



Powerful

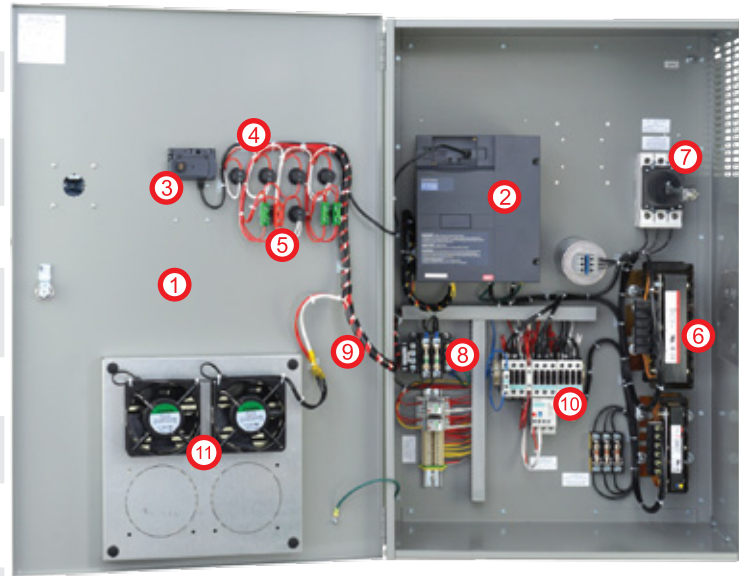
FF1 SERIES

Up to 800 HP / 480 VAC


- Great for pump and fan applications
- Filtered forced air ventilation
- All components housed in single enclosure
- Easy installation - 3 lines in & 3 lines out
- UL508A Listed
- Remote I/O capability
- Advanced PID function
- Optional IEEE 519 harmonic filter

FEATURES

Feature	Benefit
① NEMA 1 enclosure	Provides protection to personnel and equipment by limiting access and preventing falling objects from entering enclosure
② Variable frequency drive	The FF1 panel utilizes the Mitsubishi F700 series and includes a 1 year warranty
③ Full function keypad	Operate the VFD without opening the panel
④ LED 22mm pilot lights	Quickly view the status of the panel
⑤ 22mm door operator switches	Power on and off and make adjustments without opening the panel or accessing the keypad
⑥ Pure Power II™ harmonic filter	Protects the VFD from power surges and reduces electrical noise to 12% or 15%
⑦ Door-interlocked input circuit breaker disconnect	Provides additional safety by powering down the equipment before opening the panel and allowing OSHA lockout
⑧ 120V control power transformer and relays	Isolates sensitive control circuits from the power system
⑨ Embossed numbering system	Each wire is uniquely identified for ease of troubleshooting
⑩ Bypass	Three contactor bypass electrically and mechanically interlocked, allows motor to run across line in case of VFD failure
⑪ Filtered forced air intake plenum	Positive pressure filtered enclosure with redundant fans. Easily remove and replace pleated filter without cutting power or opening door



SPECIFICATIONS

Control System	Soft PWM for peak voltage mitigation at motor terminals and quiet operation	Control Power	120V control power transformer with primary fuses, secondary fuses, and isolation relays
Input Voltages	200-240VAC / 460-480VAC	Bypass (Optional)	Three contactor bypass
Motor Voltages	200-240VAC / 460-480VAC	Alarm History	8 alarms saved
Input Voltage Range	170-264VAC / 323-528VAC	Door Mounted Controls	22mm LED lights and operator devices
Input Phase	3-phase	Keypad	Standard full function keypad, advanced alpha-numeric keypad optional
Input Frequency	50 or 60 Hz	Ambient Temperature	40°C, other temperature ratings available
Output Frequency	0.5 to 400 Hz	Windmill Start	Catch a spinning load
Horsepower	1/2 - 75 HP (at 230VAC) 1/2 - 800 HP (at 480VAC)	Communications	Modbus-RTU & BACnet MS/TP standard, other communications options available
Overload Rating	110% 60 sec, 120% 3 sec Additional overload ratings optional	Circuit Breaker	Padlockable door-interlocked circuit breaker standard, 65 KAIC optional
VFD	Mitsubishi F700 series, other options available	UL Listed 	UL508A tested and listed
Enclosure	NEMA 1 filtered forced air ventilated enclosure	Line Reactor	3% standard (5% optional)
Card Options	Two option cards can be installed simultaneously A wide range of option cards available	Warranty	1 year standard warranty, extended warranties optional
Dimensions (WxHxD)	24"x 36"x 15" (up to 25HP) 35"x 48"x 16" (30 to 60HP) 36"x 60"x 20" (75 to 150HP)	Harmonic Filter (Optional)	Harmonic Filters 12% or 15% (Minimize harmonic distortion, cleaner power, comply with IEEE requirements)



Changable Air Filter



Variable Frequency Drive



Pure Power II™ Harmonic Filter



3 Contactor Bypass