SUNGROW
Clean power for all

PRODUCT INTRODUCTION

ACE 007　ACE Profit

C&I PowerKeeper Series

50 ~1000* kWh　　50~125 kW　　2~8h

* Please note: For now, only up to 250kWh per hybrid inverter

AGENDA

1 PRODUCT OVERVIEW

2 PRODUCT CONFIGURATION & COMPATIBILITY

3 TECHNICAL DETAILS

4 APPLICATION SCENARIOS

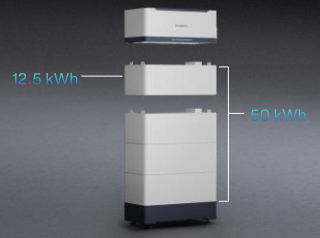
5 LAUNCH TIMELINE

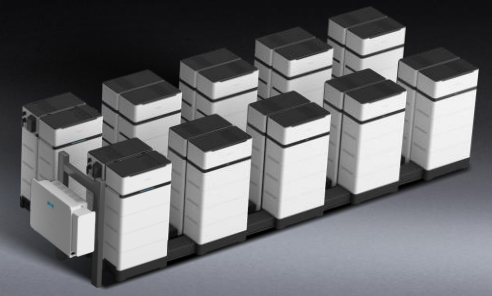
01 Product Overview

0

Waste
By Modular Design

2~8h coverage,
store every watt





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Outage
By Built-in ATS

10ms seamless switching,
support off-grid operation

7

Ups

Install in a coffee break
with the **50 kWh**
pre-built stack

Fit even in corners,
maximizing every centimeter

3-step setup,
5-minute power up

Operate in water up to
50cm depth

AI-driven modes,
capture every cent

Combine old
and new batteries,
scale at will

5D alerts, triple-guard protection,
cell-to-plant security

02 Product Configuration & Compatibility

Flexible Expansion Fits Diverse Demands, Any Capacity or Duration.

50~1000 kWh*

From small shops to large factories, maximize the value of every kilowatt.

2~8 h

Cover evening peaks and nighttime operation for greater savings and energy independence.

Single module

12.5 kWh

Modular matrixes

50 kWh

Max. 5 modules per battery rack (62.5kWh)

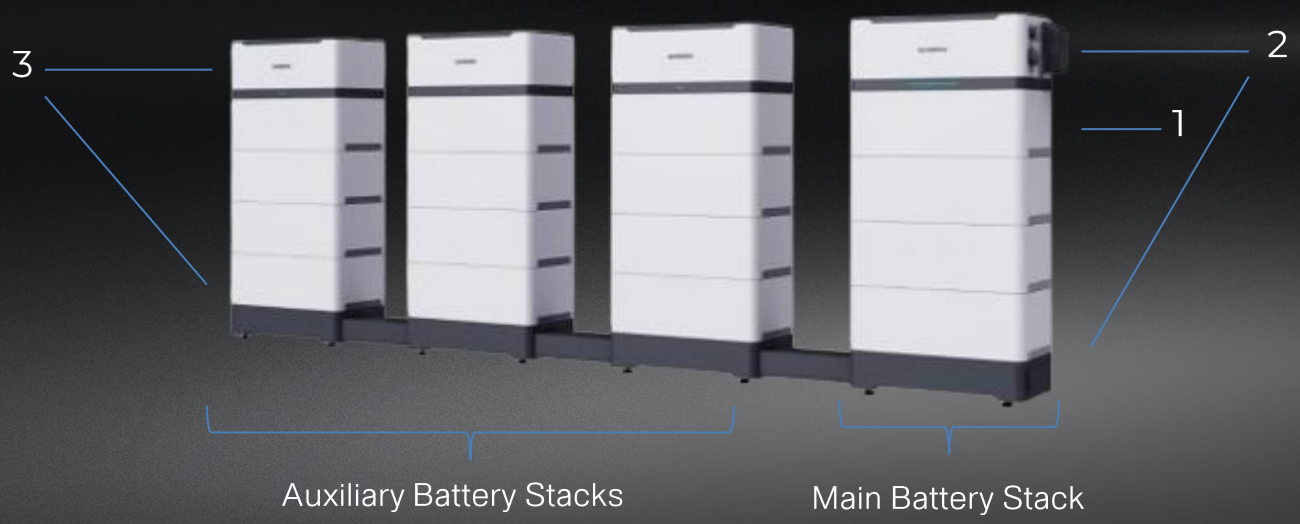
Whole package size: 860mm*1500mm*410mm

Long-duration layout

* Please note: For now, only up to 250kWh per hybrid inverter

Article Numbers & Scope of Delivery

Product	Includes	Art. Number
SH125CX	Hybrid Inverter	A0SH1033
STC12.5	Battery Module/Pack	A0SK1436
PK Accessory (Master)	Switch gear + Main base	A0ST6209
PK Accessory (Slave)	Upper cover + Auxiliary base + connecting parts + cables	A0ST6101



No.	Module Name	Remarks
1	Pack	Capacity of 12.5kWh and includes cells, BMU and safety modules
2	Switch gear	For the main battery stack. Includes CMU, cooling fans, safety detectors and indicator lights
	Main base	Includes power board, bottom controller and contactors
3	Upper cover	For the auxiliary battery stacks. Includes fuses, cooling fans, top controllers, safety detectors and indicator lights
	Auxiliary base	Includes power board and bottom controllers

Configuration Design

- Min. is 50kWh per hybrid inverter
- Max. is 250kWh per hybrid inverter (should not be exceeded!)

- Minimum 3 modules per tower
- Maximum 5 modules per tower

No.	Model	Switch Gear	Top Cover	Pack	Main Base	Auxiliary Base	Recommended Combination[1]
1	ST050CF	1	0	4	1	0	4
2	ST062CF	1	0	5	1	0	5
3	ST075CF	1	1	6	1	1	3 + 3
4	ST087CF	1	1	7	1	1	4 + 3
5	ST100CF	1	1	8	1	1	4 + 4
6	ST112CF	1	1	9	1	1	5 + 4
7	ST125CF	1	1	10	1	1	5 + 5
8	ST137CF	1	2	11	1	2	4 + 4 + 3
9	ST150CF	1	2	12	1	2	4 + 4 + 4
10	ST162CF	1	2	13	1	2	5 + 4 + 4
11	ST175CF	1	2	14	1	2	5 + 5 + 4
12	ST187CF	1	2	15	1	2	5 + 5 + 5
13	ST200CF	1	3	16	1	3	4 + 4 + 4 + 4
14	ST212CF	1	3	17	1	3	5 + 4 + 4 + 4
15	ST225CF	1	3	18	1	3	5 + 5 + 4 + 4
16	ST237CF	1	3	19	1	3	5 + 5 + 5 + 4
17	ST250CF	1	3	20	1	3	5 + 5 + 5 + 5

Example configurations:

250kWh

250kWh

150kWh

100kWh

One-Stop DC-Coupled PV + ESS Solution, Easy for New Builds & Retrofits.

DC-coupled solution maximizes solar energy, reuses equipment for low-waste retrofits, pre-installed systems enable faster new builds.

Lower costs for retrofits

- Consistent with PV MPPT wiring, no need to adapt AC access nodes and separate monitoring system installation.
- Reuse PV and AC distribution cables, distribution-side access devices, loggers and meters.

High efficiency for new builds

- Direct DC charging cuts losses, improving efficiency.
- Surplus solar power charges batteries, reducing curtailment.
- Integrated design simplifies wiring and speeds approval.

Energy Management

- The Logger1000 is needed in every installation and serves as the EMS

Supported Energy Modes of the Logger

- Self-Consumption
- Time Plan
- Compulsory Mode
- Dynamic Tariffs (AI mode) – Q2 2026

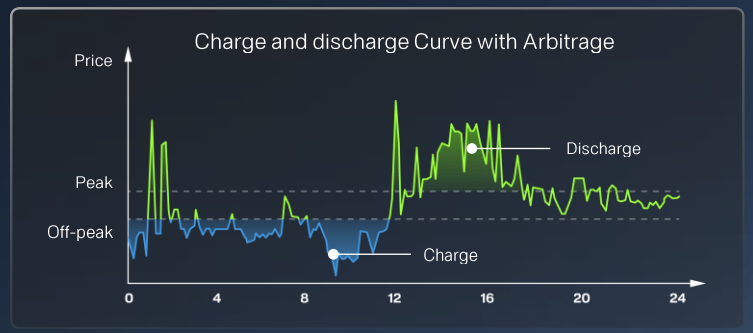
Smarter Dispatch Strategy for Maximized Revenue.

Supports multi-energy switching to diverse scenarios, boosting revenue.

