



# MICRO B NET Digital®

## AC BRUSHLESS SERVODRIVE



### MICRO B NET Digital® (MCBNetD)

Digital Stand alone brushless servodrive for AC sinusoidal Ssax1000® servomotors up to 7.5 Nm encoder and resolver feedback

Typical Applications are : Conveyors, Medical, Textile Equipment, Packaging Machinery, X-Y Stages, Automated Assembly Machinery, Robotics, Component Insertion Machines.

#### STANDARD FEATURES

- ✓ Cost effective, compact design, ease to install and use
- ✓ On-Board 3 PH. power supply 110/230 Vac with EMC line filter
- ✓ Optical isolation between power stage and signals
- ✓ Three phase sinusoidal-four quadrant operation
- ✓ Fully programmable via RS232, Mod Bus-RTU Based
- ✓ Speeder-One® software interface (windows 98/2000/XP based)
- ✓ Two motor feedback modes:
  - from resolver (2-4-6-8 poles) with encoder emulation (software)
  - from encoder (max 250 KHz) with emulation resolution divided (software)

#### OPTIONS

- ✓ Single phase power supply
- ✓ RS485 (° / Optocoupled ) Mod Bus - RTU based, 230 Kbps max
- ✓ CAN BUS - CAN V2.0B standard (° / Optocoupled )
- ✓ CAN OPEN protocol implementations:
  - part of the DS301-V4.02
  - part of the DSP402-V2.0
- ✓ Multidrop interface RS232 to CAN BUS
- ✓ Boostered dumping resistor 200 W (external)

#### SPECIFICATIONS

- ✓ Operating frequency 10 (KHz)
- ✓ Operating temperature 0 ÷ 40 °C (at rated data)
- ✓ Storage temperature -20 ÷ 55 °C
- ✓ Humidity (w/out condensation) 85% max (operating & storage)
- ✓ Operating altitude A.M.S.L. 1000 m.(2500 m.max. Derating=22%)
- ✓ Motor current monitor ±10 Vdc (at peak current)
- ✓ Motor speed monitor ±10 Vdc (at 200 KHz-encoder feedback)
- ±10 Vdc (at 6 KRpm-2p-resolver feedback)
- +14 Vdc @ 50mA
- ✓ Output voltage supply
- ✓ Operating mode:
  - Analog speed (differential) ±10 Vdc (15 bit resolution)
  - Pulse/direction (for stepper motor controls)
  - Torque control
  - Position control
  - Encoder follower
- ✓ 9 digital input opto-isolated 24 Vdc-7mA (PLC compatible)
- ✓ 2 digital output opto-isolated 24 Vdc-50mA max (PLC compatible)
- ✓ 2 analog output (programmable)
- ✓ Enclosure protection IP20
- ✓ Storage duration 1 year max\*



#### DESCRIPTION

The MCBNet Digital® amplifier, is a really compact stand alone four quadrant converter with sinusoidal wave suitable for driving Ac Brushless Servomotors. Comes complete with its own internal power supply with EMC line filter, dumping circuit and detachable plug-in terminals for easy installation. The power stage is made by power Mos-fet or IGBT.

#### ACCESSORIES

- (see specific data sheets for details)
- ✓ SERVOMOTORS
    - Ssax 1000: 0.35÷7.5 Nm
  - ✓ MOTOR CABLES
    - CBLS: pre-assembled shielded power and feedback cables
  - ✓ PLANETARY GEARBOXES
    - Rex 1000: 4 flange sizes
    - Ratios 3/1 to 100/1
    - 5' standard backlash

