



# TORNATECH

Project: \_\_\_\_\_

Customer: \_\_\_\_\_

Engineer: \_\_\_\_\_

Pump Manufacturer: \_\_\_\_\_

## Technical Data Submittal Document

### Model HFY

Wye-delta Open  
Electric Fire Pump Controller  
Built to EN12485



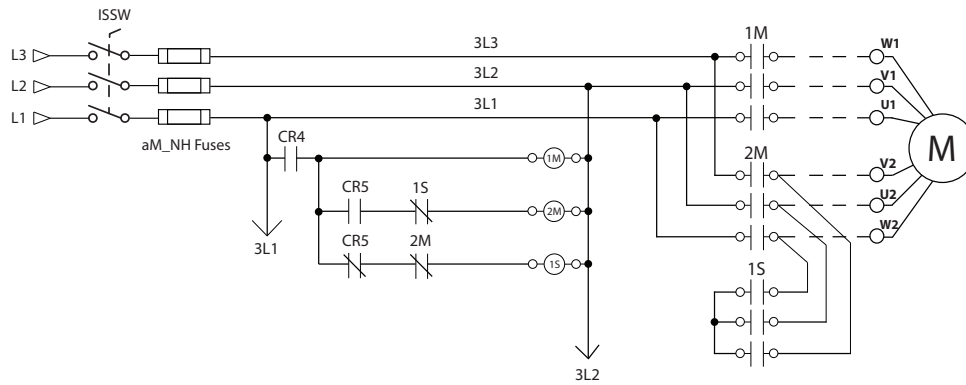
#### Contents:

Data Sheets  
Dimensional Data  
Wiring Schematics  
Field Connections

**Note:** The drawings included in this package are for controllers covered under our standard offering. Actual AS BUILT drawings may differ from what is shown in this package.



April 2020



<b>Standard &amp; Certification</b>	Built to EN12845		
	CE Mark: Various EN, IEC & CEE directives and standards		
<b>Enclosure</b>	<b>Protection Rating</b> IP55		
	<b>Accessories</b> • Bottom entry gland plate		<b>Paint Specifications</b> • Red RAL3002 • Powder coating • Glossy textured finish
<b>Isolating Means Motor Protection</b>	<ul style="list-style-type: none"> <li>• Three (3) pole fused disconnect switch complete with rotary door handle <ul style="list-style-type: none"> <li>• Fuse NH_aM (3)</li> </ul> </li> <li>• Door interlocked in the ON position</li> </ul>		
<b>Electrical Readings</b>	<ul style="list-style-type: none"> <li>• Voltage phase to phase</li> <li>• Amperage at L1 when motor is running</li> </ul>		
<b>Event recorder</b>	<ul style="list-style-type: none"> <li>• Event recording with date stamp</li> <li>• Under regular maintained operation, events can be stored in memory for up to 5 years.</li> <li>• Data viewable on operator interface display screen</li> </ul>		
<b>Pressure Sensing</b>	• Provision to connect to externally mounted pressure switch (by others)		
<b>Visual Indications &amp; Alarms</b>	<ul style="list-style-type: none"> <li>• Power available</li> <li>• Phase reversal</li> <li>• Motor run</li> <li>• Pump room alarm</li> <li>• Motor trouble</li> <li>• Phase loss</li> </ul>	<ul style="list-style-type: none"> <li>• Low water level</li> <li>• Phase unbalance</li> <li>• Fail to start</li> <li>• Pump on demand/Automatic start</li> <li>• Manual start</li> <li>• Deluge valve start</li> </ul>	<ul style="list-style-type: none"> <li>• Remote pressure switch</li> <li>• Remote manual start</li> <li>• Overcurrent</li> <li>• Undercurrent</li> <li>• Undervoltage</li> <li>• Overvoltage</li> </ul>
<b>Remote Alarm Contacts</b>	SPDT-8A-250V.AC <ul style="list-style-type: none"> <li>• Power available</li> <li>• Spare</li> <li>• Motor run</li> <li>• Common pump room alarm <ul style="list-style-type: none"> <li>• Overvoltage</li> <li>• Undervoltage</li> <li>• Phase unbalance</li> </ul> </li> <li>• Common motor trouble <ul style="list-style-type: none"> <li>• Overcurrent</li> <li>• Undercurrent</li> <li>• Fail to start</li> </ul> </li> </ul>		



