

CE-6000 BMS Test System Specification

I. Model

material code	CE-6'S-BMS-24S300A
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2. Input indicators

1. Input power supply	AC220V±15% 50/60±5Hz
2. Input power	4.4KW
2. Input current	20A
3. Input power wiring	Single phase three wire

3. Function and performance indicators

1. Current source module	Current	Range of current source output	Range 1:50A; Range 2:100A; Range 3:300A	
		Accuracy	±0.05% of FS	
		Resolution ratio	24bit	
			Hardware protection	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.
				Anti-reverse connection protection, over voltage protection, over current protection, over temperature protection, etc.
	2. Simulated battery	1. Key indicators	Simulate the battery voltage output range for a single section	0~6V
The voltage output accuracy of the simulated battery is simulated in a single section			0.5mV	
Measure the voltage of the simulated battery in a single section			0.5mV	

	2. Range 1	Number of channels	24CH
		Range of current output	-3~3A
		Accuracy of current	0.05%+1.5mA
	3. Range 2	Resolution ratio	0.1mA
		Range of current output	-3~3mA
		Accuracy of current	0.05%+1.5μA
3. Temperature simulation (resistance mode)	Resolution ratio	0.1μA	
	Range of adjustable resistance	2Ω~1MΩ	
	Adjustable resistance accuracy	0.2%RD+1.0Ω	
4. Programmable high voltage constant voltage source	Adjustable resistance resolution	1Ω	
	Number of adjustable resistors	8CH	
	Voltage range	0-1500V	
	Current range	0~3.5A	
5. High voltage measurement module	Voltage accuracy	0.5%FS	
	Current accuracy	0.5%FS	
	Measuring range	5V-1500V	
	Certainty of measurement	0.1RD%+50mV	
6. Barcode scanner	Number of channels	4CH	
	Read bar codes	One-dimensional code/bar code	
	Communication mode	wireless	
7. Programmable power supply 36V	Principle of scanning	Imaging scans	
	Rated voltage	0~36V	
	Rated current	0~10A	
8. Insulation resistance simulator	Noise	2mV rms, 6mA rms	
	Range of resistance	50Ω~100MΩ	
	Maximum voltage resistance	2000V	
9. Resistance measurement module	Adjust resolution	50Ω	
	Measurement range: 1Ω-20KΩ	1%RD+2Ω	
	Measurement range: 20KΩ-1M	1%RD+2KΩ	
10. PWM output detection	number of channels	4	
	PWM frequency range	1Hz-500KHz	
	Output voltage	-12V~12V	

		Duty cycle adjustment range	5%-99%
		Number of channels	5
11. PWM input detection		PWM frequency range	1Hz-500kHz
		Allow high voltage range	5V~12V
		Duty cycle adjustment range	5%-99%
		Number of channels	5
12. AIAO module	AI	Voltage output range	0~24V
		Voltage output accuracy	0.1%RD
	AO	Output voltage range	≤10mA
		Voltage measurement range	0~24V
		Voltage measurement accuracy	0.1%RD
		Number of channels	Each 8CH
13. DIDO module	DI	High level input range	1.5-24V
		Low level input range	0-0.7
	DO	High level output range	3V~24V
		High level output accuracy	±0.5V
		Low level output range	0~0.7V
		Output current range	≤20mA
		Number of channels	Each 10CH
13. High precision analog voltage measurement		Measuring range	0-24V
		Certainty of measurement	0.05%FS
		Number of channels	8
14. EOVS module (can simulate the shunt and Hall sensor to achieve the actual current size)		Output range	-4.5V~ +4.5V
		Output accuracy	0.1%RD
		Number of channels	8CH
15. Communication module	Number of channels	CAN communication	4CH
		RS232	1CH
		IIC	2CH
		SMBUS	2CH
		RS485	4CH
16. Other functions		WIFI	1CH

		BUTH	1CH
		GPS	1CH
		ETH	2CH
4. BMS test items			
order number	Test items	Soft hardware	
1.	Static current consumption	Programmable power supply, CAN	
2.	Battery balance test	Battery simulator, CAN	
3.	Voltage and temperature accuracy comparison function: including single section voltage comparison test, total pressure accuracy, temperature comparison test	Battery simulator, CAN	
4.	Battery over voltage fault simulation test	Programmable power supply, CAN	
5.	Charge over temperature fault simulation test	Programmable resistors, CAN	
6.	Over current fault simulation test	Battery simulator, CAN	
7.	Battery under voltage fault simulation test	Battery simulator, CAN	
8.	Over temperature discharge simulation fault test	Programmable resistors, CAN	
9.	Discharge short circuit fault simulation test	Battery simulator, CAN	
10.	BMS digital output comparison test	DIDO unit	
11.	PWM incoming check	PWM detecting unit	
12.	PWM output detection	PWM detecting unit	
13.	Communication tests	CAN, RS485\RS232, etc	
14.	Insulation resistance simulation test	Insulation resistance simulator	
15.	Electrical adaptability test	Programmable power supply, CAN	
16.	Control policy testing	Battery simulator, CAN	
17.	Battery fault injection diagnostic test	Modules	
5. Data management and analysis			
1. Work step setting method	Table editing		
2. Data output mode	Excel		
3. Barcode scanning	Support barcode scanning function, which can be realized through BMS bar code		
6. Communication mode			
1. Communication mode of	Based on TCP/IP protocol		
2. Communication	Ethernet		

3. Communication baud	10M~100M adaptive
4. Networking mode	Set up a LAN with switches and routers
5. Communication expansion (optional)	<ol style="list-style-type: none"> 1. Supports CAN, RS485 communication and BMS communication, with DBC configuration function 2. Support peripheral linkage: environmental test chamber, water cooling machine, pressure fixture, etc

7. Environmental requirements and size weight

1. Working temperature	-10°C~40°C (in the range of 25±10°C, ensure the measurement accuracy: accuracy drift 0.005% of FS /°C)
2. Storage temperature	-20°C~50°C
3. Relative humidity of working environment	≤ 70% RH (no water vapor condensation)
4. Relative humidity of storage environment	≤ 80% RH (no water vapor condensation)
5. Equipment size W*D*H	600*800*1850(mm)
6. Weight	About 290KG