

Mars Air Systems

Typical Air Curtain Wiring Diagrams

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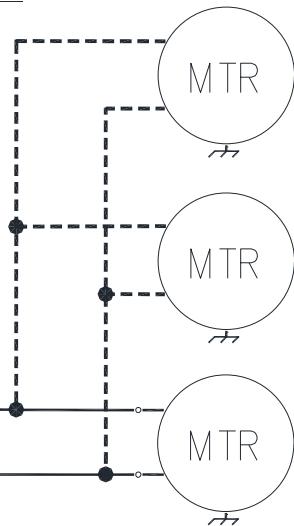
Unheated Wiring Diagrams

Typical Wiring Diagrams

SINGLE PHASE

- PHC:
- Variable speed switch factory wired for LPV2 series
 - RMT-VSA & RMT-VSD require field wiring and installation

Line 1 LS
Line 2
Ground

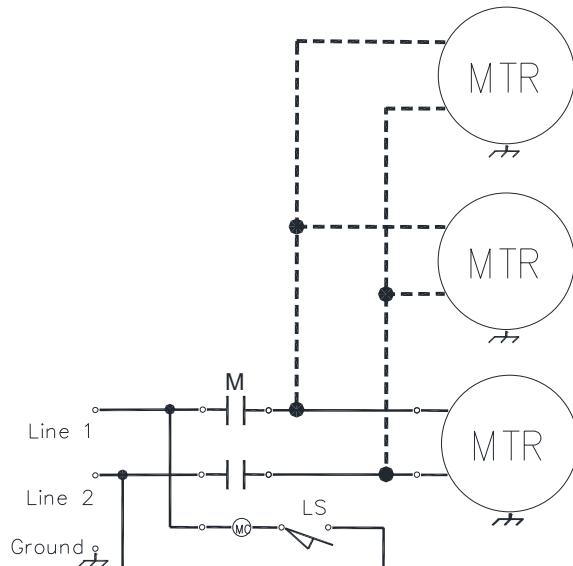


120/208-240/277v Single Phase Motor

- 1/6 H.P. Use 15A Micro Switch
1/2 H.P. Use 15A Micro Switch
1 H.P. Use 20A Micro Switch

LS: Limit Switch. Wire as Normally Closed (COM & NC)
Max Rating: Up to 1 HP, 250VAC, 1PH

TYPICAL UNHEATED DIAGRAMS



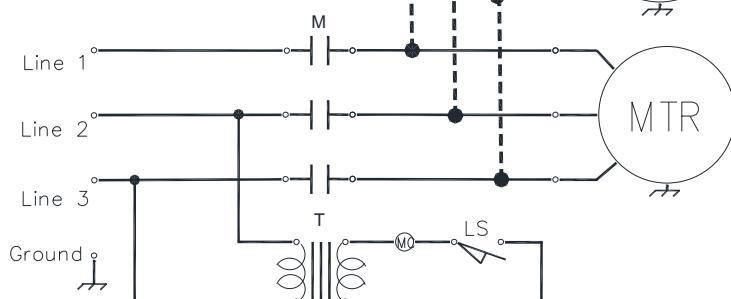
120/208-240/277v Single Phase Motor

- Larger than 1 H.P. Use Contactor and
15A Micro Switch

THREE PHASE

208-240/460/575v Three Phase Motor

All Motors Use Contactor and 15A
Micro Switch



Typical Single Phase Motor Terminal Connections:
For 1/2 HP: <1> is Common for 115V

- <1> is Hot for 208/230V
- <2> is Low Speed
- <3> is High Speed
- <4> is Ground
- <5> is Medium Speed

For 1 HP: <1> is Common for 115V, 208/230V
<2> is High Speed
<3> is Low Speed
<4> is Ground

Notes: This wiring diagram is applicable for
Single Phase motors as follows:
LPV2: Up to 3 motors
STD2: Up to 2 motors
HV2: 1 motor

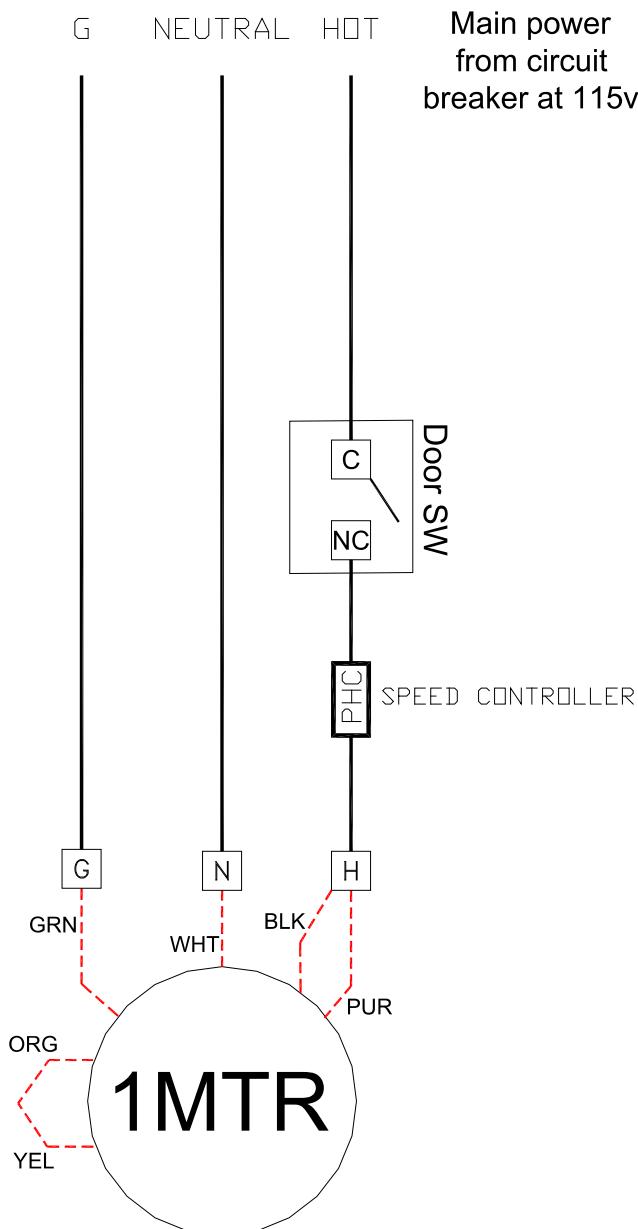
*See Door Limit Switch submittal for
additional switch info

S Y M B O L S

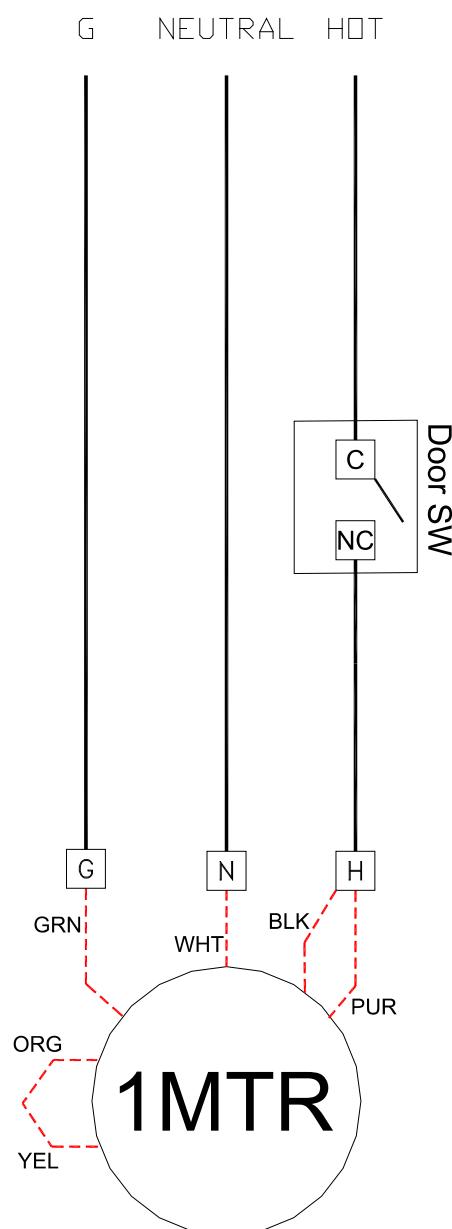
- LS – Micro Switch
- M – Contactor or Motor Starter
- MC – Contactor Coil
- T – Control Transformer
- PHC – Speed Controller (LPV series only)

LPV2/LPN2/QP8/PH8 115v Motor

LPV2 Wiring

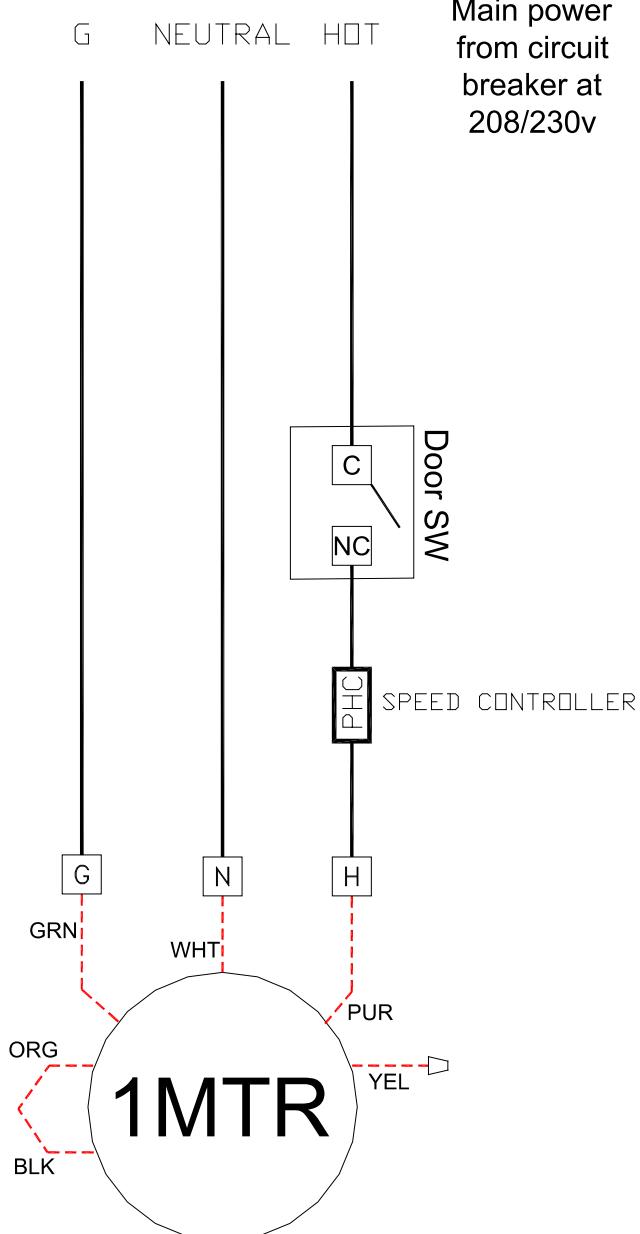


LPN2 Wiring

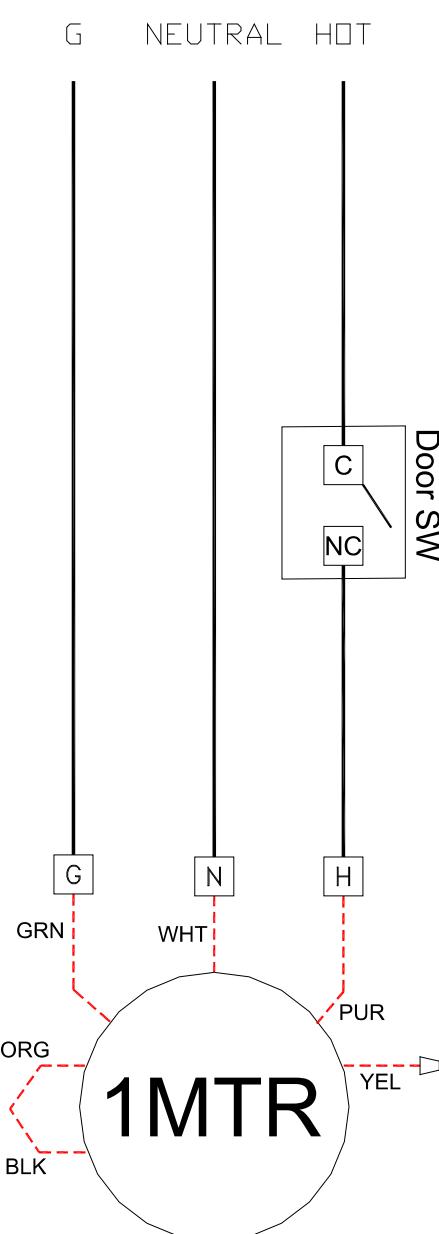


LPV2/LPN2/QP8/PH8 208/230v Motor

LPV2 Wiring



LPN2 Wiring



Door Limit Switches

How to Properly Wire Mechanical Door Limit Switches

Note: Please follow the wiring diagram included with the optional door limit switch purchased.

For the Mechanical types: (99-012, 99-013, 99-014, 99-015, 99-016, 99-267)

DO NOT GROUND the “COM” terminal

Damage caused by grounding the COM will not be covered under warranty.

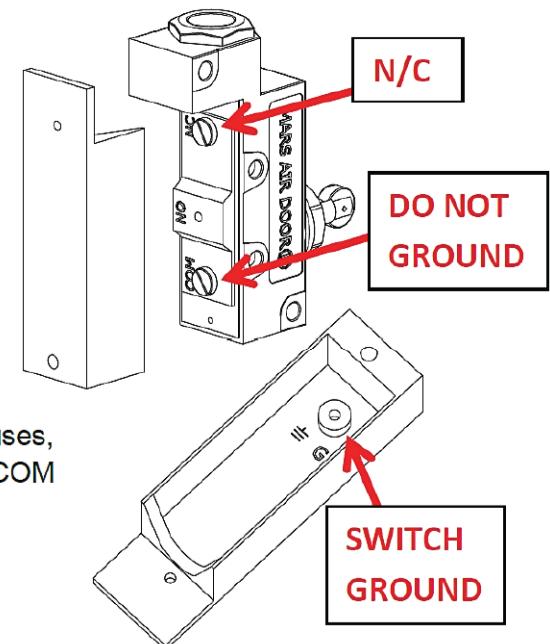
There is a marked and/or green ground terminal provided.

COM is defined as the common terminal that supplies power to the N/C (Normally Closed) and N/O (Normally Open) terminals.

Grounding the COM terminal will short the breaker and/or burn fuses, transformers and possibly motors. Typically, only 2 terminals, the COM and either the N/C or N/O, are used for standard applications.



