New Product

TRENE-P100B215-I

C&I ESS Solution

Version: V1.1
Dept.: Marketing
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CONTENTS

01.
Overview

Air Cooling Intelligent Energy Storage System Design for C&I

- ALL IN ONE Solution

215kWh stand-alone capacity

The TRENE 215kWh stand-alone is an integrated cabinet solution with intelligent air-cooled cabinets supporting a 2-hour energy storage application at 100 kW.

System Overview

- One-stop solution

Various application scenarios

- Micro-grid supported
- VPP dispatch supported
- Warehouse, Factory, Mall etc
- Charging station

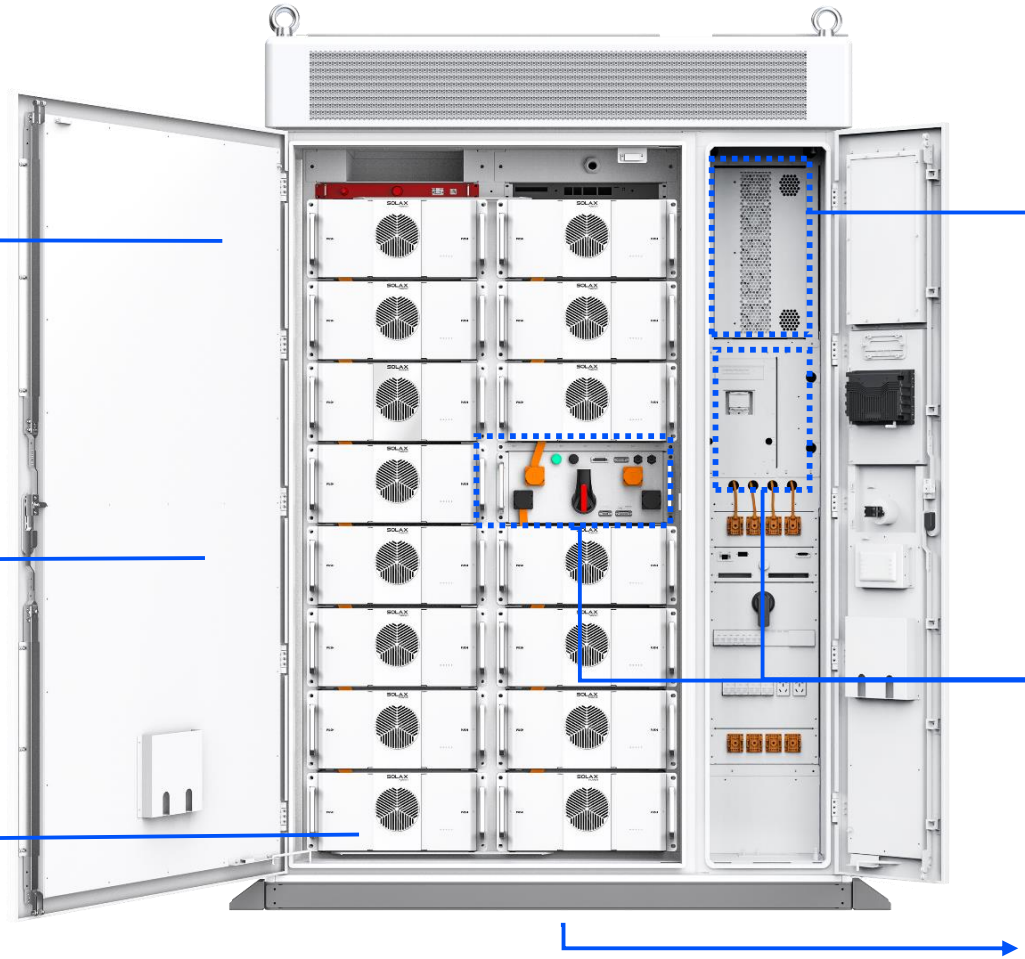
Superior capacity

- 280AH LFP battery
- 215 kWh capacity
- **Expandable to MWh**

Robust safety

Air cooling module

- Cell temperature difference < 10 °C
- **Four-level fire protection**



High versatility

PCS

- 100kW, **max 110kW output**
- Three-phase unbalanced output
- Support SVG
- 3P4W system

Intelligent energy management

- **Self-development EMS&BMS**
- Solax Cloud & APP
- Smart Schedule & Smart scene
- cell level data real-time monitoring
- local data retention up to 1 year

All-in-one design

- Fast & simple installation
- Effortless O&M

Multiple Scenarios

Farms

Factories & Malls

Charging stations

Island micro-grid

Designed for industrial and commercial scenarios

Fast & simple installation

✓ Only one hour install to complete the whole solution

Easy wiring

Connect only grid wires

Quick connectors

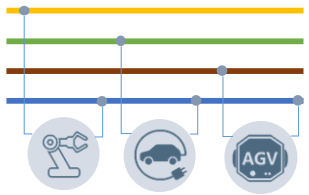
3P4W design compatible for all your 1P and 3P loads

Wireless network

Paired with wireless bridge to access network fast

Simple configuration

Built-in EMS, configure through touch screen



	On-grid	Off-grid
Nominal output power*	100kW	100kW
Transformer		

02.

