Primary Engineering, Inc.
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Fort Wayne, Indiana 46805
260-424-0444 ph
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Addendum: **2**

Date: **08/20/2026**

Project: **PFW Chiller #2 Replacement 2026**

Comm #: **26814**

The following items shall be incorporated into the specifications and drawings and are considered to be integral to the bid documents for the project. Acknowledgement of receipt of this addendum is required on the bid form.

Item #1: General Clarifications.

- **A.** Refer to attached cut sheet for the VFD to be supplied with the chiller from JCI/York.
- **B.** Refer to the attached wiring diagram provided by JCI/York for the chiller.
- **C.** The current chiller completion and ship dates, per JCI/York, are tentatively:
  - Factory performance test: 3rd week of December 2026
  - Shipment from factory: 4th week of December 2026
  - Arrival on site at PFW: 1st week of January 2027

Item #2: Questions:

- **A.** Question: The incoming power layout on the top shows a 4" by 5" square. We are installing a 4" conduit which measures 4.5". Can you confirm this will work (will plan on it for bid)?

  Response: The contractor may need to install junction box/wireway as required to transition down to the opening.

- **B.** Question: The drawing shows a shipping split. Are the cabinets coming in separate and will need assembled in the field? If so, can we get some additional info on what that entails?

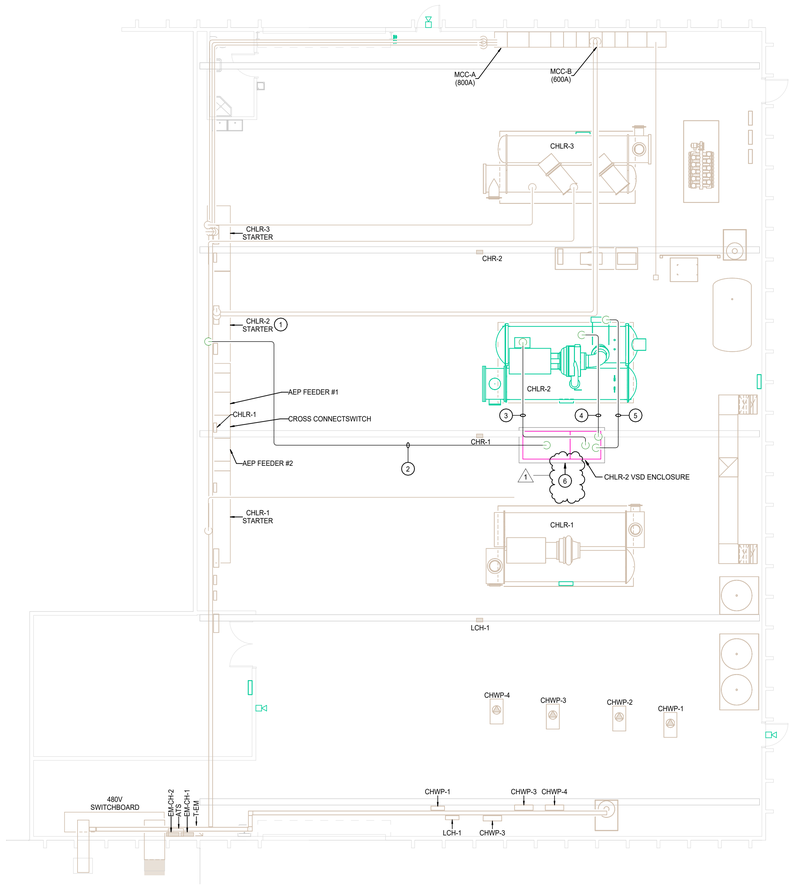
  Response: Wiring diagram is included in this addendum.

Item #3: Drawing Sheet E201

- **A.** Added Plan Note #6 to add housekeeping pad under new VFD.

PLAN NOTES

1. PROVIDE AND INSTALL NEW 350 AMP FUSES IN EXISTING FUSIBLE SWITCH ON STARTER CABINET.
2. PROVIDE AND INSTALL 15KV, 3-#500KCMIL, 1-#3G, IN 4" CONDUIT FROM CHILLER #2 STARTER CABINET TO CHLR-2 VSD ENCLOSURE. CONDUIT SHALL BE ROUTED IN STRUCTURAL SPACE.
3. PROVIDE AND INSTALL 15KV, 3-#500KCMIL, 1-#3G, IN 4" CONDUIT FROM CHILLER #2 STARTER CABINET TO CHLR-2 VSD ENCLOSURE. CONDUIT SHALL BE ROUTED IN STRUCTURAL SPACE.
4. PROVIDE AN INSTALL 3-#12,1-#12G IN 3/4" CONDUIT FROM OIL PUMP TERMINAL STRIP IN CHLR-2 VSD ENCLOSURE TO OIL PUMP DRIVE PANEL ON CHLR-2. CONDUIT SHALL BE ROUTED IN STRUCTURAL SPACE.
5. PROVIDE AN INSTALL 3-#12,1-#12G IN 3/4" CONDUIT FROM TERMINAL STRIP IN CHLR-2 VSD ENCLOSURE TO CHILLER CONTROL PANEL. CONDUIT SHALL BE ROUTED IN STRUCTURAL SPACE.
6. PROVIDE AND INSTALL 8" TALL HOUSEKEEPING PAD FOR VSD ENCLOSURE.



