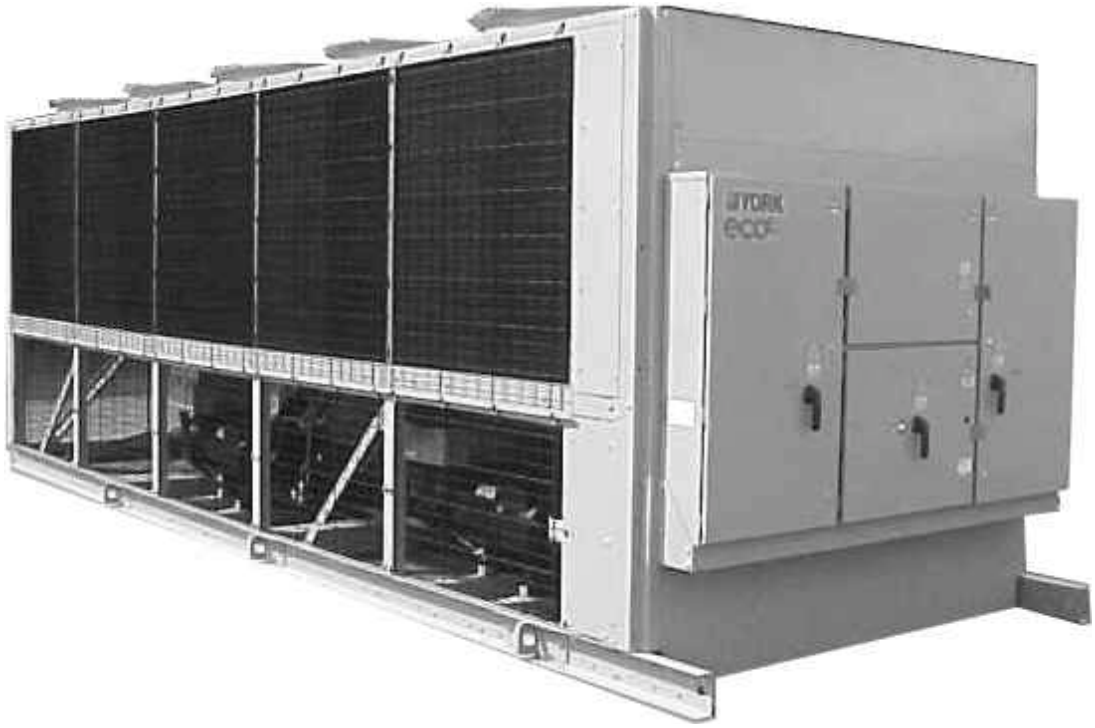
YORK®	AIR-COOLED SCREW LIQUID CHILLERS	
WIRING DIAGRAM	New Release	Form 201.19-W7 (1104)

YCAS AIR-COOLED LIQUID CHILLERS
YCAS0295 THROUGH YCAS0605
STYLE G (R407C)
(50 Hz)



