C&I ESS

POWER MANAGER



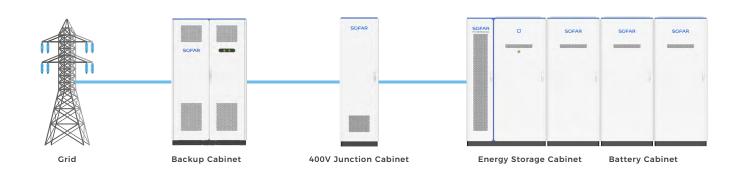
C&I ESS -PowerMagic - AC 400V

Efficient & Flexible

Lower LCOS

Ultimate safety

Smart Management



Lower LCOS

All-in-one design, High energy density Plug-and-play design, quick installation & less cost

Efficient & Flexible

ection

Modular design supports parallel connection and easy system expansion

Grid-On/Off auto-switch function, easy O&M

Ultimate Safety

3+2 protection design enables ultimate safety Electricity and liquid separation reduces system risks

Smart Management

Integrated EMS enables multi-scenario energy management

Fast state monitoring and faults record enables pre-alarm and faults locating

Energy Storage Cabinet



- · Modular design, flexible system expansion
- · Grid-on/off auto-switch
- · Electrical cables and liquid pipes separated design
- · 3 Level FSS+ Flammable gas emission & Explosion vents
- · Liquid cooling + Anti-condensation design
- · Multi-function EMS integrated



Model	ESS-258kLA-SA1	ESS-215kLA-SA1	
DC Side			
Battery type	LFP/2	80Ah	
Rated energy	258kWh (6Pack) 215kWh (5Pack)		
Rated Voltage	921.6V	768V	
DC operating voltage range	734.4V~1036.8V DC	612V~864V DC	
Recommend DC voltage range	777.6V~1022.4V DC	648V~852V DC	
AC side			
AC Voltage	400	V AC	
Rated power	125	125kW	
Maximum AC power	138kW		
Maximum AC current	198A		
Rated grid frequency	50Hz/60Hz		
Power factor	-1~1		
System Parameters			
Operating ambient temperature	-30℃~50℃ (Derating above 45℃)		
Storage ambient temperature	-30℃~60℃		
Operating relative humidity	0~100% (No condensation)		
Cooling type	Liquid cooling		
Fire suppression	1.Battery cell level (perfluorohexanone) 2.Canibet level (perfluorohexanone or aerosol) 3. Water fire suppression		
System configuration	AC side: Maximum 6 Energy storage cabinets in parallel DC side: Maximum 3 Battery cabinets per Energy storage cabinet		
Grid-On/Off	Auto-switch (With backup cabinet)		
Cabinet connection	Plug-in connector		
Dimension(W×D×H)	1450×1350×2200mm		
Weight	< 2.8T	<2.5T	
Ingress protection rating	IP	55	
Anti-corrosion	C4 (C5 c	pptional)	
SPD	AC: type II		
Operating altitude	≤4000m (Derating above 2000m)		
Noise level	≤60dB		
Installation	Ground mounting		
Communication interface	Ethernet, Dry connect		
Standard	IEC/EN 61000-6-2/4 , IEC62477-1 , I	EC62619, UN38.3, UL9540A, UL197	

^{*} All specifications are subject to change without notice.

Battery Cabinet



- · Modular design, flexible system expansion
- · Electrical cables and liquid pipes separated design
- · 3 Level FSS + Flammable gas emission & Explosion vents
- · Liquid cooling + Anti-condensation design



Model	ESS-258kLA-BD1	ESS-215kLA-BD1	
Battery type	LFP/280Ah		
Rated energy	258kWh (6Pack)	215kWh (5Pack)	
Rated Voltage	921.6V	768V	
DC operating voltage range	734.4V~1036.8V DC	612V~864V DC	
Recommend DC voltage range	777.6V~1022.4V DC	648V~852V DC	
Operating ambient temperature	-30°C~50°C (Derating above 45°C)		
Storage ambient temperature	-30℃~60℃		
Operating relative humidity	0~100% (No condensation)		
Cooling type	Liquid cooling		
Fire suppression	1.Battery cell level (perfluorohexanone) 2.Canibet level (perfluorohexanone or aerosol) 3. Water fire suppression		
Communication interface	CAN, RS	CAN, RS485	
Cabinet connection	Plug-in connector		
Dimension(W×D×H)	1000×1350×2200mm		
Weight	< 2.5T	< 2.2T	
Ingress protection rating	IP55	IP55	
Anti-corrosion	C4 (C5 optional)		
Operating altitude	≤4000m (Derating above 2000m)		
Installation	Ground mounting		
Standard	IEC62619, UN38.3, UL9540A, UL1973		

^{*} All specifications are subject to change without notice.

