



# TORNATECH

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

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

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

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

## Technical Data Submittal Document

### Model LFY

Wye-Delta Open

Electric Fire Pump Controller

Built to LPS1237



### Contents:

Data Sheets

Dimensional Data

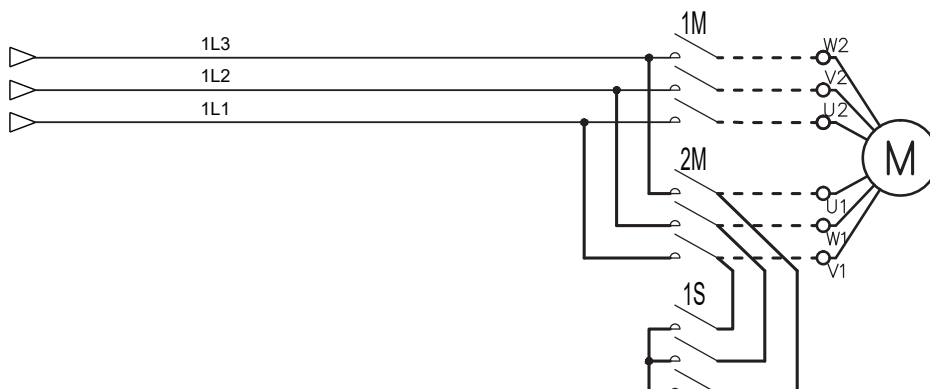
Wiring Schematics

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.



March 2020



<b>Standard &amp; Certification</b>	Built to LPCB - LPS1237	
	CE Mark: Various EN, IEC & CEE directives and standards	
<b>Enclosure</b>	<b>Protection Rating</b> <input type="checkbox"/> Standard: IP55 <b>Optional</b> <input type="checkbox"/> IP55 304 stainless steel painted <input type="checkbox"/> IP55 316 stainless steel painted	
	<input type="checkbox"/> IP55 304 stainless steel brushed finish <input type="checkbox"/> IP55 316 stainless steel brushed finish	
	<b>Accessories</b> <ul style="list-style-type: none"> <li>• Bottom entry gland plate</li> <li>• Special tool ¼ turn locks</li> </ul>	<b>Paint Specifications</b> <ul style="list-style-type: none"> <li>• Red RAL3002</li> <li>• Powder coating</li> <li>• Glossy textured finish</li> </ul>
<b>Ambient Temperature Rating</b>	Standard: 0°C to 50°C / 32°F to 122°F	
<b>Disconnecting Means</b>	<ul style="list-style-type: none"> <li>• Three (3) pole fused disconnect switch complete with rotary door handle</li> <li>• Door interlocked in the ON position</li> </ul>	
<b>Electrical Reading</b>	<ul style="list-style-type: none"> <li>• Amperage indicator at L1</li> </ul>	
<b>Terminals to Connect Starting Devices</b>	<ul style="list-style-type: none"> <li>• Provision to connect four (4) pressure switches (by others)</li> </ul>	
<b>Operator Interface</b>	<ul style="list-style-type: none"> <li>• Push buttons               <ul style="list-style-type: none"> <li>• Emergency start (lockable cover)</li> <li>• Stop / Reset</li> <li>• Lamp Test</li> </ul> </li> </ul>	
<b>Visual Alarms</b>	<ul style="list-style-type: none"> <li>• Pilot light               <ul style="list-style-type: none"> <li>• AC supply healthy</li> <li>• Pump running</li> <li>• Pump on demand</li> <li>• Start failure</li> </ul> </li> <li>• Ammeter</li> </ul>	



<b>Remote Alarm Contact</b>	<ul style="list-style-type: none"><li>• Pump on demand (SPDT)</li><li>• Pump running (SPDT)</li><li>• AC supply failure (SPDT)</li><li>• Start failure (SPDT)</li></ul>	
<b>Operation</b>	<b>Automatic Start</b>	Start on pressure drop
	<b>Manual Start</b>	Emergency Start pushbutton
	<b>Stopping</b>	Manual Stop pushbutton

