

EMPOWERING **THE FUTURE**

Through Reliable Energy

ENERGY

STORAGE

SYSTEM

TOTAL

SOLUTIONS



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WHY SOLUM ESS

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EMPOWERING **THE FUTURE**

THROUGH RELIABLE ENERGY

Trusted Innovation from 50 Years of Expertise

SOLUM was born from a legacy of innovation.

Established in 2015 as a spin-off from Samsung Electro-Mechanics, SOLUM carries forward over 50 years of expertise to lead the global evolution of electronic solutions.



CORE BUSINESS

POWER

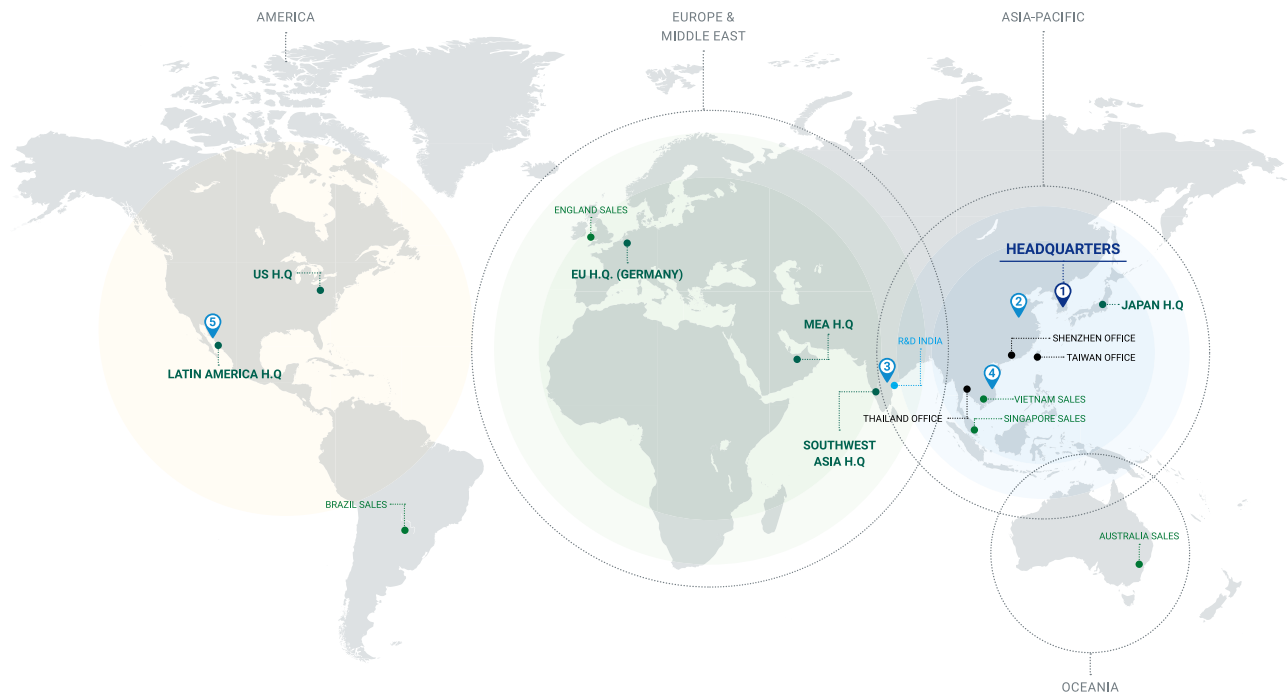
Power modules and drivers for IT, EV chargers, displays, and servers.

Includes standard/custom modules, EV SMPS, TV drivers, ORV3 & liquid-cooled power supplies.

ESS	EV POWER MODULE	EV CHARGER	SERVER POWER
	 30 kW		 ORV3 3 kW / 5.5 kW
	 50 kW (Uni/Bi-direction)	 AC wall box	 Liquid Cooled 2.4 kW / 3 kW
	 50 kW (Liquid Cool)		

GLOBAL PRESENCE

With 12 global sales offices & 4 production sites, SOLUM ensures seamless delivery and responsive support worldwide



Production Sites



VIETNAM manufacturing facility



MEXICO manufacturing facility



INDIA manufacturing facility



CHINA manufacturing facility

ESL

E-Paper solution that displays pricing and product info wirelessly. Enables real-time updates via RF/BLE communication technology.



DISPLAY

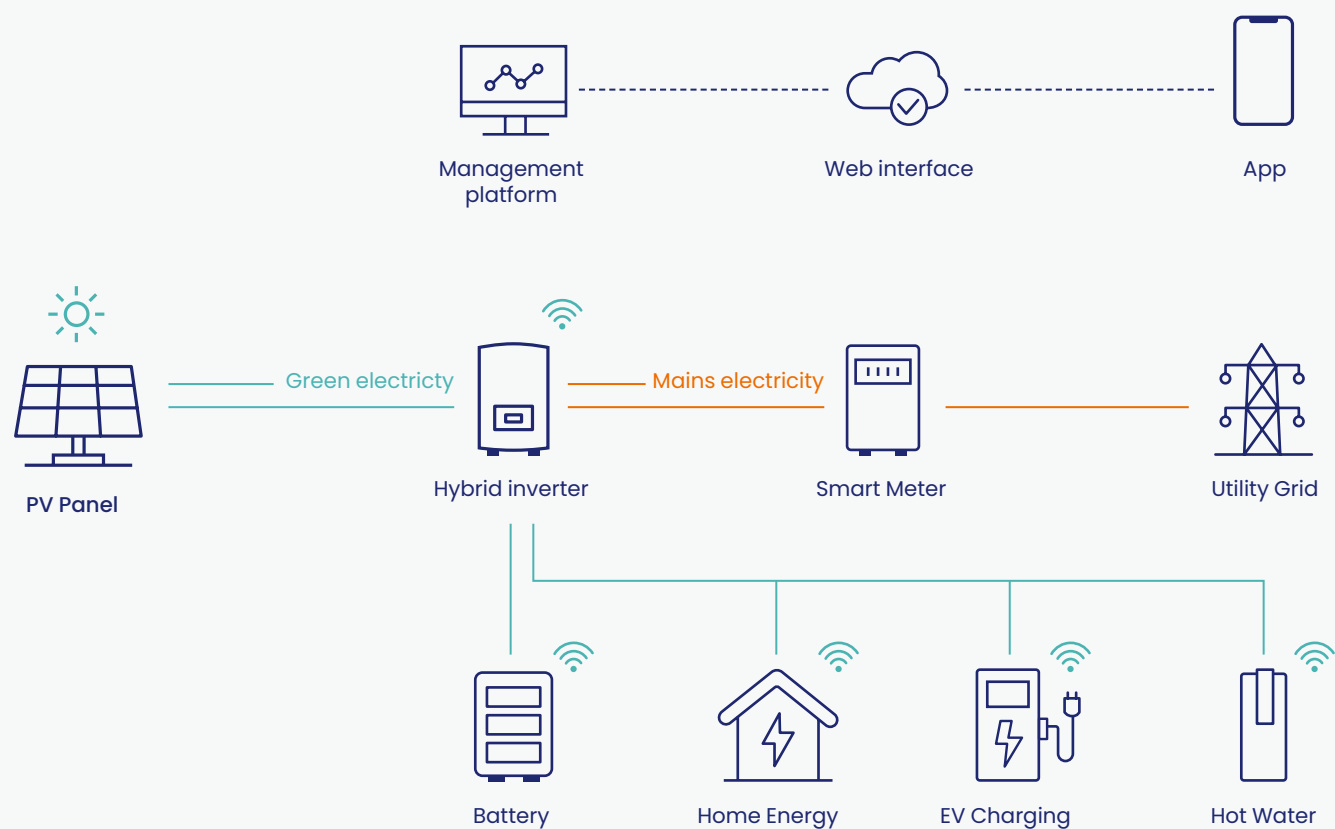
3-in-1 board integrating power, video, and Supports digital signage for advertising and retail environments. tuner functions.