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How to Properly Wire Magnetic Door Limit Switches

Note: Please follow the wiring diagram included with the optional door limit switch purchased.

For the Magnetic types: (99-018, 99-118, 99-124, 99-125, 99-275)

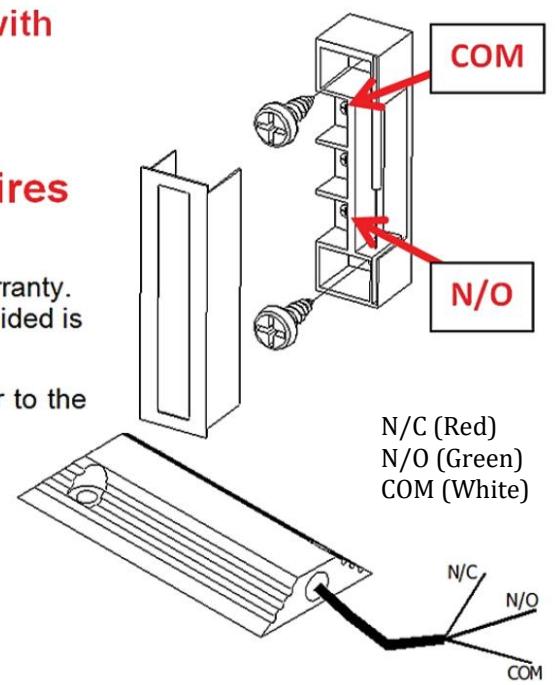
DO NOT GROUND the Green or White wires or COM (24V) terminals

Damage caused by grounding them will not be covered under warranty. The switch is grounded (except 24V) when the shielded cable provided is connected to a j-box.

COM is defined as the common terminal wire that supplies power to the N/C (Normally Closed) and N/O (Normally Open) terminal wires. Grounding the green or white terminal wires will short the breaker and burn the magnetic switches. Typically, only 2 terminals wires, either the N/C or N/O, are used for standard applications.

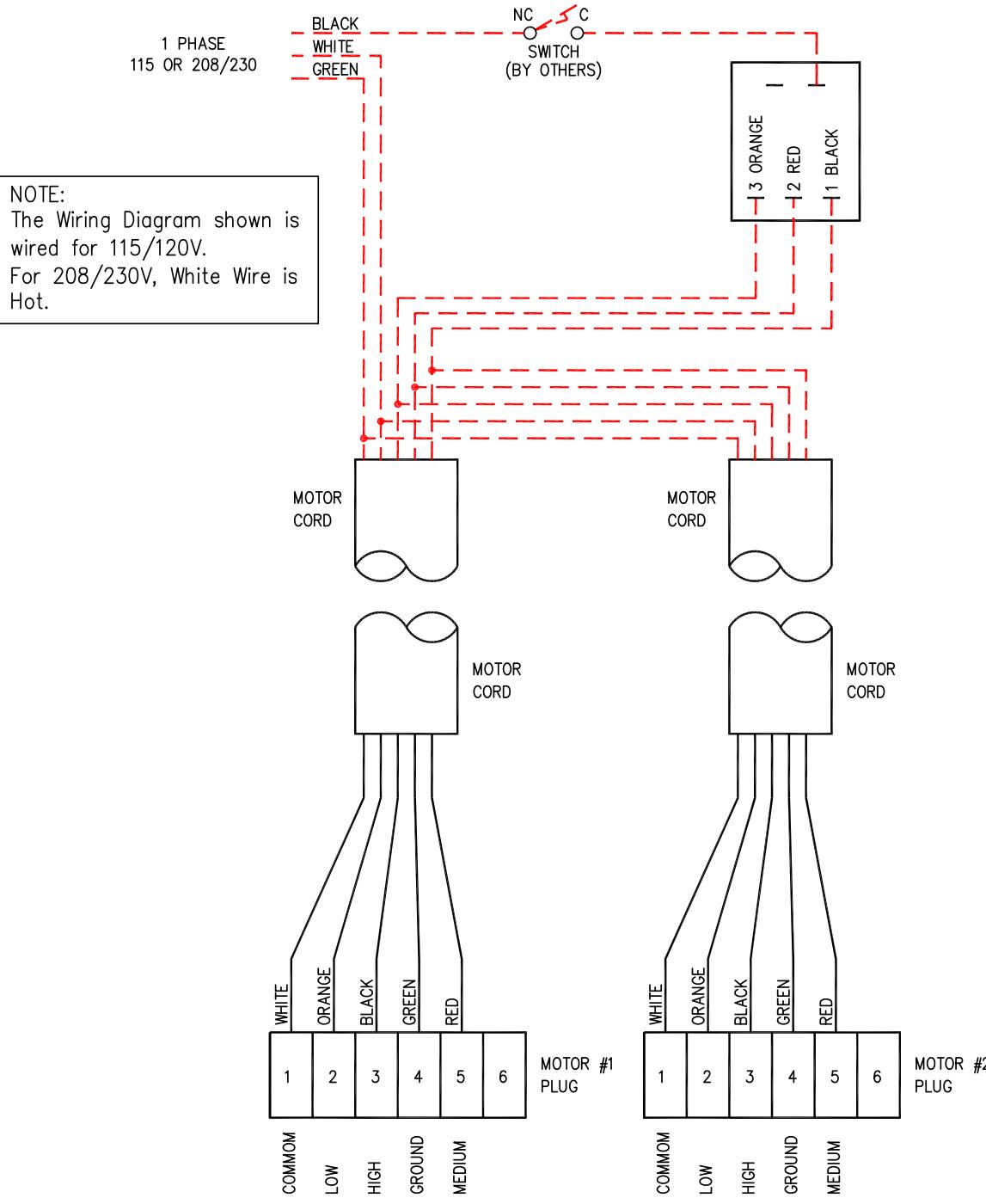


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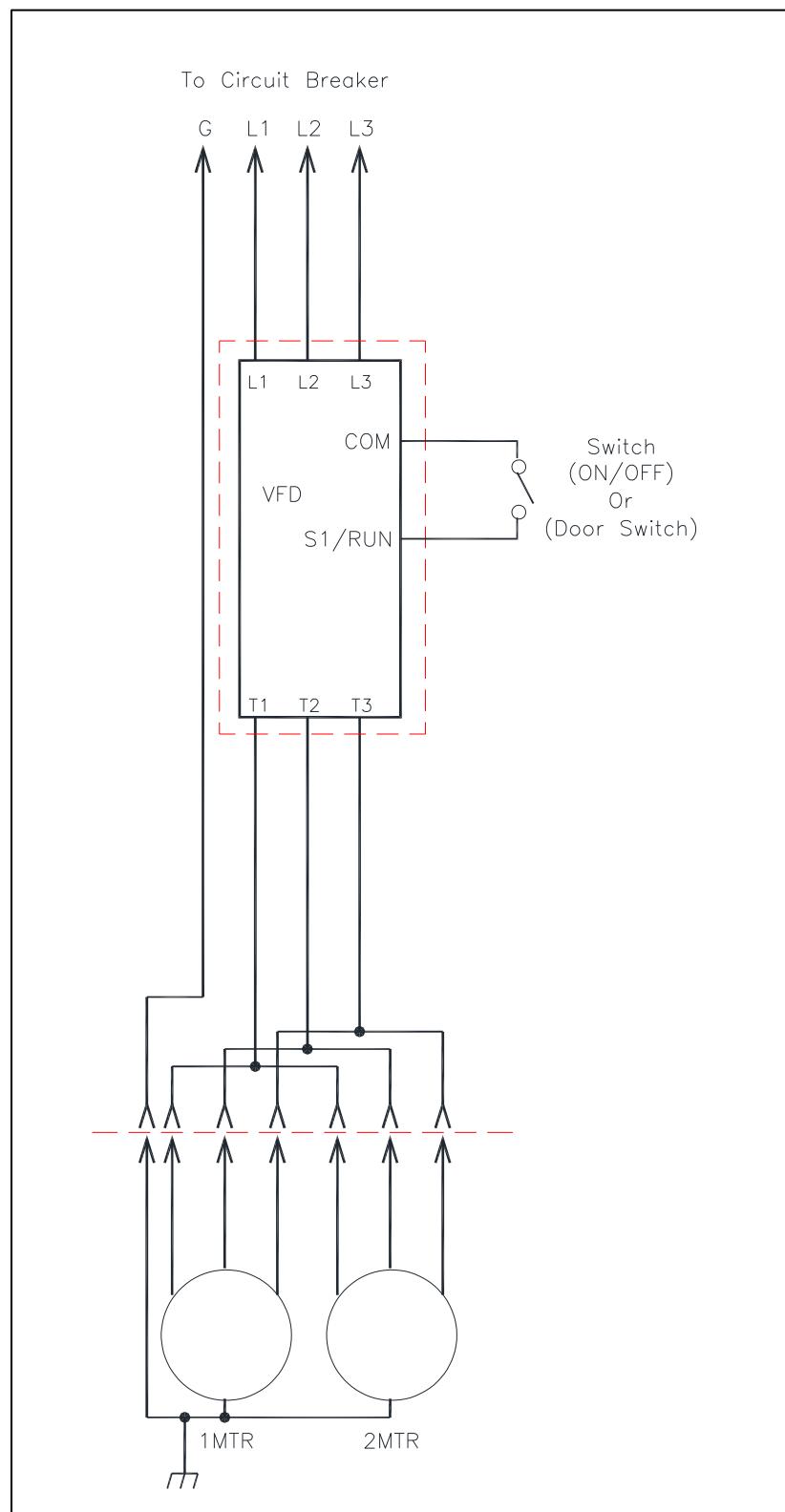
Three Speed Switch and Cord

