

SOFAR



C&I ESS
PowerMagic

SOFAR

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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 1.0 GW PV and storage inverters, and 1 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 1 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.

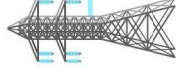
C&I ESS-PowerMagic

Efficient & Flexible

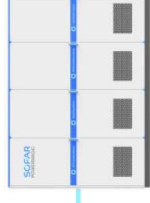
Lower LCOS

Ultimate safety

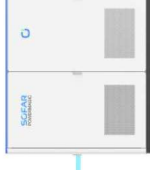
Smart Management



Grid



MV Backup Cabinet



Transformer Cabinet



Energy Storage Cabinet Battery Cabinet

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

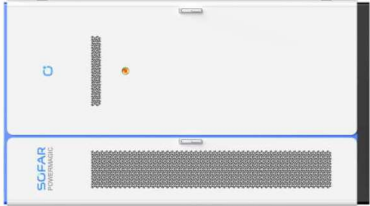
Ultimate Safety

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



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/P rate				≤0.6P	≤0.5P	≤0.5P
				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



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				

* All specifications are subject to change without notice.

Transformer Cabinet



Product Advantages

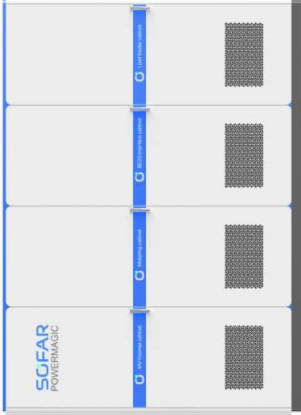
- Non-Walk-In design with less footprint
- Full isolation of high and low voltage
- Easy installation and O&M
- Support installation against wall



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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