



# MICRO B<sup>®</sup>

## DC BRUSHLESS SERVODRIVE



### MICRO B<sup>®</sup> (MCB)

Micro Dc Brushless Servodrive for 60V servomotors up to 1.5 Nm (212 oz.-in.)

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

#### STANDARD FEATURES

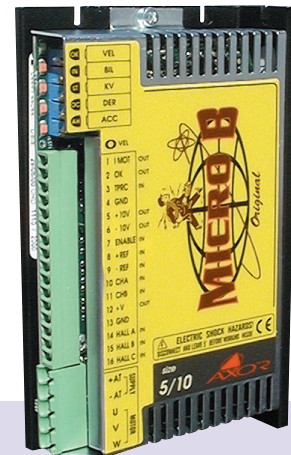
- ✓ Three phase trapezoidal brushless, four quadrant operation
- ✓ Panel mount
- ✓ Highly efficient and reliable power MOSFET output stage
- ✓ Single DC power supply
- ✓ Three velocity feedback modes:
  - Hall Feedback
  - Armature Feedback
  - Encoder Feedback + Hall Signals
- ✓ Ixt function
- ✓ Five LED (Red/Green) indicating operating status
- ✓ Fully protected against:
  - External short circuit - Over/under voltage
  - Overtemperature - Hall Signal absence
- ✓ Wide load inductance range (1 - 30 mH)
- ✓ 60/120 degree commutation phase setting
- ✓ Four adjusting potentiometers
- ✓ Extractable screw terminals
- ✓ Enable input available with both positive/negative logical levels

#### OPTIONS

- ✓ PWM+Direction mode

#### SPECIFICATIONS

- ✓ Supply voltage range: 20÷82 Vdc
- ✓ Operating frequency: 20 KHz
- ✓ Operating temperature: 0÷40 °C (32÷104°F)
- ✓ Input reference (differential): ±10V
- ✓ Motor current monitor: ±7,5V (At peak current)
- ✓ Auxiliary output supply for encoder: +5V@130mA
- ✓ Enable signals: +10÷30Vdc
- ✓ Output voltage supply: +10V/-10V@4mA



#### DESCRIPTION

The MICRO B<sup>®</sup> drives have been designed as ultra compact modules, suitable for all industrial automation requirements. They are the ideal solution for incremental motion control, velocity loop and positioning systems which require fast response, high torque at low speed, smooth speed control and high reliability.

#### ACCESSORIES

(see specific data sheets for details)

- ✓ **SERVOMOTORS**
  - Ssax 1000/2000: 0.35÷1.3Nm (50÷186 oz.-in.)
- ✓ **GEARBOXES**
  - Rex 100: 5 flange sizes, R ratios 1/3÷1/216
- ✓ **POWER SUPPLY (stand alone)**
  - MPPlus: 63÷200 Vdc out, 30 Adc, 100÷800W braking power
- ✓ **TRANSFORMERS**
  - TM/TT: single/3ph 100÷8000 VA
- ✓ **NET FILTERS (for CE compliance)**
  - FRM/FRT: single/3ph, 2÷16 Arms

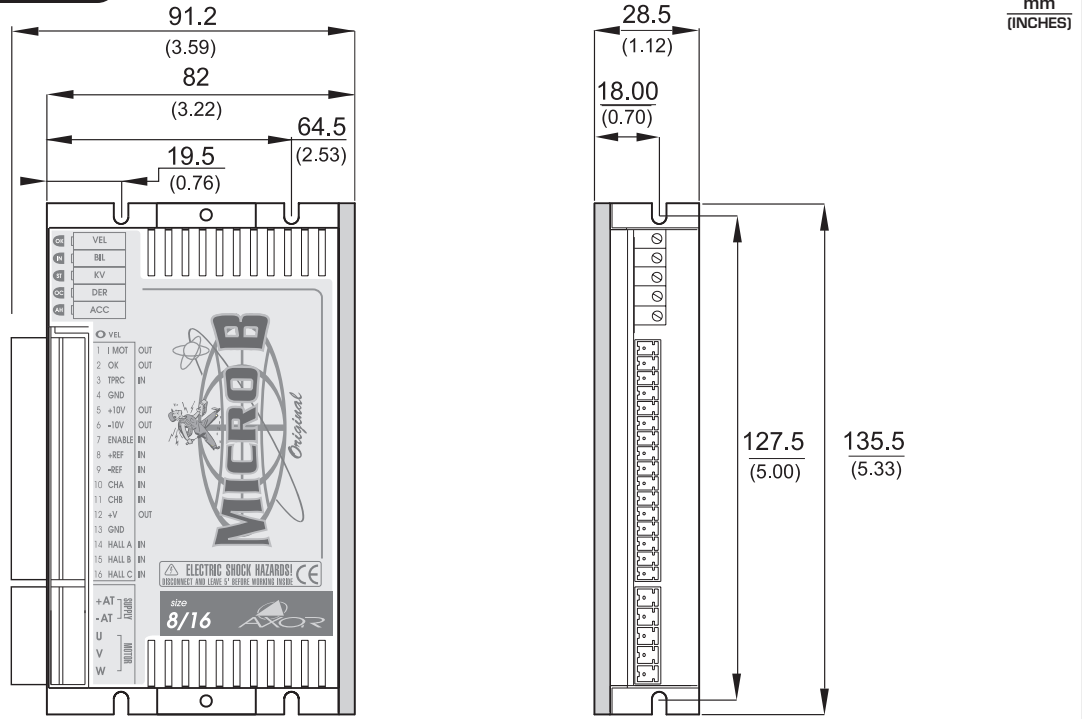
| MODEL                                    | MCB 60       |      |      |       |
|--|--------------|------|------|-------|
| SIZE (A)                                 | 2.5/5        | 5/10 | 8/16 | 10/20 |
| CASE                                     | PM1          | PM1  | PM1  | PM1   |
| Nominal Current (A <sub>dc</sub> )       | 2.5          | 5    | 8    | 10    |
| Peak Current (A <sub>dc</sub> ) x 2 sec. | 5            | 10   | 16   | 20    |
| FDC: Supply Line Fuse (type F, M or T)*  | 15 A / 250 V |      |      |       |
| Supply (V <sub>dc</sub> )                | 63 Vdc ▲     |      |      |       |

