SmartGen 众智

MAKING CONTROL SMARTER

股票代码 Stock Code 301361

PRODUCT CATALOGUE

产品选型样册

BESS

![SmartGen EST.1998]

ABOUT US 关于我们

始建于 ESTABLISHED IN 1998 **1998**	公司总部 HEADQUARTERS: ZHENGZHOU, CHINA **中国·郑州**	产品类别 PRODUCT CATEGORIES **1000+**	客 户 CUSTOMERS **3000+**

众智科技始建于1998年，创业板（股票代码301361）上市企业。

主要从事发动机、发电机和发电机组控制系统、新能源微网控制系统、智能电网控制系统等相关产品的研发、生产、销售和服务。产品广泛应用于矿山石油开采、智算中心、船舶、海岛、智能大厦、零碳园区、电信、基建、工商储等领域，业务范围遍布全球，在50多个国家和地区设有办事机构。

拥有数百项专利，有超过30%的员工致力于研发工作，坚持"让控制更智能"的核心理念，以推动行业技术进步为使命，不断创新与自我超越，为打造优质、安全、绿色、低碳可持续发展的产业生态链而不懈努力！

Established in 1998, SmartGen is a listed public company (stock code: 301361). The company specializes in the research and development, manufacturing, sales, and service of control systems for engines, generators and generator sets, new energy microgrid and smart grid. SmartGen's products are widely used across a broad range of industries including mining and oil extraction, AI data centers, ships, offshore islands, smart buildings, zero-carbon industrial parks, telecommunications, infrastructure, and commercial & industrial energy storage. With a global presence, we have set offices in more than 50 countries and regions. Holding hundreds of patents and with over 30% of its workforce engaged in R&D, SmartGen remains committed to its core philosophy of "Making Control Smarter". Driven by a mission to lead technological progress in the industry, SmartGen continually innovates and evolves, striving to build a high-quality, safe, green, low-carbon, and sustainable industrial ecosystem.

郑州雪梅街工厂 Zhengzhou Xuemei Street Factory

郑州金梭路工厂

QUALIFICATIONS 资质

产品认证 Product Certification

CCC认证、CE认证、UL认证；CCS（中国船级社）认证、BV（法国船级社）认证、ABS(美国船级社)认证、NK(日本船级社)认证等

CCC certification, CE certification, UL certification; CCS certification, BV certification, ABS certification, NK certification, etc.

管理体系 Management System

质量管理体系ISO9001、CCSR9001,环境管理体系ISO14001,职业健康管理体系ISO45001,知识产权管理体系GB/T29490,两化融合管理体系GB/T23001,双重预防管理体系等

The company has successively passed ISO9001 Quality Management System, CCSR9001 Professional Quality Management System Requirements for Marine Product Manufacturer, ISO14001 Environmental Management System, ISO45001 Occupational Health and Safety Management System, GB/T 29490 Intellectual Property Compliance Management System, GB/T23001 Integration of Informatization and Industrialization Management System, Dual Prevention Management System, etc.

Zhengzhou Jinsuo Road Factory
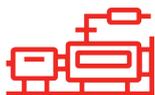
土耳其伊斯坦布尔工厂　Türkiye Istanbul Factory

BUSINESS SECTORS
业务板块

新能源 New Energy
BMS、EMS、PCS、储能柜，AC/DC，DC/DC，保护板
BMS, EMS, PCS, Energy Storage Cabinets, AC/DC, DC/DC, Protection Boards

发电机组控制 Genset Control
单机自启动，AMF，多机并联，并网，灯塔控制，燃油/电加热器，充电器
Standalone Self-starting, AMF, Multi-unit Parallel, Grid connection, Lighting Tower Control, Fuel/Electric Heater, Chargers

交流发电机控制 Alternator Control
数字电压调节,模拟电压调节
DVR, AVR

工程机械控制 Engineering Machinery Control
消防泵控制，空压机控制，发动机控制，CAN监控仪，手油门，遥控器
Fire Pump Control, Air Compressor Control, Engine Control, CAN Monitor, Manual Throttle Control, Remote Controller

SmartGen
EST.1998

智能电网控制 Smart Grid Control

双/多路电源切换、旁路切换，两进线一母联，三进线两母联，ATS
Dual/Multi-power Supply Switching, Bypass Switching, Two-income One Bus,
Three-income Two Bus, ATS

船舶控制 Marine Control

EMS，PMS，机旁，电子电位器，传感器
EMS, PMS, Local Control, Electronic Potentiometer, Sensors

监控 Monitoring

公有云，私有云，云猫，SCADA，HMI
Public Cloud, Private Cloud, Cloud Monitoring Modem, SCADA, HMI

模块 Modules

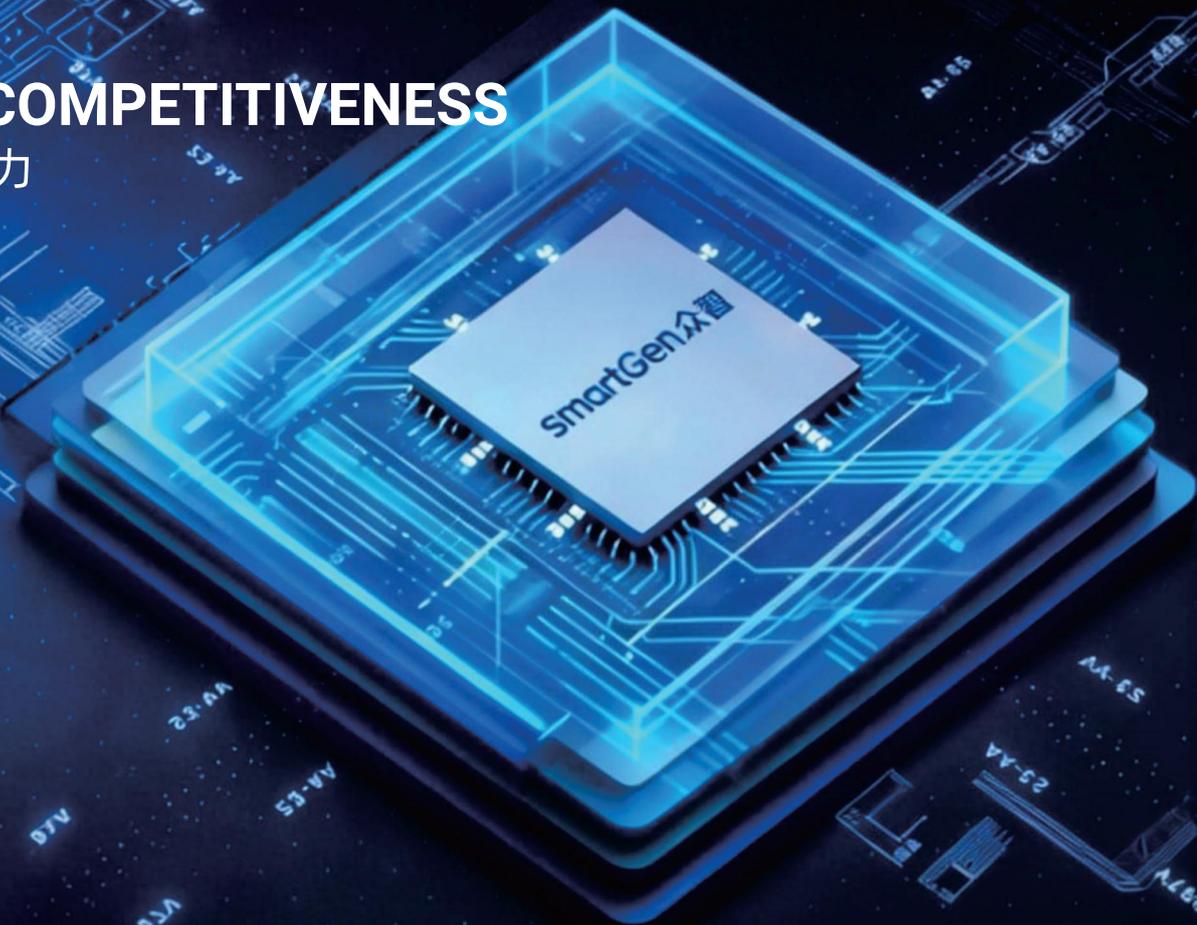继保，安保，同步，负载均分，USB，CANBUS，RS485，Ethernet，DI/DO/AI/AO，光纤，蓝牙，Wifi
Protection Relay, Redundant Protection, Synchronization, Load Sharing, USB, CANBUS, RS485,
Ethernet, DI/DO/AI/AO, Fiber Optic, Bluetooth, Wi-Fi

CORE COMPETITIVENESS
核心竞争力

研发实力雄厚
Strong R&D Strength

近30年行业深耕经验
国家标准起草者
产品技术国际领先

Nearly 30 years of deep industry experience
National standard setter
World-leading product technology

智能制造
Intelligent Manufacturing

工业4.0数字工厂
批量定制化柔性生产
精益六西格玛管理模式

Industry 4.0 digital factory
Flexible production and mass customization
Lean Six Sigma management model

专家营销
Expert Marketing

工程师级别营销团队
精准触达需求痛点
充分释放差异化价值

Engineer-level sales and marketing team
Precisely addresses pain points
Maximizes differentiated value

全球服务网络
Global Service Network

50多个国家和地区设有办事机构
数千家长期优质客户遍布全球
可持续发展的完整产业生态链

Offices in over 50 countries and regions
Thousands of long-term premium clients span the world
Sustainable and complete industrial ecosystem
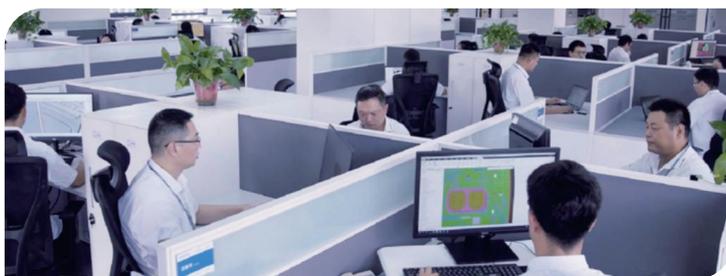
30%+的研发人员占比、10%+的研发投入
R&D staff more than 30%、R&D investment more than 10%

行业内屈指可数的一流试验基地
One of the handful of top-ranking testing bases in the industry

数条自动化生产线：控制器、充电器、加热器、储能柜、控制柜等生产线
Multiple automated production lines: controller, charger, heater, energy storage system cabinet, control panel, etc.

智能化仓储、1万＋库位、数十台AGV
Intelligent warehousing, over 10,000 storage spaces, dozens of AGV

Multi-set Parallel Solution
发电机组多机并联解决方案
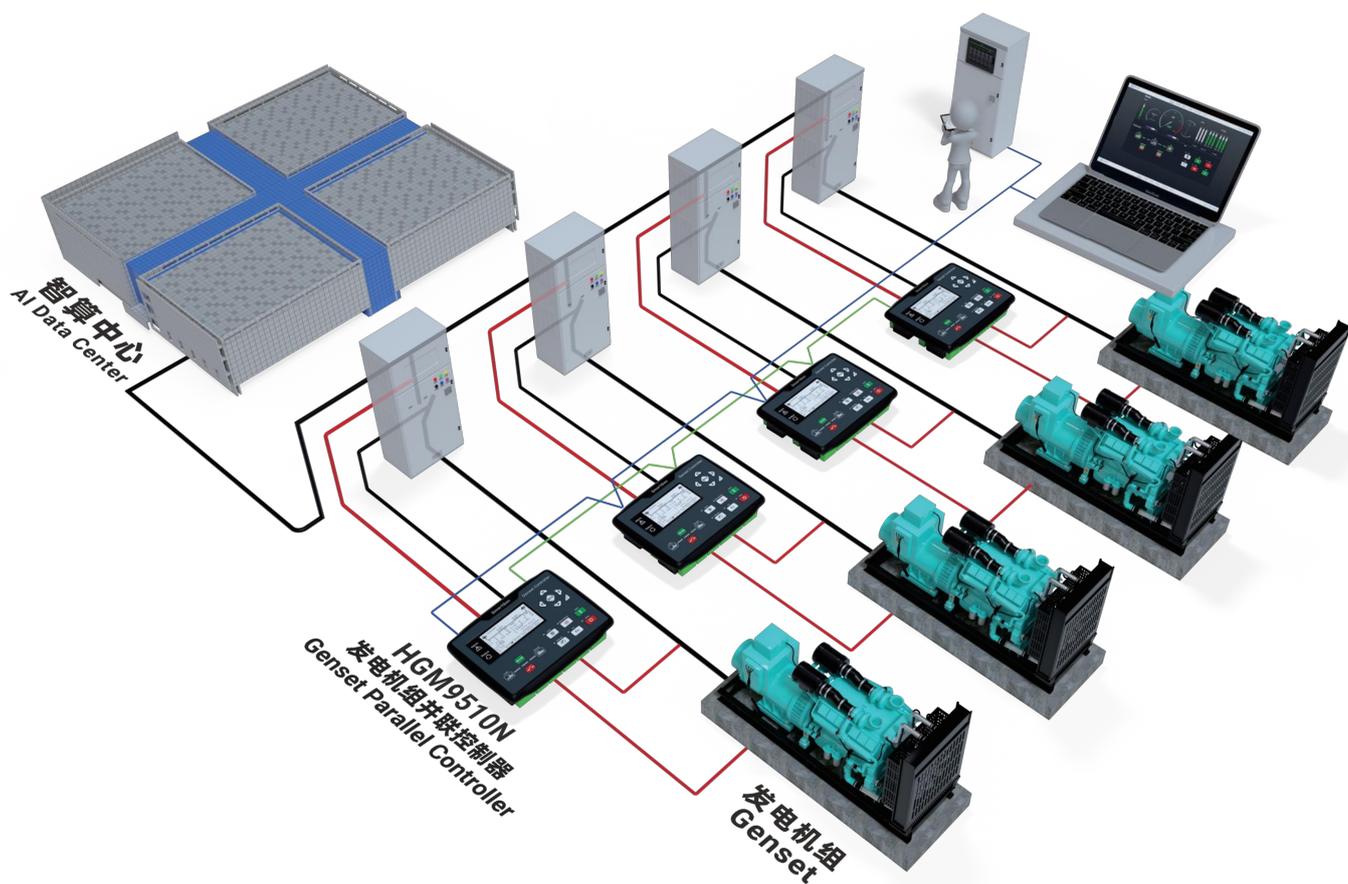
Help 32 gensets with same capacity /different capacity to realize automatic synchronization and load share.
HMU15N genset remote monitoring controller is suitable for remote monitoring single/multiple HGM9510N genset controller, fitting with LCD display, touch screen, so this controller is reliable and easy to use.

可满足多达32台同容量或不同容量的机组自动同步和负载均分。

HMU15N发电机组远程监控控制器采用大屏幕液晶(LCD)人机界面显示，适用于远程监控单台或多HGM9510N发电机组控制器，触摸屏操作简单，运行可靠。

Gas Genset Controller (Combined Cooling, Heating and Power)
燃气发电机组控制器（冷热电联供）

HGM9510N-CHP

Engine and Generator Parameters
发动机和发电机参数

Waste Heat Valve
余热阀控制

Engine ECU
发动机ECU

Engine Cooling Water Outlet
发动机冷却水出水

Radiating Valve
散热阀控制

Engine Cooling Water Inlet
发动机冷却水进水

User
用户

Gas Genset
燃气发电机组

Remote Radiator
远置散热器

HGM9510N-CHP control system is specially developed for the combined heat and power application of gas gensets. It not only has the function of mains grid connection, but also can collect equipment parameters and control external equipment through various expansion modules, and can perform PID control for each valve.
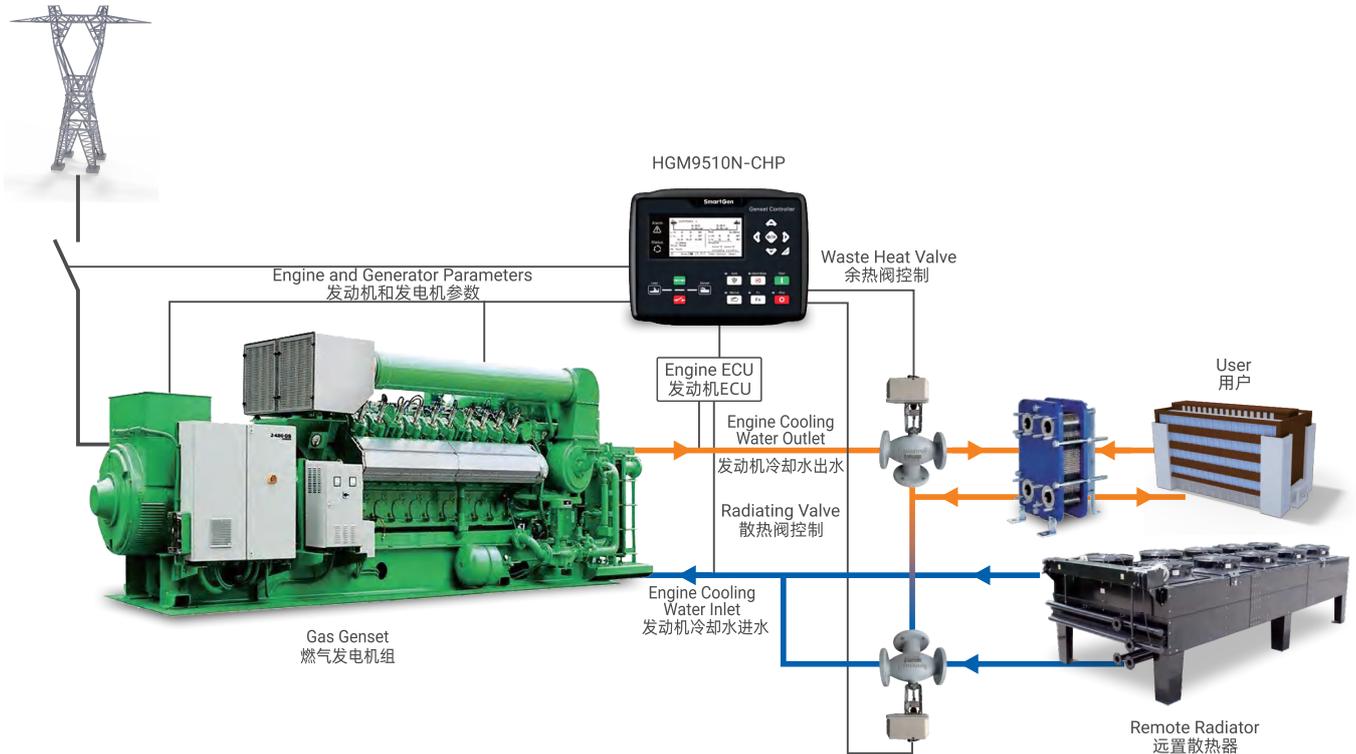
When the engine inlet temperature exceeds the set temperature, the waste heat valve gradually opens to provide the user with waste hot water and stabilize the engine cooling water inlet temperature to the set value.

If the engine temperature continues to rise and the waste heat valve is fully open, open the cooling valve so that the engine circulating water can be cooled through the radiator.

