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Specifications

BTS-20V10A Battery testing system						
Model:	BTS-20V10A	Battery testing system	SN:	CE-5008	-20V10A	-SMB

Items		Values
Input AC		AC: 220V ±10% / 50Hz
Input power		1800W
Resolution		AD: 16bit; DA: 16bit
Input Impedance		≥1MΩ
Voltage	Output range/channel	Charge: 2.5V~20V Discharge: 2.5V~20V
	Accuracy	± 0.02% of range
	Stability	0.01%
Current	Output range/channel	Charge: 20mA~10A Discharge: 20mA~10A
	Accuracy	± 0.03% of range
	Stability	0.015%
Power	Output power/channel	200W
	Stability	0.05%
Time	Current response time	Current from 10% to 90% or 90% to 10% Hardware response time <= 20ms
	Working step time	≤(365*24)h/step Time format-00: 00: 00.000(h、m、s、ms)
Data Record	Data record conditions	Time Δt: (0.01s~60000s)
		Voltage ΔU: (5mV~20V)
		Current ΔI: (5mA~10A)
	Frequency	100Hz
Charge	Charge modes	CC、CV、CCCV、CP、CPCV
	Cut-off condition	Voltage、Current、-△V、Capacity
Discharge	Discharge modes	CC、CP、CCCV
	Cut-off condition	Voltage、Current、-△V、Capacity
Cycles	Max cycles	65535
	Max steps	255
	Nest	4;
Protection	Safety protection and Anomaly protection	Power-off data protection
		User-defined protection conditions, such as upper and lower limited current/voltage, upper limited capacity, upper limited power, Current and voltage fluctuation, delay time, temperature, etc.
	Hardware protection	Anti-reverse connection protection, input overvoltage protection, output overvoltage protection, input overcurrent protection, output overcurrent protection, overheat protection, overload protection, output no-load protection;

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Channel features	Using energy-saving inverter technology, energy is locally transferred between channels, which is energy-saving and environmentally friendly; It adopts automotive-grade master control scheme, 200kHz high frequency conversion, low ripple and low noise; The equipment is small in size, low in energy consumption, and low in heat; Constant current source and constant voltage source adopt independent double closed loop structure; The system adopts an integrated design, and the unit tester directly connects to the test server on the Internet; High-speed 100Hz sampling; 1GB offline storage capacity per channel;
Channels control mode	Independent control
Data acquisition method	Kelvin connection
Noise	<80dB
Communication with computer	TCP/IP
Data Export	EXCEL、TXT、CSV、PDF、Plot/Graph
Communication port	Ethernet 100M
Number of channels per	8
Operation and storage environment requirement	
Items	Values
Operation environment temperature	25℃±10℃
Storage environment temperature	0℃~45℃
Operation environment humidity	30% ~ 80% RH (no moisture condensation)
Storage environment humidity	30% ~ 90% RH (no moisture condensation)
Clamps and dimensions	
Items	Values
Clamps types	Choose according to customer needs
Unit tester size (W*D*H)	500 * 480 * 86 (mm)
Dimension (W*D*H) (mm)	606 * 800 * 1800 (mm)
Tester Picture (Pictures just for reference)	 
SMBUS characteristics	

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Items	Values
Hardware compatibility	Compatible with SMBUS, I2C communication protocol, support 400kHz high-speed mode;
Software compatibility	Compatible with the standard specification field information instructions defined by Smart Battery Data Specification Revision 1.1, users can edit the DBC by themselves to support different chip protocols;
Data reading frequency	8CH runs independently, each channel can be individually set to read different SMBUS parameter lists, and each parameter can be dynamically refreshed in real time or read at one time to reduce bus occupation; All channels can be read at full speed at the set bus rate (100kHz~400kHz) at the same time; When only a few parameters are read per channel, it can be refreshed more than 10 times per second;
Variable storage	Test users can define the variable list to be saved by themselves; The SMBUS variable storage and the main channel parameters of the equipment are recorded synchronously;