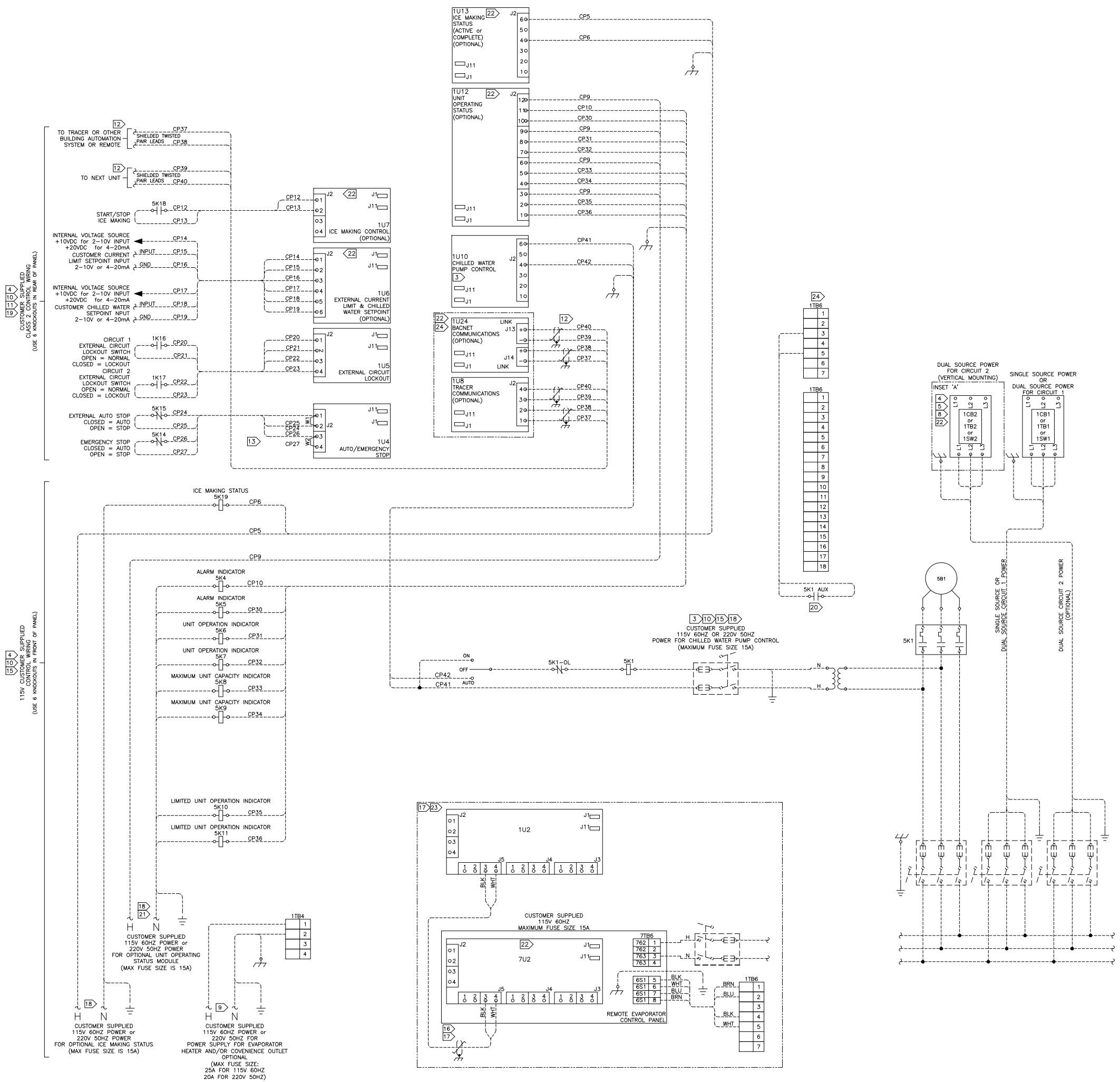




CAUTION
USE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT
OTHER TYPES OF CONDUCTORS.
FAILURE TO DO SO MAY CAUSE DAMAGE TO THE
EQUIPMENT.

ATTENTION
N'UTILISER QUE DES CONDUCTEURS EN CUIVRE!
LES BORNES DE L'UNITÉ NE SONT PAS CONÇUES
POUR RECEVOIR D'AUTRES TYPES DE CONDUCTEURS.
L'UTILISATION DE TOUT AUTRE CONDUCTEUR PEUT
ENDOMMAGER L'EQUIPEMENT.

