



Wiring Diagrams

30GX DIAGRAM INDEX

50 Hz UNITS	60 Hz UNITS	TYPE	VOLTAGE	FIGURE NUMBER	LABEL DIAGRAM NO. 30GX
COMPRESSOR POWER WIRING					
080,090,105,106,115, 125,136,150,160,161,175	080,090,106,115, 125,136,151,161,176	Compressor Wiring	All	1	502386
205,225,226,250,265,281,301,325,350	206,226,251,265,281,301,325,350	XL Start	All	2	502995
205,225,226,250,265,281,301,325,350	206,226,251,265,281,301,325,350	Y-Delta	All	3	502997
CONTROL SCHEMATICS					
50 Hz UNITS	60 Hz UNITS	TYPE	VOLTAGE	FIGURE NUMBER	LABEL DIAGRAM NO. 30GX
080,090,105,106,115, 125,136,150,160,161,175	080,090,106,115, 125,136,151,161,176	Control Wiring	24	4	502388
080,090,105,106,115,125,136,150,160	080,090,106,115,125,136	Control Wiring	115,230	5	502389
160,161,175	151,161	Control Wiring	115,230	6	502387
—	176	Control Wiring	115,230	7	502390
205,225,226,250,265	206,226,251,265	Control Wiring	24	8	502397,502398
281,301,325,350	281,301,325,350	Control Wiring	24	9	503165,503166
205,225,226,250,265,281,301,325,350	206,226,251,265,281,301,325,350	Standard Fan	115,230	10	503134,503135
205,225,226,250	206,226	Static Fan	115,230	11	502401,502402
265	251,265	Static Fan	115,230	12	502403,502404
281,301,325,350	281,301,325,350	Static Fan	115,230	13	503154,503155
COMPONENT ARRANGEMENTS					
50 Hz UNITS	60 Hz UNITS	TYPE	VOLTAGE	FIGURE NUMBER	LABEL DIAGRAM NO. 30GX
080,090,105,106,115,125, 136,150,160,161,175	080,090,106,115, 125,136,151,161,176	Control Box	All	14	502391
205,225,226,250,265	206,226,251,265	Control Box	All	15	502405
281,301,325,350	281,301,325,350	Control Box	All	16	503112
205,225,226,250,265	206,226,251,265	Power Box	All	17	502406
281,301,325,350	281,301,325,350	Power Box	All	18	503001
FAN POWER WIRING					
50 Hz UNITS	60 Hz UNITS	TYPE	VOLTAGE	FIGURE NUMBER	LABEL DIAGRAM NO. 30GX
080,090,105,106,115, 125,136,150,160,161,175	080,090,106,115,125,136,151,161	All Fan Types	All	19	502384
—	176	All Fan Types	All	20	502385
205,225,226,250,265,281,301,325,350	206,226,251,265,281,301,325,350	Standard Fan	All	21	503133
205,225,226,250,265,281,301,325,350	206,226,251,265,281,301,325,350	Static Fan	All	22	503153

LEGEND AND NOTES FOR FIG. 1-22

ALR	— Alarm	FM	— Fan Motor	SN	— Sensor (Toroid)
C	— Contactor	FR	— Fan Relay	SPT	— Suction Pressure Transducer
CA	— Compressor A1/A2 Contactor	FU	— Fuse	SW	— Switch
CB	— Compressor B1/B2 Contactor	GFI-CO	— Ground Fault Interrupter Convenience Outlet	T	— Thermistor
CCN	— Carrier Comfort Network	GND	— Ground	TB	— Terminal Block
CH	— Cooler Heater	HPS	— High-Pressure Switch	TRAN	— Transformer
CLHR	— Cooler Heater Relay	HSIO	— Keyboard and Display Module	XL	— Across-the-Line Start
COMM	— Communications	HTR	— Heater	1M	— Wye
COMP	— Compressor	LDR	— Loader	2M	— Delta
CPM	— Compressor Protection Module	LID	— Local Interface Device		Terminal Block Connection
CR	— Control Relay	LL	— Liquid Level		Marked Terminal
CWFS	— Chilled Water Flow Switch	LR	— Loader Relay		Unmarked Terminal
CWP	— Chilled Water Pump	LS	— Level Switch		Unmarked Splice
CWPI	— Chilled Water Pump Interlock	MAX	— Maximum		Marked Wire
DGT	— Discharge Gas Thermistor	MLC	— Minimum Load Control		Marked Splice
DPT	— Discharge Pressure Transducer	NEC	— National Electric Code		Factory Wiring
DSIO EXV	— EXV Driver	OL	— Overload		Field Control Wiring
DSIO HV	— Relay Module, High Voltage	OP	— Oil Pump		Field Power Wiring
EPT	— Economizer Pressure Transducer	OPC	— Oil Pump Contactor		Indicates Common Potential. Does Not Represent Wiring.
EQUIP	— Equipment	OPT	— Oil Pressure Transducer		Accessories or Options
EXV	— Electronic Expansion Valve	PL	— Plug Assembly		
FC	— Fan Contactor	PS	— Power Supply		
FCB	— Fan Circuit Breaker	PSIO	— Processor Module		
FIOP	— Factory-Installed Option	PWR	— Power		
		RBPL	— Relay Plug Assembly		
		S	— Wye Start Contactor		
		SEC	— Secondary		

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 normally closed contacts: A plain number denotes normally open 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. Maximum incoming wiring size for each terminal block is 500 kcmil.
- 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 CWP 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.

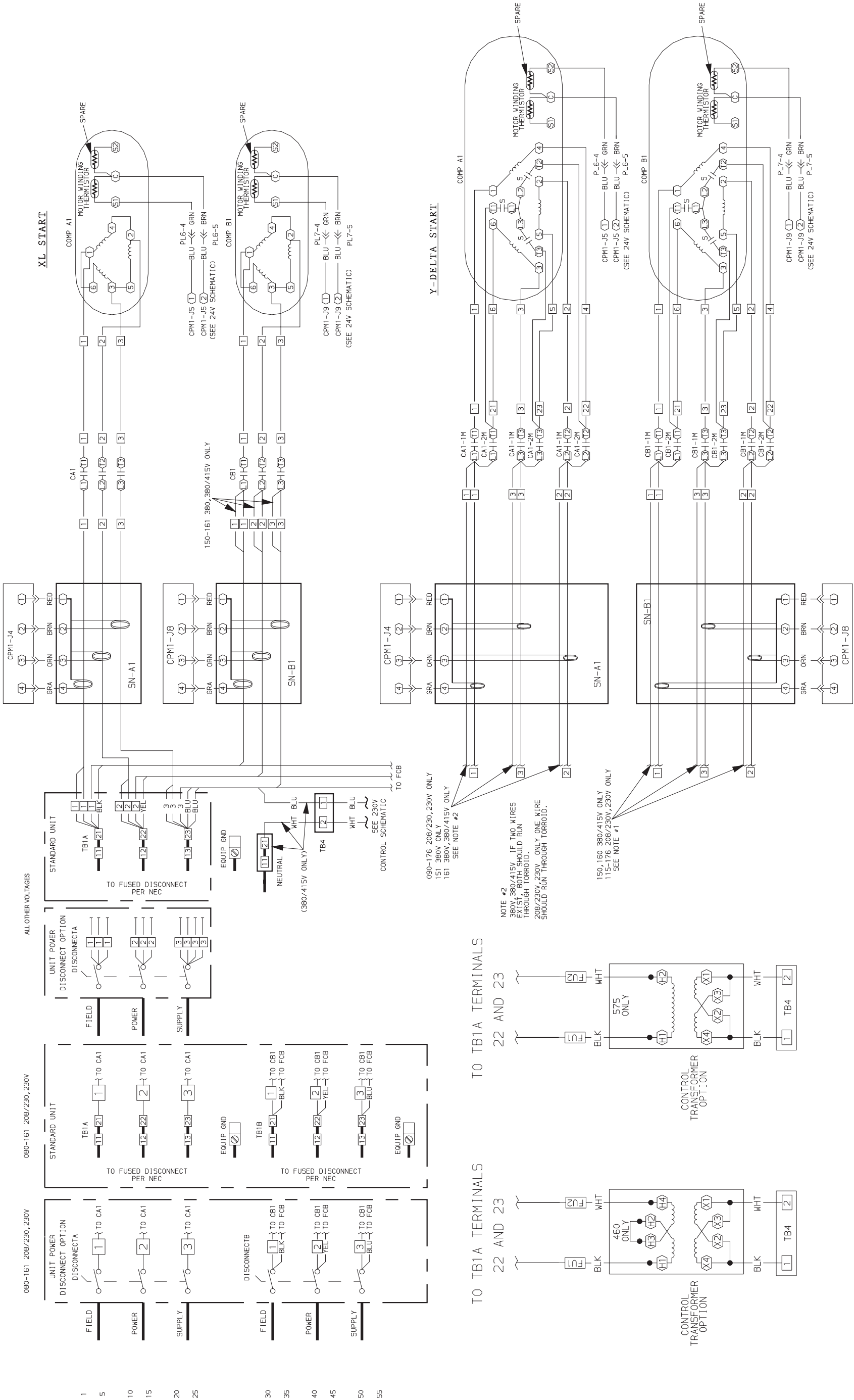


Fig. 1 — Compressor Power Wiring; 30GX080, 090, 105, 106, 115, 125, 136, 150, 160, 161, 175 — 50 Hz Units; 30GX080, 090, 106, 115, 125, 136, 151, 161, 176 — 60 Hz Units



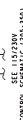


Fig. 3 — Compressor Power Wiring with Y-Delta Start: 30GX205, 225, 226, 250, 265, 281, 301, 325, 350 — 50 Hz Units;
30GX206, 226, 251, 265, 281, 301, 325, 350 — 60 Hz Units

