

## STANDARD FEATURES

- Heavy duty UL 508 listed control panel used for sewage lift station applications
- Multi-voltage transformer operates 208/230/460 VAC  
Exterior alarm test/silence switch
- Padlockable NEMA 4X thermoplastic enclosure
- Hand-Off-Auto (HOA) pump selector switch
- LEDs status indicators for power, pump run, float activation and seal fail (optional)
- Motor protectors provide disconnect, short circuit protection and adjustable overload protection
- IEC rated magnetic motor contactors
- Beacon with vibrant multi-color LEDs, green (normal/pump run), red (alarm), and amber (error/HOA off)
- Alarm buzzer 95dB warble w/exterior test/silence switch
- Normally Open (NO) and Normally Closed (NC) Dry Alarm Contacts
- Labeled/numbered field wiring terminals
- Laminated electrical schematic
- (3) 20' mechanical float switches
- Configure button activates alarm test, clear alarms, and enables/disabled system configuration settings



## AVAILABLE OPTIONS

- |  |   |
|--|---|
| <input type="checkbox"/> C2 - Control Fuse Disconnect Switch   | <input type="checkbox"/> M1 - Elapsed Time Meter                |
| <input type="checkbox"/> D1 - Main Disconnect                  | <input type="checkbox"/> M3 - Combo Elapsed Time Meter/ Counter |
| <input type="checkbox"/> H3 - Anti-condensation Panel Heater   | <input type="checkbox"/> S1 - Thermal Cutout / Seal Failure     |
| <input type="checkbox"/> I - Intrinsically Safe float circuits | <input type="checkbox"/> WC - External Float Weights            |
| <input type="checkbox"/> L3 - Lightning Arrestor               | <input type="checkbox"/> X4 - Phase Loss Relay                  |
| <input type="checkbox"/> _____                                 | <input type="checkbox"/> _____                                  |
| <input type="checkbox"/> _____                                 | <input type="checkbox"/> _____                                  |

Contact factory for additional options

\*Options will increase size of enclosure

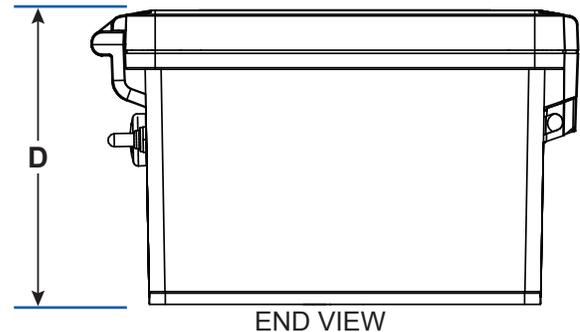
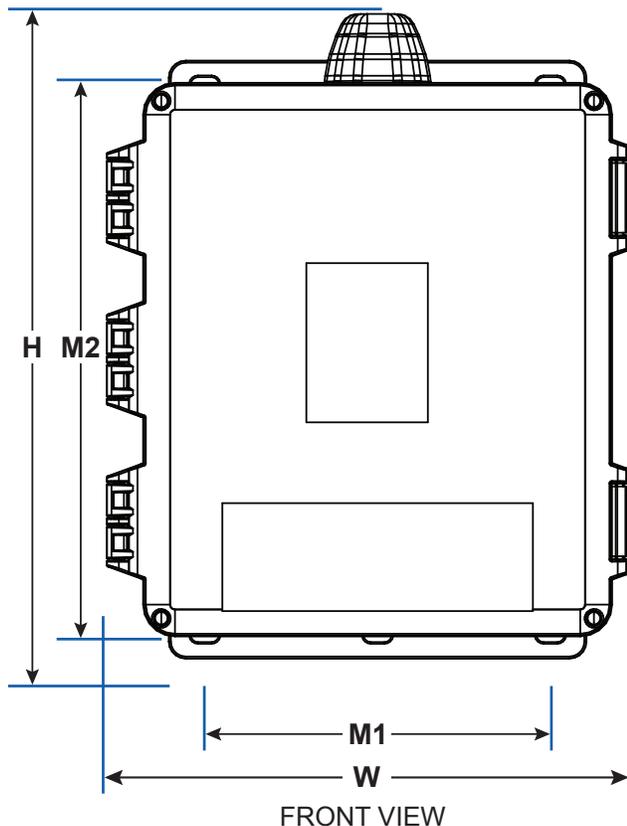


## DESCRIPTION OF OPERATION

The TC-3S control panels are float switch operated and come standard with (3) 20' mechanical float switches for pump stop, pump start, and high liquid level alarm. As the liquid level rises activating the pump START float, the pump will start until receding water level deactivates the STOP float to complete the pump cycle. If high level alarm float is activated, the beacon will illuminate, buzzer will annunciate, and auxiliary contacts will activate.

