Create better life with green energy

Sichuan SafeQuene Energy Storage Technology Co., Ltd

Tel: +86 152 2824 2930

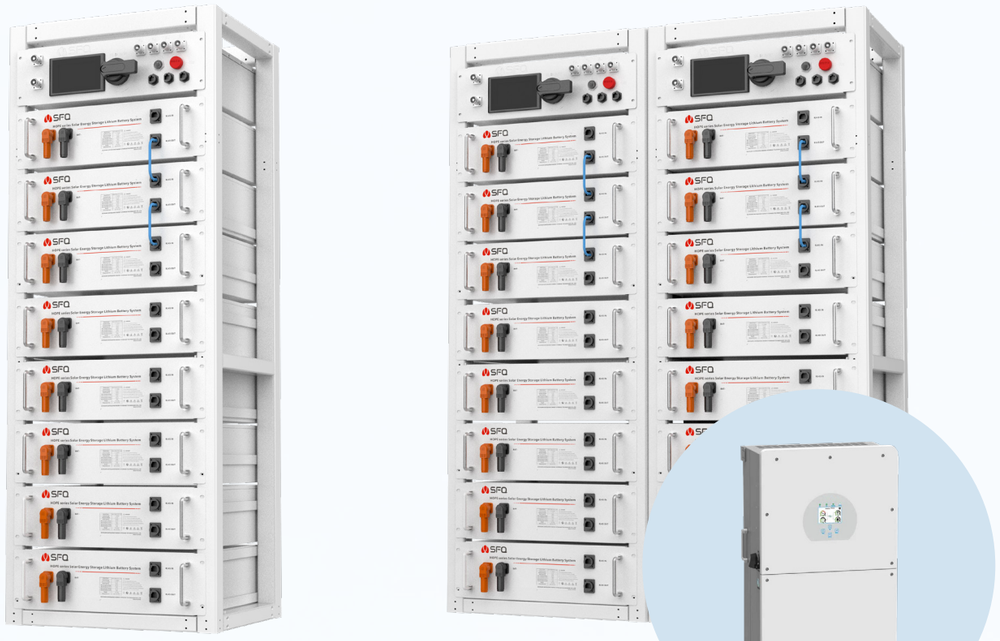
E-mail: sales@sfq-power.com

Web: www.sfq-power.com

Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province，China

Manual

Residential/Commercial & Industrial PV + ESS



Product Features

- Rack-mounted design for easy installation and flexible expansion
- Full-dimension remote intelligent control
- Fast charging, ultra-long endurance
- Intelligent temperature control, multiple safety protections
- Sleek design for clear equipment status visibility
- Compatible with multiple operating modes with flexible capacity configuration

Item	Product Parameters			
System Parameters				
Model	ICESS-T 0-30/40/A	ICESS-T 0-40/80/A	ICESS-T 0-50/102/A	ICESS-T 0-60/122/A
Capacity	40.96kWh	81.92kWh	102.4kWh	122.88kWh
Rated Voltage	409.6V		512V	614V
Operating Voltage Range	371.2V~454.4V		464V~568V	556.8V-681.6V
Battery Cell	LFP3.2V/100Ah			
Communication Method	LAN, RS485/CAN, 4G			
Operating Temperature Range	Charging: 0°C~55°C Discharging: -20°C~55°C			
Maximum Charge/Discharge Current	100A			
IP Rating	IP54			
Relative Humidity	10%RH~90%RH			
Altitude	≤2000m			
Installation Method	Rack-mounted			
Dimensions (mm)	600*520*1300	1200*520*1300	1800*520*1300	1800*520*1550
Inverter Parameters				
Battery Voltage Range	160 ~800V	160 ~800V	160 ~800V	160 ~1000V
Maximum Charge Current	2 ×50A		2 ×80A	
Maximum Discharge Current	2 ×50A		2 ×80A	
Maximum Charge/Discharge Power	33kW	44kW	55kW	66kW
Number of Battery Input Channels	2			
Battery Charge Strategy	Adaptive BMS			
PV Maximum DC Input Power	39kW	52kW	65kW	96kW
PV Maximum DC Input Voltage	1000V			
MPPT (Maximum Power Point Tracking) Range	150 ~850V			
Full Load DC Voltage Range	360 ~850V	360 ~850V	450 ~850V	365~850V
Rated DC Input Voltage	600V	600V	600V	650V
PV Input Current	3 ×36A	4 ×36A	4 ×36A	6 ×36A
Number of MPPTs	3	4	4	6

Tel: +86 152 2824 2930

Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Residential/Commercial & Industrial PV + ESS

Product Features

- Rack-mounted design for easy installation and flexible expansion
- Full-dimension remote intelligent control
- Fast charging, ultra-long endurance
- Intelligent temperature control, multiple safety protections
- Sleek design for clear equipment status visibility
- Compatible with multiple operating modes with flexible capacity configuration

Item	Product Parameters			
System Parameters				
Model	ICESS-T 0-40/80/A	ICESS-T 0-60/128/A	ICESS-T 0-80/160/A	ICESS-T 0-80/257/A
Capacity	80.384kWh	128.614kWh	160.768kWh	257.228kWh
Rated Voltage	256V	409.6V	256V	409.6V
Operating Voltage Range	232V~284V	326.4V~454.4V	232V~284V	326.4V~454.4V
Battery Cell	LFP3.2V/314Ah			
Communication Method	LAN、RS485/CAN、 4G			
Operating Temperature Range	Charging: 0°C~55°C Discharging: -20°C~55°C			
Maximum Charge/Discharge Current	157A		314A	
IP Rating	IP54			
Relative Humidity	10%RH~90%RH			
Altitude	≤2000m			
Installation Method	Rack-mounted			
Dimensions (mm)	1750*560*772	2590*560*772	1750*1120*772	2590*1120*772
Inverter Parameters				
Battery Voltage Range	160 ~1000V			
Maximum Charging Current	1 × 157A		2 × 157A	
Maximum Discharging Current	1 × 157A		2 × 157A	
Maximum Charge/Discharge Power	44kW	66kW	88kW	
Number of Battery Input Channels	1		2	
Battery Charging Strategy	Adaptive BMS			
PV Maximum DC Input Power	40-180kW			
PV Maximum DC Input Voltage	1000V			
MPPT (Maximum Power Point Tracking) Range	150 ~850V			
Full Load DC Voltage Range	365~850V		485 ~850V	
Rated DC Input Voltage	650V		650V	
PV Input Current	4 ×36A		6 ×36A	
Number of MPPTs	4		6	

