



## MRI Chiller Installation Guidelines

**\*These Items are the responsibility of the installing contractor to complete prior to the startup of the MRI Chiller.\***

**\*\*Please refer to DTS chiller manual for further info. Contact DTS at 800-968-5665 for questions or concerns with these items\*\***

### Setting and Rigging:

#### Chiller Weights:

REFER TO CHILLER CUTSHEETS OR DRAWINGS THAT ARE INCLUDED IN THIS PACKET FOR THESE SPECS. ENSURE YOU MATCH YOUR CHILLER MODEL TO THE DRAWING YOU ARE LOOKING AT BEFORE SIZING CRANES, PADS, CURBS, ETC.

#### Arrangements:

Unit and accessories will arrive on a flat-bed truck. The freight carrier does not provide unloading service. Include any necessary rigging fees in your installation bid.

#### Ground Level Setting:

- Place unit on a concrete pad. **Standard dimensions:** 5'W x 12'L x min 4" depth. \*Ensure you size your pad based on the chiller you are receiving\*
- Pad must be poured with less than 1/2" slope per 10' or be shimmed to level.
- Ensure placement is minimum 5 feet (6 feet recommended) from walls and minimum 8 feet overhead clearance.
- Secure unit to pad with 1/2" bolts at all 8 feet.

#### Roof Level Setting:

- **Always follow all local ordinances and codes for roof installations.**
- If OSHPD certification is required in your area, please ensure you are installing an OSHPD certified chiller.
- Chillers are capable of pumping 65 feet vertical distance to MRI SEP cabinet. Please reach out to DTS prior to installation if your site planning exceeds this limit.
- For rooftop installs where the unit is above patient rooms or staff areas, DTS recommends the use of Isolation springs that are placed between the chiller and roof curb to eliminate vibration.
- DTS does not provide roof curbs, installation contractor must include these if needed.

## Plumbing:





- **Provide fluid piping – Please refer to document MED-WI-010 for further instruction**
- Copper is recommended with flex connectors and isolation ball valves at the chiller inlet and outlet connections.
- Chiller inlet and outlet ports are referenced on the cutsheet of the applicable chiller you are installing. Refer to these documents as needed.
- 45, 60, 63, 70, and 106kW chillers can support a maximum total of 500 equivalent feet of piping. (supply pipe ft. + return pipe ft. + total fittings ft.) If your run exceeds this, please reach out to DTS for information and recommendations. If your chiller is not one of the mentioned, please reach out to DTS.
- Each chiller is supplied with a filter flow meter kit to be installed indoors on the supply line from the chiller to the SEP. Refer to the Filter Flow Meter Kit manual for information.

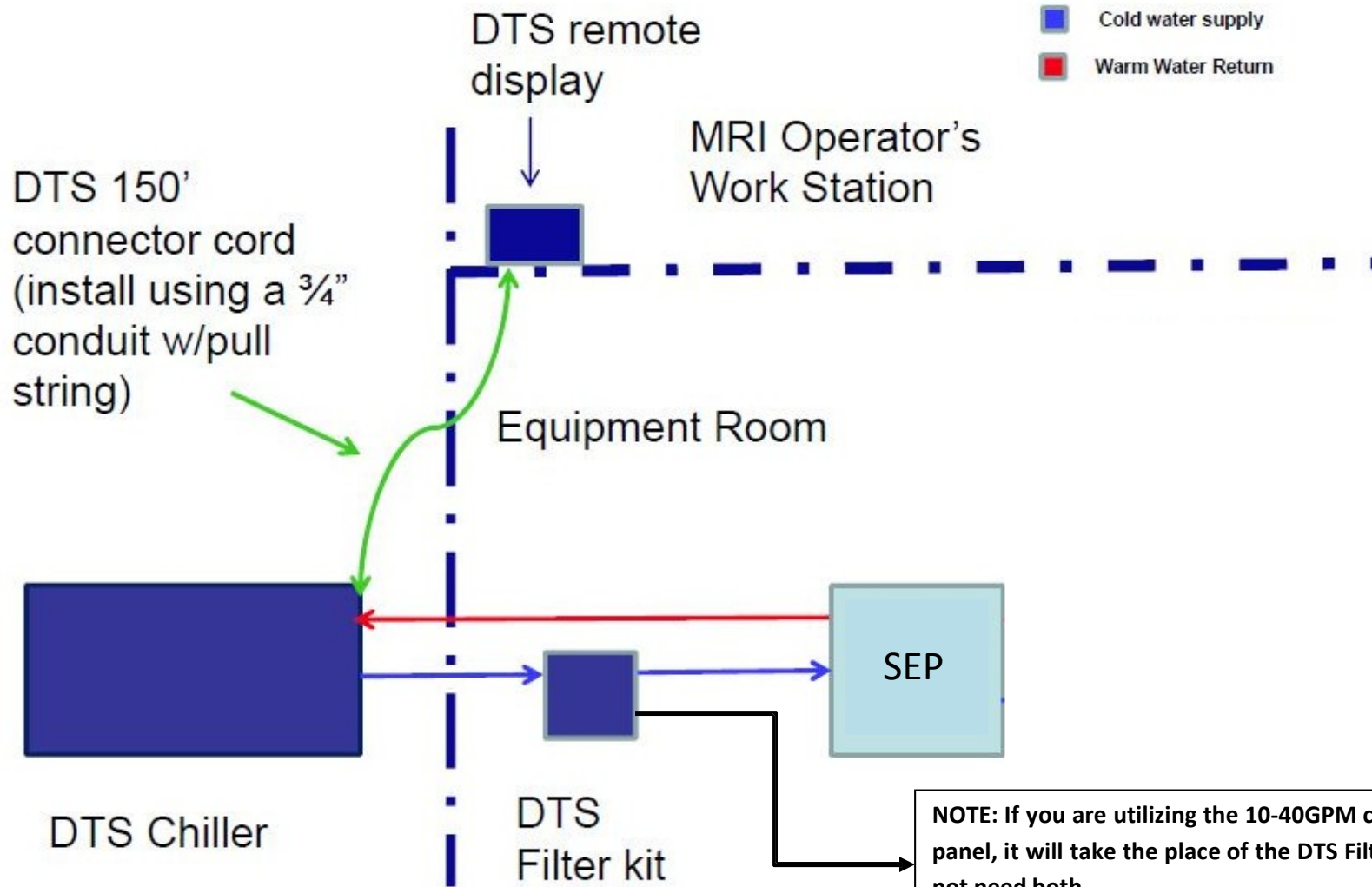
## Process Fluid:

- **Fill chiller and pipes with glycol mixture – Please refer to document MED-WI-011 for further instruction**
- Glycol can be purchased from DTS, or sourced by the group installing the chiller. DTS recommends a 50% mix of inhibited propylene glycol to water.
- Installation contractor must provide distilled or DI water to mix with glycol (if not using pre-mixed glycol). 45-65+ gallons will be needed.
- TAP WATER IS NOT APPROVED TO MIX WITH GLYCOL. The naturally occurring minerals and sediments in tap water will cause the fluid to fall outside the water purity specification required by MRI equipment.
- Dilute the glycol to a 50/50 glycol-water mixture with the water provided.
- Fill the system with the mixture
  - Fill the chiller reservoir first. The capacity of the reservoir by model can be found in the cutsheet for the chiller you are installing. This can be filled through the sight glass or the fill cap on top of the chiller reservoir.
  - 1 gallon per 6' of 2" piping will be required to fill the plumbing lines.
  - You cannot fill the chiller through the pipes. There are anti-backflow solenoids that prevent that. It must be filled direct into the chiller.

## Electrical:

- **Provide electrical supply to chiller – Please refer to document MED-WI-012 for further instruction**
- Refer to the data tag on the chiller for electrical information. Refer to the above referenced document for further power requirements
- Connect power drop, turn chiller disconnect to "ON" and check for proper phasing. Correct phasing if needed. Leave on until chiller startup.
- A Carel remote display panel with 150' connector cord is included with each shipment. These pieces are located within the electrical enclosure of the chiller.
- If the distance of the chiller from where the remote display panel will be installed exceeds 150', you must purchase the Long Distance Remote Kit. This will increase the acceptable distance from 150' up to 400'.

-  DTS supplied equipment
-  DTS supplied connect cord
-  Cold water supply
-  Warm Water Return



 	SUBJECT: W Series Installation Guidelines - Plumbing		NUMBER: MED-WI-010
	REV ISSUE DATE: 1/9/2017	REV: 02	PAGE 1 OF 6

<b>Purpose:</b>	Define process of W Series chiller plumbing connections and installations
<b>Scope:</b>	Applicable to all field personnel participating in installation of defined equipment.
<b>Related Documents:</b>	F-M001, MED-WI-011

### Affected Equipment:

- WVO3000
- WO5000 (12kW)
- WO7500 (17kW/21kW)
- WO2-7500 (37kW)
- WO2-2-5000 (60/63kW)
- WO2-2-7500 (70kW)
- WO2-10000 (45kW)
- WO2-2-10000 (75kW)
- WO3-2-10000(106kW)

### Process:

1. Verify chiller model via datatag located on chiller E-Box and that the model aligns as a piece of Affected Equipment within this document.
2. Utilize this document and chiller manual provided to determine that site pipe run is acceptable by DTS requirements. If the provided document does not provide adequate verification, call Dimplex Thermal Solutions' Medical Service team at 800-968-5665 x710.
3. Refer to recommended piping layout on page 5 of this document.
4. Follow plumbing related guidelines listed in Chiller Installation Responsibility Checklist (F-M001).
5. Complete plumbing connections
6. Leak check piping installation. Ensure chiller is isolated from site piping before putting plumbing under any pressure.
7. Flush piping to remove any installation debris
8. Back fill chiller lines with glycol mixture (process for this defined in MED-WI-011) if applicable.
9. Wait for chiller startup to be completed to verify no plumbing issues exist

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**Plumbing Recommendations:**

1. Copper piping is recommended for fluid lines in and out of chiller. Do not utilize carbon steel, black pipe, or PVC. If you need clarification on type of piping you are using, contact DTS at 800-968-5665.
2. These recommendations are for “open to atmosphere” fluid systems. These chillers are NOT pressurized. Do **NOT** install bladder tanks, expansion tanks, shot feeders, pressure sensors, booster pumps, automatic water makeup systems, or any other supplemental equipment on the plumbing of these chiller without express instruction from Dimplex Thermal Solutions.
3. IF YOUR PLUMBING INSTALLATION DEVIATES FROM ANY OF THESE PARAMETERS, CONTACT DTS AT 800-968-5665 X710 FOR RECOMMENDATIONS.
4. FOR CHILLERS WITH 1.25” LINE SIZE:
  - a. Models: WO5000
  - b.

Fitting	Equivalent feet per fitting
1.25” 90° Standard Elbow	3.3ft
1.25” 90° Street Elbow	5.6ft
1.25” 45° Standard Elbow	1.7ft
1.25” 45° Street Elbow	3.0ft
1.25” Globe Valve	38ft
1.25” Gate Valve	1.5ft
1.25” Angle Valve	15ft

5. FOR CHILLERS WITH 1.5" LINE SIZE:

a. Standard Fitting Losses in Equivalent Feet of Pipe:

Fitting	Equivalent feet per fitting
1.5" 90° Standard Elbow	4.0ft
1.5" 90° Street Elbow	6.3ft
1.5" 45° Standard Elbow	2.1ft.
1.5" 45° Street Elbow	3.4ft.
1.5" Globe Valve	43.0ft.
1.5" Gate Valve	1.8ft.
1.5" Angle Valve	18.0ft.

6. FOR CHILLERS WITH 2" LINE SIZE:

a. The Heat Exchanger can pump fluid vertically up to 75 feet (usually 6 stories).

b. Standard Fitting Losses in Equivalent Feet of Pipe:

Fitting	Equivalent feet per fitting
2" 90° Standard Elbow	5.0ft
2" 90° Street Elbow	8.2ft
2" 45° Standard Elbow	2.6ft.
2" 45° Street Elbow	4.5ft.
2" Globe Valve	55.0ft.
2" Gate Valve	2.3ft.
2" Angle Valve	24.0ft.

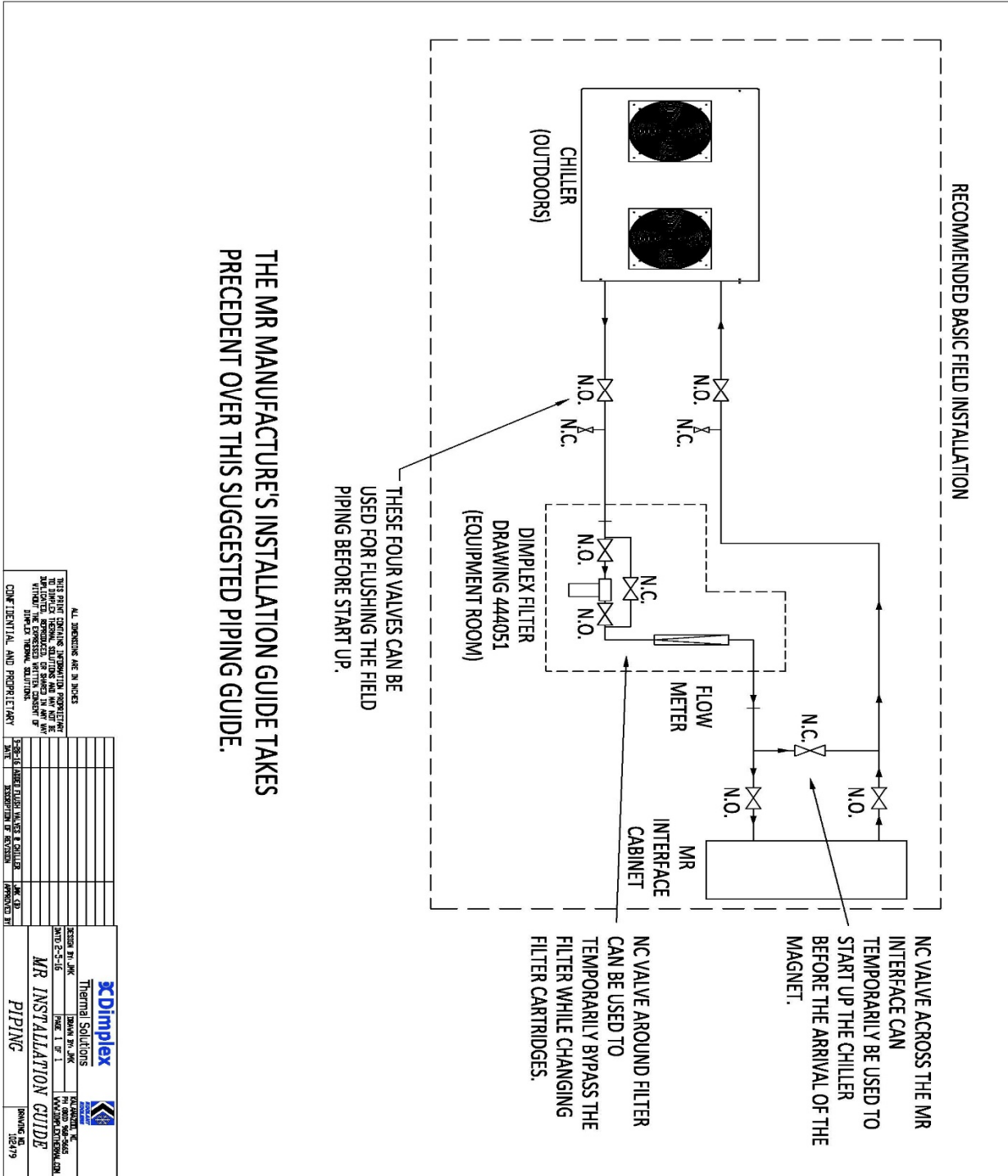
7. For chillers located more than 75' above the chiller, a booster pump is recommended. Consult factory for details.

<b>Glen Dimplex</b> Thermal Solutions		<b>Koolant Koolers</b>	SUBJECT: W Series Installation Guidelines - Plumbing		NUMBER: MED-WI-010
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8. FOR CHILLERS WITH ANY LINE SIZE NOT DEFINED IN THIS DOCUMENT

- a. If you have a chiller with a different line size then defined in this document, please call DTS at 800-968-5665 x710 for clarification
- b. Please note that the chillers listed in this document are for builds that are open to the atmosphere. These guidelines do NOT apply to pressurized chiller

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Revision History



<b>Glen Dimplex</b> Thermal Solutions		<b>Koolant Koolers</b>	SUBJECT: W Series Installation Guidelines - Plumbing		NUMBER: MED-WI-010
			REV ISSUE DATE: 1/9/2017	REV: 02	PAGE 6 OF 6

Version	Revision Date	Description of Change	Changes Made By (Name & Title):
001	7/1/2016	Creation of document	Kyle Hastings, Medical Service Manager
002	1/9/2017	Edit Process step 6, general grammar updates	Kyle Hastings, Medical Service Manager

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 	SUBJECT: W Series Installation Guidelines – Process Fluid		NUMBER: MED-WI-011
	REV ISSUE DATE: 1/9/2017	REV: 02	PAGE 1 OF 4

<b>Purpose:</b>	Define process of W Series chiller process fluid installation and fill.
<b>Scope:</b>	Applicable to all field personnel participating in installation of defined equipment.
<b>Related Documents:</b>	F-M001, MED-WI-010

### Affected Equipment:

- WVO3000
- WO5000 (12kW)
- WO7500 (17kW/21kW)
- WO2-7500 (37kW)
- WO2-2-5000 (60/63kW)
- WO2-2-7500 (70kW)
- WO2-10000 (45kW)
- WO2-2-10000 (75kW)
- WO3-2-10000(106kW)

### Process:

1. Complete rigging and setting of chiller at end user location.
2. Ensure site plumbing has been flushed clean and has no residual installation debris. DO NOT FLUSH PLUMBING THROUGH CHILLER OR PROCESS EQUIPMENT AS DAMAGE MAY RESULT.
3. Utilize this document and chiller manual to determine volume of fluid mixture needed for system.
4. If needed, source glycol and water for mixture.
5. Add correct fluid mixture to chiller reservoir.
  - i. Remove air filters from chiller.
  - ii. Remove vent cap or stainless steel plate that is on top of the reservoir.
  - iii. Pump directly into the tank until the appropriate mixture is reached and the fluid level sight glass on the chiller is at the MAX level.
  - iv. Reinstall reservoir cap once system is full and free of air.
  - v. Reinstall chiller air filters.
6. If plumbing system has fill ports or other ways to backfill the piping, add the same concentration of fluid mixture used in the reservoir to fill the pipe lines.
7. Wait for startup of chiller to verify correct concentration and fluid level is achieved with system fully operational.

