



众智科技
SmartGen

SmartGen 众智

MAKING CONTROL SMARTER
Stock Code 股票代码 301361

NEW ENERGY PRODUCT CATALOGUE

新能源产品选型样册

SMARTGEN(ZHENGZHOU) TECHNOLOGY CO., LTD.

www.smartgen.com.cn

www.smartgen.cn

SmartGen 众智

郑州众智科技股份有限公司
SMARTGEN(ZHENGZHOU) TECHNOLOGY CO., LTD.

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股票名称: 众智科技 Stock name: ZZKJ

股票代码: 301361 Stock code: 301361



China Offices

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MAKING CONTROL SMARTER | 2025

SMARTGEN(ZHENGZHOU) TECHNOLOGY CO., LTD.



COMPANY PROFILE

众智科技SmartGen

始建于
ESTABLISHED IN 1998

1998

公司总部
HEADQUARTERS: ZHENGZHOU, CHINA

中国·郑州

工厂面积
TOTAL FACTORY AREA OVER 60,000m²

6万平

研发投入
R&D INVESTMENTS OVER 10%

10%⁺

SmartGen was founded in 1998, a listed company on the China Stock Exchange, which is mainly engaged in the research and development, manufacture, sales, and services of automatic control systems for Engine, Generator and Genset, Low-voltage Distribution, New Energy, and other related fields. The products are widely used in mining, oil exploitation, data centers, ships, intelligent buildings, banks, hospitals, factories, telecom, infrastructure, and other fields, with business covering the world. The company is a high-growth, high-tech, modern, and technology-intensive enterprise. To stay ahead of the curve in the domestic and international markets, the company has invested heavily in R&D, standard testing center, and digital factory every year since its establishment. We have hundreds of patents, and over 30% of the employees are dedicated to research and development, and exploring new intelligent solutions to improve the overall performance of global industrial equipment. We will continue to innovate and self-transcend as always, improve our core competitiveness, enhance the value of enterprises and employees, create a complete industrial ecological chain of high quality, safe, green, low-carbon, and sustainable development, and return our customers, shareholders, employees, and society.

众智科技始建于1998年，深交所创业板（股票代码301361）上市企业，主要从事发动机自动控制系统、发电机和发电机组自动控制系统、低压配电自动控制系统、新能源自动控制系统等相关自动化产品的研发、制造、销售和服务。公司产品广泛应用于矿山石油开采、数据中心、船舶、智能大厦、银行、医院、工厂、电信、基建等领域，业务范围遍布全球。公司是国家专精特新“小巨人”企业，是高成长性、高新技术企业，也是技术密集型现代化企业。自成立以来，每年都会在产品研发、标准实验室、数字工厂方面投入大量资金，以保持公司在国内国际市场中的领先地位。我们拥有数百项专利，有超过30%的员工致力于研发工作，负责探索全新的智能化方案来提升全球行业设备的整体性能。我们将一如既往地不断创新与自我超越，持续提高核心竞争力，提升企业和员工价值，打造优质、安全、绿色、低碳等可持续发展的完整产业生态链，以优质的业绩回报客户、回报股东、回报员工、回报社会！

深交所创业板上市企业 / 股票代码：301361.sz

A Listed public company in China / Stock Code: 301361.sz

集研发、制造、销售、服务为一体的科技型现代化公司

A modern technology-driven company integrating R&D, manufacture, sales and services



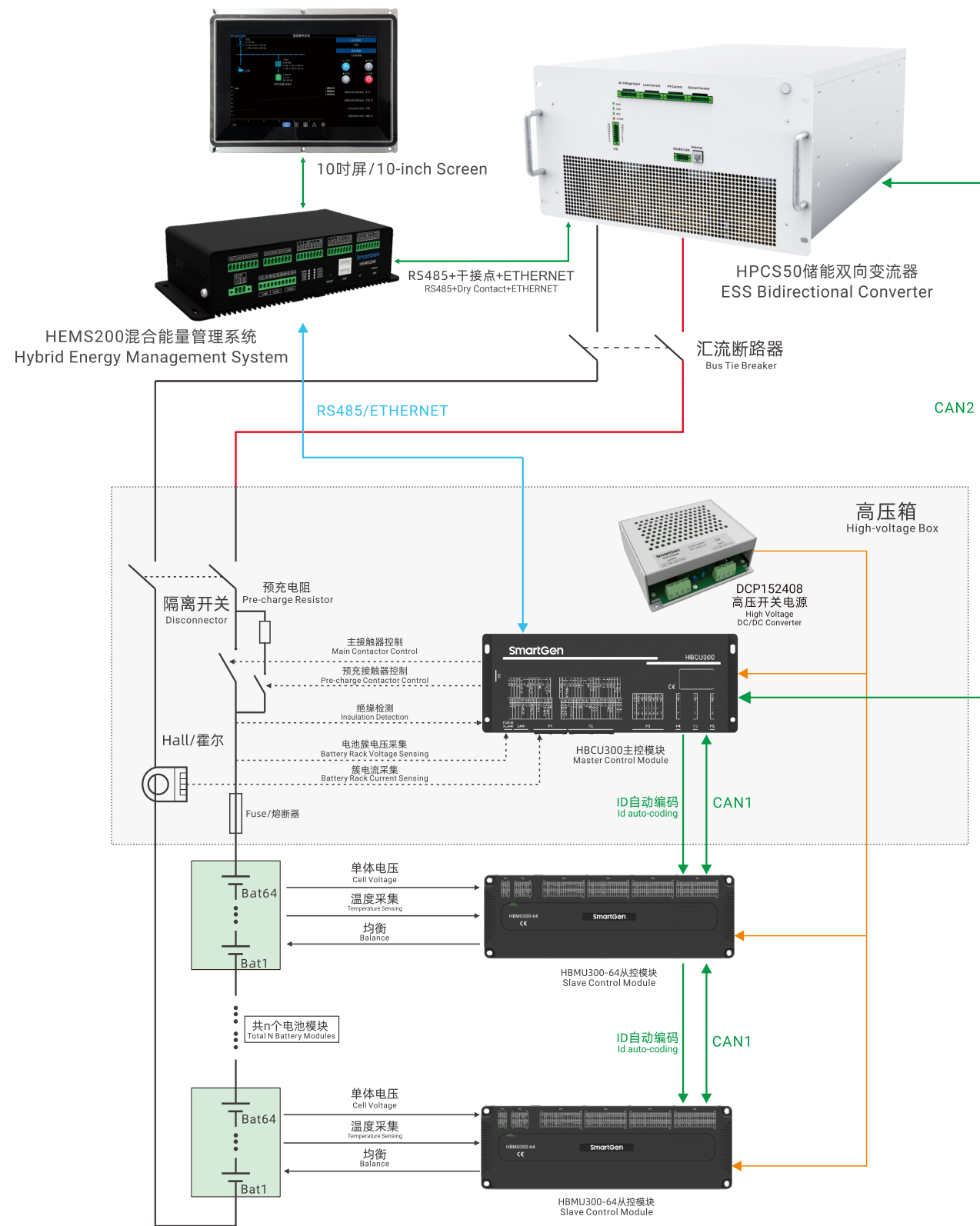
产品测试中心Product Testing Center

SmartGen Testing Center was established in 2010, covering an area of nearly 1,000 square metres. With gradual improvements for years, it has become one of the handful of top-ranking testing bases in the industry. In order to meet the highest quality standard of various products, SmartGen Testing Center successively purchased sets of advanced test equipment from domestic and foreign well-known enterprises. Test types mainly include EMC tests, environmental tests, prototype tests, failure analysis test, product safety testing, product function test, reliability test,etc.