Available in Q2 2026

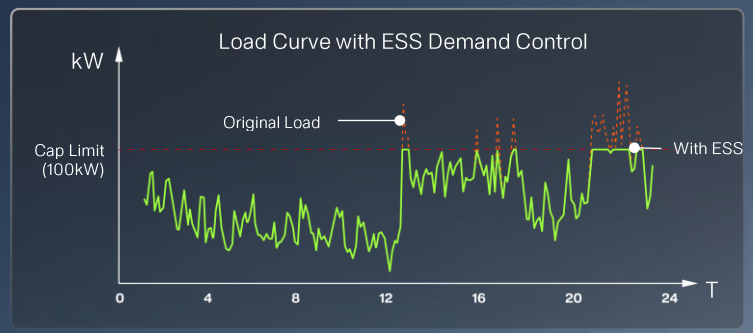
Arbitrage

Leveraging local power forecasts, load & weather forecasts, electricity price patterns, provide optimal dispatch strategy.



Demand control

Real-time load monitoring and automated control keep peak demand below grid limits, preventing substantial penalty fees.



Compatible Energy Meters

All meters that are compatible with the Logger (please check the compatibility factsheet) can be used, such as:

Manufacturer	Model	Communication Port and Protocol
Weidmüller	EM610	Modbus RTU/RS-485
Sungrow	DTSU666	
	DTSU666-20	
	DTSD1352	
Schneider	IEM3255	
IEM3255	UMG604/UMG104	UMG604: Modbus RTU/RS-485 UMG104: Modbus TCP/ETH

Please note:

Currently, a Logger is needed for every installation (also single inverter installations)

No dongles like WiNet-S/S2, EyeS4-EU are currently supported

03 TECHNICAL DETAILS

High-Efficiency Self-Consumption, Make Every kWh of Green Power Count.

SH125CX features 10 MPPT trackers, each 40A maximum current, supports DC/AC ratio 2.0, integrated with ESS, maximizes green power utilization for self-consumption, reducing electricity costs.

No fear of peak expenses

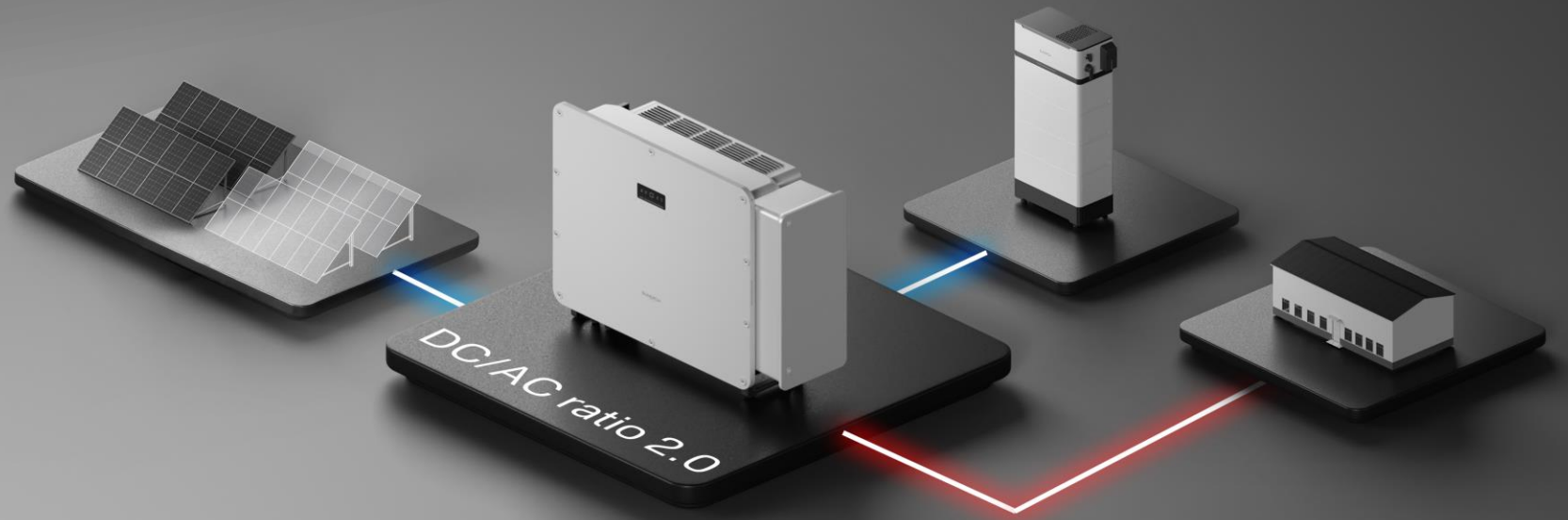
With self-consumption, its self-generated energy for use in day-time and store for night-time usage freely.

More green power

Capable of absorbing more peak-period power generation, avoiding the waste of green electricity.

Targeted policy incentives

Utilize more green electricity, reduce carbon emissions, and obtain green subsidies and tax incentives.



Flexible Deployment:
2 Options: Single Module or Pre-built Stack

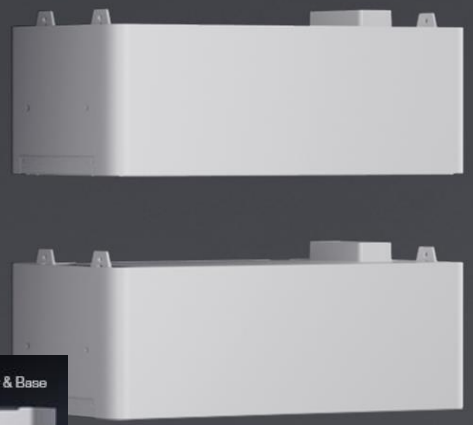
Flexible: Portable single module

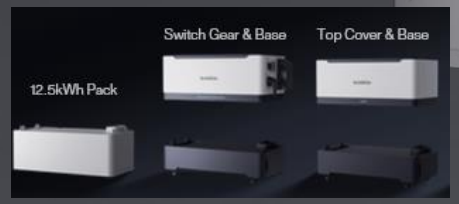
Snap-fit stacking design, weighs 90 kg, ideal for small-scale capacity expansion or replacement.

90KG

Available now!

Available Q2!

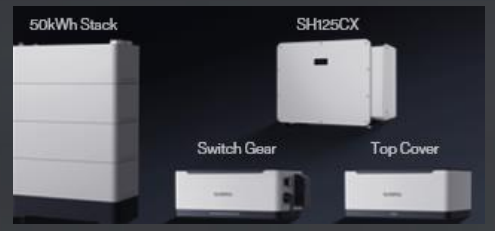




Efficient: 50 kWh 4-pack integrated modular matrixes

Forklift-friendly for whole-package transport, no manual handling required, significantly reducing manpower, suitable for high capacity.

Available Q3!



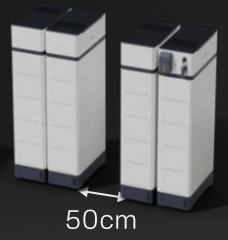
Seamless Back-to-Back Stacking, Stack Any Way, Save Space.

Fully utilize 3D space for heat dissipation, effectively reduce the land area.

Seamless back-to-back

1.3㎡

Back-to-back with maintenance aisle (A)

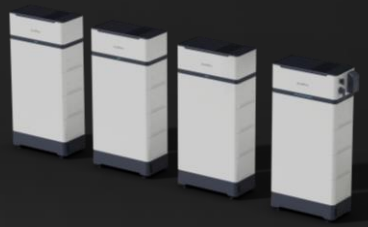


1.7㎡

Back-to-back with maintenance aisle (B)

