



MAGNUM 400®



STAND ALONE BRUSHLESS SERVODRIVE

MAGNUM 400®

Stand alone full digital servodrive 380÷480 Vac power supply range. Direct off-line. Driving motor ranges up to 32 Nm encoder or resolver feedback.

STANDARD FEATURES

- ✓ 380÷480 Vac power supply with EMC line filter and in-rush circuit on-board
- ✓ Regen circuit with internal power resistors
- ✓ **Speeder-One**® software interface (Windows 98/2000/XP based)
- ✓ Parameter setting by four keys on the front panel or RS232 (optoisolated)
- ✓ Optical isolation between power stage and signals
- ✓ Feedback modes: - resolver (2-4-6-8 poles) sw encoder emulation
- encoder (max 250 KHz) sw divideble encoder emulation

OPTIONS

- ✓ **CBMD CAN BUS** - CAN V2.0B (°f) + RS232 to CAN BUS multidrop
CAN OPEN protocol implementations: DS301-V4.02 - DSP402-V2.0
- ✓ **RS 485** interface, Mod Bus-RTU based (°f), 230 kbps max
- ✓ **ER** Encoder and Resolver feedbacks (both)
- ✓ Boosted dumping resistors (external)
- ✓ **SEF** Safety Enable Function
- ✓ **RXDB** Black-out dynamic brake function (with internal power resistor)
- ✓ **HBD** Internal Holding Brake Drive Circuitry

SPECIFICATIONS

- ✓ Nominal switching frequency: 8 KHz
- ✓ Output frequency: 0 ÷ 500 Hz
- ✓ Current loop bandwidth: 2 KHz
- ✓ Velocity loop bandwidth: 200 Hz
- ✓ Operating mode
 - Velocity reference (differential): ±10 Vdc (15 bit resolution)
 - Pulse /direction (for stepper motor control)
 - Torque control
 - Position control
 - Encoder follower
- ✓ 9 opto-isolated digital inputs: 24 Vdc - 7mA (PLC compatible)
- ✓ 2 opto-isolated digital outputs: 24 Vdc - 50mA max (PLC compatible)
- ✓ 2 analog outputs (programmable)
- ✓ Motor current monitor: ±10Vdc (at peak current)
- ✓ Motor speed monitor: ±10Vdc (at max speed)
- ✓ Relé ok output contacts: 30 VAC/DC - 500 mA max
- ✓ Ambient temperature
 - operating at rated data: 0 ÷ 45°C (no derating)
 - rated and peak current derating: 45 ÷ 55°C (2.5% / °C)
 - maximum operating: 55°C max
 - storage: -20 ÷ 55°C
- ✓ Humidity (w/out condensation): 85% max (operating & storage)
- ✓ Altitude A.M.S.L.
 - operating at rated data: 1000 m
 - rated and peak current derating: 1000 ÷ 2500 m (1.5 %/100m)
- ✓ Enclosure protection: IP20
- ✓ Storage duration: 1 year max*



Typical Applications are:
Conveyors, Medical, Textile Equipment,
Packaging Machinery, Positioners,
Converting Machinery, Feeders.

ACCESSORIES (see specific data sheets for details)

- ✓ **SERVOMOTORS:**
 - SUPER SAX: 0.35÷30 Nm
- ✓ **MOTOR CABLES:**
 - CBLS: pre-assembled shielded power and feedback cables
- ✓ **MOTOR CHOKE:**
 - LXT: for power cable longer than 25 m
- ✓ **EXTERNAL REGEN RESISTORS**

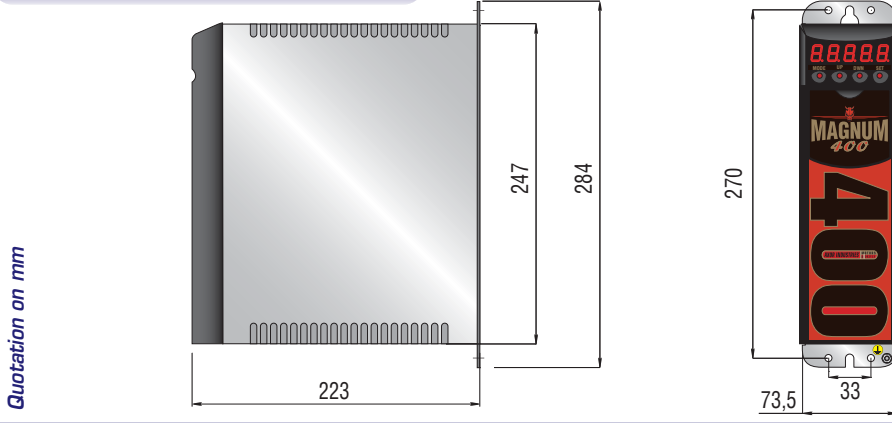
NOTE:

*: After 1 year storage duration the internal electrolytic power capacitors must be re-formed. Contact Axor's technical department for details.