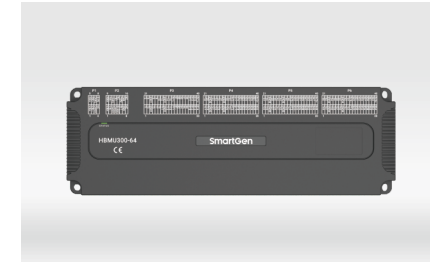
众智试验室筹建于2010年，占地面积近千平方米。历时多年的逐渐完善，目前已经成为了行业内屈指可数的一流试验基地。众智试验室先后从国内外知名企业采购多套高精尖的测试设备，以确保各种产品符合最高品质标准。主要测试类型包括：电磁兼容（EMC）试验、环境试验、真机试验、失效分析测试、产品安全测试、产品功能测试、可靠性测试等。

- CCC认证
CCC certification
- CE认证
CE certification
- UL认证
UL certification
- CCS（中国船级社）认证
CCS (China Classification Society) certification
- BV（法国船级社）认证
BV (Bureau Veritas) certification
- ABS(美国船级社)认证
ABS(American Bureau of Shipping) certification

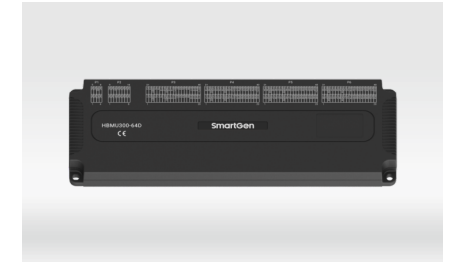




HBMU200从控模块
HBMU200 Slave Control Module



HBMU300-64从控模块
HBMU300-64 Slave Control Module



HBMU300-64D从控模块
HBMU300-64D Slave Control Module

Model/型号	HBMU200	HBMU300-64	HBMU300-64D
Main Functions 主要功能	Battery management module plays an important role in BMS. In the charging and discharging process of battery packs, it can monitor the operating status (voltage, temperature, etc.), detect and report the status to BCU in real time to provide timely warnings of under/over voltage, under/over temperature, etc.the module is suitable for systems of independent energy storage station, wind & solar energy storage station and hybrid energy storage station. It can be used for testing platform of LFP, NCM, NCA, LMO, and LTO battery packs. 电池管理模块是BMS的重要组成部分，在电池组进行充放电时，监控电池的工作状态(电压、温度等)，进行实时检测和上报BCU，以便对欠压、过压、欠温、过温等进行报警。本模块适用于独立储能、风光储能以及混合能源等系统，也适用于磷酸铁锂电池组、三元锂电池组、锰酸锂电池组和钛酸锂电池组的测试平台。		
Operating Voltage/工作电压	DC 12V/24V		
Voltage Sampling Range/电压采样范围	DC(0~5)V		
Number Of Voltage Detection Strings/电压检测串数	5~16	32~64	
Temperature Sampling Range/温度采样范围	(-40~+125)℃		
Temperature Detection Channel/温度检测通道	16+2	64+4	64+4
Output Port/输出口	1		
Input Port/输入口		1	
Status Indicator/状态指示灯			
Communication Method/通信方式	CAN		isoSPI
Passive Balance Current/被动均衡电流	100mA		
Module Address Setting/模块地址设置	Slide DIP switch/拨码开关	Id auto-coding /Id自动编码	
Protection Level/防护等级	IP20		
Case Dimensions/外形尺寸(mm)	125*106*21(L*W*H)	287*95*25(L*W*H)	
Panel Cutout/安装尺寸(mm)	112.5*93.5	274.5*82.5	
Operating Temp./工作温度	(-40~+70)℃		
Weight/重量	0.16kg	0.36kg	0.36kg



HBCU200主控模块
HBCU200 Master Control Module



HBCU300主控模块
HBCU300 Master Control Module

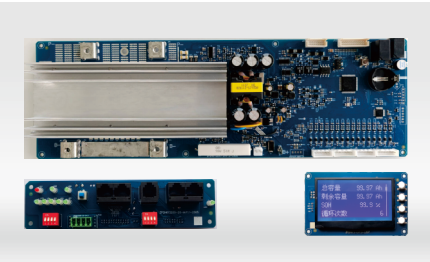


HBCU300D主控模块
HBCU300D Master Control Module

Model/型号	HBCU200	HBCU300	HBCU300D
Main Functions 主要功能	The slave control module can collect the voltage and temperature of battery cells (LFP, NCM, NCA battery is supported), and upload the data to the master control module. After receiving the data, the master control module can calculate the SOC, SOH, SOE, maximum cell voltage/temperature, minimum cell voltage/temperature and insulation resistance.It can provide protection of under/over voltage, low/high temperature, over current during charging & discharging through 3-level protection system and external relay in main circuit. BMS主控模块通过采集BMU从控模块上传的电池模块单体电芯(支持磷酸铁锂、三元锂)的电压、温度，计算出SOC、SOH、SOE、最高单体电压/温度，最低单体电压/温度、绝缘阻值等数据。通过三级故障保护系统以及对外置主回路继电器的控制，实现对电芯的过欠压、温度过高/过低、充放电过流等保护。		
Operating Voltage Range/工作电压范围	DC 12V/24V		
Current Sampling Range/电流采样范围	Max. 1000A/最大支持1000A		
Voltage Sampling Range/电压采样范围	DC(20~1000)V	DC(10~1500)V	
Current Detection Mode/电流检测方式	Hall current sensor or shunt/霍尔电流传感器或分流器		
Insulation Detection/绝缘检测	●		
Status Indicator/状态指示灯	●		
Communication Method/通信方式	RS485/ETHERNET/蓝牙/CAN	CAN/RS485/ETHERNET	isoSPI/CAN/RS485/ETHERNET
Output Port/输出口	7	8	
Input Port/输入口	4	7	
Event Log/历史记录	●		
Three-level Fault Alarm Protection/三级故障报警保护	●		
HV Control Box Temperature Sample/高压控制箱温度采集	1	4	
Case Dimensions/外形尺寸(mm)	253*54*106(L*W*H)	282*110*43(L*W*H)	
Panel Cutout/安装尺寸(mm)	271*78		
Operating Temp./工作温度	(-40~+70)°C		
Weight/重量	0.5kg	0.85kg	

