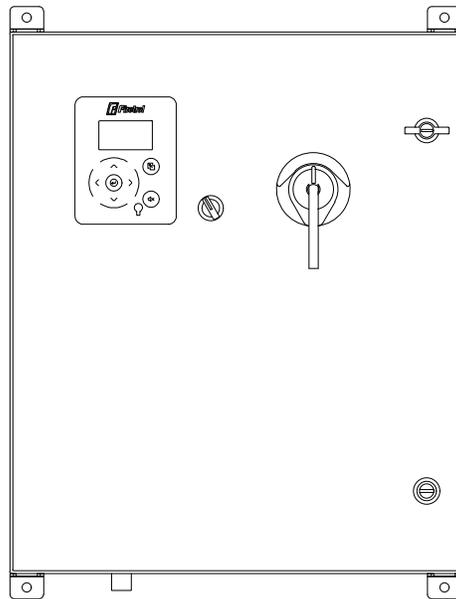




Jockey Pump Controllers

Project Information



(DRAWINGS INCLUDED IN THIS PACKAGE ARE FOR STANDARD CONTROLLERS. ACTUAL "AS BUILT" DRAWINGS MAY DIFFER FROM THOSE SEEN HERE).

Firetrol, Inc.

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Firetrol Jockey Pump Controller

FTA570E – Full Voltage Starting Specifications

1.0 Jockey Pump Controller

The auxiliary jockey pump controller, if required and specified on the plans and specifications, shall be factory assembled, wired, and tested and specifically designed for this type of service. This controller shall be of the same manufacturer as the main fire pump controller.

1.1 Standards, Listings & Approvals

The controller shall conform to all the requirements of the latest editions of:

- NFPA 70, *National Electrical Code*.

The controller shall be listed by:

- Underwriters Laboratories, Inc., in accordance with UL508A, *Standard for Industrial Controls*
- Canadian Standards Association CSA-C22.2, *Standard for Industrial Control Equipment* (cUL)

1.2 Enclosure

The controller components shall be housed in a NEMA Type 2 (IEC IP22) painted steel, wall mounted enclosure (UL50E Construction) with 2 door latches, with 1 being lockable.

1.3 Withstand Ratings (Short Circuit Current Ratings w/Circuit Breaker)

The jockey shall have standard short circuit current ratings of:

65kA @ 480 Volts Max. (3-Phase)

5kA @ 600 Volts (3-Phase)

65kA @ 240 Volts Max. (1-Phase)

1.4 Construction

The jockey pump controller shall be full voltage starting. The controller shall incorporate a circuit breaker and horsepower rated motor starter, control circuit transformer with 24VAC secondary, main disconnect switch, and a 0-600 psi (0-42 bar) solid state pressure transducer.

1.5 Operator Interface

The jockey pump controller shall feature an operator interface with user keypad. The interface shall feature a 4 digit digital display. The shall include indication of motor run (manual start and automatic start). Hand-Off-Auto Selector Switch and Audible Alarm shall be included. User settings such as start/stop pressure settings, timer settings and units of measure shall be programmable from the user interface without opening the enclosure door.

1.6 Solid State Pressure Transducer

The controller shall be supplied with a solid state pressure transducer with a range of 0–600 psi (0–42 bar) ± 1 psi. The solid state pressure switch shall be used for both display of the system pressure and control of the jockey pump controller. Systems using analog pressure devices or mercury switches for operational control will not be accepted. The START, STOP and SYSTEM PRESSURE shall be digitally displayed and adjustable through the user interface. The pressure transducer shall be mounted inside the controller to prevent accidental damage. The pressure transducer shall be directly pipe mounted to a bulkhead pipe coupling without any other supporting members. Field connections shall be made externally at the controller coupling to prevent distortion of the pressure switch element and mechanism.

1.7 Controller Operation

A digitally set On Delay (Sequential Start) timer shall be provided as standard. The controller shall include a Minimum Run Timer to allow the motor to run for a set period of timer after starting. The timer shall be programmable through the user interface. The disconnect switch shall be mechanically interlocked so that the enclosure door cannot be opened with the handle in the ON position except by a hidden tool operated defeater mechanism. The disconnect switch shall be capable of being padlocked in the OFF position for installation and maintenance safety.

1.8 Manufacturer

The controller shall be a Firetrol brand.

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Firetrol, Inc.

Publication SP570E-01 Rev. A

Jockey Pump Controllers



- Door mounted pressure display/user interface.
- Rotary style door mounted disconnect handle with door interlock

Description—Firetrol® FTA570E Jockey Pump Controllers are intended for use with fire pump systems. They are used for pressure maintenance in fire pump installations to prevent unnecessary operation of the main fire pump.