HGM9510N-CHP控制系统是专为燃气发电机组热电联供应用开发，不仅具有市电并网功能，还可通过各种扩展模块来采集设备参数和控制外部设备，并可以对每个阀进行PID控制。

发动机进机温度超过设定温度时，余热阀逐渐打开，给用户提供余热热水，并使发动机冷却水进机温度稳定到设定值。

如果发动机温度持续升高并且余热阀全开后，打开散热阀，使发动机循环水可以通过散热器进行冷却。

HGM9510
Multi-set Parallel Controller
多机并联控制器

HGM9560
Bus Tie Mains Parallel Controller
发电母排并市网并联控制器

HGM9530N
Redundant System Parallel Controller
冗余并联控制器

HMB9700
Split Redundant Parallel Controller
分体式冗余并联控制模块

Model/型号	HGM9510	HGM9520	HGM9530	HGM9560	HGM9580	HGM9510N	HGM9530N	HMB9700
Main Functions 主要功能	With USB interface and LCD display; HGM9510/9510N controller is genset-genset synchronising unit while HGM9520 is genset-mains one. HGM9530 controller is genset-genset synchronising unit (expandable analogue inputs), HGM9560 controller is bus tie mains synchronising unit while HGM9580 is bus tie bus one. 图形液晶显示带USB接口的并联控制器。HGM9510/9510N是发电-发电自动并联控制器；HGM9520是发电-市电自动并网控制器；HGM9530是发电-发电并联控制器(可扩展模拟量输入口)；HGM9560是机组母排-市电自动并网控制器；HGM9580是机组母排-机组母排自动并联控制器。							
Display/显示器	4.3-inch TFT-LCD(480*272)/4.3英寸彩屏					4.3-inch LCD（240*128）4.3英寸液晶显示器		
Operation Panel/操作面板	Silicon Rubber/硅胶							
Language/控制器语言	Chinese＆English＆Others/中文＆英文＆其它							
Digital Input/开关量输入口	7	8	7	8	7	10		
Relay Output/继电器输出口	8					10		
Analog Input/模拟量输入口		5					5	
AMF/市电检测		●		●				
AC System/交流制式	1P2W/2P3W/3P3W/3P4W							
AC Voltage/交流电压范围	AC(15~360)V(ph-N)							
AC Frequency/交流频率	50/60Hz							
kW/Amp Detecting & Display 功率/电流检测及显示			●				●	
Monitor Port/监控接口	RS485					RS485/ETHERNET	RS485-1/RS485-2/ETHERNET	
Programming Port/编程接口	USB/RS485					USB/RS485/ETHERNET	USB/RS485-1/RS485-2/ETHERNET	
Module Redundant/模块冗余								●
MSC Redundant/MSC冗余								●
Digital Input/Output Module Extension 可扩展开关量输入/输出模块		●					●	
Analog Input Module Extension 可扩展模拟量输入模块			●				●	
CANBUS(J1939)		●					●	
GOV		●					●	
AVR		●					●	
RTC & Event Log 实时时钟及历史记录				●				
Scheduled Start Genset 定时试机		●					●	
Maintenance/保养功能		●					●	
PLC/用户可编辑逻辑		●					●	
DC Supply/直流工作电源范围	DC(8~35)V							
Case Dimensions 外形尺寸(mm)	266*182*45(L*W*H)					242*186*49(L*W*H)		248*158*49 (L*W*H)
Panel Cutout/安装尺寸(mm)	214*160							
Operating Temp./工作温度	(-40~+70)℃						(-25~+70)℃	

HGM9310MPU/CAN
Single Color Auto-start/AMF
Genset Controller
单机彩屏自启动/AMF发电机组控制器

HGM9320MPU/CAN
Single Color Auto-start/AMF
Genset Controller
单机彩屏自启动/AMF发电机组控制器

HGM9420N/LT
Enhanced Genset Controller
增强型发电机组控制器

Model/型号	HGM9310MPU	HGM9310CAN	HGM9320MPU	HGM9320CAN	HGM9420N
Main Functions 主要功能	With auto start/AMF function and USB interface; HGM9300MPU controller has monitor interface and SMS function; HGM9300CAN controller has ECU interface(SAEJ1939);HGM9420N/LT genset controller can realize automatic start/AMF/synchronous transfer/cloud monitoring of single unit. HGM9420LT can work in environment of (-40~+70)℃. 具有自启动/AMF功能和USB接口；HGM9300MPU带有监控接口和SMS功能；HGM9300CAN 带电喷接口功能；HGM9420N/LT发电机组控制器可实现单机自起动/AMF/同步切换/云监控功能，HGM9420LT可用于（-40~+70）℃的工作环境。				
Display/显示器	4.3-inch TFT-LCD(480*272)/4.3英寸彩屏				4.3-inch LCD (240*128) 4.3英寸液晶显示器
Operation Panel/操作面板	Silicon Rubber/硅胶				
Language/控制器语言	Chinese＆English＆Others/中文＆英文＆其它				
Digital Input/开关量输入口	8				10
Relay Output/继电器输出口	8				12
Analog Input/模拟量输入口	5				6（电阻/电压/电流）
AMF/市电检测			●		
AC System/交流制式	1P2W/2P3W/3P3W/3P4W				
AC Voltage/交流电压范围	AC(15~360)V(ph-N)				
AC Frequency/交流频率	50/60Hz				
kW/Amp Detecting & Display 功率/电流检测及显示	●				
Monitor Port/监控接口	RS485				RS485*2 /ETHERNET
Programming Port/编程接口	USB/RS485				USB/RS485*2 /ETHERNET
Digital Input/Output Module Extension 可扩展开关量输入/输出模块		●			●
CANBUS(J1939)		●		●	CANBUS*2
RTC & Event Log 实时时钟及历史记录			●		
Scheduled Start Genset 定时试机			●		
Maintenance/保养功能			●		
PLC/用户可编辑逻辑			●		
SMS/短信功能			●		
DC Supply 直流工作电源范围	DC(8~35)V				
Case Dimensions 外形尺寸(mm)	237*172*45(L*W*H)				242*186*49(L*W*H)
Panel Cutout 安装尺寸(mm)	214*160				
Operating Temp. 工作温度	(-40~+70)℃				(-25~+70)℃

GENSET CONTROLLER / 发电机组控制器

HGM8110V/HGM8110CAN
Low-temperature Single
Genset Controller
低温单机发电机组控制器

HGM8120V/HGM8120CAN
Low-temperature AMF
Genset Controller
低温AMF发电机组控制器

HGM8110Z
Domestic Low-temperature Single
Genset Controller
纯国产化低温单机发电机组控制器

HGM8120Z
Domestic Low-temperature Single
Genset Controller
纯国产化低温单机发电机组控制器

Model/型号	HGM8110V	HGM8110CAN	HGM8120V	HGM8120CAN	HGM8110Z	HGM8120Z
Main Functions 主要功能	It can work in environment of (-40~+70)℃, and also can operate normally in EMI environment. Auto start and AMF function are available. HGM8100V controller has RS485 monitoring interface, HGM8100CAN controller has CANBUS interface and can expand I/O port module. 适应（-40~+70）℃的工作环境，具有自启动和AMF功能，可在强磁干扰下工作。HGM8100CAN具有CANBUS接口，可扩展IO口模块。				Suitable for the automatic control of single genset, which has strong anti-electromagnetic interference ability. The components are 100% domestically produced, and it can work normally at the temperature of -40℃. 适用于单台发电机组自动化控制，具有强大的抗电磁干扰能力，全国产化元器件，能够适应-40℃环境下工作。	Suitable for the automatic control of single genset, which has AMF function and strong anti-electromagnetic interference ability. The components are 100% domestically produced, and it can work normally at the temperature of -40℃. 适用于单台发电机组自动化控制，AMF功能，具有强大的抗电磁干扰能力，全国产化元器件，能够适应-40℃环境下工作。
Display/显示器	VFD				LCD	
Operation Panel/操作面板	Silicon Rubber/硅胶					
Language/控制器语言	Chinese＆English＆Others/中文＆英文＆其它				Chinese&English/中文&英文	
Digital Input/开关量输入口	8					
Relay Output/继电器输出口	8					
Analog Input/模拟量输入口	5					
AMF/市电检测			●			●
AC System/交流制式	1P2W/2P3W/3P3W/3P4W					
AC Voltage/交流电压范围	AC(15~360)V(ph-N)				AC 15V ~ 360V (ph-N)　　AC 30V ~ 620V (ph-ph)	
AC Frequency/交流频率	50/60Hz					
kW/Amp Detecting & Display 功率/电流检测及显示	●					
Monitor Port/监控接口	RS485	RS485/ETHERNET	RS485	RS485/ETHERNET	RS232/RS485/ETHERNET	
Programming Port/编程接口	USB/RS485	USB/RS485/ETHERNET	USB/RS485		USB/RS485/ETHERNET	
Digital Input/Output Module Extension 可扩展开关量输入/输出模块		●		●	DIN16A/DOUT16B/AIN24/AIN8	
CANBUS(J1939)		●			●	
RTC & Event Log 实时时钟及历史记录	●					
Scheduled Start Genset 定时试机	●					
Maintenance/保养功能	●					
PLC/用户可编辑逻辑	●					
SMS/短信功能	●					
ETHERNET/以太网	●				●	
DC Supply/直流工作电源范围	DC(8~35)V					
Case Dimensions/外形尺寸(mm)	242*186*53(L*W*H)					
Panel Cutout/安装尺寸(mm)	214*160					
Operating Temp./工作温度	(-40~+70)℃					

SmartGen
EST.1998

HGM8140ZD
Domestic Low-temperature
Split Genset Controller
纯国产化低温分体式发电机组控制器

HGM8140ZM
Domestic Low-temperature Split
Genset Control Module
纯国产化低温分体式发电机组控制模块

HGM8151Z
Domestic Low-temperature
Genset Controller
纯国产化低温发电机组控制器

HGM8510D/M
Paralleled Genset Controller
发电机组并联控制器

Model/型号	HGM8140ZD	HGM8140ZM	HGM8151Z	HGM8510D	HGM8510M
Main Functions 主要功能	integrating digital, intelligent and network technology, adopts "Main Control and Display" separated type mode. It is suitable for single unit automation and monitoring system to achieve automatic start/stop, data measurement, alarm protection as well as remote control, and "Three Remotes" function of gensets. 集成了数字化、智能化、网络化技术，采用【主控和显示】分体式模式，适用于单台发电机组自动化及监控系统、实现发电机组的自动开机/停机、数据测量、报警保护及"三遥"功能。		It is used for manual/automatic parallel system of multiple gensets with the same capacity or different capacities, as well as constant power output and mains grid connection of single genset. It will realize automatic start/stop/parallel operation, data measurement, alarm and protection, and "Three Remotes" function of gensets. 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。		
Display/显示器	LCD(132*64)		LCD	4.3-inch TFT-LCD (480*272)/4.3英寸彩屏	
Operation Panel/操作面板	Silicon Rubber/硅胶		Silicon Rubber/硅胶		
Language/控制器语言	中文＆英文＆西班牙		Chinese&English/中文&英文		
Digital Input/开关量输入口		6	8		20
Relay Output/继电器输出口		7	8	1	8+12 Transistor Output 8+12晶体管输出
Analog Input/模拟量输入口		4	5		6
AC System/交流制式	1P2W/2P3W/3P3W/3P4W				1P2W/2P3W/3P3W/3P4W
AC Voltage/交流电压范围	AC(15~360)V(ph-N)				AC(15-520)V(ph-N)
AC Frequency/交流频率	50Hz/60Hz				50Hz/60Hz
kW/Amp Detecting & Display 功率/电流检测及显示	●			●	
Monitor Port/监控接口		RS485	RS485/RS232/ETHERNET	RS485/ETHERNET	
Master Control & Display Comm. Port 主控与显示通讯接口	RS232/CANBUS			ETHERNET	
Digital Input/Output Module Extension 可扩展开关量输入/输出模块			●		●
Programming Port/编程接口	USB	USB/RS485	USB/RS485/ETHERNET		
PLC/用户可编辑逻辑				●	
CANBUS(J1939)		●			●
RTC & Event Log 实时时钟及历史记录			●		
Battery pack voltage sampling 电池组电压采样		DC input (0-75) V 直流输入（0-75）V			
Maintenance/保养功能			●		
Scheduled Start Genset 定时试机			●		
DC Supply 直流工作电源范围	DC(8~35)V				
Case Dimensions 外形尺寸(mm)	136*110*41(L*W*H)	150*104*41(L*W*H)	242*186*53(L*W*H)	220*130*52(L*W*H)	250*165*83(L*W*H)
Panel Cutout 安装尺寸(mm)	122*94		214*160	201*111	Hole Dia. 孔径Φ5.5x4, Hole Spacing/孔距:237.5x152.5
Operating Temp. 工作温度	(-40~+70)℃			(-25~+70)℃	

SmartGen
EST.1998

HGM7220N/S
4G Integrated AMF
Genset Controller
4G一体式AMF发电机组控制器

HGM7110N
Cloud Monitoring Integrated
Genset Controller
云监控一体式发电机组控制器

HGM7120N
Genset Controller
发电机组控制器

Model/型号	HGM7220N	HGM7220S	HGM7110N	HGM7120N
Main Functions 主要功能	HGM7220N/HGM7220S has 4G cloud monitoring function and HGM7220S has mains synchronous switchover function. HGM7220N/HGM7220S具有4G云监控功能，HGM7220S具有市电同步切换功能。		HGM7100N controller has Ethernet port cloud monitoring function. HGM7100N具有以太网口云监控功能。	
Display/显示器	LCD(132*64)			
Operation Panel 操作面板	Silicon Rubber/硅胶			
Language/控制器语言	Chinese＆English＆Others/中文＆英文＆其它			
Digital Input 开关量输入口	7			
Relay Output 继电器输出口	8			
Analog Input/模拟量输入口	5			
AMF/市电检测	●			●
AC System/交流制式	1P2W/2P3W/3P3W/3P4W			
AC Voltage/交流电压范围	AC(15~360)V(ph-N)			
AC Frequency/交流频率	50/60Hz			
kW/Amp Detecting & Display 功率/电流检测及显示		●		
Monitor Port/监控接口	RS485		RS485/ETHERNET	
Programming Port/ 编程接口	USB/RS485		RS485/USB/ETHERNET	
Built-in Cloud Monitoring 内置云监控	●			
CANBUS(J1939)	●			
RTC & Event Log 实时时钟及历史记录		●		
Scheduled Start Genset 定时试机		●		
Maintenance/保养功能		●		
DC Supply 直流工作电源范围	DC(8~35)V			
SMS/短信功能	●			
Panel Cutout 安装尺寸(mm)	186*141			
Case Dimensions 外形尺寸(mm)	209*166*45(L*W*H)		209*166*45(L*W*H)	
Operating Temp. 工作温度	(-25~+70)℃			

HGM6110N/CAN
Single Auto-start Genset Controller
单机自启动发电机组控制器

HGM6120N/CAN
AMF Genset Controller
AMF发电机组控制器

HGM6110N-4G/CAN-4G
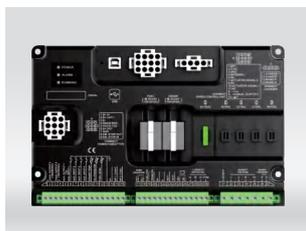4G Integrated Single Auto-start
Genset Controller
4G一体式单机自启动发电机组控制器

HGM6120N-4G/CAN-4G
AMF Genset Controller
AMF发电机组控制器

Model/型号	HGM6110N	HGM6110CAN	HGM6120N	HGM6120CAN	HGM6110N-4G	HGM6110CAN-4G	HGM6120N-4G	HGM6120CAN-4G
Main Functions 主要功能	HGM6110N/6110CAN: With auto start function. HGM6110N is basic controller, HGM6110CAN is controller with ECU port.Based on HGM6110N/6110CAN, it adds mains power monitoring and mains/generator automatic switching control (AMF), especially suitable for the automation system composed by mains and genset.HGM6110LT/6120LT can be applied to (-40℃~+70℃) temperature environment. HGM6110N/6110CAN:具有自启动功能，HGM6110N为基本型控制器，HGM6110CAN为具有ECU接口的控制器。HGM6120N/6120CAN在HGM6110N/6110CAN的基础上增加了市电电量监测和市电/发电自动切换功能（AMF），特别适用于一市一机构成的单机自动化系统。HGM6110LT/6120LT可适用于（-40~+70℃）的温度环境。				HGM6110N-4G/6110CAN-4G: It is used for single unit automation, it controls genset auto start/stop by remote start signal.HGM6120N-4G/6120CAN-4G: based on HGM6110N-4G/6110CAN-4G, it adds mains power monitoring and mains/generator automatic switch control (AMF). It has 4G network communication module inside and the network communication module also has SMS function. HGM6110N-4G/6110CAN-4G:用于单机自动化,通过远端开机信号控制发电机组自动开机与停机;HGM6120N-4G/6120CAN-4G:在HGM6110N-4G/6110CAN-4G基础上增加了市电电量监测和市电/发电自动切换控制功能(AMF);内置4G网络通信模块，网络通信模块也具有SMS短信功能。			
Display/显示器	LCD(132*64)							
Operation Panel/操作面板	Silicon Rubber/硅胶							
Language/控制器语言	Chinese, English, Spanish, Russian, Portuguese, Turkish, Polish, French, etc. 中文、英文、西班牙文、俄文、葡萄牙、土耳其、波兰语、法语等							
Digital Input/开关量输入口	5							
Relay Output/继电器输出口	6							
Analog Input/模拟量输入口	3							
AMF/市电检测			●				●	
AC System/交流制式	1P2W/2P3W/3P3W/3P4W							
AC Voltage/交流电压范围	AC(15~360)V(ph-N)							
AC Frequency/交流频率	50/60Hz							
kW/Amp Detecting & Display 功率/电流检测及显示	●							
Monitor Port/监控接口		●		●		●		●
Programming Port/编程接口	USB	USB/RS485	USB	USB/RS485	USB	USB/RS485	USB	USB/RS485
CANBUS(J1939)		●		●		●		●
RTC & Event Log 实时时钟及历史记录	●							
Scheduled Start Genset 定时试机	●							
Maintenance/保养功能	●							
SMS/短信功能							●	
DC Supply/直流工作电源范围	DC(8~35)V							
Case Dimensions/外形尺寸(mm)	209*167*45(L*W*H)							
Panel Cutout/安装尺寸(mm)	186*141							
Operating Temp./工作温度	(-25~+70)℃							

HGMS61D
Split Single Auto-start
Genset Controller
分体式单机自启动
发电机组控制器

HGMS61M
Split Single Auto-start
Genset Control Module
分体式单机自启动
发电机组控制模块

HGMS62D
Split AMF Genset Controller
分体式AMF机组控制器

HGMS62M
Split AMF Genset Control Module
分体式AMF机组控制模块

Model/型号	HGMS61D	HGMS61M	HGMS62D	HGMS62M
Main Functions 主要功能	\multicolumn{4}{l}{HGMS61/HGMS62 is the genset controller adopts split type structure with master control and display. The control system can be quickly set up to realize automatic start/stop, data measurement, alarm protection and "four remote" (remote control remote measurement, remote communication, remote adjusting) functions, HGMS62 has AMF function, DC+5V output (voltage type sensor supplies power) HGMS61/HGMS62是主控和显示采用分体式结构的发电机组控制器，控制系统可快速成套，实现发电机组的自动开机/停机、数据测量、报警保护及"四遥"功能，HGMS62具有AMF功能，DC+5V输出（电压型传感器供电）。}			
Display/显示器	LCD(132*64)		LCD(132*64)	
Operation Panel/操作面板	Silicon Rubber/硅胶		Silicon Rubber/硅胶	
Language/控制器语言	中文＆英文＆其他		中文＆英文＆其他	
Digital Input/开关量输入口		4		4
Relay Output/继电器输出口		6		6
Analog Input/模拟量输入口		5（其中2路可定义电压型、电阻型、电流型）		5（其中2路可定义电压型、电阻型、电流型）
AC System/交流制式		1P2W/2P3W/3P3W/3P4W		1P2W/2P3W/3P3W/3P4W
AC Voltage/交流电压范围		AC(15~360)V(ph-N)		AC(15~360)V(ph-N)
AC Frequency/交流频率		50Hz/60Hz		50Hz/60Hz
kW/Amp Detecting & Display 功率/电流检测及显示	●		●	
Monitor Port/监控接口		USB/RS485		USB/RS485
Master Control & Display Comm. Port 主控与显示通讯接口	RS232			
Programming Port/编程接口	USB	USB/RS485	USB	USB/RS485
CANBUS(J1939)		HGMS61MCAN ●		HGMS62MCAN ●
RTC & Event Log 实时时钟及历史记录	●			
Maintenance/保养功能	●			
Scheduled Start Genset 定时试机	●			
DC Supply 直流工作电源范围	DC(8~35)V			
Panel Cutout 安装尺寸(mm)	186*141	Hole Spacing/孔距230.5*125.5	186*141	Hole Spacing/孔距230.5*125.5
Case Dimensions 外形尺寸(mm)	209*167*45(L*W*H)	243*158*65(L*W*H)	209*167*45(L*W*H)	243*158*65(L*W*H)
Operating Temp. 工作温度	(-25~+70)℃			

