	8000+					
Certification	IEC62040-1/IEC62477-1/IEC62619/IEC63056/UL1973/UL9540A/UN38.3/VDE-AR-E 2510-50/UL9540B					