SolisStorage

Engineered for Simplicity


EverCore | PrimePower

# SolisStorage C&I Energy Storage System

Safety Guarantee | Better Returns | Flexible Application


EverCore

## 261kWh System

### 125K inverter & 261kWh battery

- 261kWh, 314Ah, 1P20S, 13 Pack (IP20), 0.5C

### Compatible grid types:

- 400V Grid:
  Inverter: 80K/100K/125K

## 100/120kWh System

### 50K-60k inverter & 100/120kWh battery

- 100kWh, 314Ah, 1P20S, 5 Pack (IP20), 0.5C
- 120kWh, 314Ah, 1P20S, 6 Pack (IP20), 0.5C

### Compatible grid types:

- 400V Grid:
  Inverter: 29.9K/30K/37.5K/40K/49K/50K/60K

| Models | EverCore-100kWh-50kW-NV | EverCore-120kWh-60kW-NV | EverCore-261kWh-125kW-NV |
|---|---|---|---|
| **System** | | | |
| Rated energy capacity | 100.5 kWh | 120.6 kWh | 261.2 kWh |
| Max. cycle rate | 0.5 P | | |
| Max. cycle efficiency ① | 89% | | |
| Usable energy capacity ② | 99.3kWh | 119.2kWh | 258.3kWh |
| Dimensions (W × H × D) | 1250 × 2030 × 1540 mm | | 1850 × 2230 × 1600 mm |
| Dimensions (without inverter) (W × H × D) | 950 × 2030 × 1540 mm | | 1400 × 2230 × 1600 mm |
| Weight | 1490kg (Cabinet) + 73 kg (Inverter) | 1630 kg (Cabinet) + 73kg (Inverter) | 2900 kg (Cabinet) + 170 kg (Inverter) |
| Operating temperature range | -25 ~ +55°C | | |
| Storage temperature range | 0 ~ +40°C | | |
| Operating humidity range | ≤ 95% (non-condensing) | | |
| Max. operation altitude | 4000 m | | |
| System temperature control mode | Industrial-grade air-conditioning (Cabinet); Air cooling (Pack); Intelligent fan-cooling (Inverter) | | |
| Fire suppression mode | Default: Aerosol, Explosion relief valve, Fire water inlet<br>Optional: Flammable gas detector, Explosion relief panel, Explosion-proof exhaust fan, Audible and visual alarm | | |
| Ingress protection | IP55 (Cabinet) + IP66 (Inverter) | | |
| Anti-corrosion class (Battery) | C4/C5 (Optional) | | |
| Anti-corrosion class (Inverter) | C5 | | |
| Noise (rated operating condition) | 70 dB(A) @ 1 m | | 75 dB(A) @ 1 m |
| Lightning protection | Type II (AC port), Type II (PV&Battery) | | |
| Protection mode | Anti-islanding protection, residual current detection, insulation resistance detection,<br>AC overcurrent protection, and AC cable connection protection | | |
| Certification standards | IEC62619, IEC61000-6/2/4, IEC62040, IEC63056, IEC62477, UN38.3 | | |
| **Battery** | | | |
| Cell type | LFP 3.2 V / 314 Ah | | |
| Cell cycle life ③ | 8000 | | |
| System battery configuration | 1P100S | 1P120S | 1P260S |
| Rated voltage | 320 V | 384 V | 832 V |
| Operating voltage range | 290 ~ 360 V | 348 ~ 432 V | 754 ~ 936 V |
| Rated DC current | 157 A | | |
| Number of battery packs | 5 | 6 | 13 |
| Battery pack capacity | 20.1 kWh | | |
| Battery pack weight | 138 kg | | |
| **Inverter** | | | |
| Inverter model | S6-EH3P50K-H (21A) | S6-EH3P60K-H (21A) | S6-EH3P125K10-NV-YD-H |
| Rated output power | 50 kW | 60 kW | 125 kW |
| Max. apparent output power@On-grid | 50 kVA | 60 kVA | 125 kVA |
| Rated grid voltage | 3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V | | |
| Rating grid frequency | 50 Hz / 60 Hz | | |
| AC grid frequency range | 45 - 55 Hz / 55-65 Hz | | |
| Rated output current | 76 A / 72.2 A | 91.2 A / 86.6 A | 189.9 A / 180.4 A |
| Max. apparent output power@Off-grid | 1.6 times of rated power, 2 s | | 1.6 times of rated power, 200 ms |
| Back-up switch time | < 10ms | | |
| Power factor | > 0.99 (0.8 leading - 0.8 lagging) | | |
| THDi / THDv (@linear load) | <2% / < 3% | | |
| Max. usable PV Input Power | 100 kW | | 250 kW |
| Recommended max. PV array size | 100 kW | | 250 kW |
| Max. input voltage | 1000 V | | |
| Rated voltage | 600 V | | |
| Start-up voltage | 180 V | | |
| MPPT voltage range | 150 - 850 V | | 150 - 950 V |
| Max. input current | 4 × 42A | | 10 × 42 A |
| Max. short circuit current | 4 × 60 A | | 10 × 60 A |
| MPPT number / Max. input strings number | 4 / 8 | | 10 / 20 |
| Communication | Inverter interface: CAN, RS485, LAN<br>Dongle interface: Wifi+LAN (Default), Cellular (Optional) | | |
| Max. parallel quantity (off-grid) | 10 | | |

