SOFAR

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Fișă tehnică Sofar Power Magic Energy Storage Cabinet 215 kWh S1

C&I ESS-**PowerMagic**

SOFAR INTRODUCTION

SOFAR is a global leading supplier of solar PV and energy storage solutions and committed to be the leader of digital energy solutions. SOFAR supports the transition to renewable energy through a comprehensive portfolio including PV inverters range from 1 kW to 255 kW, hybrid inverters range from 3 kW to 20 kW, battery storage system and smart energy management solutions for residential, commercial & industrial. and utility -scale applications.

Founded in 2013, SOFAR has always insisted on independent innovation and established a global R&D network with three R&D centers. Over 300 employees of its workforce is assigned to R&D, ensuring continuous innovation in order to remain a pioneer in the PV and energy storage industry.

SOFAR has implemented a globalization strategy since its establishment and now has two global manufacturing bases with an annual production capacity of l O GW PV and storage inverters, and l GWh batteries. Its extensive service network contains over 20 branch offices worldwide. SOFAR offices can now be found in the UK, Poland, Germany, South Korea, UAE, Pakistan, Australia, etc. By the end of 2021, SOFAR had shipped over l million inverters to more than 90 countries.

As the world's fastest-growing solar energy brand. SOFAR stands firmly among the mainstream solar energy brands with a compound annual growth rate of 86% from 2019 till 2021.SOFAR has received many awards for its state-of-the-art solutions. including the China "CQC" certification. the Chinese Top 5 String Inverter Brand, and the TOP 5 Global Hybrid Inverter Manufacturer. SOFAR has also been entitled by Eu PD as TOP Brand PV Inverter in India, Poland, the U.K., Italy and Brazil.

Looking forward, SOFAR believes technology drives the green energy transition. Through independent. continuous innovation and state-of-the-art PV solar and energy storage solutions, SOFAR aims to play a key role in this global transition.

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

Modular design supports parallel connection and easy system expansion
Grid-On/Off auto-switch function, easy O&M

Ultimate Safety

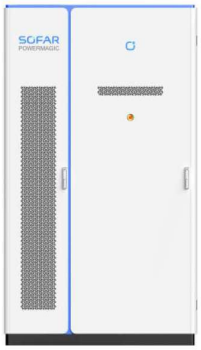
3+2 protection design enables ultimate safety
Electricity and liquid separation reduces system risks

Smart Management

Integrated EMS enables multi-scenario energy management
Fast state monitoring and faults record enables pre-alarm and faults locating

Energy Storage Cabinet

SOFAR



Product Advantages

- 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-344kLA-SA1EU	ESS-258kLA-SA1EU	ESS-215kLA-SA1EU
DC side			
Battery type	LFP/280Ah		
Rated energy	344kWh（8Pack）	258kWh（6Pack）	215kWh（5Pack）
Rated Voltage	1228.8V	921.6V	768V
DC operating voltage range	979.2V~1382.4V DC	734.4V~1036.8V DC	612V~864V DC
Recommend DC voltage range	1030~1382.4V DC	734.4V~1036.8V DC	680V~864V DC
C rate/D rate	≤0.6D	≤0.5D	≤0.5D
AC side			
AC Voltage	690V AC	400V AC	
Rated power	215kW	125kW	
Maximum AC power	237kW	138kW	
Maximum AC current	198A	198A	
Rated grid frequency	50Hz/60Hz	50Hz/60Hz	
Power factor	-1~1	-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 suppression pipes		
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		
Cabinet connection	Plug-in connector		
Dimension(W*D*H)	1450*1350*2550mm	1450*1350*2320mm	
Weight	<3.5T	<2.8T	<2.5T
Ingress protection rating	IP55		
Anti-corrosion	C3(C4/C5 optional)		
Operating altitude	≤4000m(Derating above 2000m)		
Installation	Ground mounting		
Communication interface	Ethernet, Dry connect		
Standard	IEC/EN 61000-6-2/4 , IEC62477-1 , IEC62619, UN38.3, UL9540A, UL1973		

* All specifications are subject to change without notice.

