KSTAR
Powering the Future

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KSTAR
Powering the Future

Kommercial ONE

Integrated PV, ESS & EV Charging Solutions

Reliable Supply | Value Boost | Future Grid



www.au.kstarnewenergy.com

ABOUT KSTAR

Stock Code 002518

KSTAR was established in 1993 and listed on the Shenzhen Stock Exchange in December 2010 (Stock Code: 002518). After 32 years of development, KSTAR has become a leading enterprise in China’s power electronics and new energy products.

The Company is headquartered in Nanshan, Shenzhen, and operates two R&D centres and seven manufacturing bases. As a leader in China’s uninterruptible power supply (UPS) industry, we have developed and produced modular and container data centre infrastructure, PV inverters, ESS, and EV chargers with industry-leading technology.

KSTAR’s technology centre employs 704 professional R&D engineers. R&D investment reached RMB 250 million in 2024, accounting for 6.60% of revenue. The Company holds over 400 patents and software copyrights, with more than 30% being invention patents. With advanced traceability technology and strict quality control protocols, we guarantee transparency, compliance, and consistent product quality across the entire supply chain. KSTAR operates across 150+ countries with 22+ offices globally, and holds ISO 9001, ISO 14001, and ISO 45001 certifications.

MANUFACTURING CAPABILITY



Lithium battery manufacturing



Automated production



Quality control

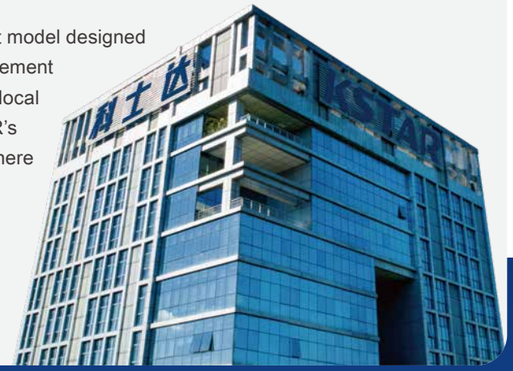


Assembling

KSTAR IN AUSTRALIA

KSTAR’s presence in Australia reflects a genuine, long-term commitment to the local market. While our Australian project reference portfolio is still developing, we have already invested in the people, infrastructure, and support capability needed to serve customers locally. Our approach is to build the market properly on the ground, with local responsiveness backed by global engineering and product resources.

KSTAR Australia is establishing a practical local support model designed to cover the full customer journey, from pre-sales engagement through to commissioning and after-sales support. This local structure is supported by close coordination with KSTAR’s HQ-based product, engineering, and technical teams where deeper specialist input is required.





Local office, spare parts and logistics support:

KSTAR’s Melbourne office in Mulgrave will support office operations and local spare parts holding, while product stockholding and logistics will be supported through third-party warehousing arrangements across



Local pre-sales, commissioning and after-sales support:

Customers are supported locally through pre-sales technical engagement, commissioning coordination, and after-sales service, with escalation pathways to KSTAR’s global technical teams when required.



Intelligent analysis and remote firmware upgrade capability:

KSTAR’s Monitoring Platform features remote diagnostics, intelligent analysis in short response times. And supports one-touch upgrade, allowing users to install the latest firmware with a single tap remotely.



Local field responsiveness:

KSTAR’s support structure across Melbourne and Sydney is intended to provide practical local coverage for customer communication, technical support, and service coordination.



Long-term market commitment:

Our investment in local team build-up, infrastructure, and support capability reflects a long-term commitment to the Australian market rather than a remote export-only model.

