

Active Magnetic Bearing Controller Options

Zephyr



A powerful, compact, cost effective magnetic bearing controller for turbomachinery and rotating equipment. Recommended for machinery in the power range:
1 MW to 18 MW

Chinook



A fully featured, high-power magnetic bearing controller for turbomachinery and high-speed rotating equipment. Recommended for machinery in the power range:
10 MW to 25 MW

Elephanta



The most powerful magnetic bearing controller in the industry (four times more powerful than proven competition) and the basis for the largest, most critical turbomachinery applications, including subsea. Recommended for machinery in the power range:
15 MW to 80 MW

Zephyr®

Chinook®

Elephanta®

Size	330(D) x 900(W) x 345(H) mm (wall mount or cabinet)	800(D) x 800(W) x 2000(H) mm (option for 1.8m height)	800(D) x 2000(W) x 2100(H) mm
Configuration	5 axis controller (option for 4 axis control)		5 axis controller (option for 4,6,7 axis control)
Input Power	230VAC (50/60Hz), single phase (model 5000: 1.5kW max, model 6000: 3kW max), EMC/EMI filtered, external UPS required	400VAC 3Ø+N (50/60Hz), 5kW, option for 230VAC 1Ø, option for 48VDC integrated UPS (extended battery option uses dual bay cabinet)	230VAC (50/60Hz), 48VDC powered (12kW), option for 96VDC powered (24kW), external UPS required
Output Power	390V @ 24A per magnet (continuous), 28A (peak)	300V @ 25A per magnet (continuous), 30A (peak)	600V @ 60A per magnet (continuous)
Interfaces	Simple hardwired logic interface, analogue diagnostic outputs (option), MODBUS RTU or TCP slave, SOAP slave (option)	Door mounted operator panel, hardwired discrete DCS interface, analogue diagnostic outputs, PROFIBUS DP slave (option), MODBUS RTU or TCP slave (option), SOAP slave (option)	
Remote Monitoring Support	Full TCP/IP support, integrated web server, SOAP server, on-call service		
Sensor Support	Inductive, magnetic displacement (option)	Magnetic displacement, inductive, eddy current, capacitive, dual position sensor ring option, redundancy, flux feedback	
Cooling	Convection air cooled, option for forced cooling for higher output current	Forced air cooled	Forced air cooled (internal closed liquid circuit)
Enclosure	IP rating – IP30, cable entry from sides. Suitable for panel mounting	IP rating – IP54 (air vents IP33), cable entry from bottom	IP rating – IP44, cable entry from bottom
Environmental	Operating temperature: 5°C to 40°C; relative humidity 80% max non-condensing		
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, software flux feedback		
Diagnostic Capabilities	Web server interface, high speed capture buffer, 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 and support for Automated Commissioning		
Diagnostic Capabilities Cont'd	N/A	Trend logging	
Other Capabilities	Cabinet/bearing separation – 150m max (option for extended cable lengths to 500+m), support for purge protected bearings		
Certification	CE, CB and TR-CU		CE and CB



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