TAITEN Integrated C&I Energy Storage System HDC125-510



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TAITEN HDC125-510 Integrated Liquid-Cooled C&I Energy Storage System: Lower Cost, High Efficiency, Flexibility, and Ultimate Safety

【High Efficiency】 Lower Cost, Leading Performance

- Integrated Pre-Installation: Highly integrated system with pre-installation and pre-commissioning minimizes on-site commissioning time.
- AI-Controlled Heat Saving: AI thermal-balance control reduces daily system heat loss by 33%, lowering operating costs.
- Precise Liquid-Cooling Equalization: Balanced liquid-cooled heat dissipation keeps cell temperature difference ≤ 2.5 ℃, extending battery life.
- 98.5% Ultra-High Efficiency: The DC/AC power conversion unit achieves up to 98.5% efficiency, maximizing the value of every kWh.

【Flexible Installation】 Scalable Configuration, Rapid Deployment

- Seamless Installation: Cabinets install side by side seamlessly for a smooth, attractive appearance.
- Flexible Grid Connection: Supports on-grid, off-grid, and automatic switching for diverse applications.

【Smart and Robust】 Cloud Monitoring, Intelligent O&M

- Cloud-Based Intelligent Monitoring: Real-time monitoring, alarms, and troubleshooting via the iSolarCloud App or web cloud.
- Wireless Smart O&M: Near/far-end wireless O&M with one-key remote upgrades reduces maintenance costs.

【Ultimate Safety】 Multi-Layer Protection, Risk-Free

- AI-Monitored Cell Health: AI monitors cell health in real time, providing early warning of thermal runaway.
- Three-Level Over-Current Protection: Three-level over-current protection across PACK, RACK, and PCS.
- Three-Level Fire-Prevention Design: Precise early warning of thermal runaway effectively prevents fires.

Product Name	TAITEN Integrated C&I Energy Storage System
Model	HDC125-510
DC Side Parameters	
Cell Type	Lithium Iron Phosphate (LFP) 3.2 V / 314 Ah
System Battery Configuration	256S2P
Nominal Capacity	514 kWh
Nominal Voltage Range	691.2 V ~ 934.4 V
Depth of Charge and Discharge	0 % ~ 100 %
AC Side Parameters (On-Grid)	
Nominal Power	125 kW
Nominal Voltage	400 V
Wiring Configuration	3P4L
Voltage Range	340 V ~ 440 V
Nominal Frequency	50 Hz / 60 Hz
Frequency Range	45 Hz ~ 55 Hz / 55 Hz ~ 65 Hz
Current THD	≤ 3 % (Nominal power)
DC Component	≤ 0.5 % (Nominal power)
Power Factor Range	1.0 leading ~ 1.0 lagging
AC Side Parameters (Off-Grid)	
Nominal AC Voltage	400 V
Nominal AC Frequency	50 Hz / 60 Hz
Voltage THD	3 % (Linear load)
Unbalance Load Capacity	100 %
System Parameters	
Dimensions (W × H × D)	2152 mm × 2470 mm × 1610 mm
Weight	≤ 5300 kg
Degree of Protection	IP55
Auxiliary Power Supply	Internal (Standard) / External (Optional)
Anti-corrosion Degree	C4 (Standard) / C5 (Optional)
Operation Humidity Range	0 % ~ 100 %
Operation Temperature Range	-30 ℃ ~ 50 ℃ (> 45 ℃ derating)
Max. Operating Altitude	3000 m
Temperature Control Method	Intelligent liquid cooling
Noise	≤ 65 dB @ 1 m
Fire Suppression System	Combustible gas detector, Smoke detector, Heat detector, Alarm sounder, Hot aerosol fire extinguishing equipment
Communication Interface	Ethernet
Communication Protocol	Modbus TCP
Standards	IEC 62619, IEC 63056, IEC 62040, IEC 62477, IEC 61000, IEC 62933, UN 38.3
Max. Parallel Quantity	On-Grid: 25 pcs / Off-Grid: 10 pcs

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