



湃梅迩® **Pamidala**®

Energy Storage Product Solutions

Safety | Robustness | Portability | Large-Capacity | Low-Temp



Realone Technology



Through information technology and smart energy management technology

Help customers to use energy in a 「safe ・ efficient ・ intelligent」 way

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Company Introduction



Realone Technology is a solution provider of integrated hardware and software in the energy field.

Committed to help our customer to use energy in a safe, efficient and intelligent way through information technology and smart energy management technology.

In the next few decades, the new energy network built by clean energy and energy storage technology will replace the traditional energy system on a large scale.

In the field of energy storage, we are successively launching a series of small and medium-sized portable power station products with excellent performance and unique functions for industrial applications.

Including :

[Suitcase Portable Power Station](#) | [Knapsack Portable Power Station](#) | [Trolley case Portable Power Station](#) | [Stacked Portable Power Station](#) | [Hybrid power stations with larger capacity](#)

Company History

Realone Technology was founded in Shenzhen in 2015 and has established hardware and software R&D centers in Wuhan and Wuxi respectively.

2022

Launched Stacked PSE and Tolley case PSE



2022

Wuxi Software R&D Center was established



2021

Launched wireless intelligent electric balance
temperature control system



2021

Launched Realone enterprise-level energy
management platform



2021

Shanghai Realone Technology was established



2019

Launched BMS system for electric surfboards



2019

Launched heating-free ultra-low temp
battery pack products



2017

Launched Intelligent IoT Management Platform



2017

Wuhan Hardware R&D Center was established



2016

Launched the first generation UAV BMS system



2015

Shenzhen Realone Technology was established



Company Qualification



We have mastered the core hardware and software technology of energy storage, energy control and energy management.

Patent

10

Software Copyright

27

Copyright

2

Trademark

6

Energy Storage Product Line

Realone Technology plans energy storage product lines that balance performance, functionality and portability.

Existing products include stacked portable power station Tower series, stacked home energy storage series, trolley case portable power station Traveller series, suitcase portable power station Box series.

The portable power station series are configured for multiple types of battery packs [LFP](#) | [NCM](#) | [Low-temp Cell](#) | [Ultra-low temp Cell](#). The ultra-low temp cell can meet the industry's lowest -40°C environmental adaptability requirements.



Stacked Portable Power Station



Trolley Case Portable Power Station



Stacked Home Energy Storage



Knapsack Portable Power Station



Suitcase Portable Power Station

Ultra-low Temperature Portable Power Station

In the portable power station product line of Realone, each series has an ultra-low temperature version.

In the extreme cold ambient temperature of -40°C at the same energy density as the normal temperature cell, the ultra-low temperature portable power station can achieve normal discharge without heating, and can realize the power output of 85% and above.





Operating Temperature
-40 ~ +60



Low-temp Lithium Cell
Non-physical Heating



Safe and Reliable
Rugged protection



Cube Tower | Stacked Portable Power Station Series

The **Stacked Portable Power Station Tower Series** product realizes the separation of power control unit and battery pack unit through modular design.

Provide users with higher combined capacity, better performance, and richer power supply functions.

- ▶ The capacity and weight of a single battery pack is moderate, and the overall capacity can be expanded up to four times that of a single unit.
- ▶ Battery pack types are selectable to meet different needs for **high capacity**, **ultra-low temperature environments** or **long cycle life**.
- ▶ Different types of battery packs can be mixed and matched without the need for duplicate purchases.
- ▶ Combined versions of multiple output powers with multiple output interfaces.
- ▶ Hot-swappable connections, no need to configure additional cables, **lift and go, put and use**.
- ▶ The bi-directional inverter version eliminates the need for an external charger.
- ▶ Quick connect components to keep modules tightly connected.



Supply Controller Unit Battery Pack Unit

SCU

BPU

1+ (1 ~ 4) Stacked

Cube Tower Pro

Cube Tower Pro

- ▶ Can be split and disassembled, easy to carry and move.
- ▶ Modularized battery pack with large capacity, small size and high protection level.
- ▶ Various power modules are optional, high output power, rich interface and function.
- ▶ Hot-swappable, no external power cord, easy to use.
- ▶ Supports use in **ultra-low ambient temperatures of -40 ° C**.
- ▶ With outdoor mobile trolley and waterproof kit, can adapt to more working conditions.
- ▶ Support mobile APP management.



