



# MICROSPEED PLUS®

## DC SERVO AMPLIFIERS



### MICROSPEED PLUS® (MCSPPlus)

Very compact servo amplifier for DC servomotors.  
Driving range up to 11 Nm (1600 oz.-in.)

Typical applications are:  
Robotics, X-Y Tables, Medical Equipment,  
Textile Equipment, Conveyors, Graphic Machinery,  
Packaging Machinery, Positioners,  
Converting Machinery, Feeders.

#### STANDARD FEATURES

- ✓ Ultra compact design
- ✓ Extremely favorable cost to performance ratio
- ✓ Extremely suitable for personalization
- ✓ Simple installation and use
- ✓ SMT technology
- ✓ Panel mount
- ✓ Single DC power supply
- ✓ Armature feedback
- ✓ Tachogenerator feedback
- ✓ Torque mode (demand current)
- ✓ Positive / Negative Limit Switches

#### OPTIONS

- ✓ Encoder feedback
- ✓ PWM + DIR mode

#### SPECIFICATIONS

- ✓ Supply voltage range:
  - (MCS Plus 60) 20÷82 Vdc
  - (MCS Plus 140) 40÷182 Vdc
  - (MCS Plus 200) 55÷275 Vdc
- ✓ Operating frequency 22 KHz
- ✓ Operating temperature 0 - 40°C (32°-104°F)
- ✓ Input reference (differential) ±10Vdc
- ✓ Motor current monitor ±7.5V (At peak current)
- ✓ Auxiliary output supply for encoder (optional) +5V/+12V@250mA
- ✓ Enable and LIM sw, signals +10÷30Vdc
- ✓ Output voltage supply +10/-10V@4mA



#### DESCRIPTION

MICROSPEED PLUS® Dc amplifiers 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.

There are many different velocity modes: tachogenerator feedback, armature feedback, encoder feedback, torque mode and PWM+ Direction.

#### ACCESSORIES (see specific data sheets for details)

- ✓ SERVO MOTORS
  - Sax 100: 0.045÷2.7Nm (6.4÷386 oz.-in.)
  - Sax 350: 0.7÷1.8Nm (100÷257 oz.-in.)
  - Sax 500: 2.8÷8Nm (400÷1143 oz.-in.)
  - Sax 700: 0.1÷8Nm (14÷1143 oz.-in.)
- ✓ GEARBOXES
  - Rex 100: 5 flange sizes, R ratios 1/3÷1/216
- ✓ POWER SUPPLY (stand alone)
  - MPPlus: 63÷200 Vdc out, 30 A dc, 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	MCS PLUS 60		MCS PLUS 140						MCS PLUS 200						
	14/28	20/40	1/2	2.5/5	6/12	10/20	14/28	20/40	1/2	2.5/5	6/12	10/20	14/28	20/40	
CASE	STANDARD	PM2 <sup>±</sup>	PM2	PM2	PM2	PM2	PM2 <sup>±</sup>	PM2 <sup>±</sup>	PM2	PM2	PM2	PM2 <sup>±</sup>	PM2 <sup>±</sup>	PM2B <sup>±</sup>	
	OPTION	PM2B	PM2B				PM2B	PM2B				PM2B			
Rated Current (A dc)	14	20	1	2.5	6	10	14	20	1	2.5	6	10	14	20	
Peak Current (A dc) x 2 sec.	28	40*	2	5	12	20	28	40*	2	5	12	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 (Vdc)	63 Vdc ▲		140 Vdc ▲						200 Vdc ▲						

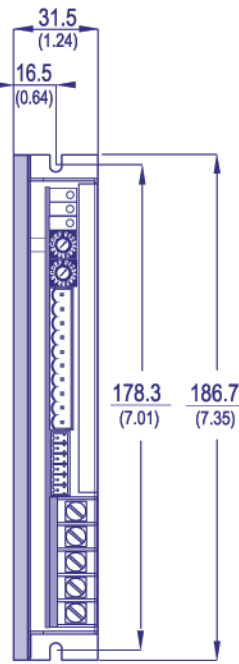
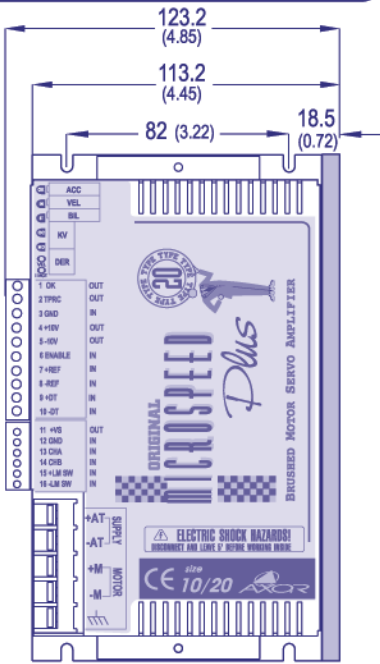
\*: FDC Fuse Type: F=Quick-acting  
M= Medium time-lag  
T=Time-lag