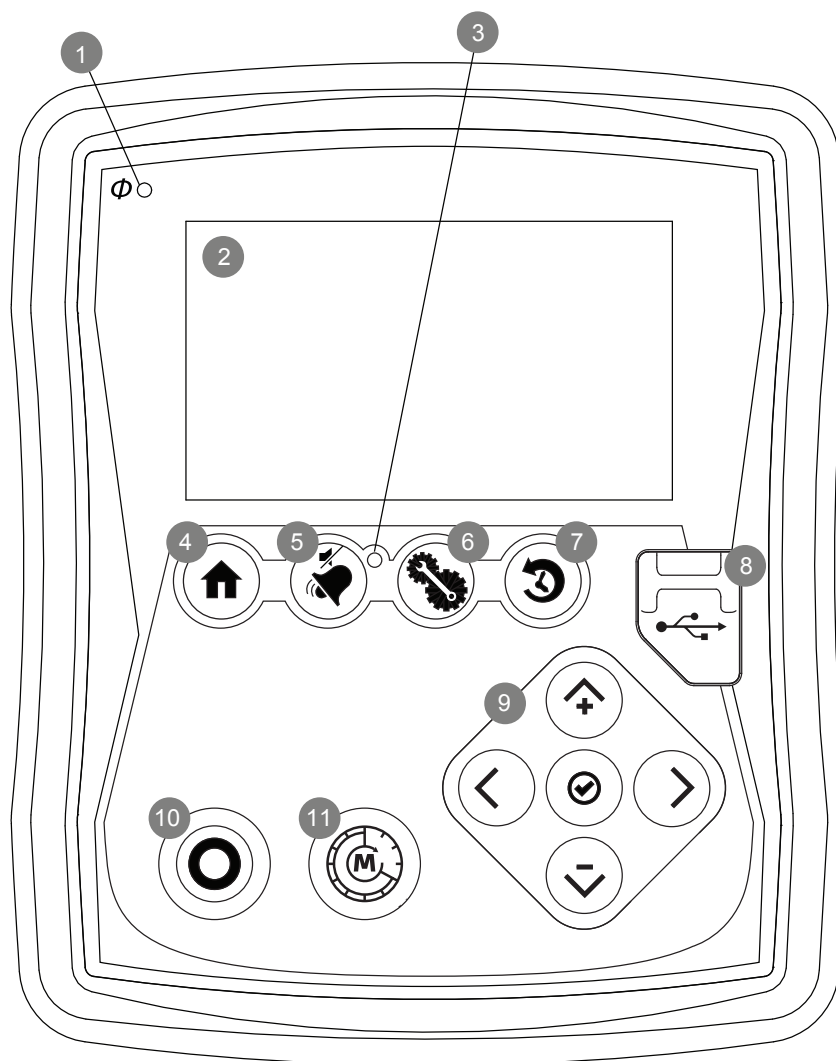
400V / 3ph / 50hz	Approximate Dimensions (mm)
5.5 KW - 22 KW	500 x 500 x 210
30 KW - 75 KW	600 x 600 x 210
90 KW - 110 KW	800 x 800 x 210
132 KW - 250 KW	800 x 1000 x 300

Options	
<input type="checkbox"/> I10	Duty / Standby
<input type="checkbox"/> I11	Run period timer
<input type="checkbox"/> I12	Start delay

