

PYLONTECH

Commercial (HV) Powercube Solution



NEW : PYL-PC-SC1000-100-BMS-N1



PYL-PC-SC1000-100-BMS



PYL-PC-H2-BATT



PYL-PC-MBMS1000

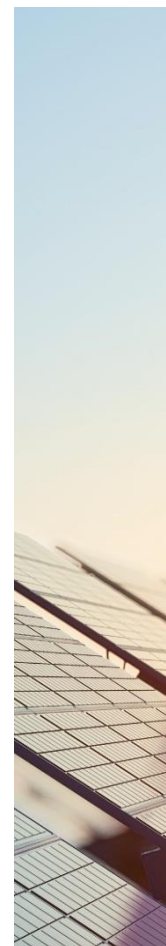
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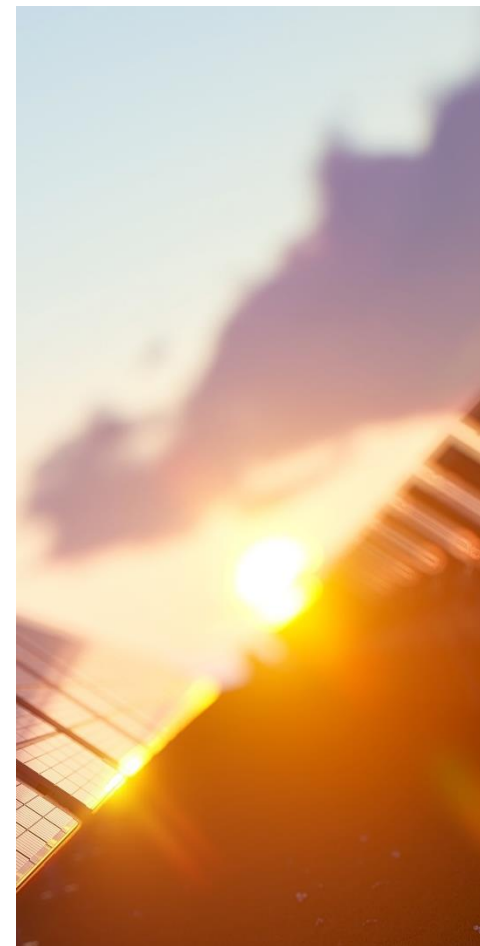
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01

PRODUCT OVERVIEW



Benefits of Pylontech Powercube Solution:

- They allow a plant to operate at much lower battery currents
- High installation flexibility for rack mounted and container-based configurations
- Higher efficiencies due to less cable losses
- Lower cost of related BOM
- Smaller cable size diameters and lower protection device currents



Main System Component

PART CODE : **NEW :** PYL-PC-SC1000-100-BMS-N1

PYL-PC-H2-BATT

PYL-PC-MBMS1000



PART CODE : PYL-PC-SC1000-100-BMS

Main Li-ion 3.5kWH Pack

Battery 3rd Level Control
Module



DESCRIPTION : BMS Stack Controller

NEW : PYL-PC-SC1000-100-BMS-N1

Product Improvements:

- Integrated WIFI module for remote monitoring.
- Allows paralleling of multiple battery stacks without the need of the MBMS.
- USB port for firmware updates and battery data downloading.
- Allows 18 x battery module in series.
- All accessories included in the package.



NB : New BMS unit allows 18 battery units in series, Old BMS only allows 12 battery units in Parallel. This BMS unit is not compatible with the MBMS (PYL-PC-MBMS1000) and it does not require the MBMS to parallel multiple battery stacks.



Battery module parameters



Product Type	H48074
Cell Technology	LiFePQ4
Battery Module Capacity(kWh)	3.552
Battery Module Voltage(Vdc)	48
Battery Module Capacity(AH)	74
Dimension(W*D*H, mm)	442*390*132
Protection Class	IP20
Weight(kg)	32
Operation Life(Years)	15+
Operation Cycle Life	5,000
Operation Temperature(°C)	0~50
Storage Temperature(°C)	-20~60
Transportation Certificate	UN38.3

Performance features

A. C-rate:

The C-rate is a measure of the rate at which a battery is being charged or discharged. It is defined as the current through the battery divided by the theoretical current draw under which the battery would deliver its nominal rated capacity in one hour.

Normally Pylontech PowerCube H series batteries are designed to work at 0.5C. For example, the capacity of single **H48074** module is 74 Ah, so the max. constant charge/discharge current of the battery system is $74 \text{ Ah} \times 0.5 \text{ C} = 37\text{A}$.

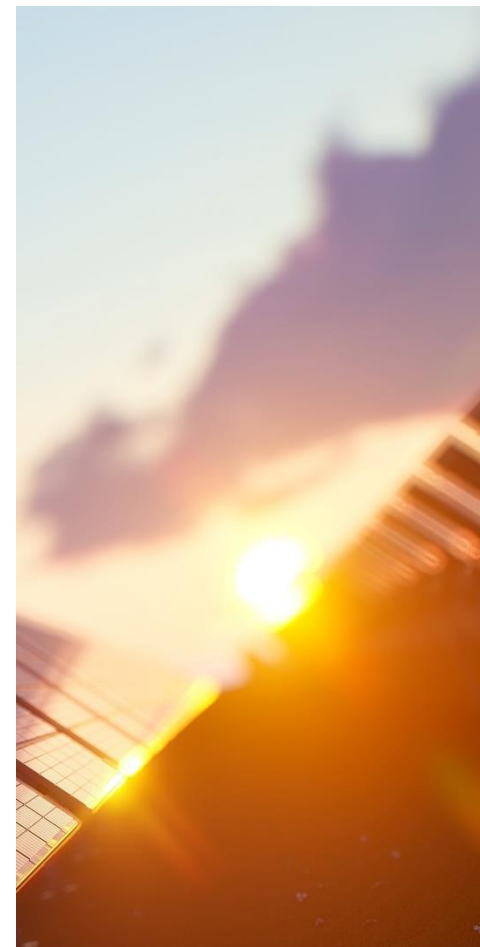
B. DoD(Depth of Discharge):

DoD means the real capacity you used in one cycle.

Example: The capacity of each H2 module is 3.6 kWh, if you set DoD at 90%, the capacity you applied in one cycle is $3.6 \text{ kWh} \times 90\% = 3.24 \text{ kWh}$.

02

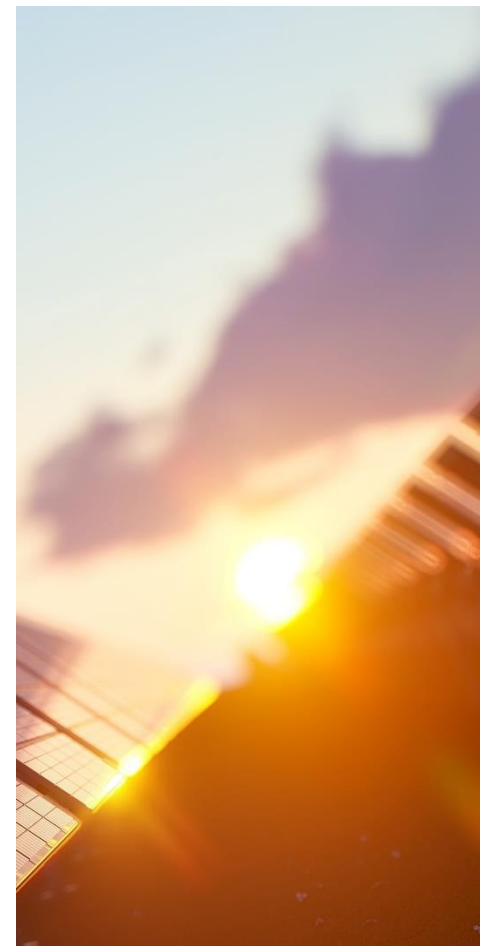
APPLICATION & CONFIGURATION



Note:

For the PV/battery sizing ratio, there is no strict rules but guidance at 1:2 as min. (e.g., 1kW PV sizing with a 2kWh battery system as min. capacity) for back-up and off-grid application.

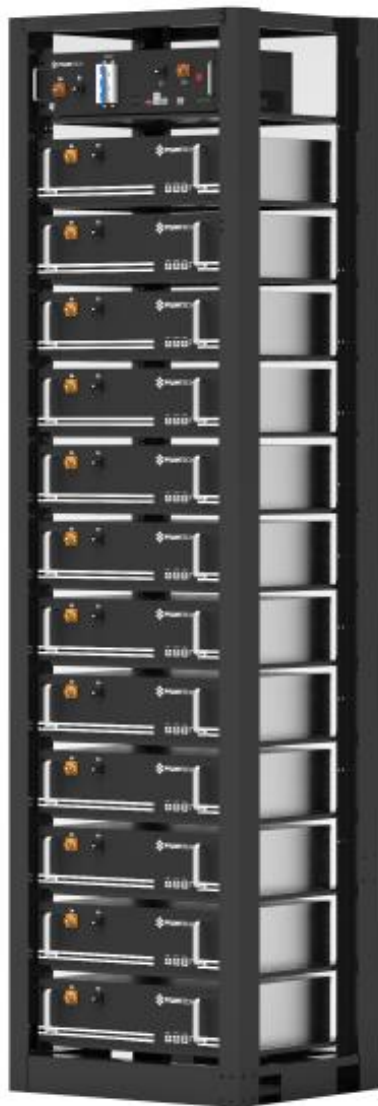
NB: Parallel configuration is not applicable



System Configuration

Item	Racks	Amount	Capacity (kWh)	Voltage (Vdc)	Charge upper voltage (Vdc)	Discharge lower-voltage (Vdc)	Current level 0.5C constant
H48074	Single rack	5	17.8	240	270	217.5	Max. 80A @15s
		6	21.3	288	324	261	
		7	24.9	336	378	304.5	
		8	28.4	384	432	348	
		9	32.0	432	486	391.5	
		10	35.5	480	540	435	
	Additional rack	11	39.1	528	594	478.5	
		12	42.6	576	648	522	
		13	46.2	624	702	565.5	
		14	49.7	672	756	609	
		15	53.3	720	810	652.5	
		16	56.8	768	864	696	
		17	60.4	816	918	739.5	
		18	63.9	864	972	783	

Example of 12 stack system parameters



Basic Parameters	Powercube-H2 (576V74AH) H48074
Battery System Capacity(kWh)	42.62
Battery System Voltage(Vdc)	576
System Voltage Range(Vdc)	531~648
Efficiency	96%
Depth of Discharge	90%
Dimension(W*D*H, mm)	600*505*2130
Weight(Kg)	450
Design Life	15+Years
Operation Temperature (°C)	0~50
Humidity	5%~95%
Altitude	<2000
Battery Module Qty.(Optional)	5~12 pcs
Authentication Level	UL1973/IEC62619/CE

Segen Package Configuration

PowerCube H2 Battery Packs									
Part Number	Pack Qty	Storage	Stack Qty	Nominal Voltage	Min Dchrg. Voltage	Max Chrg. Voltage	Cont. (A) Discharge	Batt per Stack	Cont. (W) Discharge
PYL-PCH2-17.76	5	17,76kWh	1	240V	217,5V	270V	37A	5,0	8,9kW
PYL-PCH2-21.31	6	21,31kWh	1	288V	261,0V	324V	37A	6,0	10,7kW
PYL-PCH2-24.86	7	24,86kWh	1	336V	304,5V	378V	37A	7,0	12,4kW
PYL-PCH2-28.42	8	28,42kWh	1	384V	348,0V	432V	37A	8,0	14,2kW
PYL-PCH2-31.97	9	31,97kWh	1	432V	391,5V	486V	37A	9,0	16,0kW
PYL-PCH2-35.52	10	35,52kWh	1	480V	435,0V	540V	37A	10,0	17,8kW
PYL-PCH2-39.07	11	39,07kWh	1	528V	478,5V	594V	37A	11,0	19,5kW
PYL-PCH2-42.62	12	42,62kWh	2	288V	261,0V	324V	74A	6,0	21,3kW
PYL-PCH2-56.80	16	56,83kWh	2	384V	348,0V	432V	74A	8,0	28,4kW
PYL-PCH2-63.90	18	63,94kWh	2	432V	391,5V	486V	74A	9,0	32,0kW
PYL-PCH2-71.00	20	71,04kWh	2	480V	435,0V	540V	74A	10,0	35,5kW
PYL-PCH2-78.14	22	78,14kWh	2	528V	478,5V	594V	74A	11,0	39,1kW
PYL-PCH2-85.25	24	85,25kWh	3	384V	348,0V	432V	111A	8,0	42,6kW
PYL-PCH2-95.90	27	95,90kWh	3	432V	391,5V	486V	111A	9,0	48,0kW
PYL-PCH2-106.6	30	106,56kWh	3	480V	435,0V	540V	111A	10,0	53,3kW
PYL-PCH2-113.66	32	113,66kWh	4	384V	348,0V	432V	148A	8,0	56,8kW
PYL-PCH2-117.2	33	117,22kWh	3	528V	478,5V	594V	111A	11,0	58,6kW

Table 4 Powercube H48074 package configuration

Quotation items

- 1. Battery Module (PYL-PC-H2-BATT)**
- 2. BMS Unit (PYL-PC-SC1000-100-BMS)**
- 3. MBMS Unit (PYL-PC-MBMS1000) for multiple stacks – Not required for New BMS unit.**
- 2. External Cable kits (CAB-PK-PYLON)**
- 3. Brackets/Cabinets – (e.g., BATTRACK-PT3-8-HV , Door kit : PT3-8DK, 11 and 13 battery racks available on the portal)**

03

INSTALLATION

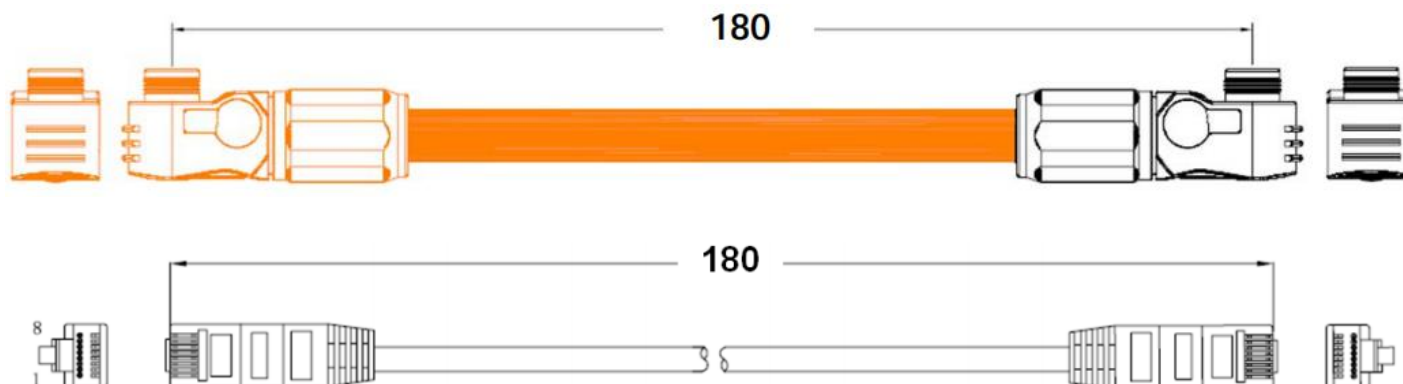


CHECK LIST

Included with the battery module :