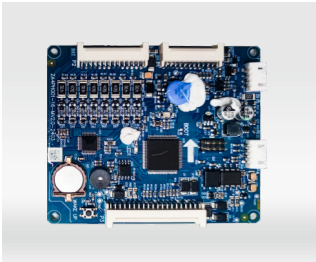


HP16S100-10 锂电池保护板
HP16S100-10 Lithium-ion Battery Protection Board

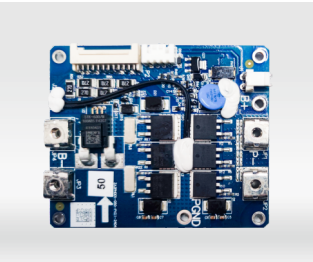


HP16S200-20 锂电池保护板
HP16S200-20 Lithium-ion Battery Protection Board

Model/型号	HP16S100-10	HP16S200-20
Main Functions 主要功能	The product is used for communication backup power of 15-series to 16-series lithium-ion battery base station and household energy storage system. It can monitor the operating status (voltage, current, temperature, etc.) of battery pack to provide over/under voltage, over current, over temperature warnings and protection. In addition, the cell balancing function can extend the cell's cycle life. 用于15-16串锂电池基站通信备用电源和户用储能等系统，可监控电池组的工作状态（电压、电流、温度等），以便对过压、欠压、过流、过温、等报警和保护，还可以提供电芯的均衡保护功能以延长电芯寿命。	
Modules Configuration/支持电芯串数	15/16	
Voltage Sampling Range/电压采样范围	DC(0~5)V	
Passive Balance Current/被动均衡电流	100mA	
Temperature Sampling Range/温度采样范围	(-40~+125)°C	
Temperature Sampling Channel/温度采样通道	4+1+1	
Rated Charge/Discharge Current/额定充放电电流	100A	200A
Power Consumption/整机功耗	Operating powers≤1.6W, maximum powers≤2.8W, sleep mode powers≤15mW 正常工作功耗≤1.6W；最大功耗≤2.8W；休眠功耗≤15mW	
Output Port/输出口	2	
Module Address Setting/模块地址设置	Slide DIP switch/拨码开关	
Current Limiting Function 限流功能	10A/20A	
Communication Method/通信方式	RS232/RS485/CAN	
Sleep And Wakeup/休眠与唤醒	●	
Heating Function/加热功能	●	
RTC &Event Log/实时时钟及历史记录	●	
Black Box/黑匣子	●	
Case Dimensions/外形尺寸(mm)	280*110*33.5(L*W*H)	350*110*33.5(L*W*H)
Panel Cutout/安装尺寸(mm)	271*102	341*102
Operating Temp./工作温度	(-40~+70)°C	
Weight/重量	0.55kg	0.77kg



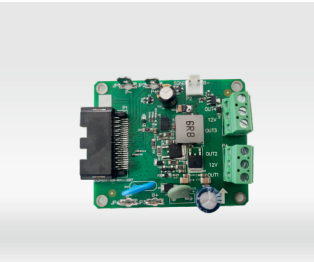
HPA100-16系列控制板
HPA100-16 Series Control Board



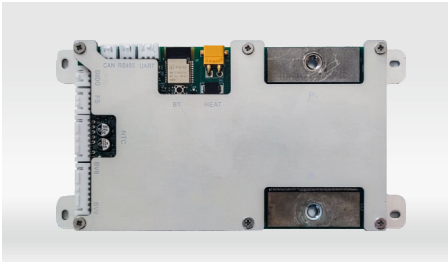
HPA100-16系列50A功率板
HPA100-16 Series 50A Power Protection Board



HPA100-16系列80A功率板
HPA100-16 Series 80A Power Protection Board



HPA100-16系列300A功率板
HPA100-16 Series 300A Power Protection Board



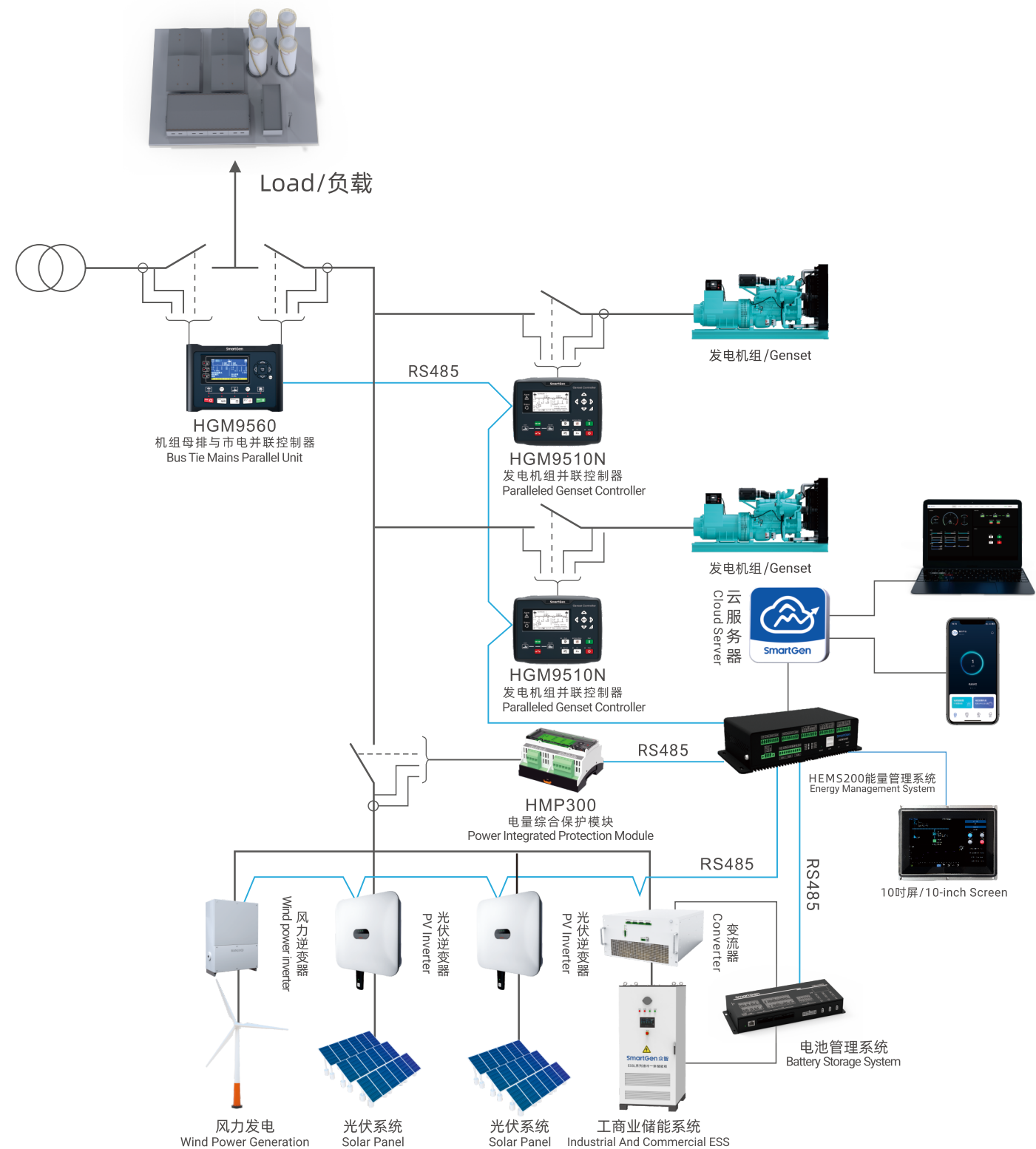
HPE100-8-150 启动保护板
HPE100-8-150 Starting Protection Board