Key Features

Highly versatile **PCS**

Strong Ability Against Unstable Grid

Micro-grid Supported

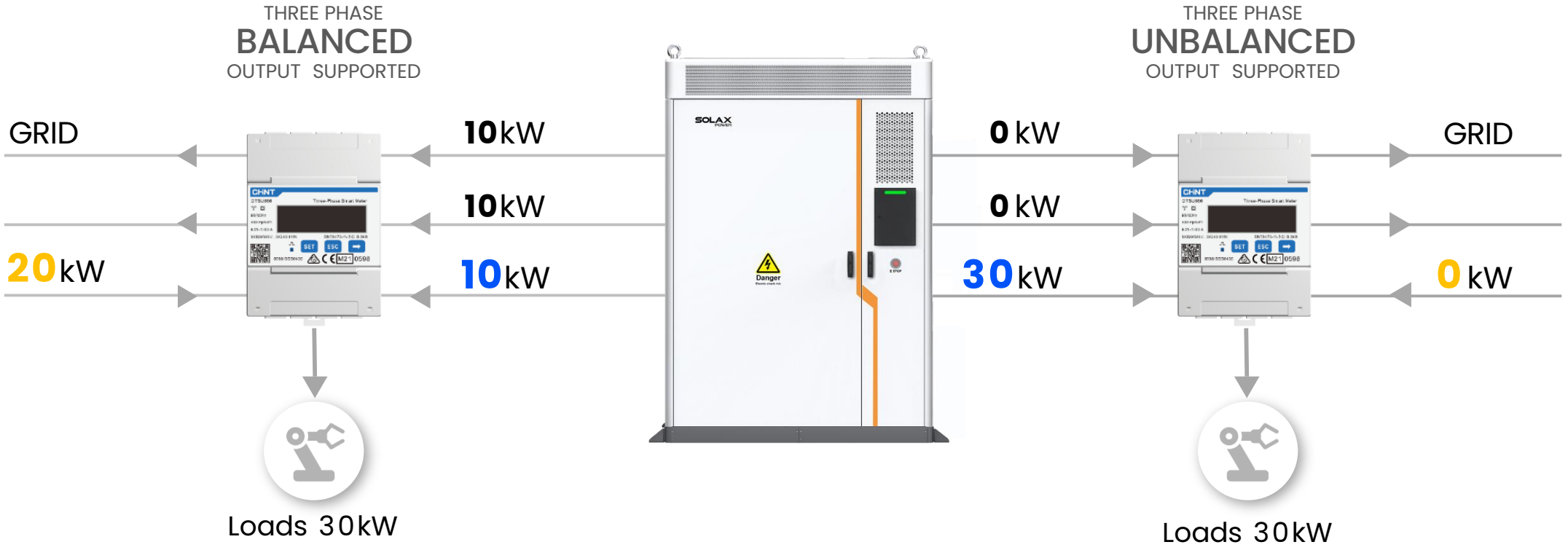
Enable string inverters to harness
PV even during outages

Generator Supported

Power your load
with generator

Highly versatile PCS

Maximizing self-use electricity



- Loads less than 30 kW, no need to buy electricity from the grid
- Prevent voltage imbalance when using high-power electrical appliances.

Highly versatile PCS

Flexible and Expandable, all as you need

Support maximum 10 units in parallel

- Larger power capacity meets the demands of a broader range of industrial and commercial scenarios

Industry-leading **battery**

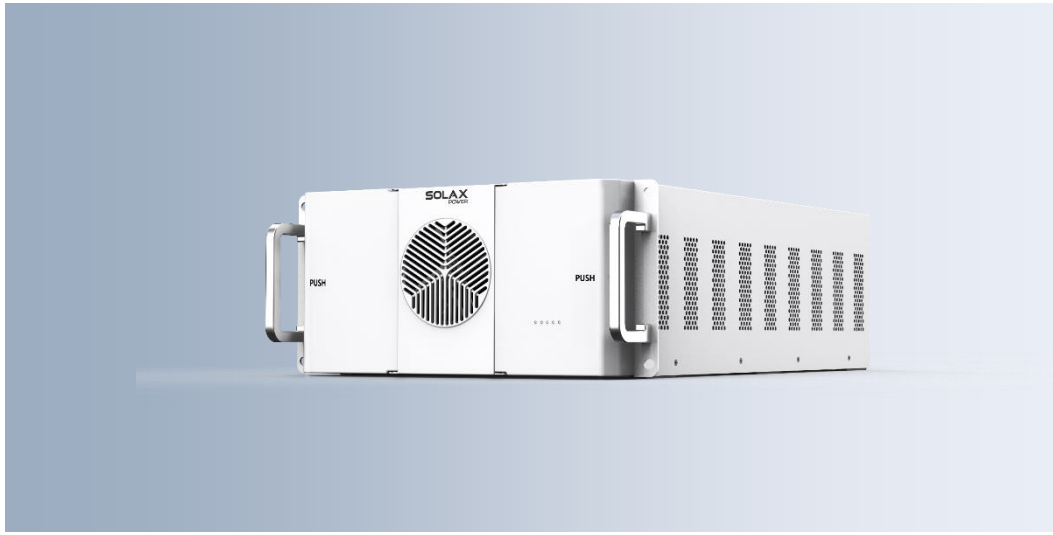
Robust safety guards maximized energy

Cell level real-time monitoring

Remote view voltage, current, temperature, SoC, daily production and historical data at any time