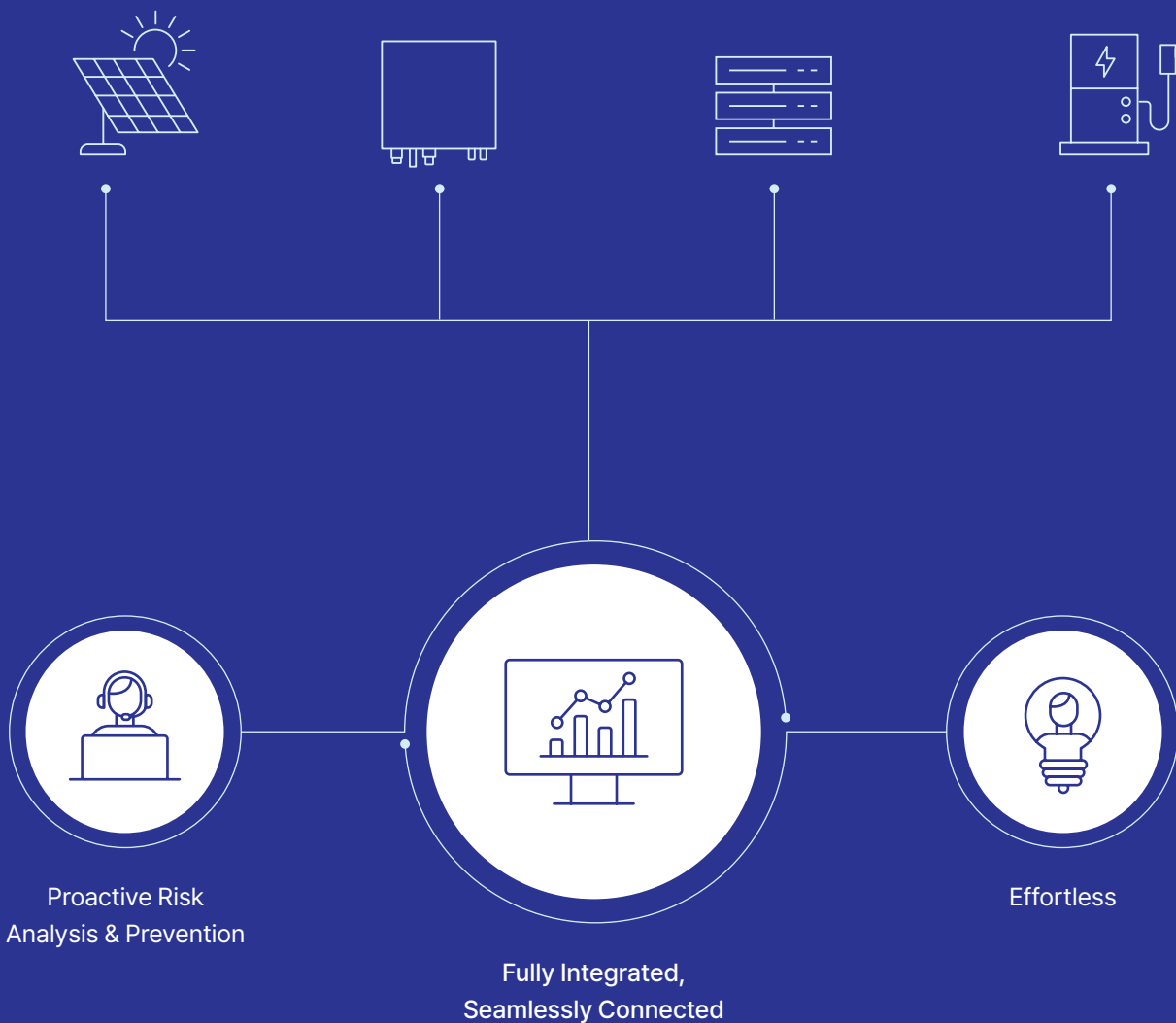
From Power Modules to Smart ESS,
SOLUM powers everything
From homes to industries.

Total Energy Solution Partner



Centralized, Intelligent Management

By leveraging SOLUM's deep expertise in battery monitoring systems, we ensure proactive issue detection, faster response, and a simpler, smarter user experience.



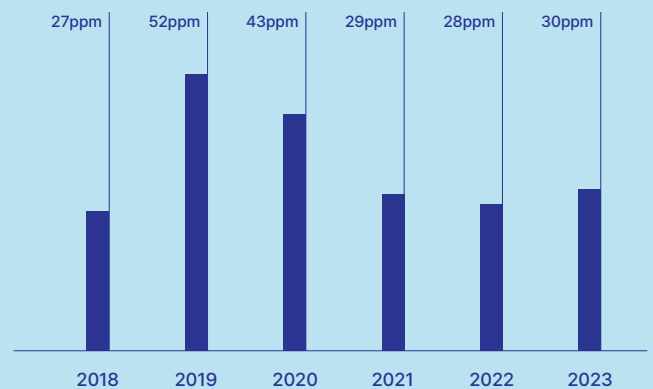
Proven & Trusted Quality

With decades of expertise in power and energy manufacturing, and a proven track record of exceptionally low defect rates, SOLUM is the trusted choice of global leaders for uncompromising product quality.

Production Reliability

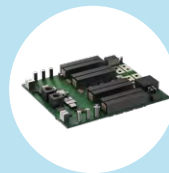
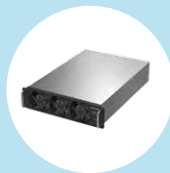
Only 0.00069% defect rate, verified across SOLUM's in-house manufacturing

Unit : ppm



Production Expertise

Comprehensive Know-how in the Power & Energy Industry



Global Standard

Recognized & Trusted by Global Leaders

SAMSUNG **intel** **BTC POWER**

Partner-Centric Support

SOLUM provides localized technical support for EPCs and installation partners, including rapid commissioning assistance and on-site maintenance-to ensure fast, reliable service tailored to each project's specific needs.



On-Site Commissioning

- Regional engineers dispatched for system setup & validation
- Fully supports Vietnam-based deployments



Remote Diagnostics

- Rapid troubleshooting through secure remote access
- Real-time fault notifications and data analysis



EMS Configuration & Integration

- Smart EMS tuning optimized for local PV and load conditions
- System optimization, on-site or via remote access



Localized Docs & Training

- Multilingual manuals and quick-start guides
- EPC/operator training sessions available

End-to-End Turnkey Partner

SOLUM is a turnkey energy solution provider, delivering comprehensive systems for everything from residential and commercial use to large-scale smart city deployments.