Approvals—Firetrol jockey pump controllers are listed by Underwriters’ Laboratories, Inc., in accordance with UL508A, *Standard for Industrial Controls*, and CSA, *Standard for Industrial Control Equipment*. They are built to meet or exceed the requirements of the approving authorities as well as NEMA and the latest edition NFPA 70, *National Electrical Code*.

Standard Features—The following are included as standard with each controller:

- NEMA Type 2 (IEC IP22) Painted Steel Enclosure with 2 door latches
- Circuit Breaker
- Horsepower rated motor starter
- Suitable for use as service equipment
- Hand-Off-Auto Selector Switch
- Minimum run timer
- On-Delay timer
- Control circuit transformer with 24VAC secondary
- 0-600 psi (0-42 bar) solid state pressure transducer
- Visual Indication, Start/Stop pressure settings, system pressure, motor overload

NOTE: FTA570E Jockey Pump Controllers are available as standard in the voltage/horsepower combinations shown below. For other combinations and options, please consult your Firetrol representative or the factory.

VOLTAGE 3-PHASE (50/60 Hertz) Rating	MAX HP	Short Circuit Current
-H 200 - 208V	30	65kA
-A 220 - 240V	30	65kA
-F 380 - 415V	50	65kA
-B 440 - 480V	50	65kA
-C 550 - 600V	50	14kA

VOLTAGE 1-PHASE (50/60 Hertz) Rating	MAX HP	Short Circuit Current
-D 110-120V	5	65kA
-T 200-208V	15	65kA
-E 220-240V	15	65kA

NOTE: Firetrol Brand Jockey Pump controllers DO NOT CONTAIN MERCURY filled pressure switches.

For Model # Information and Options & Modifications see Publication SD570E-01

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Jockey Pump Controllers

FTA570E JOCKEY PUMP CONTROLLERS

FTA570E-A A - - (Example: FTA570E-AA015B-T-BY)

FTA NUMBER
FTA570E

TIMER OPTION
-A With Programmable
Running Period Timer

MOTOR CURRENT PROTECTION
-A Circuit Breaker
Suitable for Use as Service Equipment
Short Circuit Current Rating
200-480V - 65kA
550-600V - 5kA
-F Fusible Disconnect Switch w/
Fuses
Suitable for Use as Service Equipment
Short Circuit Current Rating
200-600V - 100kA (3-Phase)
110-240V - 5kA (1-Phase)

HORSEPOWER (KW)

014 - 1/4 HP (.18)	004 - 4 HP (3)
013 - 1/3 HP (.23)	005 - 5 HP (3.7)
012 - 1/2 HP (.37)	006 - 5 1/2 HP (4)
034 - 3/4 HP (.56)	007 - 7 1/2 HP (5.5)
001 - 1 HP (.75)	010 - 10 HP (7.5)
011 - 1 1/2 HP (1.1)	015 - 15 HP (11)
002 - 2 HP (1.5)	020 - 20 HP (15)
003 - 3 HP (2.2)	025 - 25 HP (19)
	030 - 30 HP (22)
	040 - 40 HP (29)
	050 - 50 HP (37)

(See Voltage Selection for Maximum
HP/Voltage Combinations)

OPTIONS & MODIFICATIONS
(See below)

VOLTAGE 3-PHASE (50/60 Hertz)	MAX HP
-H 200 - 208V	30
-A 220 - 240V	30
-F 380 - 415V WYE	50
-B 440 - 480V WYE	50
-C 550 - 600V WYE	50
VOLTAGE 1-PHASE * (50/60 Hertz)	MAX HP
-D 110-120 Volts	5
-T 200-208 Volts	15
-E 220-240 Volts	15

NOTE: For requirements not listed here
please contact a Firetrol represen-
tative or the factory.