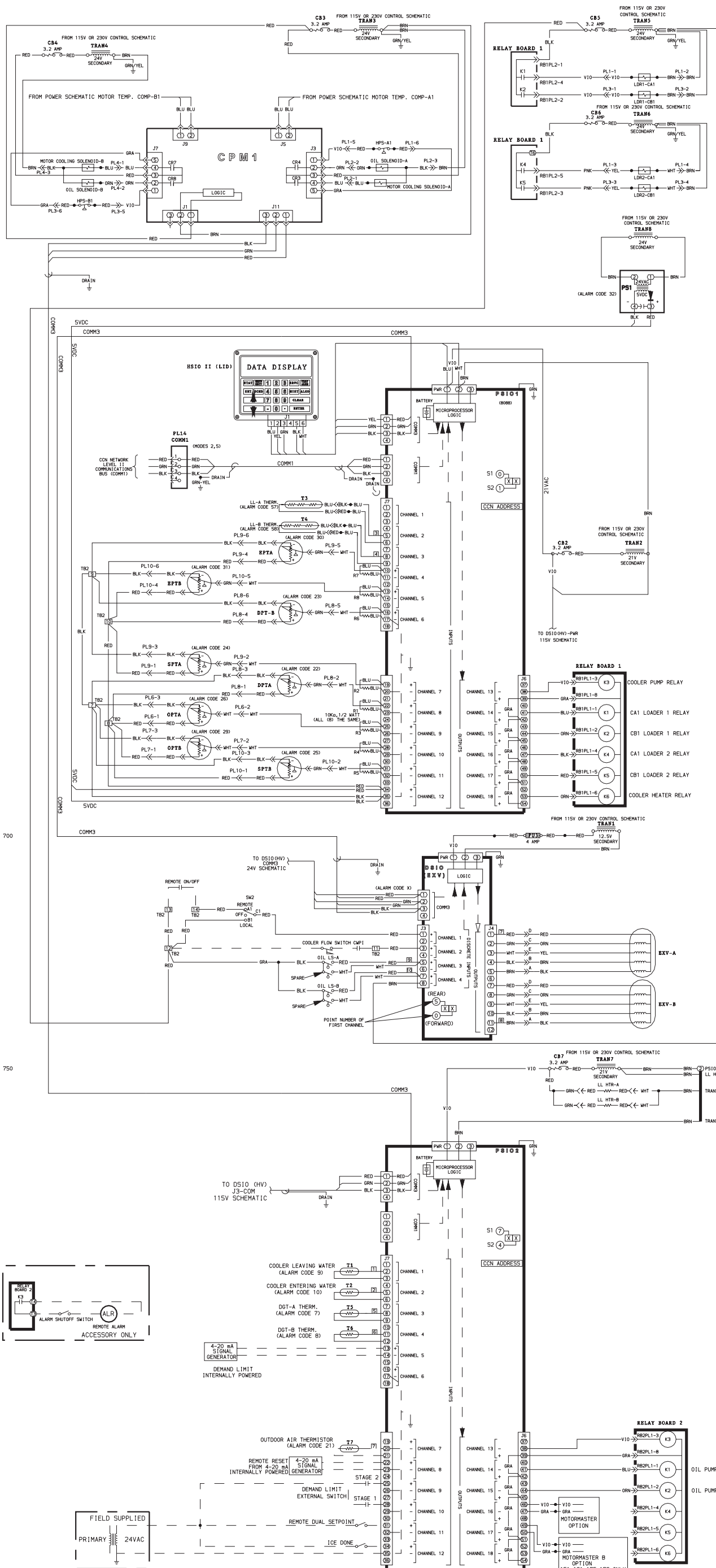
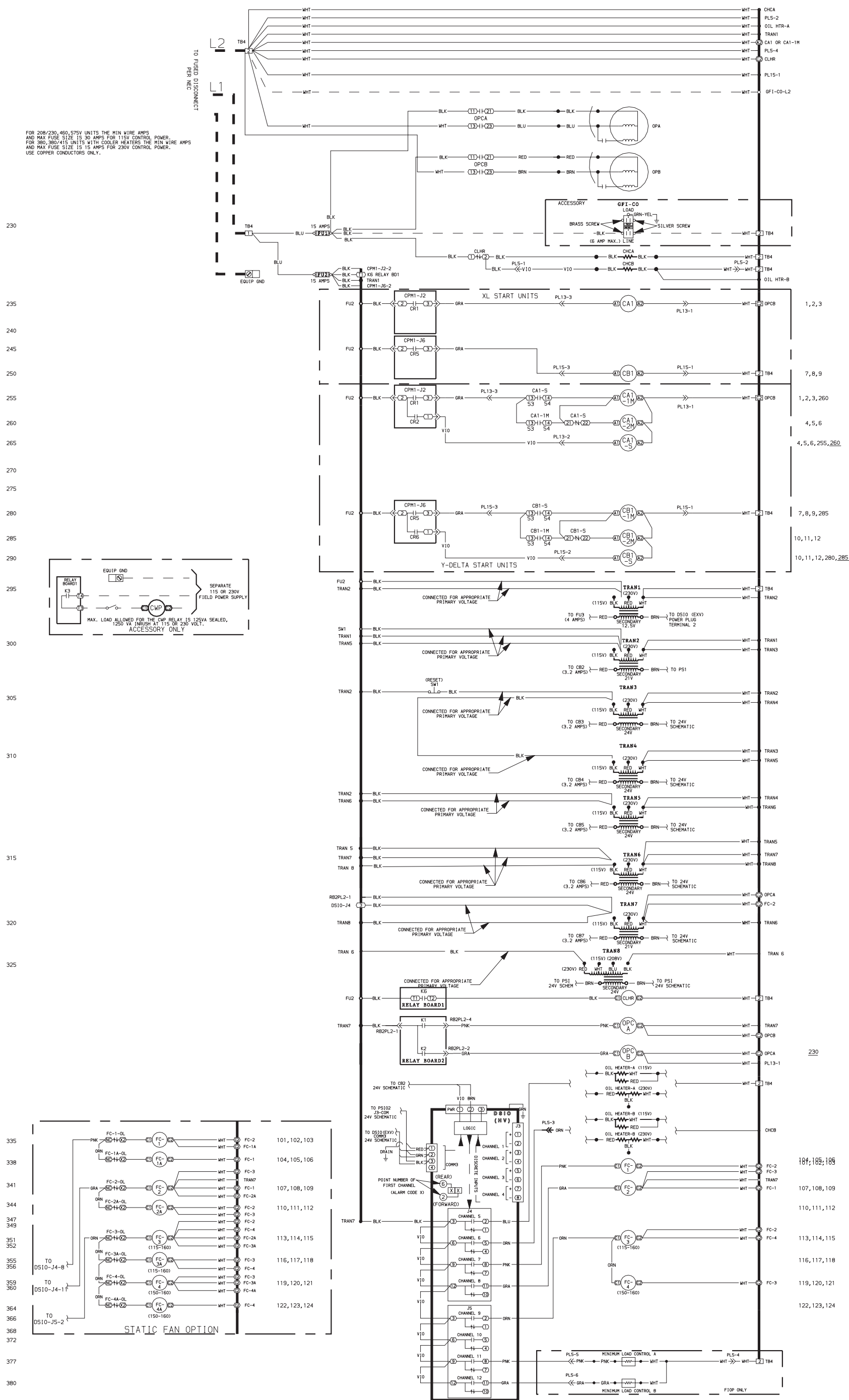


Fig. 4 — 24V Control Wiring; 30GX080, 090, 105, 106, 115, 125, 136, 150, 160, 161, 175 — 50 Hz Units; 30GX080, 090, 106, 115, 125, 136, 151, 161, 176 — 60 Hz Units



