

TITLE: H/V 015-060 208-230, & 265/277V DXM2 w/ECM CV

PCN: 19-0192 **DATE:** 04/17/19 **DRAWING NO.** 96B04.67NII **REV** -

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
EWT 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
PI 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.
- 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.

ECM1. For ECM Blower Motor air flow adjustment and diagnostic information refer to I.O.M.
SAC3. Use Start Assist Capacitor only on unit size 015-018.

The main schematic shows the following components and connections:

- Power Supply:** L1, L2, G/Y ground. Includes an optional disconnect switch.
- Transformer:** SEE NOTE 3 TRANS 208/230. Primary: 208V/230V. Secondary: 24V, 0V, BLK.
- Compressor:** Connected to L2 (RED), T2 (RED), LI (BLK), TI (BLK). Includes a start assist capacitor (SAC) and run capacitor (RC).
- Blower Motor (BM):** Connected to RED, BLK, YEL, WHT, GRN.
- IAP Alarm System:** Includes IAP alarm relay, multi-splice connectors (MSC2(1), MSC2(2), MSC2(3), MSC2(4)), and terminal block (TB).
- DXM2 Microprocessor Control Logic:** Central unit with multiple terminals:
 - P1:** YI (COMPRESSOR), Y2 (AUX HEAT), W (COOLING), O (FAN), G (24 VAC), R (COMMON), XI (ALARM).
 - P2:** AL2, R, NSB, C, ESD, OVR, H, A.
 - P3:** R, NOI, ACC1 RELAY, COM, NO2, ACC2 RELAY, NC2, COM, R.
 - P4:** GND, B-, A+, 24V.
 - P5:** K1 RELAY (COM, NO), K2 RELAY (COM, NO).
 - P6:** CC6 (BRN), CC (YEL).
 - P7:** 24V DC, EH1, EH2.
 - P8:** 12V DC IN, OUT, GND, NC.
 - P9:** T1, T2, T3, T4, T5, T6.
 - P10:** AO-1, GND, AO-2, GND.
- Other Components:** T-STAT ATC32U01*, TYPICAL HEAT PUMP T-STAT, DIP SWITCH PACKAGES (S1-S4), STATUS FAULT, JW3 LT1, JW4, JW5, HP, LP, LT1, LT2, RV, CO, DISC, CAP, TRANS, UMT, VFD, VSP, WSTAT.

OPTIONAL IONIZATION AIR PURIFIER

(BLOWER HOUSING)

REFER TO DATA PLATE POWER SUPPLY USE COPPER CONDUCTORS ONLY. SEE NOTE 2

SEE NOTE 7

SEE NOTE 3 TRANS 208/230

See Note SAC3

SEE NOTE 5

SEE NOTE 6 FOR DRY CONTACT FOR ALARM

SEE NOTE 4

REFER TO 99D2006N01 OR I.O.M FOR DIP SWITCH SETTINGS

CONTROL BOX LAYOUT