

# MICRO B PLUS® (MCBPlus)

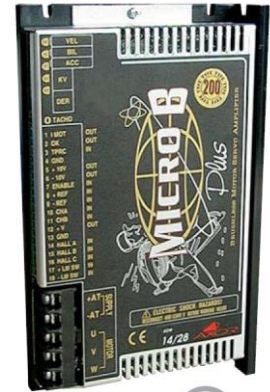
Small servodrive for Brushless servomotors up to 8 Nm (1150 oz-in).



Typical applications: Conveyors, Medical, Textile Equipment, Packaging 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
- ✓ Four velocity feedback modes:
  - Hall Feedback
  - Armature Feedback
  - Encoder Feedback + Hall Signals
  - PWM+DIR Feedback
- ✓ Five LEDs (Red/Green) indicating operating status
- ✓ Fully protected against
  - External short circuit (motor polarity)
  - Over/under voltage (supply)
  - Overtemperature, Hall Signal absence
- ✓ Wide load inductance range (0,2-30 mH)
- ✓ 120 degrees commutation phase setting
- ✓ Four adjusting potentiometers
- ✓ Extractable screw terminals (for signals only)
- ✓ Positive / Negative Limit Switches
- ✓ Enable input available with both positive/negative logical levels



## OPTIONS

- ✓ Resolver feedback
- ✓ Tachogenerator feedback
- ✓ Clock and direction mode for stepper drive replacement
- ✓ Encoder loss

## SPECIFICATIONS

Supply voltage range: (MCB PLUS 60) 20÷82 Vdc  
 (MCB PLUS 140) 40÷182 Vdc  
 (MCB PLUS 200) 55÷274 Vdc

Operating frequency: 22KHz

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/12V@250mA

Enable signals: +10 ÷ 30VDC

Output voltage supply : +10/-10VDC@4mA

## DESCRIPTION

The MICRO B Plus® Servodrives have been designed as ultra compact modules, 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)

- ✓ TRANSFORMERS
  - TM/TT: single/3ph, 100÷8000 VA
- ✓ NET FILTERS (for CE compliance)
  - FRM/FRT: single/3ph, 2÷16 Arms

MODEL	MCB PLUS 60		MCB PLUS 140						MCB PLUS 200							
	SIZE (A)		14/28	20/40	2.5/5	5/10	8/16	10/20	14/28	20/40	2.5/5	5/10	8/16	10/20	14/28	20/40
CASE	STANDARD	PM2	PM2 <sup>Ⓜ</sup>	PM2	PM2	PM2	PM2	PM2 <sup>Ⓜ</sup>	PM2 <sup>Ⓜ</sup>	PM2	PM2	PM2	PM2 <sup>Ⓜ</sup>	PM2 <sup>Ⓜ</sup>	PM2 <sup>Ⓜ</sup>	PM2B <sup>Ⓜ</sup>
	OPTION							PM2B					PM2B	PM2B		
Nominal Current (A <sub>dc</sub> )	14	20	2.5	5	8	10	14	20	2.5	5	8	10	14	20		
Peak Current (A <sub>dc</sub> ) x 2 sec.	28	40*	5	10	16	20	28	40*	5	10	16	20	28	40*		
FDC: Supply Line Fuse (type F, M or T) <sup>Ⓢ</sup>	15 A 250 V	25 A 500 V	15 A / 250 V						25 A 500 V	15 A / 250 V						25 A 500 V
Supply (V <sub>dc</sub> )	63 V <sub>dc</sub> <sup>▲</sup>		140 V <sub>dc</sub> <sup>▲</sup>						200 V <sub>dc</sub> <sup>▲</sup>							

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

Ⓜ: External forced cooling required  
 ▲: Recommended DC power supply

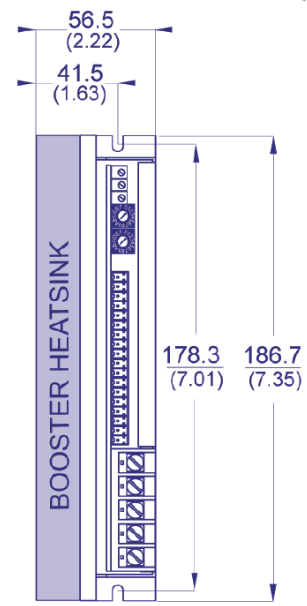
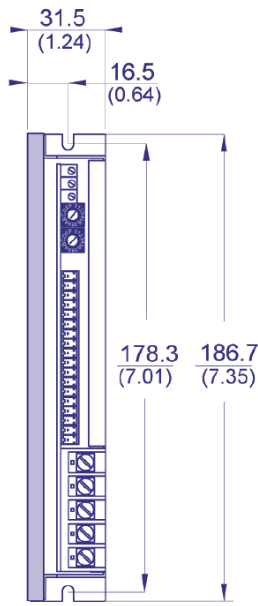
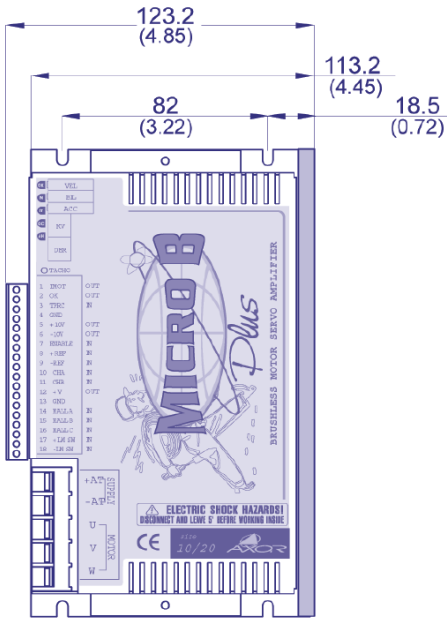
\*: Peak current= x 1second

