Specifications

Date:2023-04-25

CE-6000 Specification

1、Model

1. Material code	**CE-6012n-20V60A-H**

2、Channels information

1. Channels quantity	Channels quantity in one unit	12
2. Main channel	Channel feature	Constant current source and constant voltage source dual closed loop control
	Channel control mode	Independent control
	Channel parallel connection	Support max 4 channels parallel mode. Pulse and SIM tests will be disabled in channels parallel mode.

3、Power grid side parameters

1.Input power		AC380V±15%　50/60±5Hz
2.Power factor		≥99%(Full load)
3.THDi		≤5%(Full load)
4.Input resistance		≥1MΩ
5.Input power		16.9KW
6.Input current		25.7A/single
7.Overall system efficiency(Max)		90%
8.Noise		⩽65dB
9.Voltage and current sampling		Four-wire connection(same port for charging and discharging)
10.Power control module type		MOSFET
11.Input power wiring method		Three-phase-five wire system
12.Power input protection		Anti-surge, anti-silos, anti over or under frequency, anti over or under voltage, anti phase absence, etc.

4、Functions and performances

1. Voltage	Output range	Charge:0V～20V
		Discharge:3V～20V
	Min discharge voltage	3V

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	Accuracy	±0.1% of FS
	Resolution	24bit
2. Current	Output range	0.3A～60A
	Accuracy(independent range)	±0.05% of FS
	CV cut-off current	60mA
	Resolution	24bit
3. Power	Single channel output power	1.2KW
	Whole machine output power	14.4KW
4. Time	Current response time	≤3ms
	Current conversion time	≤6ms
	Min. step time	0.1s
5. Charge/Discharge modes	Charge/Discharge modes	CCC, CVC, CC-CVC, CPC
		CCD, CVD, CPD, CRD
	Cut-off condition	Voltage, Current, ΔTime, Capacity, -ΔV
6. Simulation	Charge	Current, Power
	Discharge	Current, Power
	Switch	Support continuous switching between charge and discharge
	Cut-off condition	Time, step line
	Steps file lines	1,000,000
7. Pulse Mode	Charge	Current ,power
	Discharge	Current, Power
	Min pulse	100ms
	Pulse counts	Up to 32
	Charge and discharge switch	supported
	Cut-off condition	Voltage, ΔTime
8. DCIR		DCIR by calculation
9. Safely protection	Software protection	Power off data protection
		Offline mode function
		Safety protection conditions can be set, including:voltage lower limit ,voltage upper limit ,current lower limit ,current upper limit ,delay time, etc.
	Hardware protection	Anti-reverse connection, over-voltage, over-current, over-temperature, etc.
5、Data management and analysis		
1. Step setting method		Form editing

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2. Data report	Recording conditions	Minimum time interval: 10ms(connected with AUX channel:100ms）
		Minimum voltage interval: 0.04V
		Minimum current interval: 0.12A
	Recording frequency	100Hz(connected with AUX channel:10Hz)
3. Database		MySQL database
4. Data output		Excel, Txt
5. Curve type		Templates available, customization supported
6. Bar code scanning		Support bar-code scanning function
		Management and traceability of historical data
6、Communication		
1. Host computer communication		TCP/IP protocol
2. Communication port		Ethernet
3. Communication baud rate of the testers		1M
4. Host computer communication baud rate		10M~100M adaptive
5. Communication setup		Set up a LAN(local area network) through switches and routers
6. Communication expansion(optional)		Support CAN, RS485 communication and BMS communication, with DBC configuration function
7、Environmental requirements, dimension and weight		
1. Operation environment temperature		-10℃~40℃(When the temperature is 25±10℃, the accuracy error caused by temperature change is less than 0.005% of FS per degree)
2. Storage environment temperature		-20℃~50℃
3. Operation environment humidity		≤70% RH(no moisture condensation)
4. Storage environment humidity		≤80% RH(no moisture condensation)
5. Dimension W*D*H		600*800*1300(mm)
6. Weight		about 195.7KG
7. Tester Picture(Pictures just for reference)		

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8、Auxiliary test system(optional)

1. Temperature aux channels	Temperature range	Thermistor：-30℃~120℃
		Thermocouple：-200℃~260℃
	Temperature accuracy	±1℃（Length within 2m）
	Temperature resolution	0.1℃
2. Voltage aux channels	Voltage range	0V~5V
	Voltage accuracy	±0.1% of FS
	Voltage resolution	0.1mV
3. Aux Introduction	It is used to monitor the temperature of the battery surface or the tabs during the test. The aux test data can be bound with the main voltage and current data. At the same time, the measured temperature can be used as the control condition and protection condition of the test profiles.	