

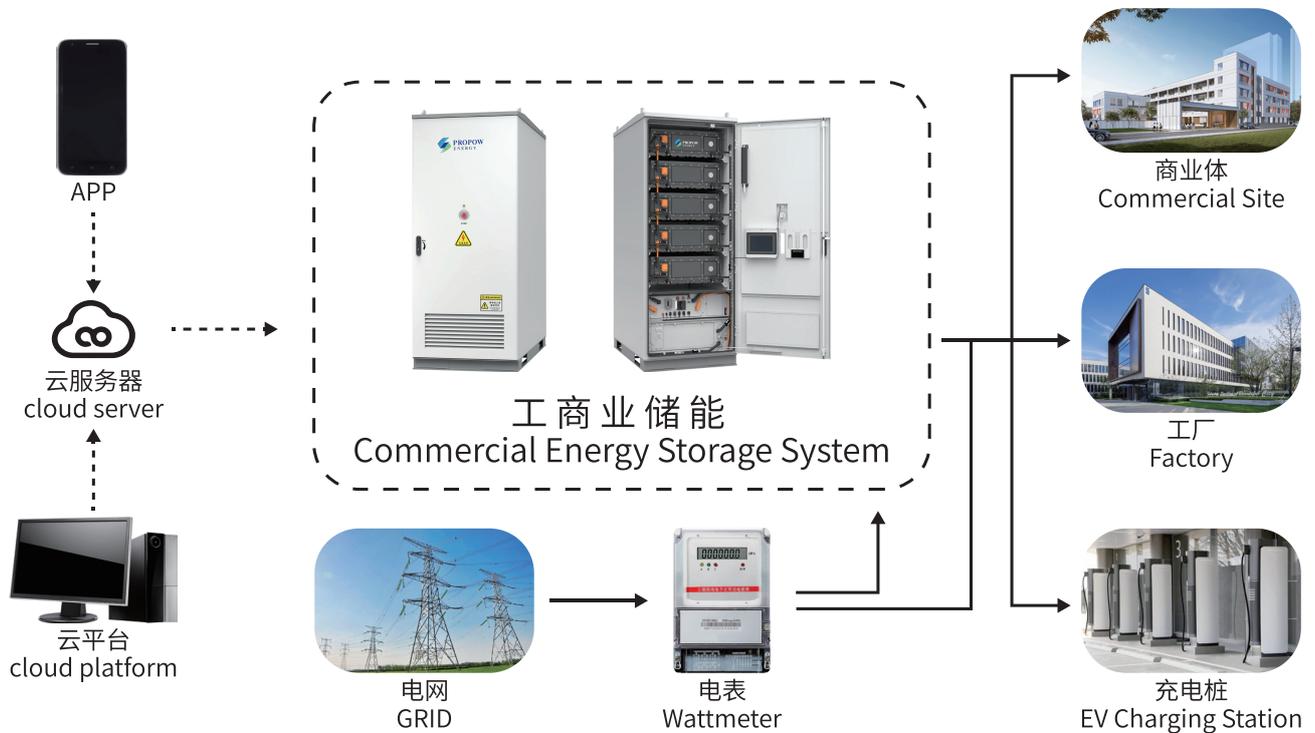
# 工商业储能 Commercial Energy Storage System

适用于小型工厂、  
商场、汽车充电站储能系统

Suitable for Energy Storage System in Small Factories, Shopping Malls,  
and Electric Vehicle Charging Stations



## 系统运行示意图 System Operation Diagram



# 工商业储能 Commercial Energy Storage System

## 技术优点 Technical Advantages

- LFP电池体系, 系统级多重保护设计, 安全可靠  
LFP battery system with multiple protection design, safety and reliable.
- 模块化设计, 灵活配置, 易于扩展  
Module design, flexible configuration, and easy expansion
- 循环寿命长, 衰减慢, 性能卓越  
Long cycle life, slow degradation, and excellent performance
- 简单运维, 省时省力省钱  
Easy operation and maintenance, time saving, labor saving and cost saving.

