CE-6000 BMS Test System Specification

I. Model			
material code	CE-6'S-BMS-24S300A		
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

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