

NOTES

- 1) ALL DIMENSIONS ARE GIVEN IN INCHES UNLESS OTHERWISE SPECIFIED.
- 2) DESIGN CONDITIONS:
192 GPM @ 50 PSI
MAX TEMP 100°F
FLOODED SUCTION REQUIRED
- 3) BACKWASH FLOWRATE: 150-192 GPM
- 4) APPROXIMATE MASS:
SYSTEM: 690 LBS
OPERATING: 2920 LBS

#	COMPONENT
1	NEMA 4X, UL, 460V/3PH/60Hz CONTROL PANEL, FLA=5.90A
2	MEDIA TANK: 42" FIBERGLASS
3	PUMP: 5HP 3600RPM, 460/3/60, 192 GPM @ 50' TDH
4	INLET/OUTLET PRESSURE GAUGES: 2.5" 0-60 PSI, LIQ FILLED
5	MEDIA: UNIGRAN #50 (X12), UNIGRAN #475 (X15)
6	UNDERDRAIN/OVERDRAIN: SLOTTED PVC/ SCH 80 PVC
7	AIR RELIEF VALVE: BRASS, 1/4" NPT
8	ELECTRIC VALVE ACTUATOR: UNITORQ R600, 115VAC
9	FILTER VALVES: KITZ #54 3-WAY BRASS
10	BASE: 304 SS C-CHANNEL
11	FACE PIPE: 3" PVC SCH 80

amiad[®] WATER SYSTEMS
 120-J TALBERT ROAD
 MOORESVILLE, NC 28117
 PH: (704) 662-3133
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DRAWING DATE: 9/8/2015	DRAWING TITLE: SMF2-42 TW FIBERGLASS TANK WITH FACE PIPING AND PUMP
SCALE: 1:28	DRAWING NUMBER: 210190-000005
SHEET 1 OF 3	CAT NUMBER: 210190-000005
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 ϕ /60 Hz

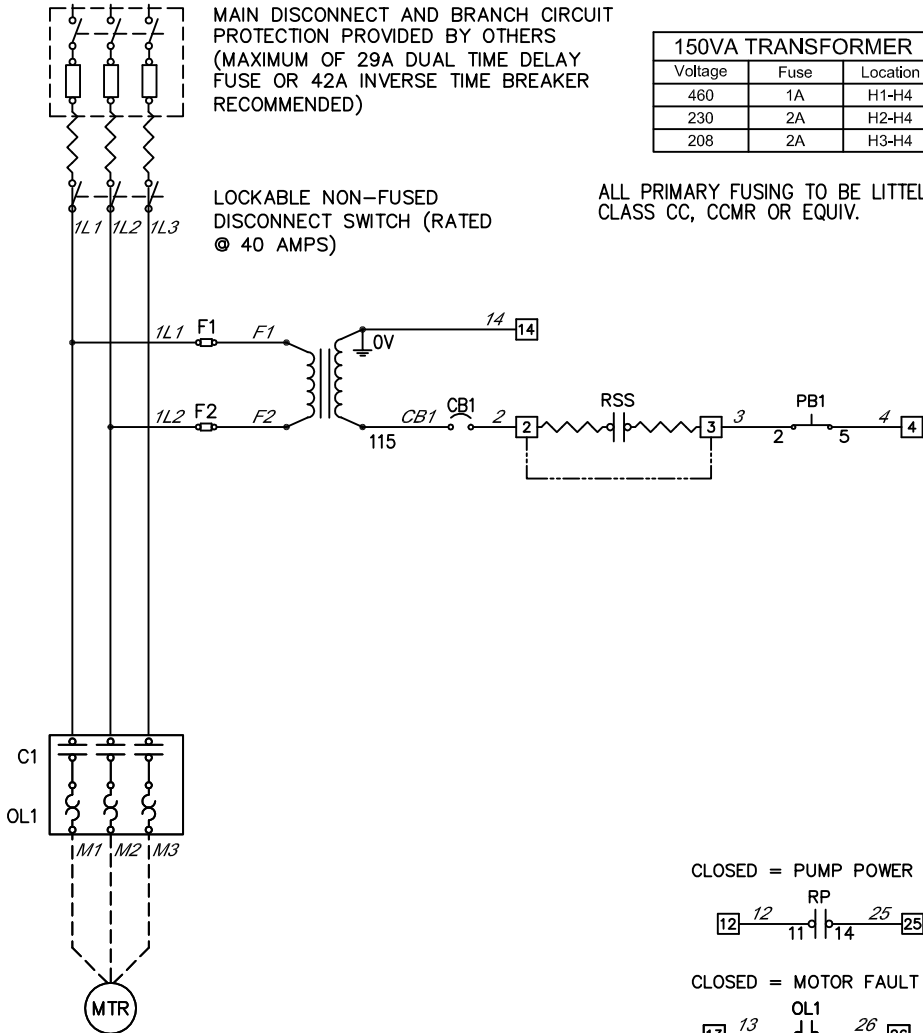
L1 L2 L3

MAIN DISCONNECT AND BRANCH CIRCUIT PROTECTION PROVIDED BY OTHERS (MAXIMUM OF 29A DUAL TIME DELAY FUSE OR 42A INVERSE TIME BREAKER RECOMMENDED)

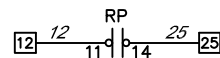
150VA TRANSFORMER		
Voltage	Fuse	Location
460	1A	H1-H4
230	2A	H2-H4
208	2A	H3-H4

LOCKABLE NON-FUSED DISCONNECT SWITCH (RATED @ 40 AMPS)

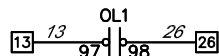
ALL PRIMARY FUSING TO BE LITTELFUSE CLASS CC, CCMR OR EQUIV.