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8. Make any corrections necessary.


**Process Fluid Recommendations:**

1. Reservoir Capacity by model:

Chiller Model	Reservoir Capacity (US Gallons)
WVO3000	10
WO5000	50
WO7500	50
WO2-7500	70
WO2-10000	100
WO2-2-5000	100
WO2-2-7500	100
WO2-2-10000	100
WO3-2-10000	100

2. The above table references volume needed for the chiller reservoir only. Plumbing volume will need to be calculated separately and added to the chiller reservoir volume to determine total fluid needed. See below table.

Volume of Water/Glycol Mixes for Field Piping		
Line Size	US Gallons per foot	US Gallons per ten feet
1.25"	0.078	0.7
1.5"	0.11	1.1
2"	0.17	1.7
2.5"	0.25	2.5

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3. When installing a chiller outdoors, the water to glycol mix must be 50% (freeze point of -35F°). If the chiller is indoors, the water to glycol mix must be 30% glycol to 70% water (freeze point of 8F°)
4. When utilizing 100% glycol concentration, the fluid must be diluted to the correct concentration mixture. This must be accomplished with a demineralized water. i.e. distilled water, Deionized water, reverse osmosis water, etc. TAP WATER MAY NOT BE USED TO MIX WITH THE GLYCOL.
5. The water and glycol defined in Item 3 can be premixed prior to filling the system, or can be added separately to the reservoir and self-mix when the fluid circulates through the system.
6. After the system has been filled, test the mixture with a refractometer or hydrometer to ensure correct concentration level.
7. DTS recommends that the chillers be filled with an industrial inhibited propylene glycol. If this cannot be sourced in your local area, reach out to DTS' Parts Department for information on sourcing.
8. You cannot backfill the chiller reservoir through the piping. The system utilizes check valves or anti-backflow solenoids to prevent this. The pipes and chiller reservoir need to be filled separately.
9. Note what brand, type, concentration of glycol was used to fill the system, and date of system filling on the inside of the electrical panel door with permanent marker. This will ensure that the correct type of glycol is used going forward when the system requires refilling.

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<b>Glen Dimplex</b> Thermal Solutions		<b>Koolant Koolers</b>	SUBJECT: W Series Installation Guidelines – Process Fluid		NUMBER: MED-WI-011
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### Revision History

Version	Revision Date	Description of Change	Changes Made By (Name & Title):
001	7/1/2016	Creation of document	Kyle Hastings, Medical Service Manager
002	1/9/2017	Edit to Recommendations Step 9	Kyle Hastings, Medical Service Manager

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 	SUBJECT: W Series Installation Guidelines - Electrical		NUMBER: MED-WI-012
	REV ISSUE DATE: 1/9/2017	REV: 02	PAGE 1 OF 3

<b>Purpose:</b>	Define process of W Series chiller power and wiring installation/connections.
<b>Scope:</b>	Applicable to all field personnel participating in installation of defined equipment.
<b>Related Documents:</b>	F-M001

### Affected Equipment:

- WVO3000
- WO5000 (12kW)
- WO7500 (17kW/21kW)
- WO2-7500 (37kW)
- WO2-2-5000 (60/63kW)
- WO2-2-7500 (70kW)
- WO2-10000 (45kW)
- WO2-2-10000 (75kW)
- WO3-2-10000(106kW)

### Process:

1. Always exercise safety measures when working with high voltage systems. Wear appropriate PPE and follow all safety steps when working with the chiller system.
2. Review all state and local electrical codes prior to making any electrical installations. These codes will supersede direction in this document. If any standards or codes in your geographical area conflict with directions from this document, reach out to Dimplex Thermal Solutions for support.
3. Review electrical schematics in this document and the manual that comes with the chiller unit.
4. Size breaker or disconnect appropriately. See chiller name plate for additional info.
5. Land main power on chiller.
6. Verify phasing is correct. This can be checked at the phase monitor that is mounted in the chiller electrical panel
7. Run ¾" conduit with pull string from chiller down to MRI Suite or MR mechanical room for the remote display cable
8. Pull remote display cable through conduit. Standard cable is a 150' phone-like cable.
9. Connect and mount Carel remote display on wall per manufacturer instructions

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10. Once chiller installation is complete, turn chiller disconnect “ON” to allow crankcase heaters to run for a minimum of 8 hours prior to startup. See form F-M001 for additional details.

**Electrical Recommendations:**

460/3/60	Max Chiller Disconnect Fuse	MAX FLA	Max Overcurrent Protection	Minimum Circuit Ampacity
WVO3000	20A	16A	25A	20A
WO5000	25A	22A	35A	25A
WO7500	30A	26A	50A	30A
WO2-7500	60A	48A	70A	50A
WO2-10000	70A	54A	90A	70A
WO2-2-5000	80A	61A	80A	70A
WO2-2-7500	100A	85A	110A	100A
WO2-2-10000	125A	100A	125A	110A
WO3-2-10000	175A	148A	225A	163A

- For 230v chillers, double all amperage data for applicable model. For 208v, consult factory.
- If you need a chiller to run in anything other than above mentioned voltages, phasing, or Hz, consult factory.
- If distance from chiller to where the remote display will be mounted is greater than 150’, a Long Distance Remote Kit is required. Call DTS for information.
- DO NOT SPLICE THE REMOTE DISPLAY CABLE TO INCREASE LENGTH. This will not work and can cause a cable short that will affect the operation of the chiller.
- The system is disabled in the control parameters. When turning the electrical disconnect on, the system will not begin circulating. It will provide power to the system heaters only until a startup technician enables the system operation.

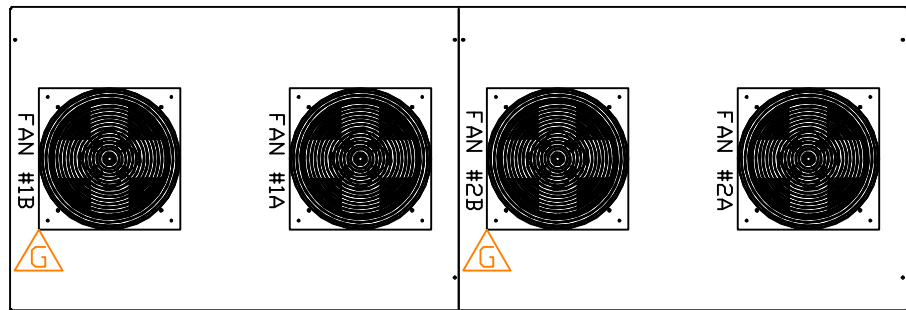
	SUBJECT: W Series Installation Guidelines - Electrical		NUMBER: MED-WI-012
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### Revision History

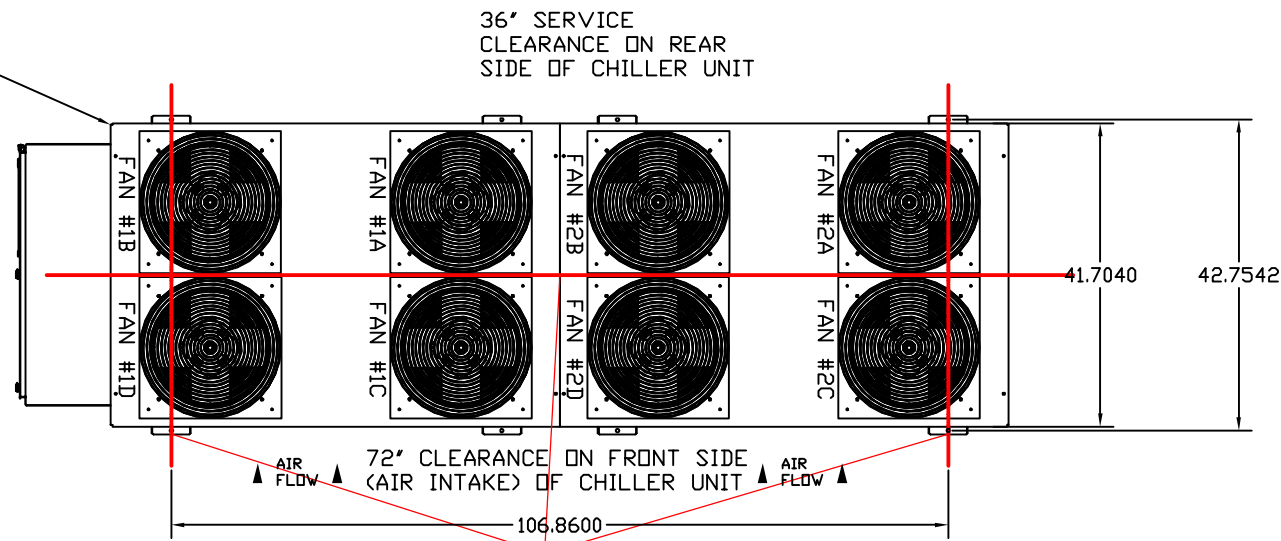
Version	Revision Date	Description of Change	Changes Made By (Name & Title):
001	7/1/2016	Creation of document	Kyle Hastings, Medical Service Manager
002	1/9/2017	Edit WO2-7500 table values, grammar corrections	Kyle Hastings, Medical Service Manager

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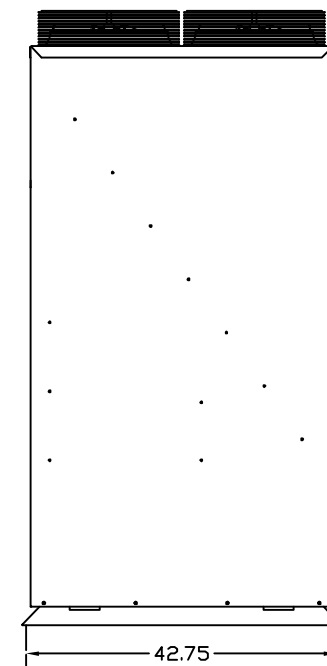
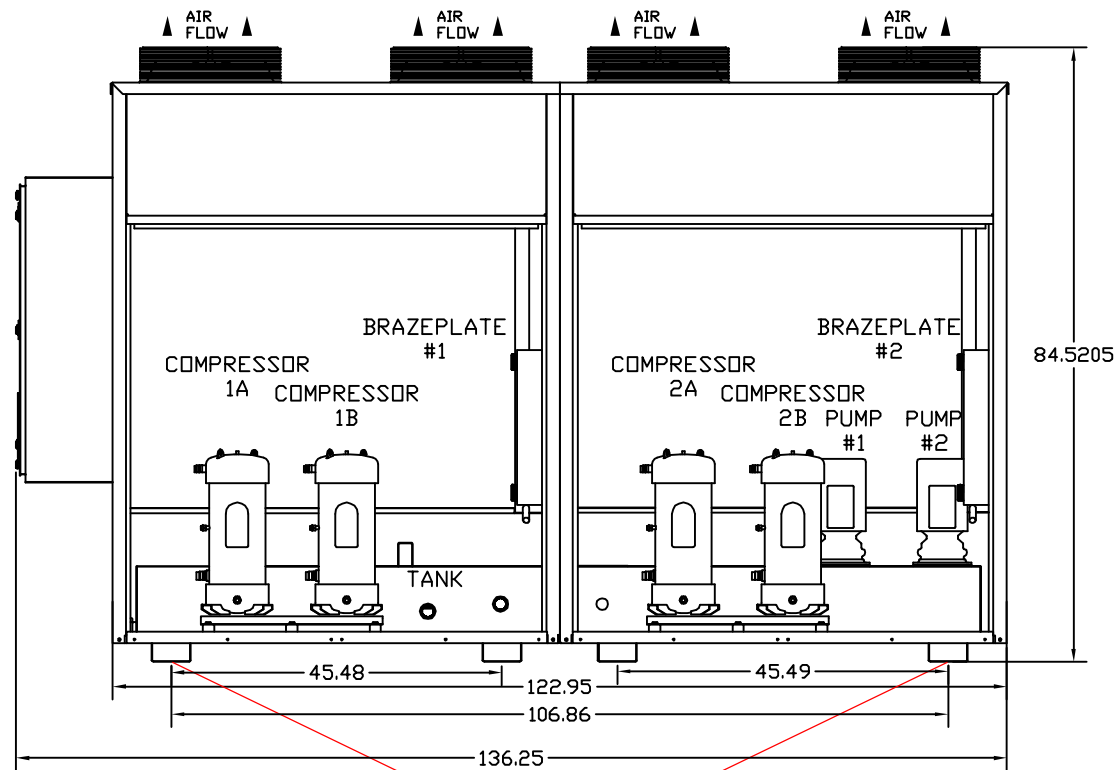
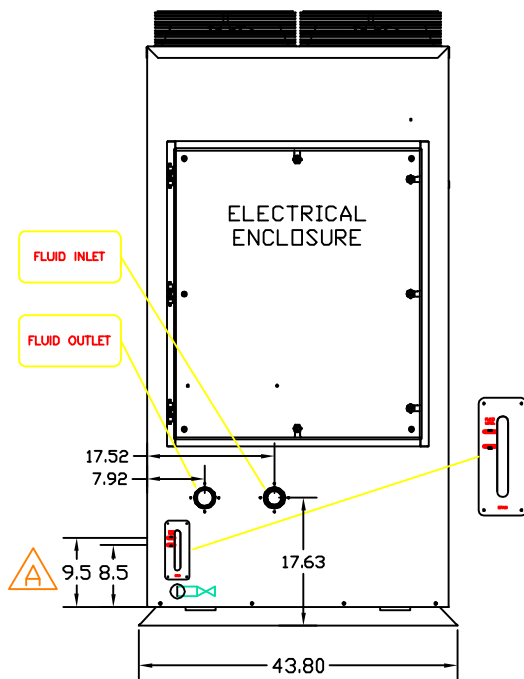
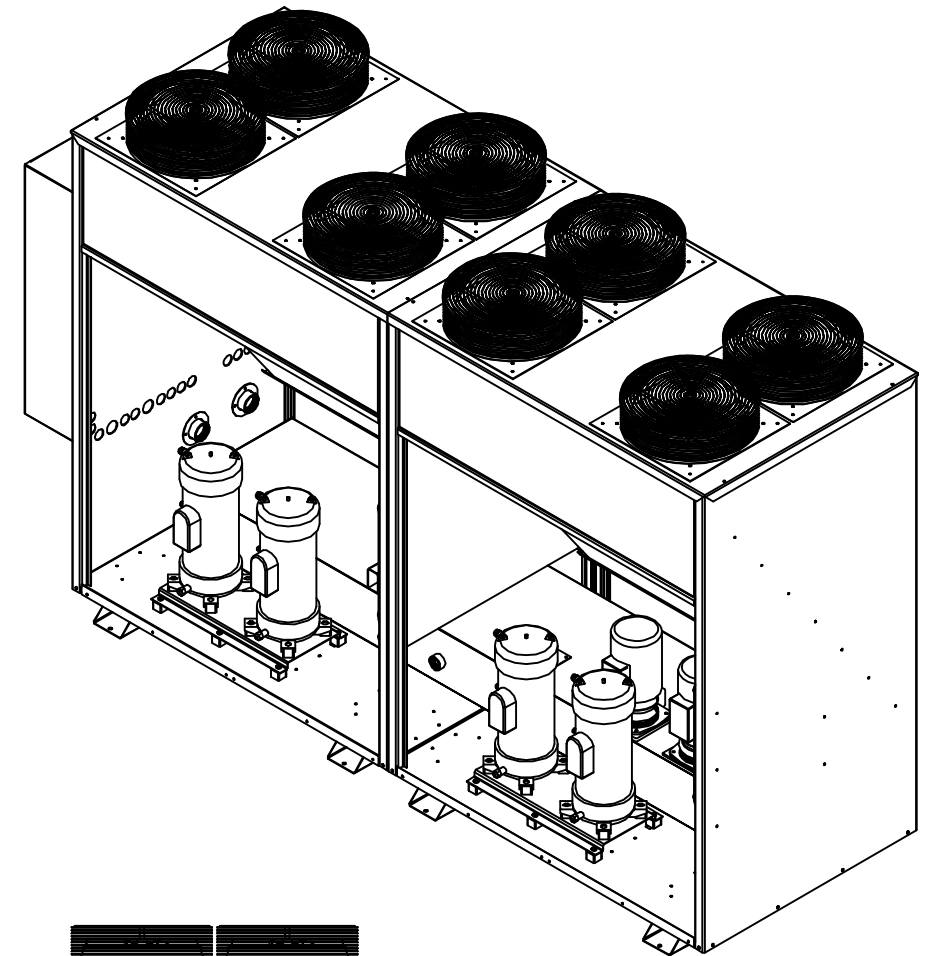




W02-2-5000 LID



LIFT MACHINE USING STRAPS THROUGH OUTSIDE FEET. BE SURE TO USE SPREADER BAR.



W02-2-7500 UNIT HAS (8) FANS  
W02-2-5000 UNIT HAS (4) FANS

LIFT MACHINE USING STRAPS THROUGH OUTSIDE FEET. BE SURE TO USE SPREADER BAR.