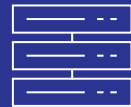
Residential



Solar Panel



Inverter



ESS



Industrial



Solar Panel



PCS



ESS



EMS



Smart City



Smart Street Light

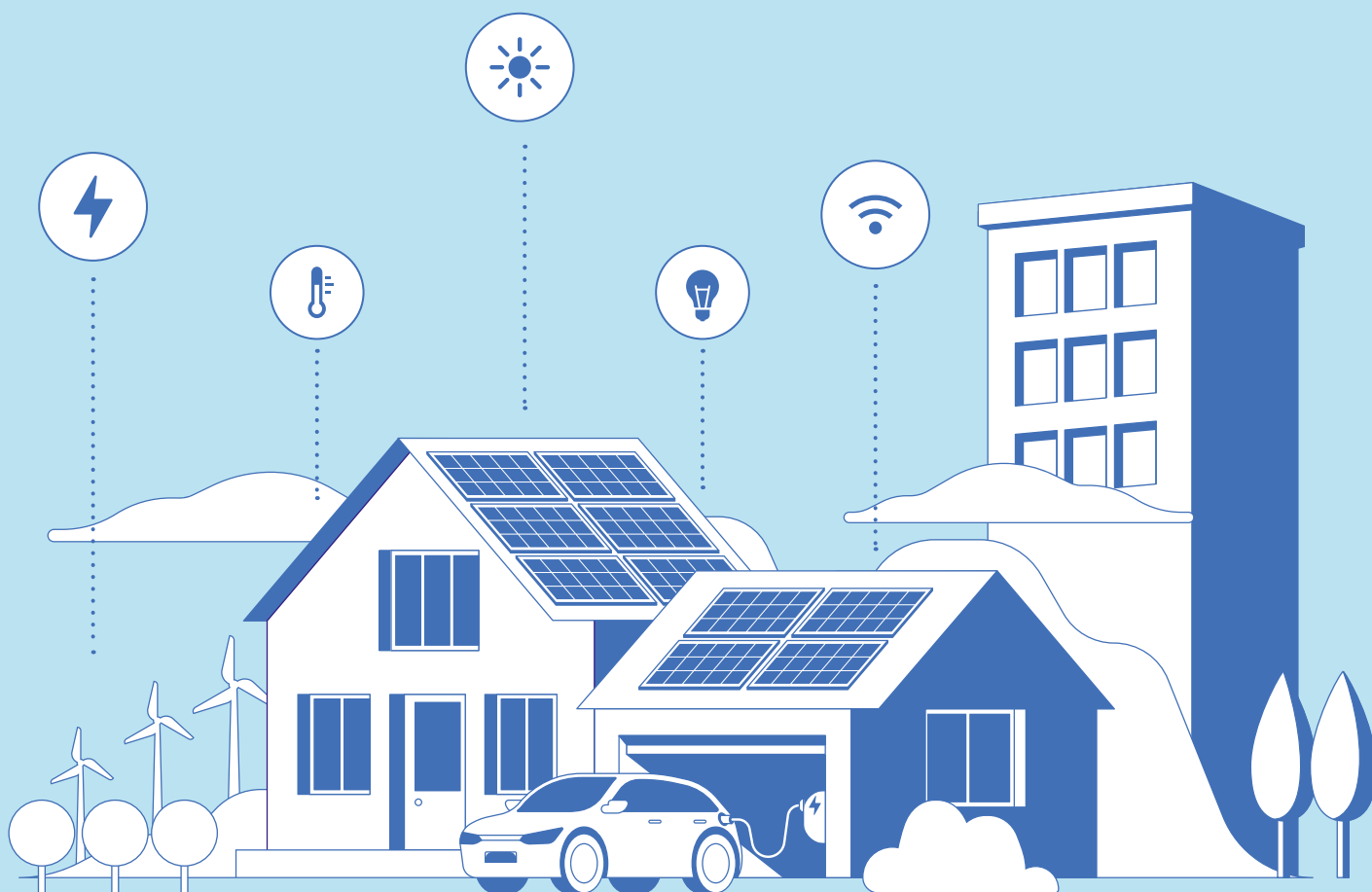


Energy System



EV Charger

ENERGY
STORAGE
SYSTEM
TOTAL
SOLUTIONS



ESS PRODUCTS BY CATEGORY

HYBRID INVERTER

OFF-GRID INVERTER

RESIDENTIAL ESS

C&I ESS

C&I PCS

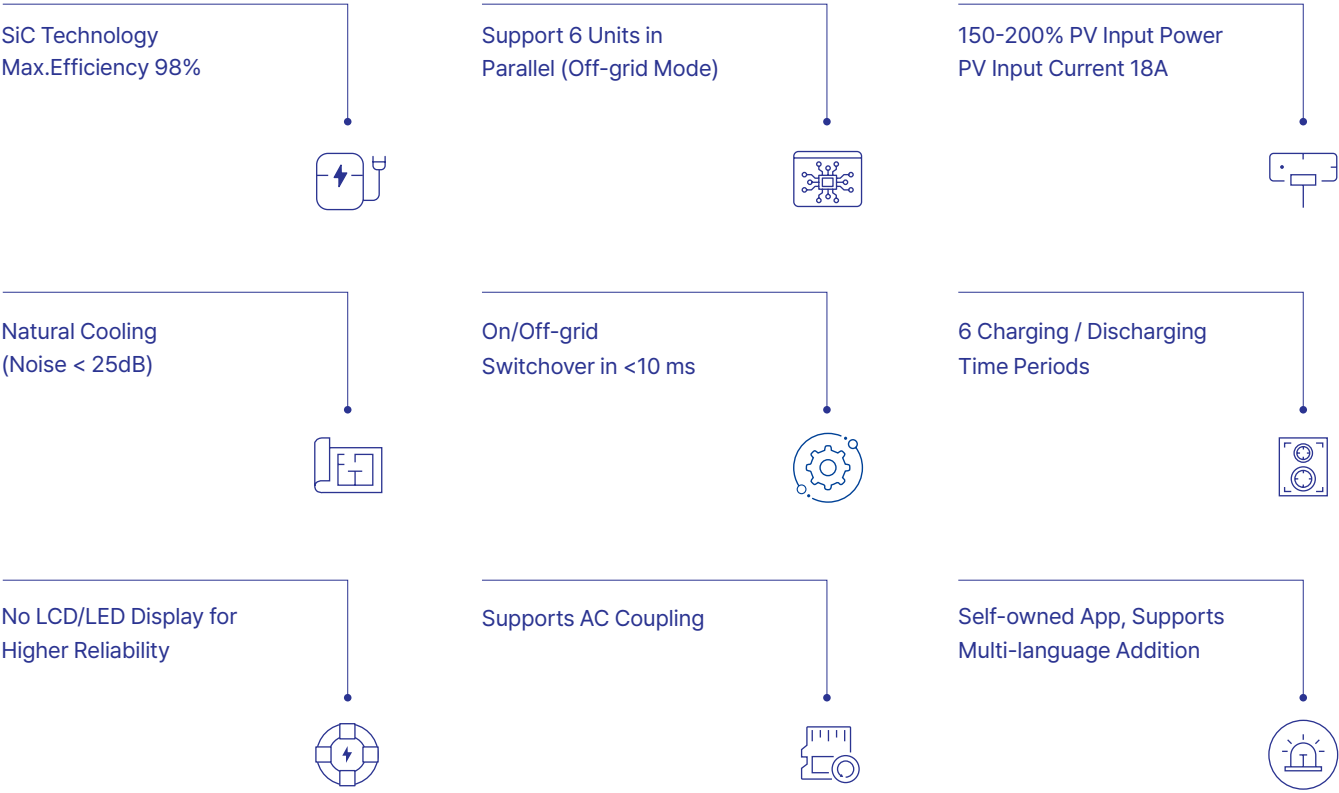
C&I UPQC

On/off-grid · Single Phase · Low Voltage

HYBRID INVERTER	3.0 kW
	3.6 kW
	4.0 kW
	4.6 kW
	5.0 kW
	6.0 kW



KEY FEATURES



SPEC SHEET

MODEL NAME		SI 3000S	SI 3600S	SI 4000S	SI 4600S	SI 5000S	SI 6000S
OFF-GRID OUTPUT	Rated Output Power	3000W	3600W	4000W	4600W	5000W	6000W
	Rated Voltage	220V/230V/240V					
	Rated Frequency	50/60Hz					
	Rated Output Current	13.6A	16.4A	18.2A	20.8A	22.7A	27.2A
	Output THDu	< 2%					
	Peak Power&Duration	120%(10s)*					
ON-GRID PARAMETER	Rated Output Power	3000W	3600W	4000W	4600W	5000W	6000W
	Max. Output Current	13.6A	16.4A	18.2A	20.8A	22.7A	27.2A
	Rated Grid Voltage	220V/230V/240V					
	Max. Input Current from Grid	16.4A	22.7A		27.2A		
	Grid Voltage Range	184-276V					
	Frequency Range	45-65Hz					
PV INPUT	Max. Input Power	6000Wp	7200Wp		8000Wp		9000Wp
	Starting Voltage	95V					
	Max.Input Voltage	600V					
	MPPT Voltage Range	80-500V					
	Number of MPPT	2					
	Max. Input String Per MPPT	1					
	Rated Input Voltage	360V					
	Max. Input Current	18A/18A					
BATTERY PARAMETER	Battery Type	Lithium-ion/Lead-Acid (optional)					
	Rated Battery Voltage	51.2V					
	Battery Voltage Range	42-58V					
	Max. Charging Voltage	≤60V					
	Battery Charging/Discharging Current	75A	85A		100A		
EFFICIENCY	Max. Efficiency	97.5%		97.8%		98.0%	
	European Efficiency	97.2%		97.3%		97.5%	
	Max. Battery Charging/Discharging Efficiency	95.2%					
GENERAL DATA	Size(W*H*D)	500mm*470mm*180mm					
	Weight	21kg					
	Noise	<25dB					
	Operating Temperature	-25°C +60°C (>55°C Derating)					
	Operational Altitude	4000m (>3000m Derating)					
	Cooling Method	Natural Cooling					
	Ingress Protection Grade	IP65					
	Mornitoring	LED/WIFI/4G/Bluetooth/RS485					
	Communication Port	RS485/CAN/DRED/Dry contact/Parallel port					
	Protection	DC Switch; AC Overvoltage Protection; AC Overcurrent Protection; AC Short Circuit Protection; Anti-islanding Protection; Residual Current Monitoring; PV Insulation Resistance Detection; Surge Protection:LEVEL II; Reverse Polarity Protection(PV&Battery):Lightning Protection					
CERTIFICATION	CE-LVD	IEC 62109-1, IEC 62109-2, EN 62109-1, EN 62109-2, IEC 62477-1					
	CE-EMC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 62920					
	Grid	VDE-AR-N 4105, C10-11, G98/G99, CEI 0-21, EN50549, NRS 097-2-1, R25,UNE217001, UNE217002, NTS 2.1, PEA, MEA, NC RfG					

