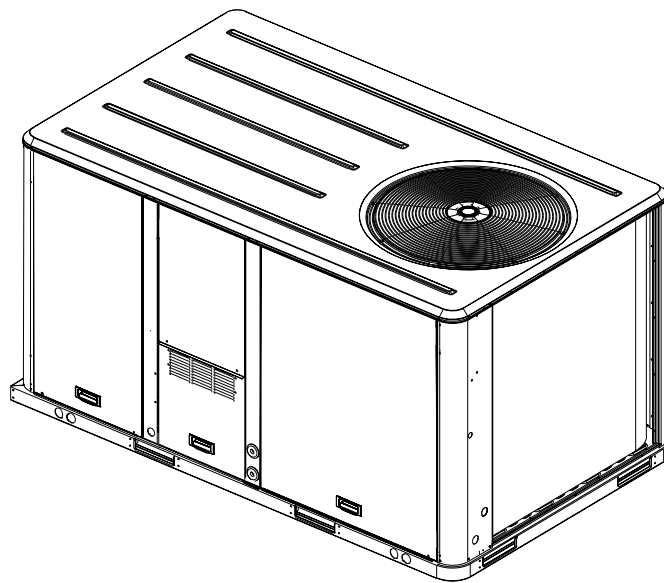


Wiring Manual

Packaged Gas/Electric

3 - 10 Tons with Electromechanical Controls



Model Number:

YSC036A*E - YSC120A*E YSC036E*E - YSC060E*E

YHC033A*E - YHC120A*E YHC036E*E - YHC060E*E

Preface and Warnings and Cautions

Hazard Identification

Warnings and Cautions appear at appropriate sections throughout this manual. Read these carefully.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

CAUTION

Indicates a situation that may result in equipment or property-damage-only accidents.

Literature Change History

Y_C-SVE-001A-EN (Nov. 2003)

Updated wiring diagrams.

Y_C-SVE-001B-EN (Jan. 2005)

Updated wiring diagrams.

Y_C-SVE001C-EN (October 2006)

15 SEER additions

Overview of Manual

This manual provides wiring diagrams for unit models listed on the front page. Refer to the Table of Contents for proper wiring diagrams.

Model Number Description

All products are identified by a multiple-character model number that precisely identifies a particular type of unit. Its use will enable the owner/operator, installing contractors, and service engineers to define the operation, specific components, and other options for any specific unit.

When ordering replacement parts or requesting service, be sure to refer to the specific model number and serial number printed on the unit nameplate.

Contents

Model Number Description	4
Figure 1. 230v/60hz/1ph — 2 - 5 Ton Single Stage Gas Heat / Direct Drive Motor — 4366-1002	6
Power Schematic	6
Figure 2. 230v/60hz/1ph — 2 - 5 Ton Single Stage Gas Heat / Oversize Drive Motor — 4366-1018	8
Figure 3. 230v/60hz/3ph — 2 - 5 Ton Single Stage Gas Heat / Direct Drive Motor — 4366-1000	10
Figure 4. 230v/60hz/3ph — 2 - 5 Ton Single Stage Gas Heat / Oversize Drive Motor — 4366-1017	12
Figure 5. 230v/60hz/3ph — 2 - 7.5 Ton Single Stage Gas Heat / Belt Drive Motor — 4366-1016	14
Figure 6. 230v/60hz/3ph — 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1033	16
Figure 7. 460-575v/60hz/3ph — 2 - 3 Ton Single Stage Gas Heat / Direct Drive Motor — 4366-1004	18
Figure 8. 460-575v/60hz/3ph — 4 - 5 Ton Single Stage Gas Heat / Direct Drive Motor — 4366-1032	20
Figure 9. 460-575v/60hz/3ph — 4 - 5 Ton Single Stage Gas Heat / Oversize Drive Motor — 4366-1011	22
Figure 10. 460-575v/60hz/3ph — 2 - 7.5 Ton Single Stage Gas Heat / Belt Drive Motor — 4366-1005	24
Figure 11. 460-575v/60hz/3ph — 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1034	26
Figure 12. 230v/60Hz/1Ph — 3 - 5 Ton R410A — 4366-4576	28
Figure 13. 230v/60Hz/3Ph — 3 - 5 Ton R410A / Hi Eff — 4366-5163	30
Figure 14. 460v/60Hz/3Ph — 3 - 5 Ton R410A / Hi Eff — 4366-5164	32
Figure 15. 230v/60hz/1ph — Single Stage Gas Heat / Direct Drive — 4366-1500	34
Connection Schematics	34
Figure 16. 230v/60hz/1ph — Single Stage Gas Heat / Oversize Motor — 4366-1519	36
Figure 17. 230v/60hz/3ph — Single Stage Gas Heat / Direct Drive — 4366-1502	38
Figure 18. 230v/60hz/3ph — Single Stage Gas Heat / Oversize Motor — 4366-1525	40
Figure 19. 230v/60hz/3ph — Single Stage Gas Heat / Belt Drive — 4366-1521	42
Figure 20. 230v/60hz/3ph — 6 - 7.5 Ton Gas Heat / Single Compressor — 4366-1537	44
Figure 21. 230v/60hz/3ph — 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1529	46
Figure 22. 2 - 3 Ton Single Stage Gas Heat / Direct Drive — 4366-1513	48
Figure 23. 460-575v/60hz/3ph — 4 - 5 Ton Single Stage Gas Heat / Direct Drive — 4366-1517	50
Figure 24. 460-575v/60hz/3ph — 4 - 5 Ton Single Stage Gas Heat / Oversize Motor — 4366-1526	52
Figure 25. 460-575v/60hz/3ph — Single Stage Gas Heat / Belt Drive — 4366-1523	54
Figure 26. 460-575v/60hz/3ph — 6 - 7.5 Ton Gas Heat / Single Compressor — 4366-1538	56
Figure 27. 460-575v/60hz/3ph — 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1531	58
Figure 28. 230v/60Hz/1Ph — 3 - 5 Ton R410A / Direct Drive Indoor Motor — 4366-4562	60
Figure 29. 230v/60Hz/3Ph — 3 - 4 Ton R410A / Hi Eff / Direct Drive Indoor Motor — 4366-5183	62
Figure 30. 230v/60Hz/3Ph — 5 Ton R410A / Hi Eff / Direct Drive Indoor Motor — 4366-5184	64
Figure 31. 460v/60Hz/3Ph — 3 - 4 Ton R410A / Hi Eff / Direct Drive Indoor Motor — 4366-5200	66
Figure 32. 460v/60Hz/3Ph — 5 Ton R410A / Hi Eff / Direct Drive Indoor Motor — 4366-5201	68
Figure 33. Single Stage Gas Heat / Direct Drive — 4366-1001	70
Control Diagram	70
Figure 34. 2 - 5 Ton Single Stage Gas Heat / Belt Drive or Oversize Motor — 4366-1027	72
Figure 35. 6 - 7.5 Ton Gas Heat / Single Compressor — 4366-1045	74
Figure 36. 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1039	76
Figure 37. 5 Ton 230v/1Ph / R410A Std Eff — 5 Ton R410A Hi Eff / Direct Drive Indoor Motor — 4366-4702	78
Figure 38. 3 - 4 Ton 230v/1Ph / R410A Std Eff — 3 - 4 Ton R410A Hi Eff / Direct Drive Indoor Motor — 4366-4570	80
Figure 39. Through the base utilities	82
Through the Base Utility Schematic	82

Model Number Description

Y	S	C	036	A	3	R	L	A	**	C	0	0	0	C	1	0	0	0	1	A	1
1	2	3	4,5,6	7	8	9	10	11	12,13	14	15	16	17	18	19	20	21	22	23	24	25

DIGIT 1 - Unit Function

T = DX Cooling

DIGIT 2 - Efficiency

S = Standard Efficiency

H = High Efficiency

DIGIT 3 - Airflow

C = Convertible

DIGITS 4,5,6 - Nominal Gross Cooling Capacity (MBh)

033= 3 Ton

036= 3 Ton

043= 4 Ton

048= 4 Ton

060= 5 Ton

063= 5 Ton

072= 6 Ton

090= 7½ Ton, Single Compressor

092= 7½ Ton, Dual Compressor

102= 8½ Ton

120= 10 Ton

DIGIT 7 - Major Design Sequence

A = First

E = R410A Refrigerant

DIGIT 8 - Unit Voltage

1 = 208-230/60/1

3 = 208-230/60/3

4 = 460/60/3

W = 575/60/3

K = 380/60/3

DIGIT 9 - Unit Controls

E = Electromechanical

R = ReliaTel™ Microprocessor

DIGIT 10 - Heating Capacity

L = Low

M = Medium

H = High

X = Low, Stainless Steel Heat Exchanger

Y = Medium, Stainless Steel Heat Exchanger

Z = High, Stainless Steel Heat Exchanger

DIGIT 11 - Minor Design Sequence

A = First Sequence

DIGITS 12, 13 - Service Sequence

** = Factory Assigned

DIGIT 14 - Fresh Air Selection

0 = No Fresh Air

A = Manual Outside Air Damper 0-50%

B = Motorized Outside Air Damper 0-50%

C = Economizer, Dry Bulb 0-100% without Barometric Relief

D = Economizer, Dry Bulb 0-100% with Barometric Relief

E = Economizer, Reference Enthalpy 0-100% without Barometric Relief

F = Economizer, Reference Enthalpy 0-100% with Barometric Relief

G = Economizer, Comparative Enthalpy 0-100% without Barometric Relief

H = Economizer, Comparative Enthalpy 0-100% with Barometric Relief

DIGIT 15 - Supply Fan/Drive Type/Motor

0 = Standard Drive

1 = Oversized Motor

2 = Optional Belt Drive Motor

DIGIT 16 - Hinged Service Access/Filters

0 = Standard Panels/Standard Filters

A = Hinged Access Panels Standard Filters

B = Standard Panels/2" Pleated Filters

C = Hinged Access Panels/2" Pleated Filters

DIGIT 17 - Condenser Coil Protection

0 = Standard Coil

1 = Standard Coil with Hail Guard

2 = Epoxy Coated Condenser Coil

3 = Epoxy Coated Condenser Coil with Hail Guard

DIGIT 18 - Through the Base Provisions

0 = No Through the Base Provisions

A = Through the Base Electric

B = Through the Base Gas Piping

C = Through the Base Electric and Gas Piping

DIGIT 19 - Disconnect/Circuit Breaker (3 phase only)

0 = No Disconnect or Circuit Breaker

1 = Non-Fused Disconnect

Model Number Description

DIGIT 20 - Convenience Outlet

- 0 = No Convenience Outlet
- A = Unpowered Convenience Outlet
- B = Powered Convenience Outlet (3 phase only)

DIGIT 21 - Communications Options

- 0 = No Communications Interface
- 1 = Trane Communications Interface
- 2 = LonTalk® Communications Interface
- 3 = Novar 2024 Controls
- 4 = Novar 3051 Controls

DIGIT 22 - Refrigeration System Option

- 0 = Standard Refrigeration System
- A = Thermal Expansion Valve (TXV)
- B = Dehumidification (Hot Gas Reheat Coil)

DIGIT 23 - Refrigeration Controls

- 0 = No Refrigeration Control
- 1 = High Pressure Control
- 2 = Froststat
- 3 = Crankcase Heater
- 4 = High Pressure Control and Froststat
- 5 = High Pressure Control and Crankcase Heater
- 6 = Froststat and Crankcase Heater
- 7 = High Pressure Control, Froststat and Crankcase Heater

DIGIT 24 - Smoke Detector

- 0 = No Smoke Detector
- A = Return Air Smoke Detector
- B = Supply Air Smoke Detector
- C = Supply and Return Air Smoke Detectors

DIGIT 25 - Monitoring Controls

- 0 = No Monitoring Control
- 1 = Clogged Filter Switch
- 2 = Fan Failure Switch
- 3 = Discharge Air Sensing Tube
- 4 = Clogged Filter Switch and Fan Fail Switch
- 5 = Clogged Filter Switch and Discharge Air Sensing Tube
- 6 = Fan Fail Switch and Discharge Air Sensing Tube
- 7 = Clogged Filter and Fan Fail Switches and Discharge Air Sensing Tube
- 8 = Novar Return Air Sensor

Power Schematic

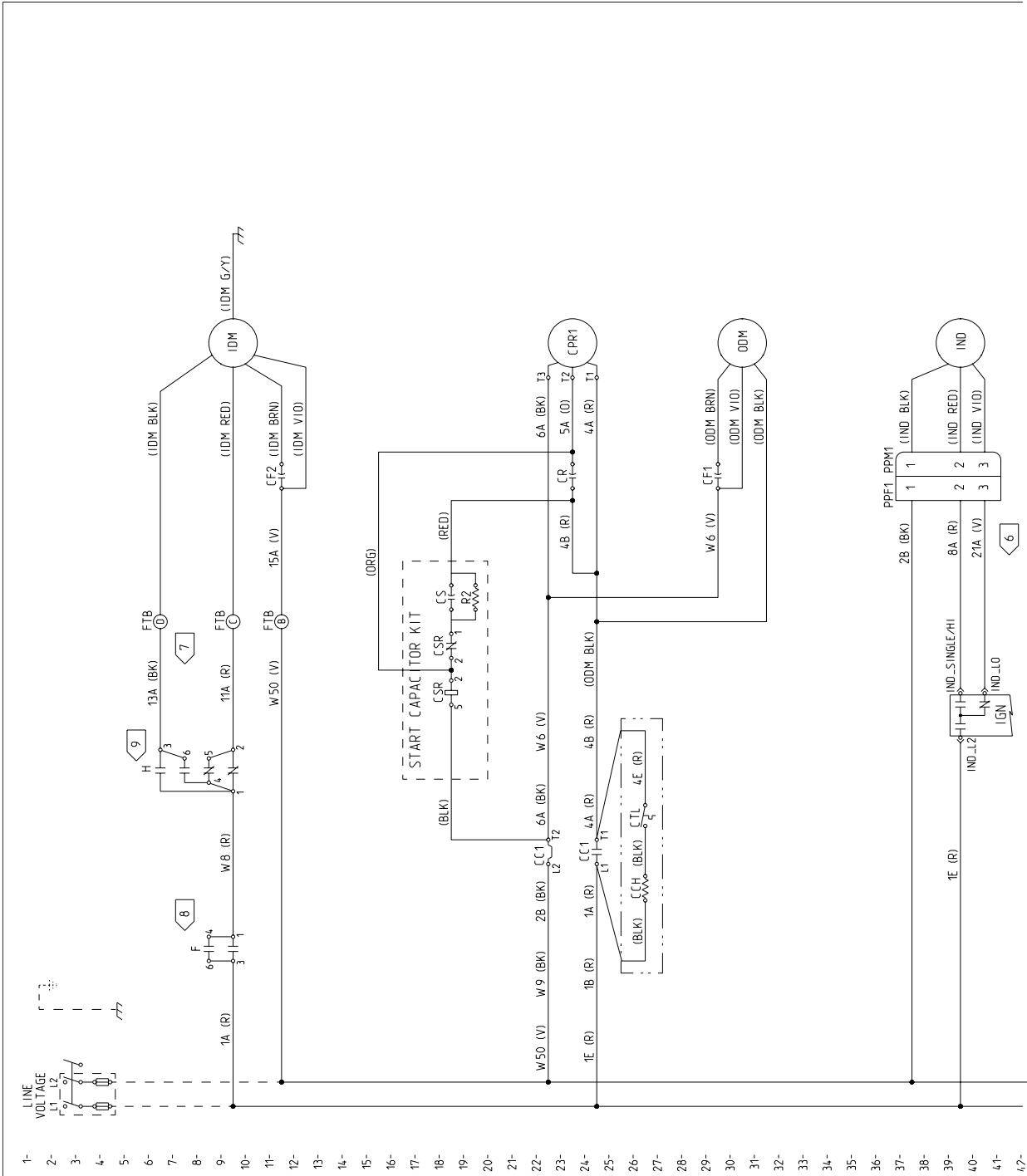


Figure 1. 230v/60hz/1ph – 2 - 5 Ton Single Stage Gas Heat / Direct Drive Motor – 4366-1002

Power Schematic

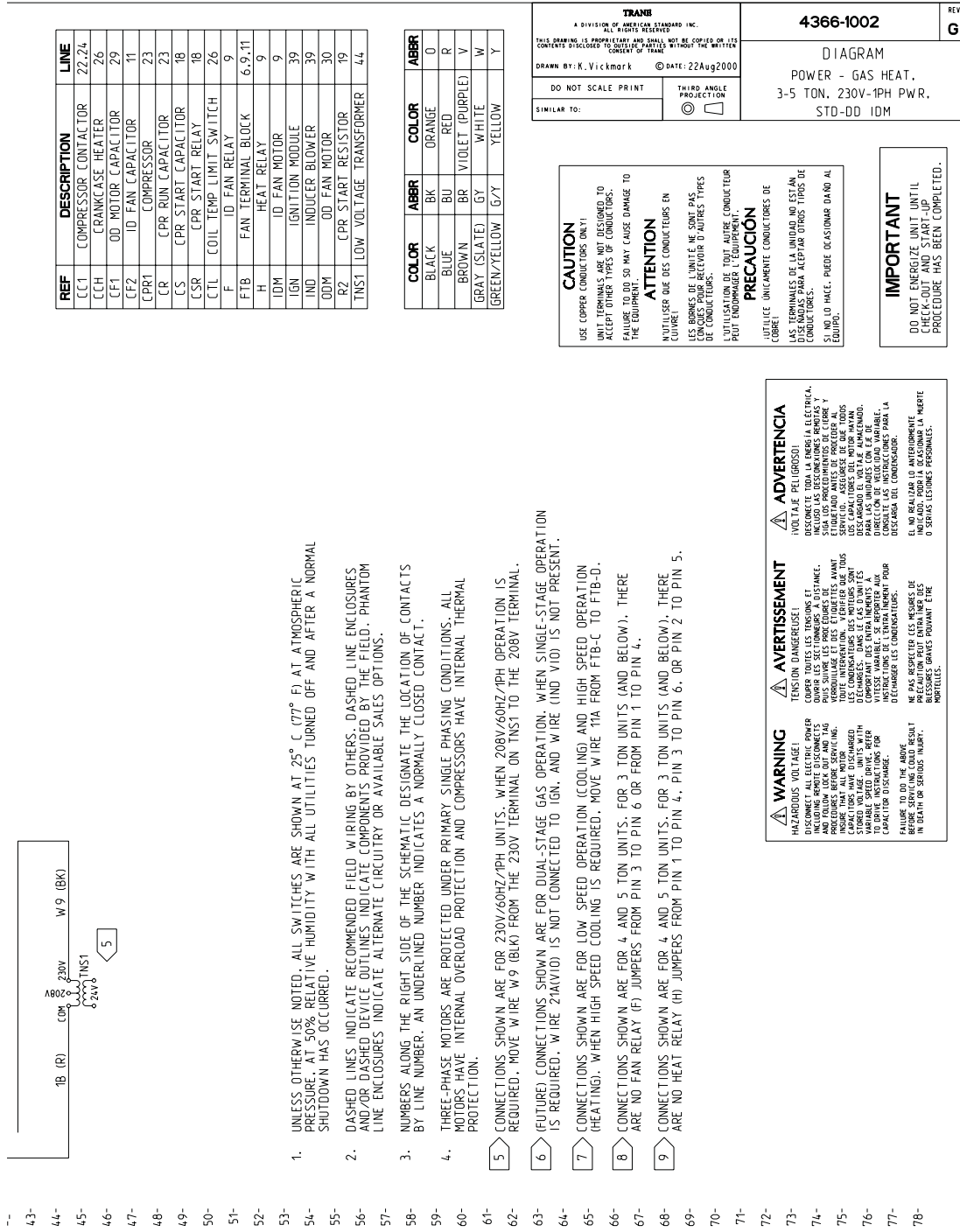


Figure 1. (continued from previous page) 230v/60hz/1ph – 2 - 5 Ton Single Stage Gas Heat / Direct Drive Motor – 4366-1002

Power Schematic

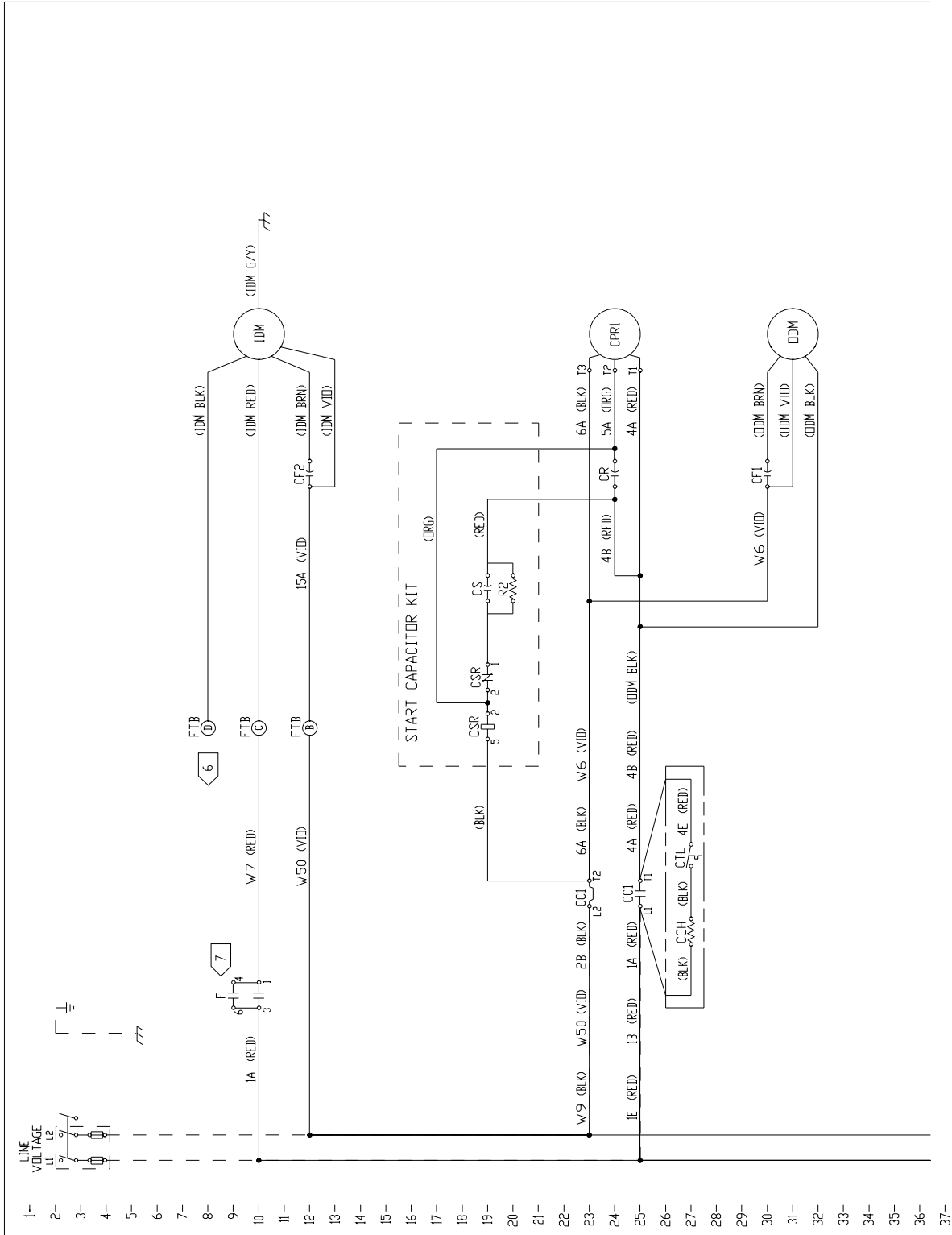


Figure 2. 230v/60hz/1ph – 2 - 5 Ton Single Stage Gas Heat / Oversize Drive Motor – 4366-1018

Power Schematic

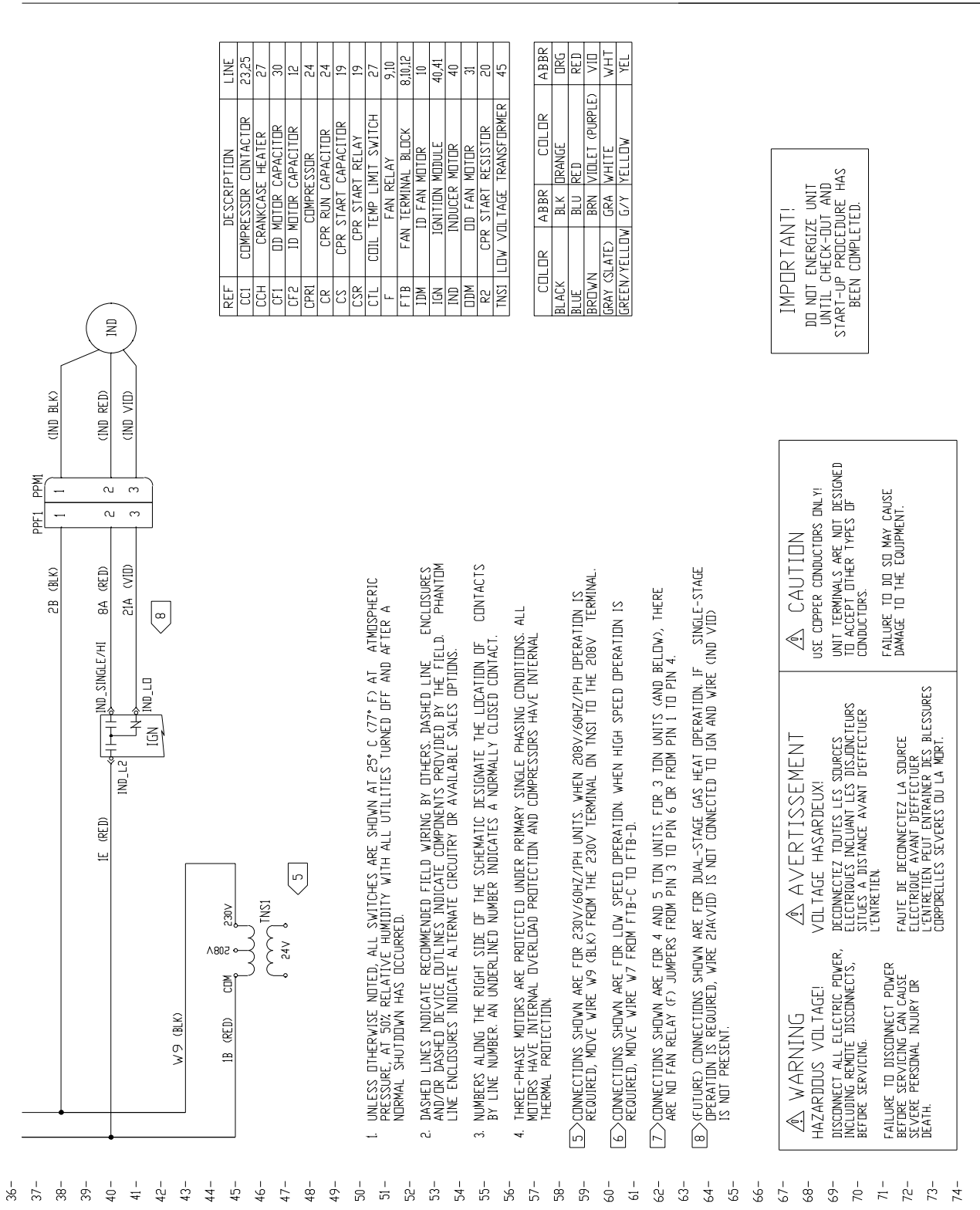


Figure 2. (continued from previous page) 230v/60hz/1ph – 2 - 5 Ton Single Stage Gas Heat / Oversize Drive Motor – 4366-1018

Power Schematic

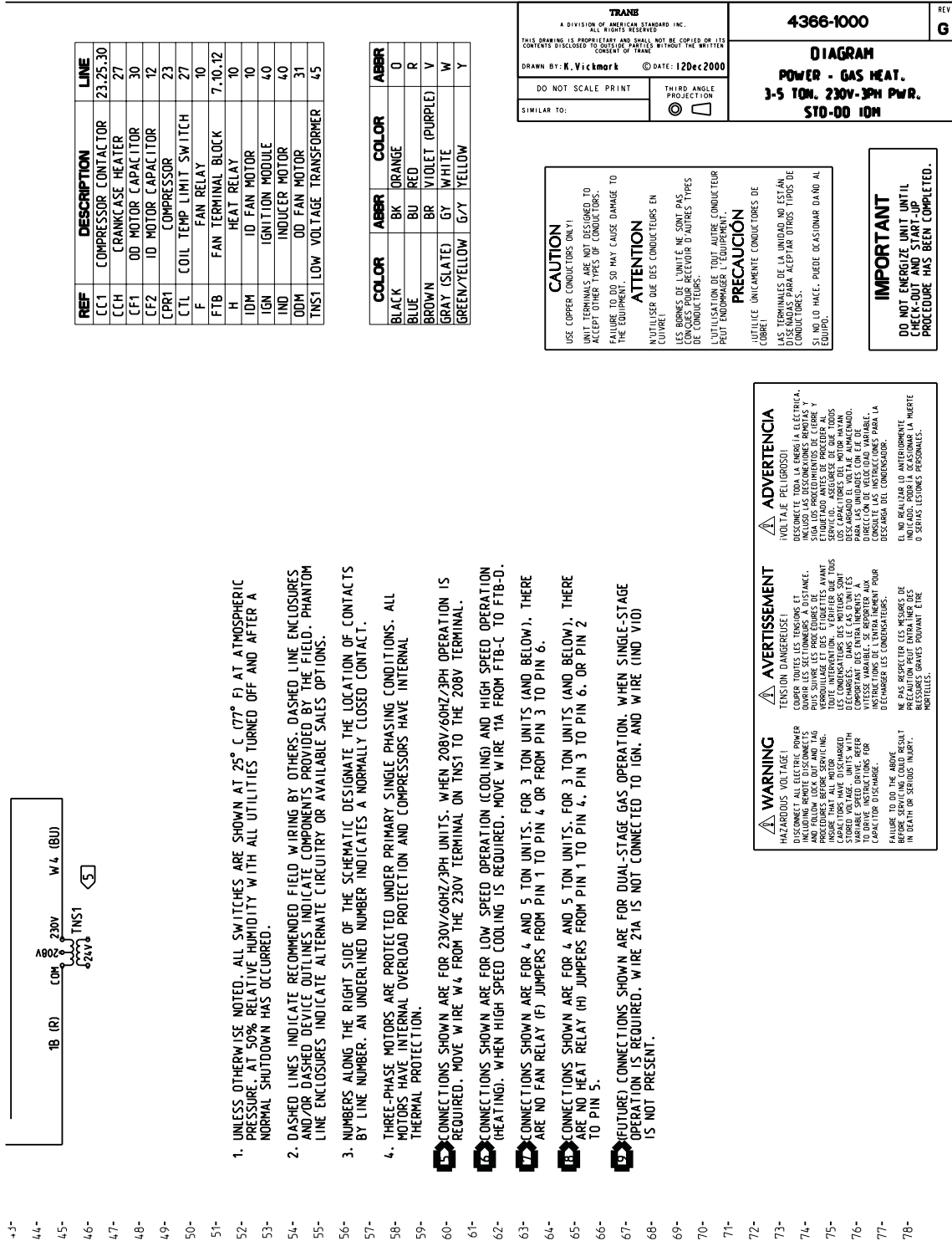


Figure 3. (continued from previous page) 230v/60hz/3ph — 2 - 5 Ton Single Stage Gas Heat / Direct Drive Motor — 4366-1000