Options and Modifications

Option	PRESSURE TRANSDUCERS Description
---	Wetted Parts Including Pressure Sensor, 600 PSI (42 bar), Fresh Water
-D	Wetted Parts Including Pressure Sensor, 600 PSI (42 bar), Sea Water

SPECIAL ENCLOSURES

Option	Description
---	Enclosure, NEMA Type 2 (IEC IP22), Painted Steel (Standard)
-E	Enclosure, NEMA Type 4 (IEC IP65), Painted Steel
-F	Enclosure, NEMA Type 4X (IEC IP66), #304 Stainless Steel, Brushed Finish
-FD	Enclosure, NEMA Type 4X (IEC IP66), #316 Stainless Steel, Brushed Finish
-FDP	Enclosure, NEMA Type 4X (IEC IP66), #316 Stainless Steel, Painted Finish
-FXP	Enclosure, NEMA Type 4X (IEC IP66), #304 Stainless Steel, Painted Finish
-G	Enclosure, NEMA Type 12 (IEC IP54), Painted Steel
-T	Enclosure, NEMA Type 3R (IEC IP24), Painted Steel
<input type="checkbox"/> -U	Enclosure, NEMA Type 3 (IEC IP54), Painted Steel

ANTI-CONDENSATION SPACE HEATERS (power source by others)

Option	Description
None	
-J	Space Heater, 120V Externally Powered with Circuit Breaker & Thermostat
-JKPX	Space Heater, 120V Internally Powered with Thermostat & Humidistat in Parallel
-JX	Space Heater, 120V Internally Powered with Thermostat
-K	Space Heater, 120V Externally Powered with Circuit Breaker & Humidistat
-KX	Space Heater, 120V Internally Powered with Humidistat

HIGHER SHORT CIRCUIT CURRENT RATING

Option	Description
AF	Fusible Disconnect Switch with Fuses 200-600/3-100kA 110-240/1-5kA

ALARMS

Option	Description
-AC	Alarm Output Contacts, Pump Operating (1 Set)
-AG	Alarm, Audible/Visible, Reservoir Low
-AM	Alarm Output Contacts, Fail To Start
-AW	Alarm Output Contacts, Reservoir Low (Requires Option -AG)
-BWI	Alarm Output Contacts/Visual Indication, Phase Failure/Phase Reversal
-BY	Alarm Output Contacts, Pump Overload
-CPL	Alarm Output Contacts, Overpressure
-EFI	Alarm Output Contacts, Controller Not In Auto (1 set)
-HV	Alarm, Audible
-KH	Alarm Output Contacts, Common Alarm
-PE	Alarm Output Contacts, Low System Pressure

MISCELLANEOUS

Option	Description
-AST	Input Terminals, Automatic Start
-NZ	Input Terminals, Shutdown Interlock
-S	Tropicalization
-ZPJ1	Serial Modbus TCP/IP Ethernet, Includes MarkIII+
-ZPJ2	Serial Modbus RTU RS485, Includes MarkIII+

*Export Packaging available for additional cost
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Publication SD570E-01



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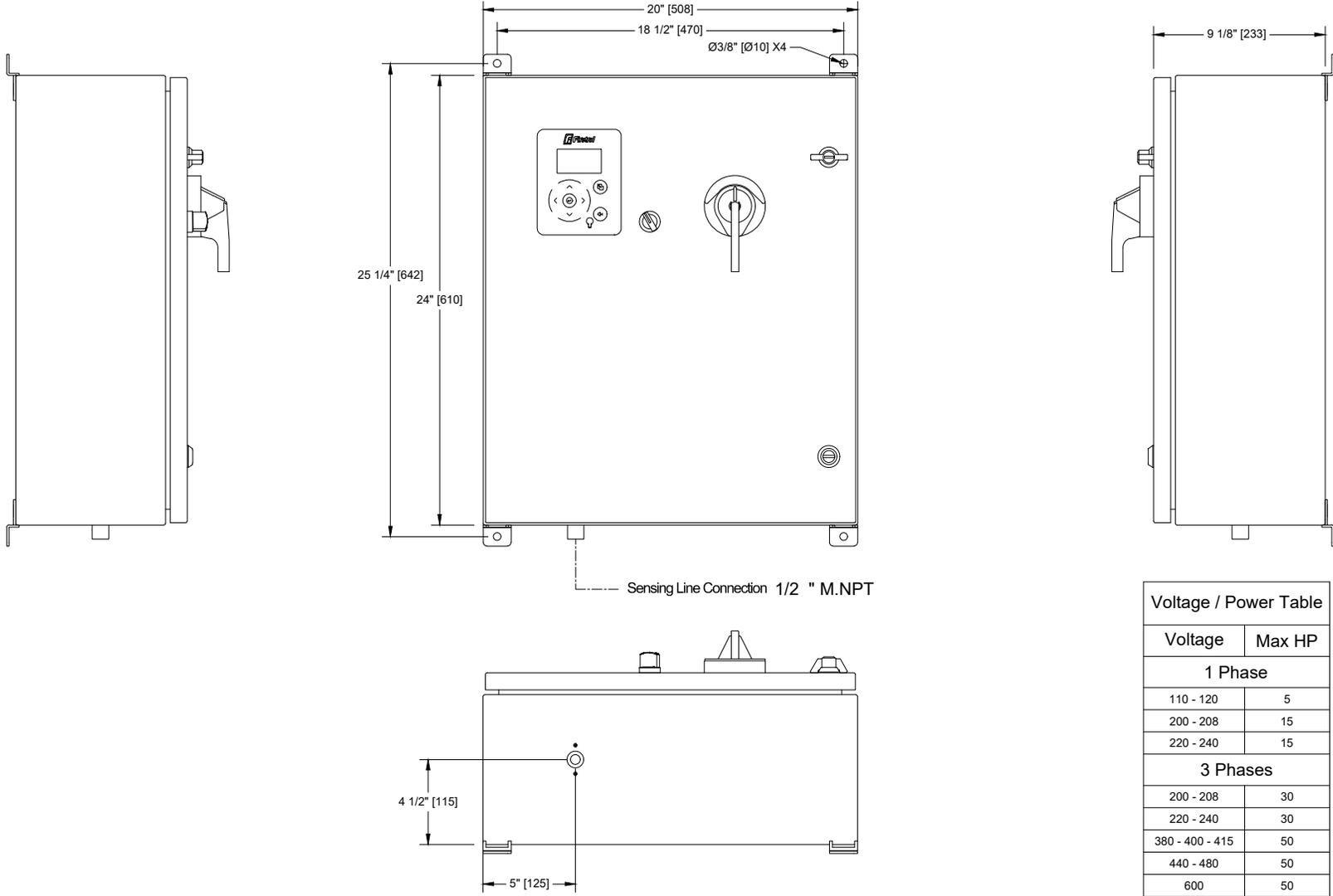
JOCKEY PUMP CONTROLLER

