

NOTICE

USE COPPER CONDUCTORS ONLY!
 FAILURE TO USE COPPER CONDUCTORS
 COULD RESULT IN EQUIPMENT DAMAGE
 AS THE EQUIPMENT WAS NOT DESIGNED
 OR QUALIFIED TO ACCEPT OTHER TYPES
 OF CONDUCTORS.

AVIS

N'UTILISER QUE DES CONDUCTEURS EN CUIVRE!
 L'UTILISATION DE MATÉRIEAUX,
 AUTRES QUE LE CUIVRE,
 PEUT ENDOMMAGER L'EQUIPEMENT,
 CELUI-CI N'AYANT PAS ÉTÉ CONÇU OU
 HOMOLOGUÉ POUR ACCEPTER D'AUTRES
 TYPES DE CONDUCTEURS.

AVISO

¡UTILICE CONDUCTORES DE COBRE SOLAMENTE!
 SI NO UTILIZA CONDUCTORES DE COBRE,
 EL EQUIPO PODRÍA SUFRIR DAÑOS,
 YA QUE NO HA SIDO DISEÑADO NI CALIFICADO
 PARA ACEPTAR OTROS TIPOS DE CONDUCTORES.

⚠ WARNING

HAZARDOUS VOLTAGE!
 DISCONNECT ALL ELECTRIC POWER INCLUDING
 REMOTE DISCONNECTS AND FOLLOW LOCK OUT
 AND TAG PROCEDURES BEFORE SERVICING.
 INSURE THAT ALL MOTOR CAPACITORS HAVE
 DISCHARGED STORED VOLTAGE. UNITS WITH
 VARIABLE SPEED DRIVE, REFER TO DRIVE
 INSTRUCTIONS FOR CAPACITOR DISCHARGE.
 FAILURE TO DO THE ABOVE COULD RESULT
 IN DEATH OR SERIOUS INJURY.

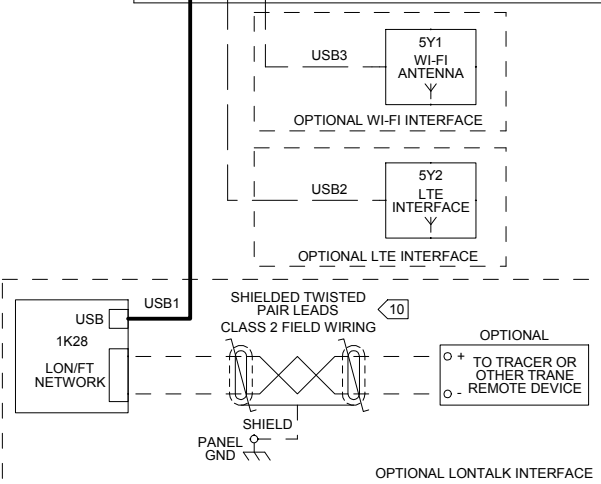
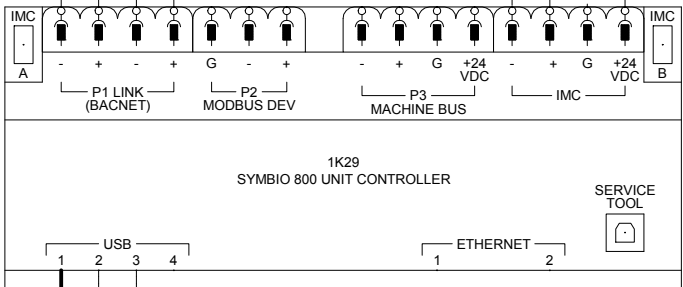
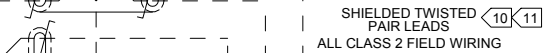
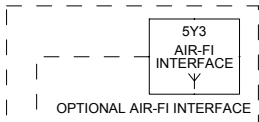
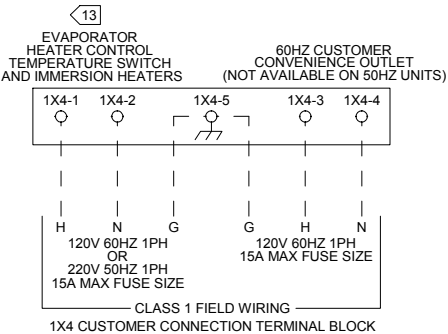
⚠ AVERTISSEMENT

TENSION DANGEREUSE!
 COUPER TOUTES LES TENSIONS ET OUVRIR
 LES SECTIONNEURS À DISTANCE, PUIS SUIVRE
 LES PROCÉDURES DE VERROUILLAGE ET DES
 ÉTIQUETTES AVANT TOUTE INTERVENTION.
 VÉRIFIER QUE TOUS LES CONDENSATEURS
 DES MOTEURS SONT DÉCHARGÉS. DANS LE CAS
 D'UNITÉS COMPORTANT DES ENTRAÎNEMENTS
 À VITESSE VARIABLE, SE REPORTER AUX
 INSTRUCTIONS DE L'ENTRAÎNEMENT POUR
 DÉCHARGER LES CONDENSATEURS.
 UN MANQUEMENT À LA PROCÉDURE
 CI-DESSUS PEUT ENTRAÎNER DES
 BLESSURES GRAVES, VOIRE LA MORT.

