

# FS2/4 FIELD REGULATOR

## For Control of a DC Motor



### DESCRIPTION

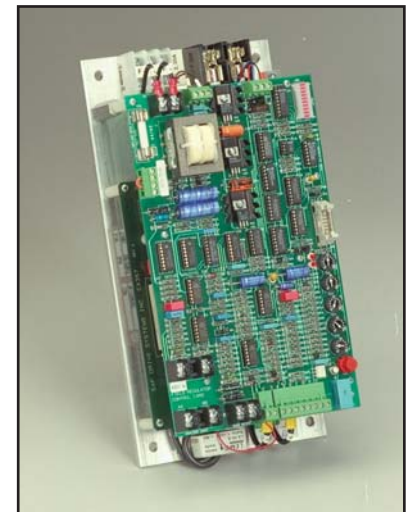
SAF's FS2/4 Field Regulators are designed specifically to provide controlled DC current output for the highly inductive loads found in the motor field coils. The use of a regulator provides the following benefits:

- Consistent field flux level independent of motor temperature changes
- Allows overspeed with maximum torque at the lower speed which minimizes the motor size on constant horsepower applications
- Allows load sharing of motors that are tied to the same load or power supply
- Provides ability to control torque (tension) and speed
- Provides protection to the motor against overheating via field economy
- Provides field loss detection to avoid overspeed

Through proper application of the field regulator for control of a DC motor it is possible to regulate all the motor parameters by controlling the motor field flux thereby regulating the field ampere turns. The following field considerations should be made for various examples of DC Motor applications.

### POWER RATING

POWER	240/480 VAC, 50/60 Hz, 1 $\phi$ supply
CONTROL	240/480 VAC, 50/60 Hz, 20 VA Protected with ¼ amp 500 VAC fuse located on heat sink.
RATING	Standard units are 15 Amp, with a larger heat sink 25 Amp output rating is available.
CONTACTS	Field loss relay contacts, 2 Amp @ 30 VDC resistive, 1 Amp @ 120 VAC resistive
PROTECTION	Short circuit protected by fast acting fuses. Voltage surge protection by MOV's across



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### MODEL RATINGS

MODEL	CURRENT		VOLTAGE	
	INPUT	OUTPUT	INPUT	OUTPUT
FS ?-12-2	17 Amps AC	12 Amps DC	240 V AC	180 V DC
FS ?-25-2	35 Amps AC	25 Amps DC	240 V AC	180 V DC
FS ?-12-4	17 Amps AC	12 Amps DC	480 V AC	380 V DC
FS ?-25-4	35 Amps AC	25 Amps DC	480 V AC	380 V DC

Ordering information requires the "?" may be "2", "2A", "4", or "4A" for model description. Note that 240 and 480 VAC units are the same other than linking of control transformer. Consult factory for any other voltages.



CSA Certification: CSA file reference LR43406