

ST250CF

Preliminary

PowerStack Modular C&I Energy Storage System



Flexible & Scalable

- 50kWh stack-based module, up to 5 stacks expandable to 250kWh
- Optional long-duration combiner box supports 2–4 clusters, expandable to 1000kWh & 8h
- Standardized design simplifies warehousing and distribution



Fast Deployment

- Pre-assembled design with simplified wiring reduces installation time
- Suitable for both new and retrofit projects, with one-click networking for rapid site deployment
- Supports mixed new & aged modules with active balancing



Safety & Reliable

- Pack-level thermal runaway protection, smoke detection and explosion relief valve
- IP66 & C5-M protection, enhanced flood resistance, withstanding 50 cm submersion for 24 hours
- Seamless off-grid transfer $\leq 10\text{ms}$ ensures load continuity



Smart O&M

- Centralized monitoring via logger with cloud-based AI optimization
- OTA upgrade and predictive diagnostics reduce maintenance costs
- Smooth integration with existing PV cables and legacy EMS



Product Name		ST250CF			
Battery Stack (1+X)		ST050CF			
Cell type	LFP 3.2 V				
Nominal capacity	49.9 kWh				
Depth of discharge (DOD)	0 % - 100 %				
Nominal voltage range	129.6 V - 175.2 V				
Nominal charge / discharge rate	0.5 P				
Weight (per stack)	≤360 kg				
Dimensions (W*H*D)	860 mm * 1500 mm * 410 mm				
System Specifications					
Auxiliary power supply	Internal power supply				
Installation method	Floor-standing				
Noise level	≤ 60 dB (A) @ 1m, 25℃				
Operation temperature range	-20 ℃ - 55 ℃				
Storage temperature range	-30 ℃ - 55 ℃				
Operation humidity range	0% ~ 100% RH, non-condensing				
Max. operation altitude	3000 m				
Degree of protection	IP66				
Anti-corrosion degree	C5-M				
Temperature control method	Forced air cooling				
Compliance & Safety					
Standard compliance	IEC62619, IEC63056, UN38.3; IEC62477-1, IEC62040, IEC61000-6-1/6-3; IEC62933-5-2, UL9540A				
Fire suppression system	Aerosol, smoke sensor and explosion relief valve				
EMC class	Class B				
Standard system configurations					
Type designation	ST050CF	ST100CF	ST150CF	ST200CF	ST250CF
Nominal capacity (*1)	49.9 kWh	99.8 kWh	149.8 kWh	199.7 kWh	249.6 kWh
Nominal voltage range	129.6 V - 175.2 V	259.2 V - 350.4 V	388.8 V - 525.6 V	518.4 V - 700.8 V	648 V - 876 V

1. The optional long-duration combiner box supports 2–4 clusters in parallel, expandable up to 1000kWh & 8h
2. Specifications are subject to change without notice. Final product specifications shall prevail