\*: FDC Fuse Type: F=Quick-acting M= Medium time-lag T=Time-lag

▲: Recommended DC power supply

Drawings are not to scale (see quotations)

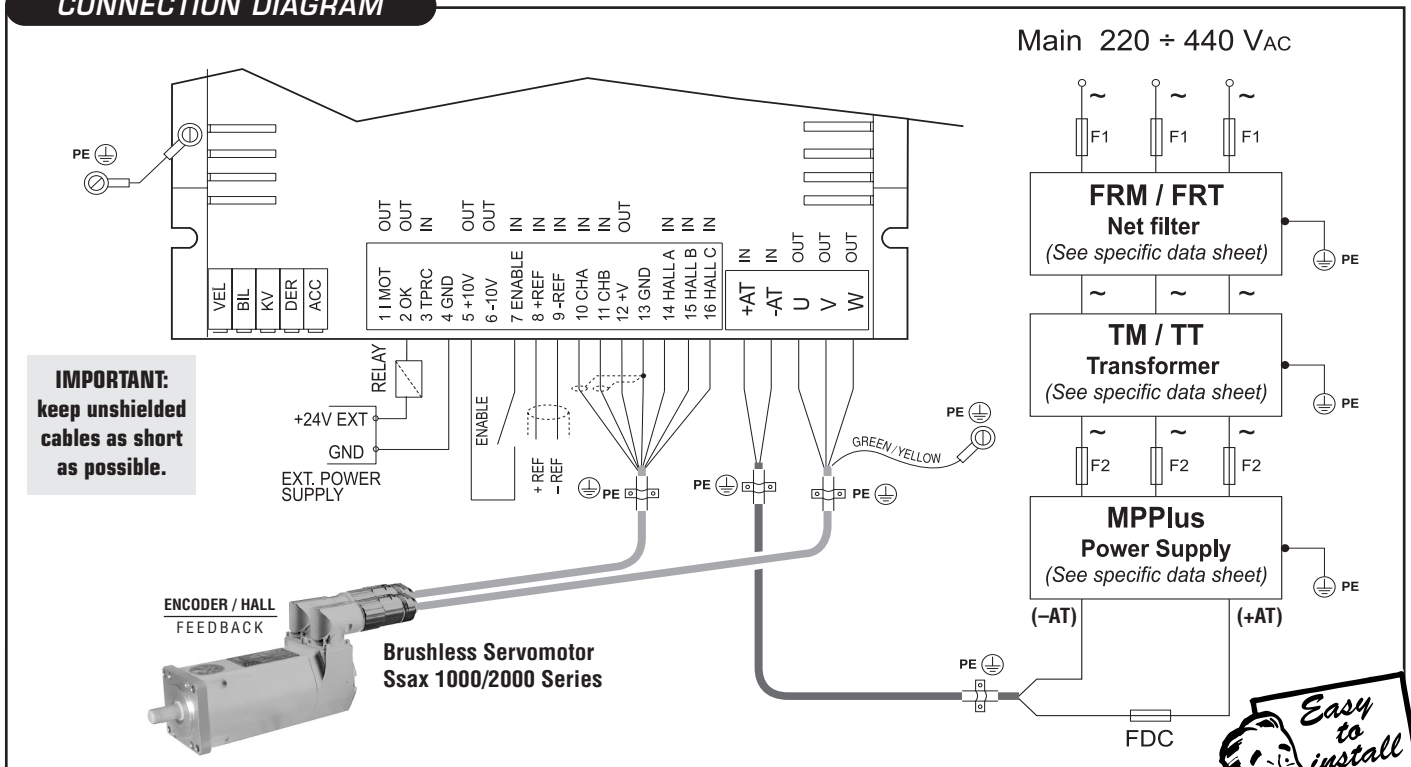
**MECHANICAL DIMENSIONS**



Weight: 0.35Kg

**CASE PM1 (Panel Mount "1")**

**CONNECTION DIAGRAM**



**ORDERING CODE**  
Example:

**MCB - 60 - 10 / 20 - N - S - 1000 / EC - RD**

**NAME:** Line of Brushless Servodrives

**AMPLIFIER TYPE:** 060

**SIZE:** 2.5/05 - 05/10 - 08/16 - 10/20

**HEATSINK VERSIONS:**  
N = Normal

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

**AXOR**  
adjustment  
identification  
number

**CONTROL MODE:**  
RD= Differential reference  
PD= PWM+Direct (option)  
IO = Demand current  
(torque mode)

**FEEDBACK:**  
AH = Armature+hall  
EH = Encoder+external hall  
HO = Hall (only)  
EC = Commutation encoder  
OO = No feedback adjustment  
(for IO and PD control modes)

Specifications subject to change without notice. This document has been car

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