① Rated operating condition: Based on cell test condition of 25±2°C, 0.5P charge and discharge rate, and the AC output voltage is 400 Vac.
② 30°C~35°C, 0.3C, 100%DOD, Within one month from the date of manufacture.
③ This is provided by the battery cell manufacturer. Based on cell test condition of 25±2°C , 0.5P charge and discharge rate and SOH=70%.

# Safety & Reliable Guarantee

## 1. 15-level safety protection across cell, pack, and system


1. Pressure release valve
2. All-round temperature monitoring
3. Aerosol (Pack level) [1]
4. Insulation and heat isolation layer [2]
5. Thermal detection
6. Smoke detection
7. Flammable gas detector (optional)
8. Audible and visual alarm (optional)
9. Water immersion sensor
10. Humidity detection
11. Aerosol (Cabinet level)
12. Explosion-proof exhaust fan (Optional)
13. Explosion relief panel (Optional)
14. Fire water inlet
15. Short circuit protection

[1] Achieves fire suppression at the pack level.

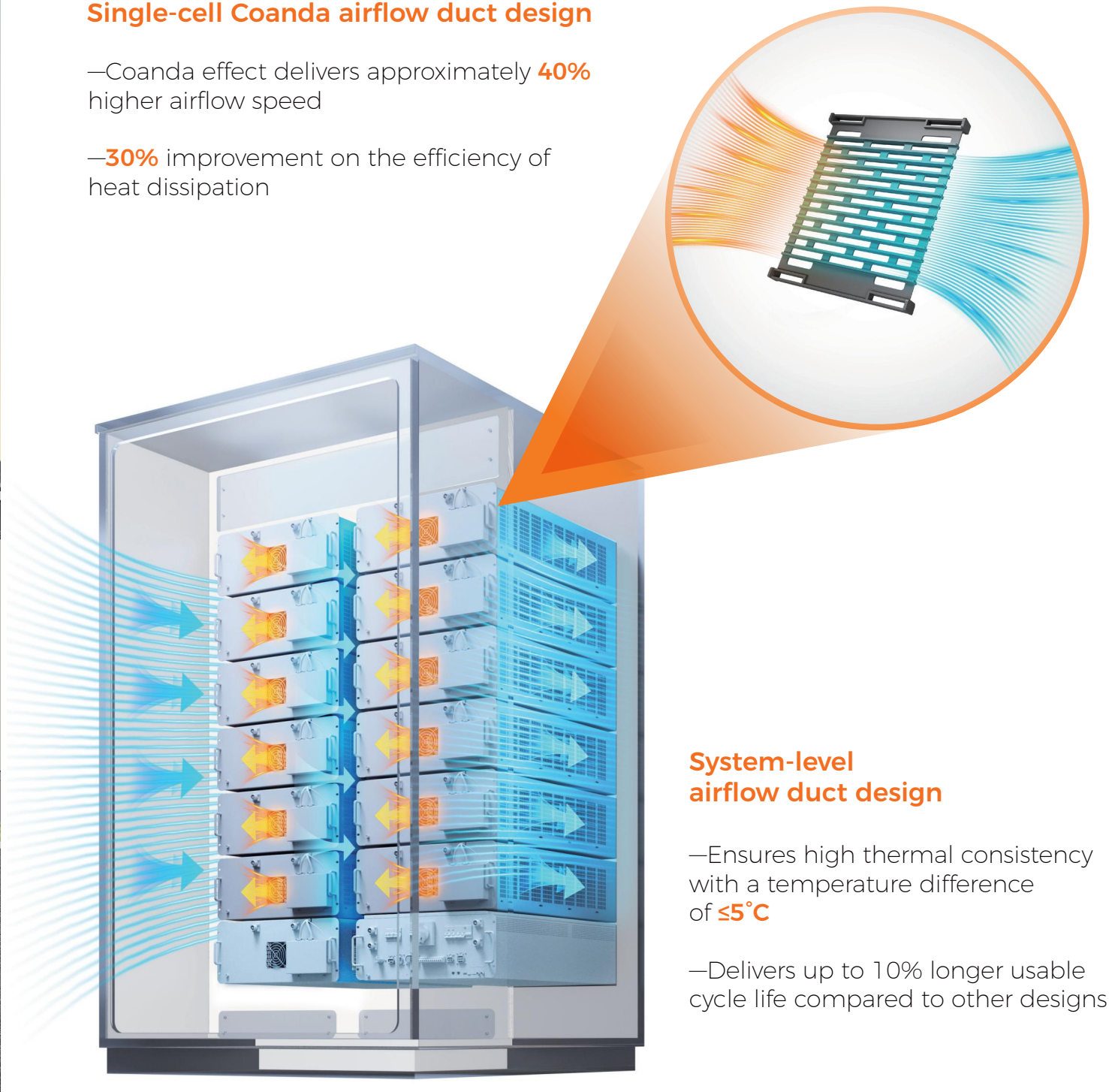
[2] Establishes pack-level thermal insulation, preventing high-temperature failure propagation.

# 2. Unique air-cooling design at both pack & system level, ensure highly consistent thermal management across the battery system

## Single-cell Coanda airflow duct design

—Coanda effect delivers approximately **40%** higher airflow speed

—**30%** improvement on the efficiency of heat dissipation

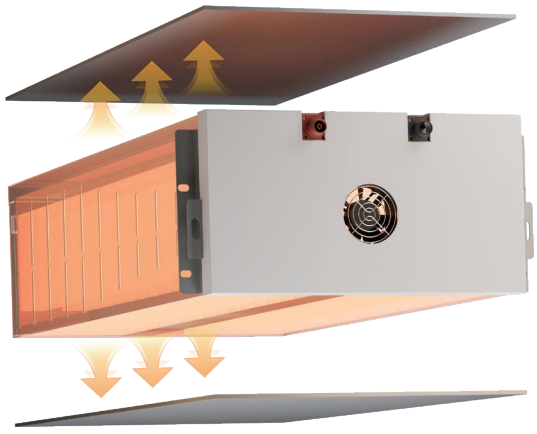


## System-level airflow duct design

—Ensures high thermal consistency with a temperature difference of **≤5˚C**

—Delivers up to 10% longer usable cycle life compared to other designs

## 3. Features pack-level BMS with three-tier over-temperature protection and real-time monitoring of battery temperature via EMU and SolisCloud, ensuring precise protection, safety, and reliability



