



Wiring Diagrams

30GX DIAGRAM INDEX

50 Hz UNITS	60 Hz UNITS	VOLTAGE	FIGURE NUMBER	LABEL DIAGRAM NO. 30GX
COMPRESSOR POWER WIRING				
080,090,105,105,115,125, 136,150,160,161,175	080,090,106,115,125, 136,151,161,176	All	1	501329
FAN POWER WIRING				
080,090,105,105,115,125, 136,150,160,161,175	080,090,106,115,125, 136,151,161	All	2	501354
—	176	All	3	501607
CONTROL SCHEMATICS				
50 Hz Units	60 Hz Units	Voltage	Figure Number	Label Diagram No. 30GX
080,090,105,105,115,125, 136,150,160,161,175	080,090,106,115,125,136, 151,161,176	24	4	501355
080,090,105,105,115,125, 136,150,160	080,090,106,115,125,136,	115, 230	5	501356
161,175	151,161	115, 230	6	501331
—	176	115, 230	7	501609
COMPONENT ARRANGEMENTS				
50 Hz Units	60 Hz Units	Voltage	Figure Number	Label Diagram No. 30GX
080,090,105,105,115,125, 136,150,160,161,175	080,090,106,115,125,136, 151,161	All	8	501330
—	176	All	9	501608

LEGEND AND NOTES FOR FIG. 1-8

ALR	— Alarm
C	— Contactor Compressor
CB	— Circuit Breaker
CCN	— Carrier Comfort Network
CH	— Cooler Heater
CLHR	— Cooler Heater Relay
COMM	— Communications
COMP	— Compressor
CPM	— Compressor Protection Module
CR	— Control Relay
CT	— Current Transformer
CWFS	— Chilled Water Flow Switch
CWP	— Chilled Water Pump
CWPI	— Chilled Water Pump Interlock
DGT	— Discharge Gas Thermistor
DPT	— Discharge Pressure Transducer
DSIO EXV	— EXV Driver
DSIO HV	— Relay Module, High Voltage
EPT	— Economizer Pressure Transducer
EQUIP	— Equipment
EXV	— Electronic Expansion Valve
FC	— Fan Contactor
FCB	— Fan Circuit Breaker
FIOP	— Factory-Installed Option

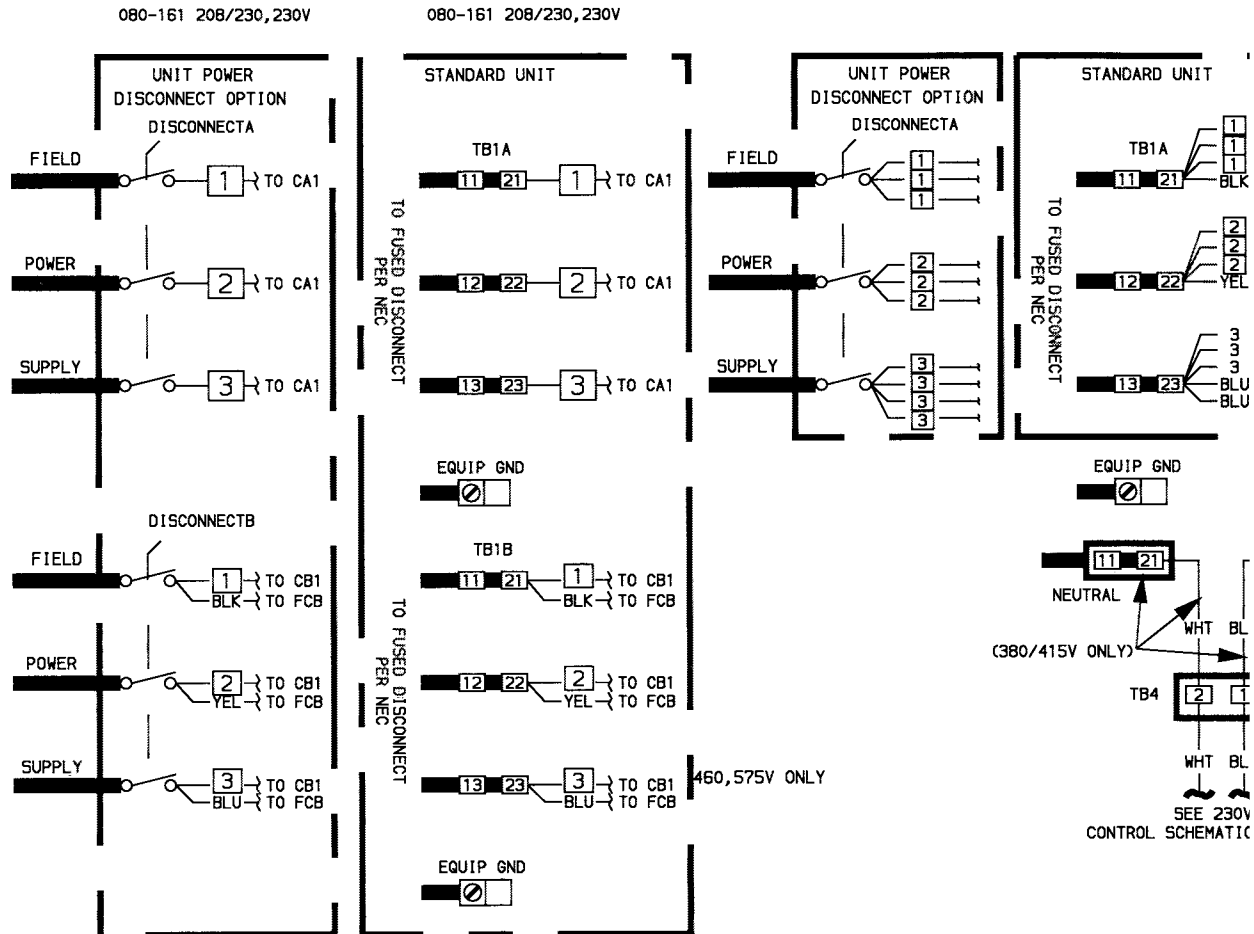
FM	— Fan Motor
FU	— Fuse
GFI-CO	— Ground Fault Interrupter Convenience Outlet
GND	— Ground
HPS	— High-Pressure Switch
HSIO	— Keyboard and Display Module
HTR	— Heater
LDR	— Loader
LID	— Local Interface Device
LL	— Liquid Level
OL	— Overload
OP	— Oil Pump
OPC	— Oil Pump Contactor
OPT	— Oil Pressure Transducer
PL	— Plug Assembly
PRI	— Primary
PS	— Power Supply
PSIO	— Processor Module
PWR	— Power
RB	— Reset Button
REPL	— Relay Board Plug Assembly
S	— Shorting
SEC	— Secondary
SN	— Sensor (Toroid)
SPT	— Suction Pressure Transducer
SW	— Switch
T	— Thermistor

TB	— Terminal Block
TEMP	— Temperature
TRAN	— Transformer
VAC	— Volts Alternating Current
VDC	— Volts Direct Current
XL	— Across-the-Line Start
1M	— Wye
2M	— Delta
	Terminal Block Connection
	Marked Terminal
	Unmarked Terminal
	Unmarked Splice
	Marked Wire
	Marked Splice
	Factory Wiring
	Field Control Wiring
	Field Power Wiring
	Indicates Common Potential. Does Not Represent Wiring.
	Accessories or Options

NOTES:

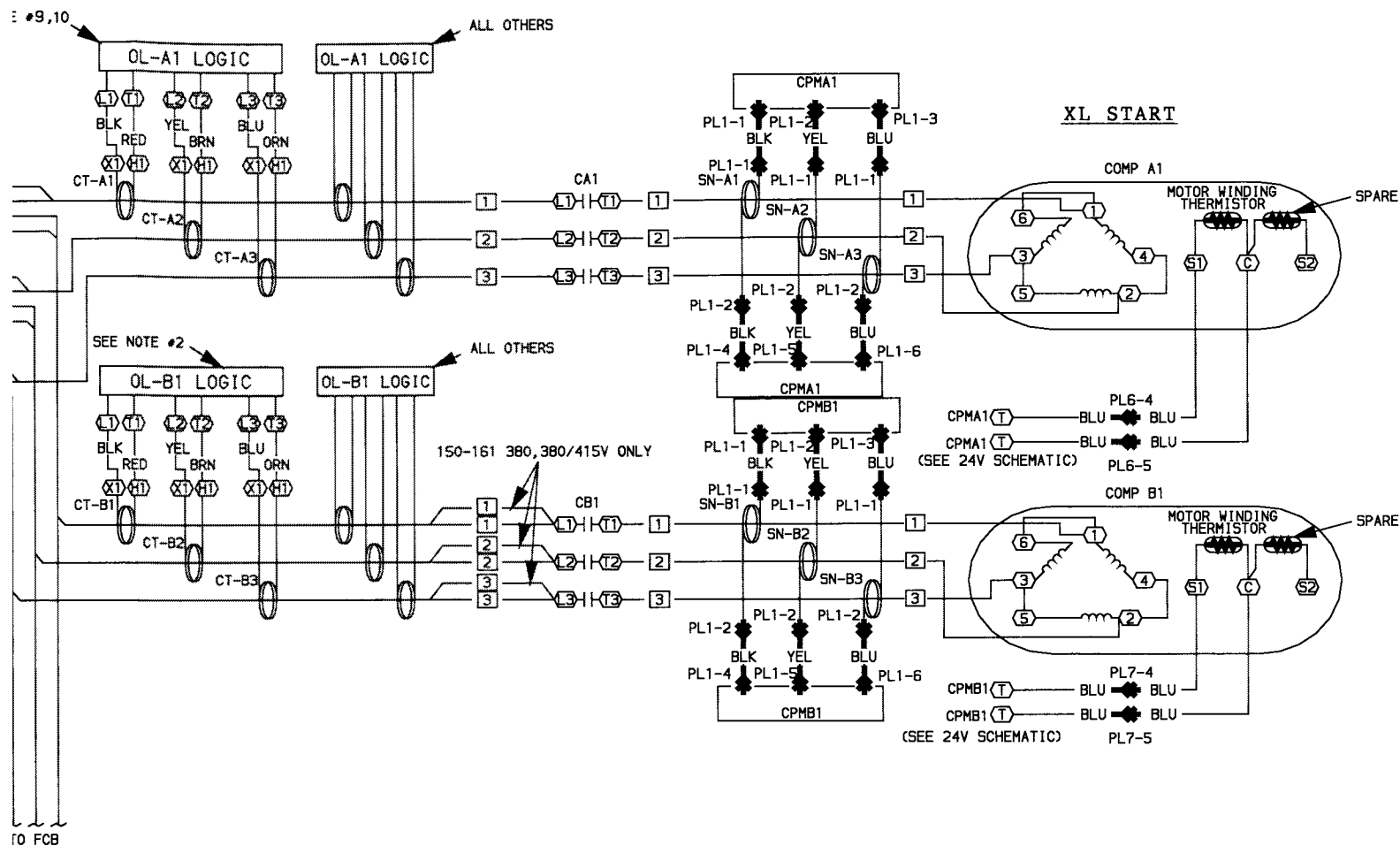
- Standard fan motors thermally protected. Three-phase motors protected against primary single phasing conditions.
- Replacement of original wires must be with type 105° C wire or its equivalent.
- Numbers on the right side of label diagrams indicate the line location of applicable contacts. An underlined number signifies contacts. Line numbers are shown on the left side of the diagrams.
- Factory wiring is in accordance with National Electrical Code (NEC, U.S.A.). Field modifications or additions must be in compliance with all applicable codes.
- Wiring for main field power supply must be rated 75° C minimum. Use copper conductors for all units.
- Power for control circuit should be supplied from a separate source through a field-supplied disconnect with 30 amps maximum protection for 115-volt control circuits and 15 amps maximum protection for 230-volt control circuit. Connect control circuit power to terminals 1 and 2 of TB4. Connect neutral side of supply to terminal 2 of TB4. Control circuit conductors for all units must be copper only.