Power Schematic

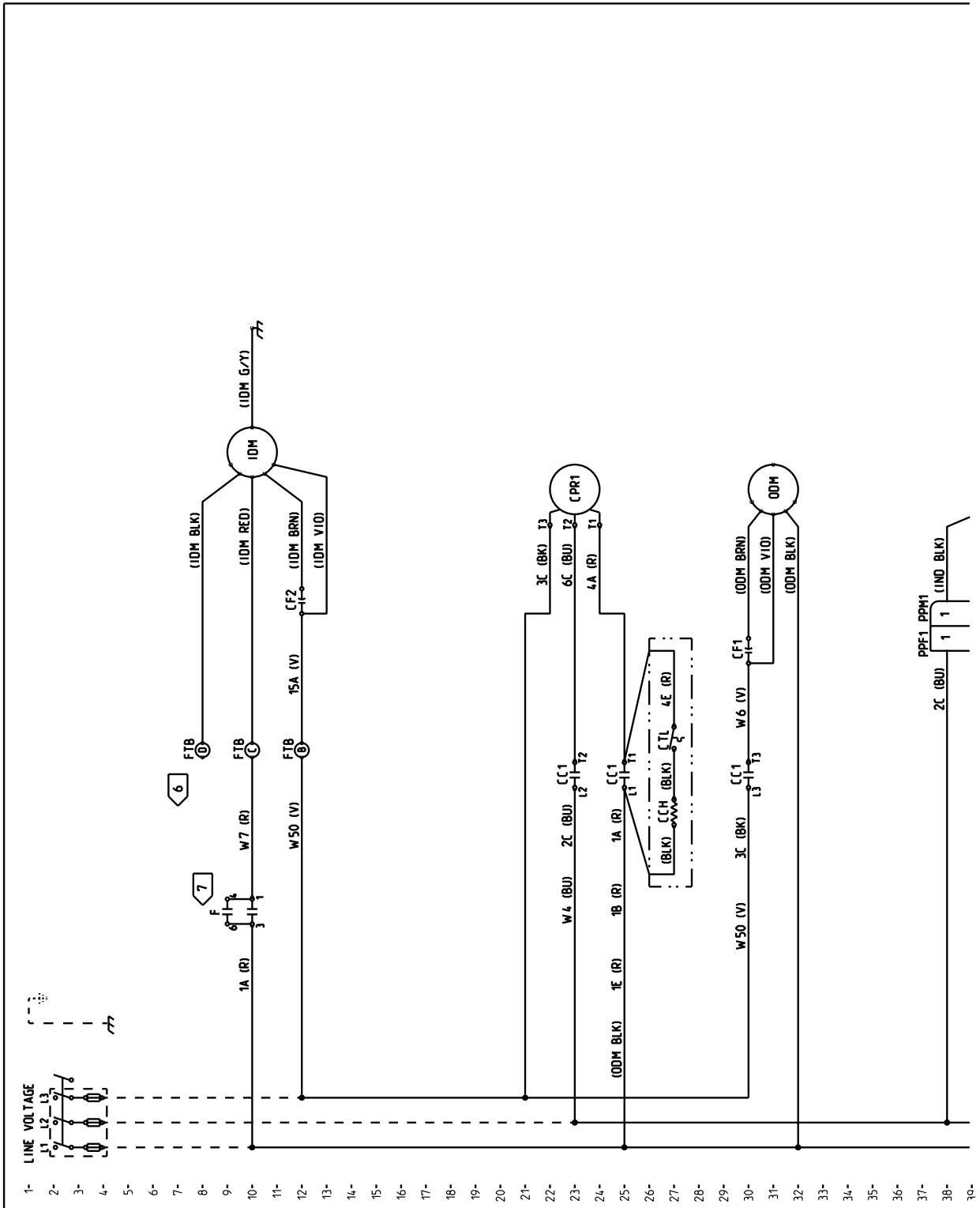


Figure 4. 230v/60hz/3ph – 2 - 5 Ton Single Stage Gas Heat / Oversize Drive Motor – 4366-1017

Power Schematic

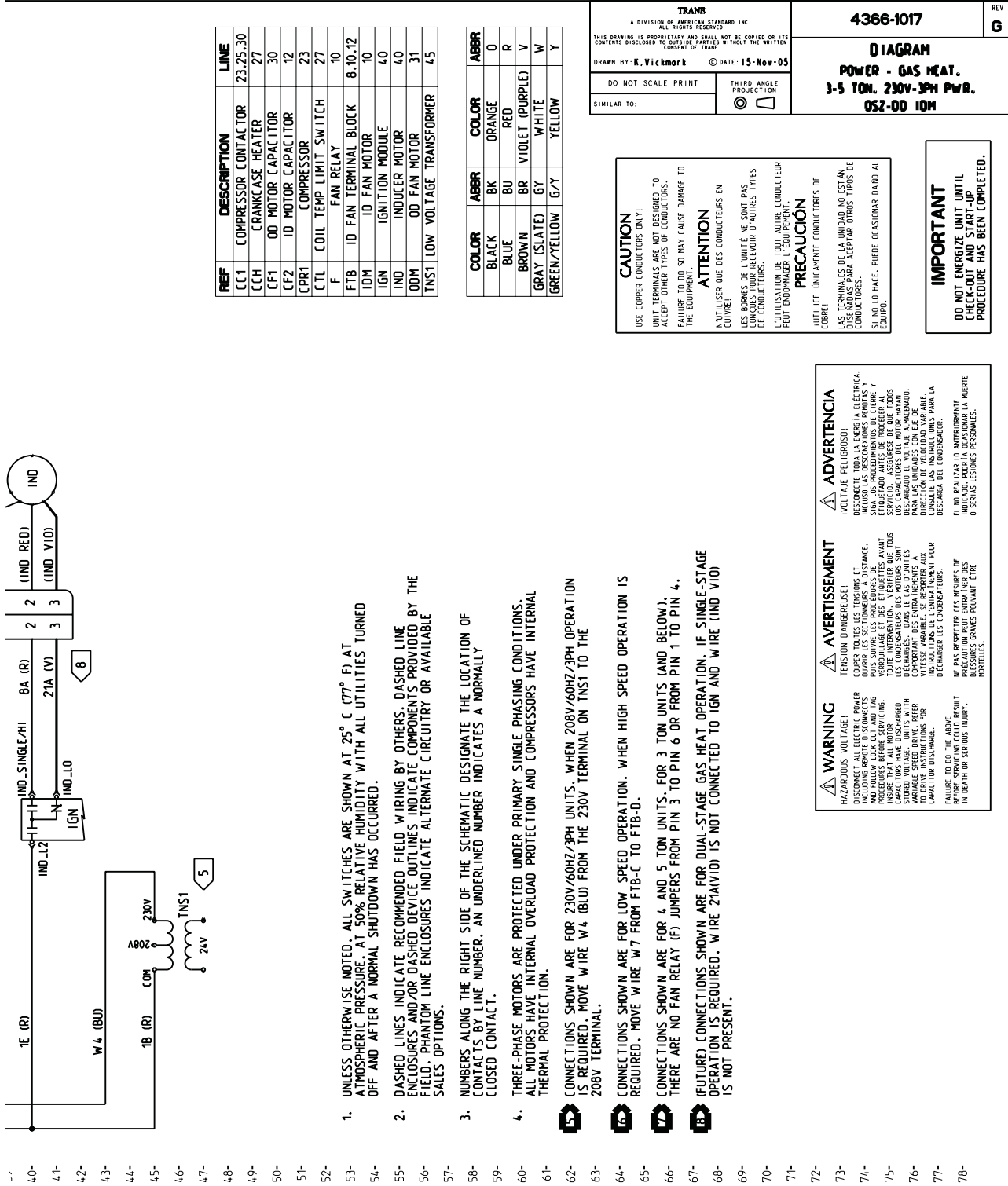


Figure 4. (continued from previous page) 230v/60hz/3ph — 2 - 5 Ton Single Stage Gas Heat / Oversize Drive Motor — 4366-1017

Power Schematic

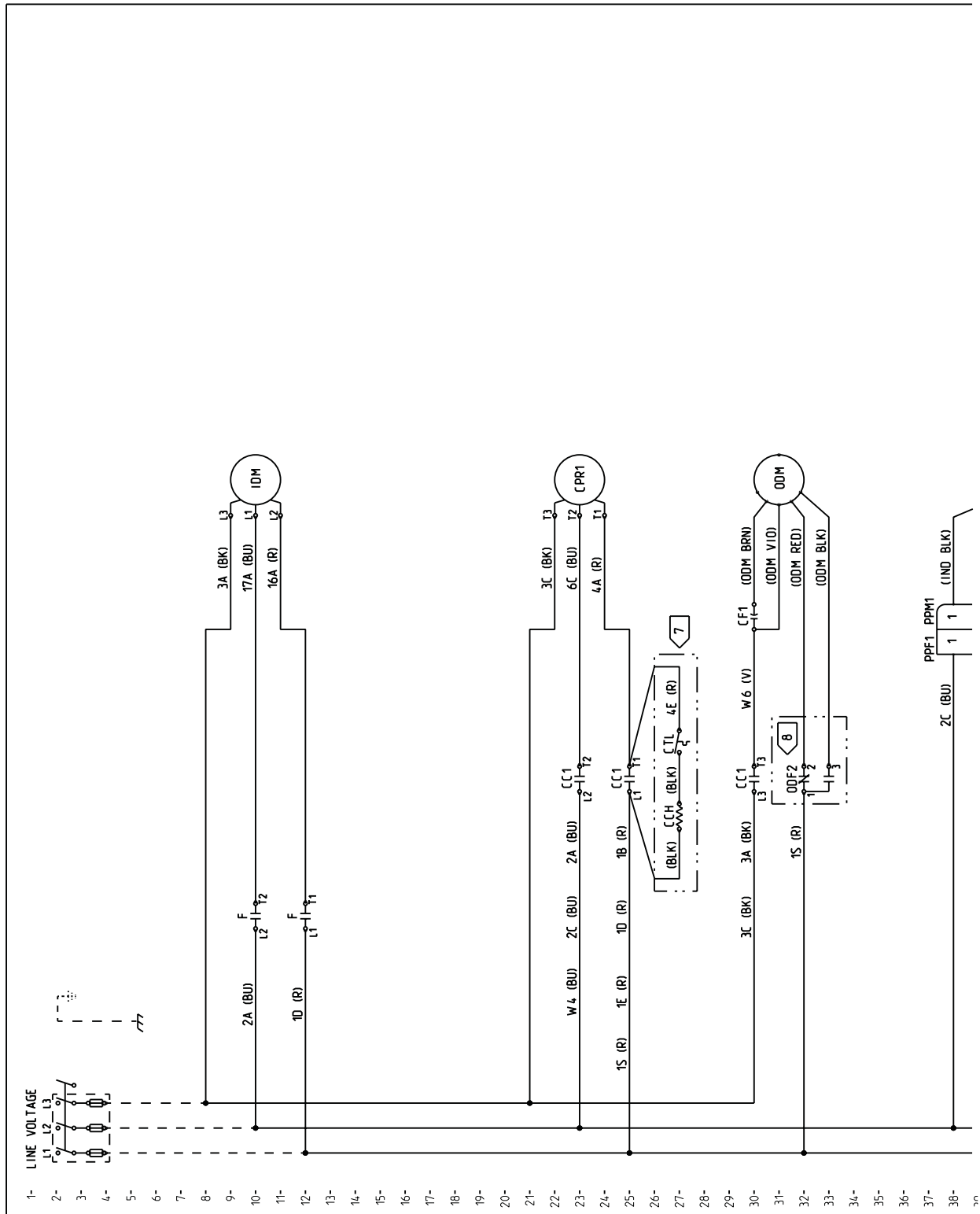


Figure 5. 230v/60hz/3ph – 2 - 7.5 Ton Single Stage Gas Heat / Belt Drive Motor – 4366-1016

Power Schematic

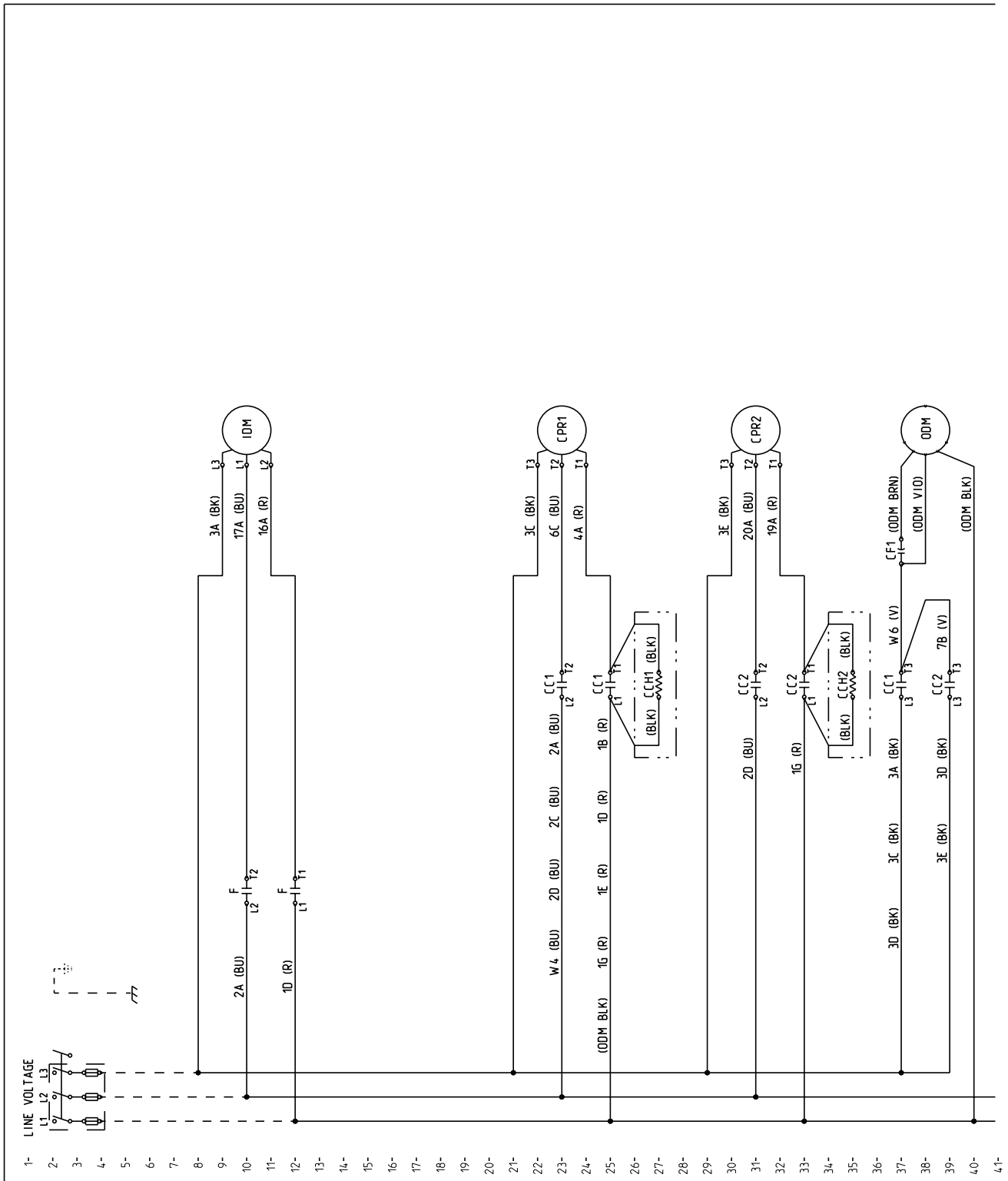


Figure 6. 230v/60hz/3ph – 7.5 - 10 Ton Gas Heat / Dual Compressor – 4366-1033

Power Schematic

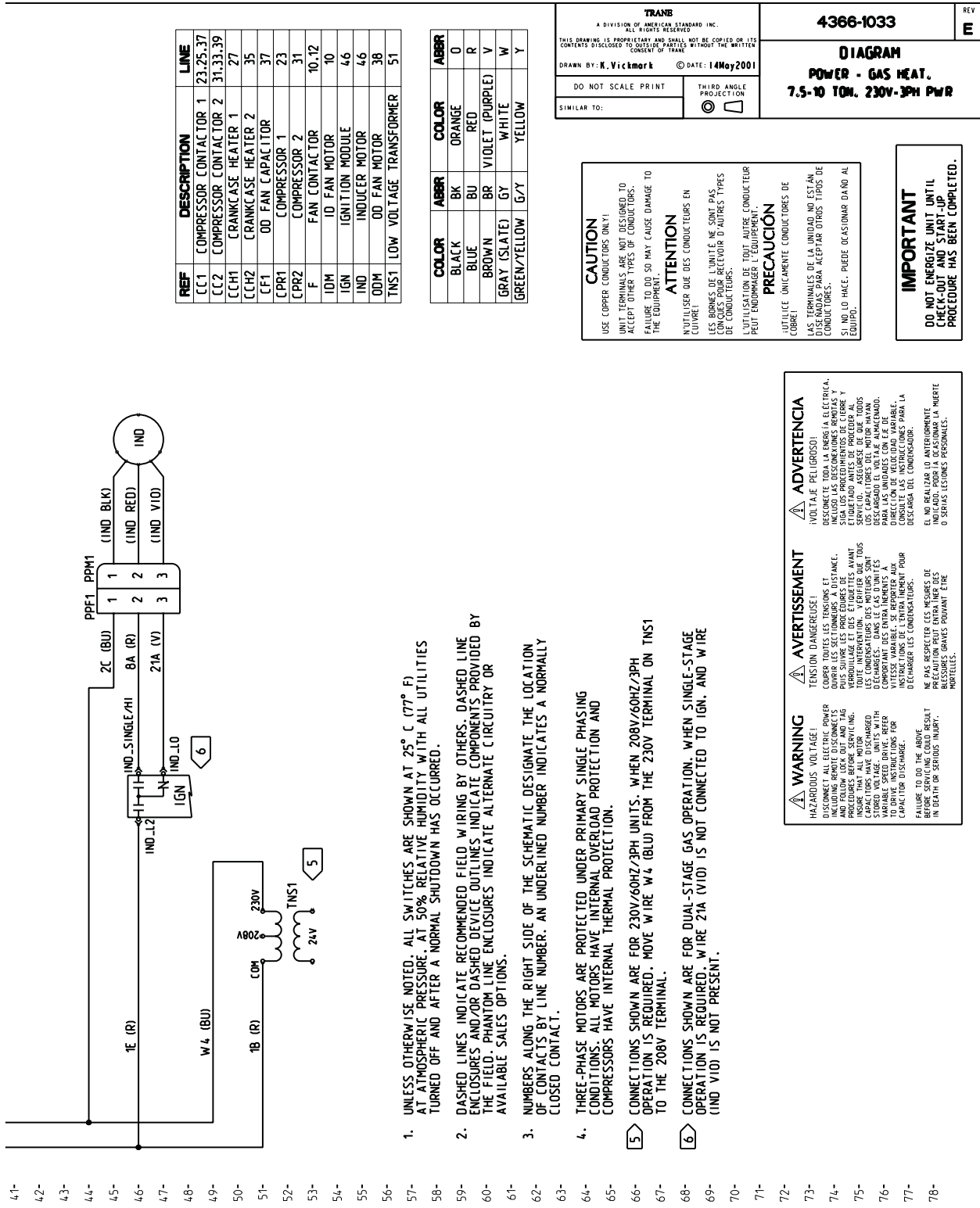


Figure 6. (continued from previous page) 230v/60hz/3ph — 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1033

Power Schematic

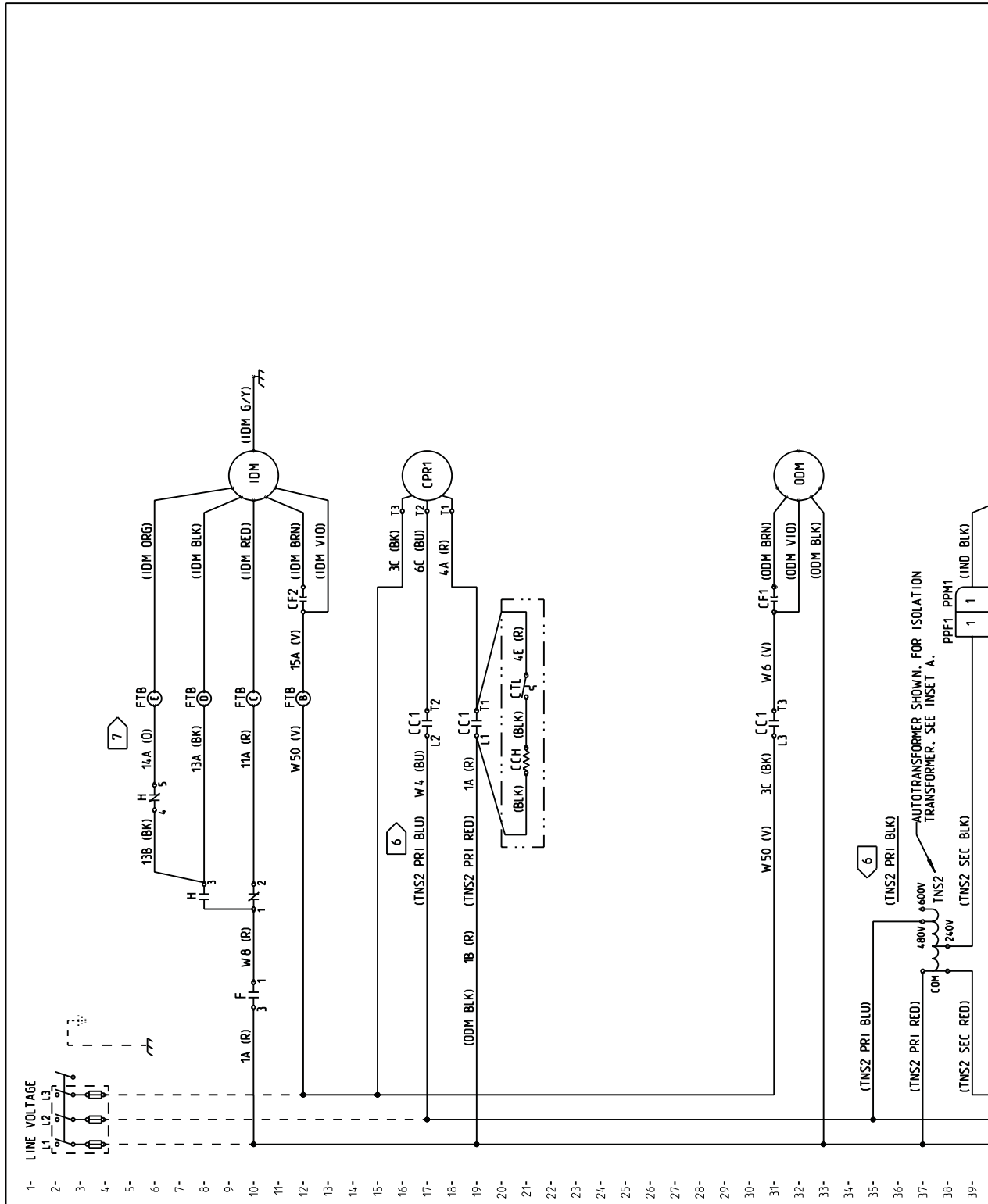
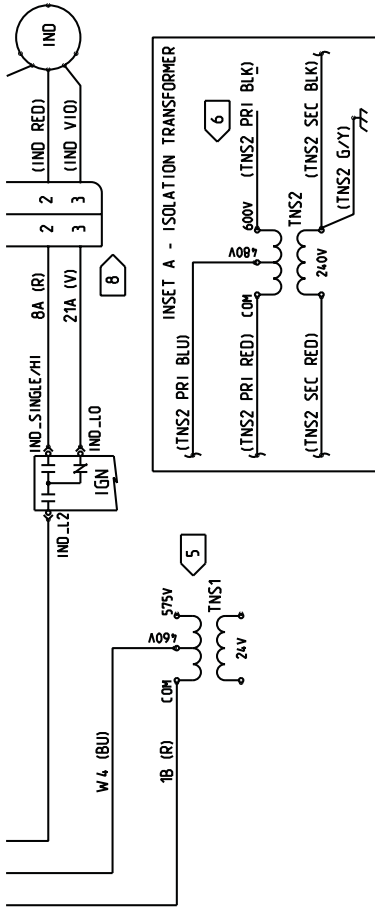


Figure 7. 460-575v/60hz/3ph – 2 - 3 Ton Single Stage Gas Heat / Direct Drive Motor – 4366-1004

Power Schematic



1. UNLESS OTHERWISE NOTED, ALL SWITCHES ARE SHOWN AT 25°C (77°F), AT ATMOSPHERIC PRESSURE. AT 50% RELATIVE HUMIDITY WITH ALL UTILITIES TURNED OFF AND AFTER A NORMAL SHUTDOWN HAS OCCURRED.
2. DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE COMPONENTS PROVIDED BY THE FIELD. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
3. NUMBERS ALONG THE RIGHT SIDE OF THE SCHEMATIC DESIGNATE THE LOCATION OF CONTACTS BY LINE NUMBER. AN UNDERLINED NUMBER INDICATES A NORMALLY CLOSED CONTACT.
4. THREE-PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION AND COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
5. CONNECTIONS SHOWN ARE FOR 460V/60HZ/3PH UNITS. WHEN 575V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4(BLU) FROM THE 460V TERMINAL ON TNS1 TO THE 575V TERMINAL.
6. CONNECTIONS SHOWN ARE FOR 460V/60HZ/3PH UNITS. WHEN 575V/60HZ/3PH OPERATION IS REQUIRED, REMOVE WIRE (TNS2 PRI BLU) FROM LC1-L2 AND CONNECT WIRE (TNS2 PRI BLK) TO CC1-L2.
7. CONNECTIONS SHOWN ARE FOR LOW SPEED OPERATION (COOLING) AND HIGH SPEED OPERATION (HEATING). WHEN HIGH SPEED COOLING IS REQUIRED, REMOVE WIRE 14A(ORG) FROM FTB-E AND TAPE, AND MOVE WIRE 14A(RD) FROM FTB-C TO FTB-D.
8. (FUTURE) CONNECTIONS SHOWN ARE FOR DUAL-STAGE GAS HEAT OPERATION. WHEN SINGLE-STAGE OPERATION IS REQUIRED, WIRE 21A(VIO) IS NOT CONNECTED TO IGN AND WIRE (IND VIO) IS NOT PRESENT.

REF	DESCRIPTION	LINE
CC1	COMPRESSOR CONTACTOR	17, 19, 31
CCH	CRANKCASE HEATER	21
CF1	OD MOTOR CAPACITOR	31
CF2	ID MOTOR CAPACITOR	12
CPR1	COMPRESSOR	17
CTL	COIL TEMP LIMIT SWITCH	21
F	FAN RELAY	9
FTB	FAN TERMINAL BLOCK	6, 8, 10, 12
H	HEAT RELAY	6, 10
IDM	ID FAN MOTOR	10
IGN	IGNITION MODULE	4, 1
IND	INDUCER MOTOR	4, 1
ODM	OD FAN MOTOR	32
TNS1	LOW VOLTAGE TRANSFORMER	4, 5
TNS2	INDUCER AUTOTRANSFORMER	37

COLOR	ABBR	COLOR	ABBR
BLACK	BK	ORANGE	O
BLUE	BU	RED	R
BROWN	BR	VIOLET (PURPLE)	V
GRAY (SLATE)	GY	WHITE	W
GREEN/YELLOW	G/Y	YELLOW	Y

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DRAWN BY: K. Vickmark © DATE: 23Aug2000
DO NOT SCALE PRINT
THIRD ANGLE PROJECTION
SIMILAR TO:

4366-1004

DIAGRAM

POWER - GAS HEAT, 3 TON.
460V/575V PWR, STD-00 IOM

REV
H

CAUTION

USE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.

ATTENTION

UTILISER DES CONDUCTEURS EN CUIVRE!
LES BORNES DE L'UNITÉ NE SONT PAS CONÇUES POUR RECEVOIR D'AUTRES TYPES DE CONDUCTEURS.
L'UTILISATION DE TOUT AUTRE CONDUCTEUR PEUT ENDOMMAGER L'EQUIPEMENT.

PRECAUCIÓN

UTILICE ÚNICAMENTE CONDUCTORES DE COBRE!
LAS TERMINALES DE LA UNIDAD NO ESTÁN DISEÑADAS PARA ACEPTAR OTROS TIPOS DE CONDUCTORES.
SI NO LO HACE, PUEDE OCASIONAR DAÑO AL EQUIPO.

IMPORTANT

DO NOT ENERGIZE UNIT UNTIL CHECK-OUT AND START-UP PROCEDURE HAS BEEN COMPLETED.

ADVERTENCIA

DESCONECTE TODA LA ENERGÍA ELÉCTRICA. SIGA LOS PROCEDIMIENTOS DE CERRER Y ETIQUETADO ANTES DE PROCEDER AL TRABAJO. LOS CONDENSADORES DEL MOTOR HAYÁN DESCARGADO EL VOLTAJE ALMACEANDO. CONSULTA LAS INSTRUCCIONES PARA LA DESCARGA DEL CONDENSADOR.
EL NO REALIZAR LO ANTERIORMENTE PUEDE CAUSAR LA MUERTE O SERIOS LESIONES PERSONALES.

AVERTISSEMENT

COUPER TOUTES LES TENSIONS ET ÉTIQUETER LES PROCEDES DE CERRER Y VERROUILLAGE ET DES ÉTIQUETTES AVANT LE TRAVAIL. LES CONDENSATEURS DES MOTEURS SONT DÉCHARGÉS - DANS LE CAS D'UNITÉS ALMACEANT L'ÉNERGIE. CONSULTER LES INSTRUCTIONS POUR DÉCHARGER LES CONDENSATEURS.
NE PAS RESPECTER CES MESURES DE SÉCURITÉ PEUT ENTRAINER DES BLESSURES GRAVES, MORTALES, ETC.

WARNING

HAZARDOUS VOLTAGE!
DISCONNECT ALL ELECTRIC POWER FROM THE UNIT AND TAG AND FOLLOW LOCK OUT AND TAG PROCEDURES BEFORE SERVICING. CAPACITORS HAVE DISCHARGED STORED VOLTAGE. UNITS WITH CAPACITORS STORED ENERGY FOR CAPACITOR DISCHARGE.
FAILURE TO DO THE ABOVE BEFORE SERVICING COULD RESULT IN DEATH OR SERIOUS INJURY.