Advanced battery management unit

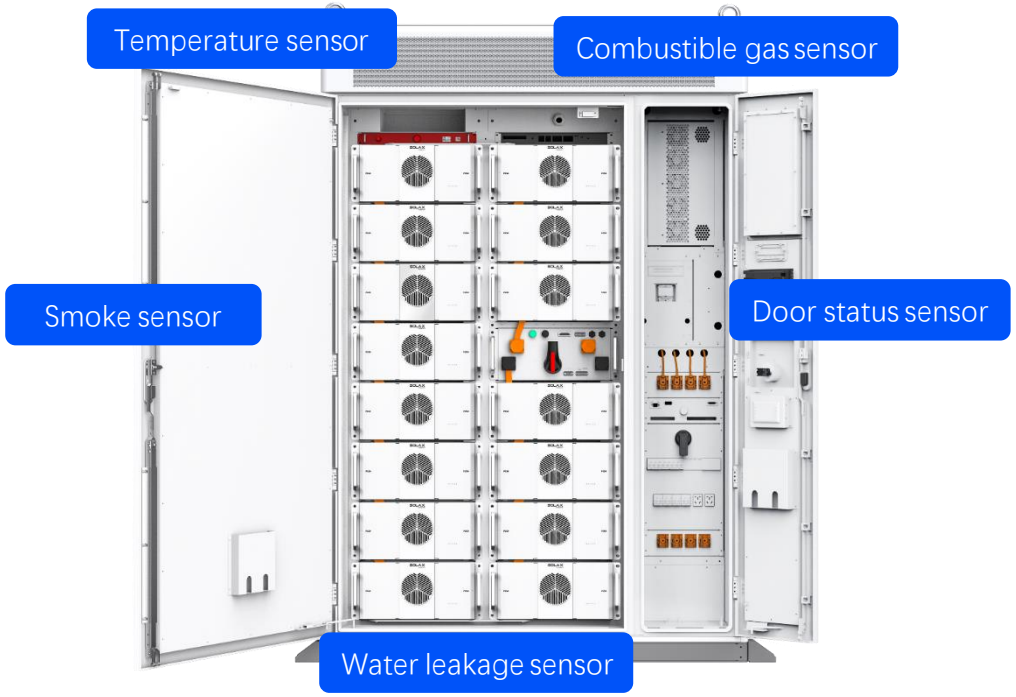
Developed and Manufactured by SolaX, BMU embraces advanced hazards detection and earliest protection to enhance the Battery system

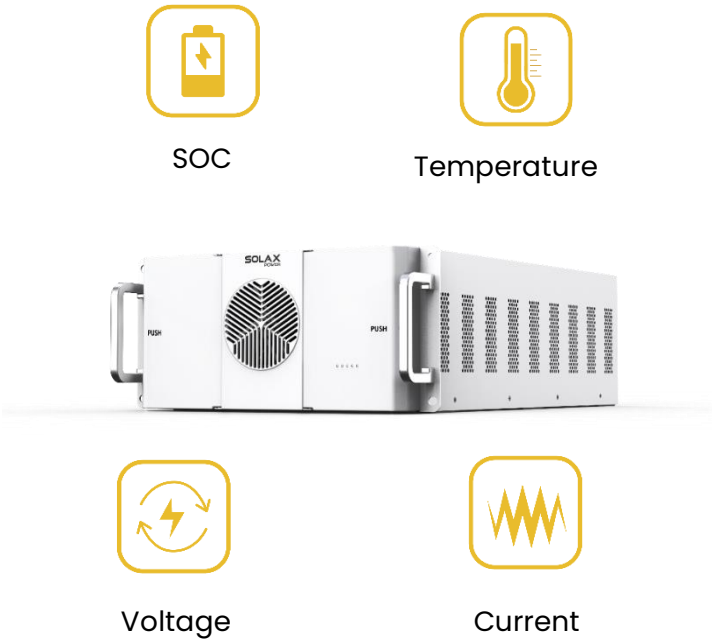


- 280Ah LFP battery
- 215kWh stand-alone capacity
- 14.3kWh single battery pack

Four-level safety design

1 . Multiple sensors real-time monitoring to trigger early warning





AI monitoring of Cell health
based on sensing technology

Four-level **safety design**

2. Multistage breaking designed for severe faults

2、PCS breaking

1、Rack breaking

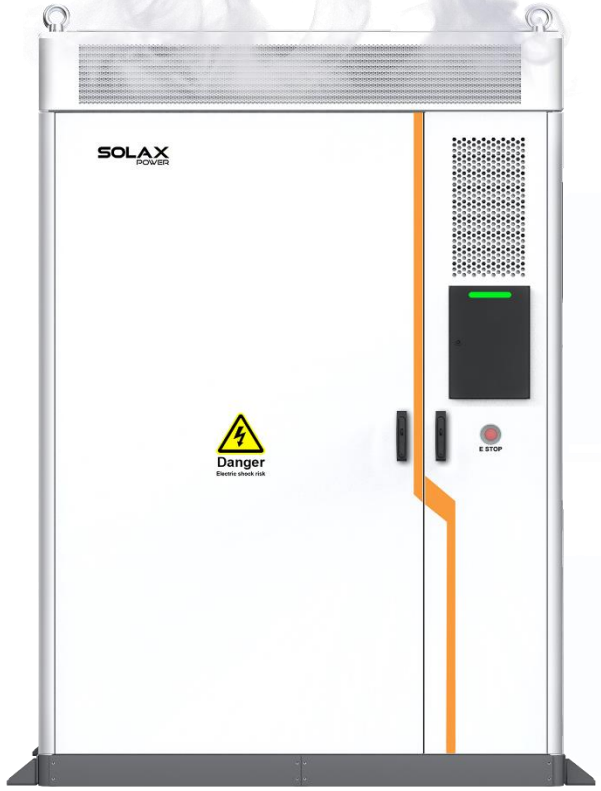
3、Combiner breaking

accurately identify the severe faults and automatically break the circuit to reduce the loss