400V Junction Cabinet



- · Non-Walk-In design with less footprint
- · Easy installation and O&M
- · Support installation against wall
- · Maximum 6 Energy Storage Cabinets in Parallel



Model	PAC-750K-H1	
Input side		
Rated operating voltage	400V AC, Three-phase four-wire	
Rated current	6×180A (max 6 cabinets in parallel)	
Maximum current	Max 1188A	
Rated input power	6×125kW	
System Parameters		
Operating ambient temperature	-30°C~50°C (Derating above 45°C)	
Storage ambient temperature	-30℃~60℃	
Relative humidity	0~100% (No condensation)	
Maximum operating altitude	≤2000m (Customized if above)	
Ingress protection rating	IP55	
Anti-corrosion	C4 (C5 optional)	
Wire inlet & outlet	Bottom inlet, bottom outlet	
Dimension(W×D×H)	700×700×2182mm	
Weight	< 300kg	
Installation	Ground mounting	
Standard	IEC/EN 61439-2	

^{*} All specifications are subject to change without notice.

Backup Cabinet



- · Grid-on/off auto-switch
- · Pre-assembled design, less on-site renovation
- · Easy installation and O&M



Model	PAC-750K-W1	
Rated voltage	400V AC	
Rated current	2160A	
Rated frequency	50Hz/60Hz	
Grid-On/Off	Auto-switch	
Ingress protection rating	Enclosure IP4X, Internal cubicle IP2X (indoor installation)	
Operating ambient temperature	-15℃~40℃ (indoor installation)	
Storage ambient temperature	-30℃~60℃	
Dimension(W×D×H)	1300x800×2200mm	
Maximum operating altitude	≤4000 (Standard ≤ 2000m, customized above 2000m)	
Communication interface	RS485	
Standard	IEC/EN 61439-2	

 $[\]ensuremath{^*}$ All specifications are subject to change without notice.

EBI 125K-R



OPERATE OF STREET OF STRE

High Yield

- · Advanced three-level technology, max. efficiency 98.3%
- · Effective forced air cooling, no derating up to 45°C
- · Rack level management, more battery usable energy

Flexible & Reliable

- · Bidirectional power conversion system with full fourquadrant operation
- · Modular design, easy for design & maintenance
- · IP66 protection degree, suitable for outdoor installation

Grid Support

- · Compliant with CE, IEC 62477 and grid regulations
- · L/HVRT, Fast active/reactive power response