1.7㎡

Linear arrangement



1.9㎡

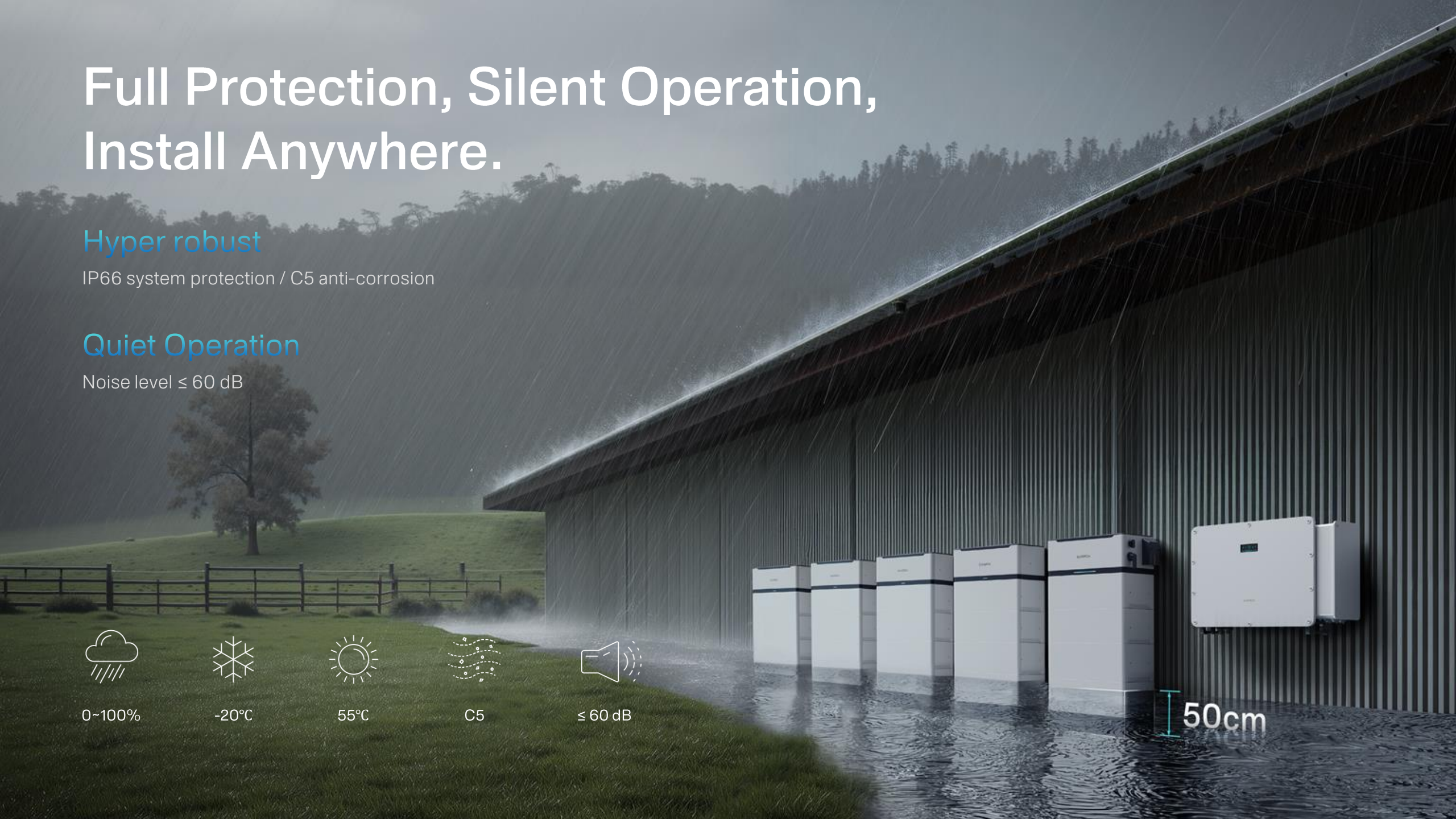
Full Protection, Silent Operation, Install Anywhere.

Hyper robust

IP66 system protection / C5 anti-corrosion

Quiet Operation

Noise level ≤ 60 dB



10 ms Seamless Switching, Backup Power for Uninterrupted Production.

Provides robust, seamless backup power for diverse loads, ensuring unmatched stability.

10 ms

The fastest on/off-grid switching time to achieve seamless switching

250 kW

Up to 2 inverters with the maximum operating power without extra ATS cabinet

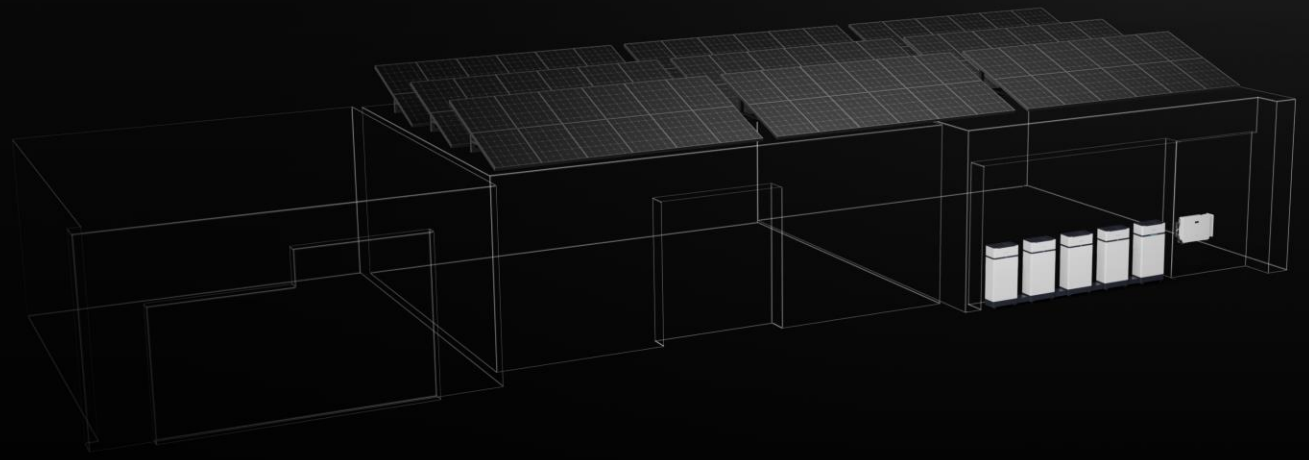
Easy Grid Connection, Start Production in 5 Minutes.

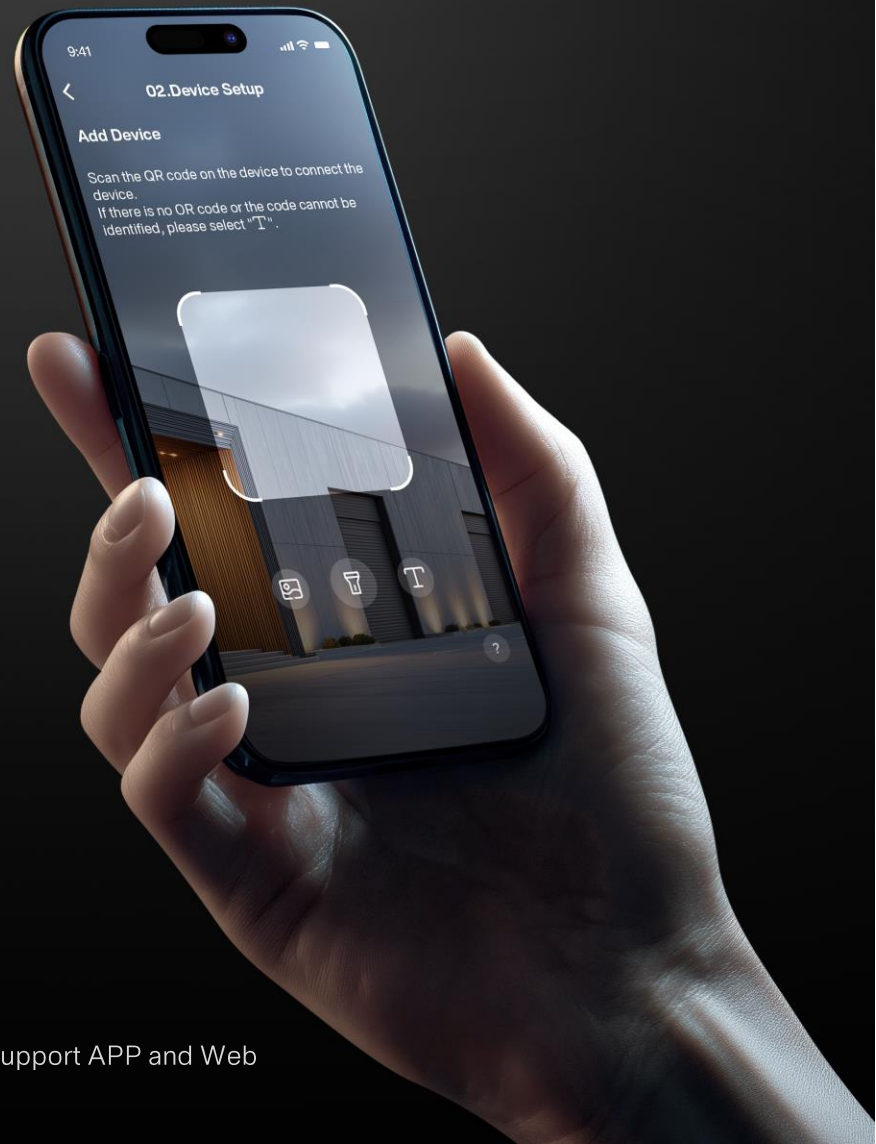
Complete PV + ESS power plant setup in 3 steps on iSolarCloud, revenue begins 5 minutes after commissioning, no cross-vendor compatibility hassles, saving time and effort.