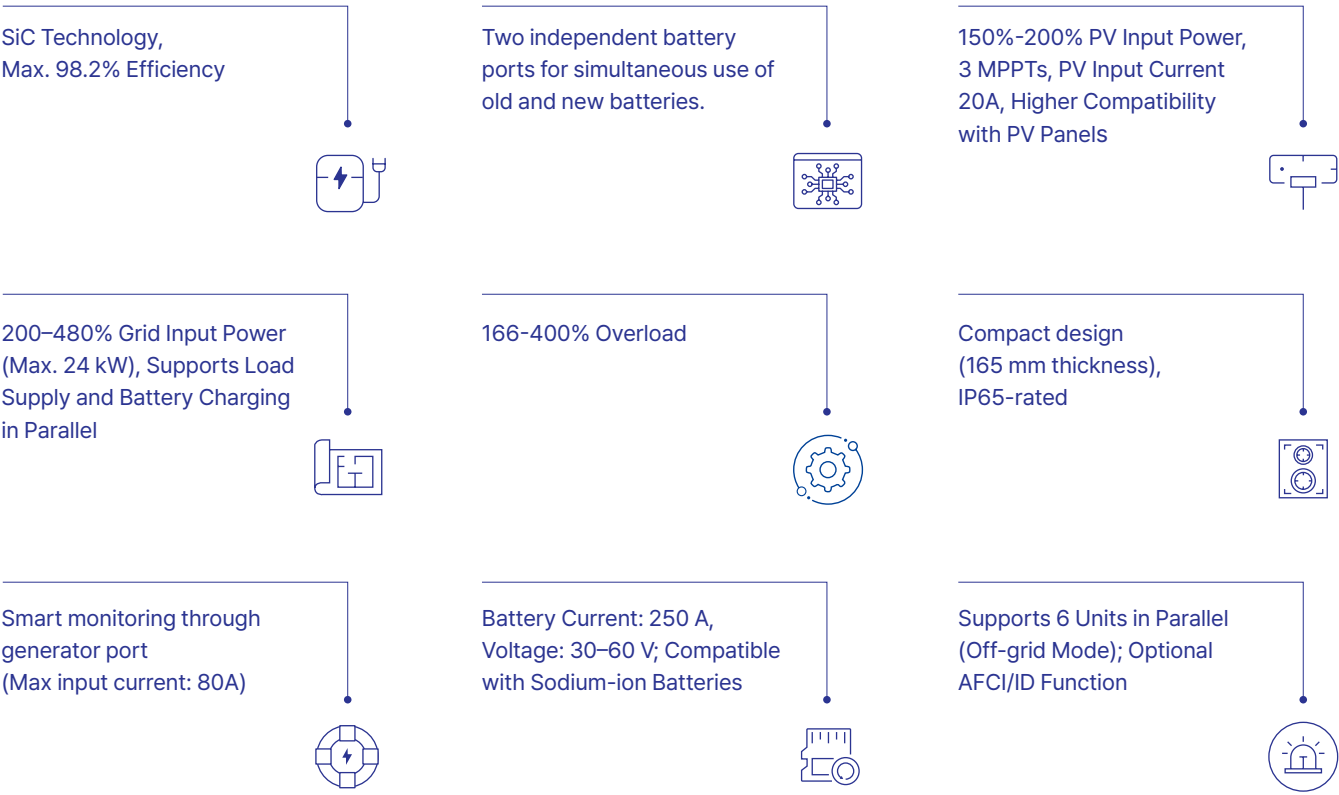
* Overload output is dependent on sufficient PV and battery energy

On/off-grid · Three Phase · Low Voltage

HYBRID INVERTER	5.0 kW
	6.0 kW
	8.0 kW
	10.0 kW
	12.0 kW



KEY FEATURES



SPEC SHEET

MODEL NAME		SI D5K-TL	SI D6K-TL	SI D8K-TL	SI D10K-TL	SI D12K-TL
OFF-GRID OUTPUT	Rated Output Power	5kW	6kW	8kW	10kW	12kW
	Max. Output Power	5.5kVA	6.6kVA	8.8kVA	11kVA	13.2kVA
	Peak Power & Duration	20kVA(10s)*				
	Max. Output Current	8.3A	10A	13.3A	16A	20A
	Rated Output Voltage	3/N/PE, 220/380Vac, 230/400Vac				
	Switching Time	<10ms				
	GEN Max. Current	25.8A	27.3A	30.3A	33.3A	36.4A
	GEN Voltage Range	185-276V(P2N)				
ON-GRID PARAMETER	Rated Output Power	5kW	6kW	8kW	10kW	12kW
	Max. Output Power	5.5kVA	6.6kVA	8.8kVA	11kVA	13.2kVA
	Max. Output Current	8.3A	10A	13.3A	16A	20A
	Max. Input Power	17kVA	18kVA	20kVA	22kVA	24kVA
	Rated Voltage	3/N/PE, 220/380Vac, 230/400Vac				
	Grid Voltage range	185-276V(P2N)				
	Grid Frequency	50/60±5Hz				
	Max. Input Power	10000Wp	12000Wp	16000Wp	18000Wp	18000Wp
PV INPUT	Max. Input Voltage	800V				
	Number of MPPT	3				
	Max. Input String Per MPPT	1/1/1				
	MPPT Voltage Range	130-800V				
	Starting Voltage	140V				
	Max. Input Current	20A/20A/20A				
	Short-Circuit Current	24A/24A/24A				
	Battery Type	Lithium-ion/Lead-Acid/Sodium-ion(optional)				
BATTERY PARAMETER	Number of Battery Input	2				
	Battery Voltage Range	30-60V				
	Battery Charging/Discharging Current	125A*2				
EFFICIENCY	Max. Efficiency	98.20%				
	European Efficiency	97.70%				
	Max. Battery Charging/ Discharging Efficiency	95.00%				
GENERAL DATA	Size(W*H*D)	465mm*665mm*165mm				
	Weight	36kg				
	Noise	<45dB				
	Operating Temperature	-25°C +60°C (>45°C Derating)				
	Operating Altitude	4000m(>3000m Derating)				
	Cooling Method	Intelligent Air Cooling				
	Ingress Protection Grade	IP65				
	Topology	Isolation				
	Communication Port	LED/WIFI/4G/Bluetooth/RS485				
	Protection	DC Switch; Reverse Polarity Protection; AC Overvoltage/Overcurrent/Short Circuit Protection; Anti-islanding Protection; Residual Current Monitoring; Insulation Resistance Detection; Surge Protection:DC Type II / AC Type III; AFCI(Optional); PID(Optional)				
	CE-LVD	IEC62109-1&2, IEC62040-1				
	CE-EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4 EN 61000-4-16, EN 61000-4-18, EN 61000-4-29				
CERTIFICATION	GRID	VDE-AR-N 4105;VDE 0126-1-1 EN 50549-1;G98,G100; CEI 0-21;AS/NZS4777.2 NRS 097-2-1				

* Overload output is dependent on sufficient PV and battery energy

On/off-grid · Three Phase · High Voltage

HYBRID INVERTER	22.0 kW
	25.0 kW
	29.9 kW
	30.0 kW
	40.0 kW
	42.5 kW
	50.0 kW



KEY FEATURES

SiC Technology,
Max. Efficiency 98%



2 Independent Battery Ports
for Mixed Use of Old and
New Batteries



Supports 150–200% PV input
with 3–4 MPPTs (40A), highly
compatible with PV arrays.