CLOSED = PUMP POWER ON



CLOSED = MOTOR FAULT



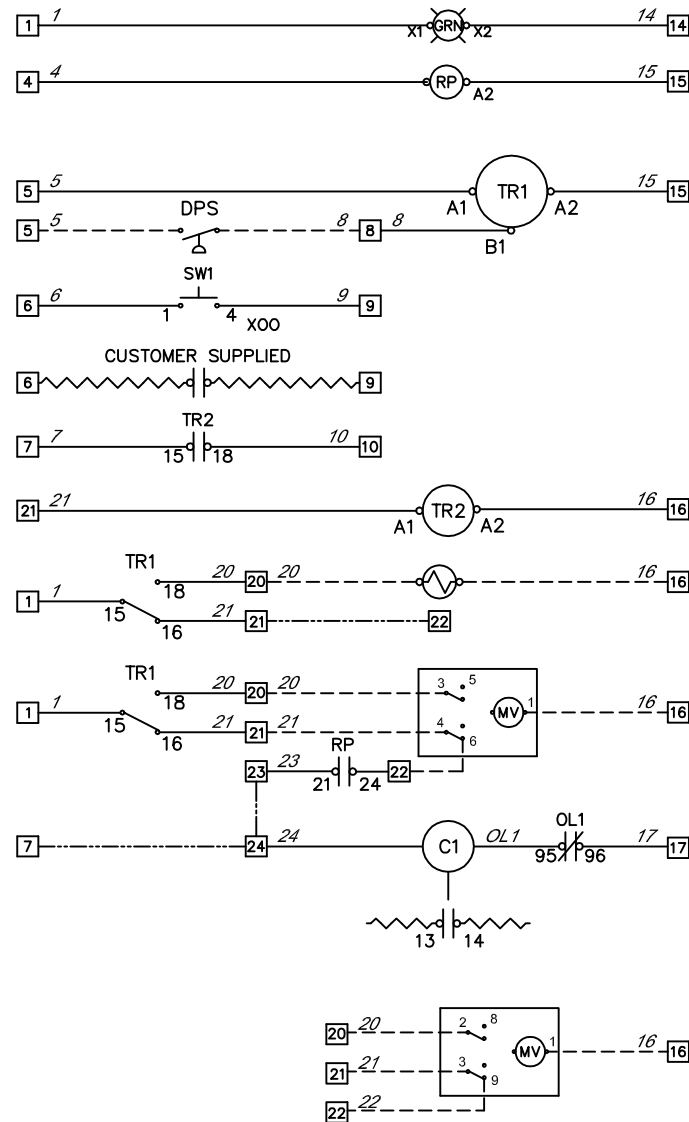
MAX. VOLTAGE: 600V
MAX. AMPERES: 16A

POWER	POWER	460V/3~/60HZ
	TOTAL FLA	16.33 AMPS
	SCCR	5 KA RMS SYMMETRICAL, 600V MAX.
	LARGEST MTR.	15 HP

ENCLOSURE	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)

