

SCFAR

PowerMagic

C&I ESS Solution



C&I ESS - PowerMagic



Efficient& Flexible

- Modular design supports AC and DC side flexibility
- Grid-On/Off auto-switch function



Lower LCOS

- All-in-one design, High energy density
- Plug-and-play design ,quick installation & less cost



Ultimate Safety

- 3+2 protection design enables ultimate safety
- Electricity and liquid separation reduces system risks



Smart Management

- Integrated EMS enables multi-scenario energy management
- Fast state monitoring and faults record enables pre-alarm and faults locating

Full coverage of application scenarios

Small C&I



125kW/215kWh

400V AC



125kW/258kWh

400V AC

Large C&I



215kW/344kWh

690V AC

Efficient & Flexible

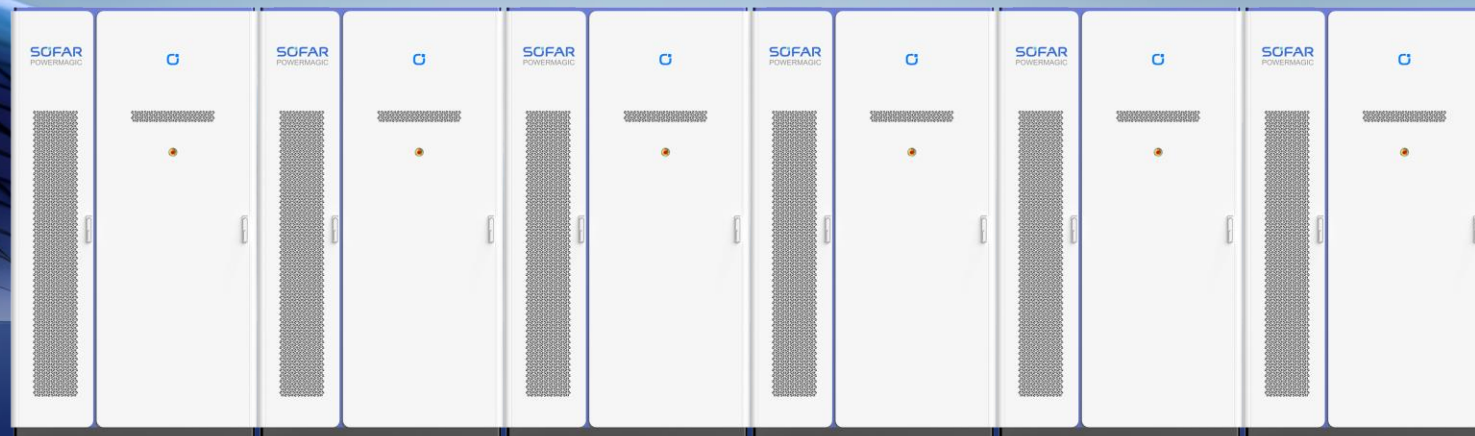
AC side flexible design

Up to 6 PCS in parallel

Power coverage

215kW to 1290kW
(EBI 215K)

125kW to 750kW
(EBI 125K)



DC side flexible design



All-in-one
Energy storage
cabinet

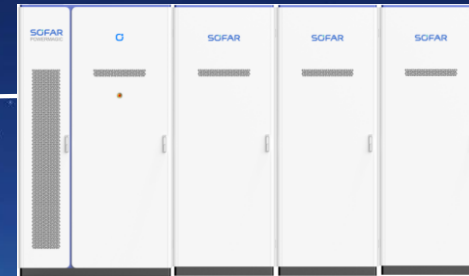
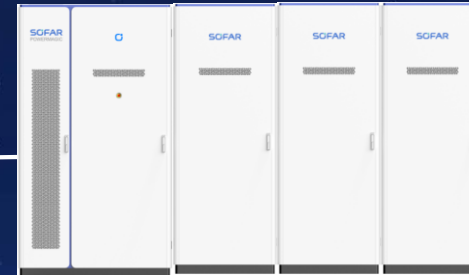
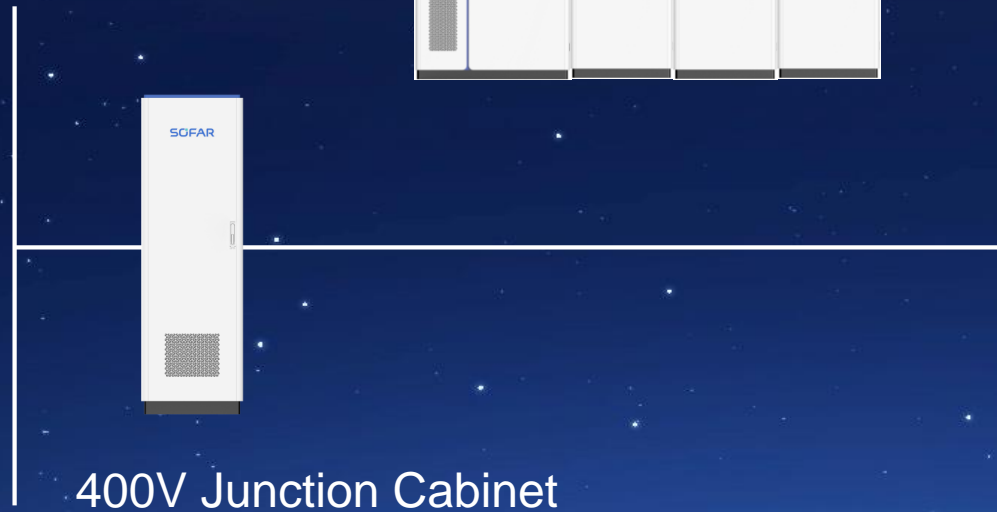