<b>ViZiTouch Light Operator Interface</b>	<ul style="list-style-type: none"> <li>• Embedded microcomputer with software PLC logic</li> <li>• 4.2" color touch screen (HMI technology)</li> <li>• Upgradable software</li> <li>• Expandable storage</li> <li>• Multi-language</li> </ul>		
<b>Operation</b>	<b>Automatic Start</b>	<ul style="list-style-type: none"> <li>• Start on pressure drop (pressure switches by others)</li> </ul>	
	<b>Manual Start</b>	<ul style="list-style-type: none"> <li>• Start pushbutton</li> <li>• Run test pushbutton</li> <li>• Deluge valve start</li> <li>• Remote start from manual device</li> </ul>	
	<b>Stopping</b>	<ul style="list-style-type: none"> <li>• Manual with Stop pushbutton</li> </ul>	
	<b>Timers</b>	Field Adjustable & Visual Countdown	<ul style="list-style-type: none"> <li>• Minimum run period time (off delay)</li> <li>• Sequential start timer (on delay)</li> <li>• Manual test timer</li> </ul>

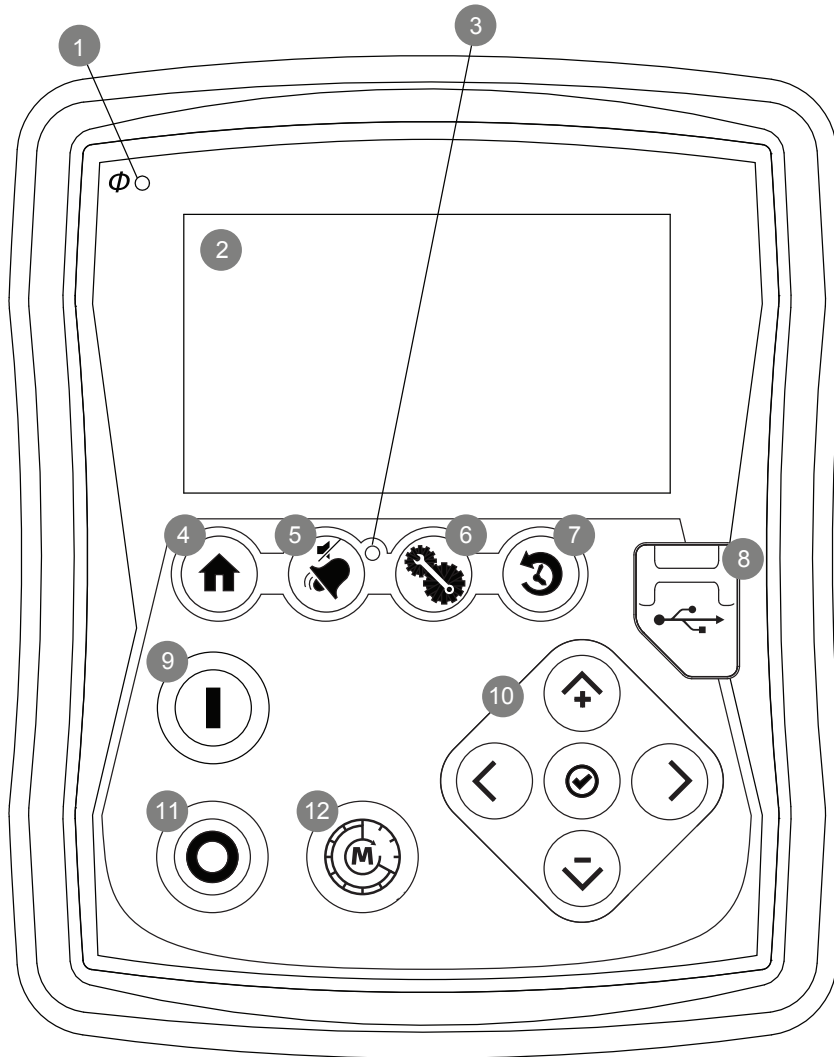


#### Options

<input type="checkbox"/> D14	Anti-condensation heater & thermostat
<input type="checkbox"/> I01	Permanent isolation controller for direct on line start (CPI)
<input type="checkbox"/> I02	Manu off auto key selector switch
<input type="checkbox"/> I03	Permanent isolation controller for y-delta start (CPI)

