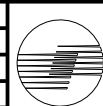


DRAWN BY:	T. GRUBE
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CAD: CREO SCHEMATICS

57229575	SHEET 2	REV A
FIELD WIRING DIAGRAM RTAF MIDDLE EAST 500 TON		

GENERAL NOTES

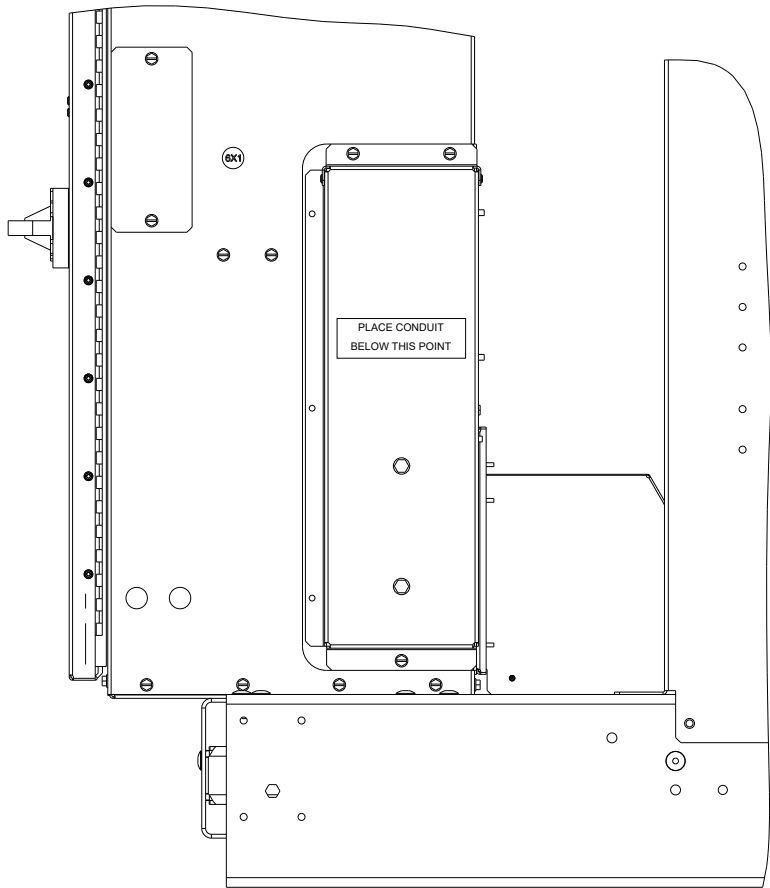
- CAUTION-DO NOT ENERGIZE THE UNIT UNTIL CHECK OUT AND STARTUP PROCEDURES HAVE BEEN COMPLETED.
- ALL MOTORS ARE PROTECTED FROM PRIMARY SINGLE PHASE FAILURES.
- CAUTION-TRANE PUMP CONTROL MUST BE USED TO PROVIDE PUMP CONTROL. EVAPORATOR CHILLED WATER PUMP MUST BE CONTROLLED BY THE CHILLER OUTPUT. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN DAMAGE OT THE UNIT.