ABOUT KSTAR

1993
KSTAR Established
Enter Offline UPS Field

1996
Overseas Expansion
Enter the European and US Market

1998
New Manufacturing Base
Guanlan Industrial Park Inaugurated in Shenzhen

2004
Further Development
Enter High-power Online UPS Field

2009
Enter New Energy Field
1st PV Inverter Produced

2010
IPO and Public Debut
Listed in Shenzhen Stock Exchange

2013
Explore New Opportunities
Enter the Electric Vehicles Market

2015
National Certified Technology Center
Certified by National Quality Management System

2019
CATL & KSTAR Partnership
Establish Joint Venture Factory with CATL

2021
Further Invest in ESS Facilities
Open Jiangxi Changxin Gold Sunshine Power Supply Co.,Ltd

2023
KSTAR Vietnam
Vietnam Plant in Operation

National-level Green Factory

2024
Construction of the High-end New Energy and Energy Storage Industrial Base

2025
Jiangxi Gold Sunshine
Launches advanced punched grid plate production



Product Overview

- Full-stack In-house Developed Technology
- Easy Installation & Commissioning
- Flexibly Adapt to Diverse Scenarios and Solutions
- KSTAR Integrated PV-Storage-Charging Solution
- Designed for Harsh Environments with Superior Safety
- Smart Energy Management Platform

Compact **Flexible** **Reliable**

Hybrid Inverter:	KAC20 ~ 50DP2 / KAC80 ~ 125DP2
Battery System:	BC70 ~ 107DE2 / BC80 ~ 120DE2A
	BC197 ~ 233DE2 / BC220 ~ 260DE2A
DC Charger:	CDA24D ~ CDA48D



KAC20~50DP2 KAC80~125DP2 BC70~107DE2 BC80~120DE2A BC197~233DE2 BC220~260DE2A CDA24D~48D

Fully Self-developed Hardware & Software

Cell Level BMU
Monitoring & Balancing



Rack Level SBMU
Protection & Control



System Level MBMU
Coordination & Communication



10ms Backup Switching
with STS Integrated*





EMS - Multi-level
Energy Management

Sync - One Platform for
Entire Ecosystem





Thermal Management System
Optimum Thermal Control

The 10ms on / off-grid switching time applies to single-PCS operation with a purely resistive load.

Flexible & Modular Architecture

Up to **20 PCS** for On-grid parallel operation
2.5MW / 10.4MWh System Scale



Up to **10 PCS*** for On&Off-grid parallel operation
1.25MW / 5.2MWh System Scale



Flexible Capacity Selection
Suitable for projects of different capacities

* For 7-10 units parallel in off-grid, please consult KSTAR presales.

Support Both AC Coupled & DC Coupled Design

AC Coupled:

Easily Adding Battery System to - Original PV System;

Future-ready:

EV Charger Ready
Generator Ready
Third-party EMS Ready

DC Coupled:

Connection Both PV & Battery to One ESS System;
No need to buy another PV inverter



All-round Safety & Reliability

Advanced 4+3 Fire Protection Architecture



CO Detector



Smoke Detector



Audible and Visual Alarm



Aerosol Device









Robust Environmental Protection

All-weather Ready

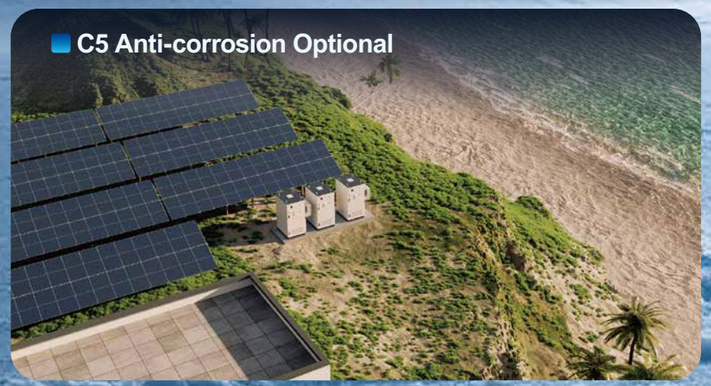
- Inv: IP66 / BAT: IP54



- -30 ~ 50°C Operation



- C5 Anti-corrosion Optional



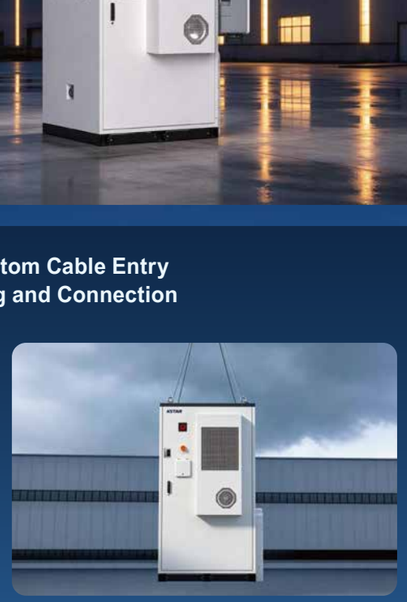
Fast Deployment & Simplified Commissioning