Model/型号	HPA100-16-50		HPA100-16-80	HPA100-16-300
Main Functions 主要功能	HPA100-16 series split-type Lithium-ion battery protection board is an important role in low voltage Lithium-ion battery module, and mainly used for 7-series to 16-series battery pack as base station backup power, AGV traction battery pack, and household energy storage system. It can monitor the operating status (voltage, current, temperature, etc.) of battery pack to provide over/under voltage, over current, over temperature warnings and protection. In addition, the cell balancing function can extend the cell's cycle life. It can realize functions of data monitor, parameter setting and firmware update via RS485 and CANBUS ports. HPA100-16系列分体式锂电池保护板是低压锂电池模块的重要组成部分，主要用于7-16串锂电池基站通信备用电源、AGV 动力锂电池组和户用储能等系统，可监控电池组的工作状态（电压、电流、温度等），以便对过压、欠压、过流、过温、等报警和保护，还可以提供电芯的均衡保护功能以延长电芯寿命，并可通过RS485、CANBUS等接口实现数据监控、参数配置和固件升级。			
Modules Configuration/支持电芯串数	7~16			
Cell Voltage Sampling Range/电芯电压采集范围	DC (0~5)V			
Passive Balance Current/被动均衡电流	77mA			
Temperature Sampling Range/温度采样范围	(-40~+125) °C			
Temperature Sampling Channel/温度采样通道	4+1+1			
Rated Charge/Discharge Current/额定充放电电流	50A	80A	300A	
Power Consumption/整机功耗	Operating powers≤1.6W, maximum powers≤2.8W, sleep mode powers≤15mW 正常工作功耗≤1.6W，最大功耗≤2.8W，休眠功耗≤15mW			
Current Limiting Function 限流功能	●			
Communication Method/通信方式	CAN/RS485*2			
Sleep And Wakeup/休眠与唤醒	●			
Heating Function/加热功能	●			
RTC & Event Log/实时时钟及历史记录	●			
Black Box/黑匣子	●			
Case Dimensions/外形尺寸(mm)	88*82.2*23.5(L*W*H)	102.8*90*31(L*W*H)		74.5*60*23(L*W*H)
Panel Cutout/安装尺寸(mm)	80*72	92*82		64*52
Operating Temp./工作温度	(-40~+70)°C			
Weight/重量	0.25kg	0.14kg		0.04kg

Model/型号	HPE100-8-150
Main Functions 主要功能	The HPE100-8-150 Starting Protection Board is a crucial component of the starting power module, primarily designed for 8-series single-port lithium batteries. It can monitor the operation status of the battery pack (voltage, current, temperature, etc.) to provide alarms and protection against conditions of overvoltage, undervoltage, overcurrent, and over temperature. And balancing protection function helps to extend the lifespan of the battery cells. HPE100-8-150启动保护板是启动电源模块的重要组成部分，主要用于8串同口锂电池。监控电池组的工作状态（电压、电流、温度等），以便对过压、欠压、过流、过温等报警和保护，提供电芯的均衡保护功能以延长电芯寿命。
Modules Configuration/支持电芯串数	8
Rated Charge/Discharge Current/额定充放电电流	150A
Power Consumption/整机功耗	Minimum powers≤1.2W, maximum powers≤2.6W, sleep mode powers≤10mW 最小功耗≤1.2W，最大功耗≤2.6W，休眠功耗≤10mW
Cell Voltage Sampling Range/电芯电压采集范围	DC(0~5)V
Temperature Sampling Range/温度采样范围	(-40~+125) °C
Communication Method/通信方式	蓝牙/RS485*2/CAN
Current Sampling Range/电流采集范围	最大1500A
One-Click Forced Start/一键强启	●
Heating Function/加热功能	●
Case Dimensions/外形尺寸(mm)	175*92*20(L*W*H)
Panel Cutout/安装尺寸(mm)	165*76
Operating Temp./工作温度	(-40~+70)°C
Working Humidity/工作湿度	(20~93)%RH
Weight/重量	0.38kg

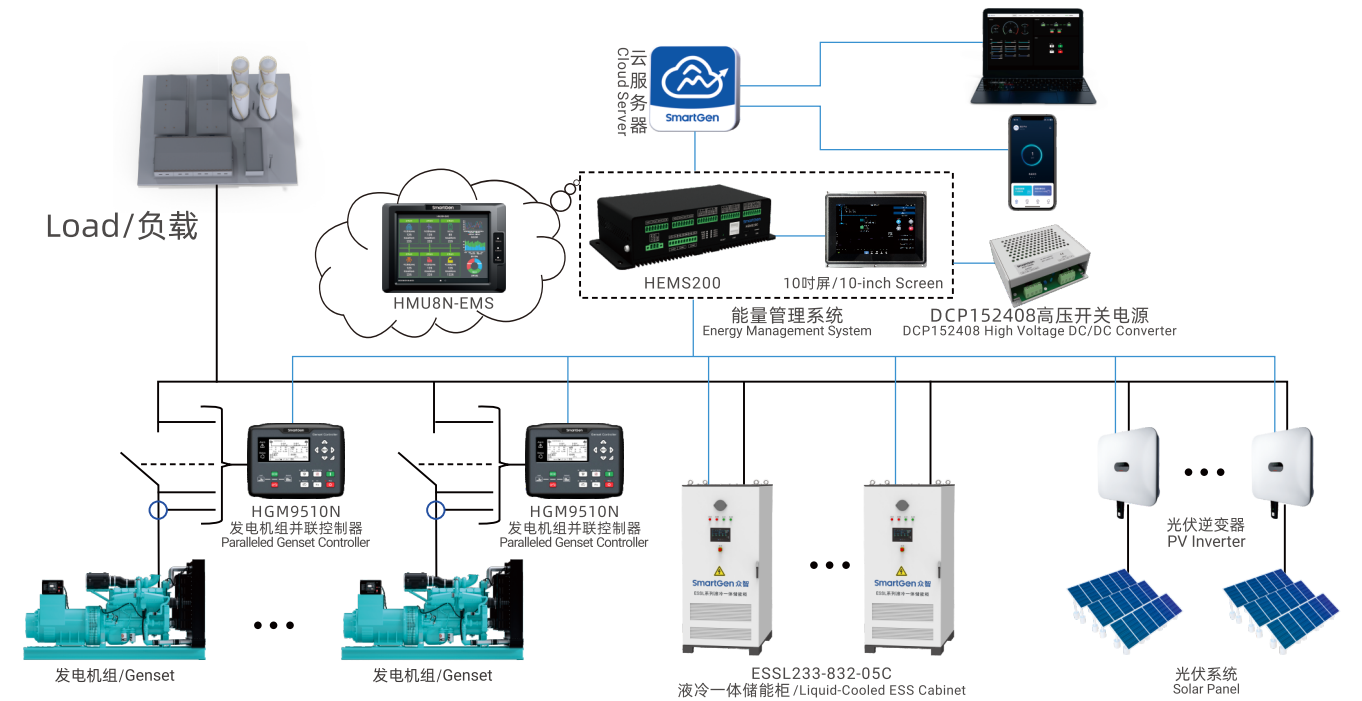
Hybrid Energy Management System Solutions