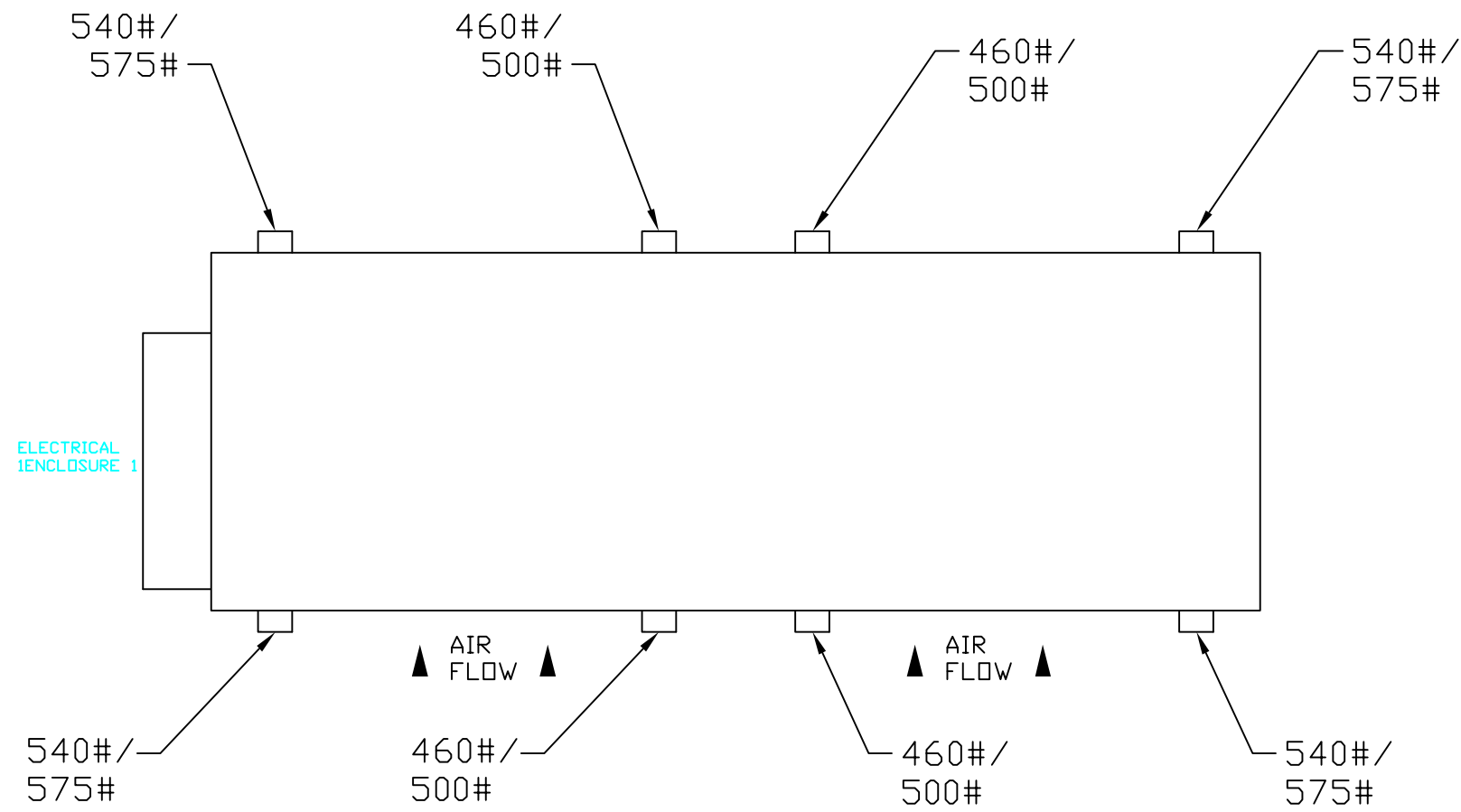
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DATE	DESCRIPTION OF REVISION	APPROVED BY
04/20/10	CHANGED ST LID LABELING	CJH <G>
03/16/10	UPDATED TITLE BLOCK	MAR <F>
03/11/10	REMOVE "CHILLER" FROM TAGS	MAR <E>
03/02/10	SWITCHED FAN #'S A&C, B&D	MAR <D>
02/18/10	ADDED W02-2-5000 LID	MAR <C>
02/18/10	MOVE SIGHT GLASS INSIDE UNIT	MAR <B>
2/10/10	ADDED TAGGING AND SIGHT GLASS	MAR <A>

DESIGN BY: MAR	DRAWN BY: MAR	KALAMAZOO, MI.
DATE: 01/22/10	PAGE 1 OF 1	PH (800) 968-5665
<p style="text-align: center;"><b>W02-5000/7500-2P</b></p>		WWW.DIMPLEXTHERMAL.COM
<p style="font-size: 2em;"><b>LAYOUT</b></p>		DRAWING NO. 443378






WEIGHT FOR 5000 MODEL/  
WEIGHT FOR 7500 MODEL

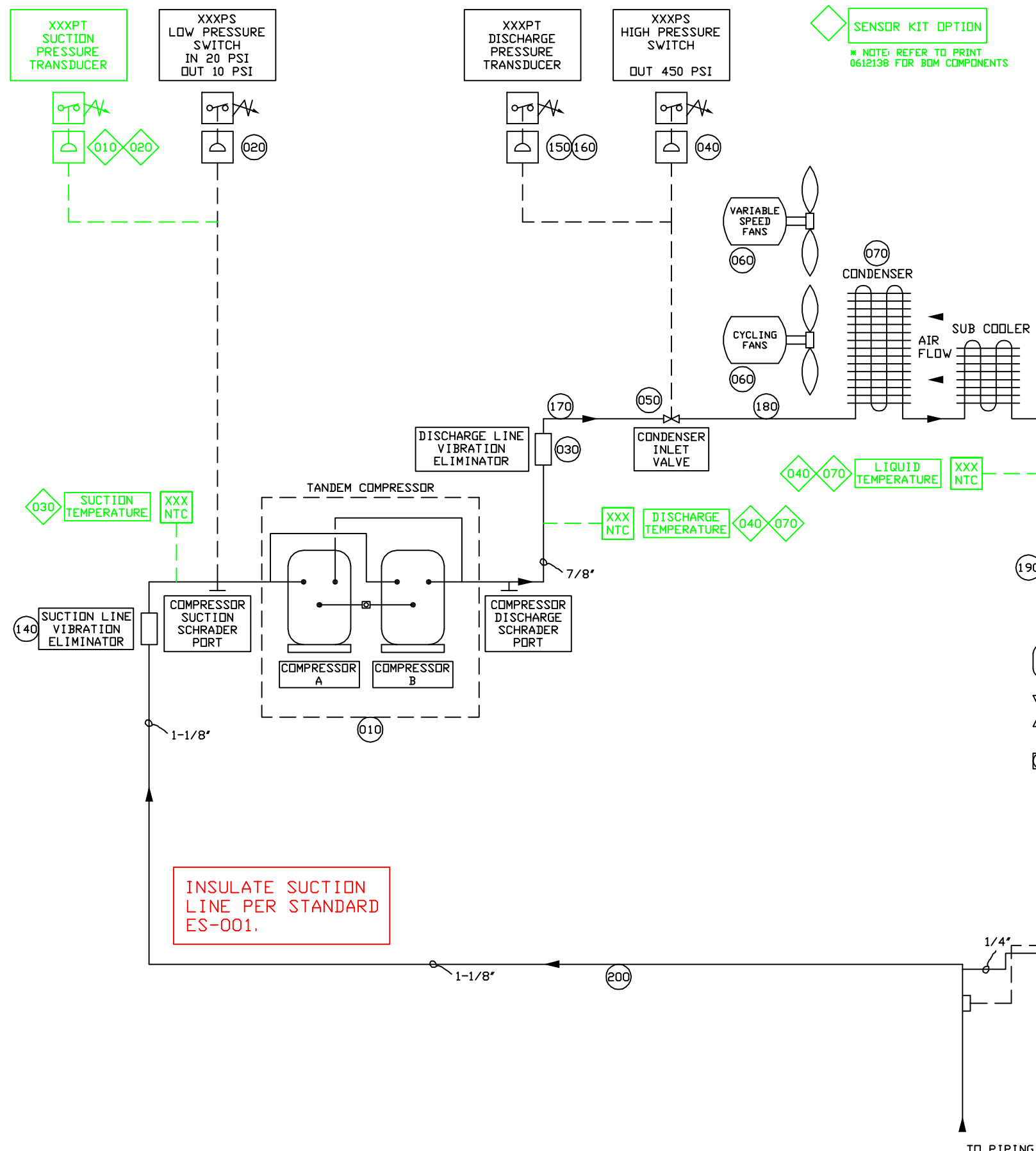
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DATE	DESCRIPTION OF REVISION	APPROVED BY

 Koolant Koolers	 Thermal Solutions	 Schreiber Chillers
<b>W02-2-5000/7500</b>		
<b>WEIGHT DISTRIBUTION</b>		DRAWING NO. 444511



NO.	ID/DESCRIPTION	K. K. PART#	QTY	TYPE
120	SA-155 SIGHT GLASS 5/8 ODF	2720004	1.0	PC
130	SPORLAN SNE-10-C VALVE EXPANSION	2760105	1.0	PC
140	8/12" CHANGED DESCRIPTION SVE-10-C VAF-9 VIBRATION ELIMINATOR 1-1/8"	2980009	1.0	PC
150	1-1/8 X 13 (UL P-9) PACKLESS PRESSURE TRANSDUCER CAREL SPKTO033R0	4807739	1.0	PC
160	Pressure sensor, 0-500 psi relativ e, ratiometric 0-5Vdc (0.5 -4.5 VDL T) CAREL			
160	SPK00-5310 CORD SET CAREL 14-1/2'	4807715	1.0	PC
170	SER VALVE TO VIB EL, 0443763	7399215	1.0	PC
180	SERV VALVE TO COIL, 0443766	7399212	1.0	PC
190	LIQUID LINE, 444353	7399223	1.0	PC
200	SUCT VIB ELM TO BP, 0443765	7399213	1.0	PC
210	FUSE TUBE, COPPER/SOLDER	7399201	1.0	PC
	SOLDER MELTS @ 280 DEG F			
* 220	TUBING 1/4 SOFT COPPER REFRIG.	7302000	2.0	PC
* 230	TUBING 5/8 HARD COPPER ACR	7305010	5.0	PC
* 240	TUBING 7/8 HARD COPPER ACR	7307010	5.0	PC
* 250	TUBING 1-1/8 HARD COPPER ACR	7309010	6.0	PC
* 260	REFRIGERANT R407C IN A 115LB CYL	2990030	22.5	PC

NO.	ID/DESCRIPTION	K. K. PART#	QTY	TYPE
001	W02-2-5000-2P-NF-L-M-407C REFRIG 460	3/600443569		
ASSEM				
010	10T (2) 460/3/60 PKG COMPRESSOR 5 TON 460/3/60 R-407C	0612141	1.0	ASSEM
* 010	C-SBN453H8G CDM 5 460/3/60 407C	1450064	1.0	PC
	440/460; INCLUDES MOUNTING KIT; COMPRESSOR CODE #809 966 88, USED WITH R407C, HAS PVE OIL SANYO			
* 020	O18-0095-05 CRANKCASE HEATER	1298032	1.0	PC
	FITS ZR18-81 480 VAC, 70 WATTS 48 LEADS; COPELAND (11/06/09; OLD PART NUMBER O18-0072-05)			
* 020	SA-14S SIGHT GLASS 1/2 ODF	2720003	1.0	PC
	SPORLAN			
* 030	COUPLING 3/4 RIGID CONDUIT	3807156	8.0	PC
* 040	PV10-10R-D TERMINAL RING INSULATED	3802015	8.0	PC
	500/PKG PANDUIT			
* 050	SCREW 5/16-18 X 2-1/2 HEX HEAD CAP	7720250	14.0	PC
* 060	WASHER 5/16 LOCK	7725222	14.0	PC
* 070	WASHER 5/16 FLAT	7725111	24.0	PC
* 080	NUT 5/16-18 HEX NYLON INSERT LOCK	7714013	8.0	PC
* 110	W-4047 TEE 5/8 X 5/8 X 7/8 C	7305402	1.0	PC
* 120	W-10145 COUPLING 5/8 C X C	7305190	2.0	PC
	STAKED-STOP			
* 130	W-4031 TEE 7/8 C X C X C	7307390	1.0	PC
* 140	SUCTION COMP 1A, 0443954	7399221	1.0	PC
* 150	SUCTION COMP 1B, 0443955	7399222	1.0	PC
* 160	TUBING 7/8 SOFT COPPER REFRIG.	7307005	3.0	PC
020	LOW PRESSURE SWITCH 10/20 SWITCH 10/20 CUT IN 20 PSI, CUT OU T 10 PSI CAN BE USED AS LP FOR 134 A, FORMERLY 10/32 SWITCH, JOHNSON CONTROLS, P100AP-201C(P100AA-1); RE SOURCE DISTRIBUTION YK-03L 0110-010 E020E	3640006	1.0	PC
030	VAF-8 VIBRATION ELIMINATOR 7/8" 7/8 X 11-1/2 (UL P-8) PACKLESS	2980008	1.0	PC
040	SWITCH HIGH PRESSURE 450 MANUAL VENDOR PART NUMBER: YK-03H 0110-45 OR350Z(MR) ENCAPSULATED WITH A 9 FT DT CORD, OPENS HIGH, MANUAL RESET, OPENS 450 PSI, 407C/404A HP SWITCH, RESOURCE DISTRIBUTION	3640017	1.0	PC
050	VALVE ANGLE REFRIG 7/8" WITH ACCESS PORT	3980003	1.0	PC
060	FAN ASSEMBLY 18"-5/8 1PH OUTDOOR 1 PHASE WEATHER PROOF MOTOR WITH 5 /8 KEYED SHAFT V-SPEED APPLICATION	0608586	2.0	ASSEM
* 010	048A170F1B MOTOR 1/2 HP 1PH 5/8 KEY ED SHAFT, SEALED ON SHAFT, 48 FRAM E END, TEFC, 60 DEG C, 1625 RPM SAM PLE MODEL #SW48A170F1A CAT # T339A 60 HZ 1/2 HP 1625 RPM 230/460/1 2.4A/1.2A 50 HZ 1/3 HP 1425 RPM 19 0-230/380/1 MARATHON (6/08 DLD # 04 8A170F1B CHANGE REV LEVEL) 5/12/20 10 208V HAS BEEN ADDED TO NAME PLAT E.	4051311	1.0	PC
* 020	61142601 FAN BLADE 18 5/8 KEY ED HUB 28 DEG CW F0BY18-1828 5/8 DN DISCHARGE 3/16 KEY WAY LAU Fo r 1/2" hub use adapter 4500052	4500035	1.0	PC
* 030	FAN GUARD MOUNT 18 DWG #101515 1.5 INCH TALL RENFRD FRANKLIN	4507018	1.0	PC
* 040	FAN GUARD FULL 18 DWG #101516 4.5 INCH TALL RENFRD FRANKLIN	4507019	1.0	PC
* 050	VENTURI 18 GALVANIZED DWG #201678 18 GA MEMPHIS METAL	4504182	1.0	PC
* 060	CAP 5/8 DIA X 1-1/2 VINYL (100 PER PKG)	4021315	1.0	PC
* 070	ANAEROBIC THRD LOCKER (VIBRA-TITE) 10 ML PURPLE	9803000	0.1	PC
* 080	SILICONE SEALANT CLEAR	4508976	0.1	PC
* 090	CS-A 51007 ANTI-SEIZE COPPER BASED, IN 1 LB CANS FEL-PRO	4021324	0.1	PC
* 100	BL50 LOCKNUT 1/2 TIGER GRIP STEEL APPLETON	3800600	2.0	PC
* 110	CG-5050S CORD STRAIN RELIEF 0.500-0.625 CABLE 1/2 ST HUB APPL ETON	3800471	2.0	PC
* 120	WIRE 14/3 SDW/SDDW 600V BLACK 1000' REEL	3807095	5.0	PC
070	COIL 20 TON REMOTE HEADER (.50) HEADER IS MOUNTED ON SHEET METAL A ND CONNECTED TO COIL WITH "L" TUBES ***** 50 CLEARANCE HOLES***** 470# SK IDED WEIGHT	1413086	1.0	PC
080	VALVE ANGLE REFRIG 5/8" WITH ACCESS PORT	3980002	1.0	PC
090	C-165S FILTER DRIER 5/8" SPORLAN	2730006	1.0	PC
100	E10S250 VALVE SOLENOID 5/8" REQUIRES MKC-2E COIL SPORLAN	2710006	1.0	PC
* 010	MKC-2E 24VAC 50-60 HZ COIL ASSEMBLY MKC-2E SOLENOID COIL 24V AC 50/60HZ ASSEMBLY WITH CABLE IS 0608319 SPD RLAN	0608319	1.0	ASSEM
020	12205 CONNECTOR, DIN 43650 18MM W/	4807100	1.0	PC

INSTALL HEAT TAPE ON CONDENSER HEADER BEFORE INSTALLING IN UNIT. RUN THE HEAT TAPE AROUND HEADER AND ATTACH WITH HOSE CLAMPS. USE 10FT. OF HEAT TAPE PER CONDENSER. HEADER TO BE INSULATED WITH 1/2" OF ARMAFLUX AFTER HEAT TAPE IS INSTALLED

LOW AMBIENT KIT OPTION  
\* NOTE! REFER TO PRINT 0612139 FOR BOM COMPONENTS

COMPONENT IDENTIFICATION								
COMPRESSOR	HIGH PRESSURE SWITCH	DISCHARGE TRANSDUCER	DISCHARGE TEMPERATURE	LIQUID LINE TEMPERATURE	LOW PRESSURE SWITCH	SUCTION TRANSDUCER	SUCTION TEMPERATURE	LIQUID LINE SOLENOID
1A & 1B	715PS	710PT	708NTC	753NTC	752PS	711PT	709NTC	738SDL
2A & 2B	815PS	810PT	808NTC	853NTC	852PS	811PT	809NTC	838SDL
3A & 3B	915PS	910PT	908NTC	953NTC	952PS	911PT	909NTC	938SDL
4A & 4B	1015PS	1010PT	1008NTC	1053NTC	1052PS	1011PT	1009NTC	1038SDL

