

ST6900UX-4H-HT

Preliminary

## PowerTitan 3.0 Liquid Cooled Energy Storage System



### LOWER LIFETIME LCOS

- High-efficiency stacked cell and SiC PCS, enhancing system RTE
- High energy density battery cell and high power density PCS, enhancing 20ft battery cabinet capacity increased by 33 %
- Pre-installed, pre-commissioned, one-click array configuration, one-click inspection



### SAFE AND RELIABLE

- Support high temperature operation, no derating up to 55 °C
- Thermal runaway early warning and control, lithium plating diagnosis
- ArcDefender™ energy storage DC arc detection
- Wireless-free deployment, end-to-end communication encryption



### ENHANCED GRID STABILITY

- ms-level voltage regulation, enhancing grid voltage stability
- Flexible inertia support, enhancing frequency stability
- Incremental dynamic virtual impedance, enhancing phase angle stability
- 90ms plant-level response and precise regulation, empowering high-flexibility grid



|                                                            |  |                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                                               |  | ST6900UX-4H-HT                                                                                                                                                                                                                                                                                         |
| DC side                                                    |  |                                                                                                                                                                                                                                                                                                        |
| Cell type                                                  |  | LFP                                                                                                                                                                                                                                                                                                    |
| Nominal capacity                                           |  | 6904 kWh                                                                                                                                                                                                                                                                                               |
| Nominal voltage range                                      |  | 1101.6 V ~ 1489.2 V                                                                                                                                                                                                                                                                                    |
| AC side                                                    |  |                                                                                                                                                                                                                                                                                                        |
| Nominal AC power                                           |  | 450 kVA * 4                                                                                                                                                                                                                                                                                            |
| THDi                                                       |  | < 1 % ( Nominal Power )                                                                                                                                                                                                                                                                                |
| DC component                                               |  | < 0.5 %                                                                                                                                                                                                                                                                                                |
| Nominal AC voltage                                         |  | 720 V                                                                                                                                                                                                                                                                                                  |
| AC voltage range                                           |  | 648 V ~ 792 V                                                                                                                                                                                                                                                                                          |
| Norminal AC current                                        |  | 396 A * 4                                                                                                                                                                                                                                                                                              |
| Power factor at nominal power /<br>Adjustable power factor |  | > 0.99 / 1 leading ~ 1 lagging                                                                                                                                                                                                                                                                         |
| Adjustable range of reactive power                         |  | -100 % ~ 100 %                                                                                                                                                                                                                                                                                         |
| Nominal frequency                                          |  | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                                          |
| Isolation method                                           |  | Transformerless                                                                                                                                                                                                                                                                                        |
| System parameter                                           |  |                                                                                                                                                                                                                                                                                                        |
| Dimension ( W * H * D )                                    |  | 6058 mm * 2896 mm * 2438 mm                                                                                                                                                                                                                                                                            |
| Weight                                                     |  | 55000 kg                                                                                                                                                                                                                                                                                               |
| Degree of protection                                       |  | IP55                                                                                                                                                                                                                                                                                                   |
| Anti-corrosion degree                                      |  | C4                                                                                                                                                                                                                                                                                                     |
| Operation temperature range                                |  | -10 °C ~ 55 °C                                                                                                                                                                                                                                                                                         |
| Operation humidity range                                   |  | 0 % ~ 100 %                                                                                                                                                                                                                                                                                            |
| Max. operation altitude                                    |  | 2000 m                                                                                                                                                                                                                                                                                                 |
| Temperature control method                                 |  | Intelligent Liquid Cooling                                                                                                                                                                                                                                                                             |
| Fire suppression system                                    |  | Default: FACP, Flammable gas detector, Smoke detector, Heat detector, Sounder beacon, Alarm bell, Extinguishant abort button, Manual release station, Ventilation system, Aerosol, Manual extinguishant disablement switch<br>Optional: Sprinkler, Explosion vent panel, Pressure relief port, FK 5112 |
| Communication                                              |  | Ethernet                                                                                                                                                                                                                                                                                               |
| Standard                                                   |  | UL 9540A, IEC 62619, IEC 61000-6-2, EN 55011, IEC 62933-5-2,<br>UN 38.3 / UN 3536, IEC 62477-1, IEC 62443-4-2                                                                                                                                                                                          |