Maximum DC Voltage DC Voltage Working Range DC Voltage Full-power Working Rage ESSURE (Crid-on) Rated AC Power Rated AC Power Rated AC Active Power Maximum AC Active Power Rated AC Current Rated AC Current Maximum AC Active Power Rated AC Current Rated Grid Voltage Rated Grid Voltage Rated Grid Voltage Rated Grid Frequency So/660 Hz Crid Frequency Range Rated Grid Frequency So/650 Hz Crid Frequency Range Rated Grid Frequency So/560 Hz Crid Frequency Range Rated Grid Frequency So/560 Hz Crid Frequency Range Rated Grid Frequency So/560 Hz Crid Frequency Range Rated Frequency So/560 Hz Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature -\$\$T-60T, >45T defauting Relative Humidity O-100%, no condensation Noise level -\$75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Conmunication port CAN, R\$495, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W-H-D) 740-265*850mm (without terminals)	Model	EBI 125K-R
DC Voltage Working Range 600-1200 V DC Voltage Full-power Working Rage 650-1100 V Maximum DC Current 220A AC Side (Grid-on) Rated AC Power 125 kW Maximum AC Active Power 138 kW Maximum AC Apparent Power 138 kW Maximum AC Apparent Power 138 kW Maximum AC Apparent Power 138 kVA Rated AC Current 180 A Maximum AC Current 198 A Rated Grid Voltage 400V 3W+PE Crid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Crid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) <3% System Parameters Working Temperature -35 \(\tilde{C} - \tilde{C} \	DC Side	
DC Voltage Full-power Working Rage 650-1100 V Maximum DC Current 220A AC Side (Grid-on) Rated AC Power 125 kW Maximum AC Active Power 138 kW Maximum AC Apparent Power 138 kVA Rated AC Current 180 A Maximum AC Current 198 A Rated Grid Voltage 400V 3W+PE Grid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Grid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) 3% System Parameters -35℃-60℃,>45℃ derating Relative Humidity 0-100%, no condensation Noise level -75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, R\$485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W*H*D) 740-265*850mm (without terminals)	Maximum DC Voltage	1200 V
Maximum DC Current AC Side (Grid-on) Rated AC Power Rated AC Power 125 kW Maximum AC Active Power 138 kW Maximum AC Apparent Power 138 kVA Rated AC Current 180 A Maximum AC Current 198 A Rated Grid Voltage 400V 3W+PE Crid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Crid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature -35°C-60°C, >45°C derating Poper selevel -75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Communication port CAN, R\$485, Ethernet Degree of Protection Mechanical Parameters Dimensions (W+H+D) 740-265*850mm (without terminals)	DC Voltage Working Range	600~1200 V
AC Side (Grid-on) Rated AC Power 125 kW Maximum AC Active Power 138 kW Maximum AC Apparent Power 138 kVA Rated AC Current 180 A Maximum AC Current 198 A Rated Grid Voltage 400V 3W+PE Crid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Crid Frequency So/60 Hz Crid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature -35°C-60°C, >45°C derating PD DC: type II, AC: type II Maximum Working Altitude A000m, >2000m derating Communication port CAN, RS485, Ethernet Degree of Protection Mechanical Parameters Dimensions (W+H+D) 740-265-850mm (without terminals)	DC Voltage Full-power Working Rage	650~1100 V
Rated AC Power 125 kW Maximum AC Active Power 138 kW Maximum AC Apparent Power 138 kVA Rated AC Current 180 A Maximum AC Current 198 A Rated Grid Voltage 400V 3W+PE Grid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Grid Frequency Sol/60 Hz Grid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature Relative Humidity 0-100%, no condensation Noise level 475 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Communication port CAN, RS485, Ethernet Degree of Protection Mechanical Parameters Dimensions (W+H+D) 740-265-850mm (without terminals)	Maximum DC Current	220A
Maximum AC Active Power Maximum AC Apparent Power Rated AC Current Maximum AC Current Rated Grid Voltage Grid Voltage Grid Voltage Range Grid Frequency Grid Frequency Grid Frequency Grid Frequency Grid Frequency Factor Grid Frequency Factor Grid Frequency System Parameters Working Temperature Felative Humidity Degree of Protection Maximum Working Altitude Communication port Communication port Degree of Protection Mechanical Parameters 138 kW 138 kW 138 kVA 180 k 180 A 190	AC Side (Grid-on)	
Maximum AC Apparent Power Rated AC Current 180 A Maximum AC Current 198 A Rated Grid Voltage 400V 3W+PE Grid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Grid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature Relative Humidity 0-100%, no condensation Noise level 575 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Communication port CAN, RS485, Ethernet Degree of Protection Mechanical Parameters Dimensions (W*H*D) 740*265*850mm (without terminals)	Rated AC Power	125 kW
Rated AC Current Maximum AC Current 180 A Rated Grid Voltage 400V 3W+PE Grid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Grid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature -35°C-60°C, >45°C derating Relative Humidity 0-100%, no condensation Noise level -75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W*H*D) 740*265*850mm (without terminals)	Maximum AC Active Power	138 kW
Maximum AC Current Rated Grid Voltage 400V 3W+PE Grid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Grid Frequency Range 45-55Hz/55-65Hz Power Factor Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature -35°C-60°C, >45°C derating Relative Humidity 0-100%, no condensation Noise level 575 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Conmunication port CAN, RS485. Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Maximum AC Apparent Power	138 kVA
Rated Grid Voltage Grid Voltage Range Grid Voltage Range Grid Frequency So/60 Hz Grid Frequency Range Grid Frequency Range Grid Frequency Range Factor Grid Frequency Range Factor Gurrent Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature Felative Humidity Grid Frequency Range Felative Humidity Frequency Range Felative Humidity Frequency Range Frequency Range Frequency Range Frequency Range Frequency Range Frequency Frequen	Rated AC Current	180 A
Grid Voltage Range 340-440V Rated Grid Frequency 50/60 Hz Crid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) <3% System Parameters Working Temperature -35°C-60°C, >45°C derating Relative Humidity 0-100%, no condensation Noise level <75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Maximum AC Current	198 A
Rated Grid Frequency Grid Frequency Range 45-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature Relative Humidity O-100%, no condensation Noise level 775 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Rated Grid Voltage	400V 3W+PE
Crid Frequency Range A5-55Hz/55-65Hz Power Factor -1-1 Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature -35°C-60°C, >45°C derating Relative Humidity 0-100%, no condensation Noise level <75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Grid Voltage Range	340~440V
Power Factor -11 Current Total Harmonic Distortion (@Rated Power) -3% System Parameters Working Temperature -35°C-60°C, >45°C derating Relative Humidity 0-100%, no condensation Noise level -75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Rated Grid Frequency	50/60 Hz
Current Total Harmonic Distortion (@Rated Power) System Parameters Working Temperature -35°C-60°C, >45°C derating Relative Humidity 0-100%, no condensation Noise level <75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Grid Frequency Range	45~55Hz/55~65Hz
Working Temperature -35℃-60℃, >45℃ derating Relative Humidity 0-100%, no condensation Noise level SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Power Factor	-1~1
Working Temperature -35°C-60°C, >45°C derating 0~100%, no condensation Noise level SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Current Total Harmonic Distortion (@Rated Power)	<3%
Relative Humidity O-100%, no condensation Noise level SPD DC: type II, AC: type II Maximum Working Altitude Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	System Parameters	
Noise level <75 dB SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Working Temperature	-35℃~60℃, >45℃ derating
SPD DC: type II, AC: type II Maximum Working Altitude 4000m, >2000m derating Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Relative Humidity	0~100%, no condensation
Maximum Working Altitude Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Noise level	<75 dB
Cooling method Temperature controlled forced air cooling Communication port CAN, RS485, Ethernet Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	SPD	DC: type II, AC: type II
Communication port Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Maximum Working Altitude	4000m, >2000m derating
Degree of Protection IP66 Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Cooling method	Temperature controlled forced air cooling
Mechanical Parameters Dimensions (W×H×D) 740×265×850mm (without terminals)	Communication port	CAN, RS485, Ethernet
Dimensions (W×H×D) 740×265×850mm (without terminals)	Degree of Protection	IP66
	Mechanical Parameters	
Weight <93 kg	Dimensions (W×H×D)	740×265×850mm (without terminals)
	Weight	<93 kg

