



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

## PRODUCT CATALOGUE 产品选型样册



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SMARTGEN(ZHENGZHOU) TECHNOLOGY CO., LTD.

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V 1.9



Chinese WeChat Service Account  
官微中文服务号



English WeChat Service Account  
官微英文服务号



SmartGen Products App  
众智产品 APP

[www.smartgen.com.cn](http://www.smartgen.com.cn) [www.smartgen.cn](http://www.smartgen.cn)

2017-2018



# SMARTGEN TECHNOLOGY

## About Us 关于我们

SMARTGEN(ZHENGZHOU) TECHNOLOGY CO., LTD. was established in 1998, a company which was listed on NEEQ. It specializes in design, development, manufacture, sale and service of engine/genset control, ATS and ATS control, engine heaters, battery chargers and related products. And it is one of the most influential equipment manufacturers in the genset industry around the world.

After 20 years of development, SmartGen has successively developed hundreds of control modules with independent intellectual property rights and obtained almost 300 patents, to provide the most valuable product solutions for global customers.

SmartGen has multiple firsts in China: it is one of the earliest enterprises in R&D and production of genset controller and ATS controller; it is the only enterprise whose genset controller through the German MTU certification; it is the earliest enterprise pioneered in the development and production of integrated genset parallel controller...

SmartGen, which owns more than 50 offices or agencies in domestic and overseas, is committed to providing satisfied products and services for customers. We will continue to innovate and self-transcend, strive to be the most trustworthy international brand!

Enterprise Spirit:Self-improvement and unity make perfect.

Enterprise Vision:Grow to be the most trusted brand in the industry and equip every piece of equipment of the world with a more intelligent brain!

郑州众智科技股份有限公司成立于1998年，是新三板上市企业。专业从事发动机/发电机组智能控制、双电源切换开关及智能控制、发动机机体加热器、蓄电池充电器等相关产品的设计、研发、制造、销售和服务，是全球发电机组行业最具影响力的设备制造商之一。

历经20年的发展，我们共研发出几百种具有自主知识产权的控制模块，获得了近300项专利，以确保持续为全球客户提供最具价值的产品解决方案。

众智科技拥有中国多个第一，中国最早从事发电机组控制器、双电源切换控制器研发和生产的企业之一，中国唯一一家发电机组控制器通过德国MTU认证的公司，中国最早研发出一体化发电机组并联控制器.....

众智科技在全球设立50多个办事处或代理机构，致力于向客户提供满意的产品和服务。我们将一如既往的不断创新与自我超越，争取成为全球发电机组行业最值得信赖的国际品牌！

企业精神：自强不息，众智成城。

企业愿景：成长为行业最值得信赖的品牌，为世界上每一台设备都装配一颗更加智能的心！



## SmartGen Test Room 众智试验室



SmartGen Test Room / 众智试验室



Prototype Test Room / 发电机组真机试验室



Test System of Distributed Solar-diesel Hybrid Generation  
分布式光油互补发电试验系统

SmartGen Test Room covers an area of nearly 1,000 square metres. With gradual improvements for years, it has become one of the handful of top-ranking test bases in the industry at present.

In order to meet requirements of various products, the continuous capital injection of testing center has totalled up to over 10 million yuan. Besides, we successively purchased multiple sets of advanced test equipment from well-known enterprises at home and abroad. At present, the main test types include EMC test, environmental tests and functional tests.

众智试验室占地面积近千平方米。历时多年的逐渐完善，目前已经成为了行业内屈指可数的一流试验基地。为了适应各种产品要求，测试中心近年来持续注资一千多万，先后从国内外知名企业采购多套高精尖测试设备。

目前主要测试类型包括：EMC电磁兼容性测试、环境类测试、功能类测试。

## Enterprise Honor 企业荣誉



ISO 9001  
质量管理体系认证



ISO 14001  
环境管理体系认证



OHSAS 18001  
职业健康安全管理体系认证



Marine Certificate  
of Type Approval  
中国船社认证  
发明专利证书



Certificate of  
Invention Patent  
发明专利证书



AAAA 级  
Good Standardizing  
Practice Certificate  
标准化良好行为证书



CE Certificate  
CE证书



CCC Certificate  
CCC证书



Software Copyright  
软件著作权登记证书



UL Certificate  
UL证书



Intellectual Property  
Management System  
Certificate  
知识产权管理体系证书



High-tech Enterprise Certificate  
高新技术企业证书

## GENSET CONTROL MODULES

### 发电机组控制模块



HGM410N



HGM420N



HGM4010(N/NC/CAN)



HGM4020(N/NC/CAN)



HGM6110(N/NC/CAN)



HGM6120(N/NC/CAN)

Model / 型号	HGM410N	HGM420N	HGM4010N	HGM4020N	HGM4010NC	HGM4020NC	HGM4010CAN	HGM4020CAN
Main Functions / 主要功能	Auto start & AMF module with graphic LCD display; HGM4000N is the basic type. HGM4000NC is the control module with the monitor interface. HGM4000CAN is the control module with ECU interface. 图形液晶显示的自启动和AMF模块，HGM4000N为基本型控制模块，HGM4000NC为带监控接口的控制模块，HGM4000CAN为具有ECU接口的控制模块。							
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&其他					
Digital Input / 开关量输入口	4(Two Multi-function) 4(2个复用)		5(2个复用 / Two Multi-function)					
Relay Output / 继电器输出口			6					
Analog Input / 模拟量输入口			4					
AMF / 市电检测		●		●		●		●
AC System / 交流制式			1P2W/2P3W/3P3W/3P4W					
Alternator Voltage 交流电压范围			(15~360)V(ph-N)					
Alternator Frequency 交流频率			50/60Hz					
kW/ Amp Detecting & Display 功率/电流检测及显示			●					
Monitor Interface / 监控接口			RS485					
Programming Interface 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)	126*109*44(L*W*H)		135*110*44(L*W*H)					
Panel Cutout / 安装尺寸(mm)	110*90		116*90					
Operating Temp. / 工作温度			(-25~+70)°C					
Product's QR code 产品二维码								

Model / 型号	HGM6110N	HGM6120N	HGM6110NC	HGM6120NC	HGM6110CAN	HGM6120CAN
Main Functions / 主要功能	Auto start & AMF module with graphic LCD display; HGM6100N is the basic type. HGM6100NC is the control module with the monitor interface. HGM6100CAN is the control module with ECU interface. 图形液晶显示的自启动和AMF模块，HGM6100N为基本型控制模块，HGM6100NC为带监控接口的控制模块，HGM6100CAN为具有ECU接口的控制模块。					
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&其他				
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				
Alternator Voltage 交流电压范围		(15~360)V(ph-N)				
Alternator Frequency 交流频率		50/60Hz				
KW/ Amp Detecting & Display 功率/电流检测及显示		●				
Monitor Interface / 监控接口		RS485				
Programming Interface 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)		209*166*44(L*W*H)				
Panel Cutout / 安装尺寸(mm)		186*141				
Operating Temp. / 工作温度		(-25~+70)°C				
Product's QR code 产品二维码						