Figure 7. (continued from previous page) 460-575v/60hz/3ph – 2 - 3 Ton Single Stage Gas Heat / Direct Drive Motor – 4366-1004

Power Schematic

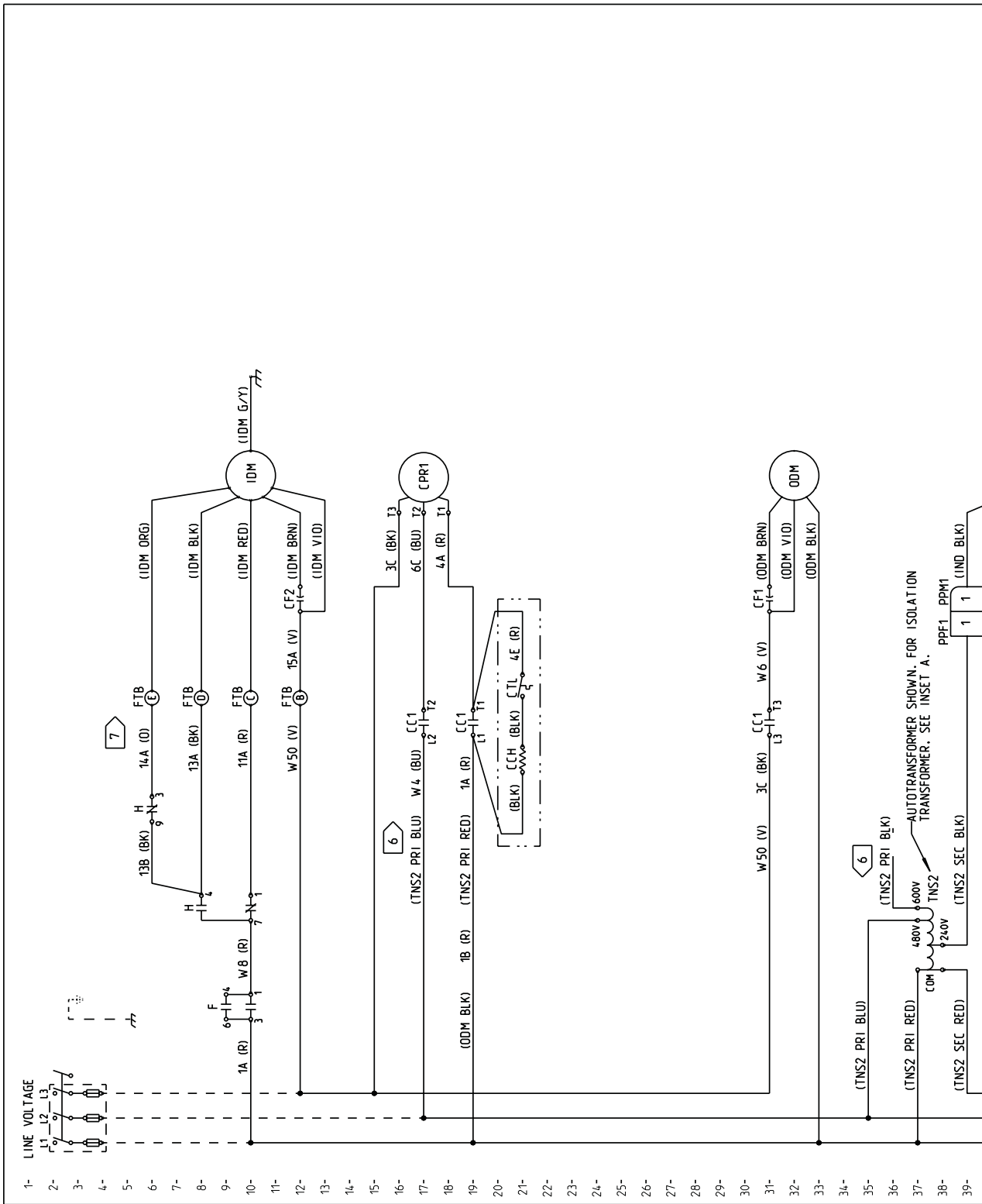


Figure 8. 460-575v/60hz/3ph – 4 - 5 Ton Single Stage Gas Heat / Direct Drive Motor – 4366-1032

Power Schematic

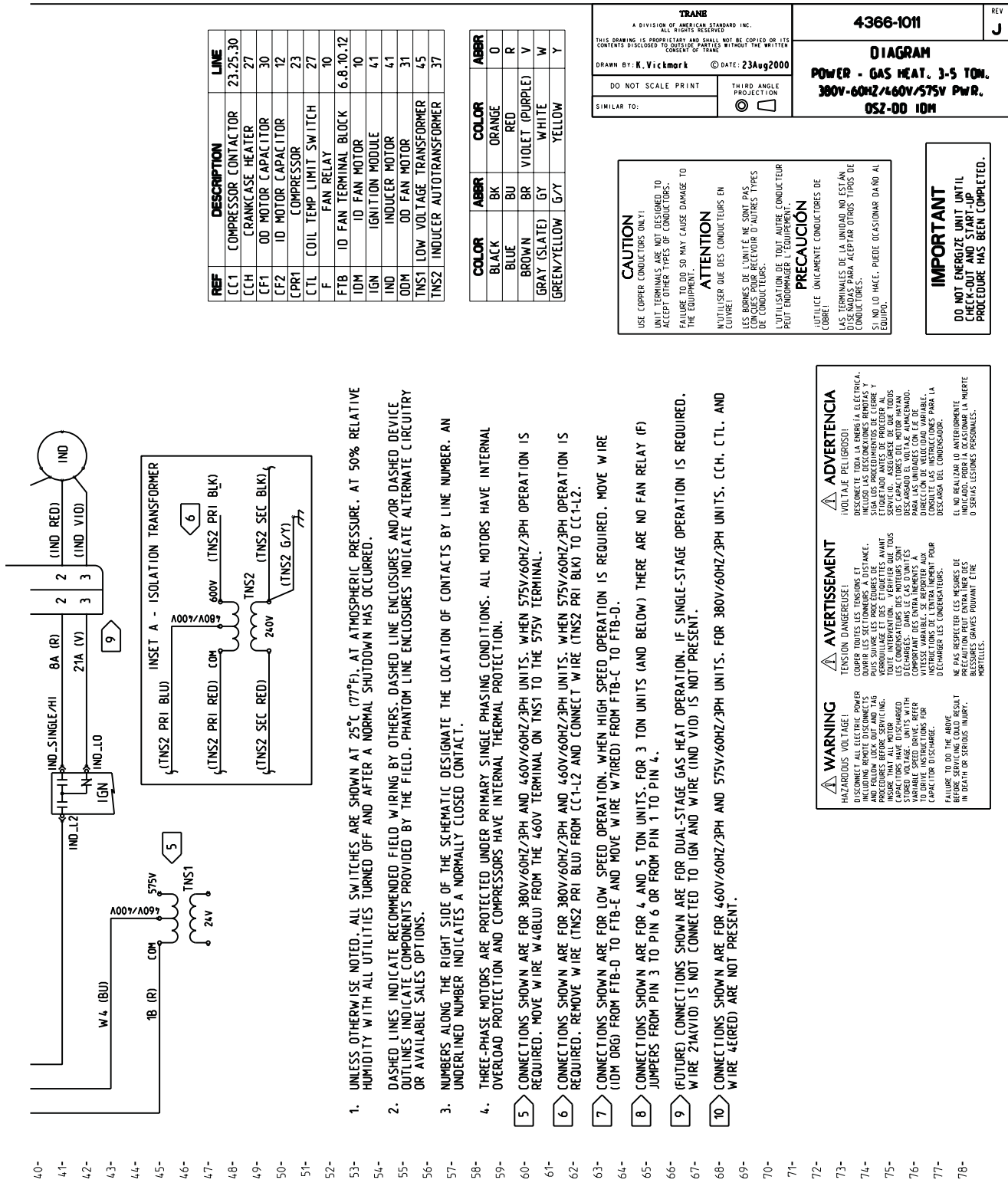


Figure 9. (continued from previous page) 460-575v/60hz/3ph – 4-5 Ton Single Stage Gas Heat / Oversize Drive Motor – 4366-1011

Power Schematic

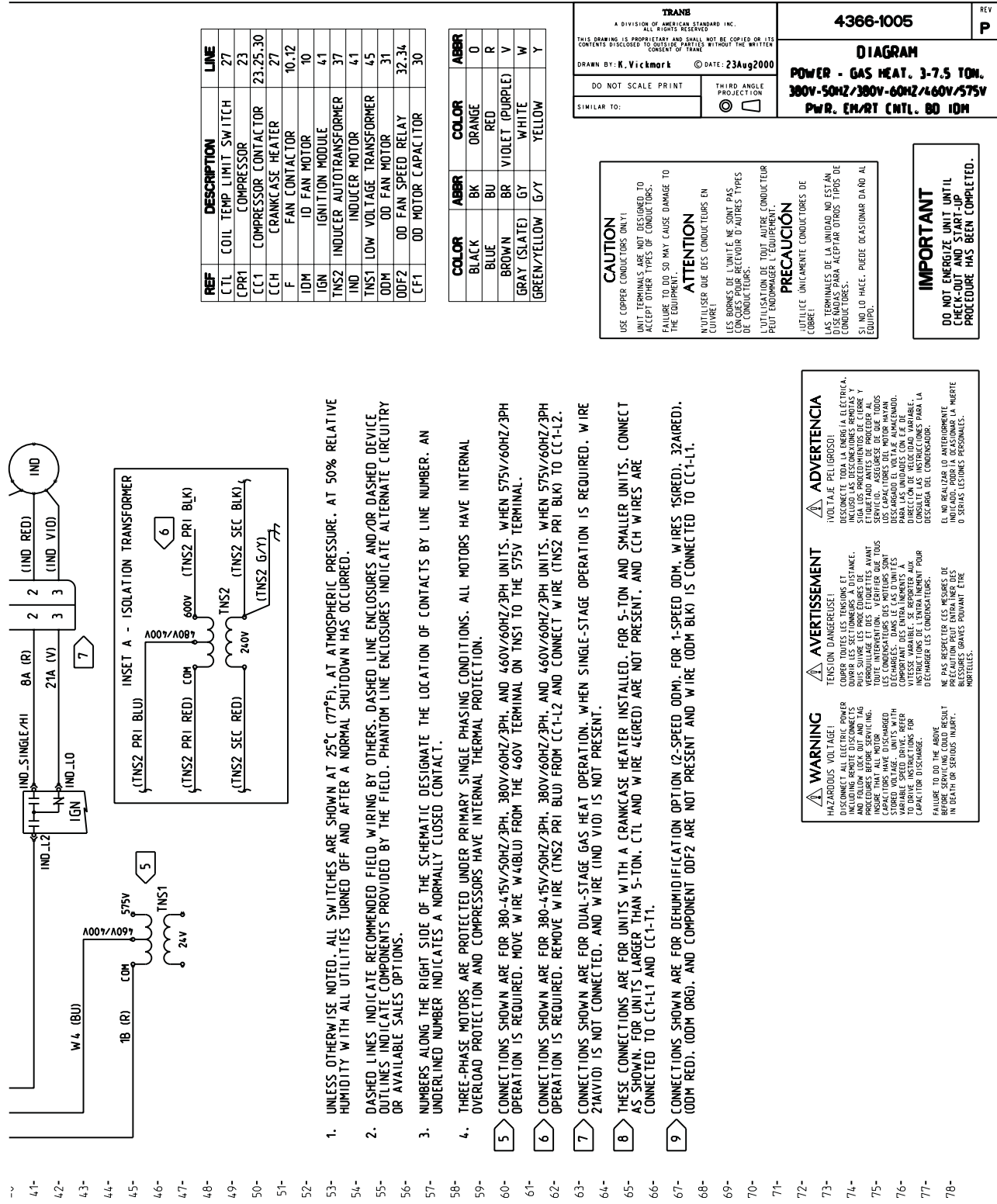


Figure 10. (continued from previous page) 460-575v/60hz/3ph — 2 - 7.5 Ton Single Stage Gas Heat / Belt Drive Motor — 4366-1005

Power Schematic

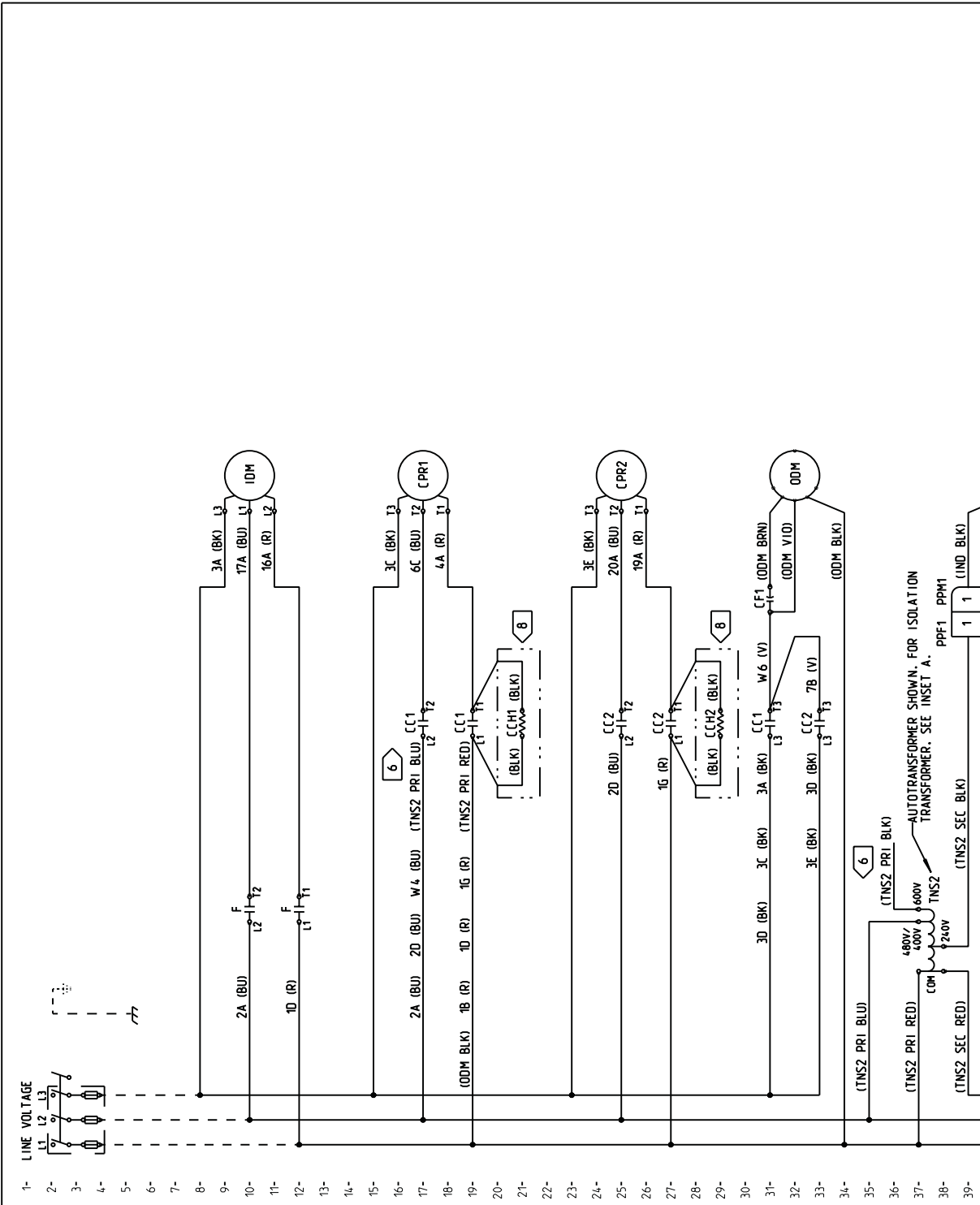


Figure 11. 460-575v/60hz/3ph – 7.5 - 10 Ton Gas Heat / Dual Compressor – 4366-1034

Power Schematic

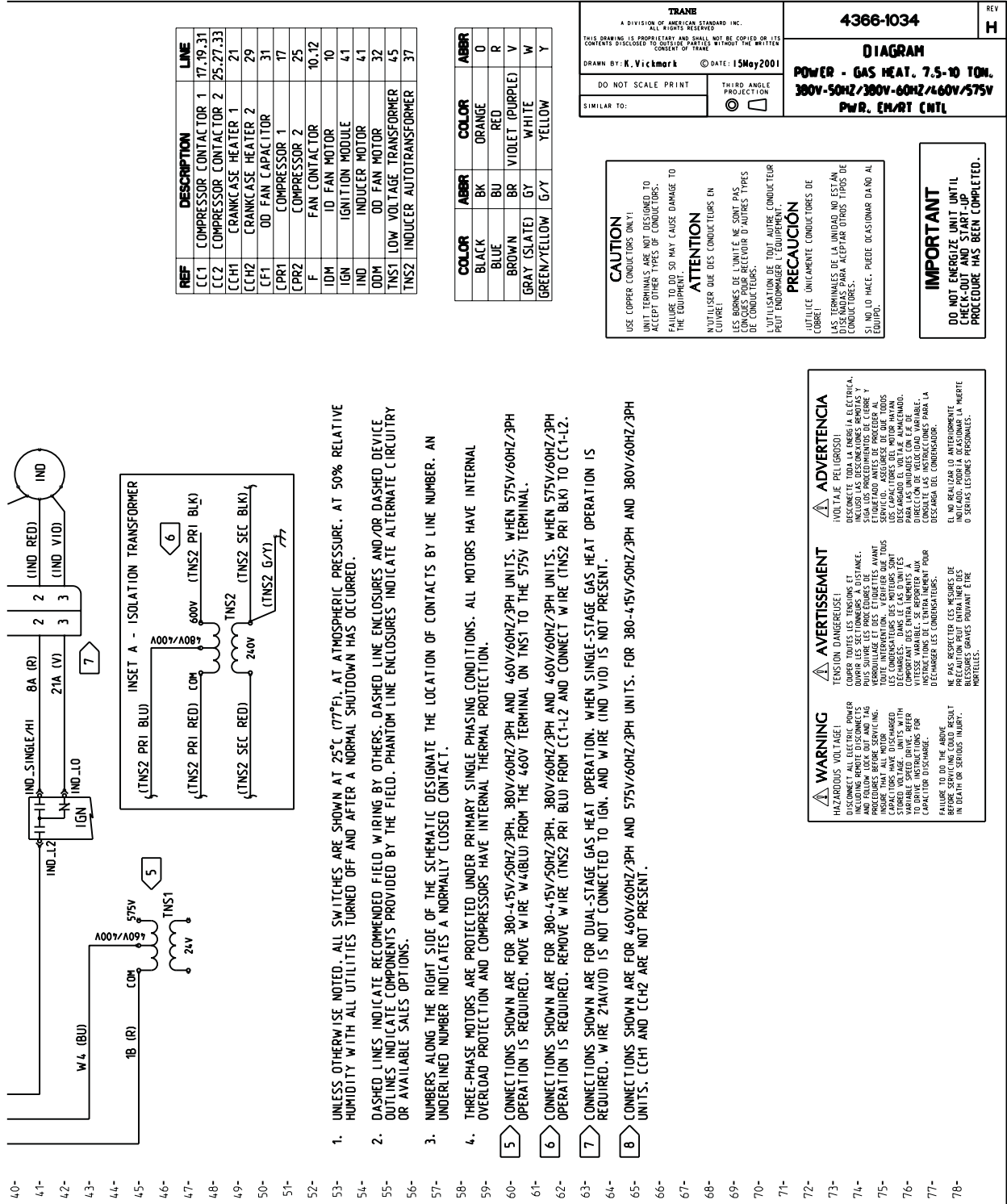


Figure 11. (continued from previous page) 460-575v/60hz/3ph – 7.5 - 10 Ton Gas Heat / Dual Compressor – 4366-1034

Power Schematic

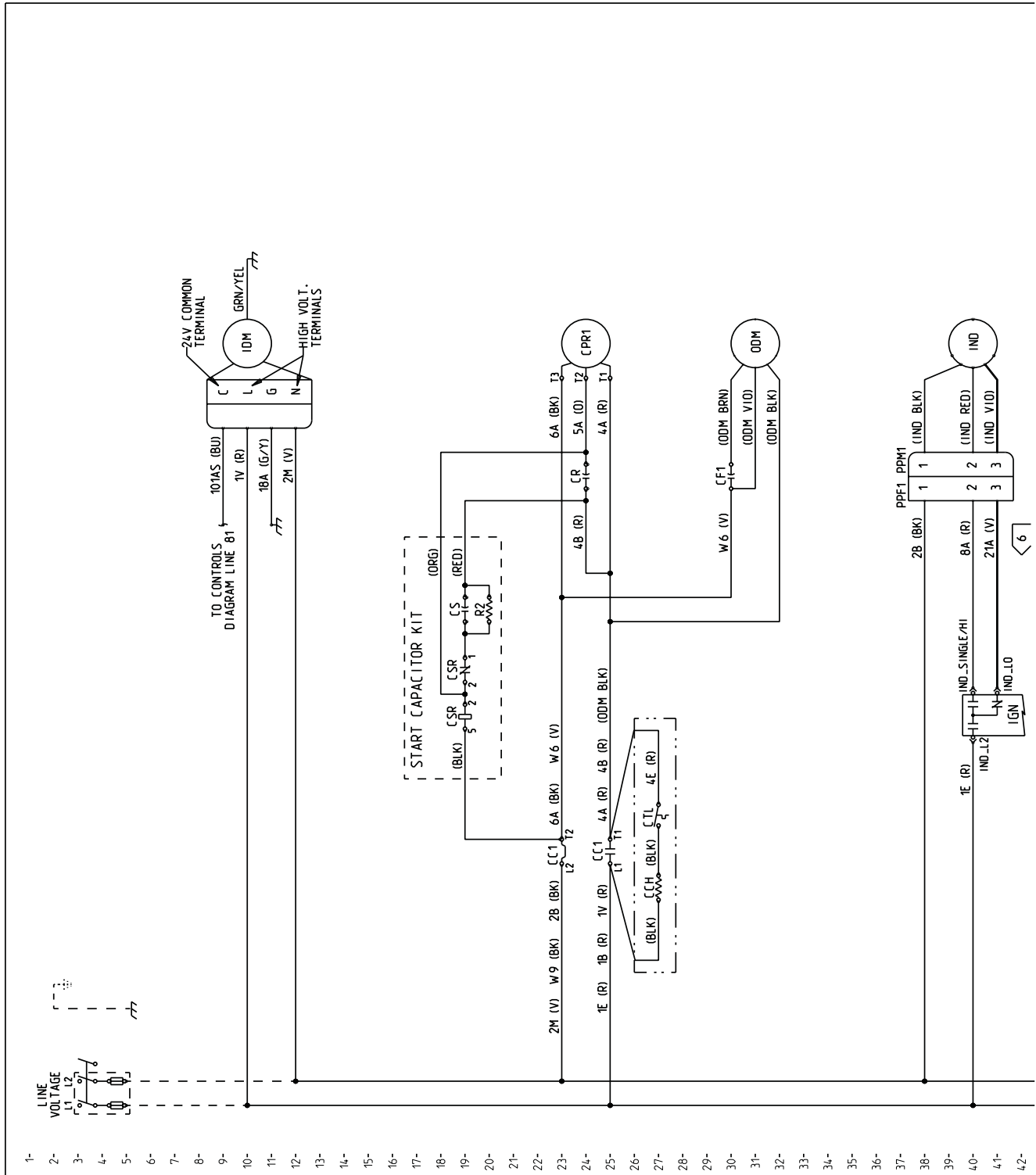


Figure 12. 230v/60Hz/1Ph – 3 - 5 Ton R410A – 4366-4576

Power Schematic

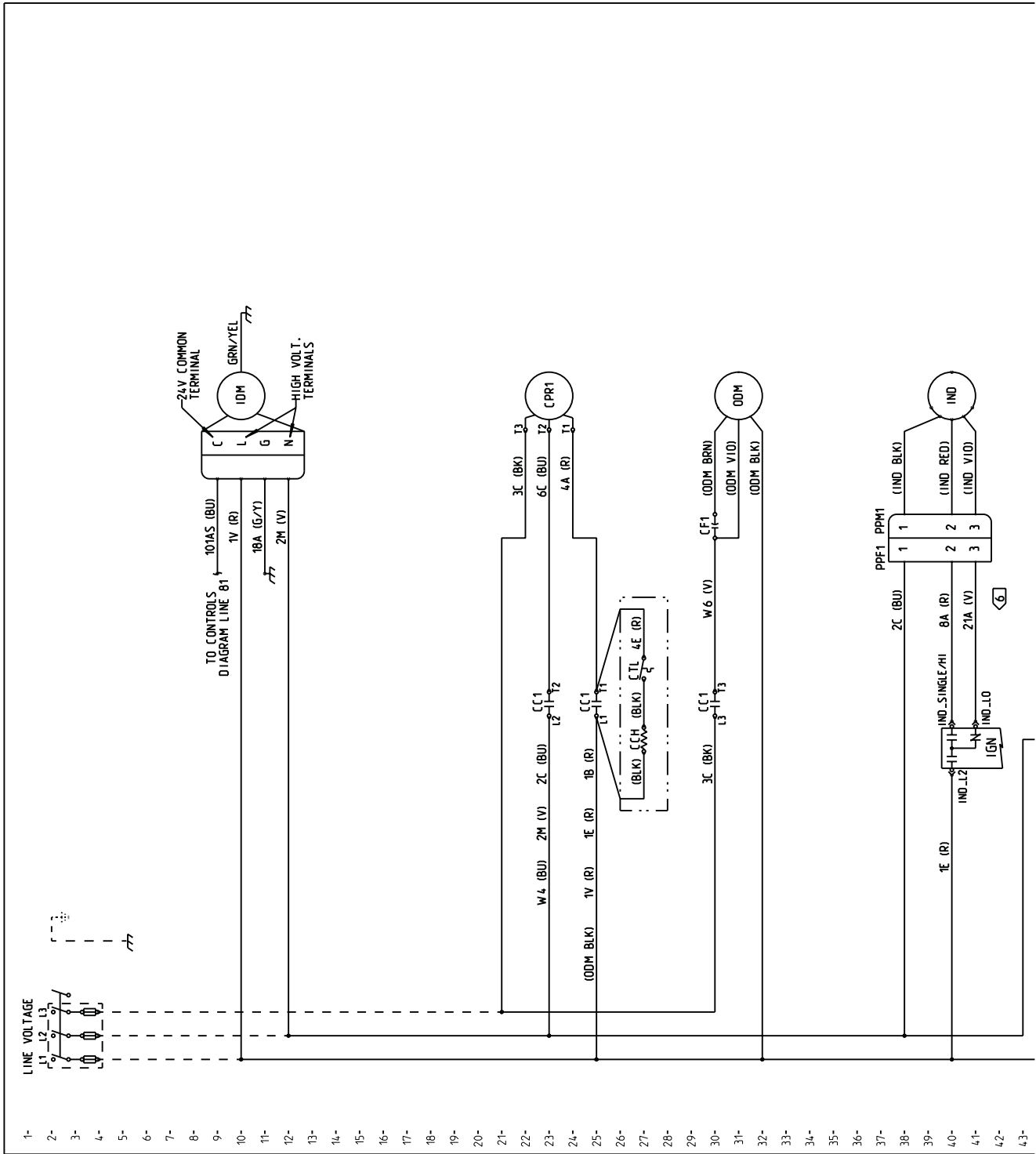
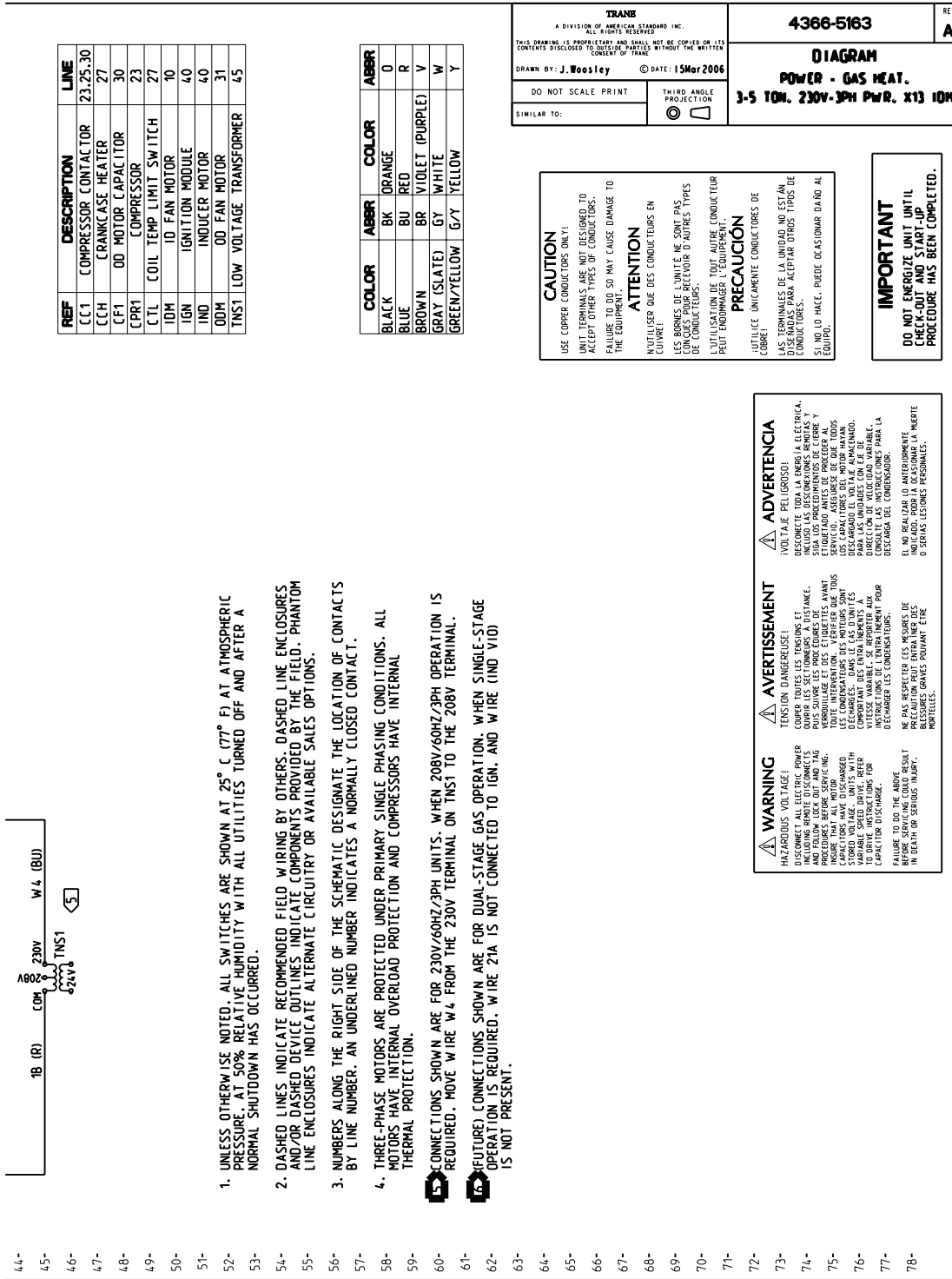


Figure 13. 230v/60Hz/3Ph – 3 - 5 Ton R410A / Hi Eff – 4366-5163

Power Schematic



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DO NOT SCALE PRINT THIRD ANGLE PERSPECTIVE

SIMILAR TO:

4366-5163

DIAGRAM
POWER - GAS HEAT.
3-5 TON, 230V-3PH PWR, X13 IOM

REV
A

CAUTION
USE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.

ATTENTION
N'UTILISER QUE DES CONDUCTEURS EN CUIVRE!
LES BORNES DE L'UNITÉ NE SONT PAS CONÇUES POUR ACCEPTER D'AUTRES TYPES DE CONDUCTEURS.
L'UTILISATION DE TOUT AUTRE CONDUCTEUR PEUT ENDOMMAGER L'ÉQUIPEMENT.

PRECAUCIÓN
UTILICE ÚNICAMENTE CONDUCTORES DE COBRE!
LAS TERMINALES DE LA UNIDAD NO ESTÁN DISEÑADAS PARA ACEPTAR OTROS TIPOS DE CONDUCTORES.
SI NO LO HACE, PUEDE OCASIONAR DAÑO AL EQUIPO.

IMPORTANT
DO NOT ENERGIZE UNIT UNTIL CHECK-OUT AND START-UP PROCEDURE HAS BEEN COMPLETED.

WARNING
HAZARDOUS VOLTAGE! POWER DISCONNECTS MUST BE OPENED AND FOLLOWING PROPER DISCONNECTING PROCEDURES, INSURE THAT ALL MOTOR SPEED DRIVE UNITS WITH STORED VOLTAGE CAPACITORS ARE DISCHARGED BEFORE WORKING ON THE CAPACITOR DISCHARGE.

AVERTISSEMENT
TENSION DANGEREUSE! DÉCONNECTER LES TIGES ET SUIVRE LES PROCÉDURES APPROPRIÉES AVANT TOUTE INTERVENTION. VÉRIFIER QUE TOUTES LES UNITÉS À VITESSE VARIABLE AVEC CONDENSATEUR SONT DÉCHARGÉES AVANT DE TRAVAILLER SUR LE CONDENSATEUR.

ADVERTENCIA
¡VOLTAJE PELIGROSO! DECONNECTE LOS TIPOS Y SIGA LOS PROCEDIMIENTOS DE CERRAJE Y SERVICIO. ASEGURESE DE QUE TODOS LOS UNIDADES CON VOLTAJE ALMACENADO PARA LAS UNIDADES CON E.F. DE VITESSE VARIABLE SE DESCARGAN PARA LA DESARMA DEL CONDENSADOR.

EL NO REALIZAR LO ANTERIORMENTE INDICADO, PUEDE OCASIONAR LA MUERTE O SERIOS LESIONES PERSONALES.

