Integrated MV Power Conversion System

BCS12500K~13800K-C-HUD-EP/T4 Series

Secure Reliable

- 24/7 On-line insulation detection, ensure personnel and equipment safety
- Real-time transformer condition monitoring, ensure operational safety
- Noise ≤ 75dBA, better protecting the hearing of personnel

Grid Friendly

- H/LVRT function, high adaptability to the grid
- Full-station grid-forming technology, supports black start & VSG functions
- Support operation under extremely weak grid conditions, SCR>1.0

Excellent Performance

- Designed for extreme environment, such as high temperature, salt spray, and extreme cold etc.
- Integrated converter and transformer design enables turnkey solution
- Innovative top air outlet design, avoid heat island effect

Intelligent O&M

- Two-way air duct & Self-cleaning, reduce maintenance frequency by 60%
- Integrated data acquisition and fiber ring network, intelligent O&M
- Support user log querying and fault recording waveform exporting, enhance O&M efficiency



Technical Specification

Items	BCS12500K-C-HUD-EP/T4	BCS13800K-C-HUD-EP/T4
DC input		
Max. DC voltage	1500Vdc	
DC voltage range	1000-1500Vdc	
Max. DC current	3507A*4	3872A*4
Soft start	Yes	
AC output (on-grid)		
Rated AC output power	12500kW	13800kW
Max. AC output power	13750kVA	15180kVA
Rated grid-tied voltage	690Vac 3P3W+PE	
Grid voltage range	-15%~10% (settable)	
Grid frequency range	50/60Hz	
Max. output current	11505.5A	12702A
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	11505.5A	12702A
THDu	<3% (linear load)	
Rated output frequency	50/60Hz	
Overload capability	110% overload	
PCS efficiency		
Max. efficiency	99%*	
Transformer		
Rated power	12500kVA	13800kVA
MV / LV voltage	20~33kV / 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	Liquid cooling (PCS) ONAF（skid)	
Dimensions (W×H×D)	12192×2896×2438mm	
Weight	43000kg	44000kg
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.

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