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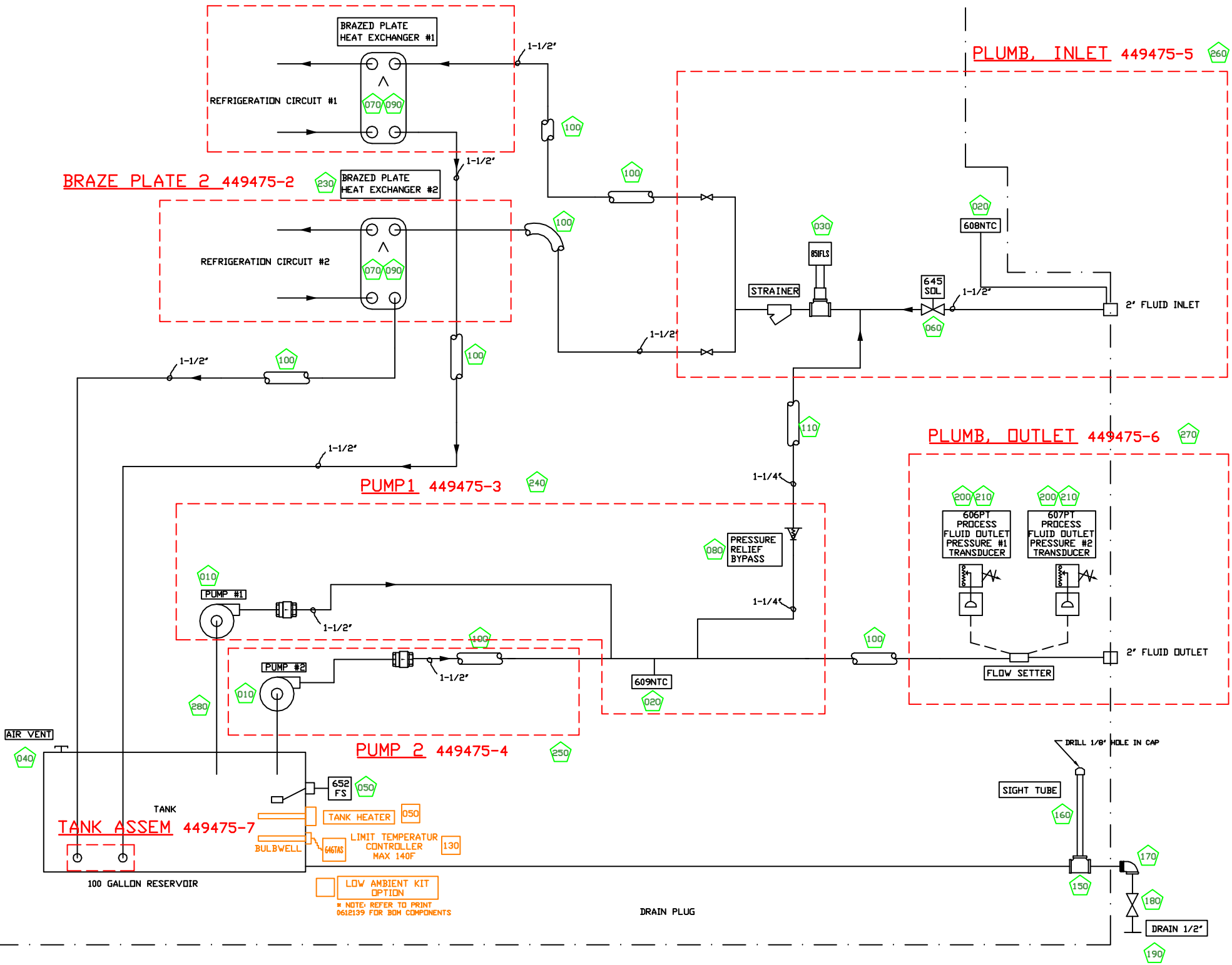
DATE	DESCRIPTION OF REVISION	APPROVED BY
05/02/11	ADD FUSE PLUG TUBE 7399201	MAR <G>1690
12/14/10	RMV PREBENT DISCHARGE ADD COPPER	MAB <F>
09/10/10	CHG COIL 1413072 TO 1413086	MAB <E>
05/06/10	ADDED PRE-BENT LINES	MAR <D>
03/16/10	UPDATED DESCRIPTION	MAR <C>
03/08/10	CHANGE REFRIG LBS FROM 25	MAR <B>
02/15/10	CHANGED COIL ASSEMBLY TO 24V	CJH <A>

**Dimplex Thermal Solutions**  
KALAMAZOO, MI  
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DATE: 1/14/10  
DRAWN BY: CJH  
PAGE 1 OF 1

WO()-2-5,000-()P-M  
REFRIGERATION  
DRAWING NO. 443569

**CHILLER INTERNAL**



NOTE:  
INSULATE TO ES-001 STANDARDS FOR LOW TEMP APPLICATION, PER 44°F SETPOINT FOR (-L) UNITS.

NOTE:  
ALL INTERCONNECTING PLUMBING TO BE RUN IN NON-FERROUS MATERIAL. OTHERWISE CONTACT ENGINEERING. BOM COMPONENTS EXCLUDED.

USE FOAM TAPE FOR PLUMBING INSULATION. DO NOT USE CORK TAPE.

NO.	ID/DESCRIPTION	K. K. PART#	QTY	TYPE
001	HWD2-5000-2P-NF-L-M	0449489		ASSEM
010	TPHKB16-3S PUMP VERTICAL STAINLESS	1785007	2.0	PC
020	1/2" SENSOR ASSEMBLY FOR CAREL	0611318	2.0	ASSEM
* 010	MP0617671 10K THERMISTOR 10" CAREL	4801215	1.0	PC
* 020	COMPRESSION FITTING 1/2" NPT X 3/16	7504920	1.0	PC
030	F61MB-1C SWITCH FLOW	3653015	1.0	PC
040	PMB-05-10 AIR VENT 3/8" FENNER	4100003	1.0	PC
050	L-21N-11A-1-B FLOAT SWITCH	3896113	1.0	PC
060	8210G056 VALVE SOLENOID 1.5" 24VAC	4804232	1.0	PC
070	K205*30C BRAZED PLATE H/E 12 TON	2200512	2.0	PC
080	VALVE BACK PRESS 1-1/4" 35-100 PSI	4189076	1.0	PC
090	BP INSULATION FOR K205*30C 2200512	0441282	2.0	ASSEM
* 010	BP INSULATION FOR K205 FRONT	0441227-1	1.0	PC
* 020	BP INSULATION FOR 2200512 MIDDLE	0441282-2	1.0	PC
* 030	BP INSULATION FOR K205 BACK	0441227-3	1.0	PC
100	HOSE 1-1/2" RED WINGFOOT 250 PSI 569-025-381	4410004	22.0	PC
110	HOSE 1-1/4" RED WINGFOOT 250 PSI GOODYEAR # 569-025-318	4410003	6.0	PC
130	GASKET PUMP RISER W02-2-500-2P	9800902	4.0	PC
140	PUMP RISER 1/2" WALRUS TPHK8T	9800919	2.0	PC
150	BUSHING 1 MPT X 1/2" FPT BRS	7508600	1.0	PC
160	KK 1" SIGHT GLASS NON-FERROUS	7400004	1.0	ASSEM
* 010	PIPE 1 PVC CLEAR	7408800	1.1	PC
* 020	TEE 1 FPT X 1 FPT X 1 FPT BRS	7508105	1.0	PC
* 030	ADAPTER 1 MPT X 1 SLIP MALE PVC40	7408701	1.0	PC
* 040	NIPPLE 1 MPT X 3 BRS	7508003	1.0	PC
* 050	CAP 1 PVC40	7408900	1.0	PC
* 060	PLUG 1 MPT BRS	7508900	1.0	PC
170	ELBOW 90 1/2" MPT X 1/2" FPT BRASS	7504302	1.0	PC
180	BD-1 VALVE BOILER DRAIN 1/2"	4123051	1.0	PC
190	CAP 3/4" NATIONAL HOSE BRASS	7506504	1.0	PC
200	PRESSURE TRANSDUCR CAREL SPKTO013R0	4807736	2.0	PC
210	SPKCO0-5310 CORD SET CAREL 14-1/2"	4807715	2.0	PC
220	GE MEDICAL PLUMB - BRAZE PLATE 1	0449475-1	1.0	ASSEM
* 010	COUPLING 1-1/2" X 1-1/2" FPT BRASS	7516200	1.0	PC
* 020	ELBOW 45 1-1/2" FPT X 1-1/2" FPT BRS	7512302	1.0	PC
* 030	HOSEBARB 1-1/2" MPT X 1-1/2" HOSE BRS	7512901	2.0	PC
230	GE MEDICAL PLUMB 2 - BRAZE PLATE 2	0449475-2	1.0	ASSEM
* 010	COUPLING 1-1/2" X 1-1/2" FPT BRASS	7516200	2.0	PC
* 020	HOSEBARB 1-1/2" MPT X 1-1/2" HOSE BRS	7512901	2.0	PC
240	GE MEDICAL PLUMB 3 - PUMP 1	0449475-3	1.0	ASSEM
* 010	NIPPLE 1-1/4" MPT X 2-1/2" BRS	7510002	1.0	PC
* 020	BUSHING 1-1/2" MPT X 1-1/4" FPT BRS	7512605	1.0	PC
* 030	600 VALVE CHECK FLUID 1-1/2" BRONZE	4153151	1.0	PC
* 040	NIPPLE 1-1/2" MPT X 2-1/2" BRS	7512002	1.0	PC
* 050	TEE 1-1/2" X 1-1/2" X 1-1/2" FPT BRS	7512100	1.0	PC
* 060	NIPPLE 1-1/2" MPT X 5 BRS	7512008	1.0	PC
* 070	HOSEBARB 1-1/2" MPT X 1-1/2" HOSE BRS	7512901	2.0	PC
* 080	TEE 1-1/2" X 1-1/2" X 1-1/4" FPT BRS	7512103	1.0	PC
* 090	COMPRESSION FITTING 1/8" NPT X 3/16	7501910	1.0	PC
* 100	HOSEBARB 1-1/4" MPT X 1-1/4" HOSE BRS	7510910	1.0	PC
250	GE MEDICAL PLUMB 4 - PUMP 2	0449475-4	1.0	ASSEM
* 010	NIPPLE 1-1/4" MPT X 2-1/2" BRS	7510002	1.0	PC
* 020	BUSHING 1-1/2" MPT X 1-1/4" FPT BRS	7512605	1.0	PC
* 030	600 VALVE CHECK FLUID 1-1/2" BRONZE	4153151	1.0	PC
* 040	NIPPLE 1-1/2" MPT X 2-1/2" BRS	7512002	1.0	PC
* 050	ELBOW 90 1-1/2" FPT X 1-1/2" FPT BRS	7512301	1.0	PC
* 060	HOSEBARB 1-1/2" MPT X 1-1/2" HOSE BRS	7512901	1.0	PC
260	GE MEDICAL PLUMB 5 - INLET	0449475-5	1.0	ASSEM
* 010	HOSEBARB 1-1/2" MPT X 1-1/2" HOSE BRS	7512901	2.0	PC
* 020	VALVE BALL BRONZE 1-1/2"	4113150	2.0	PC
* 030	NIPPLE 1-1/2" MPT X CLOSE BRS	7512000	4.0	PC
* 040	ELBOW 45 1-1/2" FPT X 1-1/2" FPT BRS	7512302	1.0	PC
* 050	NIPPLE 1-1/2" MPT X 2 BRS	7512001	1.0	PC
* 060	TEE 1-1/2" X 1-1/2" X 1-1/2" FPT BRS	7512100	1.0	PC
* 070	777SI-1 1/2" Y-STRAINER FILT BRONZE	4353014	1.0	PC
* 080	NIPPLE 1-1/2" MPT X 8 BRS	7512009	2.0	PC
* 090	TEE 1-1/2" X 1-1/2" X 1 FPT BRS	7512102	1.0	PC
* 100	TEE 1-1/2" X 1-1/2" X 1-1/4" FPT BRS	7512103	1.0	PC
* 110	NIPPLE 1-1/2" MPT X 5 BRS	7512008	1.0	PC
* 120	BUSHING 2 MPT X 1-1/2" FPT BRASS	7516601	1.0	PC
* 130	NIPPLE 1-1/4" MPT X 2-1/2" BRS	7510002	1.0	PC
* 140	ELBOW 90 1-1/4" MPT X 1-1/4" FPT BRS	7510301	1.0	PC
* 150	HOSEBARB 1-1/4" MPT X 1-1/4" HOSE BRS	7510910	1.0	PC
* 160	COMPRESSION FITTING 1/8" NPT X 3/16	7501910	1.0	PC
* 170	COUPLING 2 FPT SS FULL 304	7216201	1.0	PC
270	GE MEDICAL PLUMB 6 - OUTLET	0449475-6	1.0	ASSEM
* 010	HOSEBARB 1-1/2" MPT X 1-1/2" HOSE BRS	7512901	1.0	PC
* 020	BUSHING 2 MPT X 1-1/2" FPT BRASS	7516601	1.0	PC
* 030	A31484 VALVE PURGE 1/4" MPT X 5/16OD	7502952	2.0	PC
* 040	YR0200-FT/FT, 36 GPM FLOW SETTER	4100076	1.0	PC
* 050	NIPPLE 2 MPT X 2-1/2" BRS	7516002	1.0	PC
* 060	COUPLING 2 FPT SS FULL 304	7216201	1.0	PC
280	GE MEDICAL PLUMB 7 - TANK	0449475-7	1.0	ASSEM
* 010	HOSEBARB 1-1/2" MPT X 1-1/2" HOSE BRS	7512901	2.0	PC
* 020	ELBOW 45 1-1/2" FPT X 1-1/2" FPT BRS	7512302	1.0	PC
* 030	NIPPLE 1-1/2" MPT X CLOSE BRS	7512000	1.0	PC
* 040	ELBOW 90 1-1/2" MPT X FPT BRS	7512300	1.0	PC
290	GE TANK INSULATION	0444331	1.0	ASSEM
* 010	TANK INSULATION (GE) SIDE PLAIN	4449013	1.0	PC
* 020	TANK INSULATION (GE) SIDE CUT OUTS	4449014	1.0	PC
* 030	TANK INSULATION (GE) BOTTOM	4449015	1.0	PC
* 040	TANK INSULATION (GE) END PLAIN	4449016	1.0	PC
* 050	TANK INSULATION (GE) END CUT OUT	4449017	1.0	PC

\* PARTS NOT SHOWN ON DRAWING DETAIL

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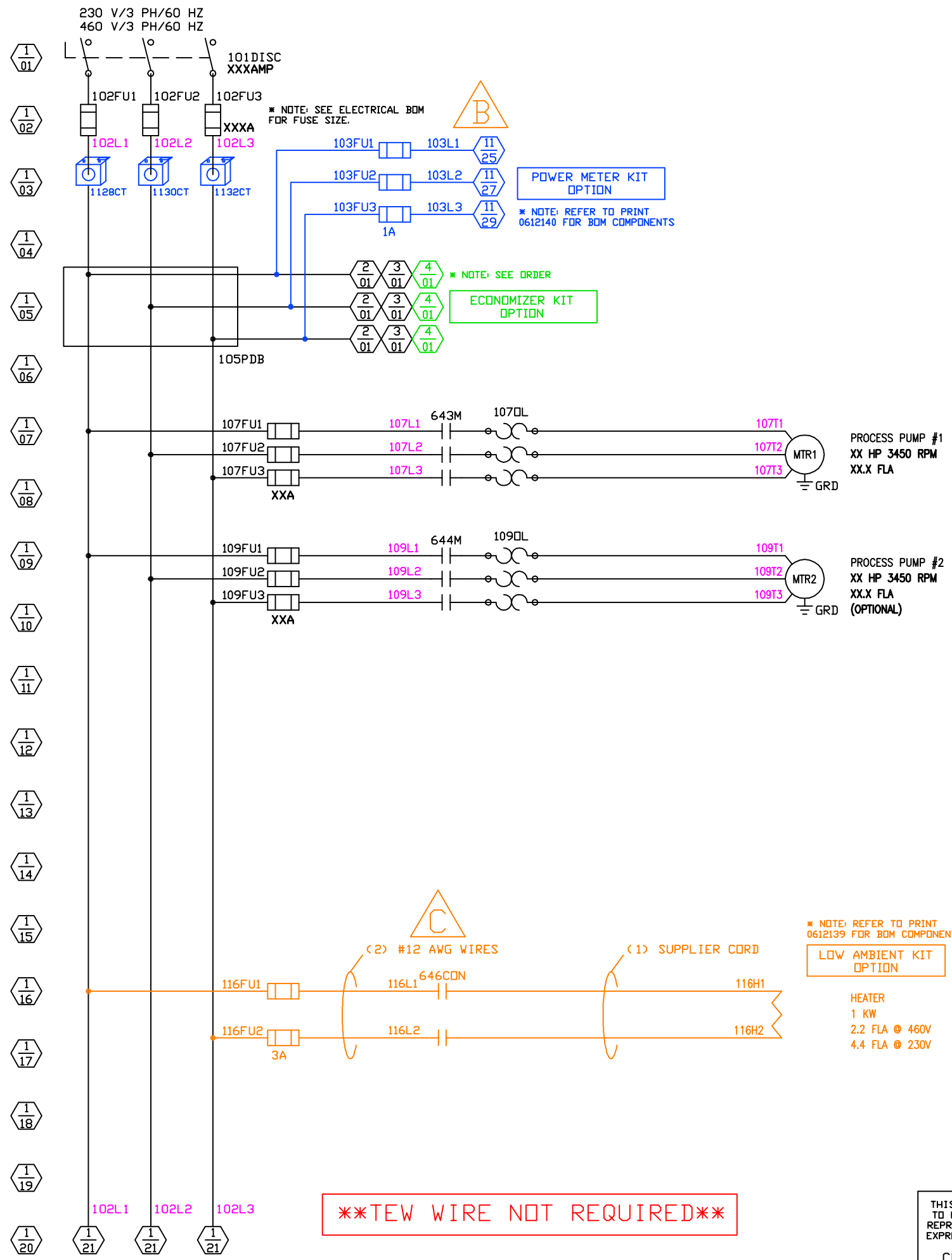
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W02-2-5000-2P-L-M

