

PowerCentre

Lithium Storage Generator
50kW – 200kW

VFI

- » Intelligent Comprehensive Energy Solution
- » Low Carbon
- » No Noise Pollution
- » Outdoor Design
- » Micro Grid



Model: PCENTRE 75/50

**Image may differ from product*

PowerCentre is an intelligent, clean and modular static generator system integrating Lithium Ferro Phosphate (LFP) batteries, bidirectional DC / AC converters, Solar Converters, Static switch and Power management systems.

Power Centre can be used to directly connect to the grid power supply, an off-grid power supply or as an off grid uninterrupted power supply.

The system can be developed to access renewable energy, power grid, or diesel generator as well as configuration and scientific utilisation to provide users with green, environmental protection, noise free, high reliability and high security power services.

- » Data Centres
- » Financial Services
- » Healthcare
- » Networking
- » Telecommunications
- » Mission Critical

PowerCentre Features



- Green energy utilisation
- Long cycle life
- Compact and light-weight
- High quality LFP energy storage cells
- Intelligent air cooling design (heating optional)
- IP54 - Safe and reliable in outdoor environments
- Serially designed PCS and battery pack eliminates circulating current and improves system reliability
- Integrated BMS, DC, AC multi-layer protection
- Maximum safety performance design
- No air conditioning resulting in high energy efficiency
- Integrated system with ease of maintenance and capacity expansion
- Intelligent multi-energy management with easy access to multiple energy sources
- Remote monitoring and equipment management with remote troubleshooting and data analysis

GRID CONNECTION

The Power Centre bidirectional AC / DC converter can efficiently convert the power from DC to AC and AC to DC.

Not only can it convert AC to DC to charge the battery, but this system can also convert DC to AC to supply power to a load or feed back to the power grid meeting EN 50549-1: 2019 national network certification and compliant with G99 issue 1.

MULTIPLE BENEFITS

- Minimises demand peaks
- Provides a smooth integration of solar energy
- Provides power quality improvement
- Stores renewable energy
- Supports infrastructure as loads increase with electric vehicle use.



APPLICATIONS

- Back up Power Supply
- Peak Shaving
- Load Shifting
- Frequency Regulation
- Voltage Regulation
- Renewable Power Integration
- Demand Response
- Micro grid building



Model: PCENTRE 150/100

*Image may differ from product

PowerCentre Features



INDEPENDENCE FROM THE NATIONAL GRID

Generating and managing your own electricity on-site is a powerful and creative way to have part or complete independence from the national grid. Reducing energy costs and working towards net zero carbon emissions.

ADVANCED FUNCTIONAL TOUCH SCREEN DISPLAY

A precise backlit comprehensive LCD display with schematic operation status of the PowerCentre, LED indicators and function keys allowing all the key parameters, alarms and indications to be shown.



Model: PCENTRE 250/150

**Image may differ from product*

DYNAMIC ENERGY STORAGE SYSTEM

The PowerCentre LSSG system makes intelligent use of all kinds of renewable energy storage intuitively providing users with green, low-cost, convenient and high-quality power supply.

POWER MANAGEMENT SYSTEM (PMS)

The advanced PowerCentre system includes operation data monitoring, operation strategy management, historical data records and system status records.

BATTERY MANAGEMENT SYSTEM (BMS)

The core components of the PowerCentre system can effectively protect the battery from overcharge, over-discharge and over-current. Simultaneously, the balanced management of the cells ensure the safe, reliable and efficient operation of the entire system.



LFP Module

PowerCentre Components

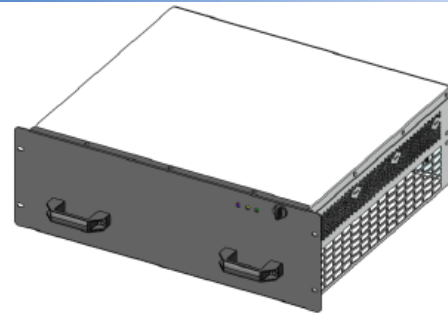
LITHIUM FERRO PHOSPHATE BATTERIES

The PowerCentre system consists of safe, efficient and long-life Lithium Ferro Phosphate (LFP) cells which are connected in series to form battery modules. The multiple modules are connected in series to form battery clusters.



POWER CONVERSION SYSTEM (PCS)

Bidirectional AC / DC converter can realize the bidirectional conversion from DC to AC and AC to DC. It can not only convert AC to DC to charge battery, but also convert DC to AC to supply power to load or feed back to power grid.



STATIC TRANSFER SWITCH (STS)

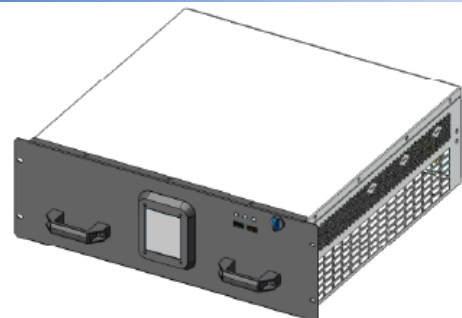
The static switch provides switching of power within 10ms.