MODEL: FTA570E

BUILT TO THE LATEST EDITION OF THE UL 508A



DRAWING NUMBER	DD570E-001/E
DWG REV. 0	
SHEET 1 OF 1	



Voltage	Max HP
1 Phase	
110 - 120	5
200 - 208	15
220 - 240	15
3 Phases	
200 - 208	30
220 - 240	30
380 - 400 - 415	50
440 - 480	50
600	50

- Notes:**
- Standard NEMA: NEMA 2
 - Standard Paint: Textured Red RAL 3002.
 - All Dimensions are in Inches [Millimeters]
 - Use Watertight Conduit and Connector Only.
 - Protect Equipment Against Drilling Chips.
 - Door Swing Equal to Door Width

Drawing for information only.
Manufacturer reserves the right to modify this drawing without notice.
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*Dimensions may change depending on option required. Consult Factory for exact dimensions.



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JOCKEY PUMP CONTROLLER ACROSS THE LINE / 3 PHASES

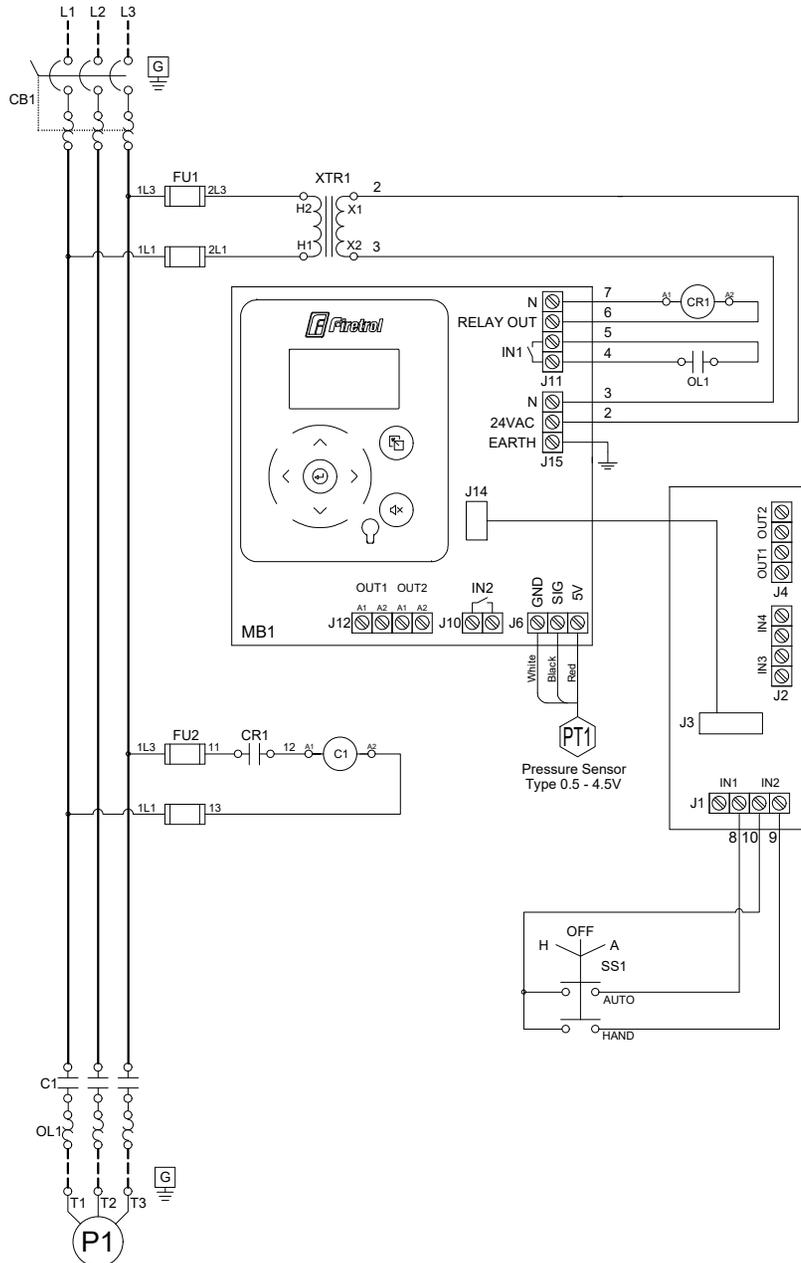
MODEL: FTA570E

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DRAWING NUMBER
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SHEET 1 OF 1





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JOCKEY PUMP CONTROLLER ACROSS THE LINE / 1 PHASE

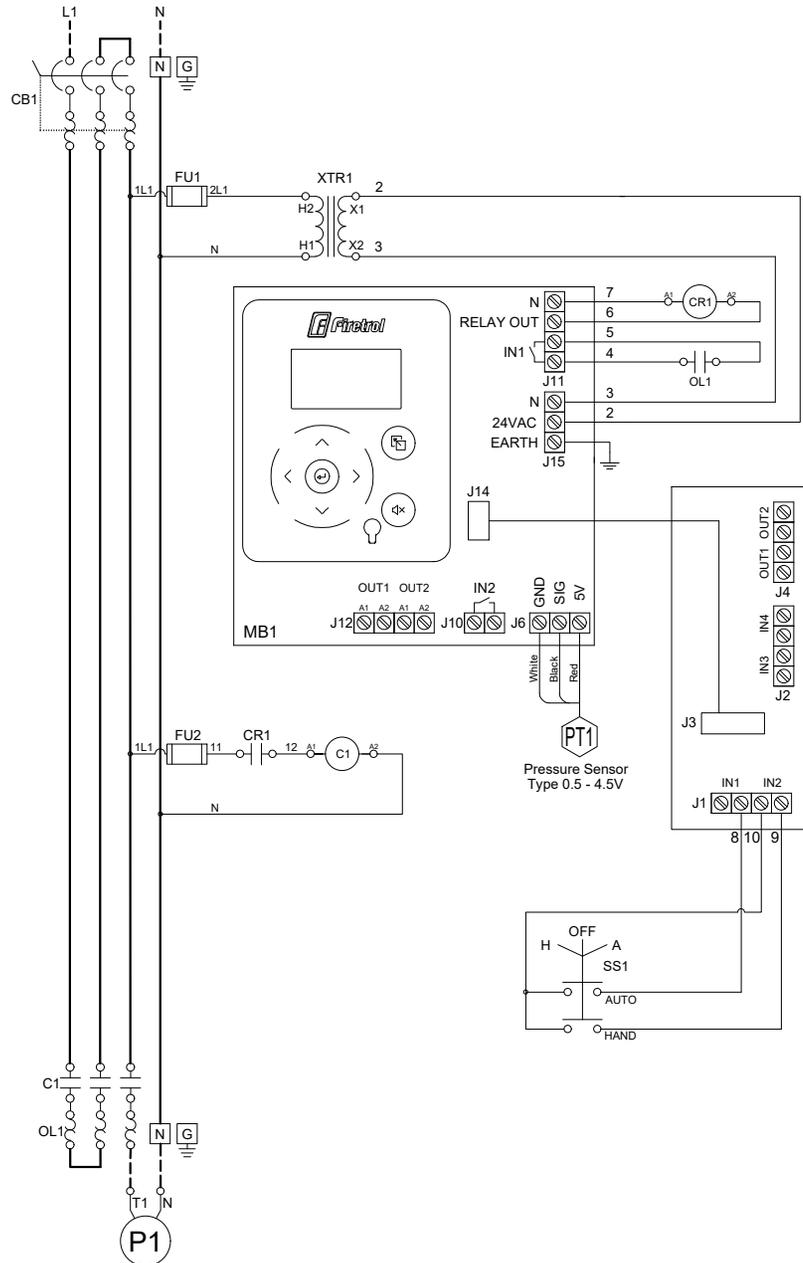
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JOCKEY PUMP CONTROLLER