58°C

**Triggering Level 1 Over-Temperature Protection**
EMU and SolisCloud platform send critical alarms and alerts, system stops operation

56°C

**Triggering Level 2 Over-temperature protection**
EMU and SolisCloud platform send moderate alarms and alerts, system stops charging and discharging

45°C

**Triggering Level 3 Over-Temperature Protection**
EMU and SolisCloud platform issue a mild alarm; system charging/discharging power is reduced to 50%

## 4. Bypass function allows direct power supply to backup loads from the utility grid, ensuring uninterrupted operation during system maintenance

# 5. Excellent off-grid capability, with seamless switching (<10 ms) ensuring critical business operations are not interrupted

- Solis hybrid inverters have a built in STS function which can seamlessly transfer the backup port to be supported by PV and Battery
- Ensuring the continuous operation of critical loads


Note: When multiple inverters operate in parallel, transfer time is within 20 ms.

# Better Returns

## 1. Uses TIER 1 battery modules, ensuring better return on investment


**100%** DOD

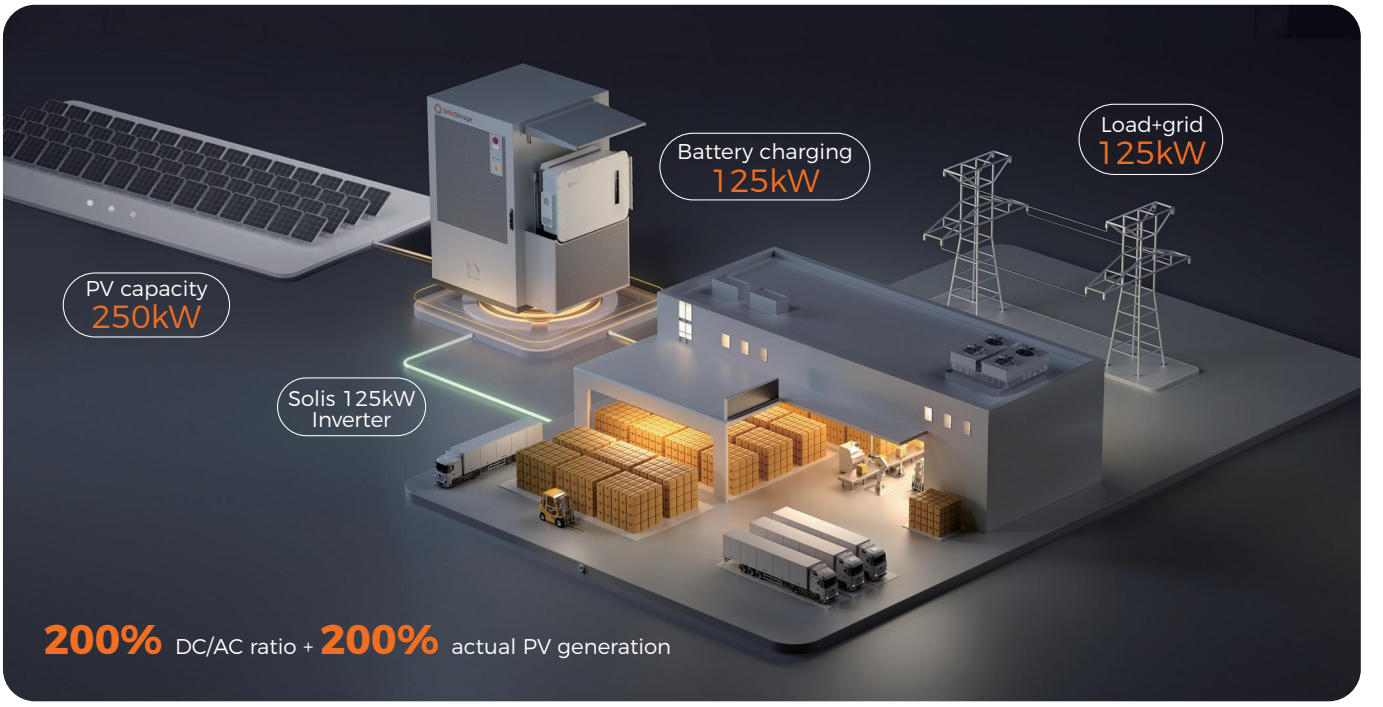
- For Europe and Australia region, increase the tradable electricity by 10% and boost the revenue by 10%. (Compared with 90% DOD of competitors)
- For the Asia, Africa and Latin America regions, this product can increase the backup power time by 10%
- When the SOC is 0%, the battery remains online and no additional wake-up is required