混合能源管理系统解决方案



Solution for Hybrid Energy System with PV, ESS and Diesel Genset

混合能源光储柴解决方案



Solution for Hybrid Energy System with PV, ESS and Charging Station

混合能源光储充解决方案





HMU8N-EMS混合能源控制系统
HMU8N-EMS Hybrid Energy Control System



HMU15N-EMS混合能源控制系统
HMU15N-EMS Hybrid Energy Control System



HEMS150混合能量管理系统
HEMS150 Hybrid Energy Management System



HEMS200混合能量管理系统
HEMS200 Hybrid Energy Management System

Model/型号	HMU8N-EMS	HMU15N-EMS
Main Functions 主要功能	It is used for hybrid energy system consisting of solar energy, wind energy, energy storage battery, hydrogen fuel cell, mains supply and diesel genset. It can read and display the data and status of various energies, control the power distribution, customize the control policy and support multiple control modes. 用于太阳能，风能，储能电池，氢燃料电池，市电和柴油发电机组组成的混合能源系统，读取并显示各能源数据及状态，控制各能源之间的功率分配等，并可自定义控制策略，支持多种控制模式。	
Operating Voltage/工作电压	DC 12V/24V	
Display/显示	8-inch /8吋	15-inch /15吋
Resolution/分辨率	800*600	1024*768
Language/控制器语言	Chinese & English & Others/中文 & 英文	
Overall Consumption/整机功耗	≤7W	≤15W
RS485	4	
ETHERNET/以太网	1	
USB	1	
CAN	1	
PLC/用户可编辑逻辑	Built-in/内置	
RTC & Event Log/实时时钟及历史记录	●	
Case Dimensions/外形尺寸(mm)	221*163*51(L*W*H)	377*316*76(L*W*H)
Panel Cutout/安装尺寸(mm)	205*147	359.5*298.2
Operating Temp./工作温度	(-25~+70)°C	
Working Humidity/工作湿度	(20~95)%RH	
Storage Temperature/贮存温度	(-30~+80)°C	
Protection Level/防护等级	IP65	
Weight/重量	1.38kg	3.75kg

Model/型号	HEMS150	HEMS200
Main Functions 主要功能	HEMS series is designed for micro-grid hybrid energy management. It is developed based on Linux operating system, which will make electric power system work intelligently and efficiently, and achieve more functions via intelligent modules expansion. HEMS series has a user-friendly interface with various functions. It can realize management and real-time communication of different system or equipment, such as PCS, solar system, wind system, diesel engine, ESS, smart circuit breaker, ATS, electric meter, etc. After acquiring, processing and analyzing all essential data from slave stations, it can control the entire micro-grid system, and make it work normally and stably through the logical operation of the internal program. HEMS系列是一款微网混合能源管理控制器，它是基于linux操作系统开发，该系统可以让电力系统以智能、高效的方式工作，并且可以扩展智能部件以实现更多的功能。HEMS系列提供更强大、用户友好且易于使用的界面，支持PCS、太阳能、风力、柴油机等、储能、智能断路器、ATS、电表等设备的管理功能和实时通讯，收集所有通讯子站的重要数据，通过对数据的采集、处理、分析，经过内部程序逻辑运算，控制整个微网系统有序、稳健运行。	
Operating Voltage/工作电压	DC(12~24)V	
Power Consumption/整机功耗	<9W	<12W
CPU/处理器	1.2GHz双核	1.1GHz多核
RAM/内存	1GB	2GB
ROM/存储器	8GB	
CAN	2	3
RS485	5/6	8
RS232	2/1	3
Programmable Input Port/可编程输入口	8	18
Programmable Output Port/可编程输出口	12	8
ETHERNET	2	4
USB	2	
4G	●	
WiFi	●	
RTC/实时时钟	●	
Expanded Hard Disk/支持外扩硬盘		●
TF Card/TF卡	●	
PV+ESS+Charging Pile System/光储充系统	●	
PV+ESS+Diesel Genset System/光储柴系统	●	
Cloud Platform/云平台	●	
Operating Temp./工作温度	(-40~+60)°C	
Case Dimensions/外形尺寸(mm)	190*115*52.4(L*W*H)	232*113*59(L*W*H)
Weight/重量	0.97kg	1.4kg