MODEL	MAGNUM 400					
SIZE	1.5 / 3	3.5 / 7	7 / 14	10 / 20	14 / 28	20 / 40
Rated Current (Arms)	1.5	3.5	7	10	14	20
Peak Current (Arms) x 5 sec.	3	7	14	20	28	40
F1: Supply Line Fuses (T-type = time-lag)	4A / 500V	6A / 500V	8A / 500V	10A / 500V	16A / 500V	20A / 500V
Power Supply (3PH) (grounded systems only)	3 x 380 VAC (-10%) ÷ 480 VAC (+10%) 50/60 Hz (single-ph 230 Vac permitted for setup only)					
Logic Supply (from insulating transformer)	24 Vdc (-0% +15%) - 1 Adc (3 Adc with brake)					

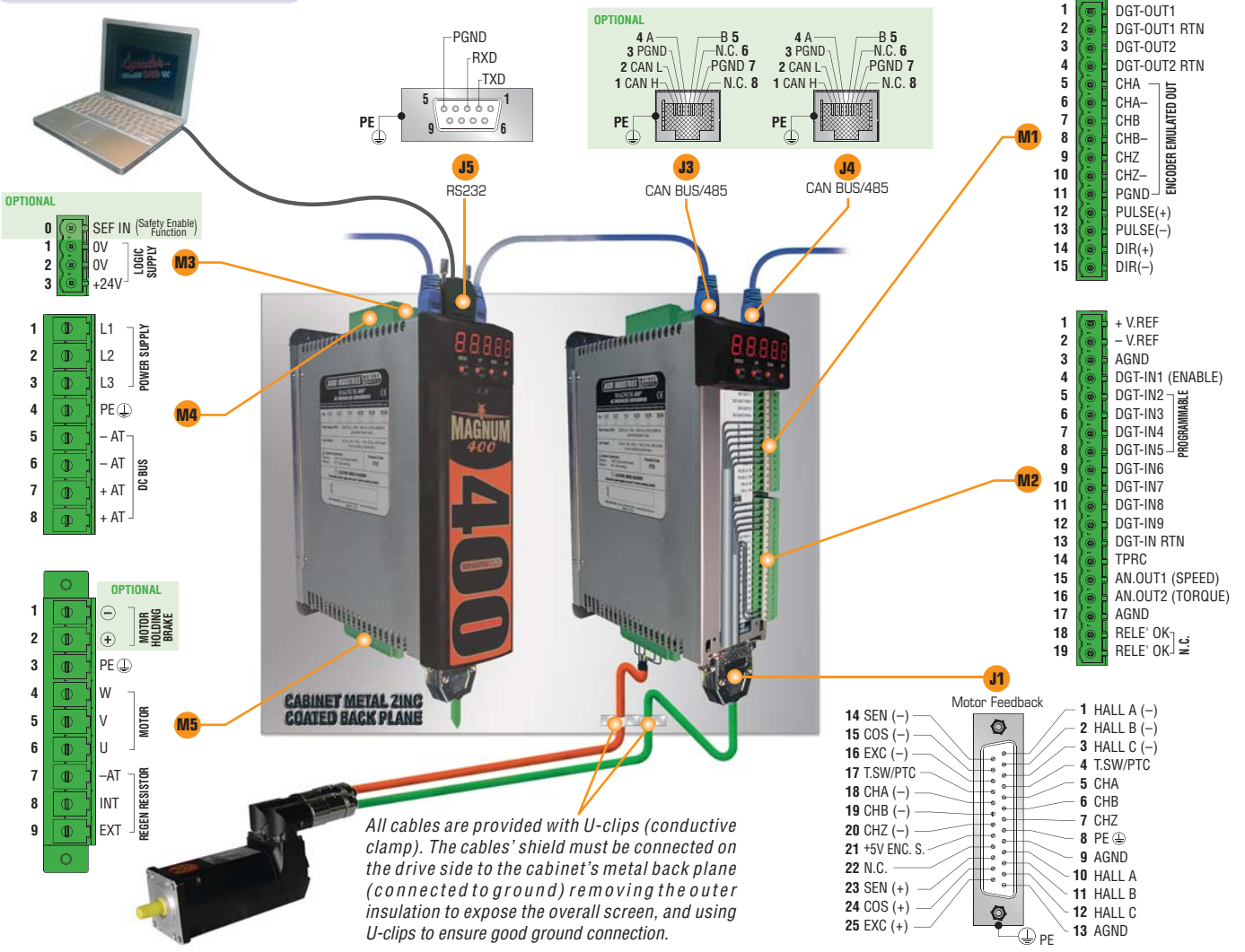
Drawings are not to scale

MECHANICAL DIMENSIONS



REFERENCES	WEIGHT
MAGNUM 400	
SIZE	kg
1.5 / 3	4.2
3.5 / 7	
7 / 14	
10 / 20	4.6
14 / 28	
20 / 40	

CONNECTION DIAGRAM



ORDERING CODE

Example: **M 400 - 20/40 - RXX - S - RO - 0000X - XX - Sxxx 00000 / 00000**

HARDWARE		SOFTWARE	
NAME: Drive model	FEEDBACK: RO = Resolver EC = Encoder ER = Encoder or Resolver (both)	ADDITIONAL FEATURES: 0 0 0 0 0 X Not in use	EXPANSION CARDS: XX = Not present (std)
SIZE: 1.5/3 3.5/7 7/14 10/20 14/28 20/40	PROTECTION: S = Standard T = Tropicalized	CBMD CAN BUS+ MULTIDROP interface 1= Present (opt) 0= Not present (std)	FIRMWARE VERSION
DUMPING SIZE: RXX = Internal standard resistor R05 = 500W external resistor (opt) 66Ω (for 1.5 / 3 to 7 / 14 sizes) 33Ω (for 10 / 20 to 20 / 40 sizes) R10 = 1000W external resistors (opt) 33Ω + 33Ω 500W (for 1.5 / 3 to 7 / 14 sizes) 66 Ω // 66Ω 500W (for 10 / 20 to 20 / 40)	RS485 Interface 1= Present (opt) 0= Not present (std)	HBD Holding Brake Drive 1= Present (opt) 0= Not present (std)	SETTING FILE
	SEF Safety Enable Function 1= Present (opt) 0= Not present (std)	Specific Number Presence (opt): S xxx 001-999= specific number	



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Part number: D.S./03.09./M400/05