275%–626% Grid Input Power
(200 A); Supports Load Supply
and Battery Charging in Parallel



150% Overload,
AFCI Function



Compact Size for Easier
Installation and Cost-effective
Shipping



Smart Monitoring via
Generator Port; Max. Input
Current: 200 A



Supports battery current up to
140A; compatible with various
battery types



6 Units in Parallel
(Off-grid Mode)



SPEC SHEET

MODEL NAME		SI L22K-TH	SI L25K-TH	SI L29.9K-TH	SI L30K-TH	SI L40K-TH	SI L42.5K-TH	SI L50K-TH
OFF-GRID OUTPUT	Rated Output Power	22kW	25kW	29.9kW	30kW	40kW	42.5kW	50kW
	Max. Apparent Power	24.2kVA	27.5kVA	29.9kVA	33kVA	44kVA	46.7kVA	55kVA
	Rated Voltage	3/N/PE, 220/380V; 230/400V; 240/415V						
	Rated Frequency	50Hz/60Hz						
	Rated Output Current	31.9A	36.3A	43.5A	43.5A	58A	61.6A	72.5A
	Max. Output Current	35.1A	39.9A	43.5A	47.9A	63.8A	67.8A	79.8A
	Peak Power & Duration	150%(10s)*						
	Generator Input Current	200A						
	THDu	<3%						
ON-GRID PARAMETER	Rated Output Power	22kW	25kW	29.9kW	30kW	40kW	42.5kW	50kW
	Rated Grid Voltage	3/N/PE, 220/380V; 230/400V; 240/415V						
	Rated Grid Frequency	50Hz/60Hz						
	Rated Output Current	31.9A	36.3A	43.5A	43.5A	58A	61.6A	72.5A
	Grid Input Current	200A						
PV INPUT	Max. DC Input Power	44000Wp	50000Wp	60000Wp	60000Wp	75000Wp	75000Wp	75000Wp
	Max.Input Voltage	1000V						
	Rated Input Voltage	600V						
	Starting Voltage	180V						
	MPPT Voltage Range	150-850V						
	Max. Input String Per MPPT	3/6	3/6	3/6	3/6	4/8	4/8	4/8
	Max. DC Input Current	3*40A	3*40A	3*40A	3*40A	4*40A	4*40A	4*40A
	Short-circuit Current	3*60A	3*60A	3*60A	3*60A	4*60A	4*60A	4*60A
BATTERY PARAMETER	Battery Type	Lithium-ion/Lead-acid/Sodium-ion (Optional)						
	Battery Voltage Range	140-800V						
	Max. Charing/Discharging Power	22kW	25kW	29.9kW	30kW	40kW	42.5kW	50kW
	Max. Charing/Discharging Current	70A*2						
	Number of Battery Input Ports	2						
EFFICIENCY	Max. Efficiency	>98%						
	European Efficiency/CEC Efficiency	>97.3%						
	Max. Battery Charging/Discharging Efficiency	95%						
GENERAL DATA	Size(W*H*D)	850mm*550mm*295mm (TBD)						
	Weight	80kg						
	Topology	Non-Isolated						
	Operating Temperature	-25°C~+60°C						
	Operating Altitude	4000m (>3000m Derating)						
	Humidity Range	0-100%						
	Ingress Protection Grade	IP66						
	Cooling Method	Intelligent Air Cooling						
	Monitoring	LED+Bluetooth+APP, WIFI/LAN/4G						
	Communication Port	RS485*1, Internet/WIFI/4G, DO*2, DI*2, AI*1, AO*1, DRM*1						
	DC Power	12VDC 2A						
CERTIFICATION	CE-LVD	IEC 62109-1, IEC 62109-2, EN 62109-1, EN 62109-2, IEC 62477-1						
	CE-EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, IEC 62920						

* Overload output is dependent on sufficient PV and battery energy

Off-grid · Single Phase · Low Voltage

OFF-GRID INVERTER	3.0 kW
	4.0 kW
	5.0 kW
	6.0 kW
	8.0 kW
	10.0 kW
	12.0 kW



KEY FEATURES

Max. Efficiency 97.5%
3-5% Higher than Average

190-460% Grid Input Power
(60-100 A); Supports Load
Supply and Battery Charging
in Parallel

125-250% PV Input Power with
2-4 MPPTs (18 A); Enhanced
PV Panel Compatibility

5-Year Standard Warranty

Supports AC Voltage Range:
176-264 V

125-150% Overload

Supports 6 Units in Parallel
(3.0-6.0 kW Only)

Compatible with Lead-Acid,
Gel, and Lithium Batteries

Ultra-quiet smart fan activates
when output exceeds 50%

SPEC SHEET

MODEL NAME		SI 3000SO	SI 4000SO	SI 5000SO	SI 6000SO	SI 8000SO	SI 10000SO	SI 12000SO
OFF-GRID OUTPUT	Max. Output Power	3kVA	4kVA	5kVA	6kVA	8kVA	10kVA	12kVA
	Output Voltage&Range	220Vac±10%						
	Nominal Output Current	13.6A	18.2A	22.7A	27.2A	36.4A	45.4A	54.4A
	Peak Power&Duration	4.5kVA(10s)	6kVA(10s)	8kVA(10s)	8kVA(10s)	12kVA(10s)	15kVA(10s)	15kVA(10s)
GRID PARAMETER	Peak AC Input Current	60A				100A		
	Max Load Power	8kW				16kW		
	Nominal Grid Voltage	220Vac						
	Grid Voltage Range	176~264V						
	Nominal Grid Frequency	50/60Hz						
	THDi	<3%						
PV INPUT	Max. Input Power	6600W	8000W	9000W	9000W	14000W	18000W	18000W
	Max.Input Voltage	500V						
	Mppt Voltage Range	100-500V						
	Number of MPPT	2				4		
	Max. Input String Per MPPT	1						
	Nominal Input Voltage	360V						
	Starting Voltage	120V						
	Max. Input Current	18A/18A				18A/18A/18A/18A		
	Short-Circuit Current	22A/22A				22A/22A/22A/22A		
BATTERY PARAMETER	Battery Type	Lithium-ion/Lead-Acid						
	Nominal Battery Voltage	48V						
	Battery Voltage Range	42-58V						
	Max. Charging Voltage	58V						
	Lead-Acid Charging Curve	3 stages						
	Max. Charging Current	60A	80A	100A		200A		
	Max. Discharging Current	60A	80A	100A	120A	200A		
	EFFICIENCY	Max. Efficiency	97.40%		97.50%		97.40%	97.50%
European Efficiency		97.20%		97.30%		97.20%	97.30%	
Max. Battery Charging/ Discharging Efficiency		94.00%						
GENERAL DATA	Size(W*H*D)	360mm * 470mm * 114mm				400mm * 620mm * 210mm		
	Weight	14kg				29kg		
	Noise	<25dB						
	Operating Temperature	-25°C ~ +60°C (>45°C Derating)						
	Cooling Method	Intelligent Air Cooling						
	Parallel Units	6				1		
	Warranty	5 years				5 years		
	Ingress Protection Grade	IP20						
	Communication Method	LED/LCD/WiFi/Bluetooth/RS485						
	Communication Port	CAN + RS485						
	Protection	Reverse Polarity Protection; Over Current/Voltage Protection; AC Short-circuit Protection; PV Ground Fault Monitoring; Over Temperature Protection						
	CERTIFICATION	CE-LVD	EN 62109-2:2011, EN 62109-1:2010					
CE-EMC		EN 61000-6-1, EN 61000-6-2						

Residential ESS Series

Rack Mounted type



KEY FEATURES

Easy Installation

Rack-mounted design enables quick and convenient installation or removal.