# 液冷式工商业储能 Liquid Cooling Commercial Energy Storage System



## 技术参数 Technical Parameters

型号(MODEL)	PR105KW-215kWh-02B-D	PR105KW-233kWh-02B-S	PR125KW-261kWh-02A-S
电池类型(Battery Chemistry)	LiFePO4@GF	LiFePO4@GF	LiFePO4@GF
储能能量(Total Capacity)	215kWh	233kWh	261kWh
额定容量(Nominal Capacity)	280Ah	280Ah	314Ah
额定电压(Nominal Voltage)	768V	832V	832V
工作电压范围(Operating Voltage Range)	648V-864V	702V-936V	702V-936V
额定充电电流(Nominal Charging Current)	140A	140A	157A
额定放电电流(Nominal Discharge Current)	140A	140A	157A
存储温度范围(Storage Temperature Range)		-30°C~+45°C	
工作温度(Operating Temperature Range)		-20°C~+60°C	
工作相对湿度(Operating RH)		5%~95%	
标称工作海拔(Working Altitude)		≤2000m	
通讯方式(Communication Type)		LAN/RS485/CAN	
防护等级(IP grade)		IP54	
尺寸(L*W*H)(Dimension)	1400*1385*2203mm	1400*1000*2399mm	1400*1000*2399mm
重量(Net Weight)	≈2.5T	≈2.3T	≈2.4T
冷却方式(Cooling Mode)		液冷(Liquid Cooling)	
循环次数(Cycle)		8000 Cycles	
日历寿命(Calendar Life)		15年(15 Years)	
<b>储能变流器参数(PCS Parameters)</b>			
额定功率(Rated Output Power)	100kW	100kW	125kW
最大交流电流(Max. AC Current)	167A	167A	216A
额定工作电压(Rated Operating Voltage)	AC230/400V	AC230/400V	AC230/400V
允许电网频率范围(Approved Grid Frequency Range)	50/60Hz	50/60Hz	50/60Hz
交流电压谐波(AC Harmonic Voltage)	<3%	<3%	<3%

# 液冷式工商业储能-光储柴 Liquid Cooling Commercial Energy Storage System



## 技术参数 Technical Parameters

型号(MODEL)	PR100KW-215kWh-01A-S	PR100KW-233kWh-01A-S
电池类型(Battery Chemistry)	LiFePO4@GF	LiFePO4@GF
储能能量(Total Capacity)	215kWh	233kWh
额定容量(Nominal Capacity)	280Ah	280Ah
额定电压(Nominal Voltage)	768V	832V
工作电压范围(Operating Voltage Range)	648V-864V	702V-936V
额定充电电流(Nominal Charging Current)	140A	140A
额定放电电流(Nominal Discharge Current)	140A	140A
存储温度范围(Storage Temperature Range)	-30°C~+45°C	-30°C~+45°C
工作温度(Operating Temperature Range)	-20°C~+60°C	-20°C~+60°C
工作相对湿度(Operating RH)	5%~95%	5%~95%
标称工作海拔(Working Altitude)	≤2000m	≤2000m
通讯方式(Communication Type)	LAN/RS485/CAN	LAN/RS485/CAN
防护等级(IP Grade)	IP54	IP54
尺寸(L*W*H)(Dimension)	1385*910*2203mm	1385*910*2203mm
重量(Net Weight)	≈2.2T	≈2.3T
冷却方式(Cooling Mode)	液冷(Liquid Cooling)	液冷(Liquid Cooling)
循环次数(Cycle)	8000 Cycles	8000 Cycles
日历寿命(Calendar Life)	15年(15 Years)	15年(15 Years)
储能变流器参数(PCS Parameters)	可选(choosable)	
交流侧:并网(AC Side:on-grid)		
额定输出功率(Rated Output Power)	100kW	
额定交流电流(Rated AC Current)	167A/159A	
额定工作电压(Rated Operating Voltage)	AC380/400V 50/60Hz	
交流电压谐波(AC Harmonic Voltage)	<3%	
交流侧:离网(AC Side:off-grid)		
额定输出功率(Rated Output Power)	100kW	
额定工作电压(Rated Operating Voltage)	220/230/380/400V	
最大输出功率(Max Output Power)	100kW	
允许电网频率范围(Approved Grid Frequency Range)	50/60Hz	
不平衡度(Degree Of Unbalance)	100%	
PV		
最大功率(2路)(Maximum Power (2 channels))	156kW	
最大电流(2路)(Maximum Circuit (2 channels))	1100V	
最高PV电压(Maximum PV Voltage)	550V	
启动电压(Starting Voltage)	195V	
MPPT电压范围(MPPT Voltage Range)	180V-800V	
其他(Else)		
STS切换时间(STS Handover Time)	20ms	
柴发功能(Diesel Generator Function)	可联动柴油发电机(Diesel generator can be linked)	
最大效率(Maximum Efficiency)	98%	
并网离网并机数(Number of grid-connected/off-grid parallel machines)	3	