Tel: +86 152 2824 2930

Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Commercial & Industrial ESS

Product Features

- Safe and Reliable

-Full-range battery cell temperature collection + AI monitoring and early warning
-Intelligent temperature control system, temperature/smoke detection + PACK-level and cluster-level composite fire protection
-Two-stage overcurrent protection, suitable for harsh and complex environments

- Intelligent O&M

-Intelligent AI technology and smart energy management system (EMS) to improve equipment operating efficiency
-QR code-based fault query + data monitoring for clear display of equipment status data
-Professional O&M as well as monitoring software support to ensure safe, stable and reliable operation of equipment

- Flexible and Stable

-Flexible customization of operation strategies, better matching load characteristics and power consumption habits
-High-efficiency and flexible PCS configuration + 314Ah battery cell large-capacity system
-PV-storage intelligent integrated system with multiple options and on-demand expansion

Product Parameters				
Equipment Model	ICESS-T 0-30/160/A	ICESS-T 0-100/225/A	ICESS-T 0-120/241/A	ICESS-T 0-125/257/A
AC Side Parameters (Grid-connected)				
Apparent Power	30kVA	110kVA	135kVA	137.5kVA
Rated Power	30kW	100kW	120kW	125kW
Rated Voltage	400Vac			
Voltage Range	400Vac±15%			
Rated Current	44A	144A	173A	180A
Frequency Range	50/60Hz±5Hz			
Power Factor	0.99			
THDi	≤3%			
AC System	Three-Phase Five-Wire System			
AC Side Parameters (Off-grid)				
Rated Power	30kW	100kW	120kW	125kW
Rated Voltage	380Vac			
Rated Current	44A	152A	173A	190A
Rated Frequency	50/60Hz			
THDu	≤5%			
Overload Capacity	110% (10min), 120% (1min)			
Battery Side Parameters				
Battery Capacity	160.768KWh	225.075KWh	241.152KWh	257.228KWh
Battery Type	LFP			
Rated Voltage	512V	716.8V	768V	819.2V
Voltage Range	464~568V	649.6V~795.2V	696~852V	742.4V~908.8V
Basic Characteristics				
AC/DC Startup Function	Equipped with			
Islanding Protection	Equipped with			
Forward/Reverse Switching Time	≤10ms			
System Efficiency	≥89%			
Protection Functions	Overvoltage/Undervoltage, Overcurrent, Overtemperature/Low Temperature, Islanding, Overhigh/Overlow SOC, Low Insulation Resistance, Short Circuit Protection, etc.			
Operating Temperature	-20℃~+50℃			
Cooling Method	Air Cooling + Intelligent Air Conditioning			
Relative Humidity	≤95%RH, No Condensation			
Altitude	3000m			
IP Rating	IP54			
Noise Level	≤70dB			
Communication Method	LAN, RS485, 4G			
Dimensions (mm)	1820*1254*2330 (Including Air Conditioning)			

Tel: +86 152 2824 2930
Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Commercial & Industrial ESS

Product Features

- Safe and Reliable

-Independent liquid cooling system + compartment isolation, featuring high protection and safety performance
-Full-range battery cell temperature collection, intelligent temperature control system + AI monitoring and early warning
-Two-stage overcurrent protection, temperature/smoke detection + PACK-level and cluster-level composite fire protection

- Intelligent O&M

-Intelligent AI technology and smart energy management system (EMS) to improve equipment operating efficiency
-QR code-based fault query + data monitoring for clear display of equipment status data
-Professional O&M as well as monitoring software support to ensure safe, stable and reliable operation of equipment

- Flexible and Stable

-Flexible customization of operation strategies, better matching load characteristics and power consumption habits
-Centralized control and management of multi-unit parallel connection, with hot-swapping and hot-disconnection technology to reduce fault impacts
-PV-storage intelligent integrated system with multiple options and flexible expansion

Product Parameters		
Equipment Model	ICESS-T 0-105/208/L	ICESS-T 0-130/261/L
AC Side Parameters (Grid Connection)		
Apparent Power	115.5kVA	143kVA
Rated Power	105kW	130kW
Rated Voltage	400Vac	
Voltage Range	400Vac±15%	
Maximum Current	151.5A	188A
Frequency Range	50/60Hz±5Hz	
Power Factor	0.99	
THDi	≤3%	
AC System	Three-Phase Five-Wire System	
AC Side Parameters (Off-Grid)		
Rated Power	105kW	130kW
Rated Voltage	380Vac	
Rated Current	151.5A	188A
Rated Frequency	50/60Hz	
THDu	≤5%	
Overload Capacity	110% (10min), 120% (1min)	
Battery Side Parameters		
Battery Capacity	208.998KWh	261.248KWh
Battery Type	LFP	
Rated Voltage	665.6V	832V
Voltage Range	603.2V~738.4V	754V~923V
Basic Characteristics		
AC/DC Startup Function	Equipped with	
Islanding Protection	Equipped with	
Forward/Reverse Switching Time	≤10ms	
System Efficiency	≥89%	
Protection Functions	Overvoltage/Undervoltage, Overcurrent, Overtemperature/Low Temperature, Islanding, Overhigh/Overlow SOC, Low Insulation Resistance, Short Circuit Protection, etc.	
Operating Temperature	-25℃~+55℃	
Cooling Method	Liquid Cooling	
Relative Humidity	≤95%RH, No Condensation	
Altitude	3000m	
IP Rating	IP54	
Noise Level	≤70dB	
Communication Method	LAN, RS485, 4G	
Dimensions (mm)	1000*1350*2350	