- Terminals 13 and 14 of TB2 are for field external interlock connection for remote ON-OFF and terminals 11 and 12 of TB2 for CEP interlock and CWFS. The contacts must be rated for dry circuit application capable of handling a 24 vac to 50 mA load. Remove jumper between 13 and 14 of TB2 if remote ON-OFF is installed.
- Separate field supplied 115 v or 230 v power circuit. Terminals T3 and T4 of relay board are for control of chilled water pump starter. The maximum allowable load for each of these circuits is 125 va sealed.
- 30GX080-176 208/230, 230V, Y-Delta
30GX090,105,106 380/415V, XL,Y-Delta
30GX115-176 380, 380/415V, XL,Y-Delta
30GX176 460V, XL,Y-Delta
- 30GX080-176 208/230, 230V, Y-Delta
30GX136-160 380/415V, XL,Y-Delta
- 30GX080-175 208/230, 230V, Y-Delta
30GX090,105 380/415V, XL,Y-Delta
30GX115-175 380, 380/415V, XL,Y-Delta
- 30GX080-175 208/230, 230V, Y-Delta
30GX136-161 380/415V, XL,Y-Delta

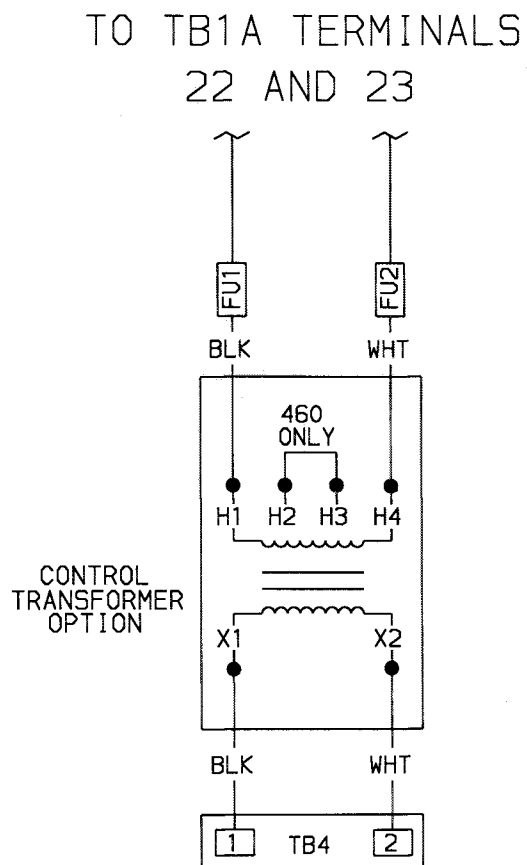


NOTE: See notes and legend on page 2.

Fig. 1 — Compressor Power Wiring; 30GX
30GX080, 090, 106



30, 090, 105, 106, 115, 125, 136, 150, 160, 161, 175 — 50 Hz Units;
 15, 125, 136, 151, 161, 176 — 60 Hz Units



NOTE: See notes and legend on page 2.

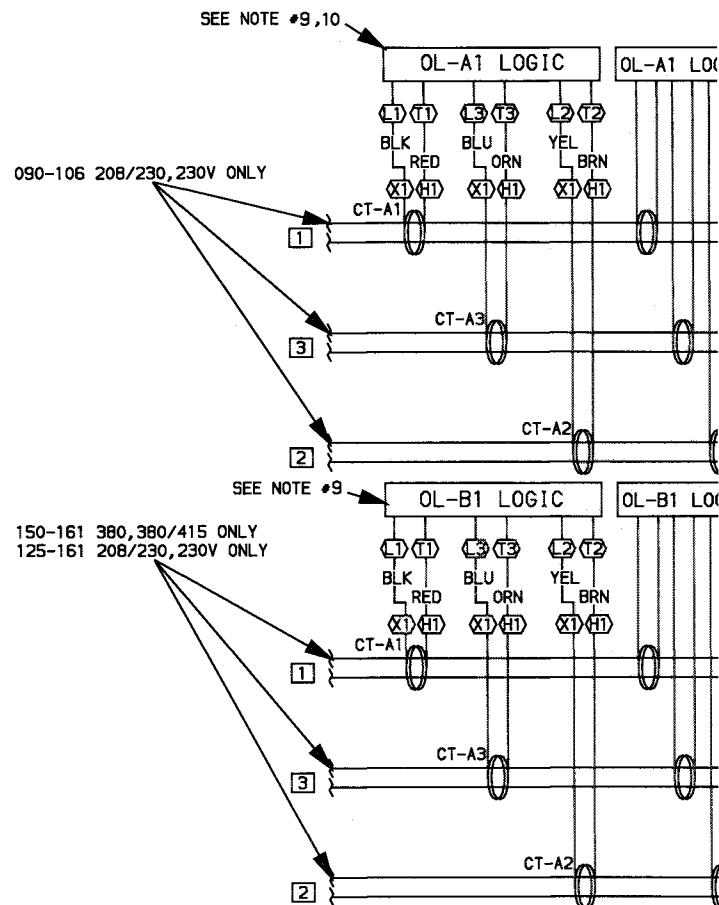
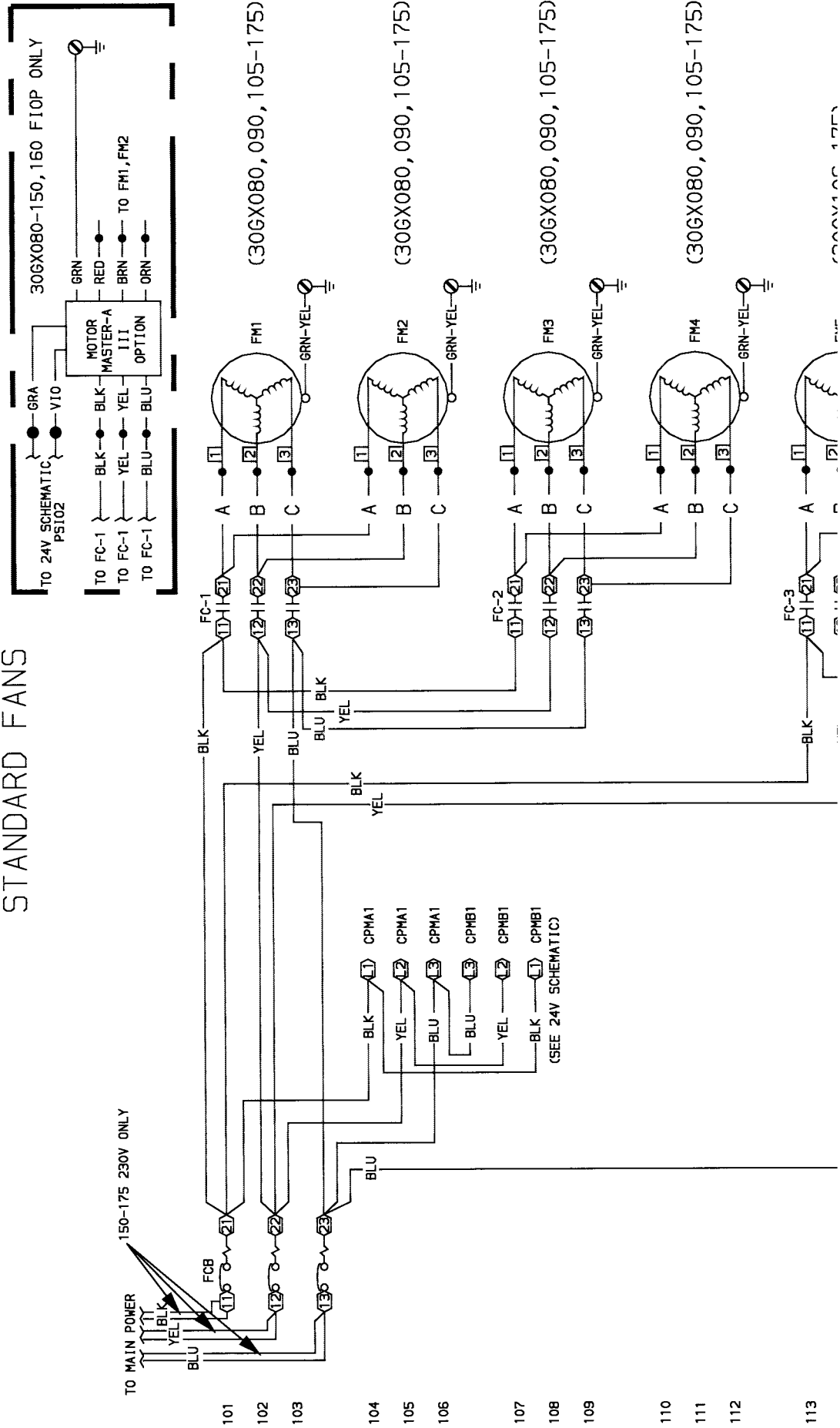
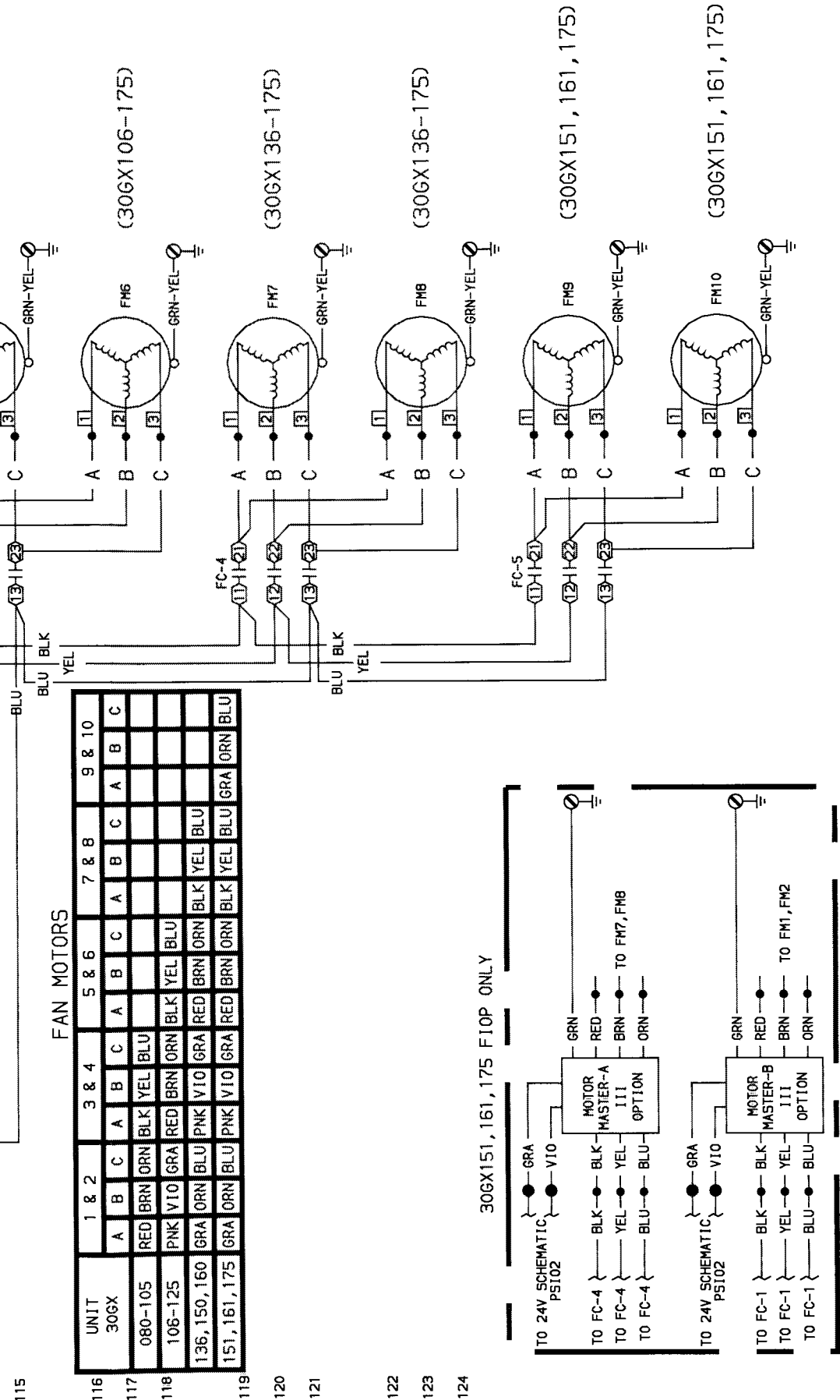