SmartGen
EST.1998

HGM6120P-4G
Single Auto-start Genset Controller
单机自启动发电机组控制器

HGM6110NC-5
Single Auto-start Genset Controller
单机自启动发电机组控制器

HGM6120NC-5
Single Auto-start Genset Controller
单机自启动发电机组控制器

Model/型号	HGM6120P-4G	HGM6110NC-5	HGM6120NC-5
Main Functions 主要功能	Suitable for automatic control and monitoring system of single genset. TFT LCD display allows it to work normally in environments as low as -40℃. 适用于单机发电机组自动化及监测的系统。采用TFT液晶显示，能够在-40℃环境下工作。	It is used for automatic control and monitoring system of single genset. It can carry out functions of automatic start/stop, data measurement, alarm protection and "Three Remote" (remote control, remote measurement and remote communication). Oil pressure and liquid level sensor supports voltage, resistance, and current type sensors. 用于单台发电机组自动化及监控系统，实现发电机组的自动开机/停机、数据测量、报警保护及"三遥"功能，油压及液位传感器支持电压、电阻和电流型传感器。	It is used for automatic control and monitoring system of single genset. It can carry out functions of AMF, automatic start/stop, data measurement, alarm protection and "Three Remote" (remote control, remote measurement and remote communication). Oil pressure and liquid level sensor supports voltage, resistance, and current type sensors. 用于单台发电机组自动化及监控系统，AMF功能，实现发电机组的自动开机/停机、数据测量、报警保护及"三遥"功能，油压及液位传感器支持电压、电阻和电流型传感器。
Display/显示器	3.5-inch Color LCD/3.5英寸彩屏	LCD(132x64)	
Operation Panel/操作面板	Silicon Rubber/硅胶		
Language/控制器语言	Chinese＆English＆Others/中文＆英文＆其它		
Digital Input/开关量输入口	5		
Relay Output/继电器输出口	7	6	
Analog Input/模拟量输入口	3		
AMF/市电检测	●		●
AC System/交流制式	1P2W/2P3W/3P3W/3P4W		
AC Voltage/交流电压范围	AC(15~360)V(ph-N) AC(30~620)V(ph-ph)		
AC Frequency/交流频率	5Hz~75Hz	50Hz/60Hz	
kW/Amp Detecting & Display 功率/电流检测及显示	●		
Monitor Port/监控接口	RS485		
Programming Port/编程接口	USB(Type-C)/RS485	USB/RS485	
CANBUS(J1939)	●		
RTC & Event Log 实时时钟及历史记录	●		
Maintenance/保养功能	●		
PLC/用户可编辑逻辑	●		
SMS/短信功能	●		
DC Supply 直流工作电源范围	DC(8~35)V		
Panel Cutout 安装尺寸(mm)	186*141		
Case Dimensions 外形尺寸(mm)	209*166*45(L*W*H)		
Operating Temp. 工作温度	(-40~+70)℃	(-25~+70)℃	

GENSET CONTROLLER / 发电机组控制器

HGM4010(N/NC/CAN)
Single Genset Controller
单机发电机组控制器

HGM4020(N/NC/CAN)
AMF Genset Controller
AMF发电机组控制器

HGM4100Z
Low-temperature Genset Controller
低温发电机组控制器

Model/型号	HGM4010N	HGM4020N	HGM4010NC	HGM4020NC	HGM4010CAN	HGM4020CAN	HGM4100Z
Main Functions 主要功能	With auto start/AMF function; HGM4000N is the basic type. HGM4000NC is the controller with the monitor interface. HGM4000CAN is the controller with CANBUS interface. HGM4100Z Genset Controller is used for the automatic control of single genset. It is suitable for ECU and non-ECU engines. The controller can realize "Three Remote" function via the RS485 interface. The components are 100% domestically produced, and it can work normally at the temperature of -40℃. 具有自启动/AMF功能，HGM4000N为基本型控制器，HGM4000NC为带监控接口的控制器，HGM4000CAN为具有CANBUS接口的控制器。HGM4100Z发电机组控制器适用于单台发电机组的自动化控制，适用于电喷机组和非电喷机组,可通过RS485接口实现"三遥"功能，全国产化元器件，能够适应-40℃环境下工作。						
Display/显示器	LCD(132*64)						
Operation Panel 操作面板	Silicon Rubber/硅胶						
Language 控制器语言	Chinese, English, Spanish, Russian, Portuguese, Turkish, Polish, French, etc. 中文、英文、西班牙文、俄文、葡萄牙、土耳其、波兰语、法语等						Chinese&English&Others 中文&英文&其它
Digital Input 开关量输入口	3+(2)						3
Relay Output 继电器输出口	6						
Analogue Input 模拟量输入口	2+(2)						4
AMF/市电检测		●		●		●	
AC System/交流制式	1P2W/2P3W/3P3W/3P4W						
AC Voltage/交流电压范围	AC(15~360)V(ph-N)						AC(15~360)V(ph-N) AC(30~620)V(ph-ph)
AC Frequency/交流频率	50/60Hz						
kW/Amp Detecting & Display 功率/电流检测及显示	●						
Monitor Port/监控接口			RS485				
Programming Port/ 编程接口	USB		USB/RS485				
CANBUS(J1939)					●		
RTC & Event Log 实时时钟及历史记录	●						
Scheduled Start Genset 定时试机	●						
Maintenance/保养功能	●						
DC Supply 直流工作电源范围	DC(8~35)V						
Case Dimensions 外形尺寸(mm)	135*110*46(L*W*H)						
Panel Cutout 安装尺寸(mm)	116*90						
Operating Temp. 工作温度	(-25~+70)℃						(-40~+70)℃

HGM1791LT/LT-CAN
Low-temperature Single
Genset Controller
低温单机发电机组控制器

HSC941
Gas Genset Controller
燃气机组控制器

HGM4020T
Telecom Base Station
Genset Controller
通信基站发电机组控制器

HGM6120T/TD
Telecom Base Station
Genset Controller
通信基站发电机组控制器

Model/型号	HGM1791LT/LT-CAN	HSC941	HGM4020T	HGM6120T/TD
Main Functions 主要功能	Suitable for automatic control and monitoring system (can also be used for pump units). The controller can realize manual start/stop of genset, and automatic start/stop of generator via remote start signals. It can monitor and protect the genset by collecting and analyzing data such as generator voltage, current, water temperature, oil pressure, etc. 适用于单机自动化及监控(也可用于水泵机组)。控制器可实现对机组的手动开机/停机，也可通过远端开机信号自动起动/停止发电机，通过采集与分析发电电压、电流、水温、油压等数据对机组进行监控和保护。	Is used for automation system of single genset, which has analog collection interfaces. It can adjust the engine speed by driving the stepper motor to adjust the throttle position. 用于单机自动化系统，有模拟量采样接口，通过驱动步进电机调节节气门开度，实现速度调节。	Can control the genset start/stop based on the actual work condition of the mobile telecom base station, which is suitable for non-ECU engines. 依照移动基站的实际工况可实现多种条件的开/停机，适配非电喷机组。	Can control the genset start/stop based on the actual work condition of the mobile telecom base station, which is suitable for ECU and non-ECU engines. With the built-in network communication module, it can enable remote cloud monitoring of gen. HGM6120TD supports dual SIM card and dual standby function. 依照移动基站的实际工况可实现多种条件的开/停机，适配电喷机组和非电喷机组。内置网络通信模块，可实现发电机组远程云监控。HGM6120TD支持双卡双待。
Display/显示器	LCD(128x64)	LCD		
Operation Panel 操作面板	Silicon Rubber/硅胶			
Language 控制器语言	Chinese＆English/中文＆英文			
Digital Input 开关量输入口	3 (multiplexed as analog input) 3（可复用为模拟量输入）	5	4+(2)+(1)	5
Relay Output 继电器输出口	5	6	5+(1)	6
Analogue Input 模拟量输入口	Shared with digital input 和开关量输入口共用	3	2+(2)	3
AMF/市电检测			●	
AC System/交流制式	1P2W	1P2W/2P3W/3P3W/3P4W		
AC Voltage/交流电压范围	AC(15~360)V(ph-N)			
AC Frequency/交流频率	50/60Hz			
kW/Amp Detecting＆Display 功率/电流检测及显示	●			
Monitor Port/监控接口	RS485	USB/RS485		
Programming Port/ 编程接口	RS485	USB/RS485		
SMS/短信功能				●
RTC/实时时钟	●			
Event Log/历史记录	●			●
Scheduled Start Genset 定时试机			●	
Maintenance/保养功能				●
DC Supply 直流工作电源范围	DC(8~35)V			
Case Dimensions 外形尺寸(mm)	96*86*47(L*W*H)	135*110*46(L*W*H)	135*110*44(L*W*H)	209*167*45(L*W*H)
Panel Cutout 安装尺寸(mm)	78*66	116.5*91.5	116*90	186*141
Operating Temp. 工作温度	(-40~+70)℃	(-25~+70)℃		

GENSET CONTROLLER / 发电机组控制器

HMU15N
Genset Remote Monitoring Controller
发电机组远程监控控制器

HMU8N
Genset Remote Monitoring Controller
发电机组远程监控控制器

Model/型号	HMU15N	HMU8N
Main Functions 主要功能	It is used for remote monitoring of single/multiple gensets, which can realize remote start/stop, auto/manual mode switch, close/open operation and data measurement, alarms display functions. 用于单台或多台发电机组控制器的远程监控，可实现远程开机、自动手动模式切换、合分闸操作以及数据监测、报警显示功能。	HMU8N Remote Monitoring System can realize remote start/stop and data monitoring for 6 genset controllers via RS485 interfaces or one Ethernet interface. With 8-inch capacitive touch screen, it has multi-level operation authorities and is easy to operate. HMU8N远程监控系统能够通过RS485接口或以太网接口实现6台发电机组控制器的远程开/停机及数据监测功能，8吋触摸屏显示，多级权限，操作简单。
Display/显示器	15-inch color touch screen/15英寸彩色触屏	8-inch color touch screen/8英寸彩色触屏
Language/控制器语言	Chinese＆English＆Others/中文＆英文	
Brightness Adjustment/亮度调节	Adjustable/可调节	
Operation Permission/操作权限	Engineer, technician/工程师、技术员	
Number of Gensets/机组数量	10	6
Monitor Port/监控接口	4-Way RS485、1*CANBUS/1-WayETHERNET 4路RS485接口、1个CANBUS接口、1路ETHERNET	
Ethernet/以太网	1路	
RTC &Event Log 实时时钟及历史记录	●	
One-key Stop Function 一键停机功能	●	
DC Supply 直流工作电源范围	DC(8~35)V	DC(10~36)V
Case Dimensions 外形尺寸(mm)	377*316*76(L*W*H)	221*163*51(L*W*H)
Panel Cutout 安装尺寸(mm)	358.5*297.2	205*147
Operating Temp. 工作温度	(-25~+70)°C	
IP/防护等级	IP65	

HVR1000
Digital Voltage Regulator
数字电压调节器

HVR620
Digital Voltage Regulator
数字电压调节器

HVR610
Digital Voltage Regulator
数字电压调节器

HVR410
Digital Voltage Regulator
数字电压调节器

Model/型号	HVR1000	HVR620	HVR610	HVR410
Main Functions 主要功能	It is used to adjust the field current of brushless AC synchronous generator. It has four excitation regulation modes: automatic voltage regulation (AVR), field current regulation (FCR), reactive power regulation (VAR), power factor regulation (PF). 用于调节无刷交流同步发电机励磁机的励磁电流。具有四种励磁调节模式：自动电压调节(AVR)、励磁电流调节(FCR)、无功功率调节(VAR)、功率因数调节(PF)。	It is used to adjust the field current of brushless AC synchronous generator, which can be applied to generators with the excitation system of PMG, AREP or SHUNT. The excitation regulation mode of the regulator is automatic voltage regulation (AVR). It has TYPE-C interface and CAN BUS interface. 用于调节无刷交流同步发电机励磁机的励磁电流，可应用于永磁励磁发电机PMG,辅助绕组励磁发电机AREP,自励磁发电机SHUNT。产品的励磁调节模式为自动电压调节,调节器具有TYPE-C接口和CAN BUS接口。	It is used to regulate the field current of the exciter for a brushless AC synchronous generator. 用于调节无刷交流同步发电机励磁机的励磁电流。	It is used to adjust the field current of brushless AC synchronous generator. Suitable for AC synchronous generators with excitation systems of AREP, SHUNT, etc. The excitation regulation mode of the regulator is automatic voltage regulation (AVR). It has TYPE-C interface. 用于调节无刷交流同步发电机励磁绕组的励磁电流，可应用于辅助绕组励磁发电机AREP，自励磁发电机SHUNT等,产品的励磁调节模式为自动电压调节，调节器具有TYPE-C接口。
AVR Mode,FCR Mode,VAR Mode,PF Mode AVR模式,FCR模式,VAR模式,PF模式	●	Only AVR mode/只有AVR模式	●	Only AVR mode/只有AVR模式
Generator Voltage Detectio 发电电压检测			●	
Generator Current Detection 发电电流检测	●			●
Excitation Power/励磁电源	DC63V system:AC(100~139)V or DC125V DC63V励磁系统:AC(100~139)V或DC125V DC125V system: Single phase for AC(190~277)V, three phases for AC(190-260)V or DC250V DC125V励磁系统:AC(190~277)V 单相，三相AC(190~260)V或DC250V	DC63V system:AC(100~139)V or DC125V DC63V励磁系统:AC(100~139)V或DC125V DC125V system: AC(190~277)V or DC250V DC125V励磁系统:AC(190~277)V 或DC250V	DC63V system:AC(100~139)V or DC125V DC63V励磁系统:AC(100~139)V或DC125V DC125V system: Single phase for AC(190-277)V, three phases for AC(190-260)V or DC250V DC125V励磁系统:AC(190~277)V 单相，三相AC(190~260)V或DC250V	AC(100~264)V
Excitation Output Current 励磁输出电流	Continuous current: 7A for 70°C of room temperature, 10A for 55°C of room temperature Maximum short-time current: 10s, 11A for 70°C of room temperature, 14A for 55°C of room temperature 连续电流：7A 70°C 室温，10A 55°C 室温 短时最大电流：10s，11A 70°C 室温，14A 55°C 室温	Continuous current:70V DC 4A Maximum short-time current:10s，45V DC 7.5A 连续电流:70V DC 4A 短时最大电流:10s，45V DC 7.5A	Continuous current: 7A Maximum short-time current: 10s, 14A 连续电流:7A 短时最大电流:10s，14A	Continuous current:70V DC 4A Maximum short-time current:10s，45V DC 7.5A 连续电流:70V DC 4A 短时最大电流：10s，45V DC 7.5A
Analog Input/模拟量输入口	电压输入+电阻输入 Voltage input + Resistance input		2	电压输入+电阻输入 Voltage input + Resistance input
Digital Input/开关量输入口	4		2	
Relay Output/继电器输出口	2		1	
Rated Voltage Potentiometer 额定电压电位器		●		●
Communication Method/通信方式	USB(Type-C)/蓝牙/CAN	USB(Type-C)/CAN	USB	USB(Type-C)
Temperature Protection/温度保护		Winding+Heat Sink 绕组温度保护+散热片温度保护		Heat Sink 散热片温度保护
RTC &Event Log 实时时钟及历史记录	●	Only Event Log but no RTC 有历史记录无实时时钟	●	Only Event Log but no RTC 有历史记录无实时时钟
Running Data/运行数据	●		●	
Alarm Data/报警数据			●	
Case Dimensions 外形尺寸(mm)	239*154*71(L*W*H)	153*138*61(L*W*H)	239*154*71(L*W*H)	144*109*43(L*W*H)
Operating Temp 工作温度		(-40~+70)°C		

SmartGen
EST.1998

ALC736/736-4G
Hybrid Energy Lighting Tower Controller
混合能源灯塔机组控制器

ALC708/ALC704
Lighting Tower Controller
灯塔机组控制器

ALC404
Lighting Tower Controller
灯塔机组控制器

Model/型号	ALC736	ALC736-4G	ALC708	ALC704	ALC404
Main Functions 主要功能	It can realize integrated control of solar system, energy storage system, and diesel genset, lighting tower mast and lights control functions. 7 optional light on/off modes. Reducing the number of working lights on or the luminance of lights when SOC/fuel level falls below the set value. The ALC736-4G has a built-in cloud monitoring module. 集光伏、储能、柴发一体式控制，具有灯塔桅杆、云台控制功能，7种开/关灯模式可选，SOC/燃油位低于设定值减少灯开关数量或降低灯亮度等功能;ALC736-4G内置云监控模块。		Control for AC/DC lighting tower units; The ALC704 and ALC404 can control the on/off of 4 lights, while the ALC708 can control 8 lights, SMS and sunrise/sunset light on/off functions. The ALC404 is equipped with a CANBUS interface, sunrise/sunset light on/off functions , low-power mode, and a function to reduce the number of working lights when fuel level is low. 交、直流灯塔机组控制；ALC704和ALC404可控制4个灯的开关，具有短信和日出日落开关灯功能；ALC708可以控制8个灯的开关；ALC404具有CANBUS接口，日出日落开关灯功能，低功耗模式，燃油位低减少灯开关数量等功能。		
Display/显示器	LCD(132*64)				
Operation Panel 操作面板	Silicon Rubber/硅胶				
Language 控制器语言	Chinese＆English＆Others/中文＆英文＆其它		Chinese＆English/中文＆英文		
Digital Input 开关量输入口	10		12	8	5
Relay Output 继电器输出口	13		14	10	8
Number of Lights 灯数量	6		8	4	4
DC Lighting Tower Control 直流灯塔控制			●		
AC Lighting Tower Control 交流灯塔控制			●		
Scheduled Start/Stop 定时开关机			●		
SMS Start/Stop 短信开关机		●			
Built-in Cloud Monitoring 内置云监控		●			
DPF Regenerate DPF再生	●				
Sunrise and Sunset Start/Stop 日出日落开关机		●			●
Remote Start/Stop 远程开关机			●		
High-Precision Clock 高精度时钟			●		
CANBUS(J1939)	●				●
Monitor Port/监控接口	RS485				
Programming Port/编程接口	RS485/USB(Type-C)		USB/RS485	USB	
DC Supply 直流工作电源范围	DC(8~35)V				
Case Dimensions 外形尺寸(mm)	209*166*45(L*W*H)		197*152*47(L*W*H)		135*110*44(L*W*H)
Panel Cutout 安装尺寸(mm)	186*141				116*90
Operating Temp. 工作温度	(-40~+70)℃		(-25~+70)℃		

HGM3020
Mini-genset Controller
小功率发电机组控制器

HGM401
Small Genset Controller
小型发电机组控制器

MGC100
Small Genset Controller
小型发电机组控制器

MGC120
Petrol Genset Controller
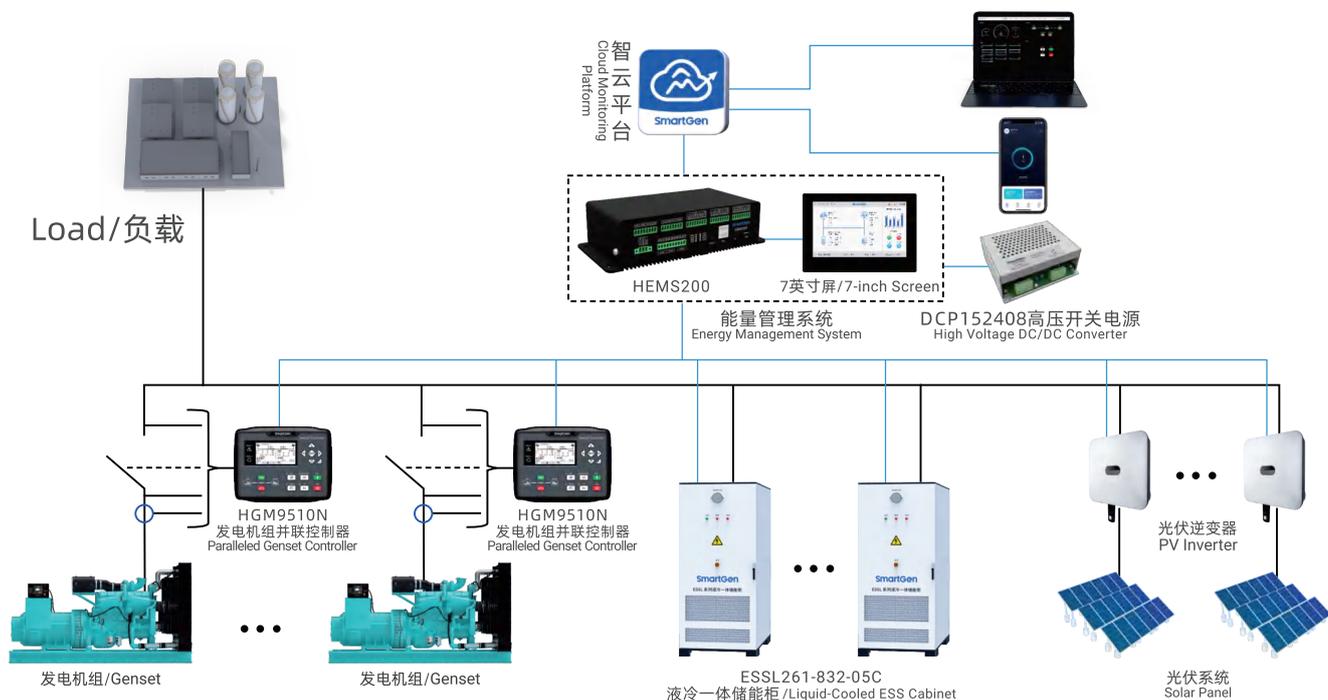汽油发电机组控制器