**8,000** Battery cycles

- Engineered to exceed 8.000 battery cycles while still retaining 70% of the reated capacit

This is provided by the battery cell manufacturer. Based on cell test condition of 25±2℃ , 0.5P charge and discharge rate and SOH=70%.

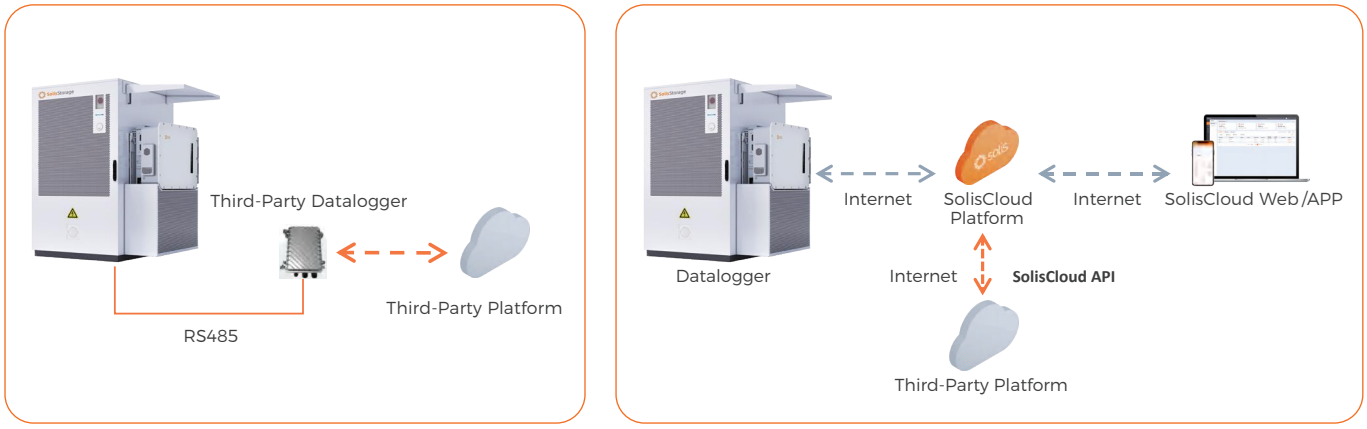
## 2. Supports up to 2x rated PV input, maximizing solar energy utilization