Tel: +86 152 2824 2930
Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Distributed Microgrid system

Product Features

- Split Modular Design for More Flexible Deployment and Expansion

  -Adopts a highly protective split structure of “one unit per compartment / one cabinet per compartment”
  -Independent temperature control and independent O&M; capacity ranges from 241 to 723 kWh
  -PACK-level and cluster-level composite fire protection

- Intelligent O&M

  -Equipped with intelligent BMS + AI energy management system to improve equipment operating efficiency
  -Supports LAN/RS485/CAN remote monitoring
  -Enables multi-module linkage and centralized dispatching of "source-storage-load"

- Full-Dimensional Safety Protection

  -Equipped with full-range battery cell status collection + AI predictive early warning
  -Smoke/temperature detection + perfluorohexane/aerosol fire protection (optional)
  -Customizable on demand, flexible matching of battery systems and flexible power selection

Battery Cabinet Product Parameters			
Equipment Model	TCESS-S 60-120/241/A	TCESS-S 120-120/482/A	TCESS-S 180-120/723/A
AC Side Parameters (Grid-Connected)			
Apparent Power	132kVA		
Rated Power	120kW		
Rated Voltage	400Vac		
Voltage Range	400Vac±15%		
Rated Current	180A		
Frequency Range	50/60Hz		
Power Factor (PF)	0.99		
THDi	≤3%		
AC System	Three-Phase Five-Wire System		
AC Side Parameters (Off-Grid)			
Rated Power	120kW		
Rated Voltage	380Vac		
Rated Current	190A		
Rated Frequency	50/60Hz		
THDu	≤5%		
Overload Capacity	110%（10min），120%（1min）		
DC Side Parameters (Battery, PV)			
PV Open-Circuit Voltage (Voc)	700V		
PV Voltage Range	300V~670V		
Rated PV Power	240~300kW	200~500kW	
Maximum Supported PV Power	1.1~1.4 times		
Number of PV MPPTs	16 Channels		
Rated Battery Capacity	241.152kWh	482.304kWh	723.456kWh
Battery Voltage Range	696~852V		
BMS Three-Level Display & Control	be equipped with		
Maximum Charge Current	190A		
Maximum Discharge Current	190A		
Maximum Number of Battery Clusters	1 Battery Cluster	2 Battery Cluster	3 Battery Cluster
Basic Characteristics			
Diesel Generator Interface	be equipped with		
Grid-Connected/Off-Grid Switching	be equipped with		
Seamless Switching	≤10ms		
Cooling Method	Forced Air Cooling		
Communication Interface	LAN/CAN/RS485		
IP Rating	IP54		

Tel: +86 152 2824 2930
Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Distributed Microgrid system

Product Features

- Split Modular Design for More Flexible Deployment and Expansion

  -Adopts a split modular structure that allows combined deployment on demand
  -One temperature control system per cluster, one fire protection system per cluster, full-range battery cell temperature collection + AI monitoring and early warning
  -Suitable for different microgrid scenarios such as remote areas and industrial & commercial distributed energy systems

- Full-Dimensional Protection + Wide-Range Environmental Compatibility

  -IP54 high protection rating, supporting a wide temperature range of -30°C ~ +55°C
  -Equipped with multiple protections including over-voltage, under-voltage, over-current and over-temperature
  -Professional O&M as well as monitoring software support to ensure safe, stable and reliable operation of equipment

- Dedicated Collaboration for Microgrids

  -Supports AC/DC startup, with grid-connected/off-grid switchover time ≤ 10ms
  -THDi as low as 0.99%, delivering high-quality and stable output power
  -Features 110% (10min) and 120% (1min) overload capacity

Battery Cabinet Product Parameters			
Equipment Model	TCESS-S 60-130/261/L	TCESS-S 120-130/522/L	TCESS-S 180-130/783/L
AC Side Parameters (Grid-Connected)			
Apparent Power	143kVA		
Rated Power	130kW		
Rated Voltage	400Vac		
Voltage Range	400Vac±15%		
Rated Current	188A		
Frequency Range	50/60Hz±5Hz		
Power Factor (PF)	0.99		
THDi	≤3%		
AC System	Three-Phase Five-Wire System		
AC Side Parameters (Off-Grid)			
Rated Power	130kW		
Rated Voltage	380Vac		
Rated Current	197A		
Rated Frequency	50/60Hz		
THDu	≤5%		
Overload Capacity	110%（10min), 120%（1min)		
DC Side Parameters (Battery, PV)			
PV Open-Circuit Voltage (Voc)	700V		
PV Voltage Range	300V~670V		
Rated PV Power	240~300kW	200~500kW	
Maximum Supported PV Power	1.1~1.4 times		
Number of PV MPPTs	16 Channels		
Rated Battery Capacity	261.245kWh	522.496kWh	783.744kWh
Battery Voltage Range	754V ~923V		
BMS Three-Level Display & Control	be equipped with		
Maximum Charge Current	188A		
Maximum Discharge Current	188A		
Maximum Number of Battery Clusters	1 Battery Cluster	2 Battery Cluster	3 Battery Cluster
Basic Characteristics			
Diesel Generator Interface	be equipped with		
Grid-connected / Off-grid Switching	be equipped with		
Seamless Switching	≤10ms		
Cooling Method	Forced Liquid Cooling		
Communication Interface	LAN/CAN/RS485		
IP Rating	IP54		