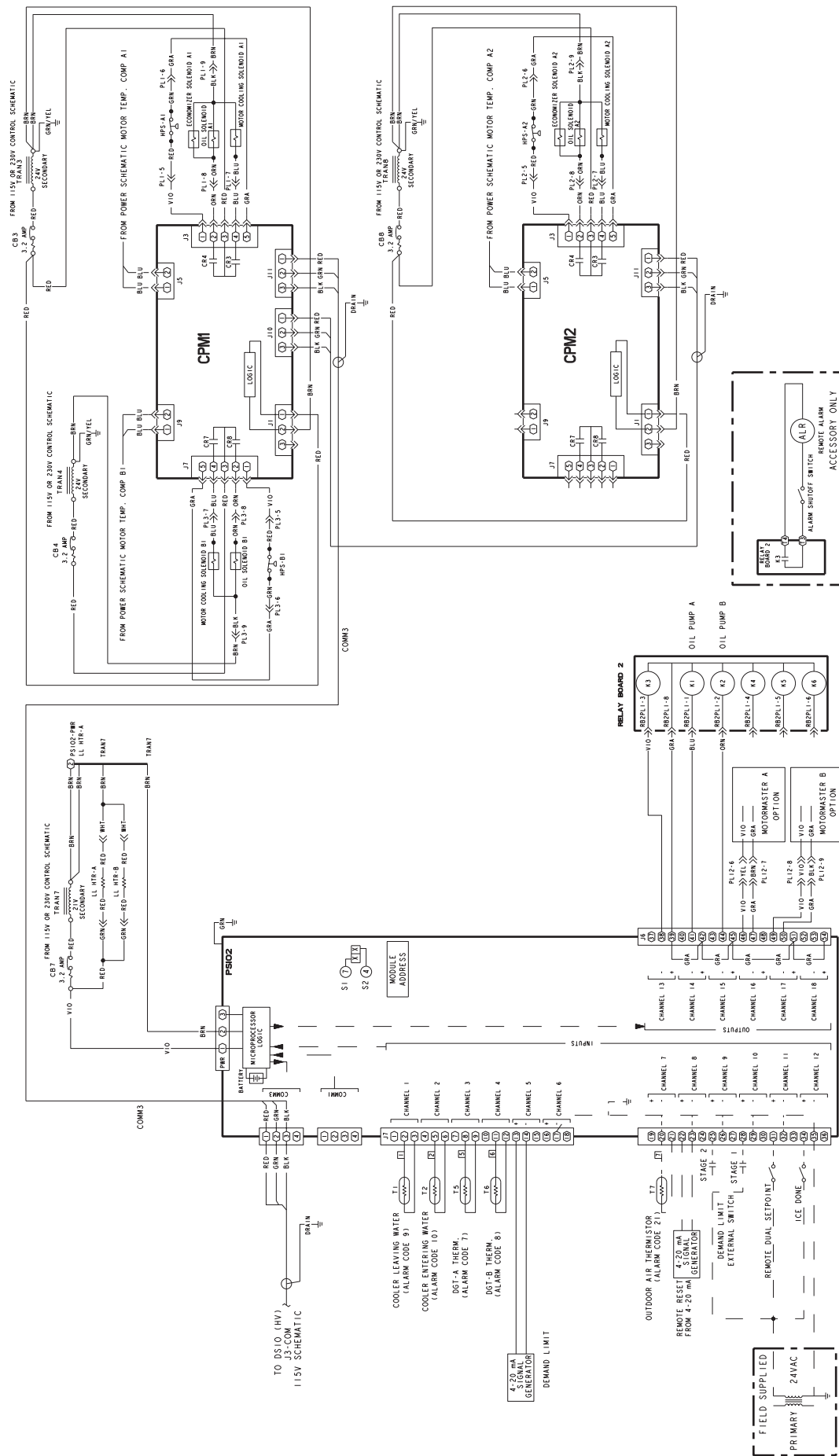


Fig. 8 — 24V Control Wiring; 30GX205, 225, 226, 250, 265 — 50 Hz Units;
30GX206, 226, 251, 265 — 60 Hz Units (cont)

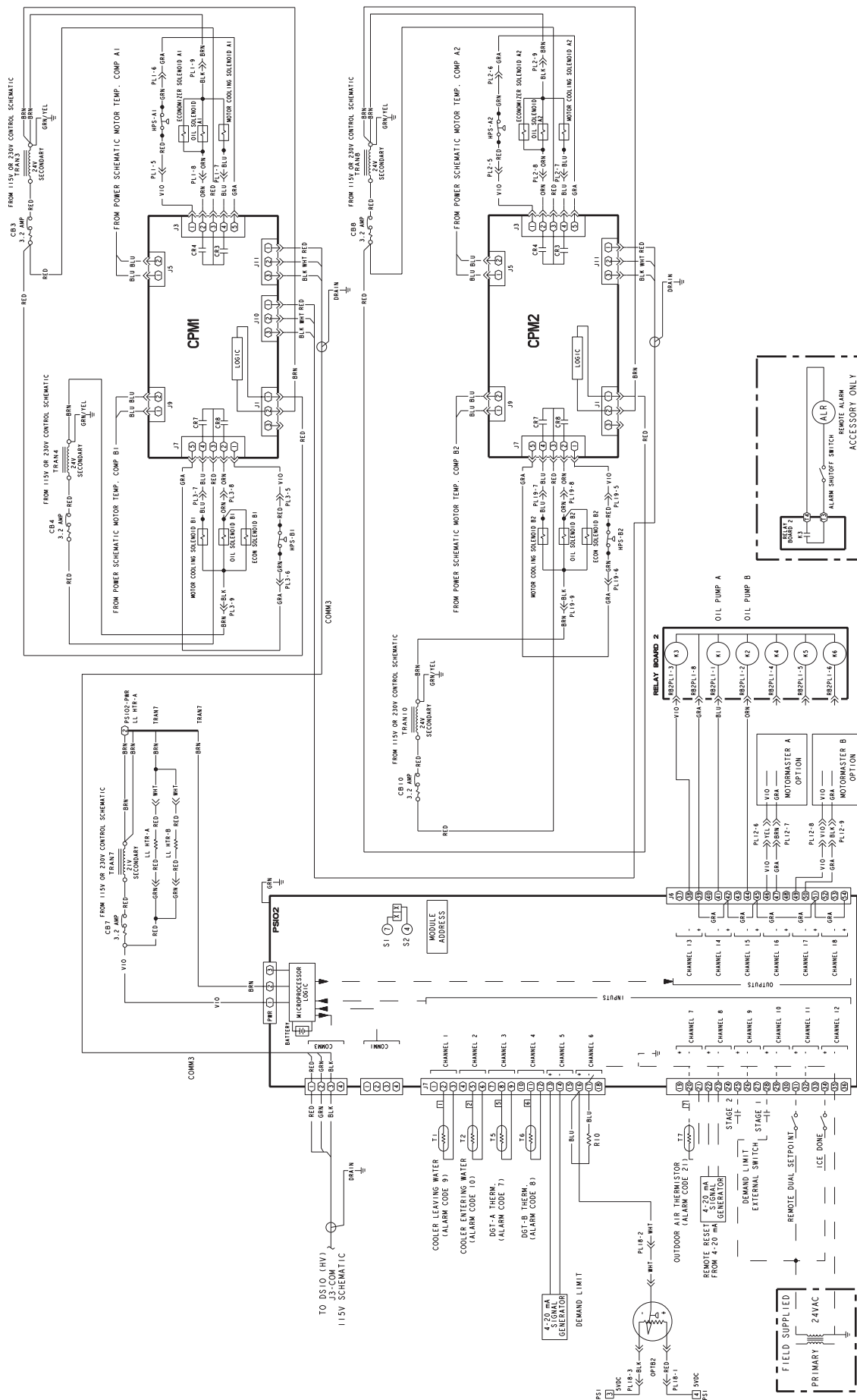


Fig. 9 — 24V Control Wiring; 30GX281, 301, 325, 350 — 50/60 Hz Units (cont)

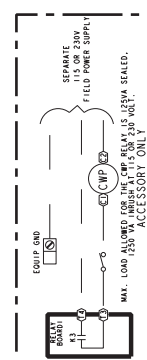
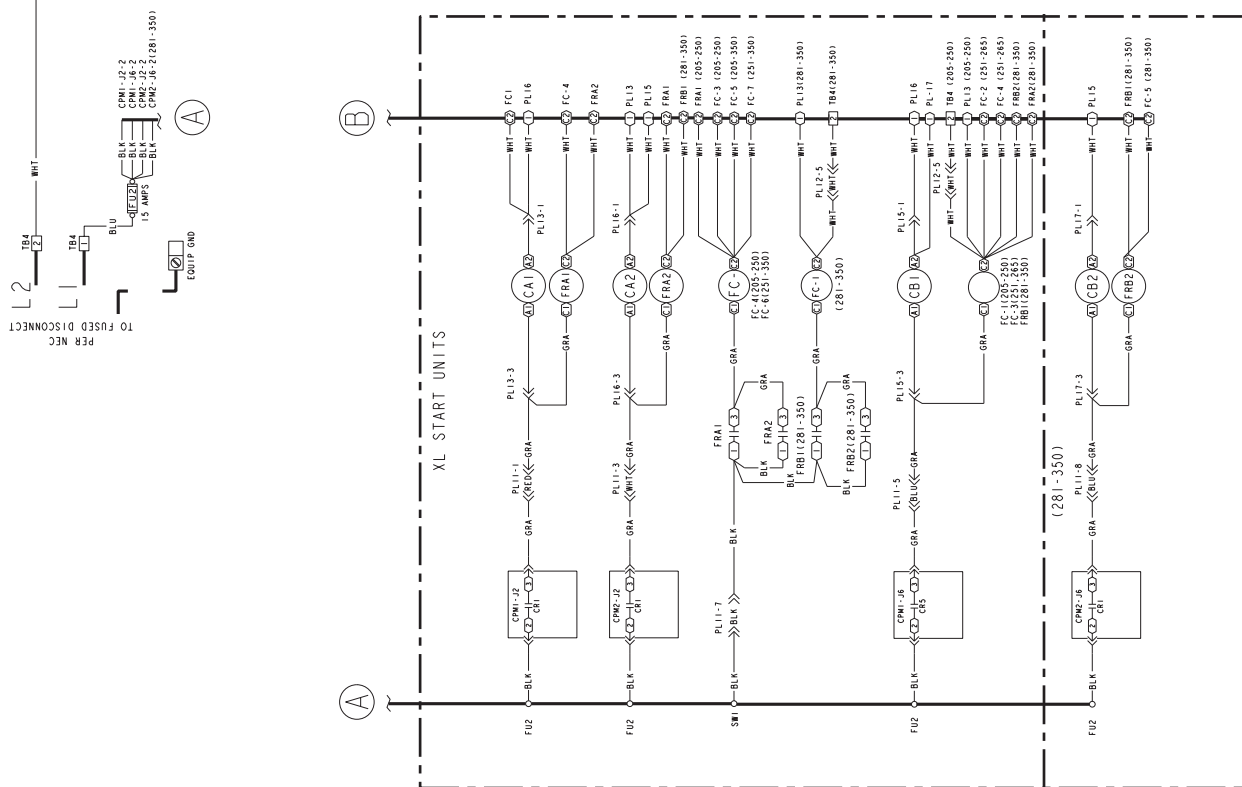


Fig. 10 — 115V, 230V Control Wiring for Standard Fan; 30GX205, 225, 226, 250, 265, 281, 301, 325, 350 — 50 Hz Units; 30GX206, 226, 251, 265, 281, 301, 325, 350 — 60 Hz Units



**Fig. 10 — 115V, 230V Fan Control Wiring; 30GX205, 225, 226, 250, 265, 281, 301, 325, 350 — 50 Hz Units;
30GX206, 226, 251, 265, 281, 301, 325, 350 — 60 Hz Units (cont)**