Technical Parameters

Regular Version

NCM

Battery Capacity	2.2kWh ~ 8.8kWh	Product Weight	SCU <6kg , BPU <13kg
AC Output	1500W	Product Size	442x242x123mm (single size)
Cell Type	NCM	Case Material	Full aluminum alloy shell
Cycle Life	>1000	Stacked Number	4 Max.
Operating Temperature	-10 ° C ~ +45 ° C	Authentication	UN38.3/CE/RoHS/GB

Regular Version

LiFePO4

Battery Capacity	2.5kWh ~ 10kWh	Product Weight	SCU <6kg , BPU <20kg
AC Output	1500W	Product Size	442x242x173mm (single size)
Cell Type	LiFePO4	Case Material	Full aluminum alloy shell
Cycle Life	>1500	Stacked Number	4 Max.
Operating Temperature	-10 ° C ~ +45 ° C	Authentication	UN38.3/CE/RoHS/GB

Ultra-low temp Version

Battery Capacity	1.9kWh ~ 7.6kWh	Product Weight	SCU <6kg , BPU <13kg
AC Output	1500W	Product Size	442x242x123mm (single size)
Cell Type	Low-temp Cell	Case Material	Full aluminum alloy shell
Cycle Life	>1000	Stacked Number	4 Max.
Operating Temperature	-40 ° C ~ +60 ° C	Authentication	UN38.3/CE/RoHS/GB

Output Port



AC

3

AC 1500W



Cigar Lighter

1

DC 12V



Battery Outlet

1

DC 24V



USB-C

2

100W



USB-A

2

45W

Charging Port



Charger Charging

1

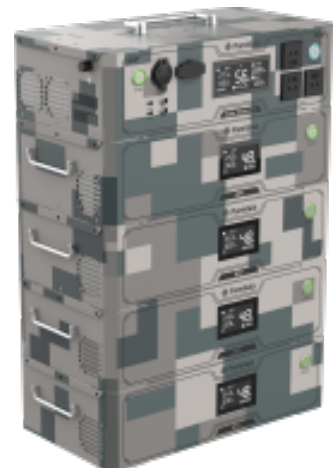
DC 29.4V/20A



Solar Charging

1

DC 20-46V/10A



Stacked Home Energy Storage Series

Stacked home energy storage series products support multiple parallel connections through modular configuration to meet different needs.

Provide users with higher combined capacity, better performance, and richer power supply functions.

- ▶ Multiple cell types available.
- ▶ Built-in inverter.
- ▶ Support for remote monitoring.
- ▶ Intelligent battery control system for safer use.



