Courtesy of Gazprom

Chinook® Active Magnetic Bearing Controller

800(D) x 800(W) x 2000(H) mm

The Chinook controller is a fully featured, high-power magnetic bearing controller for turbomachinery and high-speed rotating equipment in the power range of **10 MW to 25 MW**.

- Simple and fail-safe integration of the control cabinet with the machine station via the digital output/input from the digital cabinet
- An optimised, automated commissioning and tuning process available to the OEM/end user
- Remote monitoring and adjustment capabilities
- Built-in condition monitoring system provides comprehensive diagnostics
- High processing performance which allows for more complex algorithms that provide higher dynamic efficiency, improved usability and ergonomics, and noise immunity
- The integrity of functional testing, verification and development of new features performed on the world's biggest super-critical test rig is far superior to simulation testing methods used by others

CONFIGURATION

- 5 axis controller (option for 4 axis control)

INTERFACES

- Door mounted operator panel
- Hardwired discrete DCS interface
- Analogue diagnostic outputs
- PROFIBUS DP slave (option)
- MODBUS RTU or TCP slave (option)
- SOAP slave (option)

CONTROL LAW CAPABILITY

- SISO/MIMO controller with tracking filters
- Multi-coordinate control (MCC)
- Automatic balancing algorithm (ABA)
- Runout compensation
- Synchronous open loop feed forward
- Advanced amplifier algorithm (for canned bearings, software flux feedback)

SENSOR SUPPORT

- Magnetic displacement
- Inductive, eddy current
- Capacitive
- Dual position sensor ring option
- Redundancy
- Flux feedback

DIAGNOSTIC CAPABILITIES

- Web server interface
- High speed capture buffer
- Trend logging
- Event logging
- Automatic clearance check
- Integrated transfer function measurement
- Integrated spectra capability
- Integrated harmonic capture
- 3rd level trip
- Built-in tools show compliance with ISO sensitivity performance criteria

OTHER

- Cabinet comes in dual-bay and space-saving single-bay versions
- Support for purge protected bearings

AT A GLANCE

Machinery power range: 10 to 25 MW

For critical applications requiring the highest availability:

- Oil & gas transportation, storage and production
- Petrochemical and process equipment
- High temperature gas cooled reactor (helium use)
- Natural gas pipeline compressors
- Energy recovery flywheel
- Loop layer machine
- Sour gas with canned or sealed bearings

Benefits:

- Proven availability exceeds 99.9%
- Reduced maintenance cost with planned and predictive maintenance programmes
- Lower total cost of ownership due to higher reliability and lower maintenance costs
- Automated Commissioning can eliminate OEM/end user dependence on the supplier
- Built-in UPS for immunity to supply interruptions
- Capability of retrofit to magnetic bearings supplied by others

Certification:

- CE, CB and TR-CU

Support:

- 24-7 on-call service (reply within 1 hour)
- Spares service and extended warranty option
- Comprehensive training programme

WAUKESHA® MAGNETIC BEARINGS

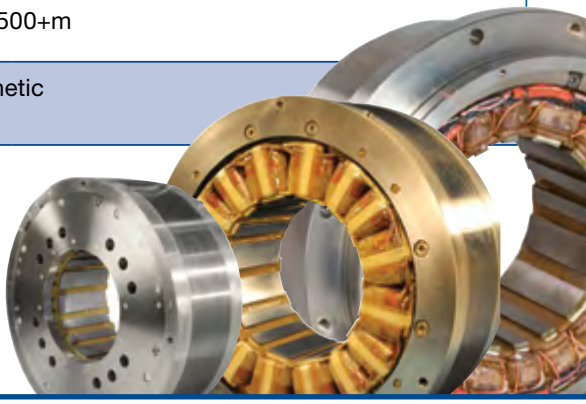
www.waukeshabearings.com | info-wb@doverprecision.com

DOVER® PRECISION COMPONENTS

SPECIFICATION

	SINGLE BAY CHINOOK BEARING CONTROL CABINET E6260601	DUAL BAY CHINOOK BEARING CONTROL CABINET E8800601
		
Cabinet Size & Rating	800(D) x 800(W) x 2000(H) mm; removable top vent box (100mm); plinth (100mm). Cable entry from bottom. IP54 (roof air vent IP33). Forced air cooled.	800(D) x 1600(W) x 1800(H) mm; removable top vent box (100mm); plinth (100mm). Cable entry from bottom. IP54 (roof air vent IP33). Forced air cooled.
Access	Front full length door (lock optional)	
Maximum Case Weight	400 kg	965 kg
Input Voltage: Mains Options	Model Type: D626-1P: 230VAC (50/60Hz) (180VAC to 254VAC) Model Type: D626-3P: 400VAC 3Ø+N (50/60Hz); Phase rotation not critical 5kW[1]	Model Type: D880-1P: 230VAC (50/60Hz) 30A; 7.5kVA (180VAC to 254VAC) Model Type: D880-3P 400VAC 3Ø+N (50/60Hz); 11A 7.5kVA
Input Voltage: DC Option	Model Type: D626-DC Model Type: D626-DC/1P: 230VAC (50/60Hz); 5A; 1kVA (AC supply required for ancillary options) 48 VDC supply (42VDC to 57VDC)	Model Type: D880-DC Model Type: D880-DC/1P: 230VAC (50/60Hz); 5A; 1kVA (AC supply required for ancillary options) 48 VDC supply (42VDC to 57VDC)
Output Power	300V @ 25A per magnet (continuous), 30A (peak)	
Operating Temperature Range	5°C to 35°C ambient temperature (when levitated) 5°C to 40°C (de-levitated)	
Relative Humidity Range	80% max non-condensing	
Transport & Storage Temperature Range	-40°C to +45°C, humidity 80% max non-condensing	
Area Classification	Non-hazardous	
Maximum Cable Length Between Cabinet & Bearings	150m; consult for extended cable lengths to 500+m	
Certification	CE, CB and TR-CU; contact Waukesha Magnetic Bearings for certificate numbers	

[1]Heat Load: Refer to customer specific manual for heat load in a particular application



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