Step 1: Create your plant on your phone

Step 2: Scan to connect and add communication equipment

Step 3: Commission and connect to the grid





*Support APP and Web

All-in-One Monitoring and O&M, Friendly Experience via iSolarCloud.

All-in-one monitoring

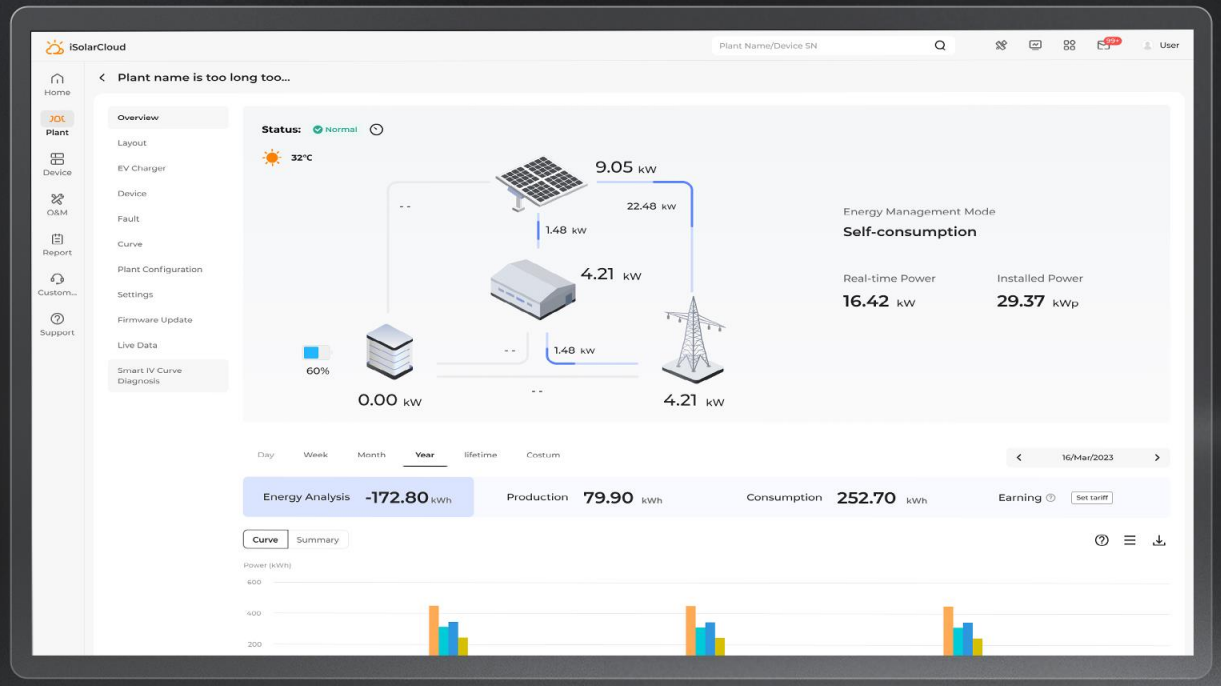
- Sub-second data sync: operation & revenue data updated in ≤5s.
- Multi-level monitoring: full visibility from cells to station to prevent failures.

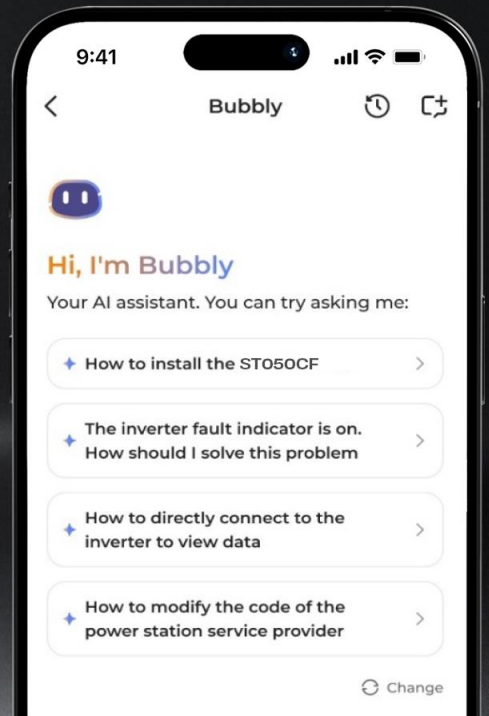
One-click operation

- Optimized decisions: revenue analysis and load forecasting
- Quick strategies: one-click bulk delivery to stations
- Fast settlement: third-party meter support
- Smart reports: one-click generation and download

Effortless maintenance

- AI self-diagnosis: auto-detects faults from parts to plant and creates work orders.
- AI guidance: smart tips to improve maintenance efficiency.
- Remote expert support: reduce on-site visits.





End-to-End Security: From Cell to Plant, Worry-Free Use.

Triple-Guard Protection : from proactive warning to ultimate protection, minimizes thermal runaway and ensures safety for both equipment and personnel.

Proactive Detection

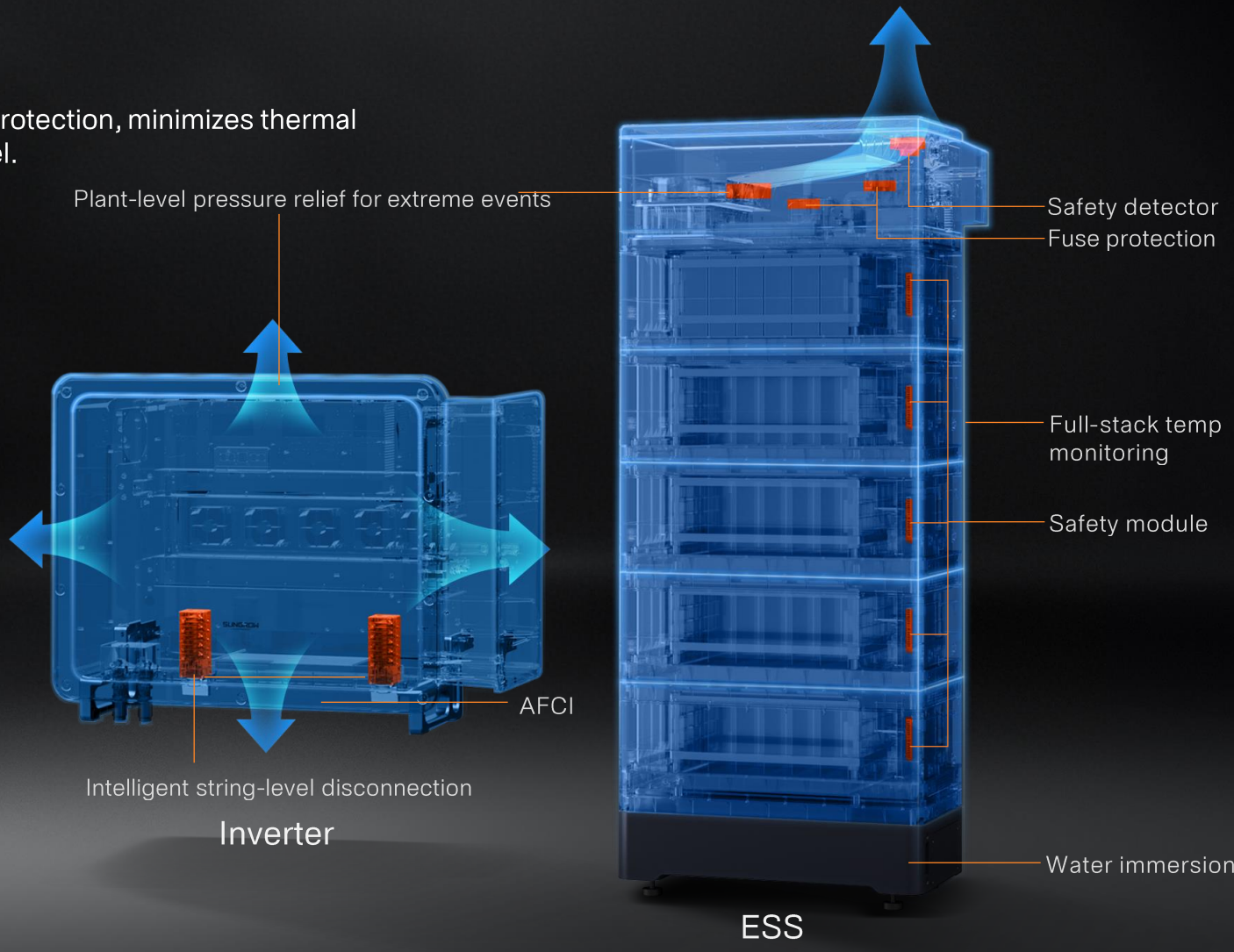
- Safety detector
- Water immersion detector
- Full-Stack temp monitoring

Instant Interception

- Fuse protection
- AFCI
- Intelligent string-level disconnection

Physical Containment

- Safety module
- Plant-level pressure relief for extreme events



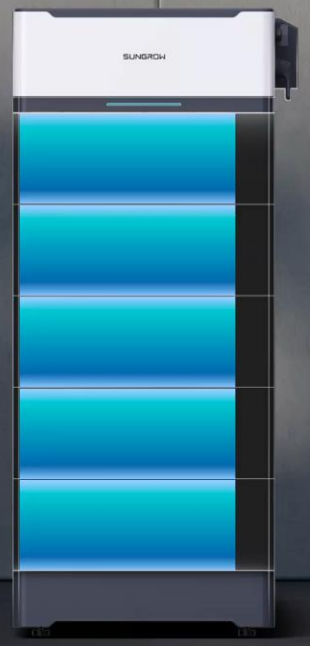
Mixed Use of New and Old Packs, Cut Expansion & Replacement Costs.