Figure 13. (continued from previous page) 230v/60Hz/3Ph – 3 - 5 Ton R410A / Hi Eff – 4366-5163

Power Schematic

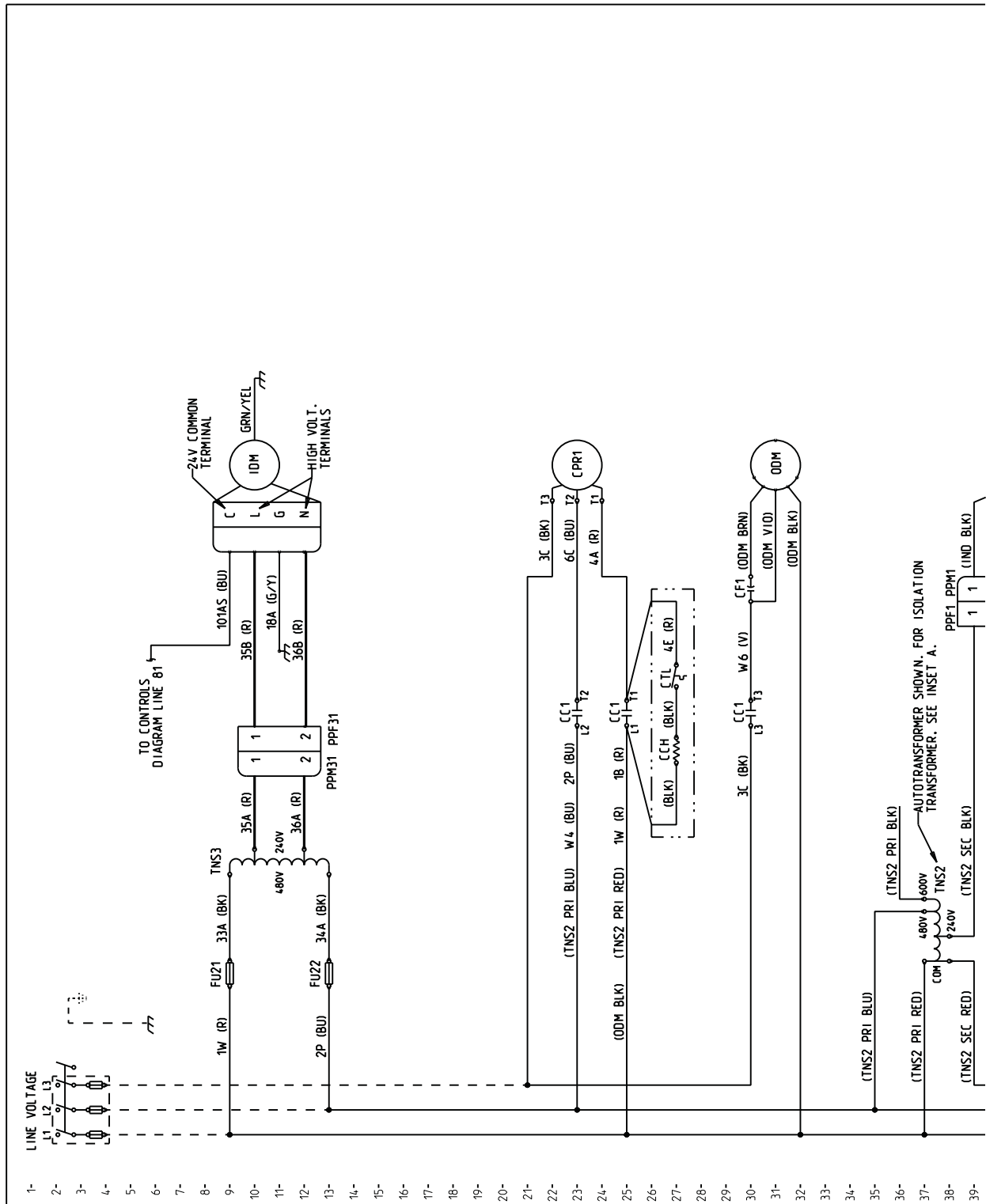


Figure 14. 460v/60Hz/3Ph – 3 - 5 Ton R410A / Hi Eff – 4366-5164

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/1PH UNITS. WHEN 208V/60HZ/1PH OPERATION IS REQUIRED, MOVE WIRE W9 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2. AND CONNECT MAS TO WIRES 180A AND 181A.
6. CONNECTIONS SHOWN INCLUDE FOS AND HPC1. IF NEITHER OPTION IS INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ONLY FOS IS INSTALLED, CONNECT WIRE 189A TO WIRE LPC1-BLU. IF ONLY HPC1 IS INSTALLED, CONNECT WIRE HPC1-BLK TO WIRES W24/188A.
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN S0 AND ON ECA.
8. (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED. WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.

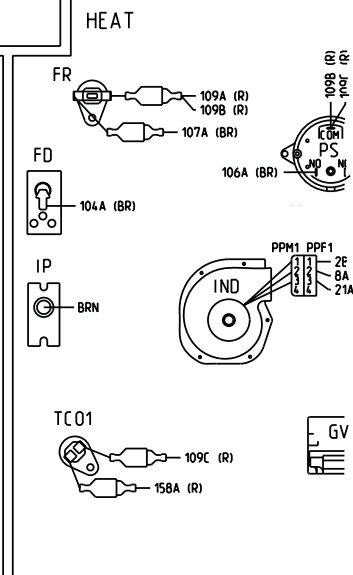
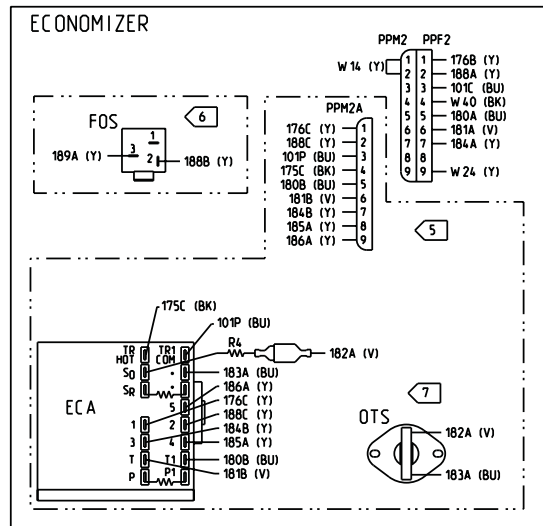
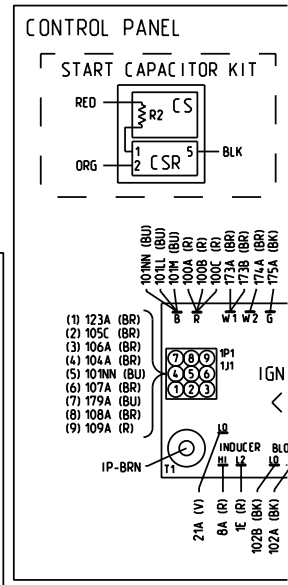
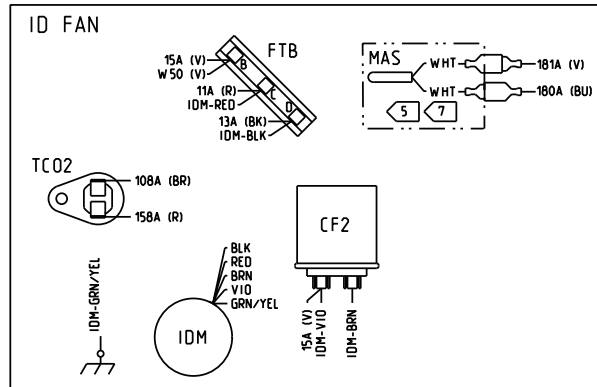
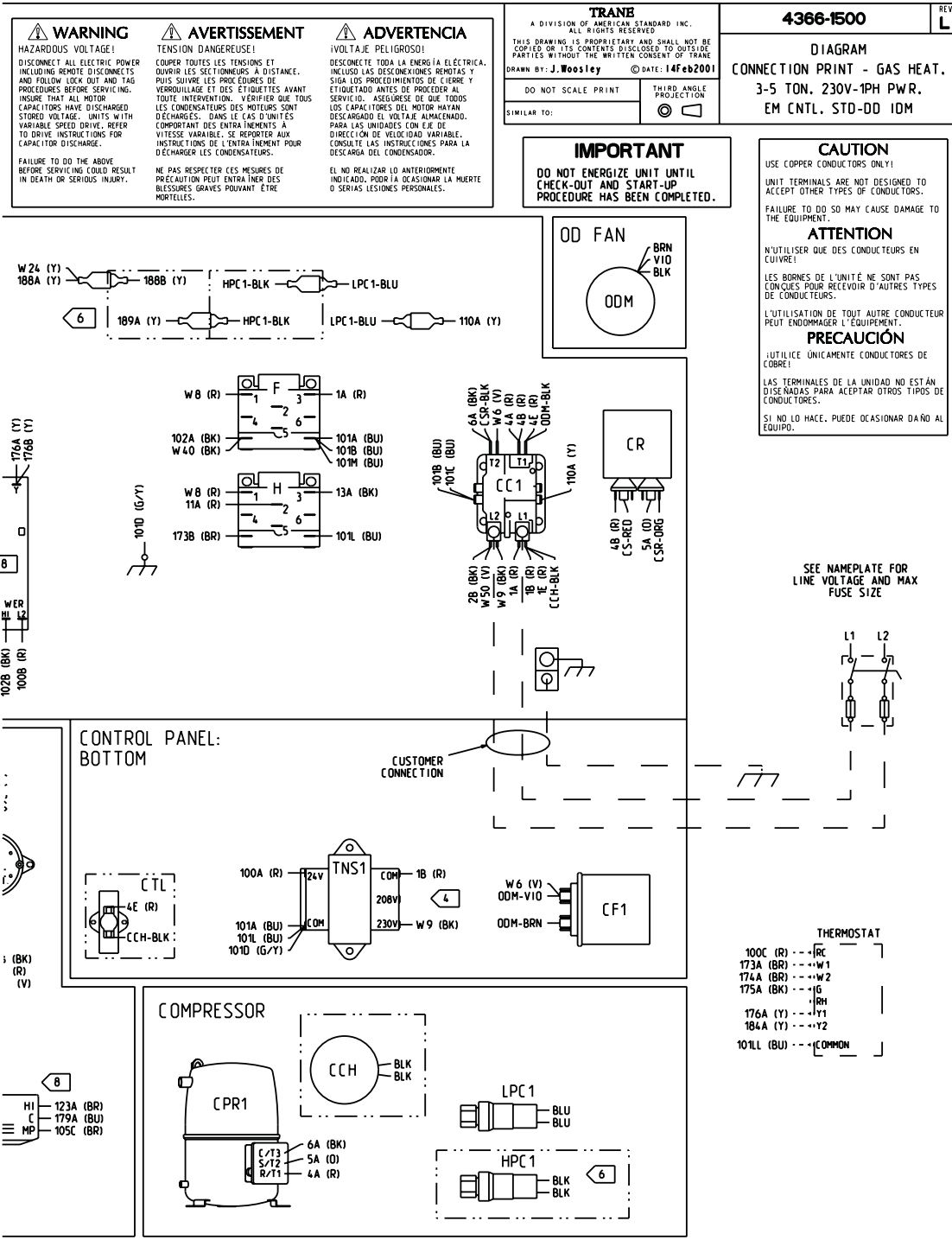


Figure 15. 230v/60hz/1ph – Single Stage Gas Heat / Direct Drive – 4366-1500

Connection Schematics



Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/1PH UNITS. WHEN 208V/60HZ/1PH OPERATION IS REQUIRED, MOVE WIRE W9 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2, CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
6. CONNECTIONS SHOWN INCLUDE FOS AND HPC1. IF NEITHER OPTION IS INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ONLY FOS IS INSTALLED, CONNECT WIRE 189A TO WIRE LPC1-BLU. IF ONLY HPC1 IS INSTALLED, CONNECT WIRE HPC1-BLK TO WIRES W24/188A.
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND ECA.
8. (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.

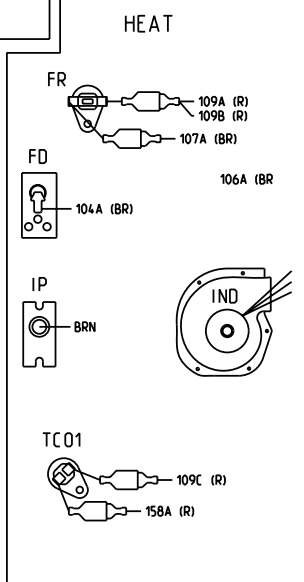
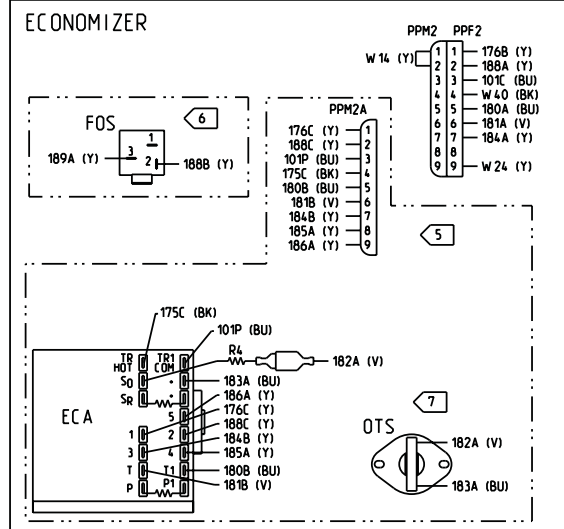
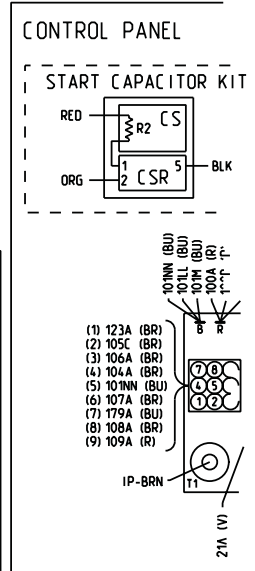
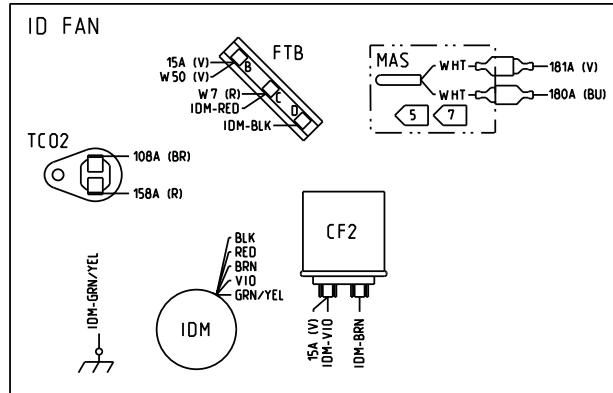


Figure 16. 230v/60hz/1ph – Single Stage Gas Heat / Oversize Motor – 4366-1519

Connection Schematics

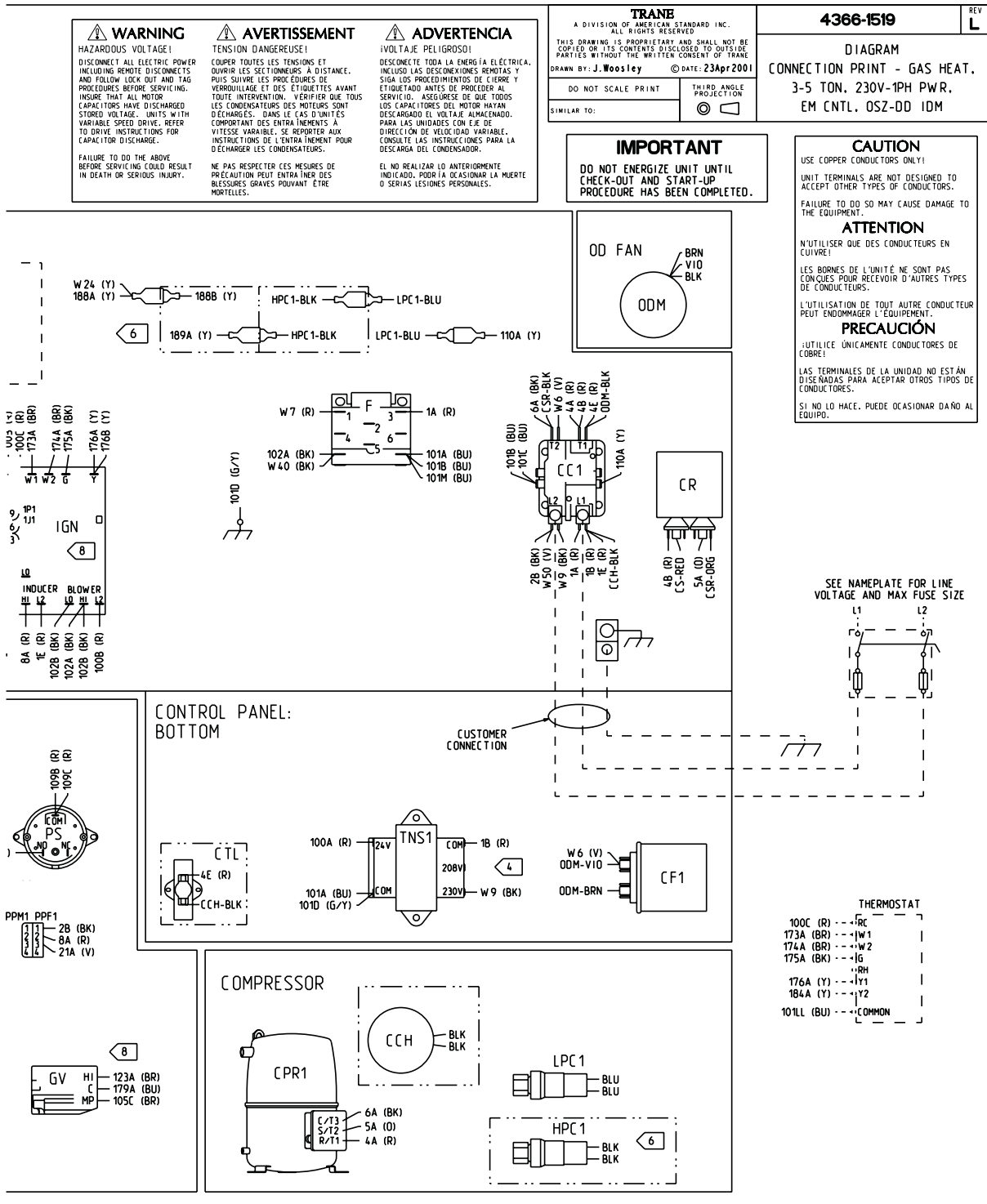


Figure 16. (continued from previous page) 230v/60hz/1ph – Single Stage Gas Heat / Oversize Motor – 4366-1519

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/3PH UNITS. WHEN 208V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
6. CONNECTIONS SHOWN INCLUDE FOS AND HPC1. IF NEITHER OPTION IS INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ONLY FOS IS INSTALLED, CONNECT WIRE 189A TO WIRE LPC1-BLU. IF ONLY HPC1 IS INSTALLED, CONNECT HPC1-BLK TO WIRES W24/188A.
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND ON ECA.
8. (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.

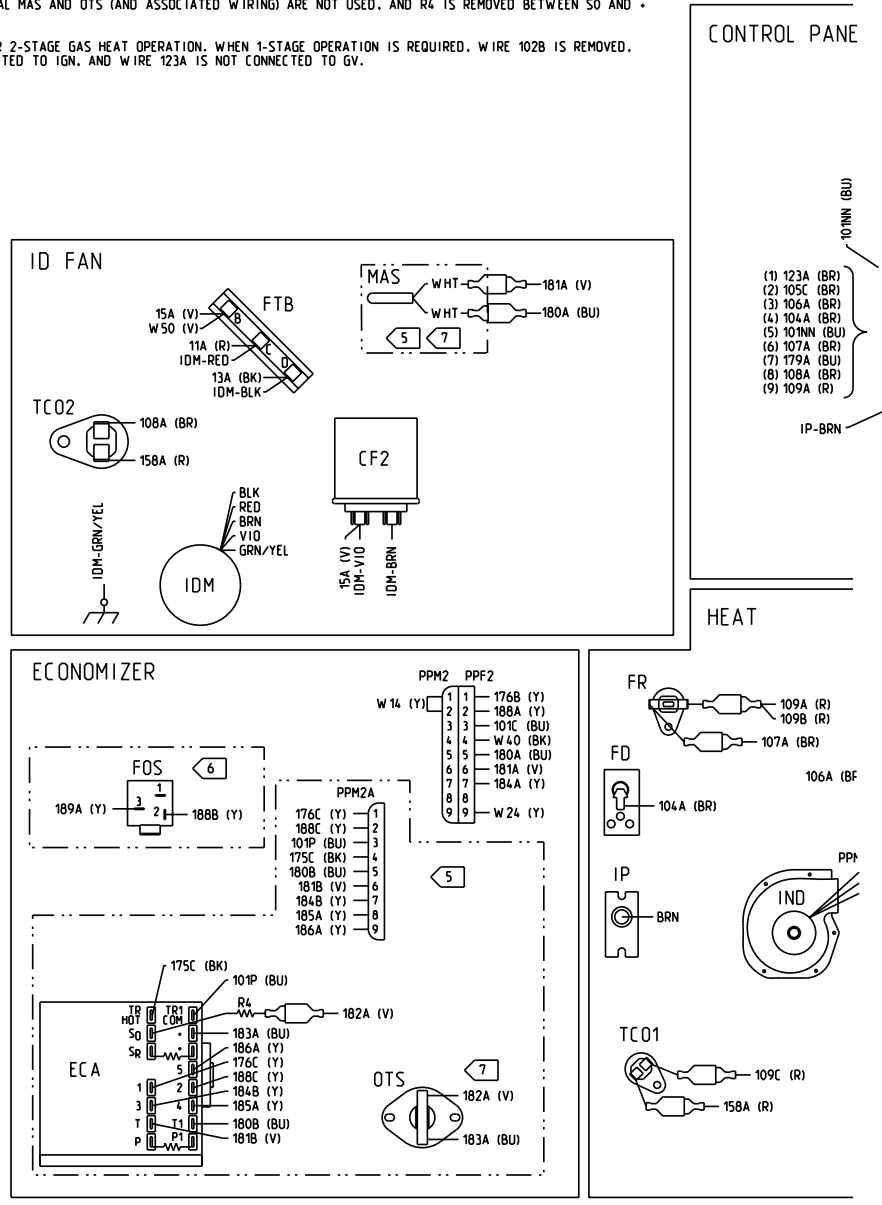


Figure 17. 230v/60hz/3ph – Single Stage Gas Heat / Direct Drive – 4366-1502

Connection Schematics

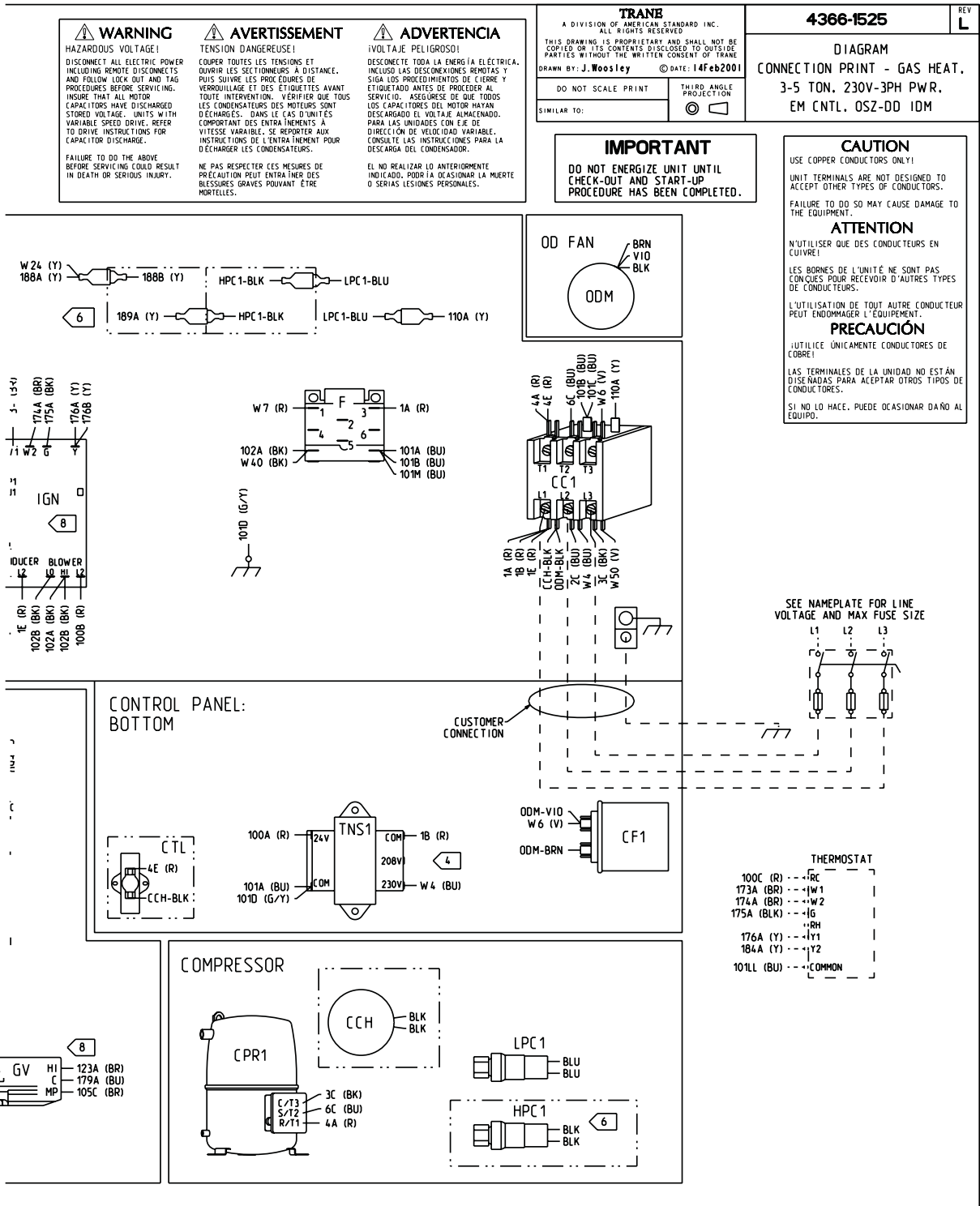


Figure 18. (continued from previous page) 230v/60hz/3ph – Single Stage Gas Heat / Oversize Motor – 4366-1525

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105 °C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/3PH UNITS. WHEN 208V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2. AND CONNECT MAS TO WIRES 180A AND 181A.
6. CONNECTIONS SHOWN INCLUDE FOS, TOL1, AND HPC1. IF NONE OF THESE OPTIONS ARE INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ANY OR ALL OF THESE OPTIONS ARE INSTALLED, CONNECT THEM IN SERIES AS SHOWN. (SEE NOTE 10 FOR EXCEPTION)
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND P ON ECA.
8. (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
9. WHEN WIRES 158D AND W51 ARE NOT PRESENT, CONNECT WIRES 158A AND 109C DIRECTLY TO TCO1.
10. FROSTAT CONNECTIONS/WIRE NUMBERS HAVE AN EXCEPTION. FOR ALL 4-5 TON UNITS WITH R410A REFRIGERANT AND HIGH EFFICIENCY, CONNECT WIRE 132C TO FOS PIN 2 AND 101TT TO FOS PIN 3.

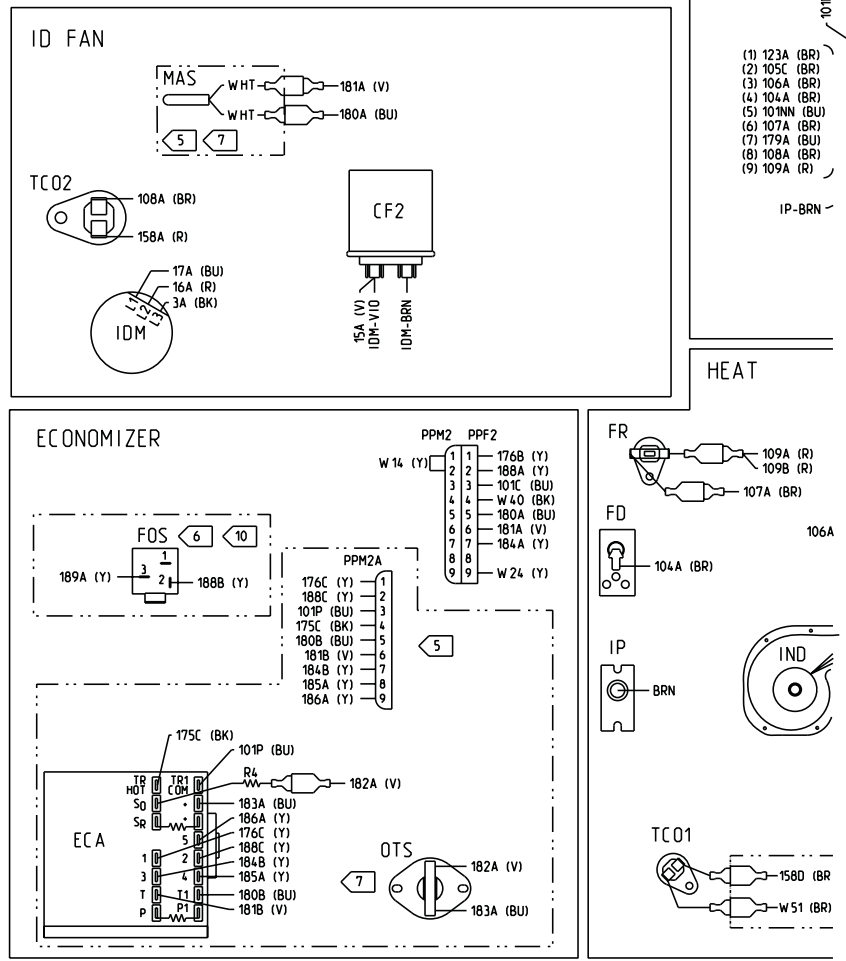


Figure 19. 230v/60hz/3ph – Single Stage Gas Heat / Belt Drive – 4366-1521

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/3PH UNITS. WHEN 208V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2. AND CONNECT MAS TO WIRES 180A AND 181A.
6. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND ECA.
7. CONNECTIONS SHOW OPTIONAL FOS INSTALLED. IF NOT INSTALLED, CONNECT WIRE W27 TO WIRE 132A.
8. CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.

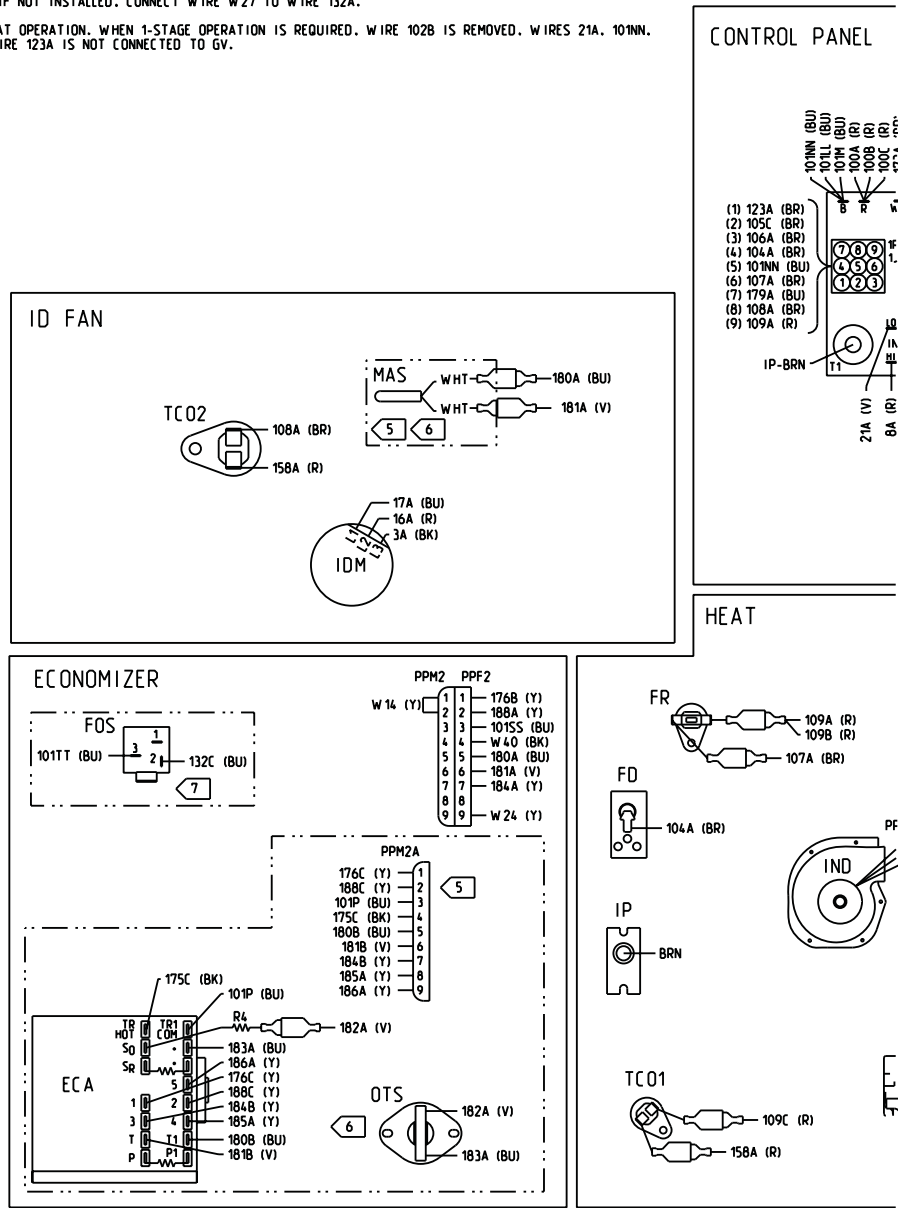


Figure 20. 230v/60hz/3ph — 6 - 7.5 Ton Gas Heat / Single Compressor — 4366-1537

Connection Schematics

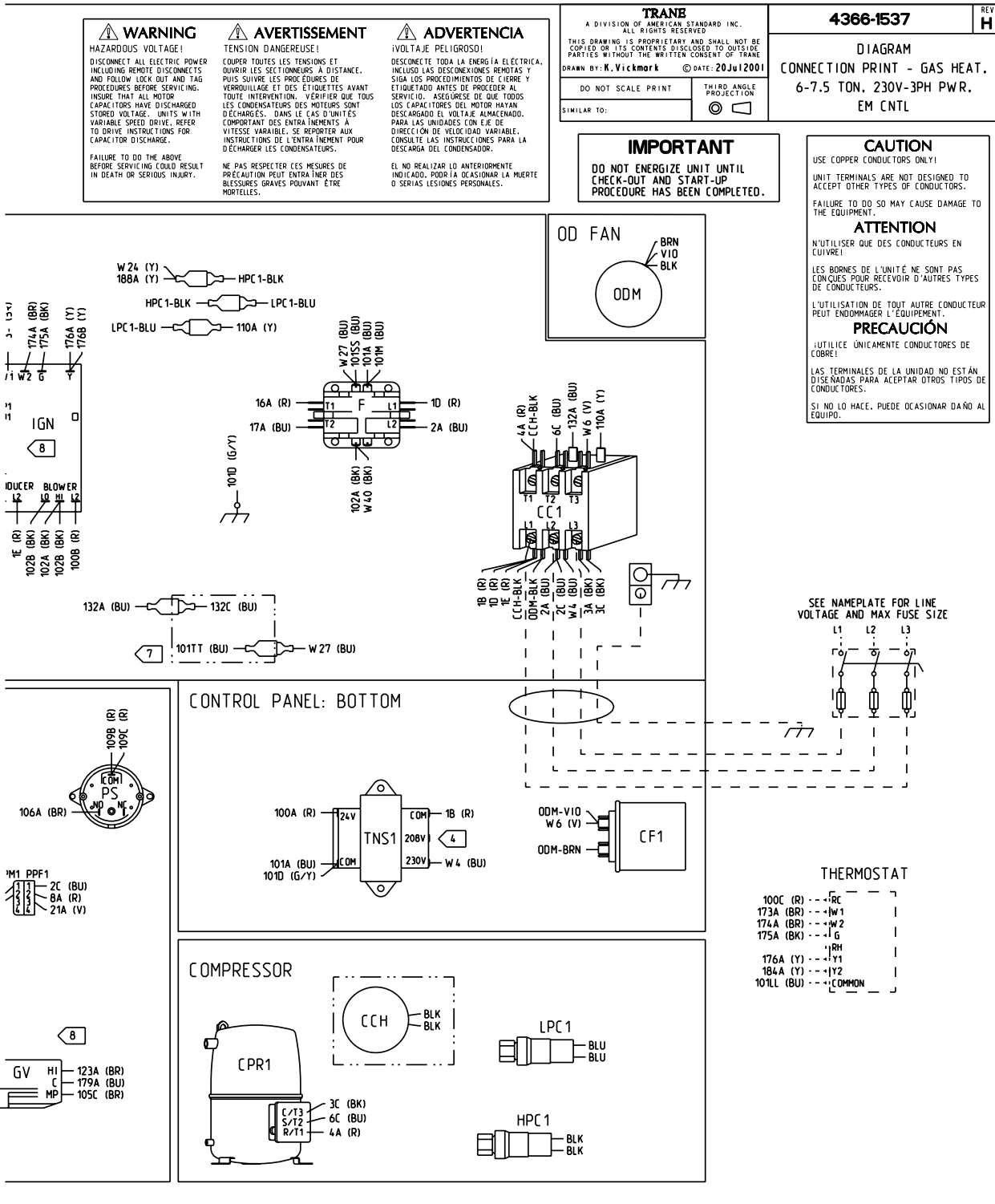


Figure 20. (continued from previous page) 230v/60hz/3ph – 6 - 7.5 Ton Gas Heat / Single Compressor – 4366-1537

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
 2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
 3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/3PH UNITS. WHEN 208V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. CCH2 CONDUCTORS ARE IDENTIFIED BY BROWN TAPE PLACED NEAR WIRE TERMINATIONS INSIDE CONTROL PANEL.
6. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2, CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
7. FOR MOTORIZED OUTSIDE AIR DAMPER. OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND ECA.
8. CONNECTIONS SHOW OPTIONAL FOS INSTALLED. IF NOT INSTALLED, CONNECT WIRE W27 TO WIRE 132A.
9. CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.

