



Wiring Diagrams

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CONTROL SCHEMATICS			
Unit 30GXN,R	Voltage	Figure Number	Label Diagram No. 30GX
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			505434
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FAN POWER			
Unit 30GXN,R	Voltage	Figure Number	Label Diagram No. 30GX
080-178*	ALL	9	505422
204-350* STD FAN	ALL	10	505425
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COMPONENT ARRANGEMENTS			
Unit 30GXN,R	Voltage	Figure Number	Label Diagram No. 30GX
080-178*	ALL	12	505424
204-350*	ALL	13	505426

LEGEND

XL — Across-the-Line Start
YD — Wye-Delta

*And associated modular units. Refer to Table 1 for Duplex unit size combinations.

NOTE: For operating sequence, refer to Controls, Start-Up, Operation, Service, and Troubleshooting literature.

Table 1 — 30GXN,R Duplex Combinations

SIZE	MODULE A	MODULE B
220 (50 Hz only)	125	090
240 (50 Hz only)	125	115
275 (50 Hz only)	135	135
283 (60 Hz & 50 Hz)	153	138
300 (50 Hz only)	160	135
303 (60 Hz & 50 Hz)	163	138
320 (50 Hz only)	160	160
328 (60 Hz & 50 Hz)	178	153
345 (50 Hz only)	175	175
353 (60 Hz & 50 Hz)	178	178
365 (50 Hz only)	250	135
370 (60 Hz only)	225	150
373 (60 Hz & 50 Hz)	253	138
390 (60 Hz only)	264	135
393 (60 Hz & 50 Hz)	253	153
395 (50 Hz only)	264	135
410 (50 Hz only)	225	205
415 (60 Hz only)	264	160
418 (60 Hz & 50 Hz)	268	153
440 (50 Hz only)	225	225
450 (60 Hz only)	225	225
453 (60 Hz & 50 Hz)	228	228
470 (50 Hz only)	250	225
475 (60 Hz only)	249	225
478 (60 Hz & 50 Hz)	253	228
495 (50 Hz only)	250	250
500 (60 Hz only)	249	249
503 (60 Hz & 50 Hz)	253	253
520 (50 Hz only)	264	264
525 (60 Hz only)	264	264
528 (60 Hz & 50 Hz)	268	268

LEGEND

ALM	— Alarm
C	— Contactor, Compressor
CB	— Circuit Breaker
CCP	— <i>ComfortLink™</i> Compressor Protection
CH	— Cooler Heater
CHC	— Cooler Heater
CLHR	— Cooler Heater Relay
COMP	— Compressor
CR	— Control Relay
CWFS	— Chilled Water Flow Switch
CWP	— Chilled Water Pump
CWPI	— Chilled Water Pump Interlock
DGT	— Discharge Gas Thermistor
DPT	— Discharge Pressure Transducer
ECON	— Economizer
EMM	— Energy Management Module
EPT	— Economizer Pressure Transducer
EQUIP	— Equipment
EXV	— Expansion Valve Board
FC	— Fan Contactor
FCB	— Fan Circuit Breaker
FIOP	— Factory-Installed Option
FM	— Fan Motor
FR	— Fan Relay
FSR	— Flow Switch Relay
FU	— Fuse
GFI-CO	— Ground Fault Interrupter Convenience Outlet
GND	— Ground
HPS	— High-Pressure Switch
HTR	— Heater
LD	— Loader
LL	— Liquid Level
LLSV	— Liquid Line Solenoid Valve
LR	— Loader Relay
LS	— Level Switch
MBB	— Main Base Board
MLC	— Minimum Load Control
MLV	— Minimum Load Valve

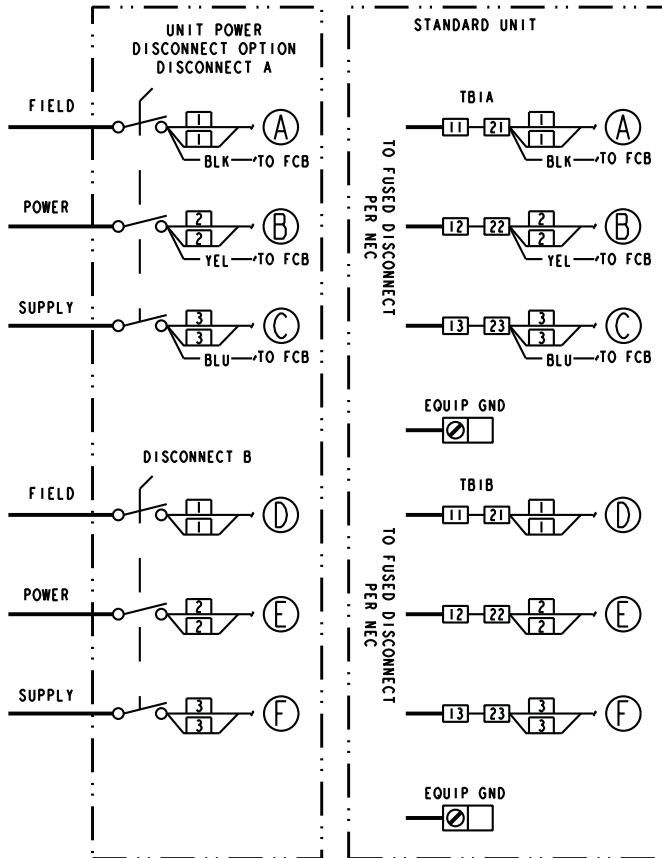
MM-F	— Motormaster® Fuse
NEC	— National Electric Code
OAT	— Outdoor Air Temperature Sensor
OL	— Overload
OP	— Oil Pump
OPC	— Oil Pump Contactor
OPT	— Oil Pressure Transducer
PL	— Plug Assembly
PRI	— Primary
S	— Wye Start Contactor
SCB	— Screw Compressor Board
SN	— Sensor (Toroid)
SPT	— Suction Pressure Transducer
SW	— Switch
SW2	— Emergency On/Off
T	— Thermistor
TB	— Terminal Block
TEMP	— Temperature
TRAN	— Transformer
XL	— Across The Line Start
1M	— Comp. Contactor (Wye Delta)
2M	— Comp. Contactor (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

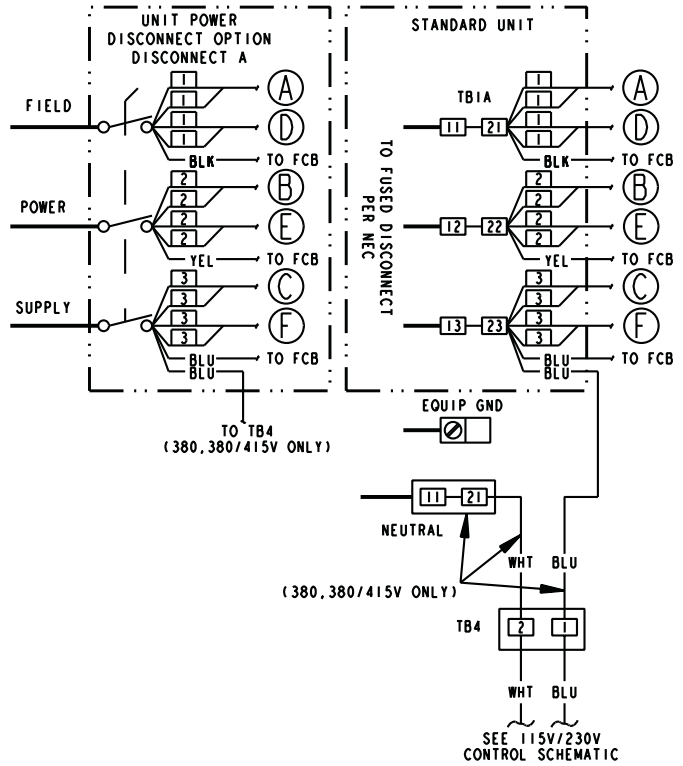
NOTES

1. Replacement of original wires must be with type 105° C wire or its equivalent.
2. Factory wiring is in accordance with National Electrical Compliance (NEC) U.S.A. Field modifications or additions must be in compliance with all applicable codes.
3. Wiring for main field power supply must be rated 75° C minimum. Use copper conductors for all units. Maximum incoming wire size for each terminal block is 500 kcmil.
4. Power for control circuit should be supplied from a separate source through a field-supplied disconnect with 30-amp maximum protection (50-amp maximum with cooler heaters) for 115-volt control circuit and 15-amp maximum protection (25-amp maximum with cooler heaters) 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 power wiring for 380-3-60 and 380/415-3-50 units is factory installed, but requires field-installed neutral connection. If separate power supply is required, disconnect the wires between the control and terminal blocks. Control circuit conductors for all units must be copper only.

30GXN/R150-160 208/230V ONLY
30GXN/R163-178 208/230V,230V ONLY

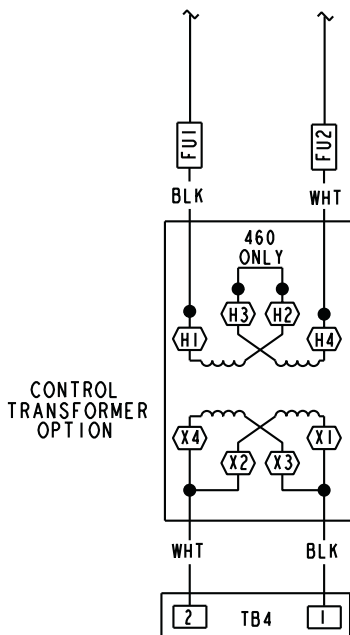


30GXN/R080-138 ALL VOLTAGES
30GXN/R150-160 ALL EXCEPT 208/230V
30GXN/R163-178 ALL EXCEPT 230,208/230V



TO TB1A TERMINALS

22 AND 23



TO TB1A TERMINALS

22 AND 23

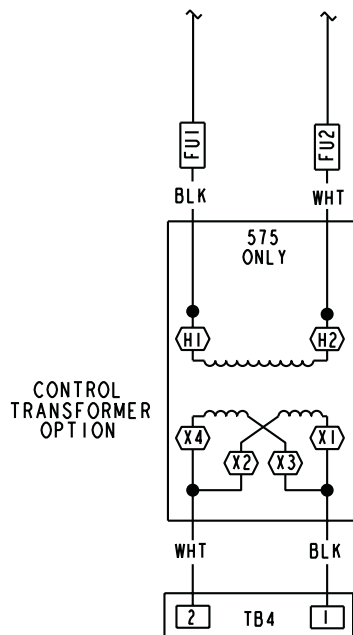


Fig. 1 — Power Schematic — 30GXN,R080-178 and Associated Modular Sizes

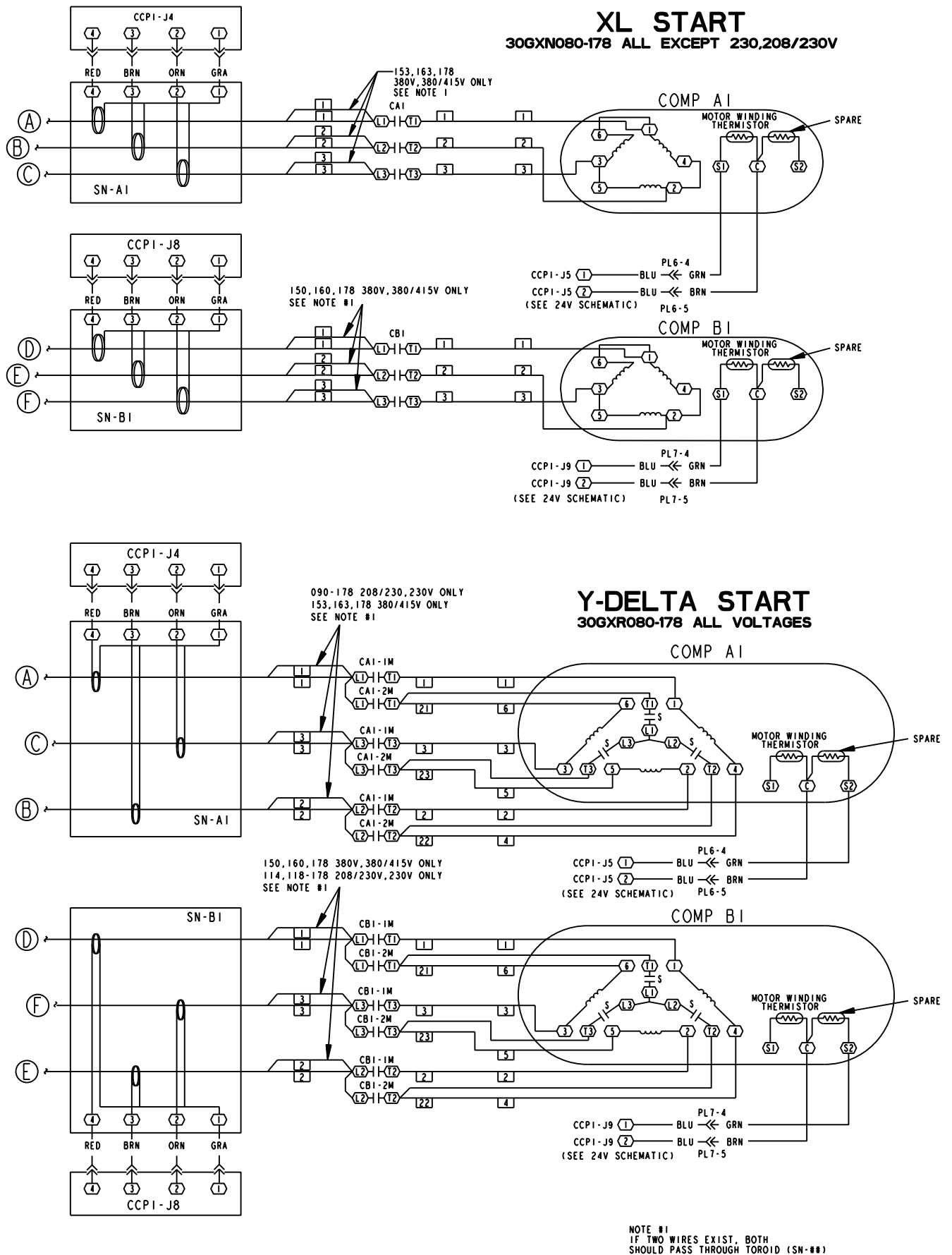


Fig. 1 — Power Schematic — 30GXN,R080-178 and Associated Modular Sizes (cont)

