Specifications of BTS9000-5V5A-8CH



Items		Values
AC input		AC220V ±10%50Hz/ AC 110V ±10%50Hz
Resolution		AD: 16bit; DA: 16bit
Input impendence		≥ 500MΩ (power on), LC=100uA (power off)
Input power		500w
Features		4 ranges, high acquisition frequency, high accuracy
Channels control mode		Independent control
	Voltage output	Charge: 0.7 V~5V; Discharge: 0.7 V~5V (0.5m data wire)
Valtage	Lowest output voltage	0.7 V (0.5m data wire)
Voltage	Accuracy	± 0.02% of FS
	Stability	±0.005%of FS
	Current output ranges	Range1: 0.1uA150uA
		Range2: 150uA5mA
		Range3: 5mA150mA
		Range4: 150mA5A
Comment	Accuracy	± 0.02% of FS
Current		Range1: ± 30nA
		Range2: ± 1uA
		Range3: ± 30uA
		Range4: ± 1mA
	Stability	±0.005%of FS
Power	Output power/CH	25W
	Stability	± 0.01% of FS

Data Pota Pota Pota Pota Pota Pota Pota P	Time	Current response time	<= 100μS (10%to 90%or90%to 10%);		
record Voltage ∘U: >= 1mV		Testing step time range	>=10ms		
Voltage △U: >= 1mV	Data	Data record conditions	Time △t: >=1ms		
Current Alt >= 1000A Frequency 1000Hz, Pulse Charge	record				
Frequency 1000Hz, Pulse Charge Modes CC, CCCV, CV, CP, CR End conditions Voltage, Current, △t, Capacity, Energy, Power Pulse Modes CC, CP, CR, Pulse End conditions Voltage, Current, △t, Capacity Pulse Charge CC, CP Discharge CC, CP Min. pulse width 400µs Pulses counts Up to 16 changes in each pulse End conditions Voltage, △t Cycle Max cycles 65535 Max steps in each cycle 255 Max cycle nest 4 Power-off data protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection Database MySQL Data export XIs, btt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Ope					
Charge Modes CC, CCCV, CV, CP, CR End conditions Voltage, Current, △t, Capacity, Energy, Power Discharge CC, CP, CR, Pulse End conditions Voltage, Current, △t, Capacity Pulse Charge CC, CP Min. pulse width 400µs Pulses counts Up to 16 changes in each pulse End conditions Voltage, △t DCIR Can be calculated by software Max cycles 65535 Max steps in each cycle 255 Max cycle nest 4 Protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection Data export XIs, tx, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement Operation environment temperature O°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change			Current AI: >= 100nA		
Charge End conditions Voltage, Current, *t, Capacity, Energy, Power Discharge CC, CP, CR, Pulse Pulse Charge CC, CP Min. pulse width 400µs Pulses counts Up to 16 changes in each pulse End conditions Voltage, *t DCIR Can be calculated by software Max cycles 65535 Max steps in each cycle 255 Max cycle nest 4 Protection Safety protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection Data export XIs, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48°33°13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement O°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /*C)		Frequency	1000Hz, Pulse		
Bind conditions Voltage, Current, *t, Capacity, Energy, Power	Charge	Modes	CC, CCCV, CV, CP, CR		
Pulse End conditions Voltage, Current, *t, Capacity	- Cital ge	End conditions	Voltage, Current, △t, Capacity, Energy, Power		
Charge CC, CP	Discharge	Modes	CC, CP, CR, Pulse		
Pulse Discharge CC, CP Min. pulse width 400μs Pulses counts Up to 16 changes in each pulse End conditions Voltage, ⋄t DCIR Can be calculated by software Max cycles 65535 Max steps in each cycle 255 Max cycle nest 4 Protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection Data export Xls, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /*C)	Discharge	End conditions	Voltage, Current, △t, Capacity		
Pulse Min. pulse width 400 μs Pulses counts Up to 16 changes in each pulse End conditions Voltage, △t DCIR Max cycles 65535 Max steps in each cycle 255 Max cycle nest 4 Protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection Database MySQL Data export XIs, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /*C)		Charge	CC, CP		
Pulses counts Up to 16 changes in each pulse End conditions Voltage, △t DCIR Can be calculated by software Max cycles 65535 Cycle Max steps in each cycle 255 Max cycle nest 4 Power-off data protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection Database MySQL Data export Xls, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement Operation environment temperature by temperature change is less than50ppm /*C)	Pulse	Discharge	CC, CP		
End conditions Voltage, at		Min. pulse width	400μs		
DCIR Can be calculated by software Cycle Max cycles 65535 Max steps in each cycle 255 Max cycle nest 4 Power-off data protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection Database MySQL Data export Xls, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement Operation environment temperature by temperature change is less than50ppm /°C)		Pulses counts	Up to 16 changes in each pulse		
Max cycles 65535		End conditions	Voltage, △t		
Cycle Max steps in each cycle 255 Max cycle nest 4 Power-off data protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection Data export Xls, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement Operation environment temperature o°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	DCIR	Can be calculated by software			
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Protection Safety protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Database MySQL Data export XIs, txt, PDF, Graph/Plot Communication Ethernet Channels B Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement Operation environment temperature O°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Cycle	Max steps in each cycle	255		
Protection Safety protection Off-line operation mode User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Database MySQL Data export Xls, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operation and storage environment requirement Operation environment temperature O°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)		Max cycle nest	4		
User-defined protection User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc.		Safety protection	Power-off data protection		
User-defined protection conditions, such as upper and lower limited current/voltage, delay time, temperature, etc. Data acquisition method Kelvin connection MySQL Data export Xls, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operating system Windows7/10 64 bit for the best Operation and storage environment requirement Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Protection		Off-line operation mode		
Data acquisition method Kelvin connection Database MySQL Data export Xls, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operating system Windows7/10 64 bit for the best Operation and storage environment requirement Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Trotection		User-defined protection conditions, such as upper and lower limited		
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Data export XIs, txt, PDF, Graph/Plot Communication Ethernet Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operating system Windows7/10 64 bit for the best Operation and storage environment requirement Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Data acquisi	tion method	Kelvin connection		
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Channels 8 Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operating system Windows7/10 64 bit for the best Operation and storage environment requirement Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Data export		Xls, txt, PDF, Graph/Plot		
Dimensions 48*33*13 (cm) Clamps 204Air-plug, Polymer or alligator available Operating system Windows7/10 64 bit for the best Operation and storage environment requirement Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Communication		Ethernet		
Clamps 204Air-plug, Polymer or alligator available Windows7/10 64 bit for the best Operation and storage environment requirement Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Channels		8		
Operating system Operation and storage environment requirement Operation environment temperature O°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Dimensions		48*33*13 (cm)		
Operation and storage environment requirement Operation environment temperature O°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Clamps		204Air-plug, Polymer or alligator available		
Operation environment temperature 0°C~40°C (When the temperature is 25±10°C, the accuracy error caused by temperature change is less than50ppm /°C)	Operating system		Windows7/10 64 bit for the best		
Operation environment temperature by temperature change is less than50ppm /°C)	Operation and storage environment requirement				
by temperature change is less than 50 ppm /°C)	Operation environment temperature		0°C~40°C (When the temperature is 25±10°C, the accuracy error caused		
Storage environment temperature -10°C~50°C			by temperature change is less than50ppm /°C)		
	Storage environment temperature		-10℃~50℃		
Operation environment humidity ≤70%RH (no moisture condensation)	Operation environment humidity		≤70%RH (no moisture condensation)		

Storage environment humidity	≤80%RH (no moisture condensation)
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