PLUMBING

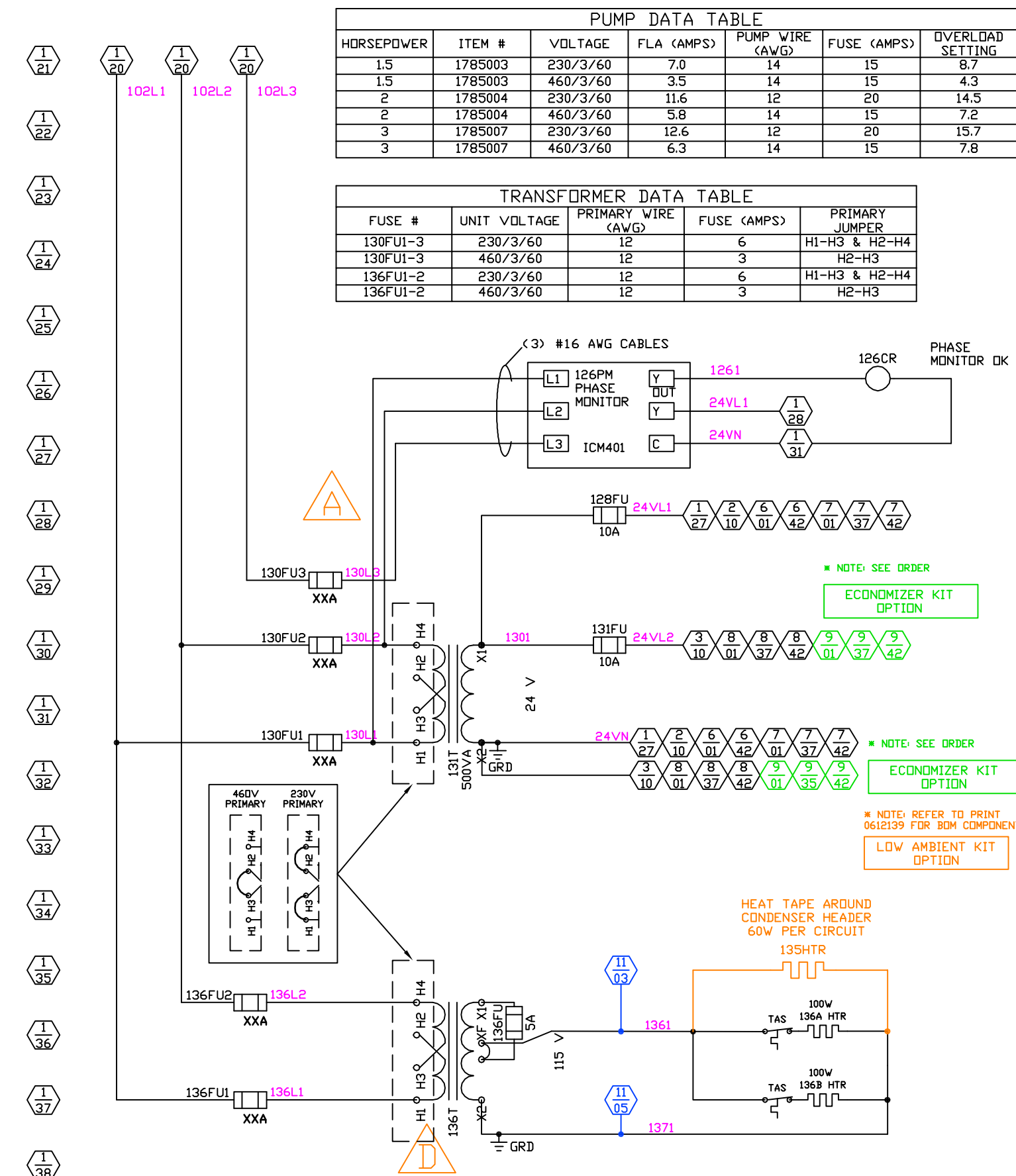
DRAWING NO. 449489

DATE	DESCRIPTION OF REVISION	APPROVED BY



PUMP DATA TABLE						
HORSEPOWER	ITEM #	VOLTAGE	FLA (AMPS)	PUMP WIRE (AWG)	FUSE (AMPS)	OVERLOAD SETTING
1.5	1785003	230/3/60	7.0	14	15	8.7
1.5	1785003	460/3/60	3.5	14	15	4.3
2	1785004	230/3/60	11.6	12	20	14.5
2	1785004	460/3/60	5.8	14	15	7.2
3	1785007	230/3/60	12.6	12	20	15.7
3	1785007	460/3/60	6.3	14	15	7.8

TRANSFORMER DATA TABLE				
FUSE #	UNIT VOLTAGE	PRIMARY WIRE (AWG)	FUSE (AMPS)	PRIMARY JUMPER
130FU1-3	230/3/60	12	6	H1-H3 & H2-H4
130FU1-3	460/3/60	12	3	H2-H3
136FU1-2	230/3/60	12	6	H1-H3 & H2-H4
136FU1-2	460/3/60	12	3	H2-H3



**\*\*TEW WIRE NOT REQUIRED\*\***

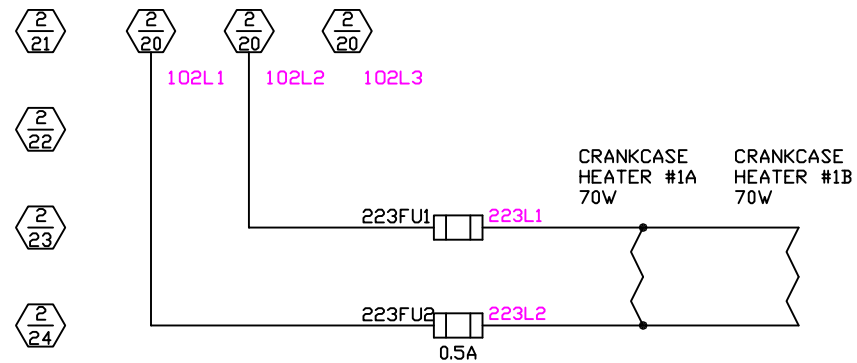
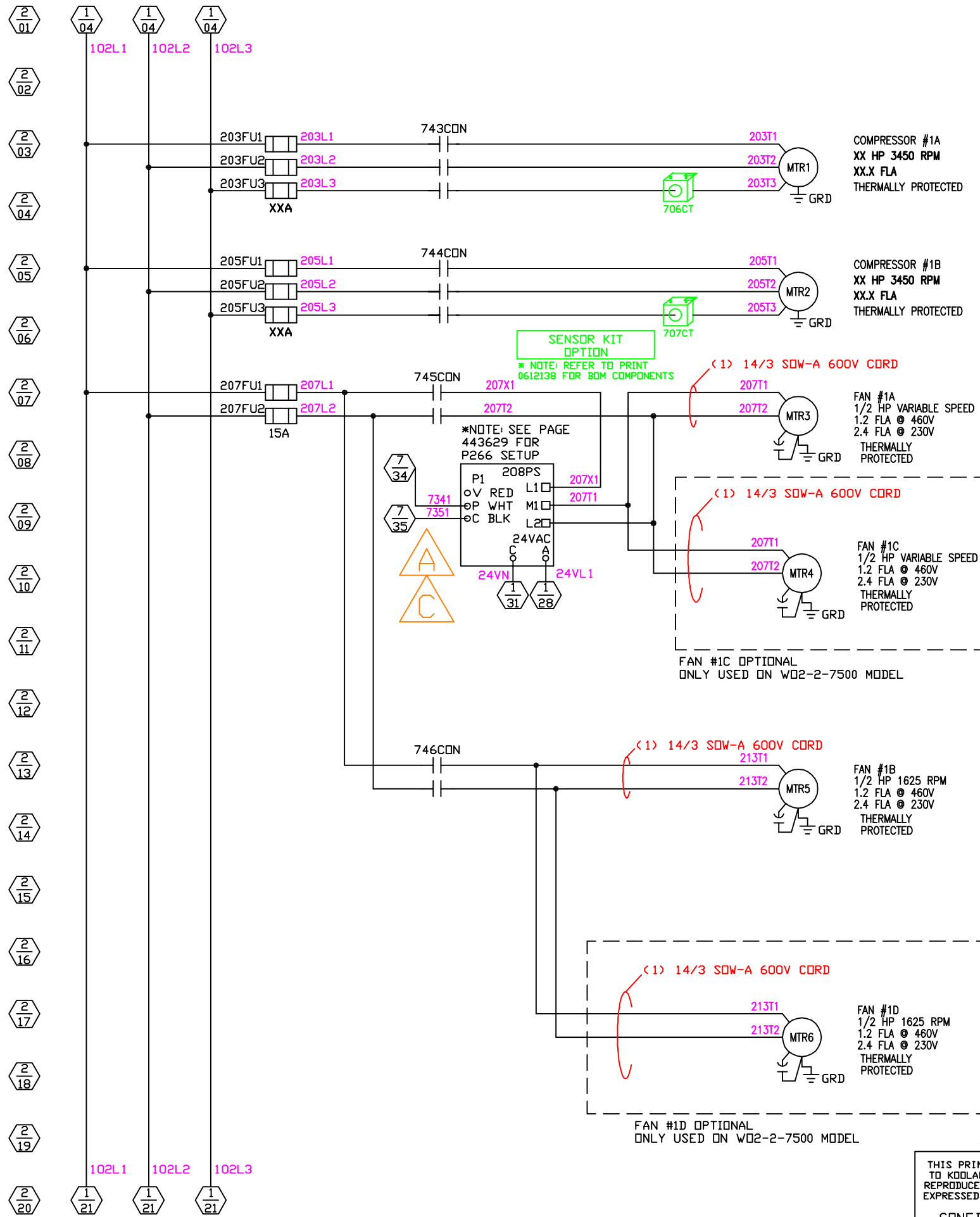
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DATE: 01/07/10	PAGE 1 OF X	<p>WO()-(-)-(2)P-M</p> <p><b>ELECTRICAL</b></p>	
DATE	DESCRIPTION OF REVISION	APPROVED BY	DRAWING NO. 443394

DATE	DESCRIPTION OF REVISION	APPROVED BY
09/22/10	CHG 136FU FROM 6A TO MATCH BOM	MAR <G>
08/23/10	ADDED TEW WIRE NOTE	MAR <F>
04/23/10	ADDED TXFMR TABLE	MAR <E>
04/22/10	CHG 136T FROM 250VA	MAR <D>
03/08/10	646CDN WAS 205CDN	MAR <C>
02/26/10	CHANGED CURRENT TRANS. LABELS	C.J.H <B>
2/16/10	MOVED PM, ADD 130FU3	MAR <A>

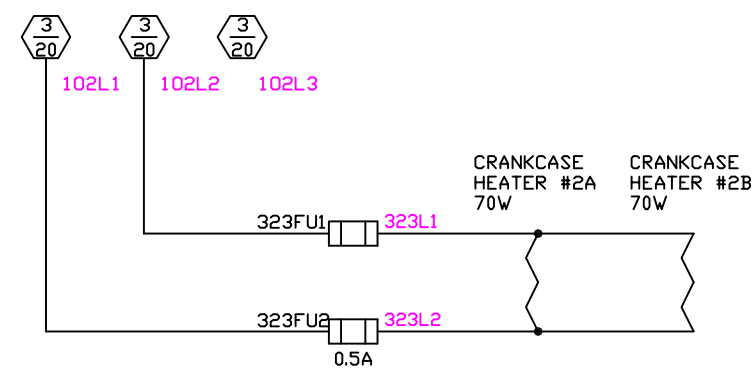
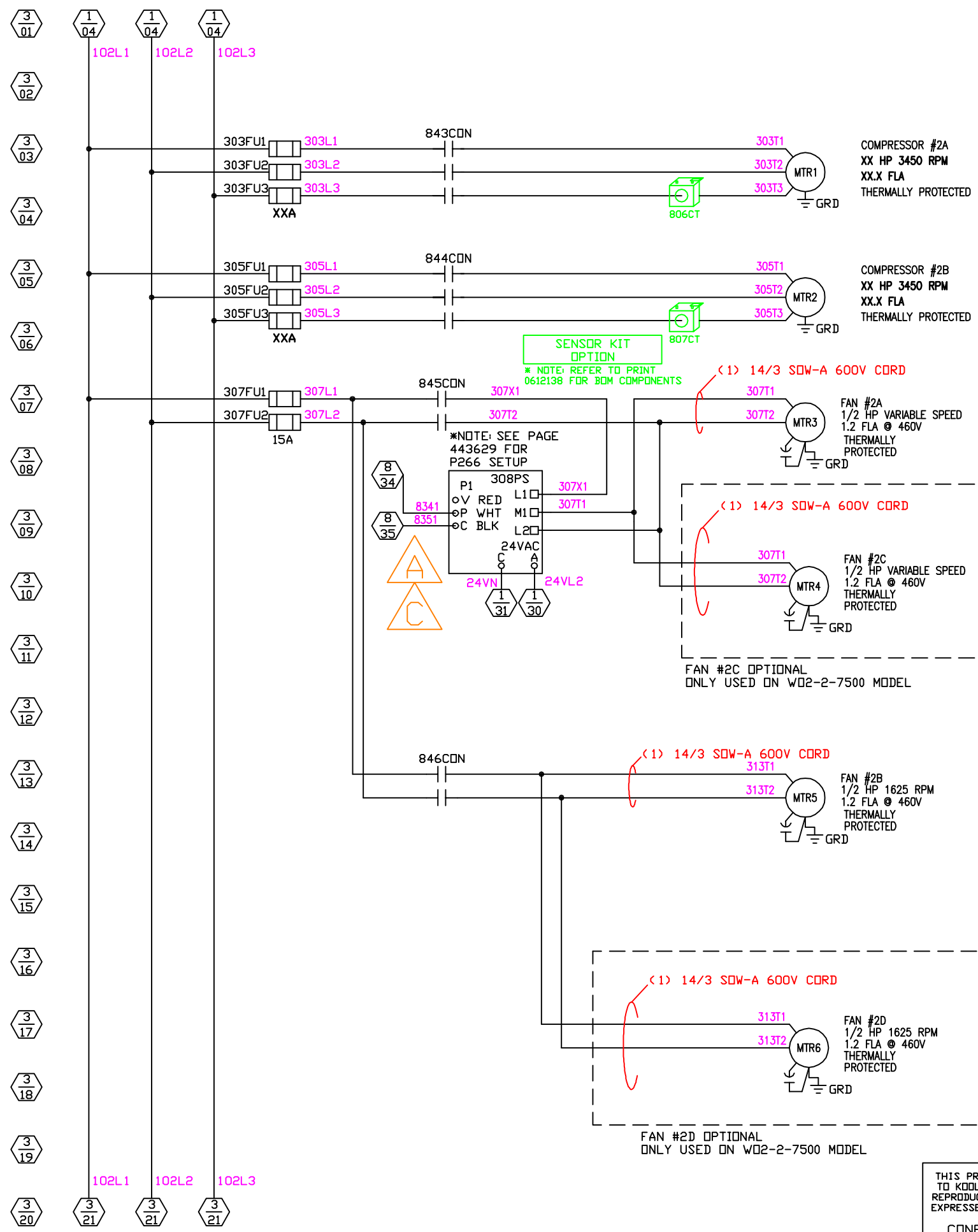


COMPRESSOR INFO					
COMPRESSOR (HP)	VOLTAGE (VOLTS)	COMPRESSOR FLA (AMPS)	203FU1-3/205FU1-3 (AMPS)	CIRCUIT FLA	WIRE (AWG)
5	230	23.6	30	57.4	10
5	460	11.8	20	28.7	14
7.5	230	33	45	76.2	8
7.5	460	16.5	25	38.1	10
10	230	40	50	90.2	8
10	460	20	25	45.1	10

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DATE	DESCRIPTION OF REVISION	APPROVED BY
01/06/11	CORRECTED P266 PVR WIRING	TM <C>
05/04/10	SHP 460V COMP WAS 12 AWG	MAR <B>
01/21/10	UPDATED 208PS WIRING	MAR <A>

DESIGN BY: MAR  
 DATE: 01/07/10  
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COMPRESSOR INFO					
COMPRESSOR (HP)	VOLTAGE (VOLTS)	COMPRESSOR FLA (AMPS)	203FU1-3/205FU1-3 (AMPS)	CIRCUIT FLA	WIRE (AWG)
5	230	23.6	30	57.4	10
5	460	11.8	20	28.7	14
7.5	230	33	45	76.2	8
7.5	460	16.5	25	38.1	10
10	230	40	50	90.2	8
10	460	20	25	45.1	10

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DATE	DESCRIPTION OF REVISION	APPROVED BY
01/06/11	CORRECTED 308PS REF & WIRE #	TM <C>
05/04/10	SHP 460V COMP WAS 12 AWG	MAR <B>
01/21/10	UPDATED 308PS WIRING	MAR <A>