ESSA系列风冷一体储能柜
ESSA Series Air-Cooled All-In-One ESS Cabinet



ESSL系列液冷一体储能柜
ESSL Series Liquid-Cooled All-In-One ESS Cabinet

Model/型号		ESSA215-768-05C
AC Side Parameters (Grid Connection) 交流侧参数(并网)	Main Functions 主要功能	The ESS is suitable for multiple applications. With solar power system, it can realize applications of new energy utilization, peak shaving and load shifting.It is designed in accordance with standard electrical cabinet to meet customers' requirement of economic efficiency and reliability. 本储能系统可应用于多种场景，可配合光伏发电系统，实现新能源消纳、削峰填谷等应用场景。可满足客户对经济性、可靠性等要求。储能系统采用标准化电气柜设计。
	Rated Power/额定功率	100kW
	Rated Voltage/额定电压	AC(230/400)V
	External Wiring Method/对外接线方式	三相四线+PE
	Voltage Deviation/电压偏差	-15% ~ +10%
	Rated Grid Frequency/额定电网频率	50Hz/60Hz
	Power Factor Range/功率因数范围	1（超前）~1（滞后）
System Parameters 系统参数	Total Capacity/系统容量	215kWh
	Rated C-Rate/额定充放电倍率	0.5C
	Nominal Voltage/标称电压	DC 768V
	Battery Voltage Range/电池电压范围	DC (672~864)V
	Battery System Configuration/电池系统配置	1P240S
	Battery Type/电池类型	LFP/磷酸铁锂
	Nominal Capacity/标称容量	280Ah
	Operating Temp. Range/工作温度范围	Charge/充电(0~50)°C Discharge/放电(-20~50)°C
	Cooling/冷却方式	AC+Forced Air-Cooled/空调+强制风冷
	Fire-fighting Methods/消防灭火方式	Perfluoro(2-methyl-3-pentanone)/全氟己酮
	Communication Method/通信方式	RS485/ETHERNET/4G
	Protection Level/防护等级	IP54
	Operating Altitude/工作海拔	≤2000m
	Case Dimensions/外形尺寸(mm)	1600*1350*2270(L*W*H)
	Weight/重量	2.4t

	Model/型号	ESSL233-832-05C	ESSL215-768-05C	ESSL241-768-05C	ESSL261-832-05C
	Main Functions 主要功能	The ESS is suitable for multiple applications. With solar power system, it can realize applications of new energy utilization, peak shaving and load shifting.It is designed in accordance with standard electrical cabinet to meet customers’ requirement of economic efficiency and reliability. 本储能系统可应用于多种场景，可配合光伏发电系统，实现新能源消纳、削峰填谷等应用场景。可满足客户对经济性、可靠性等要求。储能系统采用标准化电气柜设计。			
AC Side Parameters (Grid Connection) 交流侧参数(并网)	Rated Power/额定功率	(125/100)kW			
	Rated Voltage/额定电压	AC(230/400)V			
	External Wiring Method 对外接线方式	三相四线+PE			
	Voltage Deviation/电压偏差	-15% ~ +10%			
	Rated Grid Frequency/额定电网频率	50Hz/60Hz			
	Power Factor Range/功率因数范围	1（超前）~ 1（滞后）			
System Parameters 系统参数	Total Capacity/系统容量	233kWh	215kWh	241kWh	261kWh
	Rated C-Rate/额定充放电倍率	0.5C/0.5C			
	Nominal Voltage/标称电压	DC 832V	DC 768V		DC 832V
	Battery Voltage Range/电池电压范围	DC (728~936)V	DC (672~864)V		DC (728~936)V
	Battery System Configuration 电池系统配置	1P260S	1P240S		1P260S
	Battery Type/电池类型	LFP/磷酸铁锂			
	Nominal Capacity/标称容量	280Ah		314Ah	
	Operating Temp. Range/ 工作温度范围	Charge/充电(0~50)℃		Discharge/放电(-20~50)℃	
	Cooling/冷却方式	Liquid-Cooled/液冷			
	Fire-Fighting Methods 消防灭火方式	Perfluoro(2-methyl-3-pentanone)/aerosol/全氟己酮/气溶胶			
	Communication Method/通信方式	RS485/ETHERNET/4G			
	Protection Level/防护等级	IP54			
	Operating Altitude/工作海拔	≤2000m			
	Case Dimensions /外形尺寸(mm)	1000*1350*2270(L*W*H)			
	Weight/重量	2.9t	3.1t		3.2t



ESSL233-832-07C 光储一体柜
PV & ESS All-In-One Cabinet

Model/型号		ESSL233-832-07C
	Main Functions 主要功能	The ESS cabinet supports multi-string PV panel input and MPPT function. Integrated with STS, it enables uninterrupted transfer. It is suitable for various applications, including peak load shifting, green electricity consumption, demand management, and backup power supply. 本储能柜支持多路光伏输入，具有MPPT功能。集成有STS,可实现不间断切换。可应用于多种场景，包括削峰填谷、绿电消纳、需量管理、备用电源等。
AC Side Parameters (Grid Connection) 交流侧参数(并网)	Rated Power/额定功率	200kW
	Rated Voltage/额定电压	AC 400V
	External Wiring Method/对外接线方式	3P4W+PE/三相四线+PE
	Voltage Deviation/电压偏差	-15% ~ +10%
	Rated Grid Frequency/额定电网频率	50Hz
	Power Factor Range/功率因数范围	1 (lead) ~ 1 (lag)/1（超前）~1（滞后）
System Parameters 系统参数	Total Capacity/系统容量	233kWh
	Rated C-Rate/额定充放电倍率	0.7C
	Nominal Voltage/标称电压	DC 832V
	STS	●
	Battery Voltage Range/电池电压范围	DC (728~936)V
	Battery System Configuration/电池系统配置	1P260S
	Battery Type/电池类型	LFP/磷酸铁锂
	Nominal Capacity/标称容量	280Ah
	Operating Temp. Range/工作温度范围	-20~55℃
	Cooling/冷却方式	Liquid-Cooled/液冷
	Fire-Fighting Methods/消防灭火方式	Perfluoro(2-methyl-3-pentanone)/全氟己酮
	Communication Method/通信方式	RS485/ETHERNET/4G
	Protection Level/防护等级	IP54
	Operating Altitude/工作海拔	≤2000m
	Case Dimensions/外形尺寸(mm)	1600*1400*2200(L*W*H)
	Weight/重量	3000kg
PV Parameters 光伏参数	Mppt Voltage Range/MPPT电压范围	DC (640~940)V
	Mppt Number/MPPT数量	4
	Dc Input String Number/直流输入组串数	1
	Maximum Input Current/最大输入电流	300A



ESSL1045-832-05C 1MWh液冷一体储能集装箱
1MWh Liquid-Cooled All-In-One ESS Container

Model/型号		ESSL1045-832-05C
	Main Functions 主要功能	This ESS cabinet adopts a string-series structure, uniformly managing the working status of battery packs to ensure efficient energy distribution. Its convenient deployment and integrated design enhance the overall protection of the system. It is suitable for various applications, including peak shaving and valley filling, green power consumption, demand management, and backup power supply. 本储能柜采用组串式结构，统一调度电池组的工作状态，确保能量的高效分配，方便部署，集成化设计，提高系统的整体防护性。可应用于多种场景，包括削峰填谷、绿电消纳、需量管理、备用电源等。
AC Side Parameters (Grid Connection) 交流侧参数(并网)	Rated Power/额定功率	500kW
	Rated Voltage/额定电压	AC 400V
	External Wiring Method/对外接线方式	三相四线+PE
	Voltage Deviation/电压偏差	-15% ~ +10%
	Rated Grid Frequency/额定电网频率	50Hz
	Power Factor Range/功率因数范围	1（超前）~1（滞后）
System Parameters 系统参数	Total Capacity/系统容量	1045kWh
	Rated C-Rate/额定充放电倍率	0.5C
	Nominal Voltage/标称电压	DC 832V
	Battery Voltage Range/电池电压范围	DC (728~936)V
	Battery System Configuration/电池系统配置	4簇1P260S
	Battery Type/电池类型	LFP/磷酸铁锂
	Nominal Capacity/标称容量	314Ah
	Operating Temp. Range/工作温度范围	-20~55℃
	Cooling/冷却方式	Liquid-Cooled/液冷
	Fire-Fighting Methods/消防灭火方式	Perfluoro(2-methyl-3-pentanone)/全氟己酮
	Communication Method/通信方式	RS485/ETHERNET/4G
	Protection Level/防护等级	IP54
	Operating Altitude/工作海拔	≤2000m
	Case Dimensions/外形尺寸(mm)	3005*2600*2896(L*W*H)