- One orange & black power cable (Serial Connection)
- One communication cable for each battery package
- User manual for each battery package

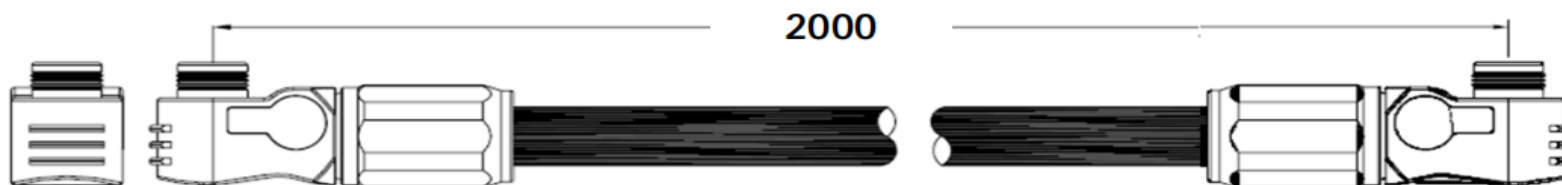
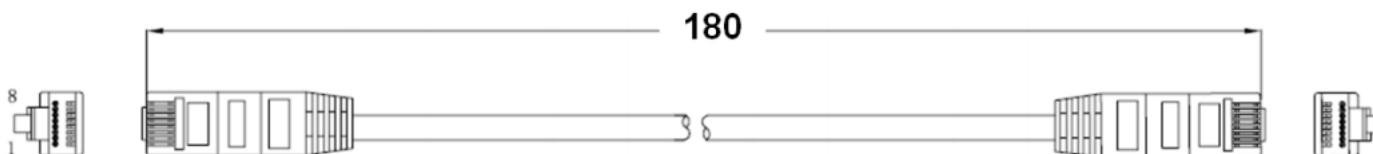
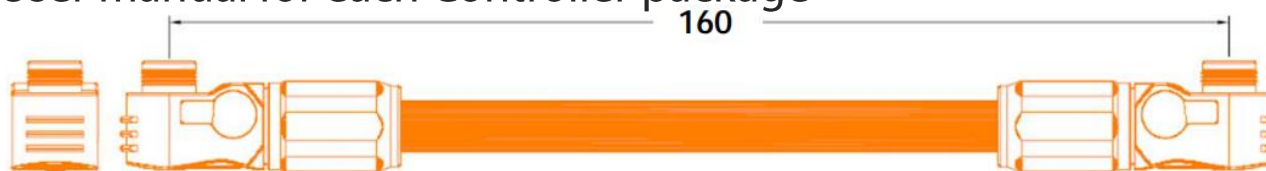


CHECK LIST



Included with the BMS Controller :

- One orange power cable
- One black 2m power cable
- One communication cable
- User manual for each Controller package

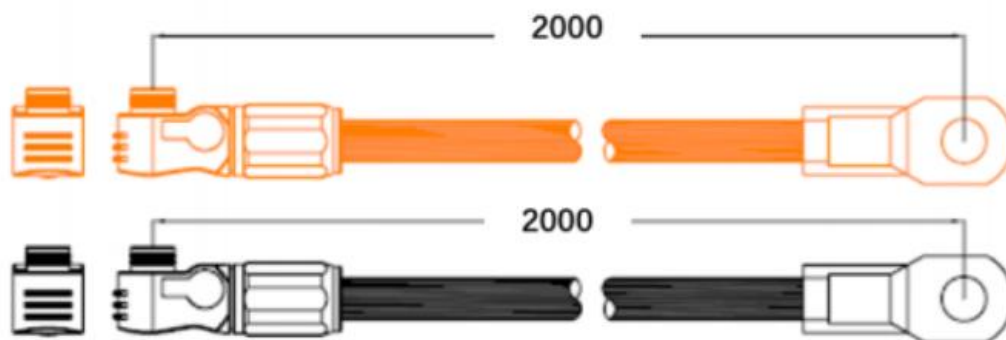


CHECK LIST

External cable kits

1 Pair of power cables (2m – 3.5m option available on the portal), 25mm²

- One positive power cable (orange)
- One negative power cable (black)



PRE-INSTALLATION CHECKS:

- Please make sure all the requirements for the installation location & environment are met.
- Please refer to the installation manual and make sure you have all the necessary tools required.
- Ensure the ambient temperature is within the range of 0°C to 50°C.
- Please DO NOT connect the batteries in parallel;
- Do not connect the battery to PV or AC power directly;
- Isolate the grid power and make sure the battery is off
- Make sure the voltage of the battery system is in line with the inverter DC (Battery) voltage range

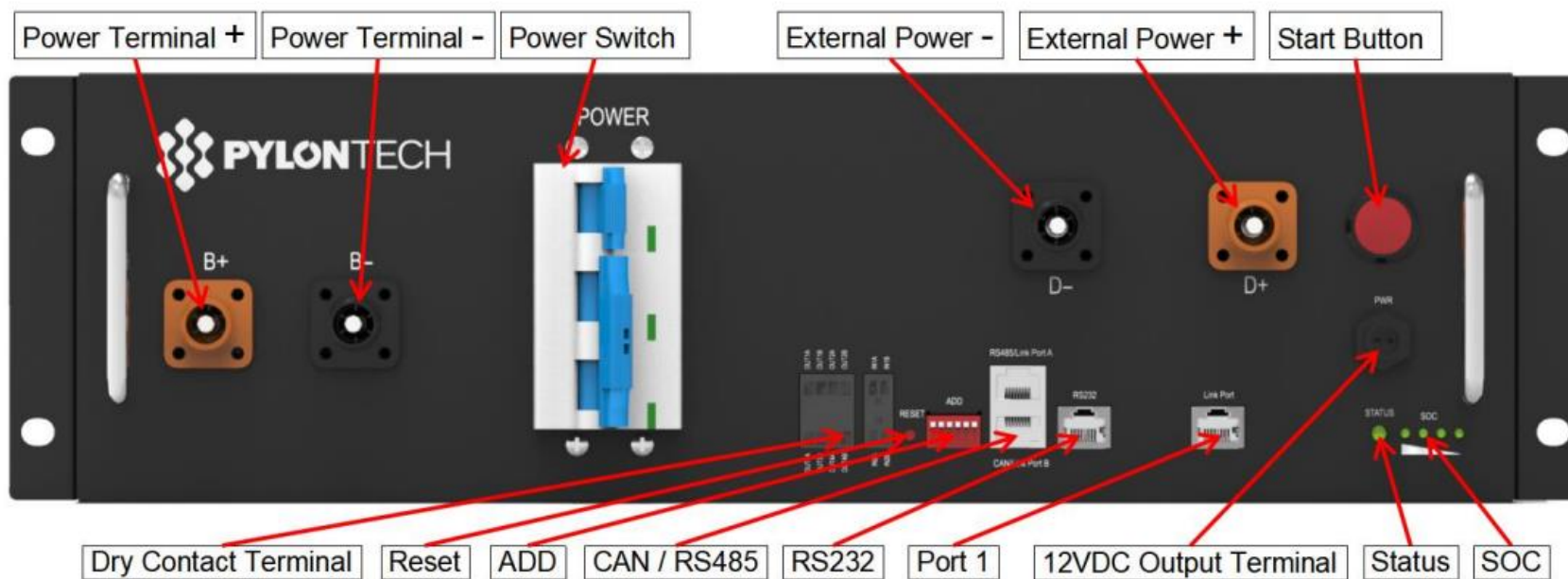
Installation

Battery Module Front Interface:



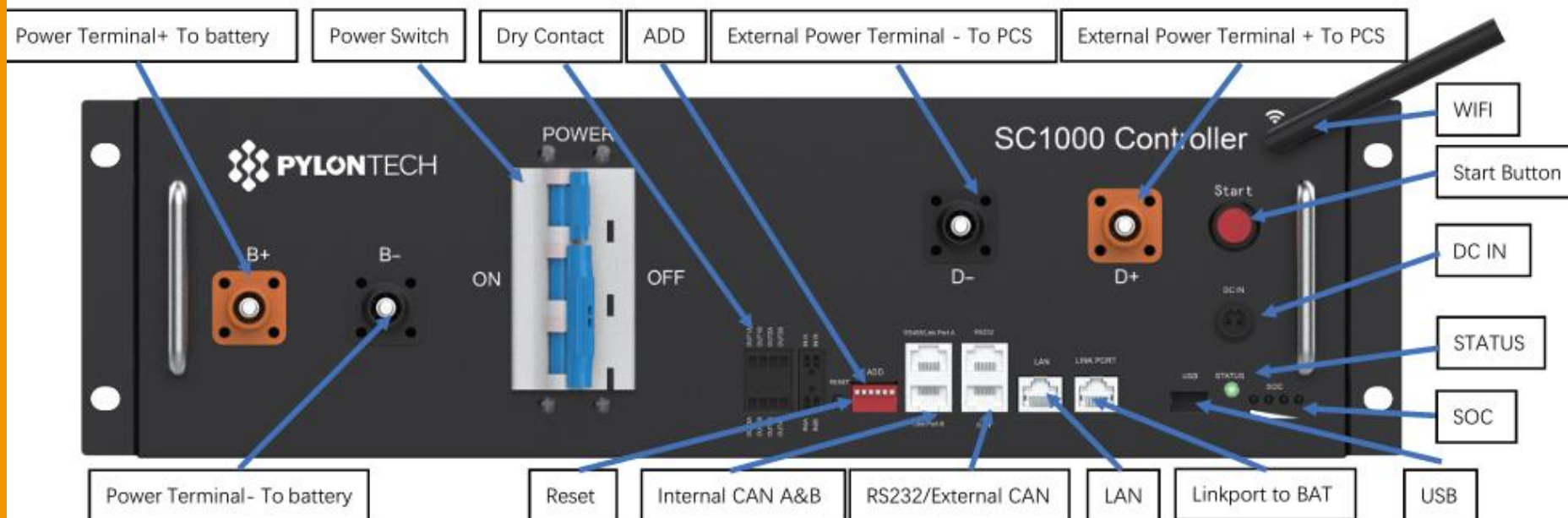
Installation

Battery BMS Module Front Interface:

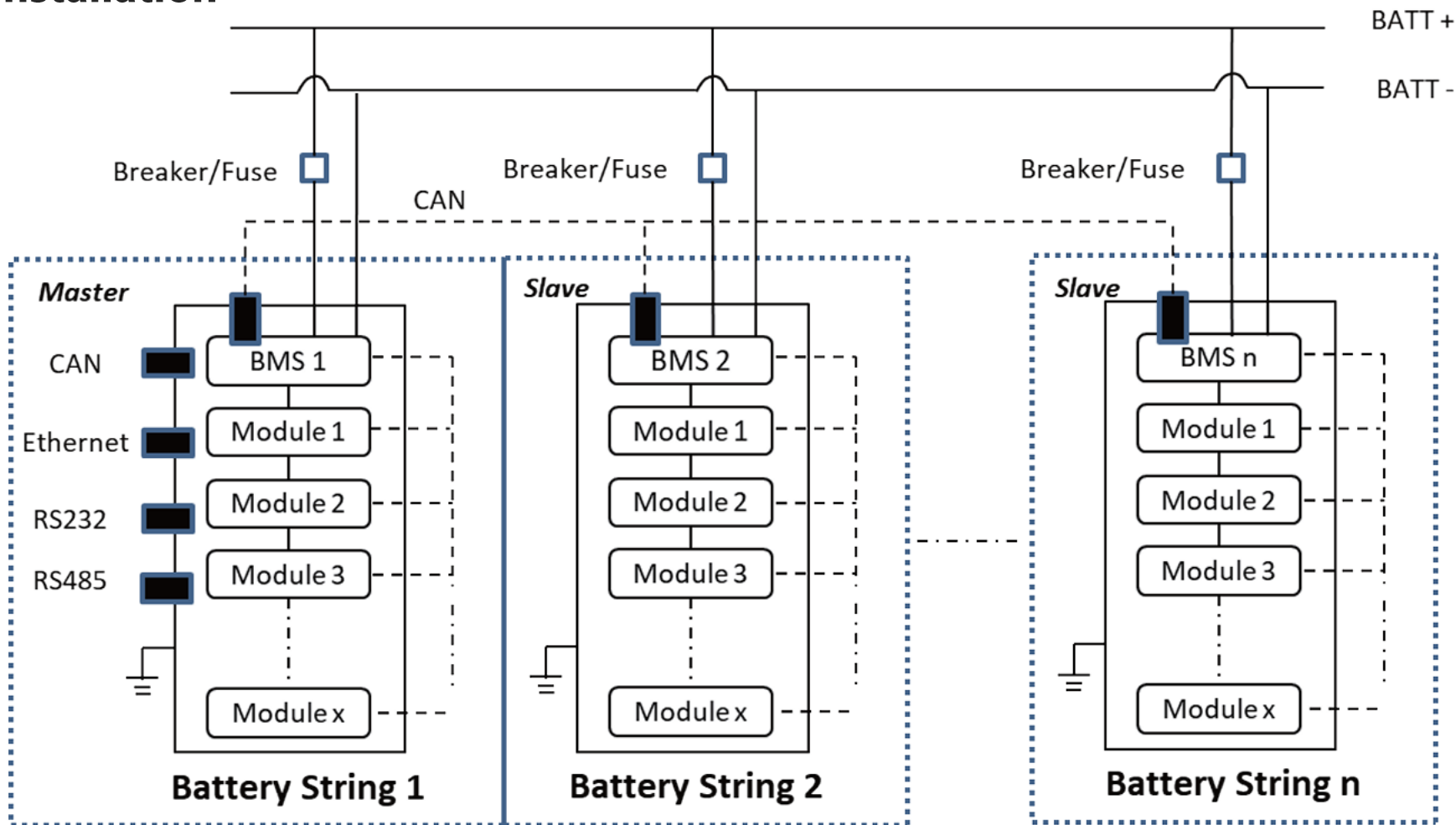


Installation

NEW : Battery BMS Module Front Interface with Wifi:



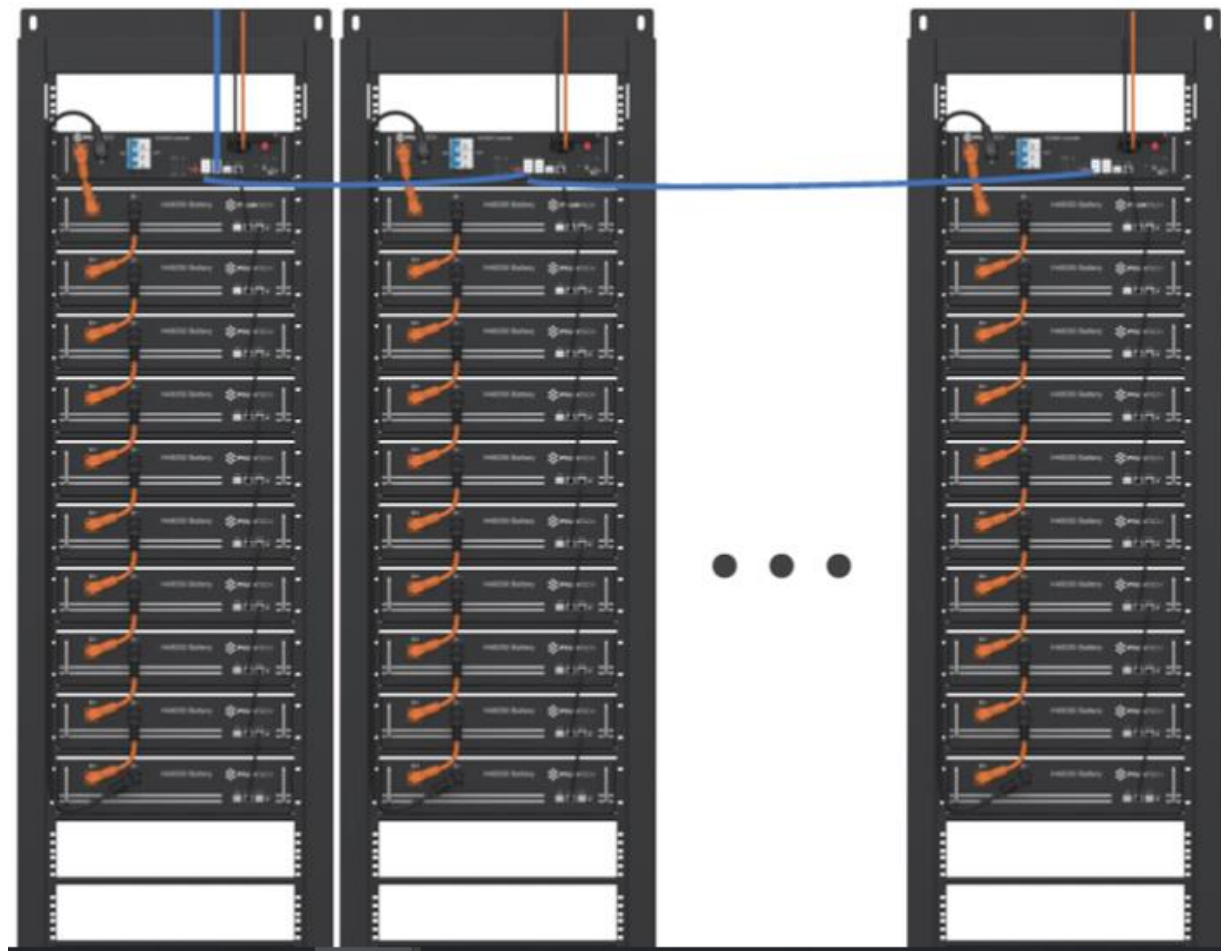
Installation



Maximum battery strings, $n = 6$

Installation – Multiple BMS Control Units.

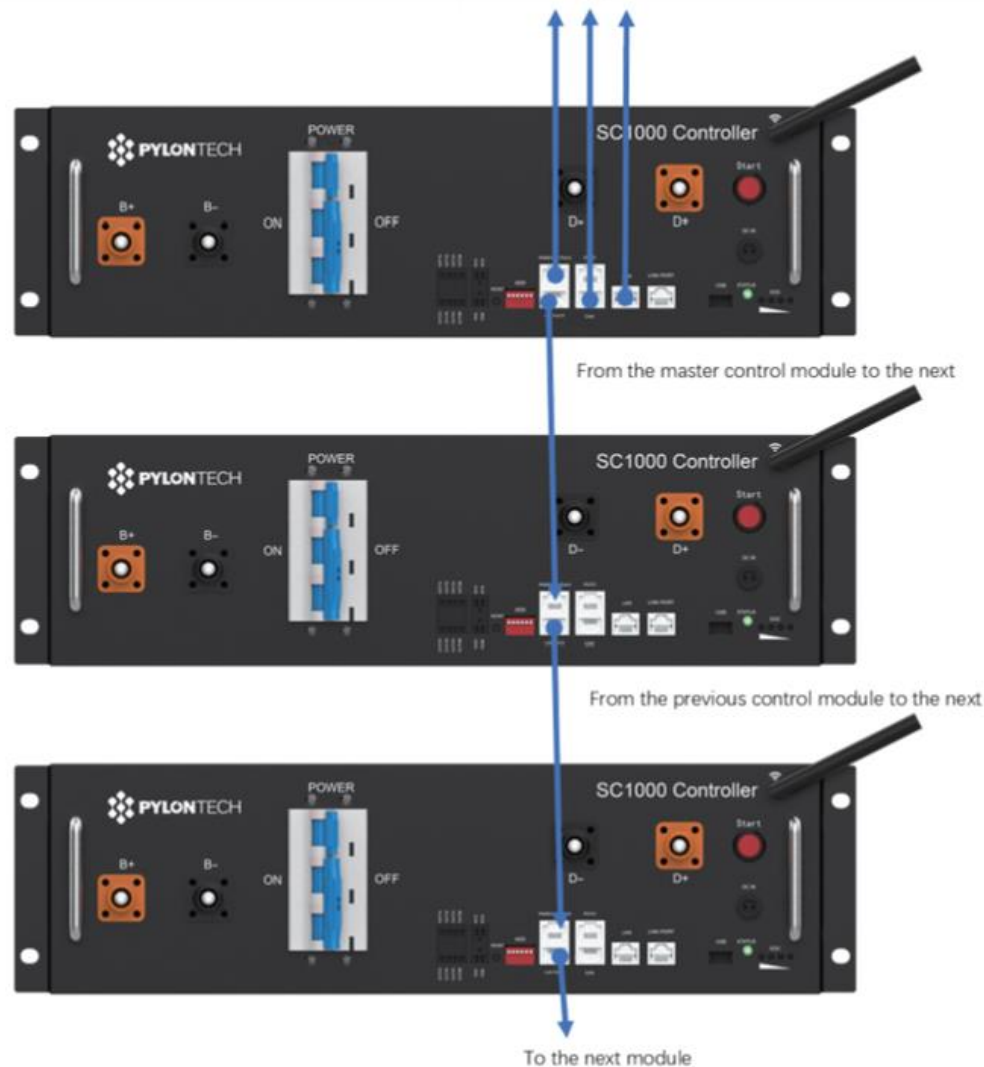
- With SC1000-100S-V2, there DONOT need a MBMS for multi-groups operation. For the existing installation (with old SC1000-100S) capacity expansion or BMS replacement activity, please REMOVE the MBMS and add on the SC1000-100S-V2 at the master position for further communication with existing inverter directly.
- The communication cable shall connect follow below diagram, **from the first BMS 'Link Port B' to the second BMS 'RS485 / Link Port A', from the second BMS 'Link Port B' to the third BMS 'RS485 / Link Port A', all the way to the last BMS' 'RS485 / Link Port A'. The BMS with 'RS485 / Link Port A' EMPTY is defined as the master BMS, and further communication with the inverter.**



Installation – Multiple BMS Control Units.

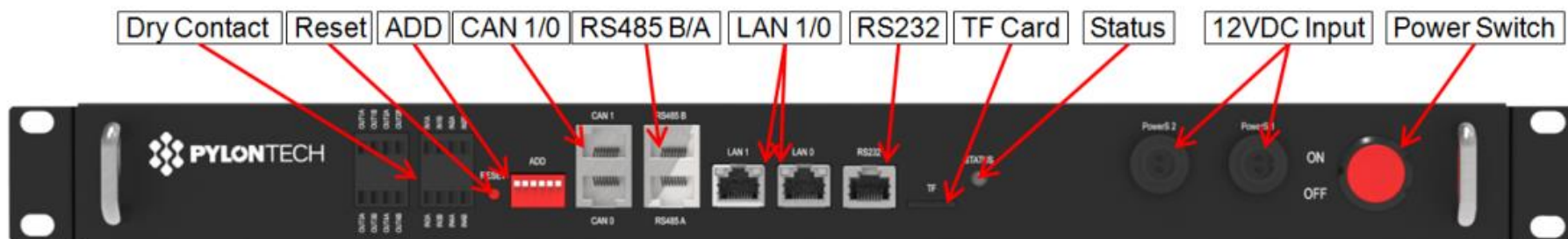
CAN Address	Address dial bit						Master or slave relationship
	1	2	3	4	5	6(Terminal Resistance)	
0	1	2	3	4	5	ON 6 6 OFF The terminal resistance needs to be activated ON (upward) at the first(master control) and last node(the last slave control), when multiple controllers are connected in parallel.	Invalid
1	1						Master
2		1					Slave
3	1		1				Slave
4	1			1			Slave
5	1				1		Slave
6		1		1			Slave
7	1		1				Slave

BMS unit dip switches

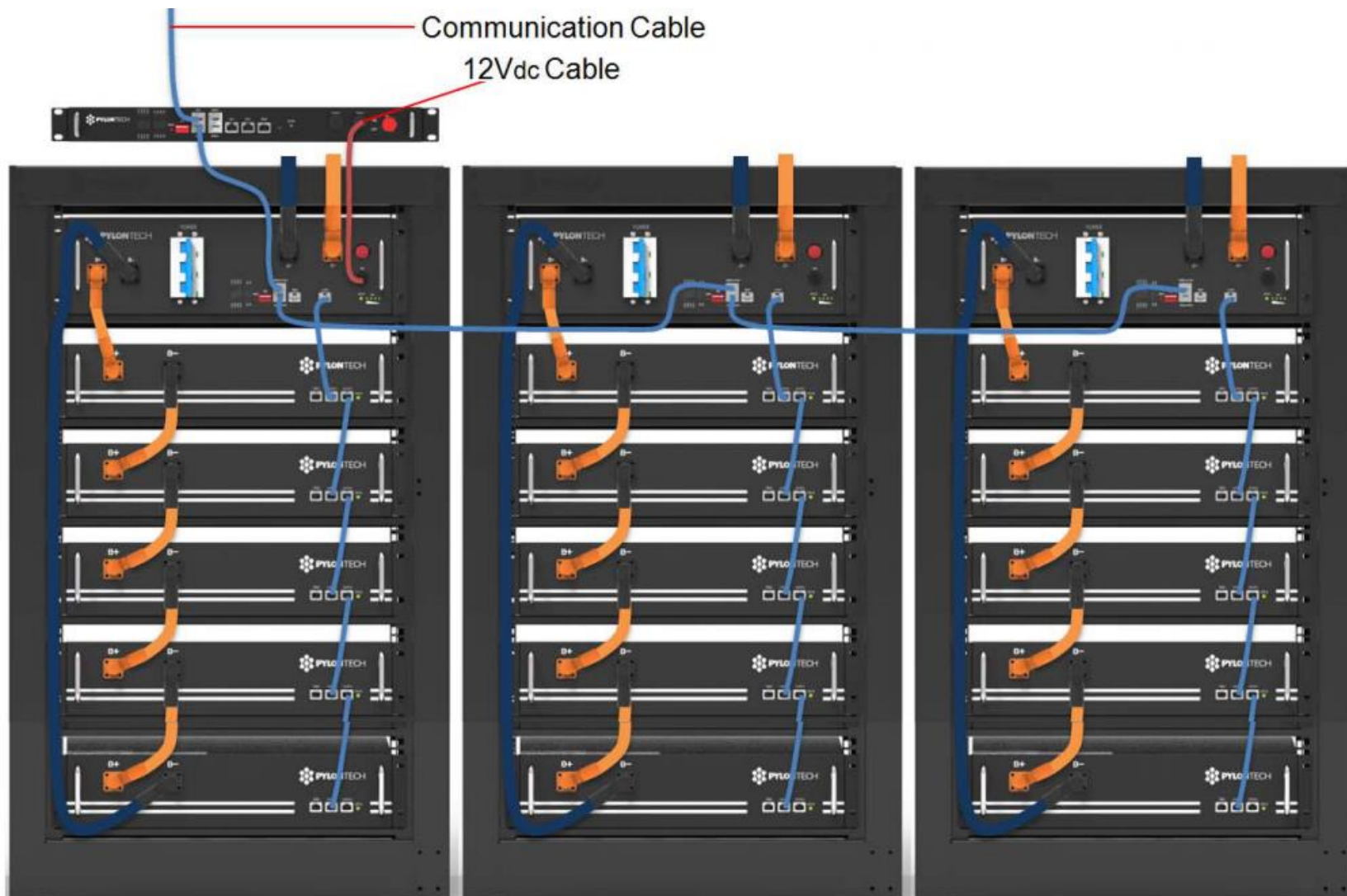


Installation – Old configuration

Battery 3rd Level Control Module (MBMS) Front Interface:



System cable connection



Q&A

Before power ON:

- Double check all the power cables and communication cables.
- Make sure the voltage range of the inverter is same level with the battery system.
- Turn on the last BMS unit from the battery strings.
- Ensure all the slave battery strings' self-check is successful before turning on the first master BMS unit.

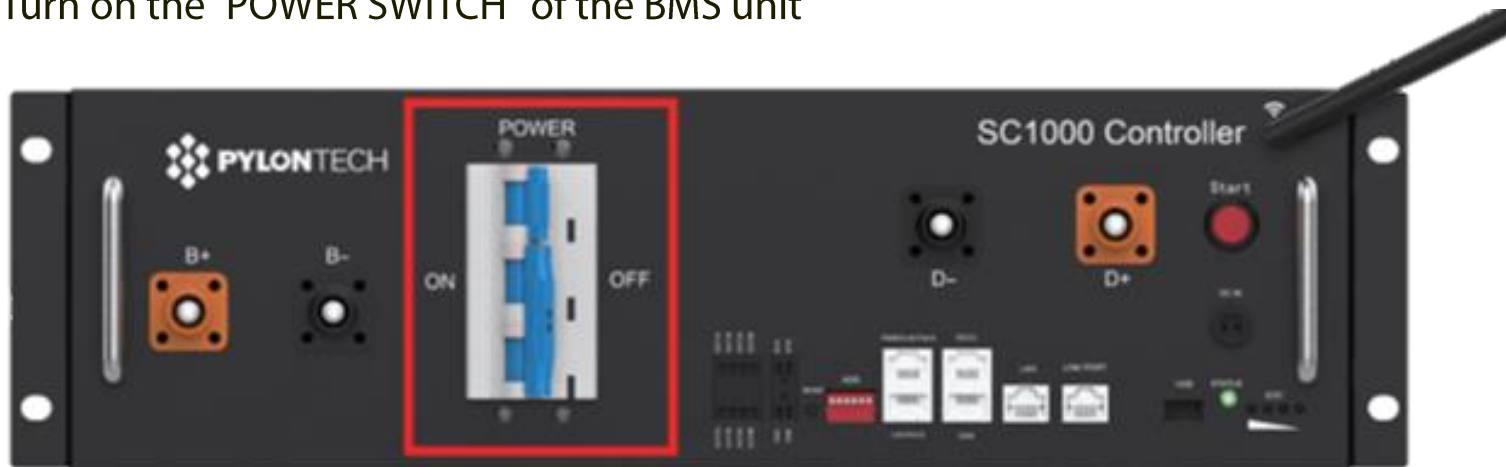


Warning: The master control module must be turned on after other slave control modules self-check finish.

Warning: The external switch or breaker between PCS and battery string must be off before the battery system powers on.

POWER ON

- Turn on the “POWER SWITCH” of the BMS unit



Caution: The time interval between every time switch OFF/ON the “Power Switch” shall >3 minutes. Caution: When the breaker is tripped off because the system has over current or short circuit, must after 30mins to turn on it again, otherwise may cause the breaker damage.

Black Start Function

- If long press the start button 30 seconds AFTER power on. The “STATUS” lamp will become green.
- When the black start function is enabled, “STATUS” lamp remains red, it means the black start function is failed to active, it needs long press start button again. System will close relay and output for 10mins.