Fig. 1 — Compressor Power Wiring; 30GX080, (30GX080, 090, 106, 115,

STANDARD FANS

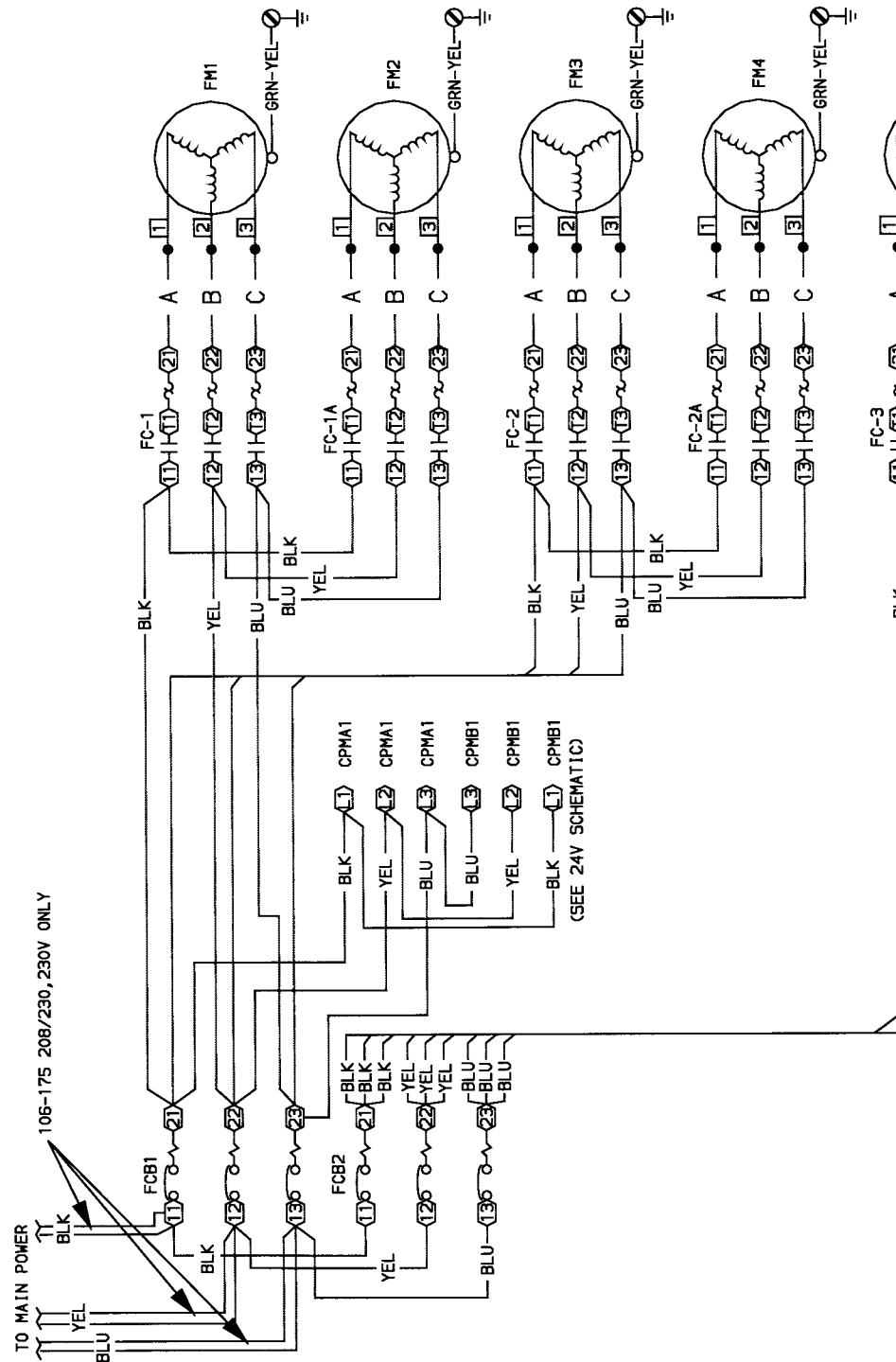


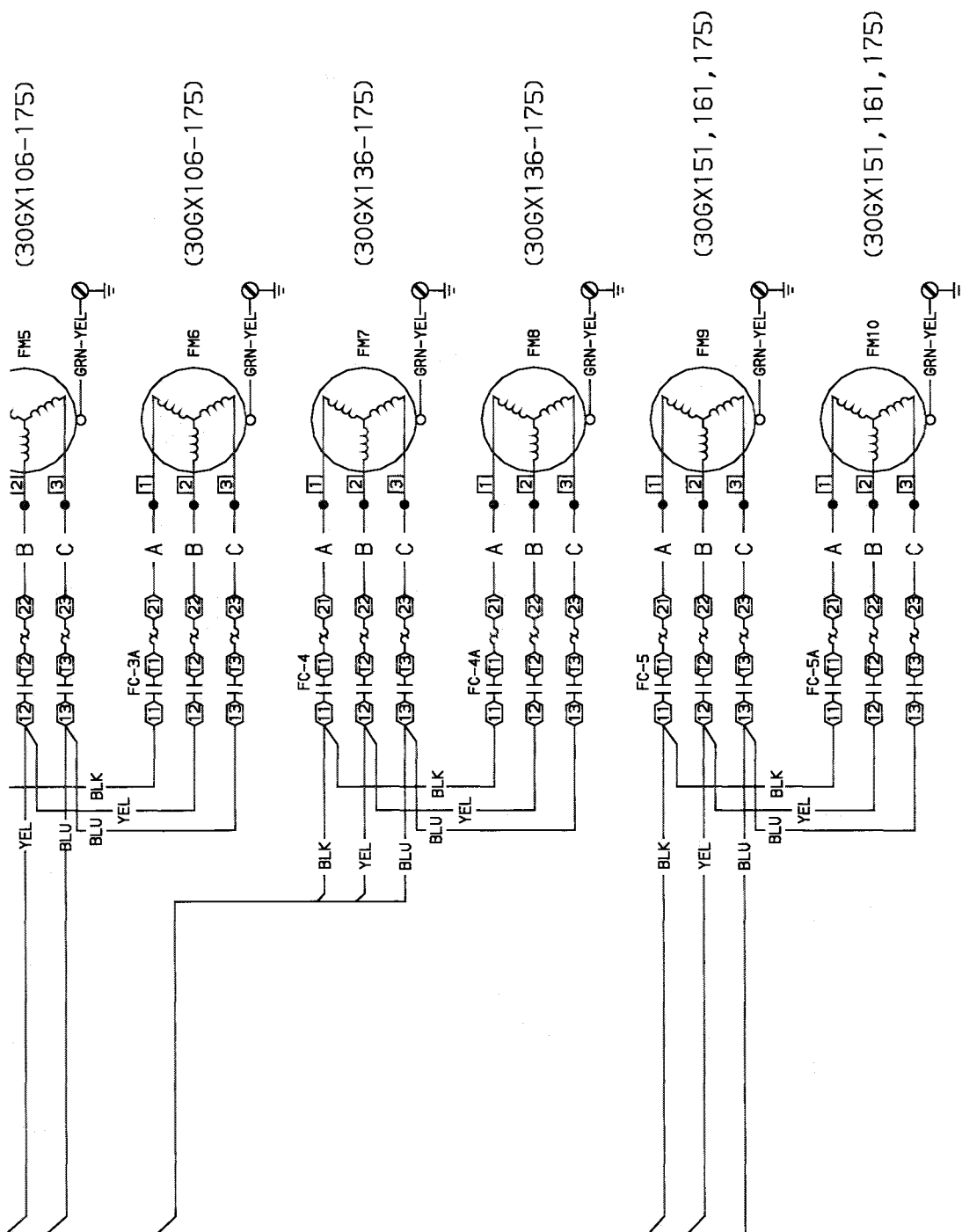


NOTE: See notes and legend on page 2.

**Fig. 2 — Fan Wiring: 30GX080, 090, 105, 106, 115, 125, 136, 150, 160, 161, 175 — 50 Hz Units;
30GX080, 090, 106, 115, 125, 136, 151, 161 — 60 Hz Units**

(30GX080, 090, 105-175)

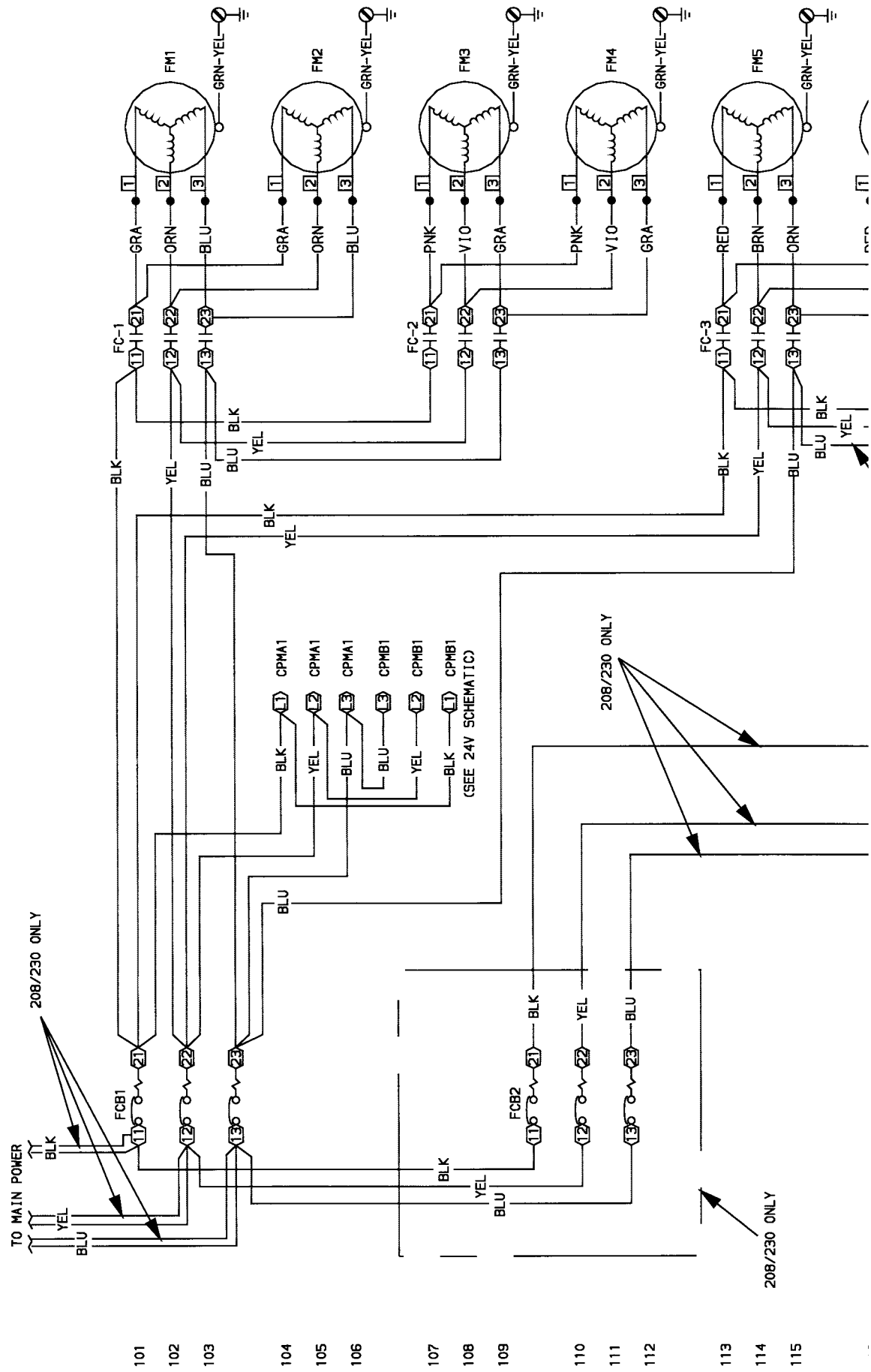




NOTE: See notes and legend on page 2.

Fig. 2 — Fan Wiring: 30GX080, 090, 105, 106, 115, 125, 136, 150, 160, 161, 175 — 50 Hz Units;
30GX080, 090, 106, 115, 125, 136, 151, 161 — 60 Hz Units (cont)

