

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRES, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
- 4 CONNECTIONS SHOWN ARE FOR 208V/60HZ/3PH OR 460V/60HZ/3PH OPERATION. WHEN 230V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM TNS1-208V/460V TO TNS1-230V.
- 5 PINS COM AND VT ON MMC ARE FOR IDM RPM INDICATION 0-10V.
- 6 CCH2 LEADS ARE BLACK WITH BROWN TAPE WRAPPED AROUND THE END OF EACH LEAD.
- 7 TO INSTALL THE OPTIONAL ECONOMIZER, REMOVE PLUG PPM-CONFIG FROM PPF-ECA AND CONNECT PLUG PPM-ECA TO PPF-ECA. ALSO, CONNECT MAS TO WIRES 180A AND 181A.
- 8 FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED.
- 9 CONNECTIONS SHOWN INCLUDE OPTIONAL FOS. IF FOS IS NOT INSTALLED, CONNECT WIRES 101SS AND W27 TO WIRE 132A.
- 10 CONNECTIONS SHOWN INCLUDE ALL OPTIONAL SMOKE DETECTORS AND CONDENSATE OVERFLOW, IF ONLY SMOKE DETECTOR(S) (RASD, PLSD, OR SASD) IS INSTALLED, CONNECT 511A TO W67. IF ONLY CONDENSATE OVERFLOW IS INSTALLED, CONNECT 616A TO TNS1-24VAC. IF NEITHER OPTION IS INSTALLED, CONNECT W67 TO TNS1-VAC.
- 11 CONNECTIONS SHOWN INCLUDE ALL OPTIONAL SMOKE DETECTORS. THE FOLLOWING COMBINATIONS ARE ALLOWED: PLSD ONLY, RASD ONLY, SASD ONLY OR RASD & SASD ONLY. IF SASD IS THE ONLY SMOKE DETECTOR INSTALLED, CONNECT PLUG PPF-NRA TO PPM-NRA. IF RASD OR PLSD IS THE ONLY SMOKE DETECTOR INSTALLED, CONNECT PLUG PPF-NSA TO PPM-NSA.
- 12 TNS1 MAY OCCASIONALLY BE INSTALLED ROTATED 180 DEGREES FROM THE ORIENTATION SHOWN. THE BREAKER ON TNS1 SHOULD ALWAYS BE FACING THE FRONT OF THE UNIT.
- 13 PLUG PPM-RT IS NOT CONNECTED TO ANYTHING. IT IS ONLY USED FOR FACTORY RUNTEST HOOKUP.

**⚠ 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 BEFORE SERVICING 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 TOUTS LES CONDENSATEURS DES MOTEURS SONT DÉCHARGÉS. DANS LE CAS D'UNITÉS COMPORTANT DES ENTRAÎNEMENTS À VITESSE VARIABLE, SE REPORTER AUX INSTRUCTIONS DE L'ÉQUIPEMENT POUR DÉCHARGER LES CONDENSATEURS.  
NE PAS RESPECTER LES MESURES DE PRÉCAUTION PEUT ENTRAÎNER DES BLESSURES GRAVES POUVANT ÊTRE MORTELLES.

**⚠ ADVERTENCIA**  
¡VOLTAJE PELIGROSO!  
DESCONECTE TODA LA ENERGÍA ELÉCTRICA. INCLUIDO LAS DESCONECIONES 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 EJE DE DIRECCIÓN DE VELOCIDAD VARIABLE, CONSULTE LAS INSTRUCCIONES PARA LA DESCARGA DEL CONDENSADOR.  
EL NO REALIZAR LO ANTERIORMENTE INDICADO, PODRÍA OCASIONAR LA MUERTE O SERIAS LESIONES PERSONALES.

**TRANE**  
THIS DRAWING IS PROPRIETARY AND SHALL NOT BE COPIED OR ITS CONTENTS DISCLOSED TO OUTSIDE PARTIES WITHOUT THE WRITTEN CONSENT OF TRANE  
DRAWN BY: J. Woosley  
DATE: 22-May-2009  
DO NOT SCALE PRINT  
THIRD ANGLE PROJECTION

**4366-6863**  
DIAGRAM  
CONNECTION PRINT  
TSC120E(3,4)  
ELECTROMECHANICAL

REV  
**E**

**IMPORTANT**  
DO NOT ENERGIZE UNIT UNTIL CHECK-OUT AND START-UP PROCEDURE HAS BEEN COMPLETED.

**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.  
**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.

CONTROL BOX - VERTICAL

