

REACTOR™

311508 rev.C

Hydraulic, Heated, Plural Component Proportioner *For spraying polyurethane foam and polyurea coatings. Not for use in explosive atmospheres.*

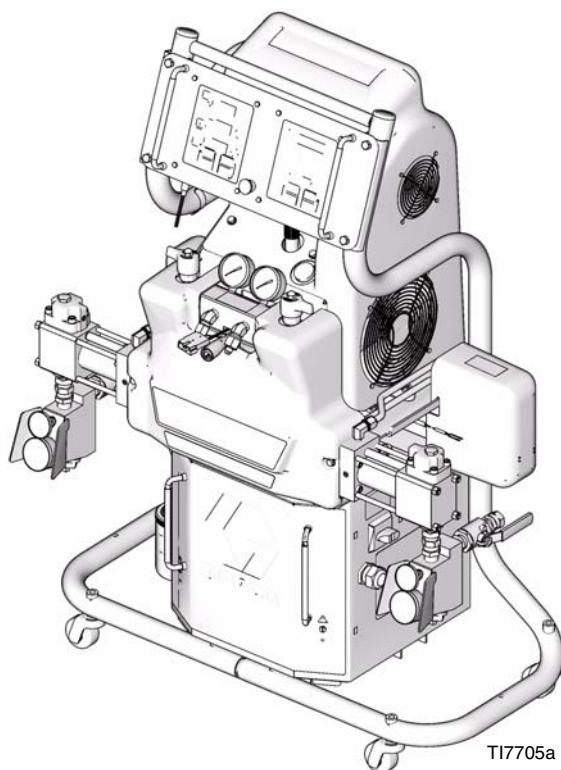


Important Safety Instructions

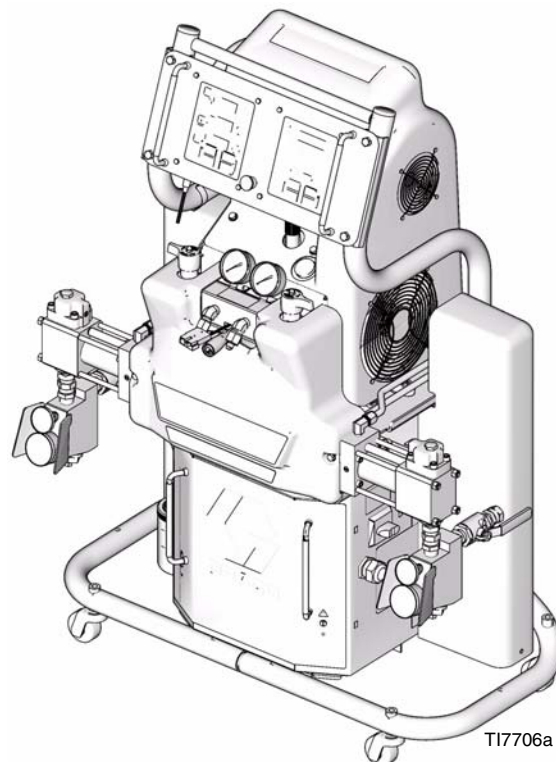
Read all warnings and instructions in the separate
Operation and Repair-Parts manuals, see page 2.
Save these instructions.

See page 3 for model information, including maximum working pressure.

Model H-25 with 8 kW Heater



Model H-XP2 with 15.3 kW Heater



GRACO | GUSMER

PROVEN QUALITY. LEADING TECHNOLOGY.

Contents

Supplied Manuals	2
Models	3
Simplified Schematic, Motor Controls	4
Simplified Schematic, Heater Controls	5
Simplified Schematic, Heated Hose Hookup	6
Transformer 15B351, 210 ft (64 m) maximum hose length)	6
Transformer 15B352, 310 ft (94.6 m) maximum hose length)	6
Simplified Schematic, Power Connections	7
230Vac, 1 Phase	7
230Vac, 3 Phase	7
380Vac, 3 Phase	7
Detailed Schematic, Power Connections and Motor Controls (230 Vac, 1-Phase, 8.0 kW Models) .	8
Detailed Schematic, Heater Controls (230 Vac, 1-Phase, 8.0 kW Models)	9
Detailed Schematic, Power Connections and Motor Controls (230 Vac, 1-Phase, 15.3 kW Models) 10	

Detailed Schematic, Heater Controls (230 Vac, 1-Phase, 15.3 kW Models)	11
Detailed Schematic, Power Connections and Motor Controls (380 Vac, 3-Phase, 8.0 kW Models) .	12
Detailed Schematic, Heater Controls (380 Vac, 3-Phase, 8.0 kW Models)	13
Detailed Schematic, Power Connections and Motor Controls (380 Vac, 3-Phase, 15.3 kW Models) 14	
Detailed Schematic, Heater Controls (380 Vac, 3-Phase, 15.3 kW Models)	15
Detailed Schematic, Power Connections and Motor Controls (230 Vac, 3-Phase, 8.0 kW Models) .	16
Detailed Schematic, Heater Controls (230 Vac, 3-Phase, 8.0 kW Models)	17
Detailed Schematic, Power Connections and Motor Controls (230 Vac, 3-Phase, 15.3 kW Models) 18	
Detailed Schematic, Heater Controls (230 Vac, 3-Phase, 15.3 kW Models)	19
Detailed Schematic, Display (All Models)	20
Graco Standard Warranty	22
Graco Information	22

Supplied Manuals

The following manuals are shipped with the Reactor™ Proportioner. Refer to these manuals for detailed equipment information.

Order Part No. 15B535 for a compact disk of Reactor manuals translated in several languages.

Manuals are also available at www.graco.com.

Reactor Electric Proportioner	
Part No.	Description
311299	Reactor Hydraulic Proportioner, Operation Manual (English)
311300	Reactor Hydraulic Proportioner, Repair/Parts Manual (English)
Proportioning Pump	
Part No.	Description
312068	Proportioning Pump Repair-Parts Manual (English)

Models

H-25 SERIES

Part No., Series	Full Load Peak Amps*	Voltage (phase)	System Watts**	Primary Heater Watts	Flow lb/min (kg/min) at 35 cpm	Output per Cycle (A+B) gal. (liter)	Pressure Ratio	Maximum Fluid Working Pressure psi (MPa, bar)
253200, A	63	230V (1)	14,700	8000	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253201, A	40	230V (3)	14,700	8000	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253202, A	29	380V (3)	14,700	8000	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253206, A	95	230V (1)	22,000	15,300	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253207, A	58	230V (3)	22,000	15,300	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253208, A	35	380V (3)	22,000	15,300	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253300, A	69	230V (1)	15,960	8000	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253301, A	45	230V (3)	15,960	8000	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253302, A	35	380V (3)	15,960	8000	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253306, A	100	230V (1)	23,260	15,300	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253307, A	58	230V (3)	23,260	15,300	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)
253308, A	35	380V (3)	23,260	15,300	22 (10)	0.063 (0.24)	1.91:1	2000 (13.8, 138)