PRECAUCIÓN
¡UTILICE ÚNICAMENTE CONDUCTORES DE COBRE!
LAS TERMINALES DE LA UNIDAD NO ESTÁN DISEÑADAS
PARA ACEPTAR OTROS TIPOS DE CONDUCTORES.
SI NO LO HACE, PUEDE OCASIONAR DAÑO AL EQUIPO.

⚠ WARNING HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS. INSURE THAT ALL TAGS AND LOCKS ARE IN PLACE BEFORE SERVICING. INSURE THAT ALL MOTOR CAPACITORS HAVE DISCHARGED BEFORE VOLTAGE. UNITS WITH VARIABLE SPEED DRIVE, REFER TO DRIVE INSTRUCTIONS FOR DISCHARGING PROCEDURE. FAILURE TO DO THE ABOVE BEFORE SERVICING COULD RESULT IN DEATH OR SERIOUS INJURY.	⚠ AVERTISSEMENT TENSION DANGEREUSE! COUPER TOUTES LES TENSIONS ET OUVRIR LES SECTIONNEURS A DISTANCE. ASSURER QUE TOUS LES VERROUILLAGES ET DES ÉTIQUETTES AVANT TOUTE INTERVENTION. VÉRIFIER QUE TOUTS LES CONDENSATEURS DES MOTEURS SONT DÉCHARGÉS. DANS LE CAS D'UNITS COMPORTANT DES ENTRAÎNEMENTS A VITESSE VARIABLE, SE RÉFÉRER AUX INSTRUCTIONS POUR DÉCHARGER LES CONDENSATEURS. NE PAS RESPECTER CES MESURES DE PRÉCAUTION PEUT ENTRAÎNER DES BLESSURES GRAVES POUVANT ÊTRE MORTELLES.	⚠ ADVERTENCIA ¡VOLTAJE PELIGROSO! DESCONECTE TODA LA ENERGÍA ELÉCTRICA, INCLUIDO LAS DESCONEXIONES REMOTAS Y SI SE USAN ETIQUETAS DE CIERRE, SE TIQUETADO ANTES DE PROCEDER AL SERVICIO. ASEGURESE DE QUE TODOS LOS CAPACITORES DEL MOTOR HAYAN DESCARGADO EL VOLTAJE ALMACENADO. PARA LAS UNIDADES CON EJE DE DIRECCIÓN DE VELOCIDAD VARIABLE, REVISAR LAS INSTRUCCIONES PARA LA DESCARGA DEL CONDENSADOR. EL NO REALIZAR LO ANTERIORMENTE INDICADO, PODRÍA OCASIONAR LA MUERTE O SERÍAS LESIONES PERSONALES.
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REPLACEMENT FUSE SIZES							
FUSE PROTECT FUNCTION	UNIT SIZE	UNIT VOLTAGE/HZ	DESIGNATION	VOLTS	CLASS	AMPS	
CONDENSER FANS	120 TO 250	ALL	1F1 THRU 1F12	600	CC	30	
CONTROL POWER TRANSFORMER PRIMARY	ALL	200/60	1F13,1F14	600	CC	10	
		230/60				8	
		380/60				5	
		460/60				5	
		575/60				4	
		400/50				5	
CONTROL POWER TRANSFORMER 115 VOLT SEC.	ALL	ALL	1F15	600	CC	10	
CONTROL POWER TRANSFORMER 24 VOLT SEC.		1F16 & 1F17	8				
INVERTER DRIVE AND OR INVERTER TRANSFORMER PRI.	ALL	ALL BUT 575/60	1F18 THRU 1F23	600	CC	30	
		575/60				6.25	

CIRCUIT BREAKER OPTION									
SINGLE SOURCE POWER ELECTRICAL CIRCUIT 1 & 2				ELECTRICAL CIRCUIT 1 DUAL SOURCE POWER				ELECTRICAL CIRCUIT 2 DUAL SOURCE POWER	
VOLTAGE	UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE		UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE		UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE	
200/60/3	140 SE/HE/XE;	THREE 1/0 AWG – 500 MCM		140 SE/HE/XE; 155, 170, 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		140, 155 SE/HE/XE; 170, 185, 200 SE/HE; 225 SE;	TWO 3/0 AWG – 500 MCM	
	155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	FOUR 250 MCM – 500 MCM		155, 170 XE; 225, 250 SE;	THREE 1/0 AWG – 500 MCM		170 XE, 250 SE;	THREE 1/0 AWG – 500 MCM	
230/60/3	140, 155 SE/HE/XE; 170 XE;	THREE 1/0 AWG – 500 MCM		140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225 SE;	TWO 3/0 AWG – 500 MCM	
	170, 185, 200 SE/HE; 225, 250 SE;	FOUR 250 MCM – 500 MCM		225, 250 SE;	THREE 1/0 AWG – 500 MCM		250 SE;	THREE 1/0 AWG – 500 MCM	
380/60/3	140, 155, 170 SE/HE/XE; 180 SE/HE;	TWO 3/0 AWG – 500 MCM		140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	
	200 SE/HE; 225, 250 SE;	THREE 1/0 AWG – 500 MCM		225, 250 SE;			225, 250 SE;		
460/60/3	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	
	225, 250 SE;			225, 250 SE;			225, 250 SE;		
575/60/3	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	
	225, 250 SE;			225, 250 SE;			225, 250 SE;		
400/50/3	120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM		120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	

