

DESCRIPTION OF OPERATION

The 93-575V Series control panels are designed for automatic automatic, float switch operation of pumps in dewatering applications. Upon rising water level, when the top float is above horizontal, the pump will activate and upon receding water level, the pump will deactivate once the bottom float drops below horizontal. To operate the pump manually, turn the Hand-Off-Auto (HOA) switch to the 'HAND' mode and for normal automatic operation, turn the HOA switch to the 'AUTO' position.

STANDARD FEATURES

- UL listed control panels used for automatic dewatering applications
- Multi-voltage, 208/230/460 VAC (operates all pump voltages)
- Heavy duty and padlockable NEMA 4X thermoplastic enclosure
- Heavy duty on/off pump switch
- Motor Protective Switch (MPS) - provides disconnect, short circuit, and adjustable overload protection
- Seal Fail Relay (on certain pump models)
- Heavy duty watertight cable connectors for pump and power - quick installation
- Labeled/numbered field wiring terminals
- Includes 2-50' mechanical float switches
- Thermal label schematic affixed to inner door
- Green run light
- Hand Off Auto (HOA) switch
- UL 508 listed for USA and Canada

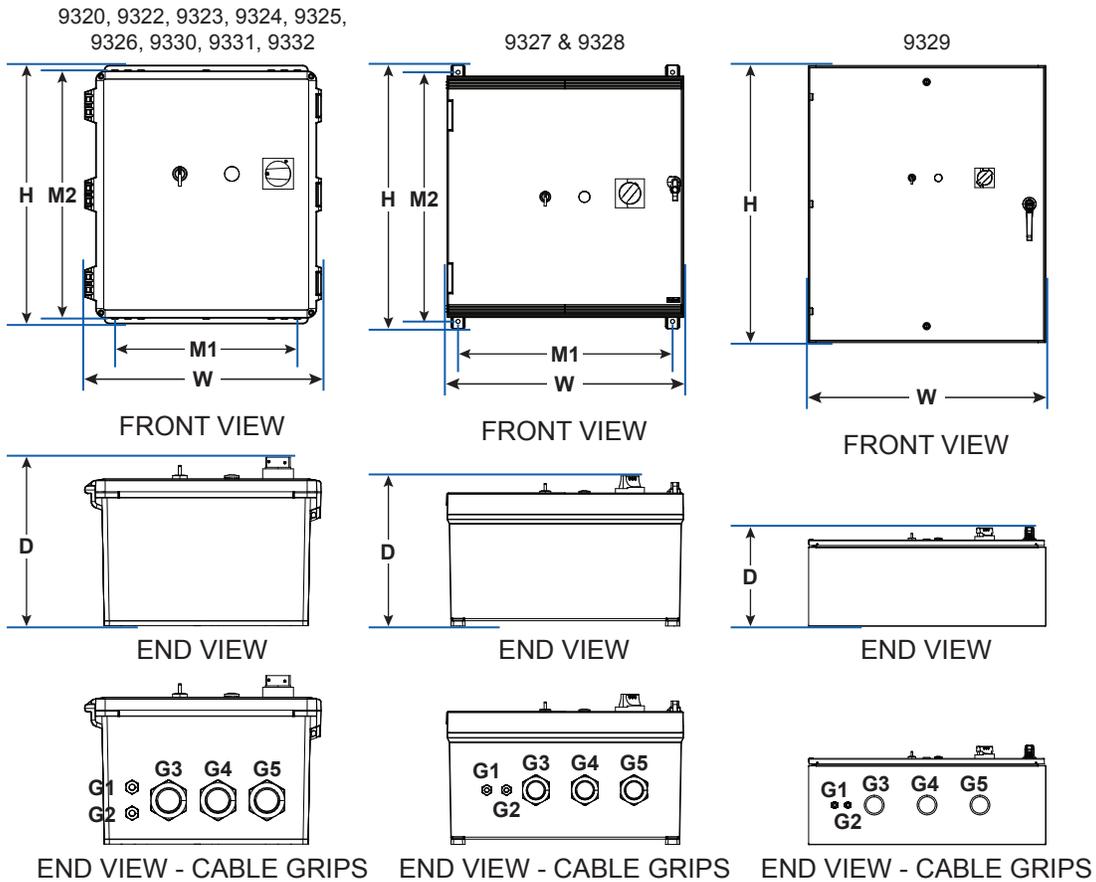


SPECIFICATIONS

(Exterior Enclosure Dimension in Inches) (Cable Grip Diameter Range in Inches) (Seal Fail Relay)

