

TITLE: H/V 015-060 208-230/60/1, 265/60/1 COMMERCIAL W/DISCONNECT ECM-CT

PCN 19-0515

DATE: 10/11/19

DRAWING NO. 96B0454NII

REV B

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

MWV Motorized Water Valve

NLL Near Light 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.

BM10. Higher numbered taps take priority.

HP1. Not used in "Cooling Only" applications.

SAC3. Use Start Assist Capacitor only on unit size 015-018.

* Optional IAP

IAP ALARM

R

RED

MSC2(1)

MSC2(2)

RED

(BLOWER HOUSING)

IAP

BLK

MSC2(3)

MSC2(4)

RED

TB

NEUTRAL ON 265 V SYSTEM

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

OPTIONAL DISCONNECT

See Note SAC3

Cap.

SAC

RED

BLU/S

COMPR

BLK

RED

L2

ORG

L1

CC

T2

T1

BLK

GROUND LUG

BLU

BLK

GY

RED

C

L

G

N

BM

SEE NOTE BM10

1

2

3

4

5

WHT

ORG

GRY

SEE NOTE 3

TRANSFORMER

24V

ORG 230V

RED 208V

BLK

0V

CB*

YEL

BLU

RED

MSC2(1)

SEE NOTE 7

G/Y

BLU

RED

BLK

RED

TEST PINS

SEE NOTE 4

JW3

FPI

LOW TEMP

JW2

FP2

LOW TEMP

DIP SWITCH

1

2

3

4

5

UPS:DISABLED/ENABLED

STAGE2: 2/1

NOT USED

DDC OUTPUT: DDC /NORMAL

OFF

ON

FAULT

STATUS LED

CXM

MICROPROCESSOR

CONTROL LOGIC

SEE NOTE 6

JW1

ALARM RELAY

AL1

AL2

A

PI

SEE 99D2006N01 OR I.O.M FOR DIP SWITCH SETTINGS

24V DC

EHI

EH2

P3

CO

265V TRANSFORMER

24V

CB*

YEL

BLU

0V

BRN 265V

BLK

SAC 015-018 ONLY

SEE NOTE SAC3

CAP

SAC

Control Box Layout

DISCONNECT PLACEMENT

Ground

L1

L2

Trans

CC

T1

T2

CXM