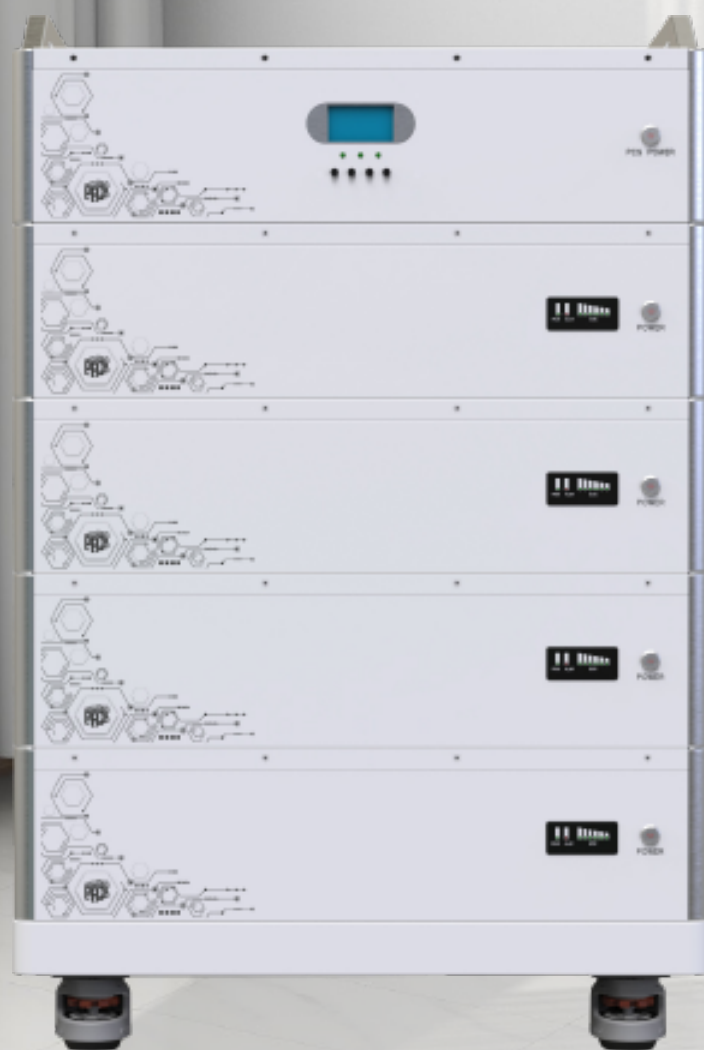
5kW Stacked Home Energy Storage System

- ▶ Equalized protection, voltage balance, longer life.
- ▶ Reliable and durable, longer cycle life.
- ▶ Cloud control, remote monitoring, support PC/APP.
- ▶ Easy to install, simple to use.
- ▶ Precise control, more accurate data, safer protection.
- ▶ Modular design, flexible configuration.



Technical Parameters

Nominal Capacity	51.2V/100Ah/5.12kWh	Product Size	640x527x230mm (inverter)
Cell Type	LFP		640x527x229mm
Battery Module Voltage	51.2V		(single battery module)
Battery Module Current	100A Max	Product Weight	<19kg (inverter)
AC Output	5000W		<53kg (single battery module)
Voltage Range	200-240V (50/60Hz)	Case Material	Full aluminum alloy shell
Communication Protocol	RS232/RS485/CAN	Stacked Numbe	15 Max.
		Operating Temperature	-10 ° C ~ +55 ° C



Cube Traveller | Trolley Case Portable Power Station Series

The Trolley Case Stacked Portable Power Station Traveller series products are high performance, highly integrated.

The features are large battery capacity, high output power, rich functions and interfaces, and good environmental adaptability.

- ▶ Various types of battery packs are available to meet the needs of high capacity, **ultra-low temperature** and long cycle life respectively.
- ▶ Double the battery capacity with a high-capacity expansion box.
- ▶ Supports starting of high power equipment.
- ▶ The shell reaches military grade strength.
- ▶ The internal components are moisture-proof, and with the outdoor waterproof kit, is more adaptable to a variety of harsh working conditions.



Cube Traveller

- ▶ Large capacity battery pack, multiple temperature ranges available.
- ▶ Rich interface, high power output, compatible with a variety of electrical equipment.
- ▶ Built-in high power overcapacity starter, can start heavy trucks, armored vehicles.
- ▶ Trolley configuration, more convenient for outdoor movement.
- ▶ Support expansion box, expand more power.
- ▶ Military grade shell, explosion-proof, moisture-proof and dust-proof, can adapt to more working conditions.
- ▶ Support APP management.



Technical Parameters

Regular Version

Battery Capacity	2.5kWh	Product Weight	<32kg
AC Output	1500W	Product Size	587x358x221mm
Cell Type	LFP	Case Material	Military-grade drop-proof case
Cycle Life	>1500	Expansion Case	Support
Operating Temperature	-10 ° C ~ +45 ° C	Authentication	UN38.3/CE/RoHS/GB

Low-temp Version

Battery Capacity	2.8kWh	Product Weight	<32kg
AC Output	1500W	Product Size	587x358x221mm
Cell Type	Low-temp Cell	Case Material	Military-grade drop-proof case
Cycle Life	>1000	Expansion Case	Support
Operating Temperature	-30 ° C ~ +55 ° C	Authentication	UN38.3/CE/RoHS/GB

Ultra-low temp Version

Battery Capacity	2.8kWh	Product Weight	<32kg
AC Output	1500W	Product Size	587x358x221mm
Cell Type	Low-temp Cell	Case Material	Military-grade drop-proof case
Cycle Life	>1000	Expansion Case	Support
Operating Temperature	-40 ° C ~ +60 ° C	Authentication	UN38.3/CE/RoHS/GB