## GENSET CONTROL MODULES 发电机组控制模块



HGM7110A/7210/7210CAN



HGM7120A/7220/7220CAN



HGM6320T

Model/型号	HGM7110A	HGM7210	HGM7210CAN	HGM7120A	HGM7220	HGM7220CAN	HGM6320T
Main Functions 主要功能	Auto start & AMF module with standard USB interface; 3.7 inches LCD display; HGM7100A module is the basic type; HGM7200 module has monitor interface and the SMS function; HGM7200CAN module has SAE J1939 interface. 3.7寸图形液晶显示带标准USB接口的自启动/AMF模块。HGM7100A是基本控制模块，HGM7200是带监控接口和SMS功能模块，HGM7200CAN是带电喷接口模块。	AMF module, which is designed for communication base station; Intelligent control of genset by sensing the room temperature and battery voltage. 专为通信基站开发的AMF模块，通过检测机房温度、蓄电池组电压来智能控制发电机组的运行。					
Display/显示器	LCD(132*64)			LCD(128*64)			
Operation Panel 操作面板	Silicon Rubber / 硅胶			PET			
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	7			6			
Relay Output 继电器输出口	8			8			
Analogue Input 模拟量输入口	5			5			
AMF/市电检测		●			●		
AC System/交流制式	1P2W/2P3W/3P3W/3P4W			1P2W/2P3W/3P3W/3P4W			
Alternator Voltage 交流电压范围	(15~360)V(ph-N)			(15~360)V(ph-N)			
Alternator Frequency 交流频率	50/60Hz			50/60Hz			
kW/Amp Detecting & Display 功率/电流检测及显示	●				●		
Monitor Interface 监控接口	RS485			RS485		RS485/RS232	
Programming Interface 编程接口	USB	USB/RS485	USB	USB/RS485		RS485/RS232	
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		●				●	
ULP/用户可编程逻辑		●					
SMS/短信功能					●		●
DC Supply 直流工作电源范围	DC(8~35)V			DC(8~35)V			
Case Dimensions 外形尺寸(mm)	197*152*47(L*W*H)			240*172*57(L*W*H)			
Panel Cutout 安装尺寸(mm)	186*141			214*160			
Operating Temp. 工作温度	(-25~+70)°C			(-25~+70)°C			
Product's QR code 产品二维码							

## DC GENSET CONTROL MODULES 直流发电机组控制模块



HGM7110DC



HGM7110VS

Model / 型号	HGM7110DC	HGM7110VS
Main Functions 主要功能	DC genset controller which is suitable for Accumulator Priority System, Generator Priority System, or Double Accumulator System; With RS485 monitoring port and SMS function. 直流发电机控制器，具有蓄电池组优先，发电机组优先和双蓄电池组系统三种应用模式，具有RS485监控接口和短信功能。	Can start/stop genset automatically and achieve data measure, alarm protection and "three remote" functions. Engine speed can be adjusted according to genset present power so as to realize energy saving and pollution reduction. 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。可根据机组当前功率调节发动机转速，实现节能减排。
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	5
Relay Output/继电器输出口	8	8
Analogue Input/模拟量输入口	5	5
Monitor Interface/ 监控接口	RS485	
Programming Interface 编程接口	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	●	●
ULP/用户可编程逻辑		●
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)	197*152*47(L*W*H)	197*152*47(L*W*H)
Panel Cutout / 安装尺寸(mm)	186*141	186*141
Operating Temp./工作温度	(-25~+70)°C	(-25~+70)°C
Product's QR code 产品二维码		

SG485 Communication Module  
SG485通讯模块

It can convert LINK into isolated standard RS485 interface, which enables product to connect with RS485 network. The maximum chips network can connect 32.

可将LINK接口转换为隔离型标准RS485接口，使产品具有连接RS485网络的功能，网络最大可连接32个节点。

Product's QR code 产品二维码	
Case Dimensions 外形尺寸(mm): 91*42*61	

SGUE485 Communication Interface  
Conversion Module  
SGUE485通信接口转换模块

It can convert USB into isolated standard RS485 interface, which enables product to connect with RS485 network. The maximum chips network can connect 32.

可将USB接口转换为隔离型标准RS485接口，使产品具有连接RS485网络的功能，网络最大可连接32个节点。

Product's QR code 产品二维码	
Case Dimensions 外形尺寸(mm): 89.7*35.6*60.7	

## GENSET CONTROL MODULES

### 发电机组控制模块



HGM8110V/HGM8110CAN

HGM8120V/HGM8120CAN

HGM9510

HGM9560

HGM9580

HGM9310MPU/CAN

HGM9320MPU/CAN

HGM9610

HGM9620

Model / 型号	HGM8110V	HGM8110CAN	HGM8120V	HGM8120CAN	HGM9510	HGM9520	HGM9530	HGM9560	HGM9580	HGM9310MPU	HGM9310CAN	HGM9320MPU	HGM9320CAN	HGM9610	HGM9620								
Main Functions/主要功能	Auto start of low temperature (-40 ~ +70 °C) working environment & AMF module. Operation in EMI environment. HGM8100V module is control module with RS485 monitor interface, HGM8100CAN module has CANBUS interface to control ECU engine control module. 低温(-40~+70℃)工作环境的自起动和AMF模块，可在强磁干扰下工作。HGM8100V是带RS485监控接口的控制模块，HGM8100CAN是具有CANBUS接口，可控制电喷发动机的控制模块。	Parallel control module with USB interface; LCD display; HGM9510 module is genset-genset parallel unit while HGM9520 is genset-mains one. HGM9530 module is genset-genset parallel unit, HGM9560 module is bus tie Mains parallel unit while HGM9580 is bus tie bus one. 图形液晶显示带USB接口的并机模块。HGM9510是发电-发电自动并机模块，HGM9520是发电-市电自动并机模块；HGM9530是发电-发电并机模块（可扩展模拟量输入口）；HGM9560是机组母排-市电自动并机模块；HGM9580是机组母排-机组母排自动并机模块。	Auto start / AMF control module with USB interface; LCD display; HGM9300MPU module has monitor interface and SMS function; HGM9300CAN module has ECU interface(SAEJ1939); HGM9600 module has TCP/IP and SD card interface. 图形液晶显示带USB接口的自起动/AMF模块。HGM9300MPU是带监控接口和SMS功能模块；HGM9300CAN是带电喷接口模块；HGM9600是带TCP/IP和SD卡接口模块。																				
Display/显示器	VFD				4.3 inches TFT-LCD(480*272) / 4.3寸彩屏						4.3 inches TFT-LCD(480*272) / 4.3寸彩屏												
Operation Panel/操作面板	Silicon Rubber / 硅胶				Silicon Rubber / 硅胶						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						Chinese & English & Others / 中文&英文&其它												
Digital Input/开关量输入口	8				7	8	7	8	7	8													
Relay Output/继电器输出口	8				8						8												
Analogue Input/模拟量输入口	5				5						5												
AMF/市电检测	●				●						●												
AC System/交流制式	1P2W / 2P3W / 3P3W / 3P4W				1P2W/2P3W/3P3W/3P4W						1P2W/2P3W/3P3W/3P4W												
Alternator Voltage 交流电压范围	(15~360)V(ph-N)				(15~360)V(ph-N)						(15~360)V(ph-N)												
Alternator Frequency 交流频率	50/60Hz				50/60Hz						50/60Hz												
kW/Amp Detecting & Display 功率/电流检测及显示	●				●						●												
Monitor Interface/监控接口	RS485				RS485						RS485												
Programming Interface 编程接口	USB/RS485				USB/RS485						USB/RS485												
Can Expand Digital Input/Output Modules 可扩展开关量输入输出模块	●			●		●				●		●		●		●							
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	●				●						●												
ULP/用户可编程逻辑	●				●						●												
SMS/短信功能	●										●												
Ethernet/以太网		●		●																			
SD Card/SD卡																							
DC Supply/直流工作电源范围	DC(8~35)V				DC(8~35)V						DC(8~35)V												
Case Dimensions 外形尺寸 (mm)	242*186*53(L*W*H)				266*182*45(L*W*H)						237*172*45(L*W*H)												
Panel Cutout/安装尺寸 (mm)	214*160				214*160						214*160												
Operating Temp./工作温度	(-40~+70)°C				(-25~+70)°C						(-25~+70)°C												
Product's QR code / 产品二维码																							