MGC320
Small Genset Controller
小型发电机组控制器

GCU05
Small Genset Controller
直流机组控制器

Model/型号	HGM3020	HGM401	MGC100	MGC120	MGC320	GCU05D	GCU05M
Main Functions 主要功能	It features mains parameter monitoring and automatic mains/genset transfer control functions (AMF), which is suitable for automatic system consisting of one-way mains and one genset. 拥有市电电量监测和市电/发电自动切换控制功能(AMF),用于一市一机构成的单机自动化系统。	LED display; Suitable for the display of data and fault protection in various small diesel and gasoline gensets. 数码管显示;用于各类小型柴油及汽油发电机组的数据显示及故障保护。	LED Display; Suitable for single genset. 数码管显示;适用于小型发电机组。	LED Display; Suitable for single genset automation or ATS switching of small genset. 数码管显示;适用于小型发电机组单机自动化或ATS切换。	It is used for automatic control of single electric generator, which can realize single-machine self-starting/AMF. 用于单台发电机组自动化控制,可实现单机自起动/AMF。	It is used for automatic control of single electric generator, which can realize single-machine self-starting/AMF. 采用【主控和显示(DTU)】分体式设计,具有低功耗模式、振动唤醒、功率-转速自动匹配策略、恒压限流双闭环控制策略,可用于基站直流油机智能化控制系统。	
Display/显示器	LCD(128x64)	7-segment LED LED数码管			LCD Graphic Display LCD图形显示器	LCD(132x64)	
Operation Panel 操作面板	单皮面膜	PET		Silicon Rubber/硅胶	PET		
Language 控制器语言	Chinese&English&Others 中文&英文&其它					Chinese 中文	
Digital Input 开关量输入口	3	1	4	2	3	7	
Relay Output 继电器输出口	5	2	2+1 Transistor Output 2+1个晶体管输出	3+2 Transistor Output 3+2个晶体管输出	4	1	
Analogue Input 模拟量输入口	3	2		1	2	2	
AMF/市电检测	●				●	●	
AC System/交流制式	1P2W/2P3W 3P3W/3P4W	1P2W/2P3W/3P4W	1P2W/2P3W 3P3W/3P4W	1P2W	1P2W/2P3W/3P3W/3P4W	3P3W	
AC Voltage/交流电压范围	AC(15~360)V(ph-N) AC(30~620)V(ph-ph)		AC(30~360)V(ph-N)		AC(15~360)V(ph-N) 需区分线制 AC(15~360)V(ph-N) Vary with AC systems		
Amp Detecting & Display 电流检测及显示	●				●		
Monitor Port/监控接口	RS485					TTL	
Programming Port/ 编程接口	RS485	USB(Type-C)	LINK		RS485	TTL	
DC Supply 直流工作电源范围	DC(8~35)V	DC(9~16)V	DC(9~18)V		DC(8~35)V	DC(36~58)V	
Built-in SMD SIM Card 内置贴片式SIM卡						●	
Built-in Li-ion Battery 内置锂电池						● (10000mAh)	
Remote Configuration/Upgrade 远程配置/升级						●	
Case Dimensions 外形尺寸(mm)	126*106*46.5(L*W*H)	96*96*34(L*W*H)	105.8*61*36.6 (L*W*H)	95*86*46.5(L*W*H)	126*106*46.5(L*W*H)	135*80*46 (L*W*H)	191*160*67 (L*W*H)
Panel Cutout 安装尺寸(mm)	111*91	90*90	92*44	78*66	111*91	103*68	
Operating Temp. 工作温度	(-25~+70)℃					(-25~+55)℃	

Hybrid Energy PV-ESS-Gen Solution
混合能源光储柴解决方案

Load/负载

智云平台
Cloud Monitoring Platform

SmartGen

HEMS200　　7英寸屏/7-inch Screen

能量管理系统
Energy Management System

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

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

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

光伏逆变器
PV Inverter

发电机组/Genset

发电机组/Genset

ESSL261-832-05C
液冷一体储能柜 /Liquid-Cooled ESS Cabinet

光伏系统
Solar Panel

Hybrid Energy PV-ESS-Charging Solution
混合能源光储充解决方案

双向电能表
Bidirectional Energy Meter

智云平台
Cloud Monitoring Platform

SmartGen

HEMS200能量管理系统
Energy Management System

7英寸屏/7-inch Screen

充电桩
Charging Pile

ESSL261-832-05C
液冷一体储能柜 /Liquid-Cooled ESS Cabinet

光伏逆变器
PV Inverter

光伏系统
Solar Panel

HBMU200
Slave Control Module
从控模块

HBMU300-32
Slave Control Module
从控模块

HBMU300-64
Slave Control Module
从控模块

HBMU300-64D
Slave Control Module
从控模块

Model/型号	HBMU200	HBMU300-32	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 in Series/电压检测串数	5~16	16~32	32~64	
Temperature Sampling Range/温度采样范围	(-40~+125)℃			
Temperature Detection Channel/温度检测通道	16+2	32+2	64+4	
Output Port/输出口	1			
Input Port/输入口	1			
Status Indicator/状态指示灯	●			
Broken Wire Detection/断线检测	●			
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		
IP/防护等级	IP20			
Case Dimensions/外形尺寸(mm)	125*106*21(L*W*H)	223*100*31(L*W*H)	287*95*25(L*W*H)	
Panel Cutout/安装尺寸(mm)	112.5*93.5	212*68.5	274.5*82.5	
Operating Temp./工作温度	(-40~+70)℃			
Weight/重量	0.16kg	0.58kg	0.36kg	0.36kg

HYBRID ENERGY CONTROLLER / 混合能源控制器

HBCU200
Master Control Module
主控模块

HBCU300
Master Control Module
主控模块

HBCU300D
Master Control Module
主控模块

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 Method/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*109*43(L*W*H)	
Panel Cutout/安装尺寸(mm)	271*78		
Operating Temp./工作温度	(-40~+70)℃		
Weight/重量	0.5kg	0.9kg	

HMU7
Hybrid Energy Management System
混合能源管理系统

Model/型号	HMU7
Main Functions 主要功能	Suitable for mains, PV-ESS-DG hybrid energy management, with built-in function logic to reduce programming. It supports local monitoring via touchscreen, cloud-based web access, mobile app, and external data interfaces (Modbus). Data and alarm supports local storage via the touchscreen, USB drive or cloud. Compatible with 4G, WIFI, I/O, and CAN expansion modules. 适用市电、光储柴混合能源管理，内置业务逻辑，减少编程；支持触摸屏本地监控、云端Web、移动端App及对外数据接口（Modbus）；数据及报警支持触摸屏本地存储、U盘存储、云端存储。可扩展4G、WIFI、I/O模块、CAN。
Operating Voltage/工作电压	DC(10~35)V
Display/显示	7-inch /7英寸
Resolution/分辨率	1024*600
Language/控制器语言	Chinese/中文
Power Consumption/整机功耗	7W
RS485	4
ETHERNET/以太网	2
USB	2
CAN	2
Digital Input/开关量输入口	4
Relay Output/继电器输出口	2
PLC/用户可编辑逻辑	●
RTC & Event Log/实时时钟及历史记录	●
Case Dimensions/外形尺寸(mm)	191*131*73(L*W*H)
Panel Cutout/安装尺寸(mm)	182*122
Operating Temp./工作温度	(-25~+70)℃
Storage Temperature/贮存温度	(-30~+80)℃
IP/防护等级	IP65
Weight/重量	0.85kg

HEMS150
Hybrid Energy Management System
混合能源管理系统

HEMS200
Hybrid Energy Management System
混合能源管理系统

Model/型号	HEMS150	HEMS200
Main Functions 主要功能	\multicolumn{2}{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、储能、智能断路器、ATS、电能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	\multicolumn{2}{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	\multicolumn{2}{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	\multicolumn{2}{2}	
4G	●	
WiFi	●	
RTC/实时时钟	●	
Hard Disk Extension/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	\multicolumn{2}{(-40~+60)℃}	
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

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

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

| 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	85mA	100mA
Temperature Sampling Range/温度采样范围	(-40~+125)℃	
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 power≤1.6W, maximum power≤2.8W, sleep mode power≤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)℃	
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
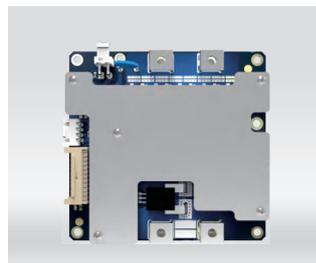
HPA100-16系列80A功率板
HPA100-16 Series 80A Power Protection Board
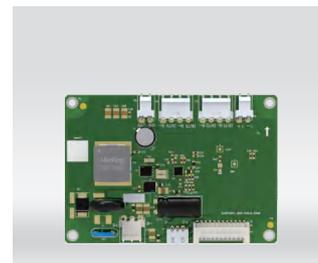
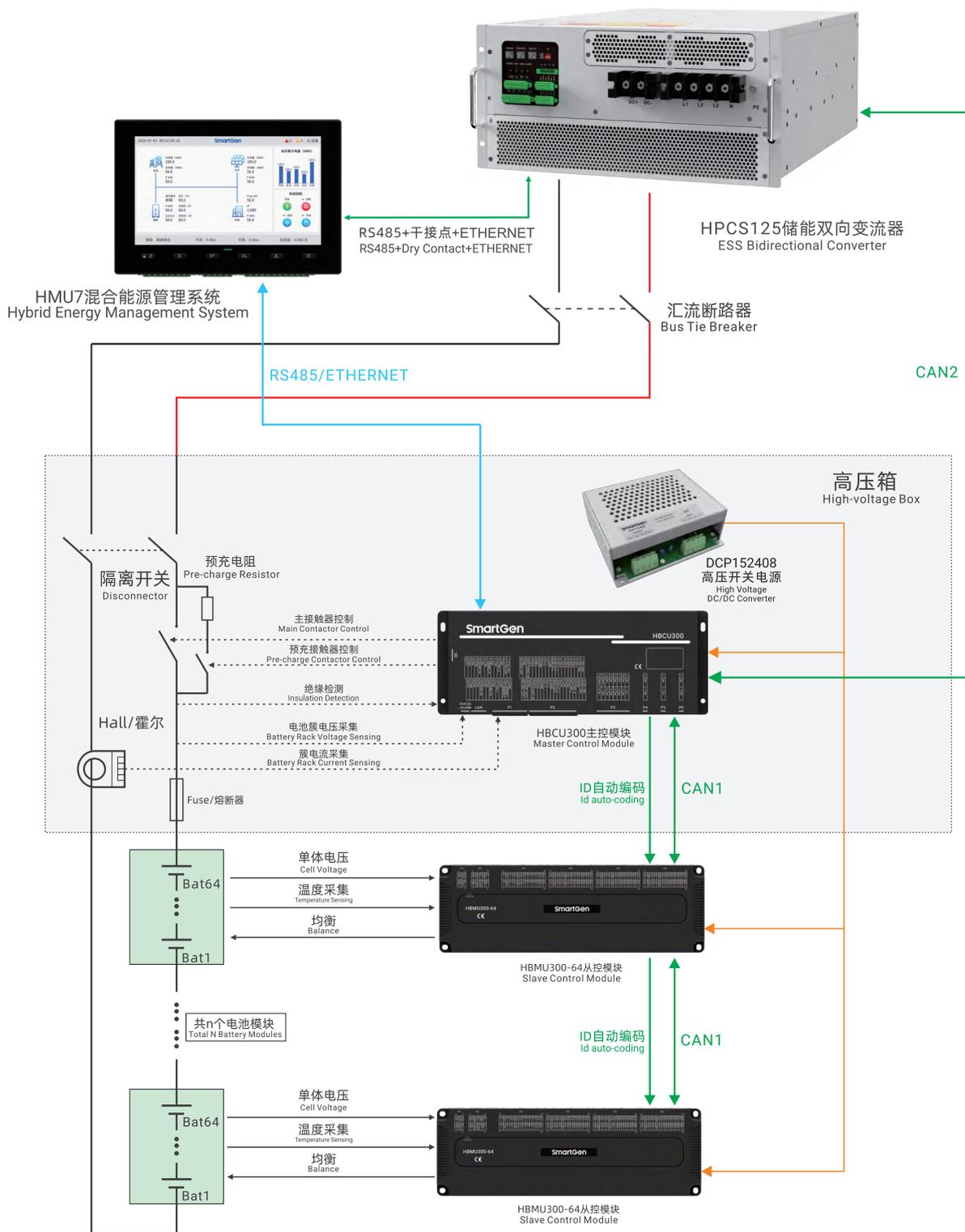**HPA100-16系列300A功率板**
HPA100-16 Series 300A Power Protection Board

Model/型号	HPA100-16-050	HPA100-16-080	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）℃		
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 power≤1.2W, maximum power≤2.6W, sleep mode power≤15mW 正常工作功耗≤1.2W，最大功耗≤2.6W，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)	89.3*74.2*16.7(L*W*H)	93*90*18.7(L*W*H)	100*70*24.2(L*W*H)
Panel Cutout/安装尺寸(mm)	80*65.5	85*82	92.9*62.7
Operating Temp./工作温度	(-40~+70)℃		
Weight/重量	0.1kg	0.2kg	0.05kg

HPA100-16限流板
HPA100-16 Current Limiting Board

锂电池限流板，5A和10A电流可选，结构紧凑安装便捷
Current limiting board for Lithium-ion battery, the current limit of 5A or 10A is available. It is easy to install with compact structure.

ESS Solution
储能系统控制解决方案

RS485+干接点+ETHERNET
RS485+Dry Contact+ETHERNET

HPCS125储能双向变流器
ESS Bidirectional Converter

HMU7混合能源管理系统
Hybrid Energy Management System

汇流断路器
Bus Tie Breaker

RS485/ETHERNET

CAN2

高压箱
High-voltage Box

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

预充电阻
Pre-charge Resistor

隔离开关
Disconnector

主接触器控制
Main Contactor Control

预充接触器控制
Pre-charge Contactor Control

绝缘检测
Insulation Detection

电池簇电压采集
Battery Rack Voltage Sensing

Hall/霍尔

簇电流采集
Battery Rack Current Sensing

HBCU300主控模块
Master Control Module

Fuse/熔断器

ID自动编码
Id auto-coding

CAN1

Bat64

单体电压
Cell Voltage

温度采集
Temperature Sensing

均衡
Balance

Bat1

HBMU300-64从控模块
Slave Control Module

共n个电池模块
Total N Battery Modules

ID自动编码
Id auto-coding

CAN1

Bat64

单体电压
Cell Voltage

温度采集
Temperature Sensing

均衡
Balance

Bat1

HBMU300-64从控模块
Slave Control Module

HGM6120P-4G
发电机组控制器（一体机）
Genset Controller (all-in-one)

4G/GPRS

HGM9510N
发电机组并联控制器
Paralleled Controller

CMM366B-4G-G
云监控通讯模块
Cloud Monitoring
Communication Module

4G/GPRS

HEM4100
发动机控制器
Engine Controller

CMM366A-4G
云监控通讯模块
Cloud Monitoring
Communication Module

4G/GPRS

ALC736
混合能源灯塔机组控制器
Hybrid Energy Lighting
Tower Controller

CMM366B-4G-G
云监控通讯模块
Cloud Monitoring
Communication Module

4G/GPRS

智云平台
Cloud Monitoring
Platform

CMM376-4G
4G / GPRS

CMM366B-4G
4G / GPRS

CMM366A-ET
ETHERNET / 网线版

CMM365-4G
4G / GPRS

CMM366A-WIFI
WIFI / 无线版
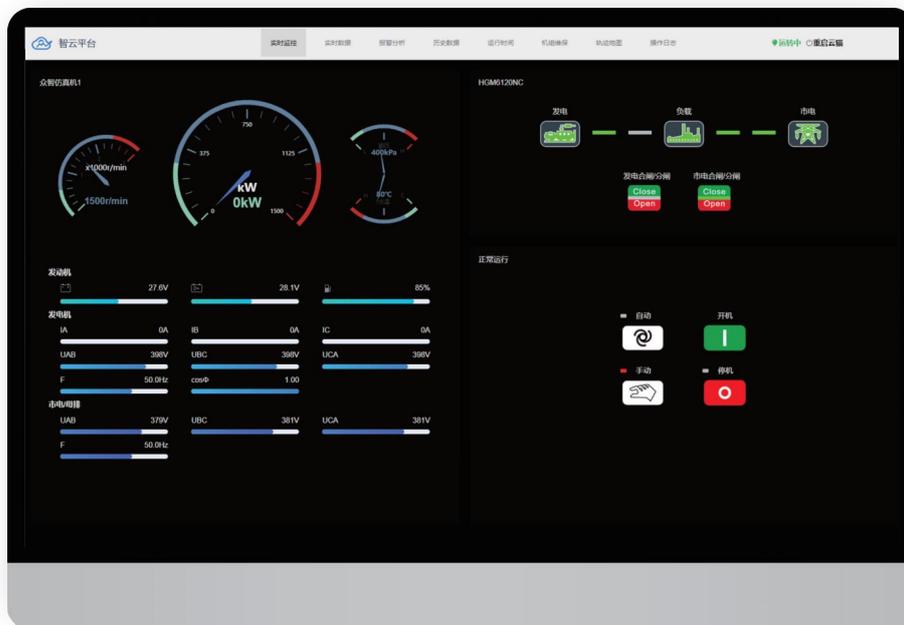
SmartGen Cloud Plus is a high-concurrency, low-latency, high-customization on-line monitoring platform of genset.
Users can add, modify, and delete genset information independently, and other user's genset can be checked and monitored by subscribing and unsubscribing functions.
SmartGen Cloud Plus adopts Websocket to actively push the data of cloud monitoring module to shorten the real-time data display time of client and reduce the network traffic of users.
SmartGen Cloud Plus provides web version, mobile android version, computer version of three clients for users to choose.
With event log, fault push, alarm analysis, positioning, remote lock/unlock, flow check, cloud modem remote upgrade, electric fence, running track functions.

智云平台是一款高并发，低延时，高定制的机组在线监控平台。
用户可自主添加、修改、删除机组信息，可通过订阅和退订功能，实现其他用户机组的查看和监控。
智云平台采用Websocket主动推送云监控模块数据，以缩短客户端实时数据显示时间，减少用户网络流量。
智云平台提供网页版、手机Android版、电脑版三种客户端供用户选择。
具有历史记录 、故障推送、报警分析、定位、远程锁机/解锁、流量查询、远程升级云猫、电子围栏、运行轨迹等功能。

Three Power ATSE Solution
三电源智能切换解决方案

Mains/市电

Genset/发电机组

Genset/发电机组

HAT833

Load/负载
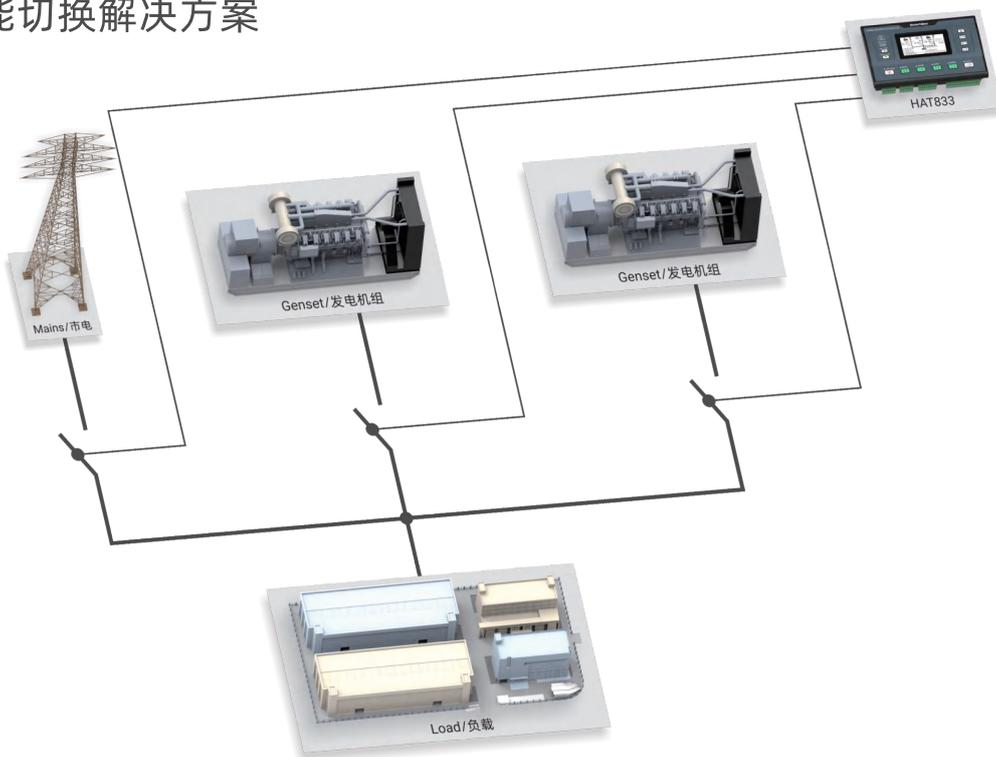
Suitable for three-way power supply three breakers control.
适用于三路电源三个断路器控制。

HAT832
Three Power ATS Controller
三电源自动切换控制器

Suitable for three power ATSE control system with two PC class ATS.
适用于两台PC级ATS开关组成的三电源智能切换控制系统。

HAT833/S
Three Power ATS Controller
三电源自动切换控制器

Suitable for three power ATSE control system with three breakers.
适用于三台断路器组成的三电源智能切换控制系统。

HAT835/S
Three Power ATS Controller
三电源母联智能切换控制器

Is intelligent tri-supply module with configurable function,automatic measurement, LCD display, and digital communication.
具有可编程功能、自动化测量、LCD显示、数字通讯为一体的三路电源母联切换模块。

HAT860/S
Medium Voltage ATS Controller
中压双电源自动切换控制器

HAT860 medium voltage ATS controller is the module integrates programmable function, automatic measurement, PT break wire detection, load stepwise transfer, LCD display and digital communication.