Output Port



AC

3

AC 1500W



Cigar Lighter

1

DC 12V



Battery Outlet

1

DC 24V



USB-C

1

36W



USB-A

1

18W



24V Boot

1

24V

Charging Port



Charger Charging

1

DC 29.4V/20A



Solar Charging

1

DC 20-46V/10A

Cube Traveller Pro

- ▶ Large capacity battery pack, multiple temperature ranges available.
- ▶ Rich interface, high power output, compatible with a variety of electrical equipment.
- ▶ Built-in high power overcapacity starter, can start heavy trucks, armored vehicles.
- ▶ Trolley configuration, more convenient for outdoor movement.
- ▶ Support expansion box, expand more power.
- ▶ Military grade shell, explosion-proof, moisture-proof and dust-proof, can adapt to more working conditions.
- ▶ Built-in automatic fire suppression device, safer to use.
- ▶ Support APP management.



Technical Parameters

Regular Version

Battery Capacity	3.3kWh	Product Weight	<35kg
AC Output	2500W	Product Size	575x421x287mm
Cell Type	NCM	Case Material	Military-grade drop-proof case
Cycle Life	>1000	Expansion Case	Support
Operating Temperature	-10 ° C ~ +45 ° C	Authentication	UN38.3/CE/RoHS/GB







Low-temp Version

Battery Capacity	2.8kWh	Product Weight	<35kg
AC Output	2500W	Product Size	575x421x287mm
Cell Type	Low-temp Cell	Case Material	Military-grade drop-proof case
Cycle Life	>1000	Expansion Case	Support
Operating Temperature	-30 ° C ~ +55 ° C	Authentication	UN38.3/CE/RoHS/GB



Ultra-low temp Version

Battery Capacity	2.8kWh	Product Weight	<35kg
AC Output	2500W	Product Size	575x421x287mm
Cell Type	Low-temp Cell	Case Material	Military-grade drop-proof case
Cycle Life	>1000	Expansion Case	Support
Operating Temperature	-40 ° C ~ +60 ° C	Authentication	UN38.3/CE/RoHS/GB

Output Port

					
AC	Cigar Lighter	Battery Outlet	USB-C	USB-A	24V Boot
3	1	1	2	2	1
AC 2500W	DC 12V	DC 42-58.8V	100W	45W	24V

Charging Port

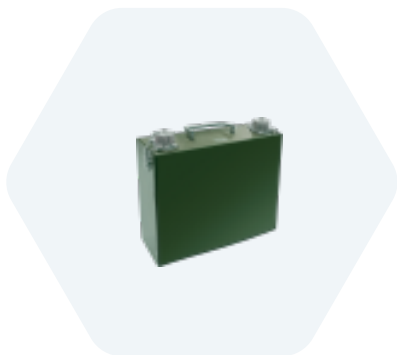
	
AC Charging	Solar Charging
1	1
AC 220V/3.5A	DC 60-110V/20A

Cube Box | Suitcase Portable Power Station Box Series

The **Suitcase** Portable Power Station Box series products are high performance, high stability and highly integrated.

This series of products can support a variety of battery capacity specifications, small size, light weight, a variety of interfaces and function combinations can be selected, and support ultra-low temperature use environment.

- ▶ Various types of battery packs are available to meet the needs of **high capacity**, **ultra-low temperature** and **long cycle life** respectively.
- ▶ Double the battery capacity by matching with expansion box.
- ▶ Some products have passed the GJB test.
- ▶ The shell reaches military grade strength.
- ▶ The internal components have been treated with moisture-proofing, and together with the outdoor waterproof kit, are more adaptable to a variety of harsh working conditions.



Cube Box Mini

- ▶ Military grade certification, quality assurance.
- ▶ Ultra-low temp cell, suitable for extreme cold and harsh environments.
- ▶ Small size, light weight, easy to use.
- ▶ Circular Connector, waterproof and dustproof.



Technical Parameters

Battery Capacity	600Wh	Product Weight	<4kg
Cell Type	Low-temp Lithium Cell	Product Size	205x187x74mm
Cycle Life	>1000	Box Material	Full aluminum alloy shell
Operating Temperature	-45 ° C ~ +60 ° C	Authentication	GJB

Output Port



Battery Outlet

1

DC 24V

Charging Port



DC Charging

1

DC 29.4V/10A

Cube Box Pro

- ▶ Large capacity battery pack, multiple temperature ranges available.
- ▶ Rich interface, high power output, compatible with a variety of electrical equipment.
- ▶ Support backpack carrying mode and handheld carrying mode, more convenient for outdoor use.
- ▶ Military grade shell, explosion-proof, moisture-proof and dust-proof, can adapt to more working conditions.
- ▶ Built-in automatic fire suppression device, safer to use.
- ▶ Modular internal design, easy to install and maintain.
- ▶ The internal structure is made of metal, sturdy and reliable.
- ▶ The product adopts turbo fan for heat dissipation, with high heat dissipation efficiency.
- ▶ Support APP management.



