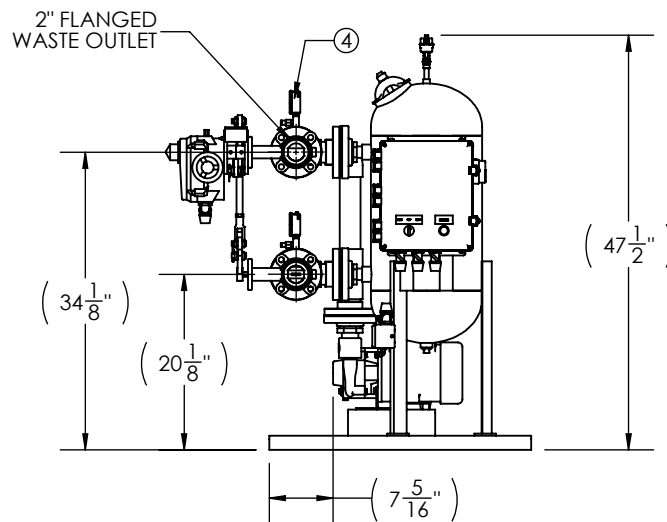
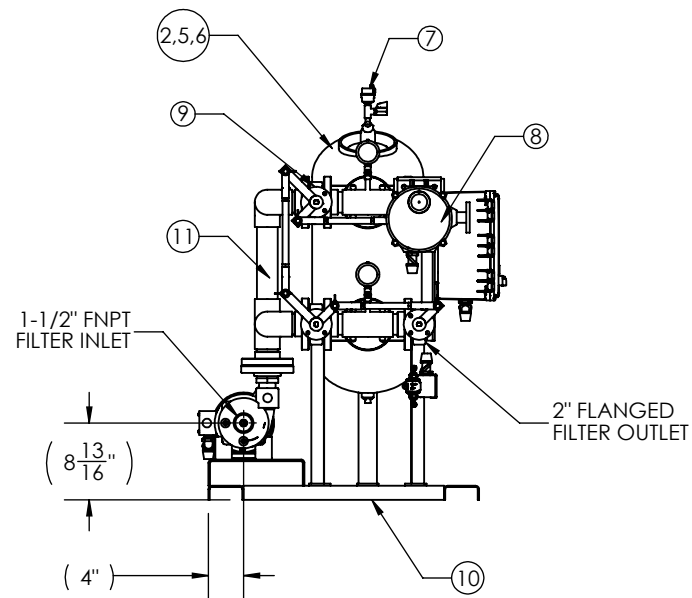


NOTES

- 1) ALL DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE SPECIFIED.
- 2) DESIGN CONDITIONS:  
17 GPM @ 100 PSI  
MAX TEMP 100 °F  
FLOODED SUCTION REQUIRED
- 3) BACKWASH FLOWRATE: 11-17 GPM
- 4) APPROXIMATE MASS:  
SYSTEM: 324 LBS  
OPERATING: 668 LBS



#	COMPONENT
1	NEMA 4X, UL, 460V/3PH/60HZ CONTROL PANEL, FLA=1.45A
2	MEDIA TANK: 12" 304 SS
3	PUMP: 1HP 3600RPM, 460/3/60, 17 GPM @ 50' TDH
4	INLET/OUTLET PRESSURE GAUGES: 2.5" 0-100 PSI, LIQ FILLED
5	MEDIA: UNIGRAN #50 (X1), UNIGRAN #475 (X1)
6	UNDERDRAIN/OVERDRAIN: 304 SS / SCH 80 PVC
7	AIR RELIEF VALVE: BRASS 1/4" NPT
8	ELECTRIC VALVE ACTUATOR: BRAY S70-0600
9	FILTER VALVES: BRAY S-31, BUTTERFLY, EPDM SEATS
10	BASE: 304 SS C-CHANNEL
11	FACE PIPE: 2" PVC SCH 80

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 120-J TALBERT ROAD  
 MOORESVILLE, NC 28117  
 PH: (704) 662-3133  
 FAX: (704) 662-3155

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DRAWING DATE: 2/22/2016	DRAWING TITLE: HMF3-12 SS TANK WITH FACE PIPING AND PUMP
SCALE: 1:22	DRAWING NUMBER: <b>210290-000001</b>
SHEET 1 OF 3	CAT NUMBER: 210290-000001
DRAWN BY: BJH	REV. NO. 0
CHECKED BY: _____	GENERAL TOLERANCES (EXCEPT AS NOTED)
APPROVED BY: _____	ANGULAR ± 1° FRACTIONAL ± 1/8" Dec: 2 PL ± 0.05', 3 PL ± 0.010"

