7000S-GATE BATTERY MONITORING SYSTEM

MODEL NO: 7000S-HGATE

CELL SENSOR



BS-2V CELL



BS-12V CELL

BS - 2V CELL
2 Volt battery One-One cell sensor, block stethophone

BS - 12V Cell
12 Volt battery One - One cell sensor, block stethophone

Monitors & Records:

- Cell Voltage
- Cell Temperature
- Cell Internal Impedance (Ohmic Value)
- Balancing function (only for 2V Cell-A & BS 12V Cell-B)

STRING SENSOR



AM



UM

AM
String current: 1 Hall sensor: -1000 ~ 1000A, 2 Hall sensor: -2000A (+2.0%, 15° C~35° C), Battery string stethophone

UM
String voltage: 8 ~ 1000VDC (+ 0.5%), Battery string stethophone

Monitors & Records:

- String Voltage, String Current
- SOC & SOH
- Balancing function extends battery life
- Batch Set Address
- Judge charging and discharging status
- Each BMS String Sensor Max. Connect 60~70 pc BMS-2V Cell / BMS-12V Cell

DISPLAY

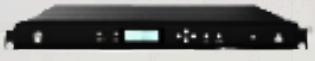


HMI

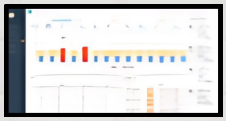
HMI

Monitor battery parameters in real time

INTELLIGENT GATEWAY



7000S-GATEWAY



WEB VIEW

BMSH - GATE
Monitor control gateway with web view

Monitors & Records:

- Measuring of Max. 420pcs Batteries in up to 6 Parallel Strings
- Calculate SOC & SOH of each Battery Cell & Battery String
- Support measurement of ripple voltage
- Discharge Graphs Record
- Balancing Function
- Alarm for Cell Voltage, Temperature, Internal Impedence, SOC (Higher / Lower Limit)
- Data Logging for all measuring data (12 months)
- Support measure ambient temperature & humidity

7000S-GATE BATTERY MONITORING SYSTEM

MODEL NO: 7000S-HGATE

Technical Specification

ITEM	VOLTAGE	TEMPERATURE	INTERNAL RESISTANCE	POWER CONSUMPTION
BS-2V CELL	1.6V to 2.6V (±0.2%)	-20°C to 85°C (±1.0°C)	0.1mΩ to 100mΩ Repeatability Error: 1.0% ± 25uΩ Conformity Error: 1.5% + 25uΩ	Runing: 170mW, Sleeping: 12mW
BS-12V CELL	7.5V to 15.6V (±0.2%)			Runing: 120mW, Sleeping: 10mW
UM	24VDC (range: 9~32VDC)	Working temperature:-15° C~ +55° C, Humidity: 5% ~ 95% RH		Power consumption:<1W
AM	24VDC (range: 9~32VDC)	Working temperature:-15° C~ +55° C, Humidity: 5% ~ 95% RH		Power consumption:<0.5W

Hardware Specification

CPU	ARM cortex - A7 528MHz	Memory	512MB DDR3
ROM	EMMC 4G + SD Card 8G	Communications	1 RS485, Baud Rate 9600, 19200, 38400bps (optional), Half Duplex
Ethernet Port	2x10/100M Ethernet Port	Power Supply	2 x AC 220V, Range: AC85~264V/DC120-370V
DI	6 DI, Passive switch input	DO	6 DO, 250VAC/5A or 30VDC/5A
Consumption	≤ 15W	Power Supply	2 x AC 220V, Range: AC85~264V/DC120-370V
Working Temp.	-15°C ~ +60°C	Storage Temp.	-40°C ~ +70°C
Humidity	10-95% RH, No condensation	L*W*H	430mm x 200mm x 44mm, Standard 1U device (19 inches)

1. All specifications are subject to change without prior notice
2. Data in this datasheet are typical values for reference only, not as a basis for engineering design