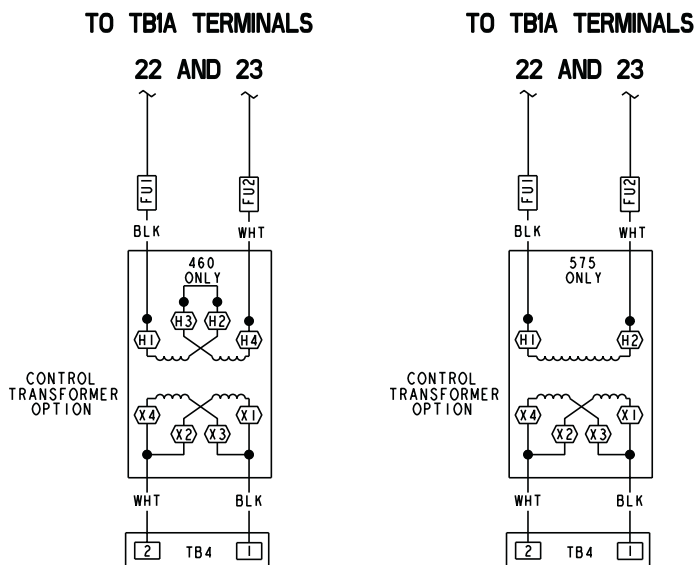
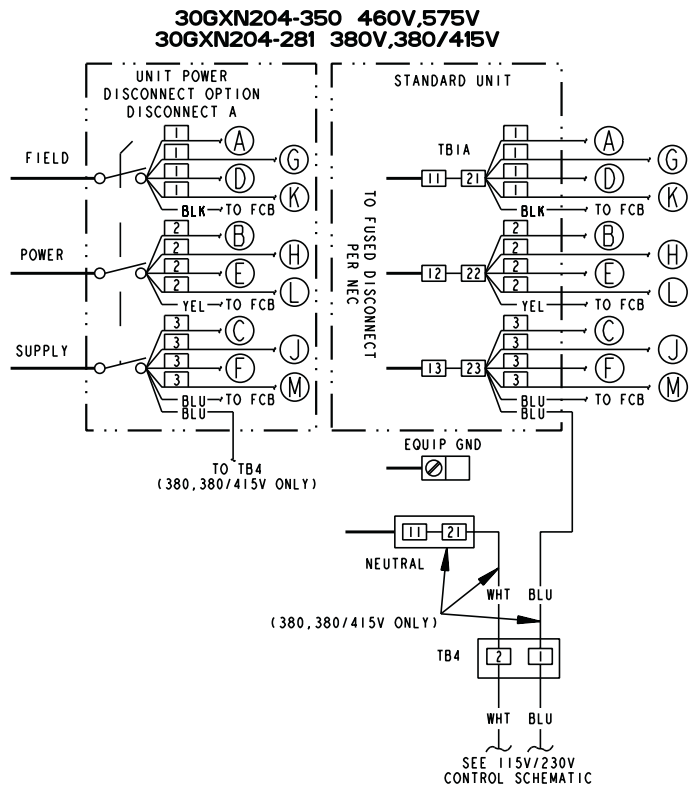
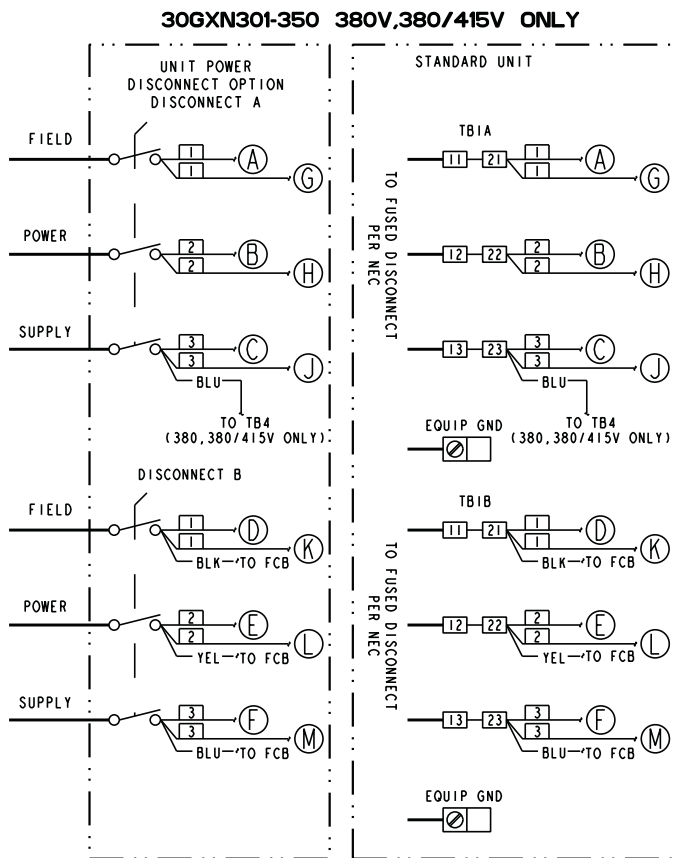
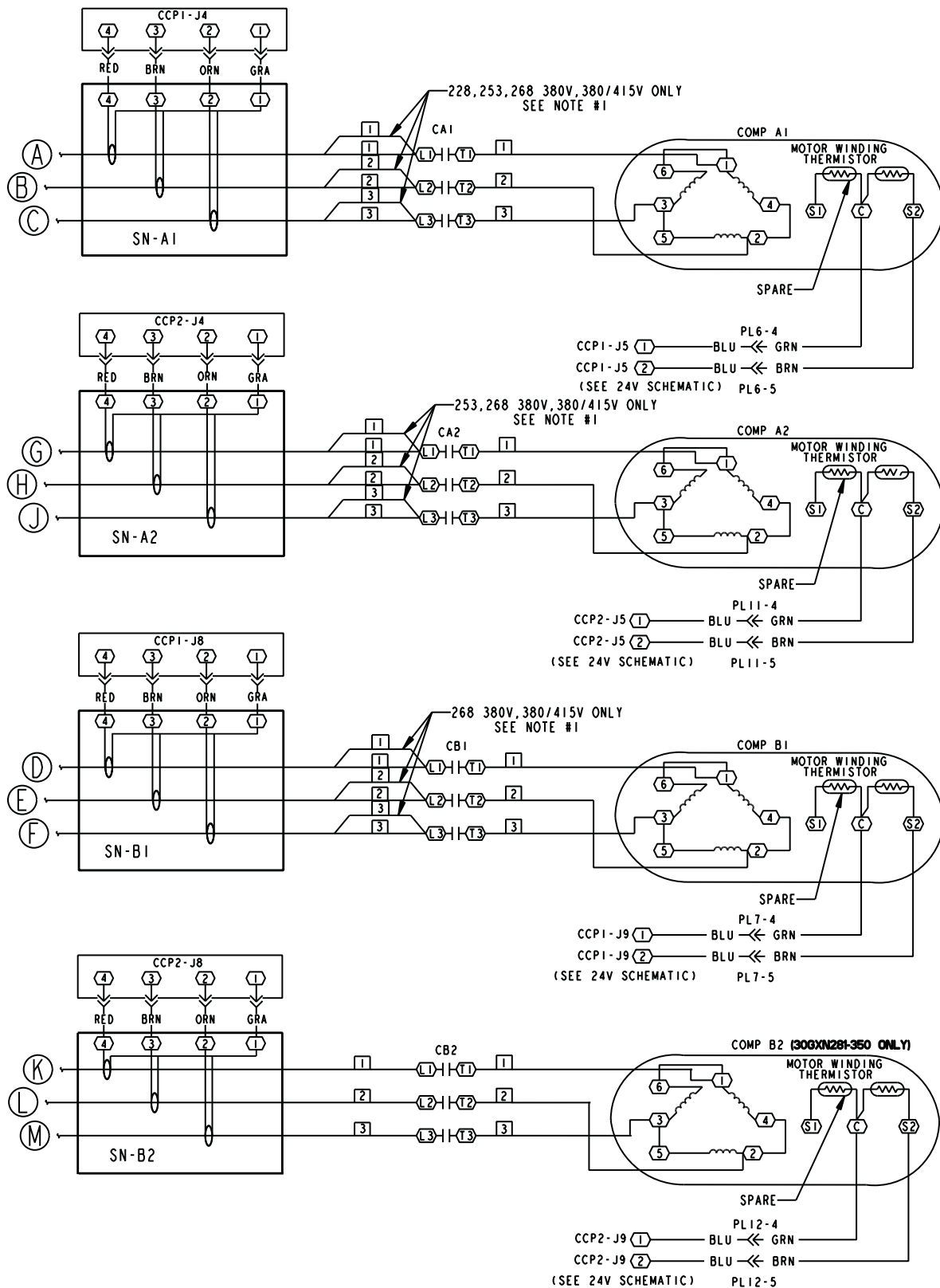


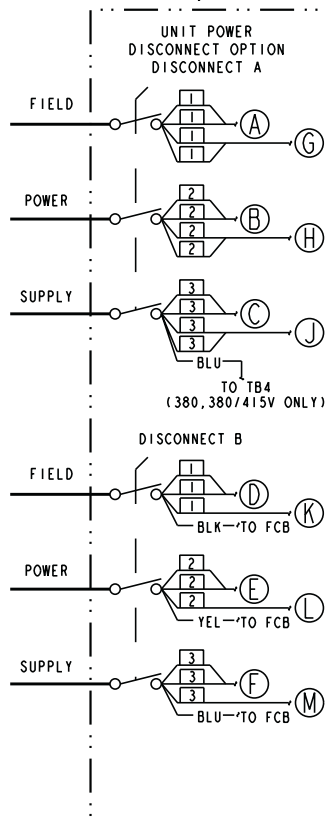
Fig. 2 — Power Schematic — 30GXN,R204-350 and Associated Modular Units, XL Start



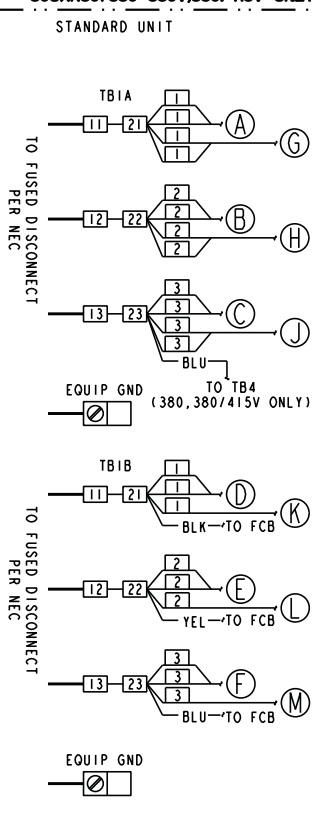
NOTE #1:
IF TWO WIRES EXIST, BOTH SHOULD
PASS THROUGH TOROID (SN-##)

Fig. 2 — Power Schematic — 30GXN,R204-350 and Associated Modular Units, XL Start (cont)