**Koolant Koilers**  
Thermal Solutions

**Dimplex**  
Thermal Solutions

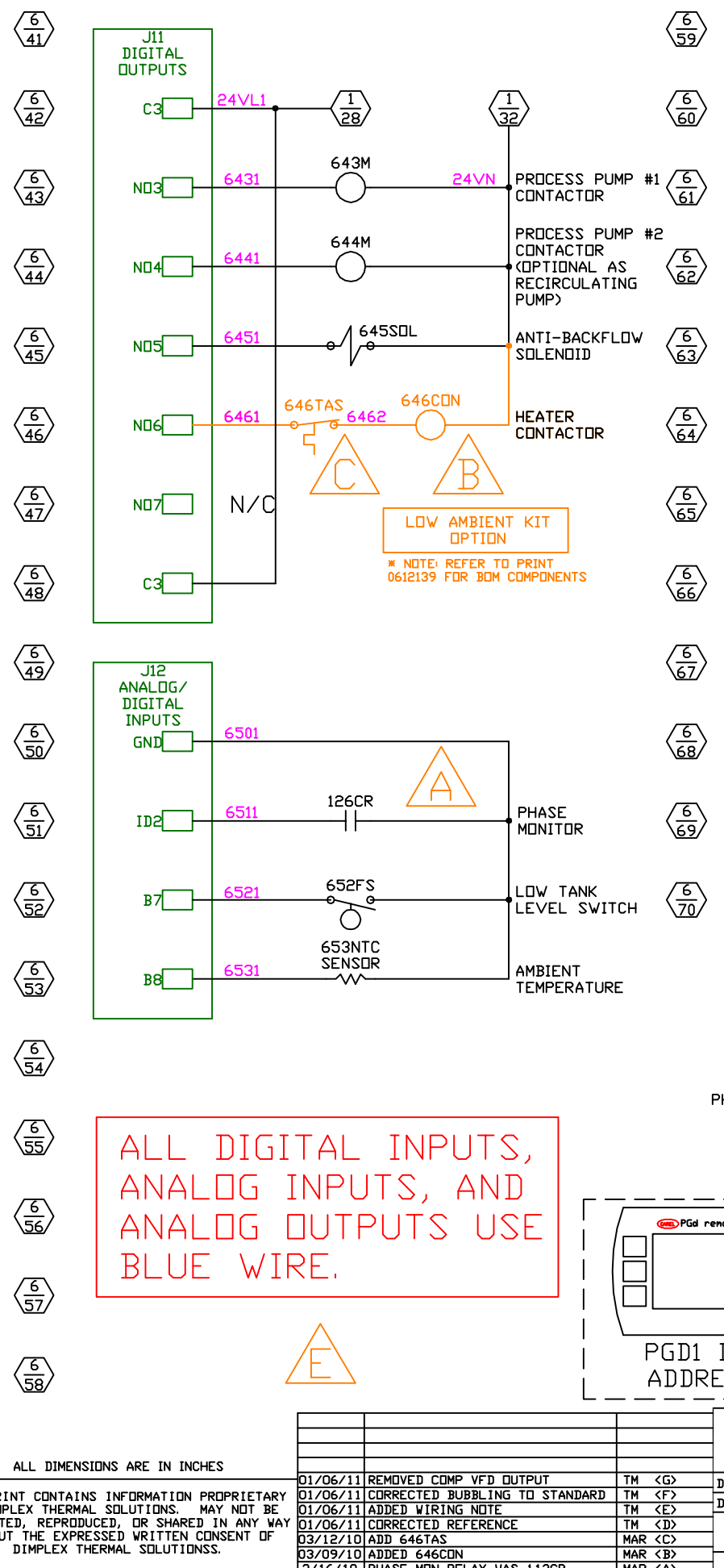
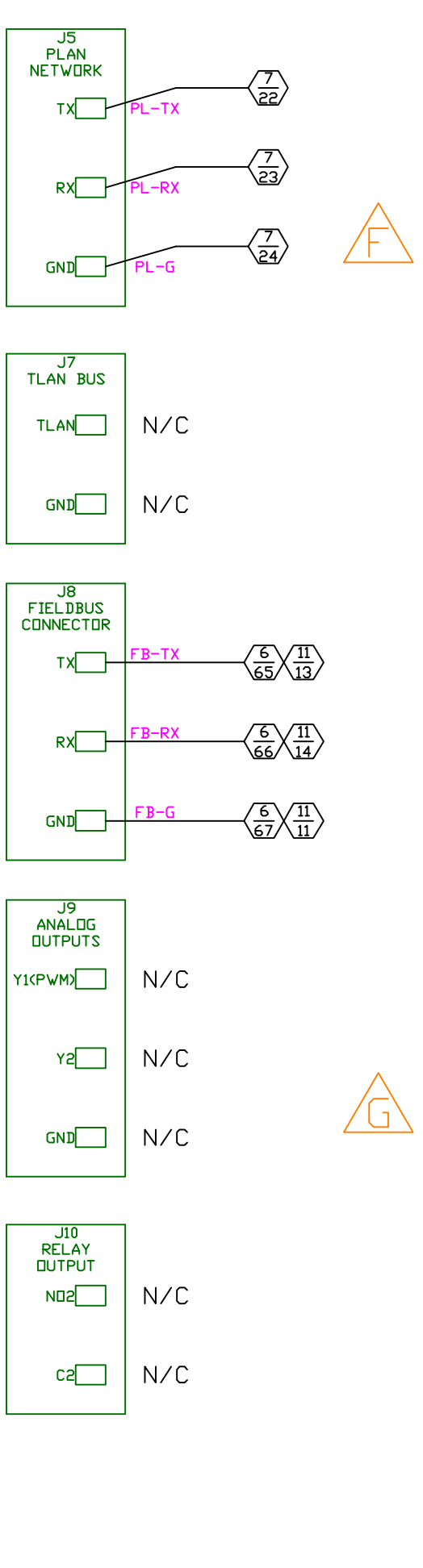
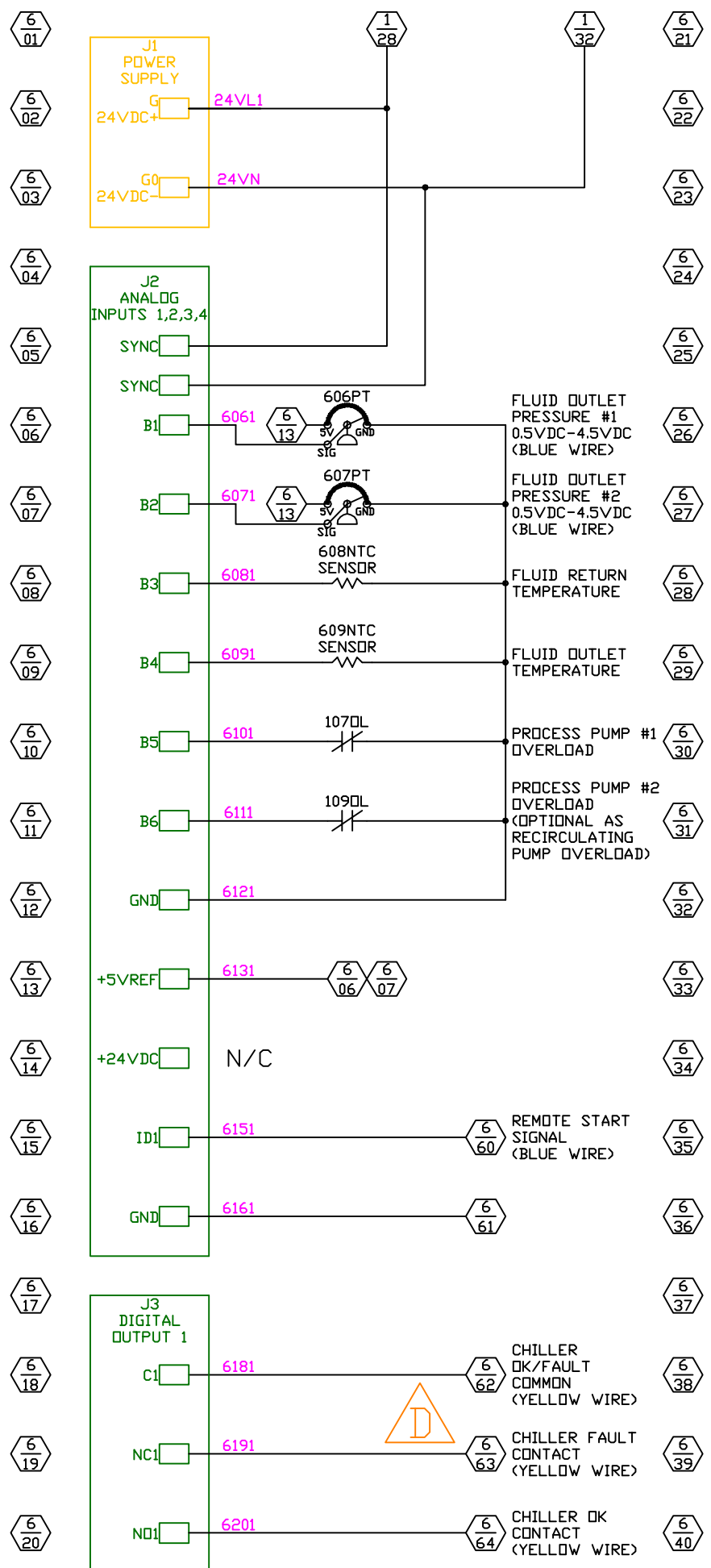
**SCHREIBER CHILLERS**

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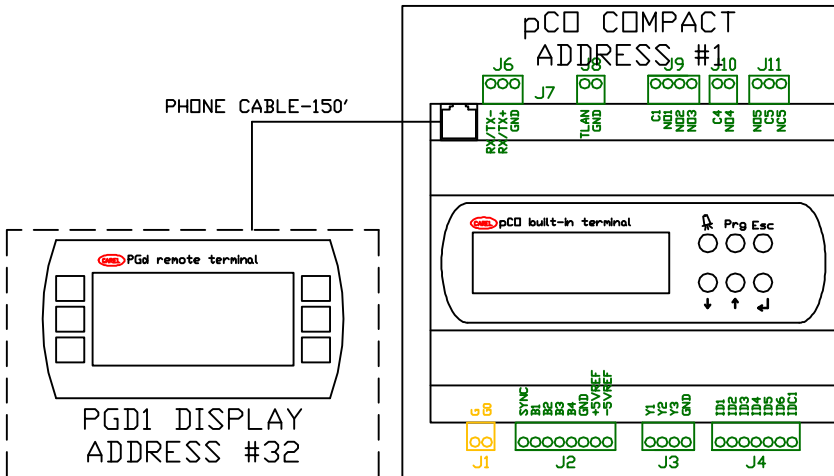
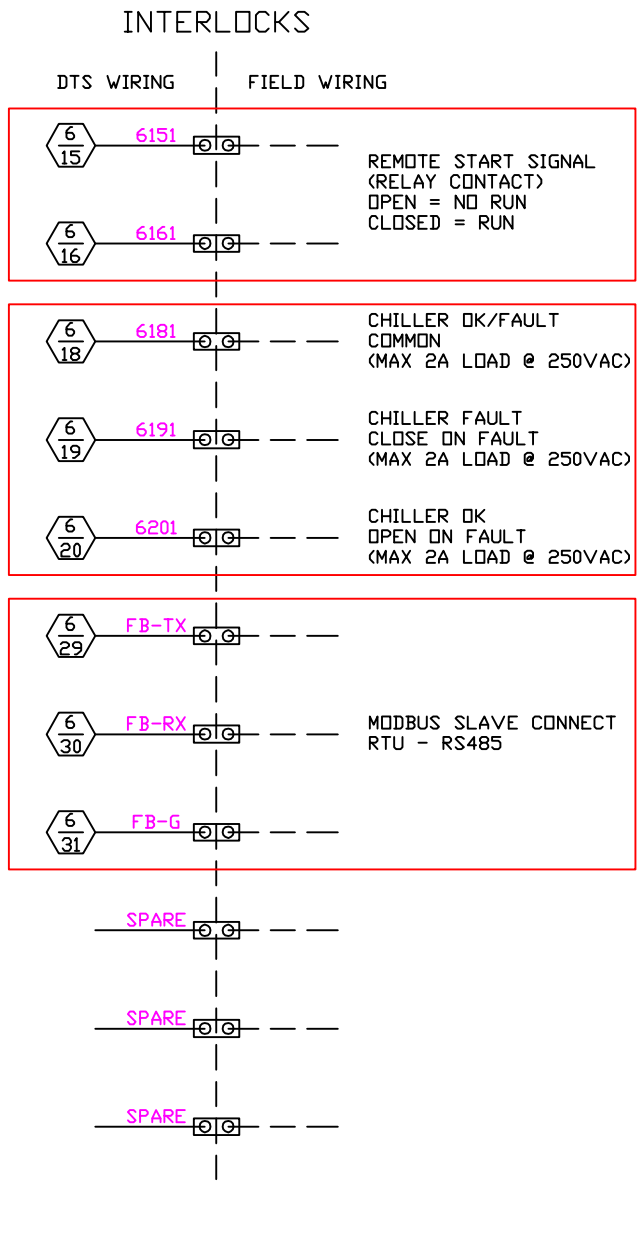
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**ELECTRICAL**

DRAWING NO. 443396



ALL DIGITAL INPUTS, ANALOG INPUTS, AND ANALOG OUTPUTS USE BLUE WIRE.



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DATE	DESCRIPTION OF REVISION	APPROVED BY
01/06/11	REMOVED COMP VFD OUTPUT	TM <G>
01/06/11	CORRECTED BUBBLING TO STANDARD	TM <F>
01/06/11	ADDED WIRING NOTE	TM <E>
01/06/11	CORRECTED REFERENCE	TM <D>
03/12/10	ADD 646TAS	MAR <C>
03/09/10	ADDED 646CON	MAR <B>
2/16/10	PHASE MON RELAY WAS 112CR	MAR <A>

DESIGN BY: MAR	DRAWN BY: MAR	KALAMAZOO, MI.
DATE: 01/07/09	PAGE 6 OF X	PH (800) 968-5665
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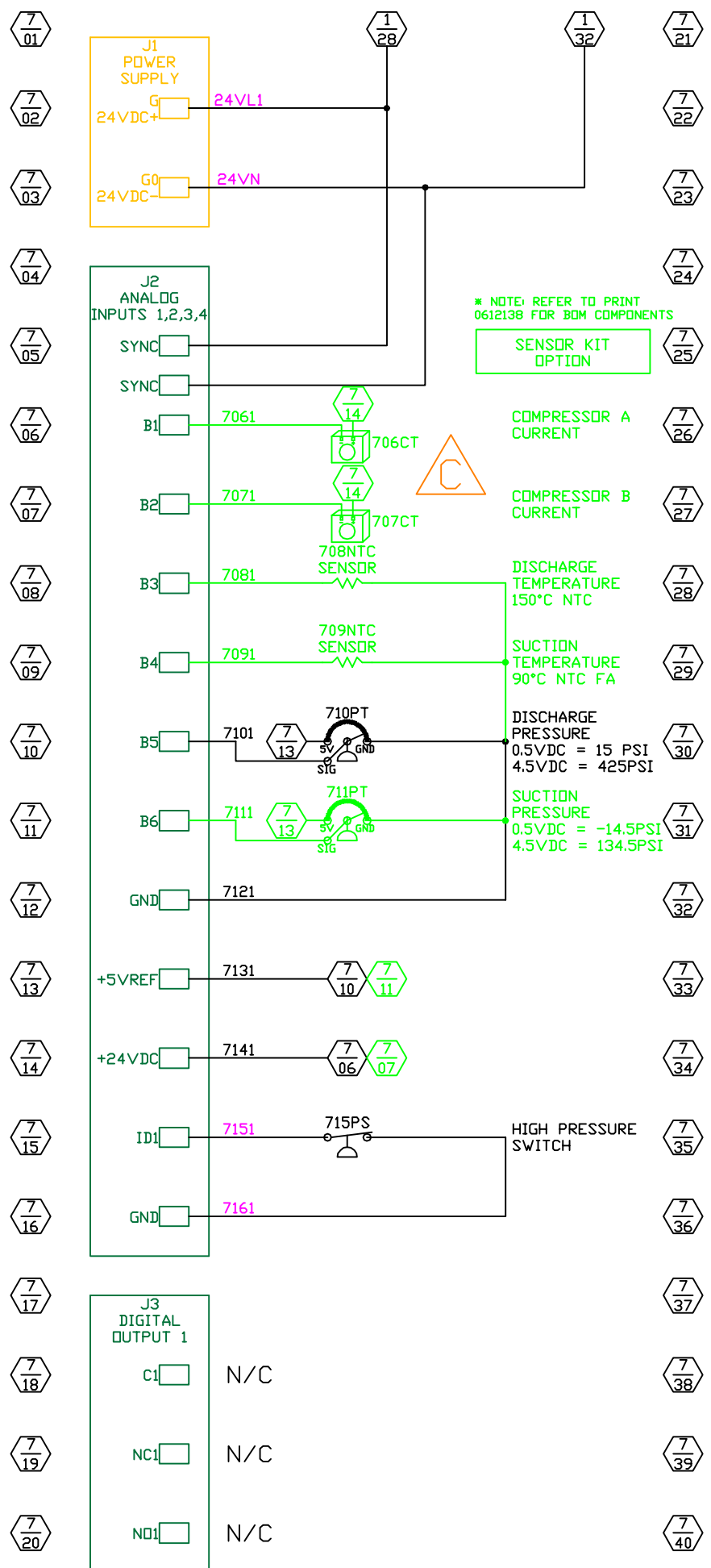
W02-( )-(2)P-M

**ELECTRICAL**

DRAWING NO. 443397

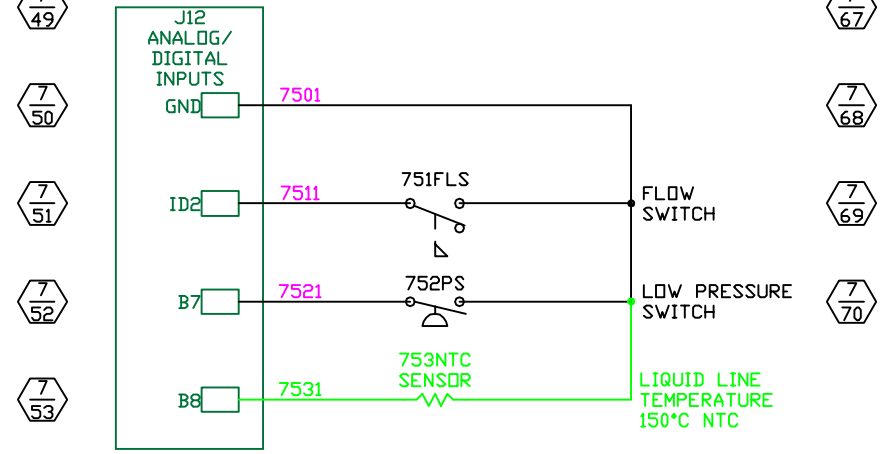
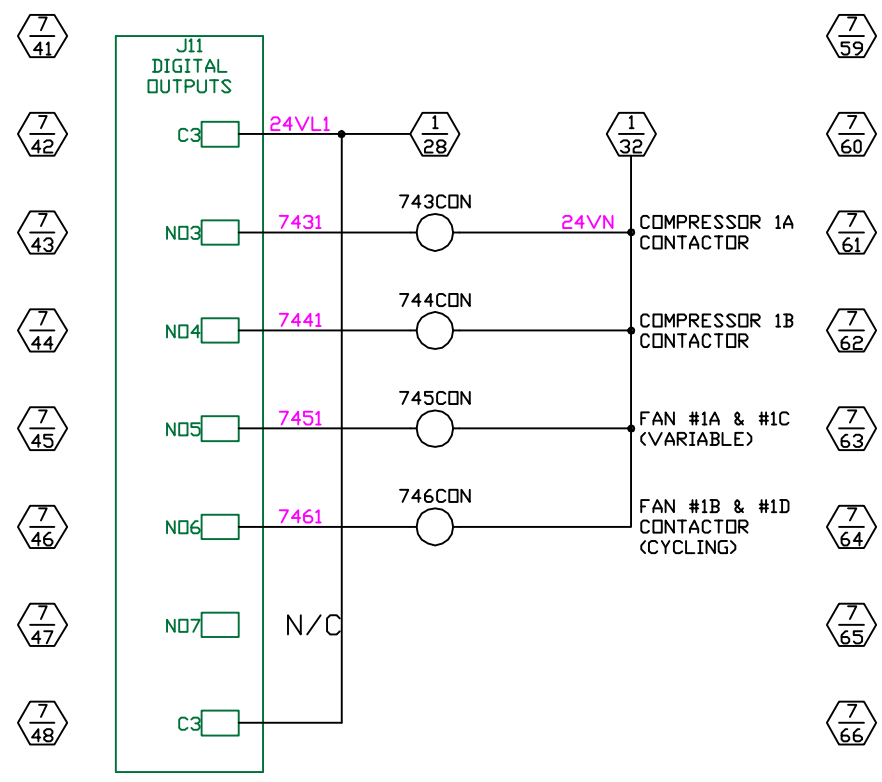
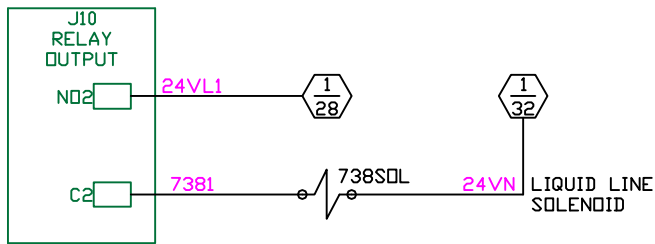
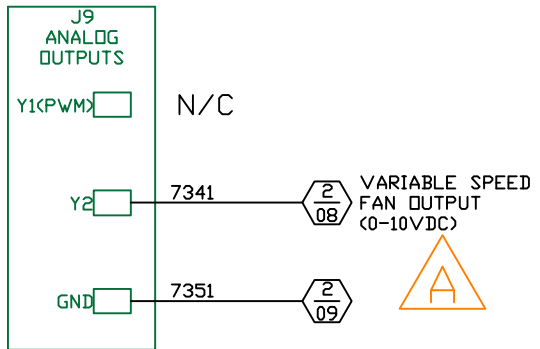
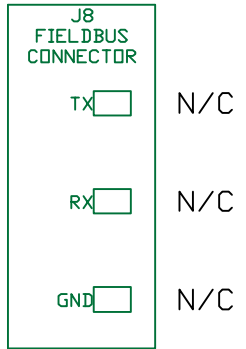
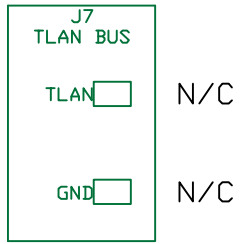
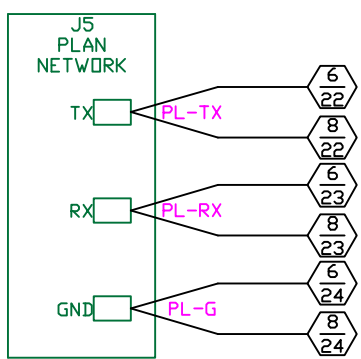
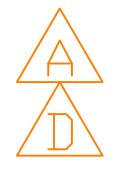




