



Energy storage battery  
as a bridge to the  
energy transition

# ESS-GRID

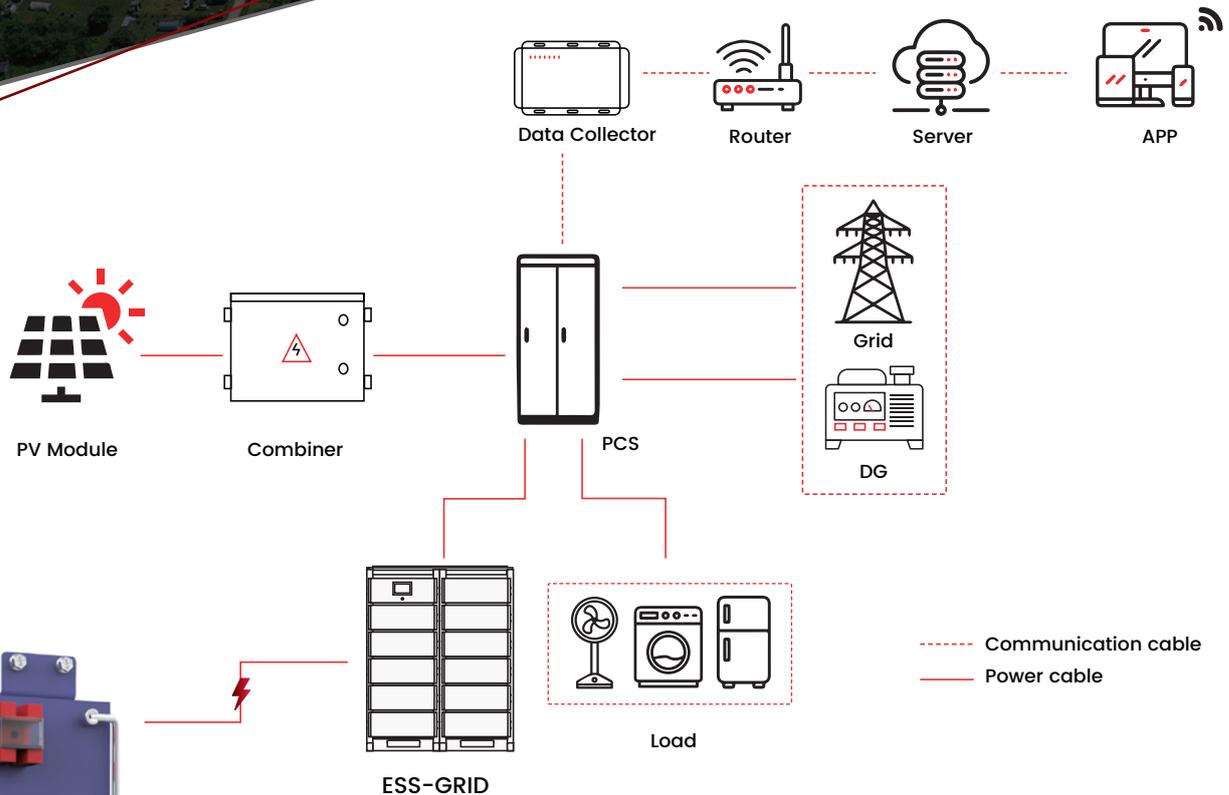
LITHIUM-IRON (LFP) **Solutions**

ESS-GRID Solutions, Made and Designed by BSLBATT.

The BSLBATT ESS-GRID series is designed for grid-connected and off-grid connected commercial and industrial energy storage and microgrid applications, with three capacity options of **68kWh / 105kWh / 129kWh / 157 kWh / 171 kWh / 224 kWh** for three-phase solar systems.



# HV LiFePO4 ESS FOR HIGHER SYSTEM EFFICIENCY



**ESS-GRID solutions are designed to stand out from the crowd and take into account longevity, reliability and your needs.**

The BSL ESS-GRID series satisfies the highest performance and economic efficiency standards. Are you interested in dynamic peak shaving, Time of Use or back-up power applications, either on-grid or off-grid? Then our ESS-GRID products are sure to impress you. ESS-GRID solutions are allowing flexible installations for Microgrid and commercial/industrial (C&I) installations.



**Module integration**  
Adopt rack type box design, the module supports multi-computer parallel connection, flexible expansion at any time and anywhere.



**Strong load carrying capacity**  
With strong overload capacity, it can widely adapt to various types of shock loads and inductive loads.



**Flexible networking**  
It can be matched with PCS energy storage converter, and can be flexibly networked according to customer requirements.