Warning: if the black-start function is enabled, the terminal of D+ and D- will be electricity dangerous with high DC voltage output.

POWER ON



- Turn on the "Start Button":
Press and hold the Start Button for **more than 5sec** until the buzzer rings, the LED indicator on front panel will light on if the start-up is successful.



Control Module Self-test and Start Process

- The battery string's system will check by itself, **if it works normally** the battery string system will go to the self-check mode. If the BMS and all battery modules are working normally, **every status LED will be lighting green, that means self-check is passed**. Normally the self-check will be finished **within 30sec**.
- If long press the start button again within 30 seconds during BMS self-check, the "STATUS" lamp will flash green, it is to remind that the black start function is activated within 30 seconds for 10min. If there is **no communication from upper equipment** because the communication is off, the **"STATUS" lamp will light red** after 30sec. **That doesn't mean failure existed, it means this battery string is OK** when the external communication is off.

POWER OFF

- Switch-off the inverter
- Turn off the switch between the inverter and battery system.
- Turn off the “Power Switch” of all the BMS units.



Warning: Do not turn off the “Power Switch” during normal running condition. Otherwise, it will cause this battery string current surge by another battery strings. If turned off the “Power Switch” in normal running condition, it must first turn off the PCS.

Powercube H2 compatible list

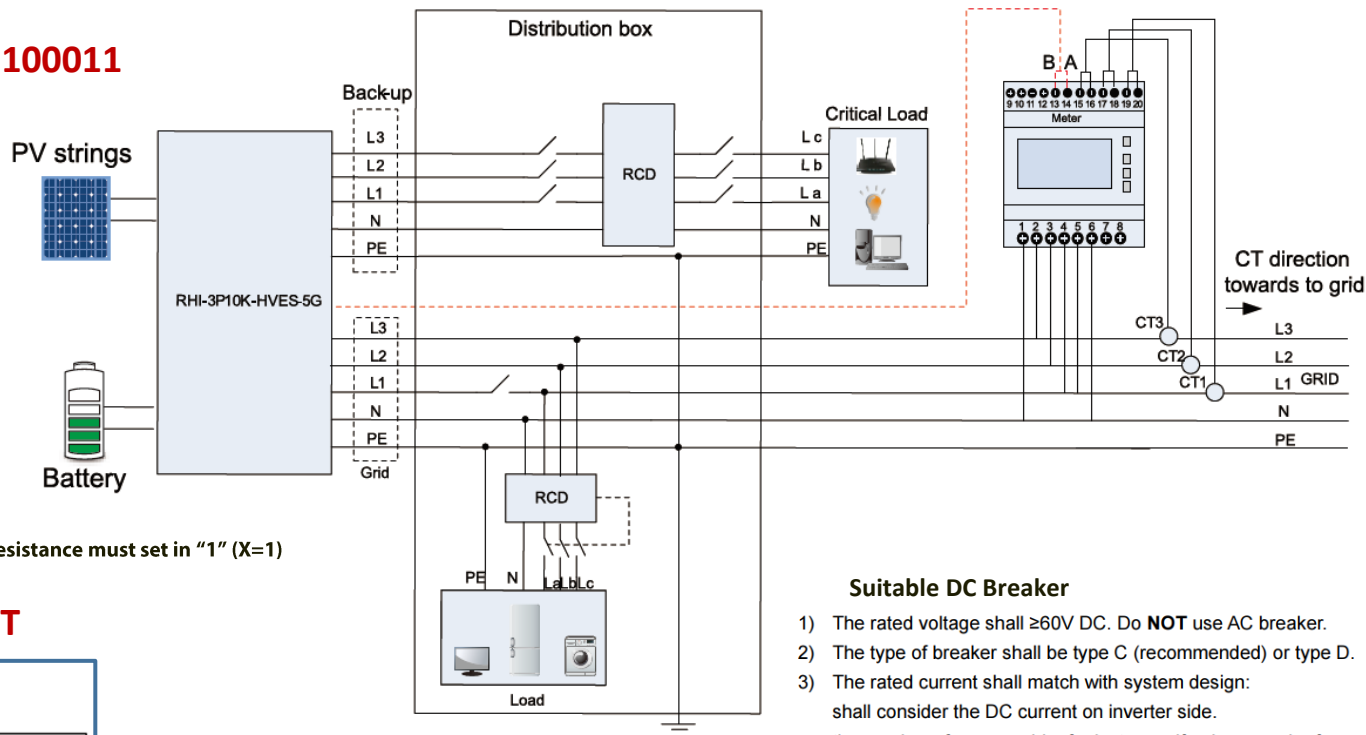
Inverter brand	Suitable battery type	Numbers (Max. 36 groups)	Voltage range	capacity	Communication	Application	Key features		Installation
							Activation	Force charge	
Solis	Power Cube H2	5-11/group	160-600	RHI-HV 10k	CAN	On/Off-grid	Yes	Yes	Wall mounting
Atess		8-11/group	352-600	30k/50k /100K /150k	CAN	On/Off-grid	Yes	Yes	Cabinet
BME		8-10/group	384-480	20k/30k	CAN	On/Off-grid	Yes	Yes	Cabinet

Connection Diagram - Solis

MBMS ADD setting: 100011

BMS ADD setting:

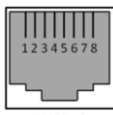
CAN	Modbus	Address dial bit
0	1	00000X
1	1	10000X
2	2	01000X
3	3	11000X
4	4	00100X
5	5	10100X
6	6	01100X



Note that the last BMS's terminal resistance must set in "1" (X=1)

Comm. Cable PINOUT

CAN	BAT	inverter
Pin1		
Pin2		
Pin3		
Pin4	CAN-H	CAN-H
Pin5	CAN-L	CAN-L
Pin6		
Pin7		
Pin8		



Suitable DC Breaker

- 1) The rated voltage shall $\geq 60V$ DC. Do **NOT** use AC breaker.
- 2) The type of breaker shall be type C (recommended) or type D.
- 3) The rated current shall match with system design:
shall consider the DC current on inverter side.
the number of power cable: for instance, if only one pair of 4awg cable, the rated current of breaker shall be 125A or smaller.
- 4) The Icu required:
the short circuit current for calculation of each module is 2500A. for instance:

	Icu of breaker
1~4 modules	Must $\geq 10kA$
5~8 modules	Must $\geq 20kA$

Configuration-Solis



1. Press Enter to Menu



2. Select "Advanced Settings"



3. Enter Password "0010"



4. Select "Battery Control"



5. Select "Battery Select"



6. Select "Pylon"



7. Set Over-discharge SOC



8. Set Force-charge SOC

Connection Diagram - AteSS

MBMS ADD setting: 100011

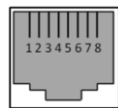
BMS ADD setting:

CAN	Modbus	Address dial bit
0	1	00000X
1	1	10000X
2	2	01000X
3	3	11000X
4	4	00100X
5	5	10100X
6	6	01100X

Note that the last BMS's terminal resistance must set in "1" (X=1)

Comm. Cable PINOUT

CAN	BAT	inverter
Pin1		
Pin2		
Pin3		
Pin4	CAN-H	CAN-H-A
Pin5	CAN-L	CAN-L-A
Pin6		
Pin7		
Pin8		



RJ45 Port



RJ45 Plug

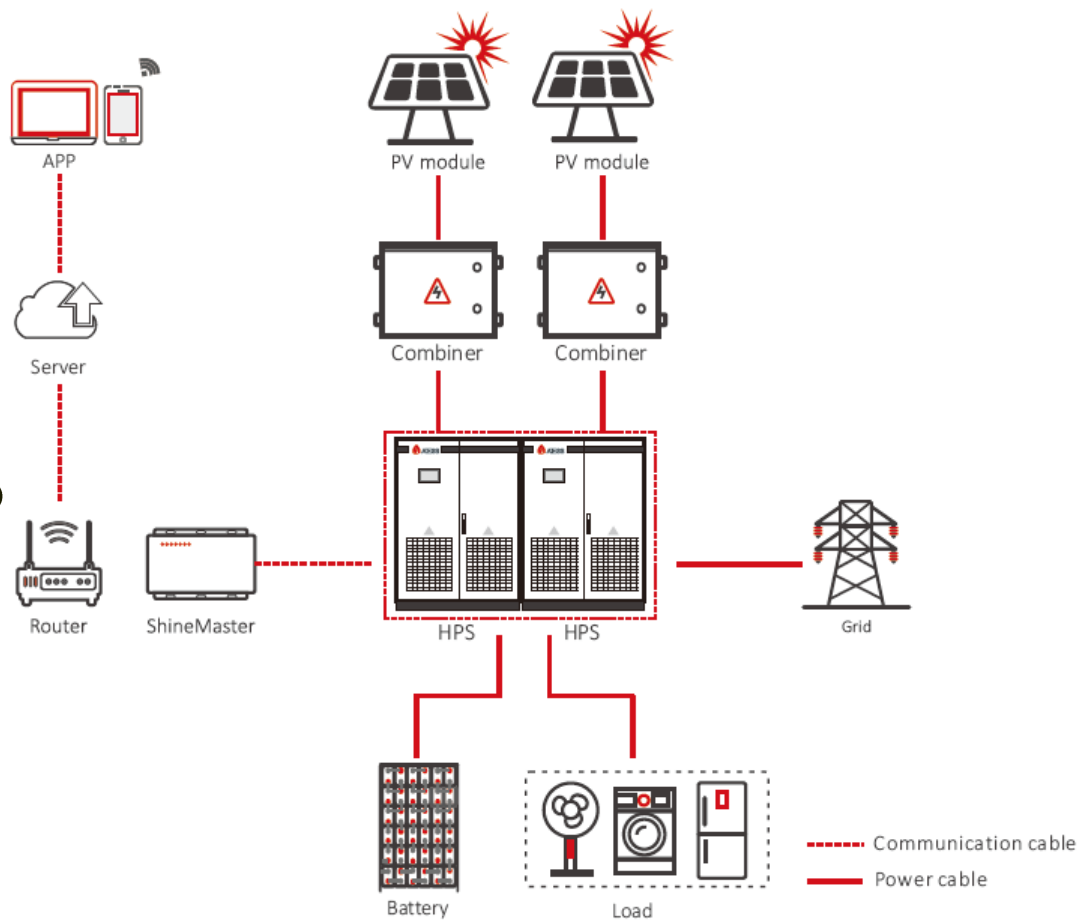


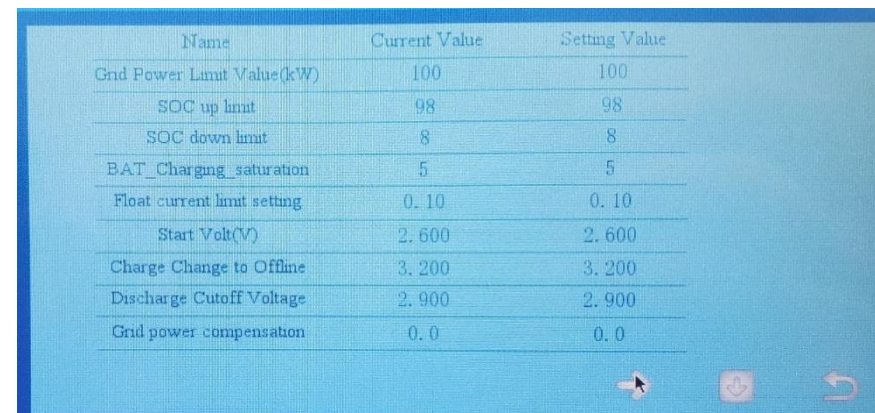
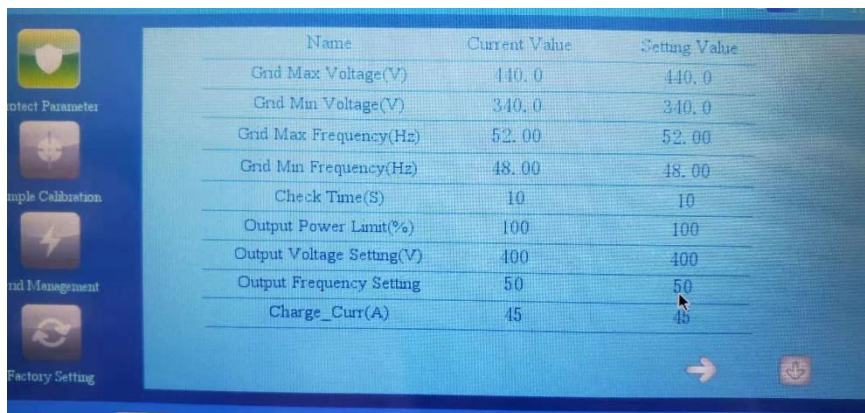
Figure 10: Pylontech batteries with AteSS inverter connection diagram

Configuration - Atess



1. Connect cables, turn on power switch.

2. Enter the password "1234" to start settings.



3. Click "Protect Parameter", change the parameters

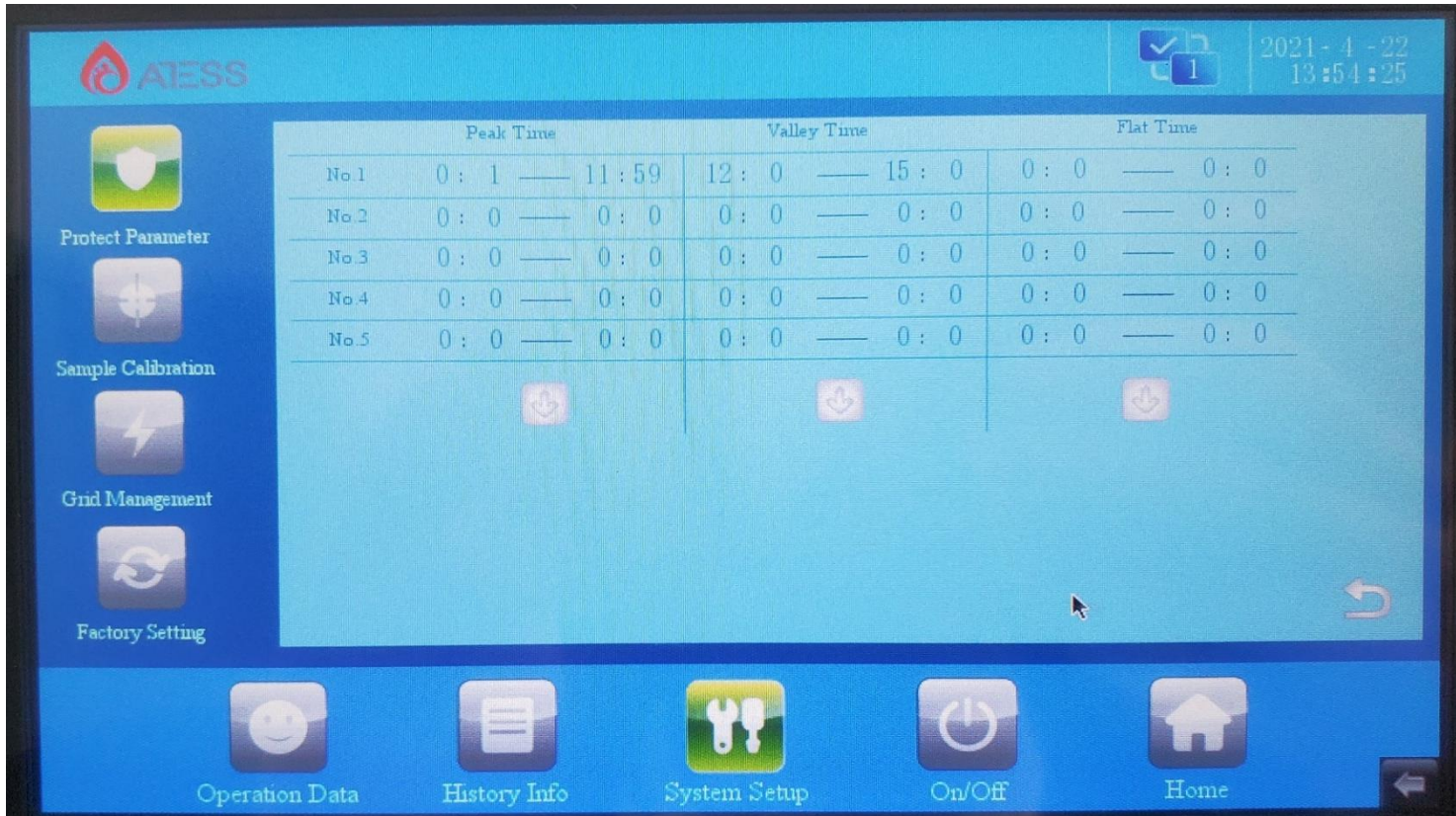
Parameters Configuration

Name	Current Value	Setting Value
Batteries	1	1
Battery Cells	135	135
Battery Capacity	74	74
Max current Charge(A)	80.0	80.0
Max current Discharge(A)	80.0	80.0
Floating Charge Volt(V)	3.550	3.550
Batt_UnderVolt_Warning	2.900	2.900
UnderVolt_Fault(V)	2.700	2.700
OverVolt_Fault(V)	3.650	3.650