## GENSET CONTROL MODULES

### 发电机组控制模块



HGM501



MGC100



MGC120



HGM1790N

Model / 型号	HGM501	MGC100	MGC120	HGM1790N
Main Functions / 主要功能	LED Display; Suitable for single-phase gasoline genset or diesel genset. 数码管显示，适用于单相汽油或柴油发电机组。	LED Display; Suitable for gasoline genset and diesel genset. 数码管显示，适用于汽油和柴油发电机组。	LED Display; Suitable for single genset automation or ATS switching of gasoline genset and diesel genset. 数码管显示，适用于汽油和柴油发电机组单机自动化及ATS切换。	Suitable for single genset automation and monitoring (also works for pump unit). 适用于单机自动化及监控（也可用于水泵机组）。
Display / 显示器	LED Nixie Tube LED数码管	LED Nixie Tube LED数码管	LED Nixie Tube LED数码管	Graphical LCD (With Backlight) 图形LCD(带背光)
Operation Panel / 操作面板	PET	PET	Silicon Rubber / 硅胶	Silicon Rubber / 硅胶
Digital Input / 开关量输入口	1	4	2	4(One Programming Input) 4(1个可编程输入口)
Relay Output / 继电器输出口	2	3(One Transistor Output) 3(1个晶体管输出)	5(Two Transistor Outputs) 5(2个晶体管输出)	5(One Programming Output) 5(1个可编程输出口)
Analogue Input / 模拟量输入口	2		1	2
AC System / 交流制式	1P2W	1P2W/2P3W/3P3W/3P4W	1P2W	1P2W
Alternator Voltage 交流电压范围	(30~360)V(ph-N)	(15~360)V(ph-N)	(30~360)V(ph-N)	(15~360)V(ph-N)
Alternator Frequency 交流频率	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Amp Detecting & Display 电流检测及显示	●			●
Programming Interface 编程接口	LINK		LINK	USB
DC Supply / 直流工作电源范围	DC(9~18)V	DC(9~18)V	12V Power Supply System 12V供电系统	DC(8~35)V
Case Dimensions 外形尺寸(mm)	118*128*36(L*W*H)	105.8*61*36.6(L*W*H)	95*86*46.5(L*W*H)	95*86*46.5(L*W*H)
Panel Cutout / 安装尺寸(mm)	112*122	92*44	78*66	78*66
Operating Temp. / 工作温度	(-25~+70)°C	(-25~+70)°C	(-25~+70)°C	(-25~+70)°C
Product's QR code / 产品二维码				



SGB100  
Bluetooth Communication Module  
蓝牙通讯模块

- Can monitor and adjust configuration parameters of controllers via iGMPA6 mobile phone's APP;  
配合iGMPA6手机APP对控制器配置参数、监控等；
- With Bluetooth 4.1 and BLE low power consumption communication mode;  
使用蓝牙4.1及BLE低功耗通信方式；
- USB Power Supply (<50mA);  
USB供电 (<50mA)；
- Product's QR code  
产品二维码



SG72A  
Communication Module  
通讯模块

- USB to LINK;
- USB to RS232;
- USB to RS485;
- Product's QR code  
产品二维码



APC715  
Pump Unit Control Module  
水泵机组控制模块

Automatic start/stop, data measurement, alarm protection and as remote control, remote measuring and remote communication functions of the water-pump unit. The module has GOV control function and SAE J1939 port which enables communication with multiple ECU engines and can be widely used in a number of water-pump control systems.

实现发动机水泵系统的自动开机停机、数据测量、报警保护及“三遥”功能，具有控制GOV的功能，控制器带有SAE J1939接口，可和具有J1939接口的多种电喷发动机ECU进行通信。可广泛应用于各类型发动机水泵控制系统。

Model/型号	APC715
Display 显示器	4.3 inches TFT-LCD (480*272) 4.3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&其它
Digital Input 开关量输入口	9
Analogue Input 模拟量输入口	10
Digital Output 继电器输出口	12
RTC& Event Log 实时时钟及历史记录	●
Scheduled Start/Stop 定时开关机	●
Monitor Interface 监控接口	RS485
Programming Interface 编程接口	USB/RS485
CANBUS	●
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(mm) 安装尺寸	214*160
Operating Temp. 工作温度	(-25 ~ +70)°C
Product's QR code 产品二维码	



FPC915  
Diesel Engine Fire Pump Control Module  
柴驱消防水泵机组控制模块

Designed for pump units which controlled by diesel engine. Diesel engine can be started by water pressure control automatically, remote control manually or deluge value.  
控制柴油机水泵机组，通过水压控制自动启动柴油机，也可远程手动启动，雨淋阀启动柴油机。

With weekly resume by alarm function, it can start diesel engine regularly once a week and operating time can be set.  
具有周定时启动功能，每周定时一次启动柴油机控，运行时间可设置。

Manually panel start. Two cranking outputs: accumulator 1 or 2 is optional to start diesel engine.  
面板手动启动，两组启动输出，可选择蓄电池1或蓄电池2启动柴油机。

Monitoring voltage and charge current of two chargers and accumulator via RS485 in real time.  
通过RS485实时监控两台充电器与蓄电池的电压与充电电流。

Built-in pipes pressure recorder is used for recording maximum and minimum pressure of pipes, pressure set point and starting times, which is convenient for users to query on site.  
内置管道压力记录，记录管道的最大压力，最小压力，压力设定点，开机次数等，方便用户现场查询。

Monitoring diesel engine and system status.  
监控柴油机与系统的状况。

Able to extend DOUT16A relay output module for output engine running and fault, pump room alarms, controller faults, charger failure and dry contact.  
可以扩展DOUT16A继电器输出板，输出发动机运行，发动机故障，泵房报警，控制器故障，充电器故障无源触点。

Product's QR code  
产品二维码

## LIGHTING TOWER CONTROL MODULES 灯塔机组控制模块



**ALC704**  
Lighting Tower Control Module  
灯塔机组控制模块



**ALC708**  
Lighting Tower Control Module  
灯塔机组控制模块



**HSC940**  
Gas Genset Control Module  
燃气发电机组控制模块



**HSC960**  
Gas Genset Control Module  
燃气发电机组控制模块

Model/型号	ALC704	ALC708
Main Functions/ 主要功能	Used for automatic control module of single lighting tower set, it can achieve lighting tower set scheduled start/stop , sunrise and sunset start/stop, SMS remote control start/stop, via remote input start/stop, turn on and off the spotlights of the lighting tower in proper order. It is applicable to AC and DC lighting tower sets.  用于单台灯塔机组自动化控制，可实现灯塔机组的定时开/停机、日出日落开/停机、SMS短信遥控开/停机以及通过远程输入口开/停机，还可实现灯塔照明灯的顺次开启及关闭，不仅适用于交流灯塔机组，也可适用于直流灯塔机组。	
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 / 中文&英文	
Digital Input/ 开关量输入口	8	12
Digital Output/ 继电器输出口	10	14
The Number of Lights 灯数量	4	8
DC Lighting Tower sets Control 直流灯塔控制	●	●
AC Lighting Tower sets Control 交流灯塔控制	●	●
Scheduled Start/Stop 定时开关机	●	
SMS Start/Stop 短信开关机		●
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	●	
Monitor Interface 监控接口		RS485
Programming Interface 编程接口	USB	USB / RS485
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)	
Panel Cutout(mm)/ 安装尺寸	186*141	
Operating Temp./ 工作温度	(-25 ~ +70)°C	
Product's QR code / 产品二维码		

Model / 型号	HSC940	HSC960
Main Functions/ 主要功能	Used for gas genset automation and monitoring system of single unit to achieve speed regulation (adjust the throttle opening via the driving stepper motor), automatic start/stop,data measuring, alarm protection.  用于单台燃气发电机组自动化及监控系统，实现发动机速度调节(驱动步进电机调整节气门开度)，发电机组的自动开机/停机、数据测量、报警保护功能。	Used for gas genset automation and monitoring system of single unit to achieve speed regulation (adjust the throttle opening via the driving DC motor), automatic start/stop,data measuring, alarm protection and three remote functions.  用于单台燃气发电机组自动化及监控系统，实现发动机速度调节(驱动直流电机调整节气门开度)，发电机组的自动开机/停机、数据测量、报警保护及“三遥”功能。
Display/ 显示器	LCD(132*64)	
Operation Panel/ 操作面板	PET	Silicon Rubber / 硅胶
Language/ 控制器语言	Chinese&English&Spanish&Russian 中文&英文&西班牙文&俄文	Chinese & English / 中文&英文
Digital Input/ 开关量输入口		5
Relay Output/ 继电器输出口		6
Analogue Input/ 模拟量输入口		5
AC System/ 交流制式	3P4W/1P2W/3P3W/2P3W	
Alternator Voltage 交流电压范围	AC(15~360)V (ph-N) AC(30~620)V (ph-ph)	
Alternator Frequency 交流频率	50/60Hz	
KW/Amp Detecting & Display 功率/电流检测及显示		●
Monitor Interface / 监控接口		RS485
Programmable Interface 编程接口	LINK	LINK/RS485
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)	130*112*39(L*W*H)	197*152*47(L*W*H)
Panel Cutout / 安装尺寸(mm)	110*90	186*141
Operating Temp. / 工作温度	(-25 ~ +70)°C	
Motor Specifications 电机规格	Mixed 2-phase; Drive Current ≤1A 2相混合式步进电机，驱动电流≤1A	DC Motor; Drive Current ≤6A 直流电机，驱动电流≤6A
Product's QR code 产品二维码		