(Exterior Enclosure Dimension in Inches)

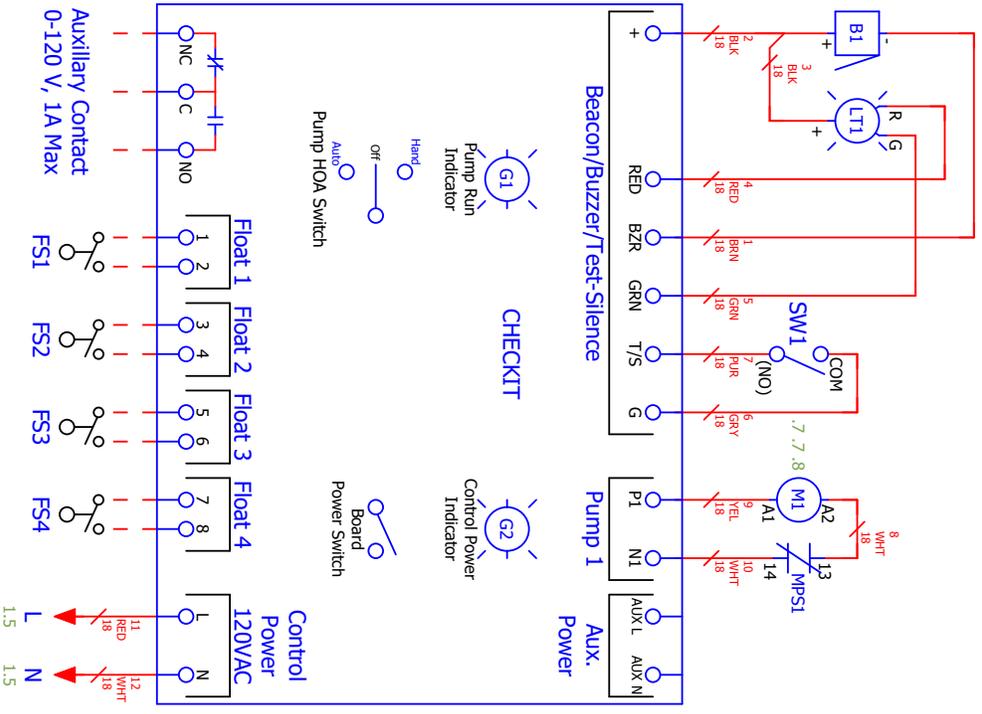
MODEL NUMBER	VOLTAGE	AMPERAGE	W	H	D	M1	M2
TC3S402A	208/230/460VAC	1.6 - 2.5	12.04	15.85	7.27	8.27	12.82
TC3S403A	208/230/460VAC	2.5 - 4.0	12.04	15.85	7.27	8.27	12.82
TC3S404A	208/230/460VAC	4.0 - 6.3	12.04	15.85	7.27	8.27	12.82
TC3S405A	208/230/460VAC	6.3 - 10.0	12.04	15.85	7.27	8.27	12.82
TC3S406A	208/230/460VAC	9 - 14	12.04	15.85	7.27	8.27	12.82
TC3S407A	208/230/460VAC	13 - 18	12.04	15.85	7.27	8.27	12.82
TC3S408A	208/230/460VAC	17 - 23	12.04	15.85	7.27	8.27	12.82
TC3S409A	208/230/460VAC	20 - 25	12.04	15.85	7.27	8.27	12.82
TC3S410A	208/230/460VAC	24 - 30	12.04	15.85	7.27	8.27	12.82
TC3S411A	208/230/460VAC	30 - 40	13.89	16.95	7.27	10.00	14.88
TC3S412A	208/230/460VAC	37 - 50	13.89	16.95	7.27	10.00	14.88
TC3S413A	208/230/460VAC	48 - 65	13.89	16.95	7.27	10.00	14.88
TC3S414A	208/230/460VAC	63 - 80	18.16	19.85	13.11	14.00	18.75



Branch Circuit Protection Device/Disconnect Means Field Provided -  
Size per manufacturing specifications for Pump/Motor

