

# HMC9100A/HMC9100S

## 柴油发动机控制器

DIESEL ENGINE CONTROLLER



### 简介

采用数字化、智能化和网络化技术，适配船舶主发、应急机组及主推等多元动力控制场景，支持遥控 / 本地 / 自动三种模式控制。搭载多重安全防护体系与高精度监测系统，根据 IACS UR E27 规范设计，结合模块化扩展架构与远程智能管理功能，为船舶动力系统提供全维度高效能控制保障。

### 特点

- 5英寸高清屏显示，中英文双语界面，三种主题界面切换与状态显示
- 遥控、机旁、自动三种操作模式
- 四重保护机制（停机/警告/卸载/报警），支持断线检测和越控模式
- 双电源监测、低功耗待机（ $\leq 2W$ ），内置实时时钟、运行时间累积及启动次数记录
- 双路以太网、RS485、Type C接口，支持MODBUS协议
- 支持SAE J1939接口，兼容数十种电喷发动机，远程CAN总线接口可实现远程开机、停机及故障诊断
- 设置多达60个ECU SPN数据通道用于显示，单独设置20个ECU数据报警功能，自定义显示及报警输出最多40个ECU SPN故障码
- 循环存储500条事件和报警记录，内置U盘接口存储运行日志，支持自检模式
- PLC编程功能

### Overview

The Marine Diesel Engine Controller integrates digital, intelligent, and network technologies, which is suitable for marine power control applications such as main gensets, emergency genset, and main propulsion systems. It supports three control modes: remote/local/automatic control. Equipped with multiple safety protection systems and high-precision monitoring systems, designed based on IACS UR E27 specifications, combined with modular expansion architecture and remote intelligent management function, it provides a comprehensive and high-efficiency control for marine power systems.

### Features

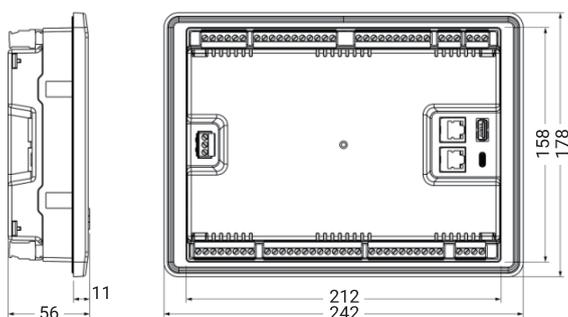
- 5-inch HD display screen, bilingual interface in Chinese and English, three theme interfaces to switch for status display
- Three operation modes: remote, local and automatic
- Four protection mechanism (shutdown/warning/unloading/alarm), and support broken wire detection and override mode
- Dual power supply monitoring, low-power standby mode ( $\leq 2W$ ), built-in real-time clock, and running time accumulation and start times record
- Dual Ethernet ports, RS485 and Type C port, all support MODBUS protocol
- Supports SAE J1939 interface and compatible with dozens of ECU engines. Remote start/stop and fault diagnosis can be realized via remote CANBUS port
- Up to 60 ECU SPN data channels can be set for display. 20 ECU data alarm functions can be set separately, and up to 40 ECU SPN fault codes can be set for customized display and alarm output
- Circularly save 500 pieces of events and 500 pieces of alarm records, integrating USB flash drive port for running log data storage. Support self-check mode
- PLC programming function



直流供电 DC Power	DC(18~35)V, 直流反接保护(仅适用于24V系统) 分辨率: 0.1V 精度: 1%	DC(18~35)V, DC reverse connection protection (only for 24V system) Resolution: 0.1V Accuracy: 1%
整机功耗 Power Consumption	<9W (待机方式: ≤6W)	<9W (Standby mode: ≤6W)
模拟量传感器 Analog Sensor	电阻输入 范围: (0~1000)Ω, 分辨率: 0.1Ω 精度: 1Ω (300Ω以下) 电压输入 范围: (0~5)V, 分辨率: 0.01V 精度: 1% 电流输入 范围: (0~20)mA, 分辨率: 0.01mA 精度: 1%	Resistance Input Range: (0~1000)Ω, Resolution: 0.1Ω Accuracy: 1Ω(below 300Ω) Voltage Input Range: (0~5)V, Resolution: 0.01V Accuracy: 1% Current Input Range: (0~20)mA, Resolution: 0.01mA Accuracy: 1%
开孔尺寸 Panel Cutout	214 × 160mm	214 × 160mm
环境 Environment	工作温度: (-25~+70)°C 工作湿度: (20~93)%RH 贮存温度: (-30~+80)°C 防护等级: IP65: 当控制器和控制屏之间加装防水橡胶圈时	Working Temperature: (-25~+70)°C Working Humidity: (20~93)%RH Storage Temperature: (-30~+80)°C IP Rating: IP65: when waterproof rubber gasket is installed between controller screen and enclosure
标准和认证 Standards & Certificates	CCS认证 振动: (5~8)Hz: ±17mm, (8~100)Hz: 4g, (100~500)Hz: 2g IEC 60068-2-6 碰撞: 峰值加速度: 20g <sub>n</sub> (200m/s <sup>2</sup> ) 脉冲持续时间: 16ms IEC 60255-21-2 冲击: 50g <sub>n</sub> , 11 ms, 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	CCS Certification Vibration: (5~8)Hz: ±17mm, (8~100)Hz: 4g, (100~500)Hz: 2g (IEC 60068-2-6) Bump: A <sub>peak</sub> =20g <sub>n</sub> (200m/s <sup>2</sup> ) Pulse duration: 16ms (IEC 60255-21-2) Shock: 50g <sub>n</sub> , 11ms, half-sine half-sine, apply three shocks successively in each each direction of three mutually perpendicular axes of the specimen, which means 18 shocks in total (IEC 60068-2-27)

● 尺寸 Dimensions

单位(Unit): mm



● 端口 Ports

直流电源 DC Power	DC采样(2) DC Sampling (2)	开关量输出(16) Digital Output (16)	转速 Speed	D+	CAN BUS (2)
RS485	HMC9100A可拓展模块: RPU560B DOUT16B AIN8 HMP300 HMC9100RM	HMC9100S可拓展模块: RPU560B DOUT16B AIN8 HMP300 AIN16M01 AIN23 MIO14 DIN16A HMC9100RM		ETHERNET(2)	USB HOST
					USB DEVICE (Type C)
开关量输入(18) Digital Input (18)				模拟量输入(10) Analog Input (10)	