NO.	REVISION NOTES	DATE	BY

5

4

3

2

1

460V/3 $\phi$ /60 Hz

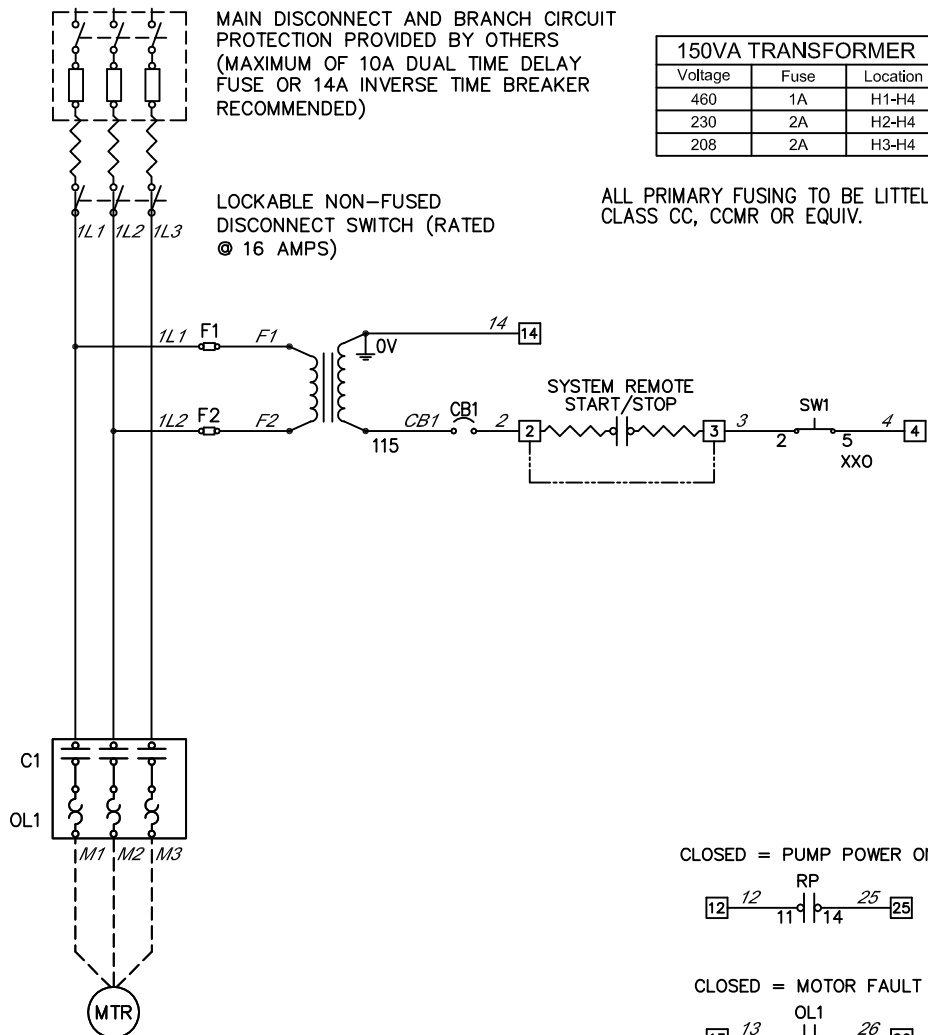
L1 L2 L3

MAIN DISCONNECT AND BRANCH CIRCUIT PROTECTION PROVIDED BY OTHERS (MAXIMUM OF 10A DUAL TIME DELAY FUSE OR 14A INVERSE TIME BREAKER RECOMMENDED)

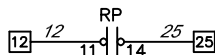
150VA TRANSFORMER		
Voltage	Fuse	Location
460	1A	H1-H4
230	2A	H2-H4
208	2A	H3-H4

LOCKABLE NON-FUSED DISCONNECT SWITCH (RATED @ 16 AMPS)

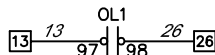
ALL PRIMARY FUSING TO BE LITTELFUSE CLASS CC, CCMR OR EQUIV.