Rack breaking -> PCS breaking -> Combiner breaking

Four-level **safety design**

3. Aerosol and water spray fire-extinguishing, dual fire protection safeguards



Four-level **safety design**

4. Compartmentalized design ensure bulkheads capable of enduring fire for 1.5h

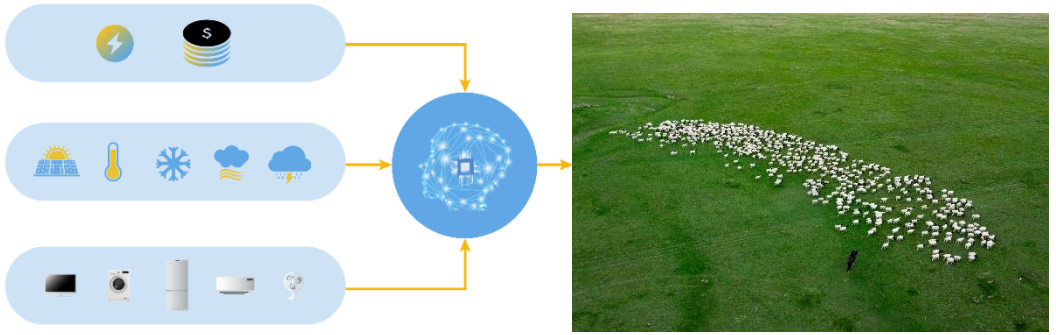
Compartmentalized design effectively slow the spread of the fire

03.
Application Systems

Intelligent energy management

Smart Schedule – Define customized solution by your own

Smart Schedule



Auto tune to an optimal working mode based on deep-learning weather forecasting, usage habits, and electricity pricing in order to maximize energy efficiency.

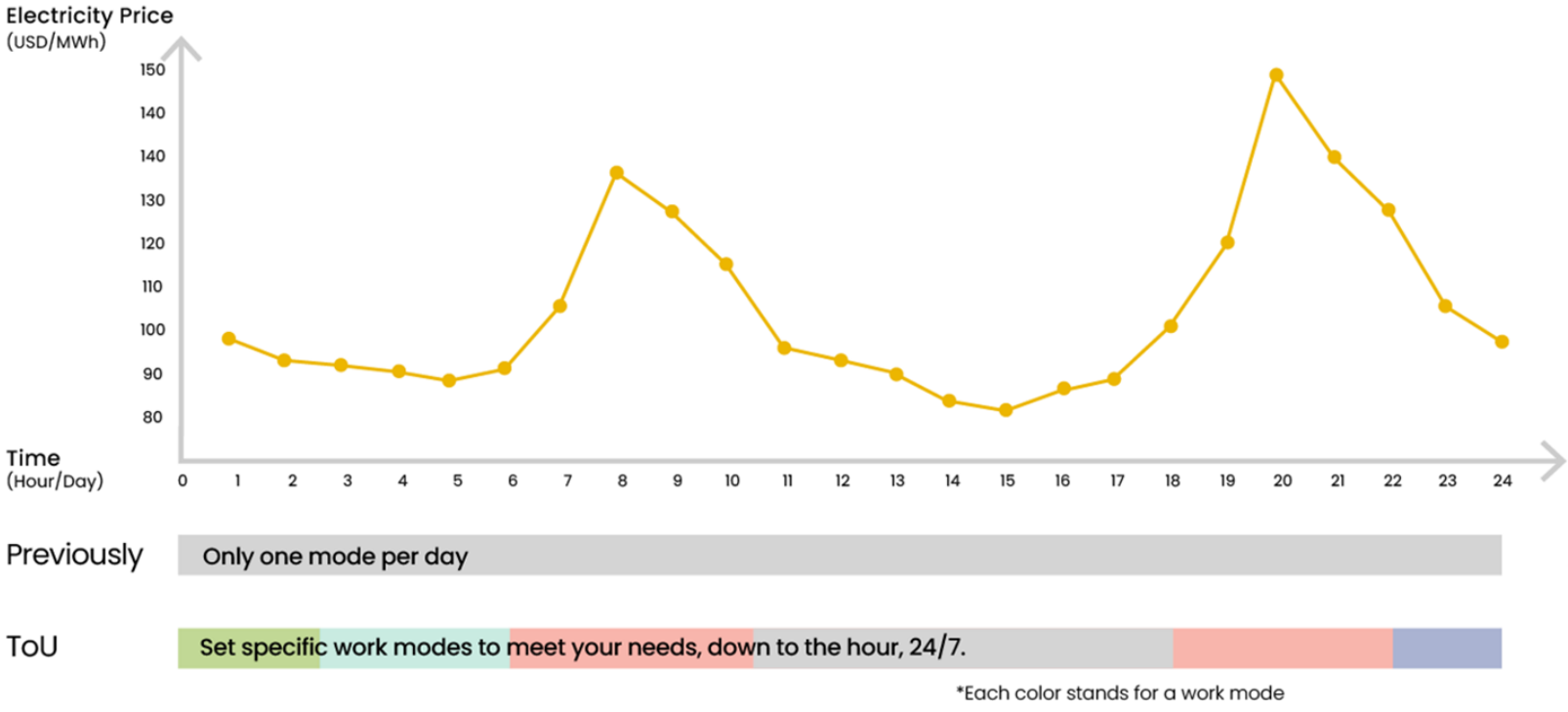
Satisfying various application scenarios

On the farm, the Smart Scene takes into account weather conditions, including light radiation & temperature and operational requirements at specific times, while meeting the demands of loads such as water pumps and greenhouse lights, effectively optimizing energy usage.