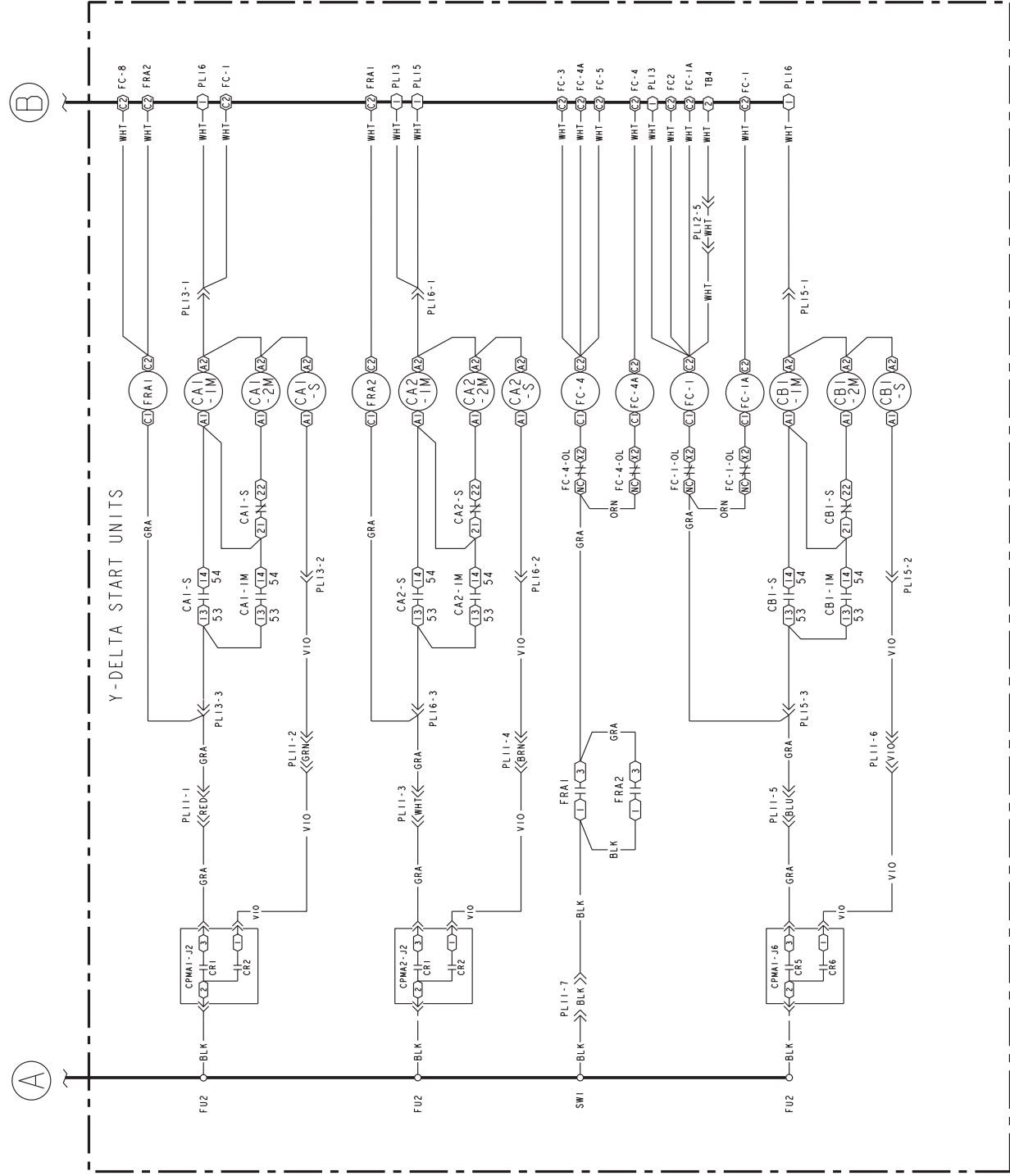
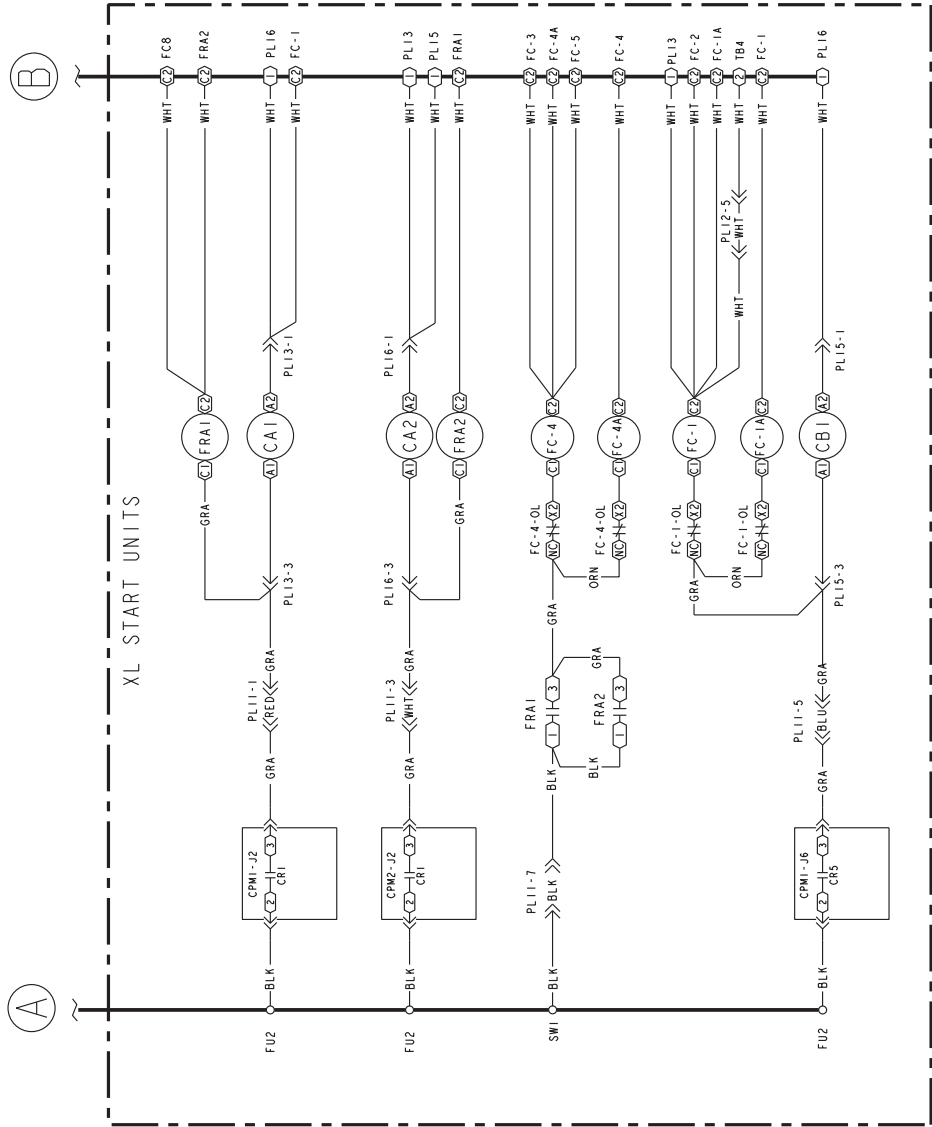
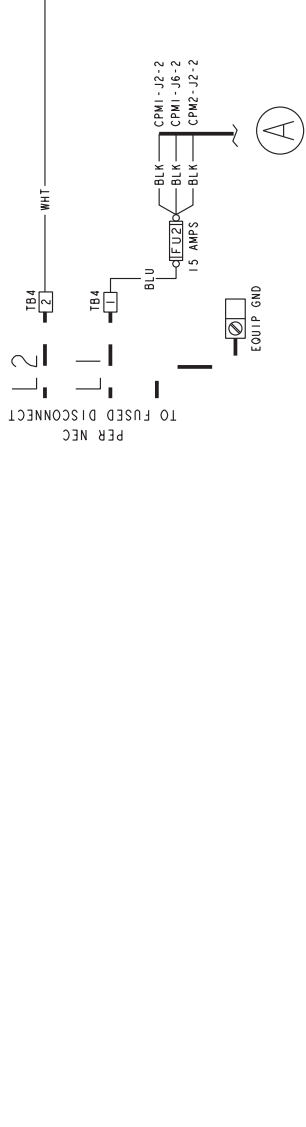


Fig. 11 — 115V, 230V Static Fan Control Wiring; 30GX205, 225, 226, 250 — 50 Hz Units;
30GX206, 226 — 60 Hz Units (cont)