<input type="checkbox"/> L01	Other language and English (bilingual)
<input type="checkbox"/> L02	French
<input type="checkbox"/> L03	Spanish
<input type="checkbox"/> L04	German
<input type="checkbox"/> L05	Italian
<input type="checkbox"/> L06	Polish
<input type="checkbox"/> L07	Romanian
<input type="checkbox"/> L08	Hungarian
<input type="checkbox"/> L09	Slovak
<input type="checkbox"/> L10	Croatian
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<input type="checkbox"/> L18	Thai
<input type="checkbox"/> L19	Indonesian
<input type="checkbox"/> L20	Slovenian
<input type="checkbox"/> L21	Danish
<input type="checkbox"/> L22	Greek
<input type="checkbox"/> L23	Arabic
<input type="checkbox"/> L24	Hebrew
<input type="checkbox"/> L25	Chinese

Note: Options chosen from this page are not electrically represented on the wiring schematics in this submittal package

**ViZiTouch Light Operator Interface**


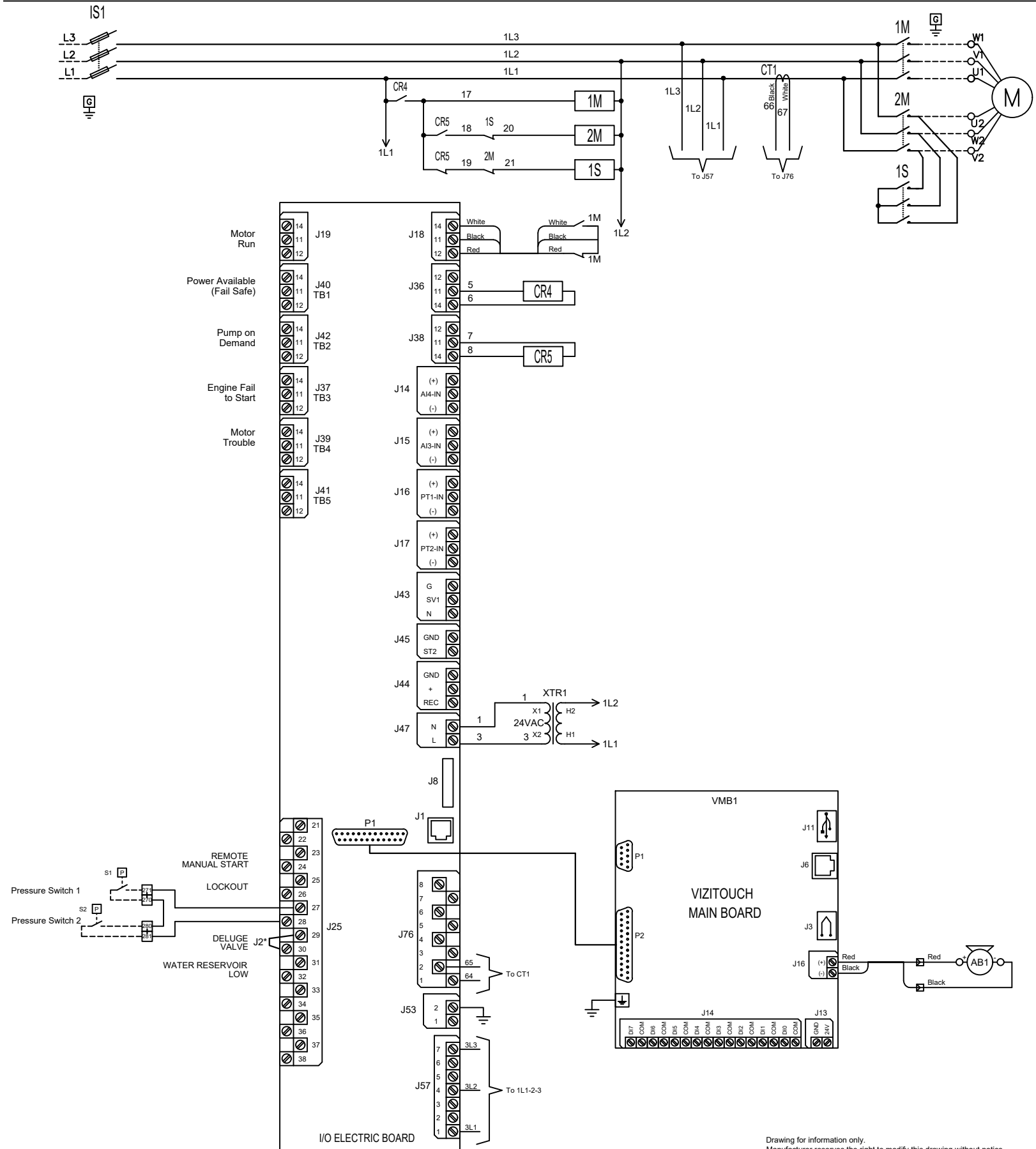
- |                               |                                |
|-------------------------------|--------------------------------|
| 1 - Power on LED              | 8 - USB port                   |
| 2 - Color touch screen        | 9 - START button               |
| 3 - Alarm LED                 | 10 - Contextual navigation pad |
| 4 - HOME page button          | 11 - STOP button               |
| 5 - ALARM page button         | 12 - RUN TEST button           |
| 6 - CONFIGURATION page button |                                |
| 7 - HISTORY page button       |                                |