Intelligent **energy management**

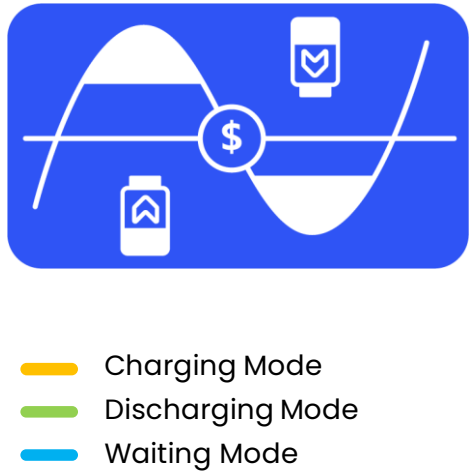
7X24 Time of Use — Customized & Bill Saving

- Set specific work modes for **each hour of the day, 7 days a week**; the weekly plan can be repeated.
- **Various work modes** to choose from: Charging/Discharging/Waiting
- **Holiday import** supported.
- **Bulk deployment** supported (coming soon).



Satisfying various application scenarios

- Supermarkets



By setting different work modes for opening and closing times, TOU function enables shopping malls to save electricity during peak hours during working time.

Intelligent energy management

Smart scene – Define customized solution by your own

Smart Scene

Smart Scene innovatively **offers a customizable set of IF-THEN conditions and actions**, allowing users to create intelligent scenarios like automatically charging/discharging the battery based on preset conditions, making your life easier.

- ✓ Efficient
- ✓ Automatic
- ✓ Money saving

Example

IF - What you SET

IF condition is set at 2 AM, and the weather forecast predicts rain within the next 8 hours.

Then - What you GET

In response to this condition, the THEN action is programmed to charge the battery to 100% at 2 am, when the electricity price is typically lower.

Forecasted raining tomorrow

EMS1000

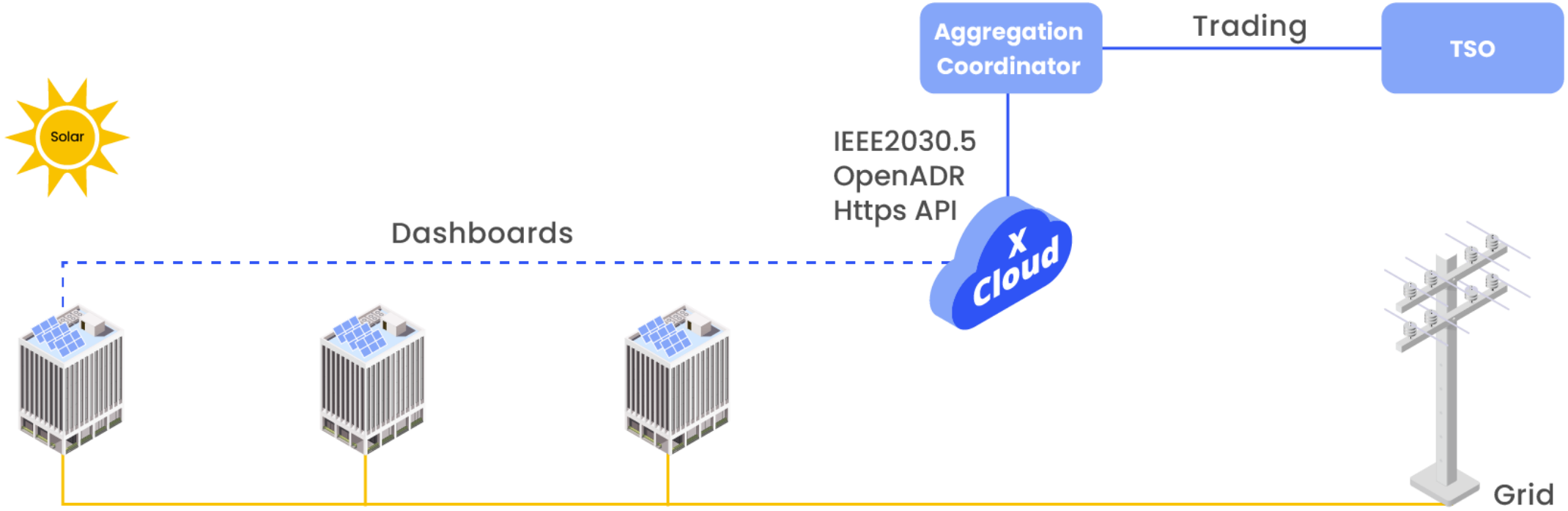
Auto Charging

Satisfying various application scenarios

IF	Then
Rain & Electricity Price < 0.3 EUR	Charging mode
Time is 22:00 & Electricity Price > 0.3 EUR	Turn off charging pile