1 to 3 Battery cabinets expansion
2 to 8 duration hours

400V solution

SOFAR

400V AC



Energy Storage Cabinet+1 to 3 Battery cabinets

690V solution

SOFAR

MV Grid



MV Backup Cabinet

- 1. MV incomer cabinet (Grid connection)
- 2. Metering cabinet (Metering point)
- 3. BESS interface cabinet (For BESS)
- 4. Load feeder cabinet (For load)



Transformer Cabinet
690V/10 to 35kV



Max 6 energy storage cabinets

One Energy Storage Cabinet+1 to 3 Battery cabinets

690V AC

24/7 High efficiency



Highly efficient liquid cooling system



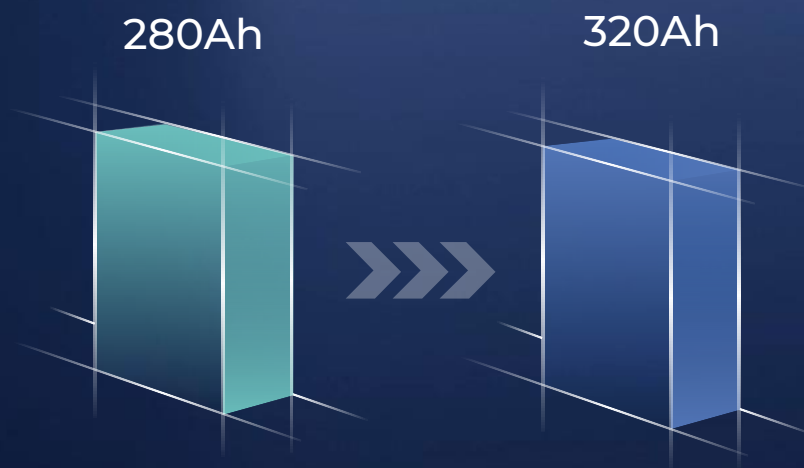
Smart temperature control strategy

Support grid on/off auto-switch



Lower LCOS

Compatible with larger cell



Compatible with larger 320Ah cell
design
Higher energy density, single rack
from 344kWh updated to 393kWh

All-in-one design,
Lower cost

Fire suppression system



Liquid cooling system

High efficient liquid cooling Smart humidity Control

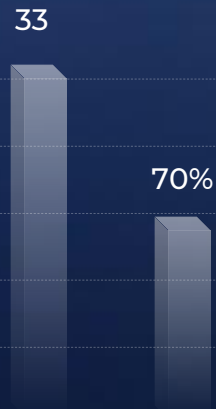


Anti-condensation design,
significantly lower dew point
temperature to longer system life