**Three Speed, (2) Single Phase, 1/2 HP Motor Plug and Switch Connection.
(FIELD WIRING -----)**



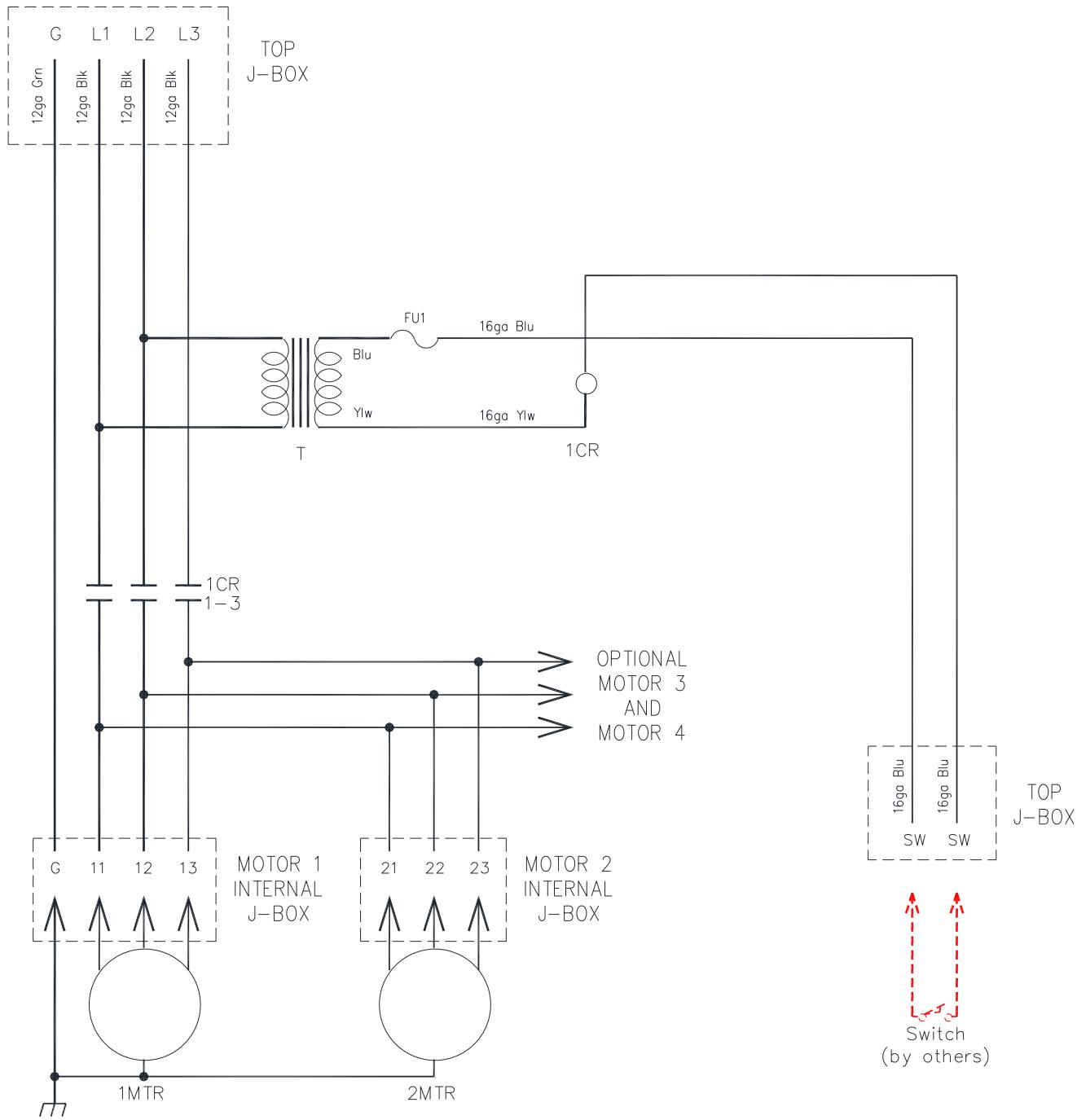
COMBI-WIRE-2MTR 10/17/14 NT

VFD with Variable Speed Control



INS-CTRL Low Voltage Controls

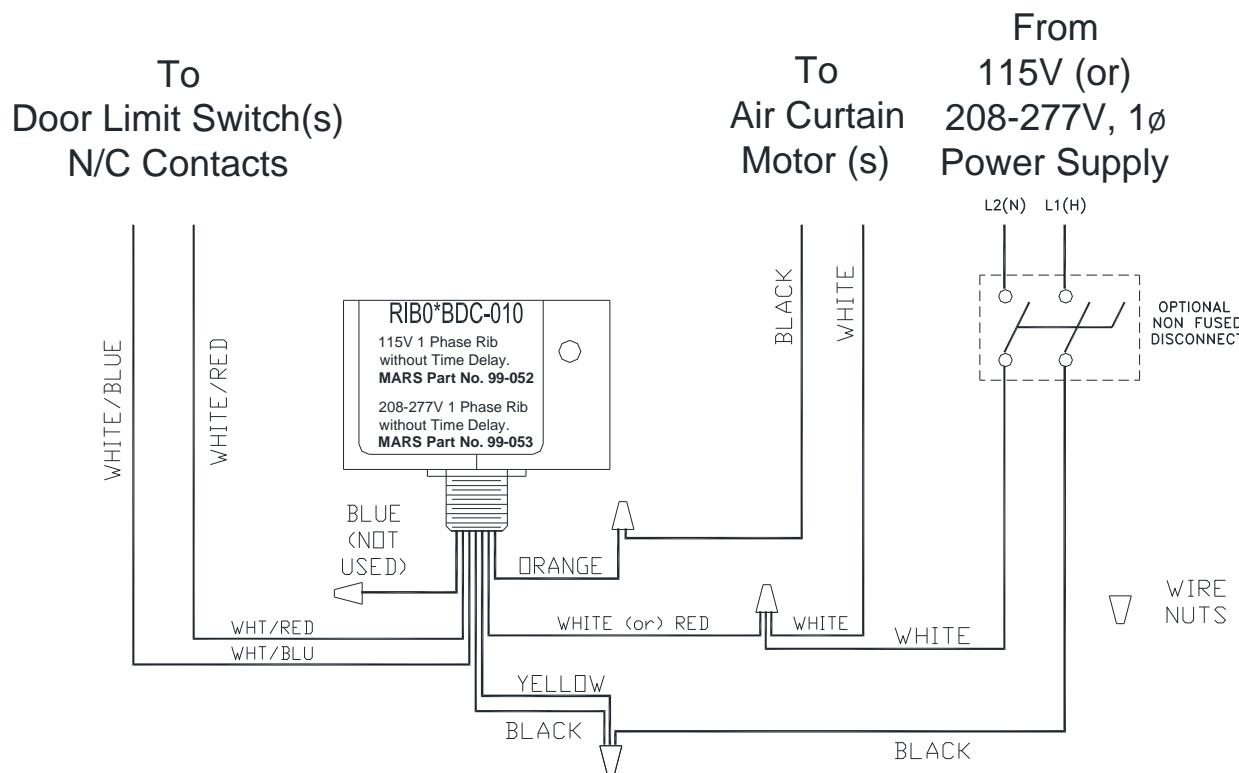
Model #: STD2, QP10, PH10, PH12, HV2
 115V/10, 208–230V/10, 208–230V/30, 460V/30
 Unheated Air Curtain with 24V Control



RIB, ½ HP with No Time Delay

RIB Kit Rating:

- 115v or 208-230v
- 1/2 HP Max



RIB Kit Part Numbers:

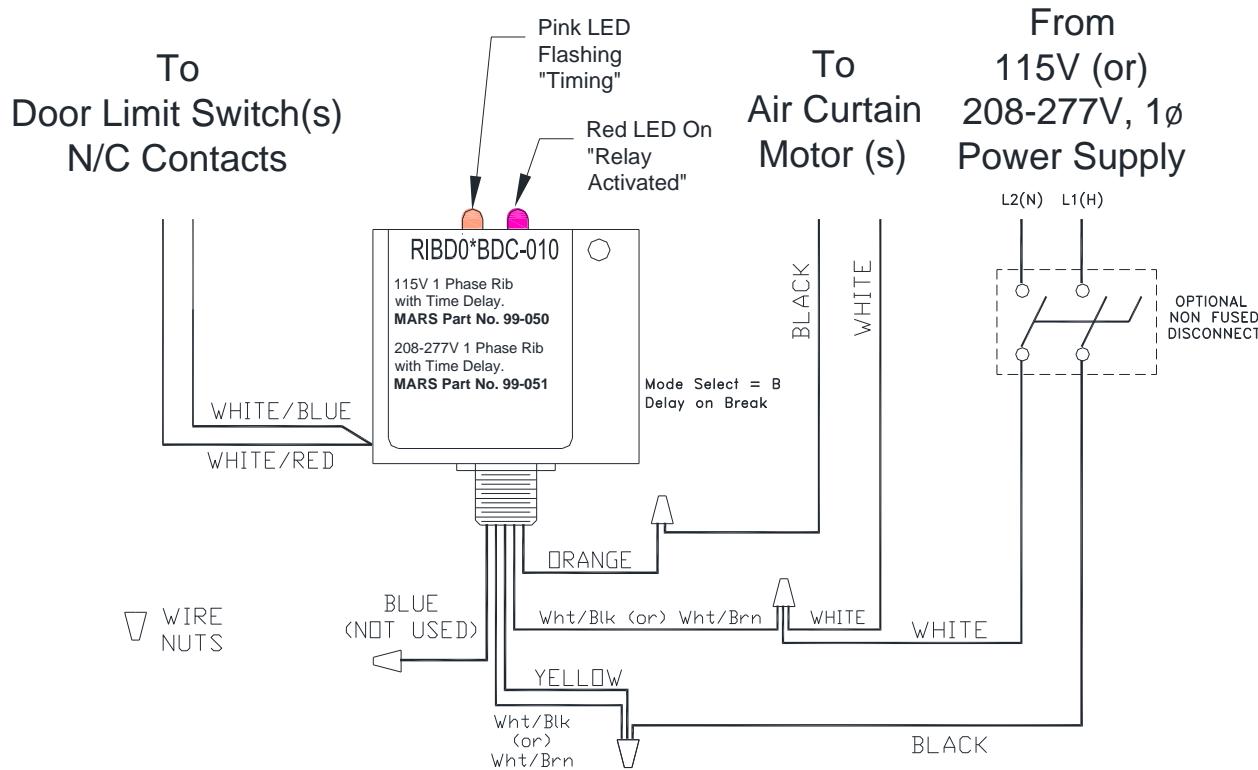
- 115v/1φ
 - J0023, J0036, J0100
- 208-230v/1φ
 - J0024, J0037, J0104

Note:
The controllers are wired the same,
but are not interchangeable.

RIB, ½ HP with Time Delay

RIB Kit Rating:

- 115v or 208-230v
- 1/2 HP Max
- Adjustable Time Delay



RIB Kit Part Numbers:

- 115v/1 ϕ
 - J0021, J0028, J0038, J0102
- 208-230v/1 ϕ
 - J0022, J0029, J0042, J0106

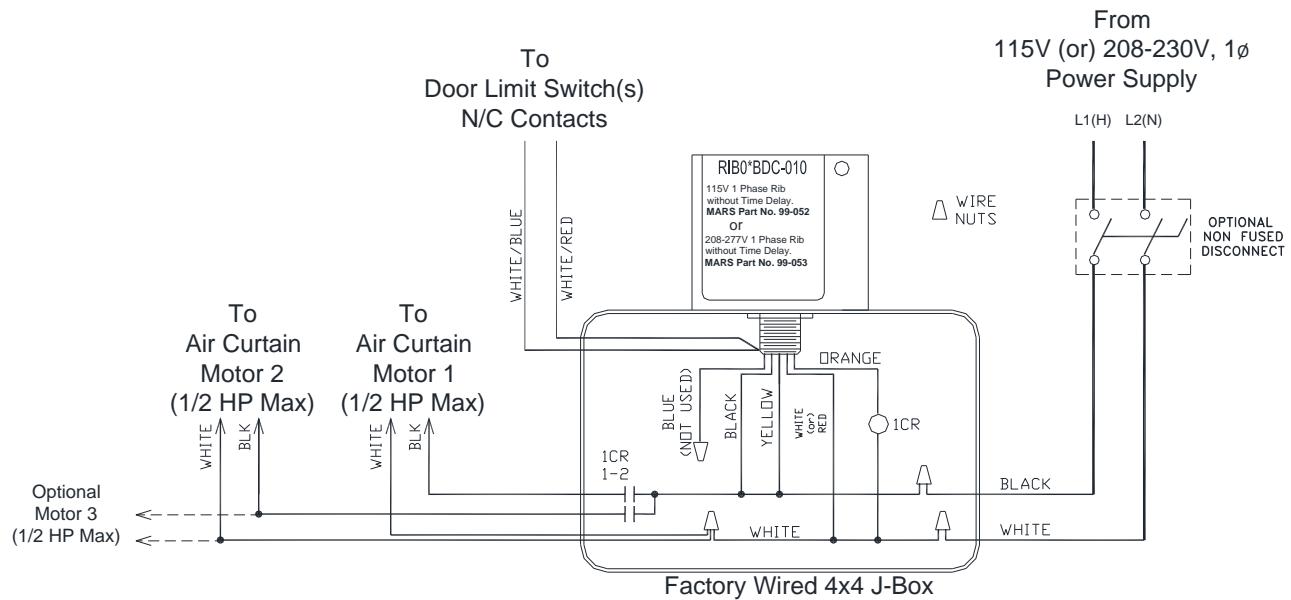
Note:

The controllers are wired the same, but are not interchangeable.

RIB, 1 HP with No Time Delay

RIB Kit Rating:

- 115v or 208-230v
- 1 HP Max



RIB Kit Part Numbers:

- 115v/1φ
J0705, J0722, J0726
- 208-230v/1φ
J0706, J0723, J0727

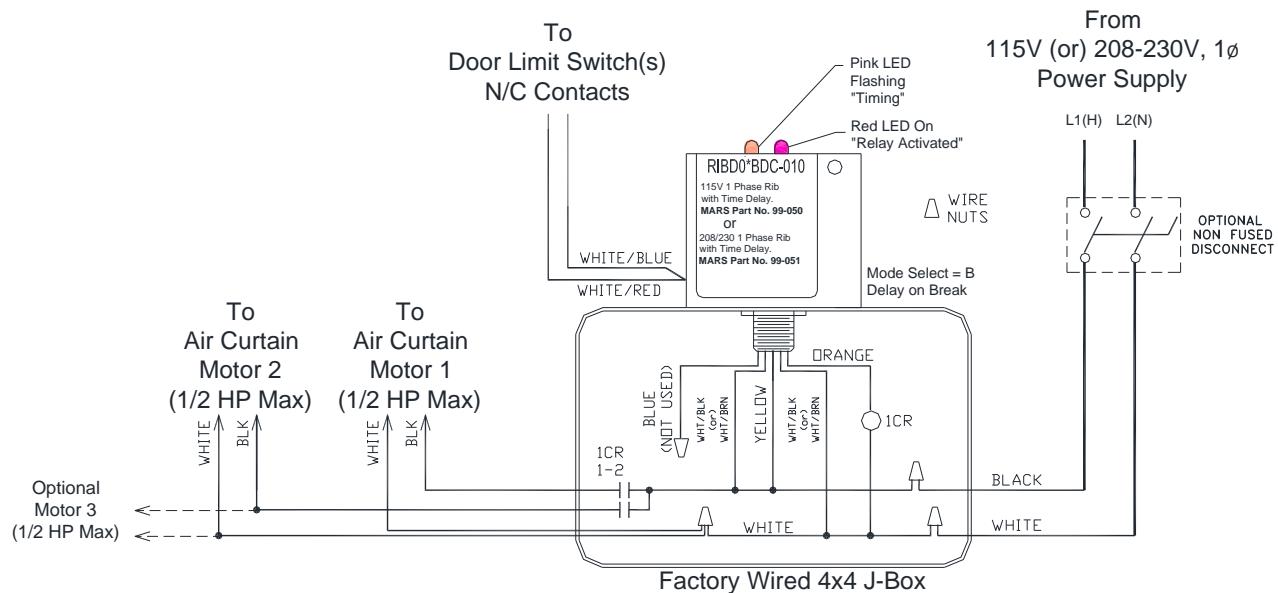
Note:

The controllers are wired the same, but are not interchangeable.

RIB 1 HP with Time Delay

RIB Kit Rating:

- 115v or 208-230v
- 1 HP Max
- Adjustable Time Delay



RIB Kit Part Numbers:

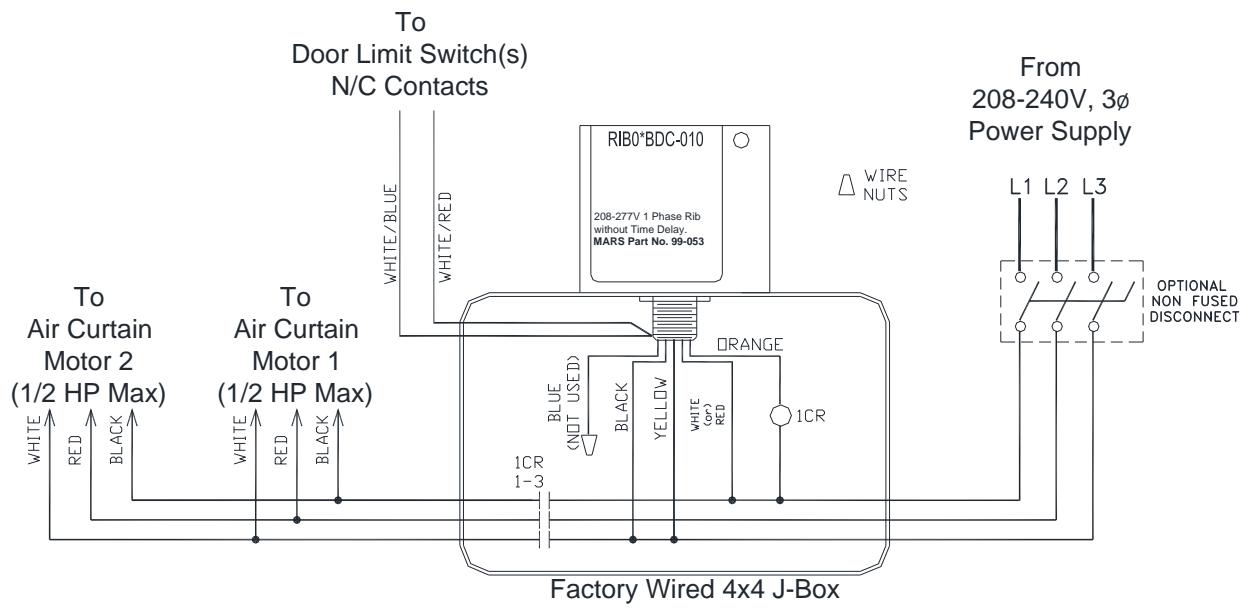
- 115v/1φ
 - J0703, J0708, J0720, J0724
- 208-230v/1φ
 - J0704, J0709, J0721, J0725

Note:
The controllers are wired the same, but are not interchangeable.