## ATS CONTROL MODULES

### 双电源控制模块



HAT310



HAT160



HAT520N



HAT530N



HAT560N/HAT560NC/HAT560NB/HAT560NBC

HAT700 HAT700I HAT700B  
HAT700BI HAT700S

Model / 型号	HAT310	HAT160	HAT520N	HAT530N	HAT560N	HAT560NC	HAT560NB	HAT560NBC	HAT700	HAT700I	HAT700B	HAT700BI	HAT700S	
Main Functions / 主要功能	Monitors 1P2W/3P4W AC system; suitable for PC two-stage and CC switch. 单相或三相采样，适合于控制PC两段式、CC级开关。	Monitors 1P2W/3P4W AC system; suitable for one motor operation CB switch. 单相或三相采样，适合于控制CB级单电操开关。	Monitors 1P2W/2P3W/3P4W AC system; suitable for PC two-stage and CC switch. 单相、两相和三相采样，适合于控制PC两段式、CC级开关。	Monitors 1P2W/2P3W/3P4W AC system; suitable for PC and CC switch. 单相、两相和三相采样，适合于控制PC级和CC级开关。	With graphic LCD; monitors all AC system; suitable for PC, CB and CC switch. 图形液晶显示模块，各种交流制式采样，适合于控制PC级、CB级和CC级开关。	With graphic LCD; monitors all AC system; suitable for PC, CB and CC switch. 图形液晶显示模块，各种交流制式采样，适合于控制PC级、CB级和CC级开关。	With graphic LCD; monitors all AC system; suitable for PC, CB and CC switch. 图形液晶显示模块，各种交流制式采样，适合于控制PC级、CB级和CC级开关。	With graphic LCD; monitors all AC system; suitable for PC, CB and CC switch. 图形液晶显示模块，各种交流制式采样，适合于控制PC级、CB级和CC级开关。	LCD (132*64)				LCD (132*64)	
Display / 显示器	LED	LED	LED	LED	Chinese & English / 中文&英文				Chinese & English & Others / 中文&英文&其他				Chinese & English & Others / 中文&英文&其他	
AC System / 交流制式	1P2W/3P4W	1P2W/3P4W	1P2W/2P3W/3P4W	1P2W/2P3W/3P4W	1P2W/2P3W/3P3W/3P4W	1P2W/2P3W/3P3W/3P4W	1P2W/2P3W/3P3W/3P4W				1P2W/2P3W/3P3W/3P4W			
Alternator Voltage 交流电压范围	(160~280)V(ph-N)	(170~277)V(ph-N)	(170~277)V(ph-N)	(170~277)V(ph-N)	(30~360)V(ph-N)	(170~270)V(ph-N)	(50~360)V(ph-N)				(50~280)V(ph-N)			
Alternator Frequency 交流频率	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz				50/60Hz				50/60Hz	
KW Detecting & Display 功率检测及显示										●			●	
Monitor Interface / 监控接口		LINK	LINK	LINK	LINK	LINK	LINK/RS485	LINK	LINK/RS485	RS485				
Programming Interface 编程接口		LINK	LINK	LINK	LINK	LINK	LINK/RS485	LINK	LINK/RS485	LINK/RS485				
RTC(Real Time Clock) 实时时钟								●						
Scheduled Start Genset 定时试机								●						
Circulate Start Genset 循环开机								●						
Switch Over Priority 主备用切换	●	●	●	●				●						
Applicable Switch Type 适合开关类型	PC Two-stage and CC Switch PC二段式和CC级开关	CB One Motor Operation CB级单电操	PC Two-stage and CC Switch PC二段式和CC级开关	PC and CC Switch PC级和CC级开关	PC, CB and CC Switch PC级、CB级和CC级开关				PC, CB and CC Switch PC级、CB级和CC级开关				PC, CB and CC Switch PC级、CB级和CC级开关	
DC Supply / 直流工作电源范围					DC(8~35)V				DC(8~35)V				DC(8~35)V	
Sync Transfer / 同步转换													●	
Case Dimensions 外形尺寸(mm)	110*77.5*55(L*W*H)	86.9*158*119.5(L*W*H)	139*120*48(L*W*H)	139*120*48(L*W*H)	139*120*48(L*W*H)				197*152*47(L*W*H)				197*152*47(L*W*H)	
Panel Cutout / 安装尺寸(mm)	65*65.1	73.5*144	130*111	130*111	130*111				130*111				186*141	
Operating Temp./工作温度	(-25~+70)°C	(-25~+70)°C	(-25~+70)°C	(-25~+70)°C	(-25~+70)°C				(-25~+70)°C				(-25~+70)°C	
Product's QR code 产品二维码														

## MARINE GENERATOR ENGINE CONTROL MODULES & SENSORS 船舶发电机组控制模块/传感器



HMC4000MPU  
Marine Generator Engine  
Control Module  
船舶发电机组控制模块



HMC4000CAN  
Marine Generator Engine  
Control Module  
船舶发电机组控制模块



HMC4000RM  
Engine Remote Control Module  
发电机组远程监控模块

Model/型号	HMC4000MPU	HMC4000CAN	HMC4000RM
Display/显示器		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		
HMC4000RM Remote Module HMC4000RM远程模块	●		
COM. Interface/通讯接口	RS485		
CANBUS Port Extension 扩展CANBUS接口		●	
Relay Output/继电器输出口	6		
Digital Input/开关量输入口	5(2个复用/ two multi-function)		
Analogue Input/模拟量输入	4		
Operating Temp./工作温度	(-25 ~ +70)°C		
DC Supply / 直流工作电源范围	DC(8~35)V		
Panel Cutout / 安装尺寸(mm)	116*90		
Case Dimensions / 外形尺寸(mm)	135*110*44(L*W*H)		
Product's QR code / 产品二维码			



SGPT110/SGPT110-0.4  
Pressure Transmitter  
压力变送器

- Measuring Range: (0~1)MPa / (0~0.4)MPa;  
测量范围: (0~1)MPa / (0~0.4)MPa;
- Signal Output: (4~20)mA;  
信号输出: (4~20)mA;
- Screw Thread: G1/4 Standard Pipe Thread;  
螺纹: G1/4标准管螺纹;
- Measurement Accuracy Class:  
Class 0.25;  
测量精度: 0.25级;
- Protection Class: IP65;  
等级: IP65;
- Product's QR code  
产品二维码



SGWS115  
Temperature Sensor  
(resistor type)  
电阻型温度传感器

- Measuring Range: (-20~+150)°C;  
测温范围: (-20~+150)°C;
- 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;
- Measurement Accuracy Class:  
Class 0.25;  
测量精度: 0.25级;
- Protection Class: IP65;  
等级: IP65;
- Product's QR code  
产品二维码