HAT860中压双电源自动切换控制器是具有可编程功能、自动化测量、PT断线检测、负载逐步投切、LCD显示、数字通讯为一体的中压双电源切换模块。

HAT828
High Speed ATS Controller
双电源快速切换控制器

HAT828 ATS controller is a dual power transfer module that can output switch transfer signals within 15ms in case of any power outage, and synchronously transfer when both power supplies are normal, It is applicable for two-stage switch of PC-class.

HAT828双电源快速切换控制器可在任一路电源断电的情况下实现15毫秒内输出开关切换信号，并且在两路电源均不断电时进行同步转换的双电源切换模块，适用于PC二段式切换开关。

HAT820/820S
Synchronous Switching Controller
双电源同步切换控制器

It can control various PC dual power switch, CB dual power switch. The controller can be powered by line voltage (L-L), with load voltage detection, temperature detection in cabinet, (fire cut) source input and other functions,HAT820S increase the short-time Synchronous switching function.

可控制各种PC级双电源开关、CB级双电源开关。控制器可以线电压(L-L)供电、具有负载电压检测、柜内温度检测、(消防切非)有源输入等功能，HAT820S增加短时同步切换功能。

HAT821/S/SI
Dual Power Bus Tie Controller
双电源母联自动切换控制器

Suitable for ATSE control system with two incoming lines and one bus-tie(low voltage backup automatic transfer).

适用于两进线一母联（低压备自投）的电源切换控制系统。

HAT880/880S
Dual Power Bypass Automatic Switching Controller
双电源旁路自动切换控制器

It can control various bypass switching, apply to single bypass, double bypass transfer switching, manual control or remote control (electrically operated) bypass switches; It has main/bypass switch button unlock and unlock status display function; It has main/bypass switch button manual control and automatic control switching function, and main/bypass switch status display.HAT880S has sychronous switch function.

可控制多种旁路开关，适用于单旁路、双旁路转换开关，手动控制或远程控制(电动操作)旁路开关。具有主/旁路开关按键解锁和解锁状态显示功能；具有主/旁路开关按键手动控制和自动控制投切功能，以及主/旁路开关状态显示。880S具有同步切换功能。

HAT9420LT
Dual Power ATS Controller
双电源切换控制器

It can control ATS to transfer according to the S1/S1 power supply status, and auto transfer/auto restore status. It can realize parallel transfer and uninterrupted power supply. It is suitable for Mains-Genset power supply system. The components are 100% domestically produced. Its operating temperature is -40℃ ~+70℃, which can withstand extreme low temperature environment. It can be widely used in telecommunication, rail transport, data centers, smart buildings, power stations and other occasions which requires high quality power supply.

根据S1、S2电源状态及自投自复状态控制ATS切换，且具备并联转换功能，不间断供电。适用市电与发电供电系统。器件全国产化，工作温度(-40℃~+70℃)，可适应低温恶劣环境。广泛应用于电信、轨道交通、数据中心、智慧大厦、电站等供电要求高的场合。

HAT600P (PB/PI/PBI/PS)
Dual Power ATS Controller
双电源自动切换控制器

Dual power ATS controller suits for PC class, CB class, CC class switches and has USB, RS485 port and load voltage monitoring, NEL (Non-essential Load) trip functions. It can measure voltage, current THD (Total Harmonic Distortion) and 3-21 odd harmonic component percentage.

双电源自动切换控制器，适用于PC、CB、CC级开关，具有USB、RS485接口，具有负载电压监测、非重要负载NEL跳闸功能，可测量电压、电流波形畸变率和3-21奇数次谐波分量百分比。

HAT600R
Dual Power ATS Controller
双电源自动切换控制器

HAT600R series ATS controller has in-phase transfer, fast transfer, synchronous parallel transfer functions and can be used for PC/CB/CC class transfer witch.

HAT600R系列双电源自动切换控制器，具有同相位切换、快速切换、同步并联切换功能，可用于PC级、CB级、CC级转换开关。
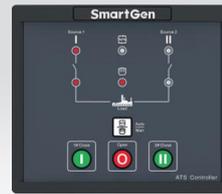
HAT530P/PC
Dual Power ATS Controller
双电源自动切换控制器

HAT530P/HAT530PC series ATS controller suits for two-stage/three-stage ATS control and has oil engine start signal output.

HAT530P/HAT530PC系列双电源自动切换控制器适用于控制二段式、三段式ATS开关，具有油机启动信号输出。

TPS31
Three Power Supply Module
三电源供电模块

Three-in-one AC power output, can accurately detect three phase voltage and judge for voltage abnormal situation and control power output.

三选一交流电源输出,可精确地检测三路电压，对出现的电压异常做出判断并控制电源输出。

ATA833
Three Power Switch Adaptor
三路电源开关适配器

The adaptor that suits for HAT833 three power ATS controller and intelligent breaker connection.

适用于HAT833三路电源自动切换控制器和智能断路器连接的适配器。

HAT553/HAT553LT
Dual Power ATS Controller
双电源自动切换控制器

Suitable for electromagnetic drive three-stage ATS switch, one-to-one wiring, Chinese and English display, standard RS485 interface.

适用于电磁驱动型三段式ATS开关，接线一对一，中英文显示，标配RS485接口。

HATC60
Dual Power ATS Controller
双电源自动切换控制器

With graphic LCD; monitors all AC system; suitable for SOCOMEC PC three-stage switch.

图形液晶显示模块；各种交流制式采样；适用于控制SOCOMEC型PC三段式开关。

HAT363C
Dual Power ATS Controller
双电源自动切换控制器

It is suitable for ATSE with two switching positions or one switching position. It can realize smart and precise monitoring and control function with MCU. OFF mode is added, and under this mode, the controller's opening or closing action is invalid.

可适用于两个分断位、一个分断位、无分断位开关，具有MCU智能精准监测和控制；增加OFF模式，该模式下控制器合分闸无效。

HAT160
Dual Power ATS Controller
双电源自动切换控制器

1P2W/3P4W voltage monitoring, suitable for one motor operation CB switch.

单相两线/三相四线电压检测，适用于控制 CB级单电操开关。

HAT310
Dual Power ATS Controller
双电源自动切换控制器

Generator single phase sampling, mains three-phase sampling, suitable for PC two-stage CC class ATS (continuous closed output).

发电单相、市电三相采样，适用于控制PC级两段式CC级ATS转换开关（合闸信号为持续输出）。

HAT320
Dual Power ATS Controller
双电源自动切换控制器

Mains three-phase 4-wire sampling, generator single phase voltage sampling, suitable for PC two-stage CC class ATS.

市电三相四线、发电单相电压采样，适用PC两段式、CC级开关

ATA821
Bus Tie Dual Power Switch Adapter
母联型双电源开关适配器

It can connect the controller and the ACB secondary line through adapter, with simple and fast one-to-one wiring. It can realize the electrical interlock between the three switches, which is suitable for HAT821 bus tie controller.

通过适配器连接控制器和框架断路器（ACB）开关二次线，一对一接线简单快捷。并实现了三台开关之间的电气互锁。适用于HAT821 母联控制器。

SmartGen
EST.1998


N型/Type
SGQ63A-125A/4P

T型/Type
SGQ160A-630A/4P

M型/Type
SGQ630A-1250A/4P

Model/型号		SGQ63N			SGQ125N			SGQ160T		SGQ200T		SGQ250T		SGQ400T		SGQ630T		SGQ630M		SGQ800M		SGQ1000M		SGQ1250M	
Rated Voltage 额定电压(V)		AC220V(176~265)V																							
Rated Current 额定电流(A)		63			125			160		200		250		400		630		630		800		1000		1250	
Operating Current 操作电流(A)		3.5						7										16							
Rated Limited Short Circuit 额定限制短路(KA)		35																32							
Poles/极数		2P	3P	4P	2P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
Operation Cycle (sec./times) 操作周期(秒/次)		15						10										15		20		25			
Operation Time 动作次数	Mechanical 机械	10000						8000										6000							
	Electrical 电气	4000						3000										3000							
Net Weight/重量(kg)		3.5	4	4.5	4	4.5	5.5	18	20	18	20	18	20	19	21	20	22	37	42.5	39	46	41	48	48	57
Case Dimensions 外形尺寸(mm)(4P)		228*186 *155			265*186 *155			375*292*146						405*292 *146		427*310 *146		600*280*345							
Mounting Hole Size (mm) 4P 安装孔尺寸(mm)4P		195*165			232*165			356*200						386*200		480*200		560*210							

Typical Application Diagram
典型应用图
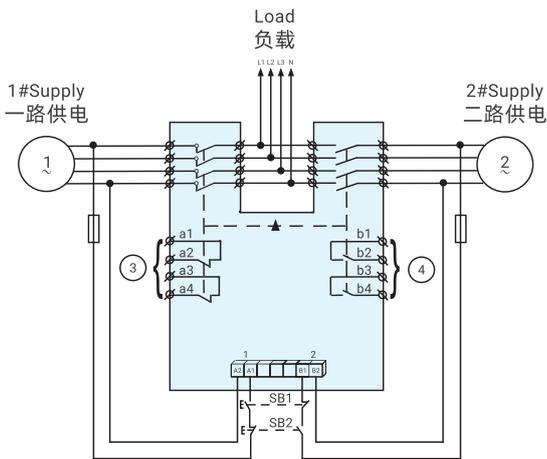
N And T Type
N型和T型
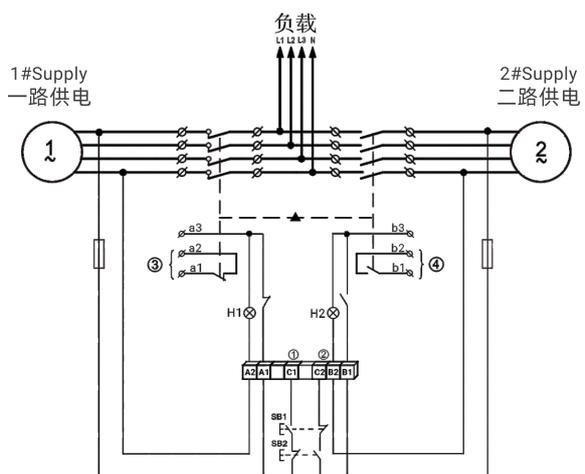
M Type
M型

SGMA63A-630A
Dual Power Automatic Transfer Switch
双电源型自动转换开关

Model/型号	SGM(A)-63A /XP	SGM(A)-80A /XP	SGM(A)-100A /XP	SGM(A)-125A /XP	SGM(A)-160A /XP	SGM(A)-200A /XP	SGM(A)-250A /XP	SGM(A)-400A /XP	SGM(A)-630A /XP
Main Functions 主要功能	applies to the grounded power system of two neutral points, which requires AC400V 50/60Hz below, rated working current 16A~630A. Its structure is motor driven type, and there are three positions for the switch: normal（Ⅰ）, spare（Ⅱ）and off (0). It can be used in the occasions where power failure is not allowed, such as high-rise buildings, medical heath, post and telecommunications, coal mine and ships, rail traffic, military and fire facilities. 适用于AC400V 50/60Hz以下、额定工作电流16A到630A的两种性点接地电源系统中，结构采用电机驱动型，该开关具有常用（Ⅰ）、备用（Ⅱ）及断开（0）三个位置。可用于高层楼宇、医疗卫生、邮电通讯、煤矿船舶、轨道交通、军事设施和消防设施等不允许断电的场合。								
Poles(P) 级数(P)	2极、3极、4极/2-p, 3-p, 4-p				3极、4极/3-p, 4-p				
Rated Current 开关额定电流	63A	80A	100A	125A	160A	200A	250A	400A	630A
Rated Working Volt. 额定工作电压	AC400V								
Rated Insul. Volt. 额定绝缘电压	690V								
Impulse withstand Volt. 额定冲击耐受电压	8 kV								
Category 使用类别	AC-33iB								
Short-time Withstand Current 额定短时耐受电流	10 kA							25 kA	
Rated SC Ability 额定短路接通能力	17 kA		20 kA		30 kA			50 kA	
Rated Control Supply 额定控制电源	AC230V								
HI or IH Contact Trans. Time 触头转换时间I-II 或II-I	0.6S±50%				1.0S±10%			1.5S±10%	
Operation Cycle Times 操作循环次数	Without Current 不通电流	8500				7000			3000	
	With Current 通电流	1500			1000					
	Total 总计	10000				8000			4000	
Net Weight/重量(kg)	2.3kg		3.9kg		8.7kg			21.7kg	
Case Dimensions 外形尺寸(mm)(4P)	230*115*130(L*W*H)		245*130*122(L*W*H)		295*175*175(L*W*H)			430*272*228(L*W*H)	

![SmartGen EST.1998 logo]

SGQ2系列
Dual Power Automatic Transfer Switch
双电源自动转换开关

Model/型号	SGQ2-16A /XP	SGQ2-20A /XP	SGQ2-25A /XP	SGQ2-32A /XP	SGQ2-40A /XP	SGQ2-50A /XP	SGQ2-63A /XP	SGQ2-80A /XP	SGQ2-100A /XP
Main Functions 主要功能	The SGQ2 Series Automatic Transfer Switch is a new generation of PC-class two-position switch product integrating advanced digital electronic control technology. It is suitable for dual-power supply systems with AC400V, 50/60Hz or below, and rated operating current from 16A to 100A. The structure adopts an electromagnetic drive type, featuring compact size, attractive appearance, easy installation, and reliable dual interlocking protection. SGQ2系列双电源自动切换开关是结合先进数字电子控制技术的新一代PC级二段式开关产品，适用于AC400V 50/60Hz以下、额定工作电流16A至100A的双路供电电网中，结构采用励磁驱动型，具有体积小、外形美观、安装方便、可靠双重联锁保护等特点。								
Poles(P) 级数(P)	2极、3极、4极/2-p, 3-p, 4-p								
Rated Current 开关额定电流	16A	20A	25A	32A	40A	50A	63A	80A	100A
Rated Working Volt. 额定工作电压	AC230V(2P) / AC400V								
Rated Insul. Volt. 额定绝缘电压	800V								
Impulse withstand Volt. 额定冲击耐受电压	8 kV								
Category 使用类别	AC-33iB								
Rated Impulse Withstand Current 额定冲击耐受电流	5kA/30ms								
Rated SC Ability 额定短路接通能力	8 kA								
Rated Control Supply 额定控制电源	AC230V								
HI or IH Contact Trans. Time 触头转换时间	＜30ms								
Transfer Time 转换动作时间	＜100ms								
Power-off Time 断电时间	＜30ms								
Working Mode 工作模式	Auto Trans. Auto Restore/自投自复								
Electrical Class 电器级别	PC Class/PC级								
Normal Operating Range 正常工作范围	85%Ue~110%Ue								
Operation Mode 操作方式	Auto/Manual/自动/手动								
Switch Position 开关位置	Normal (I), Spare (II)/常用（Ⅰ）、备用（Ⅱ）								
Mechanical Life 机械寿命	8000 Operations/8000次								
Electrical Life 电气寿命	2000 Operations/2000次								

SGMA800-3200A
Dual Power Automatic Transfer Switch
双电源自动转换开关

Model/型号	SGMA-800A/XP	SGMA-1000A/XP	SGMA-1250A/XP	SGMA-1600A/XP	SGMA-2000A/XP	SGMA-2500A/XP	SGMA-3200A/XP
Main Functions 主要功能	applies to the system which requires AC400V 50/60Hz below, rated working current 800A~3200A. Its structure is motor driven type, and there are three positions for the switch: normal（Ⅰ), spare (Ⅱ) and off (0). It can be used in the occasions where power failure is not allowed, such as high-rise buildings, medical heath, post and telecommunications, coal mine and ships, rail traffic, military and fire facilities.						
	适用于AC400V 50/60Hz以下、额定工作电流800A到3200A的系统中，结构采用电机驱动型，该开关具有常用（Ⅰ）、备用（Ⅱ）及断开（0）三个位置，可用于高层楼宇、医疗卫生、邮电通讯、煤矿船舶、轨道交通、军事设施和消防设施等不允许断电的场合。						
Poles(P) 级数(P)	3极、4极/3-p, 4-p						
Rated Current 开关额定电流	800A	1000A	1250A	1600A	2000A	2500A	3200A
Rated Working Volt. 额定工作电压	AC400V						
Motor Working Volt. 电机工作电压	AC220V(175-277)V						
Rated Insul. Volt.Main Circuit 额定绝缘电压主回路	AC800V						
Rated Impulse Volt. Main Circuit 额定冲击电压主回路	8kV						
Category 使用类别	AC-33iB						
Short-time Withstand Current 额定短时耐受电流	32 kA/60ms						
Rated SC Ability 额定短路接通能力	67.5 kA						
Transfer Time I-II or II-I 切换时间I-II 或 II-I	1.2S			1.8S			2.4S
Mechanical Life 机械寿命	3000 次/3000 times						
Electrical Life 电气寿命	500 次/500 times						
Net Weight/重量(kg)	36kg		37kg	38.6kg	55kg	61kg	67kg
Case Dimensions 外形尺寸(mm)(4P)	1080*352*390(L*W*H)		1080*368*390(L*W*H)	1080*376*390(L*W*H)	1080*423*560(L*W*H)	1080*433*560(L*W*H)	1080*443*560(L*W*H)

MGCP100B-2/4
Diesel Control Panel/柴油机控制屏

- Designed for control system of medium marine diesel engine;
  适用于中型船舶柴油机控制系统；
- Controller can expand remote monitoring module(HMC6000RM) via CANBUS to achieve remote control of engine;
  控制器可通过CANBUS扩展远程监控模块(HMC6000RM)，实现对发动机的远程监控；
- Controller can expand a 16-channel relay output module(DOUT16B) via CANBUS to realize alarms receiving and output controlling;
  控制器可通过CANBUS扩展16路继电器输出模块（DOUT16B）实现多种报警和控制输出；
- Controller can expand security module(RPU560A) via CANBUS to achieve multiple protection of engine;
  控制器可通过CANBUS扩展安保模块(RPU560A)，实现对发动机的多重保护；
- Maximum 6 sensor inputs can be connected to controller, four of them are available for the following types: (0~1)K resistance, (0~5)V voltage, (4~20)mA current;
  控制器可接入最多6路传感器输入，其中后4路可实现(0~1)K电阻型、(0~5)V电压型、(4~20)mA电流型的的多种类型可选择；
- Dual-power transfer module (BTM300) can be fitted with controller to achieve uninterrupted switching of dual power supply and fault alarm;
  控制器可配合双电源切换模块(BTM300)，实现两路电源的不间断切换和故障报警；
- Alarm threshold and protection delay of each sensor can be set by controller to protect every measuring point accurately;
  控制器可分别对每一路传感器设置保护阈值和报警延时，实现对每一个测量点的精准保护；
- All data can be set on control panel at the site, conveniently and efficiently;
  参数均可现场通过面板进行设定，方便快捷；
- Operating voltage/工作电压：DC(18~35)V；
- Working temperature:(-25~+70)℃;
  工作温度：(-25~+70)℃；
- CCS certification, IP44 protection level, BV certification
  具有CCS认证，防护等级IP44；BV认证；
- Case dimensions(L*W*H)/外形尺寸(长*宽*高)(mm)：650*480*200；
- Panel cutout(L*W)(mm): 580*410, 4 shock absorbers(M10 screw).
  安装尺寸(长*宽)(mm)：580*410，4个减震器(M10螺孔)。

Remark: The overall and installation dimensions of MGCP100B-3/MGCP100B-2/MGCP100L-2 can be adjusted according to demand, the dimensions listed in the brochure are for reference only. The functions listed in the brochure are modeled on HMC9000 series controller, which can be replaced with HMC4000 series and HMC6000 series and HMC9100 series controllers as needed for specific applications.