**Easy installation**  
All adopt standardized interface, plug and play, improve maintainability and reliability.

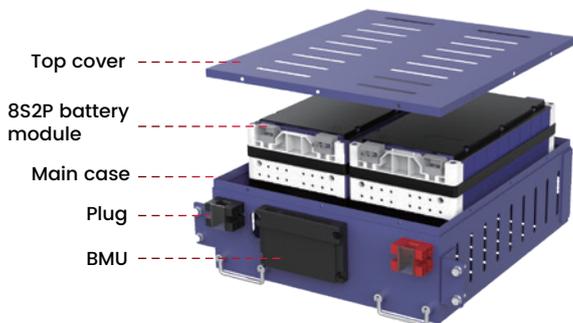


## Cell Specification

Item	ESS-GRID B69 CELL	ESS-GRID B105 CELL	ESS-GRID B129 CELL	ESS-GRID B158 CELL	ESS-GRID B170 CELL	ESS-GRID B224 CELL
Series and parallel	16S2P	16S1P	16S1P	16S1P	16S1P	16S1P
Rated capacity	134Ah	205Ah	280Ah	280Ah	304Ah	304Ah
Rated voltage	DC51.2V	DC51.2V	DC51.2V	DC51.2V	DC51.2V	DC51.2V
Voltage range	40V~58.4V	40V~58.4V	40V~58.4V	40V~58.4V	40V~58.4V	40V~58.4V
Rated energy	6.86 kWh	10.49 kWh	14.3 kWh	14.3 kWh	15.56 kWh	15.6 kWh
Max. charge current	130A	205A	280A	280A	304A	304A
Max. discharge current	150A	205A	280A	280A	304A	304A
Peak current (25°C, 50%SoC,10s)	160A	410A	560A	560A	608A	608A
Protection level	IP20	IP20	IP20	IP20	IP20	IP20
Discharge temp.	-20°C~55°C	-20°C~55°C	-20°C~55°C	-20°C~55°C	-20°C~55°C	-20°C~55°C
Charge temp.	0°C~45°C	0°C~45°C	0°C~45°C	0°C~45°C	0°C~45°C	0°C~45°C
Dimension (±2/mm)	515*456*170	610*396*242	390*750*255.5	390*750*255.5	390*750*255.5	390*750*255.5

## System Specification

Item	ESS-GRID B69	ESS-GRID B105	ESS-GRID B129	ESS-GRID B158	ESS-GRID B170	ESS-GRID B224
Series and parallel	16S2P*10	16S1P*10	16S1P*9=144S1P	16S1P*11=176S1P	16S1P*11=176S1P	16S1P*16=256S1P
Rated capacity	134Ah	205Ah	280Ah	280Ah	304Ah	304Ah
Rated voltage	DC512V	DC512V	DC460.8V	DC563.2V	DC563.2V	DC819.2V
Operating voltage range	400V ~ 584V	400V~584V	360V ~ 525.6V	440V ~ 642.4V	440V ~ 642.4V	640V~934.4V
Voltage range	448V ~ 560V	448V~560V	403.2V~504V	492.8V~616V	492.8V~616V	716.8V~896V
Rated energy	68.6kWh	104.9kWh	129kWh	157.6kWh	171.2kWh	223.9kWh
Rated charge current	130A	205A	280A	280A	304A	304A
Rated discharge current	130A	205A	280A	280A	304A	304A
Peak current (25°C, 50%SoC,10s)	160A	410A	560A	560A	608A	608A
Protection level	IP20	IP20	IP20	IP20	IP20	IP20
Discharge temp.	-20°C ~ 55°C	-20°C~55°C	-20°C~55°C	-20°C~55°C	-20°C~55°C	-20°C~55°C
Charge temp.	0°C ~ 45°C	0°C~45°C	0°C~45°C	0°C~45°C	0°C~45°C	0°C~45°C
Dimension (±2/mm)	1132*625*1493	1012*720*1943	1000*850*1949	1000*850*1949	1000*850*1949	1500*850*1949
System composition	10 battery boxes + 1 high voltage box	10 battery boxes + 1 high voltage box	9 battery boxes + 1 high voltage box	11 battery boxes + 1 high voltage box	11 battery boxes + 1 high voltage box	16 battery boxes + 1 high voltage box



### CUSTOM REQUESTS

Scope to customise the systems means you can ensure your project needs are always being met. If you cannot find a pre-configured solution simply, get in touch. We can work with you to design a one-of-a-kind BESS built specifically for you and your needs in Single, Dual or Three Phase configurations.

### COMPATIBLE INVERTERS

Believe in the power of the brand we are the creator of high standards in the industry.