**Legend** - - - Field Wiring ..... Field Supplied

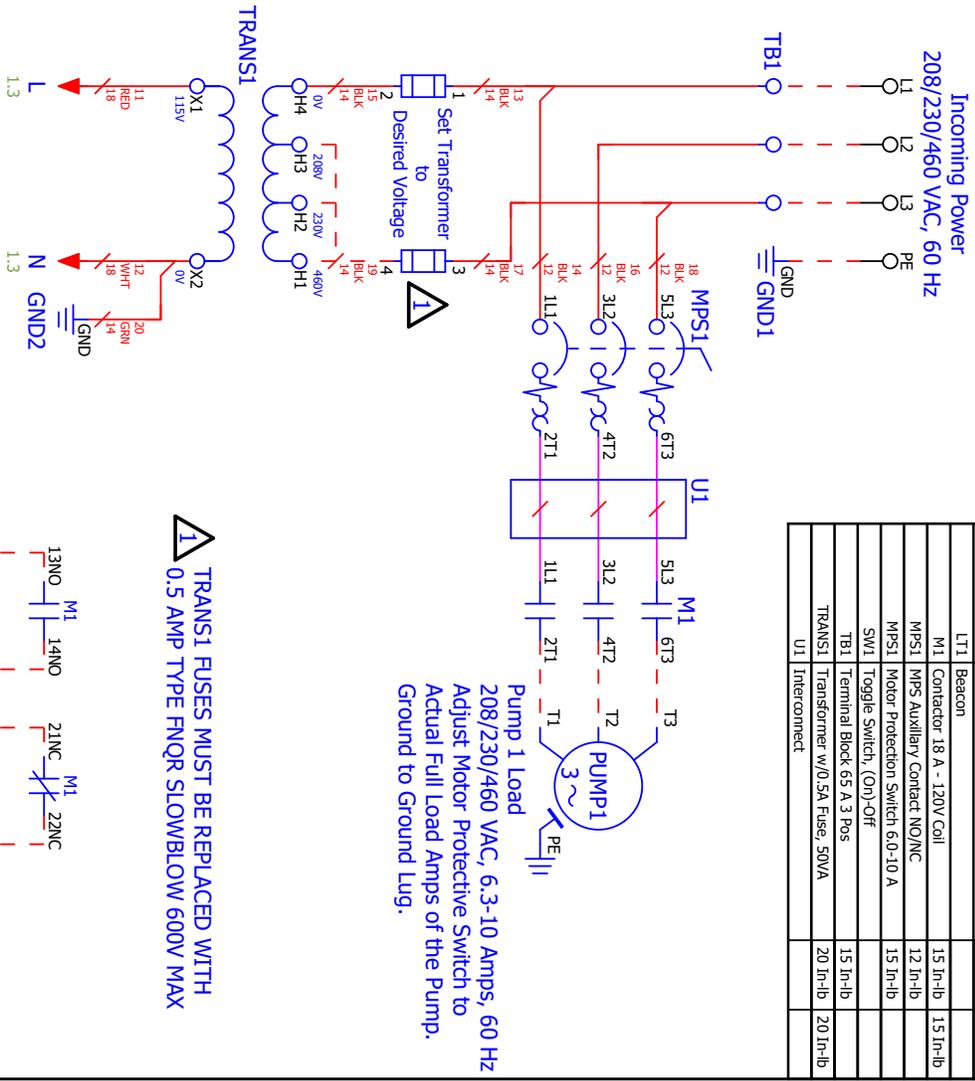
Device Tag	Description	Primary	Secondary
B1	Buzzer 5-30VDC	9 In-1b	3 In-1b
CHECKIT	Check-IT Simplex	45 In-1b	
GND1	Ground Lug		
GND2	Ground Screw		
LTI	Beacon	15 In-1b	15 In-1b
M1	Contactor 18 A - 120V Coil	12 In-1b	15 In-1b
MP51	MPS Auxiliary Contact NO/NC	15 In-1b	
MP51	Motor Protection Switch 6.0-10 A	15 In-1b	
SW1	Toggle Switch, (On)-Off	15 In-1b	
TB1	Terminal Block 65 A 3 Pos	20 In-1b	20 In-1b
TRANS1	Transformer w/0.5A Fuse, 50VA		
U1	Interconnect		



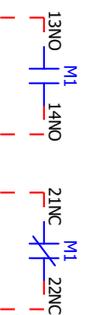
**Simplex Typical Float Arrangement**

Configuration	FS1	FS2	FS3	FS4
Default Configuration	Low	Stop	Start	Alarm
Configuration 1	Low	Stop	Start	Alarm

To change from default configuration, run the setup



Pump 1 Run Auxiliary Contacts  
Connect Directly to Contactor



**TRANS1 FUSES MUST BE REPLACED WITH  
0.5 AMP TYPE FNQR SLOWBLOW 600V MAX**

**Pump 1 Load  
208/230/460 VAC, 6.3-10 Amps, 60 Hz  
Adjust Motor Protective Switch to  
Actual Full Load Amps of the Pump,  
Ground to Ground Lug.**

←=INTRODUCTION/1

Schematic

=STANDARD REPORT/1→

**Tsurumi Pump**  
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PH: 630/793-9127    TSURUMIPUMP.COM

This drawing contains proprietary information which must not be duplicated, used, or disclosed in whole or in part without prior written consent.

Model Number **TC3S405A**

Quote Number \_\_\_\_\_

Drawn By: C. Johnson  
Checked By: B. Nelson  
Date: 12/14/2023  
Revision: 001

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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.