

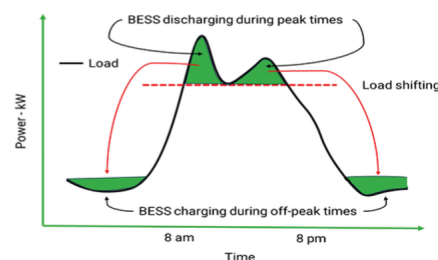
Utility & Grid Scale

BATTERY ENERGY STORAGE SYSTEM

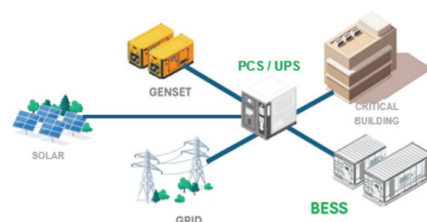


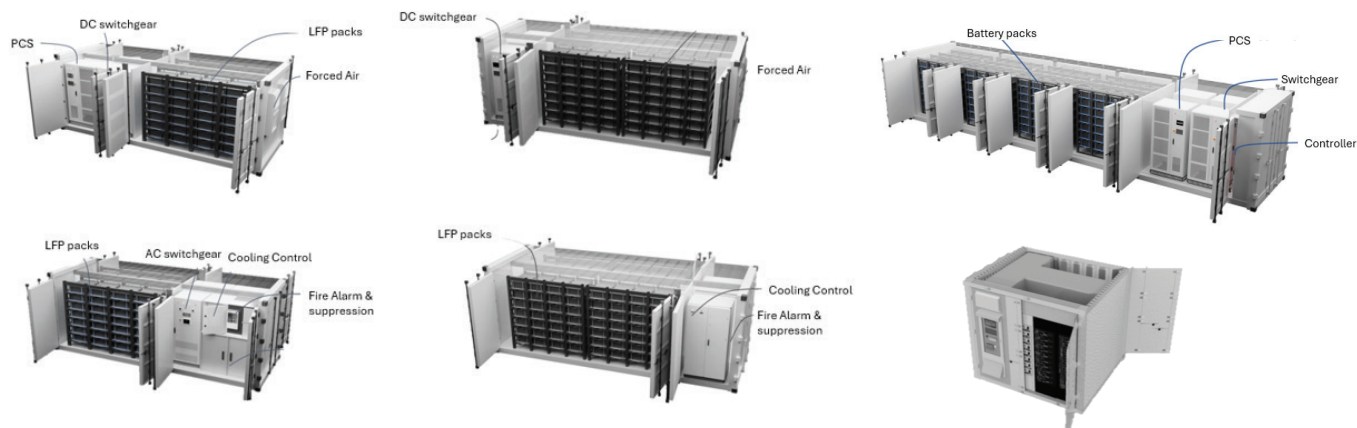
- Grid forming & Grid support
- Lithium / Sodium / Nickel Zinc battery chemistry
- VSG / Power Quality / Voltage-Freq model
- Islanding & black start capable
- 4 quadrant active & reactive power control
- Long system life cycle
- Energy Monitoring System
- SCADA remote control & Emergency Shutdown System
- Active Pack Balancing & Cell Balancing (optional)
- DC & AC protection & isolation
- AC or DC parallel coupling
- Built in / external Power Conversion System
- Liquid, Air Conditioned, or Forced Air cooling
- Heat & smoke fire detection
- Aerosol fire suppression system
- Internal lighting & auxiliary
- DNV/ISO/ASME lifting points

Load Shifting & Peak Shaving Cost saving



Hybrid Power System PCS + BSS





*Due to domestic and foreign regulatory requirements, as well as differences in appearance and layout caused by differences in standards, the product pictures on this page do not make special explanations and distinction, and are subject to actual project engineering

	BESS-C-400	BESS-C-800	BESS-C-1000	BESS-C-2000	BESS-C-5000
Battery parameters					
Rated energy	430kWh	800kWh	1MWh	2 MWh	4.25Mwh
Battery Chemistry	LFP / Sodium*	LFP / Nickel Zinc			
DC system nominal voltage	768V				1331V
DC voltage range	600~900VDC				900-1500VDC
Cycles	> 6000				
Protection	2 layer Battery Management System, HV DC isolation, Temperature monitoring, Fire detection, Fire suppression				
PCS parameters					
Rated power	100kW	120 kW – 1 MW per container			1.5 – 3.4MW /container
Max C-rating	0.5C	0.5C	1C	0.5C	0.5C
Rated grid voltage	230V/400V/480V 3P				480V/600V/690V 3P
Rated grid frequency	50/60Hz ±2.5				50/60Hz ±5
tHDI rate (%)	< 3% (Nominal power)				
Power factor	0.1~1				
Protection	Surge arrester, LV AC protection relay, LV AC switchgear				
Design	Transformer-less, Isolation/step-up transformer (optional)				External transformer
Certification	CE LVD, IEC 62477, CE EMC IEC 61009, EN 50549-1, G99, AS477				
General parameters					
Form factor (ISO container)	10ft	20ft	24ft	24ft	40ft
Protection level	IP65	IP55, positive pressurization (optional)			
Operating temperature	-20~55°C (> 45°C derating)				
Cooling method	Air conditioned / forced air / liquid cooling				
Maximum working altitude	2000m				
Communication Interface	CAN, Ethernet, RS485, IEC104, IEC61850, SNMP (optional)				
Control & monitoring	Local PLC / SCADA / DER / EMS				

*Sodium chemistry for utility scale is currently limited to 420kWh/container