# APPLICATIONS & MARKETS

BSLBATT's energy storage system solutions can be flexibly customized for your use in the above scenarios and markets.



## Commercial & Industrial (C&I)

- Agribusiness/Farming
- Oil & Gas
- Emergency Services
- Government Projects
- Local/Rural Businesses
- Manufacturing Plants
- Telecom/Data
- Infrastructure
- School Power Backup
- Rail/Transport



## Utility Scale/Owned

- Fringe of Grid
- Island Power
- Community Batteries
- Centralised Grid Storage
- Remote Communities

## APPLICATIONS



ON-GRID



ON-GRID EPS



VIRTUAL POWER PLANT (VPP)



TIME OF USE MANAGEMENT



MICRO-GRIDS



DIESEL OFF-SET



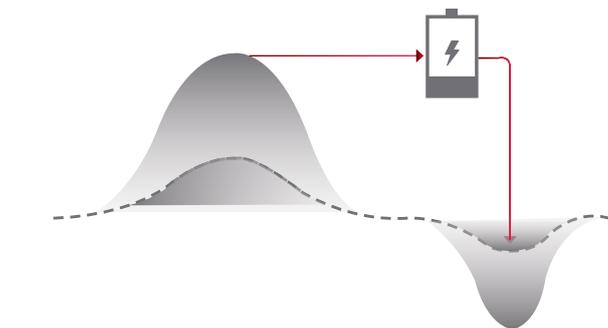
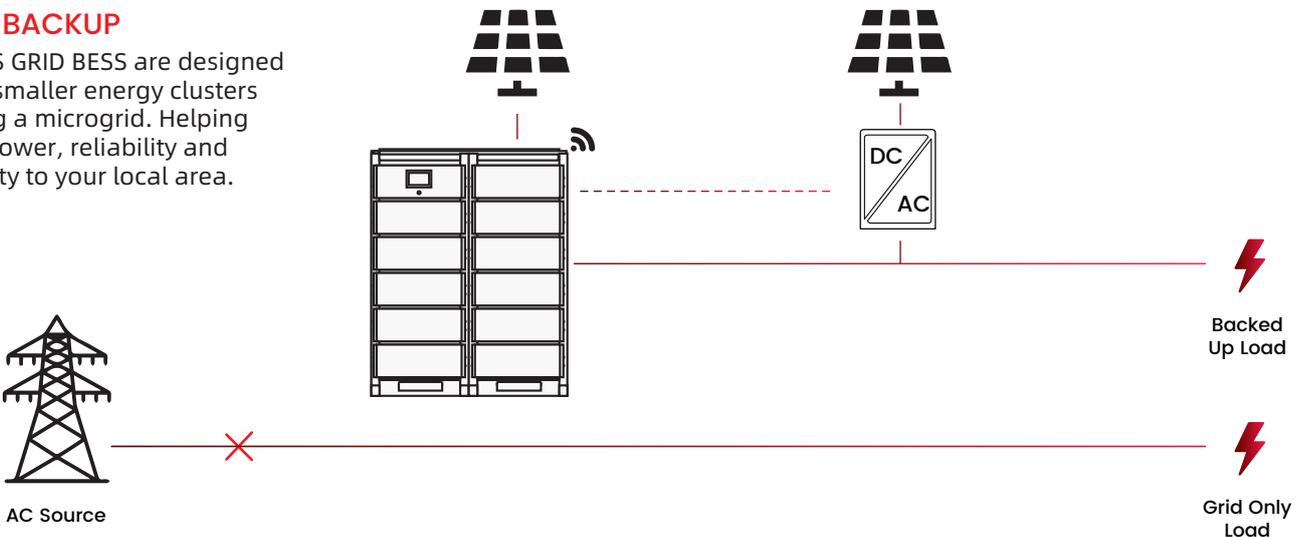
PEAK SHAVING



ENERGY SHIFTING

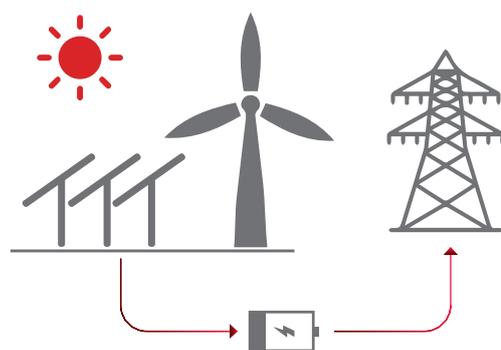
## SECONDARY LOAD BACKUP

Our ESS GRID BESS are designed to suit smaller energy clusters forming a microgrid. Helping bring power, reliability and flexibility to your local area.