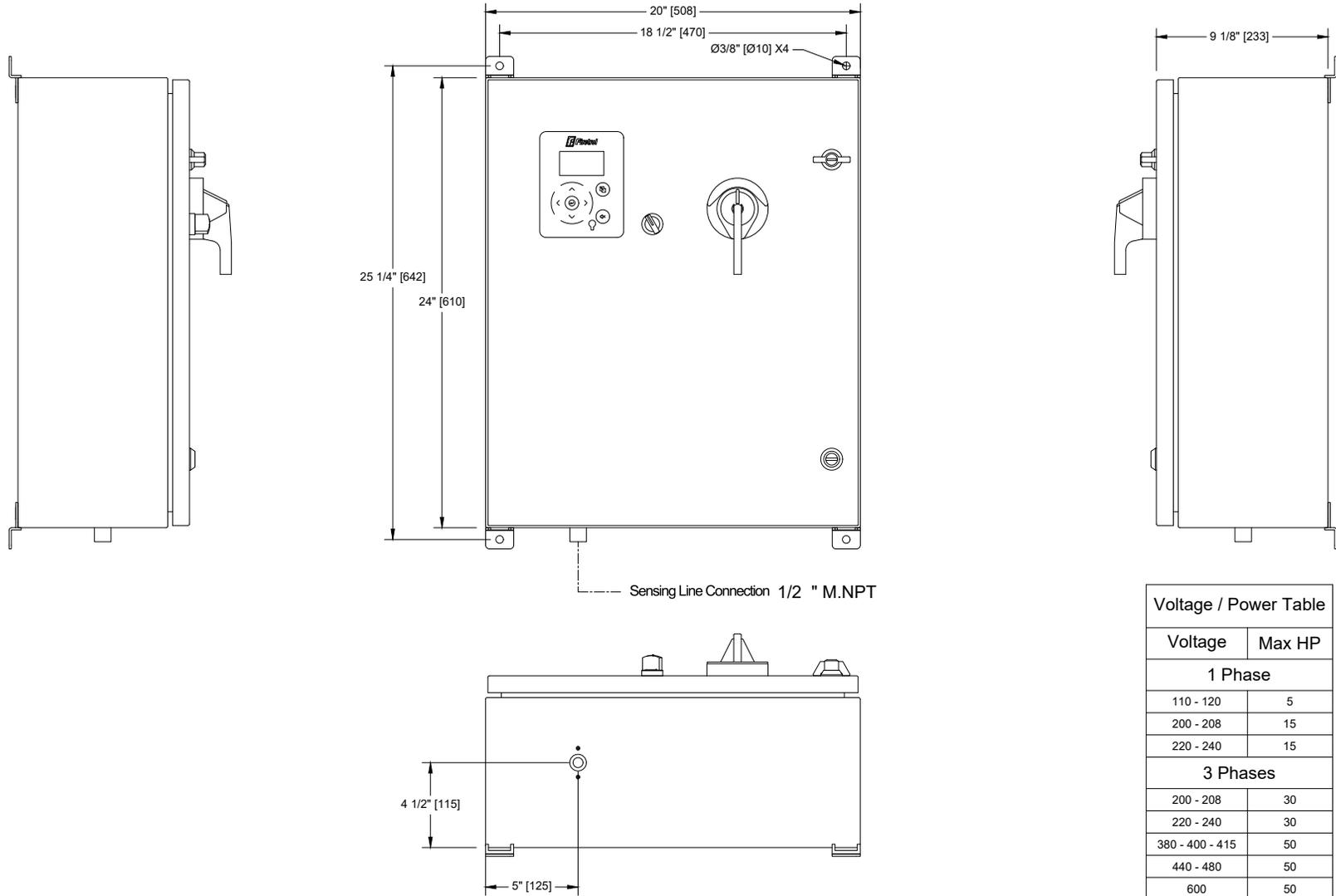
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Voltage / Power Table	
Voltage	Max HP
1 Phase	
110 - 120	5
200 - 208	15
220 - 240	15
3 Phases	
200 - 208	30
220 - 240	30
380 - 400 - 415	50
440 - 480	50
600	50

