

TITLE: H/V 024-060 460/60/3 DXM2, INTERNAL PUMP, ECM, LON, COMM

PCN 20-0055

DATE: 2/21/20

DRAWING NO. 96B0244N46

REV L

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

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

MSV 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:

1. Compressor and Blower Motor thermally protected internally.

2. All wiring to the unit must comply with NEC and local codes low voltage wiring shall be Class 2 or equivalent.

3. Transformer wiring is voltage sensitive. Use layout corresponding to the unit voltage.

4. LT1 provides low temperature protection for WATER. When using ANTI-FREEZE solutions, cut JW3 jumper.

5. 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.

6. 24V Alarm signal shown. For Dry Alarm contact between AL1 & AL2, cut JW1 for CXM/DXM Gen2 or JW4 DXM.

7. Transformer Secondary Ground via CXM/DXM board standoffs and screws to Control Box.

ECM1. For ECM Blower Motor air flow adjustment and diagnostic information refer to I.O.M.

HWG3. WSTAT is supplied with unit and must be wired in series with the hot leg to the pump. WSTAT is rated for voltage up to 277V.

LON1. Refer to LON, OR TSTAT Installation, Application, and Operation Manual for control wiring to the unit.

LON2. Optional LON wires. Only connect if LON connection is desired at the wall sensor.

LON6. Factory cut JW1 jumper. Dry Contact will be available between AL1 and AL2.

PMP1. For Variable Speed pump control and diagnostic information refer to unit IOM.

PMP2. For Variable Speed pump option, place jumper on PWM pins.

* OPTIONAL IONIZATION AIR PURIFIER

IAP ALARM

IAP ALARM

MSC2(1)

MSC2(2)

MSC2(3)

MSC2(4)

IAP

(BLOWER HOUSING)

TRANSFORMER

SEE NOTE 3.

24V

0V

BLK 480V

BLK COM

T-STAT

ATC32U01*

SEE NOTE 5.

C B- A+ R

OPTIONAL INTERNAL

Pump

BLU

COMPRESSOR

T1

T2

T3

CC

BLK

BLK

BLK

BLU

BLU

RED

WHT/BLU

RED

OPTIONAL DISCONNECT

G/Y

G

G

BLK

T1

L1

BLK

T2

L2

BLU

T3

L3

RED

WHT

Z

Z

Refer to Data Plate Power Supply

Use copper conductors only.

FIELD WIRING WHEN DISCONNECT OPTION IS NOT PRESENT

RED

YEL

WHT

GRN

BM

SEE NOTE ECM1.

DIGITAL WALL SENSOR

SEE NOTE 5.

ASW03

SENSOR SUPPLY AIR TEMP

SENSOR-LEAVING WATER TEMP

MSC5(1)

MSC3(1)

SEE NOTE LON2

SEE NOTE LON1

LONWORKS

PROTOCOL

SEE NOTE 7.

GY

BLK

RED

BLU

YEL

T-STAT

ATC32U01*

SEE NOTE 5.

C B- A+ R

ALARM RELAY

JW1

AL2 DRY

FAULT STATUS

JW3

LT1

SEE NOTE 4

COMM SLAVE/MASTER

HWG NORM/TEST

HWG SP/25/150

HWG DISABLE/ENABLE

OFF ON

UPS: DISABLE/ENABLE

UNIT STAGE: 2/1

T-STAT: HEAT COOL/HEAT PUMP

RV ON B/RV ON O

DDHMB/NORMAL

DDC OUTPUT:DDC/NORMAL

BOILERLESS: ENABLE/DISABLE

BOILERLESS: 40°F/50°F

ACC1 FUNCTIONS

ACC2 FUNCTIONS

H: HI FAN/BEHIND

NOT USED

SEE NOTE PMP2

REFER TO I.O.M OR 99D2007N01 FOR DIP SWITCH SETTINGS

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AD-2

AD-3

AD-4

AD-5

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SEE NOTE HWG3

EXTERNAL HWG PUMP

HWG Pump

MSC3(1)

MSC3(2)

MSC3(3)

DTS

WSTAT

HOT WATER GENERATOR*

POWER SUPPLY

USE COPPER CONDUCTORS ONLY

SEE NOTE 2 AND HWG3

DISCONNECT

CC

TRANS

GROUND

PB

DXM2

LON

Control Box Layout