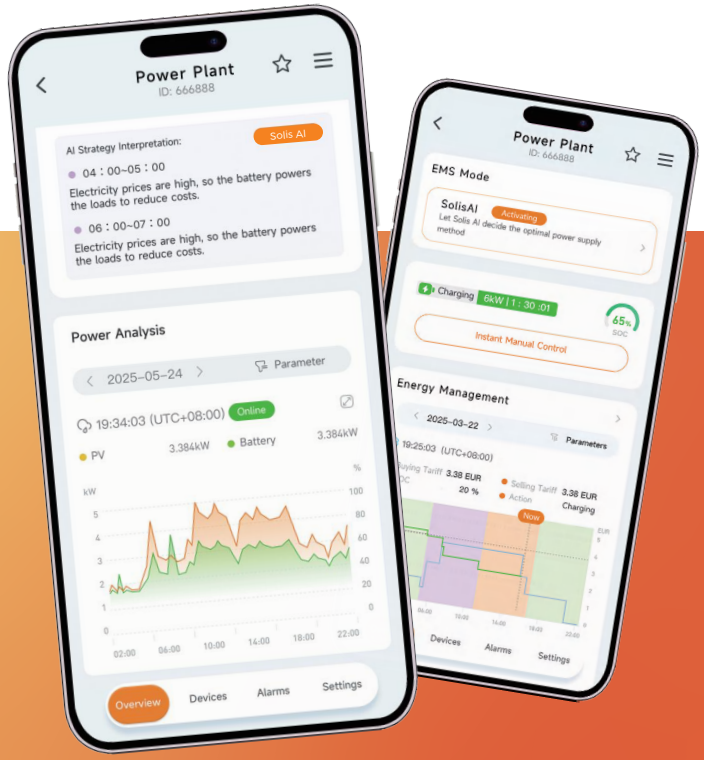

## 3. Provides dynamic reactive power compensation to improve grid power factor and reduce reactive power charges

# 4. FFR/FCR frequency response control via third-party controller

Offers rapid integration with 3rd party VPP/EMS providers via Modbus or API, enabling fast deployment and flexible control




# 5. AI integration and VPP readiness enable dynamic tariff optimization, minimizing electricity costs and unlocking additional revenue




## Solis AI

Combines customer consumption patterns, TOU tariff data, weather insights and other inputs to intelligently automate battery charge and discharge cycles, delivering maximum financial return

# 6. 21A input current for next generation PV compatibility

Supports a maximum 21A string input current for seamless integration with the latest high-power and bi-facial PV modules, including 182/210 mm formats

# 7. Direct PV connection delivers higher efficiency and lower system cost


**PV modules connect directly to the BESS, reducing efficiency losses on the photovoltaic side**

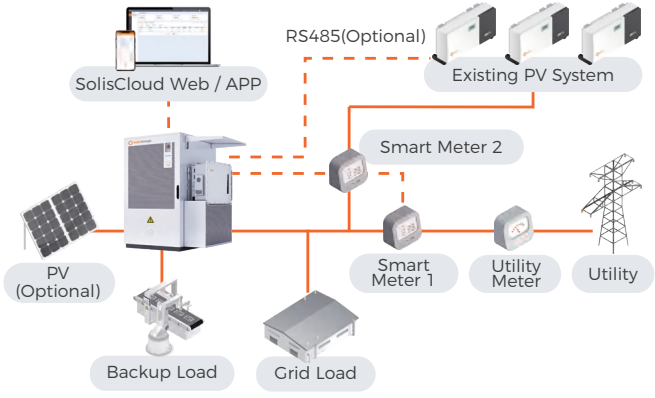

*Existing PV system capacity needs to be smaller than the C&I Energy Storage System