Safe & Reliable

Built-in BMS with LiFePO₄ (LFP) battery technology ensures operational safety and stability.



Long Lifespan

Designed for 15–20 years of service life, with over 6,000 cycles at 0.5C and 25°C.



High Compatibility

Supports both low-voltage single-phase and three-phase inverters.



Strong Environmental Adaptability

Wide operating temperature range (-20°C to 55°C), IP20-rated protection, and high system compatibility.



SPEC SHEET

MODEL NAME		RK51100-HES-CT
PERFORMANCE	Cell Format	LFP 16S1P
	Nominal Capacity	100Ah
	Battery Usable Energy	5.12kWh
	Nominal Voltage	51.2V
	Charge Voltage	57.6V
	Discharge Cut-off Voltage	44.8V
	Rate Discharge Current	50A
	Max Discharge Current	100A
	Rate Charge Current	50A
	Max Charge Current	100A
COMMUNICATION	Display	SOC status indicator, LED indicator
	Communication	CAN/RS485/RS232
GENERAL SPECIFICATION	Dimension (W*L*H)	483*440*133mm
	Weight	46kg
	Charge Temperature	0°C to 55°C
	Operating Temperature [1]	-20°C to 55°C
	Storage Temperature	0°C to 40°C
	Environmental Humidity	< 95%RH
	Protection Rating	IP20
	Cycle Life	6000Cycle@25°C, 90%DOD, 0.5C
	Scalability	Max 16 parallel
CERTIFICATION	Cell	IEC62619/UL1642
	Battery pack	UN38.3 / CE / IEC62619 / UL1973

[1] Charge/discharge derating occurs when the operating temperature from -10°C to 5 °C.& 45 °C
 * Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C to 55 °C
 * Condition apply. Refer to Warranty Letter

Residential ESS Series

Wall-mounted type



KEY FEATURES

Easy Installation

PV energy storage system Wall-mounted, space-saving



Safe & Reliable

Built-in advanced BMS with triple-layer overcurrent protection.



Long Lifespan

90% Depth of discharge, supporting over 6,000 cycles (0.5C @ 25°C)



High Compatibility

RS485/CAN communication—fully Compatible with mainstream inverter brands.



SPEC SHEET

MODEL NAME		RK51100LFP-WM	RK51200LFP-WM
PERFORMANCE	Cell Format	LFP 16S1P	LFP 16S2P
	Nominal Capacity	100Ah	200Ah
	Battery Usable Energy	5.12kWh	10.24kWh
	Nominal Voltage	51.2V	51.2V
	Charge Voltage	57.6V	57.6V
	Discharge Cut-off Voltage	44.8V	44.8V
	Rate Discharge Current	50A	100A
	Max Discharge Current	100A	200A
	Rate Charge Current	50A	100A
	Max Charge Current	100A	200A
COMMUNICATION	Display	LCD, SOC status indicator, LED indicator	
	Communication	CAN/RS485/RS232	
GENERAL SPECIFICATION	Dimension (W*L*H)	410*600*166 mm	450*600*266 mm
	Weight	50kg	94kg
	Charge Temperature	0°C to 55°C	
	Operating Temperature [1]	-20°C to 55°C	
	Storage Temperature	0°C to 40°C	
	Environmental Humidity	< 95%RH	
	Protection Rating	IP55	
	Cycle Life	6000Cycle@25°C, 90%DOD, 0.5C	
	Scalability	Max 16 parallel	
CERTIFICATION	Cell	IEC62619/UL1642	
	Battery Pack	UN38.3/CE/IEC62619	

[1] Charge/discharge derating occurs when the operating temperature from -10°C to 5 °C.& 45 °C

* Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25°C to 55 °C

* Condition apply. Refer to Warranty Letter

Residential ESS Series

Low Voltage Stacked Type



KEY FEATURES

Scalable energy capacity

from 10.24kWh up to 40.96kWh.

Up to 8 standard modules can be stacked



Modular design

Standard modular design, free stacking combination.



Easy Installation

New stackable plug-in design, installed easily and no need for external parallel cables.



Safe & Reliable

Built-in parallel circulation control module



Long Lifespan

Designed for 15–20 years of service life, with over 6,000 cycles at 0.5C and 25°C.



High Compatibility

RS485/CAN communication—fully Compatible with mainstream inverter brands.



SPEC SHEET

MODEL NAME		LVS51-200	LVS51-300	LVS51-400	LVS51-500	LVS51-600	LVS51-700	LVS51-800
PERFORMANCE	Capacity	51.2V200Ah	51.2V300Ah	51.2V400Ah	51.2V500Ah	51.2V600Ah	51.2V700Ah	51.2V800Ah
	Cell Format	LFP 16S2P	LFP 16S3P	LFP 16S4P	LFP 16S5P	LFP 16S6P	LFP 16S7P	LFP 16S8P
	Nominal Capacity	200Ah	300Ah	400Ah	500Ah	600Ah	700Ah	800Ah
	Battery Usable Energy	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh	40.96kWh
	Nominal Voltage	51.2V						
	Charge Voltage	57.6V						
	Discharge Cut-off Voltage	44.8V						
	Rate Discharge Current	50A						
	Max Discharge Current	100A						
	Rate Charge Current	50A						
	Max Charge Current	100A						
COMMUNICATION	Display	LCD, SOC status indicator, LED indicator						
	Communication	CAN/RS485/RS232						
GENERAL SPECIFICATION	Dimension (W*L*H)	605*413*474	605*413*666	605*413*858	605*413*1050	605*413*1242	605*413*1434	605*413*1818
	Weight	107kg	157kg	207kg	257kg	307kg	357kg	407kg
	Charge Temperature	0°C to 55°C						
	Operating Temperature [2]	-20°C to 55°C						
	Storage Temperature	0°C to 40°C						
	Environmental Humidity	< 95%RH						
	Protection Rating	IP20						
	Cycle Life	6000Cycle@25°C, 90%DOD, 0.5C						
	Scalability	Max 8 parallel						
	Cell	IEC62619/UL1642						
CERTIFICATION	Battery Pack	UN38.3/CE/IEC62619/						

Note: The above products are data parameters for regular models. If you have any other requirements, please communicate with our sales personnel to customize a satisfactory product for you

Residential ESS Series

High Voltage Stacked type



KEY FEATURES

Scalable energy capacity

from 10.24kWh up to 30.72kWh.

Main control automatic high-voltage identification



Modular design

Standard module design, available in two:

102.4V/50Ah (5.12kwh)



Easy Installation

New stackable plug-in design, installed easily and no need for external series cables.



Safe & Reliable

High voltage intelligent BMS management, secondary management architecture



Long Lifespan

Designed for 15–20 years of service life, with over 6,000 cycles at 0.5C and 25°C.



High Compatibility

RS485/CAN communication—fully Compatible with mainstream inverter brands.



SPEC SHEET

BATTERY PARAMETERS					
Model	HVS200-50	HVS300-50	HVS400-50	HVS500-50	HVS600-50
Capacity	204.8V50Ah	307.2V50Ah	409.6V50Ah	512V50Ah	614.4V50Ah
Battery Module	102.4V / 5.12 kWh / 630*450*192mm / 60kg				
Rated Energy	10.24 kWh	15.36 kWh	20.48 kWh	25.6 kWh	30.72 kWh
Number of Modules	2	3	4	5	6
Cell Type	LFP (LiFePO4)				
Cell Configuration	32S1P(x2)	32S1P(x3)	32S1P(x4)	32S1P(x5)	32S1P(x6)
Nominal Voltage	204.8V	307.2V	409.6V	512V	614.4V
Cycle Life	≥6000 Cycles @0.3C/0.3C				
Communication	RS485/CAN/RS232				
Charge Voltage	230.4V	345.6V	460.8V	576V	691.2V
Charge Current	9A (Recommend)				
Max Charge Current	12.5A				
Peak Charge Current	50A				
Charging Mode	Constant current / constant voltage				
Discharge Cut-off Voltage	185.6V	278.4V	317.2V	464V	556.8V
Discharge Current	12.5A (Recommend)				
Max Discharge Current	25A				
Peak Discharge Current	50A ,30S				
Charge Temperature	0°C to 55°C (32°F to 131°F)				
Discharge Temperature	-20°C to 60°C (-4°F to 140°F)				
Storage Temperature	0°C to 40°C (32°F to 104°F)				
Dimensions (W*L*H)mm	630*450*629	630*450*821	630*450*1013	630*450*1205	630*450*1397
Pack weight	168Kg	230Kg	292Kg	354Kg	416Kg
Protection Class	IP55				
Certificate	UN38.3/MSDS/CE				
Warranty	3/5/10 Year				