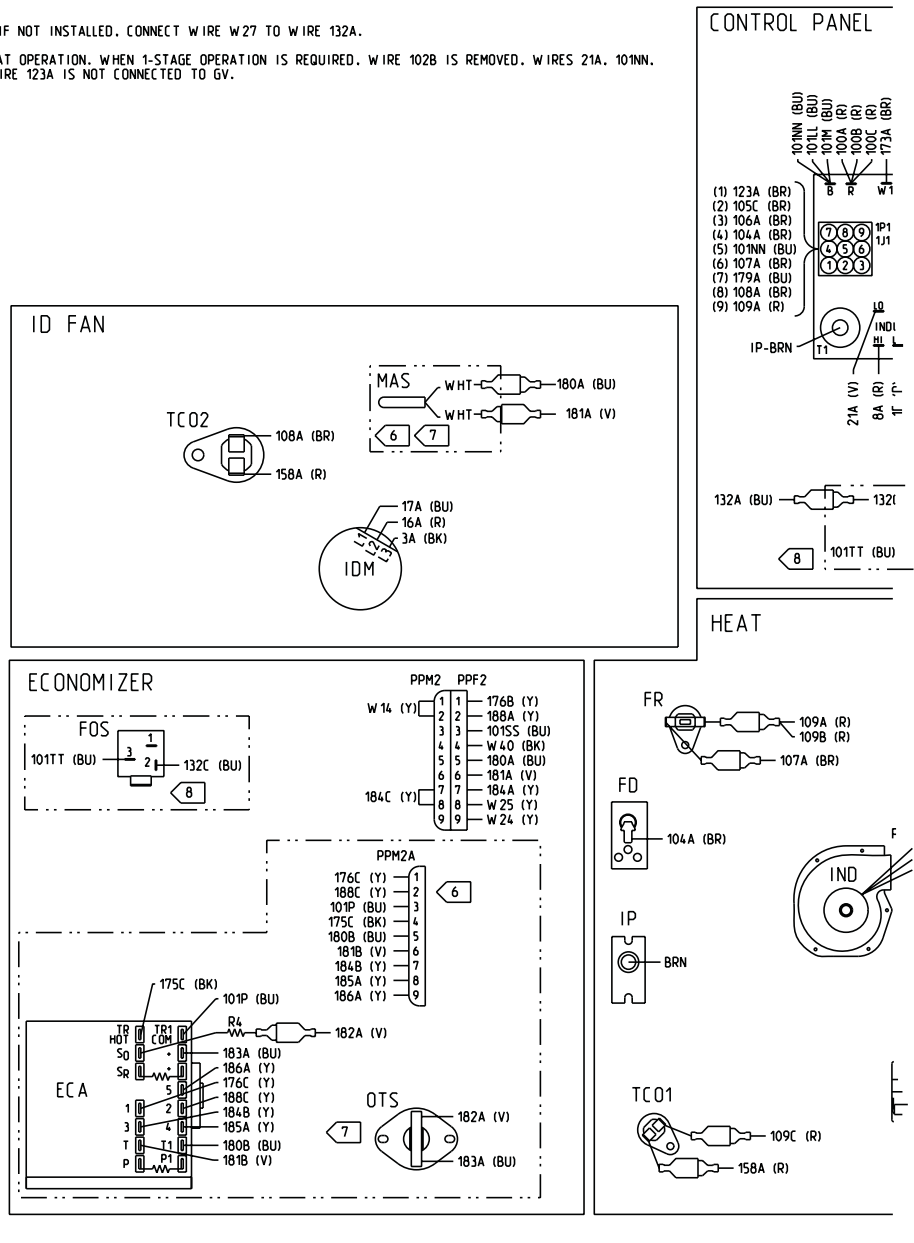


Figure 21. 230v/60hz/3ph — 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1529

Connection Schematics

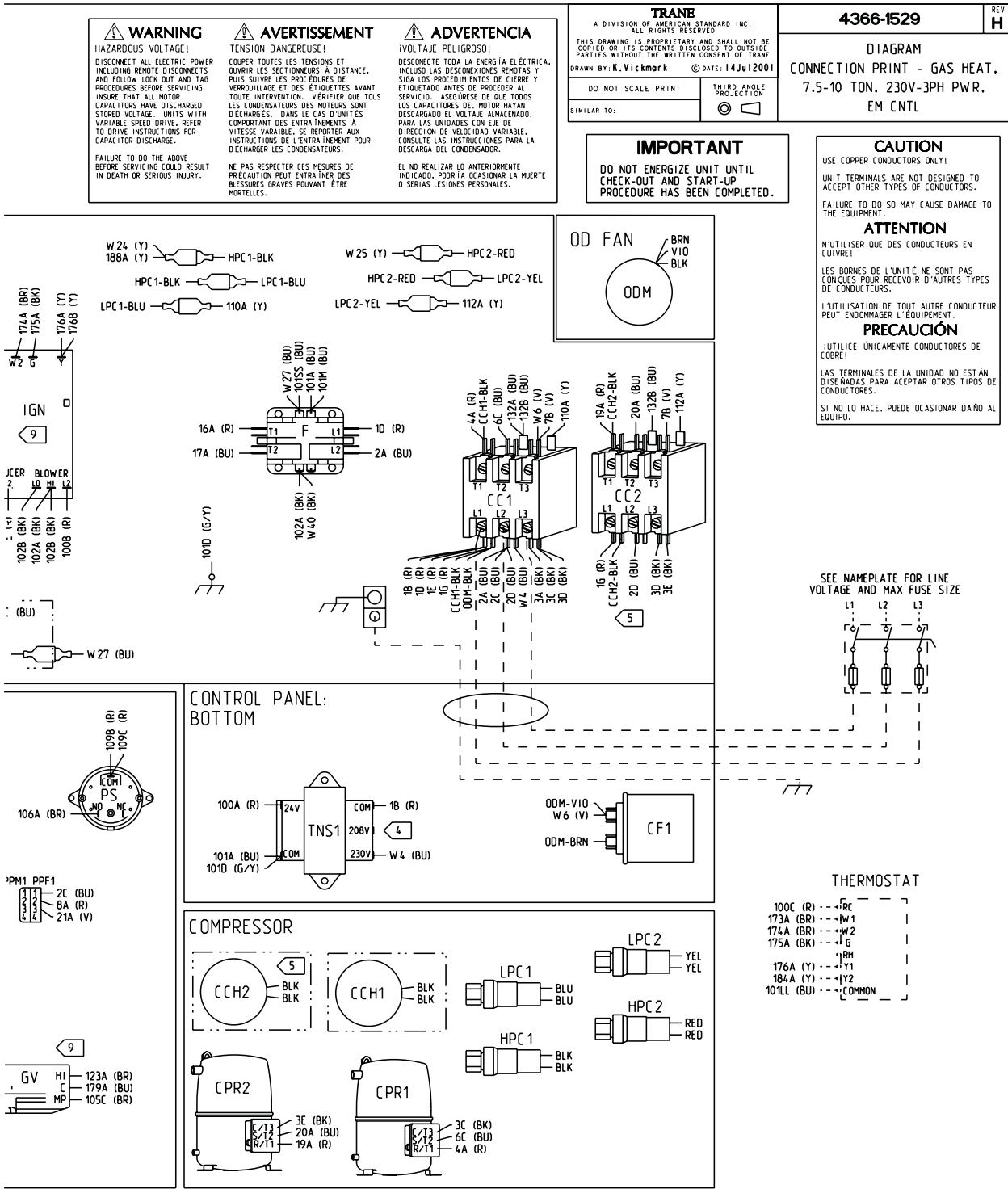


Figure 21. (continued from previous page) 230v/60hz/3ph — 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1529

Connection Schematics

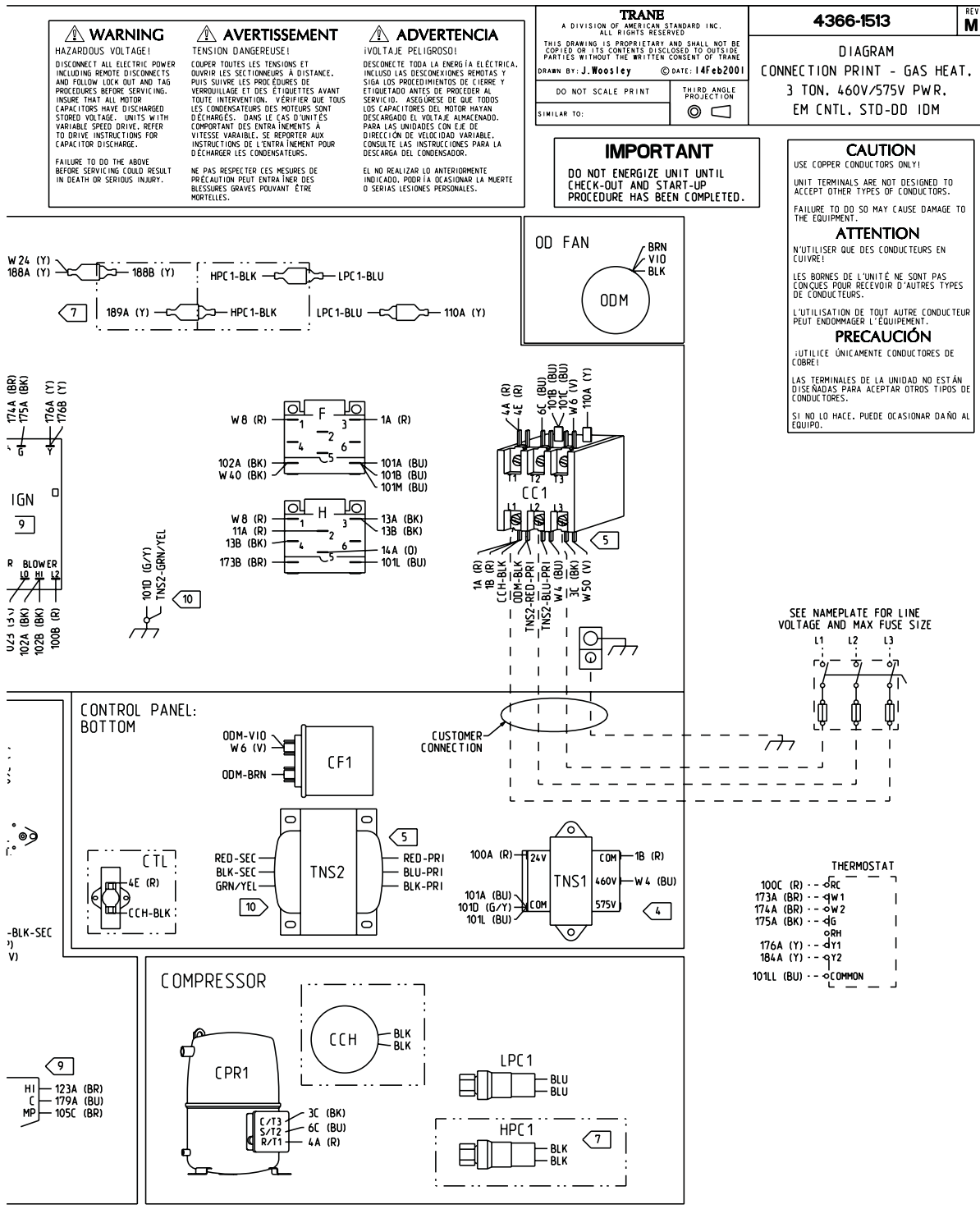
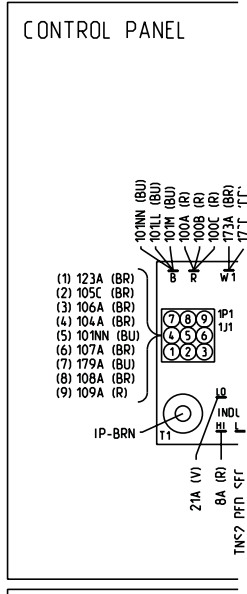
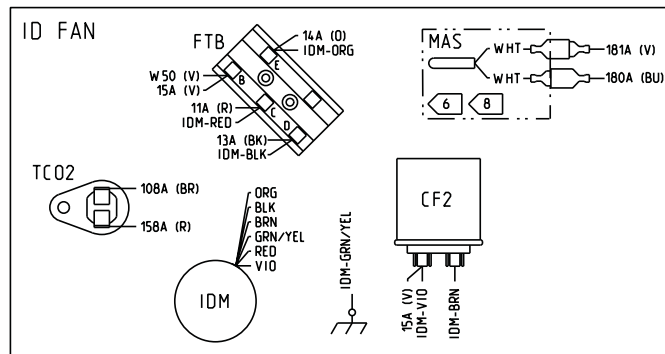


Figure 22. (continued from previous page) 2 - 3 Ton Single Stage Gas Heat / Direct Drive — 4366-1513

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 460V/60HZ/3PH UNITS. WHEN 380V/60HZ/3PH OR 575V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 460V TERMINAL ON TNS1 TO THE 400V/575V TERMINAL.
5. CONNECTIONS SHOWN ARE FOR 380V/60HZ/3PH OR 460V/60HZ/3PH UNITS. WHEN 575V/60HZ/3PH OPERATION IS REQUIRED, REMOVE WIRE TNS2-BLU-PRI FROM CC1-L2 AND CONNECT WIRE TNS2-BLK-PRI TO CC1-L2.
6. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2, CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
7. CONNECTIONS SHOWN INCLUDE FOS AND HPC1. IF NEITHER OPTION IS INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ONLY FOS IS INSTALLED, CONNECT WIRE 189A TO WIRE LPC1-BLU. IF ONLY HPC1 IS INSTALLED, CONNECT WIRE HPC1-BLK TO WIRES W24/188A.
8. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN S0 AND P ON ECA.
9. (FUTURE) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1 STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
10. WIRE TNS2-GRN/YEL IS NOT PRESENT IF TNS2 IS AN AUTOTRANSFORMER.



Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 460V/60HZ/3PH UNITS. WHEN 380V/60HZ/3PH OR 575V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 460V TERMINAL ON TNS1 TO THE 400V/575V TERMINAL.
5. CONNECTIONS SHOWN ARE FOR 380V/60HZ/3PH OR 460V/60HZ/3PH UNITS. WHEN 575V/60HZ/3PH OPERATION IS REQUIRED, REMOVE WIRE TNS2-BLU-PRI FROM CC1-L2 AND CONNECT WIRE TNS2-BLK-PRI TO CC1-L2.
6. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2 AND CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
7. CONNECTIONS SHOWN INCLUDE FOS AND HPC1. IF NEITHER OPTION IS INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ONLY FOS IS INSTALLED, CONNECT WIRE 189A TO WIRE LPC1-BLU. IF ONLY HPC1 IS INSTALLED, CONNECT WIRE HPC1-BLK TO WIRES W24/188A.
8. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND P ON ECA.
9. (FUTURE) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1 STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO 1GN, AND WIRE 123A IS NOT CONNECTED TO GV.
10. WIRE TNS2-GRN/YEL IS NOT PRESENT IF TNS2 IS AN AUTOTRANSFORMER.

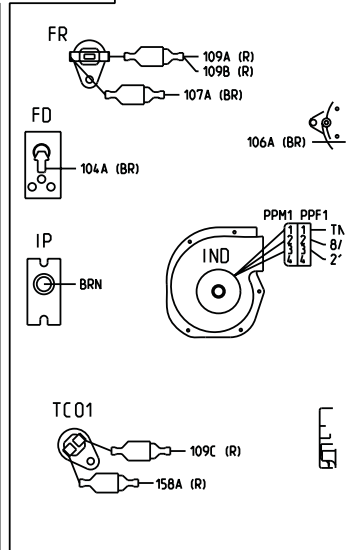
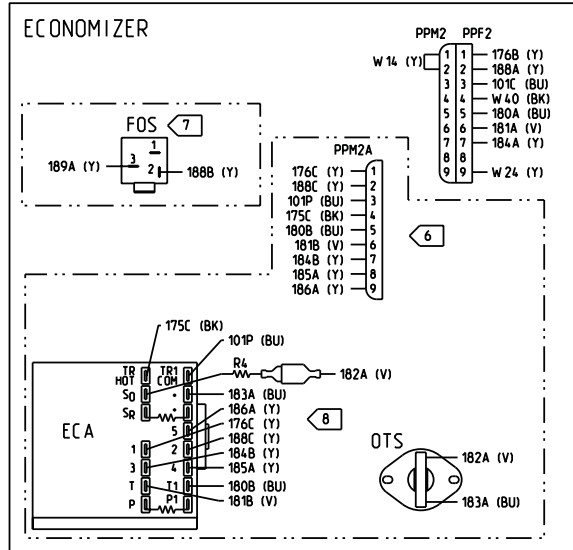
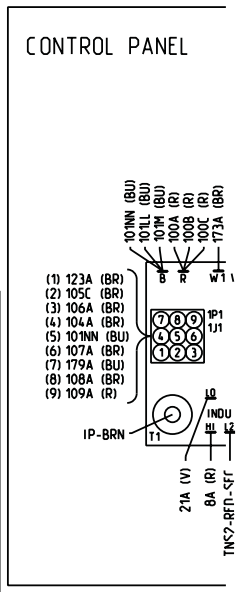
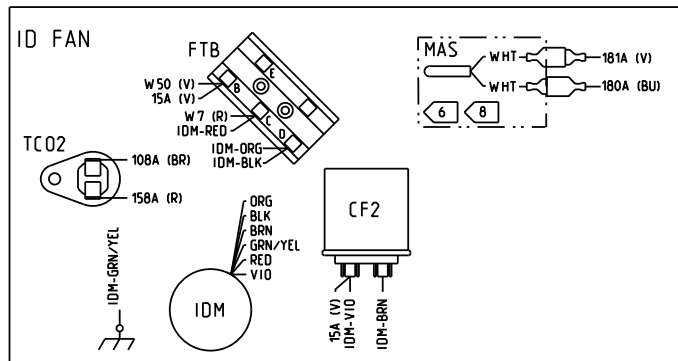


Figure 24. 460-575v/60hz/3ph — 4 - 5 Ton Single Stage Gas Heat / Oversize Motor — 4366-1526

Connection Schematics

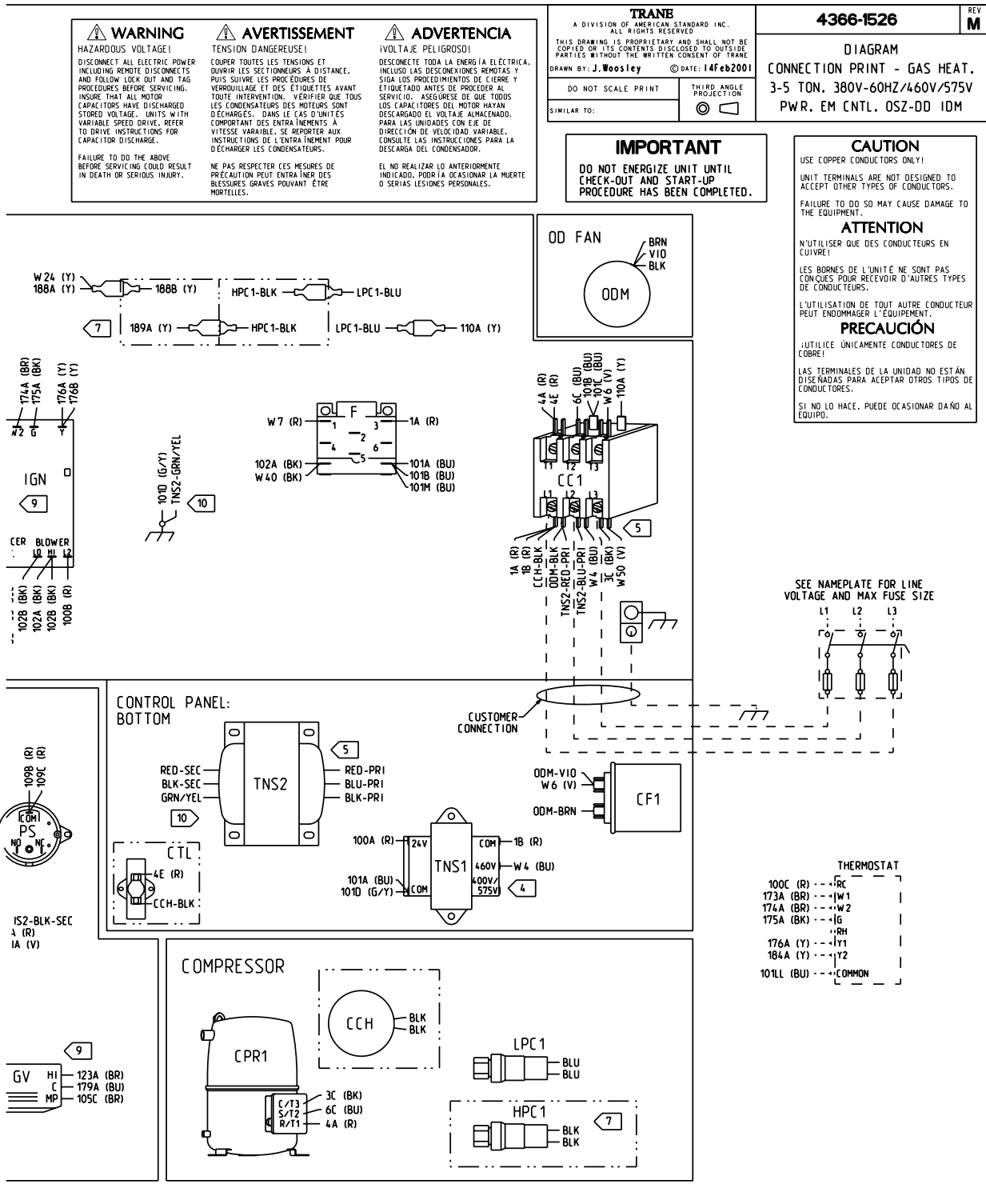


Figure 24. (continued from previous page) 460-575v/60hz/3ph – 4 - 5 Ton Single Stage Gas Heat / Oversize Motor – 4366-1526

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED. REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 460V/60HZ/3PH UNITS. WHEN 380V/60HZ/3PH OR 575V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 460V TERMINAL ON TNS1 TO THE 400V/575V TERMINAL.
5. CONNECTIONS SHOWN ARE FOR 380V/60HZ/3PH OR 460V/60HZ/3PH UNITS. WHEN 575V/60HZ/3PH OPERATION IS REQUIRED, REMOVE WIRE TNS2-BLU-PRI FROM CC1-L2 AND CONNECT WIRE TNS2-BLK-PRI TO CC1-L2.
6. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
7. CONNECTIONS SHOWN INCLUDE FOS, TDL1, AND HPC1. IF NONE OF THESE OPTIONS ARE INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ANY OR ALL OF THESE OPTIONS ARE INSTALLED, CONNECT THEM IN SERIES AS SHOWN. (SEE NOTE 12 FOR EXCEPTION)
8. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND ON ECA.
9. (FUTURE) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1 STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
10. WIRE TNS2-GRN/YEL IS NOT PRESENT IF TNS2 IS AN AUTOTRANSFORMER.
11. WHEN WIRES 158D AND W51 ARE NOT PRESENT, CONNECT WIRES 158A AND 109C DIRECTLY TO TC01.
12. FROSTAT CONNECTIONS/WIRE NUMBERS HAVE AN EXCEPTION. FOR ALL 4-5 TON UNITS WITH R410A REFRIGERANT AND HIGH EFFICIENCY, CONNECT WIRE 132C TO FOS PIN 2 AND 101TT TO FOS PIN 3.

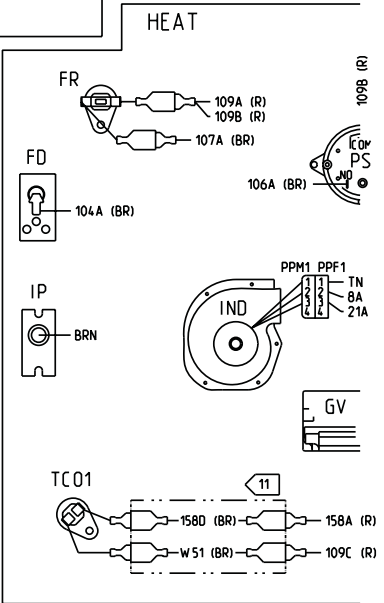
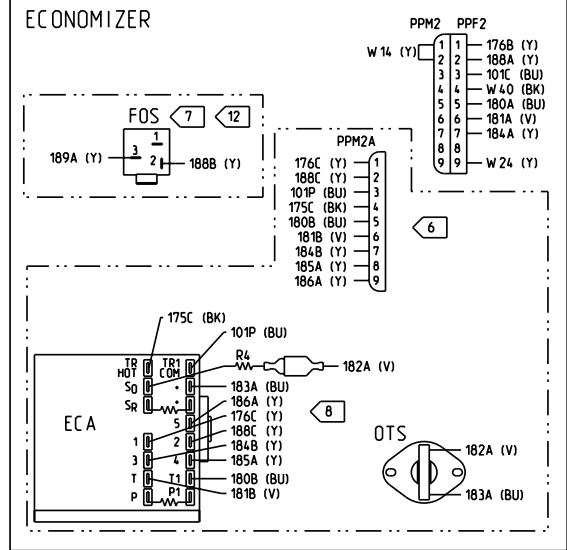
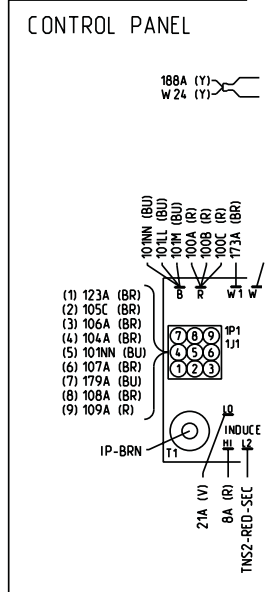
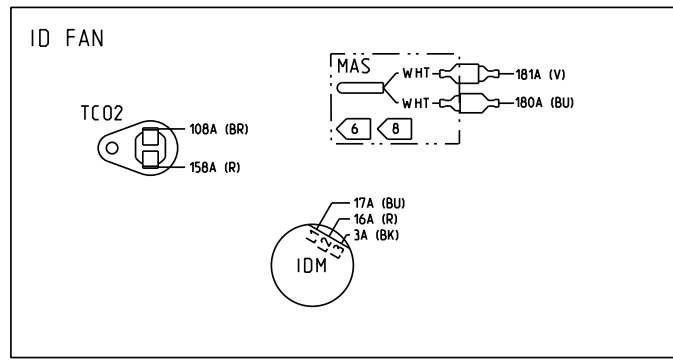


Figure 25. 460-575v/60hz/3ph – Single Stage Gas Heat / Belt Drive – 4366-1523

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 460V/60HZ/3PH UNITS. WHEN 380V/60HZ/3PH OR 575V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 460V TERMINAL ON TNS1 TO THE 400V/575V TERMINAL.
5. CONNECTIONS SHOWN ARE FOR 380V/60HZ/3PH OR 460V/60HZ/3PH UNITS. WHEN 575V/60HZ/3PH OPERATION IS REQUIRED, REMOVE WIRE TNS2-BLU-PRI FROM CC1-L2 AND CONNECT WIRE TNS2-BLK-PRI TO CC1-L2.
6. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2, CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND P ON ECA.
8. CONNECTIONS SHOW OPTIONAL FOS INSTALLED. IF FOS IS NOT INSTALLED, CONNECT WIRE W27 TO WIRE 132A.
9. CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
10. WIRE TNS2-GRN/YEL IS NOT PRESENT IF TNS2 IS AN AUTOTRANSFORMER.