⚠ ADVERTENCIA

¡VOLTAJE PELIGROSO!
 DESCONECTE TODA LA ENERGÍA ELÉCTRICA,
 INCLUSO LAS DESCONEXIONES REMOTAS Y SIGA
 LOS PROCEDIMIENTOS DE CIERRE Y ETIQUETADO
 ANTES DE PROCEDER AL SERVICIO. ASEGÚRESE
 DE QUE TODOS LOS CAPACITORES DEL MOTOR
 HAYAN DESCARGADO EL VOLTAJE ALMACENADO.
 PARA LAS UNIDADES CON TRANSMISIÓN
 DE VELOCIDAD VARIABLE, CONSULTE LAS
 INSTRUCCIONES PARA LA DESCARGA
 DEL CONDENSADOR.
 NO REALIZAR LO ANTEDICHO PUEDE PROVOCAR
 LA MUERTE O LESIONES GRAVES.

DEVICE PREFIX & LOCATION CODE	
AREA	LOCATION
1	CIRCUIT 1 CONTROL PANEL DEVICES
2	CIRCUIT 2 CONTROL PANEL DEVICES
7	CUSTOMER PROVIDED DEVICES
8	SINGLE POINT POWER DEVICES



DRAWN BY:	K.M. KULIG
© TRANE DATE:	16 MAR 2020
MASTER FILE:	
REVISION DATE:	13 SEP 2021
REPLACES:	
SIMILAR TO:	
USED BY:	



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CAD: CREO SCHEMATICS

DIAGRAM
 UNIT FIELD WIRING

ACRB 375-550 TON UNITS

DRAWING NUMBER

23115360

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GENERAL NOTES:

- WIRE REPRESENTED BY DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS.
- ALL STANDARD AND OPTIONAL COMPONENTS SHOWN.
- CUSTOMER SUPPLIED INCOMING LINE VOLTAGE MAY BE MADE TO OPTIONAL SINGLE OR DUAL POINT POWER CONNECTIONS ON THIS PRODUCT AT THE DEVICES SHOWN.
- ALL MOTORS ARE PROTECTED FROM PRIMARY SINGLE PHASE FAILURES.
- CAUTION - TRANE PROVIDED 1K20 MUST BE USED TO PROVIDE EVAPORATOR WATER PUMP CONTROL. EVAPORATOR WATER PUMP(S) MUST BE CONTROLLED BY THE CHILLER OUTPUT. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN DAMAGE TO THE UNIT. SEE INSTALLATION, OPERATION AND MAINTENANCE MANUAL FOR ADDITIONAL DETAILS.
- CAUTION - DO NOT ENERGIZE THE UNIT UNTIL CHECK OUT AND STARTUP PROCEDURES HAVE BEEN COMPLETED.

WIRING REQUIREMENTS:

- ALL FIELD WIRING MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), STATE AND LOCAL CODES.
- DO NOT RUN LOW VOLTAGE CONTROL WIRING (30V OR LESS) IN CONDUIT WITH 110V OR HIGHER WIRING. DO NOT EXCEED THE FOLLOWING MAXIMUM RUN LENGTH FOR A GIVEN SIZE: 14 AWG OF 5000 FT, 16 AWG OF 2000 FT OR 18 AWG OF 1000 FT.
- ALL UNIT POWER WIRING MUST BE 600V COPPER CONDUCTORS ONLY AND HAVE A MINIMUM TEMPERATURE INSULATION RATING OF 90°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 WIRE RANGE TABLE FOR LUG SIZES.
- SHIELDED, TWISTED PAIR LEADS ARE REQUIRED FOR CONNECTIONS TO THE 1K29 SYMBIO 800 UNIT CONTROLLER AND THE OPTIONAL 1K28 LONTALK INTERFACE. THE SHIELD SHOULD BE GROUNDED AT THE UNIT CONTROL PANEL END.
- 22 AWG SHIELDED COMMUNICATION WIRE EQUIVALENT TO HELIX LF22P0014216 IS RECOMMENDED FOR WIRING TO NEXT UNIT. THE SUM TOTAL OF ALL INTERCONNECTED CABLE SEGMENTS ARE NOT TO EXCEED 4500 FT. CONNECTION TOPOLOGY SHOULD BE DAISY CHAIN. REFER TO BUILDING AUTOMATION SYSTEM (BAS) COMMUNICATION INSTALLATION LITERATURE FOR END OF LINE TERMINATION RESISTOR REQUIREMENTS.
- ALL CUSTOMER SUPPLIED CONTROL CIRCUIT WIRING MUST BE COPPER CONDUCTORS ONLY AND HAVE A MINIMUM INSULATION RATING OF 300V. EXCEPT AS NOTED, ALL CUSTOMER WIRING CONNECTIONS ARE MADE TO CIRCUIT BOARD MOUNTED BOX LUGS WITH A WIRE RANGE OF 14 TO 18 AWG.
- EVAPORATOR HEATER CONTROL TEMPERATURE SWITCH AND IMMERSION HEATERS ARE MANDATORY FOR NON-GLYCOL MEDIUMS. SEE IOM FREEZE AVOIDANCE FOR DETAILS.

CONTACT RATINGS AND REQUIREMENTS:

- UNIT PROVIDED DRY CONTACTS FOR THE EVAPORATOR CHILLED WATER PUMP CONTROLS AND PROGRAMMABLE UNIT STATUS RELAYS. RELAY CONTACT RATINGS AT 120VAC: 7.2A RESISTIVE, 2.88A PILOT DUTY, OR 1/3 HP, 7.2 FLA. CONTACTS ARE RATED FOR 240VAC, 5A GENERAL PURPOSE DUTY.
- CUSTOMER SUPPLIED CONTACTS FOR ALL LOW VOLTAGE CONNECTIONS MUST BE COMPATABLE WITH DRY CIRCUIT 24VDC FOR A 12mA RESISTIVE LOAD. GOLD PLATED CONTACTS ARE RECOMMENDED.