THE HARTFORD STEAM BOILER INSPECTION AND INSURANCE CO. 1866 ISO 9000 REGISTRATION™

Metric Conversions

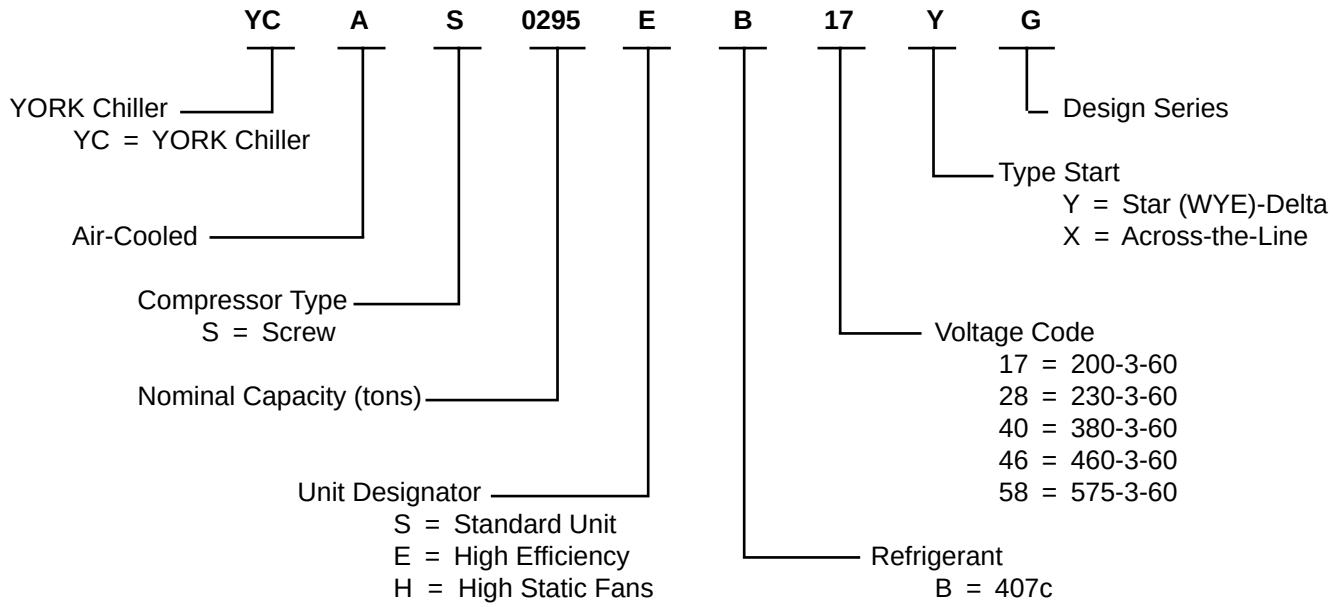
EPA energy BUILDINGS ALLY

TABLE OF CONTENTS

LIST OF FIGURES

NOMENCLATURE

The Model Number denotes the following characteristics of the unit:



WARNING

HIGH VOLTAGE
is used in the operation of this equipment.
DEATH OR SERIOUS INJURY
may result if personnel fail to observe safety precautions.

Work on electronic equipment should not be undertaken unless the individual(s) have been trained in the proper maintenance of equipment and is (are) familiar with its potential hazards.

Shut off power supply to equipment before beginning work and follow lockout procedures. When working inside equipment with power off, take care to discharge every capacitor likely to hold dangerous potential.

Be careful not to contact high voltage connections when installing or operating this equipment.

LOW VOLTAGE

DO NOT be misled by the term “low voltage”.
Voltages as low as 50 volts may cause death.

ELECTRICAL NOTES

NOTES & LEGEND

LEGEND

ACR-LINE	ACROSS THE LINE START
C.B.	CIRCUIT BREAKER
D.E.	DUAL ELEMENT FUSE
DISC SW	DISCONNECT SWITCH
FACT CB	FACTORY-MOUNTED CIRCUIT BREAKER
FLA	FULL LOAD AMPS
HZ	HERTZ
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MIN NF	MINIMUM NON-FUSED
RLA	RUNNING LOAD AMPS
S.P. WIRE	SINGLE-POINT WIRING
Y-Δ	WYE-DELTA START
X-LRA	ACROSS-THE-LINE INRUSH LOCKED ROTOR AMPS
Y-LRA	WYE-DELTA INRUSH LOCKED ROTOR AMPS