C&I ESS Series

ESC-R100-211-CE



KEY FEATURES

Safe & Reliable Design

- IP67-rated long-life battery pack
- IP55 cabinet, 1.5hr fire resistance
- Multi-level electrical control with single-pack fire protection

Intelligent & Efficient Operation

- EMS with real-time monitoring & intelligent control
- Liquid-cooled pack with smart thermal management
- Seamless off-grid switching, fast response

Flexible Deployment

- Compact & modular cabinet design
- Plug-and-play + parallel expansion support
- Forklift-compatible for easy transport & installation

Remote Operation & Maintenance

- Cloud-integrated monitoring with early warning system
- Remote diagnostics & firmware upgrades
- O&M cost reduction enabled

All-in-One System

- High-integration solution for grid expansion, data centers, and EV charging
- Easy installation
 - Excellent space efficiency
 - Stable power supply & energy cost reduction

SPEC SHEET

MODEL NAME		ESC-R100-211-CE
CELL TYPE		LFP-300Ah
GROUPING MODE		1P44S*5
CHARGE/DISCHARGE RATE		0.5P@25°C
NOMINAL ENERGY		211kWh
VOLTAGE RANGE		600-803V
AC SIDE	AC Voltage	400V (-20%~+15%)
	Rated Power	100kW
	PCS Max. Efficiency	98%
	THD Ratio	< 3%
SYSTEM PARAMETERS	Work Temp. Range	-30°C~+50°C (Derating required @45°C)
	Work Humidity Range	5-95%
	Cooling Mode	Liquid-cooled
	Altitude	≤2000m
	Max. System Efficiency	90%
	System Cycle Life	>8000 (0.5C@25°C, 90% DOD)
	Fire Suppression System	Aerosol FSS
	Ingress Protection	IP55
	Communication Port	4G, RS485, Ethernet
	Communication Protocol	Modbus/MQTT
	Dimension (W*D*H)	1340*1300*2260mm
	Weight	2600kg
CERTIFICATION	Certification	GB/T36276, IEC62619, IEC62477, IEC61000, UN38.3

C&I ESS Series

ESD1267-05P760



KEY FEATURES

High Safety Design

- Cabinet-to-cabinet fire resistance
- Cabinet body: fire resistance rating of 1.5hours
- Temp. & smoke sensors + aerosol & water fire protection system

Flexible Integration Design

- Prefabricated cabinets, simplified on-site installation
- Adaptable to 20ft & 40ft standard containers
- Supports parallel connection and system expansion

Multiple Scenario

- Urban buildings, communities
- Low-voltage area networks
- Highly integrated liquid-cooled C&I ESS

Smart & User-Friendly

- Supports parallel and offline mode
- Early fault warning and location
- Real-time monitoring and fault logging

SPEC SHEET

MODEL NAME		ESD1267-05P760-G
ELECTRICAL	Cell Type	LFP-300Ah
	System Configuration	Pack: 1P44S / Rack: 1P396S / System: 2P396S
	Cycle Life	Cell: ≥8000 (0.5P@25°C±3°C)
	Nominal Energy (0.5P@25°C)	Pack: 42.2kWh / Rack: 380kWh / System: 760kWh
	Rated Voltage	Pack: 140.8V / Rack/System: 1267.2V
	Voltage Range	Pack: 123.2~158.4V / Rack/System: 1069.2~1425.6V
	Charge/Discharge Rate	0.5P@25°C
	Max. Charge Power	380kW (0.5P)
CONDITIONS	Storage Temp.	-30°C~+60°C
	Working Temp.	-20°C~+50°C
	Working Relative Humidity	0~95%
	Altitude	< 3000m
SYSTEM PARAMETERS	Ingress Protection	IP55
	Cooling Mode	Liquid-cooling
	Communication Interface	CAN, RS485, Ethernet
	Communication Protocol	CAN, Modbus-TCP/IP, Modbus RTU, IEC104
	Fire Suppression System	Aerosol/Water
	Dimension (T*W*H)	1400*2400*2500mm
	Weight	8000kg
CERTIFICATION	Certification	UN38.3, UL1973, UL9540A, UL9540, IEC62619, IEC60356

C&I ESS Series

ESD1267-05P3421 / ESD1331-05P5015

3-STAGE PROTECTION SYSTEM OVERVIEW

1. Cell Thermal Runaway Prevention

- Real-time cell temp monitoring
- Rapid immersion suppression inside battery module
- Prevents diaphragm disintegration

2. Complete Fire Fighting System

- Immersion-type extinguishing (Novec1230 + water sprinkler)
- Explosion-proof design with gas/smoke/temp sensors
- Ventilation, early warning, and active exhaust

3. Multiple Anti-Leakage Design

- Dry-wet separation with die-cast cooling
- Auto pipe leakage detection & alarms
- Integrated with BMS and O&M staff interface



KEY FEATURES

High Energy Capacity

- 3421kWh / 50151kWh options
- 12,000 cycles lifespan

4-Layer High Safety Design

- Cell thermal monitoring & runaway suppression
- Immersion fire extinguishing with >90% efficiency
- Dry-wet separation with leakage detection

Compact Standardization

- 20ft containerized form factor
- 33% occupied area saved (for larger model)

Intelligent Temperature Control

- Smart 3°C thermal management system
- Prevents overheating & system failure

Scientific Optimization

- Low LCOS (Levelized Cost of Storage)
- Fully integrated safety + control + maintenance logic

SPEC SHEET

MODEL NAME		ESD1267-05P3421	ESD1331-05P5015
ELECTRICAL	Cell Type	LFP-300Ah	LFP-314Ah
	System Configuration	9P396S	12P416S
	Nominal Energy (0.5P@25°C)	3421kWh	5015kWh
	Rated Voltage	1267V	1331V
	Voltage Range	990~1445.4V	1040~1497.6V
	Charge/Discharge Rate	0.5P@25°C	0.5P@25°C
	Max. Charge Power	1710.5kW (0.5P)	2507.5kW (0.5P)
CONDITIONS	Storage Temp.	-30°C~+60°C	-30°C~+60°C
	Working Temp.	-30°C~+50°C	-30°C~+50°C
	Working Relative Humidity	0~95%	0~95%
	Altitude	< 3000m	< 3000m
SYSTEM PARAMETERS	Ingress Protection	IP54	IP55
	Cooling Mode	Liquid-cooling	Liquid-cooled Temp. Control + Air-cooled (Liquid-cooled built-in System)
	Communication Interface	CAN, RS485, Ethernet	CAN, RS485, Ethernet
	Communication Protocol	CAN, Modbus-TCP/IP, Modbus RTU, IEC104	CAN, Modbus-TCP/IP, Modbus RTU, IEC104
	Fire Suppression System	Pack-level Temp./Smoke/Gas Detector + Water FSS/Perfluorohexane	Explosion-proof + Smoke extraction + Pack-level submerged fire extinguishing + Gas extinguishing system + Water sprinkler system
	Dimension (W*D*H)	20ft Container (6058*2438*2896mm)	20ft Container (6058*2438*2896mm)
	Weight	37000kg	43000kg
CERTIFICATION	Certification	GB/T36276, UL1973, UL9540, UL9540A, UN38.3, UN3536, IEC62477, IEC60730, IEC61000, IEC62619, NFPA855 Compliant	GB/T36276, UL1973, UL9540, UL9540A, UN38.3, UN3536, IEC62477, IEC60730, IEC61000, IEC62619, NFPA855 Compliant