H-XP2 SERIES

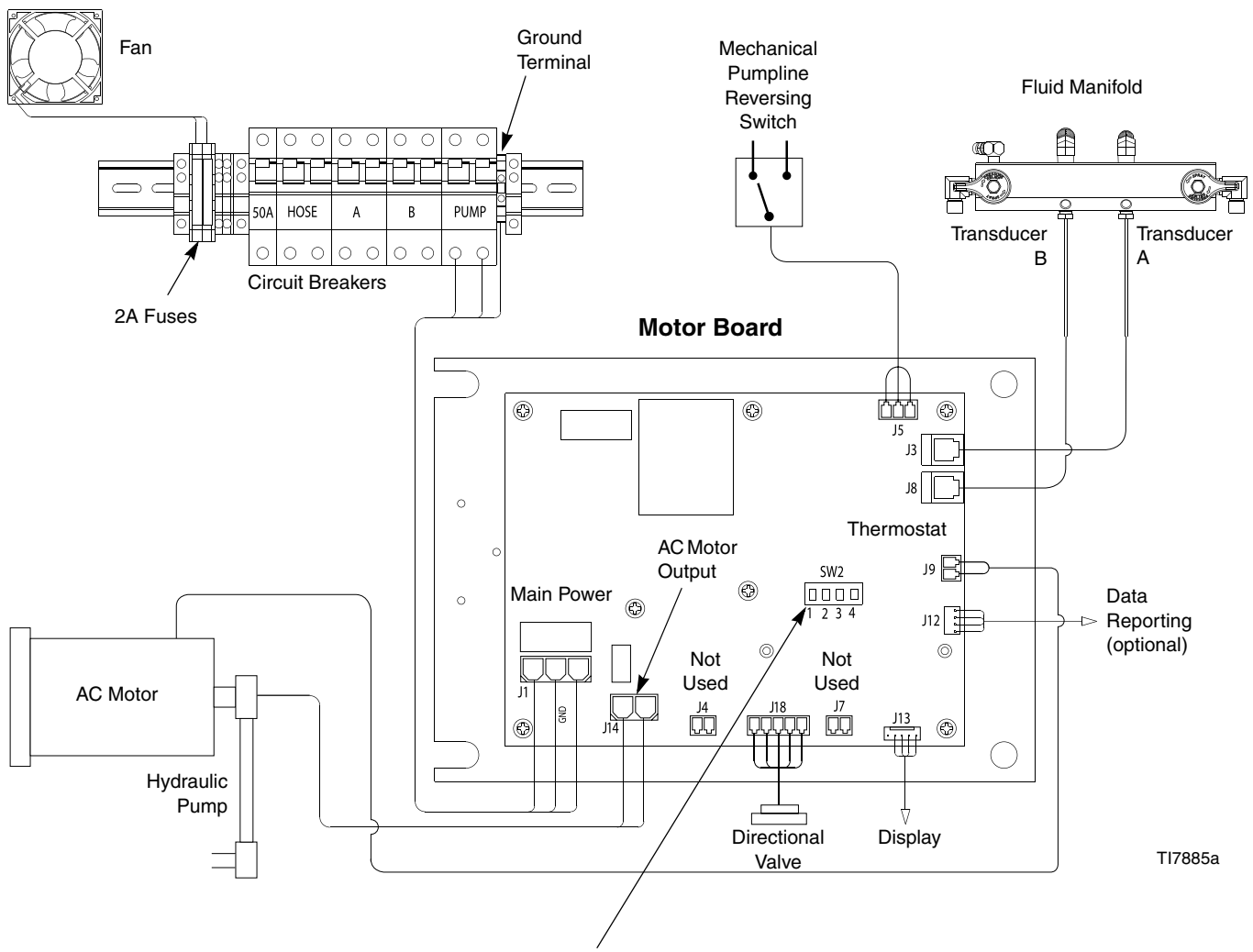
Part No., Series	Full Load Peak Amps*	Voltage (phase)	System Watts**	Primary Heater Watts	Flow gpm (lpm) at 35 cpm	Output per Cycle (A+B) gal. (liter)	Pressure Ratio	Maximum Fluid Working Pressure psi (MPa, bar)
253203, A	95	230V (1)	22,000	15,300	1.5 (5.7)	0.042 (0.16)	2.79:1	3500 (24.1, 241)
253204, A	58	230V (3)	22,000	15,300	1.5 (5.7)	0.042 (0.16)	2.79:1	3500 (24.1, 241)
253205, A	35	380V (3)	22,000	15,300	1.5 (5.7)	0.042 (0.16)	2.79:1	3500 (24.1, 241)
253303, A	100	230V (1)	23,260	15,300	1.5 (5.7)	0.042 (0.16)	2.79:1	3500 (24.1, 241)
253304, A	58	230V (3)	23,260	15,300	1.5 (5.7)	0.042 (0.16)	2.79:1	3500 (24.1, 241)
253305, A	35	380V (3)	23,260	15,300	1.5 (5.7)	0.042 (0.16)	2.79:1	3500 (24.1, 241)

* Full load amps with all devices operating at maximum capabilities. Fuse requirements at various flow rates and mix chamber sizes may be less.

** Total system watts, based on maximum hose length for each unit:

- Part Nos. 253200 through 253208, 210 ft (64 m) maximum heated hose length, including whip hose.
- Part Nos. 253300 through 253308, 310 ft (94.6 m) maximum heated hose length, including whip hose.

Simplified Schematic, Motor Controls



TI7885a

Switch SW2 Settings

Switch	Setting
Switch 1	Motor Soft Start ON = ON OFF = OFF
Switch 2	Pressure Imbalance ON = Alarm OFF = Warning
Switch 3	Standby ON = Enable OFF = Disable
Switch 4	Model ON = H-25 OFF = H-XP2

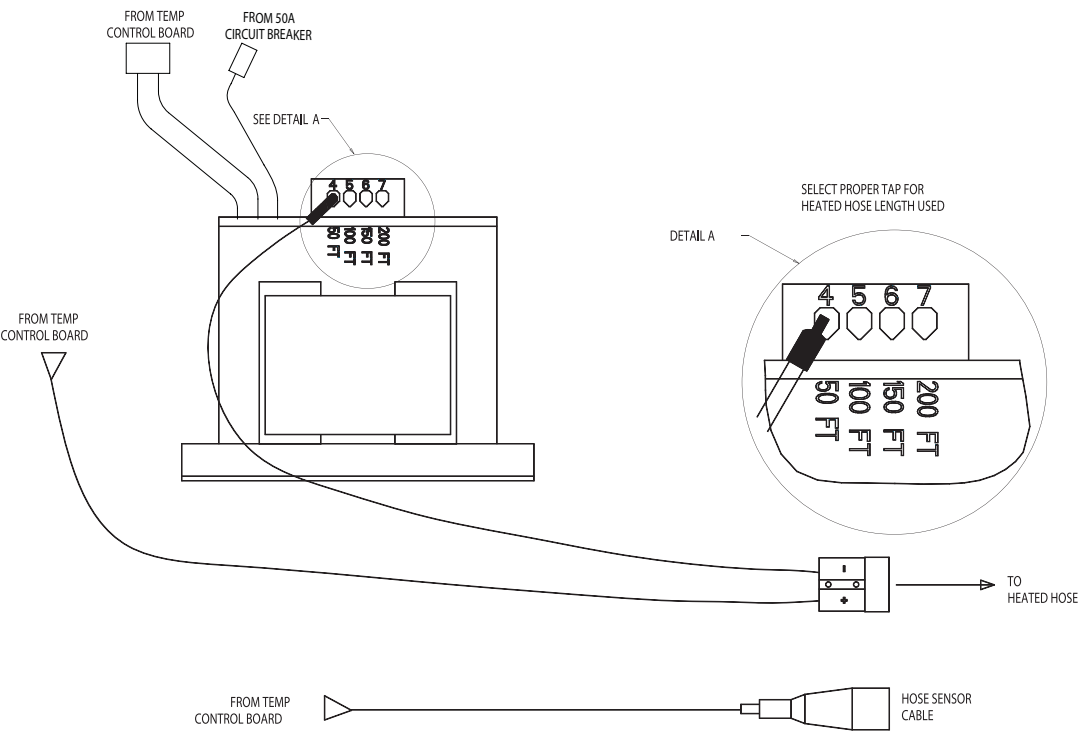
The diagram illustrates the wiring for the Temperature Control Board. Key components and connections include:

- DISPLAY:** Connected to the board via a DISPLAY CABLE.
- HOSE SENSOR:** Connected via a HOSE SENSOR CABLE to terminal J1.
- MOTOR CONTROL BOARD:** Connected via a cable to terminal J5.
- HOSE:** Connected to terminal J4.
- HEATERS:** Two heaters, labeled A and B, are connected to terminals J2 and J3. Red and black wires connect the heaters to the board.
- CURRENT TRANSFORMER:** Connected to terminal J9.
- Over-temperature Switches:** Two switches, labeled A and B, are connected to terminals J6 and J8. Red and black wires connect the switches to the board.
- Wiring Details:**
 - Terminal J1 is connected to the HOSE SENSOR CABLE.
 - Terminal J2 is connected to the HEATERS (A).
 - Terminal J3 is connected to the HEATERS (B).
 - Terminal J4 is connected to the HOSE.
 - Terminal J5 is connected to the MOTOR CONTROL BOARD.
 - Terminal J6 is connected to the OVER-TEMPERATURE SWITCH (A).
 - Terminal J7 is connected to the OVER-TEMPERATURE SWITCH (A).
 - Terminal J8 is connected to the OVER-TEMPERATURE SWITCH (B).
 - Terminal J9 is connected to the CURRENT TRANSFORMER.
 - Terminal J10 is connected to the OVER-TEMPERATURE SWITCH (B).

