CE-6000 Technical Specification

I. Equipment model		
material code	CE-6001n-3000V200A	
Channel information		
1. Number of channels	Number of channels per	1
2. Main channel	Channel characteristics	The CC-CV constant current source and constant voltage source adopt a double closed loop structure
	Channel control mode	independent control
	The channels are connected in	Supports up to 4 channels in parallel
3. Input indicators		
1. Input power supply	AC380V±10%　50/60±5Hz	
2. Power factor	≥ 99% (full load)	
3. THDi	Up to 5% (full load)	
4. Input impedance	≥1MΩ	
5. Input power	652.2KW	
6. Input current	990.9A/ per phase	
7. Overall efficiency	96%	
8. noise	≤75dB	
9. Voltage and current	Four-wire connection (same port for charging and discharging)	
10. Power device type	IGBT	
11. Input power wiring	Three phase four wire	
12. Protection	Anti surge, anti island, over frequency, over voltage, phase loss protection, etc	
4. Functions and performance indicators		
1. Voltage	Measurement range per channel	Charging: 0V~3000V
		Discharge: 100V~3000V
	Minimum discharge voltage	100V
	Accuracy	±0.02%　of　FS
	Resolution ratio	24bit
2. Current	Measurement range per	1A～200A
	Accuracy (independent range)	±0.02%　of　FS
	Constant voltage cutoff	±0.05%　of　FS
	Resolution ratio	24bit

3. Power	Single channel output power	600KW
	Overall output power	600KW
4. Time	The response time of the	≤10ms
	Current conversion time	≤20ms
	Minimum work step time	0.1s
5. Charging and discharging mode	Charging and discharging mode	Constant current charging, constant voltage charging, constant current and constant voltage charging (constant current and constant voltage smooth transition to prevent current spikes and large current impact on the battery, protect the battery), constant power charging
		Constant current discharge, constant voltage discharge, constant power discharge, constant resistance discharge
	Cut-off condition	Voltage, current, relative time, capacity, -ΔV
6. Working condition simulation step	Charge mode	Current, power
	Discharge mode	Current, power
	Changing-over	Support continuous switching between charging and
	Cut-off condition	Time, line number
	Download data volume	It supports up to 1 million line condition downloads
7. Pulse work step	Charging mode	Current, power
	Discharge mode	Current, power
	Minimum pulse width	100ms
	Number of pulses	A single pulse step can support 32 different pulses
	Continuous switching between charging and discharging	A pulse step can realize the continuous switching from charging to discharging
	Subject to conditions	Voltage, relative time
8. DCIR DC internal	Supports custom point selection for DCIR calculation	
9. Safety protection	Software protection	Power data protection
		It has offline testing function
		Safety protection conditions can be set, and parameters can be set, including: voltage lower limit, voltage upper limit, current lower limit, current upper limit, delay time

	Hardware protection	Anti-reverse connection protection, overvoltage protection, overcurrent protection, overtemperature protection, etc
5. Data management and analysis		
1. Work step setting	Table editing	
2. Data recording	Record condition	Minimum time interval: 10ms (access auxiliary channel
		Minimum voltage interval: 6V
		Minimum current interval: 0.4A
	Record frequency	100Hz (access auxiliary channel is 10Hz)
3. Database	MySQL database is used to centrally manage test data	
4. Data output mode	Excel,Txt	
5. Curve type	You can customize the drawing with four Y axes	
6. Barcode scanning	Support barcode scanning function, which can realize the management and traceability of historical data through battery barcode	
6. Communication mode		
1. Communication mode of the upper computer	Based on TCP/IP protocol	
2. Communication	Ethernet	
3. Communication baud	1M bandwidth	
4. Communication baud	10M~100M adaptive	
5. Networking mode	Set up a LAN with switches and routers	
6. Communication expansion (optional)	Supports CANFD, CAN, RS485 communication and BMS communication, with DBC configuration function, supports linkage with peripherals (water cooling machine, high and low temperature environment test box, vibration table, etc.)	
7. Environmental requirements and size weight		
1. Working temperature	-10℃~40℃ (in the range of 25±10℃, ensure the measurement accuracy: accuracy drift 0.005% of FS /℃)	
2. Storage temperature	-20℃~50℃	
3. Relative humidity of	≤ 70% RH (no water vapor condensation)	
4. Relative humidity of	≤80% RH (no water vapor condensation)	
5. Equipment size	900*1000*1850mm	
6. Weight	600Kg	

7. Equipment appearance (for reference only)		
8. AUX auxiliary test system (optional)		
1. Temperature auxiliary channel	Temperature range	Thermocouple: -70℃~260℃
	Temperature accuracy	±1℃ (line length within 3m)
	Temperature resolution	0.1℃
2. Voltage auxiliary channel	Voltage range	0V ~ 5V
	Voltage accuracy	±0.05% of FS
	Voltage resolution	0.1mV
3. AUX introduction	It is mainly used for the monitoring of surface and tab temperature in the battery test process, with high test accuracy. The test data can be bound with the main voltage and current data, and the measured temperature can be used as the control condition and protection condition of the process step.	