Integrated MV Power Conversion System

BCS4000K~5000K-C-HUD/T4 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	BCS4000K-C-HUD/T4	BCS5000K-C-HUD/T4
DC input		
Max. DC voltage	1500Vdc	
DC voltage range	1000-1500Vdc	
Max. DC current	1122A*4	1403A*4
Soft start	Yes	
AC output (on-grid)		
Rated AC output power	4000kW	5000kW
Max. AC output power	4400kVA	5500kVA
Rated grid-tied voltage	690Vac 3P3W+PE	
Grid voltage range	-15%~10% (settable)	
Grid frequency range	50/60Hz	
Max. output current	3682A	4602A
Power factor	>0.99 (at rated power)	
Adjustable power factor	1 (leading)~1 (lagging)	
THDi	<3%(at rated power)	
Ac output (off-grid)		
Rated AC output voltage	690Vac	
Output voltage accuracy	1%	
Max. output current	3682A	4602A
THDu	<3% (linear load)	
Rated output frequency	50/60Hz	
Overload capability	110% overload	
PCS efficiency		
Max. efficiency	99%*	
Transformer		
Rated power	4000kVA	5000kVA
MV / LV ratio	10~33kV / 0.69kV (can be customized)	
Isolation mode	Oil-immersed transformer	
General data		
IP rating	IP65(PCS) IP54(skid)	
Operation temperature	-35ºC~60ºC (>45ºC derating)	
Relative humidity	0~100% (no-condensing)	
Cooling type	Intelligent air cooling (PCS) ONAN (skid)	
Dimensions (W×H×D)	12192×2896×2438mm	
Weight	27000kg	28000kg
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.