KEHUA TECH

Modular Energy Storage System

BCS75K~125K-B-HM

Stock Code

002335.SZ

Kehua Tech

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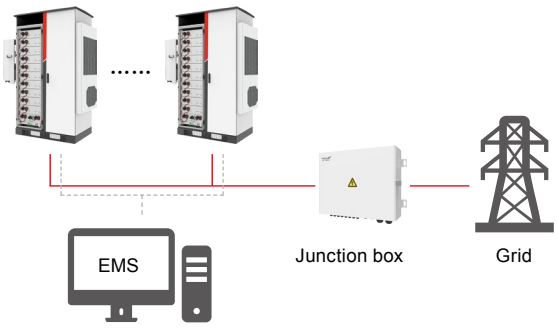
Modular Energy Storage Converter

Applications for industrial, commercial and micro-grid scenarios

Except for achieving the basic function and value of the energy storage system such as peakshaving and emergency power supply in the industrial, commercial, and micro-grid application scenarios, the power configuration of the modular energy storage solution is more flexible than the traditional tower solution. The redundant capacity provides sufficient capacity and smaller retrofit cost in the future, while the flexible installation can be adapted to various installation environments in user scenarios.

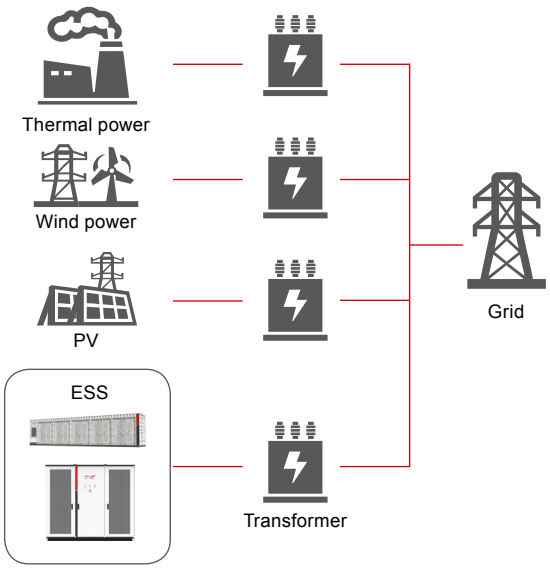


Application Values

- Peakshaving and load shifting, emergency power supply, power distribution expansion, and load smoothening
- Comprising an independent micro-grid with PV diesel generators
- Higher flexibility in the power configuration and installation

Applications for power generation scenarios

In the applications of renewable energy generation, the most direct advantage for the modular energy storage solution is reducing the costs of installation, maintenance and transportation, compared with the traditional PCS solution. Meanwhile, with the features of high efficiency and power density, the modular solution saves more energy storage investment in the renewable energy scenarios, helping the investors maximize their benefits.



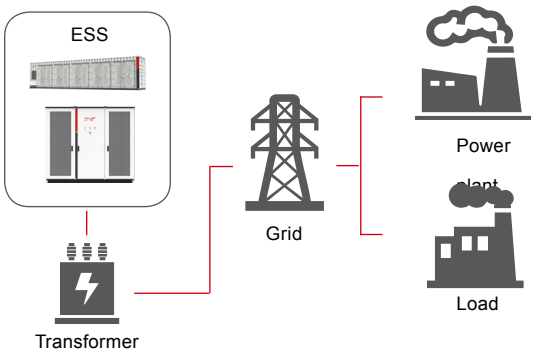
Application Values

- Auxiliary frequency modulation in thermal power AGC (automatic generation control) plants
- Smoothening wind and solar power generation curves, and the revenues from wind and solar curtailment
- Active power controlling and reactive power compensation
- Auxiliary services in the electricity market
- Saving costs with easier installation, maintenance and transportation

Applications for power grid scenarios

Application Values

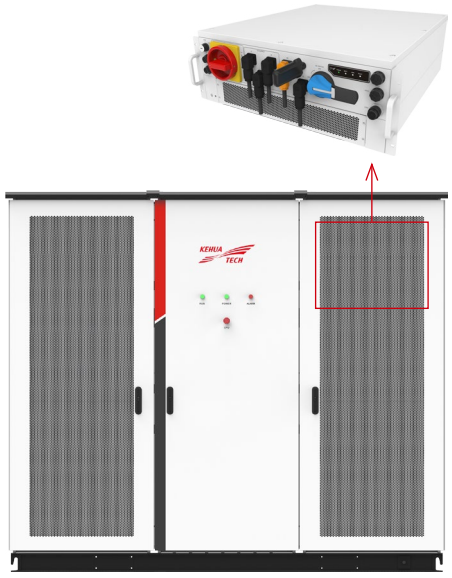
- Modulating peak and frequency to relieve transmission and distribution congestion
- Delaying equipment expansions for transmission and distribution
- Dynamic support for reactive power
- Smaller area occupation and more flexible settings for installation sites