备注：MGCP100B-3、MGCP100B-2、MGCP100L-2外形尺寸和安装尺寸可根据需要进行调整，样册中所列尺寸仅供参考。样册所列功能以HMC9000系列控制器为蓝本，具体应用时可根据需要替换成HMC4000系列/HMC6000系列/HMC9100系列控制器。

MGCP100L-2/4
Diesel Control Panel/柴油机控制屏

- Designed for control system of large marine diesel engine;
  适用于大型船舶柴油机控制系统；
- 4.3 inches colour LCD with backlight, multilingual interface (including English, Chinese);
  4.3吋彩屏带背光,可选中/英文显示；
- Controller can expand 16 remote monitoring modules(HRM3300) at most via CANBUS to achieve remote monitoring of engine;
  控制器可通过远程CANBUS扩展最多16块远程监控模块(HRM3300)，实现对发动机的远程监控；
- Controller can expand two 16-channel relay output modules(DOUT16B) at most via CANBUS to realize alarms receiving and output controlling;
  控制器可通过扩展CANBUS扩展最多2块16路继电器输出模块(DOUT16B)实现多种报警和控制输出；
- Controller can expand two PT100 expansion modules(AIN16-PT) at most via CANBUS to realize PT100 analog data acquisition;
  控制器可通过扩展CANBUS扩展最多2块PT100扩展模块(AIN16-PT)，实现多路PT100模拟量数据采集；
- Controller can expand two expansion modules(AIN16-C) at most via CANBUS to realize (4~20)mA signal acquisition;
  控制器可通过扩展CANBUS扩展最多2块(4~20)mA扩展模块(AIN16-C)，实现多路(4~20)mA信号采集；
- Controller can expand two analog integrated modules(AIN16-M01) at most via CANBUS to realize temperature, pressure and speed acquisition as well as (4~20)mA signal outputting;
  控制器可通过扩展CANBUS扩展最多2块模拟量综合模块(AIN16-M01)，实现多路温度、压力、转速数据采集，同时可配置输出(4~20)mA信号；
- Controller can expand security module(RPU560A) via CANBUS to achieve multiple protection of engine;
  控制器可通过扩展CANBUS扩展安保模块(RPU560A)，实现对发动机的多重保护；
- Controller can control and communicate with dozens of ECU with J1939 interface via CANBUS;
  控制器可通过扩展CANBUS和具有J1939接口的数十种电喷发动机进行控制及通信；
- Real-time clock , alarm information display and event log make it convenient for maintenance and troubleshooting;
  具有实时时钟、报警信息显示和历史记录，方便维护和故障查询；
- All data can be set on control panel at the site, conveniently and efficiently;
  参数均可现场通过面板进行设定，方便快捷；
- Operating voltage/工作电压：DC(18~35)V；
- Working temperature:(-25~+70)℃;
  工作温度：(-25~+70)℃；
- CCS certification, IP44 protection level, BV certification
  具有CCS认证，防护等级IP44；BV认证；
- MGCP100L:Case dimensions(L*W*H)(mm): 900*600*220;
  外形尺寸(长*宽*高)(mm)：900*600*220；
- MGCP100L-2:Case dimensions(L*W*H)(mm): 480*270*1020.
  外形尺寸(长*宽*高)(mm): 480*270*1020。

SmartGen
EST.1998

HMC6
Power Management Controller
功率管理控制器

HMC9510
Paralleled Genset Controller
发电机组并联控制器

Model/型号	HMC6	HMC9510
Main Functions 主要功能	It is a standard power management system for marine applications. It is the one where start priority and other power management-related functions are calculated. The system can handle up to 16 diesel gensets to make automatic synchronization and load sharing. It has heavy consumer control, NEL trip and light load functions. It is suitable for 3-phase 4-wire, 3-phase3-wire, single phase 2-wire and 2-phase 3-wire systems with frequency 50/60Hz. 一套为船舶应用领域量身定制的功率管理系统。负责发电机起动优先级和其它相关功率管理功能的计算，能够实现16台发电机组的自动同步及负荷分配。具有重载问询、非重要负载脱扣、轻载有效等功能。适合于三相四线、三相三线、单相两线、两相三线、50/60Hz系统。	It is designed for manual/automatic parallel system of multiple gensets, compatible with those of identical or different capacity. 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。
Display/显示器	4.3-inch TFT-LCD(480*272)/4.3英寸彩屏	
Operation Panel/操作面板	Silicon Rubber/硅胶	
Language/控制器语言	Chinese&English& Others/中文 & 英文 & 其他	
Digital Input 开关量输入口	7-way programmable input+3-way fixed input+2-way analog/digital multiplexed input. 7路可编程输入+3路固定输入+2路模拟量/开关量复用输入	8
Relay Output 继电器输出口	9-way programmable output+6-way fixed output/ 9路可编程输出+6路固定输出	6-way programmable output+2-way fixed output/ 6路可编程输出+2路固定输出
AC System/交流制式	1P2W/2P3W/3P3W/3P4W	
AC Voltage/交流电压范围	AC(15~360)V(ph-N)	
AC Frequency/交流频率	50/60Hz	
kW/Amp Detecting & Display 功率/电流检测及显示	●	
Monitor Port/监控接口	RS485	
Programming Port/编程接口	USB/RS485	
RTC & Event Log 实时时钟及历史记录	●	
GOV/调速控制	(-10~10)V/(-20~20)mA	(-10~10)V
AVR/调压控制	(-10~10)V/(-20~20)mA	(-10~10)V
DIN16A Module Extension DIN16A模块扩展	●	
DOUT16B Module Extension DOUT16B模块扩展	●	
PLC Function/PLC功能	●	
3-level Password Protection 3级密码保护	●	
Safety Mode/安全模式	●	
DC Supply 直流工作电源范围	DC(8~35)V	
Case Dimensions 外形尺寸(mm)	266*182*45(L*W*H)	
Panel Cutout 安装尺寸(mm)	214*160 (L*W)	
Operating Temp. 工作温度	(-25~+70)℃	

SOLUTION FOR MARINE/船舶解决方案

HMC9100A/S
Diesel Engine Controller
柴油发动机控制器

MMU8N
Remote Control Module
远程监控模块

Model/型号	HMC9100A	HMC9100S	MMU8N
Display/显示器	5-inch TFT-LCD (800*480) 5英寸彩屏		8-inch color touch screen 8英寸彩色触屏
Operation Panel/操作面板	Silicon Rubber/硅胶		
Language/控制器语言	Chinese&English/中文 & 英文		Chinese&English&Others 中文&英文&其它
Digital Input/开关量输入口	18		
K-type Thermocouple Input K型热电偶输入	2		
Relay Output/继电器输出口	8		
Transistor Output/晶体管输出口	8		
Current Sensor 电流型传感器个数	4		
Resistance Sensor 电阻型传感器个数	4		
RTC &Event Log 实时时钟及历史记录	●		
RPU560B Module Extension RPU560B模块扩展	●		
HMC9100RM Controller Extension HMC9100RM控制器扩展	●		
AIN16-M01 Module Extension AIN16-M01模块扩展		●	
DIN16 Module Extension DIN16模块扩展		●	
DOUT16A Module Extension DOUT16A模块扩展		●	
AIN8 Module Extension AIN8模块扩展	●		
AIN23 Module Expansio AIN23模块扩展		●	
HMP300 Module Extension HMP300模块扩展		●	
Comm. Port/通讯接口	RS485/USB*2/ETHERNET*2		RS485*4/CAN/ETHERNET/USB*2
CANBUS Port Extension 扩展CANBUS接口		●	
Remote CANBUS Port 远程CANBUS接口		●	
DC Supply/直流工作电源范围	DC(18~35)V		DC(10~36)V
Case Dimensions/外形尺寸(mm)	242*178*54(L*W*H)		221*163*51(L*W*H)
Panel Cutout/安装尺寸(mm)	241*160		205*147
Operating Temp./工作温度	(-25~+70)℃		

HMC9000A/S
Diesel Engine Controller
柴油发动机控制器

HRM3300
Remote Controller
远程监控控制器

Model/型号	HMC9000S	HMC9000A	HRM3300
Display/显示器	4.3-inch TFT-LCD(480*272) 4.3英寸彩屏		
Operation Panel/操作面板	Silicon Rubber/硅胶		
Language/控制器语言	Chinese＆English/中文＆英文		
Digital Input/开关量输入口	18		
K-type Thermocouple Input K型热电偶输入	2		
Relay Output/继电器输出口	8		
Transistor Output/晶体管输出口	8		
Current Sensor 电流型传感器个数	4		
Resistance Sensor 电阻型传感器个数	4		
HRM3300 Controller Extension HRM3300控制器扩展	●		
RPU560A Module Extension RPU560A模块扩展	●		
AIN16 Module Extension AIN16模块扩展	●		
AIN16-PT Module Extension AIN16-PT/K模块扩展	●		
AIN16-C Module Extension AIN16-C模块扩展	●		
AIN16-M01 Module Extension AIN16-M01模块扩展	●		
DIN16 Module Extension DIN16模块扩展	●		
DOUT16A Module Extension DOUT16A模块扩展	●		
AIN8 Module Extension AIN8模块扩展		●	
HMP300 Module Extension HMP300模块扩展		●	
Comm. Port/通讯接口	RS485/USB		LINK/USB
CANBUS Port Extension 扩展CANBUS接口	●		
Remote CANBUS Port 远程CANBUS接口	●		
DC Supply/直流工作电源范围	DC(18~35)V		
Case Dimensions/外形尺寸(mm)	266*182*45(L*W*H)		
Panel Cutout/安装尺寸(mm)	214*160		
Operating Temp./工作温度	(-25~+70)℃		

HMC6000A
Diesel Engine Controller
柴油发动机控制器

HMC4300
Diesel Engine Controller
柴油发动机控制器

HMC4000CAN
Diesel Engine Controller
柴油发动机控制器

Model/型号	HMC6000A	HMC4300	HMC4000CAN
Display/显示器	LCD(132*64)	4.3-inch TFT-LCD (480*272) 4.3英寸彩屏	LCD(132*64)
Language/控制器语言	Chinese＆English/中文＆英文		
Operation Panel/操作面板	Silicon Rubber/硅胶		
Power Acquisition and Display 电量采集及显示			Configurable/可配置
Module Extension /模块扩展	●		
HMC4000RM Remote Monitoring Extension HMC4000RM远程监控扩展			●
HMC9800RM Remote Monitoring Extension HMC9800RM远程监控扩展	●		●
DOUT16B Module Extension DOUT16B模块扩展	●		
RPU560A Module Extension RPU560A模块扩展	●		
RPU560B Module Extension RPU560B模块扩展		●	
HMC6000RM Controller Extension HMC6000RM控制器扩展	●		
Comm. Port/通讯接口	RS485/LINK	RS485/USB	RS485/USB
CANBUS (J1939) Port CANBUS (J1939) 接口	●		
CANBUS Port Extension /Remote CANBUS Port 扩展CANBUS接口/远程CANBUS接口	● (Share One Port/共用一个接口)		
Relay Output/继电器输出口	3		6
Transistor Output/晶体管输出口	9		
Digital Input/开关量输入口	10	4	3+(2)(Digital/Analogue Multiplexed /开关量/模拟量复用)
Analogue Input/模拟量输入口	2(Resistance-type)+4(Resistance-type /Current-type/Voltage-type Multiplexed) 2(电阻型)+4(电阻型/电流 型/电压型复用)	4	2+(2)(Digital/Analogue Multiplexed /开关量/模拟量复用)
DC Supply/直流工作电源范围	DC(8~35)V		
Case Dimensions/外形尺寸(mm)	197*152*47(L*W*H)	127*115*86(L*W*H)	135*110*44(L*W*H)
Panel Cutout/安装尺寸(mm)	186*141	115*103	116*90
Operating Temp./工作温度	(-25~+70)℃		

MEM40 　　 MEM40RM 　　 MGCP100B-3 　　 HRM3300-3

MEM40
Engine Monitoring Controller/发动机监控仪

▶ It can be used for automatic control system of single electronic control engine, which can realize engine local start, stop, data measurement, display, alarm protection, and other functions;
可用于单台电控发动机自动化控制系统，实现发动机的机旁开机、停机、发动机数据测量、显示、报警保护等功能；

▶ It is equipped with remote monitoring port that can connect remote monitoring controller to receive remote start / stop command; which can realize electronic control engine remote start, stop and other functions;
带有远程监控接口，可接入远程监控控制器，接收遥控开机、遥控停机指令；实现发动机的远程开机、停机等功能；

▶ With override mode, emergency stop button;/具有越控模式、紧急停机按钮；

▶ With local/remote, self-check, mute, alarm reset keys;/具有机旁/遥控、自检、消音、报警复位按键；

▶ LCD displays speed, water temperature, oil temperature, oil pressure, power voltage, start times and accumulated running time;
LCD显示转速、水温、油温、油压、电源电压、开机次数和累计运行时间；

▶ With alarm log and start/stop event log function;/具有报警记录和起停机事件记录功能；

▶ Working temperature: (-25~70)℃;/工作温度：(-25~70)℃；

▶ Overall dimensions (L*W*H)(mm): 282 x 160.5 x 230;
外形尺寸(长*宽*高)(mm)：282 x 160.5 x 230；

▶ Panel Cutout (L*W)(mm): 160*65, monitoring controller comes with 4 shock absorbers, 4 M8 screws are required for installation (come with or add flat washers).
安装尺寸：(长*宽)(mm)：160*65，监控仪自带4个减震器，安装需要4个M8的螺丝（需自带或增加平弹垫）。

MEM40RM
Remote Monitoring Module/远传模块

▶ It is equipped with MEM40 engine monitoring control box, without setting any parameters, which can automatically synchronize MEM40 data and configuration information;
配套MEM40发动机监控仪控制箱，无需设置任何参数，自动同步MEM40数据和配置信息；

▶ With power switch, emergency stop, override mode button;
具有电源开关，紧急停机、越控模式按钮；

▶ Communicate with monitoring control box via CANBUS;
通过CANBUS总线与监控仪控制箱通讯；

▶ With alarm reset, mute, dimmer key;/具有报警复位、消音、亮度调节按键；

▶ Under remote mode, it can remotely control engine start, stop, alarm reset, etc.;
在遥控模式下，可远程控制发动机的起动、停止，报警复位等；

▶ LCD brightness can be adjusted/LCD亮度可调整；

▶ Panel Cutout (L*W) (mm): 262*205/开孔尺寸(长*宽)(mm)：262*205；

▶ IP: IP44/防护等级：IP44；

▶ Working voltage: DC(8~35)V./工作电压：DC(8~35)V。

MGCP100B-3
Diesel Engine Control Panel/柴油机控制屏

▶ With the functions of local start/stop, remote control start/stop, data measurement & display, alarm protection and etc. of the diesel engine;
具有柴油发动机机旁开机、停机、遥控开机、停机、数据测量、显示、报警保护等功能；

▶ With the remote monitoring interface to realize the remote start/stop functions of the engine by receiving the remote control start and automatic start instructions;
具有远程监控接口，通过接收遥控开机、自动开机指令，实现发动机的远程开机、停机等功能；

▶ With override mode, local/remote mode, emergency stop and start, normal mode/emergency mode knob;
具有越控模式、机旁/遥控模式、紧急停机、紧急起动、正常模式/紧急模式旋钮；

▶ With self-check,alarm reset,mute,and Lamp test button;
具有自检、报警复位、消音、试灯按键；

▶ LCD can display the water temperature, oil temperature, oil pressure, speed, battery voltage, running time, start times, etc. of the engine;
LCD显示发动机水温、油温、油压、转速、电池电压、运行时间、开机次数等；

▶ Real-time clock, alarm information display and event log, convenient for maintenance and troubleshooting;
具有实时时钟、报警信息显示和历史记录，方便维护和故障查询；

▶ Operating voltage/工作电压：DC(18~35)V；

▶ Working Temperature (-25~+70)℃;
工作温度：(-25~+70)℃；

▶ CCS certification, IP44 protection level, BV certification;
具有CCS认证，防护等级IP44，BV认证；

▶ Typical overall dimensions: length*width*height (mm): 400*400*200 (without shock absorber, dimension can be adjusted);
典型外形尺寸：长*宽*高(mm):400*400*200(不含减震器,尺寸可根据需要调整)；

▶ Typical panel cutout: length*width (mm): 330*330, 4 shock absorbers M10 screw hole.
典型安装尺寸：长*宽（mm）:330*330,4个减震器M10螺孔。

HRM3300-3
Remote Control Panel/远程控制屏

▶ The remote control box with HMC9000A/S diesel engine controller, it can expand up to 16 HRM3300-3;
配套HMC9000A/S柴油发动机控制器的远程控制箱，可最多扩展16个HRM3300-3；

▶ With emergency stop, power switch, override mode switch, and emergency stop, override mode light indication function;
具有紧急停机、电源开关、越控模式开关，并具有紧急停机、越控模式灯指示功能；

▶ Communicate with diesel local control box via CANBUS; With self-check,alarm reset,mute,and Lamp test button;
通过CANBUS总线与机旁控制箱通讯;具有自检、报警复位、消音、试灯按键；

▶ In the remote monitoring mode, it has remote control start/stop, data measuring, alarm display functions, etc;
在远程监控模式，可以远程控制开关机、数据测量、报警显示等功能；

▶ Adjustable LCD display brightness /LCD显示亮度可调；

▶ Panel Cutout (L*W) (mm): 332*212/开孔尺寸(长*宽)(mm)：332*212；

▶ IP: IP44/防护等级：IP44；

▶ Operating voltage/工作电压：DC(18~35)V；

Remark: The overall and installation dimensions can be adjusted according to demand, the dimensions listed in the brochure are for reference only. The functions listed in the brochure are modeled on HMC9000 series controller, which can be replaced with HMC4000 series and HMC6000 series controllers as needed for specific applications.