311508C

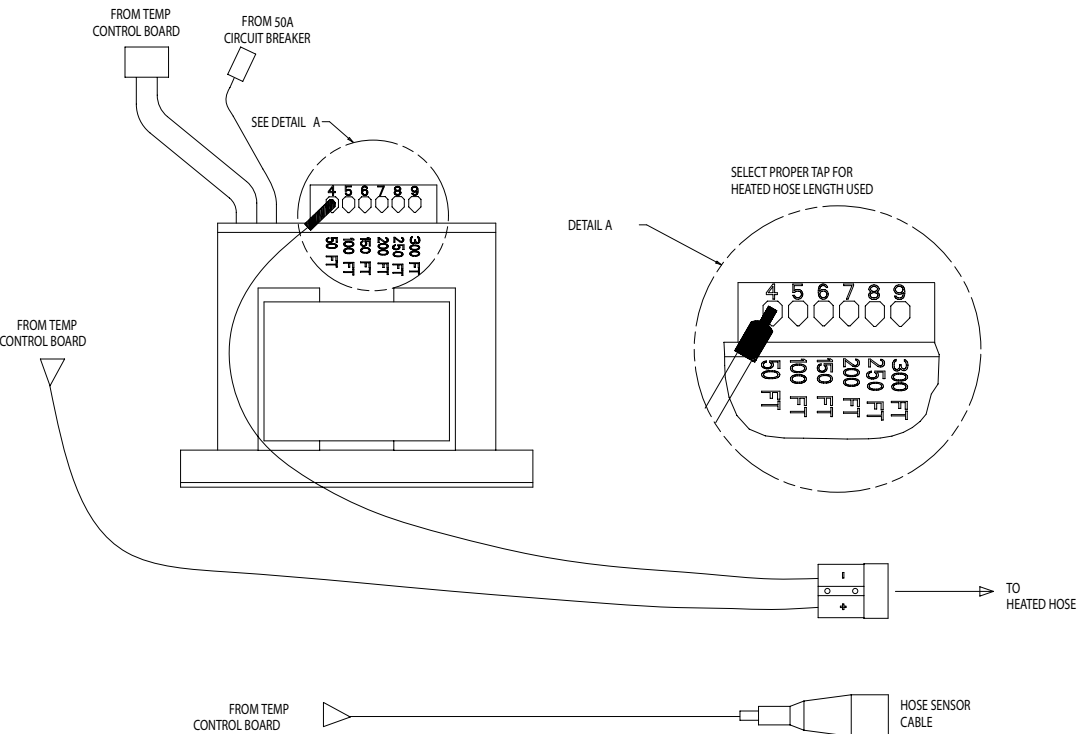
Simplified Schematic, Heated Hose Hookup

Transformer 15B351, 210 ft (64 m) maximum hose length)



TI4199a

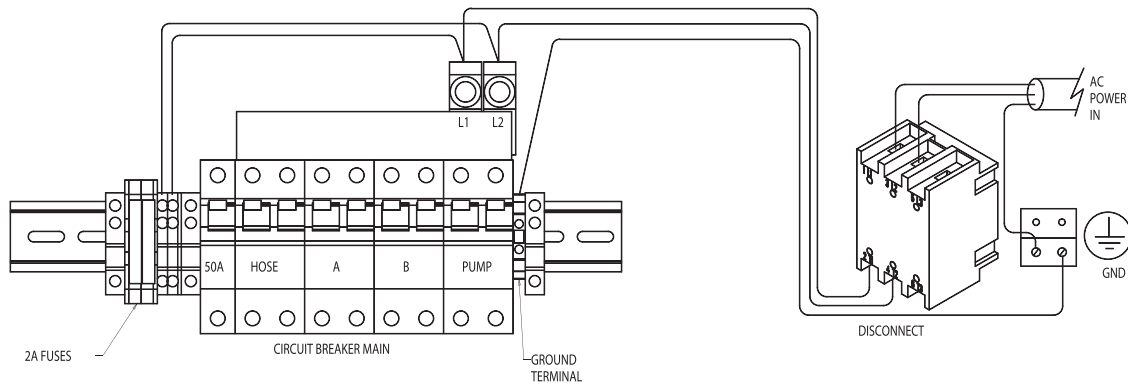
Transformer 15B352, 310 ft (94.6 m) maximum hose length)