# Electric Fire Pump Controller Reduced Voltage / Wye-Delta (Open Transition)

# Model: HFY

Wiring schematic

Built to the latest edition of the EN 12845 standard



\* REMOVE JUMPER TO USE THIS FEATURE

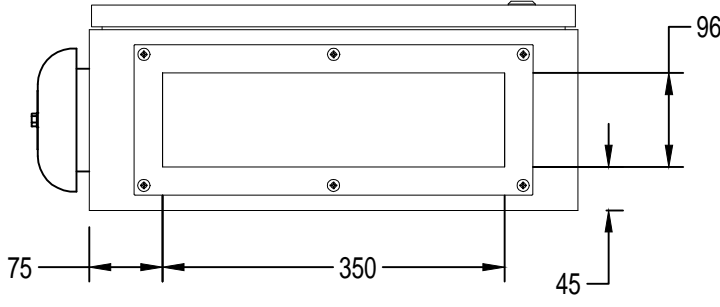
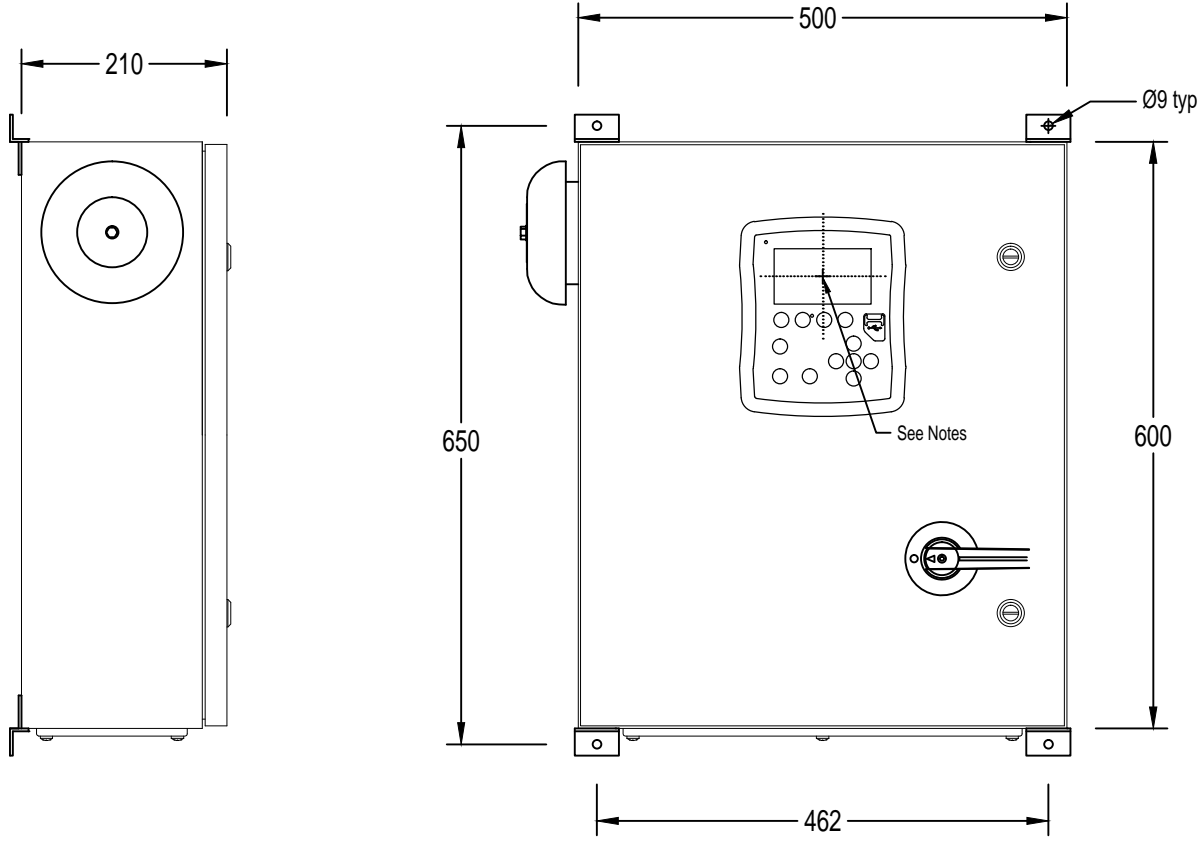
Drawing for information only.  
Manufacturer reserves the right to modify this drawing without notice.  
Contact manufacturer for "As Built" drawing.