备注：外形尺寸和安装尺寸可根据需要进行调整，样册中所列尺寸仅供参考。样册所列功能以HMC9000系列控制器为蓝本，具体应用时可根据需要替换成HMC4000系列和HMC6000系列控制器。

POWER MANAGEMENT CONTROLLER/功率管理控制器

HPM6D Display Module
HPM6D 显示面板

HPM6 Master Control Module
HPM6 主控面板

Power Management Controller
功率管理控制器

Model/型号	HPM6
Main Functions 主要功能	It is a standard power management system for marine applications.It is the one where start priority and other power management-related functions are calculated.The system can handle up to 20 diesel gensets to make automatic synchronization and load sharing.HPM6 power management controller adopts split-type design, which is composed of display module HPM6D and master control module HPM6.Accuracy: 0.5% HPM6是一套为船舶应用领域量身定制的功率管理系统。负责发电机组起动优先级和其它相关功率管理的计算，能够实现20台发电机组的自动开停机、同步及负荷分配。HPM6 功率管理控制器采用分体式设计，由显示模块 HPM6D 和主控模块 HPM6 组成。精度等级：0.5%
Display/显示器	4.3-inch TFT-LCD(480*272)/4.3 英寸液晶显示
Operation Panel/操作面板	Silicon Rubber/硅胶
Language/控制器语言	Chinese＆English＆Others/中文＆英文＆其他
Digital Input/开关量输入口	20
Output/输出口	7 relay outputs+13 transistor outputs/ 20（7个继电器输出口+13晶体管输出口）
AC System/交流制式	1P2W/2P3W/3P3W/3P4W
AC Voltage/交流电压范围	AC(15～520)V(ph-N)
AC Frequency/交流频率	50/60Hz
kW/Amp Detecting & Display 功率/电流检测及显示	●
Monitor Port/监控接口	USB/RS485/CAN/以太网
Event Log/历史记录	最多500
Alarm Record/报警记录	最多500
Programming Port/编程接口	USB/以太网
RTC & Event Log/实时时钟及历史记录	●
USB HOST	●
GOV 调速控制 / AVR 调压控制	●
Custom Protocol 自定义协议 / Custom SLD 自定义单线图	●
Black Box Function 黑匣子功能 / Harmonic Monitor 谐波监测	●
PLC Function PLC功能 / I/O Extension I/O扩展	●
HC Inquiry 重载问询 / Multilevel Protection 多级保护	●
DIN16A Module Extension DIN16A模块扩展	●
DOUT16B Module Extension DOUT16B模块扩展	●
3-level Password Protection 3级密码保护 / Safety Mode 安全模式	●
DC Supply 直流工作电源范围	DC(8～35)V
Case Dimensions 外形尺寸(mm)	HPM6D：220*130* 52(L*W*H)；HPM6M：250*165* 83(L*W*H)
Panel Cutout 安装尺寸(mm)	HPM6D：201*111(L*W)，embedded-in panel mounting HPM6M: hole spacing 237.5*152.5(L*W)，hole diameter φ5.5*4, screw fixed installation HPM6D：201*111(L*W)，嵌入式面板安装; HPM6:孔距237.5*152.5(L*W)，孔径:φ5.5*4,螺钉固定安装
Operating Temp. 工作温度	(-25~+70)℃

HLS300A

HLS300A Power Share Module
功率均分模块
Active and reactive sharing function
具备有功、无功均分功能

Case Dimensions
外形尺寸(mm):161.6*92.94*60.7

HMP300/300-HV

Power Integrated Protection Module
电量综合保护模块
Power integrated protection module with CANBUS interface
电量综合保护模块，具有CANBUS接口。
Differential protection function
具备差动保护功能

Case Dimensions
外形尺寸(mm):107.6*93*60.7

HLS300

HLS300 Power Share Module
功率均分模块
Active sharing function
具备有功均分功能

Case Dimensions
外形尺寸(mm):161.6*89.7*60.7

HMT300

Multifunctional Transmitter
多功能变送器
High Sampling Accuracy (class 0.5)
高采样精度（0.5级）
1-way Analog Output
1路模拟量输出
RS485接口/RS485 Interface

Case Dimensions
外形尺寸(mm):107.6*89.7*60.7

HSM300

HSM300 Sync Control Module
同步模块

Case Dimensions
外形尺寸(mm):71.6*89.7*60.7

HVD300

HVD300 Voltage Detection Relay Multifunctional Protection Module
电压检测多功能保护装置

Case Dimensions
外形尺寸(mm):89.7*71.6*60.7

HEP300

HEP300 Electronic Potentiometer
电子电位器

Case Dimensions
外形尺寸(mm):89.7*71.6*60.7

HFT300

Frequency Detection Relay Multifunctional Protection Module
频率检测继电器多功能保护装置

Case Dimensions
外形尺寸(mm):89.7*71.6*60.7

HMP300-2

Power Integrated Protection Module
电量综合保护模块
Power integrated protection module with RS485 interface
电量综合保护模块，具有RS485接口。
4-way programmable output, 2-way programmable input
4路可编程输出，2路可编程输入口

Case Dimensions
外形尺寸(mm):107.6*89.7*60.7

HOC300

HOC300 Over Current Protection Relay Multifunctional Protection Module
过流保护继电器多功能保护装置

Case Dimensions
外形尺寸(mm):89.7*71.6*60.7

HPD300-S01

Multifunctional Comprehensive Protection Module
多功能综合保护装置
1-way overcurrent pre-alarm output
1路过流预报警输出
1-way open output (undervoltage, overcurrent long/short delay)
1路分闸输出(欠压、过流长延时、过流短延时)

Case Dimensions
外形尺寸(mm):89.7*71.6*60.7

HPD300

HPD300 Reverse Power Protection Relay Multifunctional Protection Module
逆功率保护继电器多功能保护装置

Case Dimensions
外形尺寸(mm):89.7*71.6*60.7

DOUT16B/DOUT16B-2
Digital Output Module
开关量输出模块
An expansion module with 16 auxiliary digital output channels.
16路开关量输出模块

Case Dimensions
外形尺寸(mm):161.6*89.7*60.7

DIN16A/DIN16A-2
Digital Input Module.
开关量输入模块
An expansion module with 16 auxiliary digital input channels.
16路开关量输入模块

Case Dimensions
外形尺寸(mm):107.6*89.7*60.7

AIN16-C
Analog Input Module
模拟量输入模块
An expansion module with 16 analog input channels and 16(4~20)mA+3 speed acquisition
16路(4~20)mA+3路转速采集

Case Dimensions
外形尺寸(mm):161.6*89.7*60.7

AIN16-PT
Analog Input Module
模拟量输入模块
An expansion module with 16 analog acquisition channels for PT100.
16路PT100模拟量采样模块

Case Dimensions
外形尺寸(mm):161.6*89.7*60.7

KIO22
Analog Input/Output Module
模拟量输入输出模块
K-type thermocouple to 4-20mA
K型热电偶转4-20mA

Case Dimensions
外形尺寸(mm):71.6*93.0*60.7

AIN8
Analog Input Module
模拟量输入模块
An expansion module with 8 analog input channels, and input types can be set PT100, (4~20)mA, (0~5)V.
8路模拟量输入模块，输入类型均可设置PT100, (4~20)mA, (0~5)V。

Case Dimensions
外形尺寸(mm):107.6*89.7*60.7

AIN24
Analog Input Module
模拟量输入模块
An expansion module with 14 K-form thermocouple, 5 PT100 channels, and 5 (4~20)mA input.
具有14路K型电偶、5路PT100、5路(4~20)mA输入。

Case Dimensions
外形尺寸(mm):161.6*89.7*60.7

RPU560A/RPU560B
Redundant Protection Unit
安保模块
Engine redundant protection module
发动机安保模块

Case Dimensions
外形尺寸(mm):107.6*89.7*60.7

SGPT110/SGPT110-0.4
Pressure Transmitter
压力变送器
- Measuring Range/测量范围: (0~1)MPa/(0~0.4)MPa
- Signal Output/信号输出: (4~20)mA
- Screw Thread: G1/4 Standard Pipe Thread 螺纹：G1/4标准管螺纹
- Measuring Accuracy: Class 0.25 测量精度:0.25级
- IP/防护等级：IP65

SGWS115
Temperature Sensor
温度传感器
- Measuring Range/测温范围: (-20~+150)℃
- Output Mode: Three-wire System Resistance Output 输出方式：三线制电阻输出
- Screw Thread: G1/2 Standard Pipe Thread 螺纹：G1/2标准管螺纹
- Measuring Accuracy: Class 0.25 测量精度:0.25级
- IP/防护等级：IP65

SGPT110A/SGPT110A-0.4
Pressure Transmitter
压力变送器
- Power Supply Range/供电范围: DC 12V~36V（DC 24V）
- Measuring Range/测压范围: (0~1)MPa/(0~0.4)MPa
- Signal Output/信号输出: 4mA ~ 20mA
- Measuring Accuracy: Class 0.5 测量精度:0.5级
- IP/防护等级：IP65

SGWS115A
Temperature Sensor
温度传感器
- Measuring Range/测温范围: (-20~+150)℃
- Output Mode: Three-wire System Resistance Output 输出方式：三线制电阻输出
- Screw Thread: G1/2 Standard Pipe Thread 螺纹：G1/2标准管螺纹
- Measuring Accuracy: Class 0.25 测量精度:0.25级
- IP/防护等级：IP65

Communication/Others
通讯模块/其它

SG485-3
Interface Expansion Module
接口扩展模块
The expansion module of RS485 interface, can transfer 1-way RS485 interface to 2-way RS485 interface.
将1路RS485接口转换成2路RS485接口。

Case Dimensions
外形尺寸(mm)：71.6*92.7*60.7

SG485-2CAN
Communication Interface Conversion Module
通信接口转换模块

1-way RS485 to 2-way CANBUS interface and 1-way RS485 interface
1路RS485转换为2路CANBUS接口及1路RS485接口

Case Dimensions
外形尺寸(mm)：107.6*93.0*60.7

SG72A
Communication Module
通信模块
▶ USB to LINK
▶ USB to RS232
▶ USB to RS485

SGCAN300
CANBUS Relay Module
CAN 总线中继模块

Can realize interconversion betweenMSC1 and optical fiber, RS485 and optical fiber, MSC1 and MSC2.

可实现MSC1与光纤互转，RS485与光纤互转，MSC1与MSC2互转。

Case Dimensions
外形尺寸(mm)：71.6*92*60.7

SG81Z
Protocol Conversion Module
协议转换模块
SG81Z Protocol Conversion Module has 4 interfaces, namely RS485 interface LINK interface, RS422 interface and CAN interface. Any two interfaces can be converted to each other.
SG81Z协议转换模块共有四个接口：RS485接口、LINK接口、RS422接口、CAN接口，任意两个接口之间可以互相转换

Case Dimensions
外形尺寸(mm):71.6*89.7*60.7

HTE05
Hand Throttle
手油门
The module adopts Hall non-contact sensor with high-precision to adjust engine speed. The dual redundant outputs can simulate the potentiometer to output the signal, the voltage range can be customized programming and suitable for different engines.
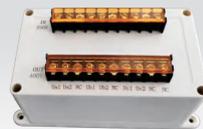采用高精度霍尔非接触式传感器，实现发动机转速调节。双路冗余输出，可模拟电位器输出信号，输出电压范围可定制编程，可适用于不同的发动机。

Case Dimensions
外形尺寸:50*59*50（L*W*H）
线长：230mm

PTM6940A
Potential Transformer Module
变压器模块

Input voltage 690VAC (rated) transfer to output 400VAC (rated) transformer module.

输入电压690VAC(额定)转化为输出400VAC(额定)变压器模块。

Case Dimensions
外形尺寸(mm): 88*188*72

SCU100
Electronic Speed Governor
电子调速器
It uses a closed-loop control method, which can accurately and stably control the speed of the genset, and maintain it at the target speed value.
采用闭环控制方式，可精确稳定发电机组的转速，使其维持在目标转速值。

Case Dimensions
外形尺寸(mm): 146*140*30.6

MDIO16/32
Digital Input/Output Module
开关量输入输出模块

An expansion module providing 8/16-way digital inputs and 8/16-way digital outputs.

扩展8/16路开关量输入、8/16路开关量输出的模块。

Case Dimensions
外形尺寸(mm): 123.4*93.3*25

MPC300
Marine Auxiliary Pump Distributed Controller
船舶辅机泵分布式控制器
It collects data from MDIO16/MDIO32 modules, and outputs corresponding control actions to protect the equipment upon detecting abnormal data.
通过对MDIO16/MDIO32进行数据采集并且在这些数据出现异常情况时可输出相应动作，从而对设备进行保护。

Case Dimensions
外形尺寸(mm): 107.6*93*60.7

ENGINE CONTROLLER / 工程机械控制器

HEM4000
Engine Controller
发动机控制器

HEM4100
Engine Controller
发动机控制器

HEM4300
Engine Controller
工程机械控制器

Model/型号	HEM4000	HEM4100	HEM4300
Main Functions 主要功能	It can be widely used in a number of engine control system not with J1939 interface, which including water pump, air compressor, engineering machinery and so on. 应用于水泵、空压机和工程机械类等非电喷发动机控制系统。	It can be widely used in a number of engine control system with/not with J1939 interface, which including water pump, air compressor, engineering machinery and so on. 应用于水泵、空压机和工程机械类等电喷或非电喷发动机控制系统。	It is applicable for the automation system of various construction machinery as drilling car, tunnel tractor, hydraulic pump station, mining machinery and so on.It can control ECU engine start/stop, monitoring, speed control, maintenance reminder and others. It has a high protection level. 可用于钻车、隧道牵引车、液压泵站、矿山机械等各类工程机械的自动化系统；具有控制电喷发动机的起停、监测、调速、保养提醒等功能；防护等级高。
Display/显示器	LCD(132*64)		4.3-inch Color LCD(480*272) 4.3英寸彩屏
Operation Panel 操作面板	Silicon Rubber/硅胶		
Language 控制器语言	Chinese＆English/中文＆英文		Chinese＆English&Other 中文&英文&其他
Digital Input 开关量输入口	6		8
Relay Output 继电器输出口	7		8-way transistor active output 8路晶体管有源输出
Analogue Input 模拟量输入口	6		
Speed Adjustment Function 调速功能	●		
RTC＆Event Log 实时时钟及历史记录	●		
Scheduled Start/Stop 定时开关机	●		
Maintenance 保养功能	●		
Monitor Port/监控接口	RS485		
Programming Port/ 编程接口	USB/RS485		
CANBUS(J1939)	●		
DC Supply 直流工作电源范围	DC(8~35)V		
Case Dimensions 外形尺寸(mm)	135*110*46(L*W*H)		189*131*61(L*W*H)
Panel Cutout 安装尺寸(mm)	116*90		177*119
Operating Temp. 工作温度	(-25~+70)℃		(-30~+70)℃

SmartGen
EST.1998

HED400
Engine Monitoring Module
发动机监控模块

HED300
Engine CAN Monitoring Module
发动机CAN监控模块

HED200
Engine Monitoring Module
发动机监控模块

Model/型号	HED400	HED300	HED200
Main Functions 主要功能	The controller is used to realize functions of speed regulation, data measurement, and alarm display for engine. It is widely applied to various types of engine automatic system. 实现发动机的转速控制、数据测量、报警显示等功能，广泛应用于各类型发动机自动化系统。	It can be used for single engine monitoring and suitable for ECU of different manufacturers with CANBUS (SAE J1939) port. All engine operation parameters can be visually displayed on the screen, it supports non-road China IV engine. 用于单台发动机监控，带有CANBUS(SAE J1939)接口，可适用于各厂家电喷机。发动机工作参量均能在屏幕上直观显示，支持非道路四阶段发动机。	The module can be used for monitoring of single engine. With the RS485 interface, various parameters can be flexibly set on it. It mainly suits for non-road Stage II engines. Its protection level is IP66, and it can work normally at low temperature of -40°C. 用于单台发动机监控，带有RS485接口，可灵活设置各项参数。主要用于非道路二阶段发动机。防护等级IP66,在低温-40℃可正常工作。
Display/显示器	4.3-inch Color LCD(480*272) 4.3英寸彩屏	LCD(132*64)	
Operation Panel 操作面板	Silicon Rubber/硅胶	Touch Key/触摸按键	
Language 控制器语言	Chinese & English/中文 & 英文		
Digital Input 开关量输入口	3		
Relay Output 继电器输出口	3		1
Analog Input 模拟量输入口	6	2	4
Speed Adjustment Function 调速功能		●	
RTC & Event Log 实时时钟及历史记录	Only Event Log but no RTC 有历史记录无实时时钟		●
Maintenance 保养功能		●	
DPF Regenerate DPF再生		●	
ECU Current Fault Analysis 解析ECU现行故障		●	
Monitor Port/监控接口	RS485		
Programming Port/ 编程接口	RS485/USB	RS485	
CANBUS(J1939)		●	
DC Supply 直流工作电源范围	DC(8~35)V		
Case Dimensions 外形尺寸(mm)	127*115*55.9(L*W*H)	116*98*49(L*W*H)	
Panel Cutout 安装尺寸(mm)	115*103	Φ52*50	
Operating Temp. 工作温度	(-40~+70)°C		
IP/防护等级	IP65	IP66	

SmartGen
EST.1998

HFC6100LT
Fan Controller
风机控制器

HEM8500
Engine CAN Monitoring Controller
发动机CAN监控仪

Model/型号	HFC6100LT	HEM8500
Main Functions 主要功能	Used for automatic control of 5 groups of fans, and can control its start/stop and PWM output function according to the selected temperature sensor. It has the function of balancing the running time of fan LCD display can work in the temperature range (-40℃~+70℃). 用于5组风机自动化控制,可根据选择的温度传感器控制风机起停和PWM输出功能。具有均衡风机运行时间功能 大屏幕液晶(LCD)可以工作在(-40℃~+70℃)温度范围。	It can be used to monitor the engine of engineering vehicles, can display various engine parameters, alarm information, event log, etc. The controller has high integration and powerful CAN gateway functions. 可用于工程车辆发动机的监控,可显示发动机各项参数、报警信息和历史记录等,控制器集成度高、CAN网关功能强。
Display/显示器	LCD(132*64)	4.3-inch LCD/4.3英寸LCD
Operation Panel 操作面板	Silicon Rubber/硅胶	
Language 控制器语言	Chinese＆English/中文＆英文	Chinese,English,Traditional Chinese 中文、英文、繁体中文
Digital Input 开关量输入口	18	11
Relay Output 继电器输出口		7
Analog Input 模拟量输入口	5	
Analog Output 模拟量输出口		1
Speed Adjustment Function 调速功能	●	
RTC＆Event Log 实时时钟及历史记录		●
Transistor Output Port 晶体管输出口	12	
Maintenance 保养功能		●
Monitor Port/监控接口	RS485	
Programming Port/ 编程接口	USB/RS485	RS485
CANBUS(J1939)		●
PWM Output PWM输出	4	
DC Supply 直流工作电源范围	DC(8~35)V	DC(10~35)V
Case Dimensions 外形尺寸(mm)	209*167*45(L*W*H)	247*191*71(L*W*H)
Panel Cutout 安装尺寸(mm)	186*141	214*160
Operating Temp. 工作温度	(-40~+70)℃	(-25~+70)℃

SmartGen
EST.1998

FPC2000M/D
Diesel Air Fire Pump Controller
柴驱消防泵控制器

FPC1000M/D/T
Electric Fire Pump Controller
电动消防泵控制器

Model/型号	FPC2000M	FPC2000D	FPC1000M	FPC1000D	FPC1000T
Main Functions 主要功能	The controller is used for fire pump unit, which can monitor real-time data, including system pressure, battery voltage and current. And the data can be exported via USB Host interface to analyze and diagnose the system status. 用于消防水泵机组，实时监测系统压力、电池电压、电流等数据，并可通过USB主机接口导出，用于分析和诊断系统状况。		The controller is used to start or control the fire pumps driven by motors. It realizes precise measurement, fixed value adjustment, timing, and threshold setting functions for multiple parameters. And it is widely applied to various types of electric fire pump system. 用于启动或控制消防电动机驱动的消防泵，实现了多种参数的精密测量、定值调节以及定时、阈值整定等功能，广泛应用于各类型电动消防泵系统。		
Display/显示器		7-inch Color LCD/7英寸彩屏		7-inch Color LCD/7英寸彩屏	
Operation Panel 操作面板	Silicon Rubber/硅胶				
Language 控制器语言	Chinese＆English/中文＆英文				
Digital Input 开关量输入口	15	2	9	2	8
Relay Output 继电器输出口	8	3	13	3	7
Analog Input 模拟量输入口	5	2	4	2	
RTC＆Event Log 实时时钟及历史记录		●		●	
Scheduled Start 定时开机		●			
Monitor Port/监控接口	RS485			RS485	
Programming Port/ 编程接口	RS485	RS485/USB DEVICE ETHERNET/USB HOST		RS485/USB DEVICE ETHERNET/USB HOST	
CANBUS			●		
DC Supply 直流工作电源范围	DC(8~35)V				AC(24~36)V/DC(24~36)V
Case Dimensions 外形尺寸(mm)	400*125.6*73.7(L*W*H)	209*189*59(L*W*H)	327*126*74(L*W*H)	209*189*59(L*W*H)	327*126*64(L*W*H)
Panel Cutout 安装尺寸(mm)	35mm steel DIN rail 35mm钢制导轨	188.5*165.5	35mm steel DIN rail 35mm钢制导轨	188.5*165.5	35mm steel DIN rail 35mm钢制导轨
Operating Temp. 工作温度	(-25~+55)℃ (模组架不支持高温) (The module mounting part can't withstand high temperature)	(-25~+70)℃	(-25~+55)℃ (模组架不支持高温) (The module mounting part can't withstand high temperature)	(-25~+70)℃	(-25~+55)℃ (模组架不支持高温) (The module mounting part can't withstand high temperature)
IP/防护等级		Front panel: IP65, Back panel: IP20 前壳：IP65 后壳：IP20		Front panel: IP65, Back panel: IP20 前壳：IP65 后壳：IP20	

FPC1700
Jockey Pump Controller
消防稳压泵控制器

FPC915
Fire Pump Controller
消防水泵机组控制器

FPC615
Fire Pump Controller
消防水泵机组控制器

Model/型号	FPC1700	FPC915	FPC615
Main Functions 主要功能	The controller can control the pump to start/stop according to the pipe pressure, and stabilize the pipe pressure in the setting range. And it can realize grid voltage detection and protection, and automatic control of jockey pump. It is suitable for the control of single pump or cyclic control of dual pumps. 可根据管网压力开/停机，将管网压力稳定在设定范围内，实现电网检测保护、消防稳压泵的自动化控制。可用于单泵控制、双泵循环控制。	Suitable for diesel engine driven fire pump unit, with 4.3-inch color LCD and dual starting logic control, battery charging status monitoring, remote communication and other functions. 适用于柴油发动机驱动的消防水泵机组，采用4.3吋彩色液晶显示屏，具有双起动逻辑控制、蓄电池充电状态监测、远程通讯等功能。	Applicable for the fire pump unit control. With manual/auto mode switching function, which can monitor the voltage condition of two groups of battery and collect the sensor signal of unit, digital switching signal to monitor the operation of the unit. With the fault alarm function. 适用于控制消防水泵机组。具有手自动模式切换功能，可以监控两组电池的电压状况同时采集机组传感器信号、数字开关量信号来监测机组的运行情况，具有故障报警功能。
Display/显示器	LCD(128*64)	4.3-inch TFT-LCD (480*272) 4.3英寸液晶显示器	LCD(132*64)
Operation Panel 操作面板	Silicon Rubber/硅胶		
Language 控制器语言	Chinese＆English＆Others/中文＆英文＆其他		
Digital Input 开关量输入口	2	18	3
Relay Output 继电器输出口	2	12	8
Analog Input 模拟量输入口	1	7	3
RTC＆Event Log 实时时钟及历史记录		●	
Scheduled Start/Stop 定时开关机		●	
Monitor Port/监控接口	LINK	RS485	LINK
Programming Port/编程接口	LINK	USB/RS485	LINK
CANBUS		●	
DC Supply 直流工作电源范围	DC(8～35)V		
Case Dimensions 外形尺寸(mm)	95*86*46.5(L*W*H)	237*172*45(L*W*H)	197*152*47(L*W*H)
Panel Cutout 安装尺寸(mm)	78*66	214*160	186*141
Operating Temp. 工作温度	(-25~+70)℃		
IP/防护等级	IP65	IP55	IP65