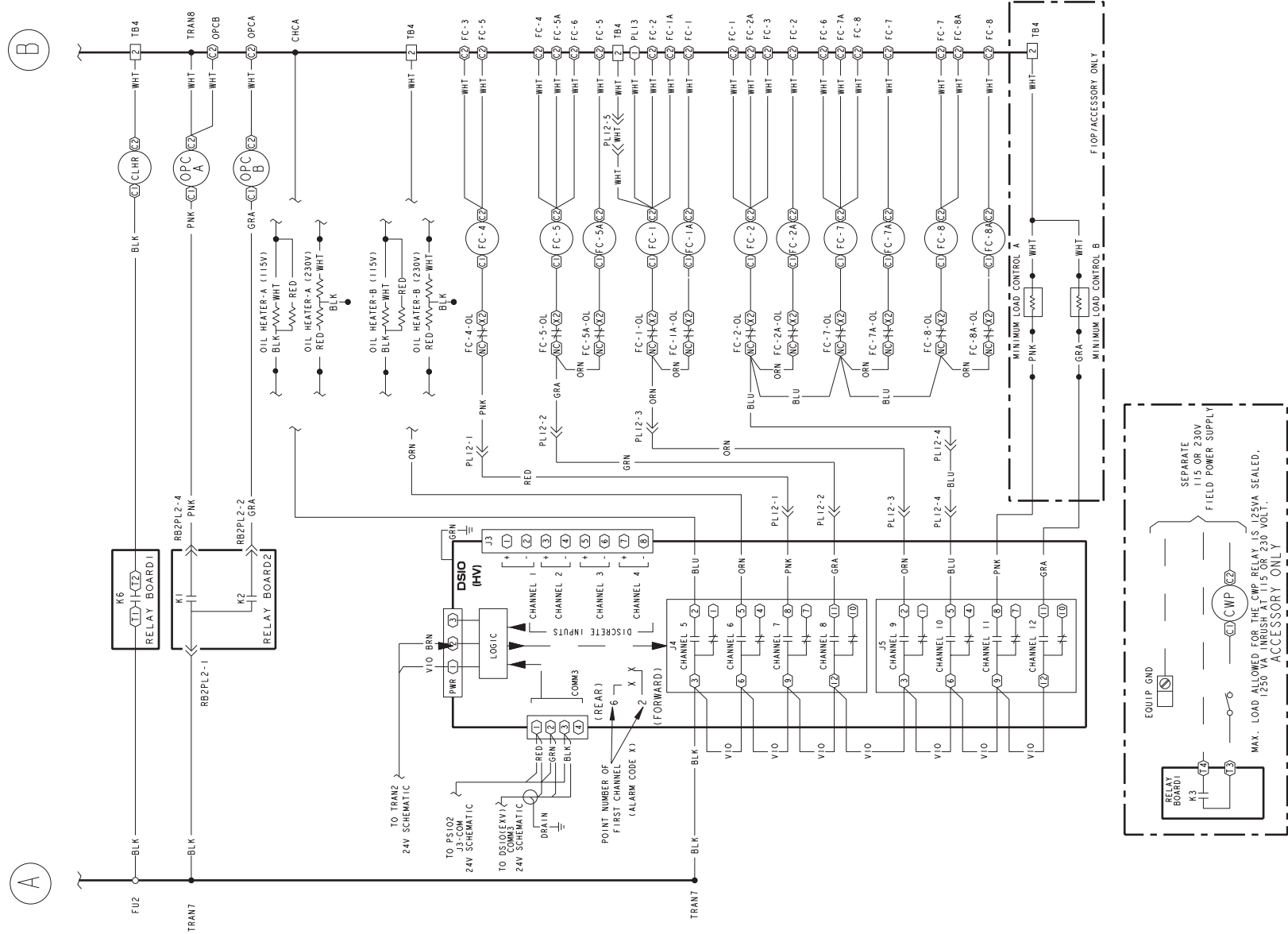
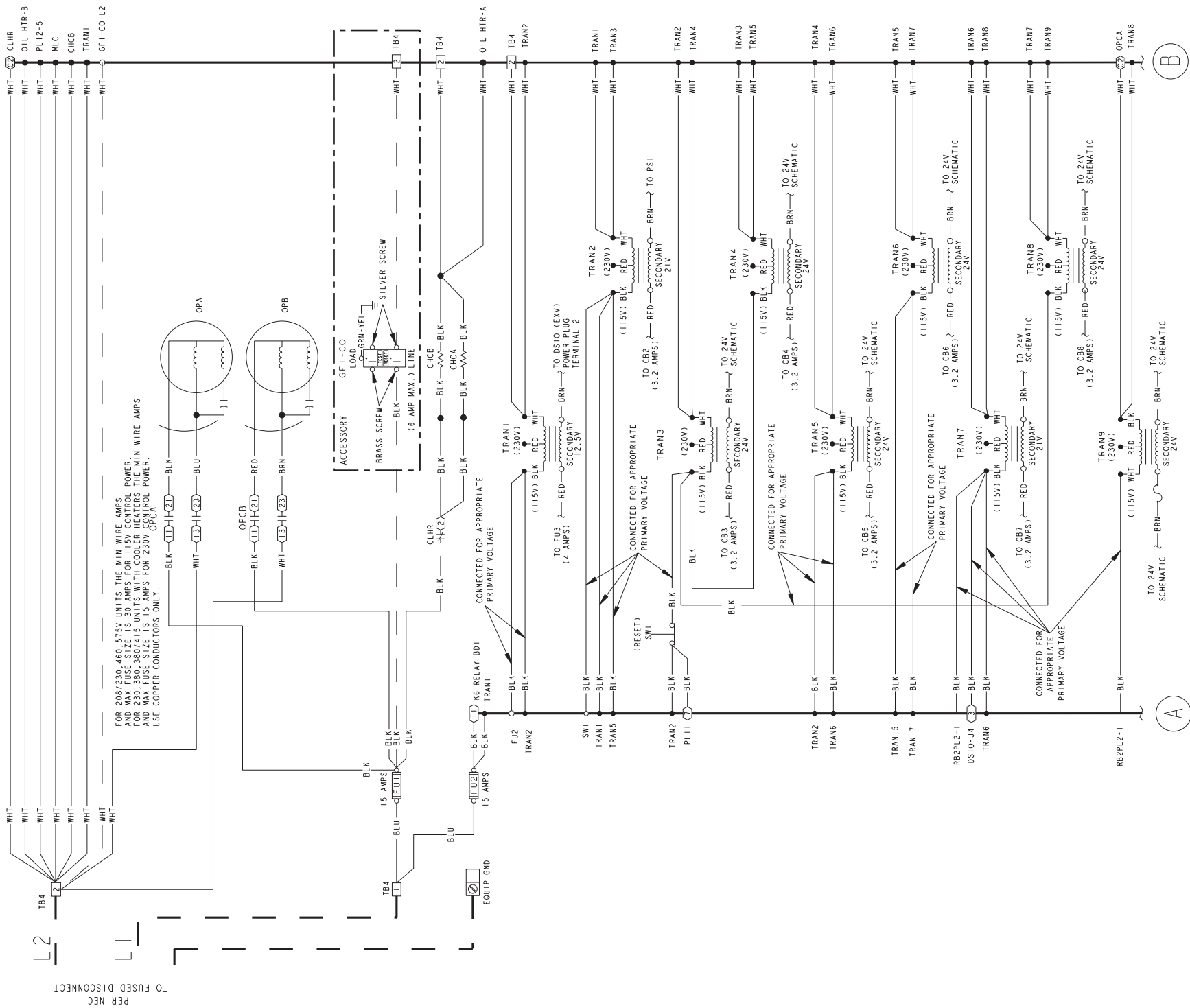


Fig. 12 — 115V, 230V Static Fan Control Wiring; 30GX265 — 50 Hz Units; 30GX251, 265 — 60 Hz Units

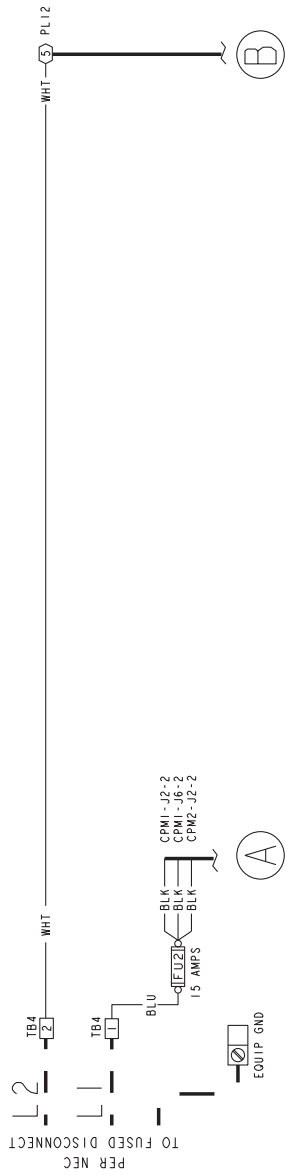
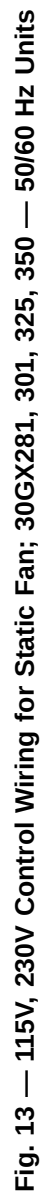


Fig. 12 — 115V, 230V Static Fan Control Wiring; 30GX265 — 50 Hz Units; 30GX251, 265 — 60 Hz Units (cont)