Tel: +86 152 2824 2930
Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Container Microgrid system

Product Features

- High-efficiency Air Cooling + Wide-range Environmental Compatibility

-Adopts forced air cooling solution, supporting wide-temperature operation from -25°C to +55°C
-Equipped with IP54 protection rating, suitable for complex outdoor scenarios
-Power coverage ranges from 250kW to 720kW, compatible with PV input of 300V to 670V

- Intelligent EMS + Grid Collaborative Operation and Maintenance

-Equipped with an AI Energy Management System (EMS) to enhance equipment operating efficiency
-Compatible with multiple communication interfaces including LAN/CAN/RS485, enabling remote monitoring of operating status
-Supports customized multi-energy integration: “Wind/Solar/Diesel (Gas) - Storage - Grid”

- Full-link High-security Protection

-Standard container + independent compartment structure, equipped with a full range of battery cells
-Temperature collection + AI predictive early warning
-Intelligent integration of wind, solar, diesel (gas), storage and grid, with multiple options and flexible expansion

Product Parameters			
Device Model	SCESS-T 250-250/1028/A	SCESS-T 400-400/1446/A	SCESS-T 720-720/1446/A
AC-side Parameters (Grid-connected)			
Apparent Power	275kVA	440kVA	810kVA
Rated Power	250kW	400kW	720kW
Rated Current	360A	577.3A	1039.26A
Rated Voltage	400Vac		
Voltage Range	400Vac±15%		
Frequency Range	50/60Hz		
Power Factor	0.99		
THDi	≤3%		
AC System	Three-phase Five-wire System		
AC-side Parameters (Off-grid)			
Rated Power	250kW	400kW	720kW
Rated Current	380A	608A	1094A
Rated Voltage	380Vac		
Rated Frequency	50/60Hz		
THDu	≤5%		
Overload Capacity	110% (10min)，120% (1min)		
DC-side Parameters (PV, Battery)			
Number of PV MPPTs	16 Channels	28 Channels	48 Channels
Rated PV Power	240~300kW	200~500kW	
Maximum Supported PV Power	1.1 to 1.4 times		
PV Open-circuit Voltage	700V		
PV Voltage Range	300V~670V		
Rated Battery Capacity	1028.915kWh	1446.912kWh	
Battery Voltage Range	742.2V~908.8V	696V~852V	
Maximum Charge Current	337A	575A	1034A
Maximum Discharge Current	337A	575A	
Maximum Number of Battery Clusters	4 Clusters	6 Clusters	
BMS Three-Level Display & Control	Be Equipped with		
Basic Characteristics			
Diesel Generator Interface	Be Equipped with	Be Equipped with	/
Seamless Switching	≤10ms	≤10ms	/
Grid-connected/Off-grid Switching	Be Equipped with		
Cooling Method	Forced Air Cooling		
Communication Interface	LAN/CAN/RS485		
IP Rating	IP54		
Operating Ambient Temperature Range	-25℃~+55℃		
Relative Humidity	≤95% RH, Non-condensing		
Altitude	3000m		
Noise Level	≤70dB		
HMI	Touch Screen		
Dimensions (mm)	6058*2438*2896		

Tel: +86 152 2824 2930

Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Container Microgrid system

Product Features

- Precision Liquid Cooling for Efficient Heat Dissipation, Suitable for Large-capacity and High-load Scenarios

  -Adopts liquid cooling solution with superior temperature control precision
  -Stably supports the operation of ultra-high power loads ranging from 250kW to 780kW
  -Comes standard with full-range battery cell temperature collection + AI predictive early warning to identify potential risks in advance

- Intelligent EMS + High-efficiency Grid Collaboration

  -Equipped with an AI Energy Management System (EMS) to enhance equipment operating efficiency
  -Compatible with multiple communication interfaces including LAN/CAN/RS485, enabling real-time remote monitoring of operating status
  -Professional O&M as well as monitoring software support to ensure safe, stable and reliable equipment operation

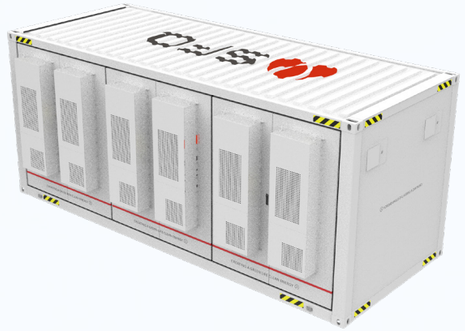
- Wide-range Adaptation + Multi-energy Integration

  -PV input voltage ranges from 200V to 1,100V (supports 1-20 channels of MPPT)
  -Large-capacity battery system + high-power energy supply, suitable for various scenarios
  -Supports customized multi-energy integration: “Wind/Solar/Diesel (Gas) - Storage - Grid”