# 风冷式工商业储能-光储一体机

## Liquid Cooling Commercial Energy Storage System



### 技术参数 Technical Parameters

型号(MODEL)	PR15KW-30kWh-01A-S	PR25KW-57kWh-01A-S	PR50KW-107kWh-01A-S
电池类型(Battery Chemistry)	LiFePO4@GF	LiFePO4@GF	LiFePO4@GF
储能能量(Total Capacity)	30kWh	57.6kWh	107kWh
额定容量(Nominal Capacity)	100Ah	100Ah	280Ah
额定电压(Nominal Voltage)	307.2V	576V	384V
工作电压范围(Operating Voltage Range)	259.2V-345.6V	468V-648V	312V-432V
额定充电电流(Nominal Charging Current)	50A	50A	140A
额定放电电流(Nominal Discharge Current)	50A	50A	140A
存储温度范围(Storage Temperature Range)	-30°C~+60°C	-30°C~+60°C	-30°C~+60°C
工作温度(Operating Temperature Range)	-20°C~+50°C	-20°C~+50°C	-20°C~+50°C
工作相对湿度(Operating RH)	5%~95%	5%~95%	5%~95%
标称工作海拔(Working Altitude)	≤2000m	≤2000m	≤2000m
通讯方式(Communication Type)	LAN/RS485/CAN	LAN/RS485/CAN	LAN/RS485/CAN
防护等级(IP Grade)	IP54	IP54	IP54
尺寸(L*W*H)(Dimension)	802*1028*1890mm	1100*1000*2100mm	1203*900*2350mm
重量(Net Weight)	≈700Kg	≈1050Kg	≈1260Kg
冷却方式(Cooling Mode)	风冷(Air Cooling)	风冷(Air Cooling)	风冷(Air Cooling)
循环次数(Cycle)	6000 Cycles	6000 Cycles	8000 Cycles
日历寿命(Calendar Life)	15年(15 Years)	15年(15 Years)	15年(15 Years)
<b>储能变流器参数(PCS Parameters)</b>			
<b>交流侧:并网(Ac Side:on-grid)</b>			
额定输出功率(Rated Output Power)	15kVA	25kVA	50kVA
额定交流电流(Rated AC Current)	22A	36.2A	73A
额定工作电压(Rated Operating Voltage)	AC230/400V	AC230/400V	AC230/400V
交流电压谐波(AC Harmonic Voltage)	<3%	<3%	<3%
<b>交流侧:离网(Ac Side:off-grid)</b>			
额定输出功率(Rated Output Power)	15kVA	25kVA	50kVA
额定工作电压(Rated Operating Voltage)	AC230/400V	AC230/400V	AC230/400V
最大输出功率(Max Output Power)	16.5kVA	27.5kVA	55kVA
允许电网频率范围(Approved Grid Frequency Range)	50/60Hz	50/60Hz	50/60Hz
不平衡度(Degree Of Unbalance)	100%	100%	100%
PV	可选(choosable)	可选(choosable)	可选(choosable)
最大功率(2路)(Maximum Power (2 channels))	15kW+15kW	15kW+15kW	38.4kW+38.4kW
最大电流(2路)(Maximum Circuit (2 channels))	25A+25A	25A+25A	64A+64A
最高PV电压(Maximum PV Voltage)	850V	850V	850V
启动电压(Starting Voltage)	250V	250V	250V
MPPT电压范围(MPPT Voltage Range)	200V-800V	200V-800V	200V-800V
<b>其他(Else)</b>			
STS功能(STS Function)		具备(Have)	
通讯方式(Communication Type)		CAN/RS485	
最大效率(Maximum Efficiency)		97.8%	
并网离网并机数(Number of grid-connected/off-grid parallel machines)		3	