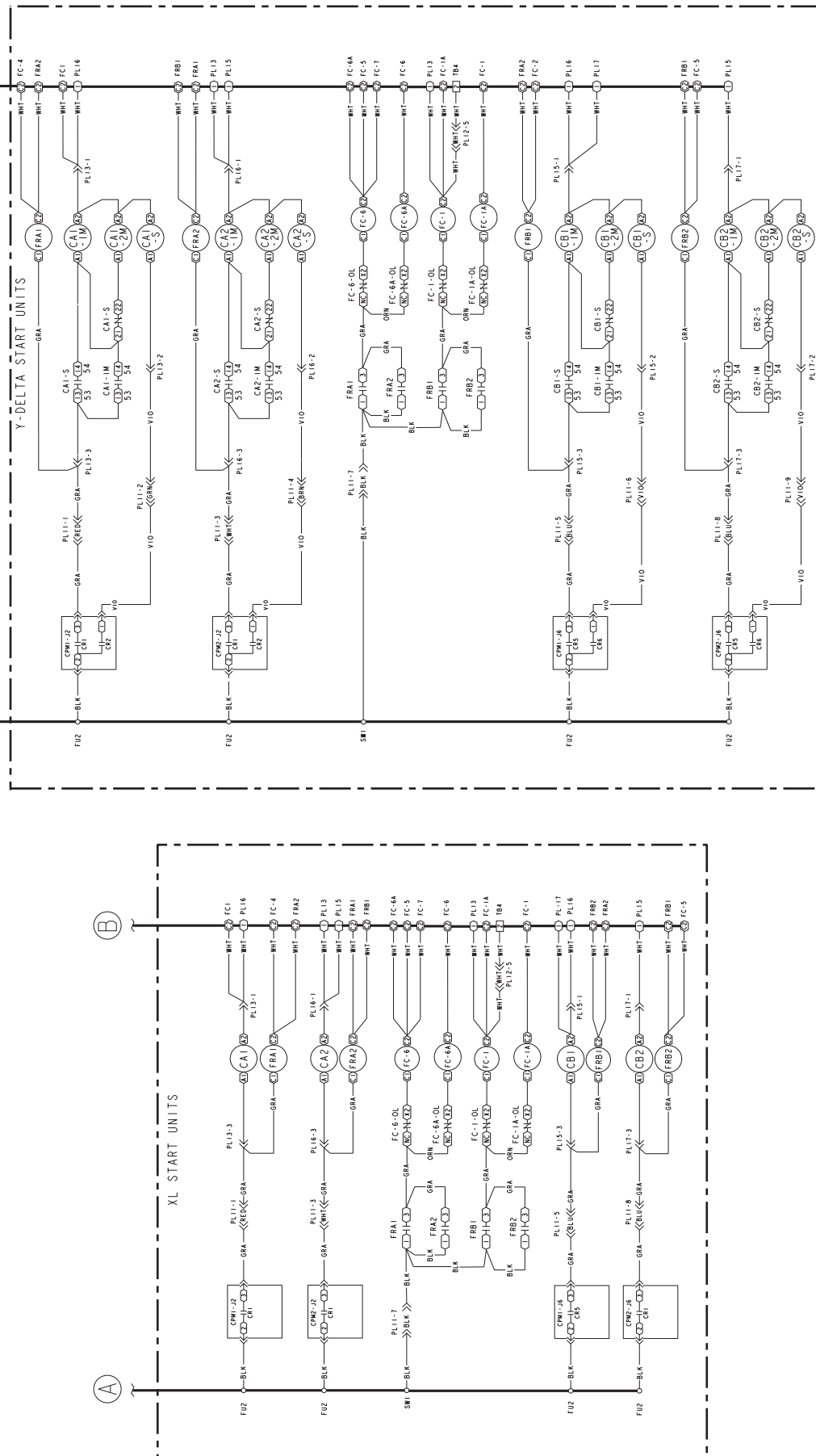
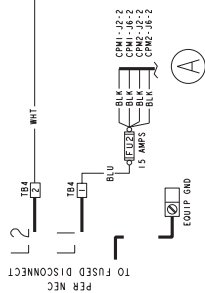
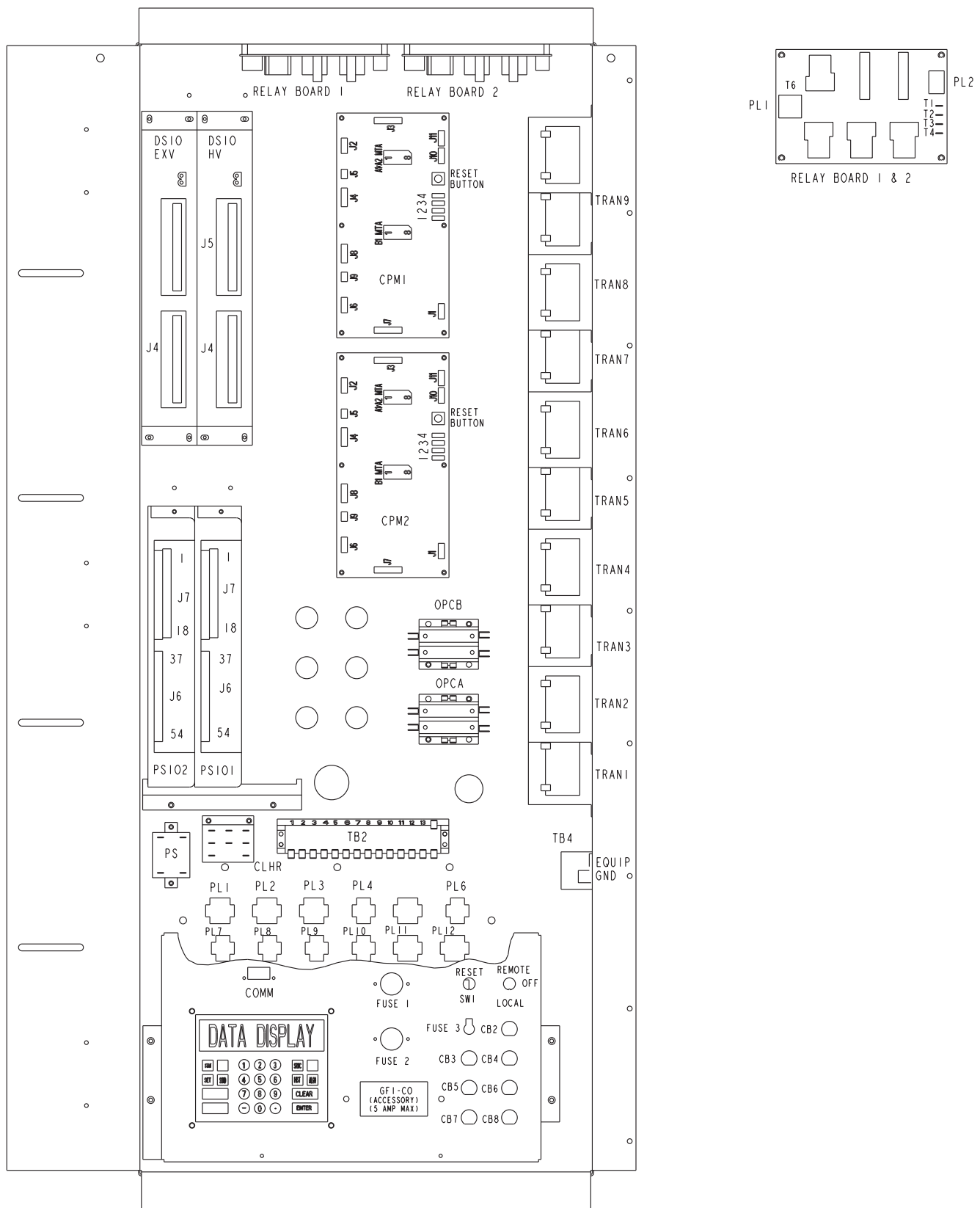


Fig. 13 — 115V, 230V Control Wiring for Static Fan; 30GX281, 301, 325, 350 — 50/60 Hz Units (cont)



**Fig. 15 — Component Arrangement (Control Box); 30GX205, 225, 226, 250, 265 — 50 Hz Units;
30GX206, 226, 251, 265 — 60 Hz Units**

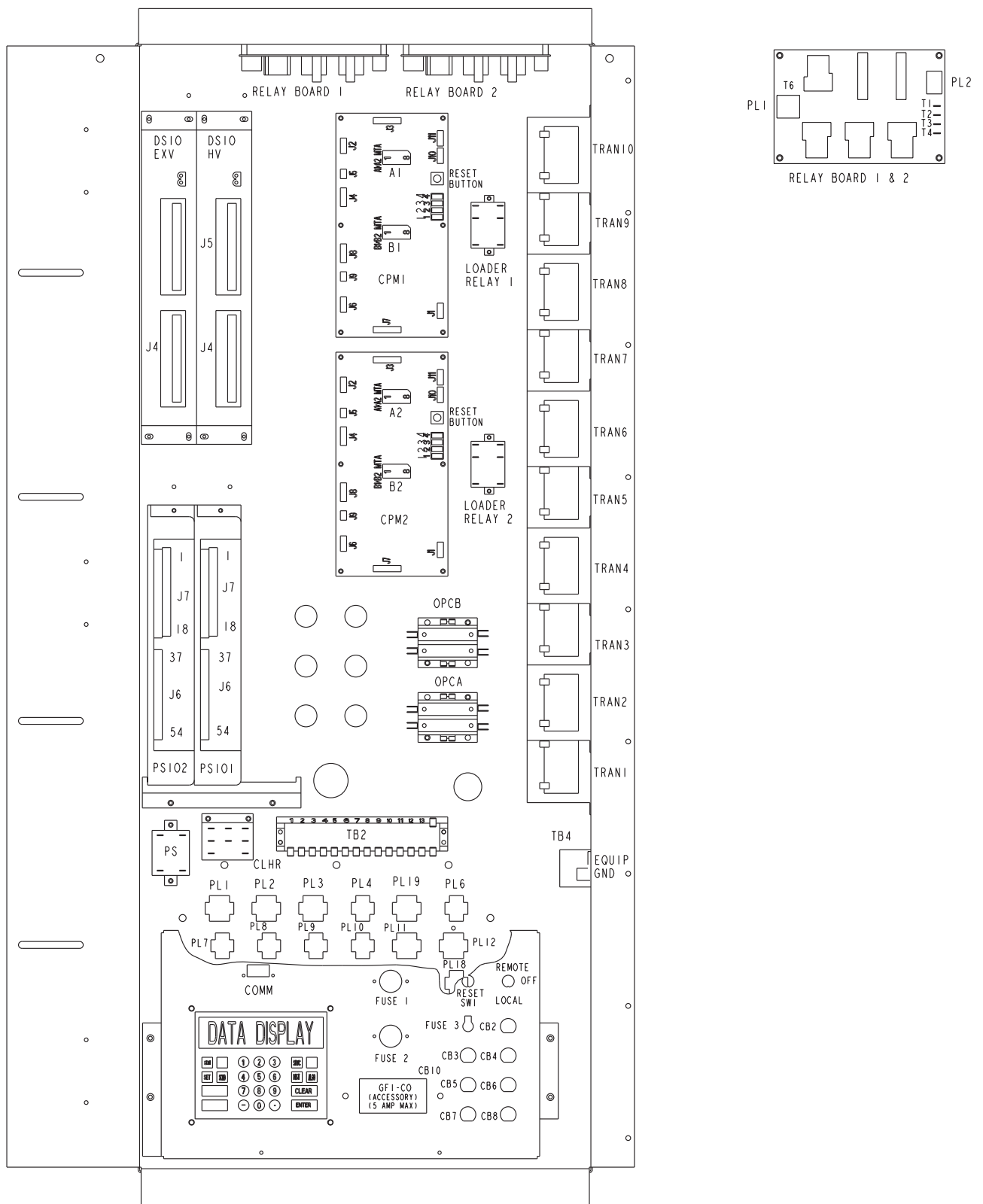


Fig. 16 — Component Arrangement (Control Box); 30GX281, 301, 325, 350 — 50/60 Hz Units