SINGLE SOURCE POWER ELECTRICAL CIRCUIT 1 & 2			ELECTRICAL CIRCUIT 1 DUAL SOURCE POWER		ELECTRICAL CIRCUIT 2 DUAL SOURCE POWER	
VOLTAGE	UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE	UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE	UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE
200/60/3	140 SE/HE/XE; 155 SE/HE;	THREE 1/0 AWG – 500 MCM	140 SE/HE/XE; 155, 170, 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	140, 155 SE/HE/XE; 170, 185, 200 SE/HE; 225 SE;	TWO 3/0 AWG – 500 MCM
	165XE; 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	FOUR 250 MCM – 500 MCM	155, 170 XE; 225, 250 SE;	THREE 1/0 AWG – 500 MCM	170 XE, 250 SE;	THREE 1/0 AWG – 500 MCM
230/60/3	140, 155, 170 SE/HE/XE;	THREE 1/0 AWG – 500 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225 SE;	TWO 3/0 AWG – 500 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225 SE;	TWO 3/0 AWG – 500 MCM
	185, 200 SE/HE; 225, 250 SE;	FOUR 250 MCM – 500 MCM	250 SE;	THREE 1/0 AWG – 500 MCM	250 SE;	THREE 1/0 AWG – 500 MCM
360/60/3	140, 155, 170 SE/HE/XE; 185 SE/HE;	TWO 3/0 AWG – 500 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM
	200 SE/HE; 225, 250 SE;	THREE 1/0 AWG – 500 MCM	225, 250 SE;		225, 250 SE;	
460/60/3	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM
	225, 250 SE;		225, 250 SE;		225, 250 SE;	
575/60/3	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM
	225, 250 SE;		225, 250 SE;		225, 250 SE;	
400/50/3	120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM	120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 3/0 AWG – 500 MCM

	SINGLE SOURCE POWER ELECTRICAL CIRCUIT 1 & 2		ELECTRICAL CIRCUIT 1 DUAL SOURCE POWER		ELECTRICAL CIRCUIT 2 DUAL SOURCE POWER	
VOLTAGE	UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE	UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE	UNIT SIZE (TONS) EFFICIENCY SE, HE & XE	LUG WIRE SIZE RANGE
200/60/3	140 SE/HE; 140XE; 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	THREE 2 AWG – 600 MCM FOUR 2 AWG – 600 MCM	140, 155, 170 SE/HE; 185, 200 SE/HE; 140, 155, 170XE; 225, 250 SE;	TWO 2 AWG – 600 MCM THREE 2 AWG – 600 MCM	140, 155, 170, 185, 200 SE/HE; 225 SE; 140, 155, 170 XE; 250 SE;	TWO 2 AWG – 600 MCM THREE 2 AWG – 600 MCM
230/60/3	140, 155 SE/HE; 140, 155 XE; 170 SE/HE/XE; 185, 200 SE/HE; 225, 250SE;	THREE 2 AWG – 600 MCM FOUR 2 AWG – 600 MCM	150 SE/HE/XE; 155, 170, 185, 200 SE/HE; 225 SE; 155, 170XE; 250 SE;	TWO 2 AWG – 600 MCM THREE 2 AWG – 600 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225 SE; 250 SE;	TWO 2 AWG – 600 MCM THREE 2 AWG – 600 MCM
380/60/3	140, 155, 170 SE/HE/XE; 185 SE/HE; 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM THREE 2 AWG – 600 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM
460/60/3	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM
575/60/3	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM	140, 155, 170 SE/HE/XE; 185, 200 SE/HE; 225, 250 SE;	TWO 2 AWG – 600 MCM
400/50/3	120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 2 AWG – 600 MCM	120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 2 AWG – 600 MCM	120, 130 HE; 140, 155, 170, 185, 200 SE/HE;	TWO 2 AWG – 600 MCM