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

2 - Color touch screen

3 - Alarm LED

4 - HOME page button

5 - ALARM page button

6 - CONFIGURATION page button

7 - HISTORY page button

8 - USB port

9 - START button

9 - Contextual navigation pad

10 - STOP button\*

11 - RUN TEST button

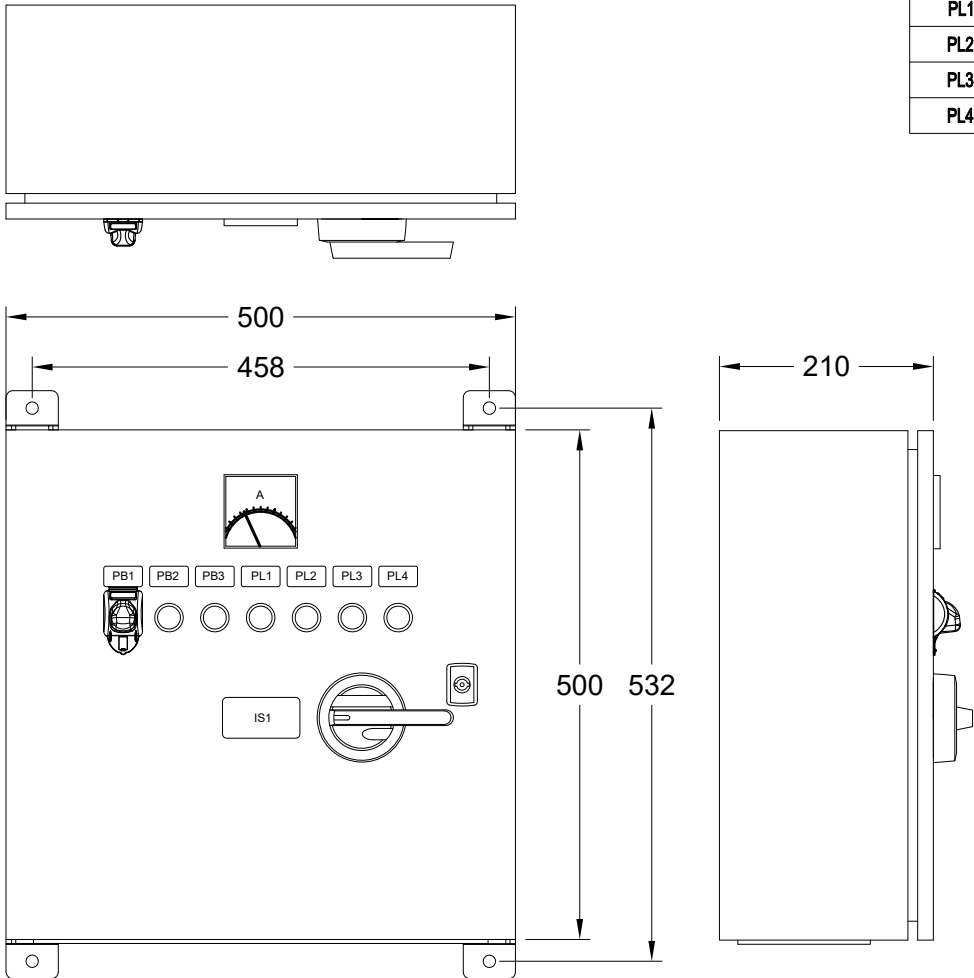
Electric Fire Pump Controller  
Reduced Voltage / Wye-Delta (Open Transition)

Model: LFY

Dimensions

Built to the latest edition of the LPS 1237

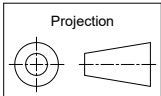
Designation	Label Text
IS1	ISOLATING SWITCH
PB1	EMERGENCY START
PB2	STOP/RESET
PB3	LAMP TEST
PL1	AC SUPPLY HEALTHY
PL2	PUMP RUNNING
PL3	PUMP ON DEMAND
PL4	START FAILURE



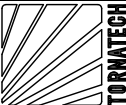
- Notes:
- IP55 assembly
  - All dimensions are in millimeters
  - Paint: textured red RAL 3002
  - Bottom conduit entrance through removable gland plate recommended
  - Use watertight conduit and connector only
  - Protect equipment against drilling chips
  - Ambient temperature : between 4°C and 40°C
  - Controller weight: approximately 20 Kg
  - Shipping weight: approximately 35 Kg

Voltage / Power Table		
Voltage	Min kW	Max kW
400	5.5	22

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
2	General revision	07/12/16	LFY-DI001 /E
3	General revision	29/08/17	
4	Revised logo	18/06/18	



