



Mini Magnum

(MM)

SMALL PACKAGE BRUSHLESS SERVO DRIVE

Very compact full digital servodrive 110÷480 Vac power supply range. Driving motor ranges up to 7.5 Nm, encoder or resolver feedback. Typical applications are: Axis Controlled by CNC.



STANDARD FEATURES

- 110÷480 Vac power supply
- EMC line filter and in-rush circuit on board
- Regen circuit with internal power resistor
- **Speeder-One®** software interface (Windows 98/2000/XP based)
- Parameter setting by four keys on the front panel or RS232 (opto)
- Shielding cable connection directly to the front panel
- Optical isolation between power stage and signals
- Feedback from encoder (max 250 KHz) dividble encoder emulation (sw)

OPTIONS

- **R0** Feedback from resolver (2-4-6-8 poles) encoder emulation (sw)
- **CBMD** CAN BUS - CAN V2.0B (°⚡) + RS232 to CAN BUS multidrop CAN OPEN protocol implementations: DS301-V4.02 - DSP402-V2.0
- **RS 485** interface, Mod Bus-RTU based (°⚡), 230 kbps max
- **ER** Encoder and Resolver feedbacks (both)
- **R05/R10** Boosted dumping resistors (external)
- **SEF** Safety Enable Function (according to EN954-1/cat.3)
- **RXDB** Black-out dynamic brake function (with internal power resistor)
- **M3 I/O** Inputs/Outputs additional functions
- **HBD** Holding Brake Drive Card
- Switching frequency 16 KHz (30% current derating)
- **230 M:** 110÷230 Vac single PH power supply

SPECIFICATIONS

- Nominal switching frequency: 8 KHz
- Bandwidth: 2 KH (current) - 200 Hz (velocity)
- Operating mode
 - Velocity reference (differential): ±10 Vdc (15 bit resolution)
 - Pulse /direction (for stepper motor controls)
 - Position control
- 4+5 opto-isolated digital inputs: 24 Vdc - 7mA (PLC compatible)
- 1+1 opto-isolated digital outputs: 24 Vdc - 50mA max (PLC compatible)
- 2 analog outputs (programmable) ±10Vdc (at peak current/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