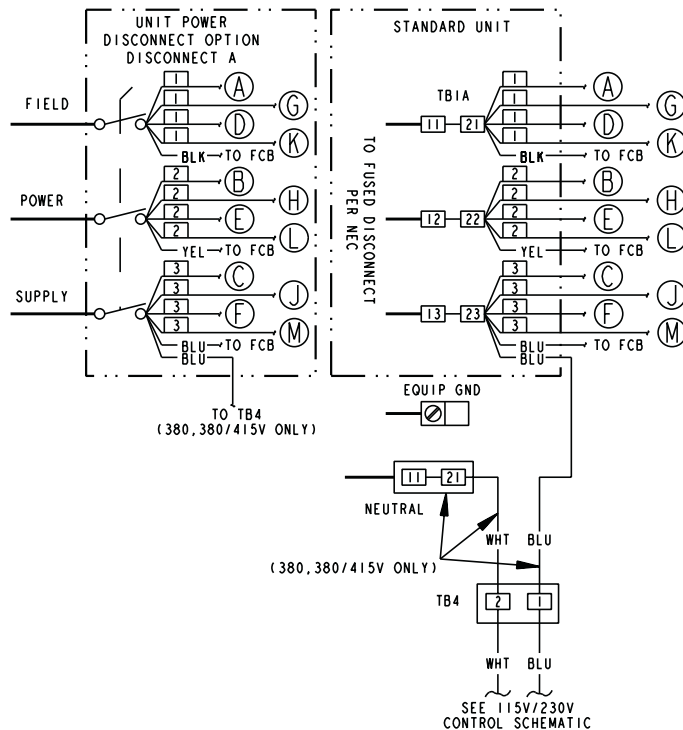
30GXR225 230V ONLY
30GXR204,205,208 230V,208/230V ONLY
30GXR301-350 380V,380/415V ONLY



30GXR204-288 230V,208/230V ONLY
30GXR301-350 380V,380/415V ONLY

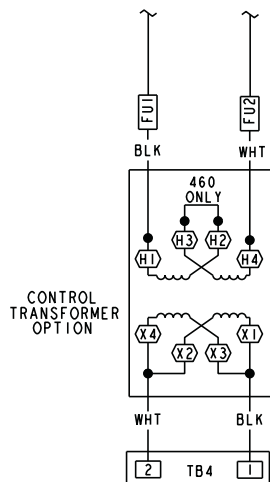


30GXR204-350 460V,575V
30GXR204-281 380V,380/415V



TO TB1A TERMINALS

22 AND 23



TO TB1A TERMINALS

22 AND 23

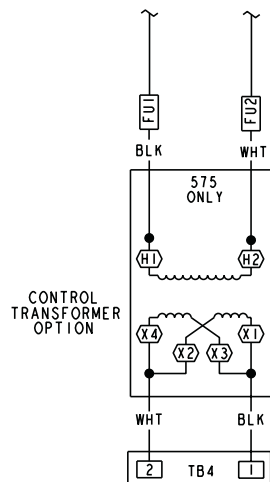


Fig. 3 — Power Schematic — 30GXN,R204-350 and Associated Modular Units, Wye-Delta Start



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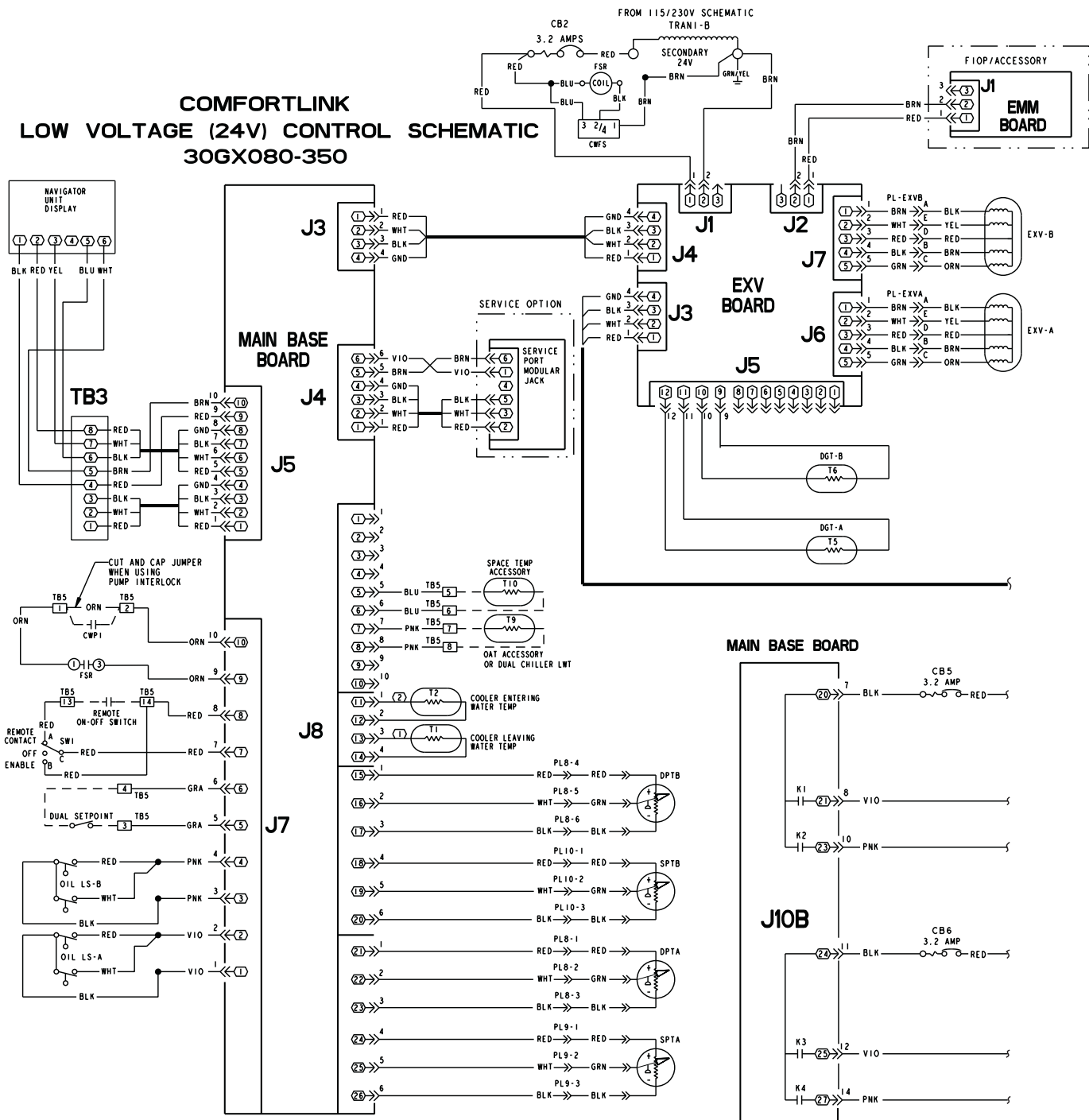


Fig. 4 — Control Schematic — 30GXN,R080-350 and Associated Modular Units, 24 V

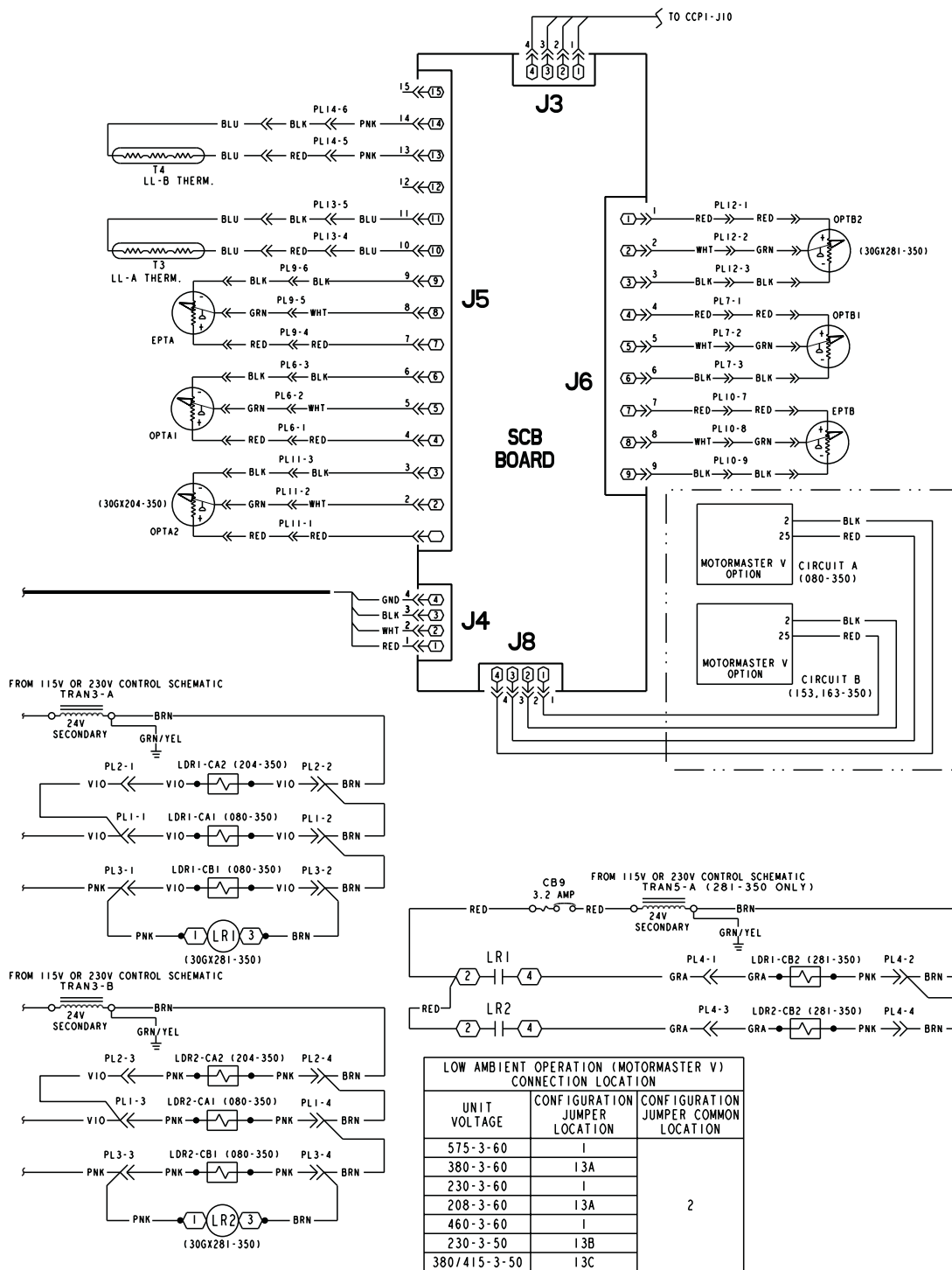


Fig. 4 — Control Schematic — 30GXN,R080-350 and Associated Modular Units, 24 V (cont)

COMFORTLINK LOW VOLTAGE (24V) CONTROL SCHEMATIC 30GX080-350

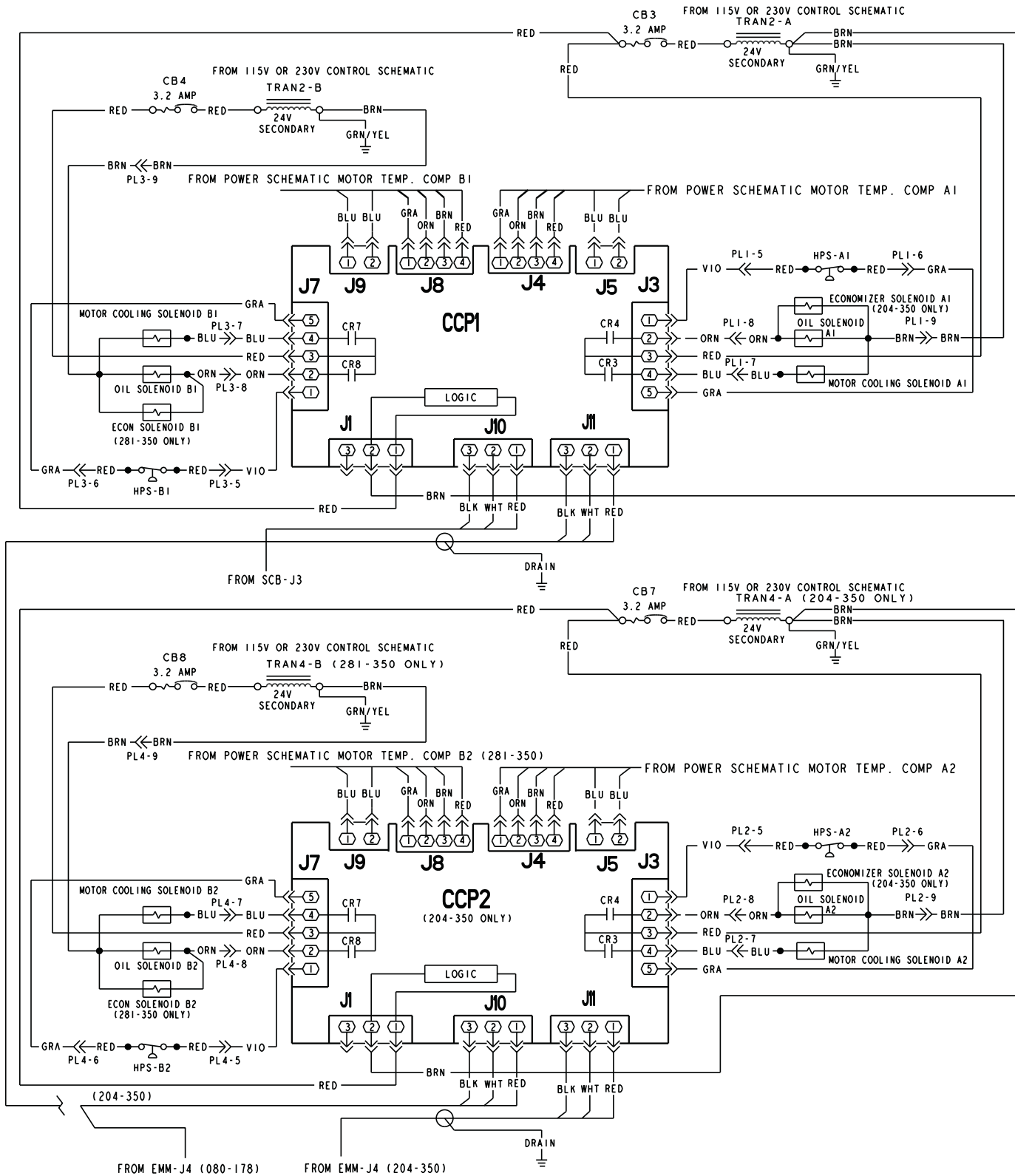


Fig. 4 — Control Schematic — 30GXN,R080-350 and Associated Modular Units, 24 V (cont)