First Floor Power Plan
1/8" = 1'-0"

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PURDUE FORT WAYNE
CHILLER No. 2 REPLACEMENT - 2026
2101 E Coliseum Blvd Fort Wayne, IN 46805

CERTIFICATION:

No.	Date	Description
1	08/20/26	ADDENDUM #2

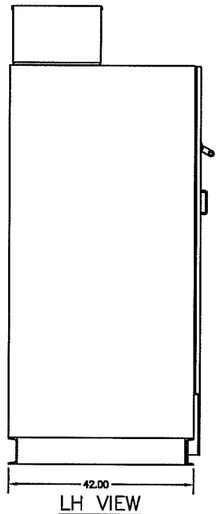
DATE: 7-31-2026
COMM: 26814

TITLE:
FIRST FLOOR ELECTRICAL PLANS

SHEET:
E201

0 16 32 48 SCALE: 1/16" = 1'-0"
0 8 16 24 32 SCALE: 3/32" = 1'-0"
0 8 16 24 SCALE: 1/8" = 1'-0"
0 4 8 12 SCALE: 1/4" = 1'-0"
0 2 4 6 SCALE: 1/2" = 1'-0"
0 2 4 SCALE: 3/4" = 1'-0"
0 1 2 3 SCALE: 1" = 1'-0"

4000V F1
4160V F1

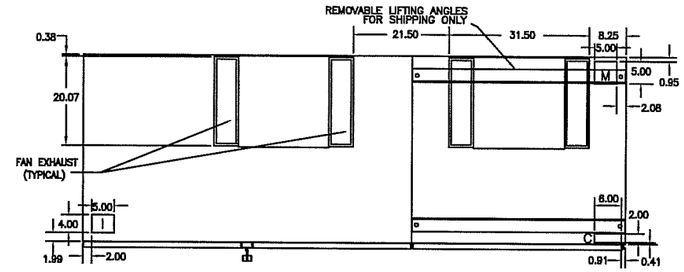


LH VIEW

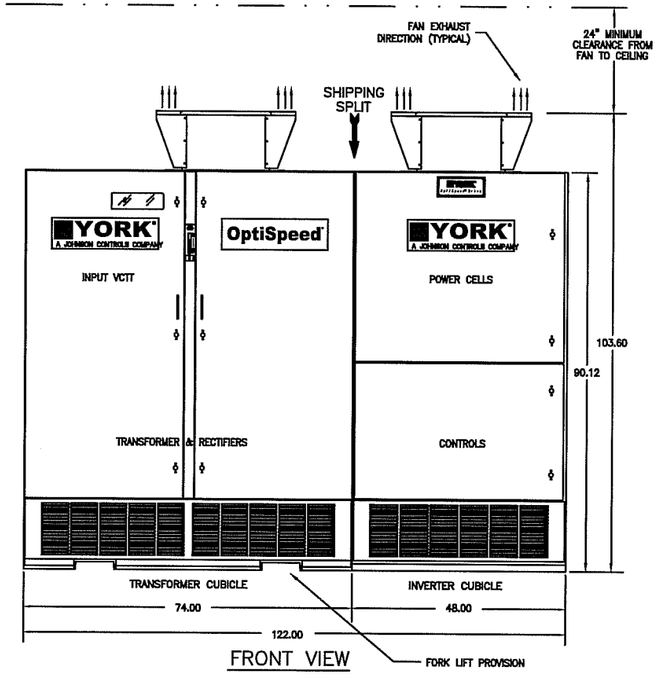
CABLE TERMINATIONS			
ENTRY	INCOMING CABLES	MOTOR LEADS	CONTROL WIRE
TOP	I	M	C
BOTTOM	I	M	C
INCOMING TERMINATIONS USE NEMA 4–HOLE PATTERN MOTOR TERMINATIONS USE NEMA 4–HOLE PATTERN			

NOTES
1. ENCLOSURE TYPE: NEMA 1 W/GASKETED DOORS
2. ALL WEIGHTS ARE APPROXIMATE
3. ALL DIMS ARE IN INCHES
4. POWER CELLS NEED TO BE REMOVED FOR ACCESS

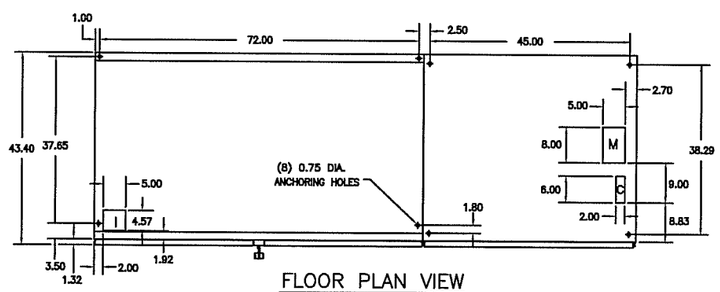
	DA	DB, DC	DD, DE, DF	DH	DJ
TRANSFORMER CUBICLE	6,500 lbs	7,700 lbs	8,500 lbs	9,400 lbs	10,000 lbs
INVERTER CUBICLE	2,500 lbs	2,500 lbs	2,500 lbs	2,500 lbs	2,500 lbs



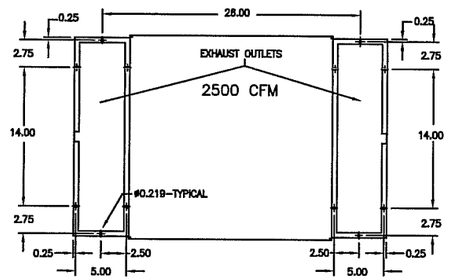
TOP VIEW



FRONT VIEW



FLOOR PLAN VIEW



TYPICAL EXHAUST FAN HOLE PATTERN FOR CUSTOMER DUCTWORK (TOP VIEW)