WIRING REQUIREMENTS

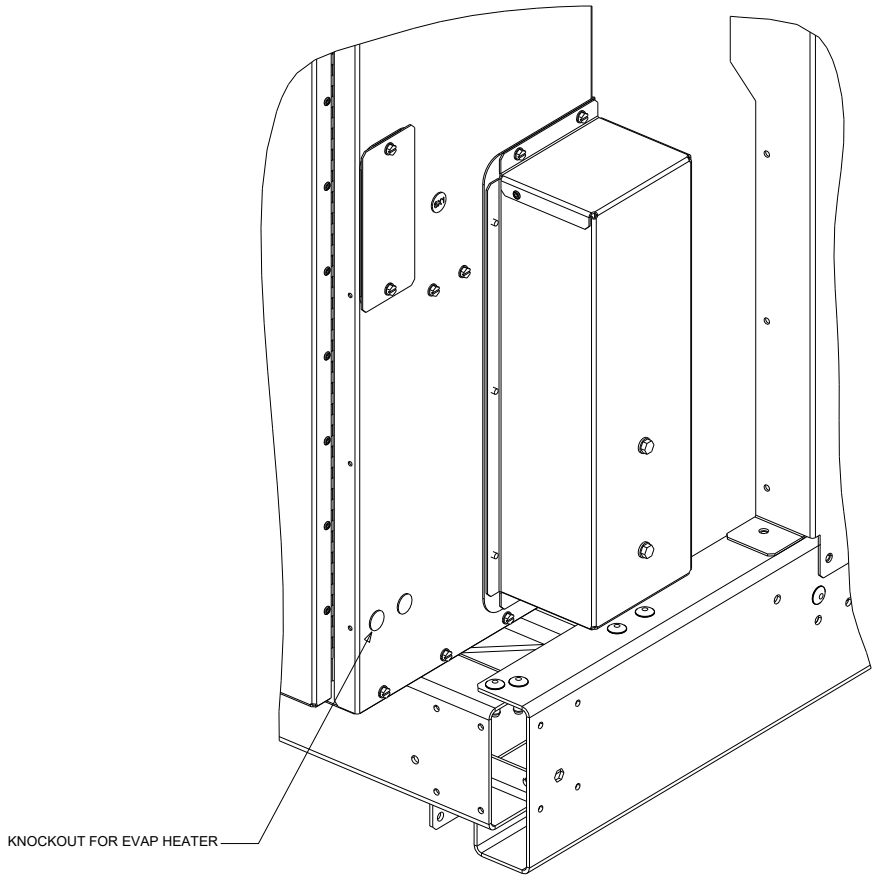
- RECOMMENDED FIELD WIRING CONNECTIONS ARE SHOWN BY DOTTED LINES
- POWER FOR THE EVAPORATOR HEATER AND/OR OPTIONAL COVENIENCE OUTLET IS SUPPLIED BY A CUSTOMER PROVIDED POWER SUPPLY. MAX FUSE SIZE IS 30A WHEN HEATER POWER DRAW IS 2440VA. MAX FUSE SIZE FOR THE OPTIONAL COVENIENCE OUTLET IS 25 AMPS.
- DO NOT RUN LOW VOLTAGE CONTROL WIRING (30 VOLTS OR LESS) IN CONDUIT WITH 110 VOLT OR HIGHER WIRING. DO NOT EXCEED THE FOLLOWING MAXIMUN RUN LENGTHS FOR A GIVEN SIZE: 14 AWG, 5000 FT; 16 AWG, 2000 FT; 18 AWG, 1000FT.
- SHIELDED TWISTED PAIR LEADS ARE REQUIRED FOR CONNECTIONS TO THE COMMUNICATIONS INTERFACE MODULE (1K1 AND 2K2). THE SHIELD SHOULD BE GROUNDED AT THE RTAF CONTROL PANEL END.
- CUSTOMER SUPPLIED POWER 220/60/1PH TO POWER RELAYS. GROUND ALL CUSTOMER SUPPLIED POWER SUPPLIES AS REQUIRED BY APPLICABLE CODES. GREEN GROUND SCREWS ARE PROVIDED IN UNIT CONTROL PANEL.
- WIRED TO NEXT UNIT. 22 AWG SHIELDED COMMUNICATION WIRE EQUIVALENT TO HELIX LF22P0014216 RECOMMENDED. THE SUM TOTAL OF ALL INTERCONNECTED CABLE SEGMENTS NOT TO EXCEED 4500 FEET. CONNECTION TOPOLOGY SHOULD BE DAISY CHAIN. REFER TO BUILDING AUTOMATION SYSTEM (BAS) COMMUNICATION INSTALLATION LITERATURE FOR END OF LINE TERMINATION RESISTOR REQUIREMENTS.
- ALL UNIT POWER WIRING MUST BE 600 VOLT COPPER CONDUCTORS ONLY AND HAVE A MINIMUM TEMPERATURE INSULATION RATING OF 90 DEGREE C. REFER TO UNIT NAMEPLATE FOR MINIMUM CIRCUIT AMPACITY AND MAXIMUM OVERCURRENT PROTECTION DEVICE. PROVIDE AN EQUIPMENT GROUNDING IN ACCORDANCE WITH APPLICABLE ELECTRIC CODES. REFER TO WIRERANGE TABLE FOR LUG SIZES.
- ALL FIELD WIRING MUST BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE AND LOCAL REQUIREMENTS.

CONTACT RATINGS AND REQUIREMENTS

- WIRED TO CUSTOMER CHILLED WATER SET POINT 2-10 VDC FROM FACTORY. SEE OPERATING INSTRUCTIONS TO CONFIGURE FOR 4-20mA.
- WIRED TO CUSTOMER CURRENT LIMIT SET POINT 2-10 VDC FROM FACTORY. SEE OPERATING INSTRUCTIONS TO CONFIGURE FOR 4-20mA.
- WIRED TO CUSTOMER COMPRESSOR % RLA OUTPUT 2-10 VDC.
- ALL CUSTOMER CONTROL CIRCUIT WIRING MUST BE COPPER CONDUCTORS ONLY AND HAVE A MINIMUM INSULATION RATING OF 300 VOLTS. EXCEPT AS NOTED, ALL CUSTOMER WIRING CONNECTIONS ARE MADE TO CIRCUIT BOARD MOUNTED BOX LUG CONNECTORS WITH A WIRE RANGE OF 14 TO 18 AWG OR DIN RAIL MOUNTED SPRING FORCE TERMINALS.
- UNIT PROVIDED DRY CONTACTS FOR THE CONDENSER/CHILLED WATER PUMP CONTROL.RELAY CONTACT RATINGS AT 120VAC 7.2 AMPS RESISTIVE, 2.88 AMPS PILOT DUTY, 1/3 HP, 7.2 FLA. RELAY CONTACT RATING: CONNECTED LOAD FOR EACH CONTACT, NOT TO EXCEED 50VA AT 220VAC. CONTACTS ADDITIONALLY RATED AT 30VDC, 10AMPS RESISTIVE.
- CUSTOMER SUPPLIED CONTACTS FOR ALL LOW VOLTAGE CONNECTIONS MUST BE COMPATABLE WITH DRY CIRCUIT 24 VOLTS DC FOR A 12 mA RESISTIVE LOAD. SILVER OR GOLD PLATED CONTACTS RECOMMENDED.
- THE CONTACTS FOR AUTO STOP AND EMERGENCY STOP SWITCHES ARE JUMPERED AT THE FACTORY BY JUMPERS 1W1 & 1W2 TO ENABLE UNIT OPERATION. IF REMOTE CONTROL IS DESIRED, REMOVED THE JUMPERS AND CONNECT TO THE DESIRED CONTROL CIRCUIT.
- SOLID OVALS REPRESENT MAX NUMBER OF CONDUITS AND/OR CABLE GLANDS USED.
- FIELD WIRING TO 1Q1/2Q1/1X1/2X1 ONLY NEEDED ON DUAL POWER PONT UNITS.



PANEL SIDE VIEW



PANEL ISO VIEW