Intelligent energy management

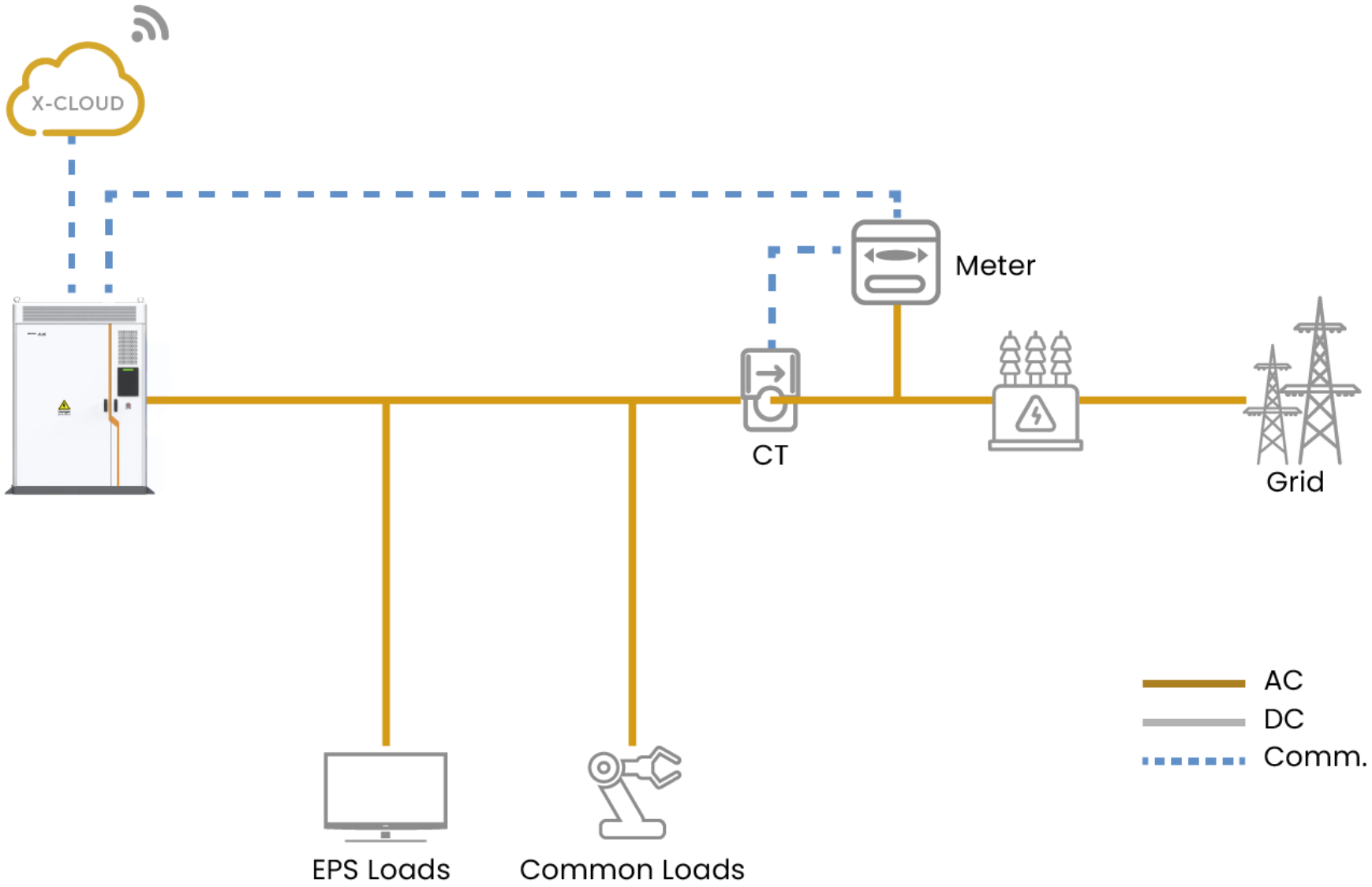
Support power VPP dispatch



VPP, also known as Virtual Power Plant, is a network of decentralized energy-generation systems, like solar systems, that are linked together and managed by a VPP operation platform.

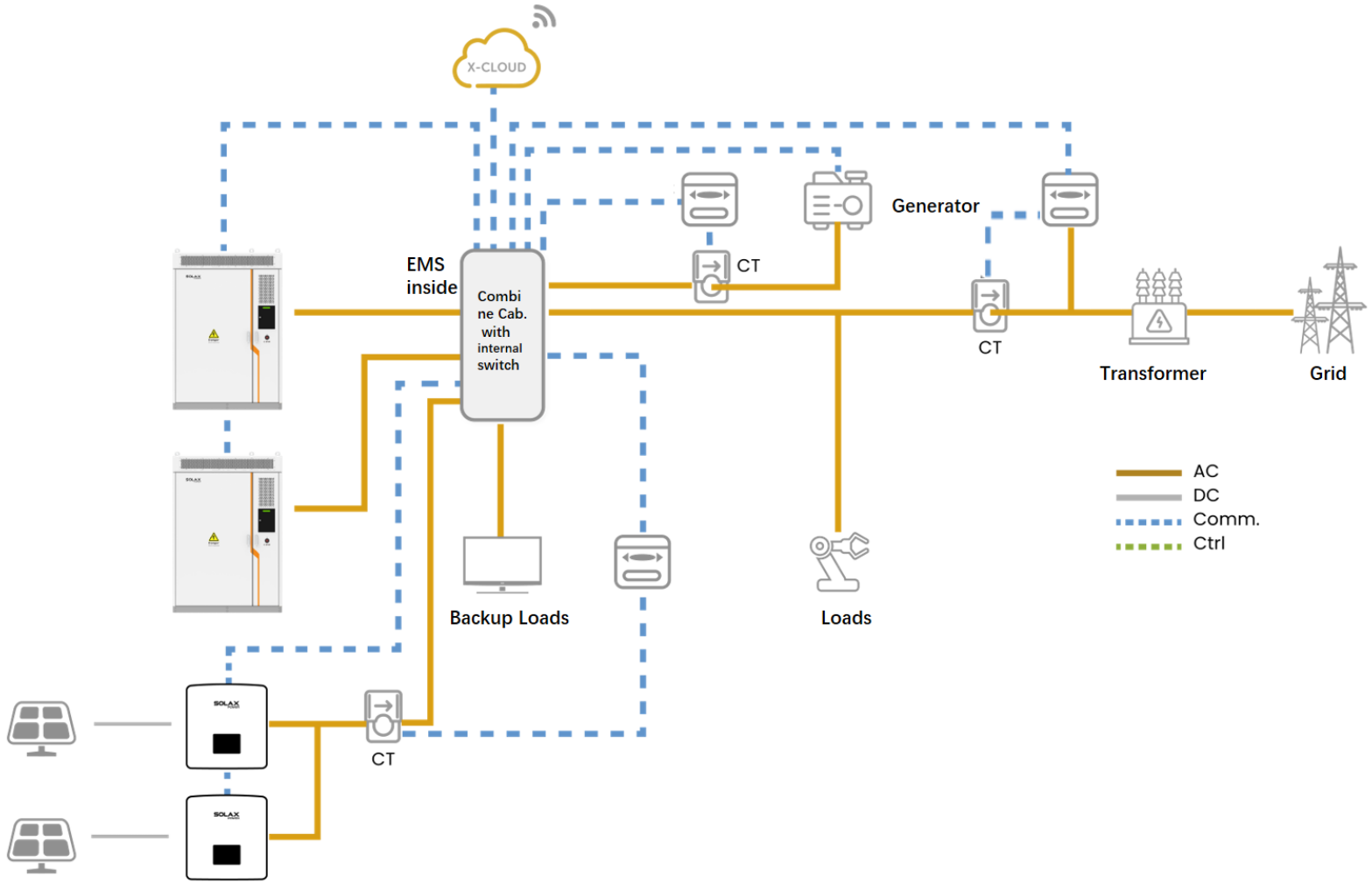
With support for API / IEEE2030.5 and Open ADR, our product can easily integrate with VPP operation platforms. This functionality is currently being utilized in certain countries.