PRODUCT DRAWING

Medium Voltage OptiSpeed VSD

NOT FOR CONSTRUCTION

YORK®
A JOHNSON CONTROLS COMPANY

Field Connections for YK Chiller Style H and Style J with OptiView Control Center and Remote Medium Voltage VSD

Form Number: 160.76-PW3 (724)
Supersedes: 160.76-PW3 (224)
Issue Date: 2024-07-29

Wiring diagram

Contractor:			
Order number:			
Johnson Controls contract number:			
Johnson Controls order number:			
Purchaser:			
Job name:			
Location:			
Engineer:			
☐	**Reference**	**Date:**	
☐	**Approval**	**Date:**	
☐	**Construction**	**Date:**	

Job data

Chiller model number YK _____

Number of units _____

Compressor motor _____ V, three-phase, _____ Hz

Oil pump motor _____ V, three-phase, _____ Hz

Medium voltage variable speed drive (MVVSD), model number _____R _____-_____

Optional factory-installed oil pump power supply _____V, three-phase, _____ Hz, _____ A

General safety guidelines

Important: Read before proceeding.

This equipment is a relatively complicated apparatus. During rigging, installation, operation, maintenance, or service, individuals might be exposed to certain components or conditions including, but not limited to: heavy objects, refrigerants, materials under pressure, rotating components, and both high and low voltage. Each of these items has the potential, if misused or handled incorrectly, to cause bodily injury or death. It is the obligation and responsibility of rigging, installation, and operating and service personnel to identify and recognize these inherent hazards, protect themselves, and proceed safely in completing their tasks. Failure to comply with any of these requirements could result in serious damage to the equipment and the property in which it is situated, as well as severe personal injury or death to themselves and people at the site.

This document is intended for use by owner-authorized rigging, installation, operating, and service personnel. It is expected that these individuals possess independent training that will enable them to perform their assigned tasks correctly and safely. It is essential that, before performing any task on this equipment, this individual must read and understand the on-product labels, this document and any referenced materials. This individual must also be familiar with and comply with all applicable industry and governmental standards and regulations relating to the task in question.

Safety symbols

The following symbols are used in this document to alert the reader to specific situations:

DANGER

Indicates a possible hazardous situation which will result in death or serious injury if correct care is not taken.

WARNING

Indicates a potentially hazardous situation which will result in possible injuries or damage to equipment if correct care is not taken.

CAUTION

Identifies a hazard which could lead to damage to the machine, damage to other equipment and environmental pollution if correct care is not taken or instructions are not followed.

Note: Highlights additional information useful to the technician in completing the work being performed correctly.

Wiring warning

WARNING

External wiring, unless specified as an optional connection in the manufacturer's product line, is not to be connected inside the control cabinet. Devices such as relays, switches, transducers and controls and any external wiring must not be installed inside the micro panel. All wiring must be in accordance with the published specifications of Johnson Controls and must be performed only by a qualified electrician. Johnson Controls will not be responsible for damage or problems resulting from incorrect connections to the controls or application of incorrect control signals. Failure to follow this warning will void the manufacturer's warranty and cause serious damage to property or personal injury.

Interface control wiring warning

WARNING

Risk of personal injury, do not drill into or grind in the control panel.

Knockouts are provided in the control panel to run the approved customer interface wiring, refer to *Field Control Wiring for YK Chiller Style H and Style J (Form 160.76-PW4)* for further details.

Do not drill into or grind within the control panel or any enclosure that contains electrical or electronic components.

Failure to follow these instructions may cause injury to personnel and damage to equipment and may impact or void warranty.

Changeability of this document

In complying with the Johnson Controls® policy for continuous product improvement, the information contained in this document is subject to change without notice. Johnson Controls makes no commitment to update or provide current information automatically to the manual or product owner. Updated manuals, if applicable, can be obtained by contacting the nearest Johnson Controls Service office or accessing the Johnson Controls Knowledge Exchange website at https://docs.johnsoncontrols.com/chillers/.

It is the responsibility of rigging, lifting, operating, and service personnel to verify the applicability of these documents to the equipment. If there is any question regarding the applicability of these documents, rigging, lifting, and operating and service personnel should verify whether the equipment has been modified and if current literature is available from the owner of the equipment before performing any work on the chiller.

Revision notes

Revisions made to this document are indicated in the following table. These revisions are to technical information, and any other changes in spelling, grammar, or formatting are not included.