TI4202a

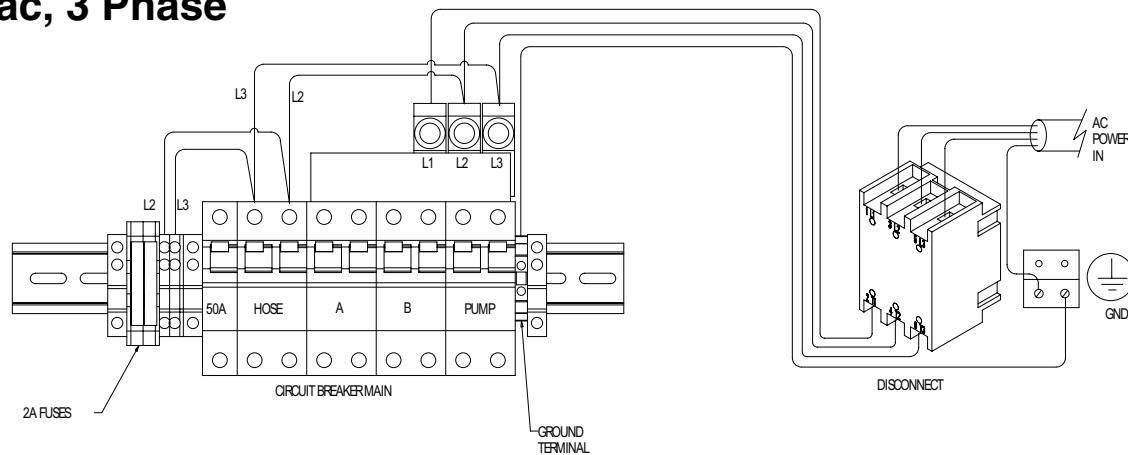
Simplified Schematic, Power Connections

230Vac, 1 Phase



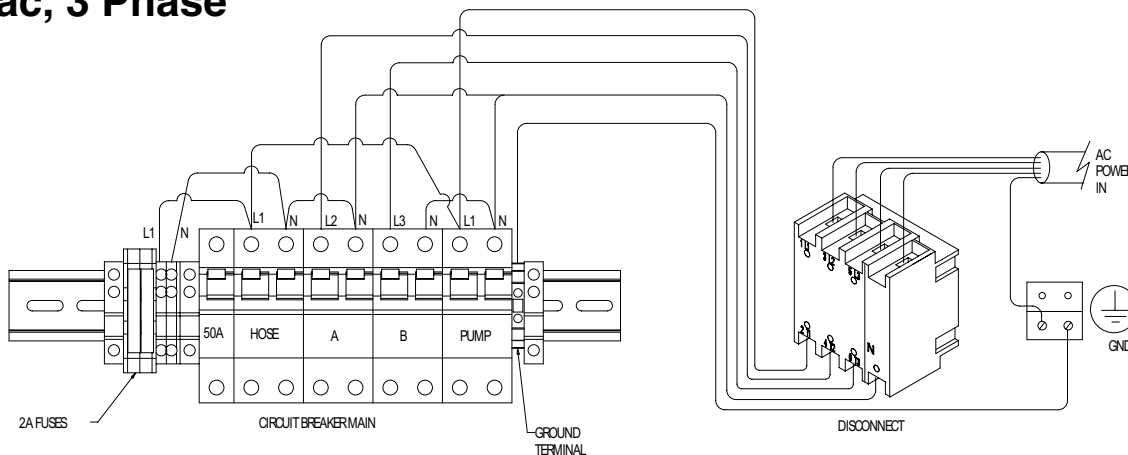
T14200a

230Vac, 3 Phase



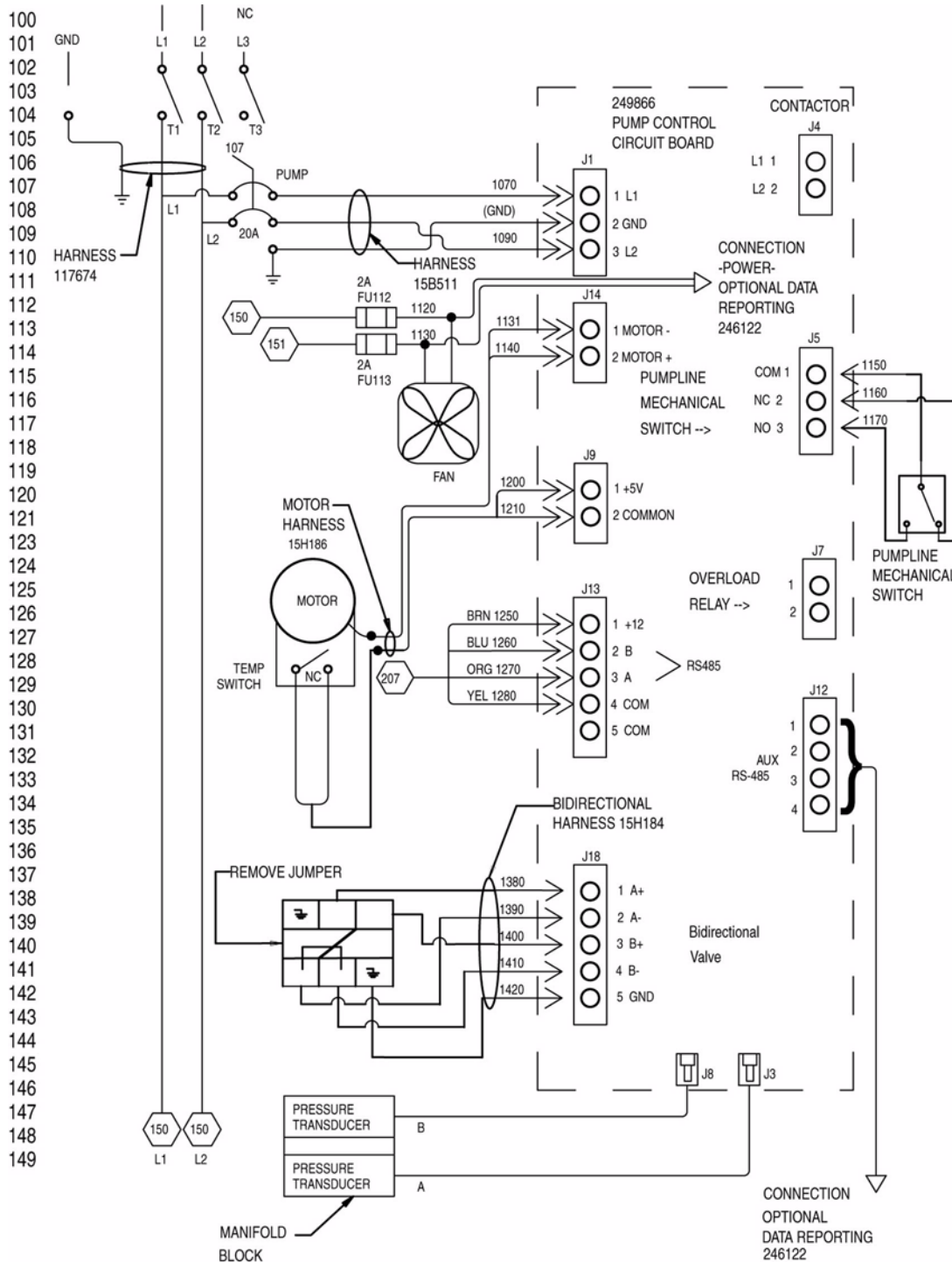
T14204a

380Vac, 3 Phase

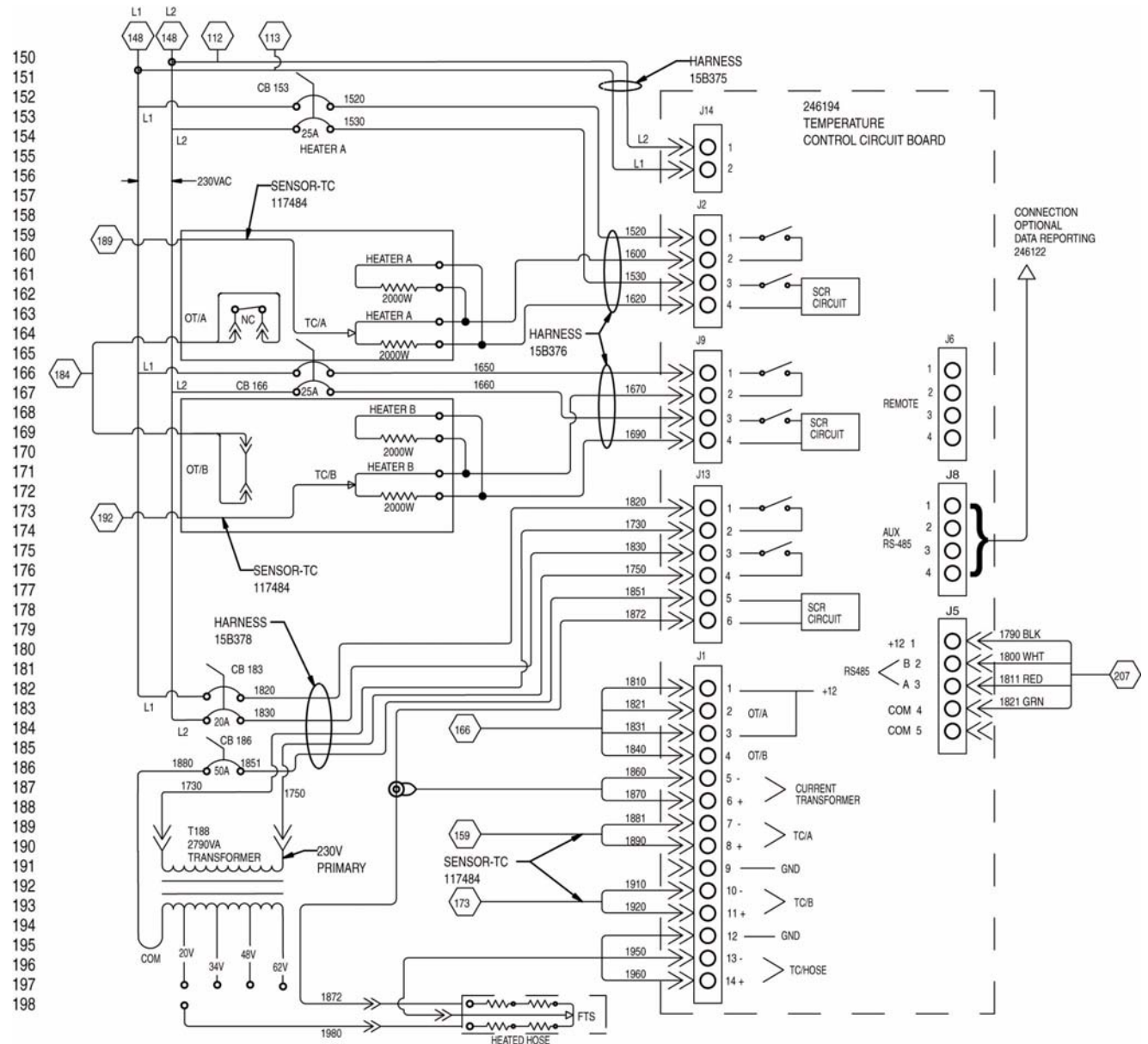