RIB 1 HP with No Time Delay and 208-230v Three Phase Power

RIB Kit Rating:

- 208-230v/3Ø
- 1 HP Max



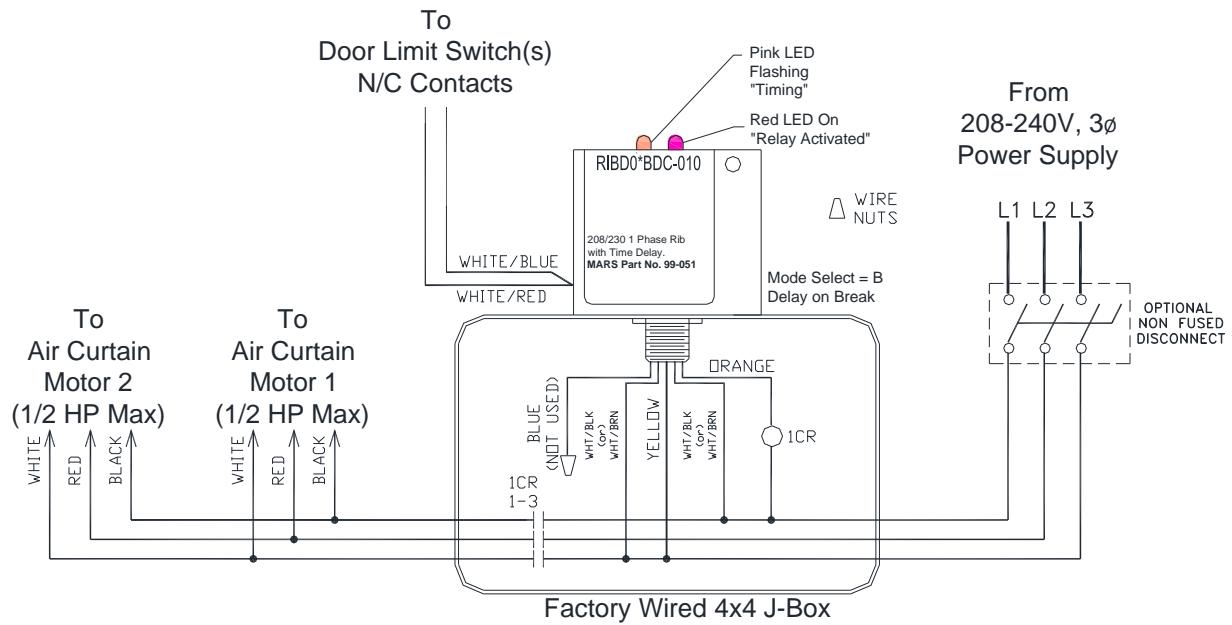
RIB Kit Part Numbers:

- 208-230v/3ph
- J0760, J0761, J0762

RIB 1 HP with Time Delay and 208-230v Three Phase Power

RIB Kit Rating:

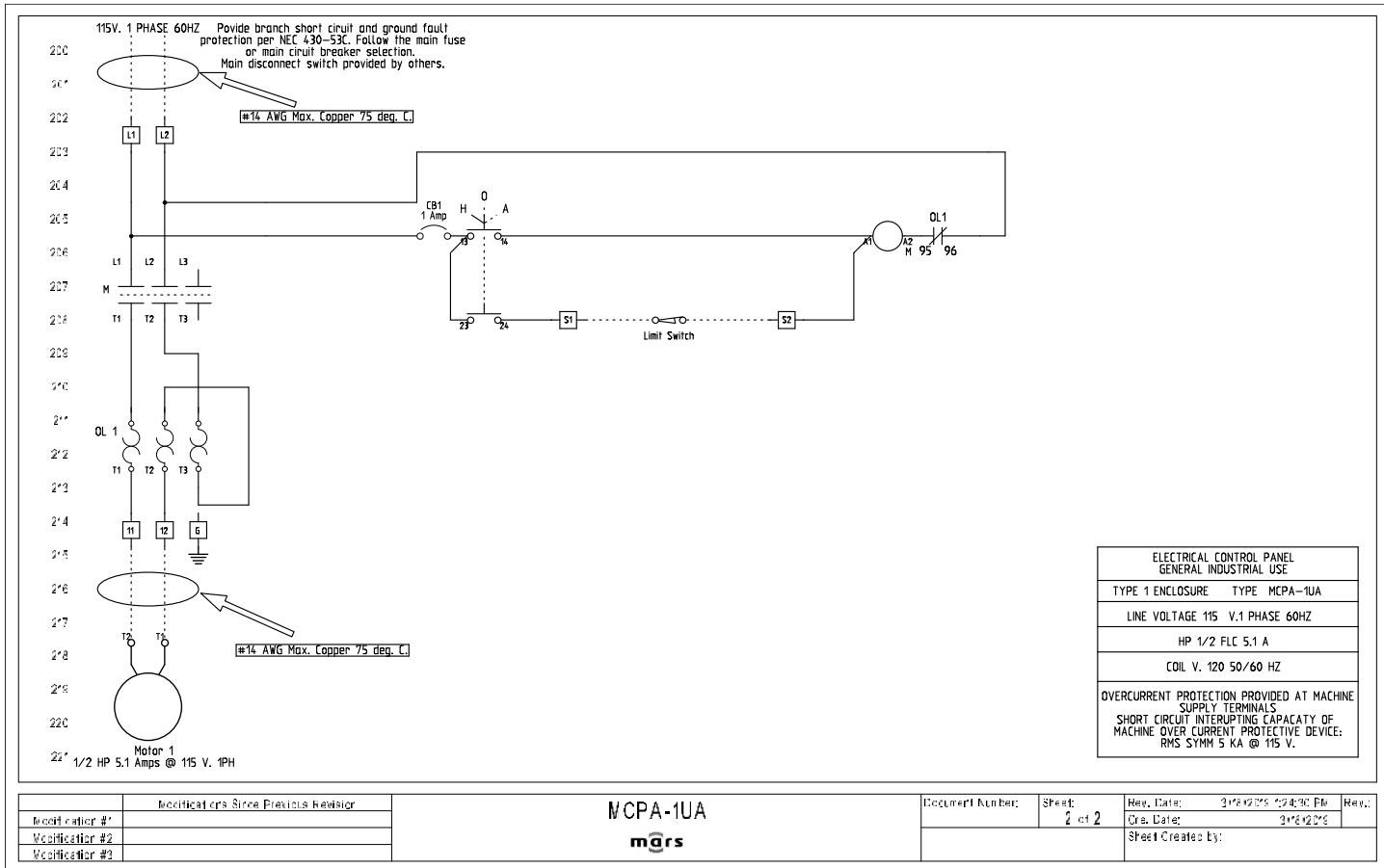
- 208-230v/3Ø
- 1 HP Max
- Adjustable Time Delay



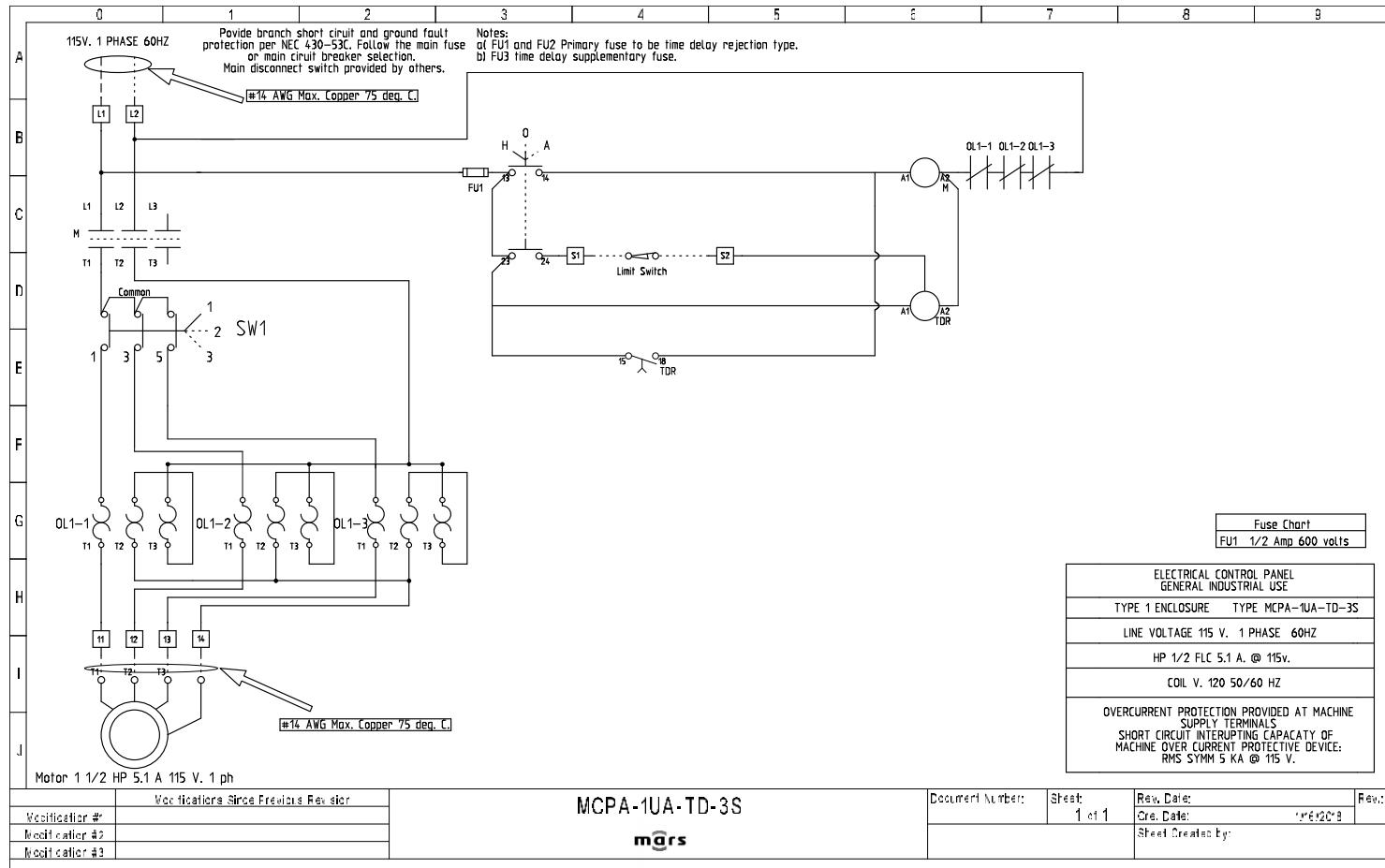
RIB Kit Part Numbers:

- 208-230v/3ph
- J0767, J0764, J0765, J0766

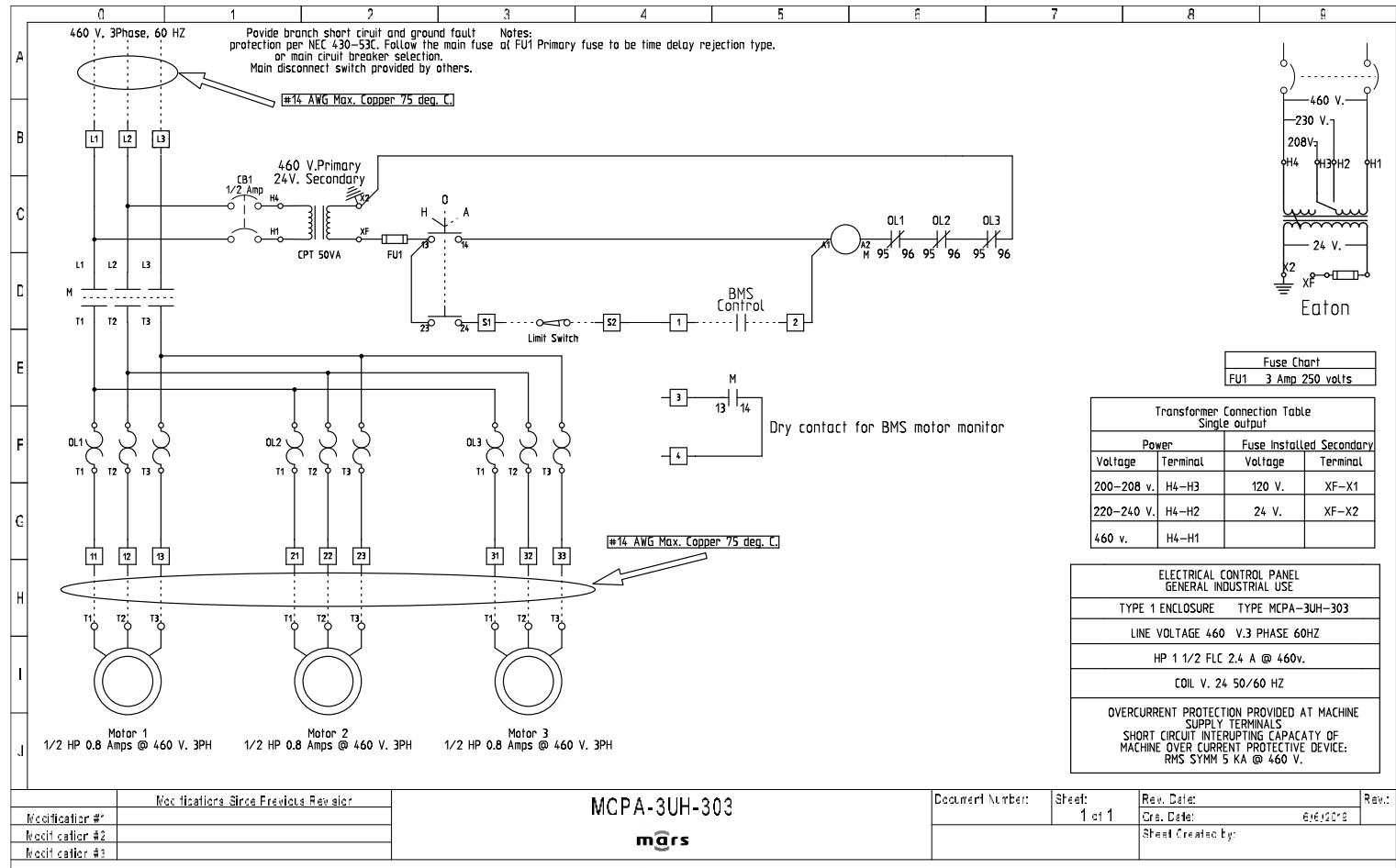
Typical Motor Control Panel (MCPA-1UA)



