

Lithium storage system

Pylontech PowerCube

Solar Lithium storage system

96 – 480 VDC, up to 35.5 kWh (X1/X2)

240 – 864 VDC, up to 63.9 kWh (H1/H2)

Pylontech PowerCubes are high-voltage battery storage systems based on lithium iron phosphate batteries, one of the new energy storage products developed and manufactured by Pylontech. They can be used to support reliable power supplies for various types of devices and systems. PowerCube are particularly suitable for application scenes where high power, high voltages (up to 864 VDC), limited installation space, limited load capacity and long life are required.



Characteristics

- Very high cycle stability of over 5000 charge/discharge cycles
- Very high depth of discharge (DoD) up to 95% @ 25°C
- Design life up to 15 years
- Built-in soft-start-function to avoid power surges when the inverter is started by the battery
- Automatic address setting when connected in multi-group mode
- Absolutely intrinsically safe lithium technology – Lithium iron phosphate / LiFePo4



Li-Ion batteries
Top H48074, bottom H48050



Controller-module SC500-100S (-V2)
resp. SC1000-100S (-V2)



Master control module (MBMS1000)
allows controlling the controllers of
up to 6 cabinets (battery strings).

Further features

- Very high storage density - low weight and compact design
- Up to 18 batteries can be used in a modular way *Cabinet systems and constellations on request
- High peak charge and discharge power
- Modular system for individual scaling
- 7-year manufacturer warranty  **PYLONTECH**

The Pylontech H48050 / H48074 storage systems consist of lithium iron phosphate (LiFePo₄) accumulators with a battery management system, BMS for short, which constantly monitors the status of the accumulators right down to the individual cells and protects them from overcharging, overvoltage and overtemperature, among other things. In this way, the BMS prevents premature battery failure due to environmental influences or misuse.

The overall system is controlled using the external controller SC500-100S / SC1000-100S..

The modular design allows the storage system to be individually configured to the required capacity and extremely high voltages (up to 864 VDC) by simply connecting the desired number of modules together.

Specifications

Battery	H48050	H48074
Cell technology	Lithium-Iron-phosphat (LiFePo ₄)	Lithium-Iron-phosphat (LiFePo ₄)
Battery nominal voltage	48V	48V
Battery rated capacity	50Ah / 2.4kWh	74Ah / 3.55kWh
Discharge voltage range	45.5 ... 53.2V	
Charging voltage range	52.5 ... 53.2V	
Max. charge / discharge current	50A	74A
Communication	RS485, CAN	RS485, CAN
Weight / dimensions	24kg / 442 x 390 x 100mm (W x D x H)	32kg / 442 x 390 x 132mm (W x D x H)
Temperature range	+0... +50°C @ charge mode / -10... 50°C @ discharge mode	
Design life / Cycle life	> 15 years @ 25°C / > 5000 cycles @ 25°C	
BMS / monitoring	Integrated battery management system in each module	
Certificates	TÜV / CE / UN38.3	

Battery-controller	SC500-100S (-V2)	SC1000-100S (-V2)
Operating voltage	60~500 VDC	200~1000 VDC
Max charge/discharge current	100 A	
Self-consumption	8 W	
Weight / dimensions	8.5kg / 442x390x132 (W x D x H)	
Communication	Modbus RTU\CAN	
Protection	IP20	
Design Life	15+ years	
Temperature	Operation: 20~65°C / storage: -40~80°C	
Certificates	TÜV, CE	
Protection Class	IP55	
Product Certificate	VDE2510-50, IEC62619, CE RED, IEC62477-1	

PowerCube systems overview	X1	X2	H1	H2
Rated voltage	96-480V	96-480V	240-864V	240-864V
Battery module 50Ah	H48050	-	H48050	-
Battery module 70Ah	-	H48074	-	H48074
Number of battery modules	2-10	2-10	5-18	5-18
Controller	SC500-100S (-V2)	SC500-100S (-V2)	SC1000-100S (-V2)	SC1000-100S (-V2)
Multi String MBMS	MBMS1000	MBMS1000	MBMS1000	MBMS1000
Max. parallel strings	6	6	6	6