

Energy Expert to Global ESS Users



## C&I All-In-One BESS

186kW/372kWh





# Product Description

The product consists of 8 battery packs, the control compartment, BMS, TMS (thermal management system), and firefighting system. The BMS collects the operating data of the cells, packs and racks, and communication devices. The TMS controls the cooling and heating of the entire battery rack system. And the firefighting system manages the fire alerting and extinguishing for the entire battery system.



## Operation Environment Requirements

项目 Parameters	参数值 Values
1 存储环境温度 Storage Environment Temp.	-30~60°C
2 工作环境温度 Operation Environment Temp.	-25~55°C
3 工作环境湿度 Operation Environment Humidity	RH≤95% 无凝露 w/o condensation
4 工作海拔要求 Operation Altitude	≤3000m, >3000m 降额使用 ≤3000m, output derated when altitude >3000m



## Battery Rack

组成部件 Component	数量 Qty.	备注 Note
1 电池箱 Battery Compartment	1	1P52S
2 控制室 Control Compartment	8	主要包括检测装置、保护装置 Composed of detective device and protective device
3 热管理系统 (水冷机组+水冷管) Thermal Management System (Chiller +Water Pipe)		包含制冷模式、加热模式、自循环模式、待机模式 Multi-TMS modes: cooling, heating, self- circulation and standby
4 消防系统 Firefighting System		烟雾传感器、温度传感器、气溶胶灭火器 Smoke sensors, temperature sensors aerosol extinguisher
5 BMS	1	
6 PCS ( 选配 ) PCS ( optional )	1	



# Technical Data Sheet

项目 Parameters	参数值 Values
<b>电池柜基本参数 Battery Rack</b>	
1 配置 Serial Configuration	1P416S
2 电箱数量 Pack Qty.	8 sets
3 短路电流 Short-circuit current	12.2kA
4 接线模式 Junction Terminal	快插 Fast plug
<b>电性能参数 Electrical Performance</b>	
5 额定充电电流 Rated Charging Current	140A
6 最大充电电流 Max Charging Current	160A 持续1分钟 160A@1minute
7 标称电量 Nominal Energy	372.7kWh
8 电压范围 Voltage Range	1164.8~1497.6V
9 标称电压 Nominal Voltage	1331.2V
10 额定功率 Rated Power	186.3kW, 0.5P
11 水冷机组电功率 Liquid-Cooling Unit Power	制冷 : 3.1kW ; 制热 : 2.0kW Cooling: 3.1kW; Heating: 2.0kW
<b>辅助电源 Auxillary Power Supply</b>	
13 辅助电源电压范围 Voltage Range	176-264V AC(L-N)
14 BMS功率 BMS Power	1kW
<b>柜体基本参数 Cabinet</b>	
15 尺寸 (宽*深*高) Dimension (W*D*H)	1720mm*1350mm*2500mm
16 颜色 Colour	RAL7035
17 重量 Weight	3895kg
18 耐腐蚀等级 Anti-corrosion Class	C5
19 电池室IP等级 Battery Compartment IP Class	IP66
20 控制室 Control Compartment IP Class	IP55
21 接地电阻 Ground Resistance	≤4Ω
22 冷却方式 Cooling	液冷 Liquid-cooling
<b>认证 Certification</b>	
23 IEC 62477, IEC 61000, CEI-016, VDE 4110, EN 50549, IEEE1 547.1, UL1741, IEC 62619, UL 1973, UL 9540A	



# PCS Data Sheet

项目 Parameters	参数值 Values
<b>基本参数 Battery Rack</b>	
1 型号 Type	ZGE-CI-Z-186-372
2 额定功率 Rated power	215kVA
3 过载能力 Overload Capacity	1.1倍@长期, 1.2倍@1分钟 1.1x at Constant operation, 1.2x at 1-min operation
4 效率 Efficiency	99%MAX
5 功率响应时间 Power Response Time	< 20ms
6 充放电切换时间 Charge/Discharge Switching Time	< 50ms
7 工作环境温度 Operation Environment Temp.	-40°C ~ +60°C
8 安装方式 Installation	壁挂 Wall-mounted
9 工作环境海拔 Operation Environment altitude	低于4000m Lower than 4000m
10 防护等级 Protection Class	IP66
11 冷却方式 Cooling	强制风冷 Forced air-cooled
12 尺寸(宽*深*高) Dimension(W*D*H)	750mm*750mm*270mm
13 重量 Weight	95kg
14 隔离方式 Isolation Method	非隔离 Non-isolated
<b>直流侧 DC Parameters</b>	
15 直流最大电压 Max Voltage	1500V
16 工作电压范围 Operating Voltage Range	1100 ~ 1500V
17 直流满载工作电压范围 100% Operating voltage range	1140 ~ 1500V
<b>交流侧 AC Parameters</b>	
18 额定电压 Rated voltage	750V
19 额定电流 Rated current	154A
20 最大长期工作电流 Max Constant Operating Current	169A
21 电压范围 Voltage ranges	-15%~+10%
22 频率 Frequency	50/60Hz±5Hz
23 总电流谐波 THDi	< 3%
24 接线方式 Wiring Group	3/PE
<b>通讯方式 Communication Method</b>	
25 通信接口 Interface	RS485
26 通信协议 Protocol	Modbus-RTU/Modbus-TCP



# Application Markets



油气加工厂 Oil & Gas Refinery



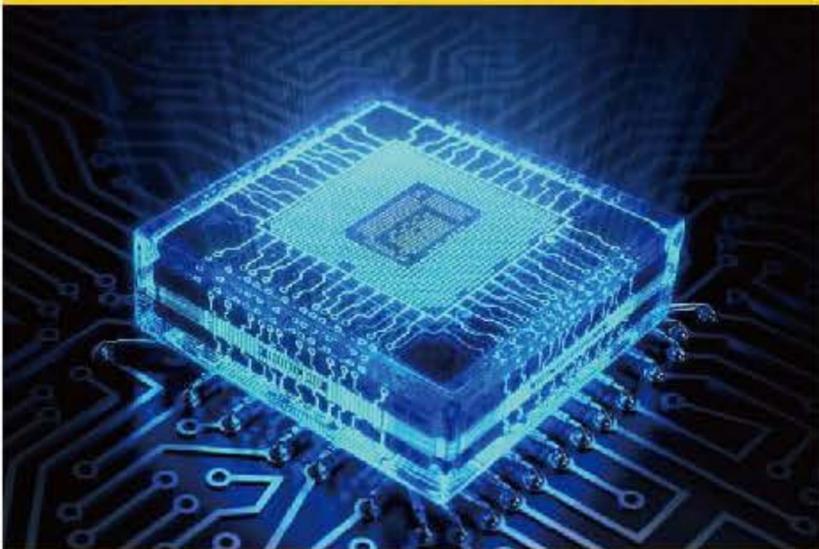
化工厂 Chemical Plant



钢铁厂 Iron & Steel Factory



制药厂 Pharmaceutical Factory



半导体工厂 Semiconductor Factory



制冷中心及冷库 Cold-Chain Logistics Park



光伏屋顶火车站  
Solar-Panel Rail Station



电动汽车超级充电站  
EV Supercharging Station



大型商业楼宇  
Commercial Building Complex