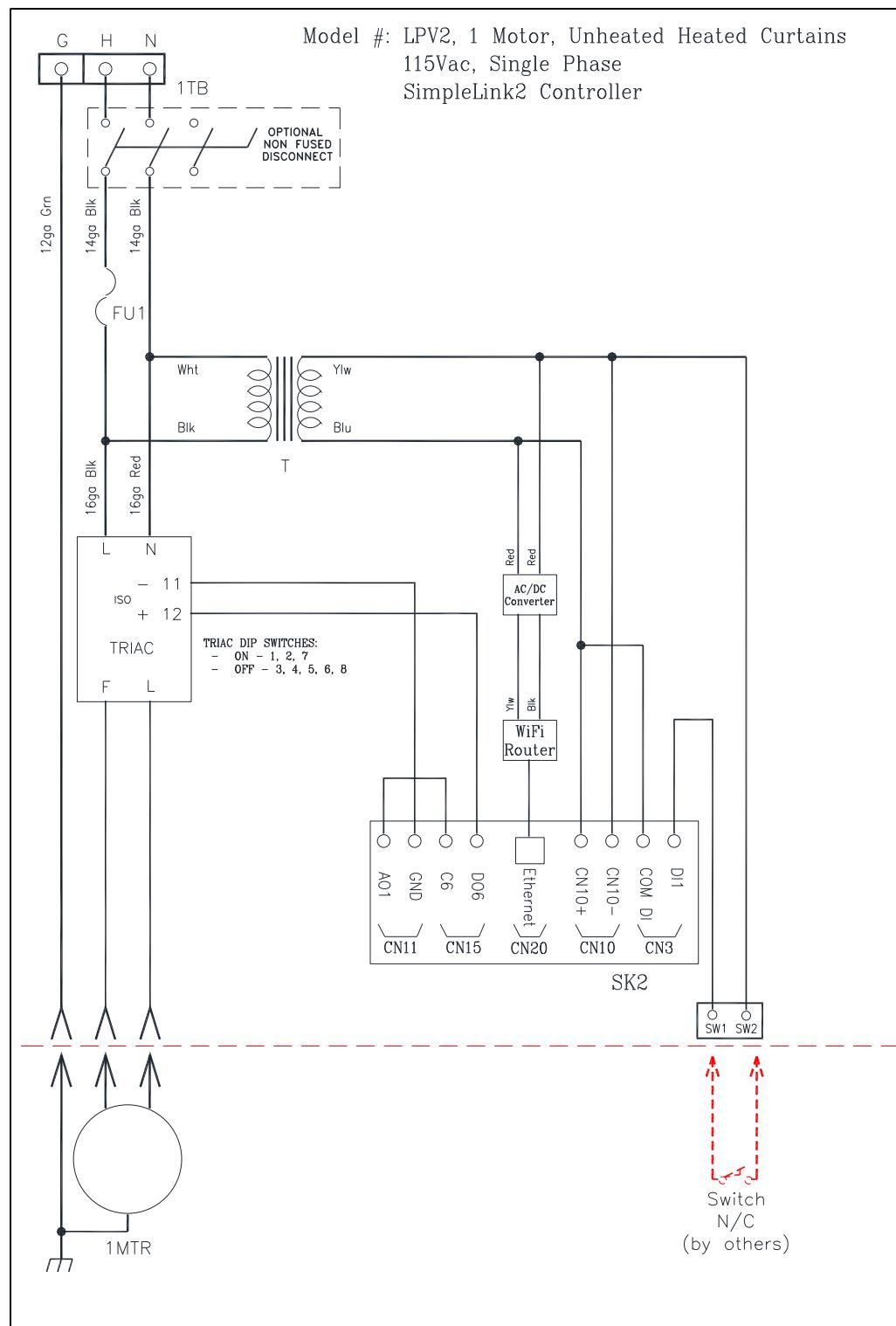
Typical Motor Control Panel with Time Delay and Three Speed (MCPA-1UA-TD-3S)



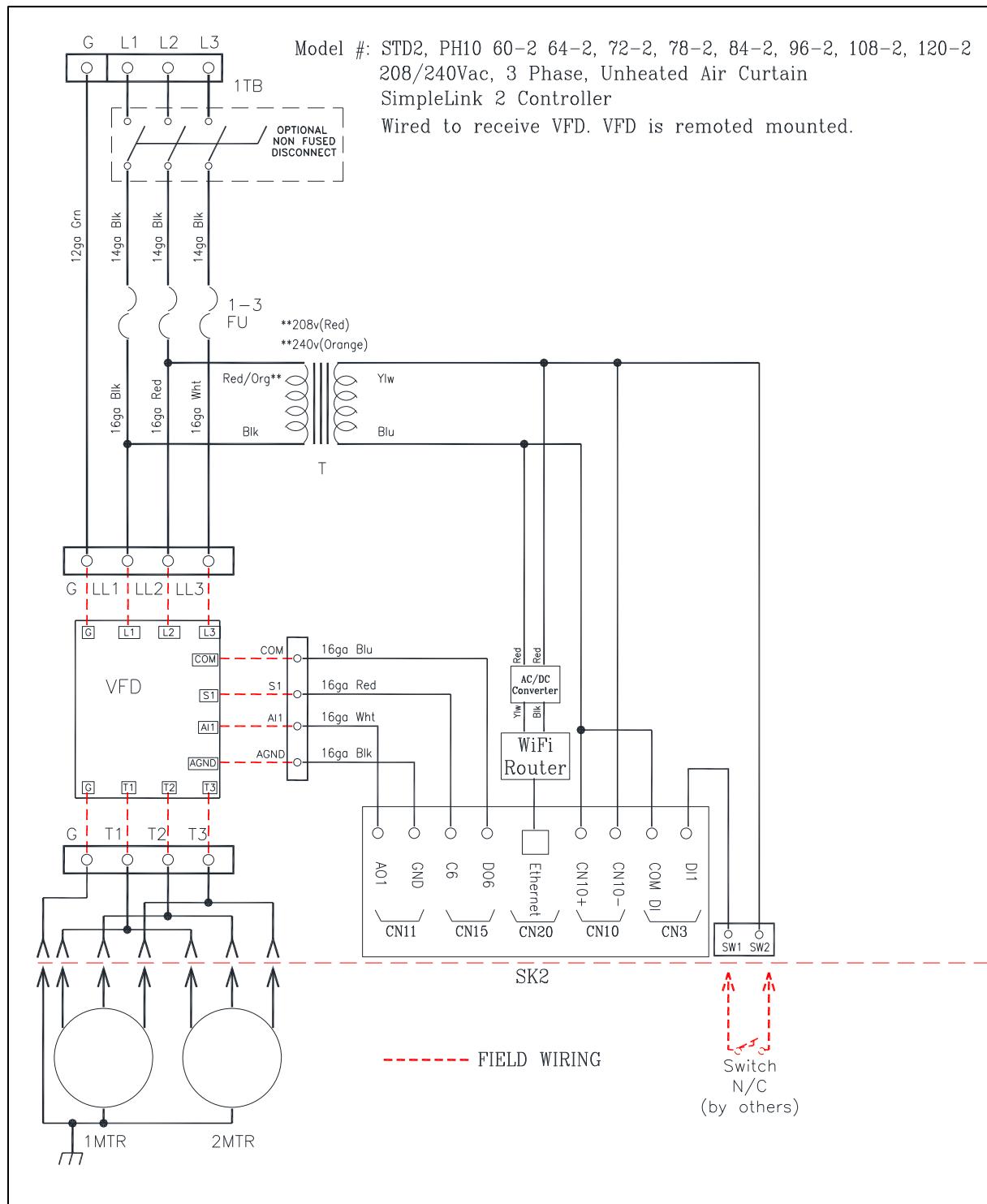
Typical Motor Control Panel with BMS Monitor & Control (MCPA-3UH-303)



SimpleLink 2 Controller with TRIAC for LPV2/QP8/PH8 (MCPS-1UA-SK2)



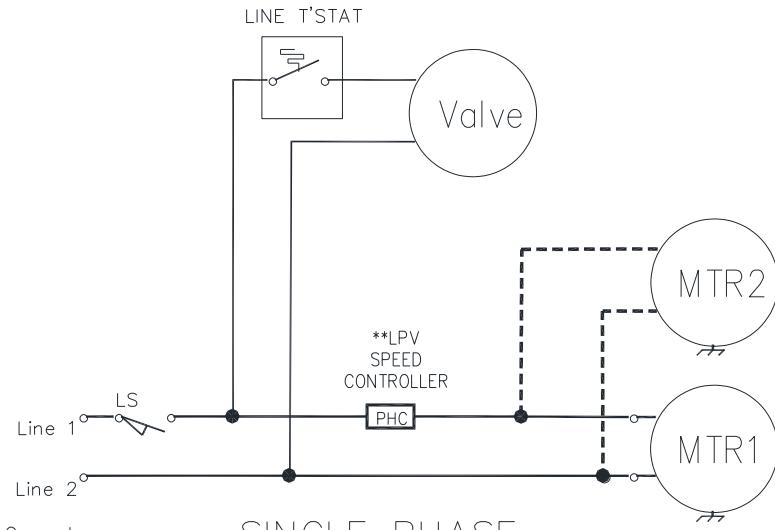
SimpleLink 2 Controller with Remote VFD for STD2 (MCPA-2UG-SK2-VR)



Hot Water/Steam Heated Wiring Diagrams

Typical HW/S Heated (1Ph, 1Hp max)

TYPICAL Hot Water/Steam HEATED DIAGRAMS



120/208-240/277v Single Phase Motor

1/6 H.P. Use 15A Micro Switch
1/2 H.P. Use 15A Micro Switch
1 H.P. Use 20A Micro Switch

120/208-240/277v Single Phase Motor

Larger than 1 H.P. Use Contactor and
15A Micro Switch

Typical Single Phase Motor Terminal Connections:
For 1/2 HP: <1> is Common for 115V

<1> is Hot for 208/230V

<2> is Low Speed

<3> is High Speed

<4> is Ground

<5> is Medium Speed

For 1 HP: <1> is Common for 115V, 208/230V

<2> is High Speed

<3> is Low Speed

<4> is Ground

Notes: This wiring diagram is applicable for
Single Phase motors as follows:

LPV2: Up to 3 motors

STD2: Up to 2 motors

HV2: 1 motor

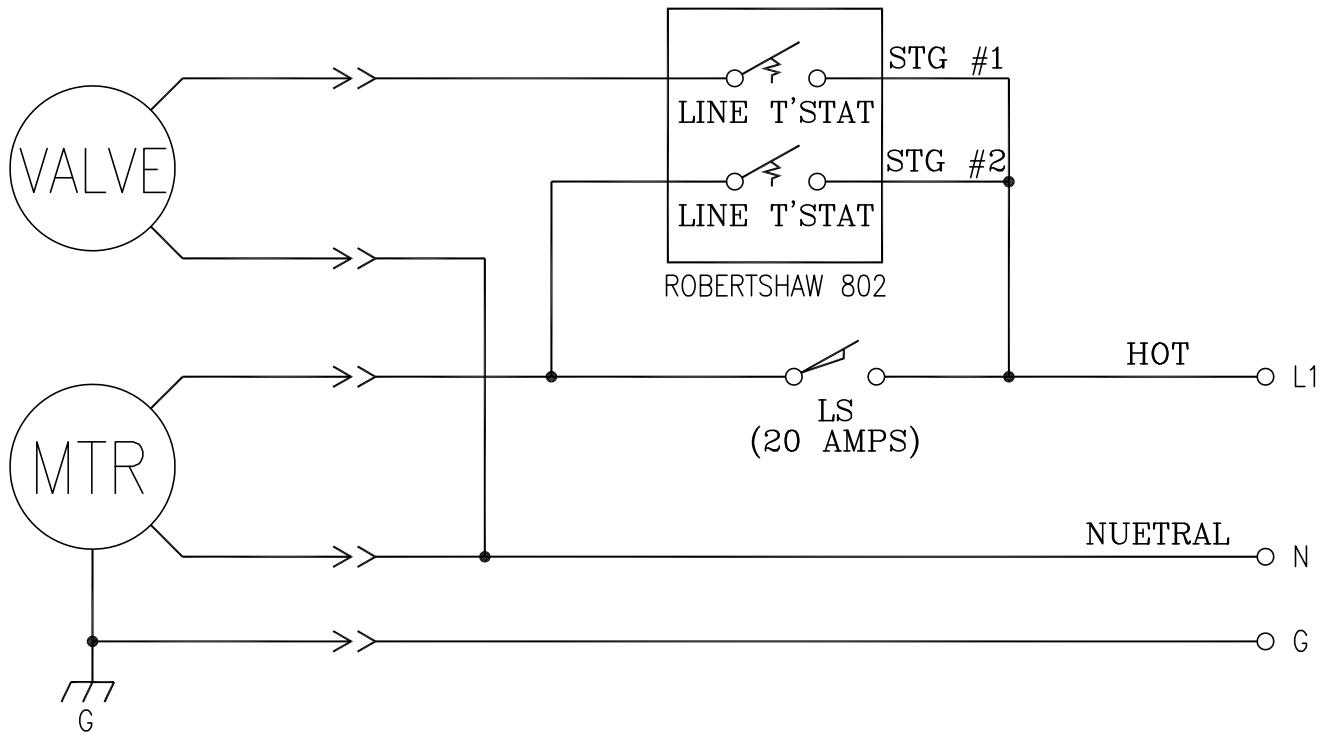
S Y M B O L S

- LS – Micro Switch
- M – Contactor or Motor Starter
- MC – Contactor Coil
- T – Control Transformer
- PHC – Speed Controller (LPV series only)

*See Door Limit Switch submittal for
additional switch info

LPV2/QP8/PH8 HW/S Heated with Heat on Demand (99-064 Thermostat)