Name	Current Value	Setting Value
Engine power upper	30	30
Discharge cutoff SOC	15	15

4. Change the parameters according to the application

Parameters - AteSS

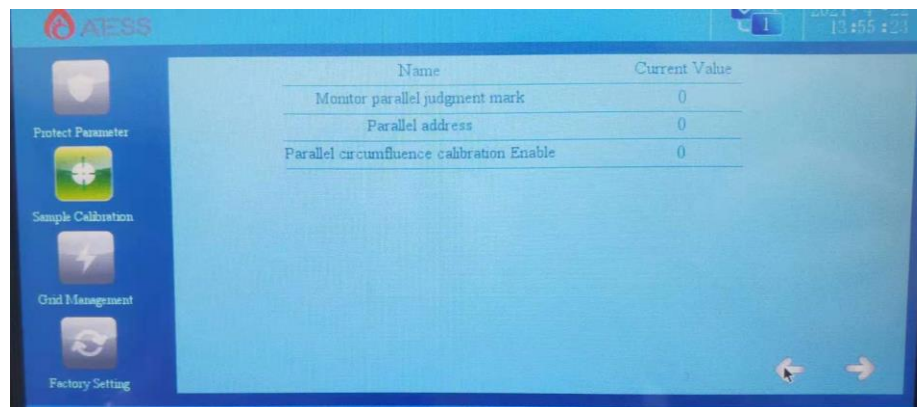
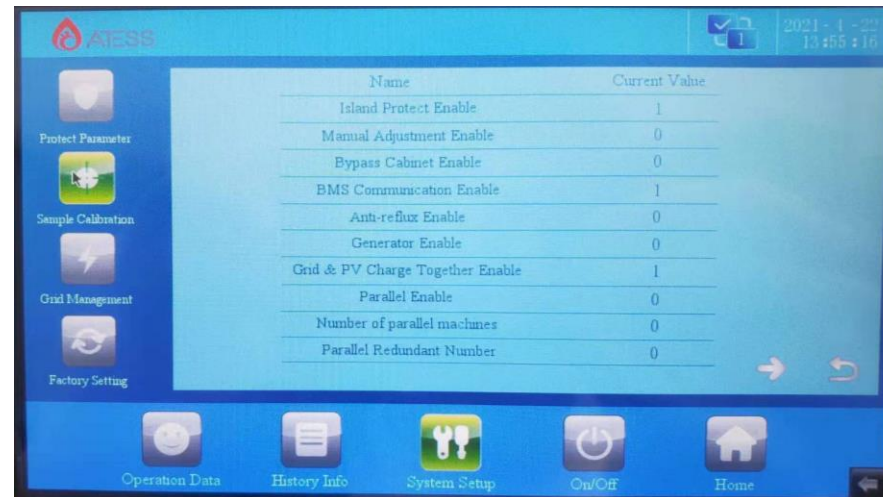


The screenshot shows the AteSS Parameters screen. The top bar displays the AteSS logo, a status icon with the number 1, and the date/time: 2021-4-22 13:54:25. The left sidebar contains five menu items: Protect Parameter, Sample Calibration, Grid Management, and Factory Setting. The main area features a table with three columns: Peak Time, Valley Time, and Flat Time, each with a download icon below it. The table lists five channels (No. 1 to No. 5) with their respective time settings. At the bottom, there is a navigation bar with five icons: Operation Data, History Info, System Setup, On/Off, and Home.

	Peak Time		Valley Time		Flat Time	
No.1	0 : 1	11 : 59	12 : 0	15 : 0	0 : 0	0 : 0
No.2	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
No.3	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
No.4	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0
No.5	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0	0 : 0

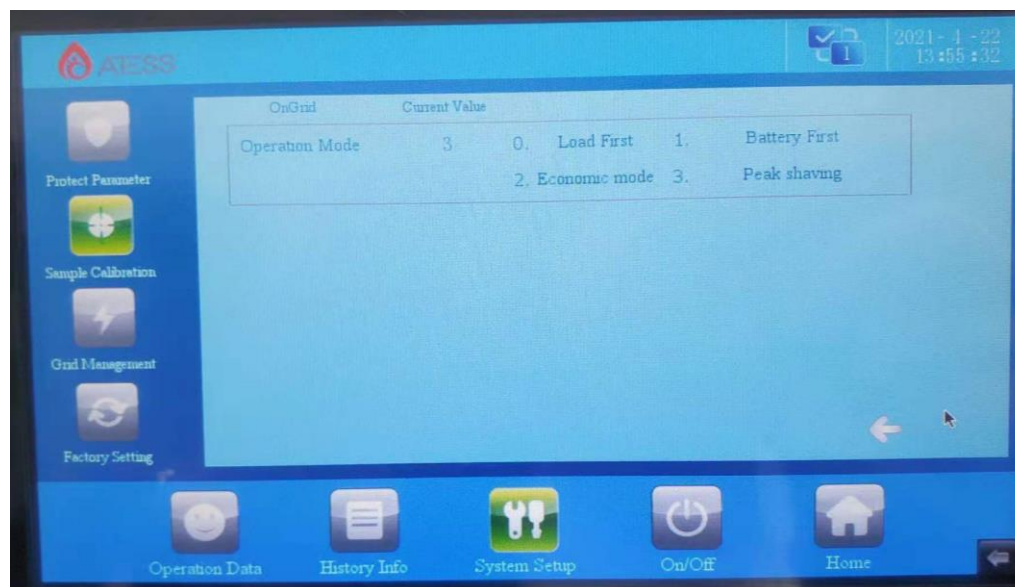
5. If you are applying "Peak shaving" mode, please change the Peak, Valley and Flat time.

Function & Mode Configuration



6. Click "Sample Calibration" window to start function configuration. All the parameters depends on the system composition.

Function & Mode Configuration



7. Mode selection depends on the customer's requirements.

Configuration- Ateess

Necessary Parameters	Setting value
SOC upper limit	100
SOC lower limit	15
Discharge cut-off SOC	15
Battery group	Depends
Battery cell number	15 x battery number
Battery capacity	74
Battery charging overcurrent protection	80
Battery discharging overcurrent protection	80
Float charge voltage setting	3.550
Battery undervoltage warning	3.050
Battery undervoltage protect	2.900
Battery overvoltage warning	3.650
Battery starting voltage	2.600
Discharge cut-off voltage	3.100

Note: Other settings please refer to default value.

Connection Diagram – BME

MBMS ADD setting: 100011

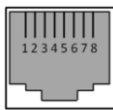
BMS ADD setting:

CAN	Modbus	Address dial bit
0	1	00000X
1	1	10000X
2	2	01000X
3	3	11000X
4	4	00100X
5	5	10100X
6	6	01100X

Note that the last BMS's terminal resistance must set in "1" (X=1)

Comm. Cable PINOUT

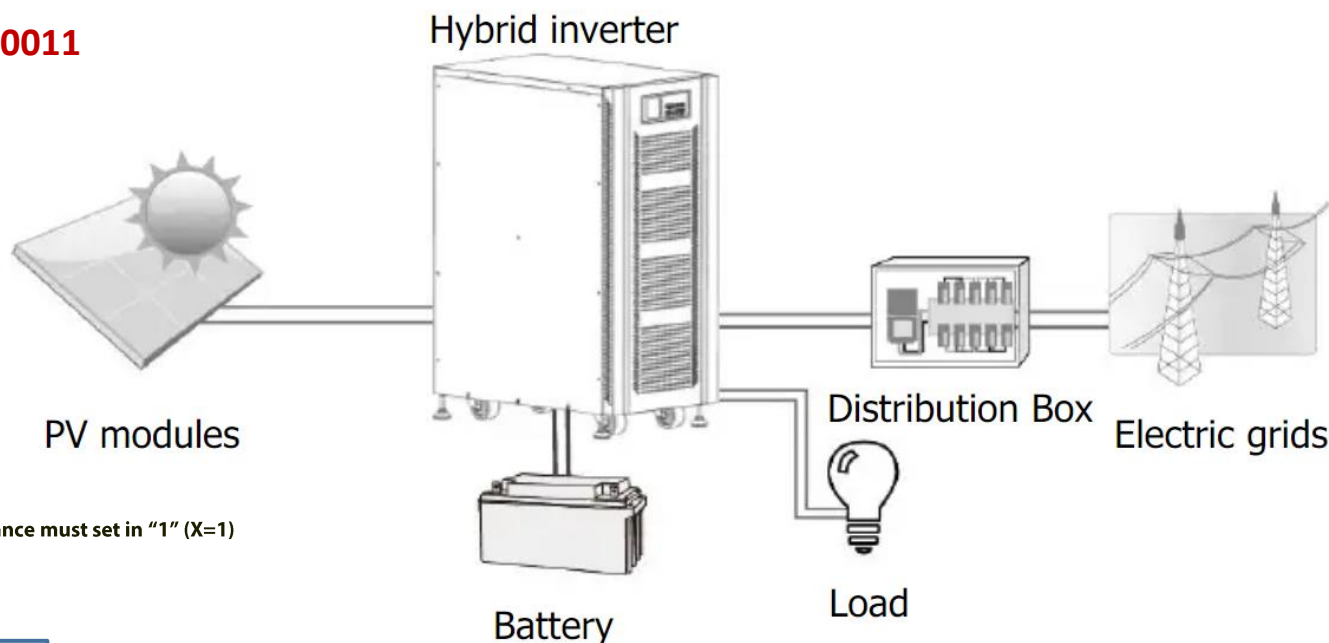
RS485	BAT	inverter
Pin1		
Pin2		
Pin3		
Pin4		485B
Pin5		485A
Pin6		
Pin7	485A	
Pin8	485B	



RJ45 Port



RJ45 Plug



Suitable Breaker

- 1) The rated voltage shall $\geq 60V$ DC. Do **NOT** use AC breaker.
- 2) The type of breaker shall be type C (recommended) or type D.
- 3) The rated current shall match with system design:
shall consider the DC current on inverter side.
the number of power cable: for instance, if only one pair of 4awg cable, the rated current of breaker shall be 125A or smaller.
- 4) The Icu required:
the short circuit current for calculation of each module is 2500A. for instance:

	Icu of breaker
1~4 modules	Must $\geq 10kA$
5~8 modules	Must $\geq 20kA$

Figure 11: Pylontech batteries with BME inverter connection diagram

Configuration – BME

Battery Setting

Page 1/3: Charge Current Max: 37A

Float Voltage: $53.25 \times n$ (n=battery number) V

CV Voltage: $53.25 \times n$ V

Page 2/3: Grid Available

Max Bat Discharge: 37A

Grid Available

Bat Discharge Off: $43.5 \times n$ V

Bat Re-discharge: $48.75 \times n$ V

Page 3/3: Grid unavailable

Bat Discharge Off: $43.5 \times n$ V

Bat Re-discharge: $48.75 \times n$ V

04

WIFI CONFIGURATION



Wifi Configuration

Wifi setup guide:v

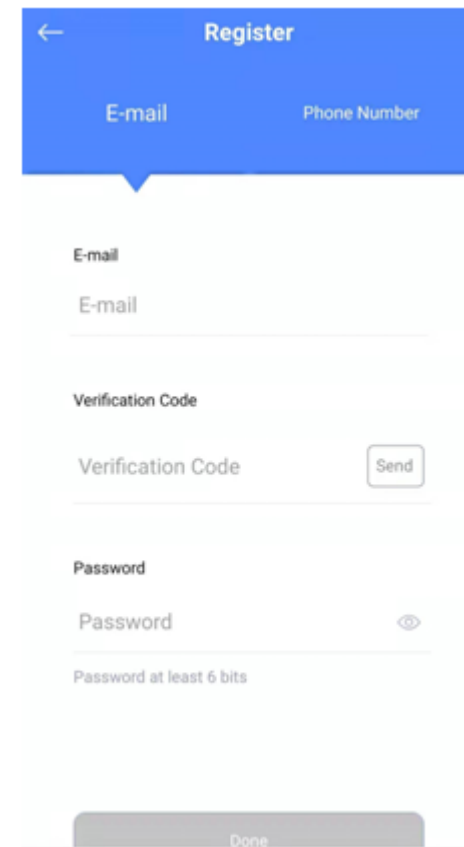
<https://portal.segensolar.co.za/reseller/docs/Wi-Fi%20Portal%20Introduction%201.0.pdf>

Mobile device could also be used as a way for terminal users to monitor batteries(Suitable for Android and IOS).

- a. Download 'SOLARMAN Smart' APP from App Store.

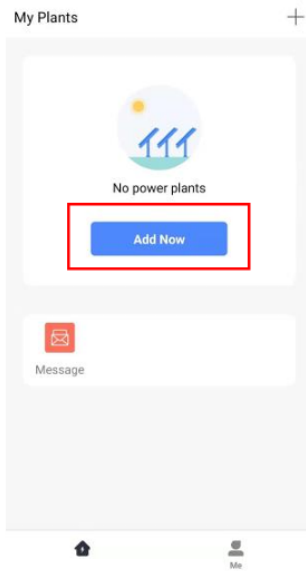


Open the application and finish the registration.
Similar to laptop portal, it has two methods to register.

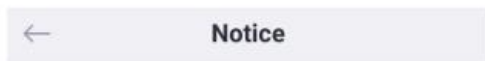
A mockup of a mobile application registration screen. At the top is a blue header with a back arrow, the title "Register", and two options: "E-mail" and "Phone Number". Below the header are input fields for "E-mail", "Verification Code", and "Password". The "E-mail" field has a placeholder "E-mail". The "Verification Code" field has a placeholder "Verification Code" and a "Send" button. The "Password" field has a placeholder "Password" and an eye icon. Below the password field is a note "Password at least 6 bits". At the bottom is a grey "Done" button.