Pre-assembled at Factory
Ready for Rapid Deployment



Optimized Cabinet Structure with Bottom Cable Entry and Forklift Slots for Easy Positioning and Connection





Effortless Fast Commissioning via KSTAR Smart EMS



KSTAR
Smart PV-Storage-Charging Solution

Max ROI
Zero-cost Green Charging
Double Arbitrage by TOU

Smart Grid
Dynamic Load Management
Smart Peak Shaving
Eliminate Transformer Expansion Costs

All-in-One
Integrated PV-ESS-Charging Solution
Dual-connector HPC



GreenFlow DC Charger
120~240kW / 300~480kW

Ecosystem & Connectivity

Open Platform
Global Network
Can connect to multiple overseas platforms

Quality & Efficiency

Self-Developed Key Modules
Proven Reliability
97.5% Peak Efficiency

High Performance

Liquid-cooled
Supports Up to 480 kW per Connector

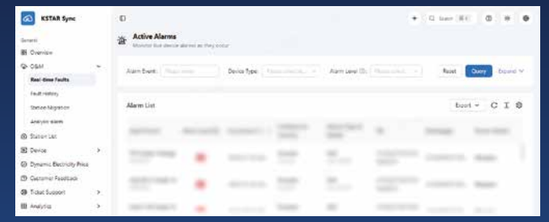




One Platform
Full System Control

Smart O&M

Real-time Data Remote Monitoring
Remote Upgrade
Auto Alarm Tracking



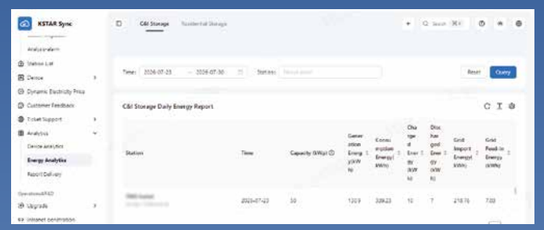
Data Analytics

Energy Flow
Revenue Analysis
Carbon Reduction



Revenue Enhancement

Operating Modes
Dynamic Pricing for EU Countries
VPP Integration



Air-Cooling Battery Cabinet
BC70-107DE2 / BC80-120DE2A



Model	BC70-107DE2	BC80-120DE2A
Rated energy capacity:	70-107kWh	80kWh-120kWh
Inverter power rating:	20-50kW	20-50kW
Cell type :	280Ah LFP	314Ah LFP
Cell cycle life:	8000	8000
Anti-corrosion :	C4 / C5 optional	C4 / C5 optional
Compatible KAC Inverter :	KAC20-50DP2	KAC20-50DP2

KSTAR Air-Cooled C&I ESS Solution for Australia

01 **Demand Charges Are Killing Your Margins**

A single afternoon peak blows out the monthly bill.

88% RTE, 98% PCS efficiency. Charge low, discharge at full power when it counts.

02 **The Grid Can't Keep Up**

Your client needs more power. A grid upgrade costs more than the equipment.

Up to 20 PCS in parallel, 10.4 MWh. Draw from the battery, not the grid.

03 **Cheap Solar Export, Expensive Grid Buyback**

Selling at 5 cents, buying at 30. The math fails.

DC-coupled. 98% DOD. Store surplus, use it at night.

04 **Installation Takes Too Long**

Every extra day on site eats your margin.

Pre-assembled all-in-one cabinet. Forklift in, connect, ready in as fast as one day.

05 **Outages Mean Lost Revenue**

A brief blackout costs real money.

STS <10 ms. 4+3 safety. Critical loads never notice.

06 **You Can't Be Everywhere at Once**

Rolling a truck for every call kills profitability.

KSTAR Sync. Remote monitoring, diagnostics, alerts. One dashboard, all sites.

07 **Your Clients Expect You to Fix It Before It Breaks**

Reactive service erodes trust.

SYNC predicts issues before they fail. Fewer emergencies, longer asset life.

