

spindrive | MAGMA[®]

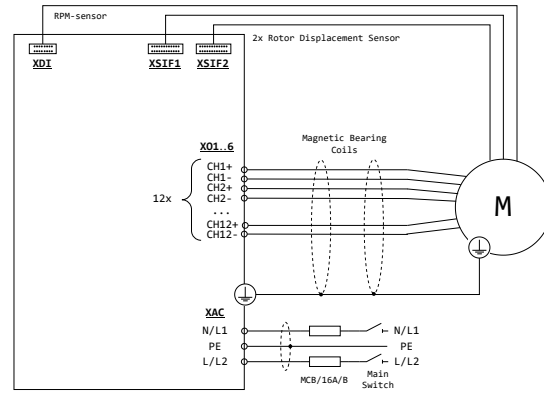
X800 Magnetic Bearing Controller



MAIN FEATURES

- Online condition monitoring capability
- High-speed data acquisition and identification procedures
- 5 axis differential position measurements
- Support of up to 12 additional external analog sensors
- Ethernet / OPC UA / MODBUS interface for industrial automation, real-time measurements and cloud connectivity
- Rotor elongation measurement with SpinDrive standard inductive sensor solution, which takes into account rotor temperature variations

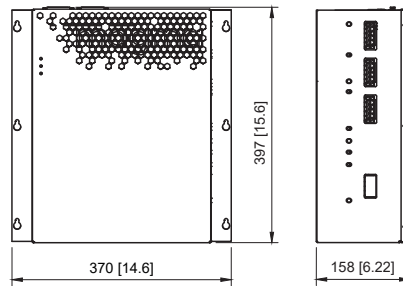
POWER AND CONTROL CONNECTIONS



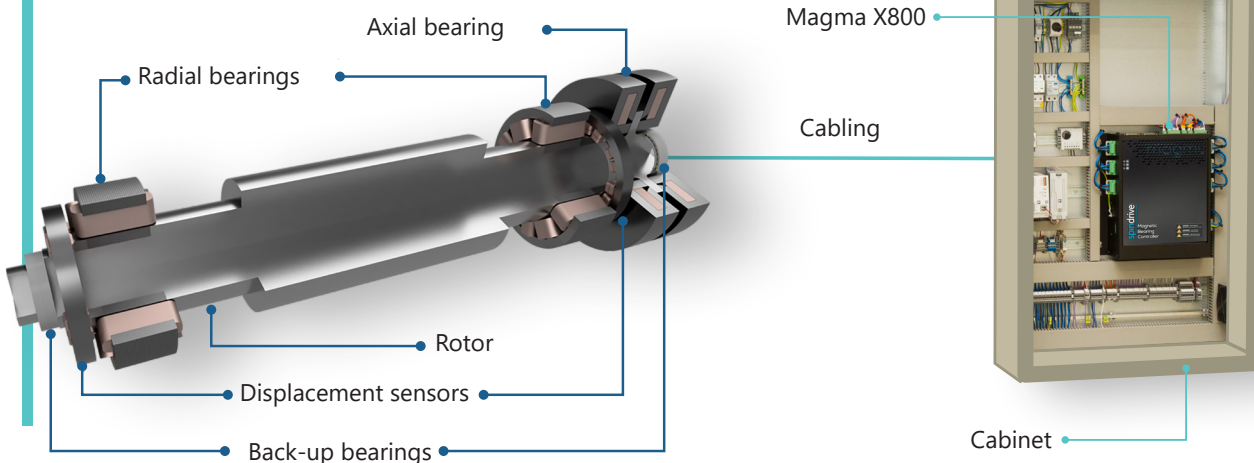
MAIN BENEFITS

- Automated and remote commissioning reducing time to market and personnel costs
- Digital twin control model to automatically adjust to the system changes during the lifetime
- Suitable for retrofit
- One unit fits wide range of products

DIMENSIONS



AMB SYSTEM LAYOUT EXAMPLE

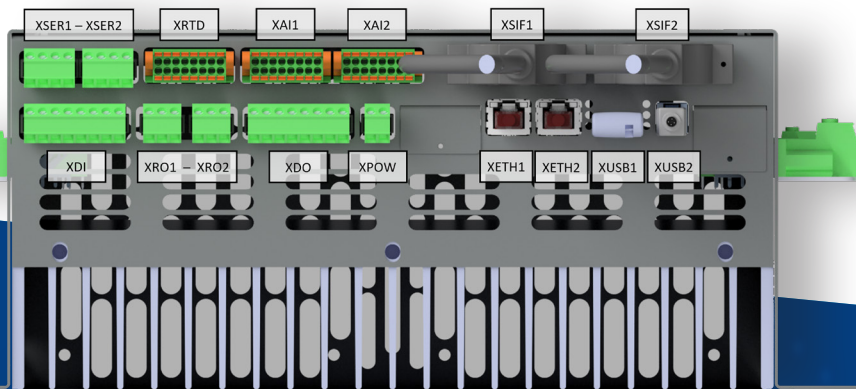


KEY TECHNICAL DATA

12-channel magnetic bearing controller	3680 VA per channel (continuous)
Input voltage range	100 V AC ... 250 V AC (-15% ... +10%) 110 V DC ... 250 V DC (-18% ... +40%)
AC Frequency range	45 Hz ... 65 Hz
Choice of suitable circuit breakers (AC)	16 A, B-curve
Amplifier output voltage range	0V ... 230V (rms)
Amplifier continuous output current	0A ... 16A (rms)
Maximum amplifier output current	±22A (peak, <10s), ±28A (trip limited)
Amplifier voltage modulation	3-level PWM, 16kHz voltage modulation rate
Dimensions (L/W/H)	397 mm/370 mm/158 mm
Mass	15 kg
IP classification	IP20
Digital Communication Interface	2 Ethernet (1000BASE-T): OPC UA, MODBUS, TCP/IP
Inputs	6 digital, 12 analogue, 8 RTD (PT-100)
Outputs	7 digital, 2 relay
Ambient temperature	0°C ... 40°C (up to 55°C with derating)
Approvals	CE, LVD (EN 61800-5-1), EMC (EN 61800-3), RoHS, REACH



COMMUNICATION INTERFACES



XAC	External AC input (230VAC / 16A)
XO1-XO6	Power Output (230V / 16A)
XPOW	External power input (24V / 4A)
XDC	External DC input (325VDC / 12A)
XDI	Digital Inputs, Isolated/floating inputs (+24 V DC, EN 61131-2, Type 3, PELV), DI5 & DI6 high speed inputs for RPM-sensor
XDO	Digital Outputs (+24 V DC I/O levels, PELV), DO7 high speed output for RPM-sensor pass-through
XRO1-XRO2	Relay Output (250 V AC / 30 V DC 2 A) - SPDT 1 Form C, dry contact
XSER1-XSER2	RS-485 connection (use external termination when required)
XAI1-XAI2	Analog Inputs (10V .. -20V), 10kOhm input impedance, not isolated), PELV
XRTD	RTD Inputs (PT100, not isolated), PELV
XETH1-XETH2	Gigabit Ethernet 1000BASE-T (10/100/1000), RJ45/8P8C
XUSB1-XUSB2	USB 2.0/3.0, Type-A/Type-B

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