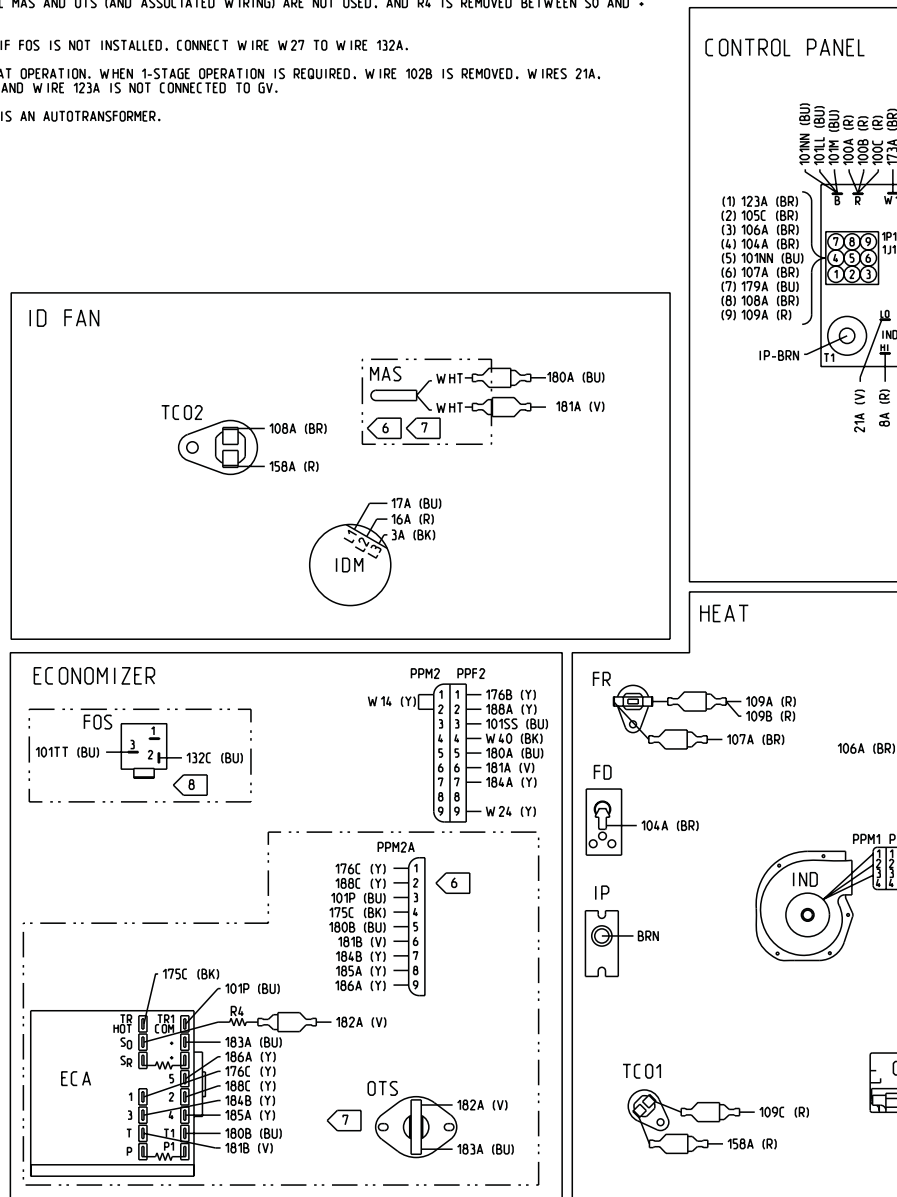


Figure 26. 460-575v/60hz/3ph - 6 - 7.5 Ton Gas Heat / Single Compressor - 4366-1538

Connection Schematics

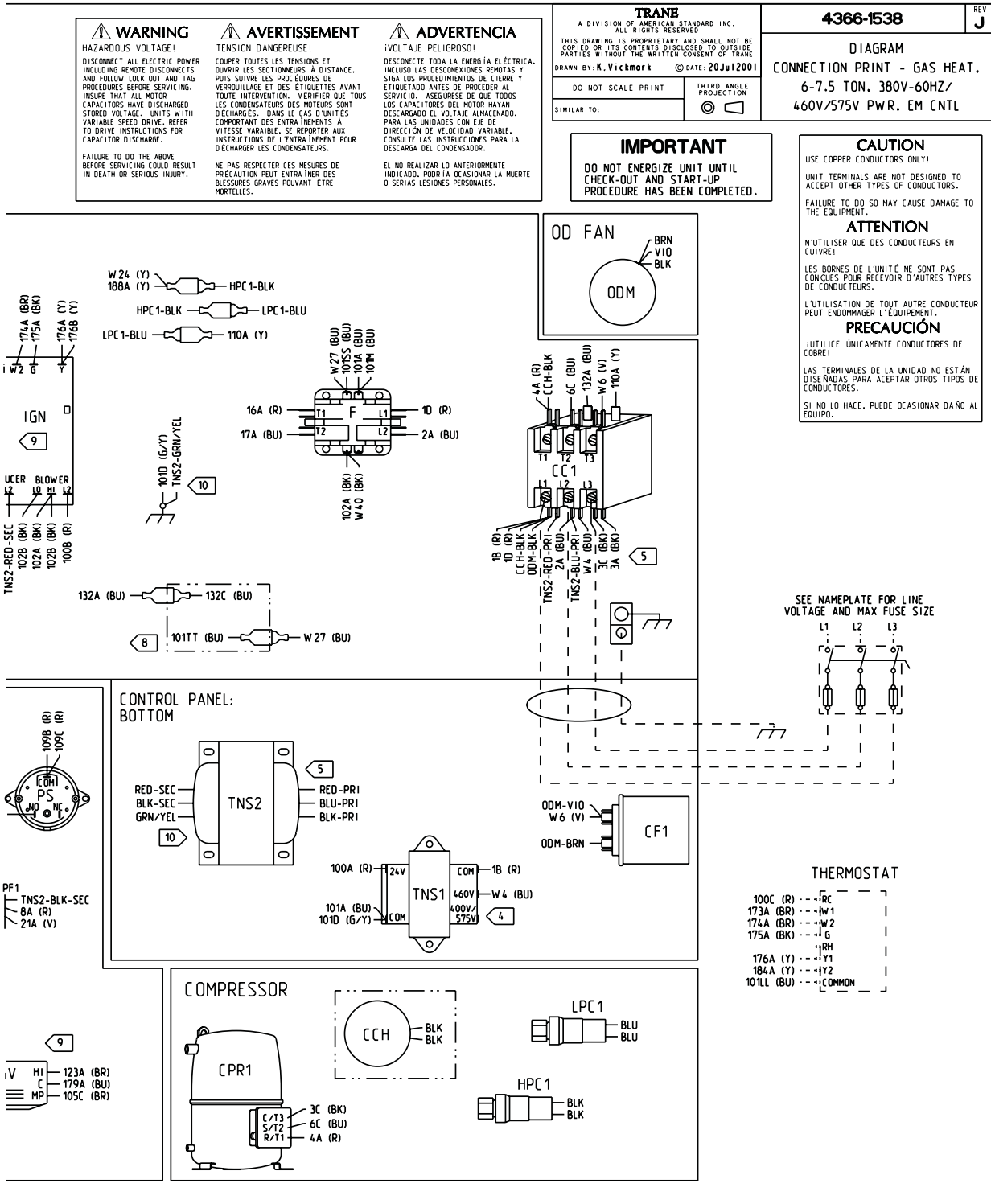


Figure 26. (continued from previous page) 460-575v/60hz/3ph — 6 - 7.5 Ton Gas Heat / Single Compressor — 4366-1538

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 460V/60HZ/3PH UNITS. WHEN 380V/60HZ/3PH OR 575V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 460V TERMINAL ON TNS1 TO THE 400V/575V TERMINAL.
5. CONNECTIONS SHOWN ARE FOR 380V/60HZ/3PH OR 460V/60HZ/3PH UNITS. WHEN 575V/60HZ/3PH OPERATION IS REQUIRED, REMOVE WIRE TNS2-BLU-PRI FROM CC1-L2 AND CONNECT WIRE TNS2-BLK-PRI TO CC1-L2.
6. CCH2 CONDUCTORS ARE IDENTIFIED BY BROWN TAPE PLACED NEAR WIRE TERMINATIONS INSIDE CONTROL PANEL.
7. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
8. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND ON ECA.
9. CONNECTIONS SHOW OPTIONAL FOS INSTALLED. IF FOS IS NOT INSTALLED, CONNECT WIRE W27 TO WIRE 132A.
10. CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
11. WIRE TNS2-GRN/YEL IS NOT PRESENT IF TNS2 IS AN AUTOTRANSFORMER.

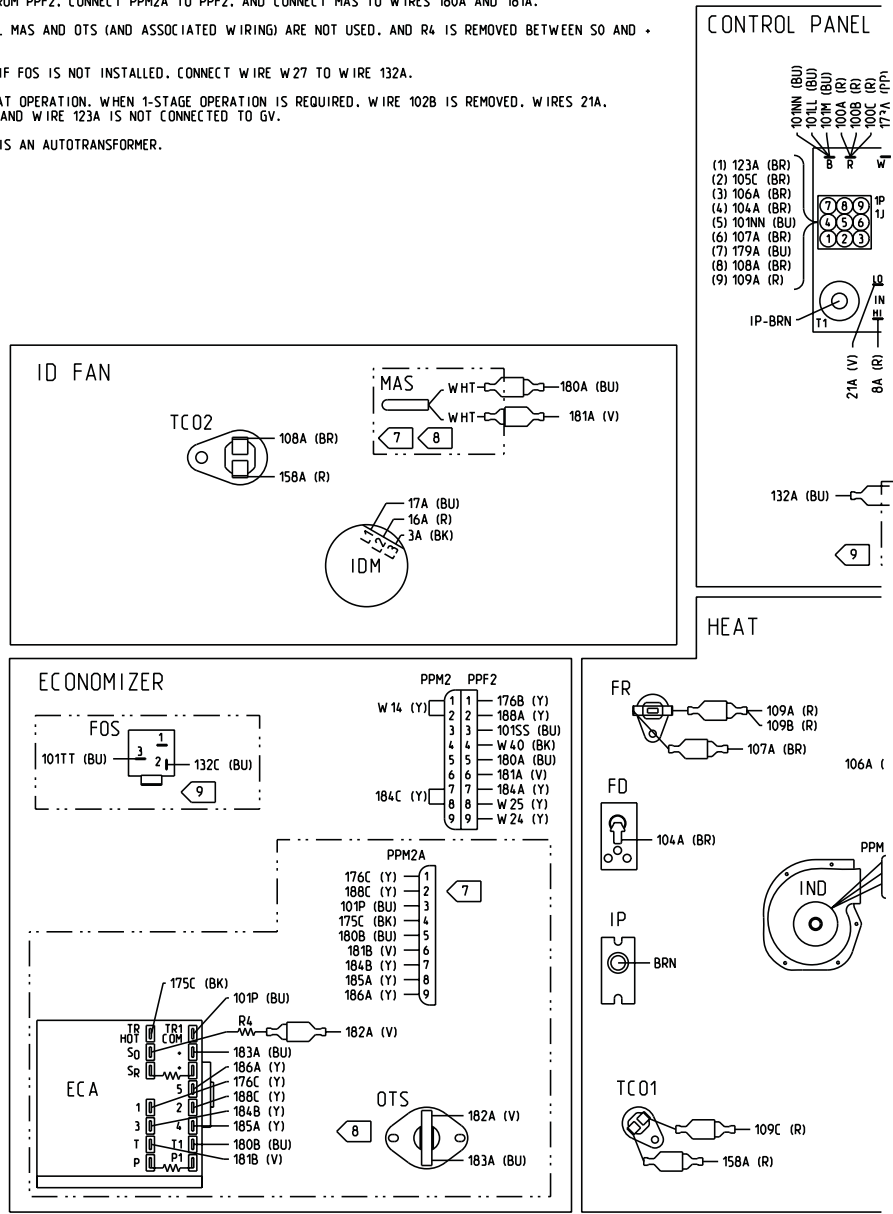


Figure 27. 460-575v/60hz/3ph – 7.5 - 10 Ton Gas Heat / Dual Compressor – 4366-1531

Connection Schematics

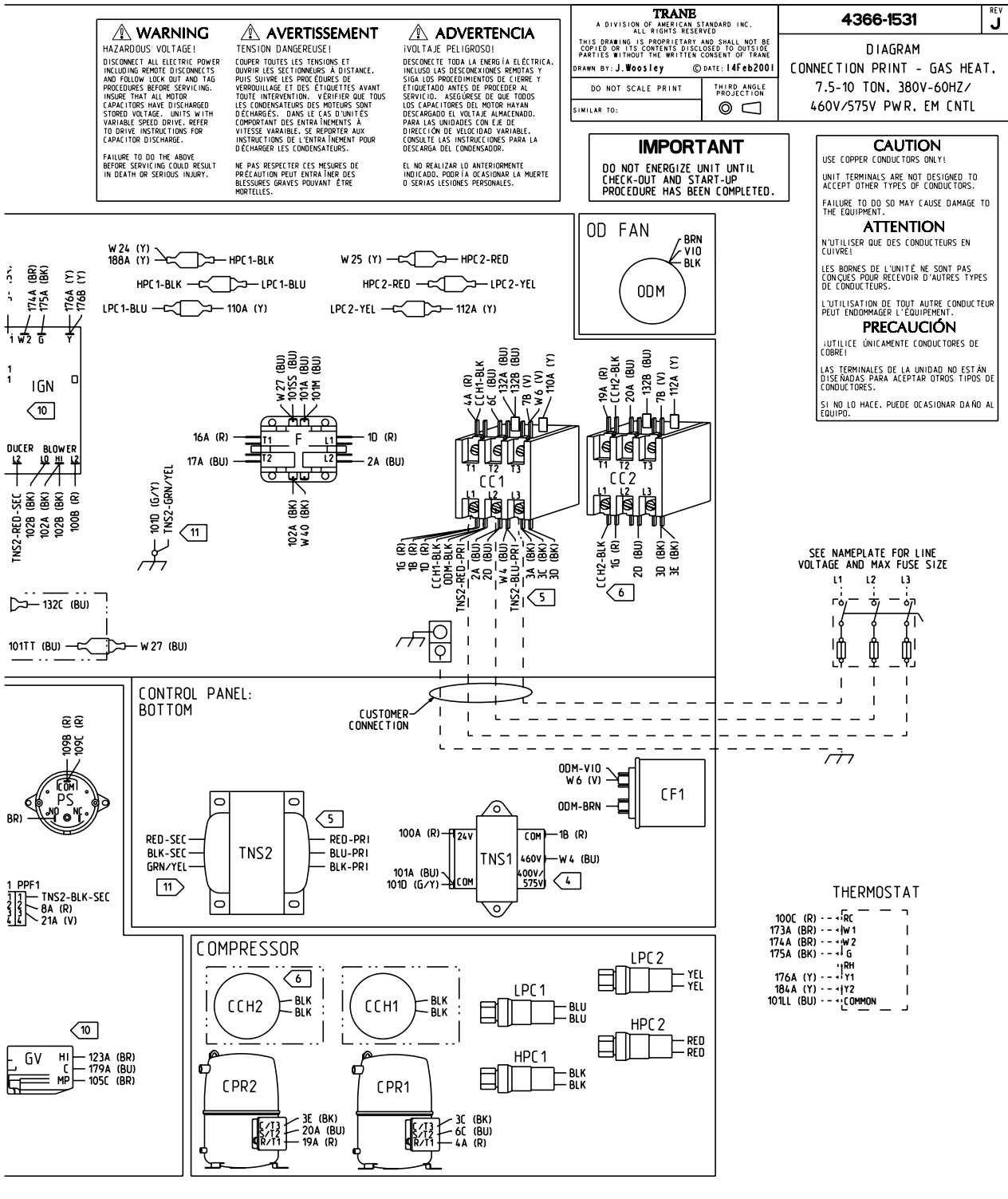


Figure 27. (continued from previous page) 460-575v/60hz/3ph – 7.5 - 10 Ton Gas Heat / Dual Compressor – 4366-1531

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/1PH UNITS. WHEN 208V/60HZ/1PH OPERATION IS REQUIRED, MOVE WIRE W9 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2, CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
6. CONNECTIONS SHOWN INCLUDE FOS, TDL1, AND HPC1. IF NONE OF THESE OPTIONS ARE INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ANY OR ALL OF THESE OPTIONS ARE INSTALLED, CONNECT THEM IN SERIES AS SHOWN. (SEE NOTE 11 FOR EXCEPTION)
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND - ON ECA.
8. (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
9. WHEN WIRES 158D AND W51 ARE NOT PRESENT, CONNECT WIRES 158A AND 109C DIRECTLY TO TC01.
10. MINIMUM HEATING SPEED IS TAP 4. TO SET COOLING AND HEATING TO THE SAME SPEED (TAP 4 OR 5), DISCONNECT WIRE W54 FROM IDM AND CONNECT IT TO THE EXTRA TERMINAL PROVIDED ON WIRE W56.
11. FROSTAT CONNECTIONS/WIRE NUMBERS HAVE AN EXCEPTION. FOR ALL 4-5 TON UNITS WITH R410A REFRIGERANT AND HIGH EFFICIENCY, CONNECT WIRE 132C TO FOS PIN 2 AND 101TT TO FOS PIN 3.

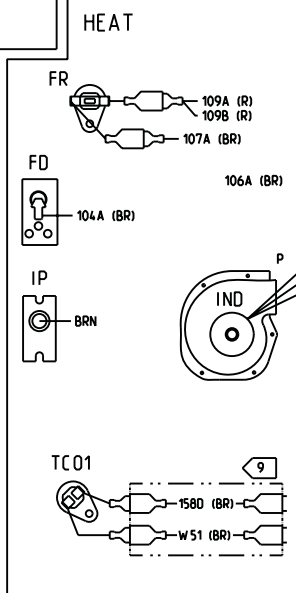
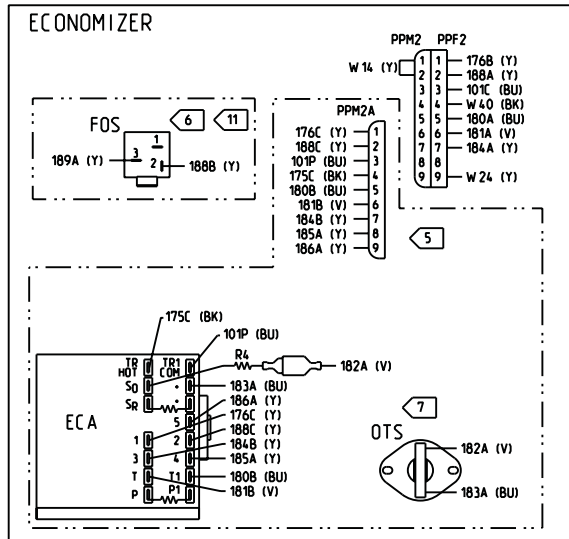
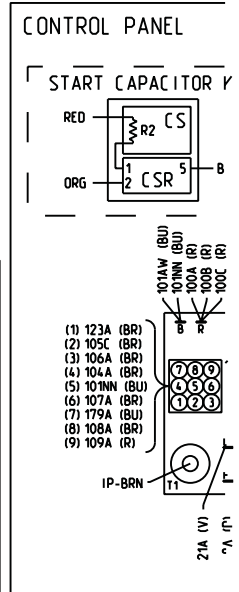
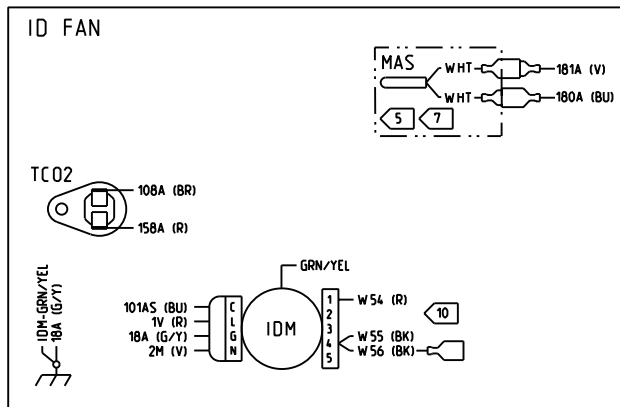


Figure 28. 230v/60Hz/1Ph – 3 - 5 Ton R410A / Direct Drive Indoor Motor – 4366-4562

Connection Schematics

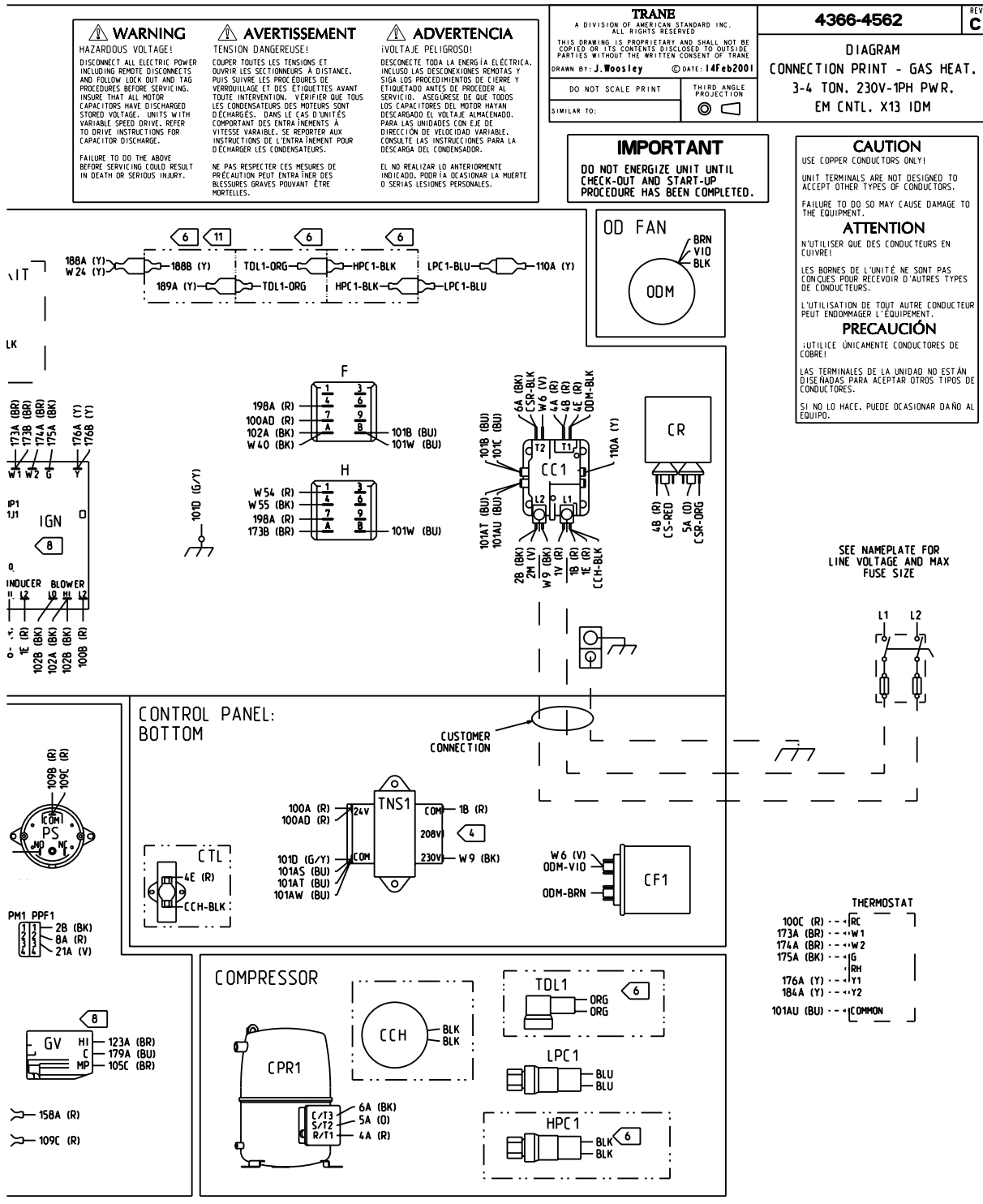


Figure 28. (continued from previous page) 230v/60Hz/1Ph – 3 - 5 Ton R410A / Direct Drive Indoor Motor – 4366-4562

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED. REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105 °C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/3PH UNITS. WHEN 208V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2. AND CONNECT MAS TO WIRES 180A AND 181A.
6. CONNECTIONS SHOWN INCLUDE FOS, TOL1, AND HPC1. IF NONE OF THESE OPTIONS ARE INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ANY OR ALL OF THESE OPTIONS ARE INSTALLED, CONNECT THEM IN SERIES AS SHOWN. (SEE NOTE 10 FOR EXCEPTION)
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND ECA.
8. (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
9. MINIMUM HEATING SPEED IS TAP 4. TO SET COOLING AND HEATING TO THE SAME SPEED (TAP 4 OR 5). DISCONNECT WIRE W54 FROM IDM AND CONNECT IT TO THE EXTRA TERMINAL PROVIDED ON WIRE W56.
10. FROSTAT CONNECTIONS/WIRE NUMBERS HAVE AN EXCEPTION. FOR ALL 4-5 TON UNITS WITH R410A REFRIGERANT AND HIGH EFFICIENCY, CONNECT WIRE 132C TO FOS PIN 2 AND 1011T TO FOS PIN 3.

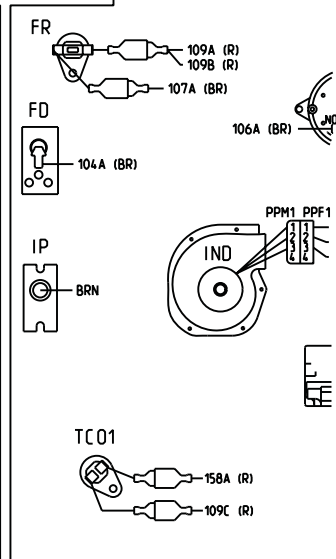
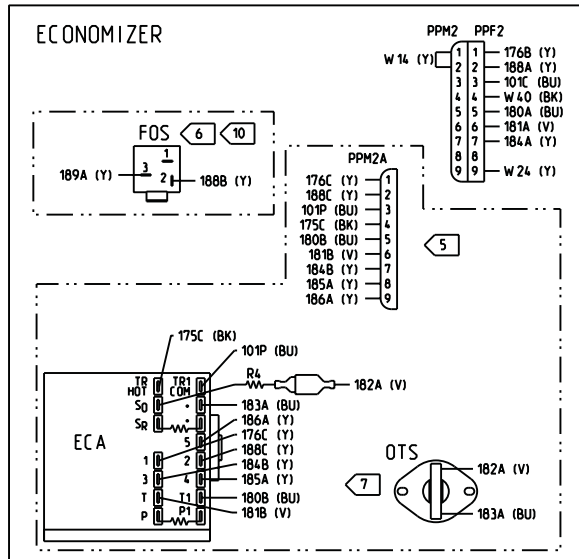
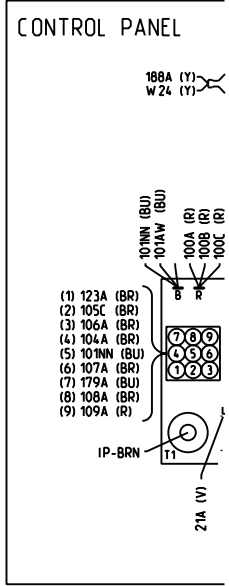
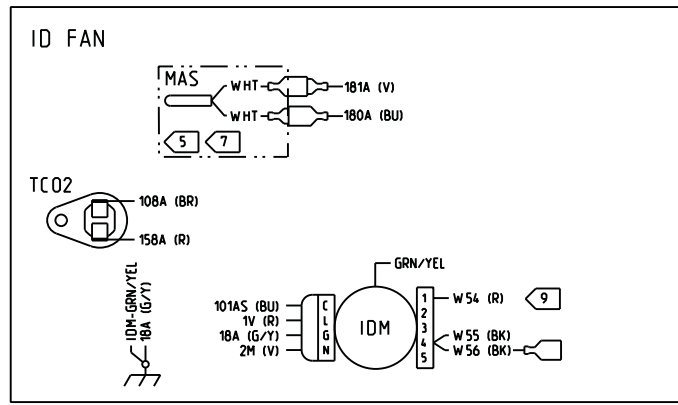


Figure 29. 230v/60Hz/3Ph – 3 - 4 Ton R410A / Hi Eff / Direct Drive Indoor Motor – 4366-5183

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. CONNECTIONS SHOWN ARE FOR 230V/60HZ/3PH UNITS. WHEN 208V/60HZ/3PH OPERATION IS REQUIRED, MOVE WIRE W4 FROM THE 230V TERMINAL ON TNS1 TO THE 208V TERMINAL.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
6. CONNECTIONS SHOWN INCLUDE FOS, TDL1, AND HPC1. IF NONE OF THESE OPTIONS ARE INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ANY OR ALL OF THESE OPTIONS ARE INSTALLED, CONNECT THEM IN SERIES AS SHOWN.
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND ON ECA.
8. (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.

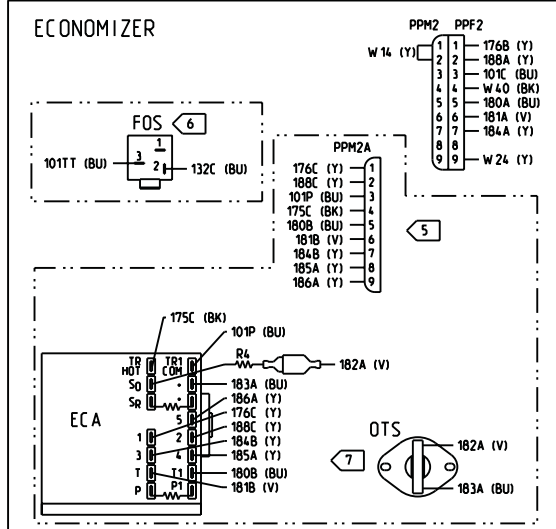
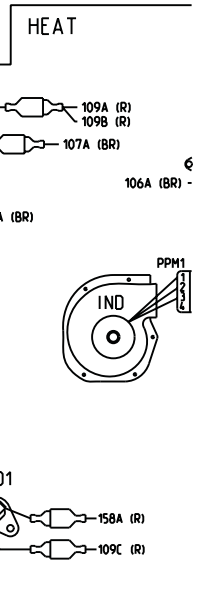
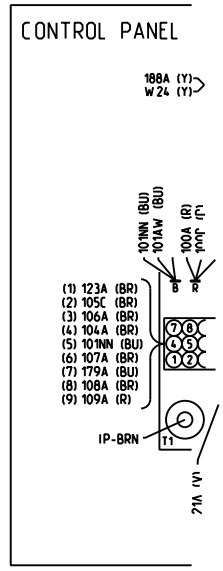
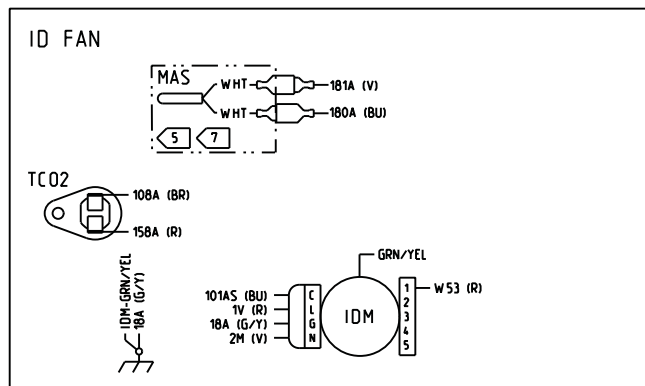


Figure 30. 230v/60Hz/3Ph— 5 Ton R410A / Hi Eff / Direct Drive Indoor Motor — 4366-5184

Connection Schematics

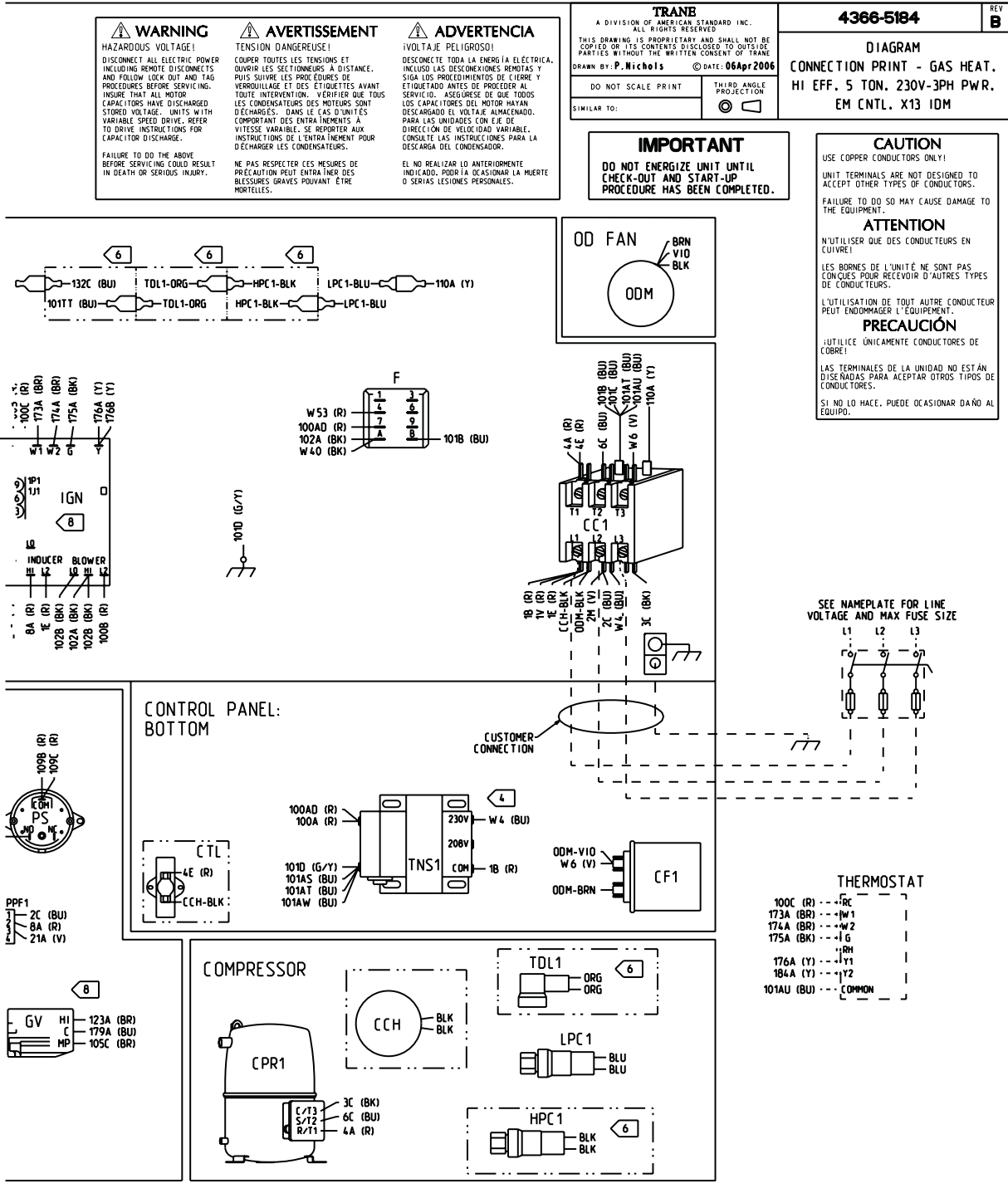


Figure 30. (continued from previous page) 230v/60Hz/3Ph – 5 Ton R410A / Hi Eff / Direct Drive Indoor Motor – 4366-5184

Connection Schematics

1. ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
2. IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
3. THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
4. WIRE TNS2-GRN/YEL IS NOT PRESENT IF TNS2 IS AN AUTOTRANSFORMER.
5. WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2. CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
6. CONNECTIONS SHOWN INCLUDE FOS, TDL1, AND HPC1. IF NONE OF THESE OPTIONS ARE INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ANY OR ALL OF THESE OPTIONS ARE INSTALLED, CONNECT THEM IN SERIES AS SHOWN. (SEE NOTE 10 FOR EXCEPTION)
7. FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN S0 AND • ON ECA.
8. (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
9. MINIMUM HEATING SPEED IS TAP 4. TO SET COOLING AND HEATING TO THE SAME SPEED (TAP 4 OR 5), DISCONNECT WIRE W54 FROM IDM AND CONNECT IT TO THE EXTRA TERMINAL PROVIDED ON WIRE W56.
10. FROSTAT CONNECTIONS/WIRE NUMBERS HAVE AN EXCEPTION. FOR ALL 4-5 TON UNITS WITH R410A REFRIGERANT AND HIGH EFFICIENCY, CONNECT WIRE 132C TO FOS PIN 2 AND 101TT TO FOS PIN 3.