Why Australian Installers Choose KSTAR DC-coupled. 88% RTE. 98% PCS. 98% DOD. <10 ms STS. IP55. 8,000 cycles. 10-year warranty. Plug-and-play. SYNC inside. Local support. KSTAR Air-Cooled C&I ESS — Built for your business. Proven for your clients.

Air-Cooling Battery Cabinet
BC197-233DE2 / BC220-260DE2A



Model	BC197-233DE2	BC220-260DE2A
Rated energy capacity:	197kWh-233kWh	220kWh-260kWh
Inverter power rating:	50-125 kW	50-125 kW
Cell type :	280Ah LFP	314Ah LFP
Cell cycle life:	8000	8000
Anti-corrosion :	C4 / C5 optional	C4 / C5 optional
Compatible KAC Inverter :	KAC50/125DP2	KAC50/125DP2, *Please reach out to KSTAR engineers for more information

KSTAR Air-Cooled C&I ESS Solution for Australia

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KAC20-50DP2



Model	KAC20-50DP2
Power Ratings:	20-50kW
Peak Efficiency :	97-97.5%
MPPT Trackers :	4
Protection Rating :	IP66
Cooling Method :	Intelligent Air Cooling

KAC80-125DP2



Model	KAC80-125DP2
Power Ratings:	80-125kW
Peak Efficiency :	98%
MPPT Trackers :	8
Protection Rating :	IP66
Cooling Method :	Intelligent Air Cooling

DC Charger / Charging Module



Model	CDA24D	CDA48D
Rated Power :	120-240kW	300-480kW
Peak Efficiency:	96%	96%
Output Voltage:	200-1000V DC	150-1000V DC
Output Current :	Rated 350 A / Boost 500 A	Rated 350 A / Boost 500 A (Air-Cooled)
		Rated 500 A / Boost 650 A (Liquid-Cooled)
Charging Modules:	30kW*8	40kW*12
Connector Type :	CCS2 × 2	CCS2 × 2
Protection Rating:	IP54	IP54
Cooling Method:	Forced air	Air-cooled / Liquid-cooled optional
Operating Temperature:	–30°C to +75°C	–30°C to +75°C
Communication:	OCPP 1.6J	OCPP 1.6J

KSTAR GreenFlow DC Charger Solution for Australia

01

Energy Loss Is Eating Your Revenue

Every percent of efficiency lost is money you paid for but never delivered.

96% peak efficiency, full SiC-powered. More kWh paid for, fewer lost as heat.

02

"It Won't Charge My Car"

Compatibility complaints tie up your phone and your reputation.

200-1000V wide voltage, full power from 300V to 1000V. Covers every EV, ready for 800V.

03

You're Forced to Overbuild on Day One

Sizing for future demand means wasted capital today.

30/40 kW modules. Deploy what you need now, scale later. No stranded investment.

04

Installation Is a Multi-Day Operation

Separate cabinets, external cooling, complex cabling — your margin disappears.

All-in-one floor-standing cabinet. Forklift in, bolt down, connect, power up. Days become hours.

05

Dust, Rain, and Heat Shut You Down

Outdoor chargers fail when the environment gets extreme.

IP54, independent air duct, sealed module potting. -30°C to +75°C. Rain, salt, dust — stays running.

06

Your Charger Is Locked to One Platform

Vendor lock-in limits your choice and your negotiating power.

OCPP 1.6J open protocol. Works with any compliant backend. Built-in KSTAR Sync. Full freedom.

07

A Single Fault Can Escalate Fast

Overcurrent, surge, leakage — one unprotected event can cascade.

6-layer electrical protection. TÜV-certified. Insurers approve, inspectors pass.

Why Operators Choose GreenFlow96% peak efficiency. Full SiC. 200-1000V. 300-1000V full power.

30/40 kW modules. IP54.

OCPP 1.6J. 6-layer protection. TÜV-certified. SYNC inside. Global support.

Built for uptime. Built for profit.

