



# MICRO B NET Digital

## AC BRUSHLESS SERVODRIVE



### MICRO B NET Digital® (MCBNetD)

Digital Stand alone brushless servodrive for AC sinusoidal servomotors up to 6 Nm (856 oz.-in.) 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

- ✓ Surface Mount Technology
- ✓ Cost effective, compact design, ease to install and use
- ✓ On-Board single ph. power supply 110/230 VAC with EMC line filter
- ✓ Optical isolation
- ✓ Three phase sinusoidal- four quadrant operation
- ✓ Can Bus / RS232
- ✓ Available software interface (windows 95/98 based)
- ✓ Two velocity feedback modes:
  - from resolver (2 - 4 - 6 - 8 poles) encoder emulation (opto isolated)
  - encoder feedback (max 250 KHz) emulation resolution divided by 1 - 2 - 4 - 8 - 16 - 32 - 64 - 128 (IAW original) (opto isolated)
- ✓ Digital display indicating operating status
- ✓ Fully protected against:
  - external short circuit (motor polarity)
  - over/under voltage (supply) / overtemperature
  - absence or improper connection of speed feedback
- ✓ Wide load inductance range (0.5 - 30 mH)
- ✓ Extractable screw terminal
- ✓ Differential encoder input

#### SPECIFICATIONS

- ✓ Supply voltage range 110÷230 VAC (150÷380) Vdc
- ✓ Operating frequency 22 (KHz)
- ✓ Operating temperature 0 ÷ 40 °C (32÷104°F)
- ✓ Motor current monitor ±5 Vdc (at peak current)
- ✓ Motor speed monitor ± 8 Vdc (at max velocity)
- ✓ Output supply for encoder +5V @ 250 mA
- ✓ Output voltage supply +14 Vdc @ 50mA
- ✓ Auxiliary external supply voltage +24 Vdc (for back-up only)
- ✓ Operating mode:
  - ±10V velocity control (32 bit)
  - Pulse/direction input (for stepper motor controls)
  - Torque control
  - Position control
  - Encoder follower
- ✓ 8 digital input opto isolated (10 ÷ 30 Vdc)
- ✓ 2 digital output opto isolated (5 ÷ 30 Vdc)



#### 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÷32 Nm
  - Ssax 2000: 0.35÷17 Nm
- ✓ GERABOXES
  - Rex 100: 5 flange sizes
  - R ratios 1/3 ÷ 1/216

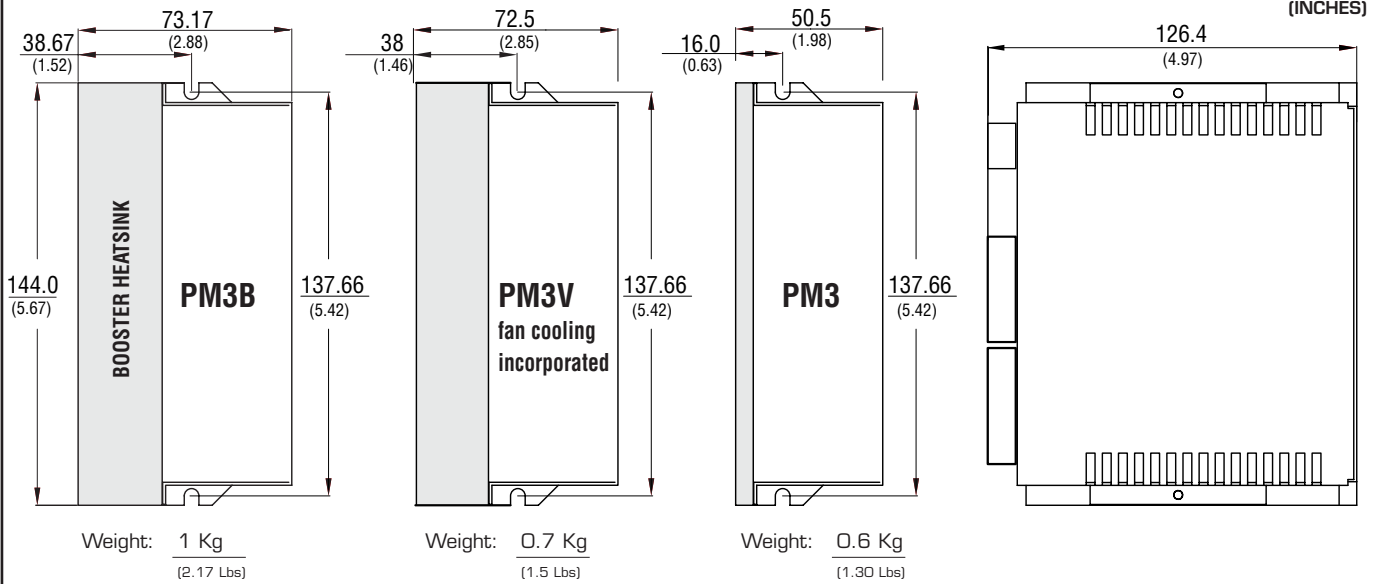
MODEL	MCB NET D°				
	1/2	2/4	4/8	6/12	8/16
<b>SIZE</b>					
<b>Case</b>	PM3	PM3	PM3	PM3B	PM3V
<b>Rated Current</b> (Arms)	1	2	4	6	8
<b>Peak Current</b> (Arms) x 2 sec.	2	4	8	12	16
<b>F2: Supply Line Fuses</b> (T-type=time-lag)	3 A / 250 V	3 A / 250 V	5 A / 250 V	8 A / 250 V	10 A / 250 V
<b>Supply</b> (VAC) (1PH)	<b>110 ÷ 230 Vac ^</b>				