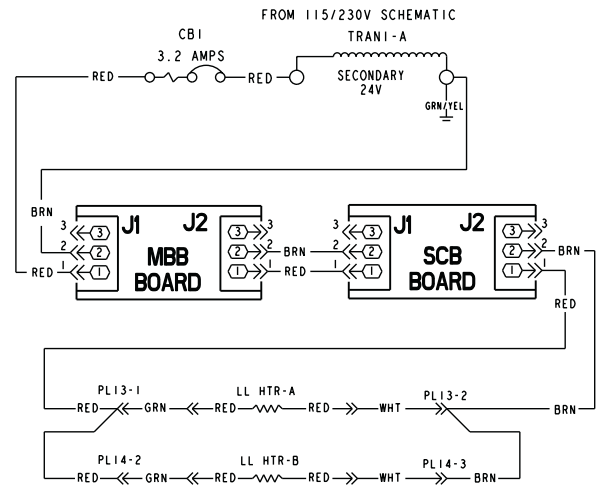
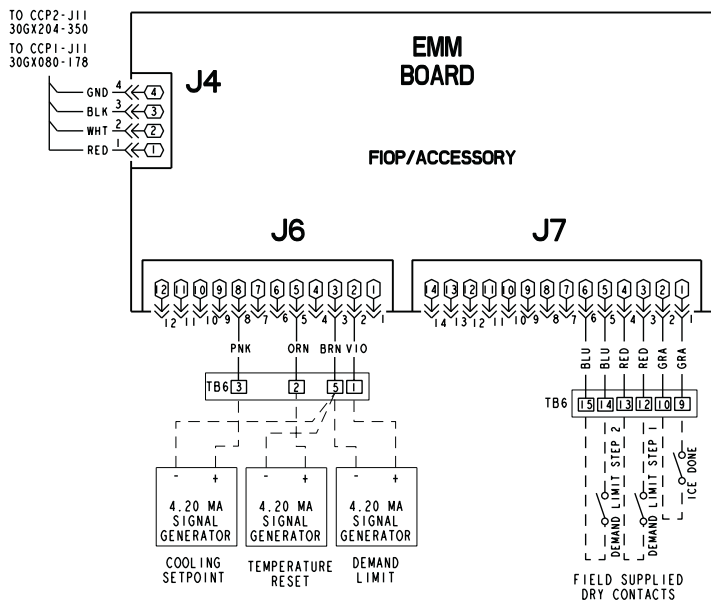


Fig. 4 — Control Schematic — 30GXN,R080-350 and Associated Modular Units, 24 V (cont)



**30GX080-178
(115 OR 230V) CONTROL SCHEMATIC
STANDARD FAN**

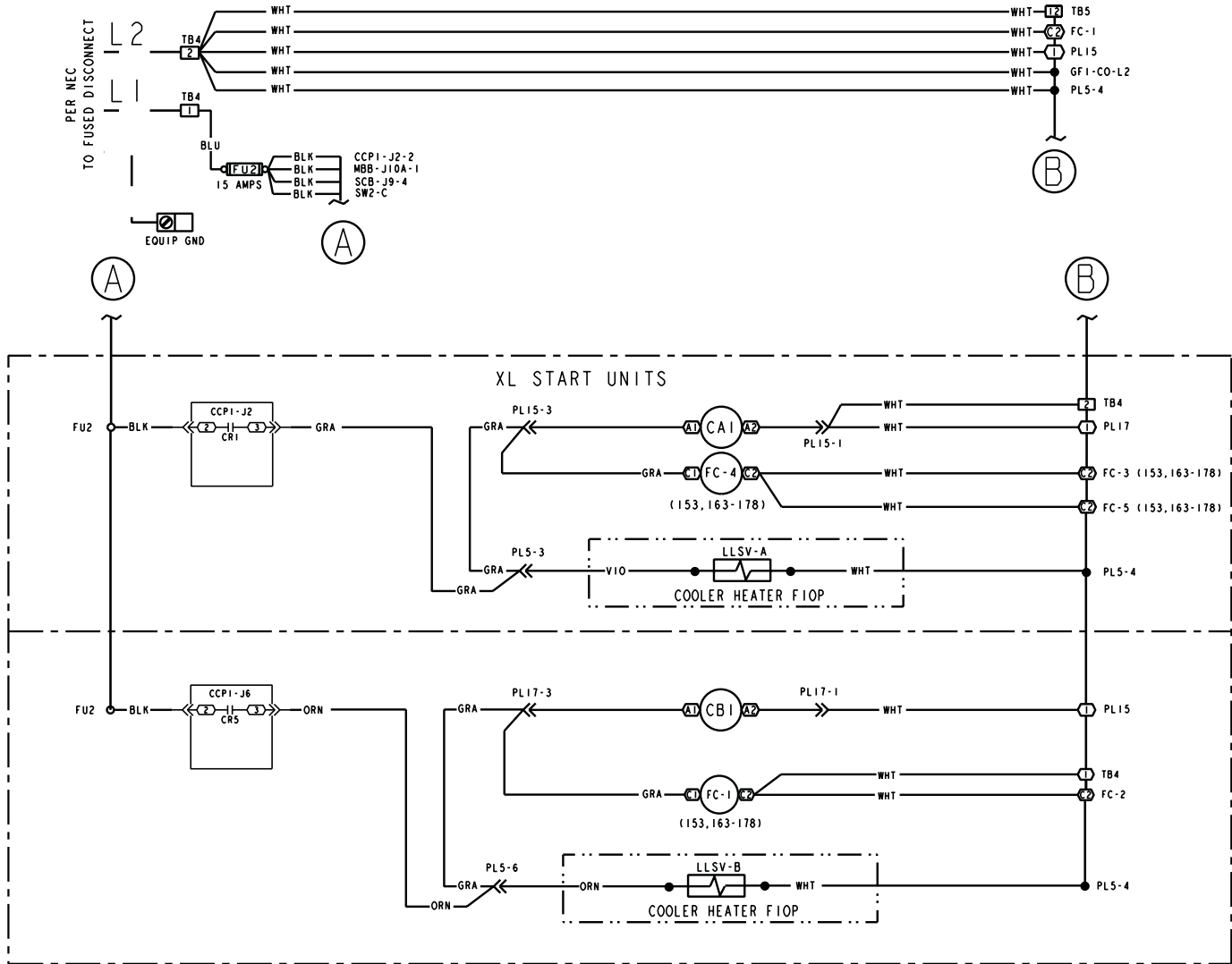


Fig. 5 — Control Schematic — 30GXN,R080-178 and Associated Modular Units, Standard Fan (115, 230 V) (cont)

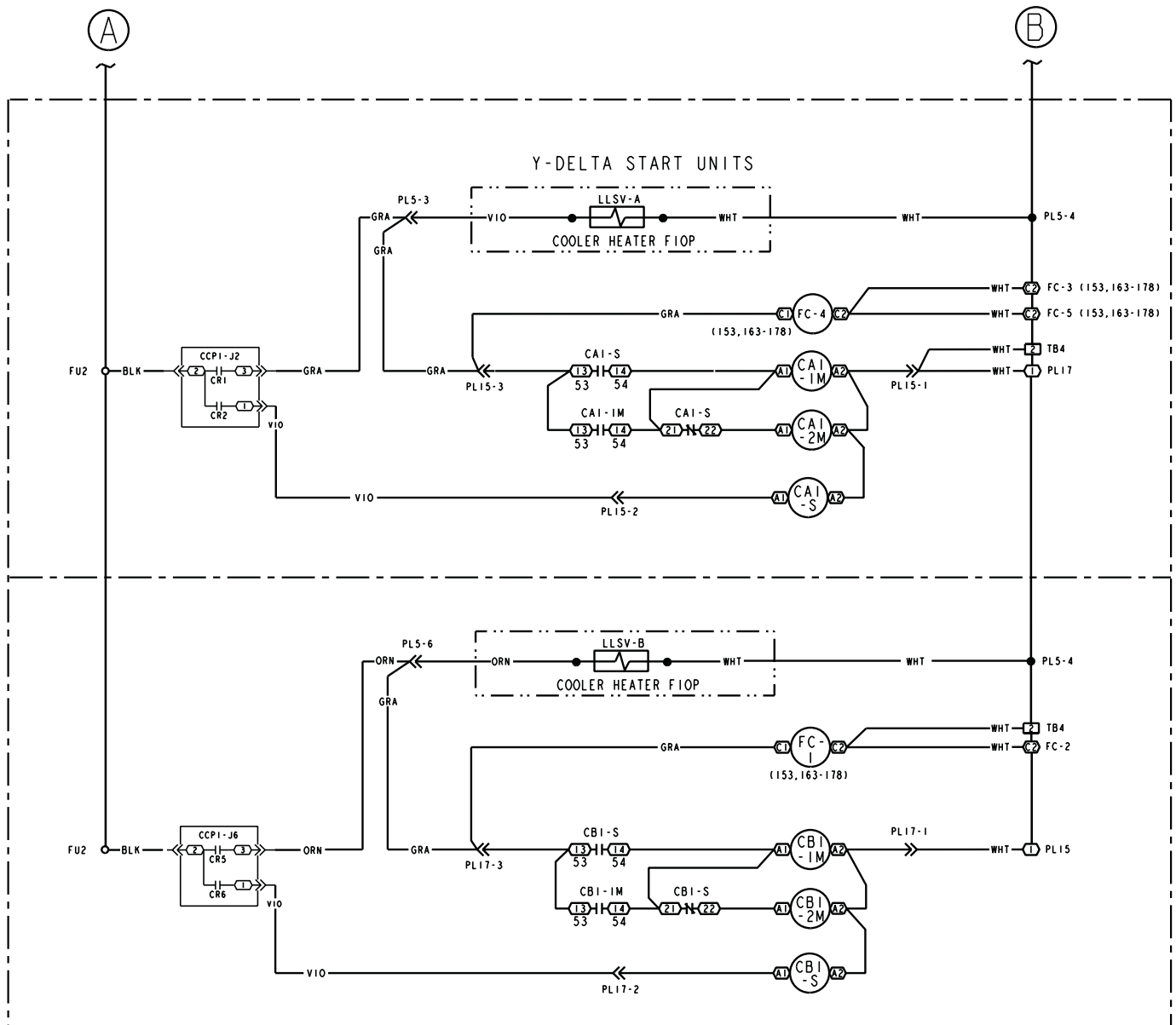


Fig. 5 — Control Schematic — 30GXN,R080-178 and Associated Modular Units, Standard Fan (115, 230 V) (cont)