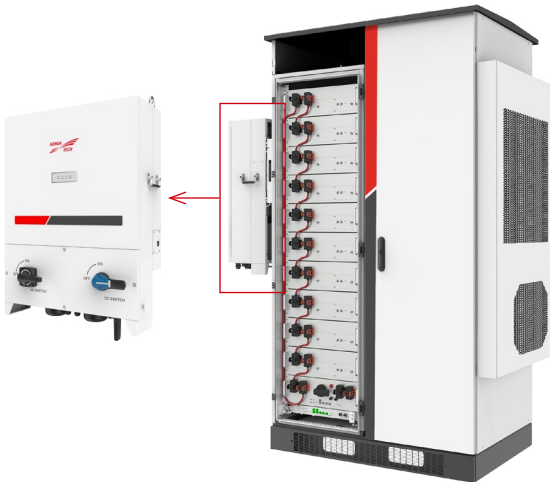
Modular energy storage converter

BCS75K-B-HM/BCS100K-B-HM/BCS125K-B-HM

Integrated modular converter



Integrated wall-mounted converter



Product Features

Efficient and intelligent

- The brand-new tri-level technology with maximum efficiency >99%
- Long-term operations with 110% overload
- The advanced neutral-point balancing and controlling technology effectively reduces ripple voltage and improves the life span of thin film capacitors
- Equipped with fault wave record / remote online upgrading functions

Flexible and simple

- Convenient modular design makes the installation easier, and reduces the transportation, maintenance and repair costs
- Supporting multiple AC units to operate in parallel with flexible configuration of system solutions
- The independent fan module design enables quick installation and maintenance
- IP65 ingress protection and C5 anti-corrosion fit a variety of severe environments

Systematic integration

- The high compatibility and integration with the battery system enable one-stop turnkey solutions
- The integration of highly reliable and consistent power supplies the BMS system, and ensures the stable operation of the battery system
- With the built-in DC snubber circuit, there is no need to configure another independent circuit for the battery cluster. The battery system connection is easy, simple, safe and reliable with the plug-and-play feature

Power-grid friendly

- Equipped with LVRT (low voltage ride through) and HVRT (high voltage ride through) functions, and strong grid adaptability
- PF (power factor) controlling, and reactive power compensation functions

Technical Specification

Items	BCS75K-B-HM	BCS100K-B-HM	BCS125K-B-HM
DC input			
MAX. DC voltage	1500Vdc		
DC voltage range	700-1500 Vdc	600-1500 Vdc	1040-1500 Vdc
Max. DC current	120 A	186 A	134A
DC voltage range @50°C (full load)	700-1300 Vdc	600-1000 Vdc	1040-1500 Vdc
Auto buffering function	Yes		
Grid-tied AC output			
Rated AC output power	75kW	100kW	125kW
Max. AC output power	82.5kVA	110kVA	137.5kVA
Rated output voltage	480Vac	400Vac	690Vac
Output voltage range	-15%~10% (settable)		
Grid frequency range	50Hz/60Hz (settable)		
Max. output current	99.2A	158A	115A
Adjustable power factor	>0.99 (at rated power)/1 (leading)~1 (lagging)		
THDi	<3% (at rated power)		
Off-grid AC output			
Rated AC output voltage	480V	400V	690Vac
Output voltage accuracy	1%		
Max. output current	99.2A	158A	115A
THDu	<1% (linear load)		
Rated output frequency	50Hz/60Hz (settable)		
Overloading capability	110%		
Efficiency			
Max. efficiency	99.03%		
General data			
Isolation mode	None		
IP grade	IP65		
Operation temperature	-30°C~60°C（>50°C derating）	-30°C~60°C（>40°C derating）	-30°C~60°C（>50°C derating）
Relative humidity	0~100%		
Cooling type	Intelligent forced air cooling		
Dimensions (W×H×D)	700x900x267mm (wall-mounted)/700x265x800mm (rack-mounted)		
Weight	95kg (wall-mounted)/85kg (rack-mounted)		
Altitude	4000m（>3000m derating）		
Display	LED		
Communication protocol	Modbus-RTU, Modbus-TCP, CAN2.0B		
Communication interface	RS485, Ethernet, CAN		
Installation	Wall-mounted/rack-mounted		
Standard	GB/T 34120-2017, UL1741, IEEE1547.1, UL1741SA, IEC62477, IEC 61000-6-2-2016IEC 61000-6-4-2018		

- Specification indexes may be subject to changes without further notice.

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