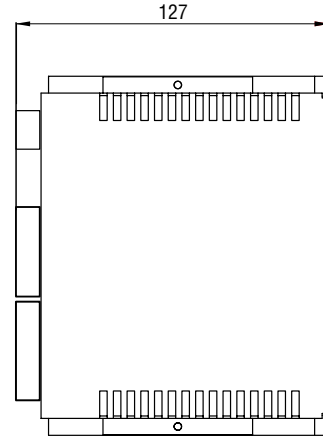
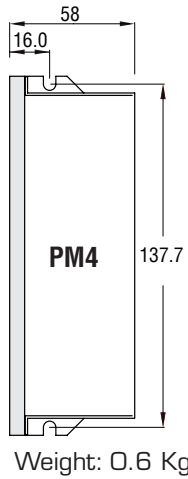
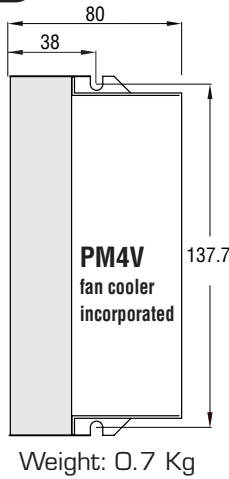
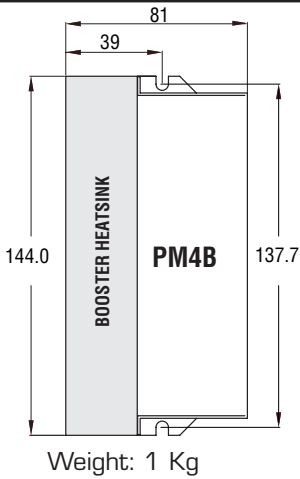
\*: After 1 year storage duration the internal electrolitic power capacitors must be re-formed. Contact Axor's technical department for details.

MODEL	MCB NET D (° / Optocoupled)			
SIZE	2/4	4/8	6/12	8/16
Case	PM4	PM4	PM4B	PM4V
Rated Current (Arms)	2	4	6	8
Peak Current (Arms) x 2 sec.	4	8	12	16
F2: Supply Line Fuses (T-type=time-lag)	3 A / 250 V	5 A / 250 V	8 A / 250 V	10 A / 250 V
Power Supply (3PH)	3 x 110 Vac -10% ÷ 230 Vac (+10%) 50/60 Hz - (single phase as optional feature)			
Logic Supply (auxiliary for back-up only)	24 Vdc (±10% - 200mA)			