## MARINE ENGINE CONTROL MODULES 船舶发动机控制模块



HMC6000A  
Marine Engine Control Module  
船舶发动机控制模块



HMC6000ED  
Main Propulsion Engine Control Module  
船舶主推控制模块



HMC6000EG  
Marine Generator Engine Control Module  
船舶发电控制模块



HMC6000RM  
Engine Remote Control Module  
发动机远程监控模块



HMC6000RMD  
Main Propulsion Engine Remote Monitoring Module  
主推发动机远程监控模块

Model/型号	HMC6000A	HMC6000ED	HMC6000EG
Display/显示器		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		
DOUT16B Module Extension DOUT16B模块扩展	●		
RPU560A Module Extension RPU560A模块扩展	●		
HMC6000RM Remote Module HMC6000RM远程模块	●		●
HMC6000RMD Remote Module HMC6000RMD远程模块		●	
COM. Interface/通讯接口	RS485/LINK		LINK
CANBUS Port Extension 扩展CANBUS接口	●		
Remote CANBUS Port 远程CANBUS接口		●	
Resistance Sensor 电阻型传感器个数		6	
Relay Output/继电器输出口		8	
Transistor Output/晶体管输出口	9		
Digital Input/开关量输入口		11	
Analogue Input/模拟量输入		6	
Operating Temp./工作温度	(-25 ~ +70)°C		
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)	197*152*47 (L*W*H)		
Product's QR code / 产品二维码			

## MARINE ENGINE CONTROL MODULES 船舶发动机控制模块



HMC9000S/HMC9000A  
Marine Engine Control Modules  
船舶发动机控制模块

SAE J1939 interface allows its communication with up to dozens of ECU engines.  
可和具有J1939接口的几十种电喷发动机进行控制和通讯。



HRM3300  
Engine Remote Control Module  
发动机远程监控模块

- ▶ Remote monitoring and control via CANBUS port;  
通过CANBUS接口实现船用发动机的远程监控;
- ▶ Working with HMC9000 series;  
适用于HMC9000系列;
- ▶ Product's QR code  
产品二维码



Model/型号	HMC9000S	HMC9000A
Display/显示器	4.3 inches TFT-LCD(480*272) 4.3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	
Analogue Input/模拟量输入	8	
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 Module Extension HRM3300模块扩展	●	
RPU560A Module Extension RPU560A模块扩展	●	
AIN16 Module Extension AIN16模块扩展	●	
AIN16-PT Module Extension AIN16-PT模块扩展	●	
AIN16-C Module Extension AIN16-C模块扩展	●	
AIN16-K Module Extension AIN16-K模块扩展	●	
AIN16-M01 Module Extension AIN16-M01模块扩展	●	
DIN16A Module Extension DIN16A模块扩展	●	
DOUT16B Module Extension DOUT16B模块扩展	●	
COM. Interface/通讯接口	RS485/USB	
CANBUS Port Extension 扩展CANBUS接口	●	
Remote CANBUS Port 远程CANBUS接口	●	
GOV/调速控制	●	
ECU CAN1939/电喷CAN1939	●	
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)°C	
Product's QR code / 产品二维码		



HMC9510  
Paralleling and Protection Module  
并联保护模块



HMC9510E  
Marine Generator Set Control Module  
船舶发电机组控制模块



HMC6  
Power Management Module  
功率管理模块

Model/型号	HMC9510	HMC9510E
Display/显示器	4.3 inches TFT-LCD(480*272) 4.3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	8
Relay Output/继电器输出口		8
Analogue Input/模拟量输入口		5
AC System/交流制式	1P2W/2P3W/3P3W/3P4W	
Alternator Voltage / 交流电压范围	(15~360)V(ph-N)	
Alternator Frequency / 交流频率	50/60Hz	
kW/Amp Detecting & Display 功率/电流检测及显示	●	
Monitor Interface / 监控接口	RS485	
Programming Interface 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	
AVR / 调压控制	(-10~10)V/(-20~20)mA	
DIN16A Module Extension DIN16A模块扩展	●	
DOUT16B Module Extension DOUT16B模块扩展	●	
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	
Operating Temp./工作温度	(-25~+70)°C	
Product's QR code 产品二维码		

Model/型号	HMC6
Display/显示器	4.3 inches TFT-LCD(480*272) 4.3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	10
Relay Output/继电器输出口	17
AC System/交流制式	1P2W / 2P3W / 3P3W / 3P4W
Alternator Voltage / 交流电压范围	(15~360)V(ph-N)
Alternator Frequency / 交流频率	50/60Hz
kW/Amp Detecting & Display 功率/电流检测及显示	●
Monitor Interface / 监控接口	RS485
Programming Interface 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
AVR / 调压控制	(-10~10)V/(-20~20)mA
DIN16A Module Extension DIN16A模块扩展	●
DOUT16B Module Extension DOUT16B模块扩展	●
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(mm)/ 安装尺寸	214*160
Operating Temp./工作温度	(-25~+70)°C
Product's QR code 产品二维码	

## MARINE ENGINE CONTROL MODULES 船舶发动机控制模块



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

### DOUT16B Digital Output Module DOUT16B开关量输出模块

An expansion module with 16 digital outputs. Each output can be programmed and processed data are transmitted to DOUT16B for processing by HGM9000/HMC6000 via CANBUS port.

一个扩展16路开关量输出模块，每一路输出都能实现可编程。HMC9000/HMC6000把处理后的DOUT16B数据通过CANBUS传输到DOUT16B输出模块进行处理。

Product's QR code  
产品二维码



Case Dimensions  
外形尺寸(mm): 144\*96\*39.3

### DIN16A Digital Input Module DIN16A开关量输入模块

An expansion module with 16 channels digital input. Each channel can be programmed and the name of each channel can be defined by users. The data collected by DIN16A are transmitted to HMC9000 controller via CANBUS port.

一个扩展16路开关量输入模块，每一路输入功能都可编程，每一路输入名称可自定义。DIN16A采集到的数据通过CANBUS传输到HMC9000控制器进行处理。

Product's QR code  
产品二维码



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

### AIN16-C 4~20mA Analog Input Module AIN16-C 4~20mA模拟量输入模块

A miscellaneous expansion module with sixteen 4~20mA analog inputs and 3 speed inputs. The data are transmitted to HMC9000 main controller for processing via CANBUS port. The alarm threshold value of each channel can be set via HMC9000.

一个16路4~20mA和3路转速模拟量综合采集模块，采样数据通过CANBUS接口传送到HMC9000主控控制器，在主控控制器中可分别对每一路输入的报警阈值进行设置。

Product's QR code  
产品二维码



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

### HOC300 Over Current Protection Module HOC300过流保护模块

- ▶ Suitable for 1P2W/2P3W/3P3W/3P4W AC systems; 适用于1P2W/2P3W/3P3W/3P4W AC系统;
- ▶ Detects load current accurately; 精确检测负载电流;
- ▶ 2 relay output; 具有2个继电器输出;
- ▶ Power supply: DC (8~35) V; 供电电源: DC(8~35)V;
- ▶ Widely used in marine genset field and land genset field; 广泛应用于船机和陆机;

Product's QR code  
产品二维码



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

### HFT300 Frequency Detection Module HFT300频率检测模块

- ▶ Suitable for 1P2W/2P3W/3P3W/3P4W AC systems; 适用于1P2W/2P3W/3P3W/3P4W AC系统;
- ▶ Over/under frequency protection function; 具有过频/欠频保护功能;
- ▶ 2 relay output; 具有2个继电器输出;
- ▶ Power supply: DC (8~35) V; 供电电源: DC(8~35)V;
- ▶ Widely used in marine genset field and land genset field; 广泛应用于船机和陆机;

Product's QR code  
产品二维码

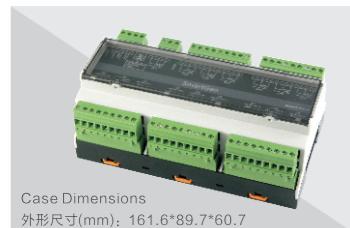


Case Dimensions  
外形尺寸(mm): 89.7\*71.6\*60.7

### HSM300 Sync Control Module HSM300同步模块

- ▶ Suitable for 1P2W/3P3W AC systems; 适用于1P2W/3P3W AC系统;
- ▶ Synchronizes genset with bus; 控制发电机与母排同步;
- ▶ 4 relay outputs, two of them are used for speed UP, speed DOWN output; the others are used for sync pulse output and status output; 具有4个继电器输出，其中2个继电器用于同步脉冲输出，1个继电器用于状态输出;
- ▶ Widely used in marine genset field and land genset field; 广泛应用于船机和陆机;

Product's QR code  
产品二维码



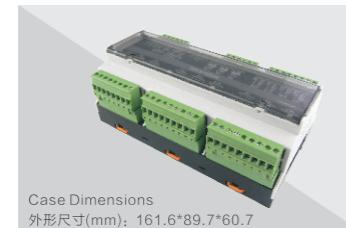
Case Dimensions  
外形尺寸(mm): 161.6\*89.7\*60.7

### AIN16-PT PT100 Analog Input Module AIN16-PT PT100模拟量输入模块

An expansion module with 16 PT100 analog inputs. The data are transmitted to HMC9000 main controller for processing via CANBUS port. Each channel can be set as "enable" or "disable" and different alarm threshold values can be set via HMC9000.