^: Recommended AC power supply range °: Optocoupled

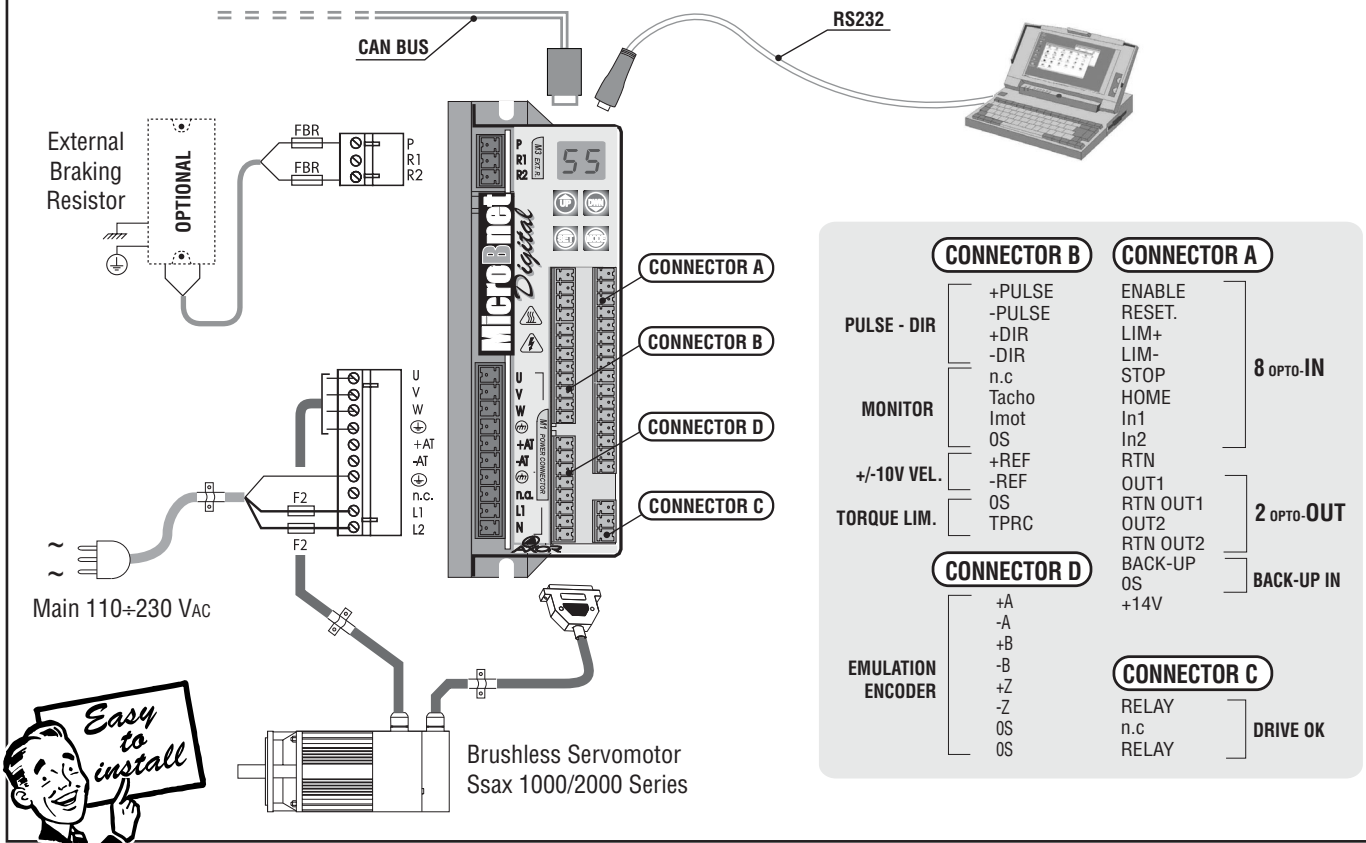
D.S./03.03/MCBNetD/01 Part number

Drawings are not to scale (see quotations)

## MECHANICAL DIMENSIONS



## CONNECTION DIAGRAM



Specifications subject to change without notice. This document has been carefully checked. However, Axor does not assume liability for errors or inaccuracies.

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### ORDERING CODE

Example:

**MCB NET D - 8/16 - R1 - S - D - 1000 / EC - RD - IS**

**NAME:** Line of Ac brushless servodrive

**SIZE:** 2/4 - 4/8 - 6/12 - 8/16

**DUMPING SIZE:**

**R1** = 200W external resistors (optional)

**TYPE:**  
D= Digital

**AXOR:**  
adjustment identification number

**CONTROL MODE:**  
RD = Differential reference  
IO = Demand current

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

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

**ADDITIONAL FEATURES:**  
IS = Encoder emulation  
opto isolated (optional)



address: **viale Stazione,5**  
**36054 Montebello Vic.no**  
**Vicenza - Italy**  
phone: **(+39) 0444 440441** (8 lines)  
fax: **(+39) 0444 440418**  
web site: **www.axorindustries.com**  
e-mail: **info@axorindustries.com**

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