Integrated MV Power Conversion System

BCS8000K~10000K-C-HUD/T8 Series

Secure Reliable

- On-line insulation detection
- Designed for extreme environment,such as high temperature(45ºC without derating), salt spray, and extreme cold etc.
- Real-time monitoring of copper bar temperature to ensure machine safety

Grid Friendly

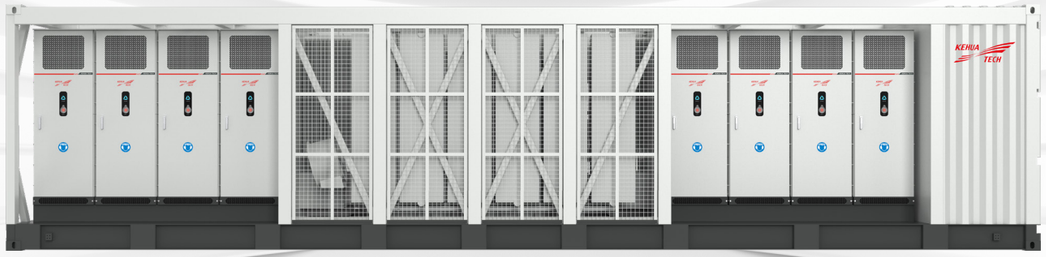
- Support GFM function with millisecond response
- Various applications such as VSG, frequency regulation, black-start, etc.
- High adaptability to the grid with low SCR

Excellent Performance

- Bottom-in, top-out design avoid heat-island effect
- High protection rating (PCS IP65, skid IP54) ensures reliable operation in dusty, humid, and saline conditions
- Wide voltage range, supporting flexible battery bank configuration and high-power energy storage
- Support user log querying and fault recording waveform

Intelligent O&M

- Integrated data acquisition and optical fiber network, simplifying system networking and reducing wiring complexity
- Skid-mounted integrated design of converter and transformer enables integrated delivery, minimizing on-site installation and commissioning time



Technical Specification

Items	BCS8000K-C-HUD/T8	BCS10000K-C-HUD/T8
DC input		
Max. DC voltage	1500Vdc	
DC voltage range	1000~1500 Vdc	
Max. DC current	1122A*8	1403A*8
Soft start	Yes	
AC output (on-grid,low voltage side)		
Rated AC output power	8000kW	10000kW
Max. AC output power	8800kVA	11000kVA
Rated grid-tied voltage	690Vac	
Grid voltage range	-15%~10% (settable)	
Rated grid frequency	50/60Hz	
Max. output current	7363A	9204A
Power factor	>0.99 (rated power)	
Adjustable power factor	1 (leading)~1 (lagging)	
Range of reactive power	-100 % ~ 100 %	
THDi	<3% (rated power)	
AC output (off-grid,low voltage side)		
Rated AC output voltage	690Vac	
Output voltage accuracy	1%	
Max. output current	7363A	9204A
THDu	<3% (linear load)	
Rated output frequency	50/60Hz	
Overload capacity	110% overload	
PCS Efficiency		
Max. efficiency	≥99%*	
Transformer		
Rated power	8000kVA	10000kVA
MV / LV ratio	20~33kV / 0.69kV (can be customized)	
Isolation type	Oil-immersed transformer	
Transformer vector	Dy11-y11	
General data		
IP rating	IP65(PCS) IP54(skid)	
Operation temperature	-35°C~60°C (> 45°C derating)	
Relatively humidity	0~100% (no-condensing)	
Cooling type	Intelligent air cooling (PCS) ONAN (skid)	
Dimensions (W×H×D)	12192×2896×2438mm	
Weight	38000kg	39000kg
Altitude	4000m(>2000m derating)	
Display	LED	
Communication Protocol	Modbus-RTU / Modbus-TCP / IEC61850 /IEC104	
Communication Interface	RS485/CAN/Ethernet	

- *This efficiency value was measured in a laboratory environment.
- * Specification indexes may be subject to changes without further notice.

columbus Official representative in Ukraine

+380 93 714 59 95 • info@columbusenergy.com.ua • columbusenergy.com.ua