T14203a

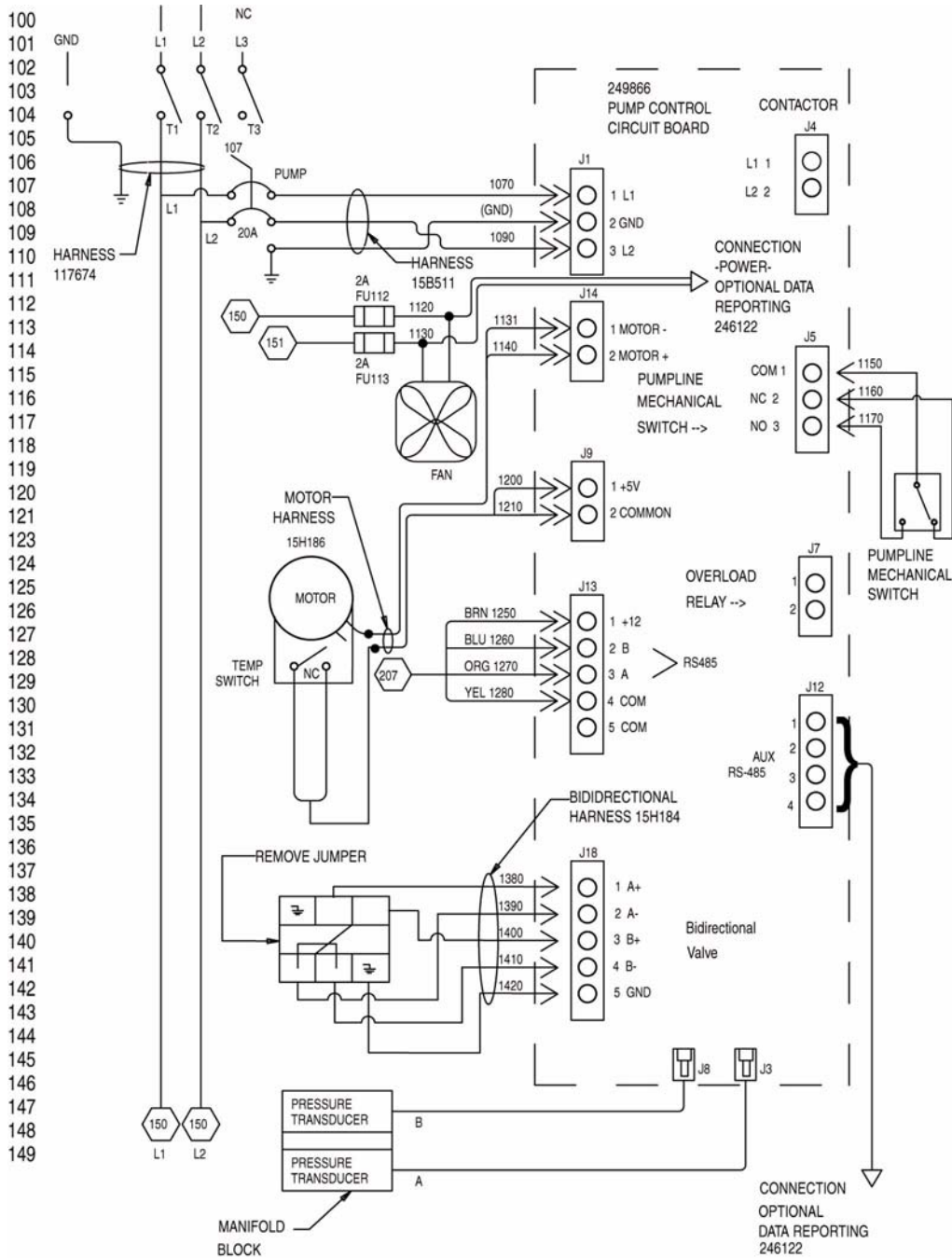
Detailed Schematic, Power Connections and Motor Controls (230 Vac, 1-Phase, 8.0 kW Models)



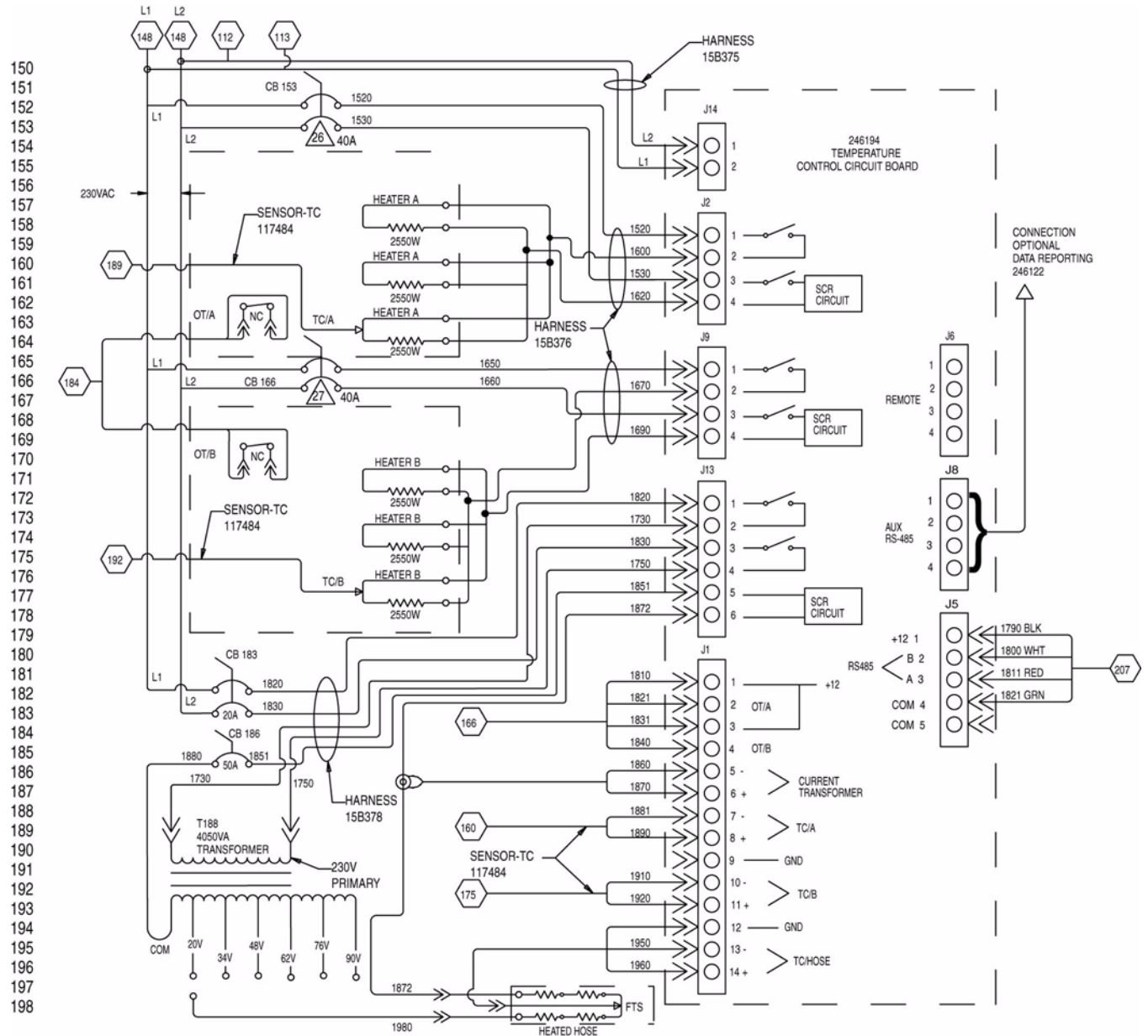
Detailed Schematic, Heater Controls (230 Vac, 1-Phase, 8.0 kW Models)



