ΞΝΞ 湖南引擎新能源
ENGINE New Energy

分布式储能
一体化解决方案

DISTRIBUTED ENERGY STORAGE INTEGRATED SOLUTION

能量块
Energy block

能量链
Energy chain

能量云
Energy cloud

引擎聚能，驱动绿色未来

分布式储能一体化解决方案

THE ENGINE GATHERS ENERGY TO DRIVE A GREEN FUTURE
DISTRIBUTED ENERGY STORAGE INTEGRATED SOLUTION

用户侧解决方案
User side solution

ENGINE AiTo-Max -HV

密集成　　同冷暖　　高安全　　可升级　　多兼容　　长寿命

产品名称 / Product name	ENGINE AiTo-Max -HV
产品型号 / Product model	ENE-HESS-LFP-HV-AITO-Max-KWh

技术参数　Technical parameter

交流侧参数 / AC side parameters

额定输出功率 Rated output power	105KW	额定电网频率 Rated grid frequency	50/60 Hz
电网连接 Grid connection	三相四线　（3W/N+PE） three-phase four-wire (3W/N+PE)	可调功率因数 Adjustable power factor	1 超前 …1 滞后 1 leading …1 lagging
额定输出电压 Rated output voltage	230/400V AC	最大总电流谐波畸变率 SMaximum total current harmonic distortion rate	<3%
保护功能 Protection function	防孤岛保护、 直流反接保护、 直流浪涌保护、 交流浪涌保护、 交流过流保护、 交流短路保护、 交流过压保护 Anti-island protection, DC reverse connection protection, DC surge protection, AC surge protection, AC overcurrent protection, AC short circuit protection, AC overvoltage protection		

直流侧参数 / DC side parameters

电芯类型 Cell type	磷酸铁锂 LiFePO4	单模块电压范围 Single module voltage range	145.6~135.2V DC
电芯规格 Cell specification	280Ah/314Ah	系统电压范围 System voltage range	728~936V DC
电池模块数量 Battery system configuration	5 个串联 5 series	标准充电电流 Standard charging current	0.5C@ 持续 0.5C@lasts
单模块额定容量 Single module rated capacity	46.59kWh/52.25kWh	最大充电电流 Max charging current	1C@ 脉冲 1C@pulse
单模块额定电压 Single module rated voltage	166.4V DC	标准放电电流 Standard discharge current	0.5C@ 持续 0.5C@lasts
系统总额定容量 Rated total energy(kwh)	233kWh/261.3kWh	最大放电电流 Max discharge current	1C@ 脉冲 1C@pulse

EMS参数 / EMS parameters

储能系统整体监视 Overall monitoring of ess	实时监测储能系统的运行状态、 工作状态、 功率、 SOC、 SOH、 告警信息等 Real-time monitoring of the operating status, working status, power, SOC, SOH, alarm information, etc. of the ess
控制功能 Overall monitoring of ess	动态调压、 削峰填谷、 需量控制、 动态扩容、 VPP 调峰 Dynamic voltage regulation, peak shaving and valley filling, demand control, dynamic capacity expansion
通信协议 Overall monitoring of ess	以太网： Modbus TCP， IEC61850 MMS/RS485： Modbus RTU/CAN： 功能预留 Ethernet Modbus TCP; IEC61850 MMS / RS485: Modbus RTU / CAN: Function reserved
云端数据传输 Overall monitoring of ess	4G

基本参数 / System parameter

系统重量 ESS weight	2500Kg	运行湿度 Operating humidity	5~95%， 相对湿度 5~95%, relative humidity
系统尺寸 ((W*H*D) ESS size((W*H*D)	965X2200X1350 mm	工作海报高度 Working poster height	2000 米 （＞2000 米逆变器降频） 2000 meters (inverter frequency reduction above 2000 meters)
防护等级 IP Rating	IP65	消防系统 Fire protection	PCAK 与箱体内部均为气溶胶灭火器 Aerosol fire extinguisher
冷却方式 (选配) Cooling method (optional)	液冷 Liquid cooling	认证 Certification	MSDS/UN38.3/CE/ 运输鉴定报告 MSDS/UN38.3/CE/Transportation
设计寿命 Design life	10 年 10 years	报警与保护 Alarm and protection	具备 Yes
循环次数 Cycle number	8000(100% 充放， 衰减到 70%， 25℃) 8000 times (SOC≤70%、25℃)	指示灯状态 Indicator status	电源 / 运行 / 报警 Power/operation/alarm
强制风冷 Forced air cooling	2KW 户外专用空调 2KW outdoor dedicated air conditioning	安装方式 Installation method	落地式 Floor-standing
传感器 （选配件， 需要配合 EMS 使用） Sensor(optional, need to cooperate with EMS)	消防三合一传感器、 声光报警器、 水浸 / 门禁 / 电量电表 Fire three-in-one sensor, sound and light alarm/Water immersion/Access control		
环境温度 Communication interface	充电 :0℃~50℃/ 放电 :-20℃~50℃/ 存储 :-10℃~45℃ Charging: 0℃~50℃/Discharging: -20℃~50℃/Storage: -10℃~45℃		

Industrial and commercial

105kW 215kWh/233kWh/261.3kWh

- Back-up power
- Off-grid
- Micro-grid
- Fuel saving solution
- Self-consumption
- Demand charge management

Features and Advantages

▶ Fully Modular Design, High System Integration, Easy Installation, Minimal Maintenance and Operations.

▶ Flexible Expansion, Supports Up to 10 Units in Parallel, Maximum Capacity Expandable to 2.6MWh.

▶ PACK-Level Active Safety Monitoring and Warning System, Intelligent Fire Protection System, and Temperature Control System for Safe and Controllable Operations.

▶ Engine Cloud Platform Management System, Supports Remote/Local Monitoring, Intelligent Cloud-Based Maintenance and Operations.

▶ Application Areas: Telecommunication Energy Storage, Grid Frequency Regulation Energy Storage, Renewable Microgrid Energy Storage, Large-Scale Industrial and Commercial Distributed Energy Storage, Data Center Energy Storage, Photovoltaic Power Generation, and More.