The STS allows the system to be connected to grid or off-grid.



DC/DC MPPT PV MANAGEMENT MODULE

Converts low voltage DC of the photovoltaic panel and increases the voltage to directly connect to the PowerCentre DC Bus. The built in controller extracts the maximum power from the photovoltaic array by using maximum power point tracking technology (MPPT) to ensure maximum use of the solar energy.

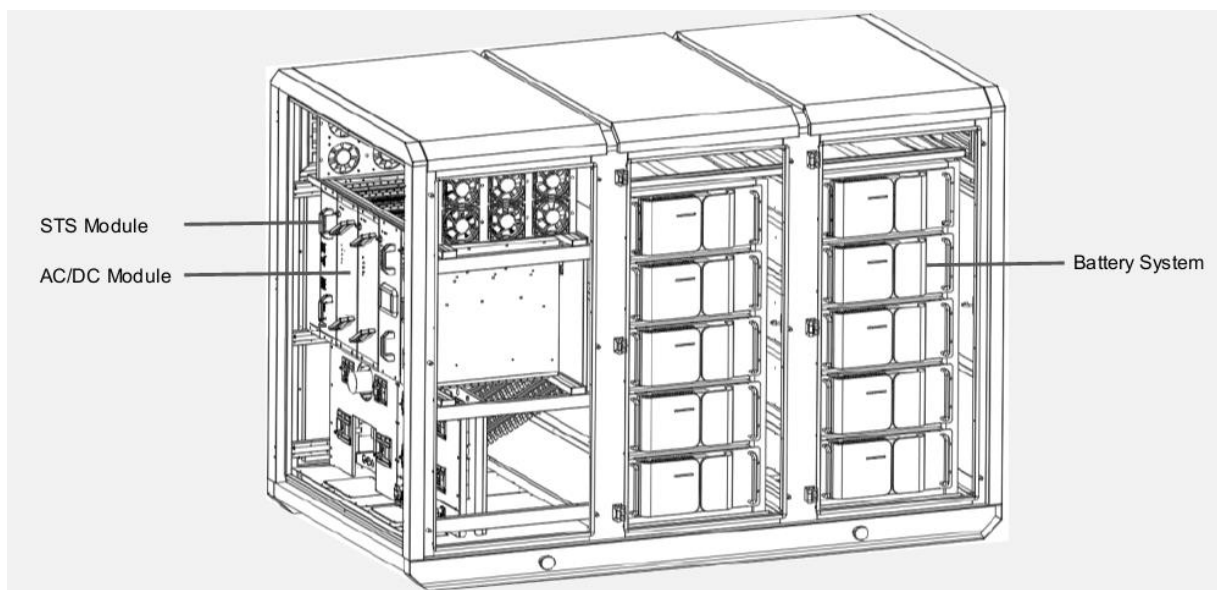
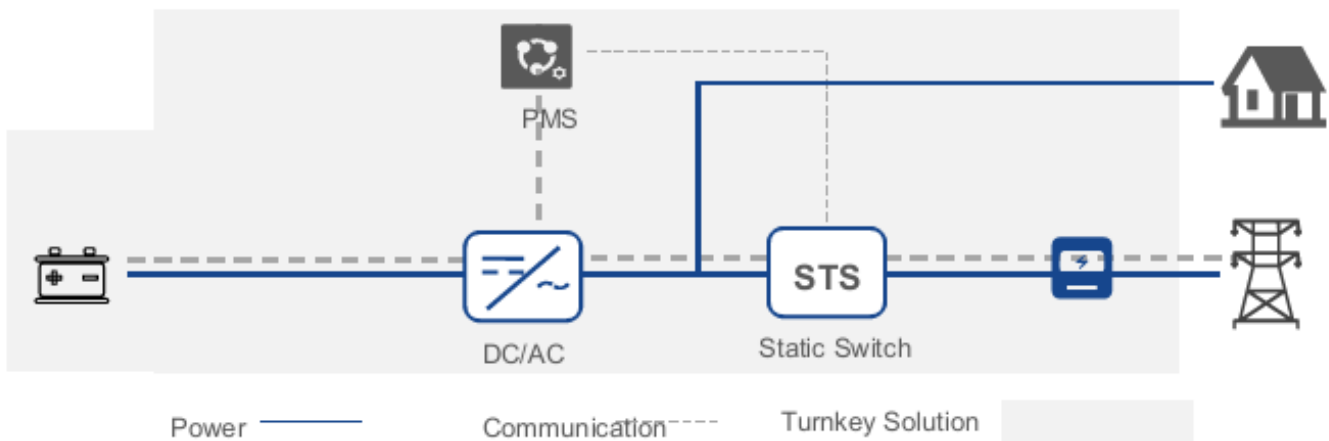


PowerCentre (Lithium Generator)

PowerCentre LSG (Lithium Storage Generator)

The PowerCentre LSG system is a true modular design combining: Lithium Ferro Phosphate (LFP) battery, DC/AC Bi-directional Converter, static transfer Switch (STS) and Power Management System (PMS) to provide all in one storage outdoor generator.