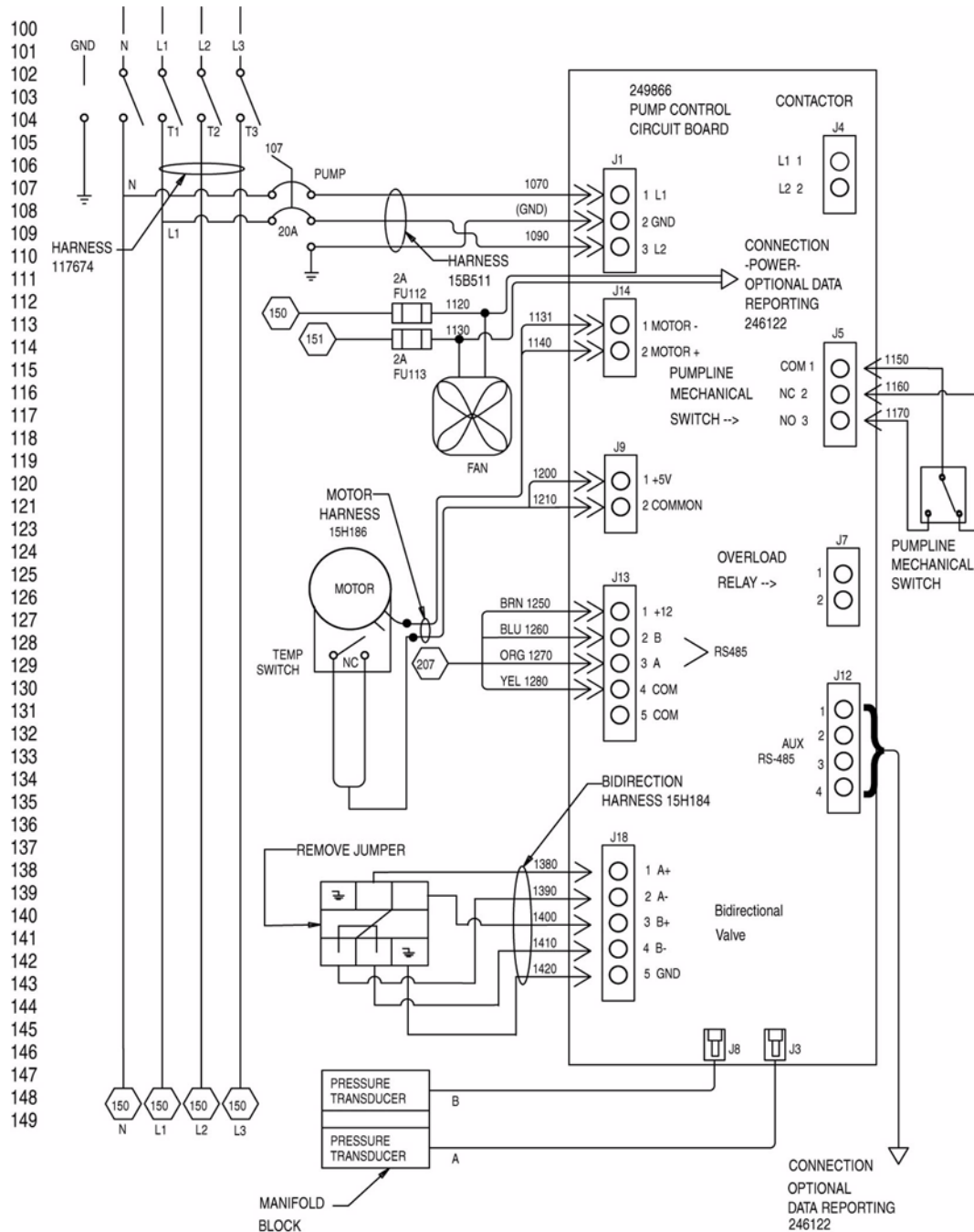
Detailed Schematic, Power Connections and Motor Controls (230 Vac, 1-Phase, 15.3 kW Models)



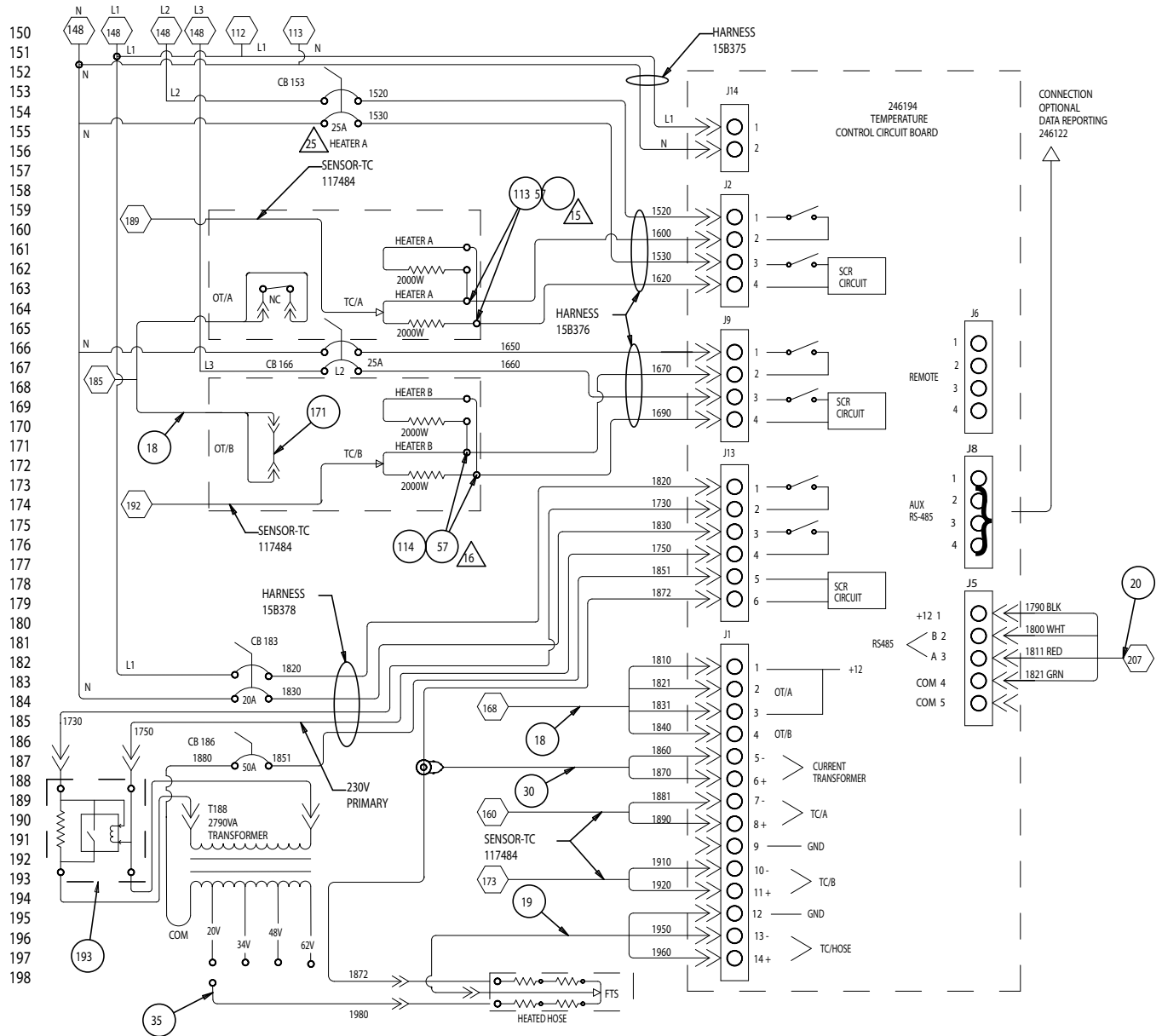
Detailed Schematic, Heater Controls (230 Vac, 1-Phase, 15.3 kW Models)