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# MECHANICAL DIMENSIONS

Drawings are not to scale (see quotations)

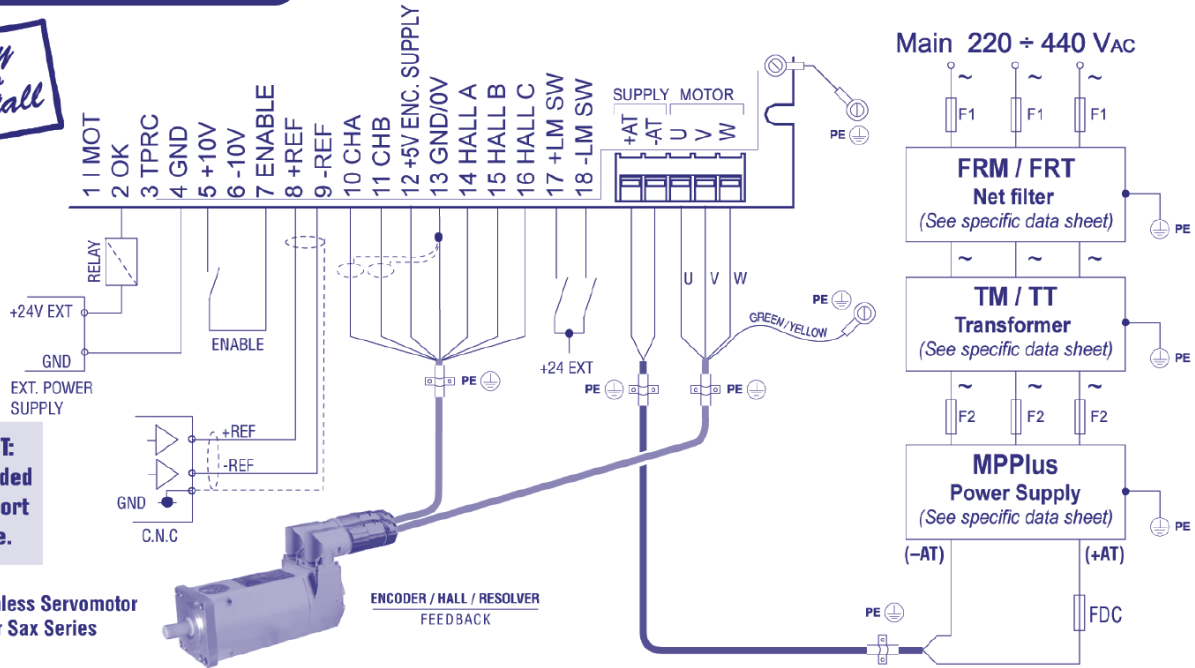
mm  
(INCHES)



**CASE PM2**  
(Panel Mount type "2")  
Weight: 0.8 Kg

**CASE PM2B**  
(Panel Mount type "2" with BOOSTER)  
Weight: 1.25 Kg

# CONNECTION DIAGRAM



**IMPORTANT:**  
keep unshielded  
cables as short  
as possible.

Brushless Servomotor  
Super Sax Series

ENCODER / HALL / RESOLVER  
FEEDBACK

ORDERING CODE  
Example:

**MCB Plus - 200 - 10 / 20 - N - S - 1000 / EC - RD - EL**

NAME: Line of DC Brushless Servodrive

AMPLIFIER TYPE: 060 - 140 - 200

SIZE: 2.5/05 - 05/10 - 08/16 - 10/20 - 14/28 - 20/40

Not available for MCB Plus 60

HEATSINK VERSIONS:  
N= Normal  
B= Booster (optional)

PROTECTION:  
S= Standard  
T= Tropicalized

AXOR:  
adjustment  
identification  
number

ADDITIONAL FEATURES:  
EL= Encoder loss (optional)

CONTROL MODE:  
RD= Differential reference  
CD= Clock+Direct (optional)  
PD= PWM+Direct (optional)  
IO = Demand current (torque mode)

FEEDBACK:  
AH= Armature+Hall  
EC = Commutation Encoder  
EH= Encoder+External hall  
HO= Hall (only)  
RO= Resolver (optional)  
OO = No feedback adjustment  
(for IO and PD control modes)