MODEL	VOLTAGE	AMPERAGE	W	H	D	M1	M2	G1 & G2	G3	*G4	G5	ELECTRODE CIRCUITRY	FLOAT CIRCUITRY
9320	208/230/460	17.0 - 23.0	18.16	19.85	13.11	14.00	18.75	0.12 - 0.35	0.51 - 1.02	-	0.51 - 1.02	-	-
9322	208/230/460	30.0 - 40.0	18.16	19.85	13.11	14.00	18.75	0.12 - 0.35	1.38 - 1.89	-	1.38 - 1.89	Yes	-
9323	208/230/460	40.0 - 80.0	18.16	19.85	13.11	14.00	18.75	0.12 - 0.35	1.38 - 1.89	-	1.38 - 1.89	-	-
9324	208/230/460	40.0 - 80.0	18.16	19.85	13.11	14.00	18.75	0.12 - 0.35	1.38 - 1.89	-	1.38 - 1.89	Yes	-
9325	208/230/460	58.0 - 130.0	18.16	19.85	13.11	14.00	18.75	0.12 - 0.35	1.38 - 1.89	-	1.38 - 1.89	Yes	-
9326	208/230/460	58.0 - 130.0	18.16	19.85	13.11	14.00	18.75	0.12 - 0.35	1.38 - 1.89	1.38 - 1.89	1.38 - 1.89	Yes	-
9327	208/230/460	114.0 - 217.0	24.09	26.91	15.32	21.85	25.42	0.12 - 0.35	1.38 - 1.89	1.38 - 1.89	1.38 - 1.89	Yes	-
9328	208/230/460	114.0 - 217.0	24.09	26.91	15.32	21.85	25.42	0.12 - 0.35	1.38 - 1.89	1.38 - 1.89	1.38 - 1.89	Yes	Yes
9329	208/230/460	200.0 - 330.0	36.00	42.00	15.05	-	-	0.12 - 0.35	1.625 - 1.625	1.625 - 1.625	1.625 - 1.625	Yes	Yes

*G4 is a second cable grip meant for 2-cable pumps.



Legend

Device Tag	Description	Priority	Industry Term
F1	5A Control Fuse	7 In-lb	
F2/F3	Fuse X A	50 In-lb	
GND1	Ground Lug		
GND3	Ground Modular Terminal Block		
L1T1	Green Light 120V		
M1	Contactor XX A - 120V Coil	44 In-lb	11 In-lb
MPS1	Motor Protection Switch XX-XX A	70 In-lb	57 In-lb
SF1	Seal Fail Relay 1 Pump	9 In-lb	
SW1	3M Switch		
TB1	Terminal Block 30A	6 In-lb	
TRANS1	Transformer, X VA		
U1	Transformer Fuse Block, 2 Pole	20 In-lb	

