Energy Storage Bidirectional AC/DC Converter

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The EPCS series energy storage bidirectional AC/DC converter adopts a three-level topology structure, which can achieve bidirectional conversion from DC to AC and AC to DC. It can convert AC power into DC power for battery charging, as well as DC power into AC power for load power supply or feedback to the power grid.

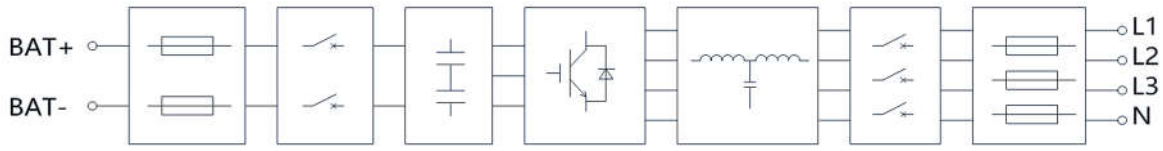
Rated power:
30kW,
50kW, 6
2.5kW,
80kW,
100kW,
capable of parallel operation of multiple modules up to 1MW

Rated power: 400Vac

Grid frequency: 50/60Hz ± 10%

DC side voltage range: 615-900 (3P3L)/650~900 (3P4L)

Working principle of energy storage bidirectional AC/DC converter



Product Features

Triple level topology with highest conversion efficiency>98.5%

High dynamic response, with full load switching time as low as 10ms

Supporting parallel operation of multiple machines, capable of expanding to 2MW

Modular equipment makes configuration more flexible and maintenance convenient

High speed IGBT, low internal resistance filter

Seamless off grid switching, fast response, ensuring continuous uninterrupted power supply for critical loads

Wide DC input range, supporting cascade battery utilization

Independent regulation of active and reactive power to improve power quality

Typical application scenarios

Energy storage and lithium battery testing

AC/DC analog power supply, electronic load

Energy storage inverter

Peak shaving and valley filling: Storing electricity during low electricity prices and discharging during peak periods to save electricity costs

Uninterrupted power supply: In the event of a power outage in the power grid, the system can provide uninterrupted off grid power supply to ensure the normal operation of the load

Dynamic capacity increase: compensating for the shortage of short-term power resources and delaying distribution investment

Power quality management, compensating for transient voltage drops in the power grid, power factor of loads, and harmonic currents

Can form a hybrid microgrid system