一个16路PT100模拟量采集模块，采集到的数据通过CANBUS接口连接到HMC9000主控控制器，在HMC9000中可分别对16路输入中的每一路设置使能位或者报警阀值。

Product's QR code  
产品二维码



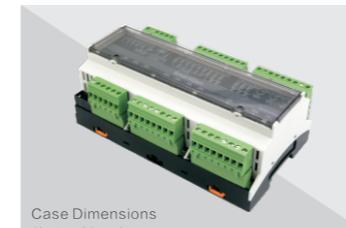
Case Dimensions  
外形尺寸(mm): 161.6\*89.7\*60.7

### AIN16-M01 Analog Misc Module AIN16-M01模拟量综合模块

A miscellaneous expansion module with 3 speed inputs, one 4~20mA input, eight PT100 inputs and four 4~20mA outputs. The data are transmitted to HMC9000 main controller via CANBUS port. Parameter can be set in HMC9000.

一个16路PT100模拟量采集模块，一共有3路转速输入、1路4~20mA输入、8路PT100输入、4路4~20mA输出。采集到的数据通过CANBUS接口连接到HMC9000主控控制器，在HMC9000中进行参数设置。

Product's QR code  
产品二维码



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

### AIN24 Analog Input Module AIN24模拟量输入模块

An expansion module which has 14 "K-type" thermocouple sensor inputs, 5 resistor sensor inputs and five 4~20mA current sensor inputs. The data are transmitted to the main controller (HGM9530 & HGM9540 or HGM9300CAN) for processing via CANBUS port. Each channel can be set as "enable" or "disable" and different alarm threshold values can be set via main controller.

一个24路模拟量采集模块，具有14路K型热偶，5路PT100，5路4~20mA，采集到的数据通过CANBUS接口连接到HGM9530、HGM9540或HGM9300CAN主控控制器，在主控控制器中可分别对24路输入中的每一路设置使能位或者报警阀值。

Product's QR code  
产品二维码



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

### HVD300 Voltage Detection Module HVD300电压检测模块

- ▶ Suitable for 1P2W/2P3W/3P3W/3P4W AC systems; 适用于1P2W/2P3W/3P3W/3P4W AC系统;
- ▶ Detect 3-phase voltage and phase accurately; 精确检测三相电压，相序;
- ▶ 2 relay output; 具有2个继电器输出;
- ▶ Power supply: DC (8~35) V; 供电电源: DC(8~35)V;
- ▶ Widely used in marine genset field and land genset field; 广泛应用于船机和陆机;

Product's QR code  
产品二维码



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

### HPD300 Reverse Power Protection Module HPD300逆功率保护模块

- ▶ Suitable for 1P2W/2P3W/3P3W/3P4W AC systems; 适用于1P2W/2P3W/3P3W/3P4W AC系统;
- ▶ Collects 3-phase voltage, 3-phase current, frequency and power parameters; 采集三相电压、三相电流、频率、功率参数;
- ▶ 2 relay output; 具有2个继电器输出;
- ▶ Power supply: DC (8~35) V; 供电电源: DC(8~35)V;
- ▶ Widely used in marine genset field and land genset field; 广泛应用于船机和陆机;

Product's QR code  
产品二维码



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

### HLS300 Load Sharing Module HLS300功率均分模块

- ▶ Suitable for 1P2W/3P3W AC systems; 适用于1P2W/3P3W AC系统;
- ▶ Load sharing function; 具有功率均分功能;
- ▶ 8 relay outputs, two of them are used for INCR speed and DECR speed output; five of them are for -P, UNL OADING, P>80%, P<20% AND LOW-P indication output; 具有8个继电器输出，其中2个继电器用于INCR升速、DECR降速控制输出，5个继电器用于-P/UNLOADING、P>80%，P<20%，LOW-P指示输出，1个继电器用于C/B OPEN分闸输出控制;
- ▶ Widely used in marine genset field and land genset field; 广泛应用于船机和陆机;

Product's QR code  
产品二维码



Case Dimensions  
外形尺寸(mm): 144\*96\*39.3

### RPU560A Security Module RPU560A安保模块

A security module that can autonomously maintain the engine running and protect it in case of master control fault. The module is connected to master controller HMC9000 via CANBUS port. All parameters and alarm types can be checked on the master controller. It can be widely used in marine emergency units, main propulsion units, main generator units and pumping units.

一个能够独立运行保护发动机正常运转的模块，该模块通过CANBUS和主控HMC9000连接，所有数据和停机报警信息都能够通过主控模块查看。适用于船用主推、主机、应急机组或水泵机组。

Product's QR code  
产品二维码



Case Dimensions  
外形尺寸(mm): 53.6\*89.7\*60.7

### BTM300 ATS Switching Module BTM300双电源切换模块

Two 24V DC power input and one 24V power output to achieve two DC power uninterrupted switch.

两路24V直流电源输入，一路24V电源输出，实现两路直流电源不间断切换。

Product's QR code  
产品二维码



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

### HMP300 Electricity Protection Misc Module HMP300电量综合保护模块

- ▶ Suitable for 1P2W/2P3W/3P3W/3P4W AC systems; 适用于1P2W/2P3W/3P3W/3P4W AC系统;
- ▶ With over/under voltage, over/under frequency, reverse power, over power, over current protection; 具有过压、欠压、过频、欠频、逆功率、过功率、过电流保护;
- ▶ With CANBUS interface, works for J1939-81 generator power data communication protocol; 具有CANBUS接口，支持J1939-81发电机电量数据通信协议;
- ▶ With 4 relay outputs; 具有4个继电器输出;
- ▶ Power supply: DC (8~35) V; 供电电源: DC(8~35)V;
- ▶ Widely used in marine genset field and land genset field; 广泛应用于船机和陆机;

Product's QR code  
产品二维码



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

### HEP300 Electronic Potentiometer HEP300电子电位器

Used for converting the relay output signal of sync controller or power split controller to analog signal which can be used by speed governor or AVR. It also can convert the voltage signal to current signal or PWM signal (with droop PWM signal). This module can replace conventional electric potentiometer and provide a solution for relay speed regulation.

用于将模块输出的继电器信号转换为调速器或功率分配器可以识别的模拟量信号，也可以将模块输出电压信号转换成电流信号、以及PWM信号和PWM下垂信号。该模块可以替代传统的电动电位器，为继电器调速提供一个解决方案。

Product's QR code  
产品二维码



## DIESEL ENGINE CONTROL PANELS 柴油机控制屏



**MGCP100B**  
Wall-mounted Engine Control Panel  
壁挂式发动机控制屏

Product's QR code  
产品二维码

- Control panel is mainly composed of master control module, security module, digital input module, digital output module and analog input module;  
主要以主控模块、安保模块、开关量输入模块、开关量输出模块和模拟量扩展输入模块组成;
- Used for single diesel engine automation and monitoring systems. It can carry out remote and local start/stop, data measurement, alarm protection as well as remote control, remote measuring and remote communication;  
用于单台柴油发动机自动化及监控系统，实现了柴油发动机的遥控、本地开机/停机、数据测量、报警保护及“三遥”功能;
- Equipped with remote control interface which allows its communication with HRM3300 module (optional) and will perform remote start, stop and other functions;  
带有远程监控模块接口，可与HRM3300模块（选购）连接，用于远程监控，可以远程对发动机进行开机、停机等操作;



**MGCP100L**  
Vertical Engine Control Panel  
立式发动机控制屏

Product's QR code  
产品二维码



**GPP Series Genset Parallel Panel**  
GPP系列自动并联控制屏

Product's QR code  
产品二维码

Used for up to 20 parallel gensets' control; Single genset cabinet enables automatic operation of a single unit, synchronization detection and load sharing functions; installation of different parallel modules can enable parallel operation of multiple generators and parallel operation of generators and mains.