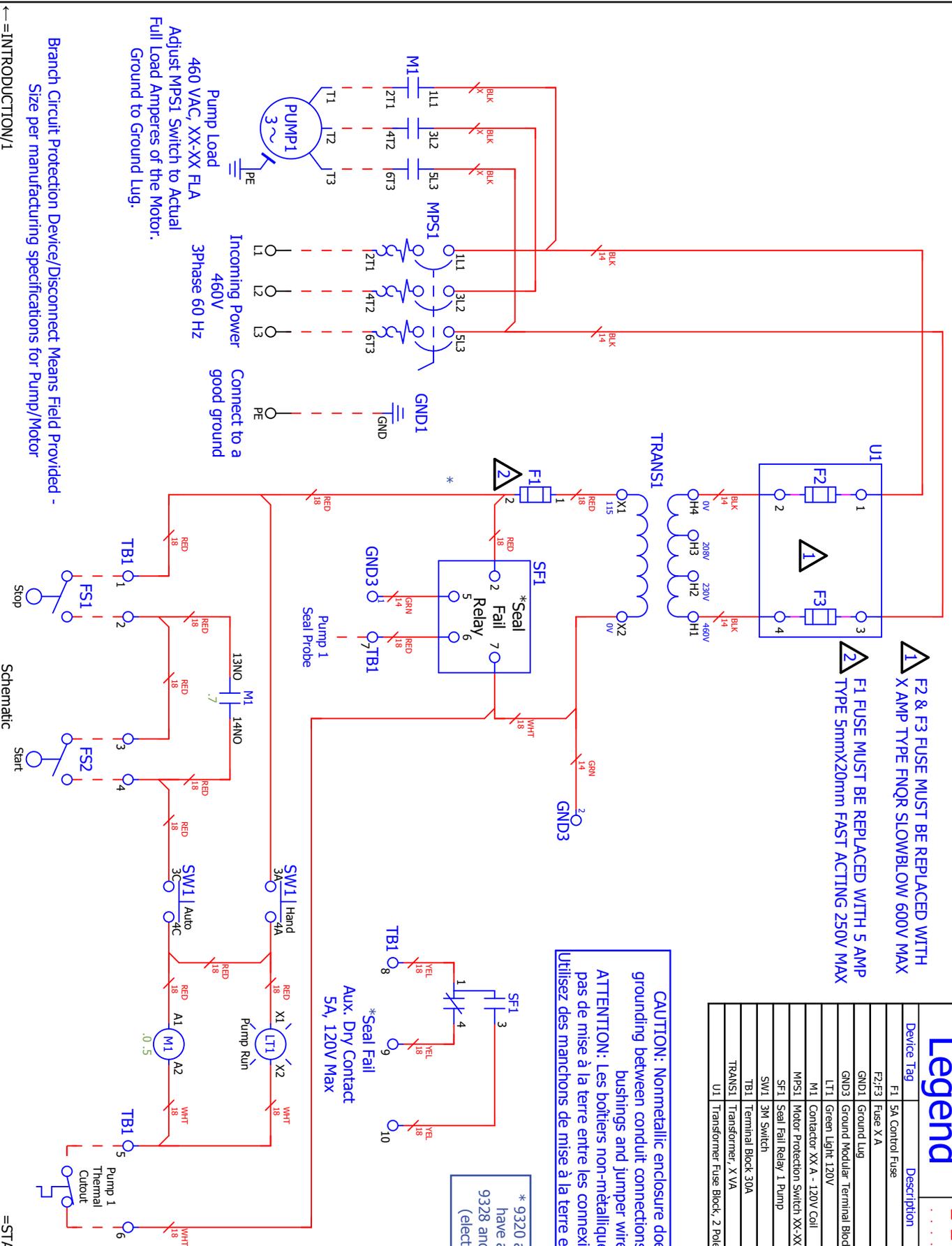
1 F2 & F3 FUSE MUST BE REPLACED WITH X AMP TYPE FNO_R SLOWBLOW 600V MAX

2 F1 FUSE MUST BE REPLACED WITH 5 AMP TYPE 5mmx20mm FAST ACTING 250V MAX

CAUTION: Nonmetallic enclosure does not provide grounding between conduit connections. Use grounding bushings and jumper wires.

ATTENTION: Les boîtiers non-métalliques ne permettent pas de mise à la terre entre les connexions de conduits. Utilisez des manchons de mise à la terre et des fils de liaison.

* 9320 and 9323 DO NOT have a Seal Fail Relay 9328 and 9329 have 2 seal (electrode and float).



Pump Load
460 VAC, XX-XX FLA
Adjust MPS1 Switch to Actual Full Load Amperes of the Motor.
Ground to Ground Lug.

Incoming Power
460V
3Phase 60 Hz

Connect to a good ground

Schematic

=STANDARD REPORT/1-

1625 Fullerton Court
Glendale Heights, IL 60139
PH: 630/783-0127 TsurumiPump.com

Model Number **DWG** Tsurumi 93 Series Schematic

Quote Number _____

Drawn By **B. Nelson**

Checked By _____

Date _____

Revision _____

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Notes: 1. WARNING Electrical Shock Hazard Disconnect power before servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes.
2. Install in accordance with National Electric Code, NFPA 70, Seal all boxes, fittings, and conduit with appropriate seal devices to prevent moisture and gasses from entering enclosure.
3. Connect all grounds to a good ground. 4. Dashed lines represent field wiring - Use minimum 60 deg C Copper Wire 5. Branch Circuit Protection Device/Disconnect Means Field Provided.