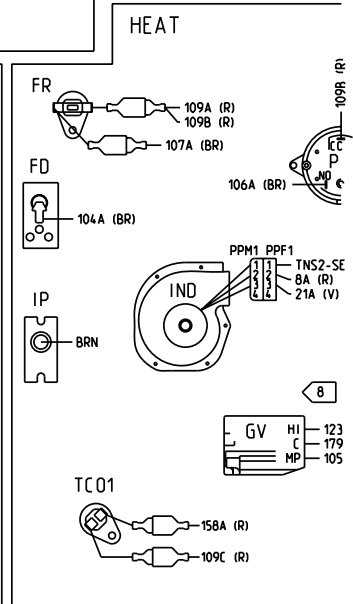
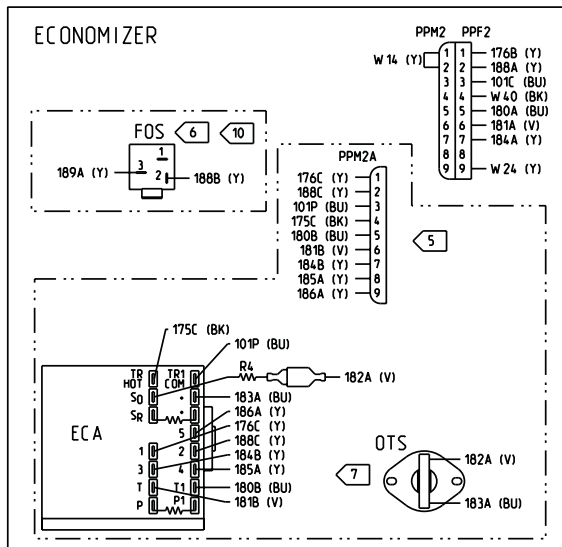
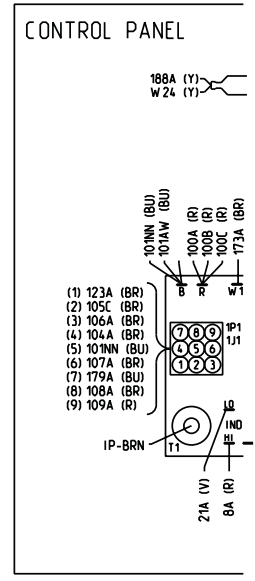
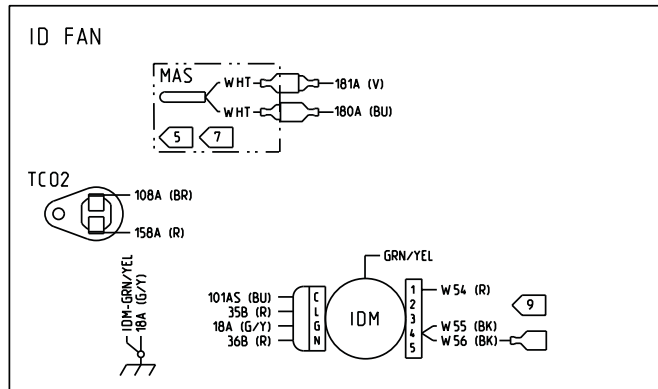


Figure 31. 460v/60Hz/3Ph – 3 - 4 Ton R410A / Hi Eff / Direct Drive Indoor Motor – 4366-5200

Connection Schematics

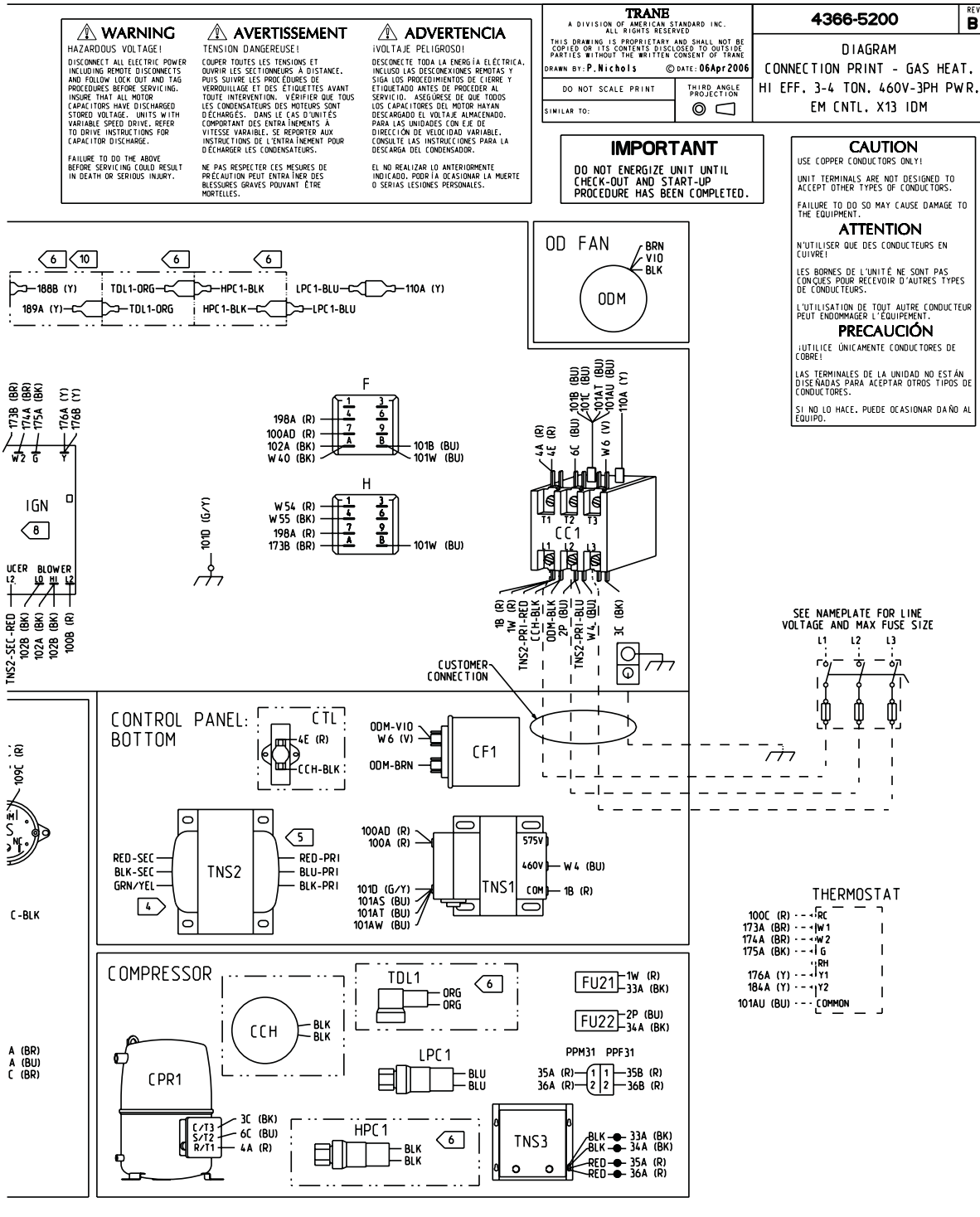


Figure 31. (continued from previous page) 460v/60Hz/3Ph — 3 - 4 Ton R410A / Hi Eff / Direct Drive Indoor Motor — 4366-5200

Connection Schematics

- ALL WIRING AND DEVICES SHOWN DASHED TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
- IF ANY OF THE ORIGINAL WIRE, AS SUPPLIED WITH THIS UNIT, MUST BE REPLACED, REPLACE WITH APPLIANCE WIRING MATERIAL RATED AT 105°C.
- THREE PHASE MOTORS ARE PROTECTED UNDER PRIMARY SINGLE PHASING CONDITIONS. ALL MOTORS HAVE INTERNAL OVERLOAD PROTECTION. COMPRESSORS HAVE INTERNAL THERMAL PROTECTION.
- (FUTURE OPTION) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 21A, 101NN, AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
- WHEN INSTALLING ECONOMIZER, REMOVE PPM2 FROM PPF2, CONNECT PPM2A TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A.
- CONNECTIONS SHOWN INCLUDE FOS, TDL1, AND HPC1. IF NONE OF THESE OPTIONS ARE INSTALLED, CONNECT WIRE LPC1-BLU TO WIRES W24/188A. IF ANY OR ALL OF THESE OPTIONS ARE INSTALLED, CONNECT THEM IN SERIES AS SHOWN.
- FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND P ON ECA.
- WIRE TNS2-GRN/YEL IS NOT PRESENT IF TNS2 IS AN AUTOTRANSFORMER.

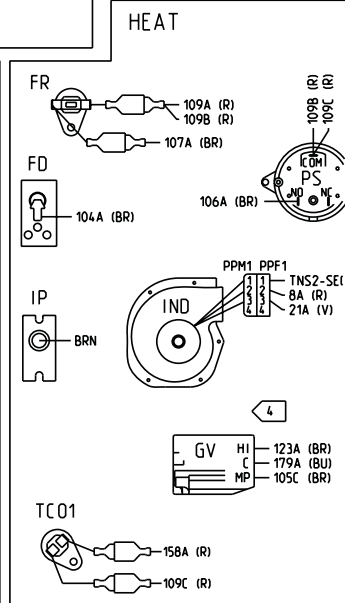
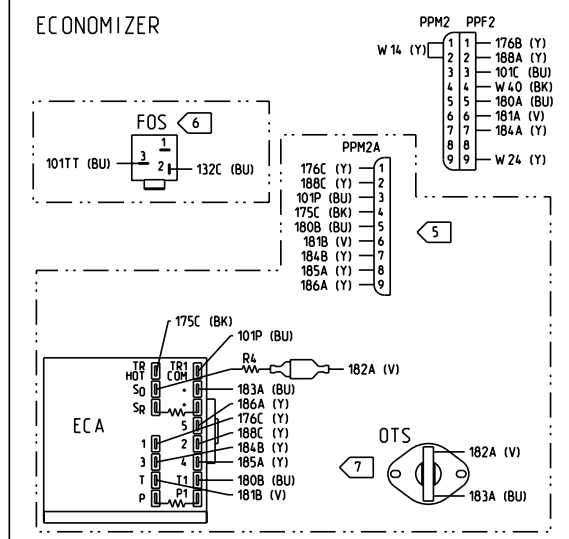
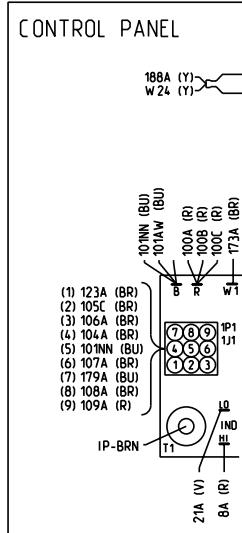
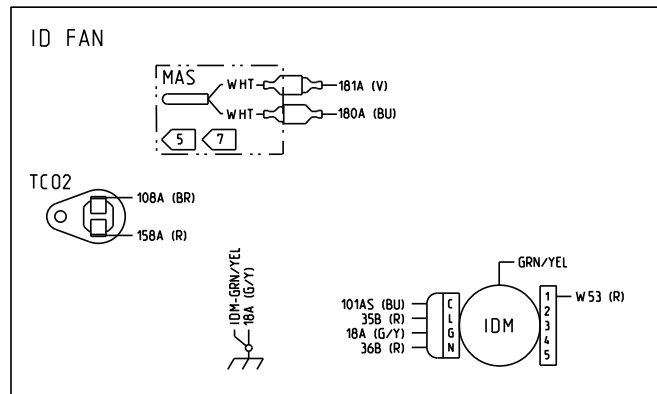


Figure 32. 460v/60Hz/3Ph – 5 Ton R410A / Hi Eff / Direct Drive Indoor Motor – 4366-5201

Connection Schematics

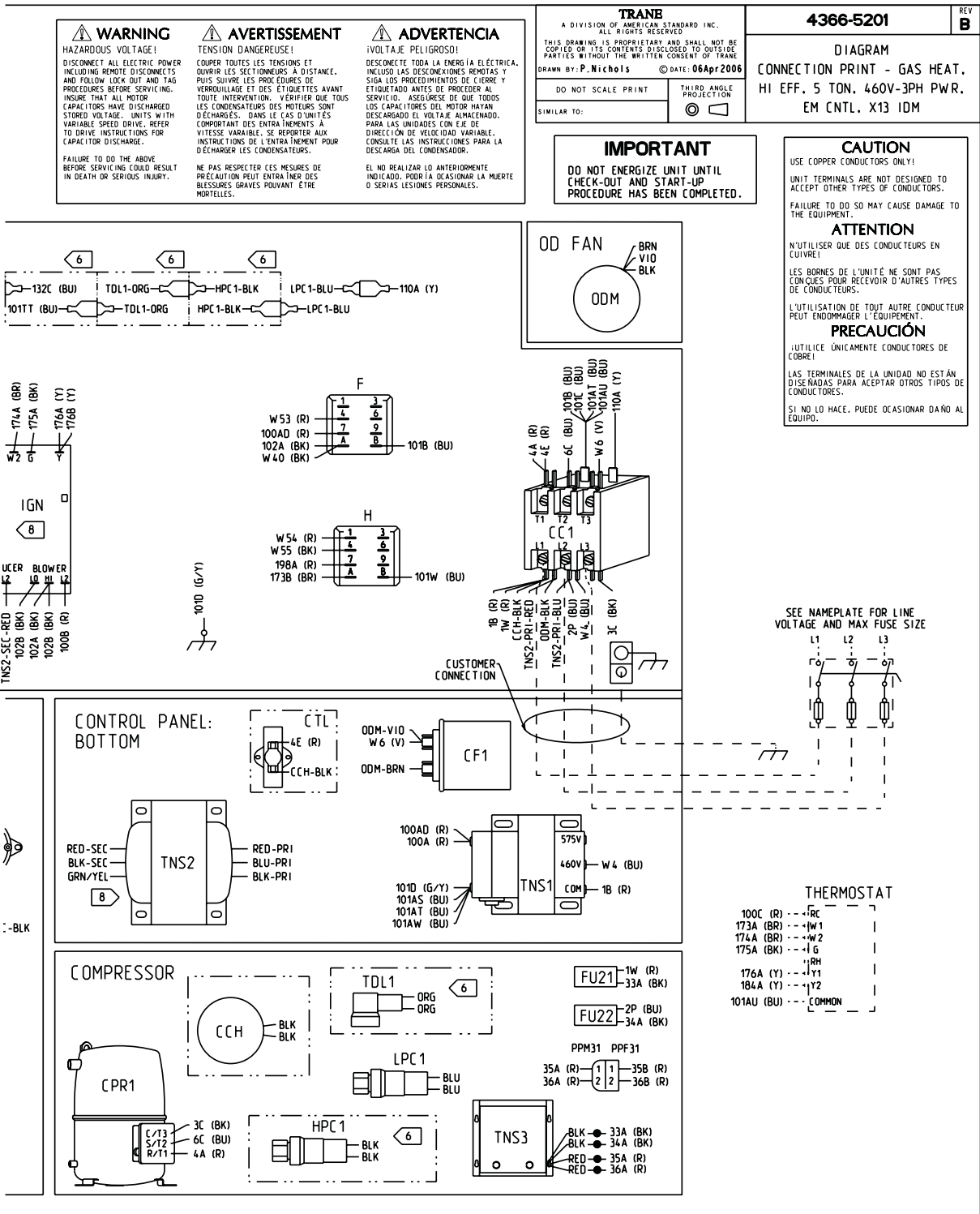


Figure 32. (continued from previous page) 460v/60Hz/3Ph – 5 Ton R410A / Hi Eff / Direct Drive Indoor Motor – 4366-5201

Control Diagram

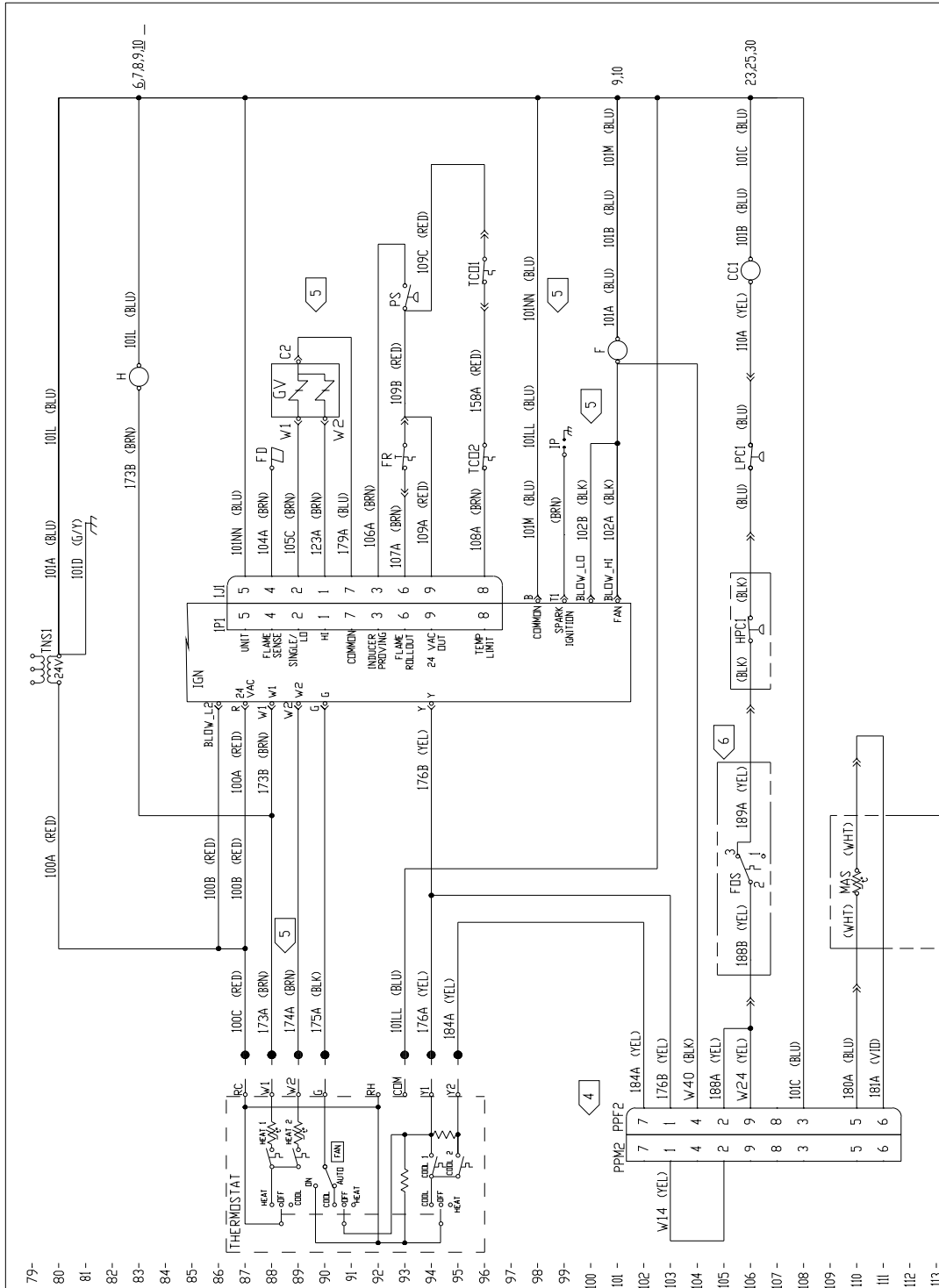


Figure 33. Single Stage Gas Heat / Direct Drive — 4366-1001

Control Diagram

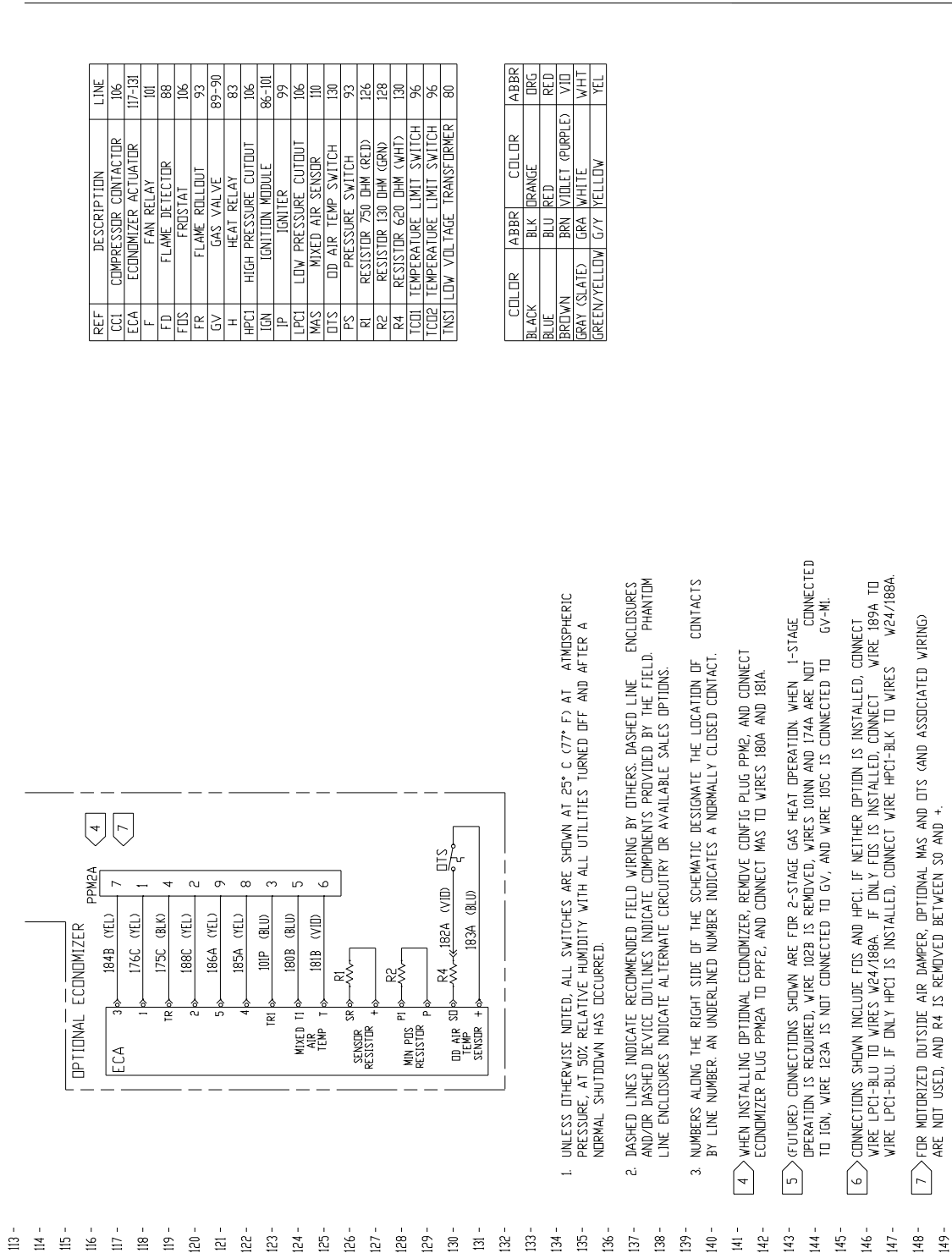


Figure 33. (continued from previous page) Single Stage Gas Heat / Direct Drive – 4366-1001

Control Diagram

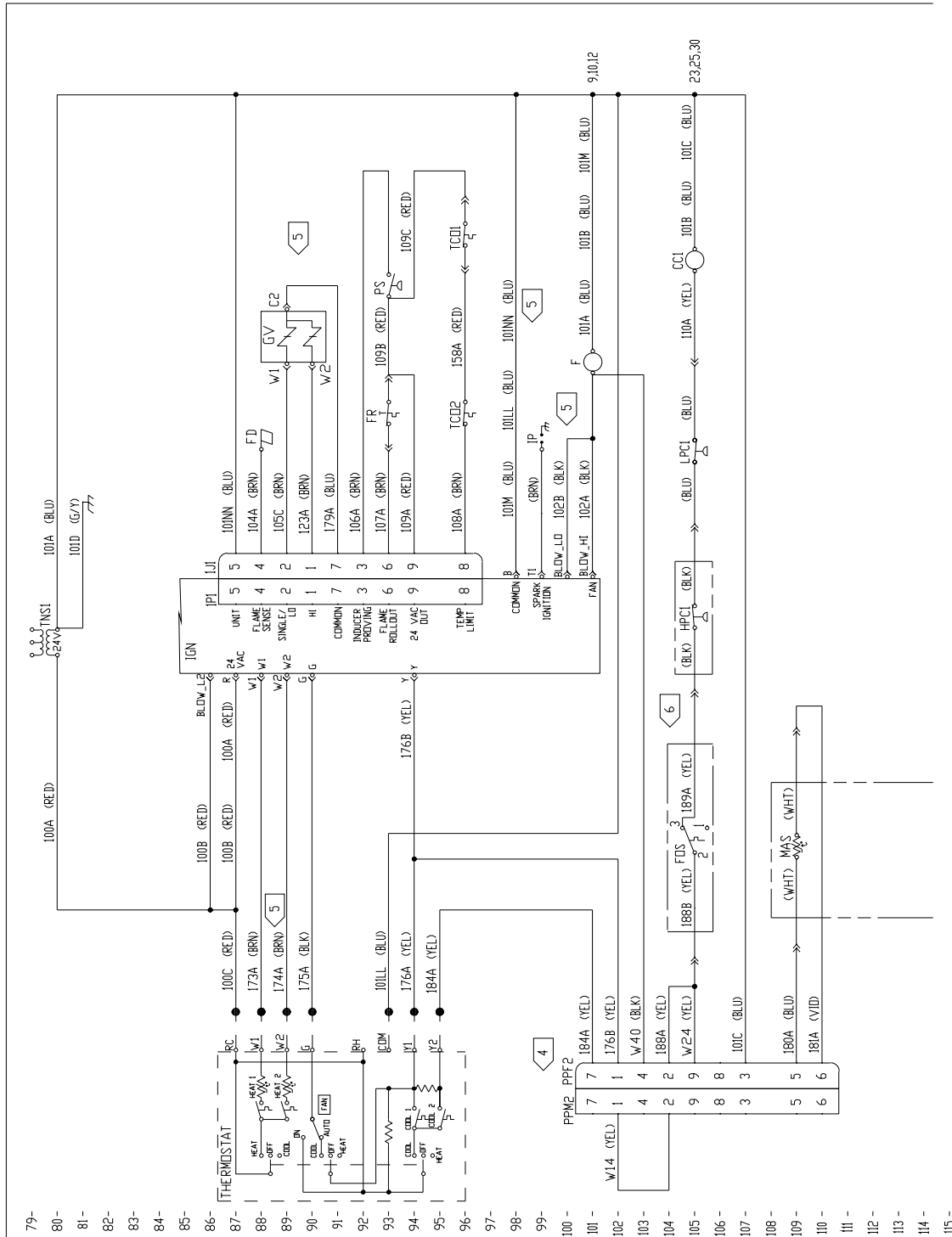
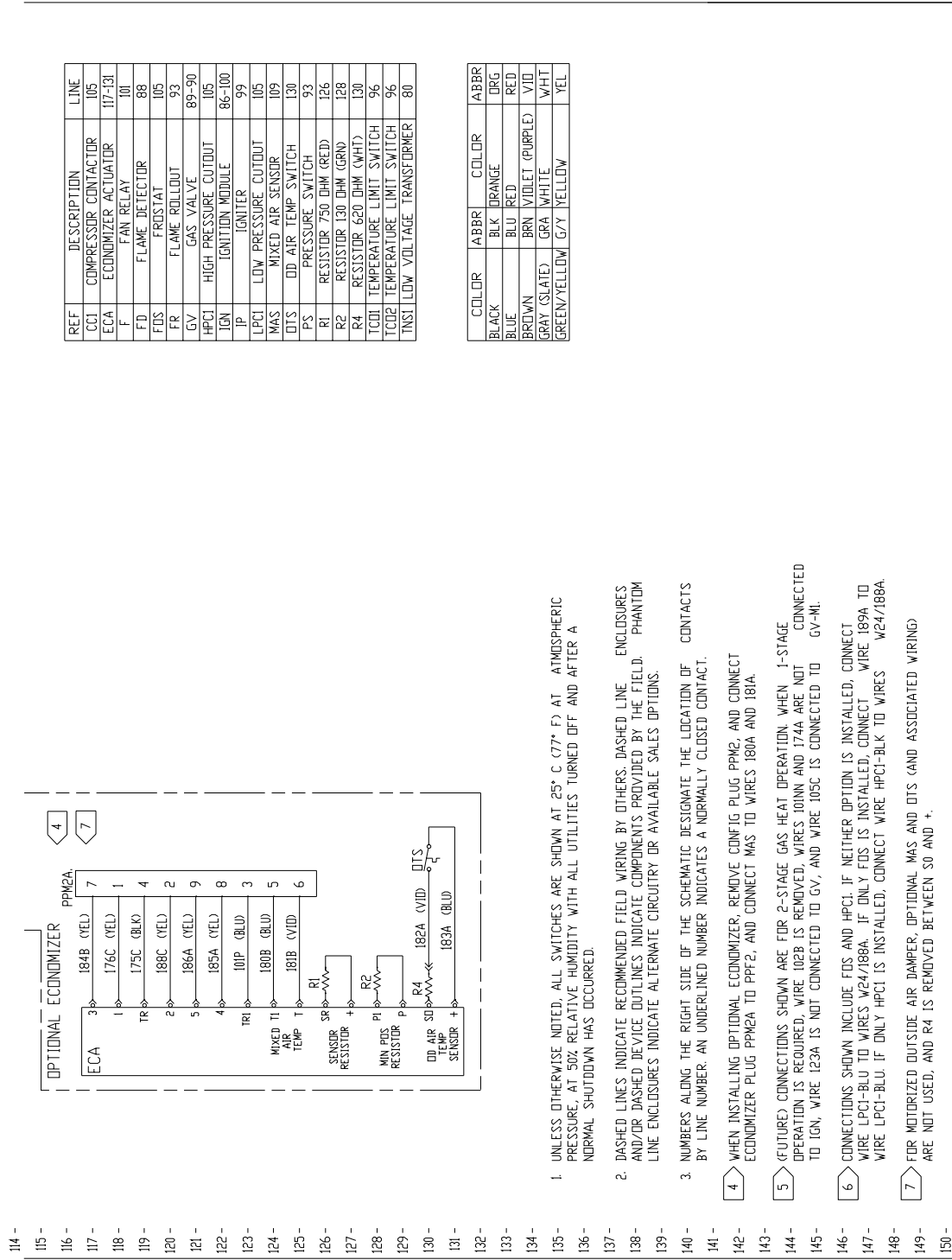


