

Air Cooling
100kW/241kWh
PV+Battery ESS All-in-one Cabinet

C&I BESS Cabinet Solution



High-Power All-in-One Integration

125kW hybrid inverter + 241kWh battery, highly integrated for easier transport and installation



Multi-Scenario Versatility

Supports grid-tied, off-grid, grid/off-grid switching, backup power and microgrid applications with 20ms STS switching for critical loads



Seamless Backup Power

10ms UPS-level switching to backup mode, supports critical load protection with 1.6x surge power capacity



Grid Support & VSG

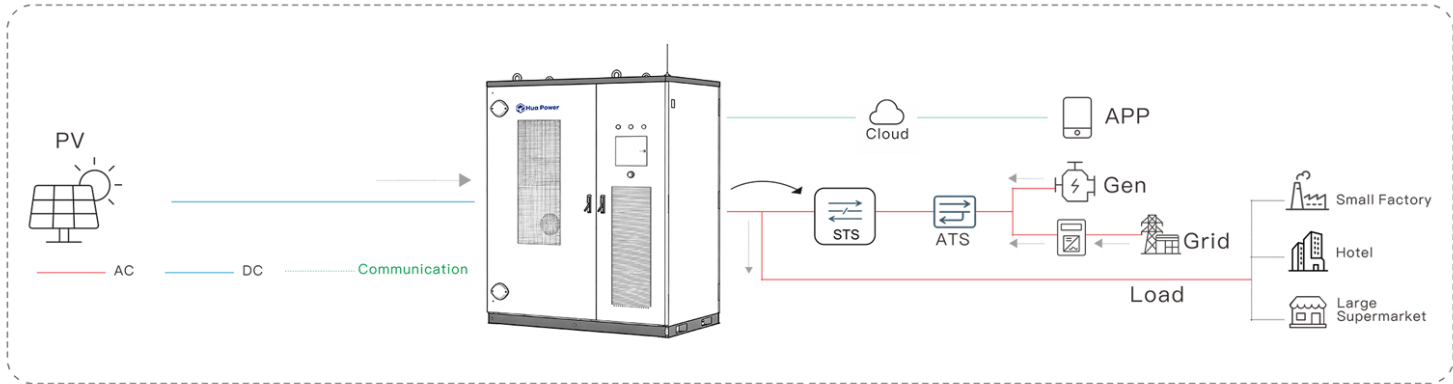
VSG mode for weak-grid support; full LVRT/HVRT, active/reactive control



Intelligent Energy Management

Self-developed EMS delivers smart energy dispatch and optimized allocation, enabling peak shaving, time-of-use arbitrage and demand response

System Diagram



Model	HC-UPSAP241		HC-UPSA241
	100kW/241.152kWh		
Grid Side (On-grid)			
Rated Output Power	100kW		
Max. Output Power	100kW		
Max. Output Current	158A		
Rated Voltage	230V/400V		
Voltage Range	-15%~15%		
Connection Type	3P3L/3P4L+PE		
Rated Grid Frequency	50/60Hz (±5Hz)		
Power Factor	1 (Leading)~1 (Lagging)		
THDi	<2% (Rated Power)		
DC Component	<0.5%		
Overload	110% Long-term		
Max. Efficiency	98.50%		
Grid Support	LVRT/HVRT,Active/Reactive Power Control		
Grid Side (Off-grid)			
Rated Output Power	100kW		
Max. Output Power	100kVA		
Max. Output Current	158A		
Rated Output Voltage	230V/400V		
THDu	<3% (Rated Power)		
Rated Frequency	50/60Hz (±5Hz)		
PV			
Max. Usable PV Input Power	120kW	/	
Recommended Max. PV Array Size	120kW		
Max. Input Voltage	1000V		
MPPT Voltage Range	200V~950V		
Full Load MPPT Voltage Range	500V~900V		
Max. Input Current	50A/50A/50A/50A		
MPPT Number/Max. Input Strings Number	1/4		
Battery			
Cell Type	LiFePO4		
Battery Cell	3.2V/314Ah		
Pack Configuration	16S1P (16.0768kWh)		
System Configuration	16S1P*15		
Rated Voltage	768V		
Voltage Range	672V~840V		
Full Load Voltage Range Compatible With PCS	615~950 (3W3L+PE)/680~950 (3W4L+PE)		
Work Voltage Range Compatible With PCS	615~950 (3W3L+PE)/650~950 (3W4L+PE)		
Rated Charge/Discharge C-rate	0.5CP		
Max. Charge/Discharge Current	203A		
Cell Cycle Life	≥8000 Cycles (80%SOH@Standard Cycle)		
System			
RTE	≥85%		
Cooling Method	Air Cooling		
IP Rating	IP54		
Operating Temperature	-20~50°C (>45°C Derating)		
Anti-corrosion Rating	C3-M		
Altitude	2000m		
Operating Humidity	5~95%RH (Non-condensing)		
Fire Suppression Agent	Aerosol / FK-5-1-12		
Communication	CAN / RS485 / WiFi / Ethernet		
Dimensions (W*D*H)	1880*1100*2250mm		
Weight	2.6t		
Certification & Compliance			
Grid Connection Standard	EN 50549-1, EN 50549-2, EN 50549-10, C10/11, AS4777, IEC61727&62116, VDE-AR-N 4105, VDE-AR-N 4110, VDE-AR-N 4120, CEI 0-21, CEI 0-16, G99-typeB/C/D, G100, 50549-2/-10+Finland, 50549-2+Netherlands, 50549-1/-2/-10 +France, South Africa NRS-097, 50549-1+Greece, 50549-1+Poland typeA, 50549-2+Poland typeB/C/D, PN-EN 50549-2 (dakks), 50549-1+Denmark, 50549-2+Czech Republic, 50549-2+Sweden, 50549-2/-10+Switzerland, Austria TOR EZA, Type A & B, 50549-2+Hungary, 217001, 217002, NTS631, 50549-2+Romania, The Saudi Arabian, Slovenia, Estonia		
Safty/EMC Standard	CE-LVD-62477, CE-LVD-62109, CE-EMC-61000		
Features			
PV Connection	OT/SC Terminal	/	
AC Connection	OT/SC Terminal		
Display	HMI+Cloud		