Battery Cabinet

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Product Advantages

- 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-344kLA-BD1EU	ESS-258kLA-BD1EU	ESS-215kLA-BD1EU
Battery type	LFP/280Ah		
Rated energy	344kWh（8Pack）	258kWh（6Pack）	215kWh（5Pack）
Rated Voltage	1228.8V	921.6V	768V
DC operating voltage range	979.2V~1382.4V DC	734.4V~1036.8V DC	612V~864V DC
Recommend DC voltage range	1030~1382.4V DC	734.4V~1036.8V DC	680V~864V DC
C-rate/P-rate	≤0.6P	≤0.5P	≤0.5P
Operating ambient temperature	-30℃~50℃		
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 suppression pipes		
Communication interface	CAN、RS485		
Cabinet connection	Plug-in connector		
Dimension(W*D*H)	1000*1350*2550mm	1000*1350*2320mm	
Weight	<3.2T	<2.5T	<2.2T
Ingress protection rating	IP55		
Anti-corrosion	C3(C4/C5optional)		
Operating altitude	≤4000m(Derating above 2000m)		
Installation	Ground mounting		
Standard	IEC62619, UN38.3, UL9540A, UL1973		

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Transformer Cabinet



Product Advantages

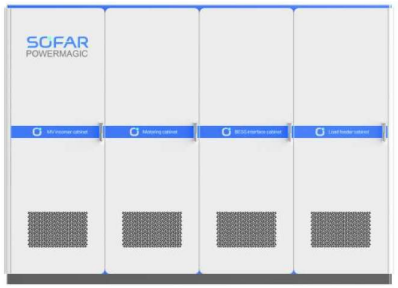
- Non-Walk-In design with less footprint
- Full isolation of high and low voltage
- Easy installation and O&M
- Support installation against wall



Model	PAC-1M29-T1EU
	LV side
Rated operating voltage	690V AC, Three-phase three-wire
Rated icurrent	6*180A (max 6 in parallel)
Maximum current	Max 1188A
Rated input power	1290kW(max 6 in parallel)
	MV side
Rated operating voltage	10kV/20kV/33kV etc., Three-phase three-wire
Rated output current	75A @ 10kV
Rated output power	1290kW
Maximum output power	Max 1419kW
	System Parameters
Operating ambient temperature	-30℃～50℃（Derating above 45℃）
Storage ambient temperature	-30℃～60℃
Relative humidity	0～100%(No condensation)
Maximum operating altitude	≤2000m(Customized if above)
Ingress protection rating	IP55
Anti-corrosion	C3(C4/C5 optional)
Rated frequency	50Hz/60Hz
Wire inlet & outlet	Bottom inlet, bottom outlet
Dimension(W*D*H)	2750*2000*2550mm
Weight	<6.8T
Installation	Ground mounting
Standard	CE,IEC/EN 62271-202:2014

* All specifications are subject to change without notice.

MV Backup Cabinet



Product Advantages

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



Model	PAC-2M58-W1EU
Rated voltage	10kV/20kV/33kV etc.
Rated current	150A @ 10kV
Rated frequency	50Hz/60Hz
Grid-On/Off	Auto-switch
Ingress protection rating	Enclosure IP4X，Internal cubicle IP2X
Operating ambient temperature	-15℃～+40℃(indoor installation)
Storage ambient temperature	30℃～+60℃
Dimension(W*D*H)	MV incomer cabinet 800* 500*2300(Grid connection) Metering cabinet 800* 1500*2300(Metering point) BESS interface cabinet 800* 1500*2300(For BESS) Load feeder cabinet 800* 1500*2300(For 10kV load)
Operating altitude	≤4000(Standard ≤ 1500m，customized above 1500m)
Communication interface	RS485
Standard	CE,IEC/EN 62271-202:2014

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