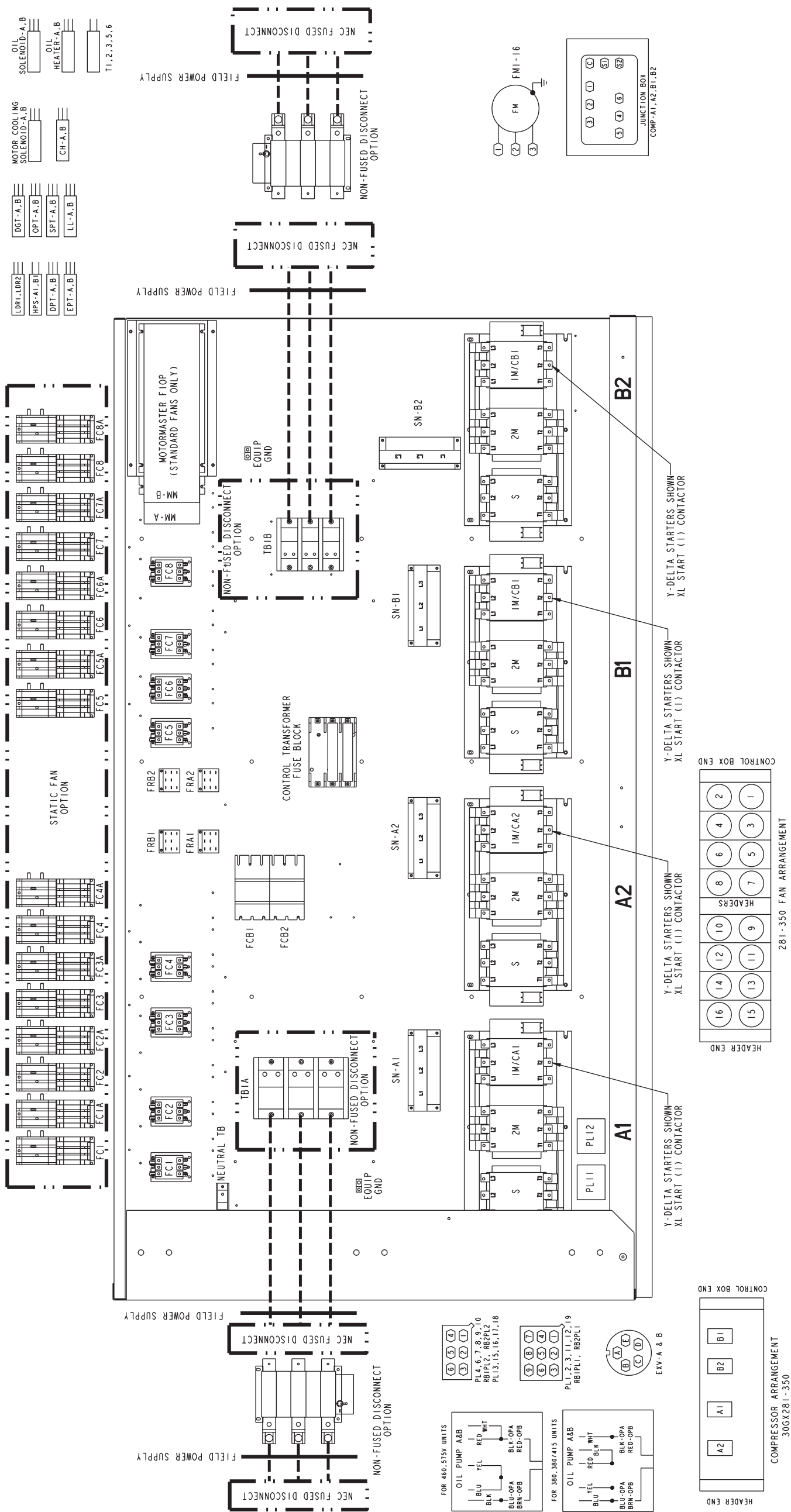
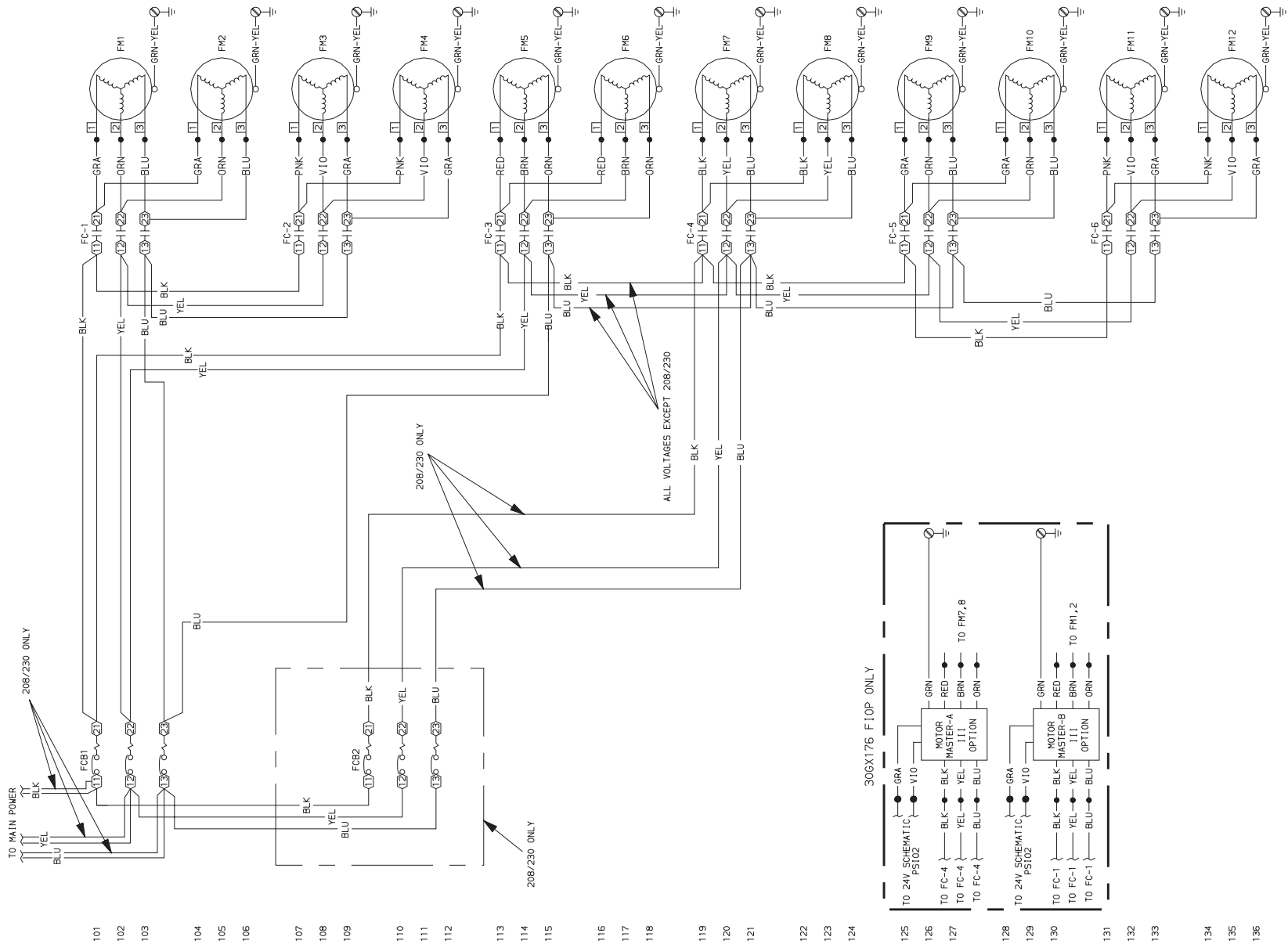


Fig. 18 — Component Arrangement (Power Box); 30GX281, 301, 325, 350 — 50/60 Hz Units