Wifi Configuration

b. Create a new power plant.



Click



Dear owners, do you have an installer to do O&M in the later stage?



If your plant has no installer to do O&M in the later stage, please click "Create Now".



Select or enter the power plant address, then click "Next".



Wifi Configuration

Type in power plant information to complete the plant creation.

←

Plant Info

Basic Info

Plant Name

Name your plant

Time Zone

(UTC+08:00)
Beijing,Chongqing,Hong Kong,Urumqi

>

System Info

Plant Type

Residential Rooftop

>

System Type

Please select

>

Installed Capacity(kWp)

Please enter

Operating Date

i

2020-11-13

>

Yield Info

Currency

CNY

>

Unit Price(CNY/kWh)

i

Please enter (Optional)

Total Cost(CNY)

Please enter (Optional)

Click “Go to Add” to add a logger for the plant.

Created



Created

Continue the following steps



Add a logger

Go to Add

Logger can collect the data of related devices in the plant,upload to platform for data analysis

If you don't know the device information for a while, this step can be skipped and you can then operate in the power station details.[Skip](#)

Wifi Configuration

c. Add a logger.

Enter or scan the SN of the device.



Add a logger

Please enter the logger SN belongs to the plant. System will calculate plant data according to the logger.

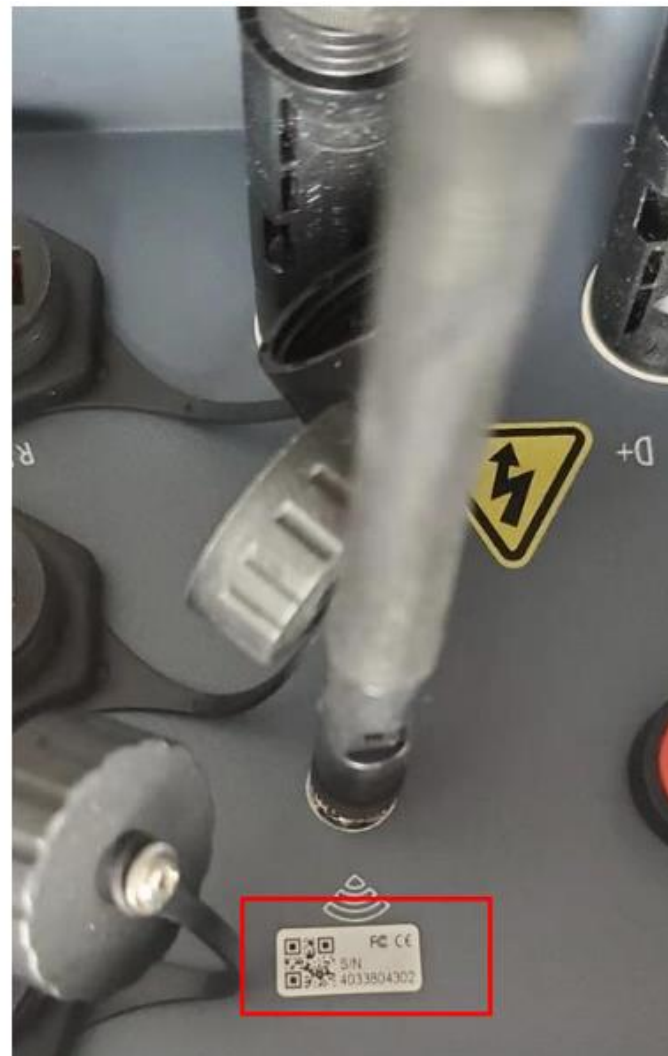
SN Please enter device SN



Cannot Find SN/Barcode?

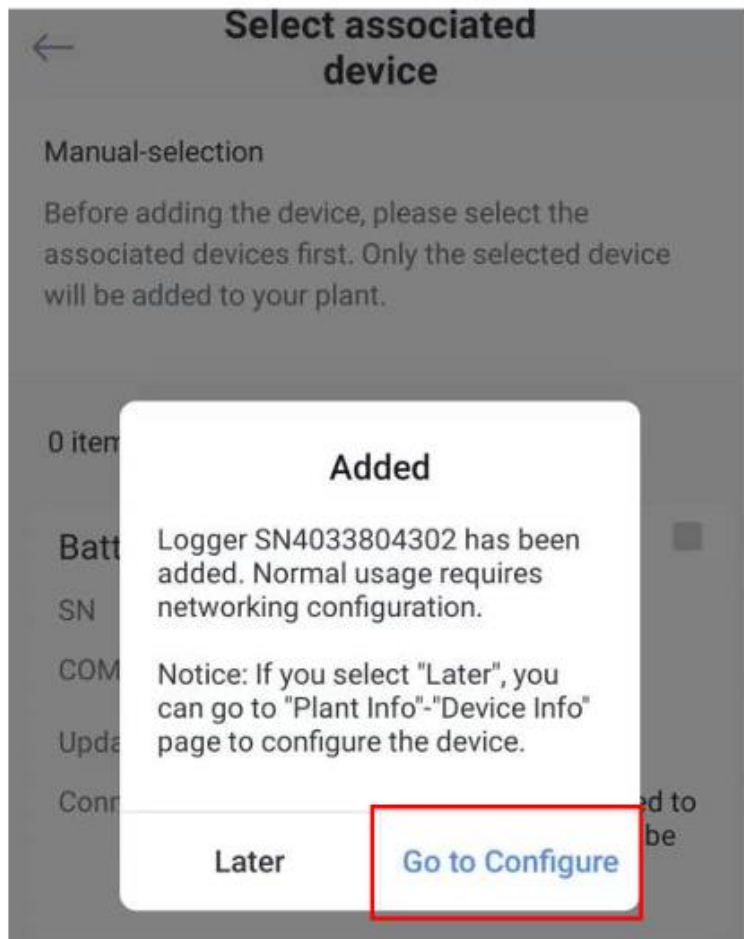
Add

The serial number is located on the back of the box



Wifi Configuration

Select “Go to Configure” to start the setting.



Now the Logger has been added, next step is connecting the logger to the Wifi network.

Wifi Configuration

d. Connect to the Wi-Fi network.

←
SN:4033804302

Please enter Wi-Fi password

5G frequency band is not supported. Please connect to 2.4G frequency band.


AP_4033804302
[Switch Network](#)


No password required


Text guide


Demo video

Start to configure

Click “Connect” to switch the network to the device Wi-Fi network.

←
Device Configuration

- Go to WLAN Setting and connect the following network manually

Android

ChinaNet

AP_4033804302



IGEN-5G

IGEN-HILINK
- Some devices might need a password to connect the network. You can find the password on the device enclosure.
- Connected.

Connect

Cancel

Wifi Configuration

Device enter the status of configuration.



Please shorten the distance between the device, router and phone.

- ☒ Connect to device
- ☐ Configuring
- ☐ Restart
- ☐ Verified



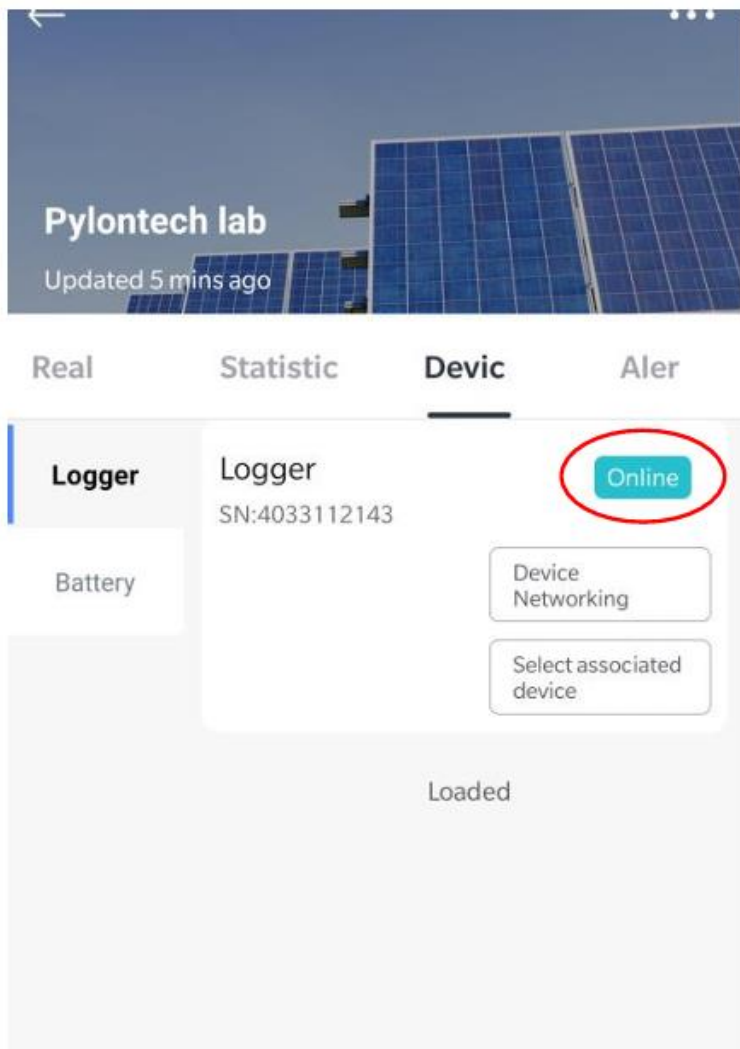
Configuration succeeded

Device data will be displayed in 10 mins. After that, you can check device status in device list.

Done

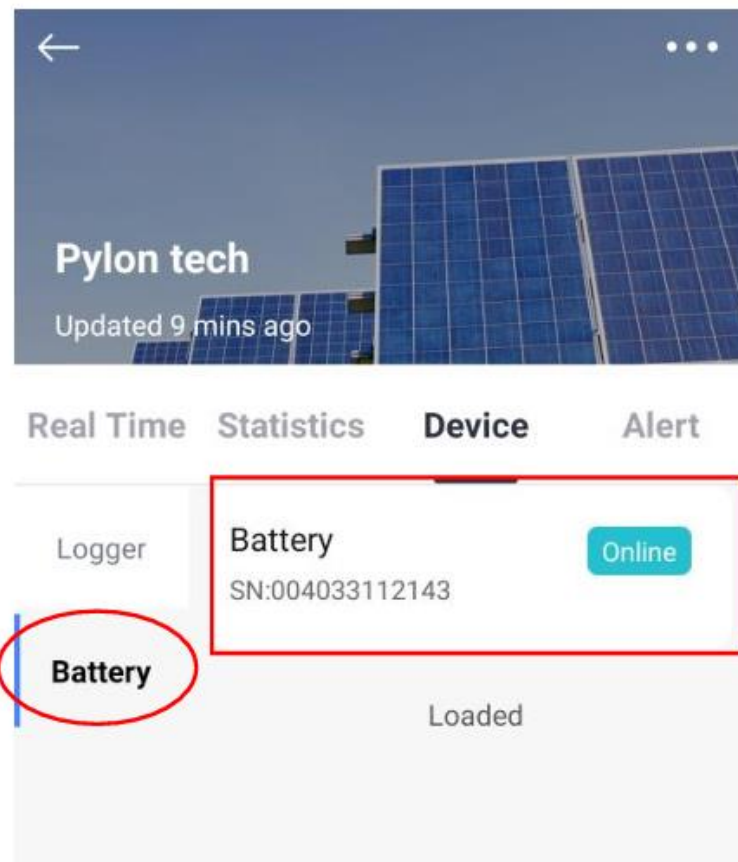
Wifi Configuration

When finishing the configuration, wait for 3-10 minutes, the logger could be online.



e. View the battery information.

Open the battery window, the battery information can be viewed now.



Wifi Configuration

←
Battery
...

Device Parameters
Statistics
Architecture

Basic Information

Connected Device SN:
004033112143

Battery pack

No. of Battery Pack:
1

Battery Pack 1

Battery Pack 1
Connected Device Sn:
0000000000000007

Battery Pack 1 Device Name:
Force_L

Battery Pack 1 Brand:
Pylon

Voltage-1:
48.64V

Current-1:
-0.10A

Battery Pack 1 SOC:
15.00%

Cell voltage 1-1 Warning:
0

Cell voltage 1-2 Warning:
0

Cell voltage 1-3 Warning:
0

Cell voltage 1-4 Warning:
0

Cell voltage 1-5 Warning:
0

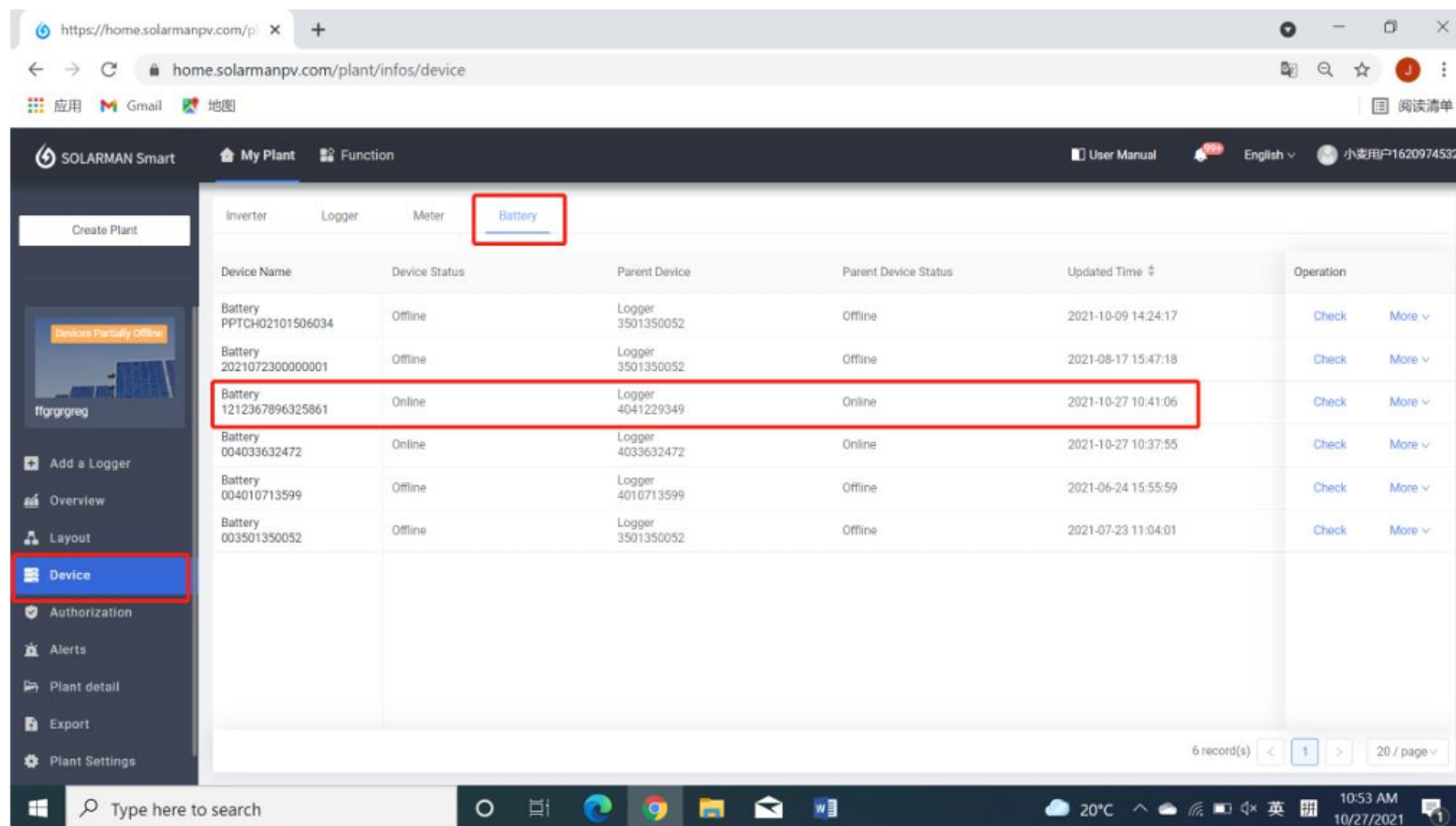
Cell voltage 1-6 Warning:
0

Cell voltage 1-9 Warning: 0	Cell voltage 1-10 Warning: 0
Cell voltage 1-11 Warning: 0	Cell voltage 1-12 Warning: 0
Cell voltage 1-13 Warning: 0	Cell voltage 1-14 Warning: 0
Cell voltage 1-15 Warning: 0	BMS Temperature Warning-Battery Pack 1: 0
Temperature Point 1 Warning-Battery Pack 1: 0	Temperature Point 2 Warning-Battery Pack 1: 0
Temperature Point 3 Warning-Battery Pack 1: 0	Temperature Point 4 Warning-Battery Pack 1: 0
Temperature Point 4 Warning-Battery Pack 1: 0	Battery Pack 1 Charge current Warning: 0
Battery Pack 1 Module voltage Warning: 0	Battery Pack 1 Discharge current Warning: 0
Battery Pack 1 Remain Capacity: 11.08AH	Battery Pack 1 Module Total Capacity: 73.85AH

Downloading battery logs

Method 1:

1. Go to the main window of the portal, click “Device” on the left, then choose “Battery”, select the battery you want to view.



