

# Battery Management System

BMS12(BCU12+BMU16)



## Product Overview

Introducing the newly developed hierarchical daisy chain BMS; it is adaptable to the number of stacked modules and offers high stability at a lower cost.



High precision monitoring,  
high reliable communication



Reducing system operating costs



Highly adaptable modular compact  
battery systems



Enhancing system profitability



Accurate system operation strategy



Improving the utilization rate of  
energy storage battery system



Model	BMS12 (BCU12 + BMU12) Parameters
Operating voltage grade	≤500Vdc
Combination mode	1 * Bus control unit (BCU 12)+ n* Battery management unit (BMU 12); n<ll
Certification & Safety Standards	GB/T 34131-2017, IEC 60730-1 & IEC 61508
<b>Bus control unit (BCU 12)</b>	
Supply voltage	24Vdc(12~36Vdc)
Sampling channel	2-Way (Hall + Shunt)
Sampling range	-100A~+100A(configurable)
Sampling accuracy	± (0.1% FS + 0.1% RD)(accuracy is related to the accuracy of Hall and shunt)
Sampling cycle	≤100ms
Sampling channel	2-way
Sampling range	0~500Vdc(configurable)
Sampling accuracy	±(0.5%FS + 0.5%RD)
Sampling cycle	≤100ms
DO	5-way relay normally-open output, 2-way optocoupler output
DI	5-way
Communication Interface	RS485*2/CAN2.0*2
Self-consumption	≤3W
Event Log Database	500 event records, including the type of exception, time of occurrence, protection action
Constant database	Store all the last 30 days of abnormal voltage/current/temperature/time information
<b>Battery management unit (BMU 12)</b>	
Supply voltage	24Vdc(9~36Vdc)
Equalization Type	Passive equalization
Equalization current	≤ 150 mA (configurable)
Sampling channel	8-way
Sampling range	-40~120°C
Sampling accuracy	+1°C
Sampling cycle	≤100ms
Sampling channel	12-way
Sampling range	0~5V
Sampling accuracy	±3mV
Sampling cycle	≤600ms
Operating Mode	<0.5W
Hibernation Mode	<0.1W
Communication Interface	CAN2.0*1

Project		BMS12 (BCU12 + BMU12) Parameters	
Operating voltage grade		≤1000Vdc	
Combination mode	1 * Bus control unit (BCU 16)+ n* Battery management unit (BMU 16);nW17		
Certification & Safety Standards	GB/T 34131-2017, IEC 60730-1 & IEC 61508		
<b>Bus control unit (BCU 16)</b>			
Supply voltage	24Vdc(12~36V)		
Sampling channel	2-Way (Hall + Shunt)		
Sampling range	-100A~+100A(configurable)		
Sampling accuracy	±(0.5%FS + 0.1%RD)(accuracy is related to the accuracy of Hall and shunt)		
Sampling cycle	≤600ms		
Sampling channel	2-way		
Sampling range	0~1000Vdc		
Sampling accuracy	±(0.5%FS + 0.5%RD)		
Sampling cycle	≤600ms		
DO	8-way		
DI	8-way		
Communication Interface	IOspi * 2, CAN2.0 * 2, RS485 * 2, WiFi * 1, Ethernet * 1		
Self-consumption	≤ 2.5W (DO no output)		
Event Log Database	500 event records, including the type of exception, time of occurrence, protection action		
Constant database	Store all the last 30 days of abnormal voltage/current/temperature/time information		
<b>Battery management unit (BMU 16)</b>			
Supply voltage	Battery power/external power 24Vdc (9 ~ 36 Vdc)		
Equalization Type	Passive equalization		
Equalization current	≤150mA (configurable)		
Sampling channel	8-way		
Sampling range	-40~125°C		
Sampling accuracy	±1°C		
Sampling cycle	≤100ms		
Sampling channel	16-way		
Sampling range	0~5V		
Sampling accuracy	+3mV		
Sampling cycle	≤600ms		
Operating Mode	<0.3W(DO no output, no equalization)		
Hibernation Mode	<0.05W(DO no output, no equalization)		
Number of Do Channels	1-way		
Communication Interface	IOspi (daisy chain)* 2		