High efficient liquid cooling Smart humidity Control



Standard Temperature Control



Temperature Humidity Dew Point



battery life 14%

17yrs

Temperature Humidity Dew Point

Standard Temperature Control

Temperature-Humidity Control

Ultimate Safety

Ultimate Safety Design

First Level

Cell level fire suppression

Second Level

Cabinet level fire suppression

Third Level

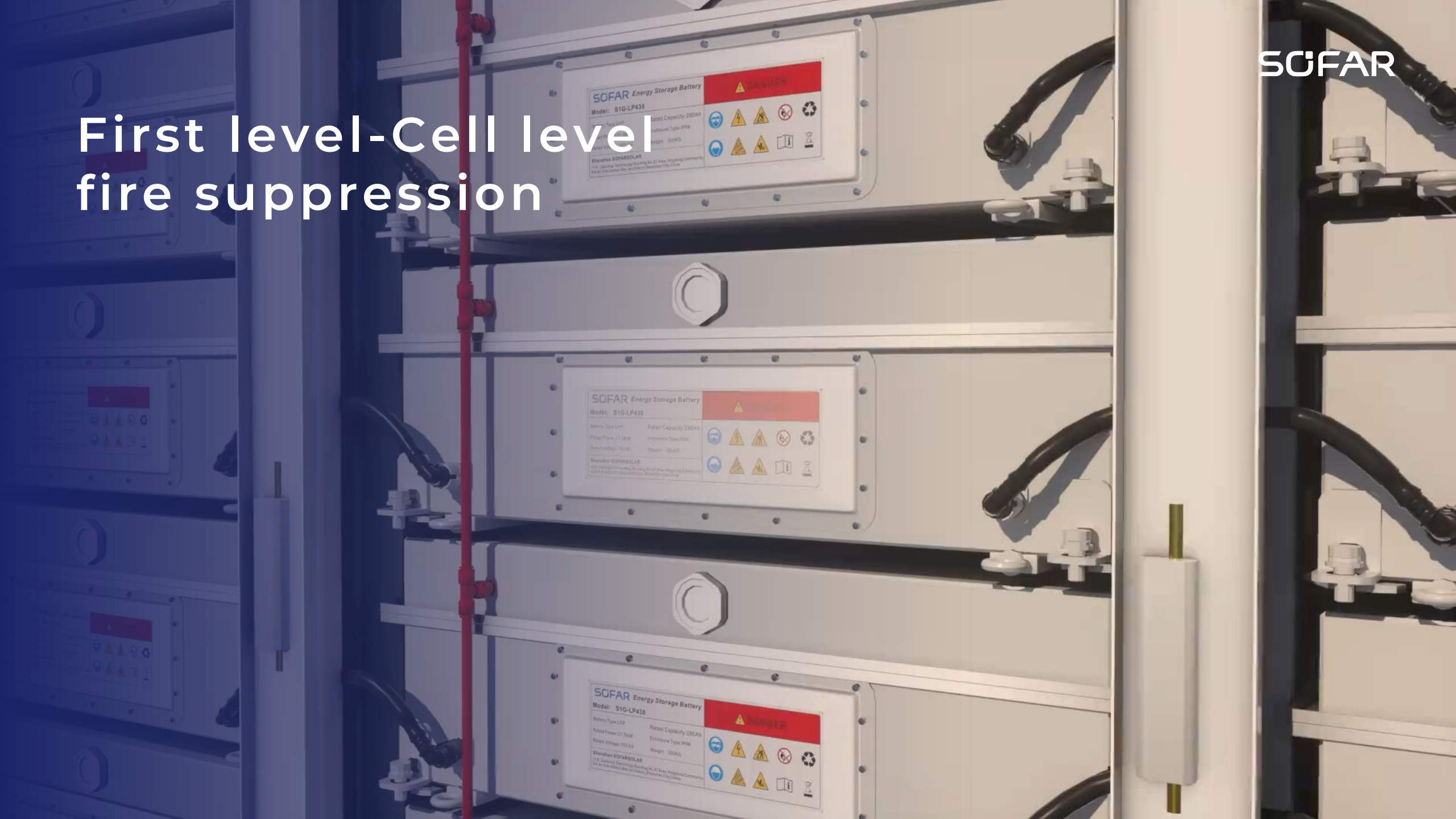
Water fire suppression

3 + 2

Flammable gas emission

Explosion vents

First level-Cell level fire suppression



Second Level-Cabinet fire suppression

Cabinet-level
perfluorohexanone fire
suppression

Power distribution
module build-in fire
suppression



Third level-Water fire suppression



Water suppression nozzle

Flammable gas emission



Flammable gas emission

Explosion vent design



Explosion vents

Explosion vent test

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Electric and liquid separation



Electricity and liquid separation
reduces system risks

Smart Management

Smart Management

PCS Power control
module

CMU Rack & PCS
management


CSU Energy storage
subarray management
Integrated local EMS



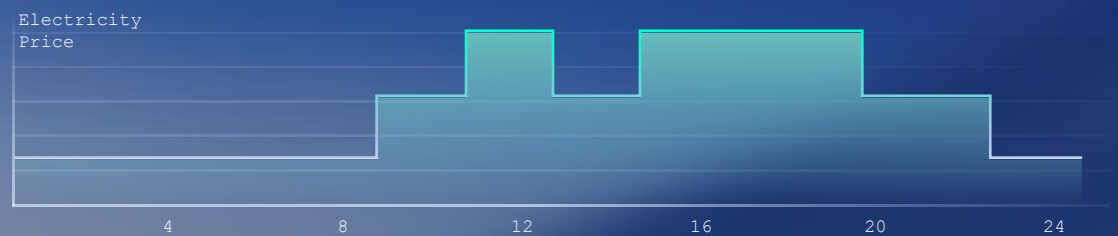
BCU Rack
management

BMU Cell data
information
collection



 Real-time monitoring information

15 Crucial data storage 15yrs
YEARS



Intelligent charge/discharge scheduling, maximize IRR

Project References



625kW/1075kWh, China



125kW/430kWh, Italy



125kW/256kWh, Austria



1.25MW/2.15MWh, Zhejiang, China



1MW/1.72MWh, Jiangsu, China



25 MW/50 MWh, Xian, China by China State Grid

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ENERGY TO POWER YOUR LIFE

SO FAR

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