

F-Series Power Supply, Servodrive, and Servomotors are high voltage equipment, using 230 VAC input power and a 325 VDC main DC Bus. Before checking the cause, turn off the control and main power circuits and wait for the Servodrive power stage capacitors to discharge fully to avoid possible electrical shock.

F - POWER SUPPLY

Power Supply faults are reset by disabling both main and control power, and waiting for the servodrive power stage capacitors to discharge fully before reapplying power.

C1 - AC Control Power

115VAC (95 to 132)
Fault Contact (NC) 115VAC @ 1A
Servodrive FAN power

C2 - DC Logic Power

+18 Vdc (+14.5 to +26.0)
-18 Vdc (-14.5 to -26.0)
Common
+10 Vdc (+6.5 to +14.0)

DC Bus Power

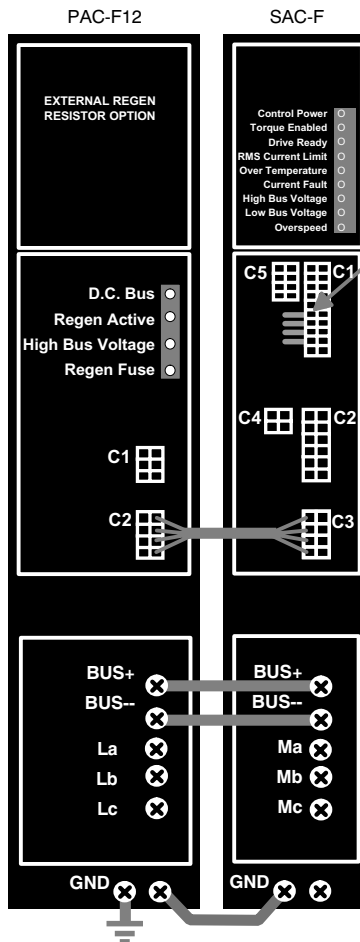
325 Vdc (250 to 360)

AC Main Power

La, Lb, Lc
230VAC (207 to 253)

FRAME GND

Must be securely attached to the servodrive(s) and earth ground using braided copper wire!



F - DRIVE

C5 - Position Feedback & C1 - Drive Control Circuits to DSP Axis Interface

Speed Monitor.....(TC1-1)
Bi-directional
approx 8.0V=Max Spd.
Torque Monitor.....(TC1-2)
Unipolar 8.0V = Peak
Common.....(TC1-3)
Unused.....(TC1-4)

C2 - Resolver Input

C3 - DC Logic Power
+18 Vdc (+14.5 to +26.0)
-18 Vdc (-14.5 to -26.0)
Common
+10 Vdc (+6.5 to +14.0)

C4 - Fan Power
115 VAC (95 to 132)

DC Bus Power
325 Vdc (250 to 360)

Motor Power
Ma - RED
Mb - WHITE
Mc - BLACK
GND - Silver & Green

FRAME GND
Must be securely attached to the power supply using braided copper wire!

CONNECTOR AND TERMINAL LOCATIONS VARY WITH SIZE.

For more detail, refer to "Maintenance and Troubleshooting" section in the F-Series Manual.

*** F-Drive Status LED's Quick Reference ***

Control Power	(green)	Control AC line voltage is applied. Should be illuminated, one second after power is applied.
Torque Enable	(green)	Torque Output Enabled. Indicates NO DRIVE FAULTS
Drive Ready	(green)	Should be illuminated. If off, see fault below.
RMS Current Limit	(red)	LED acts as an indicator only, NOT Latched. RMS current exceeds the continuous rating. Illuminates along with Over Temp below.
Over Temperature	(red)	Over temperature or RMS current limit fault.
Current Fault	(red)	Usually due to shorted or incorrect motor wiring or drive power supply failure.
High Bus Voltage	(red)	Excessive main DC bus voltage over 430Vdc. Drive is disabled.
Low Bus Voltage	(red)	Missing or insufficient main DC bus voltage under 125Vdc.
Overspeed	(red)	Resolver cable is miswired or intermittent, or excessive speed.

*** F-Power Supply Status LED's Quick Reference ***

D.C. BUS Power	(green)	Should be illuminated, if off, Main D.C. Bus insufficient or missing. Check AC input power and fuses.
Regen Active	(yellow)	Indicates regeneration circuit is active. Not a fault condition.
on 12 & 20 Amp Modules		
High Bus Voltage	(red)	High Main A.C.line voltage, causing the main D.C. Bus voltage to become excessive. (over 430 VDC)
Regen Fuse	(red)	Shunt regulator regeneration resistor fuse is blown.
on 50 & 75 Amp Modules		
Over Temperature	(red)	Excessive heatsink temp, due to overload or high ambient temp.