Pack-level balancing technology, maximizes available power and asset value by drawing on the power from higher SOC module to offset lower ones via built-in active balance board, eliminating on-site manual calibration and full battery replacements.

≤ 3.5A equalizing current achieves energy balance

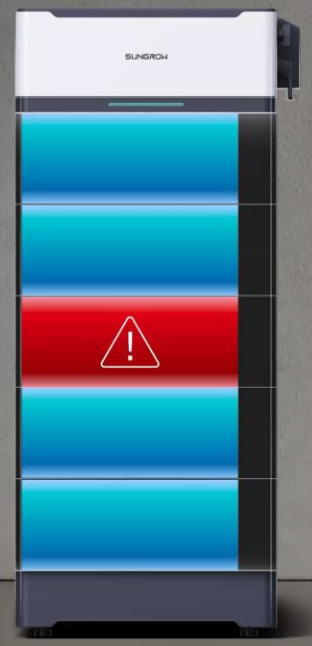
48h

Supplemental Scenario



OLD

Replacement Scenario



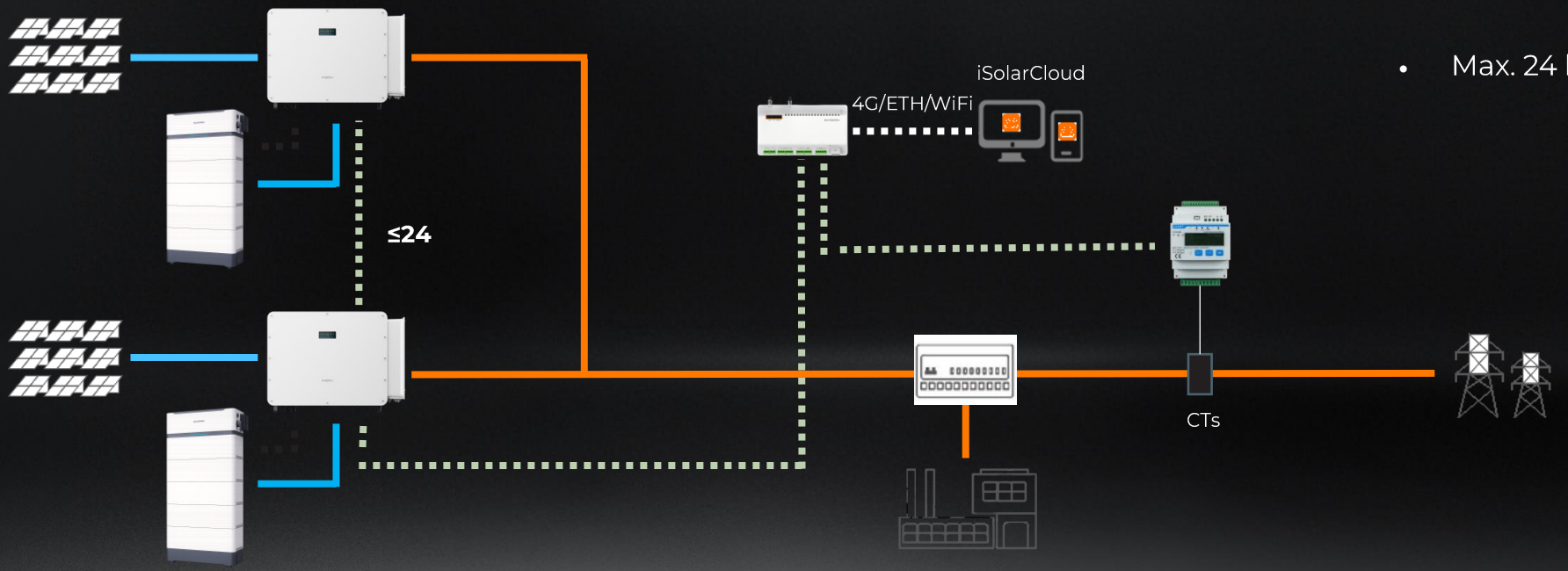
04 APPLICATION SCENARIOS

Sungrow's C&I ESS for Various Scenarios

APPLICATION SCENARIOS

1. Pure Grid-Connected PV & ESS
    - DC-Coupled PV ESS (New)
    - DC-Coupled PV ESS (Retrofitting)
    - AC-Coupled PV ESS
2. On/Off-Grid Switching PV & ESS
    - Partial Home Backup (New)
    - Plant-Level Backup (New)
    - Retrofit on Grid Side
3. Pure Off-Grid PV & ESS

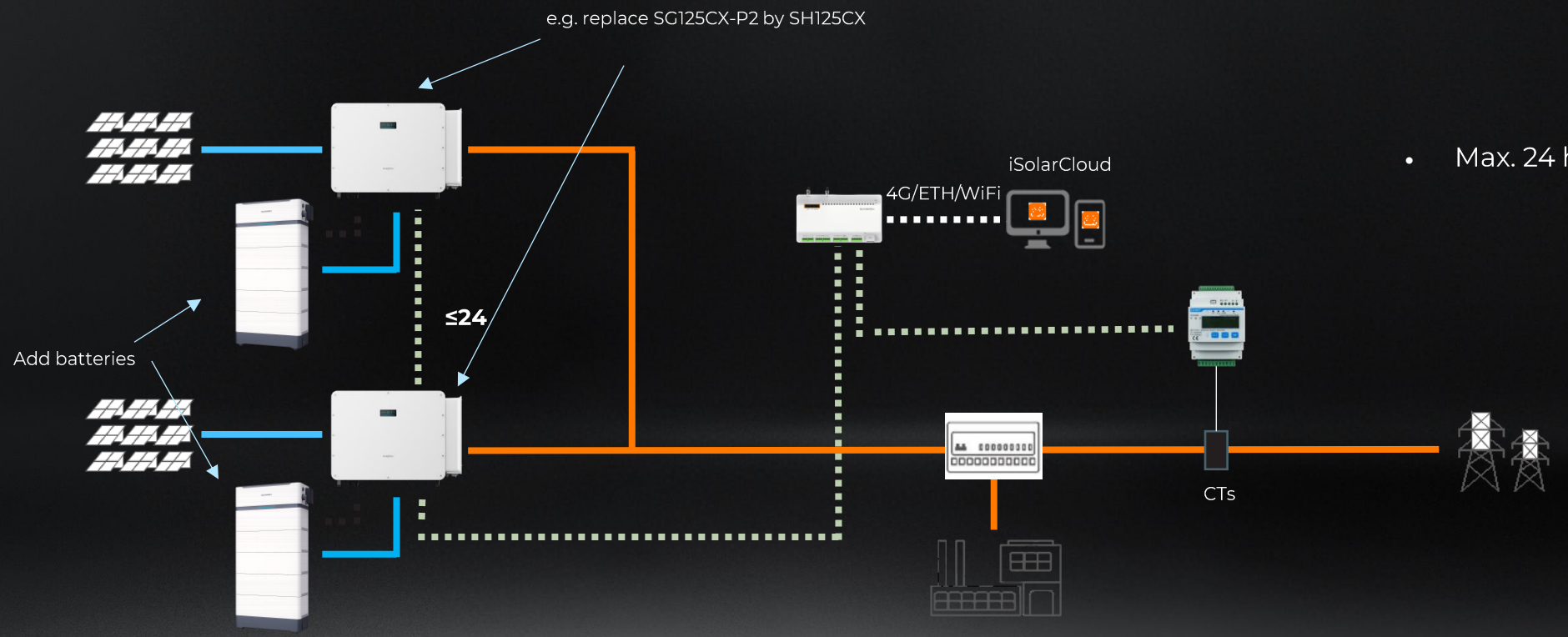
DC-Coupled PV ESS – New Installation (On-grid)