Table 1: Revision notes

Affected pages	Description
3	Added Interface control wiring warning

Associated literature

Table 2: Associated literature

Manual description	Form number
Wiring Diagrams – Field Control Wiring	160.76-PW4
Wiring Diagrams – Model YK Style H and Style J with OptiView Control Center and SSS with Modbus, VSD with Modbus	160.76-PW6
Installation – MVVSD - 2300 VAC - 6600 VAC	160.00-N6
Installation – MVVSD - 10 kV - 13.8 kV	160.00-N8

Notes

1. All field wiring must be in accordance with the current edition of the National Electrical Code (NEC), as well as all other applicable codes and specifications.
2. The medium voltage variable speed drive (MVVSD) and compressor motor frame must be grounded in accordance with the 2017 NEC (*Article 250.118*) for equipment grounding. When a separate grounding conductor is required, it must only be a copper conductor and sized according to the 2017 NEC (*Table 250.122 [F][1]*). As stated in the 2017 NEC *(Article 250.122)*, where multiple parallel conduits are used, each must contain a grounding conductor.
3. Units are provided with control power transformers (CPT) and integrated flow switches (FLS), unless otherwise specified. Optional flow switches (FLS) can be supplied. Wiring, electrical conduit, junction boxes, fused disconnect switches (FDS) or circuit breakers, starters (M), push-button stations (PB), manual-off-automatic switches (S), or control relays must be field supplied.
4. Items marked * are provided by Johnson Controls.
5. Items marked ** are available from Johnson Controls at additional cost.
6. The control center power supply 115 V - 50/60 Hz, 2.0 KVA capacity for control center only, is supplied by a control power transformer (10CPT) mounted within the medium voltage variable speed drive as standard.
7. The motor power conduit connection location and motor full load amperes (FLA) are as stated in *160.00-N6* and *160.00-N8*. Multiple conduits must contain an equal number of wires from each phase in each conduit to prevent overheating, as stated in the 2017 NEC (*Article 300.20 [a]*). Use copper conductors only. Do not use aluminum conductors. Use flexible final connections to provide vibration isolation.
8. A removable cover plate without knockouts is supplied for connection of power supply conduits. See Table 5 to Table 9 for frame information.
9. The control circuit wiring for condenser water pump motor starter (3M) is shown for cooling only application. The condenser water pump motor starter (3M) holding coil is to be furnished for 115 V - 50/60 Hz. The power requirements for the total of the condenser water pump starter (3M) must be a maximum of 2 A holding and 10 A inrush. If the power requirements exceed this value, furnish the coil for line voltage, and the control relay with 115 V coil.
10. Use wire #14 AWG copper for one-way distance of less than 175 ft (53.34 m). Use wire #12 AWG copper for one-way distance of more than 175 ft (53.34 m), but less than 300 ft (91.44 m).
11. The following interconnecting wires are field-supplied when a YORK MVVSD is used. Refer to *Form 160.76-PW6*.
    - 120 VAC power: control panel wire; single conductor, stranded, 10-12 AWG, 600 V, 75°C to 90°C, THWN or UL style 1028/1015, UL listed and CSA approved. Insulation must be moisture-resistant thermoplastic (PVC).
    - System fault/run command: control panel wire; single conductor, stranded, 14-18 AWG, 600 V, 75°C to 90°C, THWN or UL style 1015, UL listed and CSA approved. Insulation must be moisture resistant thermoplastic (PVC).
    - Drive to oil pump motor starter: wire; 3 conductor plus ground cable, stranded 14 AWG, 600 V, 75°C to 90°C, THHN/THWN in conduit, UL listed and CSA approved. Use building wire as stated in current NEC.
    - Modbus comms: drive to control panel; 3 conductor with foil shield and drain wire, 20 AWG, 300 V, 80°C, UL style 2464, UL listed and CSA approved; Alpha 5463, Belden 9364, Quabbin 022, or equivalent. Range 18 to 22 AWG
12. The oil pump and drive power supply 460 V-3-60 Hz or 400 V-3-50 Hz is supplied by a control power transformer mounted within the medium voltage variable speed drive as standard.

Table 3: Oil pump and control power transformer

Three-phase voltage	Hz	Oil pump drive panel (A) 2 hp	Control power (1T) transformer (A)
460	60	3.6	4.5
400	50/60	4.3	5.3

13. The YORK MVVSD (2,300 V to 4,160 V) have high interrupting capacity current limiting fuses, plus an integral non-load disconnect function. They do not require the use of FDS1, provided the MVVSD is placed in sight of the chiller. If the FDS1 is required, the minimum ampere rating must be 1.15X (compressor motor amps and control power amps and oil pump amps). See Note 12 for additional information for oil pump and control transformer amps.
14. Calculate the YORK medium voltage variable speed drive input power wiring ampacity as follows:
    - Model YK minimum circuit ampacity: Ampacity = 1.25 x (compressor motor FLA) + oil pump drive panel amps + control power transformer amps

    Where:
    - 125% factor is per *2017 NEC (Article 440.33)*.
    - The FLA is available on the performance report or sales report that has the job specific conditions.
    - Oil pump panel and control transformer amps are as stated in Note 12. Adjust the oil pump panel and control transformer amps value used by a ratio of (120/MVVSD). Include the oil pump amps if the MVVSD optional oil pump power supply is included.
15. Medium voltage (2,300 V to 4,160 V) motors have three leads. The motor leads are furnished with a crimp type connector having a clearance hole for a 3/8 in. bolt. Motor terminal lugs are not supplied.
16. Calculate the starter to motor power wiring ampacity as follows:
    - Minimum circuit ampacity for each conductor (one of three): Ampacity = 1.25 x compressor motor amps

    Where:
    - 125% factor is per 2017 NEC *(Article 440.33)*.
    - The FLA is available on the performance report or sales report that has the job specific conditions.
17. The condenser and evaporator are provided with a thermal type flow sensor. If an optional mechanical type flow switch is used instead for the condenser, it is connected between TB4-11 and TB4-1. If an optional mechanical type flow switch is used instead for the evaporator, it is connected between TB4-12 and TB4-1.
18. The interrupting capacity of the YORK MVVSD is 50 KA RMS symmetrical amperes at the nameplate voltage. The YORK MVVSD is suitable for use on a circuit capable of delivering up to 50 KA RMS symmetrical amperes at the nameplate voltage.
19. The three-phase oil pump motor must be incorrectly phased. L1, L2, and L3 corresponding to phase sequence A, B, and C.
20. Make sure that the main power transformer is adequately sized such that the transformer voltage drop does not exceed 10% during unit start-up. The supply voltage, at starter input terminals, during start-up must be maintained above the minimum value specified in the following table. Note that while the YORK chiller performs adequately during start-up with this amount of voltage drop, the performance of other equipment connected to the supply transformer could be adversely affected.