EMS01D
Second-level EMS Communication Box



- Dual power source, 220 VAC and 24 VDC for higher reliability
- Support remote monitoring via Ethernet / WiFi / 4G, and local monitoring via web page
- IP65 outdoor design
- Up to 20 portals available for southbound communication interfaces
- Various accessible interfaces including DI / DO, USB, SD, RS-485

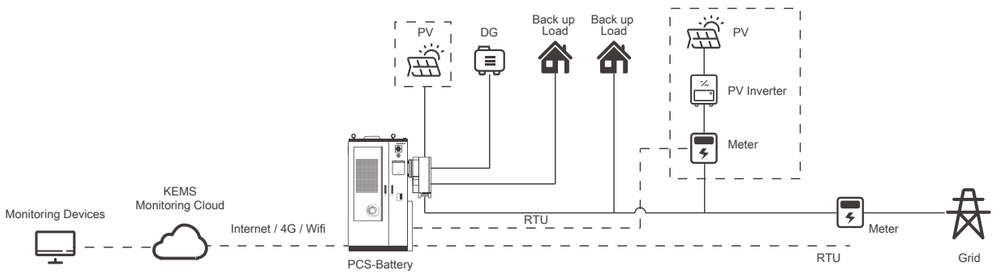
DTSU666
Three Phase Smart Meter



- Metering function: Measurement for forward and reverse active energy;
- Measuring function: Measurement for active energy and voltage, current, frequency, power, power factor,etc
- Display function: LCD,key-press display;
- Communication function: RS-485,support Modbus-RTU;
- Refesh rate: Active power refresh rate about 100 ms.

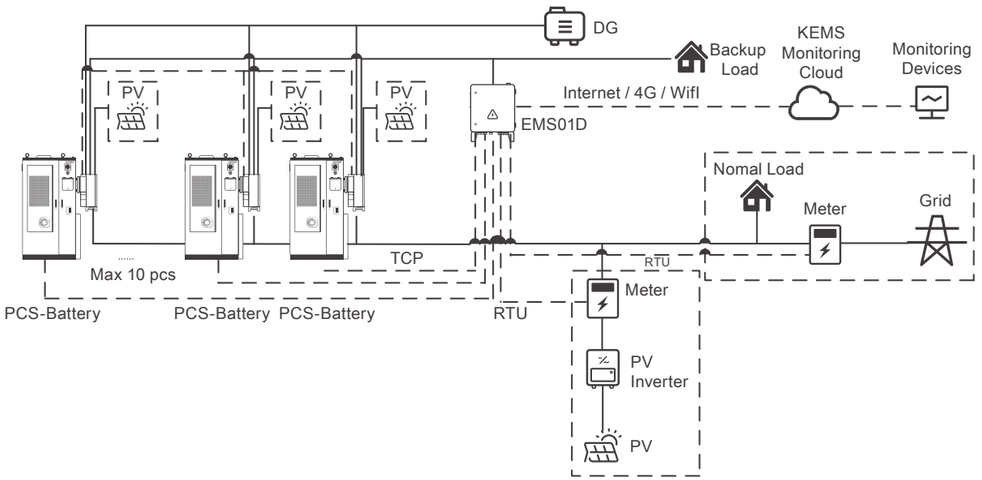
System Diagrams

On/off-grid Single System Application



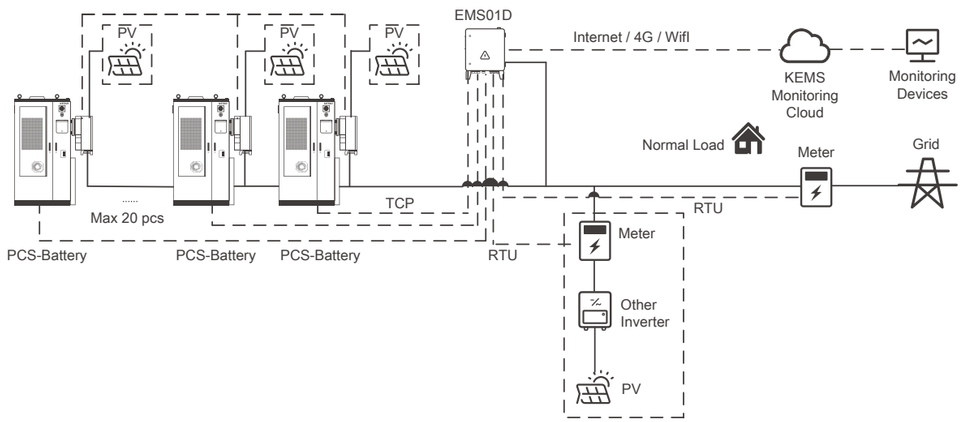
* 10ms-level* On/off-grid switching due to built-in STS; Supports AC-coupled on the grid side;
  When off-grid, generator can supply power to load and charge batteries.
* The 10 ms on / off-grid switching time applies to single-PCS operation with a purely resistive load.