Product Parameters			
Equipment Model	SCESS-T 250-250/1044/L	SCESS-T 400-400/1567/L	SCESS-T 780-780/1567/L
AC-side Parameters (Grid-connected)			
Apparent Power	275kVA	440kVA	810kVA
Rated Power	250kW	400kW	780kW
Rated Current	360A	577A	1125A
Rated Voltage	400Vac		
Voltage Range	400Vac±15%		
Frequency Range	50/60Hz		
Power Factor	0.99		
THDi	≤3%		
AC System	Three-phase Five-wire System		
AC-side Parameters (Off-grid)			
Rated Power	250kW	400kW	780kW
Rated Current	380A	530A	1034A
Rated Voltage	380Vac		
Rated Frequency	50/60Hz		
THDu	≤5%		
Overload Capacity	110% (10min), 120% (1min)		
DC-side Parameters (PV, Battery)			
Number of PV MPPTs	16 Channels	32 Channels	48 Channels
Rated PV Power	240~300kW	200~500kW	200~800kW
Maximum Supported PV Power	1.1 to 1.4 times		
PV Open-circuit Voltage	700V	700V	1100V
PV Voltage Range	300V~670V	300V~670V	200V~1000V
Rated Battery Capacity	1044.992kWh	1567.488kWh	
Battery Voltage Range	754V~923V	603.2V~738.4V	
Maximum Charge Current	415A	690A	
Maximum Discharge Current	415A	690A	
Maximum Number of Battery Clusters	5 Clusters	6 Clusters	
BMS Three-Level Display & Control	Be Equipped with		
Basic Characteristics			
Diesel Generator Interface	Be Equipped with	Be Equipped with	/
Seamless Switching	≤10ms	Be Equipped with	/
Grid-connected/Off-grid Switching	Be Equipped with		
Cooling Method	Liquid Cooling		
Communication Interface	LAN/CAN/RS485		
IP Rating	IP54		
Operating Ambient Temperature Range	-25℃~+55℃		
Relative Humidity	≤95% RH, Non-condensing		
Altitude	3000m		
Noise Level	≤70dB		
HMI	Touch Screen		
Dimensions (mm)	6058*2438*2896		

Tel: +86 152 2824 2930
Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Container Energy Storage System



Product Features

- High-efficiency Temperature Control + High-level Protection

  -Adopts independent liquid cooling / air cooling dual cooling solutions (optional)
  -Equipped with compartment physical isolation, suitable for stable heat dissipation of large-capacity energy storage
  -Temperature/smoke detection + PACK-level and cluster-level composite fire protection

- Full-dimensional intelligent monitoring + Remote O&M

  -Full-range battery cell temperature collection combined with AI predictive monitoring enables early warning of abnormalities
  -Compatible with multiple communication interfaces including LAN/CAN/RS485, enabling remote monitoring of operating status
  -Supports customized multi-energy integration: “Wind/Solar/Diesel (Gas) - Storage - Grid”

- Ultra-large Capacity + Flexible Adaptation

  -Capacity covers an ultra-wide range from 2170kWh to 5015kWh
  -Supports customized busbar output, compatible with various PCS access and configuration schemes
  -Intelligent integration of wind, solar, diesel (gas), storage and grid, with multiple options and flexible expansion

Battery Container Product Parameters		
Equipment Model	ICS-DC 2170/A/10	ICS-DC 2351/L/10
Cell Parameters		
Cell Specifications	3.2V/314Ah	
Battery Type	LFP	
Battery Module Parameters		
Packaging Configuration	1P16S	1P52S
Rated Voltage	51.2V	166.4V
Rated Capacity	16.076kWh	52.249kWh
Rated Charge/Discharge Current	157A	
Rated Charge/Discharge Rate	0.5C	
Cooling Method	Air Cooling	Liquid Cooling
Battery System Parameters		
Maximum Number of Battery Clusters	9	9
Rated Voltage	768V	832V
Rated Capacity	2170.368kWh	2351.232kWh
Voltage Range	696~852V	754V~923V
Rated Charge/Discharge Current	1256A	1413A
Rated Charge/Discharge C-Rate	0.5C	
Cooling Method	Air Cooling	Liquid Cooling
Fire Suppression	Perfluorohexanone / Heptafluoropropane / Aerosol (Optional)	
Smoke Detector & Temperature Detector	Per Cluster: 1 Smoke Detector, 1 Temperature Detector	
Basic Parameters		
Communication Interface	LAN/RS485/CAN	
IP Rating	IP54	
Operating Ambient Temperature Range	-25℃~+55℃	
Storage Temperature Range	-20~45℃ (1 month) / 0~35℃ (3 months)	
Relative Humidity	≤95% RH, Non-condensing	
Altitude	3000m	
Noise Level	≤70dB	
Dimensions (mm)	6058*2438*2896	

Tel: +86 152 2824 2930

Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Container Energy Storage System

Product Features

- High-efficiency Temperature Control + High-level Protection

-Adopts independent liquid cooling / air cooling dual cooling solutions (optional)
-Equipped with compartment physical isolation, suitable for stable heat dissipation of large-capacity energy storage
-Temperature/smoke detection + PACK-level and cluster-level composite fire protection

- Full-dimensional intelligent monitoring + Remote O&M

-Full-range battery cell temperature collection combined with AI predictive monitoring enables early warning of abnormalities
-Compatible with multiple communication interfaces including LAN/CAN/RS485, enabling remote monitoring of operating status
-Supports customized multi-energy integration: “Wind/Solar/Diesel (Gas) - Storage - Grid”

- Ultra-large Capacity + Flexible Adaptation

-Capacity covers an ultra-wide range from 2170kWh to 5015kWh
-Supports customized busbar output, compatible with various PCS access and configuration schemes
-Intelligent integration of wind, solar, diesel (gas), storage and grid, with multiple options and flexible expansion