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



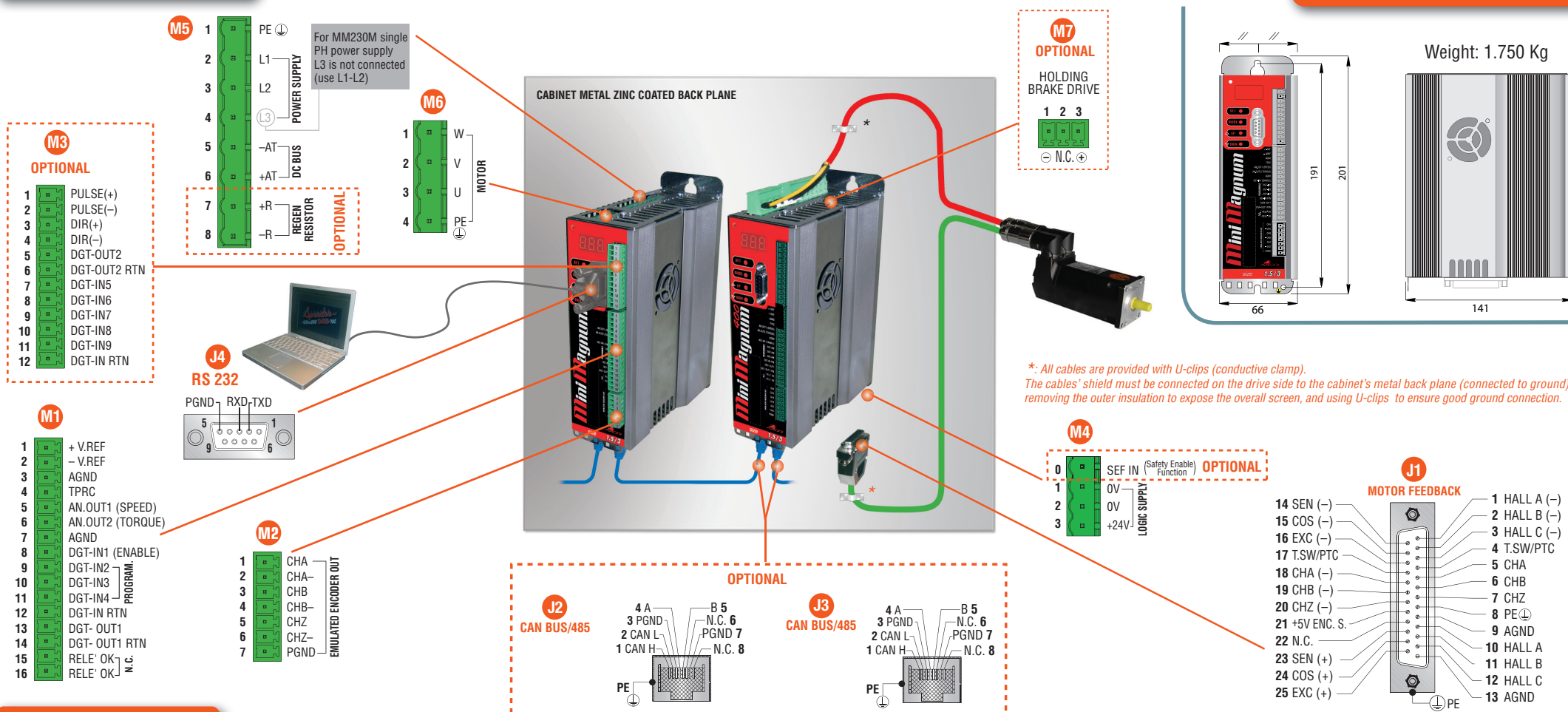
MODEL	MINI MAGNUM 400 T			MINI MAGNUM 230 T			MINI MAGNUM 230 M		
SIZE	1.5 / 3	3.5 / 7	6 / 12	1.5 / 3	3.5 / 7	6 / 12	1.5 / 3	3.5 / 7*	6 / 12*
Rated Current (Arms)	1.5	3.5	6	1.5	3.5	6	1.5	3.5	6
Peak Current x 5 [”] (Arms)	3	7	12	3	7	12	3	7	12
F1: Supply Line Fuses (T-type = time-lag)	4A / 500V	6A / 500V	10A / 500V	3A / 250V	5A / 250V	8A / 250V	3A / 250V	5A / 250V	8A / 250V
Power Supply 50/60 Hz (grounded sys. only)	3x380VAC (-10%) ÷ 480VAC (+10%)			3x110VAC (-10%) ÷ 230VAC (+10%)			1x110VAC (-10%) ÷ 230VAC (+10%)		
Logic Supply (from insulating transformer)	24 Vdc (-0%+15%) - 1 Adc (2 Adc with brake)								

*: Single phase does not allow you to obtain the rated performances (torque and speed of motor). Contact Axor's technical department for details.

CONNECTION DIAGRAM

Quotation on mm

MECHANICAL DIMENSIONS



ORDERING CODE

MM	400T - 3.5 / 7 - RXX - S - R0	HARDWARE CODE	0 0 0 0 X	0 X	SOFTWARE CODE	00000 / 00000
NAME: drive model		ADDITIONAL FEATURES:		EXPANSION CARDS:		
POWER SUPPLY:		CBMD		Not in use		
400T = 380 ÷ 480 VAC 3PH (std)		CAN BUS+MULTIDROP Interface		HBD		
230T = 110 ÷ 230 VAC 3PH (std)		1 = Present (opt)		Holding Brake Drive		
230M = 110 ÷ 230 VAC 1PH (opt)		0 = Not present (std)		1 = Present (opt)		
SIZE: 1.5/3 3.5/7 6/12		RS485 Interface		0 = Not Present (std)		
DUMPING SIZE:		1 = Present (opt)		SEF Safety Enable Function		
RXX = Internal standard resistor		0 = Not present (std)		1 = Present (opt)		
R05 = 500W-66Ω external resistor (opt)		RXDB Black Out dynamic brake		0 = Not Present (std)		
R10 = 1000W-33Ω+33Ω 500W external resistors (opt)		1 = Present (opt)		SPECIFIC NUMBER PRESENCE (opt):		
		0 = Not present (std)		001÷999 = specific number		
PROTECTION:					FIRMWARE VERSION	SETTING FILE
S = Standard						
T = Tropicalized						
FEEDBACK:						
R0 = Resolver						
EC = Encoder						
ER = Encoder or Resolver (both)						