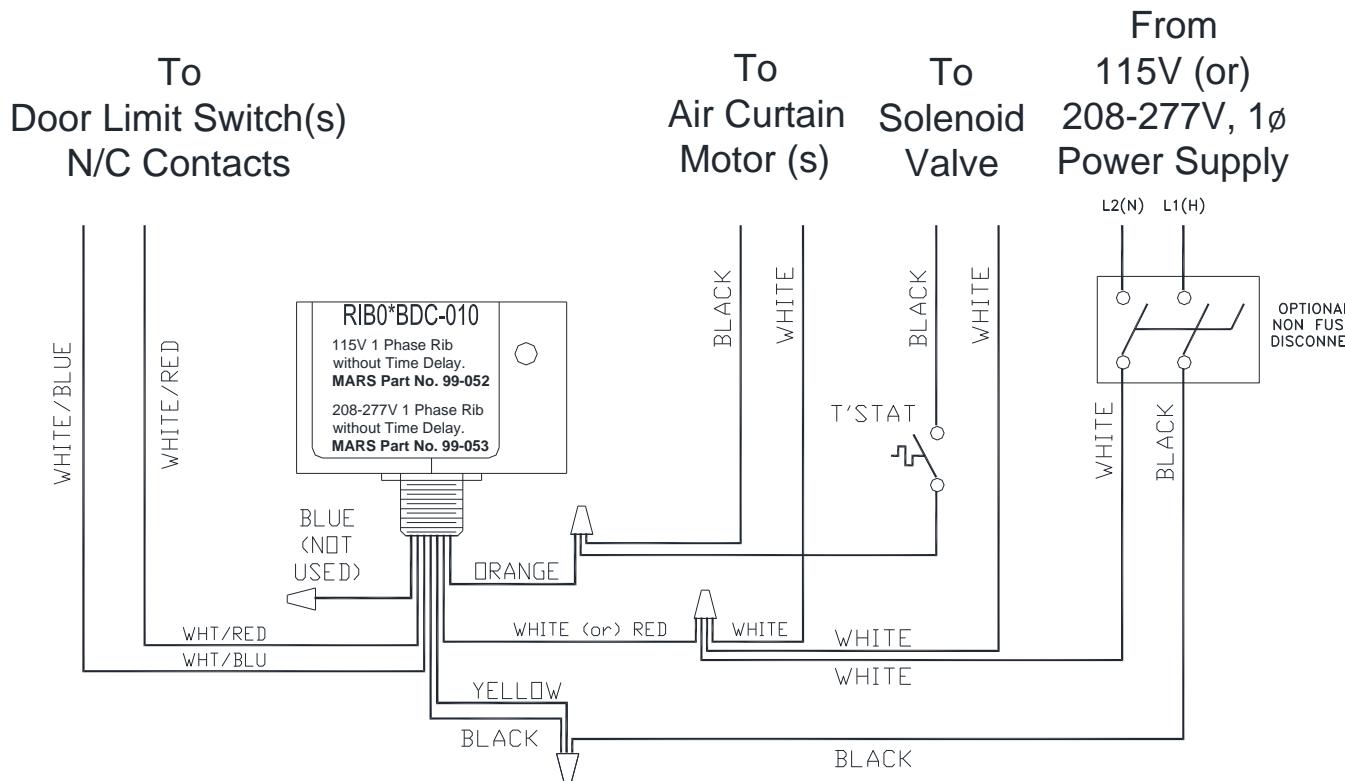
AIR CURTAIN LO PRO HOT WATER
w/ HEAT ON DEMAND WIRING DIAGRAM



HW/S RIB ½ HP with No Time Delay

RIB Kit Rating:

- 115v or 208-230v
- 1/2 HP Max
- Hot Water/Steam Heat



RIB Kit Part Numbers:

- 115v/1Ø
 - J0023, J0036, J0100
- 208-230v/1Ø
 - J0024, J0037, J0104

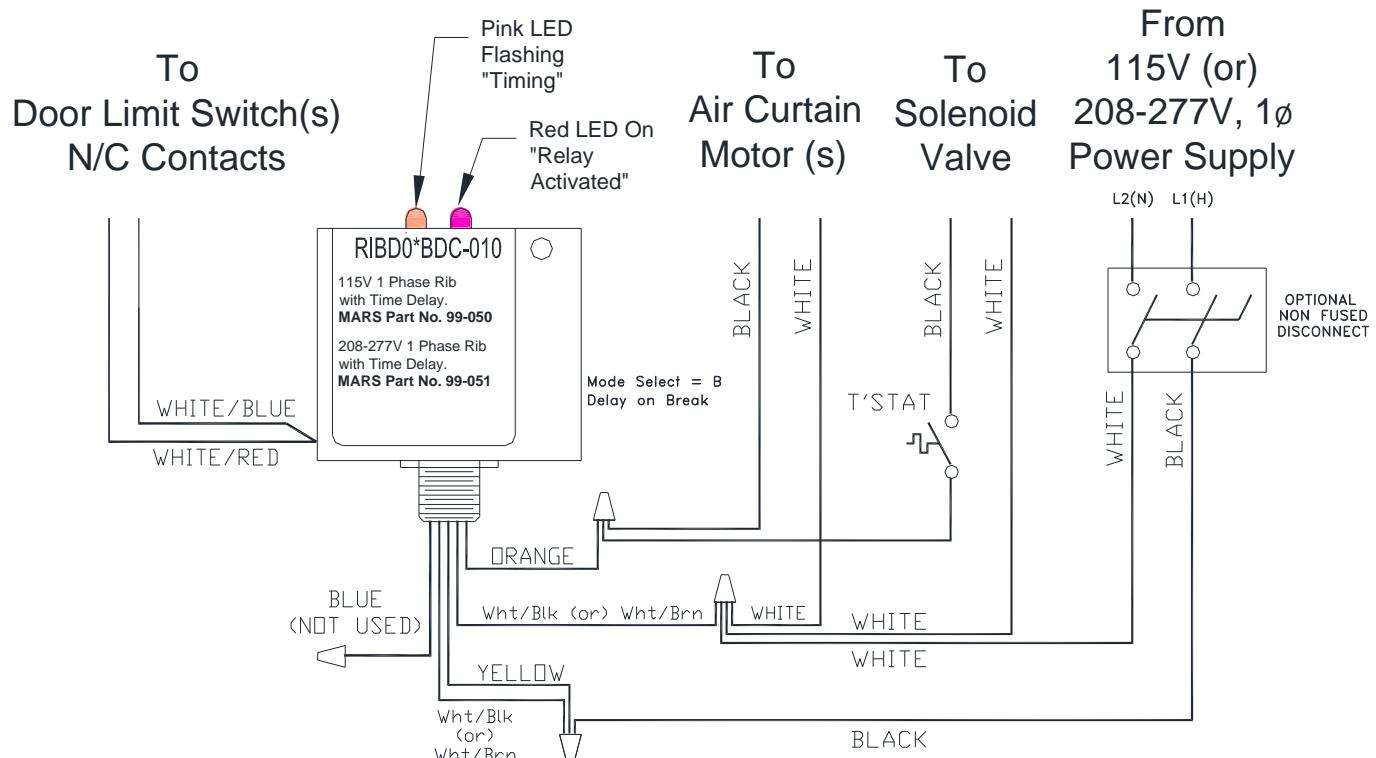
Note:

The controllers are wired the same, but are not interchangeable.

HW/S RIB ½ HP with Time Delay

RIB Kit Rating:

- 115v or 208-230v
- 1/2 HP Max
- Adjustable Time Delay
- Hot Water/Steam Heat



RIB Kit Part Numbers:

- 115v/1φ
 - J0021, J0028, J0038, J0102
- 208-230v/1φ
 - J0022, J0029, J0042, J0106

WIRE NUTS

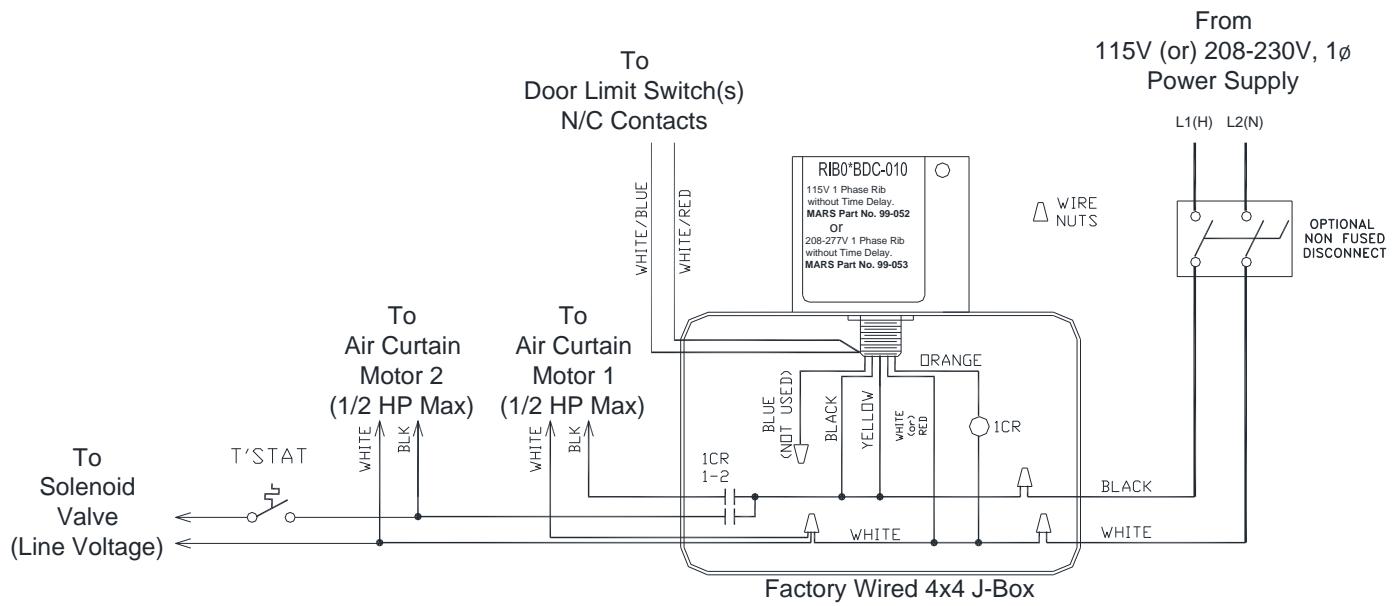
Note:

The controllers are wired the same, but are not interchangeable.

HW/S RIB 1 HP with No Time Delay

RIB Kit Rating:

- 115v or 208-230v
- 1 HP Max
- Hot Water/Steam Heat



RIB Kit Part Numbers:

- 115v/1φ
 - J0705, J0722, J0726
- 208-230v/1φ
 - J0706, J0723, J0727

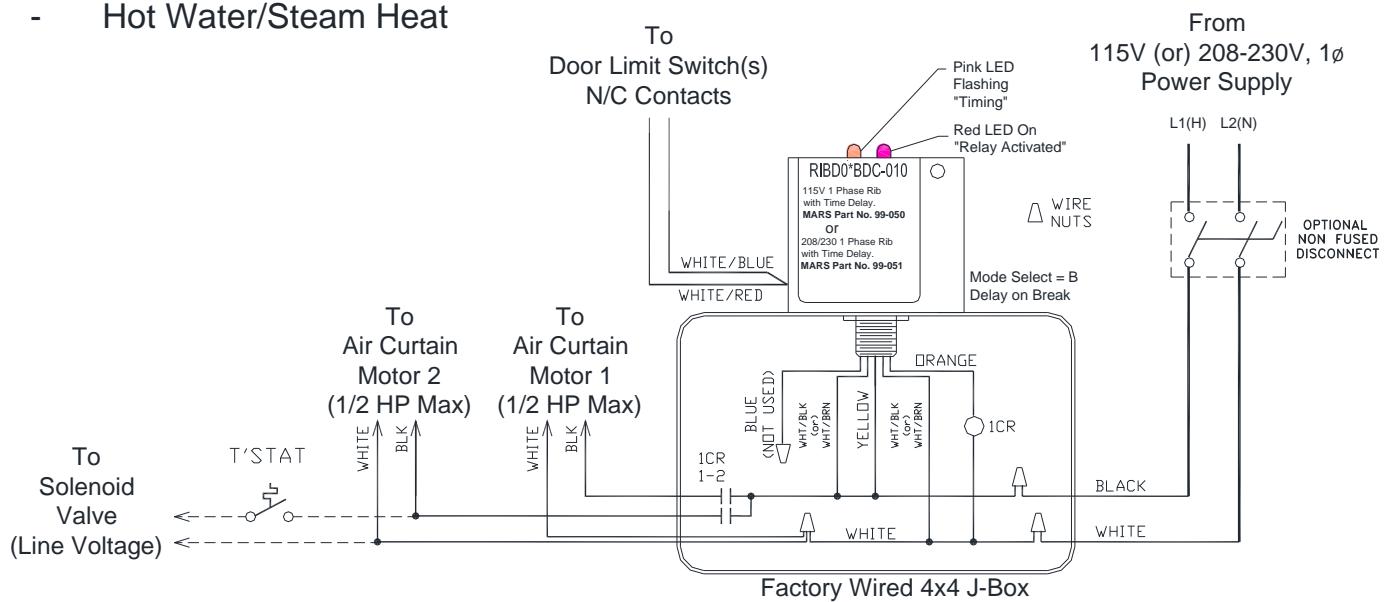
Note:

The controllers are wired the same, but are not interchangeable.

HW/S RIB 1 HP with Time Delay

RIB Kit Rating:

- 115v or 208-230v
- 1 HP Max
- Adjustable Time Delay
- Hot Water/Steam Heat

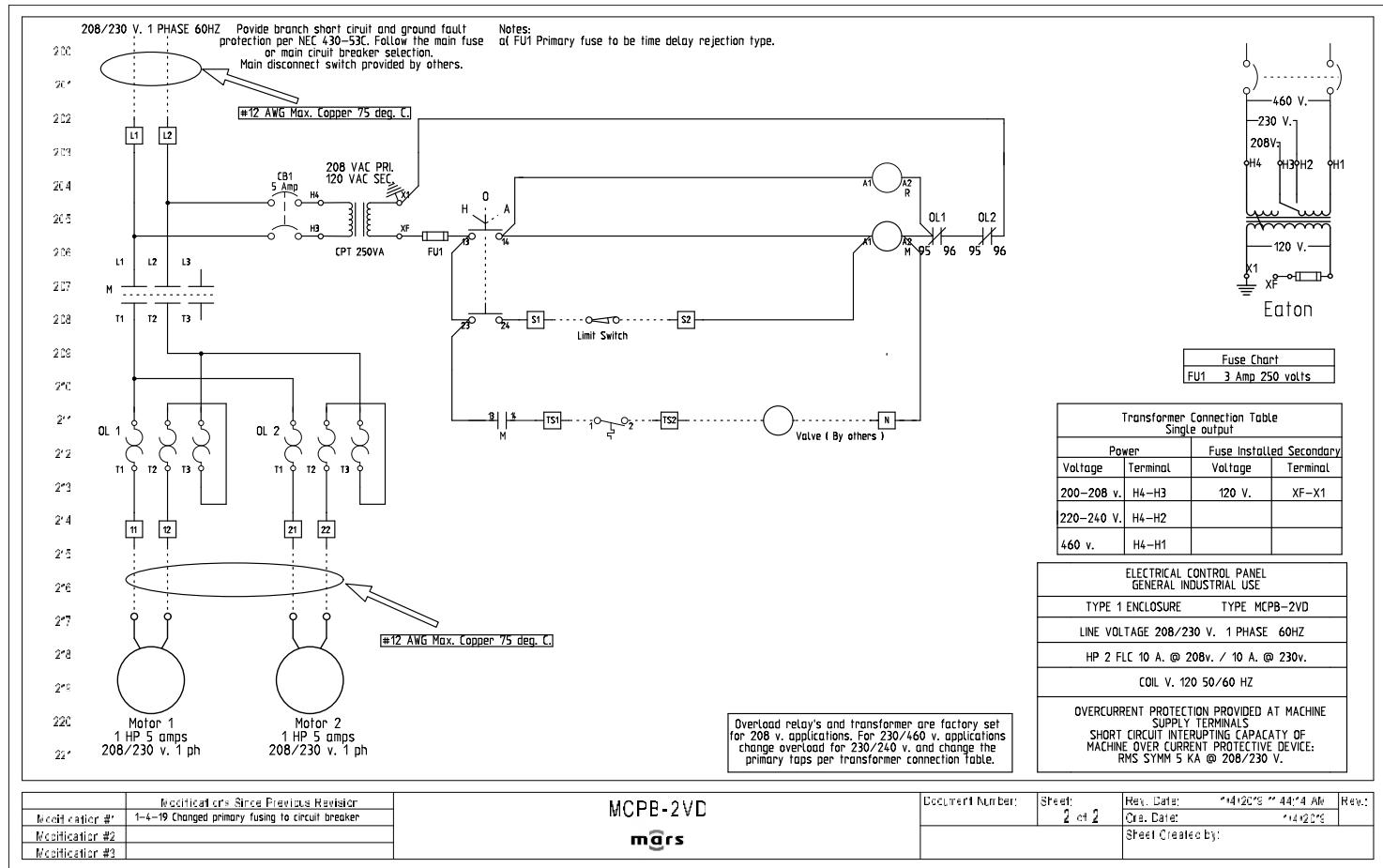


RIB Kit Part Numbers:

