

ESSF Series

Inverter outdoor cabinet



Areas without electricity






Remote rural area



Model	ESSF0030A	ESSF0030B	ESSF0050A	ESSF0050B	ESSF0100A	ESSF0150A
Converter (AC)						
Converter model	MEGA0030TS	MPS0030	MEGA0050TS	MPS0050	MEGA0100TS	MEGA0150TS
Rated power (kW)	30		50		100	150
Active power (kW)	30		50		100	150
Rated voltage (V)			400			
Rated current (A)	43		72		144	216
Voltage range (V)			320-460			
Rated frequency (Hz)			50/60			
Frequency range (Hz)			45-55/55-65			
THDi (on-grid)			<3%			
THDu (off-grid)			≤1% linear; ≤5% nonlinear			
Power factor			1leading~1lagging(settable)			
Overload capability			110% long-term			
Grid type			3-phase 4-wire + ground (3W+N+PE)			
Isolation transformer			Yes			
On / off-grid switching			Support			
MPPT						
Max. PV input voltage (V)	/	1,000	/	1,000	/	/
Max. PV power (kW)	/	36/72	/	60/120	/	/
MPPT operating voltage range (V)	/	250~850	/	250~850	/	/
Buck-boost mode	/	Support	/	Support	/	/
General						
Structure type			Two cabin outdoor cabinet			
Dimensions W *D *H (mm)			1,600*1,370*2,385			
Net weight(Includes converter)(kg)	≈1,690	≈1,720	≈1,800	≈1,830	≈2,090	≈2,190
Operating temperature (°C)			0 ~ +45			
Relative humidity			0 ~95% (non-condensing)			
Ingress protection			IP54			
Anti-corrosion grade			C4M			
Noise emission (dB)			<75			
Max. operating altitude (m)			5,000m(>3,000 derating)			
Cooling			Air cooling			
Display			7" device display +10" EMS display +10" BMS display (configurable)			
EMS communication			RS485, TCP/IP			

KEY STRENGTHS

- Anti-corrosion grade: C4M , Protection grade: IP54.
- Split design, compatible with lithium and lead-acid batteries, etc., matching mainstream BMS communication protocols, and free combination.
- External optional air-cooled/liquid-cooled battery system, supporting up to 8 strings of 0.5C/1C battery systems connected at the same time (1-8 strings optional).
- Flexible configuration of UPS capacity and AC auxiliary power supply according to external power supply requirements of different battery systems.
- Self-developed EMS, adopts a three-tier IoT architecture and is integrated with router cloud technology, realize the intelligent operation of energy storage system and improve the economic efficiency of the system.
- Supports multiple modes including dynamic capacity expansion, steady-state capacity expansion, peak-valley arbitrage, and self-consumption.
- MPS/PCS equipment supports multi-machine parallel connection.
- Support forklift/crane loading and unloading.

		
ESSF0030A / ESSF0030B / ESSF0050A / ESSF0050B ESSF0100A / ESSF0150A	ESSF0100B / ESSF0150B / ESSF0250A	ESSF0250B

Model	ESSF0100B	ESSF0150B	ESSF0250A	ESSF0250B
Converter (AC)				
Converter model	MPS0100	MPS0150	MEGA0250TS	MPS0250
Rated power (kW)	100	150	250	
Active power (kW)	100	150	250	
Rated voltage (V)	400			
Rated current (A)	144	216	361	
Voltage range (V)	320-460			
Rated frequency (Hz)	50/60			
Frequency range (Hz)	45-55 / 55-65			
THDi (on-grid)	< 3%			
THDu (off-grid)	≤1% linear; ≤5% nonlinear			
Power factor	1leading~1lagging(settable)			
Overload capability	110% long-term			
Grid type	3-phase 4-wire + ground (3W+N+PE)			
Isolation transformer	Yes			
On / off-grid switching	Support			
MPPT				
Max. PV input voltage (V)	1,000	1,000	/	1,000
Max. PV power (kW)	120/180/240	120/180/240	/	300/360
MPPT operating voltage range (V)	250~850	250~850	/	250~850
Buck-boost mode	Support	Support	/	Support
General				
Structure type	Two cabin outdoor cabinet			Three cabin outdoor cabinet
Dimensions W*D*H (mm)	2,000*1,370*2,385			2,735*1,370*2,385
Net weight(Includes converter) (kg)	≈2,150	≈2,250	≈2,650	≈3,250
Operating temperature (°C)	0 ~ +45			
Relative humidity	0 ~95% (non-condensing)			
Ingress protection	IP54			
Anti-corrosion grade	C4M			
Noise emission (dB)	<75			
Max. operating altitude (m)	5,000(>3,000 derating)			
Cooling	Air cooling			
Display	7" device display +10" EMS display +10" BMS display (configurable)			
EMS communication	RS485, TCP/IP			