- Max. 24 hybrid inverters

DC AC CAN RS485

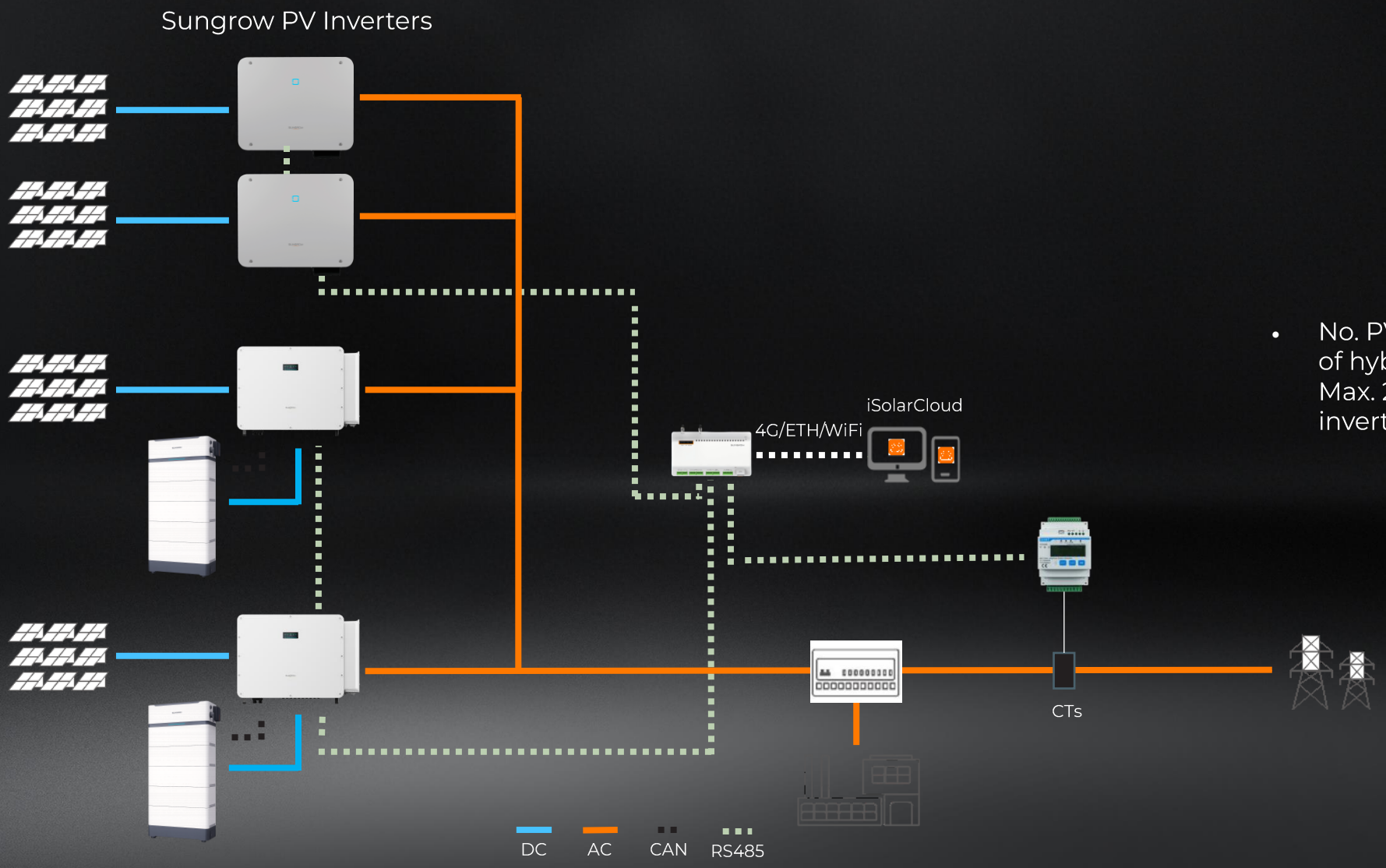
DC-Coupled PV ESS – Retrofit Installation (On-grid)