REV.	DESCRIPTION	DD/MM/YY	Drawing number
1	Added Alarm Bell Circuit	20/02/17	HFY-WS500 /E
2	General revision	22/08/17	
3	Revised logo	18/06/18	

## Dimensions

Built to the latest edition of the EN 12845 standard

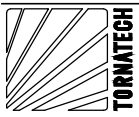
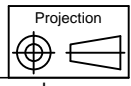


Voltage / Power Table		
Voltage	Min	Max
380 - 400 - 415	5 kW	37 kW

### Notes:

- Standard: IP55
- Standard Paint : Textured Red RAL 3002.
- All Dimensions are in Millimeters.
- Center of ViZiTouch Screen: 462mm from Bottom.
- Bottom Conduit Entrance Through Removable Gland Plate Recommended.
- Use Watertight Conduit and Connector Only.
- Protect Equipment Against Drilling Chips.
- Door Swing Equal to Door Width.

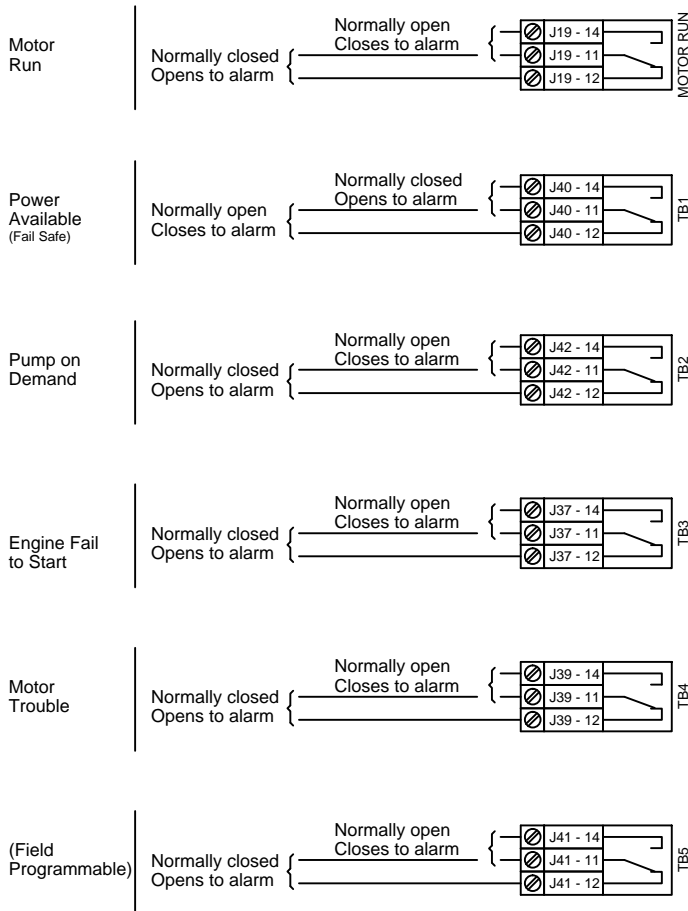
Drawing for information only.  
 Manufacturer reserves the right to modify this drawing without notice.  
 Contact manufacturer for "As Built" drawing.



