

CE-6000 Specification

1、 Model

1. Material code	CE-6004n-5V600A-H
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2、 Channels information

1. Channels quantity	Channels quantity in one unit	4
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、 AC input power functions and performances

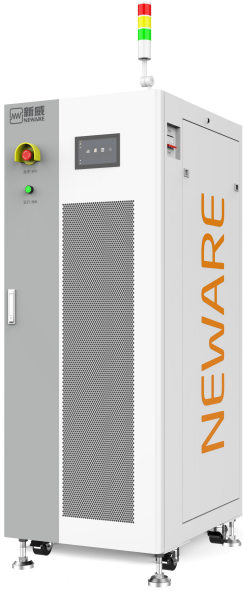
1. Input power		AC380V±15% 50/60±5Hz
2. Power factor		≥99%(Full load)
3. THDi		≤5%(Full load)
4. Input resistance		≥500MΩ
5. Input power		16KW
6. Input current		24.3A/single
7. Overall system efficiency(Max)		75%(80% minimum output power)
8. Noise		≤65dB
9. Power control module type		MOSFET
10. Energy management	High power density	1. Bidirectional ACDC, DCDC topology, high power density 2. Small footprint, savings and efficiency
	Intelligent Energy Regeneration	1. Full power energy feedback, energy recycle between channel priority 2. Intelligent regenerative
11. AC power supply connection		Three-phase five-wire (3W+N+PE)
12. Power input protection		Anti-surge, anti-silos, anti over or under frequency, anti over or under voltage, anti phase absence, etc.

4、 DC input power functions and performances

1. Voltage	Output range	Charge: 0V~5V
		Discharge:25mV~5V
	Min discharge voltage	2V

	Accuracy	±0.05% of FS
	Resolution	24bit
2. Current	Output range	3A~600A
	Accuracy(independent range)	±0.05% of FS
	CV cut-off current	1.2A
	Resolution	24bit
3. Power	Single channel output power	3KW
	Whole machine output power	12KW
4. Time	Current response time	≤5ms
	Current switch time	≤10ms
	Min. step time	500ms
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. Working step programme	Programme scheme	Form editing
	Goto and logical operation	Every step supported: 1. dynamic variable as control argument 2. Multiple static / dynamic combine logical operation 3. Multiple “goto”exit to different cycle layer
	Max steps	254
	Cycle loop	3 layers
	Single step	Independent safety protection and data record
7.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
	Typical simulation	FUDS, HPPC, DST, etc.
8.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
9.DCIR		DCIR by calculation
Auxiliary peripheral (optional)	supported	Connection with: 1. Voltage , temperature AUX 2. Pressure Transducer 3. High-low temperature testing chamber

		<p>4. Chiller</p> <p>5. The insulation on-line monitoring device</p> <p>6. Adjustable power supply</p> <p>7. Balancing equipment</p>
10.Safely protection	Software protection	<p>Power off data protection</p> <p>Offline mode function</p> <p>Safety protection conditions can be set, including:voltage lower limit ,voltage upper limit ,current lower limit ,current upper limit ,delay time, etc.</p>
	Hardware protection	<p>1.Anti-reverse connection, over-voltage, over-current, over-temperature, etc.</p> <p>2. Peripheral auxiliary variable protection(redundant voltage, auxiliary monitoring temperature, pressure, High-low temperature environment testing chamber)</p>
5、 Data management and analysis		
1. Step setting method		Form editing
2. Data report	Recording conditions	Minimum time interval: 10ms(connected with AUX channel:100ms)
		Minimum voltage interval: 5mV
	Recording frequency	Minimum current interval: 450mA 100Hz(connected with AUX channel:10Hz)
3. Database		MySQL database
4. Data output		Excel, Txt, Graph/Plot
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. BMS Communication expansion (optional)		<p>Supported:</p> <p>1. CAN, CANFD(optional) RS485 BMS communication</p> <p>2. DBC configuration function</p> <p>3. Dynamic follow: automatic switch chr &dischr, current max/mini limitation</p>

7、 Environmental requirements, dimension and weight		
1. Operation environment temperature		-10°C~40°C(When the temperature is 25±10°C, the accuracy error caused by temperature change is less than 0.005% of FS per degree)
2. Storage environment temperature		-20°C~50°C
3. Operation environment humidity		≤70% RH(no moisture condensation)
4. Storage environment humidity		≤80% RH(no moisture condensation)
5. Altitude		≤2500m
6. Dimension W*D*H		600*800*1800(mm)
7. Weight		<300KG
7. Tester Picture(Pictures just for reference)		
8、 Auxiliary test system(optional)		
1. Temperature aux channels	Temperature range	Thermistor: -30°C~120°C
		Thermocouple: -200°C~260°C
	Temperature accuracy	±1°C (Length within 2m)
	Temperature resolution	0.1°C
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.
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