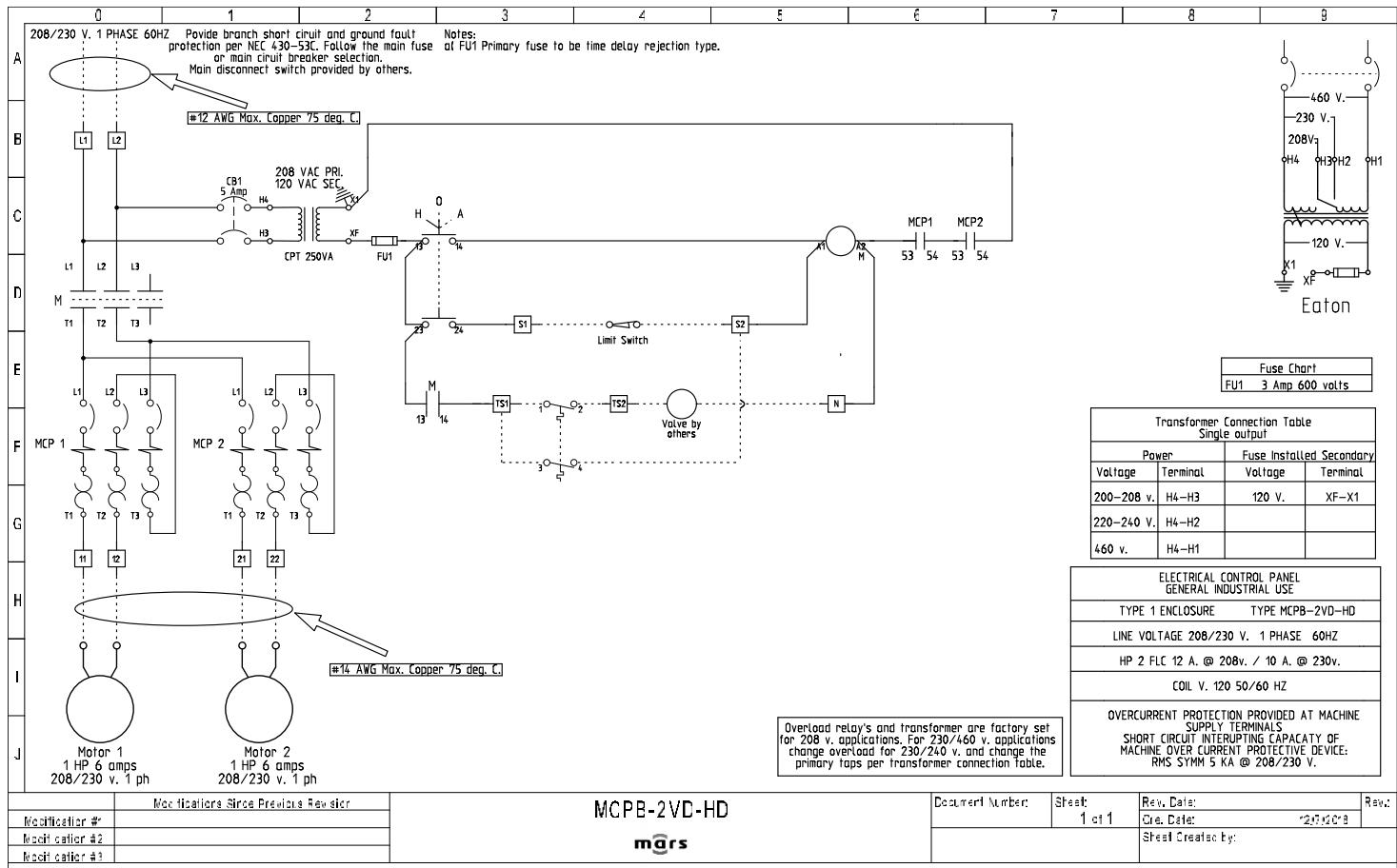
- 115v/1φ
 - J0703, J0708, J0720, J0724
- 208-230v/1φ
 - J0704, J0709, J0721, J0725

Note:
The controllers are wired the same,
but are not interchangeable.

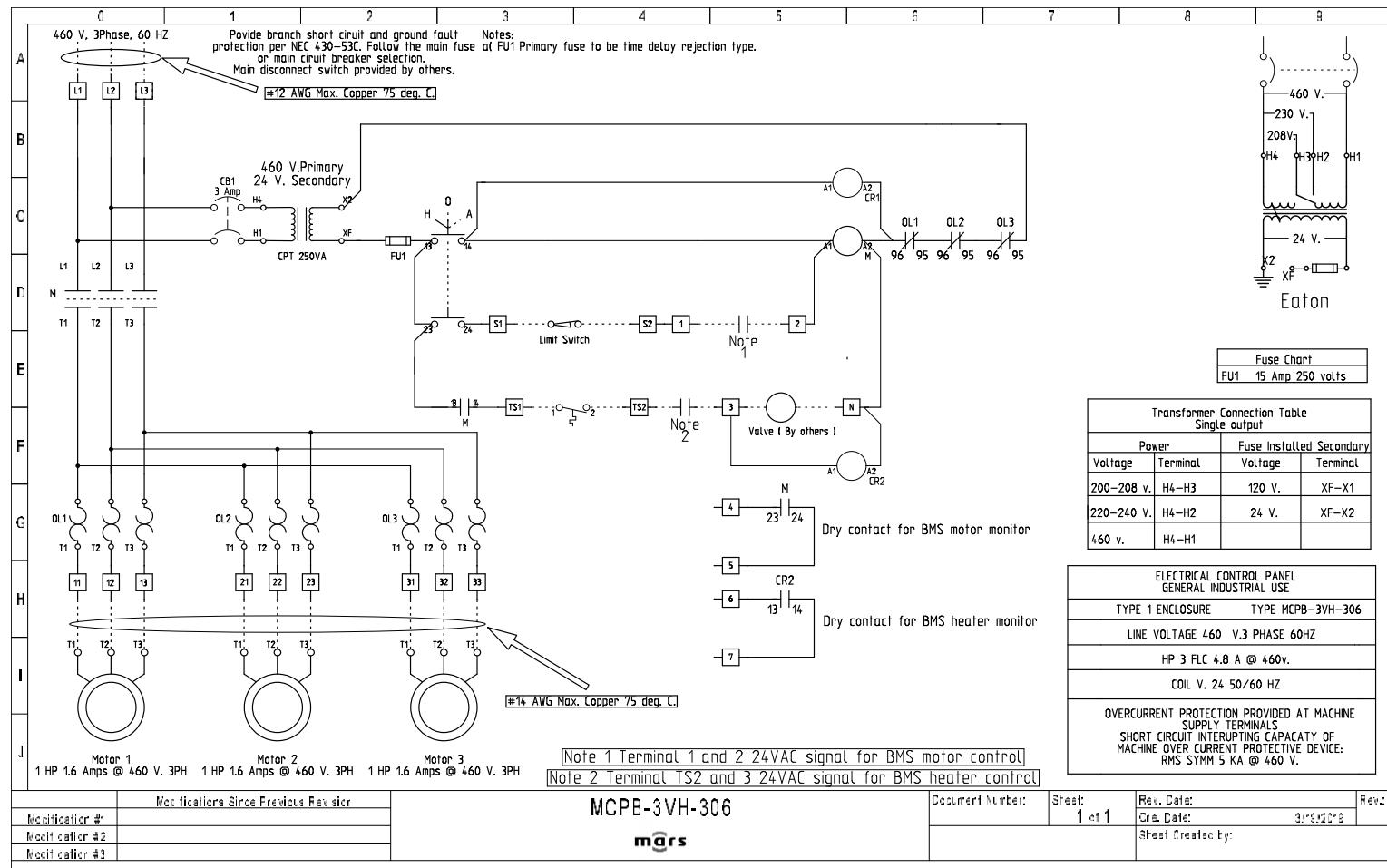
HW/S Motor Control Panel (MCPB-2VD)



HW/S Motor Control Panel with Heat on Demand (MCPB-2VD-HD)

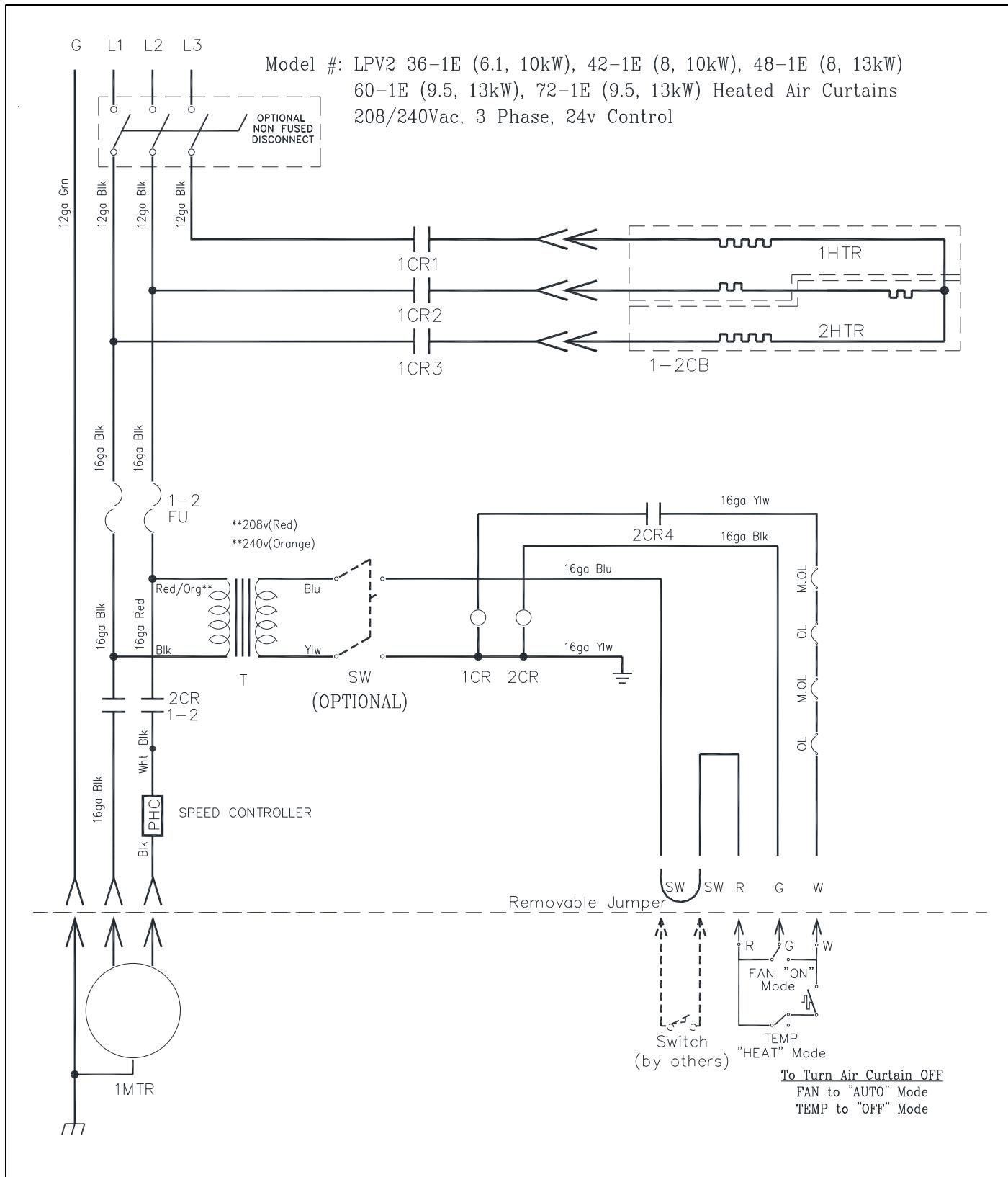


HW/S Motor Control Panel with BMS Monitor & Control (MCPB-3VH-306)