HPCS50储能双向变流器
HPCS50 ESS Bidirectional Converter

Model/型号	HPCS50
Main Functions 主要功能	HPCS50 bidirectional AC/DC converter adopts three-level topology structure to realize bidirectional transfer of DC-AC, AC-DC. It not only can convert AC to DC to charge the battery, but also can convert DC to AC to supply load or power grid. HPCS50储能双向AC/DC变流器，采用三电平拓扑结构，可以实现直流到交流、交流到直流的双向变换，既可以将交流电转化为直流电为蓄电池充电，也可将直流电转化为交流电，为负载供电或回馈给电网。
Maximum Floating Battery Voltage/最大浮充电池电压	DC 1200V
Operating Voltage range/工作电压范围	DC (630~1100)V
Rated Voltage/额定电压	DC 700V
Maximum Current at DC Side/直流侧最大电流	96.7A
Rated AC Output/额定交流输出	50KW
Maximum AC Output/最大交流输出	55KW
AC Rated Voltage/交流侧额定电压	AC 400V±15%
Rated Frequency/额定频率	50Hz/60Hz
Grid-connected Current Harmonic/并网电流谐波	<3%
Off-grid Voltage Harmonic/离网电压谐波	<3%(Linear load) /<3%(线性负载)
Maximum Efficiency/最高效率	98%
Protection Level/防护等级	IP20
Cooling/冷却方式	Intelligent Air-cooled/智能风冷
Communication Method/通信方式	BMS:CAN/RS485 EMS:Ethernet/RS485/WIFI
Operating Temp./工作温度	(-25~60)°C (No Derating@45°C)/(-25~60)°C (45°C无降额)
Storage Temperature/贮存温度	(-40~+70)°C
Operating Altitude/工作海拔	≤4000m(Over 3000m derating)/≤4000m(超过3000m降额)
Safety Standard/安规	GB/T34120-2017,GB/T34133-2017
Case Dimensions/外形尺寸(mm)	674*440*255(L*W*H)
Weight/重量	45kg



BPA系列风冷电池模块
BPA Series Air-Cooled Battery Module



BPL系列液冷电池模块
BPL Series Liquid-Cooled Battery Module

Model/型号	BPA16-280	BPL52-280	BPL48-280	BPL48-314	BPL52-314
Main Functions 主要功能	The air-cooled/liquid-cooled battery module serves as the energy storage unit of the ESS cabinet. The battery module contains built-in battery cells and a BMU slave controller. The BMU collects data of cell voltage and temperature and uploads it via the CAN interface. 风冷/液冷电池模块是储能柜的储能装置。电池模块内置电芯与BMU从控，通过BMU采集电芯的电压、温度等，通过CAN接口上传。				
Cell Type/电芯类型	LFP/磷酸铁锂				
Cell Specification/电芯规格	3.2V/280Ah			3.2V/314Ah	
Cell Configuration/成组方式	1P16S	1P52S	1P48S		1P52S
Rated Energy/额定能量	14.336kWh	46.6kWh	43kWh	48.2kWh	52.2kWh
Rated Voltage/额定电压	DC51.2V	DC166.4V	DC153.6V		DC166.4V
Operating Voltage Range/工作电压范围	DC44.8~57.6V	DC145.6~187.2V	DC134.4~172.8V		DC145.6~187.2V
Max. Continuous Charge/Discharge Rate 最大持续充放电倍率	0.5C/0.5C				
Built-in Pack Level Fire Safety/内置PACK级消防		Perfluoro(2-methyl-3-pentanone)全氟己酮			
Cooling Method/散热方式	Air Cooling/风冷散热	Liquid Cooling/液冷散热			
Protection Level/防护等级		IP67			
Case Dimensions/外形尺寸(mm)	490*737*235(L*W*H)		808*1172*245(L*W*H)		
Weight/重量	120kg		400kg		



HVB1000-200-S高压控制箱
High Voltage Control Box

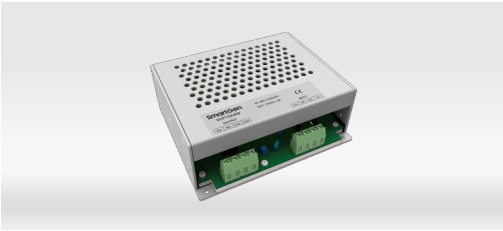


HVB1000-250/1500-250高压控制箱
High Voltage Control Box

Model/型号	HVB1000-200-S	HVB1000-250	HVB1500-250
Main Functions 主要功能	The main functions of the high voltage control box is to collect data such as DC bus voltage, total battery pack voltage, charge/discharge current, and internal temperature. The built-in BCU module receives data uploaded by the BMU module via the CAN interface, enabling it to calculate the overall battery pack's SOC and SOH. Through the host computer, relevant parameters for battery pack protection can be set. 高压控制箱主要功能是采集直流母排电压，电池组总电压和充放电电流，机箱内温度等，内置的BCU模块通过CAN接口接收BMU模块上传的数据，可计算整组电池的SOC，SOH;通过上位机可设置对电池组保护的相关参数。		
Max. Operating Voltage/最大工作电压	DC1000V		DC1500V
Max. Operating Current/最大工作电流	200A		250A
Auxiliary Power Supply/辅助电源	DC24V		
Applicable Series/适用系列	Air-Cooled ESS Cabinet/风冷柜系列	Liquid-Cooled ESS Cabinet/液冷柜系列	
Case Dimensions/外形尺寸(mm)	235*757*594(L*W*H)		566*840*140(L*W*H)
Weight/重量	29kg		