- Max. 24 hybrid inverters

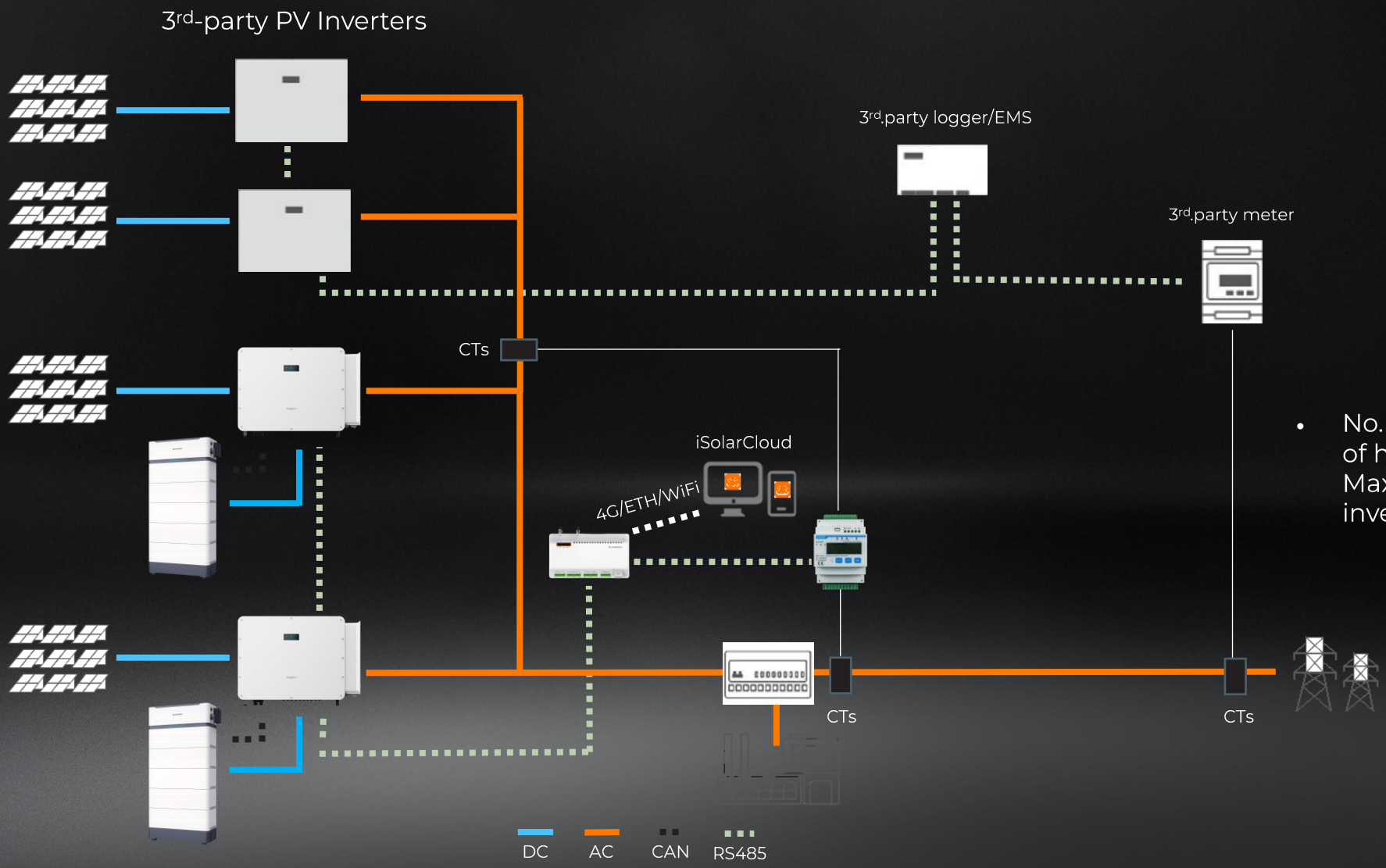
DC AC CAN RS485

AC-Coupled PV ESS – Retrofit Installation (On-grid) #1



- No. PV inverters + no. of hybrid inverters Max. 24 hybrid inverters **≤ 24**

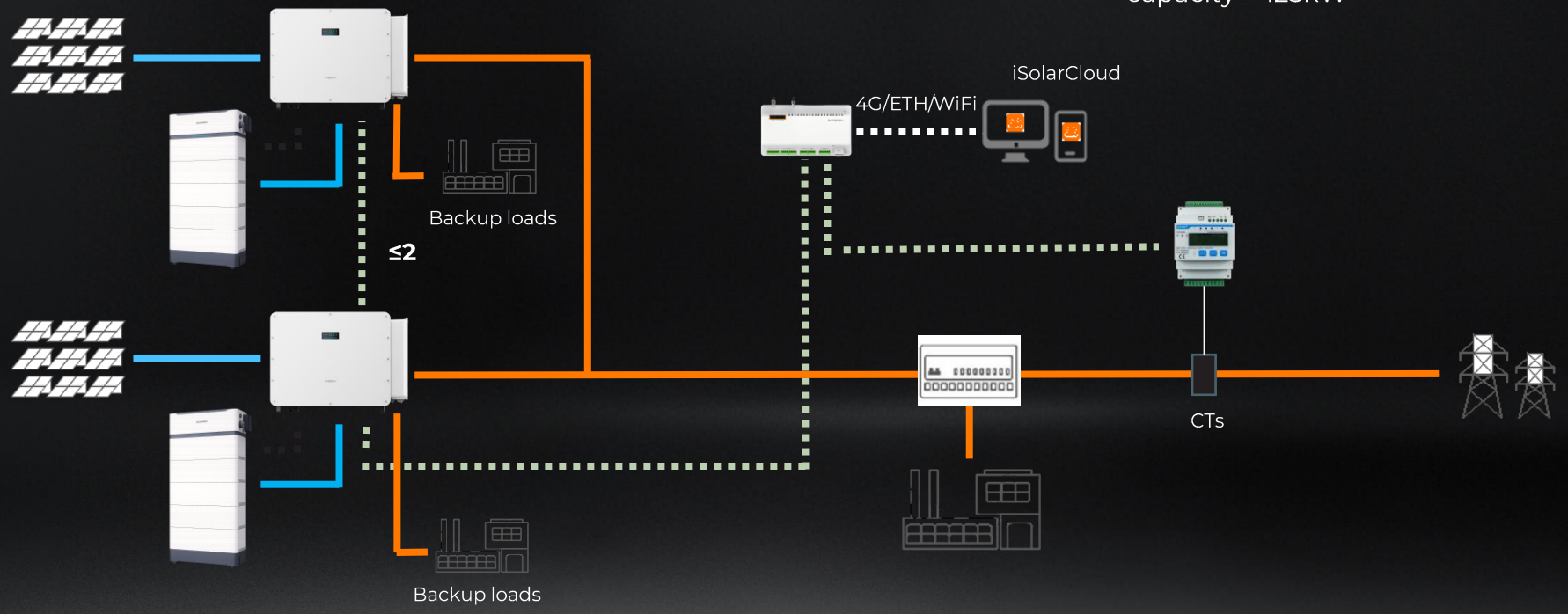
AC-Coupled PV ESS – Retrofit Installation (On-grid) #2



- No. PV inverters + no. of hybrid inverters Max. 24 hybrid inverters **≤ 24**

Partial Home Backup Scenario #1

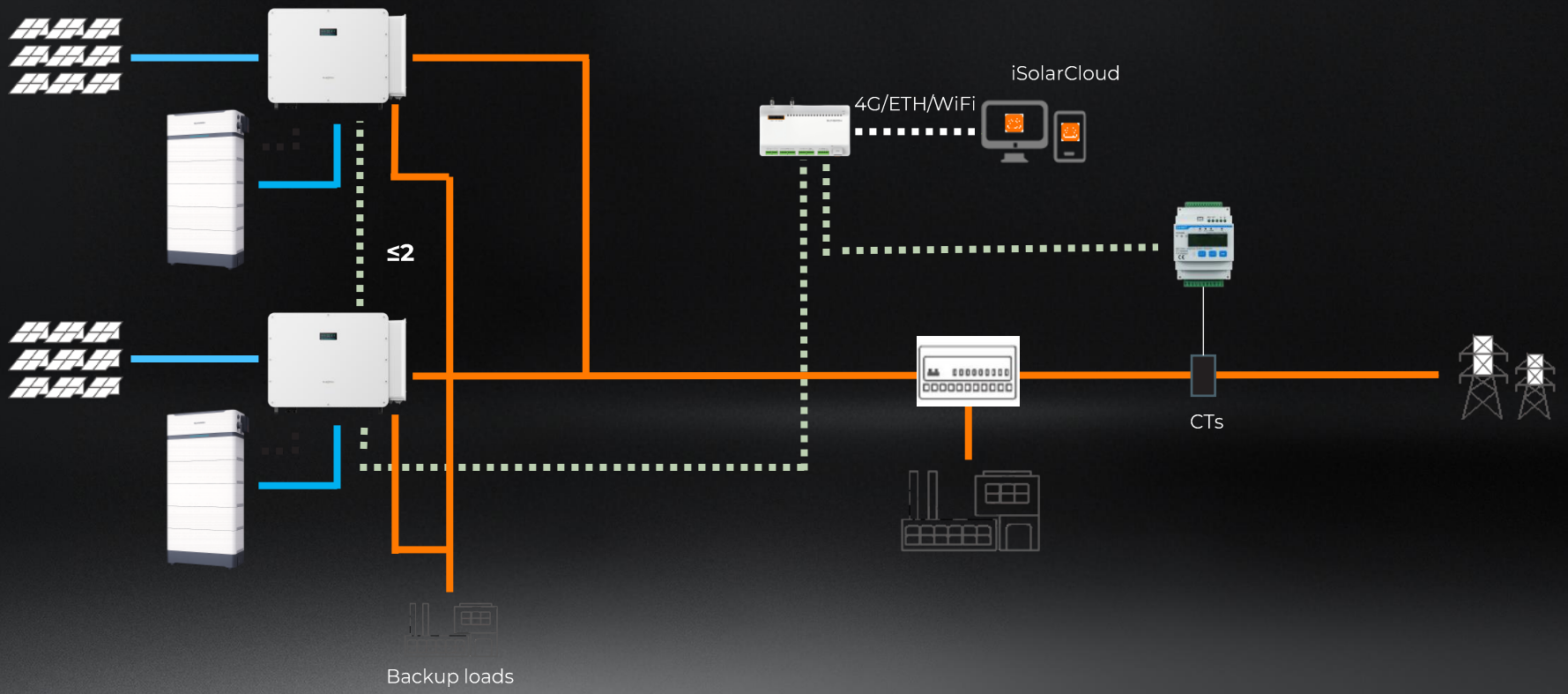
- One backup port one load
- Max. 2 hybrid inverters
- Switching time <10ms (1 inverter), <20ms (2 inverters)
- Max. inverter backup load capacity = 125kW