CLOSED = PUMP POWER ON



CLOSED = MOTOR FAULT



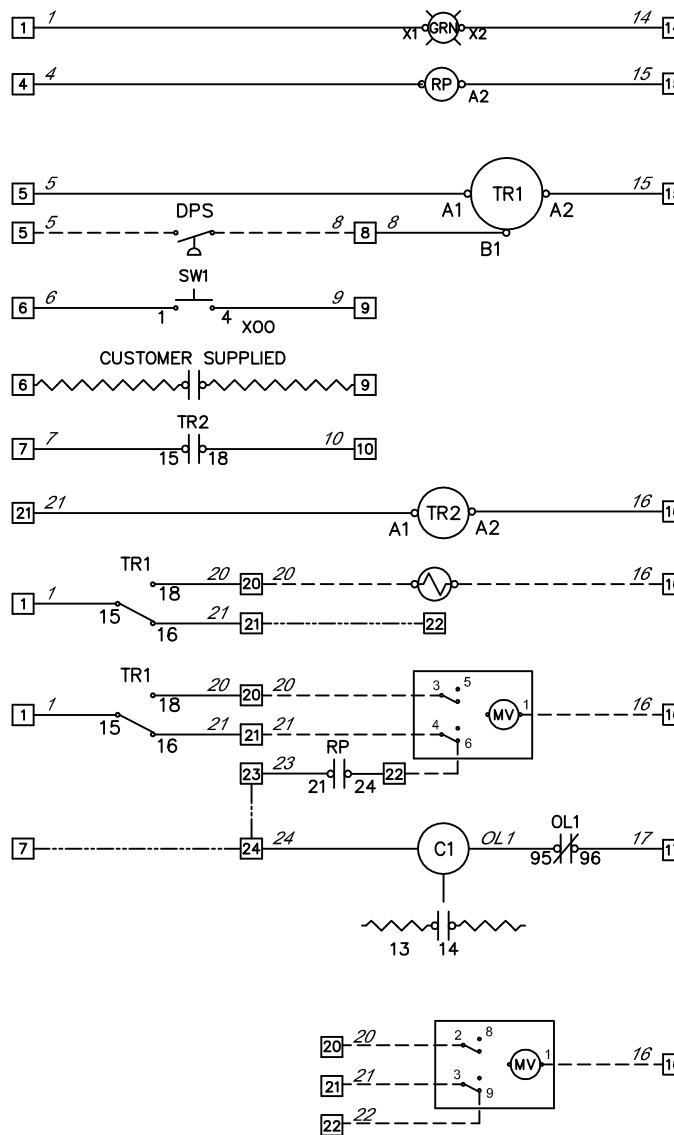
MAX. VOLTAGE: 600V  
MAX. AMPERES: 5A

POWER	460V/3~ /60HZ
TOTAL FLA	5.33 AMPS
SCCR	5 kA RMS SYMMETRICAL, 600V MAX.
LARGEST MTR.	3 HP

STANDARD	UL 508A
SIZE	12"L x 10"W x 6"D
UL RATING	TYPE 4X
MATERIAL	POLYCARBONATE

- GROUND PER 2011 NATIONAL ELECTRICAL CODE ARTICLE 250.
- PANEL WIRING:  
SHOP/FIELD WIRING: \_\_\_\_\_  
CUSTOMER'S WIRING: \_\_\_\_\_  
FACTORY INSTALLED JUMPER: \_\_\_\_\_
- USE COPPER WIRE RATED 60°C MINIMUM UNLESS OTHERWISE SPECIFIED.
- DISCONNECT SWITCH TORQUE REQUIREMENTS: 35 LB IN. CONTACTOR/OVERLOAD TORQUE REQUIREMENTS: 7-10 LB IN.
- SIZE THE MAIN DISCONNECT AND BRANCH CIRCUIT PROTECTION PER 2011 NATIONAL ELECTRIC CODE ARTICLE 430.