- Notes:**
- Standard NEMA: NEMA 2
 - Standard Paint: Textured Red RAL 3002.
 - All Dimensions are in Inches [Millimeters]
 - Use Watertight Conduit and Connector Only.
 - Protect Equipment Against Drilling Chips.
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JOCKEY PUMP CONTROLLER ACROSS THE LINE / 1 PHASE

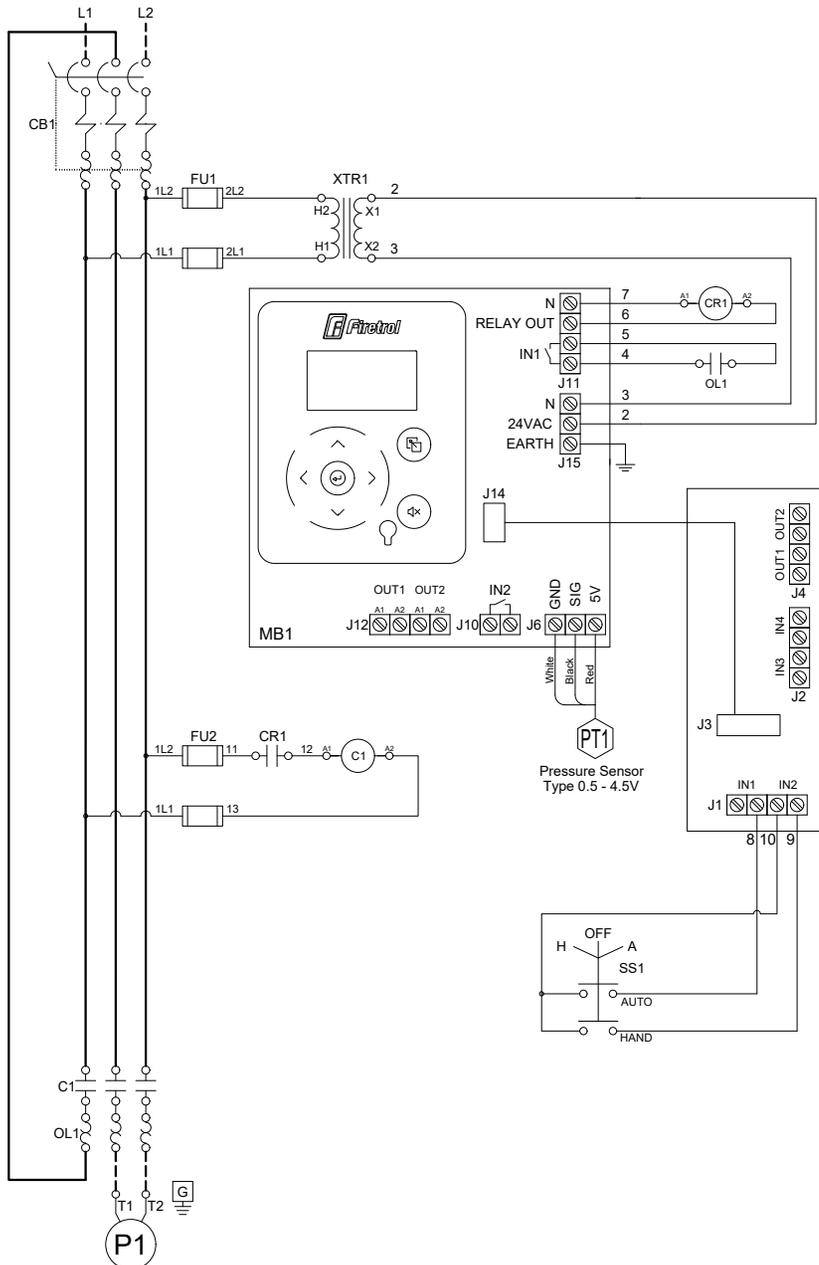
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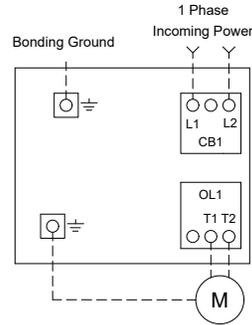
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DRAWING NUMBER
FC570E-002/E
DWG REV. 0
SHEET 1 OF 1

