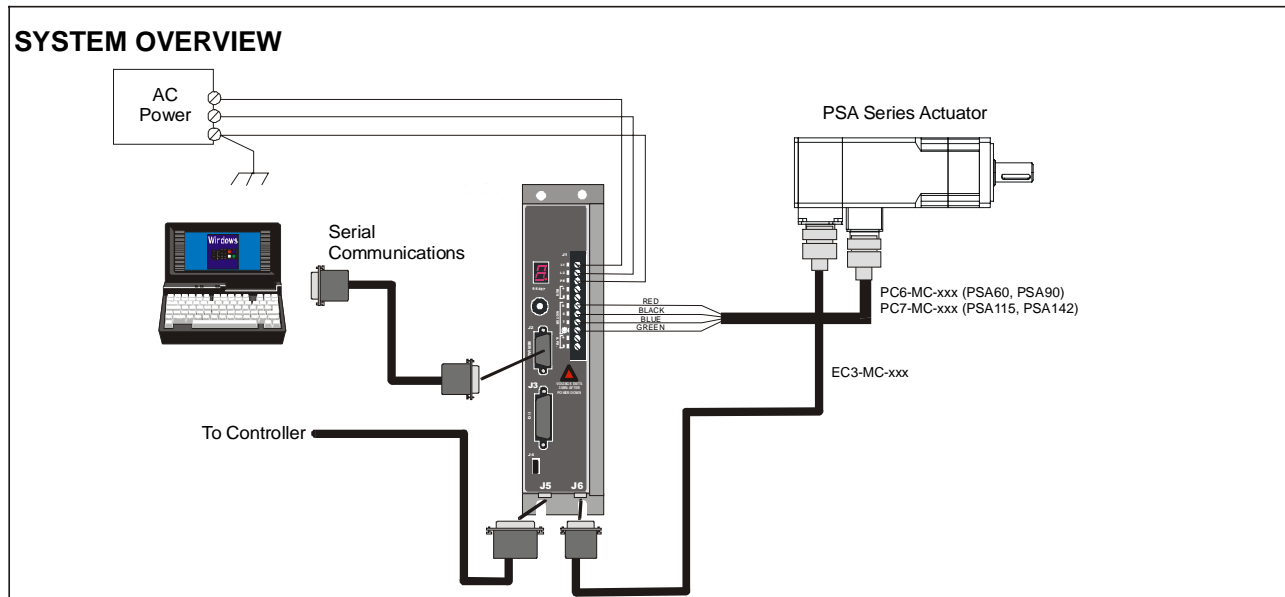


6.1 Emerson Epsilon Series Drive with PSA Series Actuator (M Connector Option)



Note: Dangerous voltages exist, so use extreme caution when operating this equipment. Sufficient energy remains in the Epsilon Series drive to cause motion even with the power removed. Wait for the 7-segment display to dim to off when powering down the drive. At start-up, be sure to have the proper motor file selected and limit the maximum acceleration until proper operation is verified.

SETTING UP THE EPSILON SERIES DRIVE TO RUN PSA SERIES ACTUATORS

The quick touch setup cannot be used to select the Exlar actuator. The motor file containing the Exlar actuators is supplied by Exlar and must be saved as the motor.ddf file in the Power Tools main directory of the personal computer. When running PTOOLS, the actuator can be selected from the motor list and downloaded to the Epsilon Series drive by following these steps:

1. Click on the PowerTools Icon.
2. From the menu bar, select File-New.
3. Select Predefined Setup Selection appropriate for the application.
4. Enter the appropriate ID name, drive address, line voltage, and operating mode.
5. Enter the Epsilon Series drive type.
6. At this point if it asks you to enter a motor, then from the pull down menu, select the appropriate PSA actuator.
7. Click on the Inputs, then Outputs tabs and configure the I/O as required.
8. Click on the Position, Velocity, and Torque tabs and configure the I/O as required.
9. Click on the Motor tab, then the drop-down Motor Type. The Exlar PSA Series actuators should be included in the list. If they are not, the motor.ddf file from Exlar must be loaded into the Power Tools directory.
10. Download to the Epsilon Series drive by clicking on Device – Download from the menu items.

Basic PSA Series Parameter Settings for Emerson Epsilon Drives					
		PSA60	PSA90	PSA115	PSA142
Number of Poles		6	6	8	6
Maximum Speed	RPM	5000	3000	3000	2400
J_m	Lb-in-s ²	See Inertia Table in section 6.0			
Encoder Size	Lines	2048	2048	2048	2048
Index Offset	Degrees	330	330	330	330
Hall Offset	Degrees	330	330	330	330

¹ Appropriate motor files may be obtained from Exlar or www.exlar.com and downloaded to Epsilon-XXX drives.

CABLES FOR EPSILON SERIES DRIVE WITH PSA SERIES ACTUATOR (M CONNECTOR OPTION)

Encoder Cable EC3-MC-XXX							
Exlar Connector	Wire Color	Function	J5, DB-26 Connection	Exlar Connector	Wire Color	Function	J5, DB-26 Connection
A	Red/Green	Motor Overtemp	9	N	Green	B+	2
B	Blue	A+	1	P	Brown	B-	11
C	Orange	A-	10	R	Brown/White	U-	13
D		Overtemp Gnd	N/C	S	Gray/White	V-	14
E	White/Brown	U+	4	T	Blue/Red	GND	17
F	White/Gray	V+	5	U	Yellow	Z-	12
G	Red/Orange	W+	6	V			N/C
H	Orange/Red	W-	15	W			N/C
J			16	X			N/C
K	Red/Blue	+ 5 VDC	7	Y			N/C
L		+ 5 VDC	N/C	Z	Shield		N/C
M	Black	Z+	3				

Motor Cable PC6-MC-XXX for PSA60, PSA90 PC7-MC-XXX for PSA115, and PSA142			
Exlar Connector	Wire Color	Function	Epsilon-XXX Connection
A	Red	R Phase	R
B	Black	S Phase	S
C	Blue	T Phase	T
D	Green/Yellow & Shield	GND	