# 液冷式集装箱储能-直流侧

## Liquid Cooling Commercial Energy Storage System



### 技术参数 Technical Parameters

型号(MODEL)	PRF3.44MWh-02A-M	PR5MWh-02A-M
电池类型(Battery Chemistry)	LiFePO4@GF	LiFePO4@GF
储能能量(Total Capacity)	3.44MWh	5MWh
额定容量(Nominal Capacity)	280Ah	314Ah
额定电压(Nominal Voltage)	1228.8V	1331.2V
工作电压范围(Operating Voltage Range)	1036V-1401V	1164.8V-1497.6V
额定充电电流(Nominal Charging Current)	140A	157A
额定放电电流(Nominal Discharge Current)	140A	157A
存储温度范围(Storage Temperature Range)	-30°C~+45°C	-30°C~+45°C
工作温度(Operating Temperature Range)	-20°C~+60°C	-20°C~+60°C
工作相对湿度(Operating RH)	5%~95%	5%~95%
标称工作海拔(Working Altitude)	≤2000m	≤2000m
通讯方式(Communication Type)	LAN/RS485/CAN	LAN/RS485/CAN
防护等级(IP grade)	IP54	IP54
尺寸(L*W*H)(Dimension)	6058*2600*2896mm	6500*2600*2896mm
重量(Net Weight)	≈34T	≈45T
冷却方式(Cooling Mode)	液冷(Liquid Cooling)	液冷(Liquid Cooling)
循环次数(Cycle)	8000 Cycles	8000 Cycles
日历寿命(Calendar Life)	15年(15 Years)	15年(15 Years)
储能变流器参数(PCS Parameters)	可选(choosable)	可选(choosable)

# 液冷式集装箱储能-交流侧

## Liquid Cooling Commercial Energy Storage System



### 技术参数 Technical Parameters

型号(MODEL)	PR1.25MW-02A-M	PR1.725MW-02A-M	PR2.5MW-02A-M
<b>直流侧参数</b>			
电压范围(Voltage Range)	1000-1500V	1000-1500V	1000-1500V
额定功率(Rated Output Power)	1250kW	1725kW	2500kW
最大电流(Max. Current)	1309A	1808A	2619A
<b>交流侧参数</b>			
额定输出功率(Rated Output Power)	1250kVA	1725kVA	2500kVA
额定交流电压(Rated AC Voltage)	10kV	10kV	10kV
额定交流电流(Rated AC Current)	72.5A	68.7A	145A
隔离方式(Isolation Mode)	变压器隔离(Transformer Isolation)		
最大总谐波失真(Max. Total Harmonic Distortion)	≤3% 额定功率(Rated Power)		
功率因数(Power Factor)	-1~+1可调(Adjustable)		
<b>系统参数</b>			
存储温度范围(Storage Temperature Range)	-25°C~+55°C		
工作温度(Operating Temperature Range)	-25°C~+50°C		
工作相对湿度(Operating RH)	0%~95%		
标称工作海拔(Working Altitude)	≤2000m		
尺寸(L*W*H)(Dimension)	5523*2400*2800mm	6058*2438*2896mm	5523*2400*2800mm
重量(Net Weight)	≈6T	≈9T	≈15T
冷却方式(Cooling Mode)	风冷(Air Cooling)		
电池通讯接口(Battery Communication Interface)	CAN/RS485		
调度通讯接口(Dispatch Communication Interface)	ModbusRTU/ModbusTCP/IEC104		