C&I PCS Series

PWS1-160M-H-EX



KEY FEATURES

Flexible Configuration

- Three-phase four-wire system
- Wide DC voltage range (720–1500Vdc)
- Flat / Vertical / Wall-Mounted installation forms

High Efficiency & Stability

- IP66 rated for extreme environments (islands, deserts)
- 1.5× overload for 10s
- Ultra-fast dispatching: ≤15ms

Extensive Use

- Supports multi-device parallel operation
- VSG upgrade for microgrid
- Suitable for FFR, FCR, FCAS applications

Safety & Compatibility

- Global certifications
- Supports both air/liquid cooling
- Seamless on/off-grid operation with external switch

SPEC SHEET

	MODEL NAME	PWS1-160M-H-EX	PWS1-160M-H-NA
UTILITY- INTERACTIVE MODE	Nominal Power	160 kVA	160 kVA
	AC Voltage	400 (-15%~15%) Vac	480 (-15%~15%) Vac
	DC Voltage Range	720 V~1500 V, > 1200 V derating to 90%	850 V~1500 V, >1200V derating to 90%
	AC Current	231A	193A
	DC Max Current @NP	230A	195A
	AC Connection	3P4W/3P3W	
	AC Frequency	50/60 (-2.5~2.5) Hz	
	THDi	≤ 3%	
	Voltage Ripple Coefficient	≤ 1%	
	AC PF	-1~1	
	AC Overload Capacity	176 kVA (1.1 times long-term / 1.5 times for 10s overload)	
STAND-ALONE MODE	Nominal Power	160 kVA	160 kVA
	AC Voltage	400 (-10%~15%) Vac	480 (-10%~15%) Vac
	DC Voltage Range	720 V~1500 V, >1200V derating to 90%	850 V~1500 V, >1200V derating to 90%
	AC Current	231A	193A
	DC Max Current @NP	230A	195A
	AC Connection	3P4W	
	AC Frequency	50/60 (-2.5~2.5) Hz	
	AC PF	-1~1	
	AC Overload Capacity	176 kVA (1.1 times long-term / 1.5 times for 10s overload)	
SYSTEM PARAMETERS	Maximum Efficiency	98.5% (External auxiliary source)	
	Dimensions (width × height × depth)	893mm × 290mm × 1080mm 893mm × 290mm × 900mm (Excluding handles and terminals)	
	Noise	75 dB @1m Vertical installation	
	Enclosure	IP 66	
	Weight	135 kg	
	Operation Temperature	-25°C ~60°C (>50°C derating)	
	Cooling	Forced air cooling	
	Operation Humidity	0~100% (no condensation)	
	Operation Altitude	3000m (> 3000m derating)	
	Installation Method	Flat / Vertical / Wall-mounted installation	
	Certification	EN50549-1 / EN50549-2 / UL1741 & IEEE1547 / IEC62477 / IEC61000 / FCC	
COMMUNICATION	Communication	RS 485, Ethernet, CAN	
	Communication Protocol	Modbus TCP/RTU, CAN2.0	

C&I PCS Series

PWS1-1200 / 1500 / 1725KTL-H-NA



KEY FEATURES

Flexible Configuration

- Modular design with up to 8 modules
- Direct interconnection: 480 / 600 / 690 Vac
- Power range: 125kW – 1.72MW

High Efficiency & Stability

- Max efficiency: 98.5% @ DC 1070V
- Multi-string technology for improved battery safety & performance

Extensive Use

- Peak shaving and load shifting strategy (automatic)
- Outdoor-rated cabinet (NEMA3R)

Safety & Compatibility

- < 20ms fast response time
- Built-in grid-support functions
- Globally certified & listed

SPEC SHEET

MODEL NAME		PWS1-1200KTL-H-NA	PWS1-1500KTL-H-NA	PWS1-1725KTL-H-NA
AC PARAMETERS	Nominal AC power	1200kVA	1500kVA	1725kVA
	AC connection	3P3W		
	Overload Capability	100%~110% 2min		
	AC voltage	480V(-15%~10%)V	600(-15%~10%)V	690(-15%~10%)V
	AC frequency	50/60(-5~5)Hz		
	THDi	≤3%		
	AC PF	0.99/-1~1		
DC PARAMETERS	Max DC power	1320kW	1650kW	1897kW
	Voltage range	700~1500V	900~1500V	1000~1500V
	Full power voltage range	770~1500V	940~1500V	1070~1500V
	Number of DC branches	1/8	1/8	1/8
	Maximum DC current each branch	1558A/194A	1595A/199A	1612A/201A
	Voltage regulation accuracy	≤±1%		
	Current regulation accuracy	≤±1%		
SYSTEM PARAMETERS	Peak efficiency	98.5%		
	Size (W*H*D)	2200*2160*1300mm		
	Weight	Cabinet 1400kg + Module 100kg*n (n=1,2,...,8)		
	Noise	<75dB		
	Enclosure	IP54/NEMA3R		
	Operating temp.	-20°C to 60°C (De-rating over 50°C)		
	Cooling	Air cooling		
	Humidity	0~100%(No condensing)		
	Max elevation	3000m / 10000feet (> 3000m / 10000feet derating)		
	Certification	690Vac: IEEE1547, UL1741, UL1741SB, CSA C22.2, FCC		
COMMUNICATION	Communication	RS 485, Ethernet, CAN		
	Protocol	Modbus TCP/RTU, IEC104, IEC61850		

C&I UPQC Series

UPQC-50 ~ 600kVA



KEY FEATURES

Modular Design

- Scalable from 50kVA to 600kVA
- Modular stacking in 50kVA increments

User-Friendly Interface

- 12-inch full-color touch screen
- Intuitive UI for easy operation

High Reliability

- Dual-controller redundancy for enhanced stability
- Hot-swappable modules for easy maintenance and minimal downtime

Connectivity & Smart Control

- Optional 4G IoT module for remote monitoring and management
- Supports peak shaving, valley filling, and frequency regulation

Key Application Value

- Stable, high-quality power supply
- Suitable for industrial & commercial power management
- Smart energy flow optimization in dynamic load environments

SPEC SHEET

MODEL NAME		50 UPQC	100 UPQC	200 UPQC	300 UPQC	400 UPQC	500 UPQC	600 UPQC
AC PARAMETERS	Rated AC Power	50kVA	100kVA	200kVA	300kVA	400kVA	500kVA	600kVA
	AC Connection	Three-phase three-wire						
	AC Overload Capacity	125% continuous(ambient ≤40°C), 125%~200% for up to 5 min						
	AC Input	380/400/415Vac±25%						
	AC Output	380/400/415Vac						
	Frequency	50/60Hz						
	THDi	≤ 3%						
	AC PF	1						
DC PARAMETERS	DC Voltage Range	300-710Vdc						
	Number of DC Input	1 input						
	Voltage Accuracy	±1%						
	Current Accuracy	±1%						
SYSTEM PARAMETERS	Efficiency	Up to 99% in off-grid mode ; Up to 97% in UPS mode						
	Max. Parallel Units	4 units						
	Grid Disconnection Switching Time	Typical value : 2ms						
	Voltage Regulation	0-130% gradual adjustment, switching time typical 2ms						
	Harmonic Compensation	Compensates 3rd/5th/7th/9th harmonics						
	Reactive Compensation	0-100%						
	Dimensions (WxDxH)	600 × 840 × 1130mm		600 × 833 × 2100mm		1200 × 965 × 2100mm		
	Weight	192kg	224kg	439kg	503kg	965kg	1020kg	1084kg
	Noise	60-75dB						
	Enclosure	IP21 (customizable to IP54)						
	Permissible Ambient Temp.	-10°C ~ +40°C (operating) ; -40°C ~ +70°C (storage)						
	Cooling Method	Air Cooling						
	Relative Humidity	5% - 95%, non-condensing						
	Permissible Altitude	≤1000m; for altitudes above 1000m, refer to IEC62040-3 derating standard. For every additional 100m, reduce power by 1%; up to 4000m						
COMMUNICATION	Communication	RS485, Ethernet, CAN, dry contact, IoT module, cloud platform						
	Protocol	Modbus RTU, TCP/IP						
	BMS Access	Supported						

Clean Power, Bright Tomorrow





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