STANDARD FANS



STATIC FAN OPTION

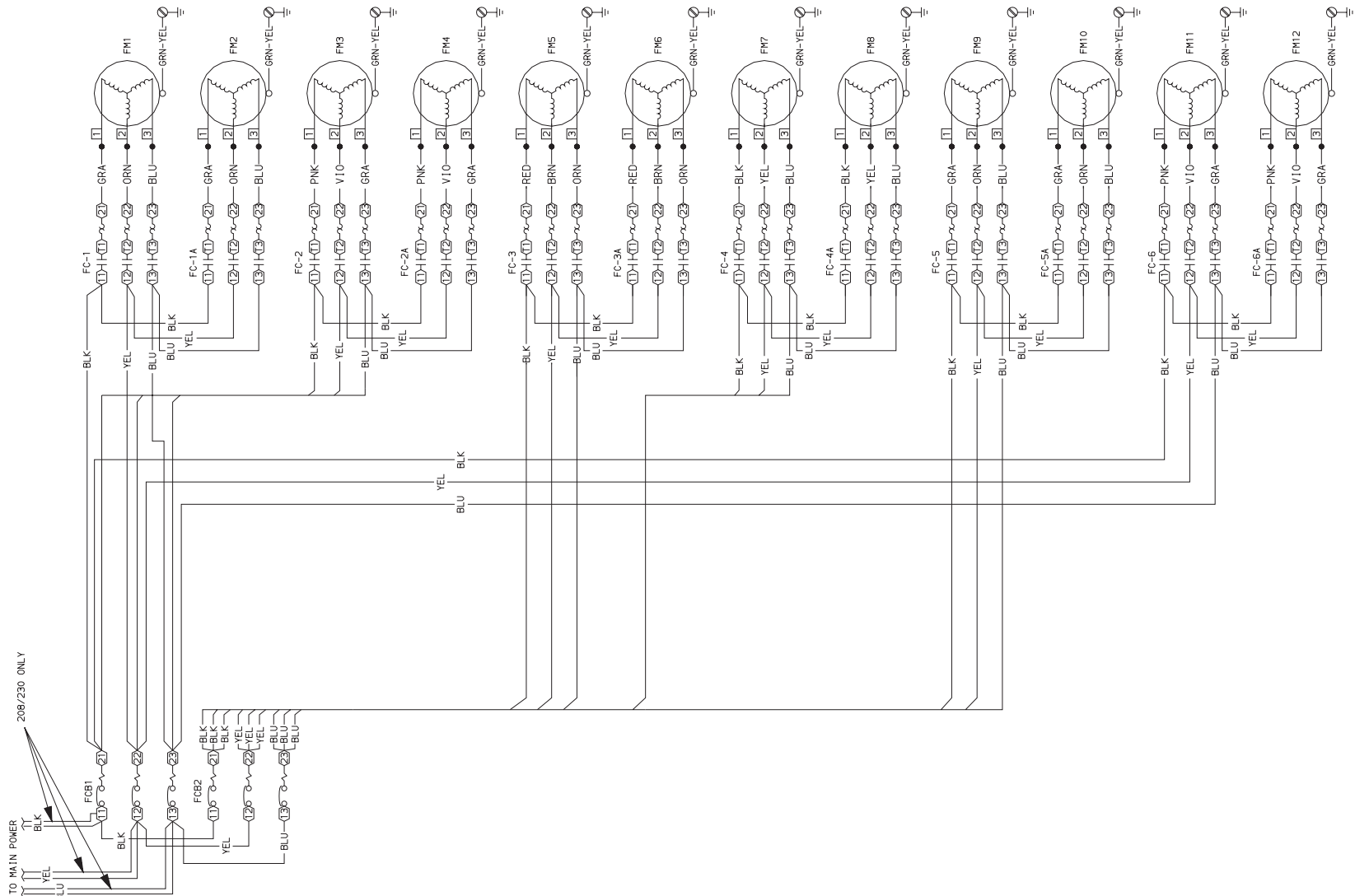
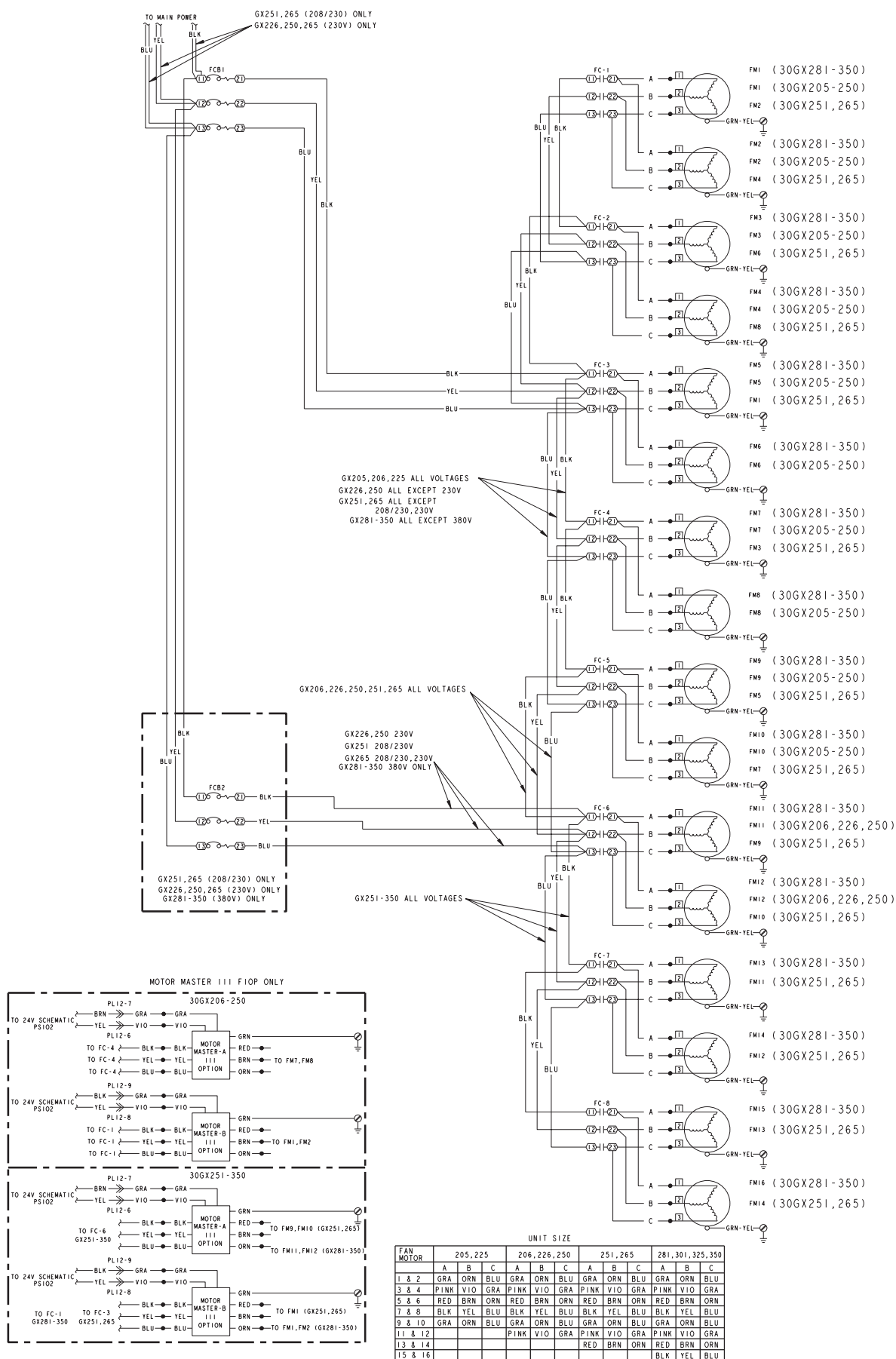
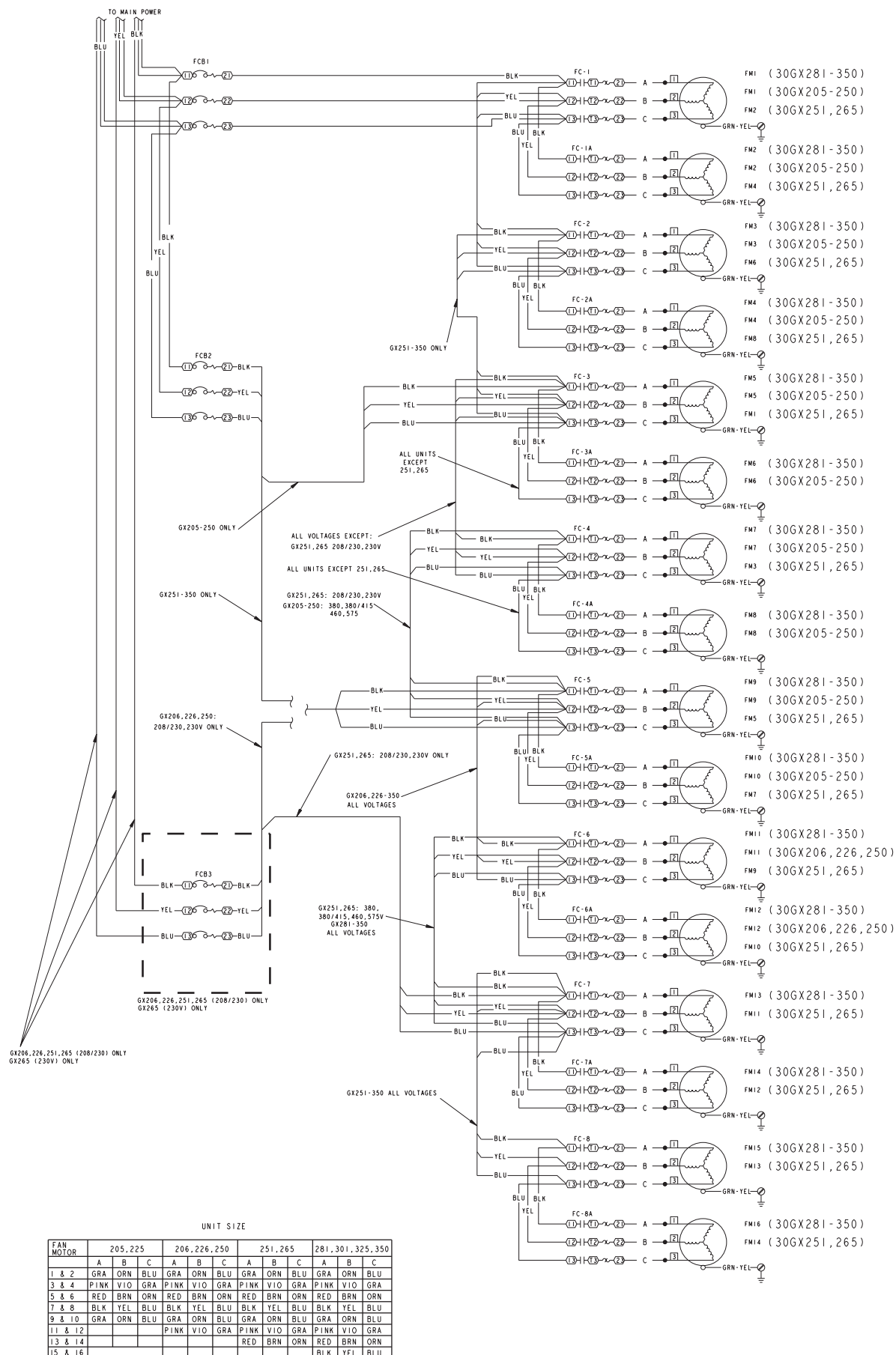


Fig. 20 — Fan Wiring; 30GX176 — 60 Hz Units



**Fig. 21 — Fan Power Wiring; 30GX205, 225, 226, 250, 265, 281, 301, 325, 350 — 50 Hz Units;
30GX206, 226, 251, 265, 281, 301, 325, 350 — 60 Hz Units**



**Fig. 22 — Static Fan Power Wiring; 30GX205, 225, 226, 250, 265, 281, 301, 325, 350 — 50 Hz Units;
30GX206, 226, 251, 265, 281, 301, 325, 350 — 60 Hz Units**