Common Loads

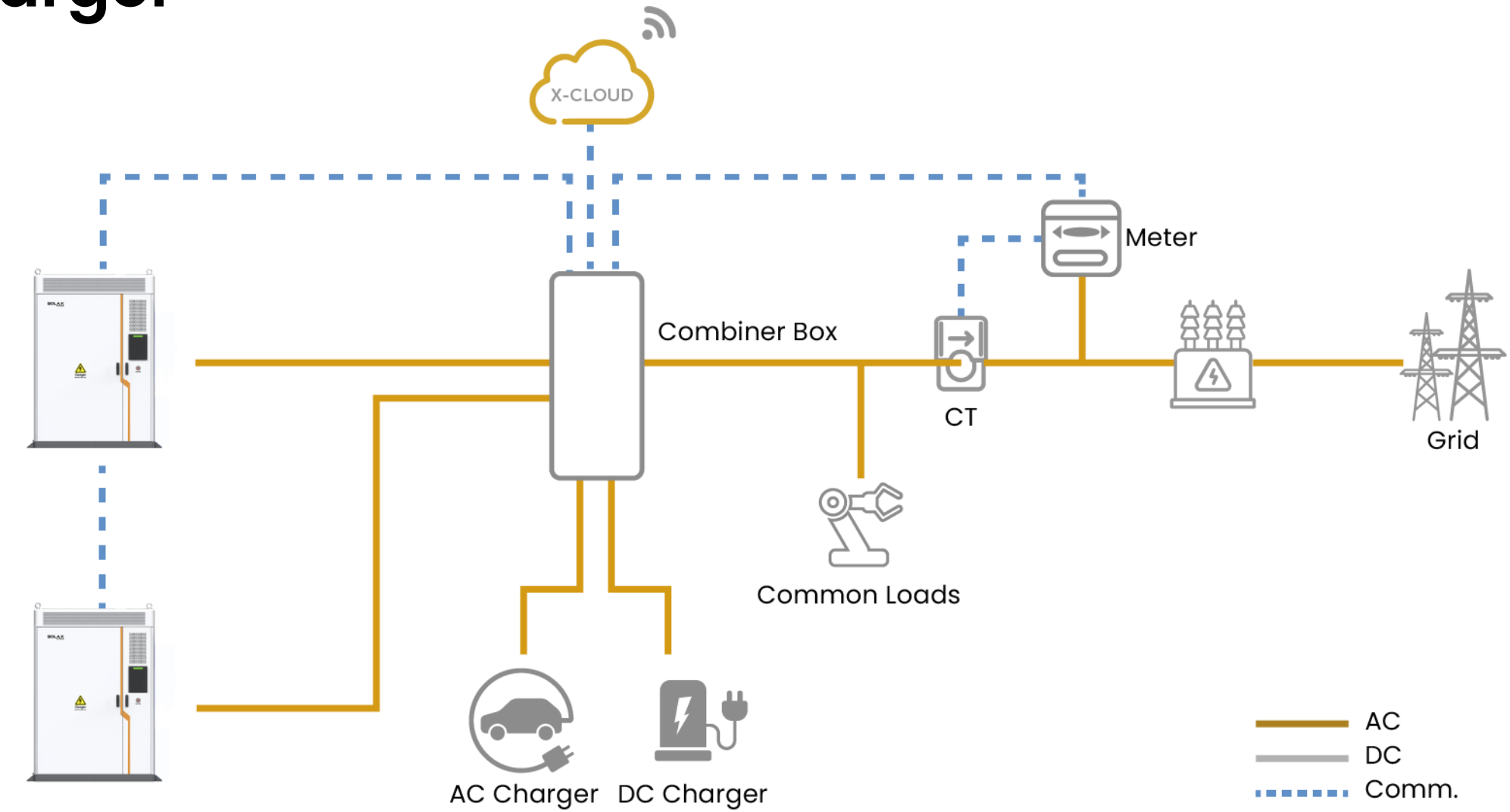


Micro Grid

Together with on-grid inverters and a diesel generator, forming an independent micro-grid enables island energy for self-use.