STANDARD FANS



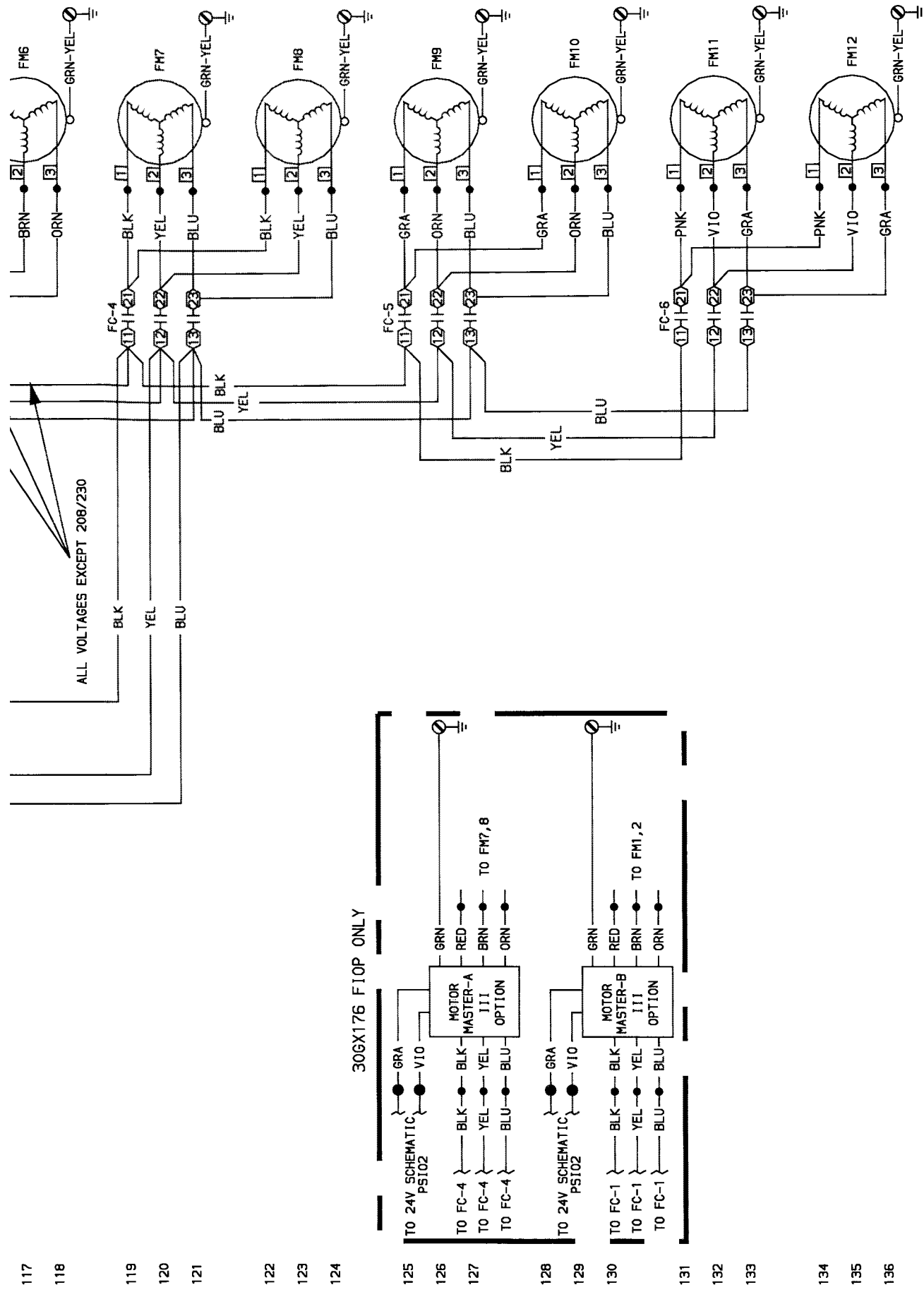
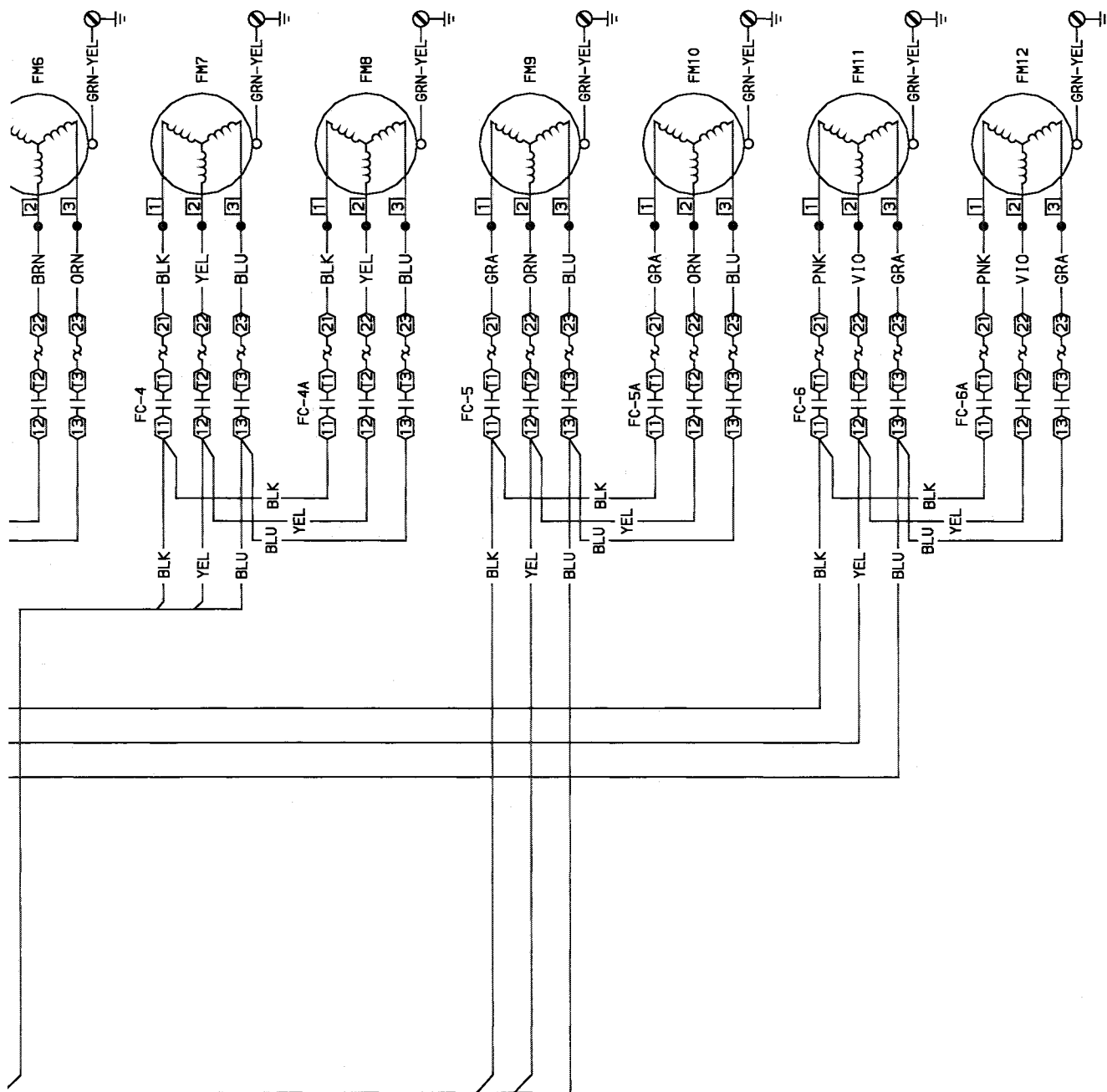


Fig. 3 — Fan Wiring; 30GX176 — 60 Hz Units

NOTE: See notes and legend on page 2.

The diagram illustrates the 24V system wiring. It shows the connection of five fan motors (FM1-FM5) to a 24V power source. The main power (208/230V) is connected to the system through a series of fuses (FCB1, FCB2) and relays (FC-1, FC-1A, FC-2, FC-2A, FC-3). The wiring includes various colored wires (BLK, YEL, BLU, GRN, YEL, GRN) and terminal blocks (CPMA1, CPMB1). The diagram is labeled "208/230 ONLY" and "TO MAIN POWER".



NOTE: See notes and legend on page 2.

Fig. 3 — Fan Wiring; 30GX176 — 60 Hz Units (cont)

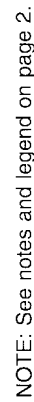
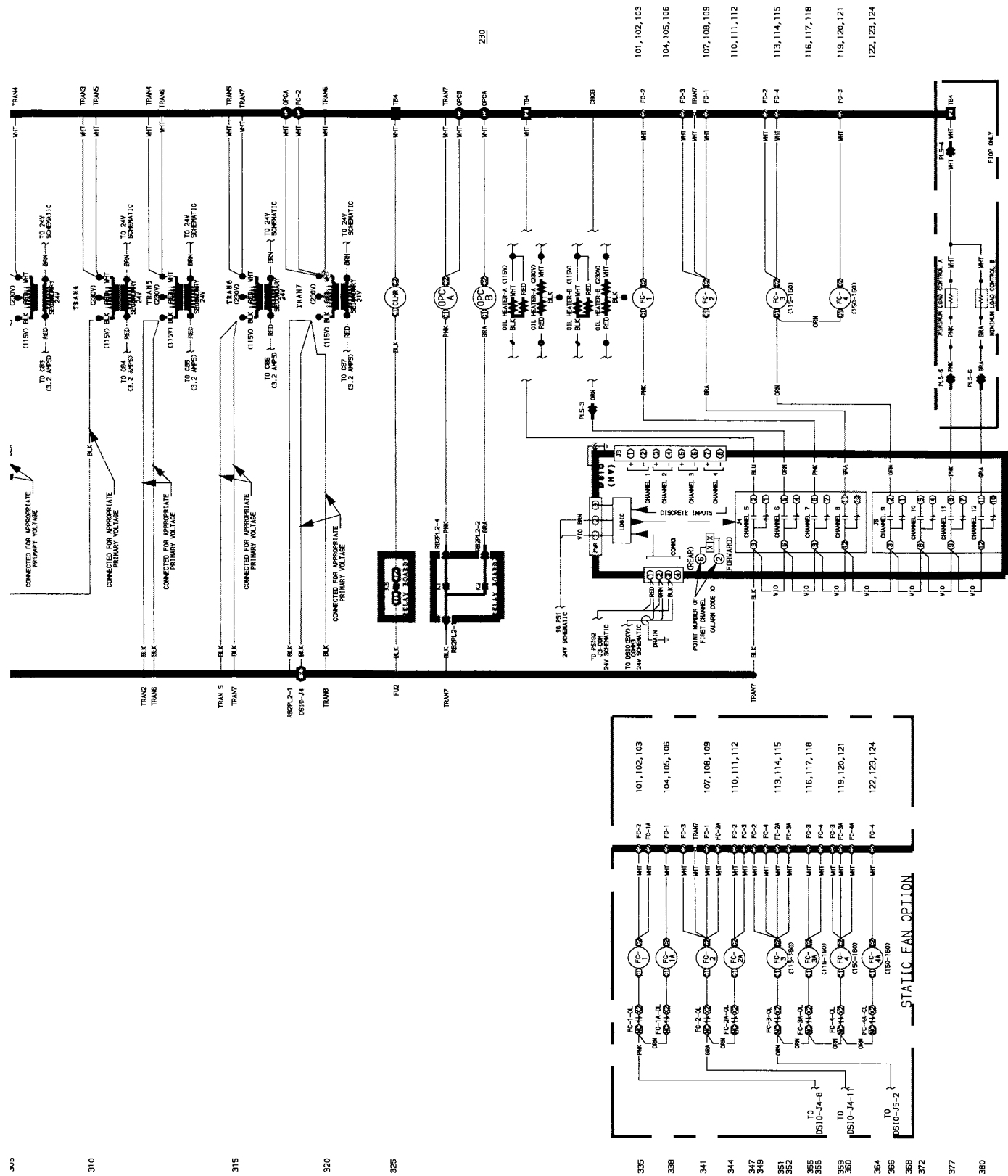
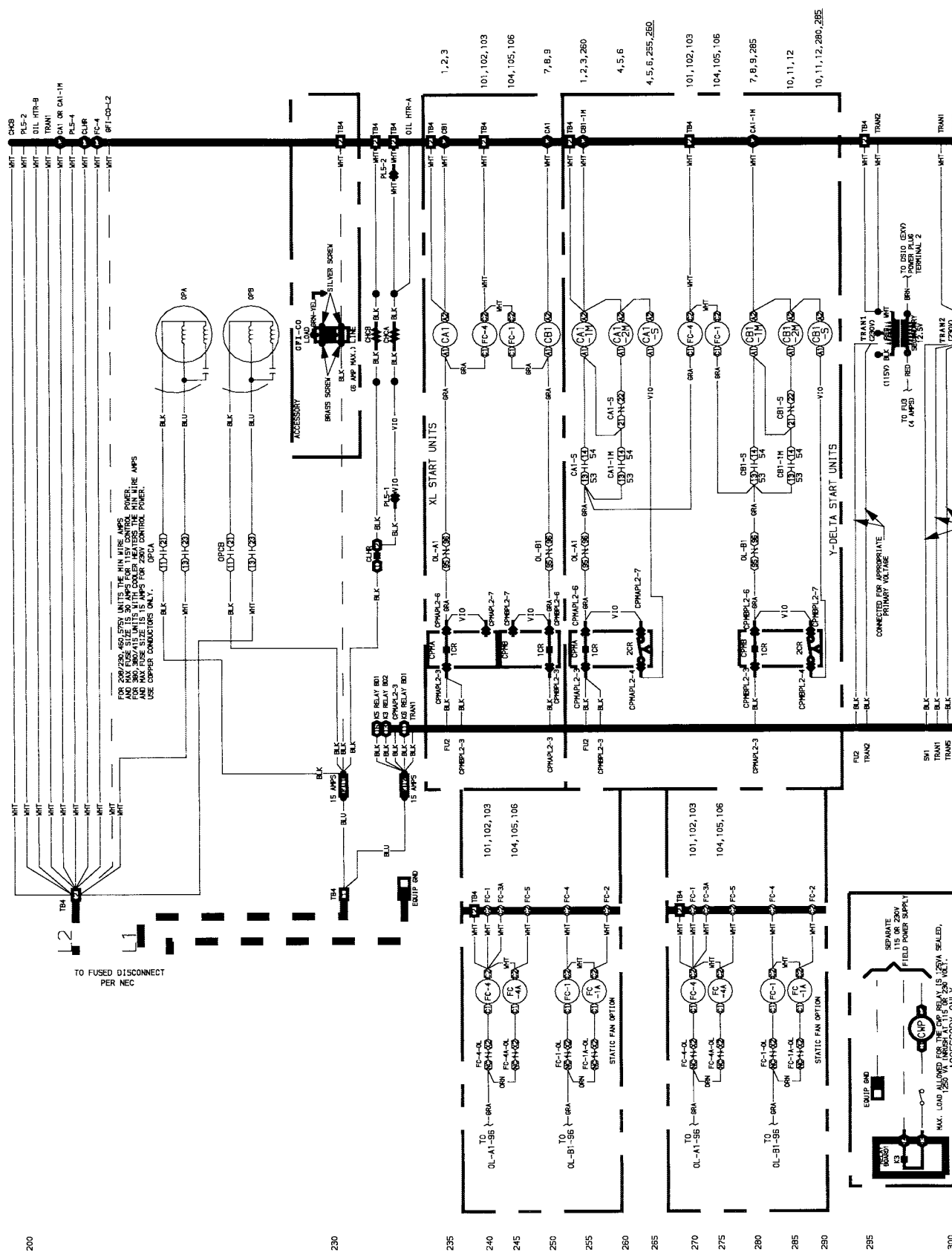