Table 4: Voltage

Three-phase voltage	Hz	Minimum voltage at drive input terminals during start-up
4,160	60	3,536
2,300	60	1,955
3,300	50	2,805

21. Automatic control of the chilled water pump by the OptiView Control Center is shown. A chilled water pump motor starter (5M) holding coil is furnished for 115 V-50/60 Hz. The power requirements for the water pump starter (5M) must be a maximum of 2 A holding and 10 A inrush. If power requirements exceed this value, furnish coil for line voltage, and control relay with 115 V coil. The pumps operate during oil pump prerun, during compressor operation, and during cycling shutdown.
22. Each 115 VAC field-connected inductive load, for example, relay coil, motor starter coil, and similar components, must have a transient suppressor wired (by others) in parallel with its coil, physically located at the coil. Spare transient suppressors are factory-supplied in a bag attached to the keypad cable clamp in the control center.
23. The OptiView Control Center has a single output for condenser pump control. When using this control output for heat recovery, an additional control means is needed to select operation of tower water condenser pump or heating water condenser pump. The diagram depicts use of a three-position selector switch, which may be added near the chiller for such purposes. Alternatively, a BAS control scheme may be used to control operation of the two condenser water pumps.
24. For heat recovery applications, the heating condenser is provided with a thermal type flow sensor. If an optional mechanical type flow switch is used instead, it is connected between Terminal 1 on TB6 (lower right area of the panel) and Terminal 1 of TB20 on the LTC I/O board in the upper right side of the control cabinet.
25. A jumper is installed between Terminals 21 and 24 for normal operation. To check motor rotation on initial start-up, complete the following steps:
    a. Remove the jumper and install a momentary switch between Terminals 21 and 24.
    b. Press the Start key on the control panel.
    c. After completion of the prelube sequence, jog the motor with the momentary switch.
    d. When correct rotation is obtained, replace the momentary switch with the jumper. The momentary switch must have a minimum contact rating of 1 FLA, 10 LRA at 115 VAC.

⚠ CAUTION

A temporary momentary switch or jumper is the only connection permitted between Terminals 21 and 24. Connections of any other devices to either Terminals 21 and 24 may cause inadvertent compressor start-up.

Table 5: Frame 0 information

MVVSD model number	MVVSD hp	Voltage	Hz	Applicable motor codes	Unit weight	Maximum input conduit (in.)	Maximum motor conduit (in.)
MVVSD05002K-92	500	3,300	50	5CW, 5CX	6,400	(1) 4	(2) 3 or (1) 4
MVVSD06002K-92	600	3,300	50	5DB, 5DC	6,600	(1) 4	(2) 3 or (1) 4
MVVSD05002K-84	500	4,160	60	CR, CS	6,400	(1) 4	(2) 3 or (1) 4
MVVSD06002K-84	600	4,160	60	CT, CU	6,600	(1) 4	(2) 3 or (1) 4
MVVSD07002K-84	700	4,160	60	CV, CW, CX	6,800	(1) 4	(2) 3 or (1) 4
MVVSD08002K-84	800	4,160	60	CY, CZ	7,200	(1) 4	(2) 3 or (1) 4
MVVSD09002K-84	900	41,60	60	CA, CB	7,500	(1) 4	(2) 3 or (1) 4

Table 6: Frame 1 information

MVVSD model number	MVVSD hp	Voltage	Hz	Applicable motor codes	Transformer cubical weight	Inverter cubical weight	Maximum input conduit (in.)	Maximum motor conduit (in.)
MVVSD05002K-80	500	2,300	60	CR, CS	3,700	2,500	(1) 4	(2) 3 or (1) 4
MVVSD06002K-80	600	2,300	60	CT, CU	4,000	2,500	(1) 4	(2) 3 or (1) 4
MVVSD07002K-80	700	2,300	60	CV, CW, CX	4,800	2,500	(1) 4	(2) 3 or (1) 4
MVVSD08002K-80	800	2,300	60	CY, CZ	5,300	2,500	(1) 4	(2) 3 or (1) 4
MVVSD09002K-80	900	2,300	60	CA, CB	5,800	2,500	(1) 4	(2) 3 or (1) 4
MVVSD10002K-80	1,000	2,300	60	DA	6,200	2,500	(1) 4	(2) 3 or (1) 4
MVVSD08002K-92	800	3,300	50	5CT, 5CU, 5CV	5,500	2,500	(1) 4	(2) 3 or (1) 4
MVVSD09002K-92	900	3,300	50	5CW, 5CX	6,450	2,500	(1) 4	(2) 3 or (1) 4
MVVSD10002K-92	1,000	3,300	50	5DA	7,200	2,500	(1) 4	(2) 3 or (1) 4
MVVSD12502K-92	1,250	3,300	50	5DB, 5DC	8,000	2,500	(1) 4	(2) 3 or (1) 4
MVVSD15002K-92	1,500	3,300	50	5DD, 5DE, 5DF	8,500	2,500	(1) 4	(2) 3 or (1) 4
MVVSD10002K-84	1,000	4,160	60	DA	6,500	2,500	(1) 4	(2) 3 or (1) 4
MVVSD12502K-84	1,250	4,160	60	DB, DC	7,700	2,500	(1) 4	(2) 3 or (1) 4
MVVSD15002K-84	1,500	4,160	60	DD, DE, DF	8,500	2,500	(1) 4	(2) 3 or (1) 4
MVVSD17502K-84	1,750	4,160	60	DH	9,400	2,500	(1) 4	(2) 3 or (1) 4
MVVSD20002K-84	2,000	4,160	60	DJ	10,000	2,500	(1) 4	(2) 3 or (1) 4