On/off-grid Parallel System Application



* On/off-grid parallel operation system using EMS01D as communication box; Supports up to 10* PCS units in parallel.
* For 7-10 units parallel in off-grid, please consult KSTAR presales.

On-grid Parallel System Application



* On-grid parallel operation system using EMS01D as communication box;
  Supports up to 20 PCS units in parallel.

C&I ESS Configuration Rules

Air-cooling Solution

	BC70/89/107DE2	BC80/100/120DE2A	BC197/215DE2	BC220/240DE2A	BC233DE2	BC260DE2A
KAC20~50DP2	√	√	√	√	/	/
KAC80~125DP2	/	/	√	√	√	√

* For a single system, each PCS can be connected to 1 or 2 battery cabinets.

KSTAR in Action: Reliability You Can See

Join **100,000+** global users in the energy revolution

Real-world Installations









BluePulse's sleek all-in-one design eliminates external wiring clutter, saving space and integrating seamlessly into modern architecture. In homes around the world, it delivers reliable energy independence - with a minimalist footprint.

Professional Support & Installer Training





Empowering Installers. Ensuring Excellence

KSTAR equips its global partners with comprehensive theory and hands-on training - from modular assembly to smart commissioning - ensuring every installer has the expertise to deliver safe, efficient systems.

Global Roadshows & Presence





Where Innovation Meets the Road

Through roadshows and exhibitions worldwide, customers can discover KSTAR's 30-year technical heritage firsthand. Our live demonstrations bring BlueSpark's intelligent storage technology to life - building confidence in clean energy across every market.



Peak Shaving, Self-Consumption & EV Charging

Location: Ruurlo, the Netherlands
Capacity: 125kW / 215kWh
1 unit KAC125DP2, 1 unit BC215DE2, 1 unit CDA48D



Self Consumption

Location: Mirador de Agulo, Spain
Capacity: 100kW / 197kWh
2 units KAC50DP2, 1 unit BC197DE2, STS100, DG system offgrid mode



EV Charging + Peak Shaving

Location: 's Gravenpolder, the Netherlands
Capacity: 100 kW / 200 kWh Storage + 240 kW Charging
2 units KAC50DP2, 2 units BC100DE2A, 2 units CDA24D



Self Consumption + Time-of-use

Location: Ferma Lunca Muresului, Romania
Capacity: 375 kW / 699kWh
3 units KAC125DH with BC233DE2



Self Consumption + Power Backup

Location: Oman
Capacity: 375kW / 591kWh
3 units of KAC125DP2-BC197DE2



Self Consumption

Location: Budapest, Hungary
Capacity: 500kW / 1MWh
4 units KAC50DP-BC100DE, 3 units of KAC50DP,6 units of BC100DE



Peak Shaving & Self Consumption

Location: Gilching, Germany
Capacity: 50kW / 394kWh
1 unit KAC50DP2, 2 units BC197DE



Energy Independence (off-grid)

Location: Girona, Spain
Capacity: 3*KAC50DP2+ 6* BC197DE2 + EMS01D + G50KT
150kW / 1.2MWh, 100% Off-Grid with Diesel Generator

Powered by Strength, Secured by Reliability



KSTAR: Powering Your Sustainable Future 30+ years of new energy expertise, global leader in solar & energy storage 6000+ employees, 50GW+ annual capacity, 100+ countries served24/7 localized after-sales support & industry-leading warrantiesYour trusted partner for reliable, future-proof energy solutions: support@kstar.com | www.kstarnewenergy.com

With offices strategically positioned across the globe, we seamlessly connect our innovative solar solutions with communities everywhere. Experience the assurance of a truly global partner — from the manufacturing floor to your doorstep, our commitment to excellence transcends borders.

PV Installation

68GW

Years History

30+

Countries & Regions

180+

Employees

6000+