REV.	DESCRIPTION	DD/MM/YY	Drawing number
1	Modified the Enclosure	04/08/16	HFX-DI500 /E
2	General revision	23/08/17	
3	Revised logo	18/06/18	

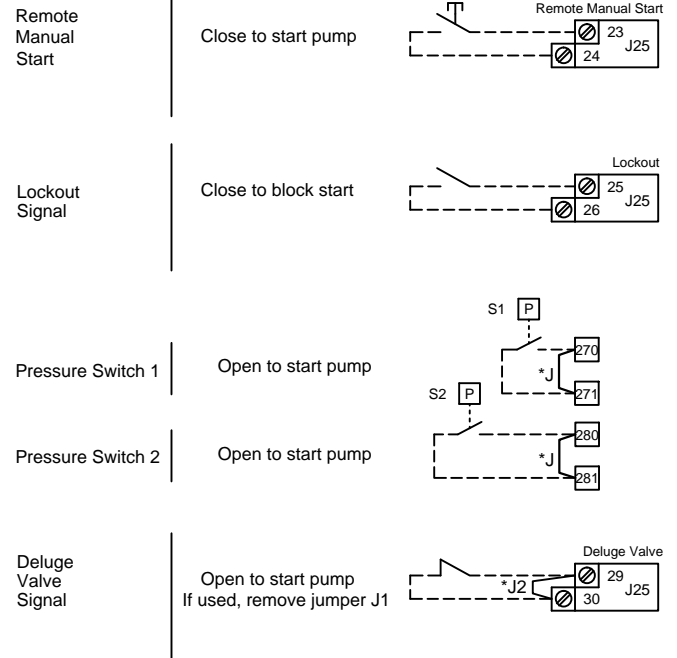
### Remote Alarm Terminals (I/O Electric Board)

Terminals Wire Size:  
0.5 - 2.5 mm<sup>2</sup>  
0.5 Nm



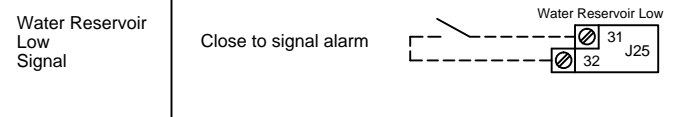
### Control Terminals (I/O Electric Board)

Terminals Wire Size:  
0.5 - 4 mm<sup>2</sup>  
0.5 Nm



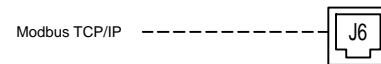
### Filed Connections for External Devices (I/O board)

Terminals Wire Size:  
12 - 24 AWG  
0.5 Nm



### Network Connection (VMB1)

Shielded Female Connector RJ45



Drawing for information only.  
Manufacturer reserves the right to modify this drawing without notice.  
For drawing for approval or installation, please contact manufacturer.

\* Remove jumper to use this feature

REV.	DESCRIPTION	DD/MM/YY	Drawing number
1	Modified Terminal Descriptions	20/02/17	HFX-TD500 /E
2	General revision	22/08/17	
3	Revised logo	18/06/18	

