



# MICROSPEED®

## DC SERVO AMPLIFIERS



### MICROSPEED® (MCS)

Complete line of DC Servo Amplifiers for use in three velocity modes: with tachogenerator feedback, armature feedback and encoder feedback.

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
- ✓ Extremely simple installation and use
- ✓ Surface Mount Technology
- ✓ Panel mount
- ✓ Motor driving range from 0.045 to 2.7 Nm (6.4 - 386 oz.-in.)
- ✓ Single DC power supply
- ✓ Armature feedback
- ✓ Tachogenerator feedback
- ✓ Torque mode

#### OPTIONS

- ✓ Encoder Feedback
- ✓ PWM + DIR mode
- ✓ Positive / Negative Limit Switches

#### SPECIFICATIONS

- ✓ Supply voltage range: (MCS 60) 20÷82 Vdc  
(MCS 110) 35÷130 Vdc
- ✓ Operating frequency: 22KHz
- ✓ Operating temperature: 0 ÷ 40 °C  
(32 ÷ 104°F)
- ✓ Input reference (differential): ±10Vdc
- ✓ Motor current monitor: ±7,5V (Peak current)
- ✓ Auxiliary output supply for encoder: +12V/+5V@130mA (optional)
- ✓ Enable signals: +10V÷30Vdc
- ✓ Output voltage supply: +10V/-10V@4mA



#### DESCRIPTION

The **MICROSPEED®** DC amplifiers are 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. There are many different velocity modes: tachogenerator feedback, armature feedback, encoder feedback, torque mode and PWM+DIR.

#### 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	MCS 60				MCS 110			
	1/2	2.5/5	6/12	10/20	1/2	2.5/5	6/12	10/20
SIZE (A)	1/2	2.5/5	6/12	10/20	1/2	2.5/5	6/12	10/20
CASE	PM1	PM1	PM1	PM1	PM1	PM1	PM1	PM1
Rated Current (A <sub>dc</sub> )	1	2.5	6	10	1	2.5	6	10
Peak Current (A <sub>dc</sub> ) x 2 sec.	2	5	12	20	2	5	12	20
FDC: Supply Line Fuse (type F, M or T)*	15 A / 250 V				15 A / 250 V			
Supply (V <sub>dc</sub> )	63 Vdc ▲				100 Vdc ▲			

\*: FDC Fuse Type: F=Quick-acting

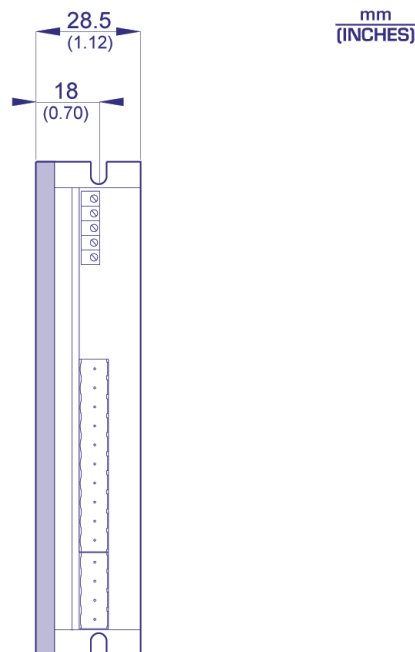
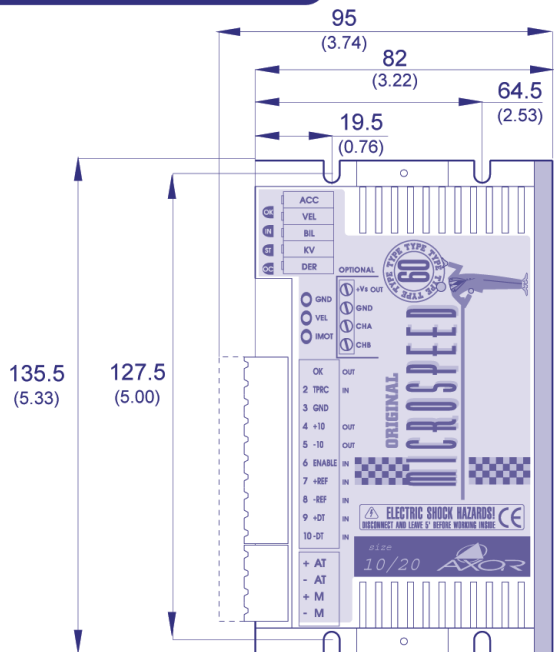
M= Medium time-lag