Battery Container Product Parameters		
Equipment Model	ICS-DC 2507/L/15	ICS-DC 5015/L/15
Cell Parameters		
Cell Specifications	3.2V/314Ah	
Battery Type	LFP	
Battery Module Parameters		
Packaging Configuration	1P52S	
Rated Voltage	166.4V	
Rated Capacity	52.249kWh	
Rated Charge/Discharge Current	157A	
Rated Charge/Discharge Rate	0.5C	
Cooling Method	Liquid Cooling	
Battery System Parameters		
Maximum Number of Battery Clusters	6	12
Rated Voltage	1331.2V	1331.2V
Rated Capacity	2507.980kWh	5015.961kWh
Voltage Range	1206.4V~1476.8V	1206.4~1476.8V
Rated Charge/Discharge Current	942A	1884A
Rated Charge/Discharge C-Rate	0.5C	
Cooling Method	Liquid Cooling	
Fire Suppression	Perfluorohexanone / Heptafluoropropane / Aerosol (Optional)	
Smoke Detector & Temperature Detector	Per Cluster: 1 Smoke Detector, 1 Temperature Detector	
Basic Parameters		
Communication Interface	LAN/RS485/CAN	
IP Rating	IP54	
Operating Ambient Temperature Range	-25℃~+55℃	
Storage Temperature Range	-20~45℃ (1 month) / 0~35℃ (3 months)	
Relative Humidity	≤95% RH, Non-condensing	
Altitude	3000m	
Noise Level	≤70dB	
Dimensions (mm)	6058*2438*2896	

Tel: +86 152 2824 2930
Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

Multi-Energy Integrated Smart Microgrid System

Product Features

- Safe and Reliable

-Standard container design with high protection rating, adaptable to various harsh environments
-Multi-level energy protection, fault monitoring and early warning
-Intelligent AI technology with multiple safeguard linkage to ensure system safety and reliability

- Intelligent O&M

-Intelligent AI technology and intelligent Energy Management System (EMS) to improve equipment operating efficiency
-Intelligent microgrid management technology and a random fault exit strategy to ensure stable system operation
-Professional O&M as well as monitoring software support to ensure safe, stable and reliable operation of equipment

- Flexible and stable

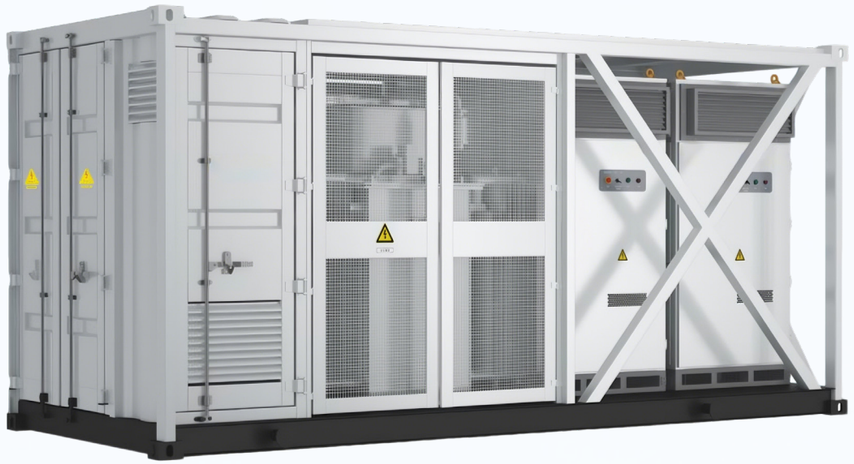
-Intelligent integration system of wind, solar, diesel (gas), storage and grid, with optional selection and on-demand expansion
-Combined with local resources, it maximizes the access to multiple energy sources and improves energy collection capacity
-Multi-energy module combination and centralized power management enable the realization of source-by-source management

Power Container Product Parameters		
Equipment Model	ICS-AC XX-400/54	ICS-AC XX-1000/54
AC Side Parameters (Grid-Connected)		
Apparent Power	440kVA	1100kVA
Rated Power	400kW	1000kW
Rated Voltage	400Vac	
Voltage Range	400Vac±15%	
Rated Current	582A	1443A
Frequency Range	50/60Hz±5Hz	
Power Factor (PF)	0.99	
THDi	≤3%	
AC System	Three-phase five-wire system	
AC Side Parameters (Off-Grid)		
Rated Power	400kW	1000kW
Rated Voltage	380Vac±15%	
Rated Current	1519A	
Rated Current	50/60Hz±5Hz	
THDu	≤5%	
Overload Capacity	110% (10min), 120% (1min)	
DC Side Parameters (Battery, PV)		
PV Open-Circuit Voltage	700V	
PV Voltage Range	300V~670V	
Rated PV Power	100~1000kW	
Maximum Supported PV Power	1.1~1.4 Times	
Number of PV MPPTs	8~80 Channels	
Battery Voltage Range	300V~1000V	
BMS Three-Level Display & Control	Equipped With	
Maximum Charge Current	1470A	
Maximum Discharge Current	1470A	
Basic Parameters		
Diesel Generator Interface	Equipped with	
Seamless Switching	Equipped with	
Cooling Method	Forced Air Cooling	
Communication Interface	LAN/RS485	
IP Rating	IP54	
Operating Ambient Temperature Range	-25℃~+55℃	
Relative Humidity (RH)	≤95% RH, No Condensation	
Altitude	3000m	
Noise Level	≤70dB	
Human-Machine Interface (HMI)	Touch Screen	
Dimensions (mm)	3029*2438*2896	

Tel: +86 152 2824 2930

Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

2.5MW Step-up Integrated Machine



Power Container Product Parameters	
Transformer	
Rated Power (kVA)	2500
Transformer Model	Oil type
Transformer Vector	Dy11
IP Rating	IP54/ IP55
Anti-corrosion Grade	C4-H / C4-VH / C5-M / C5-H / C5-VH
Cooling Method	ONAN/ ONAF
Temperature Rise	60K（Top Oil） 65K（Winding） @40℃
Oil Tank	Enclosure Material: None
Winding Material	Aluminum/ Copper
Transformer Oil	25# /45# mineral oil/ Natural ester insulation oil
Transformer Efficiency	IEC standard/ IEC Tier-2
MV Operating Voltage Range (kV)	6.6~33±5%
Rated Frequency (Hz)	50 / 60
Altitude (m)	>1000 (Optional)