SE = STANDARD EFFICIENCY UNITS / HE = HIGH EFFICIENCY UNITS / XE = EXTRA EFFICIENCY UNITS

NOTES:

1. CAUTION—DO NOT ENERGIZE THE UNIT UNTIL CHECKOUT AND STARTUP PROCEDURES HAVE BEEN COMPLETED.
2. ALL MOTORS ARE PROTECTED FROM PRIMARY SINGLE PHASE FAILURES.
3. 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 TO THE UNIT.
4. THE FOLLOWING FEATURES ARE OPTIONAL AND MAY OR MAY NOT BE PROVIDED. CUSTOMER PROVIDED WIRING FOR ALL STANDARD FEATURES AND OPTIONS IS SHOWN ON THIS DIAGRAM. OPTIONAL FEATURES ARE SO NOTED.

LOW VOLTAGE OPTIONS (CLASS 2)
TRACER COMMUNICATION INTERFACE OR OTHER BUILDING AUTOMATION SYSTEM COMMUNICATION INTERFACE
ICE MAKING START/STOP
EXTERNAL CURRENT LIMIT AND EXTERNAL CHILLED WATER SETPOINT

115 VOLT OPTIONS FOR 60HZ UNITS OR 220 VOLT OPTIONS FOR 50HZ UNITS.
ICE MAKING STATUS
UNIT OPERATING STATUS MODULE
EVAPORATOR HEATER (FREEZE PROTECTION). STANDARD WITH UNIT—
MOUNTED EVAPORATOR. NOT USED WITH REMOTE EVAPORATOR OPTION.

LINE VOLTAGE OPTIONS
UNIT MOUNTED TERMINAL BLOCK, DISCONNECT SWITCH OR HACR CIRCUIT BREAKER (TB, SW OR CB)
5. SINGLE SOURCE POWER IS PROVIDED AS STANDARD. DUAL SOURCE POWER IS AVAILABLE AS AN OPTION. COMPONENTS 1392, 1TB2 AND 15W2 ARE PROVIDED ONLY WITH THE DUAL SOURCE POWER OPTION. (INSET A) REQUIRED PHASING IS SHOWN.

WIRING REQUIREMENTS
6. RECOMMENDED FIELD WIRING CONNECTIONS ARE SHOWN BY DOTTED LINES
7. ALL FIELD WIRING MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND STATE AND LOCAL REQUIREMENTS. EXPORT UNIT WIRING MUST COMPLY WITH LOCAL APPLICABLE CODES.
8. ALL UNIT POWER WIRING MUST BE COPPER CONDUCTORS ONLY AND HAVE A MINIMUM TEMPERATURE INSULATION RATING OF 90 DEGREE C. SEE UNIT MANIPULATE FOR MINIMUM CIRCUIT AMPACITY AND MAXIMUM FUSE SIZE REQUIREMENTS. THE POWER WIRING LUG SIZE PROVIDED ON THE VARIOUS UNITS IS SHOWN IN THE ADJACENT TABLE.
9. POWER FOR THE EVAPORATOR HEATER AND/OR OPTIONAL CONVENIENCE OUTLET IS SUPPLIED BY A COMMON CUSTOMER PROVIDED POWER OPTIONAL SUPPLY. WHEN POWERED, THE HEAT TAPE WILL USE 1640 VA OF THE TOTAL AVAILABLE SUPPLY ON 60 HZ UNITS AND APPROXIMATELY 1390 VA ON 50 HZ UNITS. EVAPORATOR HEATERS ARE NOT PROVIDED WITH REMOTE EVAPORATOR UNITS.
10. 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 LUGS WITH A WIRE RANGE OF 14 TO 18 AWG. THE HEAT TAPE AND/OR CONVENIENCE OUTLET ARE ON THE GROUND SIDE OF THE FLOW SWITCH GO TO TERMINAL STRIPS WITH A #10 SET SCREW WHICH WILL ACCEPT RING OR FORK TERMINALS OR STRIPPED WIRE LEADS.
11. DO NOT RUN LOW VOLTAGE CONTROL WIRING (30 VOLTS OR LESS) IN CONDUIT WITH 110 VOLT OR HIGHER WIRING. DO NOT EXCEED THE FOLLOWING MAXIMUM RUN LENGTHS FOR A GIVEN SIZE: 14 AWG, 5000 FT; 16 AWG, 2000 FT; 18 AWG, 1000 FT.
12. SHIELDED TWISTED PAIR LEADS ARE REQUIRED FOR CONNECTIONS TO THE COMMUNICATIONS INTERFACE MODULE (1U8). THE SHIELD SHOULD BE GROUNDED AT THE CHILLER CONTROL PANEL END.
13. THE CONTACTS FOR THESE FEATURES ARE JUMPERED AT THE FACTORY BY JUMPERS W1 & W2 TO ENABLE UNIT OPERATION. IF REMOTE CONTROL IS DESIRED REMOVE THE JUMPERS AND CONNECT TO THE DESIRED CONTROL CIRCUIT.
14. AS SHIPPED THE NORMAL 400 VOLT UNIT CONTROL POWER TRANSFORMERS ARE WIRED ON THE 400 VOLT TAP (H3). TRANSFORMER LEADS 126A & 126B SHOULD BE RECONNECTED TO THE APPROPRIATE TAP FOR THE 380 (H2) OR 415 (H4) VOLT POWER SUPPLIES.
15. GROUND ALL CUSTOMER PROVIDED 115 VOLT POWER SUPPLIES AS REQUIRED BY CODES. GREEN GROUND SCREWS ARE PROVIDED IN THE UNIT CONTROL PANEL.
16. COMMUNICATION LINK TO BE SHIELDED TWISTED PAIR LEADS. SHIELD TO BE GROUNDED ONLY AT THE MAIN UNIT CONTROL PANEL. THE LINK IS WIRED TO CIRCUIT BOARD BOX LUGS WITH A WIRE RANGE OF 14 TO 18 AWG. DO NOT RUN LOW VOLTAGE CONTROL WIRING (30 VOLTS OR LESS) IN CONDUIT WITH 110 VOLT OR HIGHER WIRING. DO NOT EXCEED THE FOLLOWING MAXIMUM RUN LENGTHS FOR A GIVEN SIZE: 14 AWG, 5000 FT; 16 AWG, 2000 FT; 18 AWG, 1000 FT.
17. ALL CUSTOMER CONTROL CIRCUIT WIRING MUST BE COPPER CONDUCTORS ONLY AND HAVE A MINIMUM INSULATION RATING OF 300 VOLTS. 115 VOLT POWER SUPPLY CONNECTIONS ARE MADE TO A TERMINAL STRIP WHICH HAS A #10 SET SCREW WHICH WILL ACCEPT RING OR FORK TERMINALS OR STRIPPED LEADS.