DC AC CAN RS485

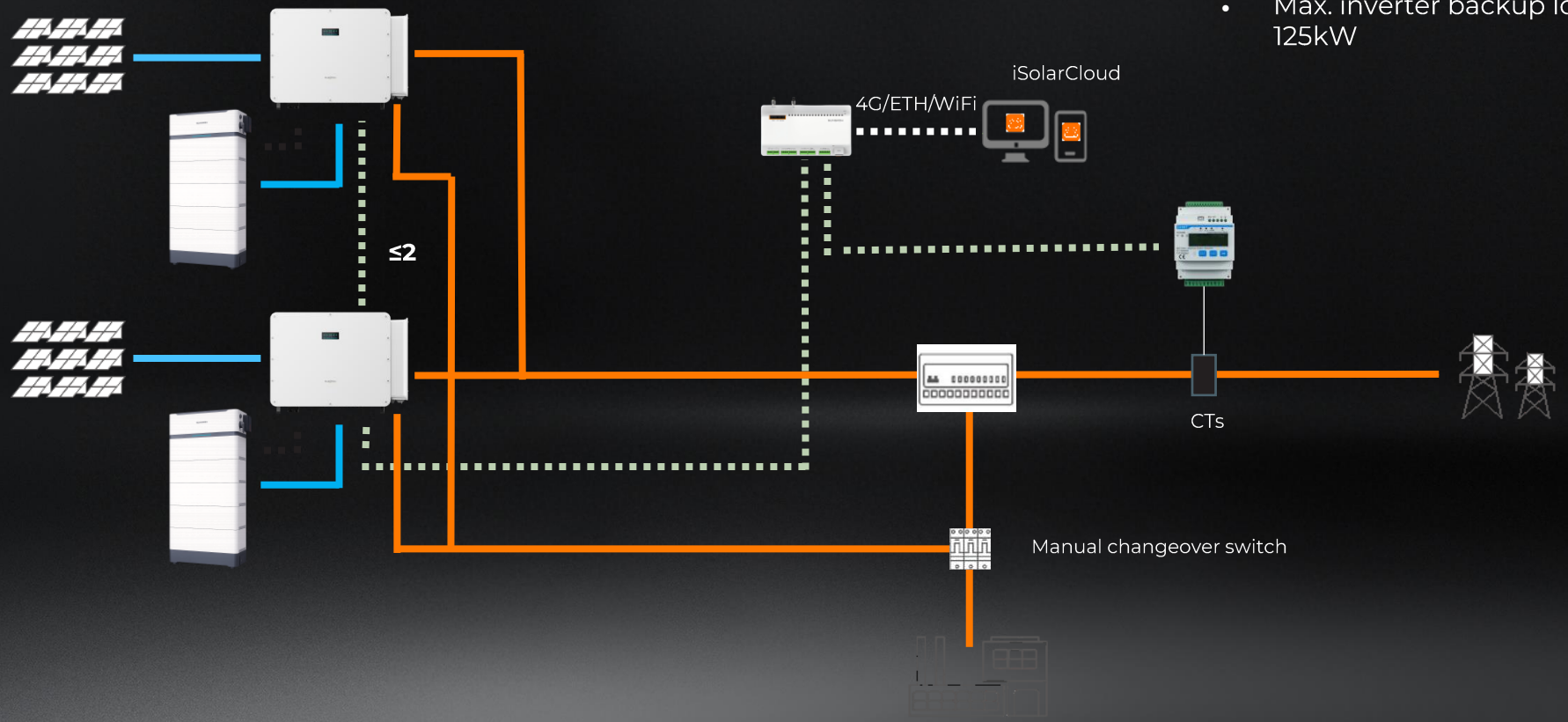
Partial Home Backup Scenario #2

- Two backup ports one load
- Max. 2 hybrid inverters
- Switching time <10ms (1 inverter), <20ms (2 inverters)
- Max. inverter backup load capacity = 125kW

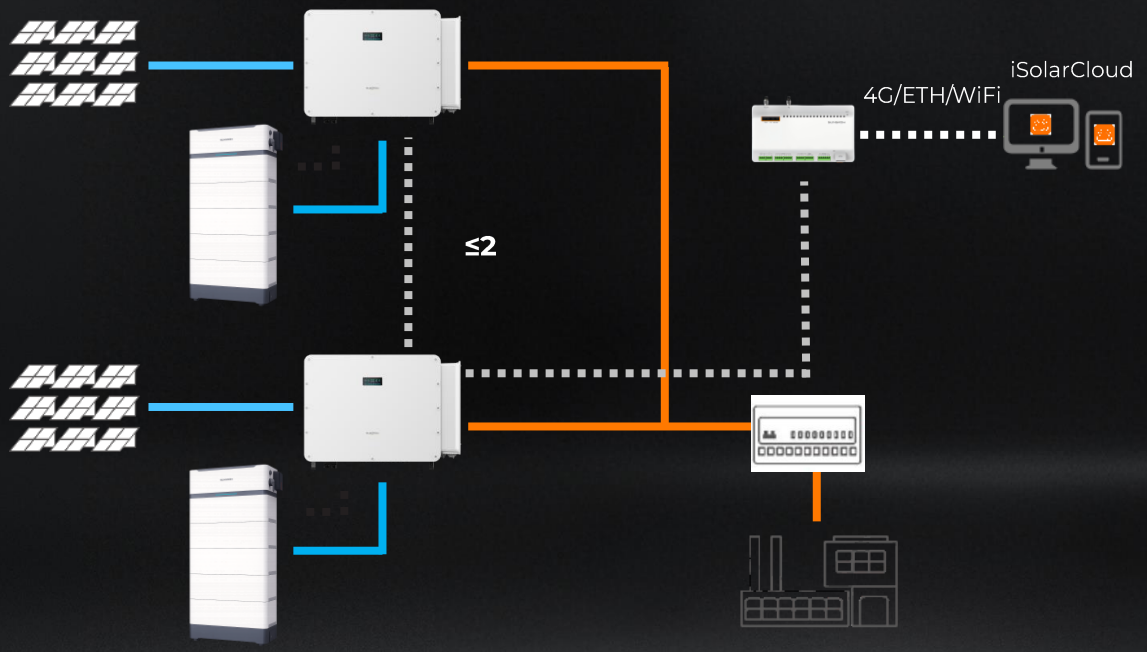


Plant-Level Backup Scenario

- Max. 2 hybrid inverters
- Manual transfer switch needed between grid-side and hybrid inverter side
- Max. inverter backup load capacity = 125kW



Pure Off-Grid Scenario



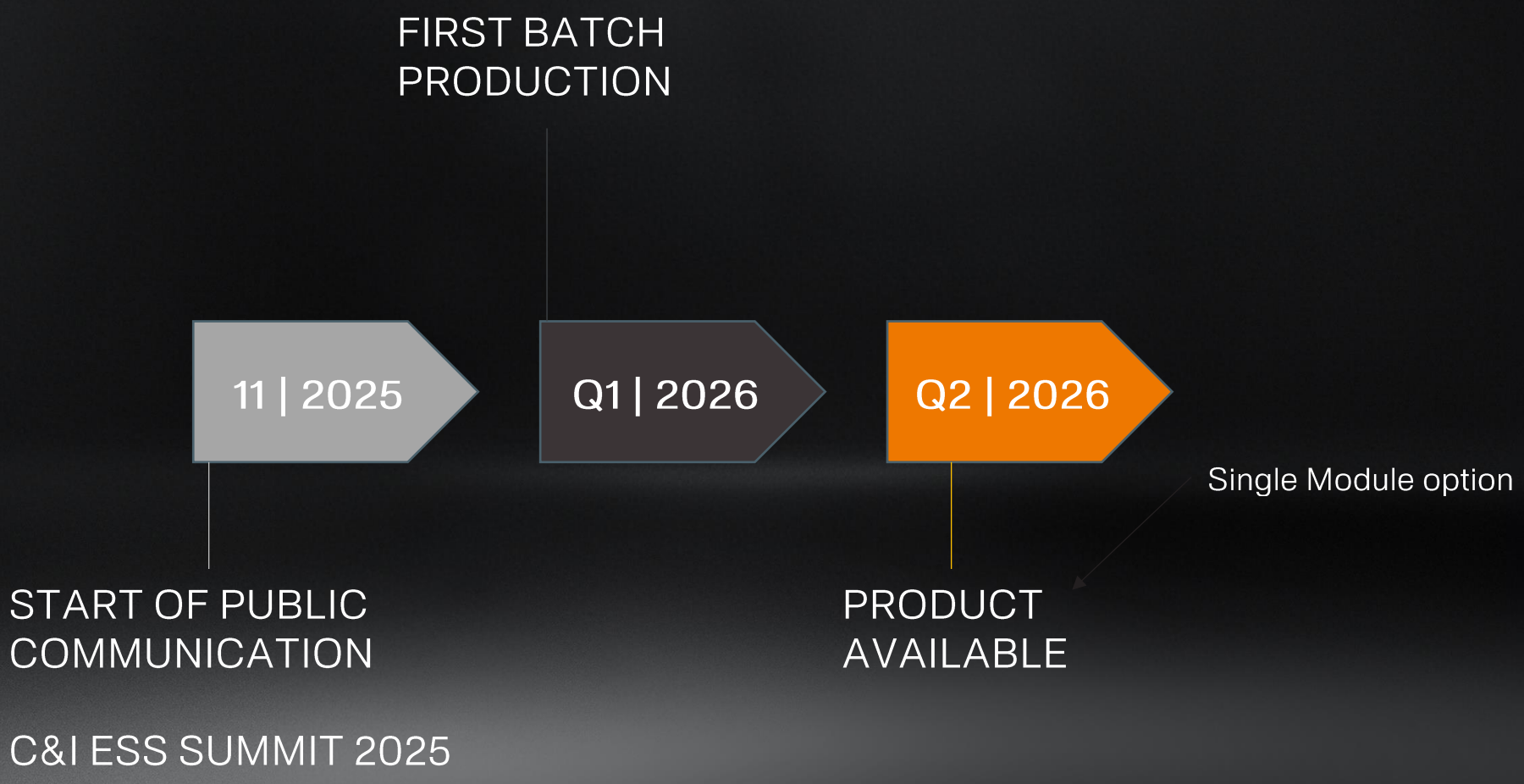
- Hybrid inverters operate in VF mode (constant voltage and frequency) to serve as an off-grid
- All loads are connected to the backup port of the inverters
- No generator needed
- Max. 2 hybrid inverters
- No manual transfer switch needed
- Black start is only supported when the hybrid inverter is connected to batteries with a capacity of 100 kWh or above. When the connected battery capacity is below 100 kWh, PV input is required for the startup

DC AC CAN RS485

 24.03.2026

05 Launch Timeline

LAUNCH TIMELINE



UPCOMING FUNCTIONS

- AI mode (dynamic tariffs) – Q2 2026
- Battery heating function – Q3 2026
- Pre-built 50kWh Stack – Q3 2026
- Up to 1000kWh capacity per hybrid inverter – Q3 2026
- Automatic Transfer Switch – Q3 2026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