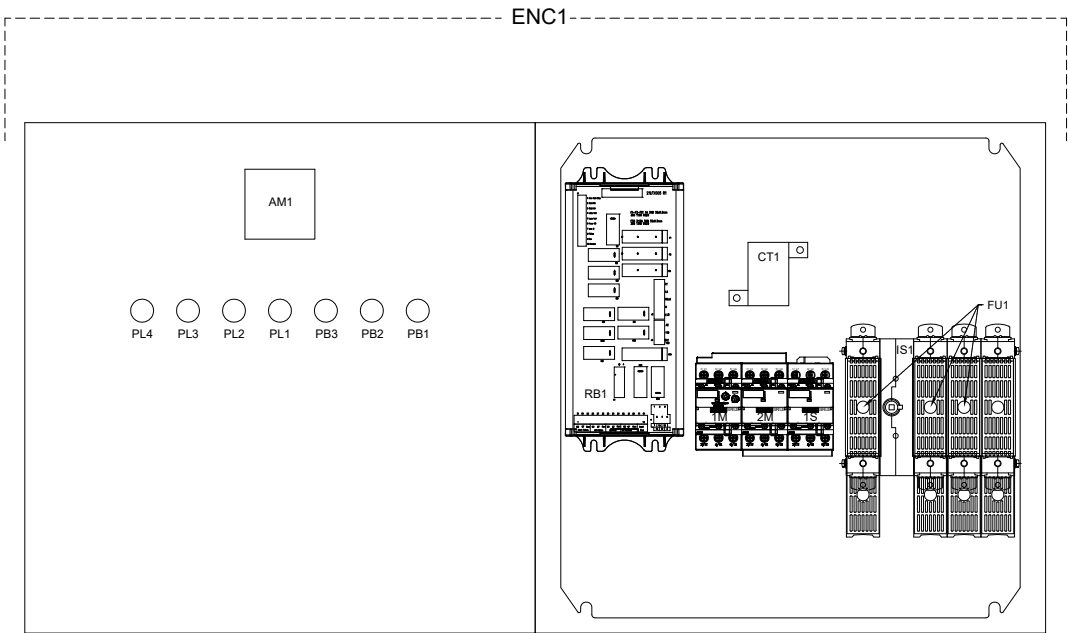
Electric Fire Pump Controller  
Reduced Voltage / Wye-Delta (Open Transition)

Model: LFY

Internal Layout

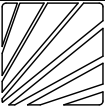
Built to the latest edition of the LPS 1237

Designation	Description
1M-2M-1S	WYE Delta Contactor Assembly
AM1	Ammeter
CT1	Current Transformer
ENC1	Enclosure
FU1	Fuses
IS1	Isolating Switch
PB1	Green Push-Button
PB2	Red Push-Button
PB3	Black Push-Button
PL4	Red Pilot Light
PL1-PL2-PL3	Green Pilot Lights
RB1	LFX Board



Voltage / Power Table		
Voltage	Min kW	Max kW
400	5.5	22

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

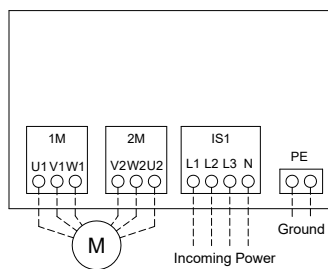


REV.	DESCRIPTION	DD/MM/YY	Drawing number
0	First issue	07/12/16	LFY-LY001 /E
1	General revision	29/08/17	
2	Revised logo	18/06/18	

Field Connections

Normal Power Connections

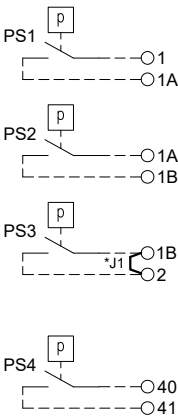
kW	IS1 (mm2)	1M-2M (mm2)
5.5 - 11	6 - 70	2.5 - 4
15 - 22	6 - 70	2.5 - 10
30 - 45	6 - 70	2.5 - 35
55 - 75	6 - 70	6 - 50
90 - 200	M10	25 - 120
250	M12	25 - 120



Field Connections

Terminals Wire Size:  
0.5 - 2.5 mm2  
0.5 Nm

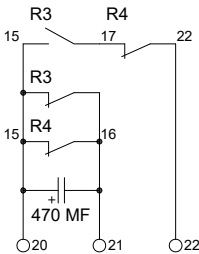
Starting Pressure Switches



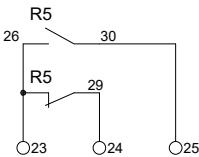
Flow Pressure Switch

Alarm Contacts

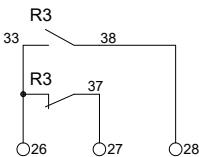
Terminals Wire Size:  
0.5 - 2.5 mm2  
0.5 Nm



