Integrated MV Power Conversion System

BCS2500K~3450K-B-HUD/T 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 transformer condition monitoring

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

- High protection rating (PCS IP55, 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 exporting, enhance O&M efficiency

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	BCS2500K-B-HUD/T	BCS3000K-B-HUD/T	BCS3450K-B-HUD/T
DC input			
Max. DC voltage	1500Vdc		
DC voltage range	1000-1500Vdc		
Max. DC current	1403*2A	1683*2A	1936*2A
Soft start	Yes		
AC output (on-grid)			
Rated AC output power	2500kW	3000kW	3450kW
Max. AC output power	2750kVA	3300kVA	3795kVA
Rated grid-tied voltage	690Vac 3P3W+PE		
Grid voltage range	-15%~10% (settable)		
Grid frequency range	50/60Hz		
Max. output current	2302A	2762A	3176A
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	2302A	2762A	3176A
THDu	<3% (linear load)		
Rated output frequency	50/60Hz		
Overload capability	110% overload		
PCS efficiency			
Max. efficiency	99%*		
Transformer			
Rated power	2500kVA	3000kVA	3450kVA
MV / LV ratio	10~33kV / 0.69kV (can be customized)		
Isolation type	Oil-immersed transformer		
General data			
IP rating	IP55(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)	6058×2896×2438mm		
Weight	15100kg	16000kg	17200kg
Altitude	4000m (>2000m derating)		
Display	Touch screen		
Communication protocol	Modbus-RTU, Modbus-TCP, IEC61850, IEC104		
Communication interface	RS485, 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