Low-temp Version

Battery Capacity	1.26kWh	Product Weight	<15kg
AC Output	1000W	Product Size	415x340x174mm
Cell Type	NCM Low-temp Cell	Box Material	Military-grade drop-proof box
Cycle Life	>1000	Expansion Case	Support
Operating Temperature	-20 ° C ~ +60 ° C	Authentication	UN38.3/CE/RoHS/GB

Output Port



AC

3

AC 1000W



Cigar Lighter

1

DC 12V



Battery Outlet

1

DC 24V



USB-C

2

100W



USB-A

2

45W

Charging Port



AC Charging

1

AC 220V/8.1A



Solar Charging

1

DC 20-46V/20A

Cube Box Max

- ▶ Large capacity battery pack, multiple temperature ranges available.
- ▶ Rich interface, high power output, compatible with a variety of electrical equipment.
- ▶ Support backpack carrying mode and handheld carrying mode, more convenient for outdoor use.
- ▶ Military grade shell, explosion-proof, moisture-proof and dust-proof, can adapt to more working conditions.
- ▶ Built-in automatic fire suppression device, safer to use.
- ▶ Modular internal design, easy to install and maintain.
- ▶ The internal structure is made of metal, sturdy and reliable.
- ▶ The product adopts turbo fan for heat dissipation, with high heat dissipation efficiency.
- ▶ Support APP management.



Low-temp Version

Battery Capacity	1.38kWh	Product Weight	<18kg
AC Output	1200W	Product Size	493x395x185mm
Cell Type	LFP Low-temp cell	Box Material	Military-grade drop-proof box
Cycle Life	>1500	Expansion Case	Support
Operating Temperature	-20 ° C ~ +65 ° C	Authentication	UN38.3/CE/RoHS/GB

Output Port



AC

3

AC 1200W



Cigar Lighter

1

DC 12V



Battery Outlet

1

DC 24V



USB-C

2

100W



USB-A

2

45W

Charging Port



AC Charging

1

AC 220V/7A



Solar Charging

1

DC 20-46V/20A

Energy Storage Product Components

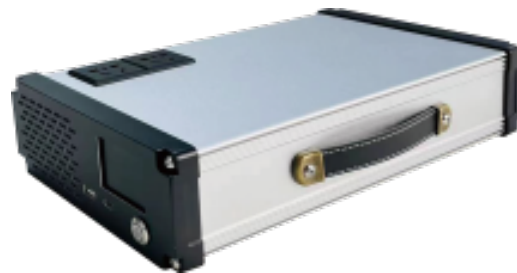
Realone Technology can provide complete board-level solutions for energy storage products, including:

Management Control Board | Power Distribution Board | Battery Management Board
| Inverter | Matching Display Module, etc.

All modules are open to standard communication protocols and are equipped with full-featured host computer software.



DC Input	20-32V
Continuous Output	1500W
Peak Power	3000W/3s
Heat Dissipation	Air-cooled
Conversion Efficiency	92%
Operating Frequency	50/60Hz \pm 0.5Hz
Communication	RS485
Output Protection	Support, Recoverable
Protection Function	OC, UV, OV,OT, short-circuit , input anti-reverse connection
Product Weight	<4kg
Product Size	320x205x80mm
Operating Temperature	-25 ° C ~ +50 ° C



1500W Inverter

1500W 110VAC or 220VAC, output single phase inverter power supply. Adopt series resonance soft-switching push-pull technology for DCDC conversion to improve efficiency, the rear stage adopts bipolar SPWM for DCAC conversion, and the output voltage is pure sine wave.



3000W Inverter

3000W 220VAC, output single phase inverter power supply. Adopt series resonance soft-switching push-pull technology for DCDC conversion to improve efficiency, the rear stage adopts bipolar SPWM for DCAC conversion, and the output voltage is pure sine wave.