## PEAK SHAVING

Utilize electricity price difference, charge battery at low price and discharge at high price to maximize system profit, compensate local transformer limit.



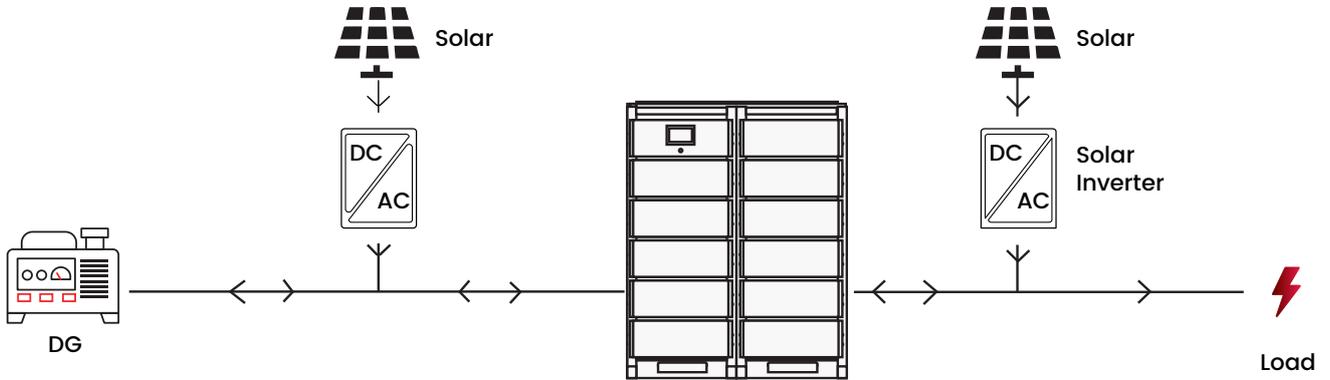
## ENERGY SHIFTING

Fully leverage the flexible energy storage system to increase the consumption of electricity generated from renewable energy sources and reduce the curtailment of wind and solar power.

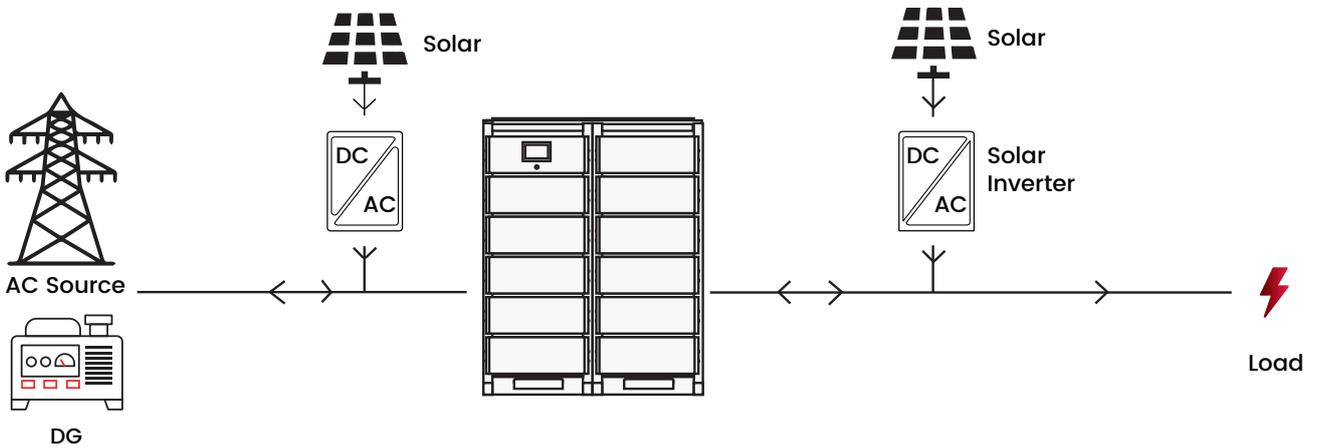
# APPLICATION LOGIC FOR DIFFERENT SCENARIOS

Our ESS-GRID system can be applied very flexibly in off-grid or grid-connected systems for microgrid, power backup and other requirements, see the configuration examples below.

## MICROGRID BATTERY SYSTEM



## BACK UP BATTERY SYSTEM



## SCALABILITY



Supported by the BSLATT technical team, after many tests and projects. The ESS-GRID BESS shows a high level of reliability and security.

-  Decentralized Grid Communities  
Every installation of ESS-GRID is a step towards a greener future.
-  Facing the Future  
We can always update ESS-GRID to make the product better and more efficient.