In normal operation the STS is in a closed state with the mains feeding the load and charging the LFP battery. When the mains power is interrupted the static switch is immediately disconnected (within 10ms) and the battery is discharged into the load. When the power returns the STS closes and the battery is recharged.

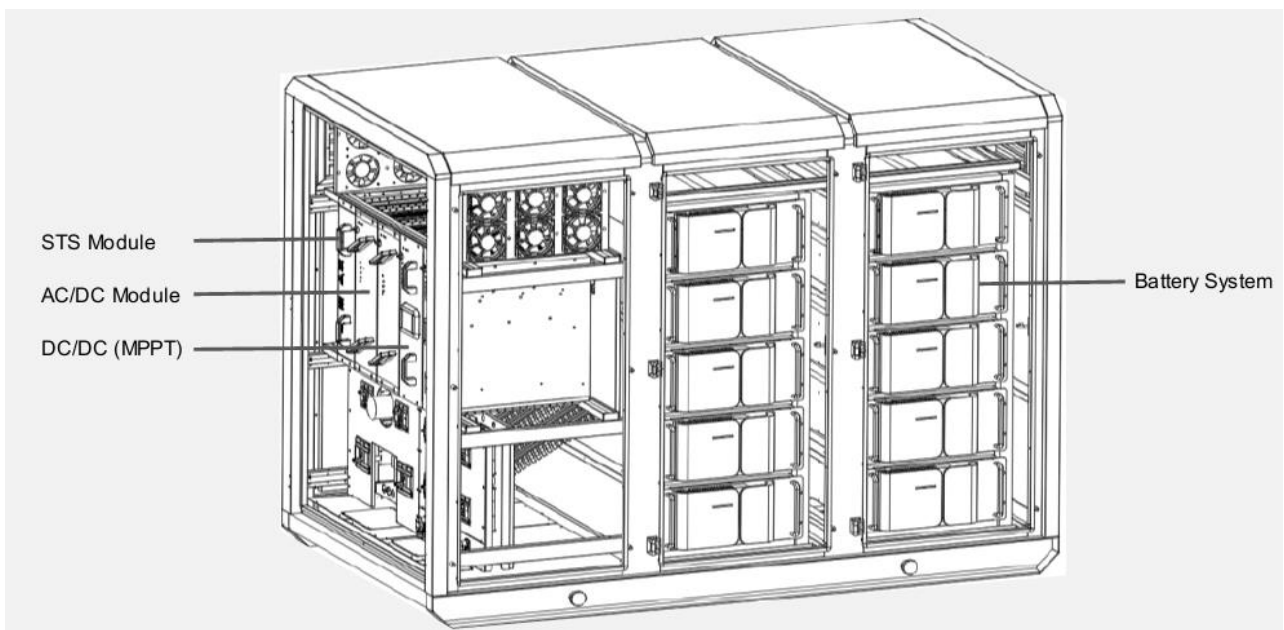
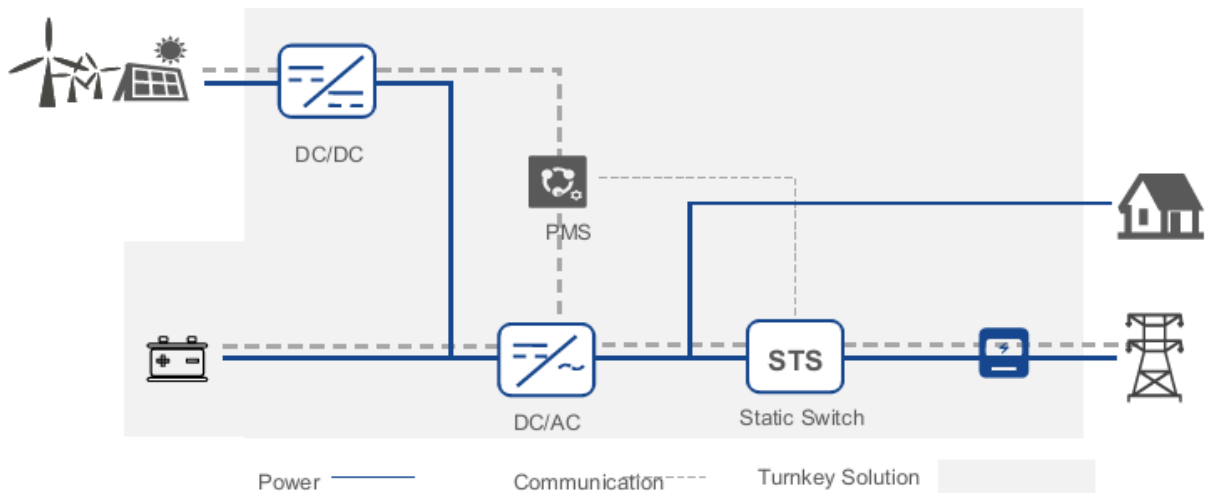