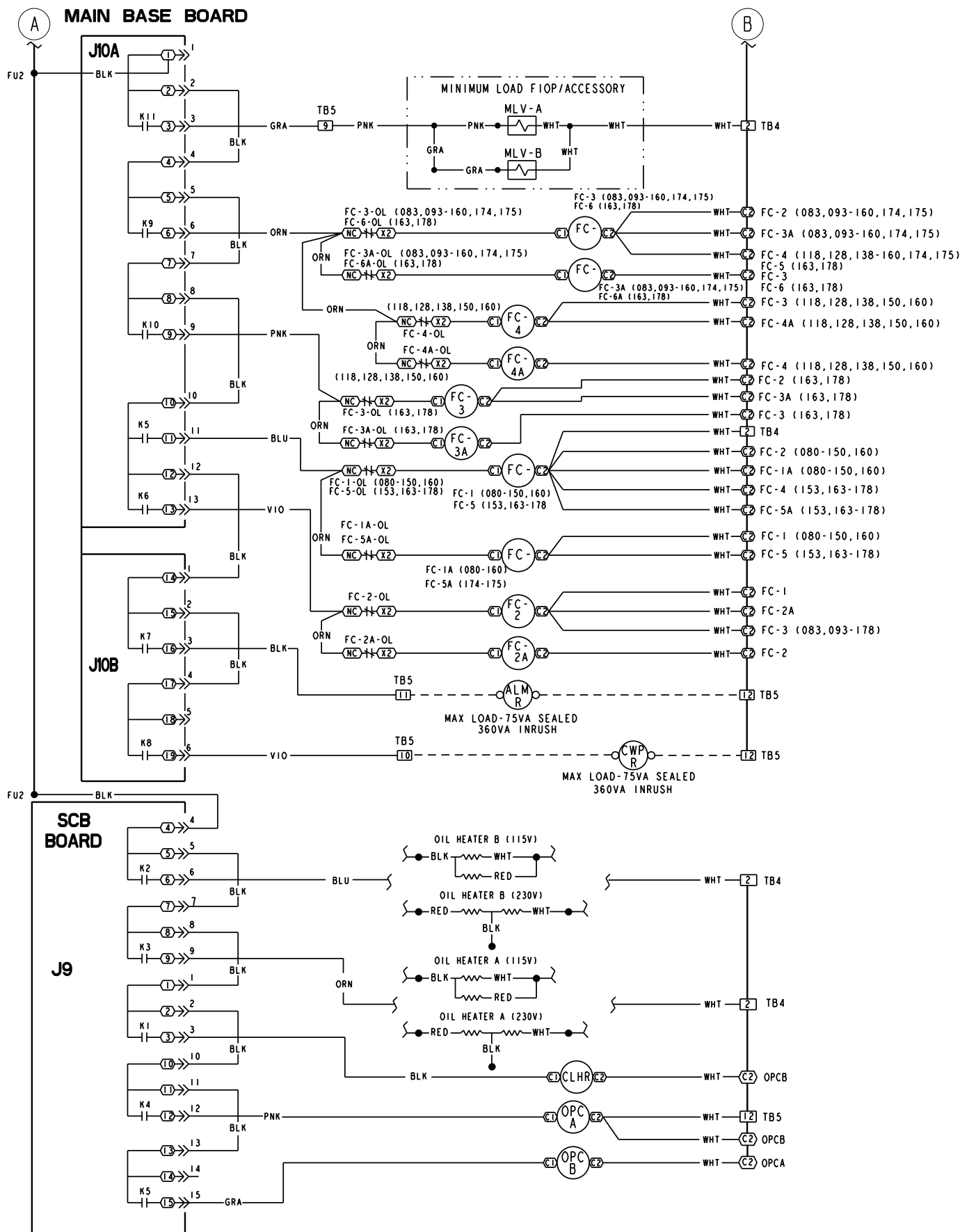


Fig. 6 — Control Schematic — 30GXN,R080-178 and Associated Modular Units, High Static Fan (115, 230 V) (cont)

**30GX080-178
(115 OR 230V) CONTROL SCHEMATIC
HIGH STATIC FAN**

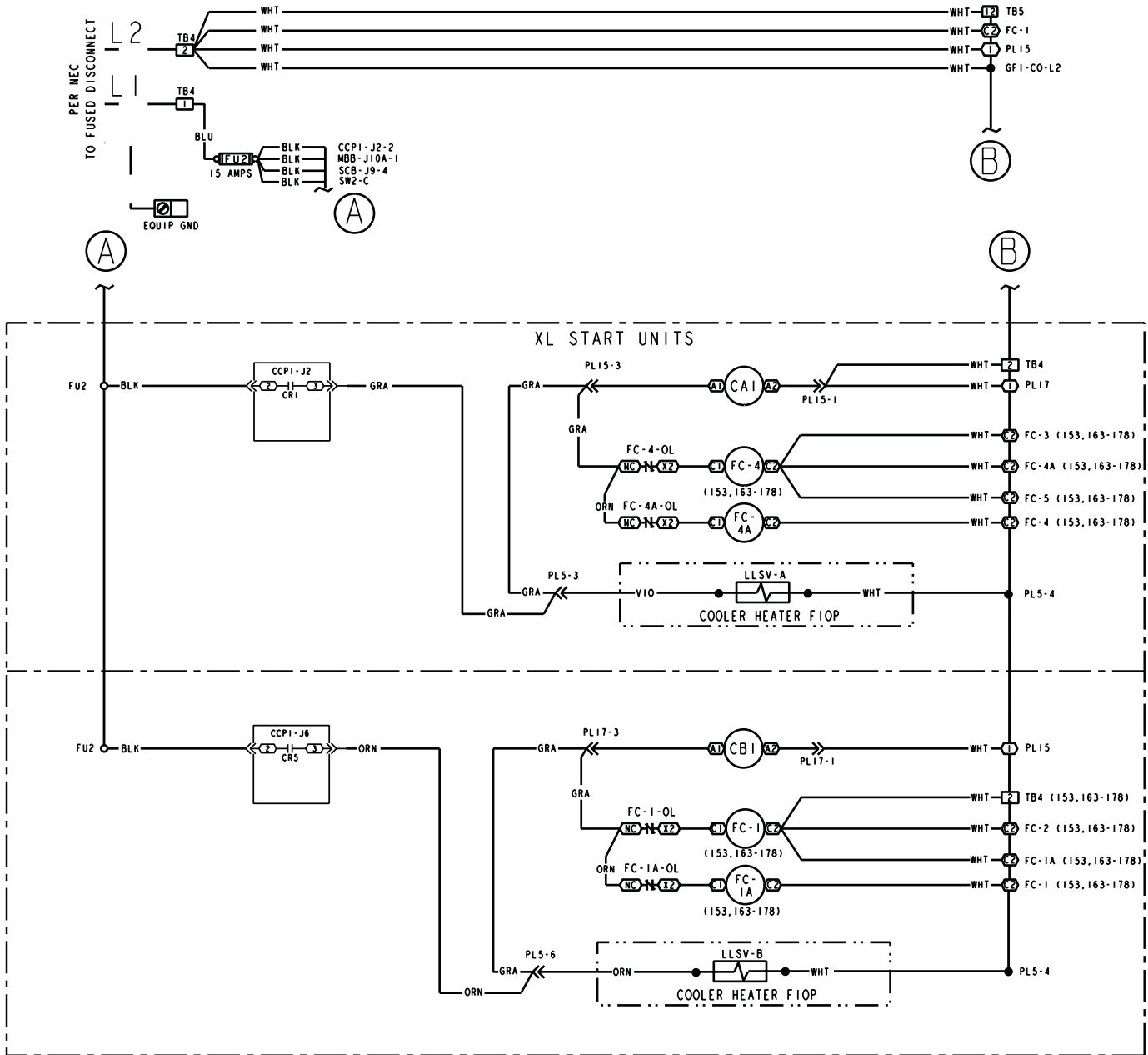
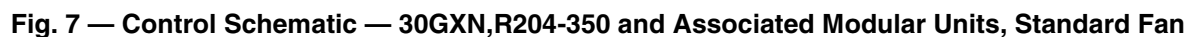


**Fig. 6 — Control Schematic — 30GXN,R080-178 and Associated Modular Units,
High Static Fan (115, 230 V) (cont)**





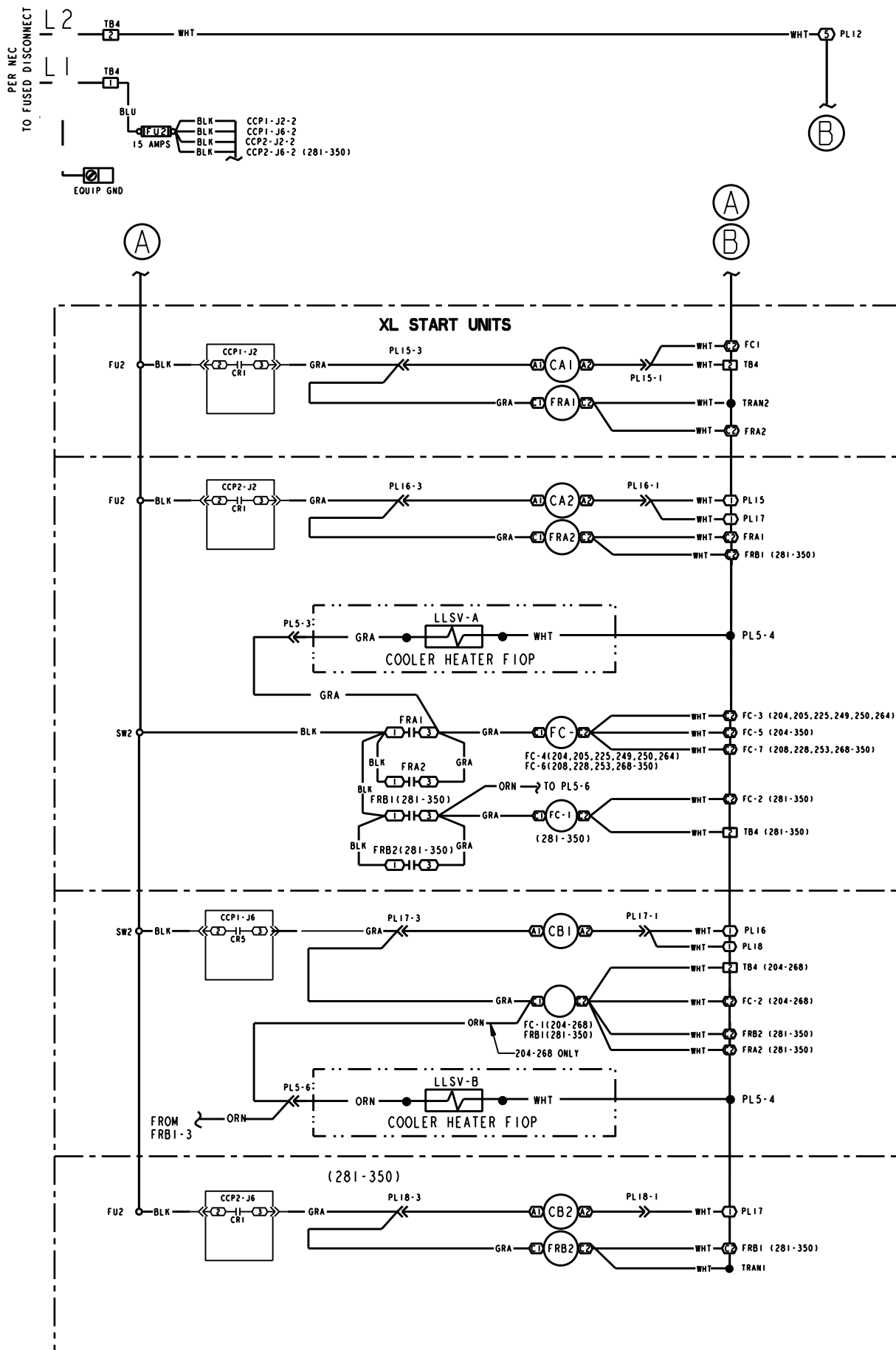


Fig. 7 — Control Schematic — 30GXN,R204-350 and Associated Modular Units, Standard Fan (cont)

