

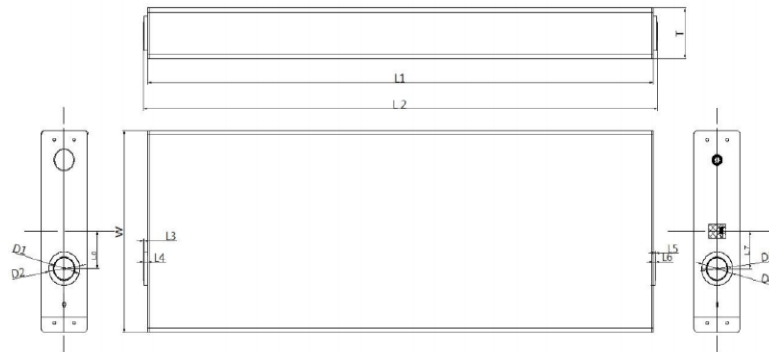
# PowerCube-M5A-64



## Specification for Battery Cell

Pylontech Battery storage systems rely on Pylontech self-manufactured advanced LFP cell.

### Parameter of the Pylontech Battery Cell:



Item	Value	Remark	
Nominal capacity	245Ah	25±2℃, 0.5CA constant current, 2.5V cutoff	
Nominal voltage	3.2 V	N.A.	
Working voltage	2.5 V to 3.65 V	0 ~ 60℃	
ACIR	0.28±0.05mΩ	AC 1 KHZ, 25±3 ℃	
charging (CC-CV)	Standard charge current	122.5A	N.A.
	Cut off condition	3.65V, ≤12.25A	CCCV
discharge (Constant current DC)	Standard discharge power	122.5A	N.A.
	Cut off condition	CC - 2.5 V	N.A.
	Maximum discharge current	245A	25± 2℃, 30-80%SOC
Working temperature	charge	0 ~ 60 ℃	N.A.
	discharge	- 30 ~ 60 ℃	N.A.
Storage temperature		-20 ~ 45 ℃	Storage humidity ≤85%

Recommended operation SOC	5%~95%SOC	N.A.
Weight	4680±50g	(ref.)
Energy Density	≥165Wh/Kg	
Energy Density	≥370Wh/L	

### The Battery Cell has passed the tests as follows:

No.	Test Item	Result
1	Over Charge	No Fire, No Explosion
2	Over Discharge	No Fire, No Explosion
3	Short Circuit	No Fire, No Explosion
4	Squeeze	No Fire, No Explosion
5	Fall	No Fire, No Explosion
6	Low Pressure	No Fire, No Explosion
7	Heat	No Fire, No Explosion
8	Thermal Runaway	No Fire, No Explosion
9	Acupuncture	No Fire, No Explosion

## Specification for Battery Module



Specifications	HM5A180F
Capacity(kWh)	15.68
Nominal Voltage (Vdc)	64
Nominal Capacity (AH)	245
Charge Upper Limit Voltage	71
Discharge Lower Limit Voltage	58
Depth of Discharge	95%
Dimension(W*D*H,mm)	460*900*160.5
Communication	RS485(MODBUS RTU)/CAN/LAN
Protection Class	IP20
Weight(kg)	115
Operation Temperature	0~50℃
Storage Temperature	-20~50℃
Product Certificate	IEC62477-1, IEC62040-1, IEC62619, IEC63056, UKCA,CE LVD, CE EMC, UN38.3,VDE-AR-E 2510-50,GB/T 36276-2018,GB/T 34131-2017

## Specification for Control Module

For the BESS cabinet, 10 pcs battery modules connect in series as one battery string, the battery string will connect with one control module. The control module will provide isolation and protection for the battery string, also the control module integrates the BMS to monitor and control the battery system. (please refer to the chapter of BMS).

**Please refer to the following for the control module specification.**



Specifications	S1500M5A180E
Related Product	PowerCube-M5A180
AC Supply for BMS/FAN	100~305VAC/50/60Hz
System Operation Voltage (VDC)	0~1500
Operation Current (Max.) (A)	180
Self-consumption Power(W)	16.5
Dimension (W*D*H, mmmm)	460×858×160
Communication	RS485(MODBUS RTU) \CAN\LAN
Protection Class	IP20
Weight(kg)	32
Operation Life (Years)	15+
Operation Temperature	-20~65
Storage Temperature	-40~80

## Specification for Battery Rack



Specifications	PowerCube-M5A
System Voltage (VDC)	< 1000
Battery System Capacity (kWh)	344.96
Battery System Voltage (Vdc)	704
Battery System Capacity (AH)	245
Battery Module	HM5A180F
Controller Type	S1500M5A180E (External Power Supply Version, EU version) Circuit breaker)
Battery Module Capacity (kWh)	15.68
Battery Modules Qty. (Optional)	21 (1-22)
Charge Upper-Voltage (Vdc)	781
Nominal Current(A)	122.5
Continuous Current (A)	180
Peak Current (Amps)	< 210A for 5 minutes < 500A for 30 seconds
Operation temp. range	10 ~ 40°C
Discharge lower-Voltage(Vdc)	638
Round-trip efficiency (@1C-rate)	96%
Depth of Discharge	95%
Dimension(W*D*H, mm)	1050mm*925mm*1965mm(22 slots)
Communication	CANBUS/Modbus RTU/Modbus TCP/IP
Weight (kg)	1475
Operation Life	15+Years
Operation Temperature	10~40°C
Storage Temperature	-20~50°C
Humidity	5%~95%(without condensing)