Fig. 4 — 24V Control Wiring: 30GX080, 090, 105, 106, 115, 125, 136, 150, 160, 161, 175 — 50 Hz Units;
30GX080, 090, 106, 115, 125, 136, 151, 161, 176 — 60 Hz Units



NOTE: See notes and legend on page 2.

Fig. 5 — 115V, 230V Control Wiring: 30GX080, 090, 105, 106, 115, 125, 136, 150, 160, 161, 175 — 50 Hz Units; 30GX080, 090, 106, 115, 125, 136 — 60 Hz Units



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315

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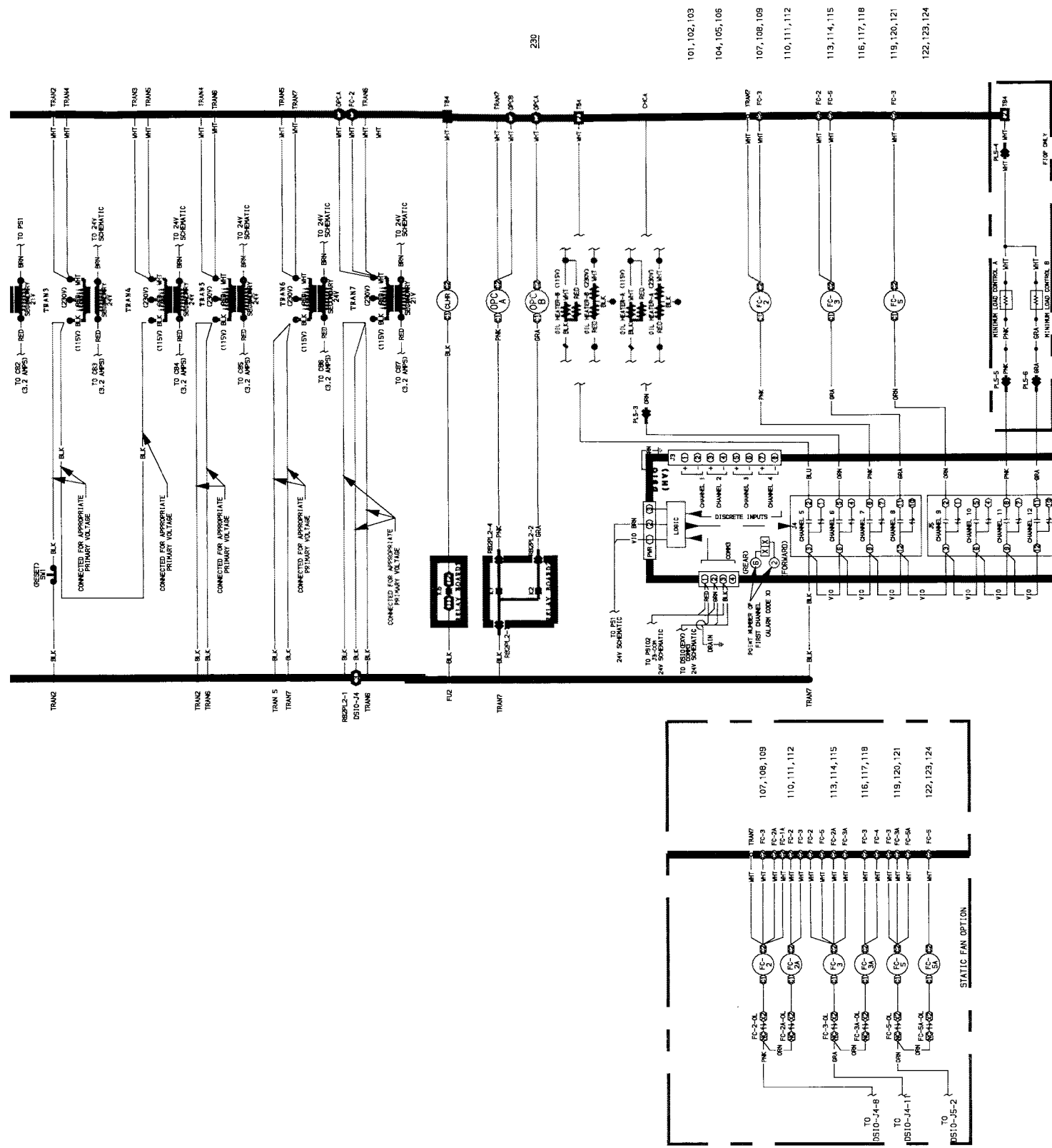
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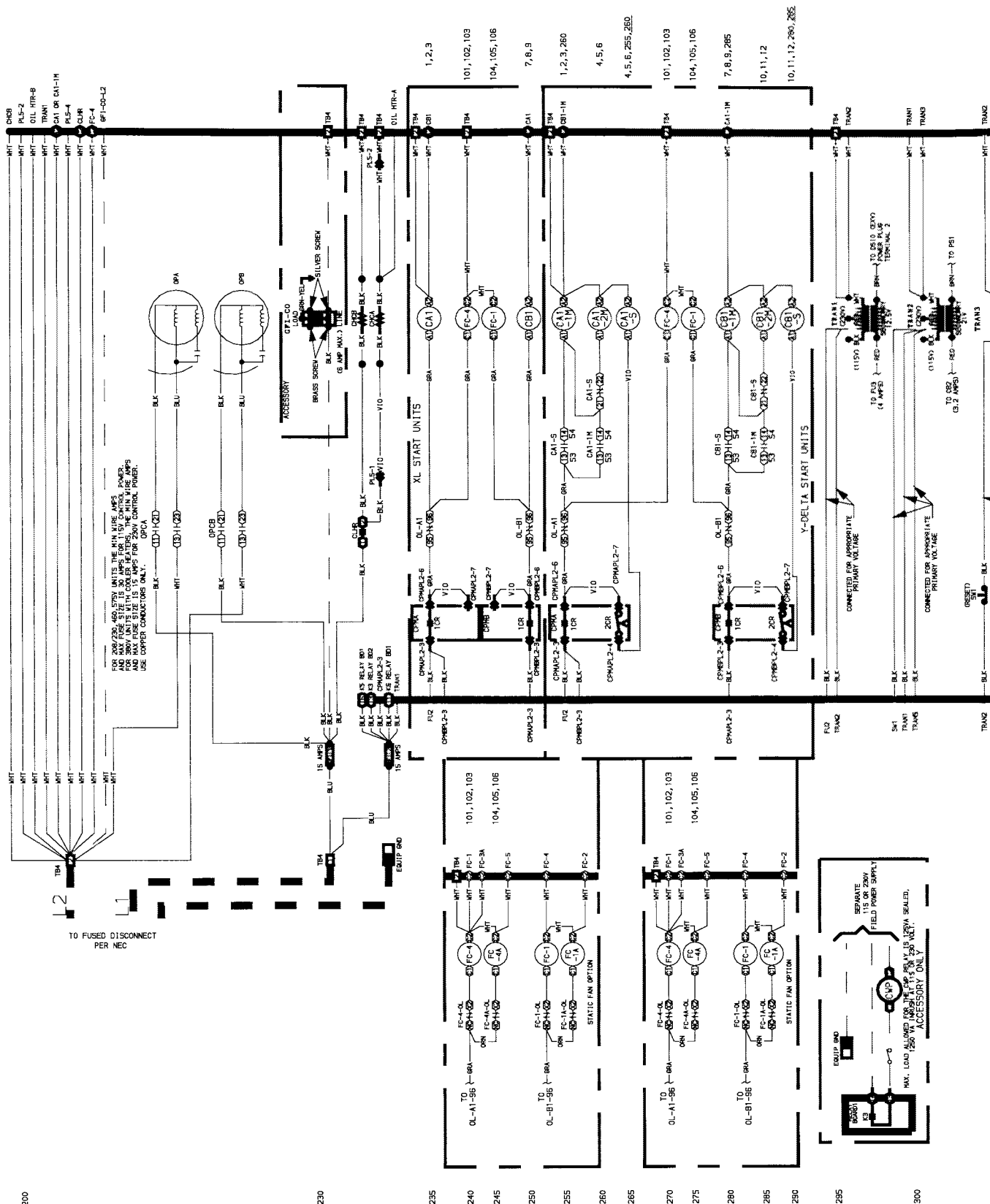
377