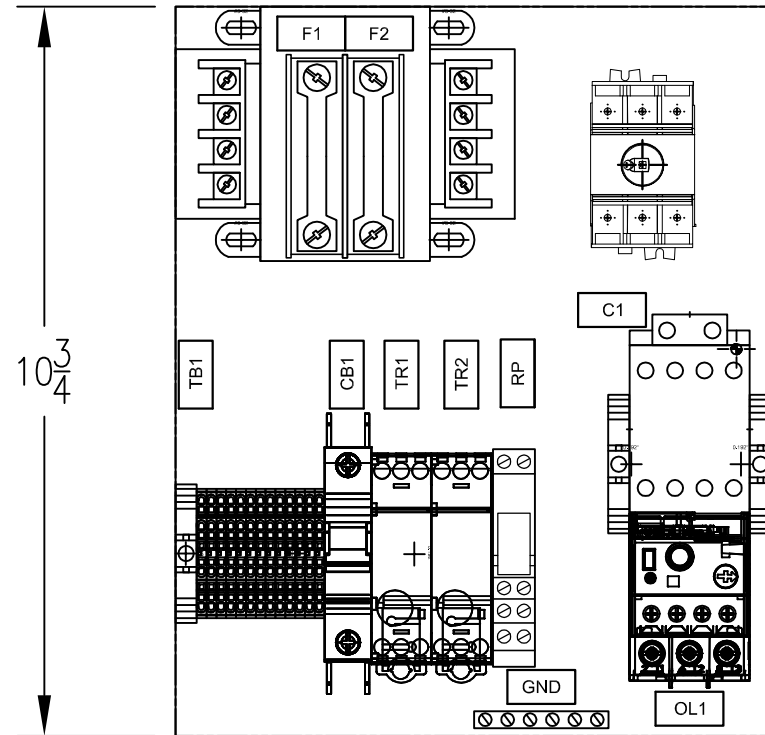
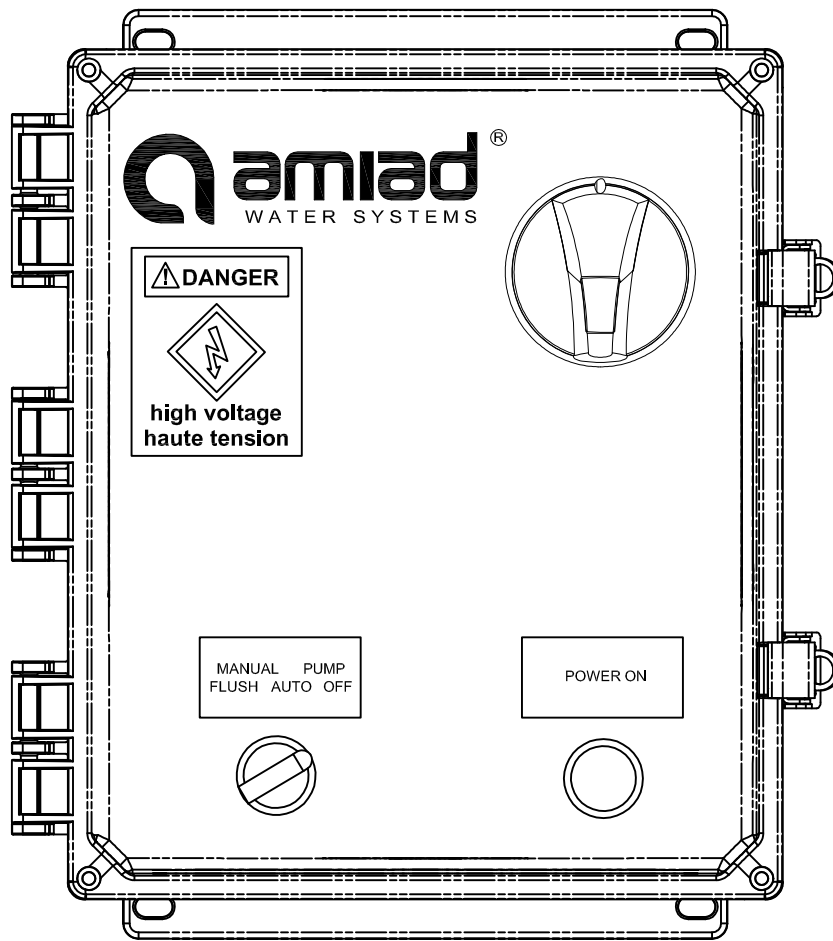


- POWER ON LIGHT
- PUMP POWER ON
- FLUSH DURATION (2 MIN) DIFFERENTIAL PRESSURE
- LOCAL FLUSH START
- REMOTE FLUSH START
- CYCLE TIMER
- CYCLE TIMER (0.05S-60HRS)
- FLUSH VALVE OPTIONS (SHOP TO ADD JUMPER FROM TB21 TO TB22 IF SOLENOID FLUSH VALVE IS USED)
- SYSTEM PUMP (REMOVE JUMPER FROM TB7 TO TB24 FOR EXTERNAL SOURCE FLUSH; REMOVE MECHANICAL JUMPER FROM TB23 TO TB24 FOR SYSTEM FLUSH)

OPTIONAL BRAY ACTUATOR

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5	10/10/2017	REMOVE COUNTER	RAM
4	08/31/2016	ADD COUNTER, FIX PUMP "SOURCE" POWER	RAM
3	02/04/2016	ADD OPTIONAL BRAY ACTUATOR	RAM
2	07/09/2014	MOTOR CONTROL	CEH
1	06/03/2014	WIRE LABELS	JTE
NO.	DATE	NOTES	BY
GENERAL REVISIONS			
DRAWING DATE: 05/09/2014		DRAWING TITLE: 1F 460V/3~ UNI/SOL PEP 3.2-16A WIRING DIAGRAM	
SCALE: 1" = 1"		DRAWING NUMBER: 720102-002083-ELC	
SHT. 1 of 2		REV. NO. 5	
DRAWN BY: JTE		CATALOG NUMBER: 720102-002083	
CHKD BY: ---		GENERAL TOLERANCES (EXCEPT AS NOTED)	
APP. BY: ---		ANGULAR ±1° FRACTIONAL ± 1/8" DEC: 2PL±0.05", 3PL±0.010"	



UPPER LEVEL

LOWER LEVEL

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

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 3.2-16A WIRING DIAGRAM	
SCALE: 1" = 3"	DRAWING NUMBER: 720102-002083-ELC	REV. NO. 5
SHT. 2 of 2	CATALOG NUMBER: 720102-002083	
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: ---	