Table 7: Frame 2 information

MVVSD model number	MVVSD hp	Voltage	Hz	Applicable motor codes	Transformer cubical weight	Inverter cubical weight	Maximum input conduit (in.)	Maximum motor conduit (in.)
MVVSD17502K-92	1,750	3,300	50	5DG, 5DH	11,200	4500	(2) 4	(2) 4
MVVSD20002K-92	2,000	3,300	50	5DJ	12,000	4500	(2) 4	(2) 4
MVVSD22502K-84	2,250	4,160	60	DK	11,200	4500	(2) 4	(2) 4
MVVSD25002K-84	2,500	4,160	60	DL	12,000	4500	(2) 4	(2) 4

Table 8: Frame 3 information

MVVSD Model Number	MVVSD hp	Voltage	Hz	Applicable motor codes	Transformer cubical weight	Inverter cubical weight	Maximum input conduit (in.)	Maximum motor conduit (in.)
MVVSD12502K-80	1,250	2,300	60	DB, DC	8,800	4,500	(2) 4	(3) 4
MVVSD15002K-80	1,500	2,300	60	DD, DE, DF	9,500	4,500	(2) 4	(3) 4
MVVSD17502K-80	1,750	2,300	60	DH	10,000	4,500	(2) 4	(3) 4
MVVSD22502K-92	2,250	3,300	50	5DK	12,700	5,500	(2) 4	(3) 4
MVVSD25002K-92	2,500	3,300	50	5DL	13,500	5,500	(2) 4	(3) 4

Table 9: Frame 4 information

MVVSD model number	MVVSD hp	Voltage	Hz	Applicable motor codes	Transformer cubical weight	Inverter cubical weight	Maximum input conduit (in.)	Maximum motor conduit (in.)
MVVSD20002K-80	2,000	2,300	60	DJ	12,500	6,000	(2) 4	(2) 4
MVVSD22502K-80	2,250	2,300	60	DK	12,500	6,000	(2) 4	(2) 4
MVVSD25002K-80	2,500	2,300	60	DL	12,500	6,000	(2) 4	(2) 4