CONTACT RATINGS AND REQUIREMENTS
18. UNIT PROVIDED DRY CONTACTS FOR THE EVAPORATOR PUMP CONTROL, THE UNIT OPERATING STATUS RELAYS & THE ICE MAKING STATUS RELAY (1U10, 1U12, & 1U13) ARE RATED FOR 7.2 AMPS RESISTIVE, 2.88 AMPS PILOT DUTY, OR HP, 7.2 FLA AT 120 VOLTS 60 HZ. CONTACTS ARE RATED FOR 5 AMPS GENERAL PURPOSE DUTY AT 240 VOLTS. THE MAX FUSE SIZE FOR ANY OF THESE CIRCUITS IS 15 AMPS.
19. CUSTOMER SUPPLIED CONTACTS FOR ALL LOW VOLTAGE CONNECTIONS MUST BE COMPATIBLE WITH DRY CIRCUIT 24 VOLTS DC FOR A 12 MA RESISTIVE LOAD. SILVER OR GOLD PLATED CONTACTS ARE RECOMMENDED.
20. FLOW SWITCH AND INTERLOCK CONTACTS MUST BE ACCEPTABLE FOR USE IN A 24 VOLT 12mA CIRCUIT. REMOVE JUMPER BETWEEN 1TB6-5 AND 1TB6-3 WHEN SK1 AUX CONTACT IS USED.
21. THE FIELD PROVIDED INDICATORS MAY BE RELAYS (AS SHOWN), LIGHTS OR AUDIBLE DEVICES. FOUR DUPLICATE FUNCTIONS ARE SHOWN. THE DUPLICATE FUNCTIONS MAY BE CONNECTED TO EITHER OR BOTH OF THE NORMALLY OPEN OR NORMALLY CLOSED RELAY CONTACTS OF EACH OF THE 4 SPDT RELAYS ON THE OPTIONAL UNIT OPERATING STATUS MODULE.
22. OPTIONAL COMPONENT — CHECK MODEL NUMBER TO DETERMINE IF USED OR NOT.
23. WIRING FOR CUSTOMER SUPPLIED REMOTE EVAPORATOR.
24. THE FUNCTIONS OF THE OPERATING STATUS MODULE RELAYS ARE PROGRAMMABLE. DEFAULT FUNCTIONS ARE SHOWN. SEE IOM FOR DETAILS.