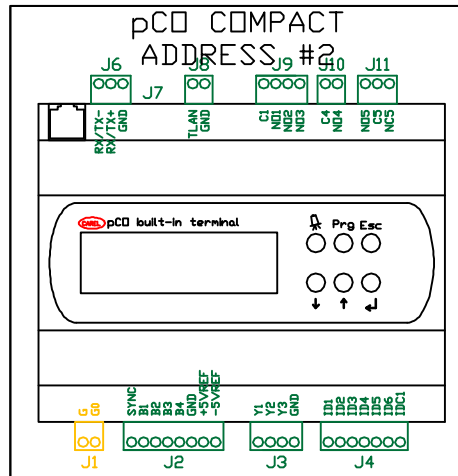


\* NOTE: REFER TO PRINT 0612138 FOR BOM COMPONENTS

SENSOR KIT OPTION



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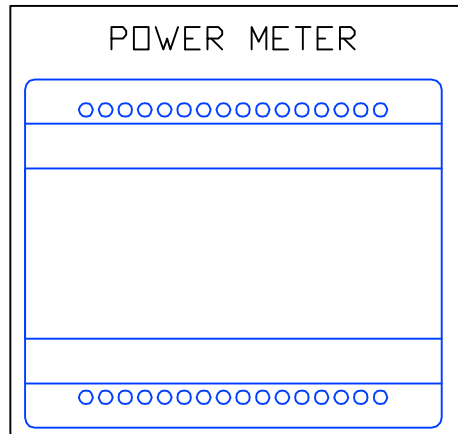
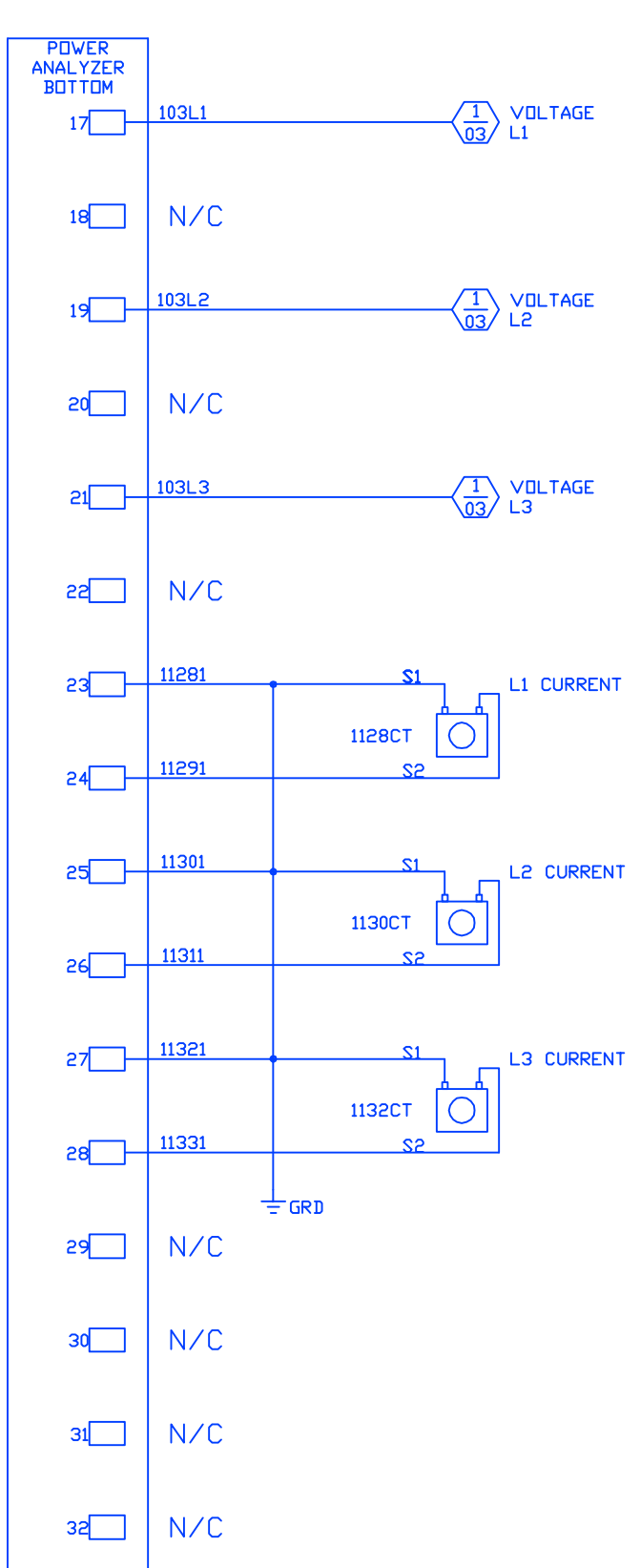
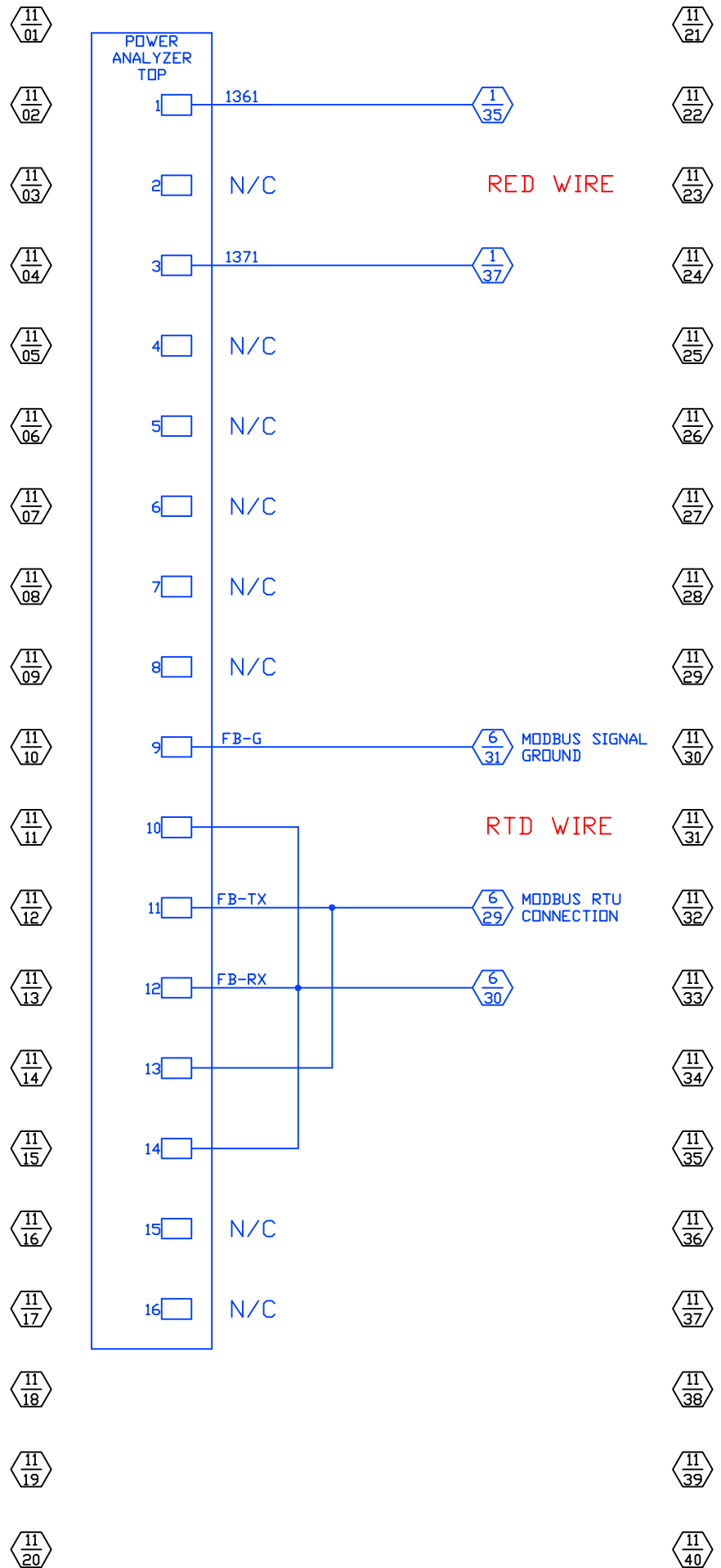
DATE	DESCRIPTION OF REVISION	APPROVED BY
01/06/11	CORRECTED BUBBLING TO STANDARD	TM <D>
02/24/10	UPDATE WIRING OF CT'S	MAR <C>
02/16/10	ADDED WIRE NOTE	CJH <B>
02/16/10	UPDATED BUBBLING	CJH <A>

**Dimplex** Thermal Solutions

DESIGN BY: MAR      DRAWN BY: MAR      KALAMAZOO, MI.  
 DATE: 01/07/10      PAGE 7 OF X      PH (800) 968-5665  
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**ELECTRICAL**      DRAWING NO. 443398



POWER METER KIT  
OPTION


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0612140 FOR BOM COMPONENTS

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DATE	DESCRIPTION OF REVISION	APPROVED BY
02/16/10	ADDED WIRE DESCRIPTIONS S1 & S2	CJH <C>
02/16/10	ADDED WIRE COLOR DIRECTIONS	CJH <B>
01/22/10	UPDATED METER WIRING	MAR <A>



**Koolant Coolers**



**Dimplex Thermal Solutions**



**SCHREIBER CHILLERS**

DESIGN BY: MAR	DRAWN BY: MAR	KALAMAZOO, MI.
DATE: 01/07/09	PAGE 11 OF X	PH (800) 968-5665
<b>POWER METER LOGIC</b>		
<b>ELECTRICAL</b>		DRAWING NO. 443503

## P266 PARAMETERS

SETUP: TO SET YOUR PARAMETERS, FIRST ADJUST THE DIP SWITCHES AS INDICATED BELOW, THEN HOLD THE PUSH-BUTTON. ONCE THE LED FLASHES THE APPROPRIATE NUMBER OF TIMES, RELEASE THE PUSH-BUTTON. REPEAT FOR EACH SETTING BELOW.

SETTING	DIP SWITCH SETTING	RELEASE BUTTON AFTER	VALUE
START VOLTAGE VALUE		TWO FLASHES	10
START PRESSURE VALUE		THREE FLASHES	10
END PRESSURE VALUE		FOUR FLASHES	240
FINAL POSITION OF DIP SWITCHES		DO NOT PRESS	N/A

## POWER METER PARAMETERS

SETTING	DESCRIPTION	VALUE	VALUE DESCRIPTION
n_p	NEW PASSWORD	0	CHANGE PASSWORD
SYS	SYSTEM TYPE	3P	3-PHASE UNBALANCED WITHOUT NEUTRAL
Ctr	CT RATIO	20	100A/5A = 20A FROM CT
Utr	VT Ratio	1	460V/460V = 1 FROM VOLTAGE
p.it	POWER INTEGRATION TIME	15	
A.it	CURRENT INTEGRATION TIME	1	
thd	HARMONIC ANALYSIS	YES	ENABLE
ou.1	OUTPUT #1	nd	NORMALLY DISABLED
ou.2	OUTPUT #2	nd	NORMALLY DISABLED
SEt			
Fis	FILTERING RANGE	2	
FIC	FILTERING COEFFICIENT	2	
Adr	SERIAL ADDRESS	1	
Bdr	BAUD RATE	19200	
H.rE	HOURS COUNTER RESET		
E.tr	TOTAL ENERGY COUNTERS RESET		
End	CONFIRM SELECTED VALUES		

## E-Box Torque Settings

Item	WO2-2-5000-2P-NF-L-M-R407C 460 volt (lb-in)	WO2-2-7500-2P-NF-L-M-R407C 460 volt (lb-in)	-10% (lb-in) <small>*low and high end of range</small>	+10% (lb-in) <small>*low and high end of range</small>	Torque Setting
Pump/fan contactor power term.	22	22	19.8	24.2	20
Pump contactor overload term.	12	12	10.8	13.2	11
Pump/fan contactor control term.	8.9-13	8.9-13	8.01	14.3	11
Pump overload power terminals	22	22	19.8	24.2	20
Pump overload control term.	5	5	4.5	5.5	5
Compressor contactor power	13.3-22	13.3-22	11.97	24.2	20
Compressor contactor control	8.9-13	8.9-13	8.01	14.3	11
Carel Connectors - Large	5	5	4.5	5.5	5
Carel Connectors - Small	2	2	1.8	2.2	2
Fused terminal	25	25	22.5	27.5	25
Disconnect wire terminal	35	35	31.5	38.5	35
Disconnect fuse screw	35	35	31.5	38.5	35
Disconnect shaft set screw	12	12	10.8	13.2	11
Fuse block terminal	35	35	31.5	38.5	35
Transformer Allen Bradley	10	10	9	11	11
Transformer Dongan	16-18	16-18	14.4	19.8	20 *
Power Dist. Block Primary	120	120	108	132	120
Power Dist. Block Secondary #8	25	25	22.5	27.5	25
Power Dist. Block Sec #10-#14	20	20	18	22	20
Control relay socket terminals	5-9	5-9	4.5	9.9	5

\* Decision made at 20 lb-in for practicality.

Torque Gun Settings: 5 lb-in 11 lb-in 20 lb-in 25 lb-in 35 lb-in 120 lb-in

## CURRENT TRANSDUCER PARAMETERS

COMPRESSOR (HP)	VOLTAGE	SETTING
5	230/3/60	40
5	460/3/60	20
7.5	230/3/60	40
7.5	460/3/60	20
10	230/3/60	40
10	460/3/60	40

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DATE	DESCRIPTION OF REVISION	APPROVED BY
07/12/10	UPDATED CAREL TORQUE SETTINGS	MAR <E>
05/07/10	ADDED TORQUE SETTINGS	MAR <D>
03/25/10	UPDATED START VALUE TO 10	MAR <C>
02/17/10	MOVED FINAL POSITION OF SWITCH'S ON	C.J.H <B>
01/21/10	UPDATED 208PS WIRING	MAR <A>



**Dimplex**  
Thermal Solutions



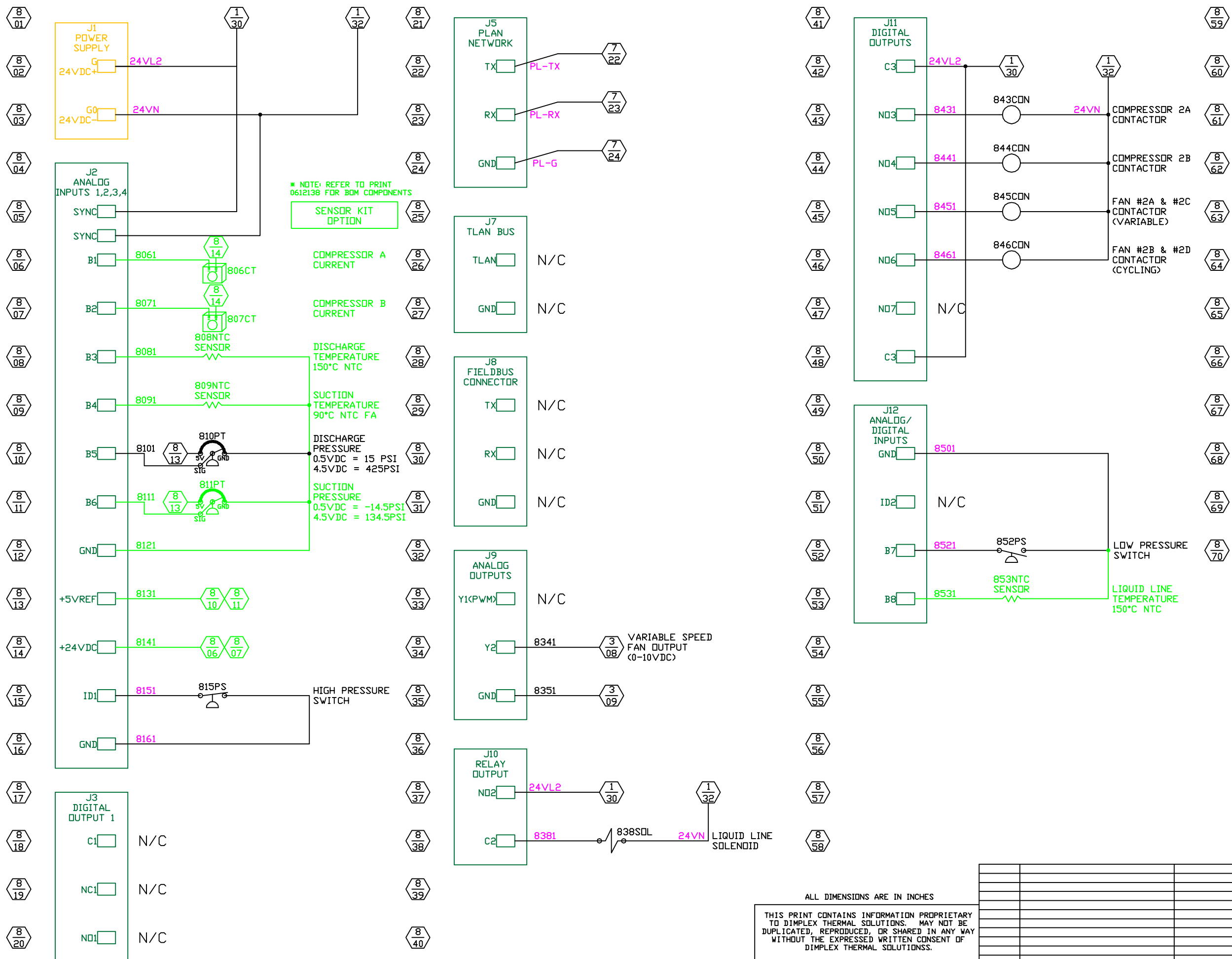
DESIGN BY: MAR  
DATE: 01/07/10

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**WO(-)(-)(2)P-M**  
**ELECTRICAL**