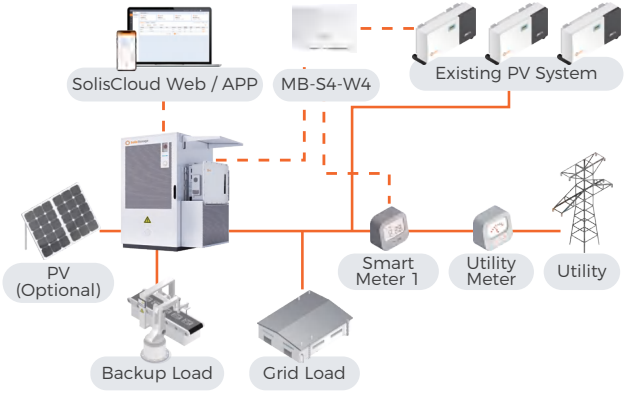
# Flexible Application

## 1. Auto demand management, reducing demand fee / expanding consumption capacity

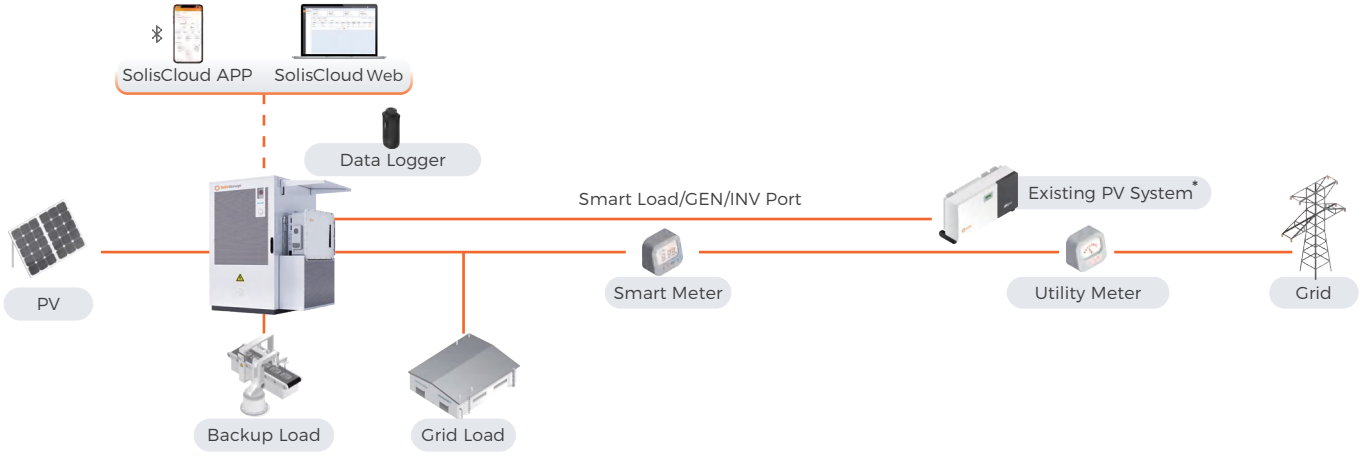
# 2. Supports retrofitting of existing PV systems, enhancing overall self-consumption

## Grid-tied application: Simple integration, no need to modify the existing PV system wiring. Supports system level export power limit




## Off-grid application: Continuous PV system operation even in off-grid conditions




**Smart Load/GEN/INV Port connection to the grid-tied inverter during a utility outage:**

- The Smart Load/GEN/INV Port provides a stable voltage source to ensure continuous operation of the grid-tied inverter.
- Frequency-shifting control adjusts the inverter's power output to maintain the balance between generation and consumption.

*Existing PV system capacity needs to be smaller than the C&I Energy Storage System

# 3. The battery cabinet and inverter unit are designed independently, making O&M efficient and flexible

- Hybrid inverter with an external integration design for easy maintenance
- Low failure rate and reduced maintenance costs throughout the system lifecycle

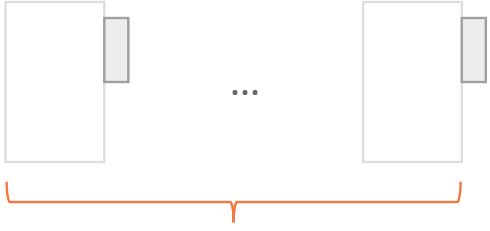

# 4. Works across 220 V, 400 V, and 500 V three-phase grids with no transformer needed – simplifying and accelerating installation


※ UL model recommended

# 5. Flexible system expansion, up to 1.25MW/15.66MWh to meet growing energy needs

* when inverters in parallel >6 units, use of a Solis power distribution cabinet is recommended

Supports max.**6* battery cabinets** in parallel mode with a single inverter



Supports max.**10* inverters** in parallel mode on AC side

Solis' solution enables customers to invest incrementally based on their funding and requirements, with a smaller initial investment and a clear path for future upgrades, thereby reducing investment risk

## Applicable Condition

- When more than six hybrid inverters are connected in parallel, we recommend using the Solis C&I Smart Hub for system integration. This provides a dedicated electrical cabinet to connect all components efficiently, reducing accessory costs.

- In addition, the Smart Hub maintains system switching times within 20 ms, ensuring uninterrupted power supply for C&I applications.

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