Field connections

Figure 1: Field connections

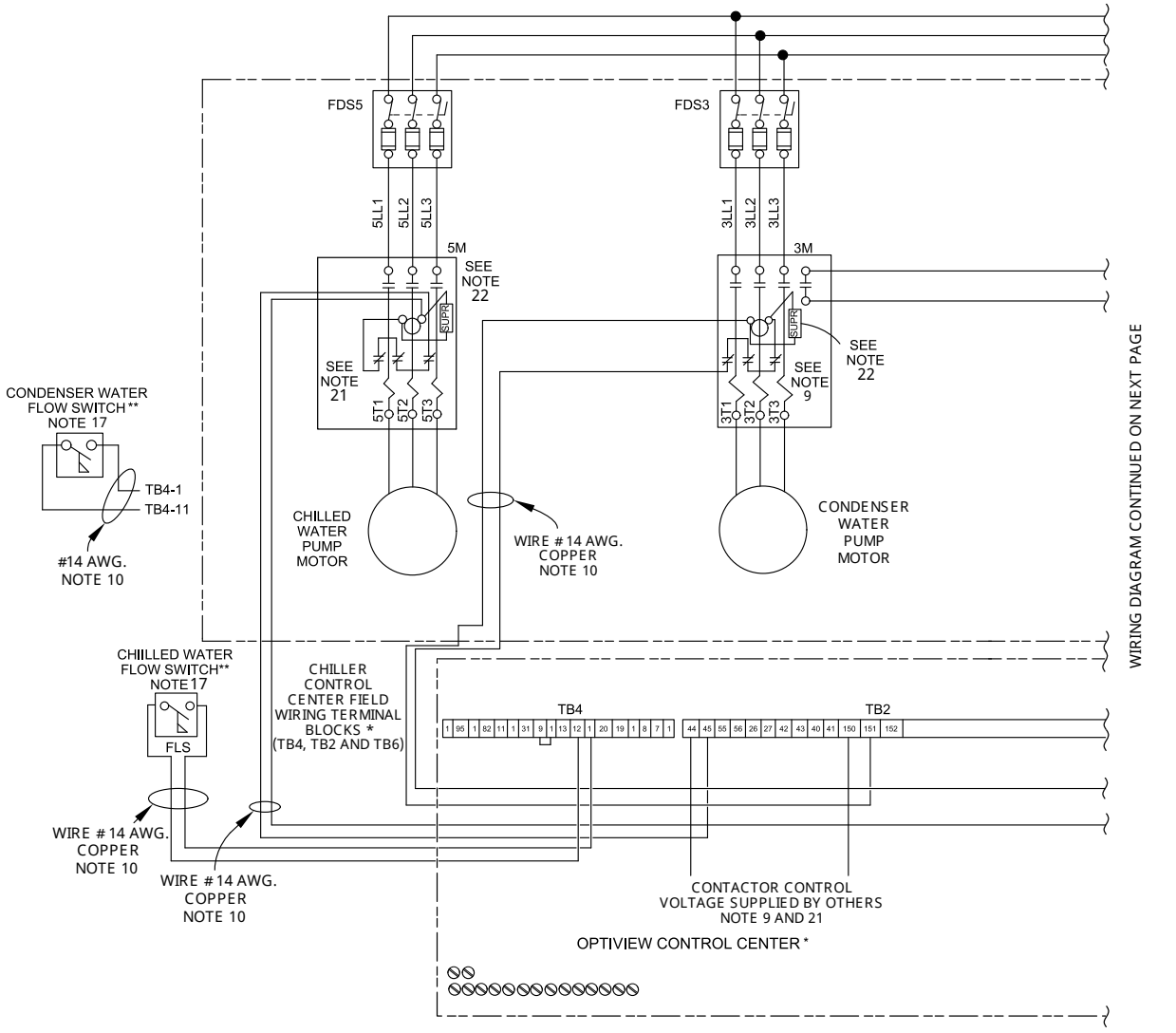


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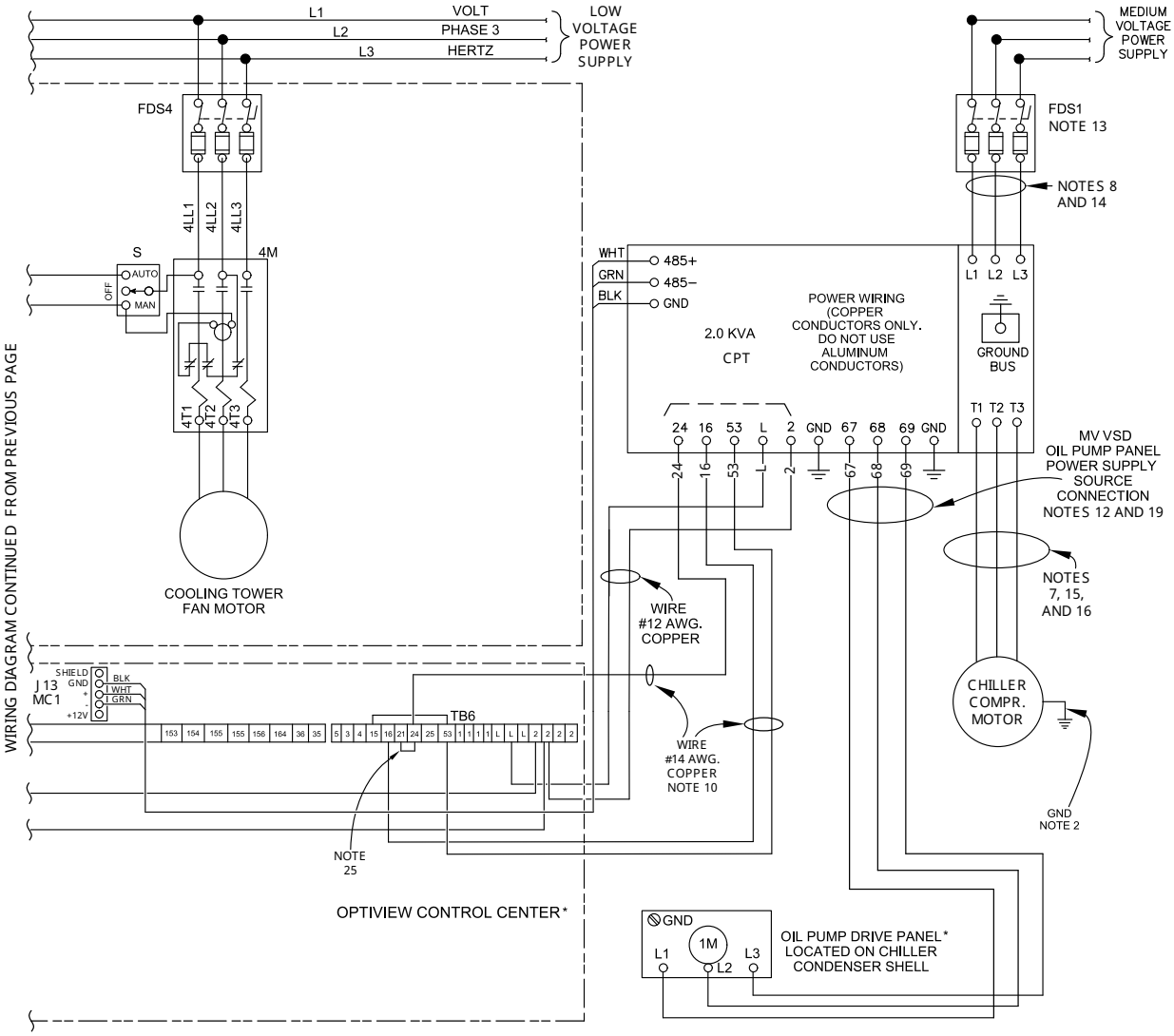
Figure 1: Field connections



