

TITLE: H/V 024-060 208-230/60/3 CXM W/MPC COMMERCIAL ECM CT

PCN 19-0515

DATE: 10/14/19

DRAWING NO. 96B0454N23

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.

MPC2. Refer to MPC Installation application, and Operation Manual For Control Wiring to the unit.

MPC3. ASW sensors are not required on Water-Water application. ASW06-ASW08 (Water-Air Only) move jumper to LSTAT, ASW13-ASW15 move jumper to Rnet.

MPC8. Factory cut JW1 jumper. Dry Contact will be available between AL1 and AL2

\* Optional IAP

IAP ALARM

IAP ALARM

TB

MSC2(1)

MSC2(2)

MSC2(3)

MSC2(4)

(BLOWER HOUSING)

IAP

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

OPTIONAL  
DISCONNECT

L3

T3

RED

L2

T2

BLU

L1

T1

BLK

SEE NOTE 3  
TRANSFORMER  
24V

ORG 230V

RED 208V

0V

BLK

MSC2(1)

RED

YEL

CB

BLU

GROUND  
LUG

BLU

BLK

G/Y

RED

COMPRESSOR

T3

T1

T2

BM

SEE NOTE BM10

1

2

3

4

5

WHT

ORG

GRY

DDC COMM NETWORK

NET +

NET -

SHIELD

LSTAT RNET

GND/C HOT/R 24 VAC

SEE NOTE MPC3

ClimateMaster MPC

SEE NOTE MPC2

ASW13

ASW14

ASW15

GND

RNET +

RNET -

+12V

SEE NOTE MPC3

ASW06

ASW07

ASW08

POWER\*

GND

TEMP/SEN I

SW/SET I

LSSV/LED

VIO

VIO

RED

GND

AL1

AL2

EH2

GND

LAT/LWTL

GND

LWT/LWTS

GND

THERM

SLIDE/OVR

LED

BRN

RED

YEL

ORG

GRY

ORG

YEL

RED

W

G

O

Y2

Y1

R

Test Pins

SEE NOTE 4

JW3

FP1

JW2

FP2

Dip Switch

1 UPS:DISABLED/ENABLED

2 STAGE2: 2/I

3 NOT USED

4 DDC OUTPUT: DDC/NORMAL

5 FP 1/FP 2 FAULTS: 3/I

OFF On

Alarm Relay

JW1

SEE NOTE 6

Status LED

G

CXM Microprocessor Control Logic

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

P1

Y

W

O

G

R

C

AL1

AL2

A

P2

1 HP

2 RED

3 BLU

4 BLU

5 GRY

6 GRY

7 VIO

8 VIO

9 BRN

10 ORG

CO12 YEL

P3

24V DC

EH1

EH2

RED

HP

LP

LT1

LT2

RVS

CO

Control Box Layout

Disconnect Placement

Ground

L3

T2

L1

Trans

MPC