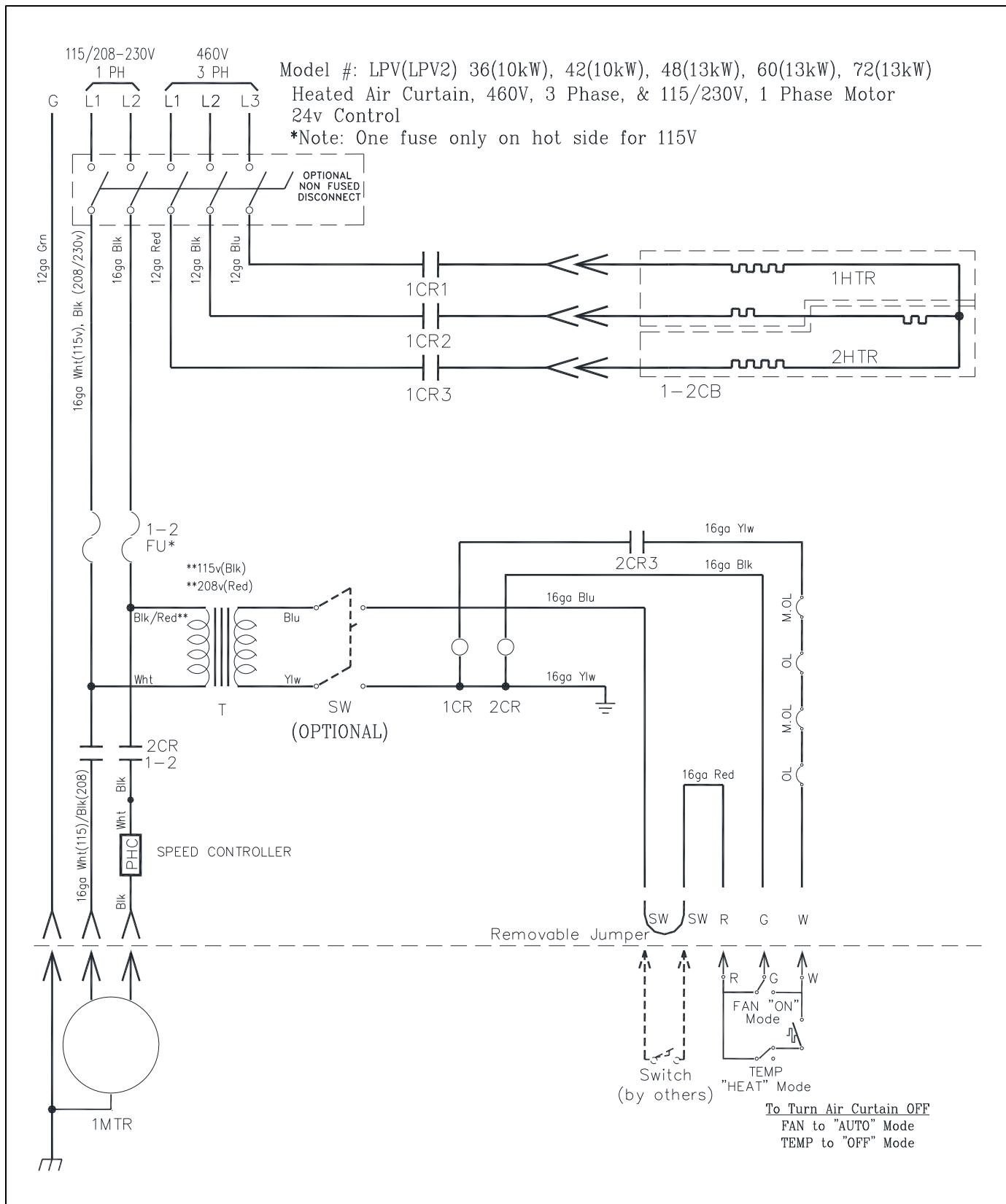


Electric Heated Wiring Diagrams

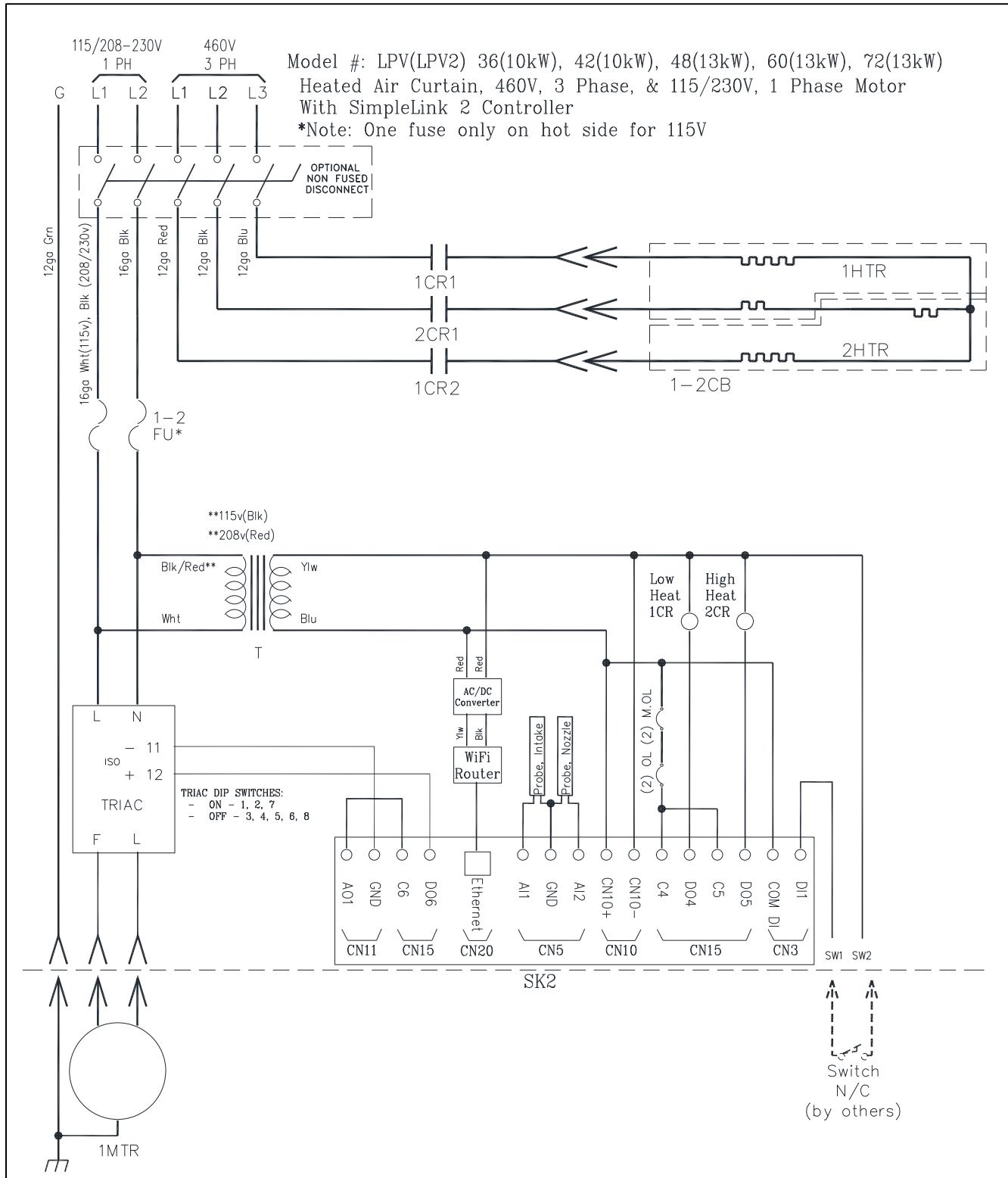
Electric Heated LPV2/QP8/PH8, 1 Mtr, 208/230v, 3ph



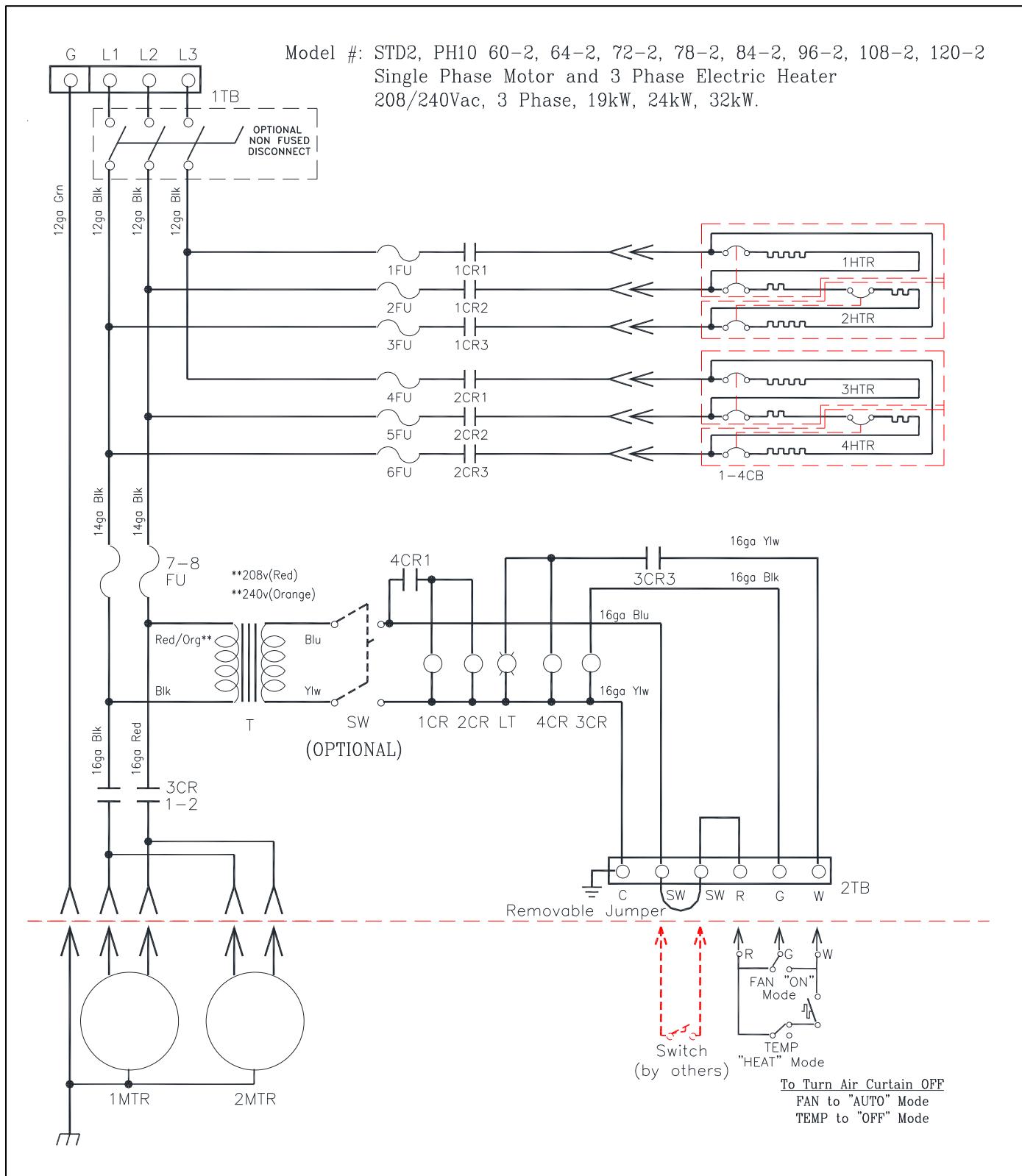
Electric Heated LPV2/QP8/PH8, 1 Mtr, 460v/3ph Heater, 115v/1ph Motor



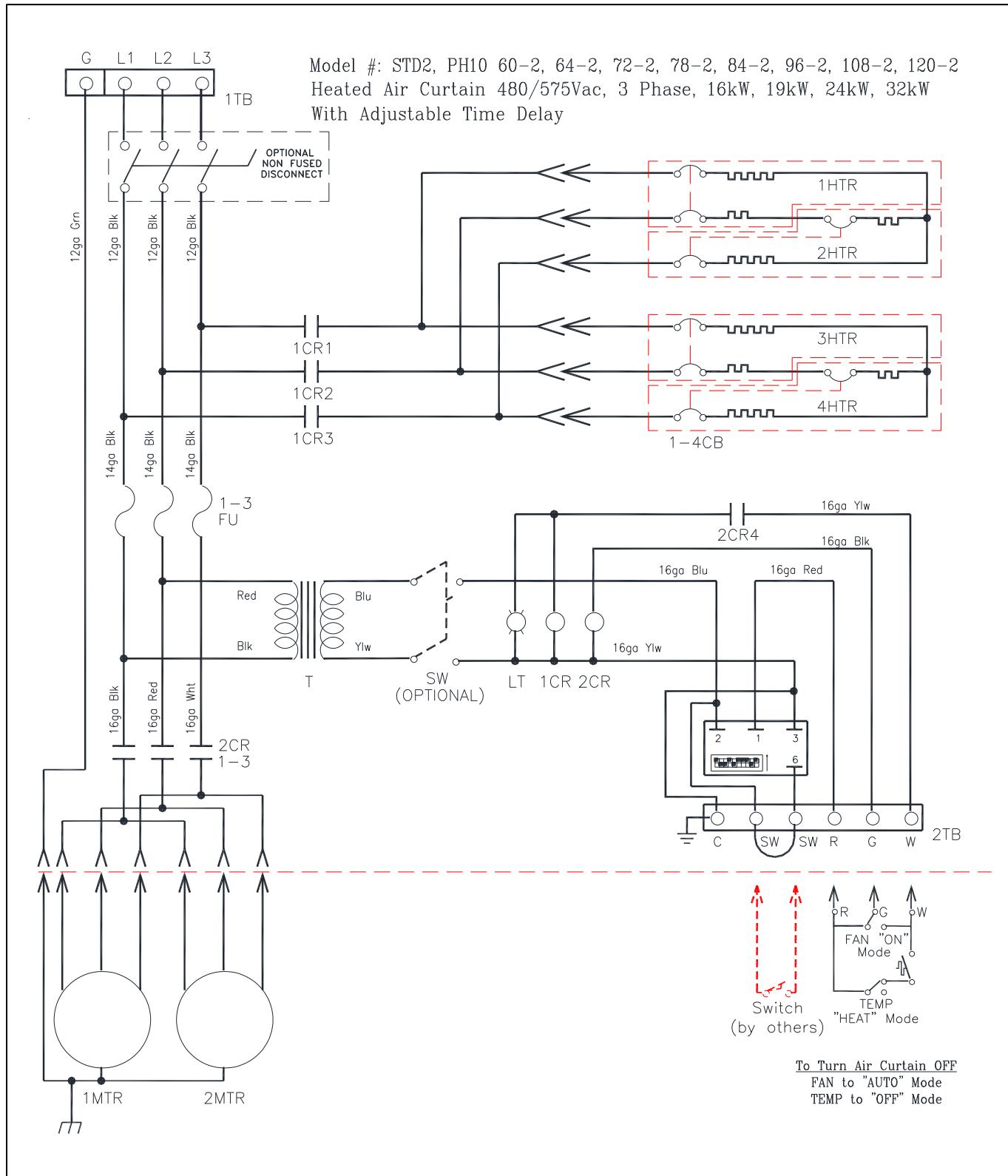
Electric Heated LPV2/QP8/PH8, 1 Mtr, 460v/3ph Heater, 115v/1ph Motor, SimpleLink Controller



Electric Heated STD2, 2 Mtr, 208/230v, 3ph



Electric Heated STD2, 2 Mtr, 460v, 3ph, Time Delay



Electric Heated STD2, 2 Mtr, 460v, 3ph, SimpleLink 2 Controller