APC715N
Diesel Pump Controller
柴驱泵组控制器

APC615
Pump Unit Controller
水泵机组控制器

Model/型号	APC715N	APC615
Main Functions 主要功能	Applicable for high-pressure water pump unit, mud pump unit and drainage pump unit driven by ECU, with double speed, double battery sampling, starting power switch and manual/auto speed regulation functions. 适用于电喷发动机驱动的高压水泵机组、泥浆泵组、排涝泵组等，具有双转速、双电池采样，起动电源切换、手自动调速等功能。	Suitable for diesel engine driven pump unit, the speed regulation can be achieved by relay output and CANBUS. 适用于柴油发动机驱动的水泵机组，可通过继电器输出、CAN总线实现调速功能。
Display/显示器	4.3-inch TFT-LCD (240*128) 4.3英寸液晶显示器	LCD(132*64)
Operation Panel 操作面板	Silicon Rubber/硅胶	
Language 控制器语言	Chinese＆English＆Others/中文＆英文＆其他	
Digital Input 开关量输入口	9	6
Relay Output 继电器输出口	12	8
Analog Input 模拟量输入口	10	6
RTC＆Event Log 实时时钟及历史记录	●	
Scheduled Start/Stop 定时开关机	●	
Monitor Port/监控接口	RS485/ETHERNET	RS485
Programming Port/编程接口	USB/RS485/ETHERNET	LINK/RS485
CANBUS	●	
DC Supply 直流工作电源范围	DC(8～35)V	
Case Dimensions 外形尺寸(mm)	242*186*49(L*W*H)	197*152*47(L*W*H)
Panel Cutout 安装尺寸(mm)	214*160	186*141
Operating Temp. 工作温度	(-25~+70)℃	
IP/防护等级	IP65	

ACC7200
Diesel Air Compressor Controller
柴驱空压机控制器

ACC5100
Diesel Air Compressor Controller
柴驱空压机控制器

ACC1700CAN
Diesel Air Compressor Controller
柴驱空压机控制器

ACC4100
Air Compressor Controller
空压机控制器

Model/型号	ACC7200	ACC5100	ACC1700CAN	ACC4100
Main Functions 主要功能	It is used for air compressor with diesel-driven engine in order to realize functions of compressor start/stop, data measurement, maintenance, alarm protection and "three remotes". 可用于柴油发动机驱动的空压机，实现空压机的开机停机、数据测量、维护保养、报警保护及"三遥"功能。	The controller is suitable for diesel engine driven air compressor, which can realize start/stop, data measurement, maintenance, alarm protection, and "Three Remote" functions. The controller features speed regulation function. With the CANBUS (SAE J1939) interface, it can control various ECU or non-ECU engine driven air compressor. 用于柴油发动机驱动的空压机，实现空压机的开机停机、数据测量、维护保养、报警保护及"三遥"功能。控制器具有调速功能，带有CANBUS(SAE J1939)接口，可控制多种电喷或非电喷柴驱空压机。	ACC1700CAN Diesel Air Compressor Controller is used for air compressor with diesel-driven engine to realize air compressor start/stop, data measurement, maintenance, alarm protection and "Three Remotes". ACC1700CAN controller has speed regulator function, and CANBUS (SAE J1939) port, which can control various ECU diesel air compressors. 具有空压机开/停机、数据测量、维护保养、报警保护及"三遥"功能，具有调速功能，带有CANBUS(SAE J1939)接口，可控制多种电喷柴驱空压机。	Diesel driven air compressor control module with speed regulation function and CANBUS communication interface. 柴驱空压机控制模块，具有调速功能、CANBUS通信接口。
Display/显示器	4.3-inch Color LCD/4.3英寸彩屏	Color LCD(320*240)/彩屏	LCD(132*64)	
Operation Panel 操作面板	Silicon Rubber/硅胶			
Language 控制器语言	Chinese＆English&Other 中文＆英文及其他	Chinese& English& Russian/中文&英文&俄文	Chinese＆English/中文＆英文	
Digital Input 开关量输入口	10	5	1(E-STOP)+2/1(急停)+2	6
Relay Output 继电器输出口	10	6	5	7
Analog Input 模拟量输入口	8	6	5	6
Speed Adjustment Function 调速功能	●			
RTC＆Event Log 实时时钟及历史记录		●	Only Event Log but no RTC 有历史记录无实时时钟	●
Maintenance 保养功能	●			
Monitor Port/监控接口	RS485			
Programming Port/ 编程接口	USB/RS485		Bluetooth/蓝牙/RS485	USB/RS485
CANBUS(J1939)	●			
DC5V Output DC5V输出	●			●
DPF Regenerate DPF再生	●			
DC Supply 直流工作电源范围	DC(8~35)V			
Case Dimensions 外形尺寸(mm)	209*166*49(L*W*H)	180*236*74（L*W*H）	96*86*47（L*W*H）	135*110*44(L*W*H)
Panel Cutout 安装尺寸(mm)	186*141	151*201, 4×φ4.5mm	78*66	116*90
Operating Temp. 工作温度	(-40~+70)℃		(-25~+70)℃	

HWP22
Forced Circulation Heater
强制循环水加热器

HWP40N
Forced Circulation Heater
强制循环水加热器

HWP45N
Forced Circulation Heater
强制循环水加热器

HWP40R/HWP60R/HWP90R/HWP120R
Forced Circulation Heater
强制循环水加热器

Model/型号	HWP22	HWP40N	HWP40	HWP45N	HWP40R	HWP60R	HWP90R	HWP120R
Main Functions 主要功能	Wide application on various engines coolant preheating. 适用于各种型号发动机的冷却液预加热。							
Rated Power 额定功率	2200W	4000W		4500W	4000W	6000W	9000W	12000W
Rated Voltage 额定电压	AC240V			AC240V		AC420V		
Rated Current 额定电流	9.2A	16.7A		18.8A	16.7A	8.3A	12.5A	16.7A
Phase 相数	单相	1P2W		单相		三相		
Engine Displacement 适用发动机排量(L)	≤15	20~30	15~30	15~35	15~30	25~50	50~75	75~100
Thermostat Range 断开及复位温度	Off/断开点：(40~60)℃ On/复开点：(25~45)℃	Off/断开点：(5~70)℃ On/复位点：(0~65)℃	Off/断开点：(5~99)℃ On/复位点：(0~94)℃	Off/断开点：(5~70)℃ On/复位点：(0~65)℃	Off/断开点：(5~80)℃ On/复位点：(0~65)℃			
Default Thermostat Range 出厂温度值	Off/断开点：(40±3)℃ On/复开点：(25±3)℃	Off/断开点：(40±2)℃ On/复开点：(25±2)℃		Off/断开点：(40±3)℃ On/复开点：(25±3)℃	Off/断开点：(40±2)℃ On/复位点：(25±2)℃			
Overheating Switch 过热开关动作温度	Off/断开点：(95±3)℃ On/复开点：(80±3)℃	Off/断开点：(95±3)℃ On/复位点：Manual-return/ 手动复位	Off/断开点：(95±3)℃ On/复位点：(80±6)℃	Off/断开点：(95±3)℃ On/复位点：Manual/Auto 手动/自动复位				
Insulating Resistance 绝缘电阻	≥50MΩ							
Electrical Strength 电气强度	AC 1.5kV 1min							
Inlet/Outlet Size 进出水口尺寸	3/4"(Φ19.5mm)				(Φ19.5mm)			
Max.Water Pressure 承受最大水压	0.5MPa							
Pump Flow Velocity 水泵流速	30L/min(1.5m of head/ 扬程1.5米时)	40L/min(1.5m of head/扬程1.5米时)		30L/min(1.5m of head/ 扬程1.5米时)	40L/min(1.5m of head/扬程1.5米时)			
Protection Class 防护等级	IP44							
Vibration Resistance 抗振动能力	(5~8)Hz;Amplitude/振幅±7.5mm; Tri-axial/三轴(8~500)Hz;a/加速度±4g;Tri-axial/三轴	(5~8)Hz; Amplitude/振幅±7.5mm;Tri-axial/3个轴分别振动14min (8~500)Hz;a/加速度=2g;Tri-axial/3个轴分别振动120min IEC 60068-2-6						
Shock Resistance 抗冲击能力	Half-sine Wave/半正弦波；a_peak/峰值加速度=50g; Tri-axial/三轴				50g, 11ms, half-sine, apply three shocks successively in each direction of three mutually perpendicular axes, which means 18 shocks in total 50g，11ms，半正弦， 三个互相垂直方向的每一方向连续施加三次冲击，即共18次 IEC 60068-2-27			
Case Dimensions 外形尺寸(mm)	356*175*162(L*W*H)	414*175*116(L*W*H)	444*270*380(L*W*H)	440*175*162(L*W*H)	444*268*435(L*W*H)			
Weight/重量(kg)	4.9	5.3	14	5.7	14			

HEATERS / 加热器

HT10M/HT22M
Self-circulation Engine
Water Heater
自循环水加热器

HT40MB
Self-circulation Engine
Water Heater
自循环水加热器

HT40N
Self-circulation
Water Heater
自循环水加热器

HT322
Engine Water Heater
水加热器

Model/型号	HT10M	HT22M	HT40MB	HT40N	HT322
Main Functions 主要功能	Wide application on various engines coolant preheating 适用于各种型号发动机的冷却液预加热				
Rated Power 额定功率	1190W	2200W	4000W		2200W
Rated Voltage 额定电压	AC240V				
Rated Current 额定电流	5A	9.2A	16.7A		9.2A
Engine Displacement 适用发动机排量(L)	2.5~7	7~13	13~25		7~13
Thermostat Set Point 恒温点	(40±3)℃				
Temperature Switch 温控开关动作温度	Off/断开: (40±3)℃ Reset/复位: (25±6)℃ (Customizable/可定制)		Off/断开: (40±3)℃ Reset/复位: (25±5)℃ (Customizable/可定制)		Off/断开: (40±3)℃ Reset/复位: (25±6)℃
Overheating Switch 过热开关动作温度	Off/断开: (110±3)℃ Reset/复位: Manual/手动复位≤95℃		Off/断开: (95±4)℃ Auto Reset/ 自动复位<80℃	Off/断开: (95±3)℃ Reset复位: (80±5)℃	
Insulating Resistance 绝缘电阻	≥50MΩ				
Electrical Strength 电气强度	AC 1.5kV 1min，≤2.5mA				
Inlet/Outlet Size 进出水口尺寸	3/4''(Φ19mm)				
Max.Water Pressure 承受最大水压	0.5MPa				
IP/防护等级	IP54				IP67
Vibration Resistance 抗振动能力	(5~8)Hz; Amplitude/振幅±7.5mm; Tri-axial/三轴 (8~500)Hz; a/加速度=2g(HT322抗震动加速度为4g); Tri-axial/三轴				
Shock Resistance 抗冲击能力	Half-sine Wave/半正弦波; a$_{peak}$/峰值加速度=50g; Tri-axial/三轴				
Overheat reset 防干烧复位	Manual reset 手动复位		Auto reset 自动复位		
Manual test 手动测试	●				
Case Dimensions 外形尺寸(mm)	208*150*177(L*W*H)		471*306*218 (L*W*H)	389*182*116 (L*W*H)	238*135*133 (L*W*H)
Weight/重量(kg)	1.9		5.6	4.3	0.95

HTL04A
Immersion Lube Oil Heater
浸入式机油加热器

Model/型号	HTL04A
Main Functions 主要功能	Wide application on various engines with (50~110)L lubricant oil volume. 适用于机油体积为(50~110)L的各种发动机。
Rated Power 额定功率	400W
Rated Voltage 额定电压	AC240V
Rated Current 额定电流	1.67A
Lubricant Oil Volume 适用机油容积(L)	50~110L
Thermostat Range 断开及复位温度	Off/断开点: 50℃ Customized On/复位点: 35℃ （可定制）
Insulating Resistance 绝缘电阻	≥50MΩ
Electrical Strength 电气强度	AC 1.5kV 1min 漏电流≤3mA
Pannel Cutout 安装尺寸(mm)	Thread outer diameter optional range Φ(22~33.5) 螺纹外径可选范围Φ(22~33.5)
Max.Water Pressure 承受最大水压	0.5MPa
IP/防护等级	IP65
Vibration Resistance 抗振动能力	5~8Hz:17mm 8~100Hz:加速度4g 100~500Hz:加速度2g IEC60068-2-6
Shock Resistance 抗冲击能力	550g,11ms,half-sine,complete shock tests from three directions, with a total of 18 shocks per test. 50g,11ms,半正弦,完成从三个方向的冲击测试,每个测试共有18个冲击IEC60068-2-27
Case Dimensions 外形尺寸(mm)	255*43*43(L*W*H)
Weight/重量(kg)	0.59

HFW50-12V/HFW50-24V
Hydronic Heater(Fuel)
液体加热器

Model/型号	HFW50-12V	HFW50-24V
Main Functions 主要功能	The heater is suitable for various engines with 30L displacement below, and it can be applied to special scenarios where AC power supply is unavailable. 适用于排量为30L以下的各种发动机，可应用于无交流供电的特殊场景。	
Heat Flow/热流量	5500W	
Rated Voltage/额定电压	DC 12V	DC 24V
Run-time Power Consumption 运行时功耗	48W	
Operating Voltage Range 工作电压范围	DC (10~16)V	DC (20~32)V
Fuel Consumption/油耗	0.46L/h	0.55L/h
Engine Displacement 适用发动机排量	≤30L	
Thermostat Range 断开及复位温度	Off/断开点: (5~80℃)　On/复位点: (0~75℃)	
Dry-burning Protection Temp. 干烧保护动作温度	Temperature difference between water temperature sensor and dry-burning sensor should be more than 100 ℃ or the temperature of dry-burning sensor is more than 100 ℃. 水温传感器与干烧传感器温差 > 100℃或者干烧传感器温度 > 100℃	
Max.Water Pressure 承受最大水压	0.5MPa	
Pump Flow Velocity 水泵流速	17L/min (1.5m of head)/扬程1.5米时17L/min	
Vibration Resistance 抗振动能力	5~8Hz: 位移±17mm 8~100Hz:加速度4g 100~500Hz:加速度2g	
Shock Resistance 抗冲击能力	550g,11ms,half-sine,complete shock tests from three directions, with a total of 18 shocks per test. 50g,11ms,半正弦,完成从三个方向的冲击测试,每个测试共有18个冲击IEC60068-2-27	
Operating Altitude /工作海拔	≤3000m (≤5500m，需订制)	
Operating Temp.Range 工作温度范围	-40℃~+70℃	
Inlet/Outlet Size 进出水口尺寸	Φ19.5mm	
Case Dimensions 外形尺寸(mm)	315*192*230(L*W*H)	
Weight/重量(kg)	5.3	

BACM1206 (RS485)　　BACM2406 (RS485)　　BACM2410 (RS485)　　BACM2420A (RS485)　　BACM2440　　PDC2420

Model/型号	BACM1206	BACM2406	BACM2410	BACM2420A		BACM2440		PDC2420
Battery Voltage 电池电压	12V	24V	24V	12V	24V	12V	24V	24V
Max.Charging Current 最大充电电流	6A	6A	10A	20A		40A		20A
Rated Input Voltage 额定输入电压范围	AC(100~240)V			AC(100~277)V		AC(300~500)V		DC(18~72)
Max.Input Voltage Range 最大输入电压范围	AC(90~280)V			AC(90~305)V		AC(300~500)V		DC(18~72)
Max.Input Current 最大输入电流	1.5A	3A	4A	4.2A	8.2A	3A	5A	34A

BAC06A

BAC06AU

BAC05NJ

BAC1210

BAC2405

BAC2408

BAC4812
DC Charger/直流充电器

Model/型号	BAC06A		BAC06AU		BAC05NJ		BAC1210	BAC2405	BAC2408	BAC4812
Battery Voltage 电池电压	12V	24V	12V	24V	12V Two-Stage/Three-stage 二段式/三段式	24V Two-Stage/Three-stage 二段式/三段式	12V	24V	24V	12V
Max.Charging Current 最大充电电流	6A	3A	4A	3A	5A		10A	5A	8A	3A
Rated Input Voltage 额定输入电压范围	AC(95~280)V		AC(100~240)V		AC(150~277)V		AC(100~277)V	AC(100~240)V		DC48V
Max.Input Voltage Range 最大输入电压范围	AC(90~305)V		AC(90~280)V		AC(150~305)V		AC(90~305)V	AC(90~280)V		DC(36~72)V
Max.Input Current 最大输入电流	2A		2A		1.2A	2A	2.5A		3A	1A

BAC2410D

BAC1203VE

BAC06CF-12V

BAC06CF-24V

Model/型号	BAC2410D	BAC1203VE	BAC06CF-12V	BAC06CF-24V
Battery Voltage 电池电压	24V	12V	12V	24V
Max.Charging Current 最大充电电流	10A	3A	6A	3A
Rated Input Voltage 额定输入电压范围	AC(100~277)V			
Max.Input Voltage Range 最大输入电压范围	AC(90~305)V			
Max.Input Current 最大输入电流	4A	1A	2A	2A

BAC06N
Battery Charger
蓄电池充电器

BCW20
Wall-mounted Battery
Charging Box
壁挂式蓄电池充电箱

Model/型号	BAC06N		BCW20	
Battery Voltage 电池电压	12V	24V	12V	24V
Max.Charging Current 最大充电电流	6A	3A	20A	
Rated Input Voltage 额定输入电压范围	AC(100~277)V		AC(100~277)V	
Max.Input Voltage Range 最大输入电压范围	AC (95~305)V		AC(90~305)V	
Max.Input Current 最大输入电流	2A		3.5A	7A

Land Genset Control Panel
陆用发电机组控制屏

GPP/9510/1000A
GPP Series Genset Parallel Panel
GPP系列自动并联控制屏

GCP6120N/250SG
GCP Series Vertical Type
GCP系列立柜式控制屏

GCP6120N
GCP Series Wall-Mounted
GCP系列壁挂式控制屏

GCP6110N
GCP Series Backpack Type
GCP系列背包式控制屏

GCPL6110N
GCP Series Genset Control Panel
GCP系列发电机组控制屏

GCPBE62/B/GCPBE62CAN/B
GCP Series Backpack Type
GCP系列背包式控制屏

ATS Series Automatic Transfer Panel
ATS系列双电源自动切换控制屏

ATSE600N/250SG
ATS Series Automatic Transfer Panel
ATS系列双电源自动切换
控制屏

ATS560NBC/125A
ATS Double Power Switch Panel/ATS
ATS系列双电源开关屏

Engineering Machinery Control Panel
工程机械控制屏

HPS/FPC915-S01
Diesel Fire Pump Control Panel
柴驱消防水泵机组控制屏

ECPC4300
Diesel Engine Control Panel
柴油机控制屏

ECPC4100
Diesel Engine Control Panel
柴油机控制屏

CCPC7100A-ZZ
Diesel Air Compressor Control Panel
柴驱空压机组控制屏

SmartGen众智

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

地址：中国.河南省郑州市高新区雪梅街28号
Add: No. 28 Xuemei Street, Zhengzhou, Henan, China
Tel: +86-371-67988888/67981888/67981000(overseas)
Web: www.smartgen.com.cn / www.smartgen.cn

SmartGen
EST.1998

China Offices

Haerbin
Changchun
Shenyang
Wulumuqi
Huhehaote
Beijing
Tianjin
Shijiazhuang
Lanzhou
Jinan
Yinchuan
Xian
Xining
Taiyuan
SmartGen
Zhengzhou
Nanjing
Iasa
Hefei
Shanghai
Chengdu
Wuhan
Hangzhou
Chongqing
Changsha
Nanchang
Guiyang
Fuzhou
Kunming
Guangzhou
Nanning
Taibei
Haikou

V 2.5