Power Connections and Motor Connections



Line Terminals (L1,L2,GND)

Maximum Motor Horsepower		Wire Size Copper Only	Torque	Wire Size Ground Copper Only
200-208V	220-240V			
5HP	5HP	#14 AWG - #1 AWG	9 Nm	#14 AWG - #2 AWG

Motor Terminals (T1,T2,GND)

Maximum Motor Horsepower		Wire Size Copper Only	Torque	Wire Size Ground Copper Only
200-208V	220-240V			
3HP	5HP	#14 AWG - #8 AWG	5 Nm	#14 AWG - #2 AWG
10HP	10HP	#14 AWG - #2 AWG	5 Nm	#12 AWG - #2 AWG
15HP	15HP	#10 AWG - #1 AWG	9 Nm	#12 AWG - #2 AWG



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JOCKEY PUMP CONTROLLER ACROSS THE LINE / 3 PHASES

MODEL: FTA570E

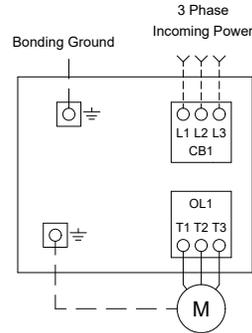
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SHEET 1 OF 1

Power Connections and Motor Connections



Line Terminals (L1,L2,L3,GND)

Maximum Motor Horsepower					Wire Size Copper Only	Torque	Wire Size Ground Copper Only
200-208V	220-240V	380-416V	440-480V	575-600V			
30HP	30HP	50HP	50HP	50HP	#14 AWG - #1 AWG	9 Nm	#14 AWG - #2 AWG

Motor Terminals (T1,T2,T3,GND)

Maximum Motor Horsepower					Wire Size Copper Only	Torque	Wire Size Ground Copper Only
200-208V	220-240V	380-416V	440-480V	575-600V			
7.5HP	10HP	15HP	20HP	25HP	#14 AWG - #8 AWG	5 Nm	#14 AWG - #2 AWG
20HP	20HP	30HP	40HP	50HP	#14 AWG - #2 AWG	5 Nm	#12 AWG - #2 AWG
25HP	30HP	50HP	50HP	-	#10 AWG - #1 AWG	9 Nm	#12 AWG - #2 AWG



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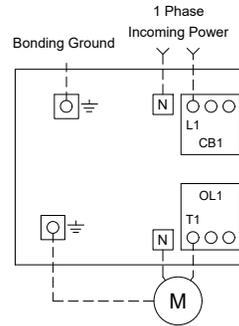
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DRAWING NUMBER
FC570E-001/E
DWG REV. 0
SHEET 1 OF 1

Power Connections and Motor Connections



Line Terminals (L1,N,GND)

Maximum Motor Horsepower	Wire Size Copper Only	Torque	Wire Size Ground Copper Only
120V	#14 AWG - #1 AWG	9 Nm	#14 AWG - #2 AWG
5HP			

Motor Terminals (T1,N,GND)

Maximum Motor Horsepower	Wire Size Copper Only	Torque	Wire Size Ground Copper Only
120V	#14 AWG - #8 AWG	5 Nm	#14 AWG - #2 AWG
2HP			
3HP	#14 AWG - #2 AWG	5 Nm	#12 AWG - #2 AWG
5HP	#10 AWG - #1 AWG	9 Nm	#12 AWG - #2 AWG



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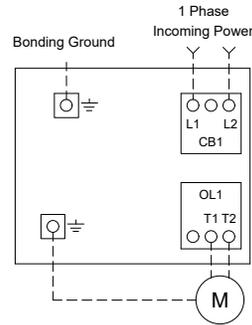
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DRAWING NUMBER
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DWG REV. 0
SHEET 1 OF 1

Power Connections and Motor Connections



Line Terminals (L1,L2,GND)

Maximum Motor Horsepower		Wire Size Copper Only	Torque	Wire Size Ground Copper Only
200-208V	220-240V			
5HP	5HP	#14 AWG - #1 AWG	9 Nm	#14 AWG - #2 AWG

Motor Terminals (T1,T2,GND)

Maximum Motor Horsepower		Wire Size Copper Only	Torque	Wire Size Ground Copper Only
200-208V	220-240V			
3HP	5HP	#14 AWG - #8 AWG	5 Nm	#14 AWG - #2 AWG
10HP	10HP	#14 AWG - #2 AWG	5 Nm	#12 AWG - #2 AWG
15HP	15HP	#10 AWG - #1 AWG	9 Nm	#12 AWG - #2 AWG