T=Time-lag

▲: Recommended DC power supply

## MECHANICAL DIMENSIONS

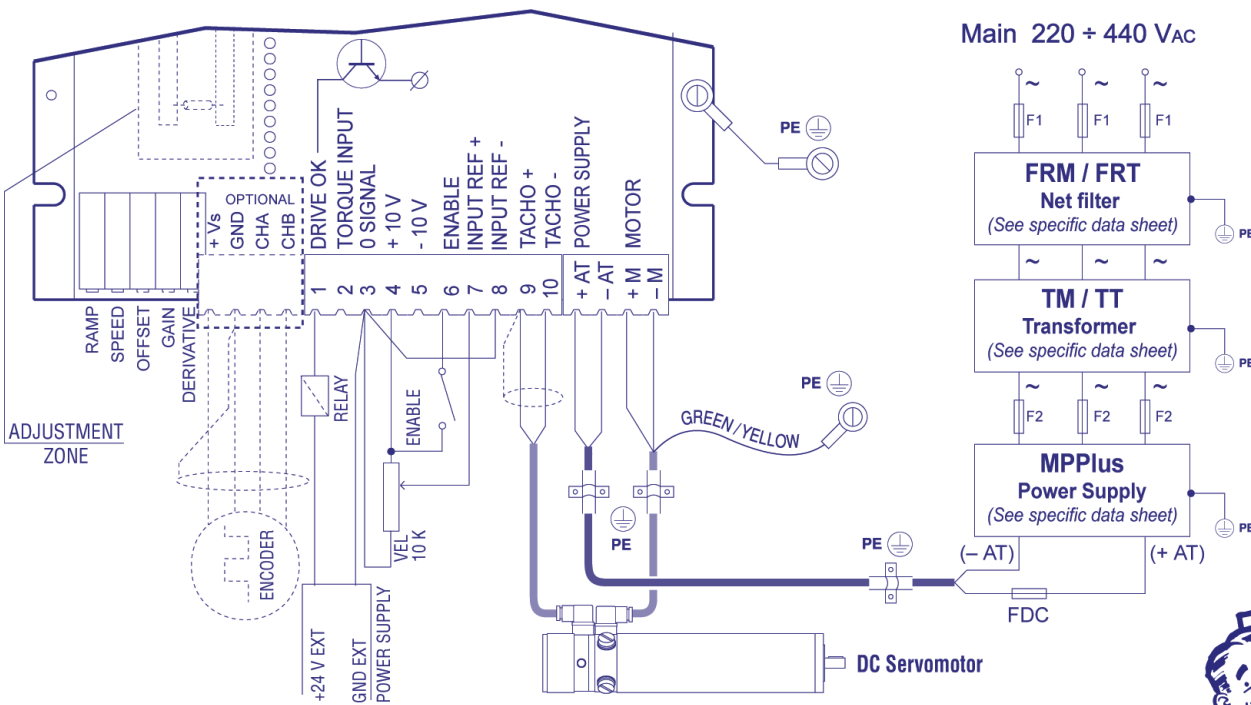
Drawings are not to scale (see quotations)



Weight: 0.35 Kg

CASE PM1 (Panel Mount "1")

## ELECTRICAL CONNECTIONS



### ORDERING CODE

Example:

**MCS - 060 - 10 / 20 - N - S - 1000 / TO - RD - LS**

**NAME:** Line of DC Servodrives

**AMPLIFIER TYPE:** 060 - 110

**SIZE:** 01/02 - 2.5/05 - 06/12 - 10/20

**HEATSINK VERSIONS:** N = Normal

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

**ADDITIONAL FEATURES:**  
LS= +/-Limit switches (optional)

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

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

**AXOR:**  
adjustment  
identification  
number