DRAWING NO.  
443629



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 SENSOR KIT OPTION

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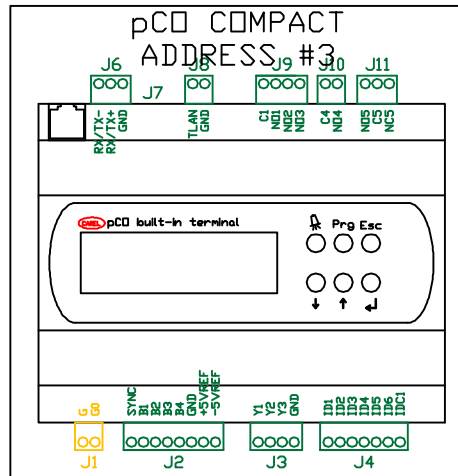
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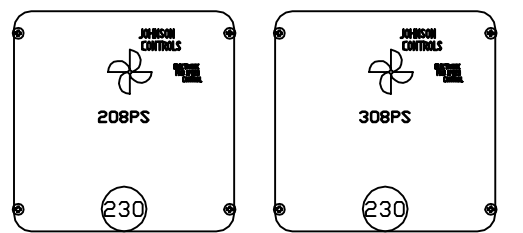
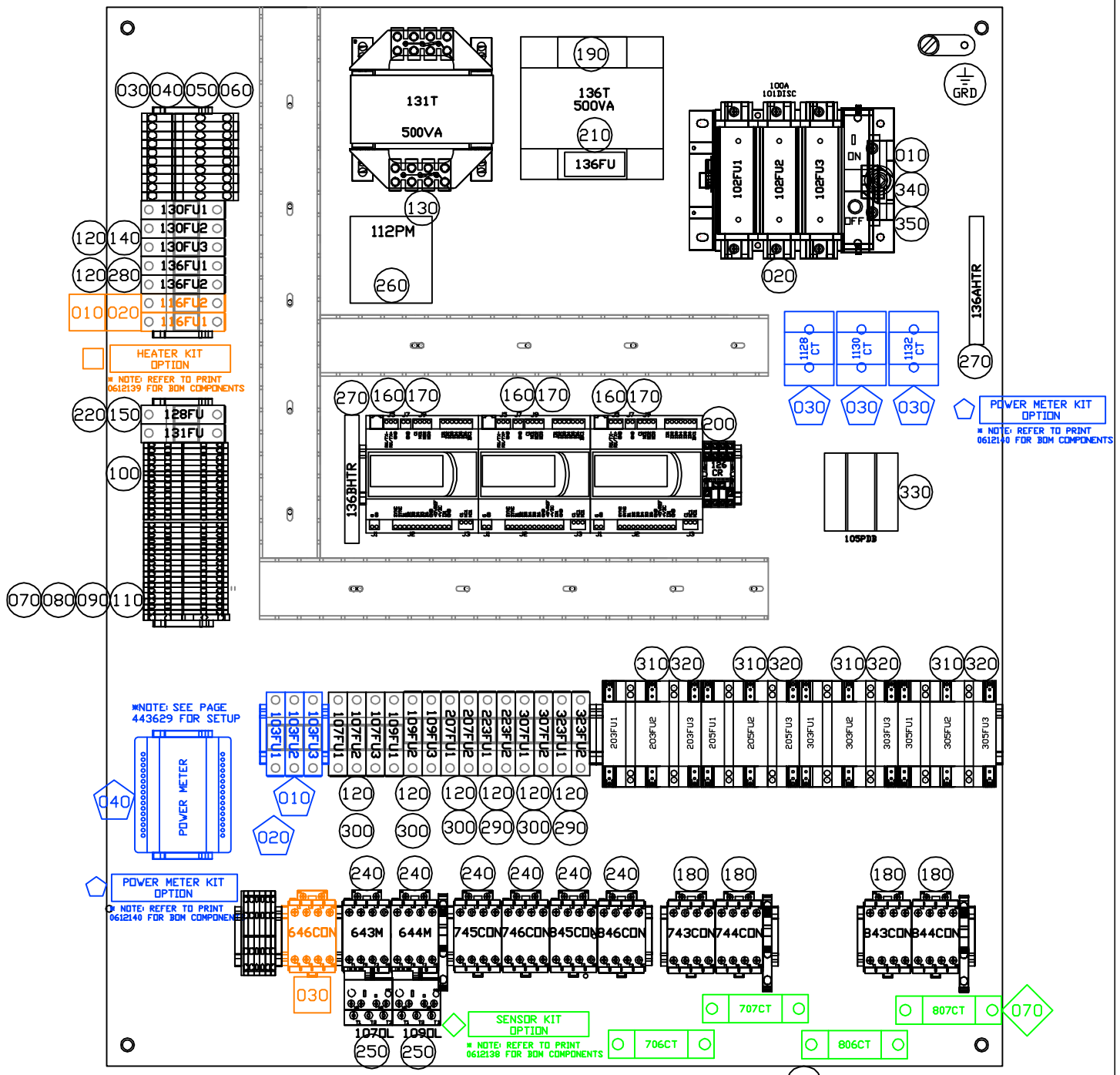
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 DRAWN BY: MAR PAGE 8 OF X

**W02-()-2P-M**  
**ELECTRICAL**

DRAWING NO. 449665



# ELECTRICAL PANEL

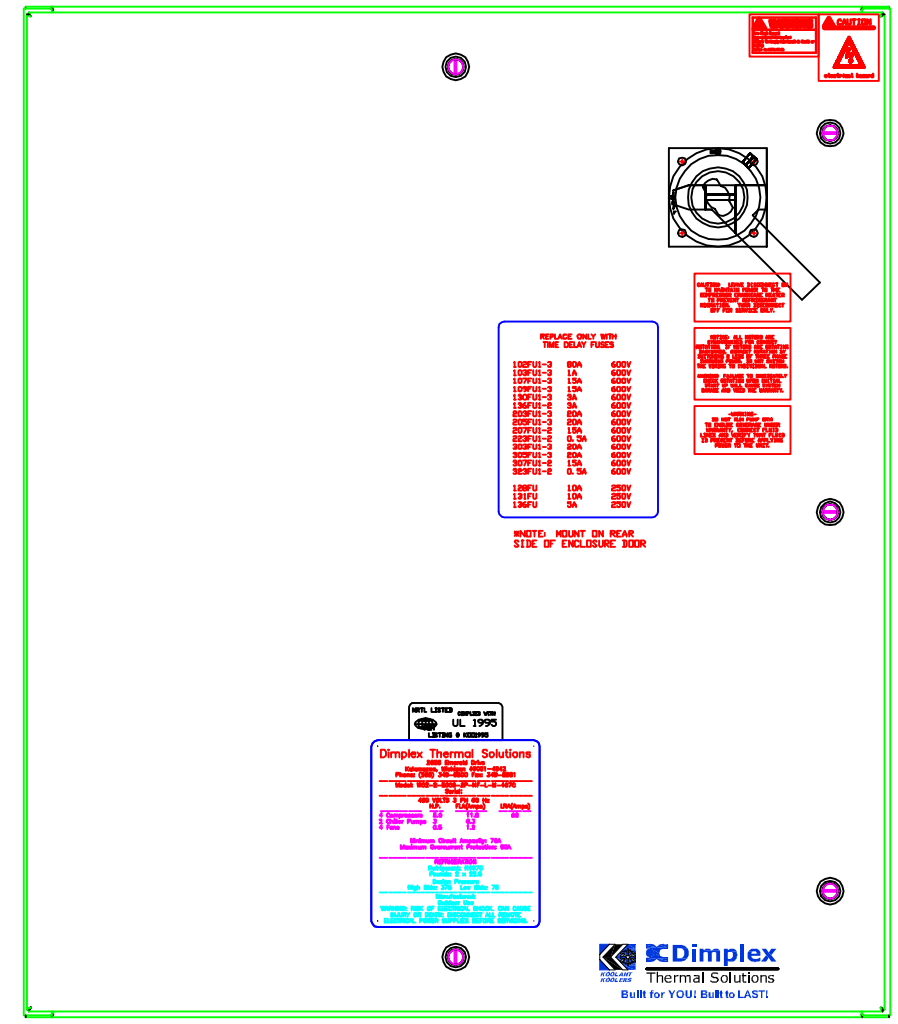


\*NOTE: P266 VARIABLE SPEED CONTROLLERS ARE MOUNTED INSIDE MACHINE BEHIND ELECTRICAL ENCLOSURE.

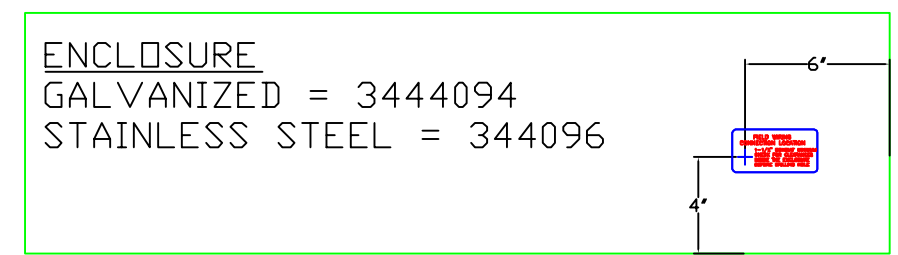
\*NOTE: MOUNT AMBIENT SENSOR INSIDE CHILLER UNIT BEHIND AIR FILTERS.

NO.	ID/DESCRIPTION	K. K. PART#	QTY	TYPE
350	194R-R4 CONNECTING ROD IEC FITS 100-200 AMP DISCONNECT SHAFT	3114006	1.0	PC
360	WD2-2-5000 EBOX PANEL 42X36 SHEET 12 GA GALV. 48 X *****	0443803	1.0	ASSEM
370	CHEMTREAT G-90 DRY MODULAR PLUG, 6 POSITION 150' CONSISTS OF: 2 PCS 86-402 PLUG AND 150' ANCI0152-W AWC 6C 26AWG LINE CORD	9531200	44.0	PC
380	PGD1000WZ0 WALL DISPLAY + BUZZER	4807797	1.0	PC
390	CAREL LOGIC PROGRAM #0905136a	0905136	1.0	PC

# FRONT VIEW OF ENCLOSURE



# BOTTOM VIEW OF ENCLOSURE



ENCLOSURE  
 GALVANIZED = 3444094  
 STAINLESS STEEL = 344096

NO.	ID/DESCRIPTION	K. K. PART#	QTY	TYPE
001	WD2-2-5000-2P-NF-L-M-407C	0444849		ASSEM
010	194R-NJ100P34ER3 DISCONNECT 100A 70 AMP TO 100 AMP AJT FUSES WITH S HAFT FOR UP TO 10' DEEP BOX, FOR DE EPER BOX, USE 3114006, COMES WITH L UGS, ALLEN BRADLEY	3110005	1.0	PC
020	AJT80 DR LPJ80 FUSE	3500919	3.0	PC
030	GOULD DR BUSSMANN 1492-L6T TERMINAL BLOCK (50 AMP)	3123003	10.0	PC
040	ALLEN BRADLEY 1492-EBL6T END BARRIER (50 AMP)	3123085	4.0	PC
050	ALLEN BRADLEY 1492-ERL35 END ANCHOR (20/50 AMP)	3123087	11.0	PC
060	ALLEN BRADLEY 1492-LG6T GROUND BLOCK (50 AMP) 1 CIRCUIT, 2 CONNECTIONS, GREEN/YELLOW	3123178	5.0	PC
070	ALLEN BRADLEY 1492-L3Q TERMINAL BLOCK (20 AMP)	3123021	35.0	PC
080	ALLEN BRADLEY 1492-EBL3Q END BARRIER (20 AMP)	3123086	2.0	PC
090	ALLEN BRADLEY 1492-LG3Q GROUNDING BLOCK (20 AMP)	3123017	3.0	PC
100	199-DRI MOUNTING RAIL 5PC/BOX 1 METER LONG ALLEN BRADLEY	3127100	2.0	PC
110	1492-CJK510 JUMPER (20 AMP)	3123095	0.5	PC
120	CHCCID FUSE HOLDER 30A, CC CLASS	3511203	19.0	PC
130	1497-G-BAJK-0-N TRANSFORMER 500VA	3160015	1.0	PC
140	ATDR3 DR FNQR3 FUSE	3500970	3.0	PC
150	GOULD DR BUSSMANN TRM10 DR FNM10 FUSE	3500091	2.0	PC
160	GOULD DR BUSSMANN PCDX0080A0 COMPACT BOARD, CAREL WITH PGD1, 1D17DD, BAI, 1AD, 1PVM (3/10 - OLD # SNS0000LO)	4807776	3.0	PC
170	PCDXC0N0A0 pCDxs Screw Terminals FOR 7 RELAY BOARD (4/10 - OLD # SN SC0N00LO)	4807777	3.0	PC
180	100-C12KJ10 CONTACTOR 24 VAC COIL COIL RATED FOR BOTH 50 AND 60 HZ A LLEN BRADLEY	3100401	4.0	PC
190	HC-0500-41 TRANSFORMER 500VA 500VA PRIMARY, 240 X 480 VAC, SECD NDARY 120V TRIPLE RATED	3842502	1.0	PC
200	RU4 RELAY ASSEMBLY 24VAC	0611215	1.0	ASSEM
* 010	RU4S-A24 RELAY SU4S-11L SPRING CLAMP, SY4S-02F1 HOLD DOWN SPRING, RU4S-A24 RELAY 24VAC 4ND 4NC RELAY IS FOR USE WITH 50 DR 60 HZ, 1DEC ADVANCE CONTROLS	3805001	1.0	PC
* 020	SU4S-11L RELAY SOCKET SPRING CLAMP 1DEC	3805006	1.0	PC
210	TRM5 DR FNM5 FUSE GOULD DR BUSSMANN	3500050	1.0	PC
220	CHM1D FUSED TERMINAL BLOCK BUSSMAN	3510900	2.0	PC
230	P266BCA-100C 460VAC FAN SPEED CTL** P266 FAN SPEED CONTROL, 440VAC TO 575VAC, 4 MAX OUTPUT AMPERES, 1 HIG H VAC TRIACS, 0 AUX FAN CONTROL CIR CUIITS, RATED -40C TO +60C, JOHNSON CONTROLS	3646040	2.0	PC
240	100-C09KJ10 CONTACTOR 24 VAC COIL COIL RATED FOR BOTH 50 AND 60 HZ ALLEN BRADLEY	3100400	6.0	PC
250	193-ED1DB RELAY 3.2 - 16 AMP IEC FITS CONTACTOR M05-C23	3103505	2.0	PC
260	ALLEN BRADLEY ICM401C-LF PHASE MONITOR 190-600VAC 100 WATT ENCLOSURE HEATER 120V SILICON RUBBER 5" WIDE X 4.5" LONG WITH THERMOSTAT ON AT 40°F OFF 6 0°F WITH 4 FOOT LEAD WIRES UL RECOGNIZED, SR3841 ***12/22/09; SIZE CHANGED FROM 4X5 AND OFF CHAN GED FROM 55 TO 60*** TEMPCD	3813421	1.0	PC
270	ALLEN BRADLEY 100 WATT ENCLOSURE HEATER 120V SILICON RUBBER 5" WIDE X 4.5" LONG WITH THERMOSTAT ON AT 40°F OFF 6 0°F WITH 4 FOOT LEAD WIRES UL RECOGNIZED, SR3841 ***12/22/09; SIZE CHANGED FROM 4X5 AND OFF CHAN GED FROM 55 TO 60*** TEMPCD	3835106	2.0	PC
280	ATDR3 DR FNQR3 FUSE	3500970	2.0	PC
290	GOULD DR BUSSMANN ATDR1/2 DR FNQR 1/2 FUSE	3500973	4.0	PC
300	GOULD DR BUSSMANN ATDR15 DR FNQR15 FUSE	3500960	10.0	PC
310	GOULD DR BUSSMANN 60358SJ FUSE BLOCK 3 POLE 30A AJT HOLDS LPJ, AJT 1-30A FUSES, 600 VAC SPACE SAVING SIZE: 3.90 X 3.62 GOULD	3501043	4.0	PC
320	AJT20 DR LPJ20 FUSE	3500910	12.0	PC
330	GOULD DR BUSSMANN 63133 3P POWER DIST BLOCK (E100-DB)	3899410	1.0	PC
340	MPO617671 10K THERMISTOR 10' CAREL PLATINUM, 2 WIRE CONSTRUCTION WITH DRAIN WIRE ATTACHED TO SHEATH, 3/16 DIA SHEATH, 316 SST 5-1/2" OVERALL LENGTH, 4-1/2" HOT LEG WITH 90° BEND PVC LEAD-WIRE (300 VAC RATED) WITH SHIELD AND DRAIN, 10 FT LONG GREY WIRE COVER, NO COLD END TERMINATION GENERALLY USED ON 15 TON UNITS AND BELOW, WITH 4 POINT CRIMP CLASS A SENSORTEC, 11/8/10; WIRED CHANGED TO 600 VOLT, UL*****	4801215	1.0	PC

SHIP LOOSE  
 \* PARTS NOT SHOWN ON DRAWING DETAIL

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DATE	DESCRIPTION OF REVISION	APPROVED BY
11/05/10	UPDATE 136FU FROM 1.5A TO 3A	MAR <B>
10/15/10	REMOVE DISC SCCR FROM TAG	MAR <A>

DESIGN BY: MAR      DRAWN BY: MAR      KALAMAZOO, MI.  
 DATE: 04/29/10      PAGE 12 OF X      PH (800) 968-5665  
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**W02-2-5000-2P-L-M-407C**  
**ELECTRICAL**      DRAWING NO. 444849