Switchgear	
Switchgear Type	Ring Main Unit, CCV
Rated Voltage (kV)	12/24/36
Insulating Medium	SF6
Rated Frequency (Hz)	50/60
Enclosure IP Rating	IP3X
Gas Tank IP Rating	IP67
Gas Leakage Rate Per Year	≤0.1%
Rated Operating Current (A)	630
Switchgear Short Circuit Rating (kA/s)	20kA, 3s / 25kA, 3s (Optional)
Switchgear IAC (kA/s)	A FL 20kA 1S
PCS * 2	
DC Input Voltage Range (V)	1050～1500
Maximum DC Input Current (A)	1833
DC Voltage Ripple	< 1%
DC Current Ripple	< 3%
LV Nominal Operating Voltage (V)	690
LV Operating Voltage Range (V)	621～759
PCS Efficiency	98.50%
Maximum AC Output Current (A)	1588
Total Harmonic Distortion Rate	< 3%
Reactive Power Compensation	Four Quadrant Operation
Nominal Output Power (kVA)	1750
Maximum AC Power (kVA)	1897
Power Factor Range	>0.99
Nominal Frequency (Hz)	50 / 60
Operating Frequency (Hz)	45~55 / 55~65
Connection Phases	Three-Phase Three-Wire System
Communication Interface	
Communication Method	CAN / RS485 / RJ45 / Optical Fiber
Supported Protocol	CAN / Modbus / IEC60870-103 / IEC61850
Ethernet Switch Qty	One for standard
UPS	1kVA for 15min/ 1h/ 2h
Skid General	
Dimensions (W*H*D)(mm)	6058*2896*2438 (20ft)
Weight (kg)	19000
IP Rating	IP54
Operating Temperature (℃)	-35~60, >45 derating
Storage Temperature (℃)	-40~70
Maximum Altitude (above sea level) (m)	5000, ≥3000 derating
Environment Humidity	0~ 100% , No condensation
Type of Ventilation	Cooling Method: Nature Air Cooling
Auxiliary Power Consumption (kVA)	11.6 (peak)
Auxiliary Transformer (kVA)	None

Tel: +86 152 2824 2930

Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

5MW Step-up Integrated Machine

Power Container Product Parameters	
Transformer	
Rated Power (kVA)	5000
Transformer Model	Oil type
Transformer Vector	Dy11
IP Rating	IP54 / IP55
Anti-corrosion Grade	C4-H / C4-VH / C5-M / C5-H / C5-VH
Cooling Method	ONAN / ONAF
Temperature Rise	60K (Top Oil) @40℃
Oil Tank	Enclosure Material: None
Winding Material	Conductor Material: Aluminum/ Copper
Transformer Oil	25# /45# mineral oil / Natural ester insulation oil
Transformer Efficiency	Applicable Standard: IEC / IEC Tier-2
MV Operating Voltage Range (kV)	6.6~33±5%
Nominal Frequency (Hz)	50 / 60
Altitude (m)	>1000 (Optional)

Switchgear	
Switchgear Type	Ring Main Unit, CCV
Rated Voltage (kV)	12/24/36
Insulating Medium	SF6
Rated Frequency (Hz)	50/60
Enclosure IP Rating	IP3X
Gas Tank IP Rating	IP67
Gas Leakage Rate Per Year	≤0.1%
Rated Operating Current (A)	630
Switchgear Short Circuit Rating (kA/s)	20kA, 3s / 25kA, 3s
Switchgear IAC (kA/s)	A FL 20kA 1S
PCS * 2	
DC Input Voltage Range (V)	1050～1500
Maximum DC input Current (A)	1310*2
DC Voltage Ripple	< 2%
DC Current Ripple	< 3%
LV Nominal Operating Voltage (V)	690
LV Operating Voltage Range (V)	621～759
PCS Efficiency	98.7%
Maximum AC Output Current (A)	1151*2
Total Harmonic Distortion Rate	< 3%
Reactive Power Compensation	Four Quadrant Operation
Nominal Output Power (kVA)	1250*2
Maximum AC Power (kVA)	1375*2
Power Factor Range	>0.99
Nominal Frequency (Hz)	50 / 60
Operating Frequency (Hz)	45~55 / 55~65
Connection Phases	Three-Phase Three-Wire System
Communication Interface	
Communication Method	CAN / RS485 / RJ45 / Optical Fiber
Supported Protocol	CAN / Modbus / IEC60870-103 / IEC61850
Ethernet Switch Qty	One for Standard
UPS	1kVA for 15min / 1h / 2h
Skid General	
Dimensions (W*H*D)(mm)	6058*2896*2438 (20ft)
Weight (kg)	24300
IP Rating	IP54
Operating Temperature (℃)	-35~60, >45 derating
Storage Temperature (℃)	-40~70
Maximum Altitude (above sea level) (m)	5000, ≥3000 derating
Environment Humidity	0~ 100% , No condensation
Type of Ventilation	Cooling Method: Nature Air Cooling
Auxiliary Power Consumption (kVA)	11.4 (peak)
Auxiliary Transformer (kVA)	None