^{*} All specifications are subject to change without notice.

EBI 125K-R-G2





OPERATE STATE OF STA

High Yield

- Advanced three-level topology, max. effciency 98.8%
- Smart air cooling design, no derating up to 50°C
- BPU and BCU integrated to save system cost
- 3P4W output in off-grid mode, support single phase load w/o isolation transformer

Grid Support

- Support active and reactive power response with fourquadrant operation
- · Power response time less than 30ms
- · HVRT/LVRT to support the grid

Flexible & Reliable

- IP66 protection degree, suitable for outdoor installation
- With intelligent control algorithm, support parallel operation and flexible capacity



Model	EBI 125K-R-G2	
DC Side		
Maximum DC voltage	950V	
DC voltage working range	600-950V	
DC voltage full-power working range	650-950 V	
Maximum DC current	217A	
BPU integration (W/ BPU)	BCU, DC load switch, DC relays, Hall sensors integrated	
AC Side (Grid-tied)		
Rated AC active power	125kW	
Maximum AC active power	138kW	
Maximum AC apparent power	138kVA	
Rated AC current	180A	
Maximum AC current	198A	
Rated grid voltage	400V, 3P+N	
Grid voltage range	323~460V	
Rated grid frequency	50/60 Hz	
Grid frequency range	45-55Hz/55-65Hz	
Power factor	-1~1, adjustable	
Current THD	<1.5% @Rated Power	
AC Side (Off-grid)		
Rated output power	125kVA	
Maximum output power	138kVA	
Rated output current	180A	
Maximum output current	198A	
Rated output voltage	230/400V, 3P+N	
Rated output frequency	50/60Hz	
Unbalanced load capability	100% unbalanced load	
Power factor	0.8-1, leading or lagging	
Overload capacity	120%,1min; 150%, 10s, 160%, 2s @35°C	
System Characteristics		
Working temperature	-35°C ~ 60°C, >50°C derating	
Relative humidity	0~100%, no condensation	
Noise level	<68dB @1m, 25°C , full-power	
SPD	DC: type II, AC: type II	
Maximum working altitude	4000m, >2000m derating	
Cooling method	Smart forced air cooling	
Communication port	CAN, RS485, Ethernet	
Ingress protection	IP66	
General Data		
Dimensions (W×H×D)	740×265×850 mm (without terminals and switch handle)	
Weight	<98 kg	

^{*} All specifications are subject to change without notice.