

## ST050-250CF

### PowerKeeper Modular C&I Energy Storage System



#### Flexible & Scalable

- 12.5 kWh pack-based design supports flexible configuration up to 250 kWh per system
- Optional long-duration combiner box supports 2–4 clusters, expandable to 1000 kWh & 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 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  $\leq 10$ ms ensures load continuity



#### Smart O&M

- User-friendly monitoring via logger with cloud-based AI optimization
- OTA upgrades and predictive diagnostics reduce maintenance costs
- Smooth integration with legacy EMS and existing meter



|                                 |   |
|---------------------------------|---|
| Product Name                    | ST050-250CF   |
| Battery Stack                   | STC12.5   |
| Cell type                       | LFP 3.2 V   |
| Nominal capacity                | 12.48 kWh   |
| Depth of discharge ( DOD )      | 0 % - 100 %   |
| Nominal voltage range           | 32.4 V ~ 43.8 V   |
| Nominal charge / discharge rate | 0.5 P   |
| Weight ( per stack )            | ≤ 90 kg   |
| Dimensions ( W * H * D )        | 800 mm * 270 mm * 405 mm  |
| <b>System Specifications</b>    |   |
| Auxiliary power supply          | Internal power supply   |
| Installation method             | Floor-standing  |
| Noise level                     | ≤ 60 dB ( A ) @ 1 m, 25 °C  |
| Operation temperature range     | -20 °C ~ 55 °C  |
| Storage temperature range       | -30 °C ~ 55 °C  |
| 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  |
| <b>Compliance &amp; Safety</b>  |   |
| Standard compliance             | IEC / EN 62619, IEC / EN 63056, UN 38.3; IEC / EN62477-1, IEC / EN 62040, IEC / EN 61000-6-1 / 6-3; VDE 2510-50; IEC / EN 62933-5-2, UL 9540A |
| Fire suppression system         | Aerosol, smoke sensor and explosion relief valve  |
| EMC class                       | Class B   |

**Base configuration options**



|                               |                           |                           |                           |
|-------------------------------|---------------------------|---------------------------|---------------------------|
| Number of packs               | 3 PCS ( * )               | 4 PCS                     | 5 PCS                     |
| Stack capacity ( * )          | 37.4 kWh                  | 49.9 kWh                  | 62.4 kWh                  |
| Stack weight                  | 340 kg                    | 430 kg                    | 520 kg                    |
| Stack demension ( W * H * D ) | 800 mm * 1297 mm * 405 mm | 800 mm * 1567 mm * 405 mm | 800 mm * 1837 mm * 405 mm |

**Typical system configurations**

|                  |    |    |    |
|------------------|----|----|----|
| ST050CF 49.9kWh  |    | *1 |    |
| ST062CF 62.4kWh  |    |    | *1 |
| ST075CF 74.9kWh  | *2 |    |    |
| ST100CF 99.8kWh  |    | *2 |    |
| ST150CF 149.8kWh |    | *3 |    |
| ST200CF 199.7kWh |    | *4 |    |
| ST250CF 249.6kWh |    |    | *4 |

1. A single 3-pack stack cannot operate independently, the minimum system capacity is 49.9 kWh
2. The optional long-duration combiner box supports 2-4 clusters in parallel, expandable up to 1000 kWh & 8h
3. Optional heating element available for cold regions
4. "1+X stack ( 50kWh )" consists of four pre-assembled battery packs for integrated delivery and installation, see user manual for details
5. Specifications are subject to change without notice. Final product specifications shall prevail