Tel: +86 152 2824 2930

Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

6.3MW Step-up Integrated Machine

Power Container Product Parameters	
Transformer	
Rated Power (kVA)	6300
Transformer Model	Oil type
Transformer Vector	Dy11
IP Rating	IP54 / IP55
Anti-corrosion Grade	C4-H / C4-VH / C5-M / C5-H / C5-VH
Cooling Method	ONAN / ONAF
Temperature Rise	60K（Top Oil） 65K（Winding） @40℃
Oil Tank	Enclosure Material: None
Winding Material	Conductor Material: Aluminum/ Copper
Transformer Oil	25# /45# mineral oil / Natural ester insulation oil
Transformer Efficiency	Applicable Standard: IEC / IEC Tier-2
MV Operating Voltage Range (kV)	11~33±5%
Nominal Frequency (Hz)	50 / 60
Altitude (m)	> 1000 (Optional)

Switchgear	
Switchgear Type	Ring Main Unit, CCV
Rated Voltage (kV)	12/24/36
Insulating Medium	SF6
Rated Frequency (Hz)	50/60
Enclosure IP Rating	IP3X
Gas Tank IP Rating	IP67
Gas Leakage Rate Per Year	≤0.1%
Rated Operating Current (A)	630
Switchgear Short Circuit Rating (kA/s)	20kA, 3s / 25kA, 3s (Optional)
Switchgear IAC (kA/s)	A FL 20kA 1S
PCS * 4	
DC Input Voltage Range (V)	1050～1500
Maximum DC input Current (A)	1833
DC Voltage Ripple	< 1%
DC Current Ripple	< 3%
LV Nominal Operating Voltage (V)	690
LV Operating Voltage Range (V)	621～759
PCS Efficiency	98.5%
Maximum AC Output Current (A)	1588
Total Harmonic Distortion Rate	< 3%
Reactive Power Compensation	Four Quadrant Operation
Nominal Output Power (kVA)	1750
Maximum AC Power (kVA)	1897
Power Factor Range	>0.99
Nominal Frequency (Hz)	50 / 60
Operating Frequency (Hz)	45~55 / 55~65
Connection Phases	Three-Phase Three-Wire System
Communication Interface	
Communication Method	CAN / RS485 / RJ45 / Optical Fiber
Supported Protocol	CAN / Modbus / IEC60870-103 / IEC61850
Ethernet Switch Qty	One for Standard
UPS	1kVA for 15min / 1h / 2h
Skid General	
Dimensions (W*H*D)(mm)	6058*2896*2438 (20ft)
Weight (kg)	32400
IP Rating	IP54
Operating Temperature (℃)	-35~60, >45 derating
Storage Temperature (℃)	-40~70
Maximum Altitude (above sea level) (m)	5000, ≥3000 derating
Environment Humidity	0~ 100% , No condensation
Type of Ventilation	Cooling Method: Nature Air Cooling
Auxiliary Power Consumption (kVA)	21.4 (peak)
Auxiliary Transformer (kVA)	None

Tel: +86 152 2824 2930 Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China

10MW Step-up Integrated Machine

Power Container Product Parameters	
Transformer	
Rated Power (kVA)	10000
Transformer Model	Oil type
Transformer Vector	Dy11-y11
IP Rating	IP54 / IP55
Anti-corrosion Grade	C4-H / C4-VH / C5-M / C5-H / C5-VH
Cooling Method	ONAN / ONAF
Temperature Rise	60K（Top Oil） 65K（Winding） @40℃
Oil Tank	Enclosure Material: None
Winding Material	Conductor Material: Aluminum/ Copper
Transformer Oil	25# /45# mineral oil / Natural ester insulation oil
Transformer Efficiency	Applicable Standard: IEC / IEC Tier-2
MV Operating Voltage Range (kV)	11~33±5%
Nominal Frequency (Hz)	50 / 60
Altitude (m)	> 1000 (Optional)

Switchgear	
Switchgear Type	Ring Main Unit, CCV
Rated Voltage (kV)	12/24/36
Insulating Medium	SF6
Rated Frequency (Hz)	50/60
Enclosure IP Rating	IP3X
Gas Tank IP Rating	IP67
Gas Leakage Rate Per Year	≤0.1%
Rated Operating Current (A)	630
Switchgear Short Circuit Rating (kA/s)	20kA, 3s / 25kA, 3s (Optional)
Switchgear IAC (kA/s)	A FL 20kA 1S
PCS * 4	
DC Input Voltage Range (V)	1050～1500
Maximum DC input Current (A)	1310*2
DC Voltage Ripple	< 2%
DC Current Ripple	< 3%
LV Nominal Operating Voltage (V)	690
LV Operating Voltage Range (V)	621～759
PCS Efficiency	98.7%
Maximum AC Output Current (A)	1151*2
Total Harmonic Distortion Rate	< 3%
Reactive Power Compensation	Four Quadrant Operation
Nominal Output Power (kVA)	1250*2
Maximum AC Power (kVA)	1375*2
Power Factor Range	>0.99
Nominal Frequency (Hz)	50 / 60 Hz
Operating Frequency (Hz)	45~55 / 55~65 Hz
Connection Phases	Three-Phase Three-Wire System
Communication Interface	
Communication Method	CAN / RS485 / RJ45 / Optical Fiber
Supported Protocol	CAN / Modbus / IEC60870-103 / IEC61850
Ethernet Switch Qty	One for Standard
UPS	1kVA for 15min / 1h/ 2h
Skid General	
Dimensions (W*H*D)(mm)	12192*2896*2438 (40ft)
Weight (kg)	38800
Protection Level	IP54
Operating Temperature (℃)	-35~60, >45 derating
Storage Temperature (℃)	-40~70
Maximum Altitude (above sea level) (m)	5000, ≥3000 derating
Environment Humidity	0~ 100% , No condensation
Type of Ventilation	Cooling Method: Nature Air Cooling
Auxiliary Power Consumption (kVA)	21 (peak)
Auxiliary Transformer (kVA)	None

Tel: +86 152 2824 2930 Address: Jinshan Industrial Park, Luojiang District, Deyang City, Sichuan Province, China