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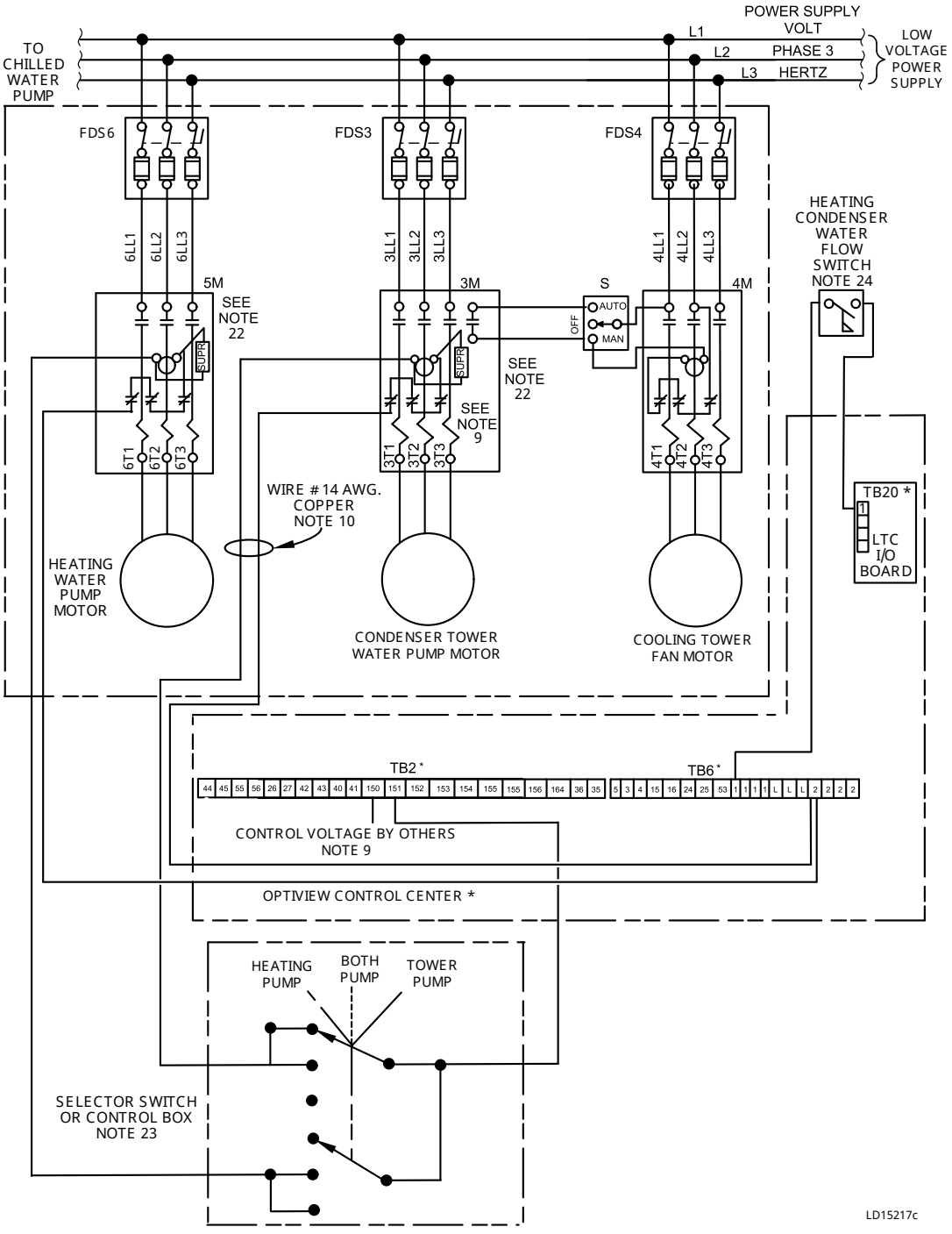
Field connections heat recovery supplement

Figure 2: Field connections heat recovery supplement



Note: When a YK is ordered with a double bundle heat recovery option, an extra pump is needed for the hot water circuit.

Unit conversion

The following factors can be used to convert from imperial to the most common SI metric values.

Table 10: SI metric conversion

Measurement	Multiply imperial unit	By factor	To obtain metric unit
Capacity	Tons refrigerant effect (ton)	3.516	Kilowatts (kW)
Power	Horsepower (hp)	0.7457	Kilowatts (kW)
Flow rate	Gallons / minute (gpm)	0.0631	Liters / second (L/s)
Length	Feet (ft)	0.3048	Meters (m)
	Inches (in.)	25.4	Millimeters (mm)
Weight	Pounds (lb)	0.4536	Kilograms (kg)
Velocity	Feet / second (fps)	0.3048	Meters / second (m/s)
Pressure drop	Feet of water (ft)	2.989	Kilopascals (kPa)
	Pounds / square inch (psi)	6.895	Kilopascals (kPa)

Temperature

To convert degrees Fahrenheit (°F) to degrees Celsius (°C), subtract 32° and multiply by 5/9 or 0.5556.

Example: (45.0°F - 32°) x 0.5556 = 7.22°C

To convert a temperature range (that is, a range of 10°F) from Fahrenheit to Celsius, multiply by 5/9 or 0.5556.

Example: 10.0°F range x 0.5556 = 5.6 °C range