- CONDUIT HUBS AND FITTINGS MUST HAVE THE SAME UL ENVIRONMENTAL RATING AS THE CONTROL PANEL ENCLOSURE.
- WIRE COLORS ARE AS FOLLOWS-LINE=BLACK, AC=RED, NEUTRAL=WHITE, DC+=BLUE, DC-=WHITE/BLUE, GROUND=GREEN/YELLOW, EXTERNAL SOURCE=YELLOW.
- SET MOTOR OVERLOADS ACCORDING FLA ON MOTOR DATA PLATE
- ALL MOTOR WIRING TO BE AT LEAST CU, 75° RATED.
- TB1= [5] TBA= (1) TBB= (1)



POWER ON LIGHT

PUMP POWER ON

FLUSH DURATION (2 MIN)  
DIFFERENTIAL PRESSURE

LOCAL FLUSH START

REMOTE FLUSH START

CYCLE TIMER

CYCLE TIMER  
(0.05S-60HRS)

FLUSH VALVE OPTIONS  
(SHOP TO ADD JUMPER FROM TB21 TO TB22 IF SOLENOID FLUSH VALVE IS USED)

SYSTEM PUMP (REMOVE JUMPER FROM TB7 TO TB24 FOR EXTERNAL SOURCE FLUSH; REMOVE MECHANICAL JUMPER FROM TB23 TO TB24 FOR SYSTEM FLUSH)

OPTIONAL BRAY ACTUATOR



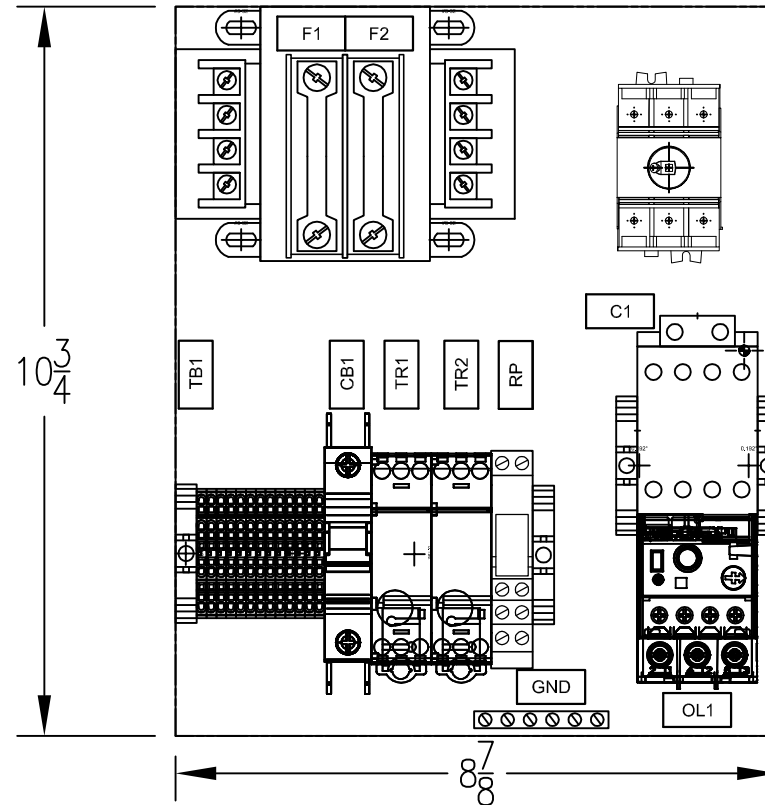
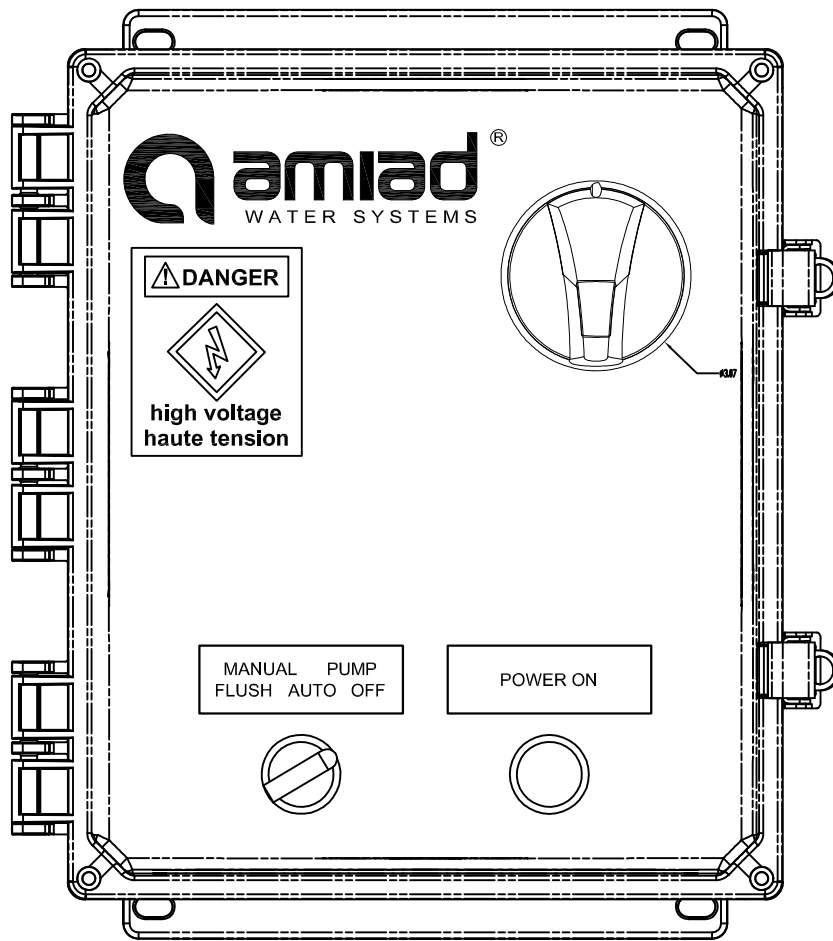
120-J TALBERT ROAD  
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NO.	DATE	NOTES	BY	CHKD BY	APP. BY
5	10/10/2017	REMOVE COUNTER	RAM		
4	07/25/2016	ADD COUNTER, FIX PUMP "SOURCE" POWER	RAM		
3	02/25/2016	ADD BRAY ACTUATOR OPTION	RAM		
2	07/09/2014	MOTOR CONTROL	CEH		
1	06/03/2014	WIRE LABELS	JTE		