PowerCentre (Lithium Generator)

PowerCentre LSSG (Lithium Storage Solar Generator)

The PowerCentre LSSG system is a true modular design combining: Lithium Ferro Phosphate (LFP) battery, DC/AC Bi-directional Converter, DC/DC Converter, static transfer Switch (STS) and Power Management System (PMS) to provide all in one storage outdoor generator with direct Solar integration.

In normal operation the STS is in a closed state with the mains and solar feeding the load and charging the LFP battery. When the mains power is interrupted the static switch is immediately disconnected (within 10ms) and the battery and solar is discharged into the load. When the power returns the STS closes and the battery is recharged.



PowerCentre (Lithium Generator)

Technical Specification 50kW – 200kW



MODEL	PCENTRE 75/50	PCENTRE 150/100	PCENTRE 225/150	PCENTRE 300/200
Power Rating (kW)	50	100	150	200
AC APARMETERS				
Nominal Voltage	3W+N+PE, 400			
Grid Connected Range	Voltage -15% + 10% / Frequency +/- 2Hz			
Frequency Range	50 Hz			
Overload Capacity	105% for 10min 120% for 1 min			
THDi	<3% (Linear Load)			
Power Factor (Grid connected)	>0.99			
DC Component	<0.5%In			
Maximum Efficiency	95%			
SYSTEM PARAMETERS				
DC Switch	Included			
AC Switch	Included			
Grid Monitoring	Included			
ON/OFF Grid Switching	STS Included			
Isolation Transformer	Not Included			
STS transfer time	10ms			
Surge Protection	DC / AC 2 nd Level			
BATTERY				
Battery Type	Lithium Ferro Phosphate (LFP)			
Module Energy (kW)	15.36			
Module Quantity	5	10	15	20
Total Power (kWh)	76.8	153.6	230.4	307.2
Max Continuous Charge	1C			
Max Continuous Discharge	2C			
Runtime (hr)	1.5 (Full Load)			
Cycle Life	@25°C and 100% Depth of Discharge and 80% End of Life. Expectations are ≥2500			

PowerCentre LSSG (Lithium Generator)

Technical Specification 50kW – 150kW



MODEL	PCENTRE LSSG 75/50	PCENTRE LSSG 150/100	PCENTRE LSSG 225/150	PCENTRE LSSG 300/150
Power Rating (kW)	50	100	150	150
DC / DC CONVERTER – LSSG ONLY				
Voltage Range	DC220V – DC900V			
Full Load Voltage Range	DC350V – DC900V			
Rated Power	50KW	50-100KW	50-100KW	50-100KW
MPPT QTY	1	1-2	1-2	1-2
Voltage Stabilisation accuracy	< 1%			
GENERAL				
Operating Temperature	Normally -20°C to 55°C (>45°C derating is necessary)			
Operating Humidity	0 - 95% (non-condensed)			
Management Software	Included			
Display	Touch Screen			
Communication	RS485, CAN, LAN			
Cooling & Heating	Intelligent fan air cooling (anti-condensation option available)			
Acoustic Noise	≤70 dB @ 1 metre			
Air Conditioning	Optional			
Protection	Outdoor IP54			
Dimensions (WxDxH)	1300x1500x1700	1300x2270x1700	1300x3020x1700	1300x3830x1700
Weight (kg)	1060	1780	2470	3170

The BPC Group

BPC is an internationally recognised UK company trading globally for almost 25 years, with partners and distributors located around the world.

These regions include:

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Bahrain, Jordan, Kuwait, Saudi Arabia, Lebanon, Oman, Qatar, UAE, Yemen.

AFRICA

Burkina Faso, Democratic Republic of the Congo, Egypt, Ethiopia, Kenya, Ghana, Libya, Nigeria, Rwanda, Sierra Leone, Sudan, Tanzania, Uganda, Zambia.

FAR EAST & ASIA

India, Pakistan, Sri Lanka.

To ensure a high level of pre and post-sales support is offered, BPC work closely with distributors, providing key commercial and technical training whilst providing competitive costing structures tailored to specific region markets, ensuring the most suitable BPC products are offered. We pride ourselves on long standing relationships with our partners which is reflected in the ongoing support provided locally.



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