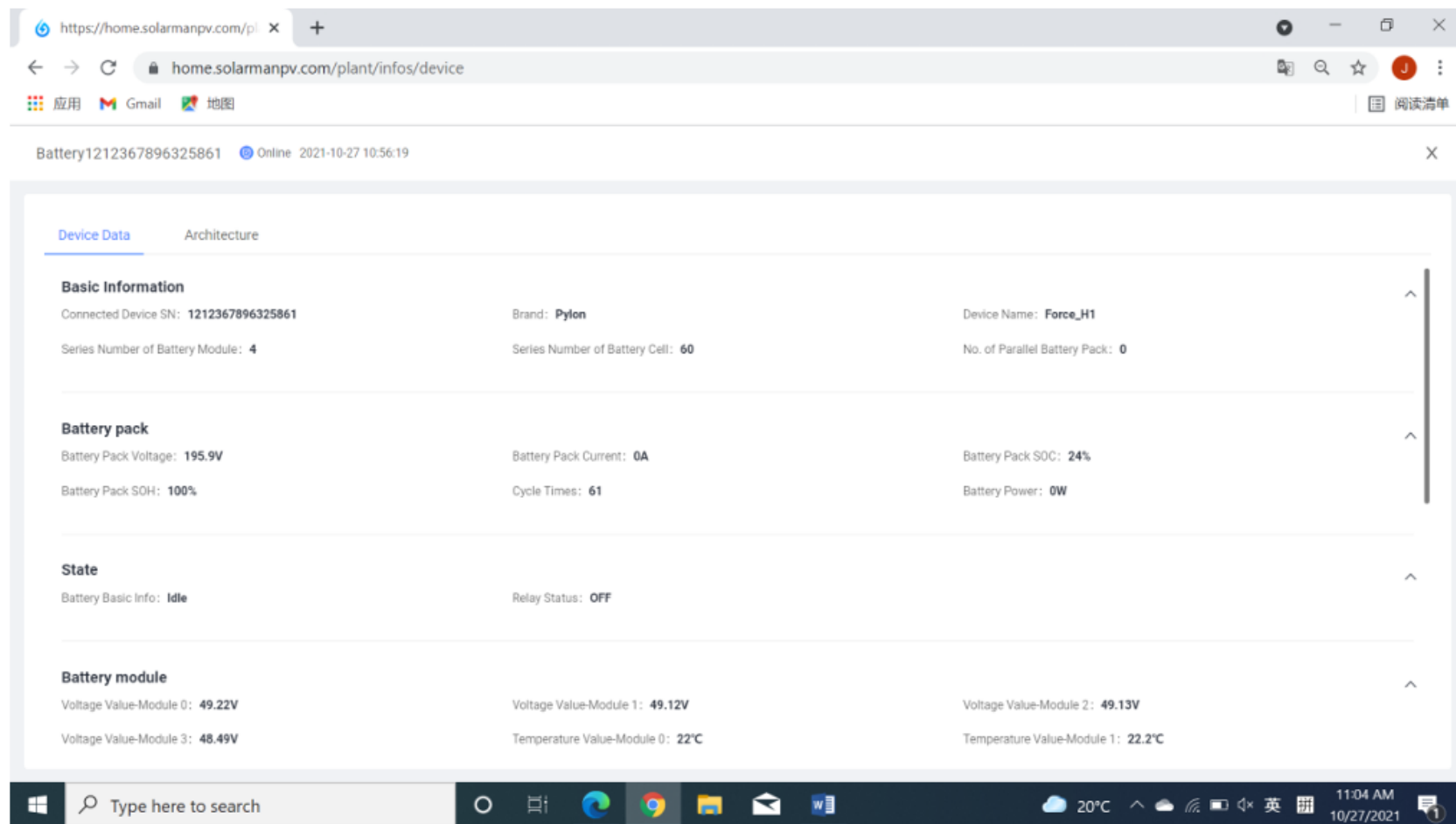
The screenshot shows the Solarman Smart portal interface. The left sidebar contains a menu with options: Create Plant, Add a Logger, Overview, Layout, **Device** (highlighted with a red box), Authorization, Alerts, Plant detail, Export, and Plant Settings. The main content area is titled 'My Plant' and shows a table of devices. The 'Battery' tab is selected and highlighted with a red box. The table lists several batteries, with the one having ID '1212367896325861' and status 'Online' highlighted with a red box. The table columns are: Device Name, Device Status, Parent Device, Parent Device Status, Updated Time, and Operation.

Device Name	Device Status	Parent Device	Parent Device Status	Updated Time	Operation
Battery PPTCH02101506034	Offline	Logger 3501350052	Offline	2021-10-09 14:24:17	Check More
Battery 2021072300000001	Offline	Logger 3501350052	Offline	2021-08-17 15:47:18	Check More
Battery 1212367896325861	Online	Logger 4041229349	Online	2021-10-27 10:41:06	Check More
Battery 004033632472	Online	Logger 4033632472	Online	2021-10-27 10:37:55	Check More
Battery 004010713599	Offline	Logger 4010713599	Offline	2021-06-24 15:55:59	Check More
Battery 003501350052	Offline	Logger 3501350052	Offline	2021-07-23 11:04:01	Check More

At the bottom of the table, it shows '6 record(s)' and a pagination control for '20 / page'.

Downloading battery logs

2. Drag the scroll wheel to the bottom of the page.



https://home.solarmanpv.com/plant/infos/device

Battery1212367896325861 Online 2021-10-27 10:56:19

Device Data Architecture

Basic Information

Connected Device SN: 1212367896325861	Brand: Pylon	Device Name: Force_H1
Series Number of Battery Module: 4	Series Number of Battery Cell: 60	No. of Parallel Battery Pack: 0

Battery pack

Battery Pack Voltage: 195.9V	Battery Pack Current: 0A	Battery Pack SOC: 24%
Battery Pack SOH: 100%	Cycle Times: 61	Battery Power: 0W

State

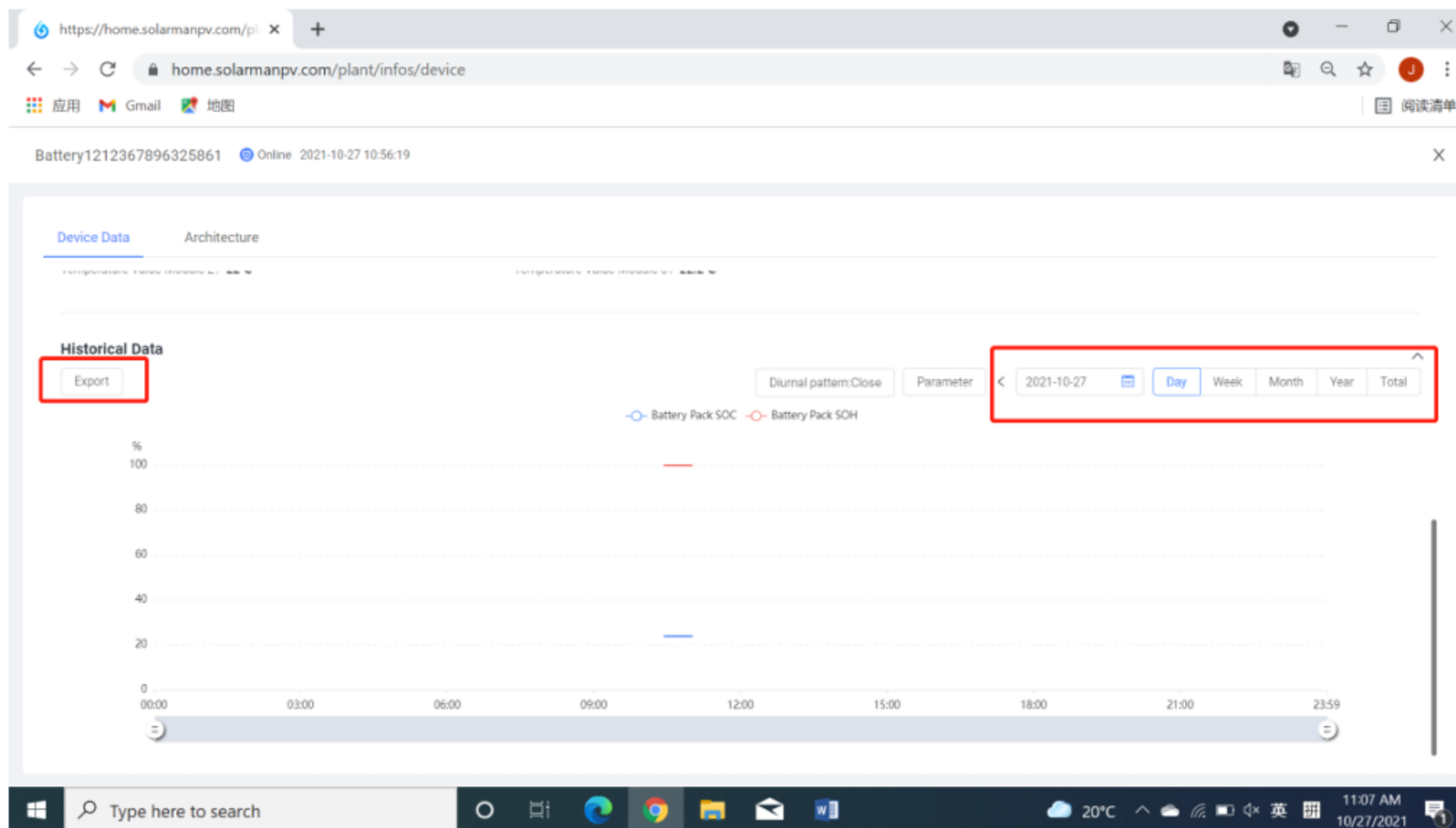
Battery Basic Info: Idle	Relay Status: OFF
--------------------------	-------------------

Battery module

Voltage Value-Module 0: 49.22V	Voltage Value-Module 1: 49.12V	Voltage Value-Module 2: 49.13V
Voltage Value-Module 3: 48.49V	Temperature Value-Module 0: 22°C	Temperature Value-Module 1: 22.2°C

Downloading battery logs

- You can choose the date and length of the logs, then click the “Export” to download the data. Note that you can download the logs up to one month.



Downloading battery logs

The history data will be like this:

2021-10-27 Battery1212367896325861Report [受保护的视图] - Excel(产品激活失败)

文件 开始 模板 插入 页面布局 公式 数据 审阅 视图 PDF工具 告诉我您想要做什么...

A2 Battery

Device Name	SN	Parent Device	Device SN	Updated Time	Brand	Series Number of Battery	Device Name
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:25:53	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:30:57	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:36:01	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:41:06	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:46:12	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:51:15	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 10:56:19	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 11:01:24	Pylon	4	Force_H1
Battery	1212367896325861	Logger	4041229349	2021/10/27 11:06:27	Pylon	4	Force_H1

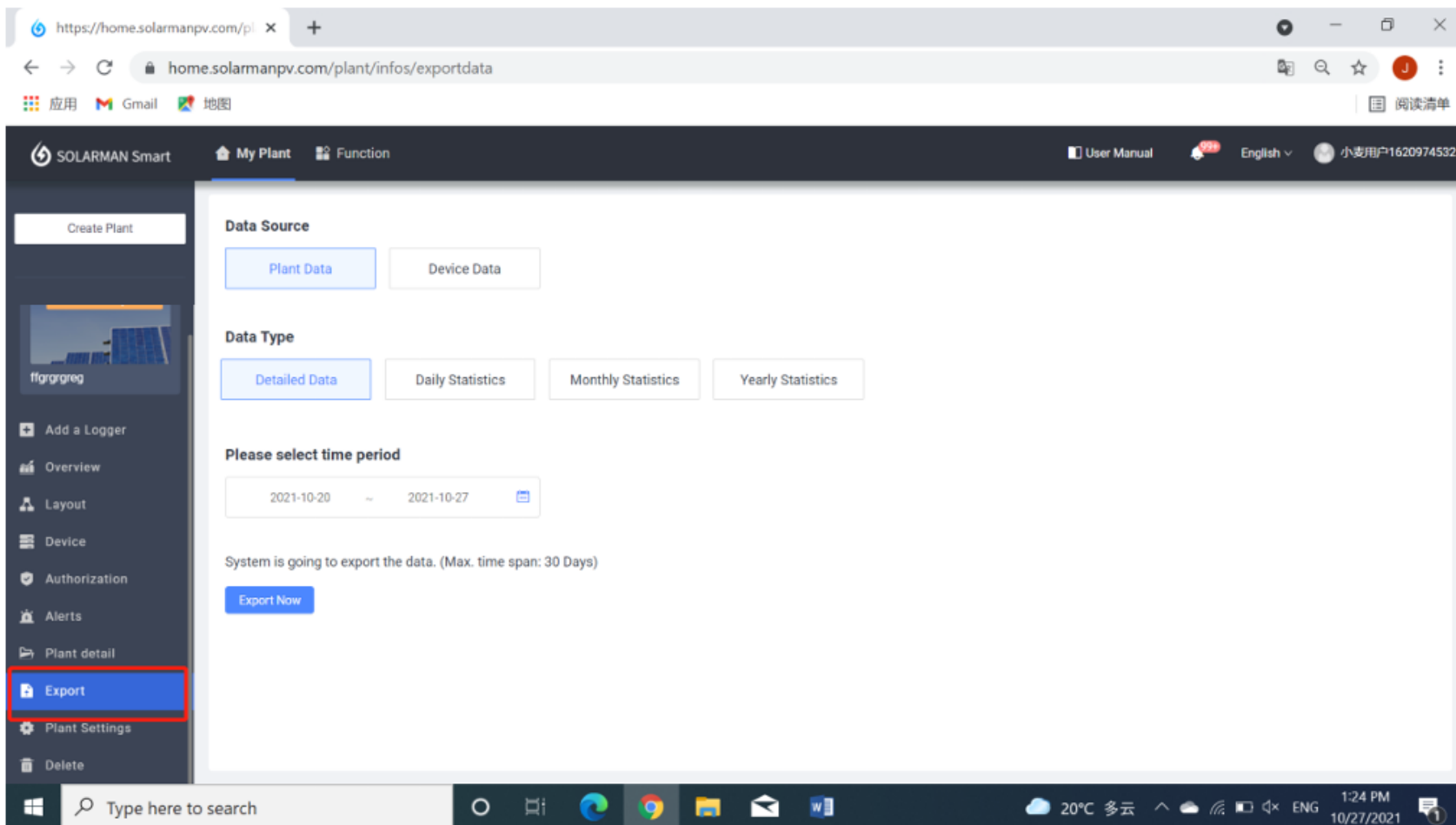
就绪 1 100%

Type here to search 20°C 11:16 AM 10/27/2021

Downloading battery logs

Method 2:

