PowerHill (233kWh)

Factory Acceptance Test Report

V_1.0 Date 2025/07/28

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Product Model		**SN**	
Software Version		**Test Date**	

No.	Test Items	Testing Standards / Technical Requirements	Result
1	**Design and Appearance Inspection**		
1.1	**Design Inspection**	The internal wiring of the equipment shall be connected according to the wiring diagrams. The wiring must be accurate and reliable, with no reverse or incorrect connections.	☐ PASS ☐ NG
1.2	**Appearance Inspection**	Dimensions (W*D*H): 1390*1350*2380mm	☐ PASS ☐ NG
		The equipment enclosure must be free from dirt, dents, deformation and rust.	☐ PASS ☐ NG
		The equipment paint must be intact, with no scratches. The surface should be flat, clean, without oil stains, cracks, or deformation.	☐ PASS ☐ NG
		Check whether the equipment nameplate and safety labels are affixed without damage, misalignment, or peeling. The text must be clear and accurate.	☐ PASS ☐ NG
2	**Basic Functional Test**		
2.1	**Grounding Resistance**	Measure the resistance between the external grounding point and the battery cabin door, electrical cabin door, louver, and electrical grounding points. Test current: 10A, Test duration: 10s, Resistance < 100mΩ	☐ PASS ☐ NG
2.2	**Insulation Resistance and Withstand Voltage Tests**	Measure insulation resistance between battery cluster B+ and ground, and B− and ground at 1000Vdc; resistance > 10MΩ	☐ PASS ☐ NG
		Measure insulation resistance between PCS DC and AC terminals and ground at 1000Vdc; resistance > 10MΩ	☐ PASS ☐ NG
		Measure insulation resistance between MPPT low-voltage and high-voltage terminals and ground at 1000Vdc; resistance > 10MΩ (if MPPT is not configured, this item is not applicable)	☐ PASS ☐ NG
		Perform withstand voltage test between battery cluster B+ and ground, and B− and ground at 4380Vdc; leakage current < 5mA	☐ PASS ☐ NG
		Perform withstand voltage test between PCS DC and AC terminals and ground at 2120Vdc; leakage current < 5mA	☐ PASS ☐ NG

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		Perform withstand voltage test between MPPT low-voltage and high-voltage terminals and ground at 2120 Vdc; leakage current < 5mA (if MPPT is not configured, this item is not applicable)	☐ PASS ☐ NG
2.3	**Power-On Check**	Verify that the power circuit and auxiliary power circuit can power on normally. Confirm that PCS, BMS, and MPPT can start up properly with no alarms (if MPPT is not configured, MPPT check is not required).	☐ PASS ☐ NG
2.4	**Communication Check**	Verify normal communication among the BMS, liquid cooling unit, internal energy meter, leakage current sensor, dehumidifier, PCS, noise sensor, MPPT, and EMS. Confirm that EMS can read data from all devices (if MPPT is not configured, MPPT communication check is not required).	☐ PASS ☐ NG
2.5	**DI/DO Check**	Individually trigger each DI signal and verify that EMS can correctly read the DI status before and after triggering. Individually trigger each DO circuit and verify that EMS can control the start/stop of each corresponding device normally.	☐ PASS ☐ NG
2.6	**Fire Suppression Linkage**	Trigger the fire detector alarm and verify that linkage actions operate correctly.	☐ PASS ☐ NG
2.7	**Battery Capacity Test**	Charge the system at 100kW until the system protection activates and stops charging. Then discharge the system at 100kW until system protection activates and stops discharging, and record the charged energy. Verify that the cumulative discharged energy of the system is ≥ 233kWh.	☐ PASS ☐ NG
2.8	**SOC Shipping Requirement**	45% ~ 50% SOC	☐ PASS ☐ NG
3	**Test Summary**		
4	**Conclusion**	☐ PASS ☐ NG	

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Tester:		Reviewer:	
Time:		Time:	