

TITLE: 006-060 COMMERCIAL 208-230/265/60/1, CXM, PSC, WSE

PCN: 21-0133 **DATE:** 3/25/21

DRAWING NO. 96B0452N15 **REV** C

LEGEND:

- Factory Low voltage Wiring
- Factory Line Voltage Wiring
- Field Low voltage Wiring
- Field Line voltage Wiring
- Printed Circuit Trace
- Optional Wiring
- Optional Block
- Capacitor
- Circuit Breaker
- Condensate Pan
- Control Board Jumper
- FUSE
- Ground
- High Pressure Switch
- LED
- Low Pressure Switch
- Mate-N-Lock
- Multi Splice Connector
- Optional Overload
- Relay contacts - N.C.
- Relay contacts - N.O.
- Relay / Contactor Coil
- Solenoid Coil
- Splice Cap
- Temperature Switch
- Thermistor
- Wire Nut

ACO Automatic Change Over
AL Alarm Relay Contacts
ATS Air Temperature Sensor
BM Blower Motor
BMC Blower Motor Capacitor
BR Blower Relay / Blower Contactor
CAP Capacitor
CB Circuit Breaker
CC Compressor Contactor
CDT Compressor Discharge Temperature
CO Condensate Overflow Sensor
CR Compressor Relay
CRC Compressor Run Capacitor
CS Current Sensor
DHW Domestic Hot Water
DM Damper Motor
DTS Discharge Temperature Switch
EEV Electronic Expansion Valve
EHC Electronic Heat Contactor
ES End Switch
ETC Electronic Temperature Control
EWI Entering Water Temp Sensor
FSR Fan Speed Relay
FSS Fan Speed Switch
HP High Pressure Switch
HPWS High Pressure Water Switch
HR Heating Relay
JW Jumper Wire
LAT Leaving Air Temperature
LOR Lock Out Relay
LP Low Pressure Switch
LT1 Sensor, low temp protection, water coil
LT2 Sensor, low temp protection, air coil
LWT Leaving Water Temp Sensor
MCO Manual Change Over
MOD Modulating Water Valve
MS Manual Starter
MSC Multi Splice Connector
MWV Motorized Water Valve
NLL Night Low Limit Switch
PDB Power Distribution Block
POT Potentiometer
P1 Field Wiring Terminal Block
PR Pump Relay
RAS Return Air Sensor
RVS Reversing Valve Solenoid
SAC Start Assist Capacitor
SAS Supply Air Sensor
TB Terminal Block
TRANS Transformer
UMT Unit Mounted Thermostat
VFD Variable Frequency Drive
VSP Variable Speed Pump
WSTAT Water Stat

NOTES:

- Compressor and Blower Motor thermally protected internally.
- All wiring to the unit must comply with NEC and local codes low voltage wiring shall be Class 2 or equivalent.
- Field Use Only: Transformer wiring is voltage sensitive. Use layout corresponding to the unit voltage.
- LT1 provides low temperature protection for WATER. When using ANTI-FREEZE solutions, cut JW3 jumper.
- Typical heat pump thermostat wiring shown. Refer to thermostat IOM for wiring to the unit. T-Stat wiring must be "Class 1" and voltage rating equal to or greater than unit supply voltage.
- 24V Alarm signal shown. For Dry Alarm contact between AL1 & AL2, cut JW1 for CXM/DXM Gen2 or JW4 DXM.
- Transformer Secondary Ground via control board standoffs and/or Common to Control Box.

BM1. Fan motors factory wired for Medium Speed. For High or Low speed remove BLU wire from fan motor speed tap 'M' and connect to 'H' for High or 'L' for Low

SAC2. Use start assist capacitor only on unit size 006-018. For residential units 015-018, SAC may need to be strapped to capacitor.

WIRING DIAGRAM:

The diagram illustrates the electrical connections for the CXM Microprocessor Control Logic unit. Key components include:

- Control Board:** Features terminals for HP (1-2), LP (3-4), FPI (5-6), FP2 (7-8), RV (9-10), CO (11-12), P2 (24V DC), EHI, EH2, and P3.
- Wiring Connections:**
 - HP (High Pressure):** RED wire to terminal 1.
 - LP (Low Pressure):** BLU wire to terminal 3.
 - FPI (Fan Pressure Interlock):** GRY wire to terminal 5.
 - FP2 (Fan Pressure 2):** GRY wire to terminal 7.
 - RV (Reversing Valve):** BRN wire to terminal 9.
 - CO (Condensate Overflow):** YEL wire to terminal 11.
 - 24V DC:** Connected to P2.
 - EHI (Electronic Heat Interlock):** Connected to P2.
 - EH2 (Electronic Heat 2):** Connected to P3.
- Transformer:** 208/230V primary, 24V secondary (CB), 208V secondary (C BLK).
- Capacitors:** YEL or WHT wire to BM (Blower Motor) capacitor, G/Y wire to G/Y (Ground).
- Relays:** Y2 RELAY (COM, N.C., COIL) connected to YEL, RED, and BRN wires.
- Wiring Box:** Includes terminals for COM, NO, BLU, and BLK.
- Optional Disconnect:** Labeled "OPTIONAL DISCONNECT FOR UNIT SIZE 006, 009, 012".
- Hi-Static Blower Motor (Option):** BLU wire to M (Medium) tap, YEL wire to H (High) tap, BRN wire to L (Low) tap, and BMC (Blower Motor Capacitor) connected to the motor.

TEST PINS:

- Y: YEL
- W: WHT
- O: ORG
- G: GRN
- R: RED
- C: CBL
- AL1: AL1
- AL2: AL2
- A: A
- PI: PI

DIP SWITCH:

- 1: UPS: DISABLED/ENABLED
- 2: STAGE2: 2/I
- 3: NOT USED
- 4: DDC OUTPUT: DDC/MORMAL
- 5: OFF ON

CXM MICROPROCESSOR CONTROL LOGIC

SEE I.O.M. FOR DIP SWITCH DEFINITIONS.