DRAWING DATE:	05/09/2014	DRAWING TITLE:	1F 460V/3~ UNI/SOL PEP 1-3.19A WIRING DIAGRAM
SCALE:	1" = 1"	DRAWING NUMBER:	720102-002073-ELC
SHT.	1 of 2	REV. NO.	5
DRAWN BY:	JTE	CATALOG NUMBER:	720102-002073
CHKD BY:	SAL	GENERAL TOLERANCES:	(EXCEPT AS NOTED)
APP. BY:	---	ANGULAR $\pm 1^\circ$	FRACTIONAL $\pm 1/8"$
		DEC:	2PL $\pm 0.05"$ , 3PL $\pm 0.010"$



UPPER LEVEL

1	2	3	4	5	6	7	8	9	10	11	12	13
---	---	---	---	---	---	---	---	---	----	----	----	----

LOWER LEVEL

14	15	16	17	18	19	20	21	22	23	24	25	26
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**NOTE**

- ALL HARDWARE WILL INCLUDE ONE MECHANICAL LOCK AND A FLAT WASHER.
- THE ONLY EXCEPTION IS IF THE MECHANICAL SCREW IS A SELF-THREADING SCREW.
- IF BOLT/SCREW NEEDS TO GO THROUGH A THROUGH-HOLE, THE BOLT/SCREW WILL NEED A FLAT WASHER ON BOTH SIDES OF THE MATERIAL AND MECHANICAL LOCK BEFORE THE NUT.
- ALL HARDWARE HAS TO THREAD AT LEAST TWO COMPLETE TURNS THROUGH THE NUT/THREADED HOLE
- IF VISIBLE, NO HARDWARE WILL EXTEND PAST THREE THREADS OUT OF THE NUT/THREADED HOLE.
- BACKPLANE AND DEAD FRONT IF REQUIRED ARE TO BE GROUNDED ACCORDING NEC 70E.
- UNLESS OTHERWISE NOTED, ALL CONTACTORS WILL BE AB 100-C, OVERLOADS AB 193 E-1, CONTROL RELAYS AB 700-HLT, AND CIRCUIT BREAKERS AB 1489.

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DRAWING DATE: 05/09/2014	DRAWING TITLE: 1F 460V/3~ UNI/SOL PEP 1-3.19A WIRING DIAGRAM	
SCALE: 1" = 3"	DRAWING NUMBER: 720102-002073-ELC	REV. NO. 5
SHT. 2 of 2	CATALOG NUMBER: 720102-002073	
DRAWN BY: JTE	GENERAL TOLERANCES (EXCEPT AS NOTED)	ANGULAR ±1° FRACTIONAL ± 1/8" DEC: 2PL±0.05", 3PL±0.010"
NO. DATE	NOTES	BY
GENERAL REVISIONS		
CHKD BY: ---	APP. BY: ---	