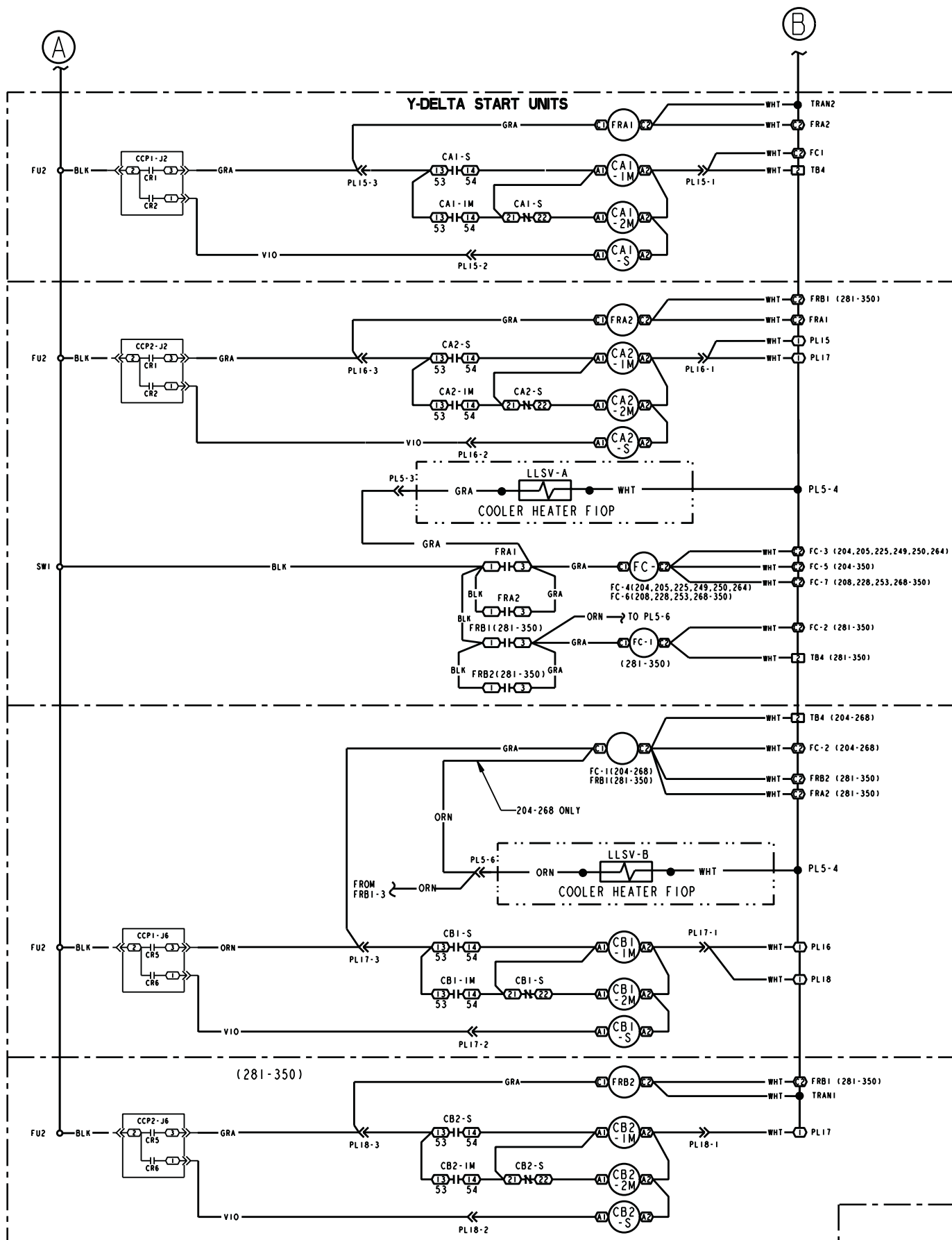
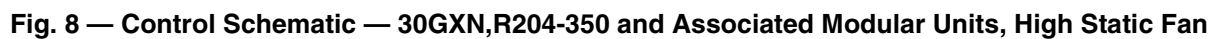
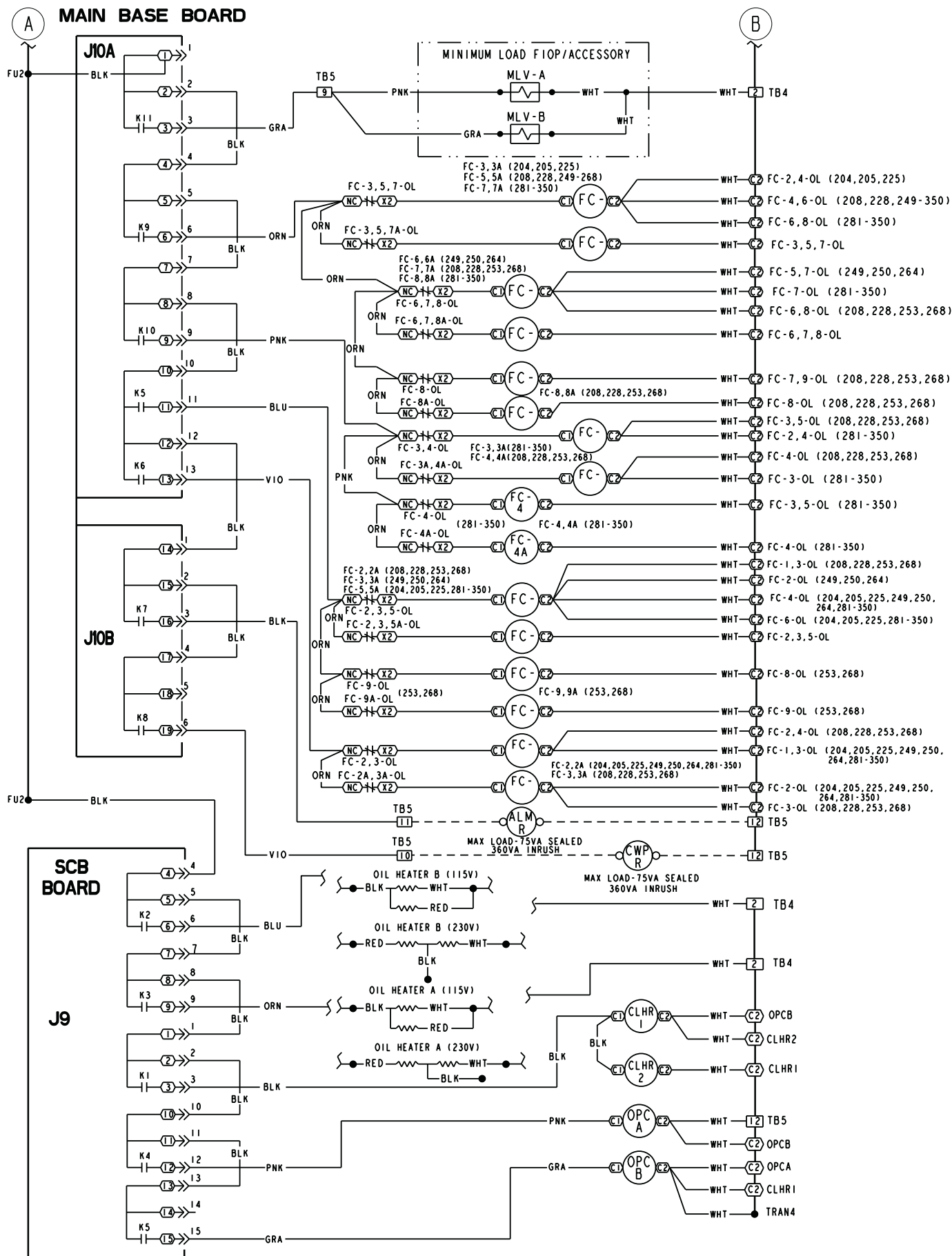


Fig. 7 — Control Schematic — 30GXN,R204-350 and Associated Modular Units, Standard Fan (cont)







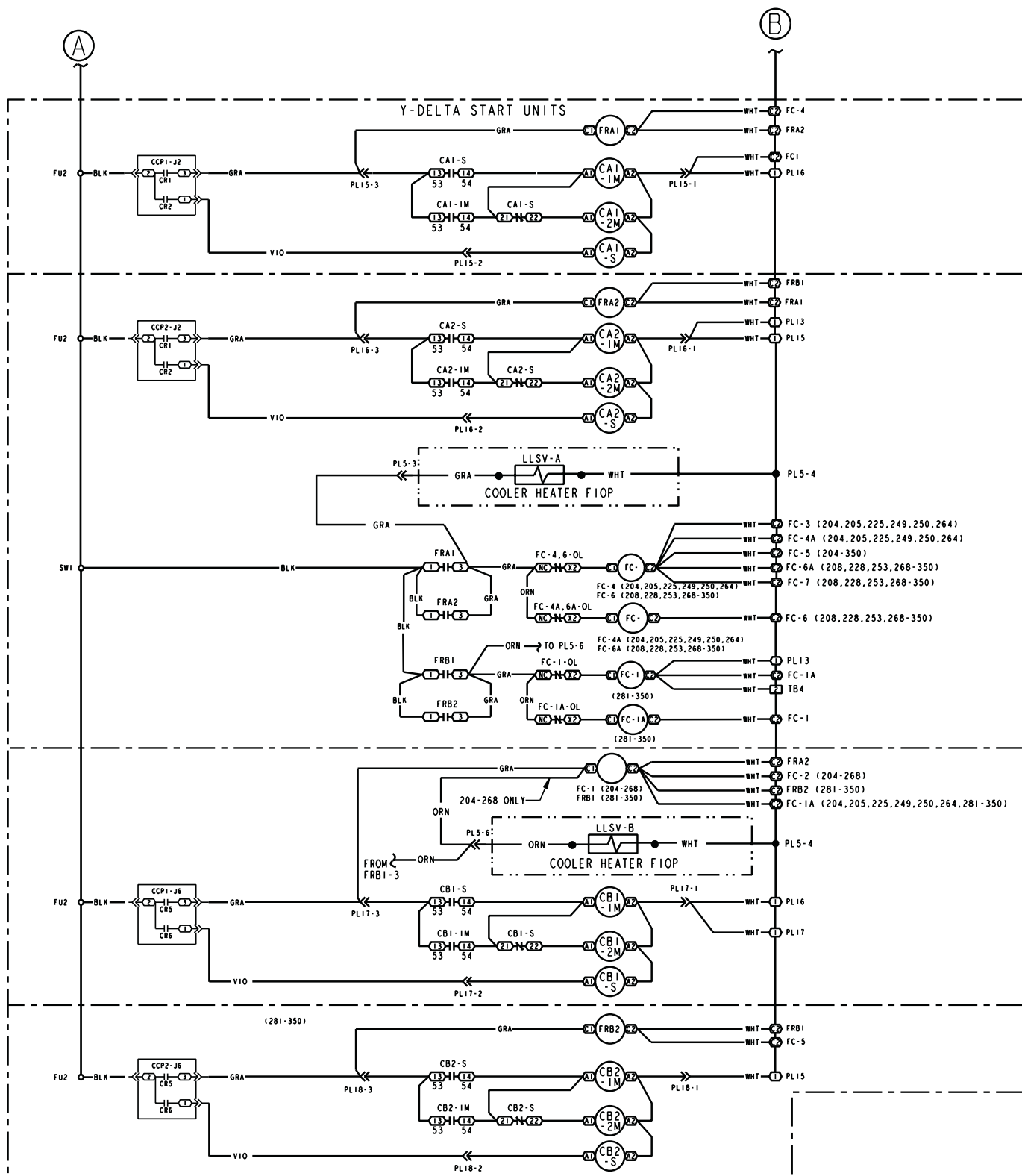


Fig. 8 — Control Schematic — 30GXN, R204-350 and Associated Modular Units, High Static Fan (cont)