EV Charger


X-CLOUD
Meter
Combiner Box
CT
Grid
Common Loads
AC Charger
DC Charger
AC
DC
Comm.

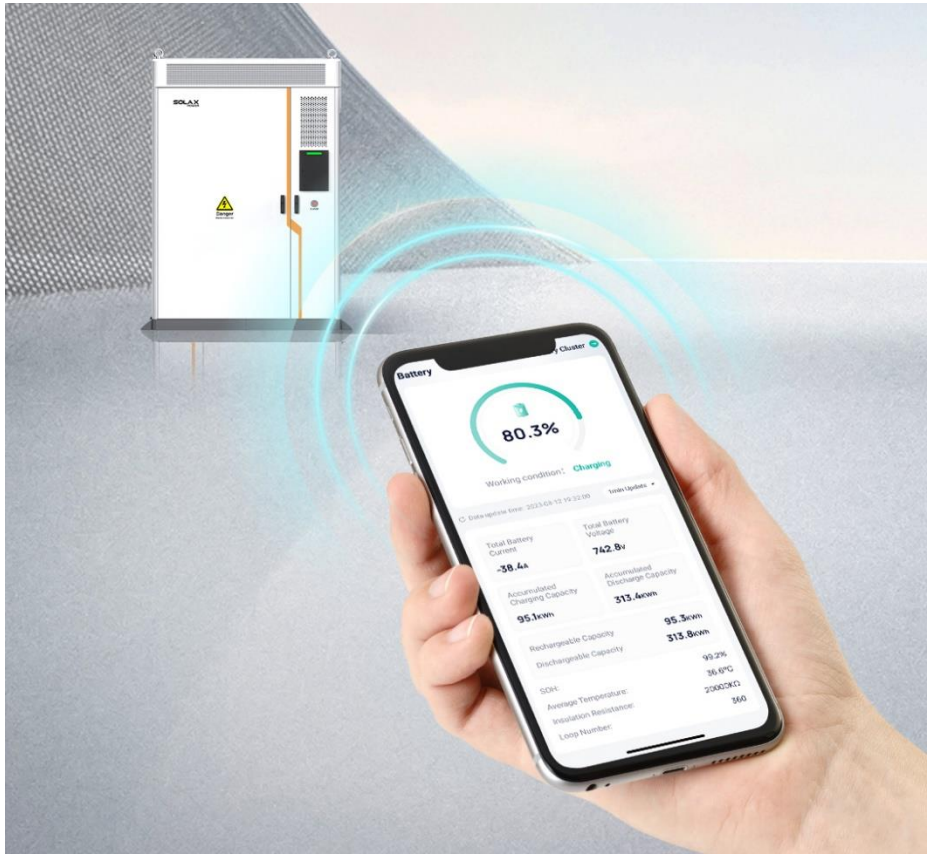
04.

Effortless O&M

Remote control and upgrade ensures convenience

OTA upgrade

Wireless control



SolaX Cloud - One-Stop Power Management Platform

- 10 sec Real-time data refresh
- Consumption monitoring
- Intuitive interface
- dashboard supports customization
- Apps are available on Google Play & App Store

Global Service Support

- All products are solely-developed and self-manufactured by SolaX, including hybrid inverters, storage batteries, BMS.
- From R&D to manufacturing, from sales to after-sales support, you can trust us for high-quality products and services.

05.
Technical Parameter

SOLAX POWER

215 kWh stand-alone capacity

Maximun 10 units in parallel

Cell temperature difference <10℃

3-phase unbalanced output

Increase 10% dispatch revenue

7×24 ToU

1 hr installation

Local data retention up to 1 year

Update Energy management Strategy Every 15 Mins

280 Ah LFP battery cells

1.5-Hour Fire Resistance

Technical Parameter

System model	TRENE-P100B215-I
Basic Parameter	
Protection class	IP54
Operating temperature range [℃]	-30 ~ 55
Max. operation altitude [m]	< 3000
Relative Humidity(non-condensing) [%]	0 ~ 95
Dimensions (WxHxD) [mm]	1680 × 2420 × 1200
Weight (kg)	2800
Cooling Concept	Air cooling
Fire Suppression system	(Optional: Aerosol / Novec1230) / Water
Display	7 inch LCD
Communication Interface	Ethernet / 4G / CAN / USB
Topology	Non-isolated type
Certification	IEC621619, IEC63056:2000, IEC61000-6-2&-6-4, IEC62477-1, UN38.3

Technical Parameter

System model	TRENE-P100B215-I
OUTPUT AC	
Nominal output power [kW]	100
Rated output AC current [A]	144.4
Max. apparent AC power [kVA]	110
Nominal grid voltage [V]	400 / 230V, 380 / 220V
Nominal grid frequency [Hz]	50 / 60
Maximum charge / discharge current [A]	140
Adjustable range of power factor	0.99 leading ~ 0.99 lagging
THD[%]	< 3

Technical Parameter

System model	TRENE-P100B215-I
BATTERY	
Cell type	LFP / 280Ah
System configuration	1P240S
Nominal voltage [d.c.V]	768
Battery voltage range [d.c.V]	600 ~ 876
Nominal capacity [kWh]	215
Nominal power [kW]	100
PROTECTION	
Anti-islanding protection	Yes
AC overcurrent protection	Yes
DC reverse-polarity protection	Yes
Insulation resistance detection	Yes
Over/under voltage protection	Yes
Over temperature protection	Yes
SPD (AC side)	Type II

THANKS

Powering a Green Future

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