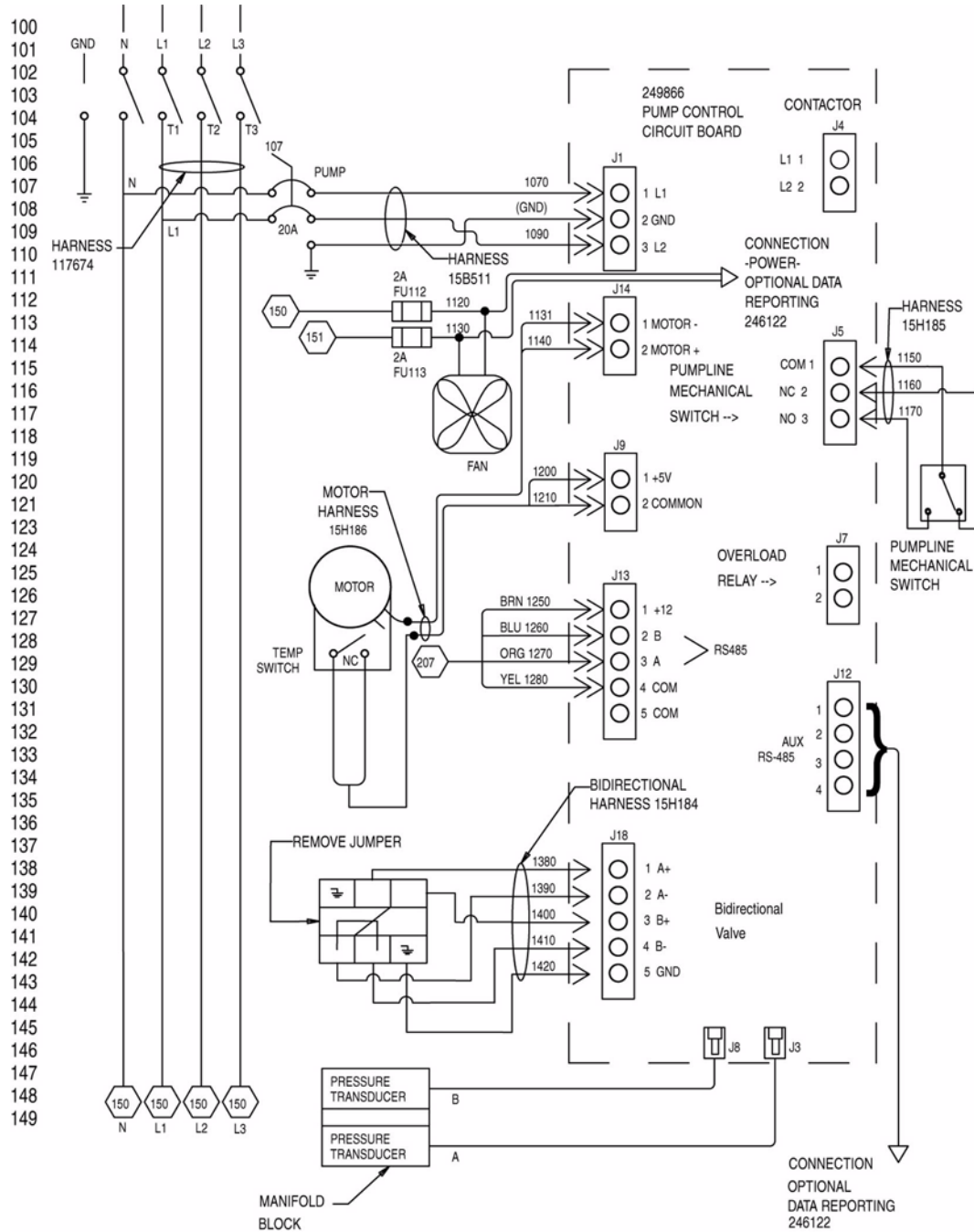
Detailed Schematic, Power Connections and Motor Controls (380 Vac, 3-Phase, 8.0 kW Models)

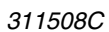


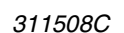
Detailed Schematic, Heater Controls (380 Vac, 3-Phase, 8.0 kW Models)

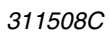


Detailed Schematic, Power Connections and Motor Controls (380 Vac, 3-Phase, 15.3 kW Models)