TO MAIN POWER TBIA
163, 178
208/230V, 230V ONLY

STANDARD FANS

30GX080-178

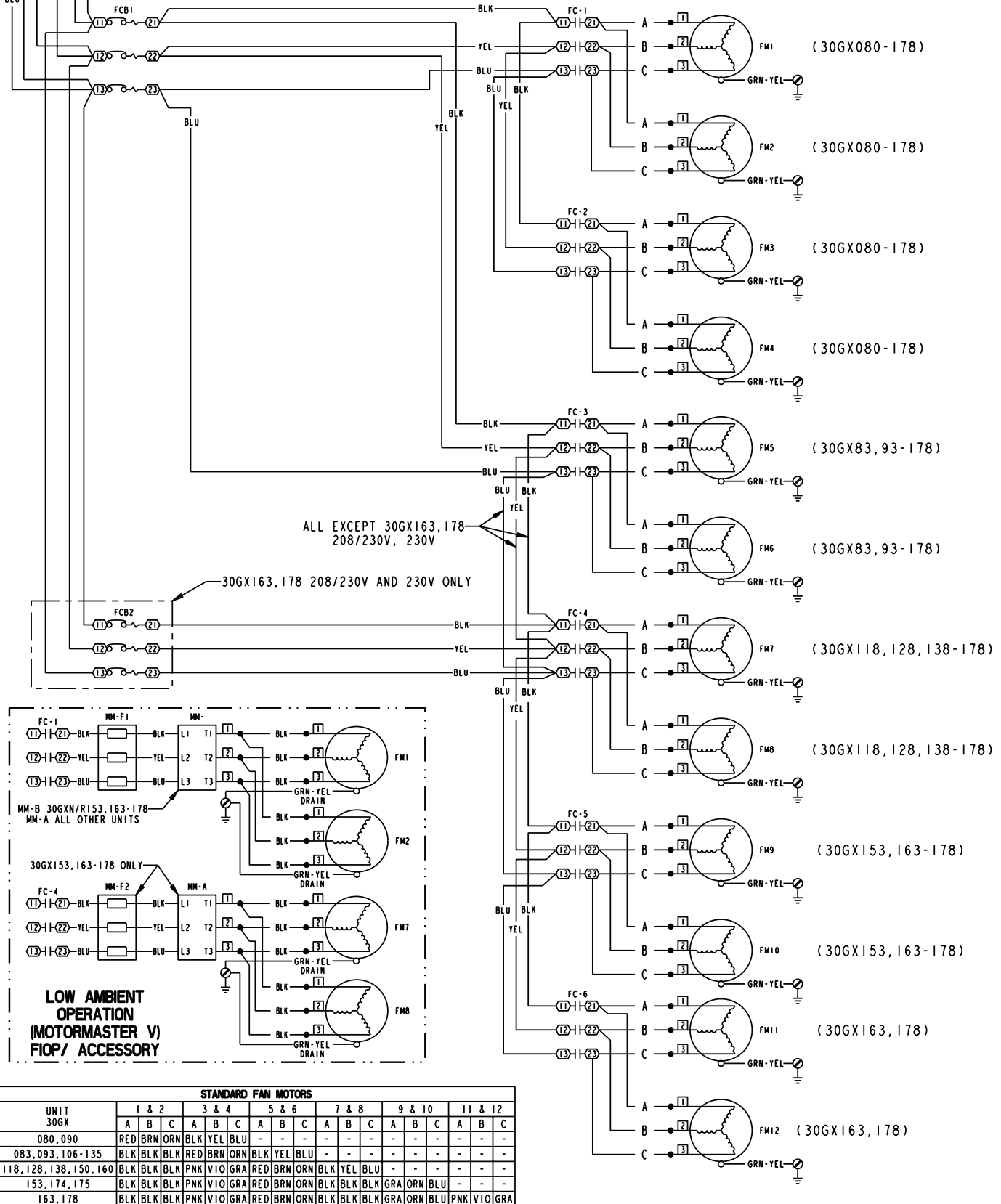


Fig. 9 — Fan Power — 30GXN,R080-178 and Associated Modular Units

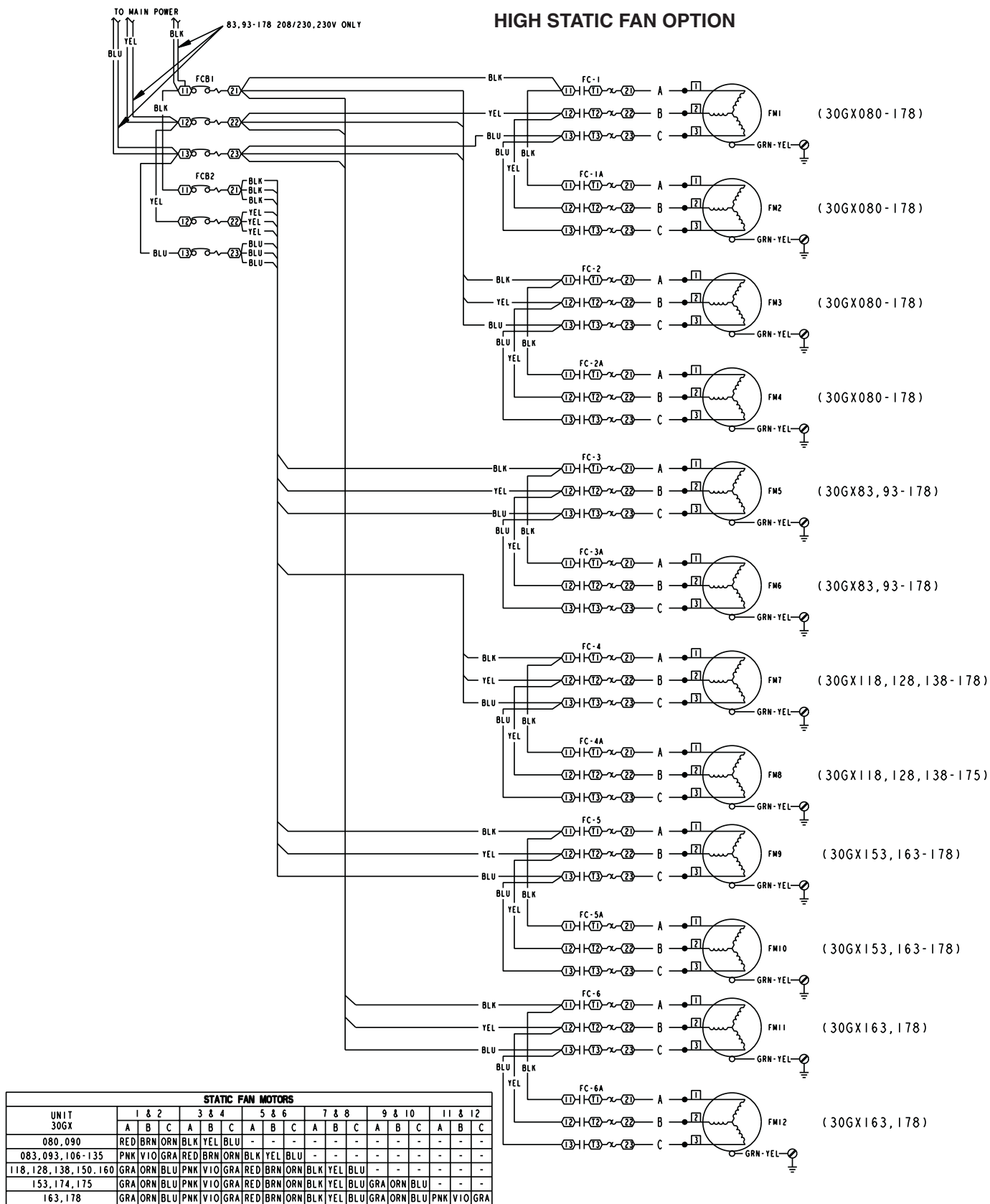


Fig. 9 — Fan Power — 30GXN,R080-178 and Associated Modular Units (cont)

TB1B 204-268 208/230, 230V
 301-350 380, 380/415V
 TB1A ALL OTHER VOLTAGES



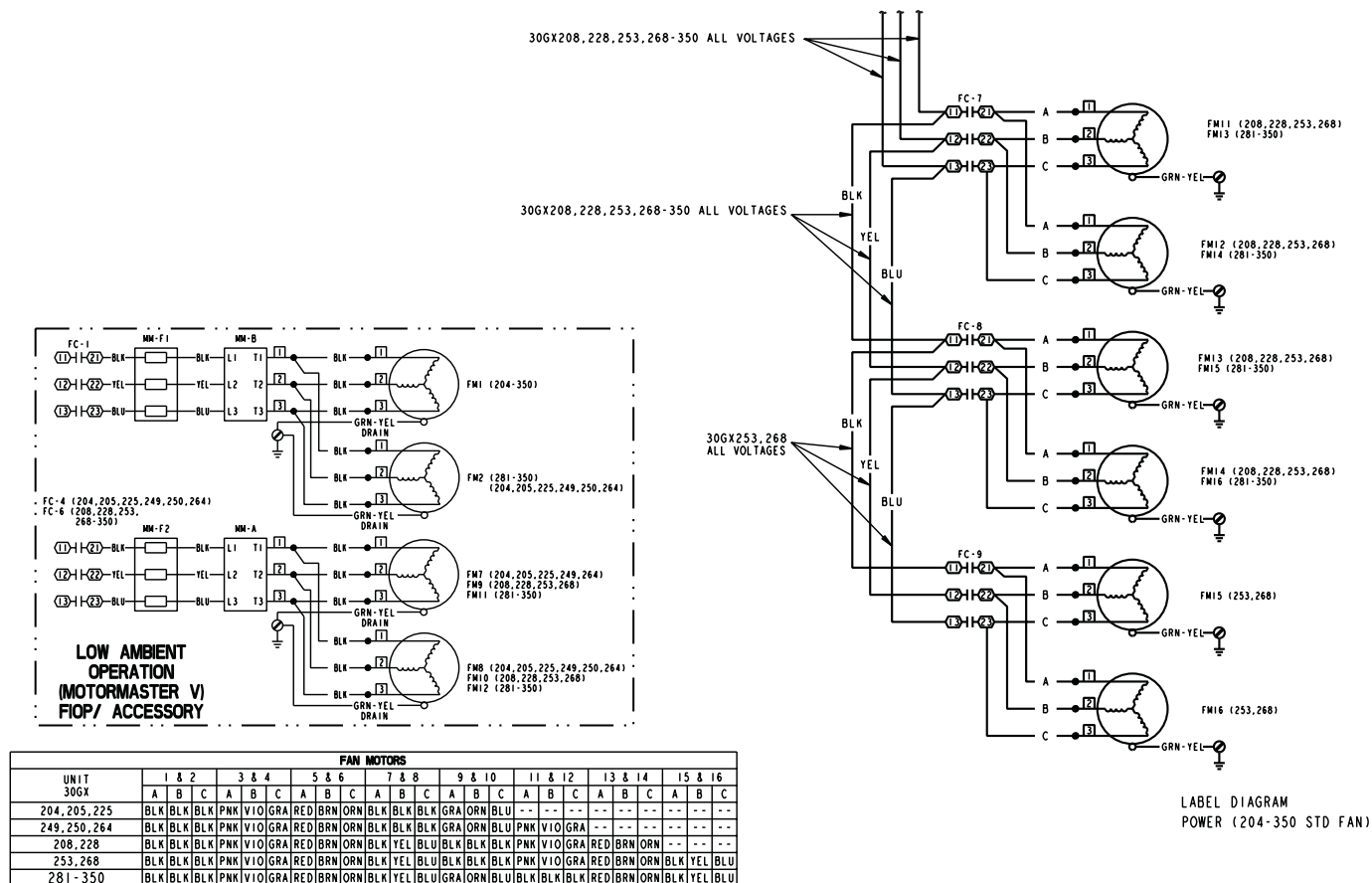


Fig. 10 — Fan Power — 30GXN,R204-350 and Associated Modular Units, Standard Fan (cont)

TBIB 204-268 208/230V, 230V
 301-350 380, 380/415V
 TBIA ALL OTHER VOLTAGES

30GXN/R204-350 HIGH STATIC FAN OPTION

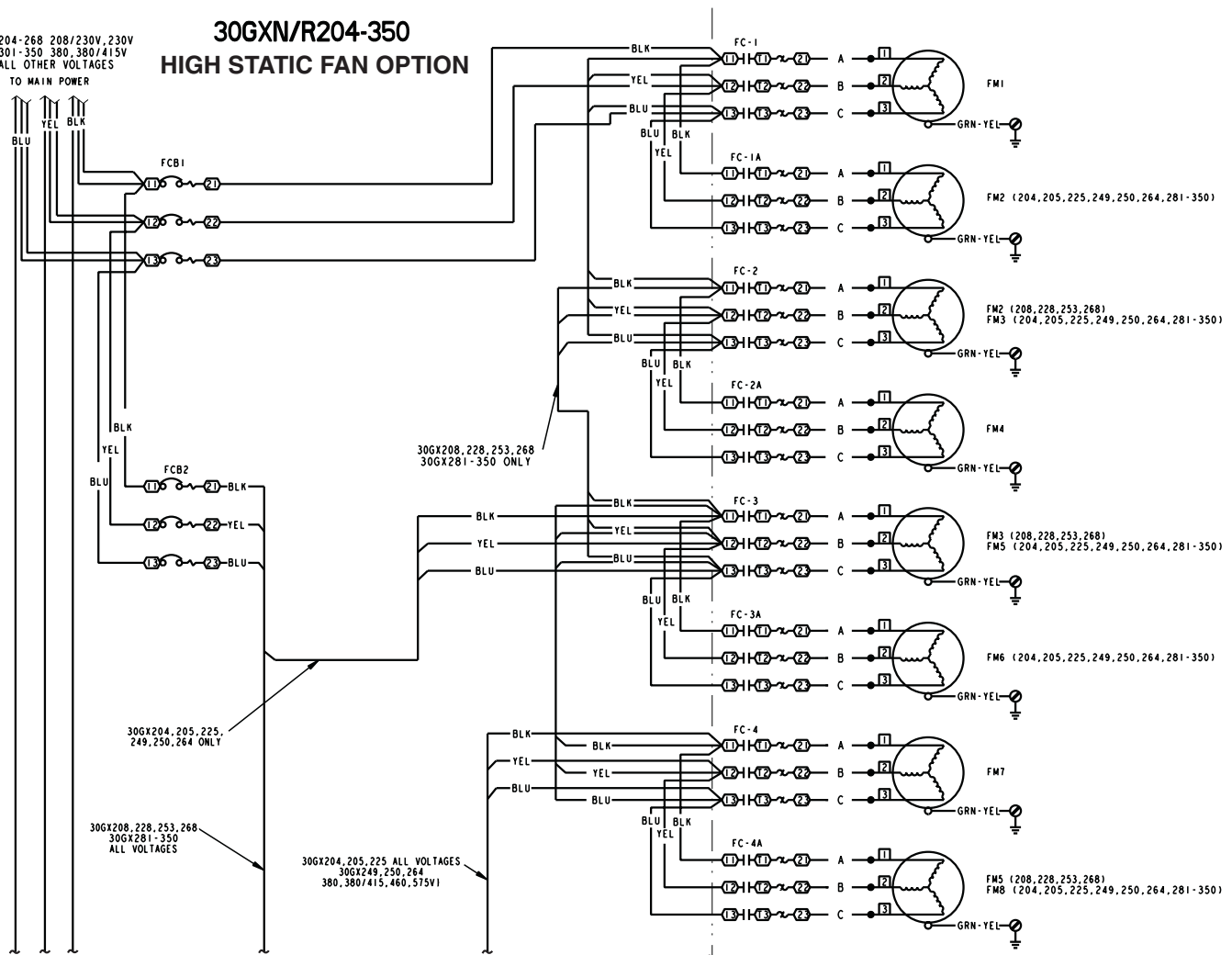


Fig. 11 — Fan Power — 30GXN,R204-350 and Associated Modular Units, High Static Fan

