



MICRO B PLUS[®]

DC BRUSHLESS SERVODRIVE



MICRO B PLUS[®] (MCBPlus)

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

Typical applications are : 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
 - Encoder Feedback + Hall Signals
 - Armature Feedback
 - 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
- ✓ **UL** approval - FILE E211869 (see specific technical manual for details)

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)

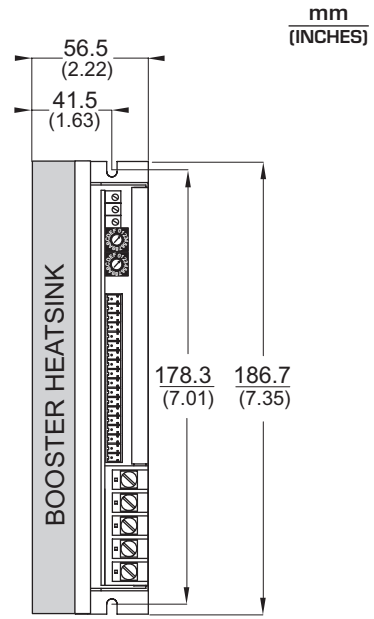
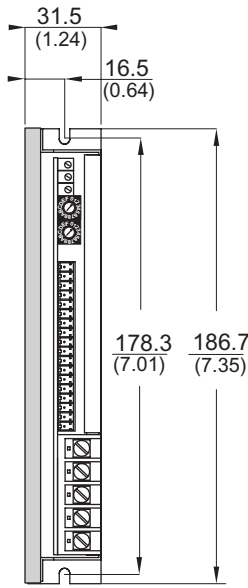
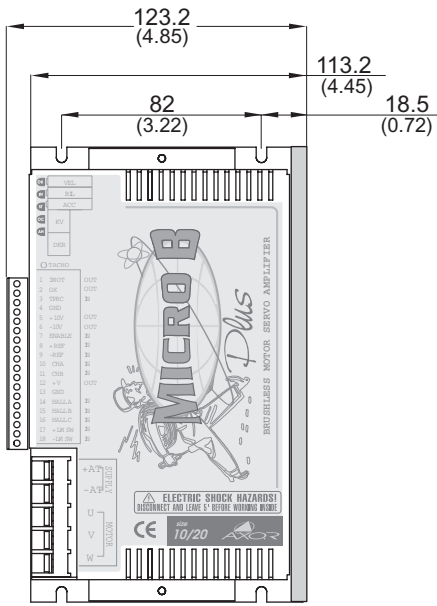
- ✓ SERVOMOTORS
 - Ssax 1000/2000: 0.35÷7,5 Nm (50÷1071 oz.-in.)
- ✓ GEARBOXES
 - Rex 100: 5 flange sizes, R ratios 1/3÷1/216
- ✓ POWER SUPPLY (stand alone)
 - MPPlus: 63÷200 Vdc out, 30 Adc, 100÷800 W braking power
- ✓ TRANSFORMERS
 - TM/TT: single/3ph, 100÷8000 VA
- ✓ NET FILTERS (for CE compliance)
 - FRM/FRT: single/3ph, 2÷16 Arms

| MODEL | MCB PLUS 60 | | MCB PLUS 140 | | | | | | MCB PLUS 200 | | | | | |
|---|---------------------|---------------|----------------------|------|------|-------|-------|------------------|----------------------|--------------|------|-------|-------|-------------------|
| | 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 |
| 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 | PM2 | PM2 | PM2 | PM2 | PM2 | PM2 | PM2 | PM2 | PM2 | PM2 | PM2 |
| | OPTION | | PM2 [Ⓐ] | | | | | PM2 [Ⓐ] | | | | PM2B | PM2B | PM2B [Ⓐ] |
| Nominal Current (A _{dc}) | 14 | 20 | 2.5 | 5 | 8 | 10 | 14 | 20 | 2.5 | 5 | 8 | 10 | 14 | 20 |
| Peak Current (A _{dc}) 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) [•] | 15 A 250 V | 25 A 500 V | 15 A / 250 V | | | | | | 25 A 500 V | 15 A / 250 V | | | | |
| Supply (V _{dc}) | 63 Vdc [▲] | | 140 Vdc [▲] | | | | | | 200 Vdc [▲] | | | | | |

[•]: 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

Drawings are not to scale (see quotations)

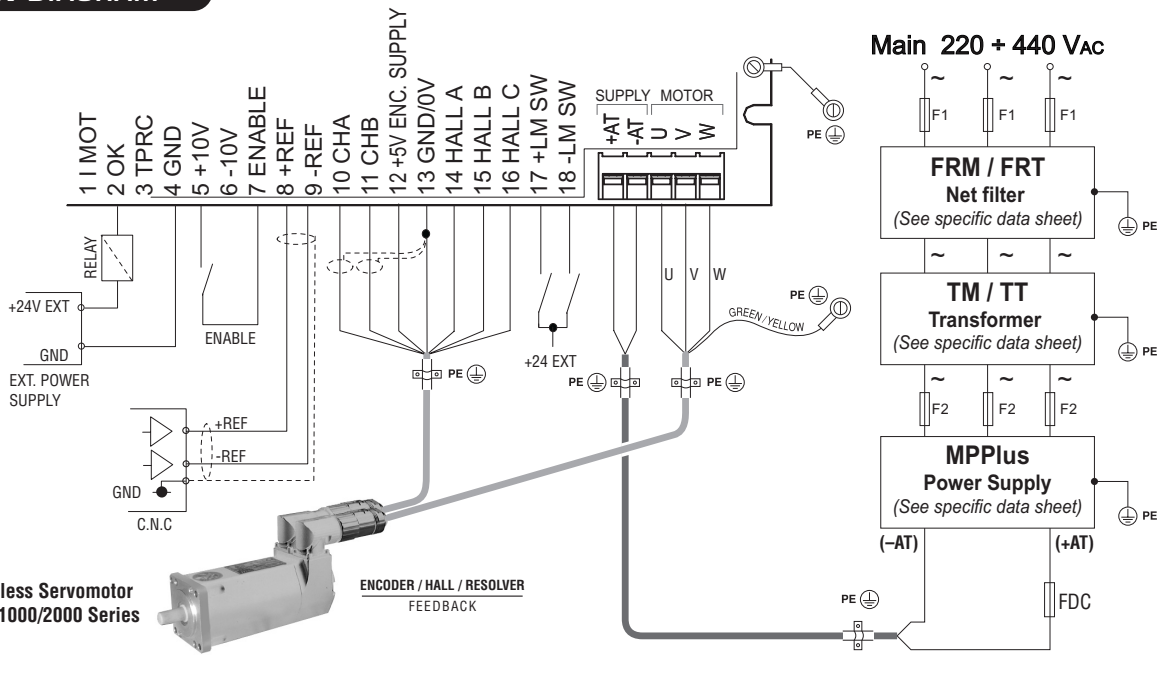
MECHANICAL DIMENSIONS



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
Ssx 1000/2000 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)
TA = AC Tachogenerator (optional)
OO = No feedback adjustment
(for IO and PD control modes)

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

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