±: Forced cooling required  
\*: Peak current= x 1 second

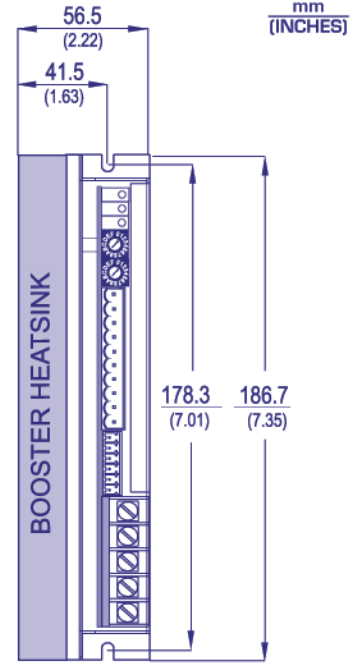
▲: Recommended DC power supply

Drawings are not to scale (see quotations)

## MECHANICAL DIMENSIONS

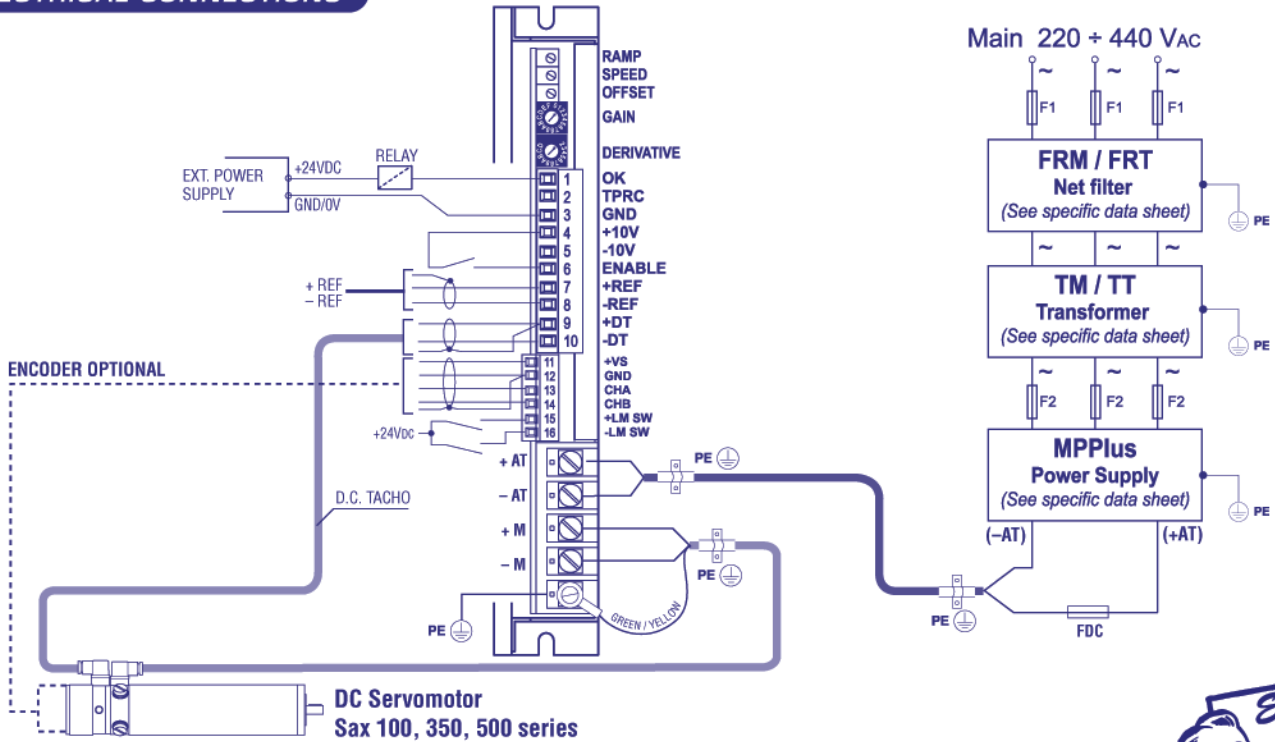


**CASE PM2**  
(Panel Mount type "2")  
Weight: 0.75 Kg



**CASE PM2B**  
(Panel Mount type "2" with BOOSTER)  
Weight: 1.20 Kg

## ELECTRICAL CONNECTIONS



### ORDERING CODE

Example:

**MCS Plus - 200 - 10 / 20 - N - S - 1000 / TO - RD - LS**

**NAME:** Line of Servodrives

**AMPLIFIER TYPE:** 060 - 140 - 200

**SIZE:** 01/02 - 2.5/05 - 06/12 - 10/20 - 14/28 - 20/40  
(Not available for MCS Plus 60)

**HEATSINK VERSIONS:**

**N** = Normal  
**B** = Booster (optional)

**PROTECTION:**

**S** = Standard  
**T** = Tropicalized

**AXOR:**  
adjustment  
identification  
number

**FEEDBACK:**

**TO** = Tachogenerator (DC)  
**AO** = Armature  
**EO** = Encoder (optional)  
**OO** = No feedback adjustment  
(for IO and PD control modes)

**ADDITIONAL FEATURES:**

**LS** = +/-Limit switches (standard)  
not available for  
**PD** (PWM+DIR)  
control mode

**CONTROL MODE:**

**RD** = Differential reference  
**IO** = Demand current  
(torque mode)  
**PD** = PWM+Direct (optional)

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Part number D.S./09.00/MCSPPlus/02