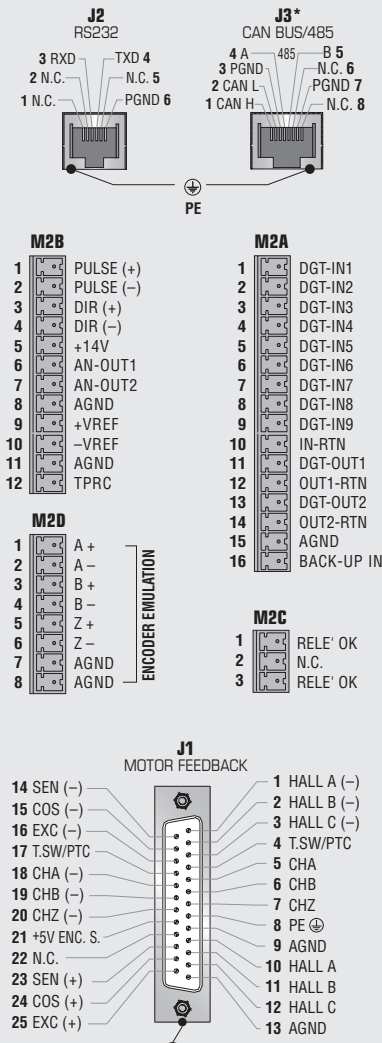
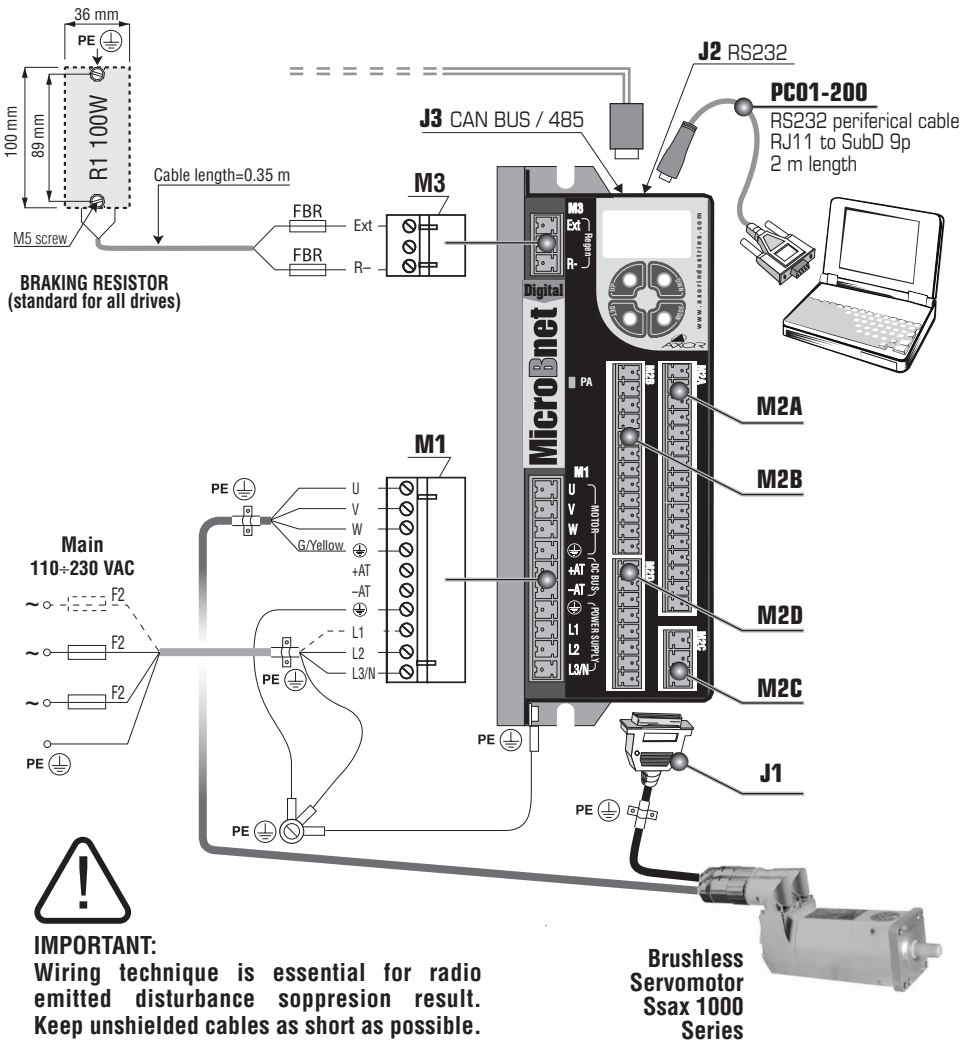
Drawings are not to scale

## MECHANICAL DIMENSIONS

Quotation on mm



## CONNECTION DIAGRAM



**ORDERING CODE** MCB NET D - 8 / 16 T - R1 - S - 1000 / EC - XXXX

**NAME:** Line of Ac brushless servodrive  
**TYPE:** D=digital  
**SIZE:** 2/4 - 4/8 - 6/12 - 8/16  
**POWER SUPPLY MODE:**  
 T = Three phase (std)  
 M = Single phase (opt)  
**DUMPING SIZE:**  
 R1 = 100W external resistors (std)  
 R2 = 200W external resistors (opt)

**PROTECTION:**  
 S= Standard  
 T= Tropicalized

**AXOR:**  
 Adjustment identification number

**ADDITIONAL FEATURES:**  
 XXXX = no options (std)  
 R485 = RS485 interface  
 CBUS = CAN BUS/CAN OPEN  
 MDRP = Multidrop interface (RS232 to CAN BUS)

**FEEDBACK:**  
 EC = Commutation encoder  
 RO = Resolver  
 EH = Encoder+external hall