用于多达20台发电机组的并联控制，单台并机柜可以实现单机自动化、同步检测及负载均分等功能，选装不同的并联模块可实现多机并联和市电并联。



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

Product's QR code  
产品二维码

Used for automatic switchover between the two mains power supply, mains and generator power supply or two generators power supply. Installation of different dual power control units can enable main—standby and dual mutual standby load automatic switchover.

用于两路市电、一市一发、两路发电的自动切换，选装不同的双电源控制模块可实现一主一备、互为备用的两路电源带载自动切换。



**MGCP100M**  
Diesel Engine Monitor  
柴油机监控仪

Product's QR code  
产品二维码



**MGCP100G**  
Main Engine Control Panel  
主发控制屏

Product's QR code  
产品二维码



**MGCP100D**  
Main Propulsion Engine Control Panel  
主推控制屏

Product's QR code  
产品二维码

- With LCD for displaying water temperature, oil pressure, speed, battery voltage, runtime, number of starts and protection function;  
LCD显示，具有水温、油压、转速、电池电压、运行时间、开机次数显示及保护功能;
- Modular design, remote control module can be extended via CANBUS;  
模块化设计，可通过CANBUS总线扩展远程控制模块;
- Self-checking, alarm reset, local & remote start/stop of genset;  
具有自检、报警复位、机旁、遥控开关机功能;
- CCS certificate of type approval for marine product, brilliant in appearance and performance;  
CCS船用产品型式认可，外观美观、性能可靠;
- Protection class is IP44;  
防护等级IP44;
- Operation condition: Temperature: (-25~+70)°C Humidity: (20~93)%;  
工作环境：温度：(-25~+70)°C 湿度：(20~93)%;



Vertical Type 立柜式      Backpack Type 背包式      Wall-mounted Type 壁挂式

Product's QR code  
产品二维码

Product's QR code  
产品二维码

Product's QR code  
产品二维码

**GCP Series Genset Control Panel**  
GCP系列单机自动化控制屏

Used for automatic control of single diesel engine/genset; different modules can enable different functions.

用于单台柴油发动机/发电机组的自动化控制，通过选配不同的控制模块实现不同的功能。

# ENGINE HEATERS

## 发动机加热器



HT10/HT22



HT40



HWP40/HWP60/HWP90/HWP120



HTL04

**Self-Circulation Engine Water Heater**  
自循环水加热器

Model / 型号	HT10	HT22	HT40
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
Rated Voltage 额定电压	AC240V		
Rated Current 额定电流	5A	9.2A	16.7A
Engine Displacement(L) 适用发动机排量(L)	0~7	7~13	13~25
Thermostat Set Point 恒温点	(40±3)°C		
Temperature Switch 温控开关动作温度	Off / 断开点: 40°C On / 复位点: 25°C Customized / 可定制		
Overheating Switch 过热开关动作温度	Off / 断开点: 95°C On / 复位点: 80°C		
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"(Φ19mm)		
Max.Water Pressure 承受最大水压	0.5MPa		
Protection Class 防护等级	IP54		
Vibration 抗振动能力	(5~8)Hz; Amplitude ± 7.5mm; Tri-axial; 14 min. (5~8)Hz; 振幅 ± 7.5mm; 三轴; 14分钟 (8~500)Hz ; a=2g; Tri-axial; 2 hours (8~500)Hz; 加速度2g ;三轴;2小时		
Shock 抗冲击能力	Half-sine; Wave; a <sub>peak</sub> =50g; Tri-axial; 18 times 半正弦波; 峰值加速度50g; 三轴; 18次		
Case Dimensions 外形尺寸 (mm)	203*150*177(L*W*H)		445*375*210(L*W*H)
Weight 重量(kg)	1.2		3.9
Product's QR code 产品二维码			

**Water Pump Forced Circulation Engine Water Heater**  
水泵强制循环水加热器

Model / 型号	HWP40	HWP60	HWP90	HWP120
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	4000W	6000W	9000W	12000W
Rated Voltage 额定电压	AC240V			
Rated Current 额定电流	16.7A	8.3A	12.5A	16.7A
Phase 相数	1P2W	3P4W		
Engine Displacement(L) 适用发动机排量(L)	15~30	25~50	50~75	75~100
Thermostat Range 断开及复位温度范围	Off / 断开点: (5~99)°C On / 复位点: (0~94)°C			
Default Thermostat Range 出厂温度值	Off / 断开点: 40°C On / 复位点: 25°C			
Overheating Switch Range 过热开关动作温度	Off / 断开点: 95°C On / 复位点: 80°C			
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)			
Max.Water Pressure 承受最大水压	0.5MPa			
Pump Flow Velocity 水泵流速	扬程1.5米时 40L/min			
Protection Class 防护等级	IP44			
Vibration 抗振动能力	(5~8)Hz; Amplitude ± 7.5mm ;Tri-axial;14 mins (5~8)Hz; 振幅 ± 7.5mm ; 三轴;14分钟 (8~500)Hz; a=2g; Tri-axial; 2 hours (8~500)Hz; 加速度2g ;三轴;2小时			
Shock 抗冲击能力	Half-sine Wave; a <sub>peak</sub> =50g; Tri-axial;18 times 半正弦波; 峰值加速度50g; 三轴;18次			
Case Dimensions 外形尺寸 (mm)	444*270*380(L*W*H)			
Weight 重量(kg)	14			
Product's QR code 产品二维码				

## AUTO BATTERY CHARGERS 开关型蓄电池充电器

## BAC SERIES BAC系列



Model / 型号	BAC06A		BAC1203	BAC1210	BAC2405	BAC2408	BAC2410	BAC1203VE	BAC1205VE	BAC2403VE	BAC2405VE	BAC06CF12V	BAC06CF24V	BAC2405CF							
Battery Voltage 电池电压	12V	24V	12V	12V	24V	24V	24V	12V	12V	24V	24V	12V	24V	24V							
Max.Charging Current 最大充电电流	6A	3A	3A	10A	5A	8A	10A	3A	5A	3A	5A	6A	3A	5A							
Rated Input Voltage 额定输入电压范围	(100~240)V										(100~277)V										
Max.Input Voltage Range 最大输入电压范围	(90~280)V										(90~305)V										
AC Input Frequency 交流频率	(50/60)Hz																				
Max.Input Current 最大输入电流	2A	1A	2.5A	2.5A	3A	4A	1A	2A	2A	2.5A	2A	2A	2A	2.5A							
No-Load Power Consumption 空载功耗	<3W							<3W													
Vertical Mounting 立式安装								●													
Charging Failure output 充电失败输出																					
Operating Mode 工作方式	Two segments / 二段式																				
Maximum Efficiency 最高效率	83%	85%	83%	87%	90%	88%	87%	82%	83%	89%	83%	85%	89%								
Operating Temperature 工作温度(°C)	(-30~+55)°C																				
Storage Temperature 储存温度(°C)	(-40~+85)°C																				
Net Weight 净重 (kg)	0.65	0.38	0.8	0.66	0.9	1.15	0.15	0.41	0.42	0.65											
Case Dimensions 外形尺寸(mm)	143*96*55 (L*W*H)	110*106*45 (L*W*H)	145.5*131*55 (L*W*H)	143*96*55 (L*W*H)	145.5*131*55 (L*W*H)	205.5*131*55 (L*W*H)	80*35.5*65 (L*W*H)	56*108*141 (L*W*H)				143*96*55 (L*W*H)									
Product's QR code 产品二维码																					