380

NOTE: See notes and legend on page 2.

Fig. 6 — 115V, 230V Control Wiring; 30GX161, 175 — 50 Hz Units; 30GX151, 161 — 60 Hz Units





200

230

255

240

245

250

255

260

265

270

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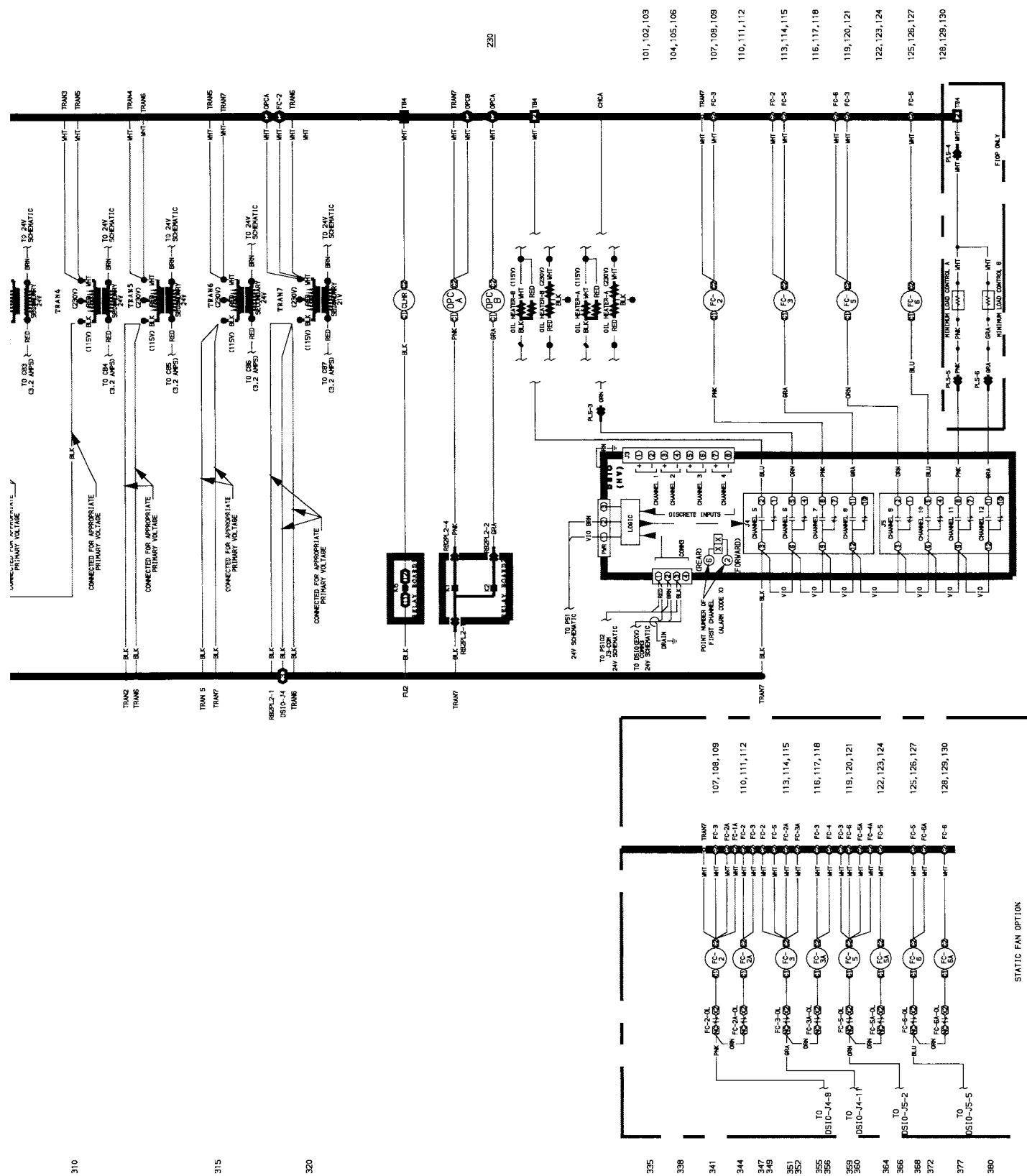
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300



NOTE: See notes and legend on page 2.