Figure 34. 2 - 5 Ton Single Stage Gas Heat / Belt Drive or Oversize Motor – 4366-1027

Control Diagram



4366-1027 J

Figure 34. (continued from previous page) 2 - 5 Ton Single Stage Gas Heat / Belt Drive or Oversize Motor — 4366-1027

Control Diagram

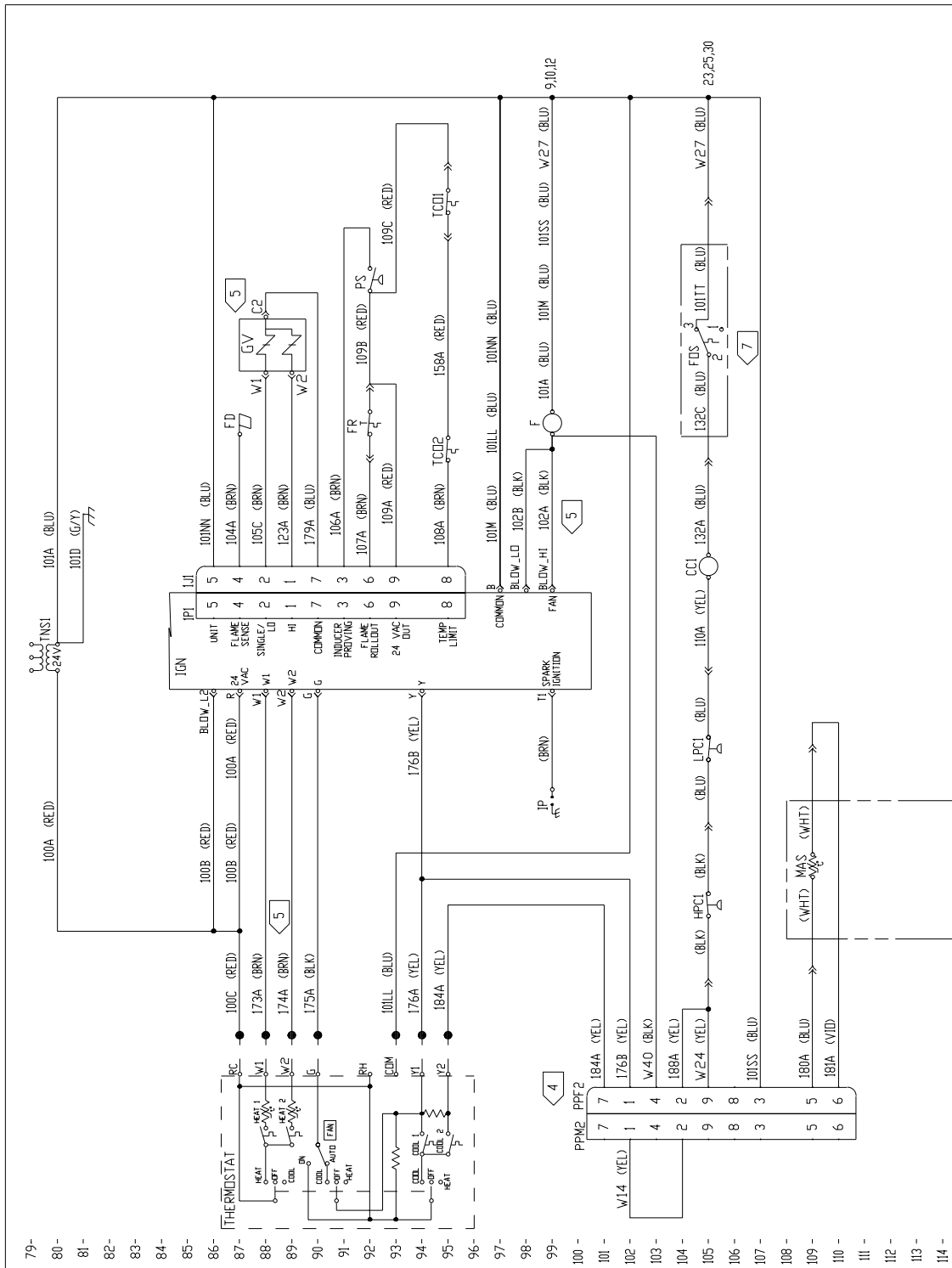
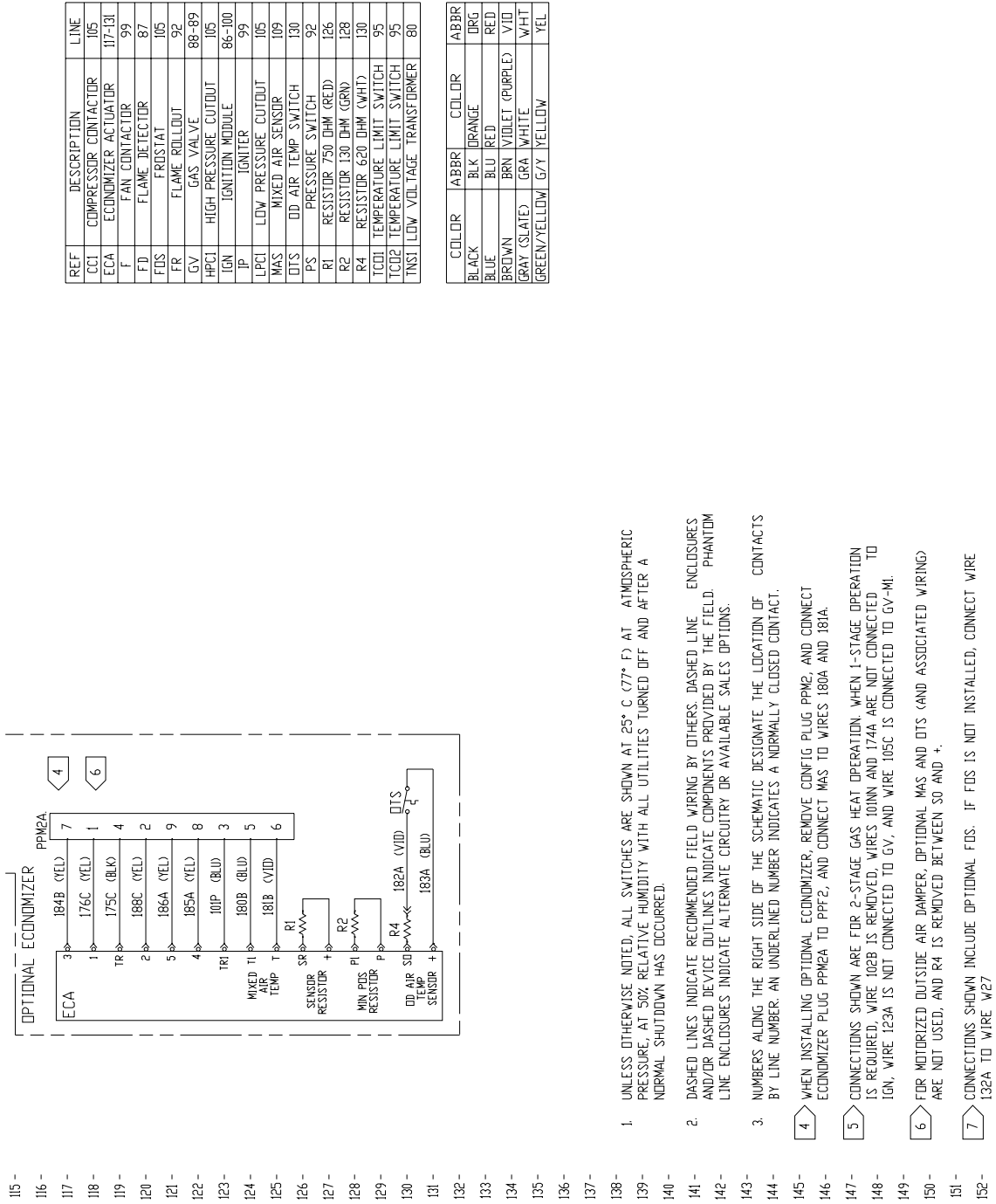


Figure 35. 6 - 7.5 Ton Gas Heat / Single Compressor – 4366-1045

Control Diagram



REF	DESCRIPTION	LINE
CCI	COMPRESSOR CONTACTOR	105
ECA	ECONOMIZER ACTUATOR	117-131
F	FAN CONTACTOR	99
FD	FLAME DETECTOR	87
FDS	FROST/AT	105
FR	FLAME ROLLOUT	92
GV	GAS VALVE	88-89
HPCI	HIGH PRESSURE CUTOUT	105
IGN	IGNITION MODULE	86-100
IP	IGNITER	99
LPCL	LOW PRESSURE CUTOUT	105
MAS	MIXED AIR SENSOR	109
DTS	DD AIR TEMP SWITCH	130
PS	PRESSURE SWITCH	92
R1	RESISTOR 750 OHM (RED)	126
R2	RESISTOR 130 OHM (GRN)	128
R4	RESISTOR 620 OHM (WHT)	130
TC01	TEMPERATURE LIMIT SWITCH	95
TC02	TEMPERATURE LIMIT SWITCH	95
TMS1	LOW VOLTAGE TRANSFORMER	80

COLOR	ABBR	COLOR	ABBR
BLACK	BLK	ORANGE	ORG
BLUE	BLU	RED	RED
BROWN	BRN	VIOLET (PURPLE)	VIO
GRAY (SLATE)	GRA	WHITE	WHT
GREEN/YELLOW	G/Y	YELLOW	YEL

- UNLESS OTHERWISE NOTED, ALL SWITCHES ARE SHOWN AT 25° C (77° F) AT ATMOSPHERIC PRESSURE, AT 50% RELATIVE HUMIDITY WITH ALL UTILITIES TURNED OFF AND AFTER A NORMAL SHUTDOWN HAS OCCURRED.
- DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE COMPONENTS PROVIDED BY THE FIELD. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
- NUMBERS ALONG THE RIGHT SIDE OF THE SCHEMATIC DESIGNATE THE LOCATION OF CONTACTS BY LINE NUMBER. AN UNDERLINED NUMBER INDICATES A NORMALLY CLOSED CONTACT.
- WHEN INSTALLING OPTIONAL ECONOMIZER, REMOVE CONFIG PLUG PP2, AND CONNECT ECONOMIZER PLUG PP2A TO PP2, AND CONNECT MAS TO WIRES 180A AND 181A.
- CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 101NN AND 174A ARE NOT CONNECTED TO IGN, WIRE 123A IS NOT CONNECTED TO GV, AND WIRE 105C IS CONNECTED TO GV-MI.
- FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND DTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND +.
- CONNECTIONS SHOWN INCLUDE OPTIONAL FDS. IF FDS IS NOT INSTALLED, CONNECT WIRE 132A TO WIRE W27.

Figure 35. (continued from previous page) 6 - 7.5 Ton Gas Heat / Single Compressor — 4366-1045

Control Diagram

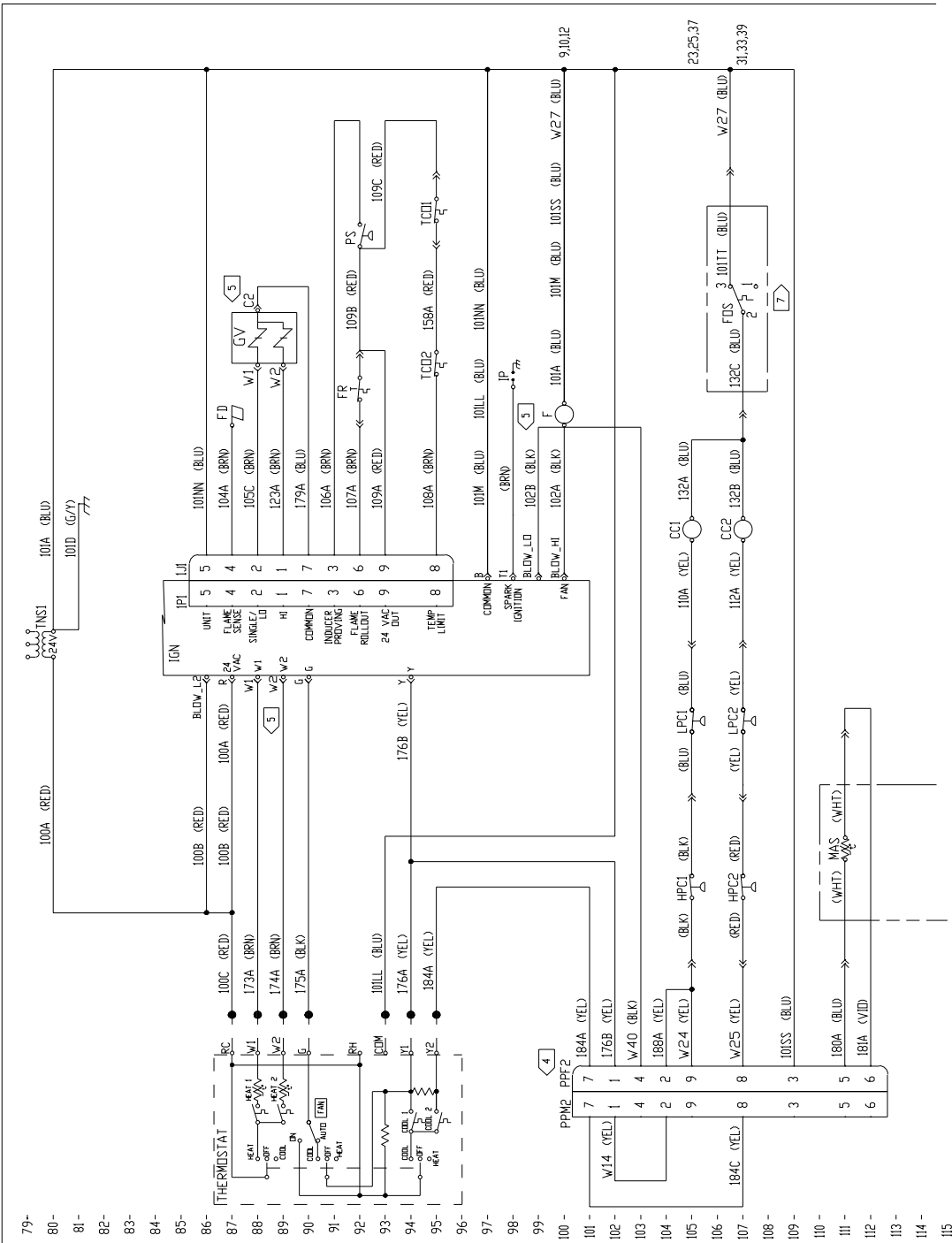


Figure 36. 7.5 - 10 Ton Gas Heat / Dual Compressor — 4366-1039

Control Diagram

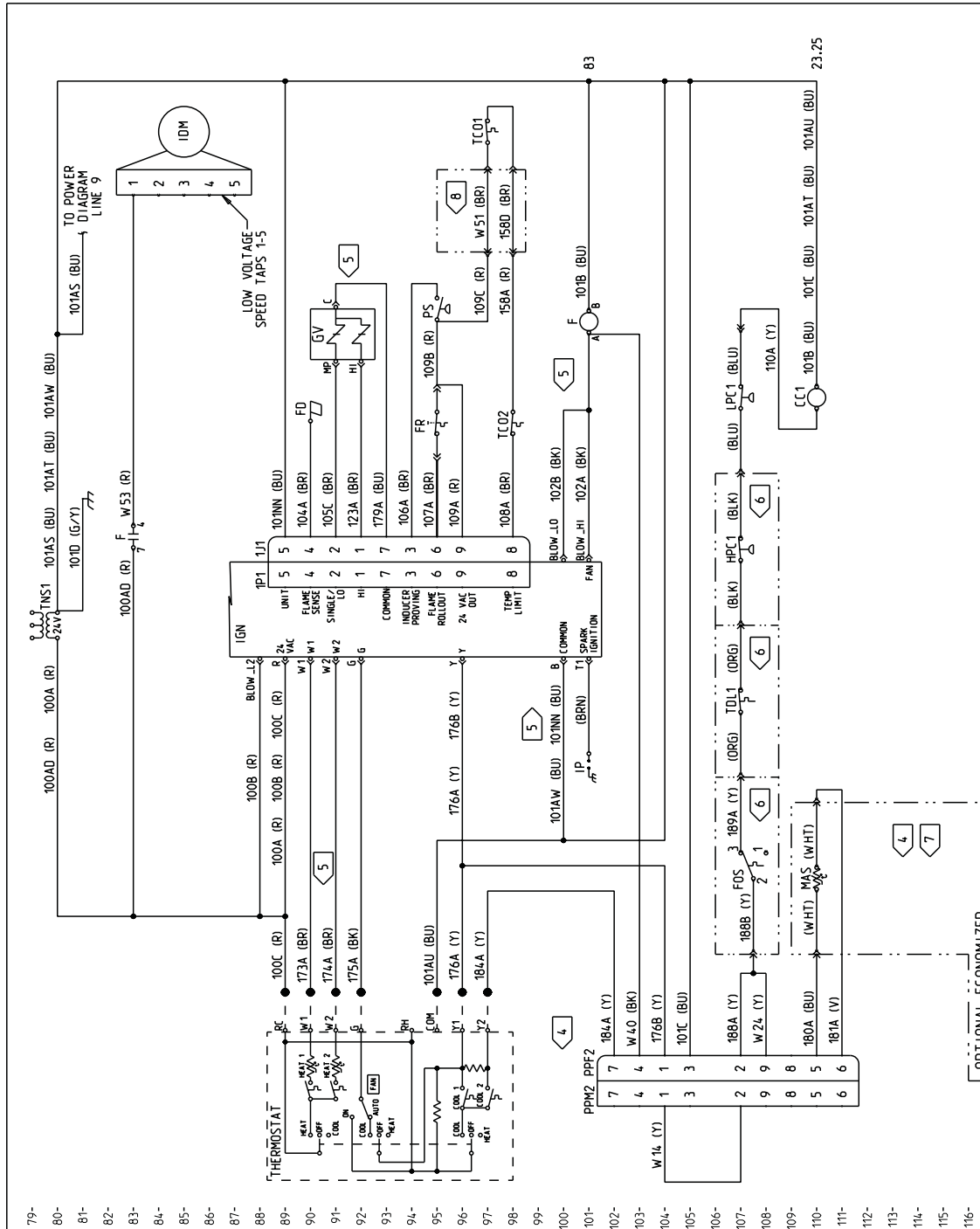


Figure 37. 5 Ton 230v/1Ph / R410A Std Eff – 5 Ton R410A Hi Eff / Direct Drive Indoor Motor – 4366-4702

Control Diagram

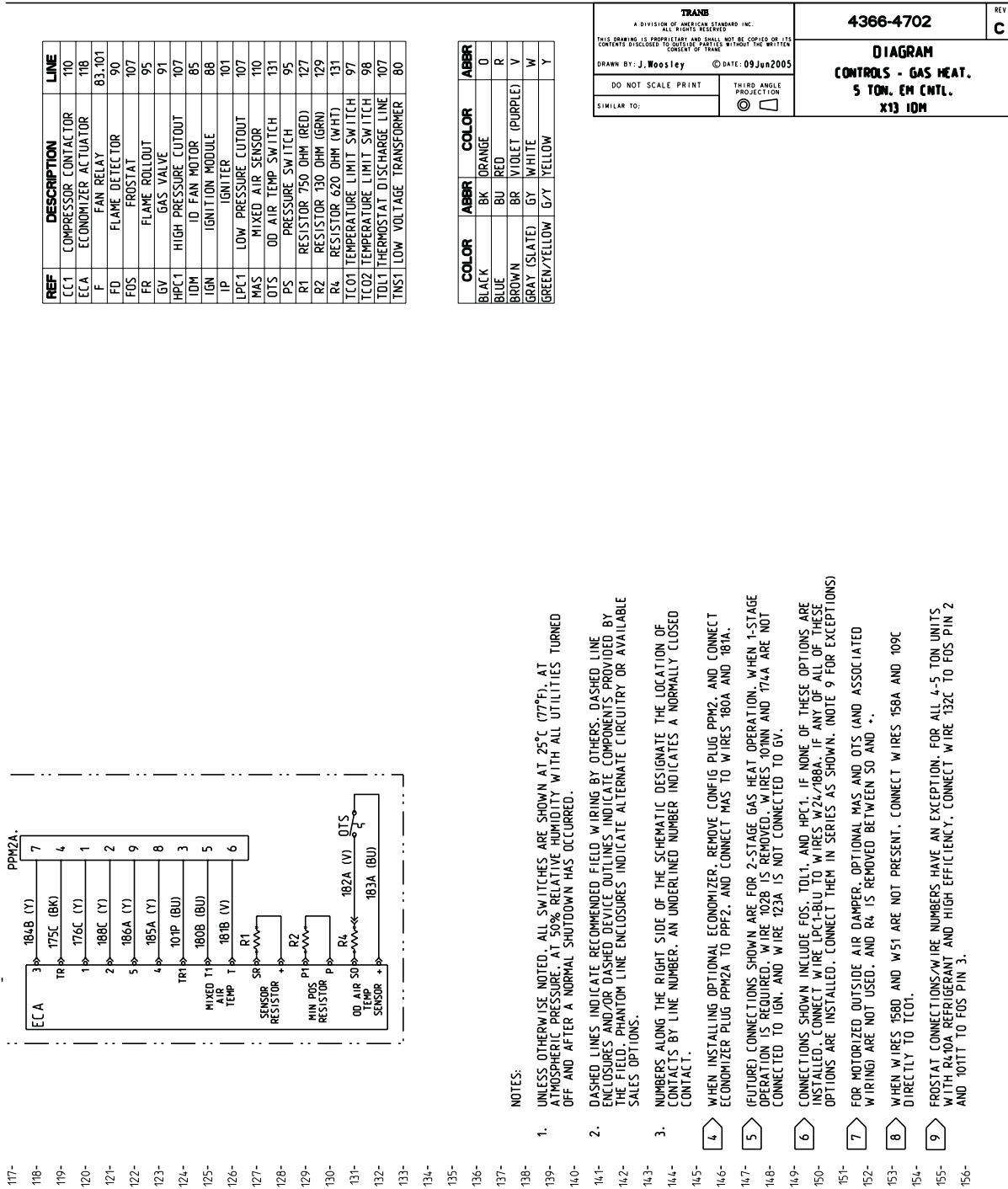


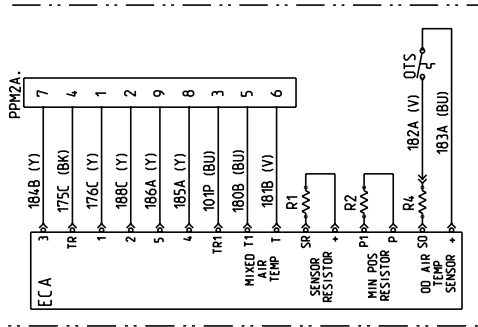
Figure 37. (continued from previous page) 5 Ton 230v/1Ph / R410A Std Eff – 5 Ton R410A Hi Eff / Direct Drive Indoor Motor – 4366-4702

Control Diagram

REF	DESCRIPTION	LINE
CC1	COMPRESSOR CONTACTOR	110
ECA	ECONOMIZER ACTUATOR	118
F	FAN RELAY	83,101
FD	FLAME DETECTOR	90
FOS	FROSTAT	107
FR	FLAME ROLLOUT	95
GV	GAS VALVE	91
H	HEAT RELAY	83,85
HPC1	HIGH PRESSURE CUTOUT	107
IDM	ID FAN MOTOR	85
IGN	IGNITION MODULE	88
IP	IGNITER	101
LPC1	LOW PRESSURE CUTOUT	107
MAS	MIXED AIR SENSOR	110
OTS	OD AIR TEMP SWITCH	131
PS	PRESSURE SWITCH	95
R1	RESISTOR 750 OHM (RED)	127
R2	RESISTOR 130 OHM (GRN)	129
R4	RESISTOR 620 OHM (WHT)	131
TC01	TEMPERATURE LIMIT SWITCH	97
TC02	TEMPERATURE LIMIT SWITCH	98
TD1	THERMOSTAT DISCHARGE LINE	107
TNS1	LOW VOLTAGE TRANSFORMER	80

COLOR	ABBR	COLOR	ABBR
BLACK	BK	ORANGE	O
BLUE	BU	RED	R
BROWN	BR	VIOLET (PURPLE)	V
GRAY (SLATE)	GY	WHITE	W
GREEN/YELLOW	G/Y	YELLOW	Y

TRANE <small>A DIVISION OF AMERICAN STANDARD INC. ALL RIGHTS RESERVED</small>		4366-4570 DIAGRAM CONTROLS - GAS HEAT. 3-4 TON, EM CNTL. X13 10M	REV C
<small>THIS DRAWING IS PROPRIETARY AND SHALL NOT BE COPIED OR ITS CONTENTS DISCLOSED TO OUTSIDE PARTIES WITHOUT THE WRITTEN CONSENT OF TRANE</small>		<small>DATE: 09Jun2005</small>	
<small>DO NOT SCALE PRINT</small>		<small>THIRD ANGLE PROJECTION</small>	
<small>SIMILAR TO:</small>		<small>DRAWN BY: J. Woosley</small>	



NOTES:

- UNLESS OTHERWISE NOTED, ALL SWITCHES ARE SHOWN AT 25°C (77°F). AT ATMOSPHERIC PRESSURE. AT 50% RELATIVE HUMIDITY WITH ALL UTILITIES TURNED OFF AND AFTER A NORMAL SHUTDOWN HAS OCCURRED.
- DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE COMPONENTS PROVIDED BY THE FIELD. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE CIRCUITRY OR AVAILABLE SALES OPTIONS.
- NUMBERS ALONG THE RIGHT SIDE OF THE SCHEMATIC DESIGNATE THE LOCATION OF CONTACTS BY LINE NUMBER. AN UNDERLINED NUMBER INDICATES A NORMALLY CLOSED CONTACT.
- WHEN INSTALLING OPTIONAL ECONOMIZER, REMOVE CONFIG PLUG PPMZ, AND CONNECT ECONOMIZER PLUG PPMZA TO PPF2, AND CONNECT MAS TO WIRES 180A AND 181A. (FUTURE) CONNECTIONS SHOWN ARE FOR 2-STAGE GAS HEAT OPERATION. WHEN 1-STAGE OPERATION IS REQUIRED, WIRE 102B IS REMOVED, WIRES 101NN AND 174A ARE NOT CONNECTED TO IGN, AND WIRE 123A IS NOT CONNECTED TO GV.
- CONNECTIONS SHOWN INCLUDE FOS, TD1, AND HPC1. IF NONE OF THESE OPTIONS ARE INSTALLED, CONNECT WIRE 1PC1-BU TO WIRES W24/188A. IF ANY OR ALL OF THESE OPTIONS ARE INSTALLED, CONNECT THEM IN SERIES AS SHOWN. (NOTE 10 FOR EXCEPTION)
- FOR MOTORIZED OUTSIDE AIR DAMPER, OPTIONAL MAS AND OTS (AND ASSOCIATED WIRING) ARE NOT USED, AND R4 IS REMOVED BETWEEN SO AND *.
- WHEN WIRES 1580 AND W51 ARE NOT PRESENT, CONNECT WIRES 158A AND 109C DIRECTLY TO TC01.
- MINIMUM HEATING SPEED IS TAP 4. TO SET COOLING AND HEATING TO THE SAME SPEED (TAP 4 OR TAP 3), DISCONNECT WIRE W34 FROM 10M AND CONNECT IT TO THE EXTRA TERMINAL PROVIDED ON WIRE W56.
- FROSTAT CONNECTIONS/WIRE NUMBERS HAVE AN EXCEPTION. FOR ALL 4-5 TON UNITS WITH R4-10A REFRIGERANT AND HIGH EFFICIENCY, CONNECT WIRE 132C TO FOS PIN 2 AND 101TT TO FOS PIN 3.

Figure 38. (continued from previous page) 3 - 4 Ton 230v/1Ph / R410A Std Eff – 3 - 4 Ton R410A Hi Eff / Direct Drive Indoor Motor – 4366-4570

Through the Base Utility Schematic

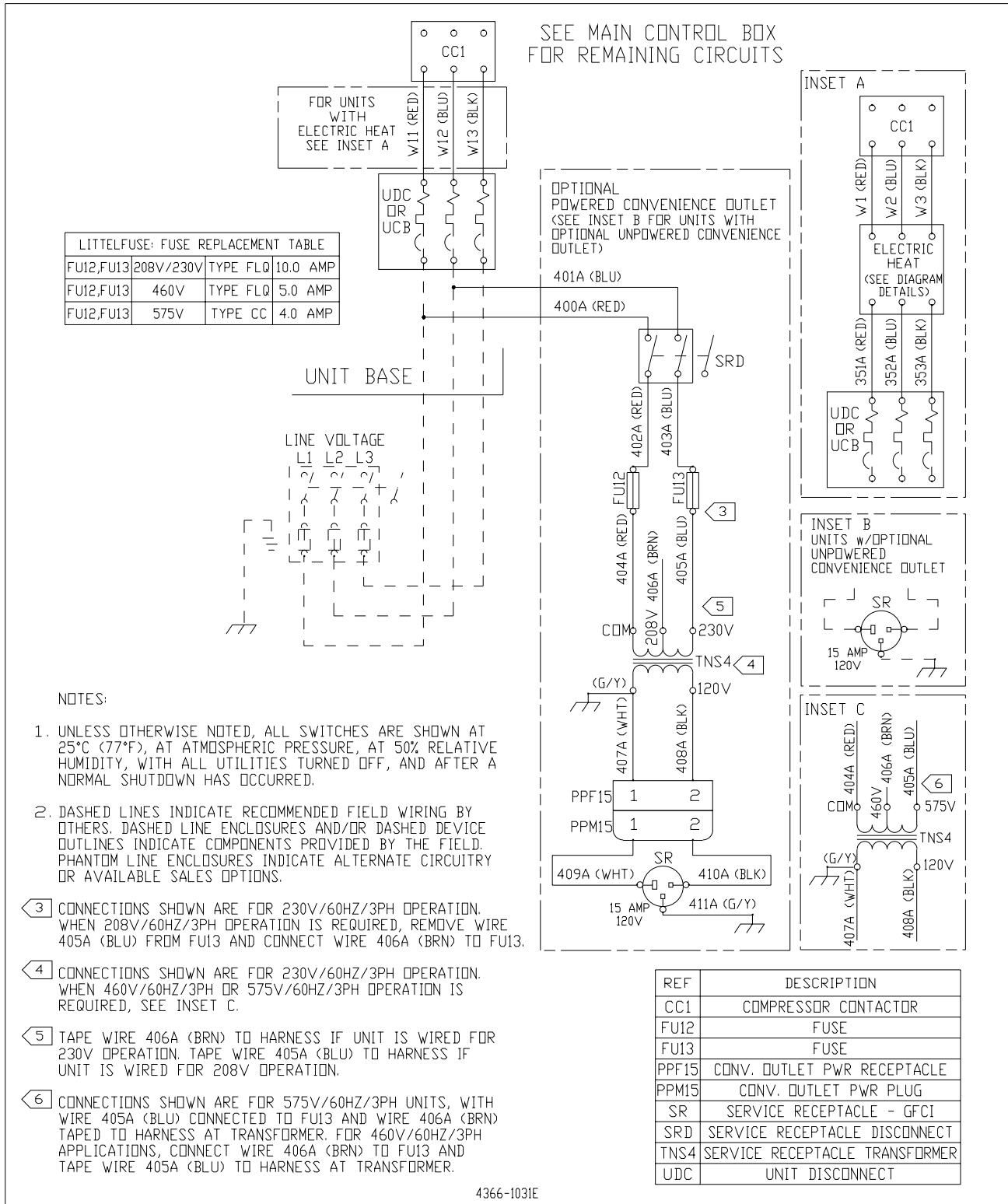


Figure 39. Through the base utilities

Literature Order Number	T_C-SVE001C-EN
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Date	10/06
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Supersedes	T_C-SVE001B-EN (11/04)
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Stocking Location	Electronic Only
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The manufacturer has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.