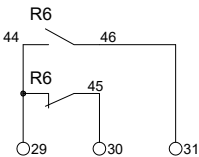
Pump On Demand



Pump Running



AC Supply Failure



Start Failure

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



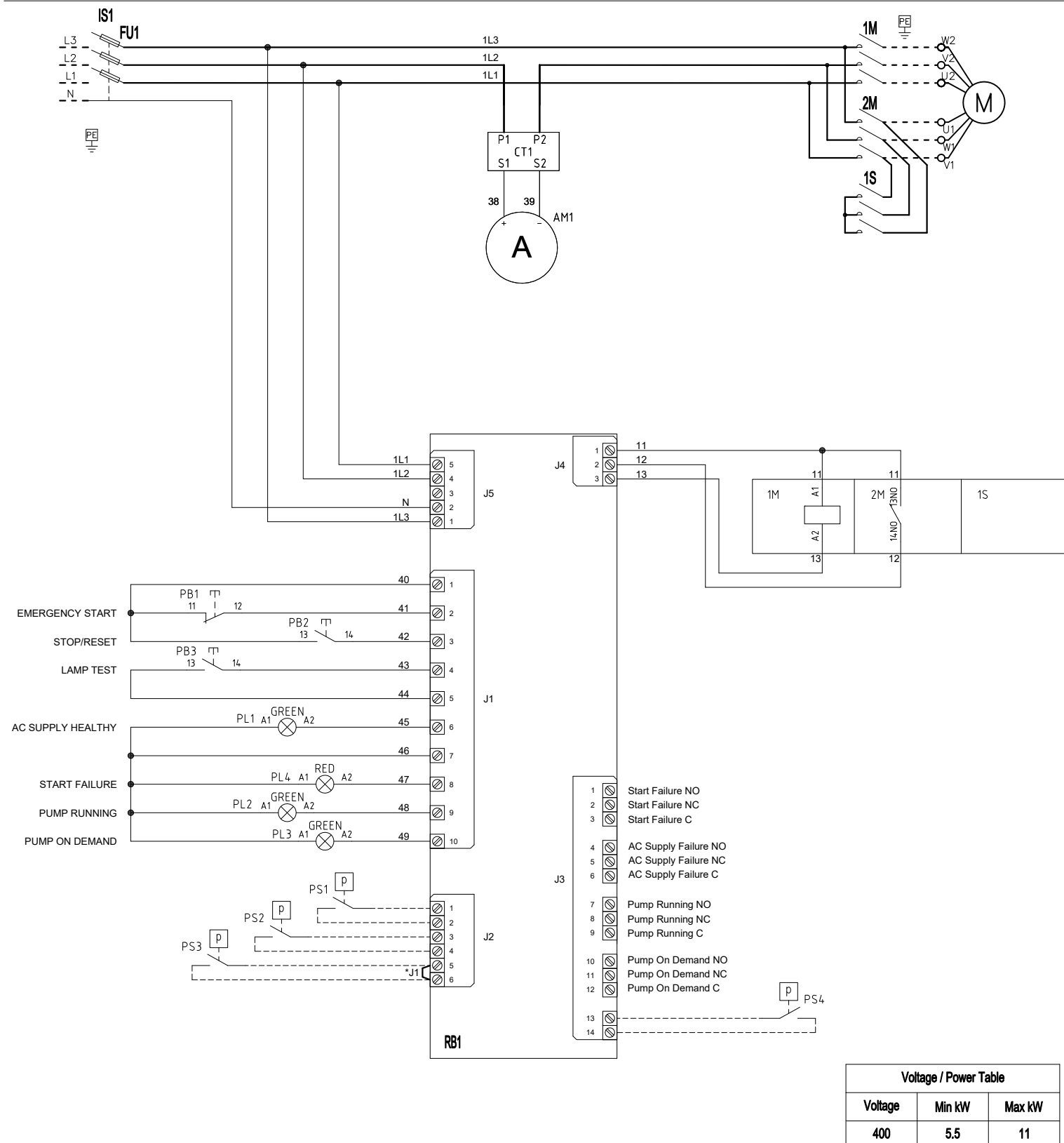
REV.	DESCRIPTION	DD/MM/YY	Drawing number
0	First issue	07/12/16	LFY-TD001 /E
1	General revision	29/08/17	
2	Revised logo	18/06/18	

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

## Model: LFY

Wiring schematic

Built to the latest edition of the LPS 1237



\* 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.



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REV.	DESCRIPTION	DD/MM/YY	Drawing number
2	Added FU1 identification to fuses	07/12/16	LFY-WS001 /E
3	General revision	29/08/17	
4	Revised logo	18/06/18	