## AUTO BATTERY CHARGERS 开关型蓄电池充电器

## BACM SERIES BACM系列



BACM1206  
(RS485)



BACM2406  
(RS485)



BACM2410  
(RS485)



BACM2420  
(RS485)



BAC06H  
High-voltage Charger  
高压版充电器



BAC4812-KP  
DC Charger  
直流充电器



BAC06S  
Solar Charger  
太阳能充电器



BCB20  
Battery Charger Box  
蓄电池充电箱

Model / 型号	BACM1206	BACM2406	BACM2410	BACM2420				
Battery Voltage 电池电压	12V	24V	24V	12V	24V			
Max.Charging Current 最大充电电流	6A	6A	10A	20A				
Rated Input Voltage 额定输入电压范围	(100~240)V		(100~277)V					
Max.Input Voltage Range 最大输入电压范围	(90~280)V		(90~305)V					
AC Input Frequency 交流频率	(50/60)Hz							
Max.Input Current 最大输入电流	1.5A	3A	4A	3.5A	7A			
No-Load Power Consumption 空载功耗	<3W		<5W					
Power Factor Compensation 功率因数补偿	●							
Operating Mode 工作方式	Two & Three Segments / 二段式&三段式							
Temp. Compensation 温度补偿	●							
Communication 通信功能	RS485							
Auxiliary Input 可编程输入口	●							
Maximum Efficiency 最高效率	87%	89%	91%	81%	87%			
Operating Temperature 工作温度(°C)	(-30~+55)°C							
Storage Temperature 储存温度(°C)	(-40~+85)°C							
Net Weight 净重 (kg)	0.9		1.17	2.2				
Case Dimensions 外形尺寸(mm)	145.5*131*55 (L*W*H)		205.5*131*55 (L*W*H)	265*156*68 (L*W*H)				
Product's QR code 产品二维码								

Model / 型号	BAC06H		BAC4812-KP		BAC06S		BCB20	
Battery Voltage 电池电压	12V	24V	12V	24V	12V	24V	12V	24V
Max.Charging Current 最大充电电流	6A	3A	3A	3A	10A	10A	20A	20A
Rated Input Voltage 额定输入电压范围	(200~400)V		DC48V	< DC48V		(100~277)V		
Max.Input Voltage Range 最大输入电压范围	(180~480)V		DC48V	< DC48V		(90~305)V		
AC Input Frequency 交流频率	(50/60)Hz			(50/60)Hz		(50/60)Hz		
Max.Input Current 最大输入电流	1A				10A		3.5A	7A
No-Load Power Consumption 空载功耗	<3W					<5W		
Power Factor Compensation 功率因数补偿						●		
Operating Mode 工作方式	Two Segments / 二段式				Two & Three Segments / 二段式&三段式			
Temp. Compensation 温度补偿						●		
Communication 通信功能						●		
Auxiliary Input 可编程输入口						RS485		
Maximum Efficiency 最高效率	82%	86%	85%	96%	97%	81%	87%	
Operating Temperature 工作温度(°C)	(-30~+55)°C							
Storage Temperature 储存温度(°C)	(-40~+85)°C							
Net Weight 净重 (kg)	0.65		0.66	0.45		6.2		
Case Dimensions 外形尺寸(mm)	143*96*55 (L*W*H)					315*213*222 (L*W*H)		
Product's QR code 产品二维码								

## CLOUD MONITORING MODEMS 云监控猫



CMM363-2G  
GPRS

Product's QR code  
产品二维码



CMM365-2G  
GPRS

Product's QR code  
产品二维码



CMM366-3G  
3G / GPRS

Product's QR code  
产品二维码



CMM366-4G  
4G / GPRS

Product's QR code  
产品二维码



CMM366-ET  
ETHERNET / 网线版

Product's QR code  
产品二维码



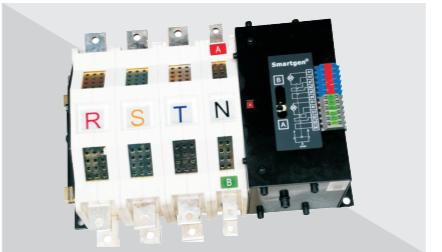
CMM366-WIFI  
WIFI / 无线版

Product's QR code  
产品二维码



N型/Type  
SGQ63A-125A/4P

Product's QR code  
产品二维码



T型/Type  
SGQ250A-630A/4P

Product's QR code  
产品二维码



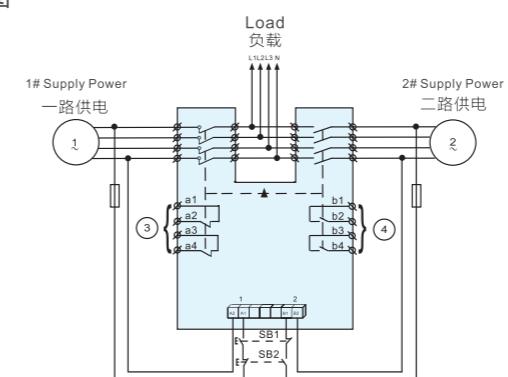
M型/Type  
SGQ630A-1250A/4P

Product's QR code  
产品二维码

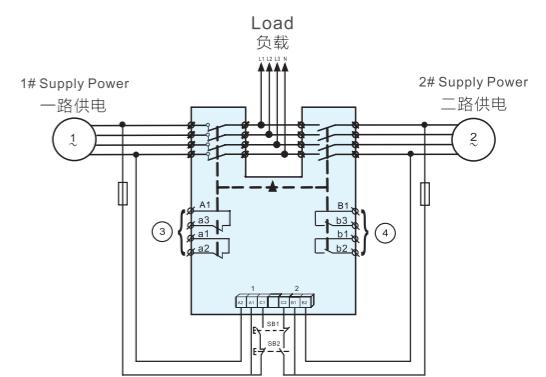
Model / 型号	Q63N	Q125N	Q160T	Q200T	Q250T	Q400T	Q630T	Q630M	Q800M	Q1000M	Q1250M	
Rated Voltage 额定电压 (V)	AC400V											
Rated Current 额定电流 (A)	63	125	160	200	250	400	630	630	800	1000	1250	
Operating Current 操作电流 (A)	3.5											
Rated Short-time Withstand Current 额定短时耐受电流 (KA)	5											
Poles / 极数	2P	3P	4P	2P	3P	4P	3P	4P	3P	4P	3P	
Operation Cycle (sec./times) 操作周期 (秒/次)	15											
Operation Time 动作次数	Mechanical 机械	10000										
Operation Time 动作次数		4000										
Net Weight 重量(kg)	3.5	4	4.5	4	5	5.5	18	20	18	20	19	21
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*340	

- Communication protocol is compatible with genset controllers of international first-class brands; 通信协议兼容国际一流品牌的发电机组控制器;
- Hardware has multiple communication interfaces: LINK, USB, RS485, RS232; 硬件兼容多种通信接口：LINK、USB、RS485、RS232;
- Terminal monitoring devices cover APP (IOS or Android) and PC, PAD, etc; 终端监控覆盖手机APP( IOS、安卓系统 ) 、电脑、PAD等设备;
- With digital alarm input/output signals to achieve monitoring of generator room entrance guard, guard against theft and fire facilities; 具有开关量报警输入/输出信号，实现机房门禁、防盗、消防等附属设施的监控;
- GPS function is for sending gotten data about longitude, latitude and height to corresponding cloud servers in real time; 具有GPS定位功能，将获取的经纬度，海拔信息实时上传到相应的云服务器;
- Indicator lights for power and multiple communication status make operation status clear; 具有电源和多种通信状态指示灯，模块工作状态一目了然;
- Two installation methods: standard π-type 35mm guide-rail installation or screw-fixed installation; 具有标准π型35mm导轨安装或螺丝固定安装两种方式;

### Typical Application Diagram 典型应用图



N And T Type  
N型和T型



M Type  
M型