DCP102410高压开关电源
DCP152408 High Voltage DC/DC Converter

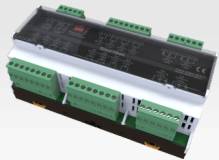


DCP152408高压开关电源
DCP152408 High Voltage DC/DC Converter

Model/型号	DCP102410	DCP152408
Main Functions 主要功能	DCPXX Series is a high voltage isolated DC/DC converter with multiple protections, which is suitable for equipment requiring DC24V isolated power. Its maximum rated output current is 8A/10A.The product has the characteristics of wide voltage range, small size, light weight, high efficiency, high isolated voltage, etc. It has input under voltage, reverse connection, output over voltage, overcurrent, short circuit and others protection. DCPXX系列是一款高压型、多重保护的DC/DC隔离电源，适用于需要DC24V隔离供电的设备，额定输出电流为8A/10A。具有电压范围宽，体积小，重量轻，效率高，隔离电压高等特点。具有输入欠压，输入反接，输出过压，输出过流，输出短路等保护。	
Max. Charging Current/最大输入电压范围	DC(200~1000)V	DC (450~1500)V (<550V Reduce rated power/小于550V降额使用)
Max. Input Power/最大输入功率	280W	220W
Max. Input Current/最大输入电流	1.5A	0.45A
Max. Efficiency/最大效率	93%	91%
Rated Output Voltage/额定输出电压	DC 24V	
Rated Output Current/额定输出电流	10A	8A
Rated Output Power/额定输出功率	240W	192W
Input Under Voltage Protection/输入欠压保护	●	
Input Reverse Voltage Protection/输入过压保护	●	
Input Reverse Connection Protection/输入反接保护	●	
Output Over Voltage Protection/输出过压保护	● （Shut off output voltage, and recover after auto reboot/关闭输出电压，自动重启后恢复）	
Output Over Current Protection/输出过流保护	● （Shut off output voltage, and recover after auto reboot/关闭输出电压，自动重启后恢复）	
Short Circuit Protection/短路保护	● （Shut off output voltage, and recover after auto reboot/关闭输出电压，自动重启后恢复）	
Operating Temp./工作温度	(-40~+70)°C	(-30~+55)°C
Working Humidity/工作湿度	20%RH~93%RH(无凝露)	20%RH~93%RH
Case Dimensions/外形尺寸(mm)	210*131*55(L*W*H)	142*156*55(L*W*H)
Panel Cutout/安装尺寸(mm)	190*120	132*80
Weight/重量	1.2kg	0.8kg

DOUT16B-2开关量输出模块
Digital Output Module

An expansion module with 16 auxiliary digital output channels.
16路开关量输出模块

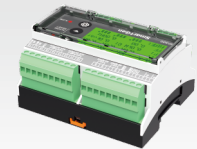


Case Dimensions
外观尺寸(mm): 161.6*89.7*60.7

HMP300-2电量综合保护模块
Power Integrated Protection Module

It can realize precise detection, set point adjustment, and threshold setting of multiple parameters. When abnormal status occurs, it will output corresponding protection or alarm actions. With RS485 port, it can communicate with PC. It has high reliability with compact structure and easy wiring.

可实现多种参数的精密测量、定值调节以及阈值整定功能，并且在异常情况时可输出相应动作，使用PC机通过RS485接口通讯，结构紧凑、接线简单、可靠性高。



Case Dimensions
外观尺寸(mm): 107.6*89.7*60.7

DIN16A-2开关量输入模块
Digital Input Module.

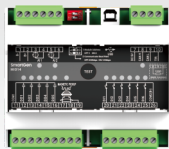
An expansion module with 16 auxiliary digital input channels.
16路开关量输入模块



Case Dimensions
外观尺寸(mm): 107.6*89.7*60.7

MIO14综合扩展模块
Integrated Expansion Module

Digital Input/Output Module
开关量输入输出模块



Case Dimensions
外观尺寸(mm): 107.6*89.7*60.7

PCC95 PCS(储能变流器)控制器
PCS controller

It is used for power station systems composed of single or multiple PCS and gensets or mains power, controlling PCS mode switching, automatic start and stop, input and output power, data monitoring and measurement, and alarm protection. The controller adopts liquid crystal (LCD) graphic display, which can display Chinese, English and other languages. The operation is simple and reliable.

用于单台或多台PCS和发电机组或市电组成的电站系统，控制PCS的模式切换、自动开机停机、输入输出功率，数据监控和测量、报警保护。控制器采用液晶(LCD)图形显示器，可显示中文、英文及其他多种语言，操作简单，运行可靠。



HGM9510N发电机组并联控制器
Paralleled Genset Controller

It is used for manual/automatic parallel system for multiple gensets of the same capacity or different capacities, and suitable for constant power output and mains power grid connection of a single genset, realizing automatic start and stop, parallel operation, data measurement, alarm protection and "three remote" functions of gensets. The controller adopts liquid crystal (LCD) graphic display, which can display Chinese, English and other languages. The operation is simple and reliable.

用于多台同容量或不同容量的发电机组的手动/自动并联系统以及适用于单台发电机组恒功率输出和市电并网，实现发电机组的自动开机停机、并联运行、数据测量、报警保护及“三遥”功能。控制器采用大屏幕液晶(LCD)图形显示器，可显示中文、英文及其他多种语言，操作简单，运行可靠。



ATS Controllers 智能切换控制器



经济型双电源控制器
Dual Power ATS Controller
(Economical type)



双电源同步切换控制器
Dual Power Synchronous ATS Controller



双电源母联自动切换控制器
Dual Power Bus Tie Controller



三电源母联自动切换控制器
Three Power Bus Tie Controller

Construction Machinery Controllers 工程机械控制器



工程机械控制器
Construction Machinery
Engine Controller



发动机控制器
Engine Controller



柴驱泵组控制器
Diesel Drive Pump Unit Controller



柴驱空压机控制器
Diesel Air Compressor Controller

Genset Controllers 发电机组控制器



单机自启动发电机组控制器
Self Starting Genset Controller



增强型发电机组控制器
Enhanced Genset Controller



冗余并联发电机组控制器
Redundant Parallel Genset Controller



发电机组远程监控控制器
Remote Monitoring Controller

Chargers/Heaters 充电器/加热器



数显型蓄电池充电器
Digital Display Battery Charger



蓄电池充电器
Battery Charger



燃油加热器
Fuel Heater



强制循环水加热器
Forced Circulation Heater

Marine Engine Controllers 船用机旁控制器



游艇发动机控制器
Yacht Engine Controller



增强型船用发动机控制器
Enhanced Marine Diesel
Engine Controller

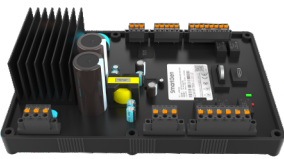


分体式功率管理控制器
Split Type Power Management Controller



发动机监控仪
Engine Monitoring Controller

Others 其他



数字电压调节器
Digital Voltage Regulator



双电源自动转换开关
Dual Power Automatic
Transfer Switch



4G云监控通信模块
4G Cloud Monitoring
Communication Module



电量综合保护模块
Power Integrated Protection Module