7000S-GATE BATTERY MONITORING SYSTEM

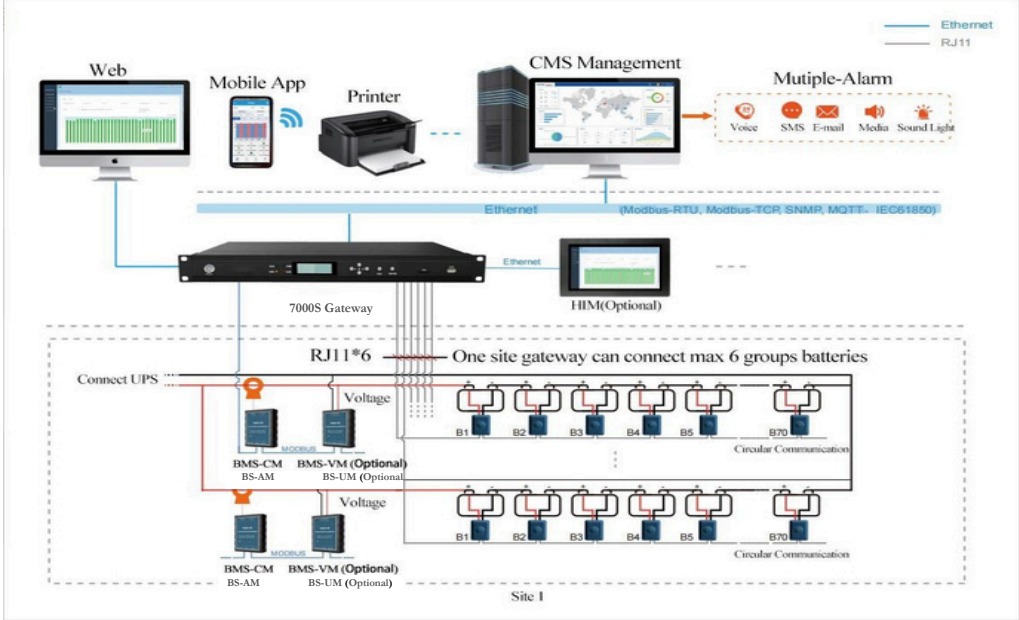
MODEL NO: 7000S-HGATE

7000S -Gateway

Gateway Features:

- 6 RS485 Port, MODBUS Communication
- 2 Ethernet port, transmit Data & Alarm to cloud server by Ethernet
- Built-in Web Server, Display data by Web view pages
- 8GB SD Card for 12 Months data logging
- Support Export JPG,PDF,XLS etc., document
- Real time & history data records and graphs analysis for battery life trending
- 24/7 On-line Alarm management and reporting

System Structure



Order Information

SYSTEM STRUCTURE	ORDER CODE	DESCRIPTION
Communication Layer	**7000S Gateway**	Monitor Control Gateway with Web View
Display	**HMI**	Monitor battery parameters in real time
String Sensor	**AM**	String current: 1 Hall sensor: -1000 ~ 1000A, 2 Hall sensor: -2000 ~ 2000A (± 2.0%, 15° C ~ 35° C)
	UM	String voltage: 8 ~ 1000VDC (± 0.5%)
	Hall Sensor	Hall sensor-50A (Rated input: 50A, Measure range: 0~±100A, Φ20mm) Hall sensor-200A (Rated input: 100A, Measure range: 0~±120A, Φ40mm) Hall sensor-400A (Rated input: 200A, Measure range: 0~±400A, Φ40mm) Hall sensor-800A (Rated input: 400A, Measure range: 0~±800A, Φ40mm)
Cell Sensor	**BS-2V**	2 volt battery One-One cell sensor
	BS-12V	12 volt battery One-One cell sensor

1. All specifications are subject to change without prior notice
2. Data in this datasheet are typical values for reference only, not as a basis for engineering design