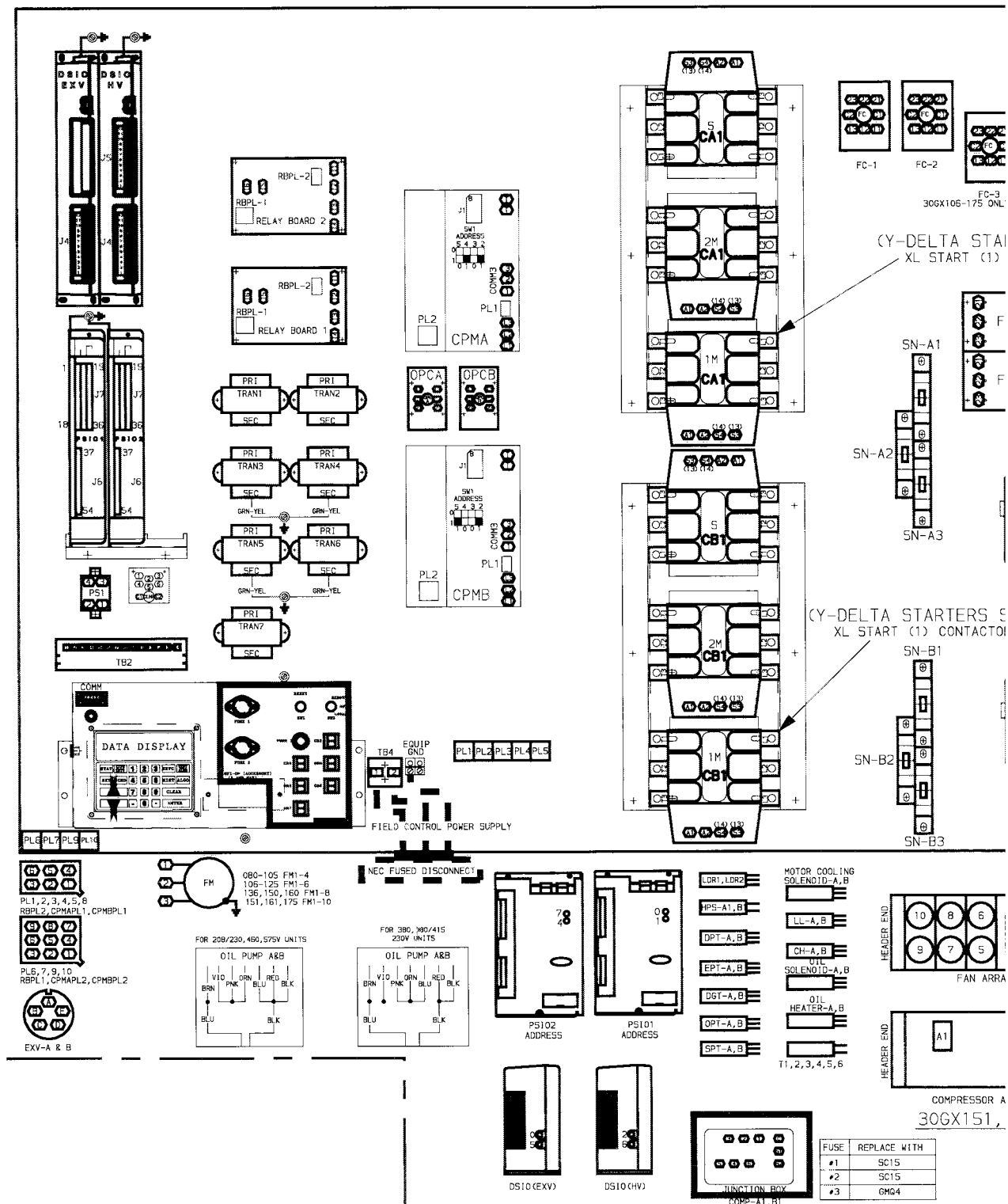
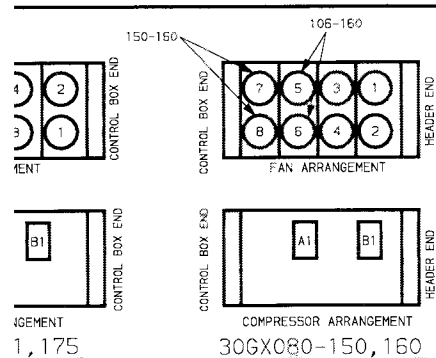
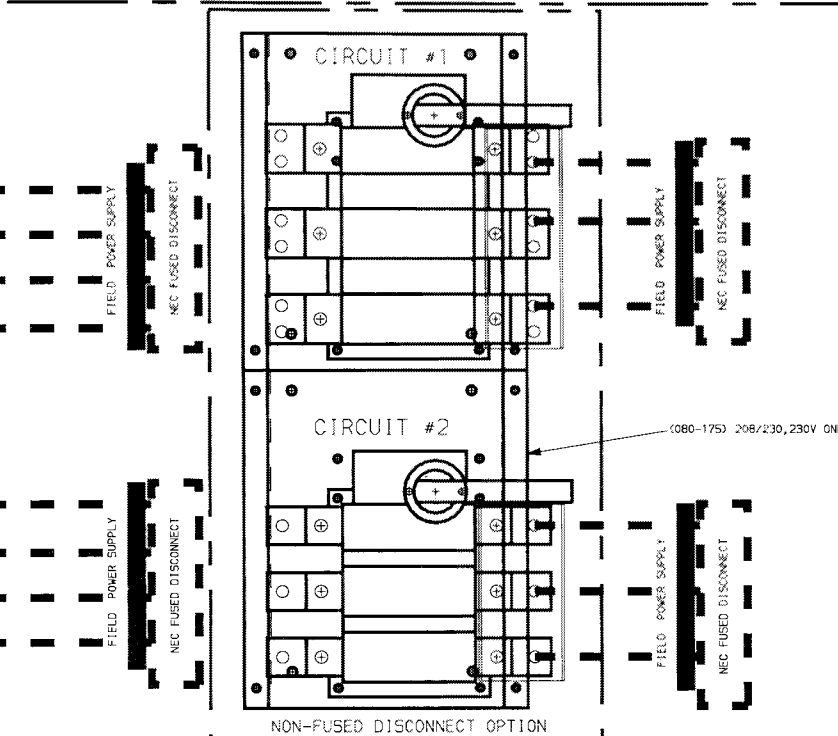
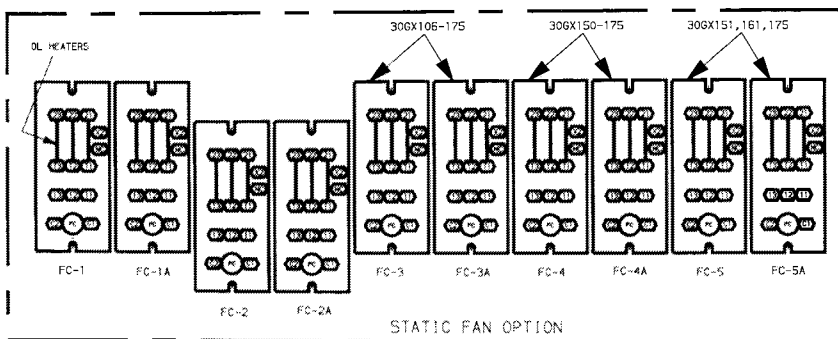
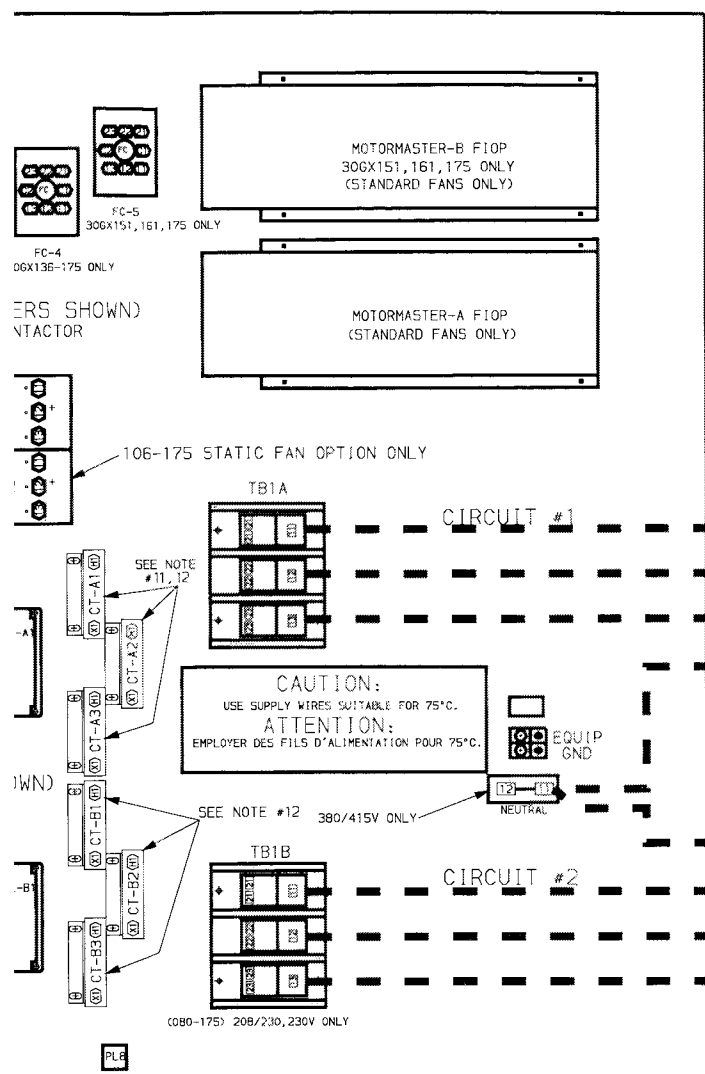
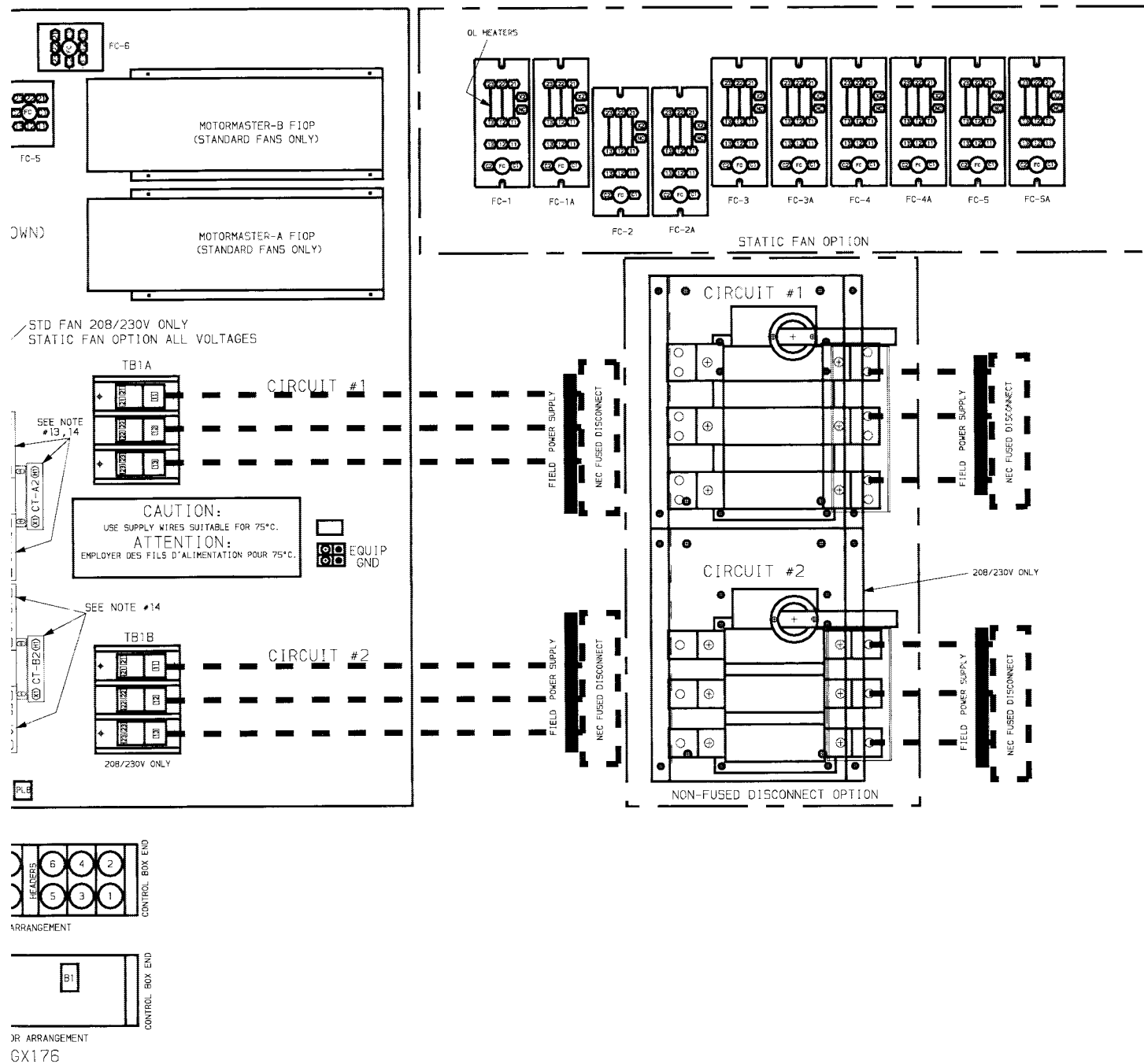


Fig. 8 — Component Arrangement; 30GX080, 090, 151



), 090, 105, 106, 115, 125, 136, 150, 160, 161, 175 — 50 Hz Units;
15, 125, 136, 151, 161 — 60 Hz Units



Arrangement; 30GX176 — 60 Hz Units