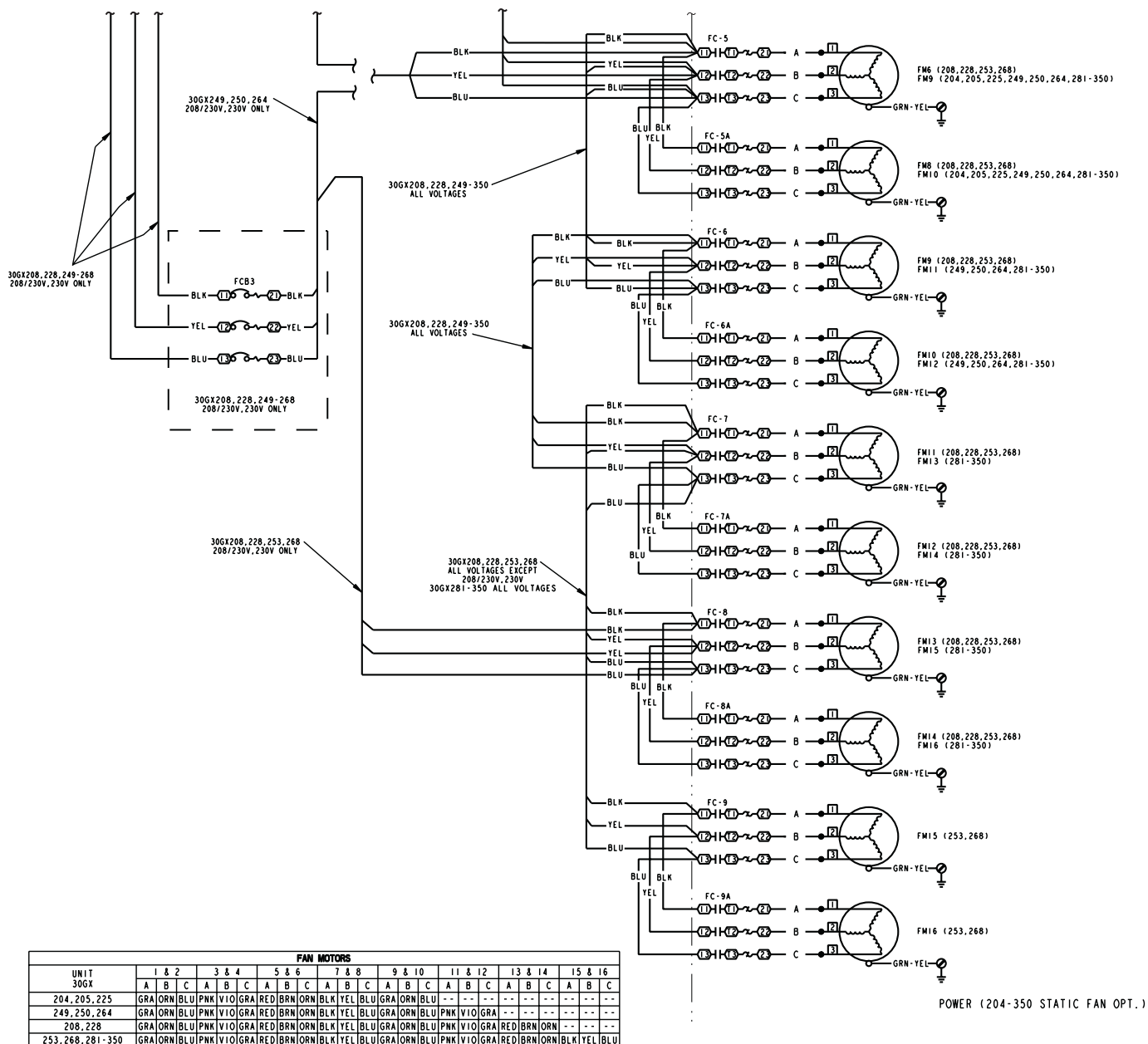


Fig. 11 — Fan Power — 30GXN,R204-350 and Associated Modular Units, High Static Fan (cont)



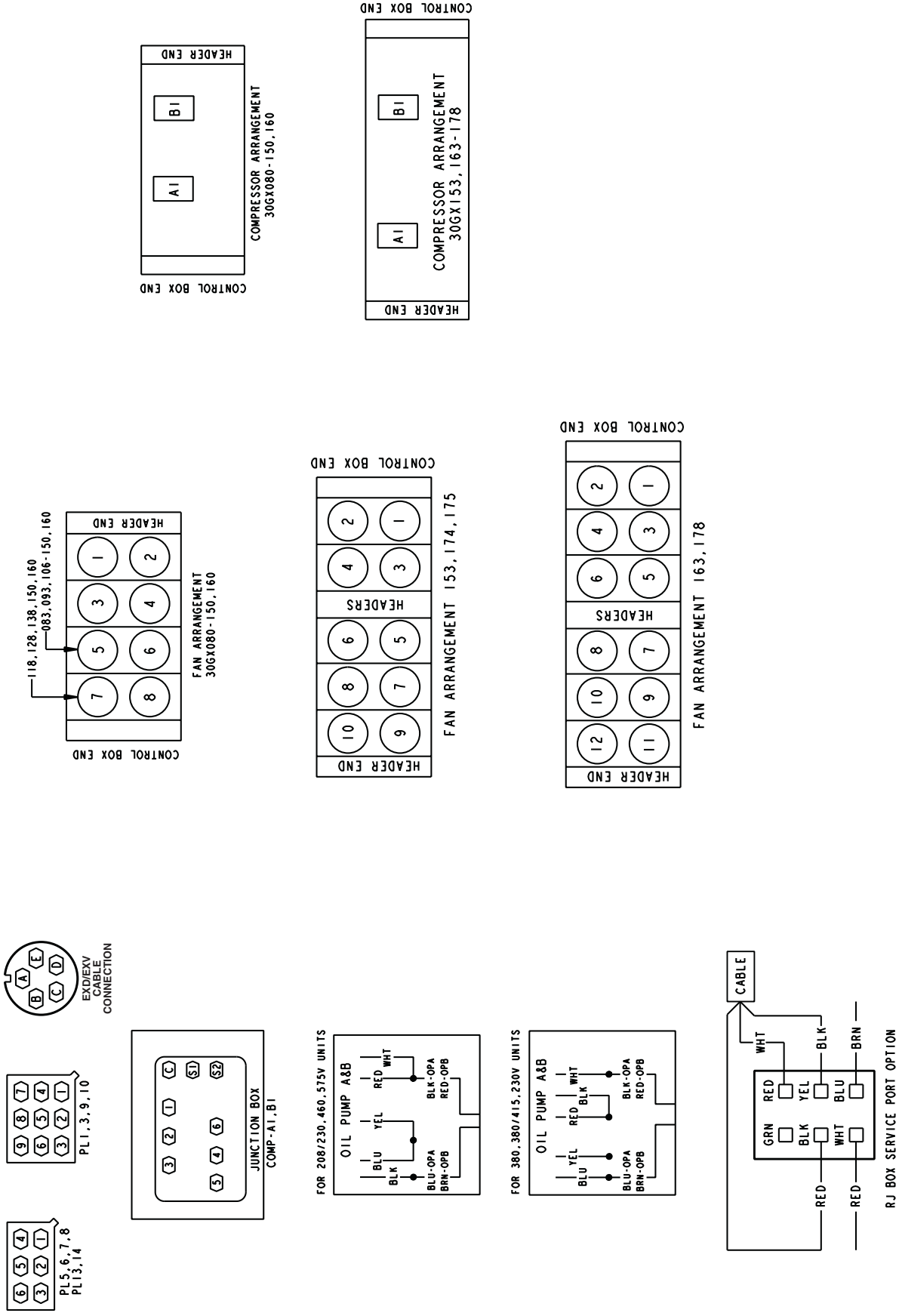


Fig. 12 — Component Arrangement — 30GXN, R080-178 and Associated Modular Units (cont)

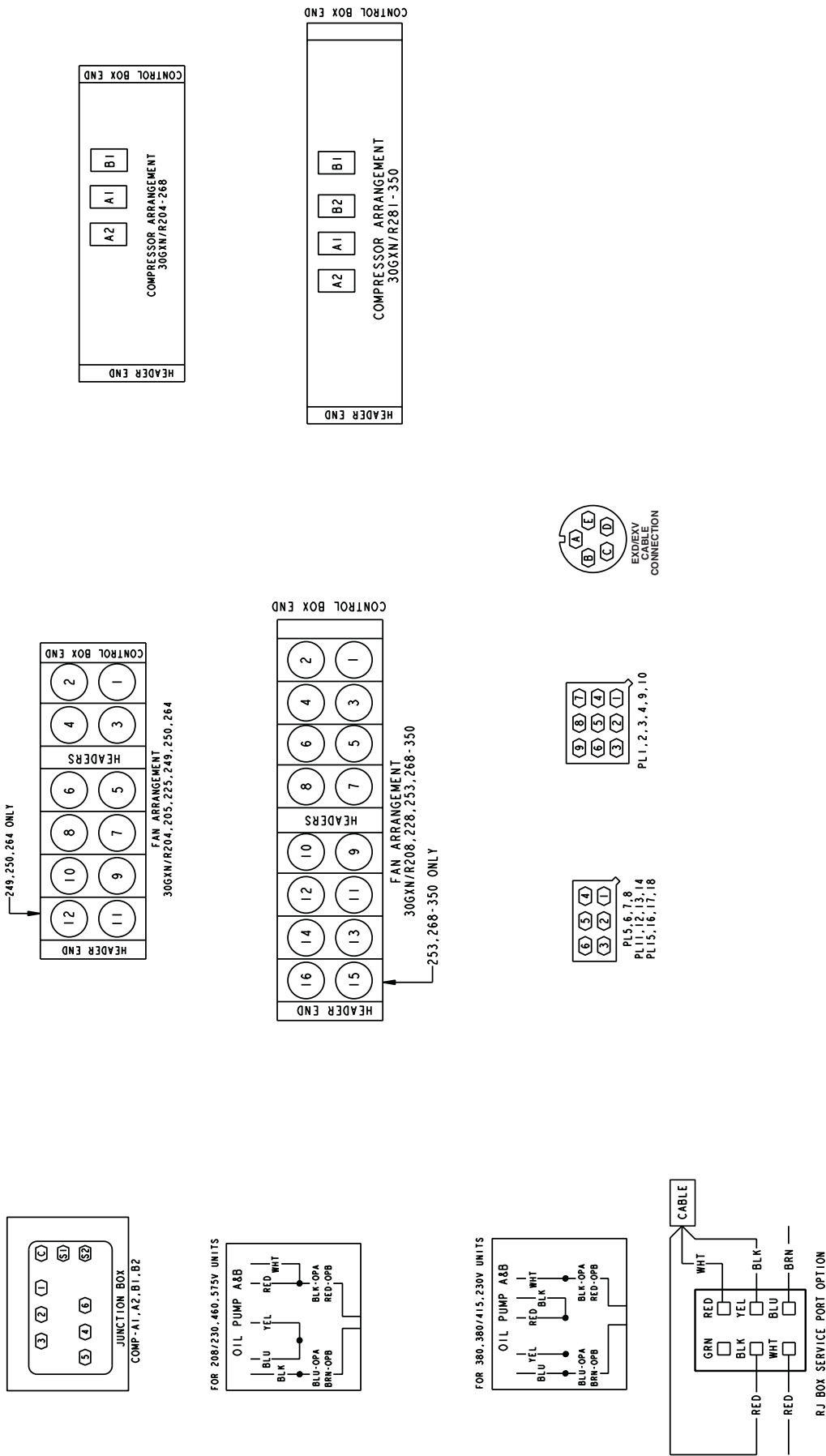


Fig. 13 — Component Arrangement — 30GXN,R204-350 and Associated Modular Units (cont)