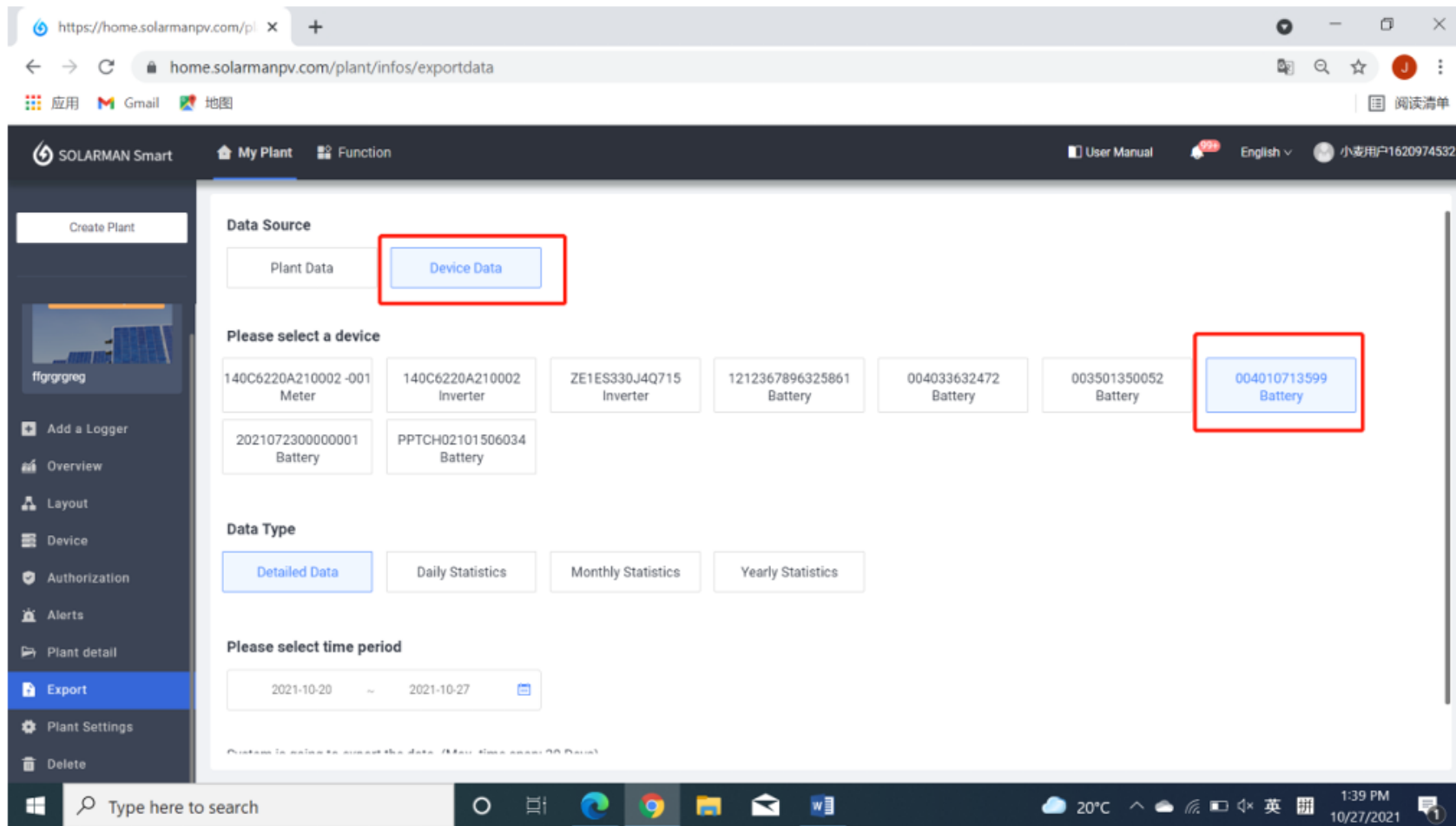
1. Click “Export” on the left of the main window.



The screenshot shows a web browser window with the URL <https://home.solarmanpv.com/plant/infos/exportdata>. The browser's address bar and search bar are visible. Below the browser window, the Solarman Smart web interface is displayed. The interface has a dark sidebar on the left with the following menu items: 'Create Plant', 'Add a Logger', 'Overview', 'Layout', 'Device', 'Authorization', 'Alerts', 'Plant detail', 'Export' (highlighted with a red box), 'Plant Settings', and 'Delete'. The main content area is titled 'Data Source' and 'Data Type'. Under 'Data Source', there are two buttons: 'Plant Data' (selected) and 'Device Data'. Under 'Data Type', there are four buttons: 'Detailed Data' (selected), 'Daily Statistics', 'Monthly Statistics', and 'Yearly Statistics'. Below these buttons, there is a section titled 'Please select time period' with a date range selector showing '2021-10-20' to '2021-10-27'. A message below the date range states: 'System is going to export the data. (Max. time span: 30 Days)'. At the bottom of this section is a blue button labeled 'Export Now'. The bottom of the screenshot shows a Windows taskbar with the search bar and several application icons.

Downloading battery logs

2. Select “Device Data”, choose the battery that you want to download logs, select the data type you want and choose the time period you required.



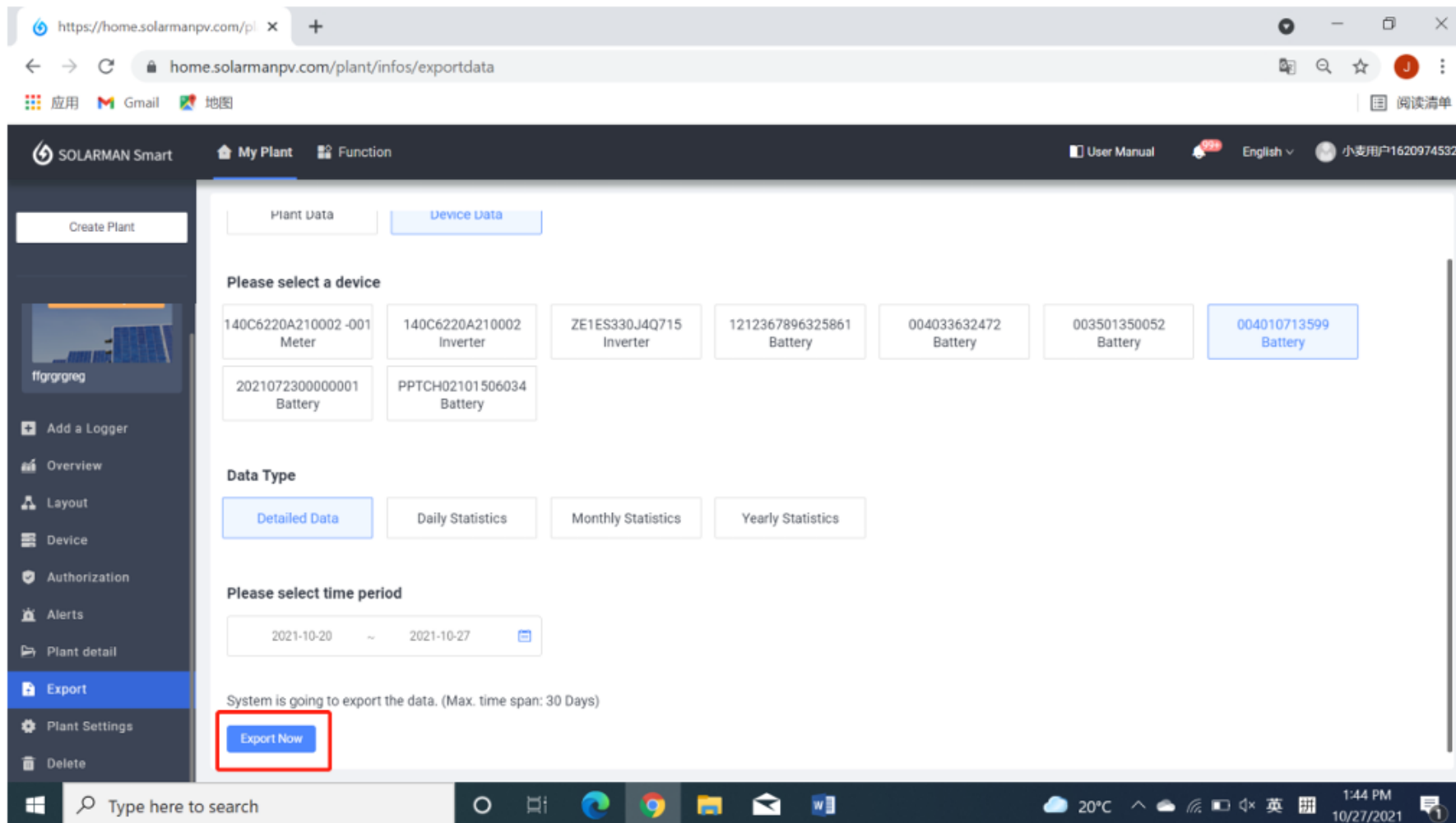
The screenshot shows the SOLARMAN Smart web interface. The browser address bar displays <https://home.solarmanpv.com/plant/infos/exportdata>. The interface includes a sidebar with navigation options: Create Plant, Add a Logger, Overview, Layout, Device, Authorization, Alerts, Plant detail, Export (highlighted), Plant Settings, and Delete. The main content area is titled "Data Source" and contains the following sections:

- Data Source:** Two buttons are visible: "Plant Data" and "Device Data". The "Device Data" button is highlighted with a red rectangle.
- Please select a device:** A grid of device selection buttons. The buttons include:
 - 140C6220A210002 -001 Meter
 - 140C6220A210002 Inverter
 - ZE1ES330J4Q715 Inverter
 - 1212367896325861 Battery
 - 004033632472 Battery
 - 003501350052 Battery
 - 004010713599 Battery** (highlighted with a red rectangle)
 - 2021072300000001 Battery
 - PPTCH02101506034 Battery
- Data Type:** Four buttons are visible: "Detailed Data" (highlighted), "Daily Statistics", "Monthly Statistics", and "Yearly Statistics".
- Please select time period:** A date range selector showing "2021-10-20" to "2021-10-27".

The Windows taskbar at the bottom shows the system clock as 1:39 PM on 10/27/2021, with a temperature of 20°C.

Downloading battery logs

3. Click “Export Now” to download the logs.



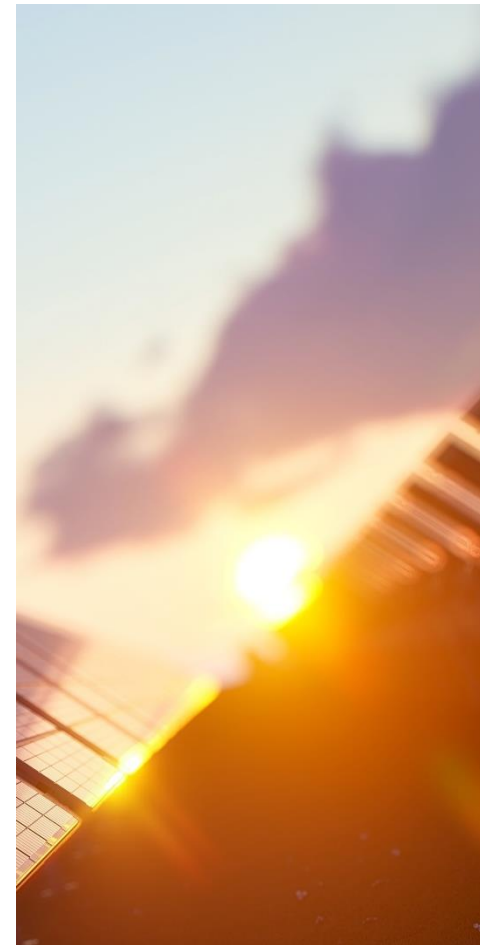
The screenshot shows the SOLARMAN Smart web interface in a browser. The address bar displays the URL <https://home.solarmanpv.com/plant/infos/exportdata>. The interface has a dark sidebar on the left with navigation options: Create Plant, Add a Logger, Overview, Layout, Device, Authorization, Alerts, Plant detail, Export (highlighted), Plant Settings, and Delete. The main content area is titled 'Please select a device' and shows a grid of device cards. The 'Device Data' tab is selected. The cards include: 140C6220A210002 -001 Meter, 140C6220A210002 Inverter, ZE1ES330J4Q715 Inverter, 1212367896325861 Battery, 004033632472 Battery, 003501350052 Battery, 20210723000000001 Battery, and PPTCH02101506034 Battery. The '004010713599 Battery' card is highlighted. Below the device selection, the 'Data Type' section shows 'Detailed Data' selected. The 'Please select time period' section shows a date range from 2021-10-20 to 2021-10-27. At the bottom, a message states 'System is going to export the data. (Max. time span: 30 Days)' and an 'Export Now' button is highlighted with a red rectangle.

Battery firmware upgrade

If you meet the problem that should be solved by firmware upgrade, please contact SegenSolar and provide the serial number of your Wi-Fi logger. Pylontech will help do an online firmware upgrade

05

TROUBLE SHOOTING



Trouble shooting

Communication related problems:

1) Cable connections

Solution: Check the cable connections. Make sure all the cables are connected in the correct way.

2) Pin definitions of communication cables

Solution: Please refer to pin definition diagrams.

3) Inverter settings

Solution: Please change the inverter settings according to the battery parameters.

Functional related problems:

1) Battery over voltage

Solution: Please check the inverter settings and the communication status between the inverter and the batteries.

2) Battery voltages imbalance

Solution: Please disconnect the batteries in one group, use a multimeter to test their terminal voltages. Charge the low voltage batteries to a similar voltage value.

3) BMS error

Solution: Please swap the BMS or use BatteryView to clear the BMS error.

At present, the complex technical training is only open to SegenSolar SA. Should you experience any technical issues, please contact SegenSolar for assistance. Pylontech share the most advanced product knowledge with them.

Thank you

To recap on today's webinar please visit our portal