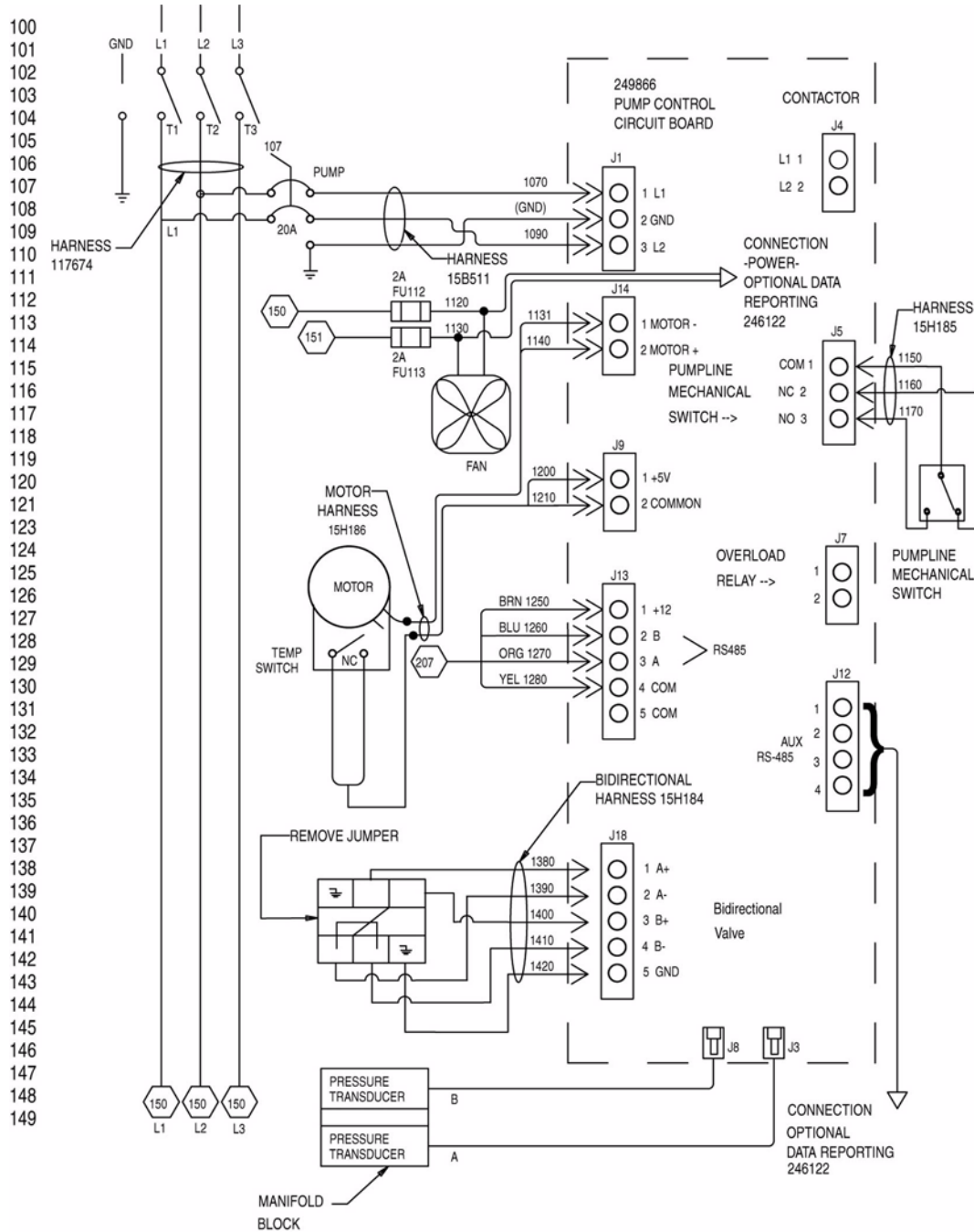




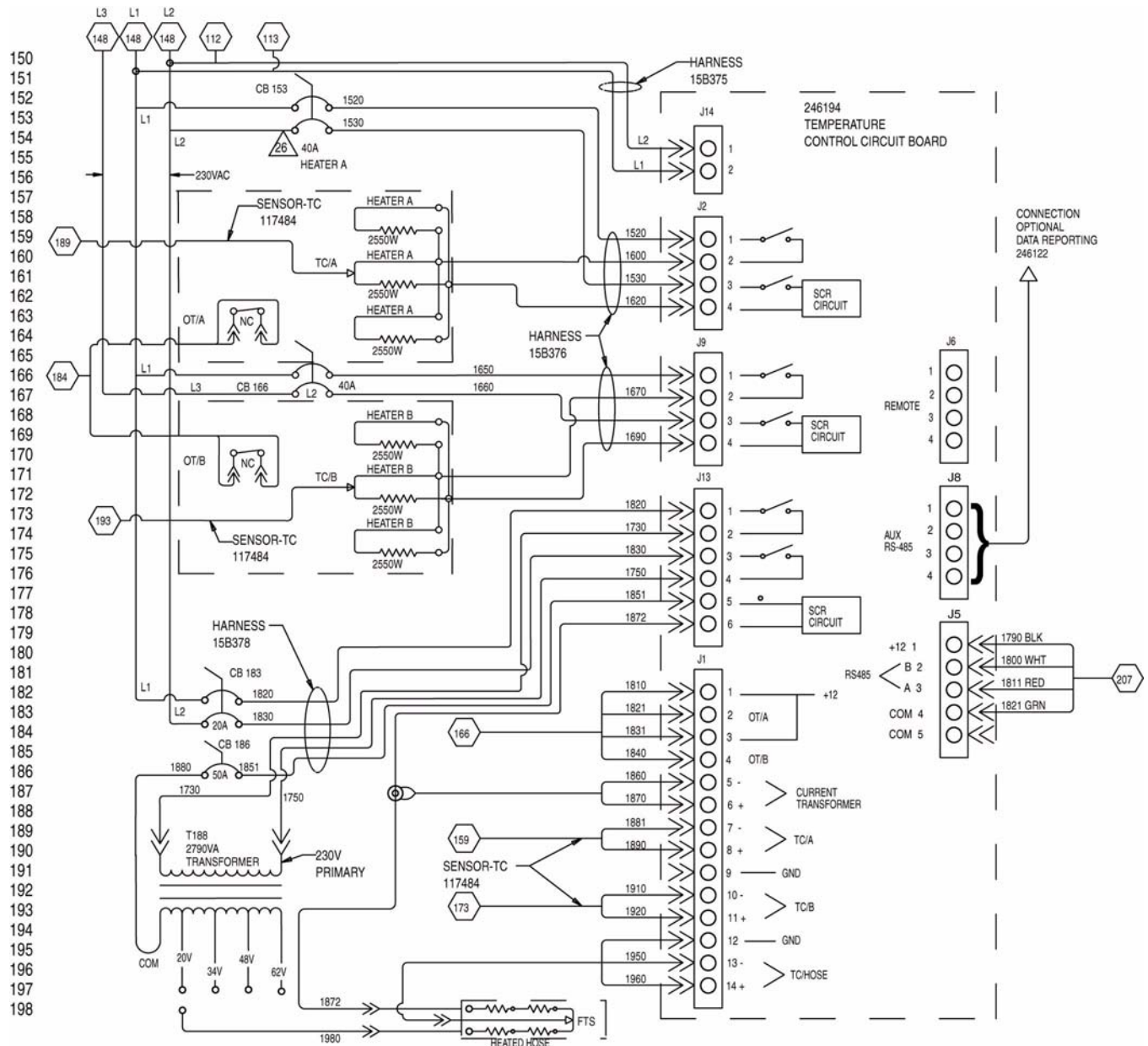




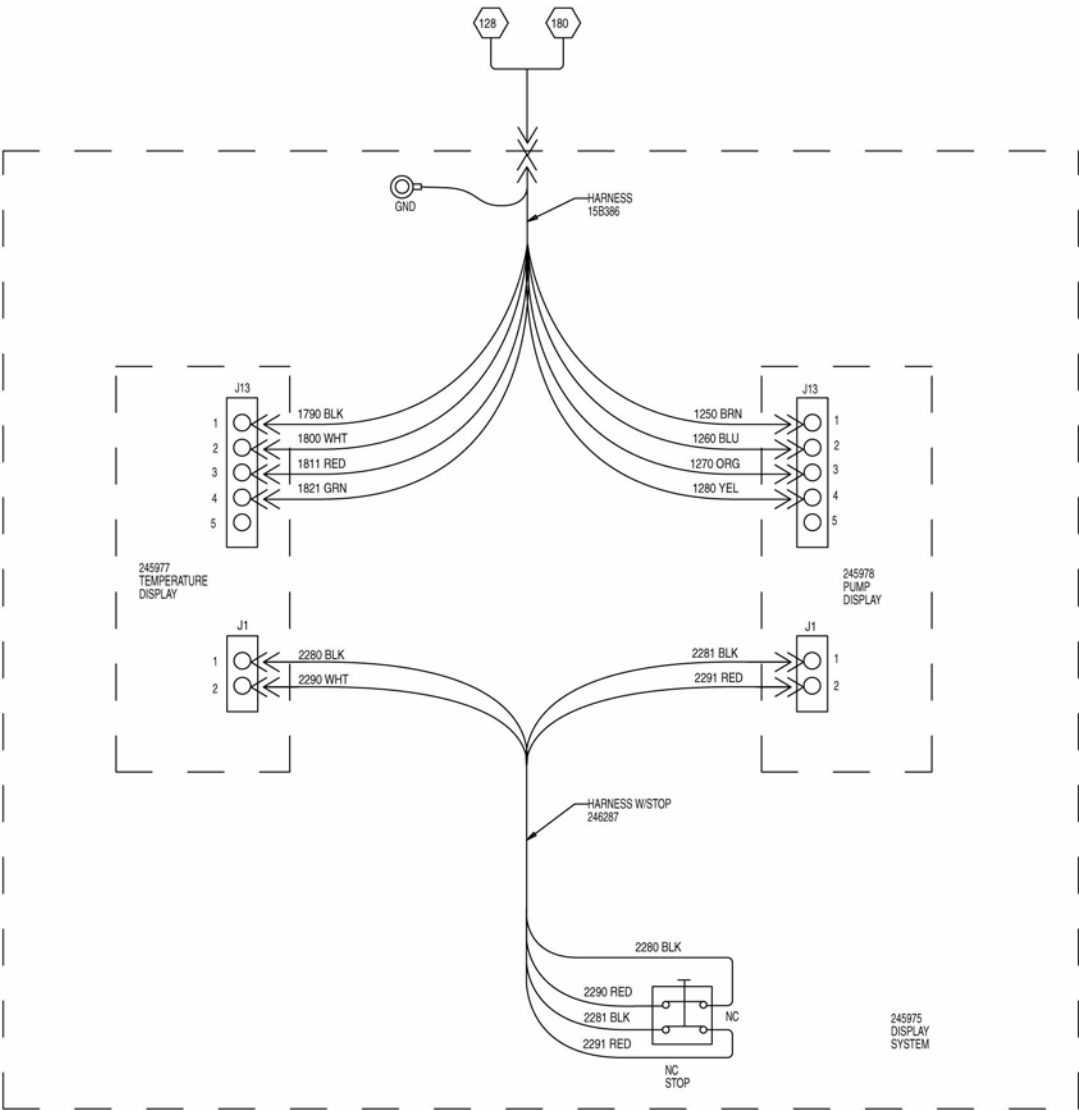
Detailed Schematic, Power Connections and Motor Controls (230 Vac, 3-Phase, 15.3 kW Models)



Detailed Schematic, Heater Controls (230 Vac, 3-Phase, 15.3 kW Models)



Detailed Schematic, Display (All Models)





A series of horizontal lines for drawing or writing.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présent document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.*

This manual contains English. MM 311508

Graco Headquarters: Minneapolis

International Offices: Belgium, China, Japan, Korea

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441

www.graco.com

4/2006, Revised 5/2007