DC Input	20-32V
Continuous Output	3000W
Peak Power	5000W/5s
Heat Dissipation	Air-cooled
Conversion Efficiency	92%
Operating Frequency	50/60Hz \pm 0.5Hz
Communication	RS485
Output Protection	Support, Recoverable
Protection Function	OC, UV, OV,OT, short-circuit , input anti-reverse connection
Product Weight	<11kg
Product Size	480x270x115mm
Operating Temperature	-25 ° C ~ +50 ° C



Low Temperature Charger

24V/20A low-temperature charger supports charging in ultra-low temperature environment. Metal shell, sturdy and durable. Fanless design, high waterproof grade.

Output Current	20A \pm 5%
Output Voltage	29.4V
Output Power	600W
Operating Temperature	-40 ° C~+75 ° C
Product Weight	<4.0Kg
Product Size	324x61x173mm
Box Material	Full aluminum alloy shell

Output Power	304W
Open Circuit Voltage	40.92V
Short-circuit Current	8.91A
Product Material	Single crystal silicon
Product Weight	11.8kg
Unfolded Size	2190x845x20mm
Folded size	620x845x25mm



300W Solar Panel

300W folding solar panel, utilizing sustainable solar light, charging electric devices, high waterproof grade, high temperature resistance, resisting all kinds of harsh conditions.

BMS | Battery Management Series

7~8 series BMS Board

BMU-024

Series Support	7~8
Voltage Platform	24V
Discharge Current	100A/200A
Cell Type	LFP/NCM
Communication	RS485
SoC Indicator	LCD or LED



10~16 series BMS Board

BMU-048

Series Support	10~16
Voltage Platform	48V
Discharge Current	100A/200A
Cell Type	LFP/NCM
Communication	RS485
SoC Indicator	LCD or LED



Battery Monitoring Unit

BMU-036

Single Voltage Detection	12 channels
Multiple Voltage Detection	192 (depending on BCU performance)
Single Temperature Detection	6 channels
Equalization Method	Passive Equilibrium
Equalization Current	100mA
Communication	Isolated CAN2.0B
PCB Size	86x79mm

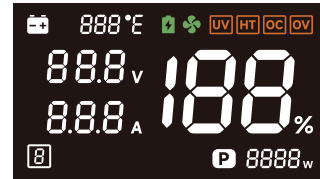


LCM | Display Module Series

LCD Module

LCM-VA09050

Display Capacity	35 characters
Operating Voltage	3.3V
Operating Temperature	-20 ° C ~ +70 ° C
Driver Interface	Serial
Product Size	90x50x6.7mm
Display Size	70x40mm
Display Content	Voltage/Current/Capacity/ Temperature/Power/Alarm



LED Module

LCM-LE05010

Number of LEDs	5
Lighting Mode	GPIO
Color	Single-color
SoC Display Step	20%
Display Content	5-segment SoC display/Alarm



Pamidala[®] Intelligent Energy Storage Management System

Intelligent APP

Device Monitoring

Device location, charge/discharge status, temperature, battery capacity, SoH, Cost



Remote Control

Charge Switch, AC/DC Switch, Charge/Discharge Policy, Remote Disable



Alarm Management

High-temp, Overload, Low-temp, Imbalance, Illegal movement, and the corresponding disposal means



Cloud-based Management



Globalization

AliCloud

Amazon

Microsoft

Huawei



Commercialization

Portable Power Station

Home Energy Storage

Commercial Energy Storage



Operational Support

Repair

Inspection

Billing

Rental



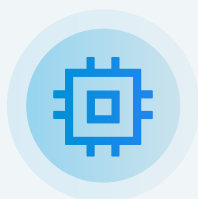
Service Solutions



ODM Service

- Provide ODM service for complete energy storage device.
- The brand owner is responsible for providing all ID design.

Involvement in the entire process including boards, structures, testing and certification.



Module Sales

- Standardized module sales of energy storage power supply.
- Customization for volume orders.

BMS , DC/DC , AC/DC (bidirectional) , display module, etc.



Cloud value-added services

- Provide the cloud-based management system for customers.
- Support for battery rental, energy management and other needs.

APP, Mini Program, PC, Cockpit



Realone Technology

Solution provider of integrated hardware and software
in the energy field

Safety · Efficiency · Intelligence



Scan to follow Realone Technology

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Business Cooperation

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