VOLTAGE CODE
-50 = 380-3-50

NOTES

1. MRA is Maximum Running Amps, the maximum continuous current at any operating point in the rating range. Also referred to as MCA, or Minimum Circuit Ampacity to be provided by the installer. If a Factory Mounted Control Transformer is provided, add 3 amps to the system #1 MCA values in the YCAS Tables.
2. The recommended disconnect switch is based on a minimum of 115% of the summation rated load amps of all the loads included in the circuit, per N.E.C. 440 - 12A1.
3. Minimum recommended fuse size is based on 150% of the largest motor RLA plus 100% of the remaining RLAs. Minimum fuse rating = (1.5 x largest compressor RLA) + other compressor RLAs + (# fans x each fan motor FLA).
4. Maximum dual element fuse size is based on 225% maximum plus 100% of the rated load amps for all other loads included in the circuit, per N.E.C. 440-22. Maximum fuse rating = (2.25 x largest compressor RLA) + other compressor RLAs + (# fans x each fan motor FLA).
5. Minimum recommended circuit breaker is 150% maximum plus 100% of rated load amps included in the circuit. Minimum circuit breaker rating = (1.5 x largest compressor RLA) + other compressor RLAs + (# fans x each fan motor FLA).
6. Maximum circuit breaker is based on 225% maximum plus 100% of the rated load amps for all loads included in the circuit, per circuit, per U.L. **1995** Fig. 36.2. Maximum circuit breaker rating = (2.25 x largest compressor RLA) + other compressor RLAs + (# fans x each fan motor FLA).
7. The Incoming Wire Range is the minimum and maximum wire size that can be accommodated by unit wiring lugs. The (1), (2), or (3) indicate the number of termination points or lugs which are available per phase. Actual wire size and number of wires per phase must be determined based on ampacity and job requirements using N.E.C. wire sizing information. The above recommendations are based on the National Electrical Code and using **copper connectors** only. Field wiring must also comply with local codes.
8. A ground lug is provided for each compressor system to accommodate field grounding conductor per N.E.C. Article 250-54. A control circuit grounding lug is also supplied.
9. The field supplied disconnect is a “Disconnecting Means” as defined in N.E.C. 100.B, and is intended for isolating the unit from the available power supply to perform maintenance and troubleshooting. This disconnect is not intended to be a Load Break Device.
10. Two-compressor machines with single-point power connection, and equipped with Star-Delta compressor motor start must also include Factory provided circuit breakers in each motor control center.
11. Consult factory for Electrical Data on units equipped with “High Static Fan” option. 50Hz High Static Fans are 3.5kW each.
12. FLA for each “Low Noise Fan” motor: 380v/50Hz = 4.1A.

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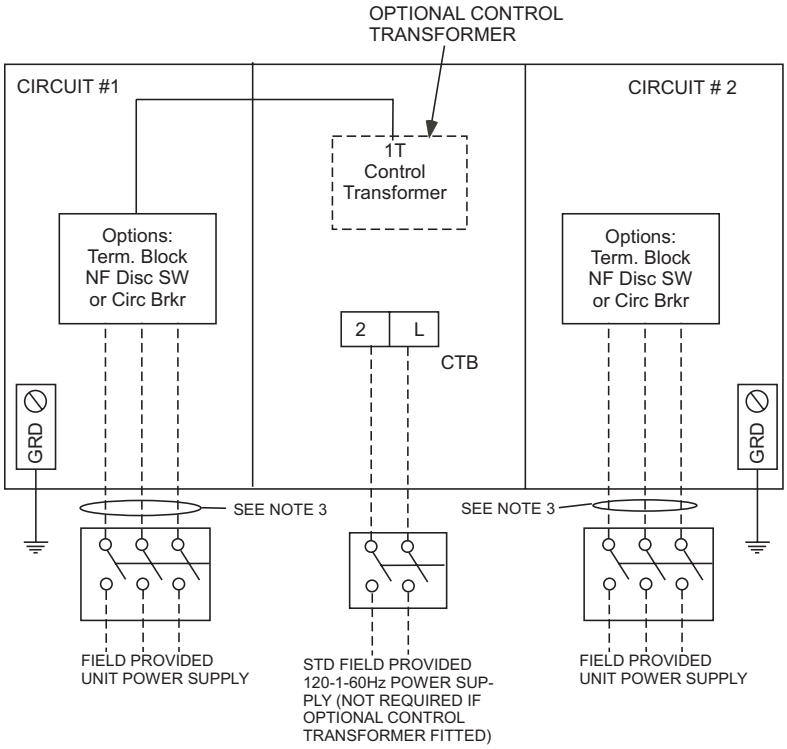
ELECTRICAL DATA

STYLE "G" 2 COMPRESSOR POWER WIRING CONNECTIONS



LD05548

MULTIPLE POINT POWER SUPPLY CONNECTION – 2 COMPRESSOR UNITS

(Each of Two Field Provided Power Supply Circuits individually protected with Branch Circuit Protection.
Field Connections to Factory provided Terminal Block (Std), Disconnects (Opt), or Individual System Circuit Breakers* (Opt)
in each of the two Motor Control Centers.)

Model YCAS	Volts	ELECTRICAL SYSTEM #1 FIELD SUPPLIED WIRING												
		MRA[1] (MCA)	Min. NF Disc. Sw.[2, 9]	Overcurrent Protection[13]		Factory Provided (Lugs) Wire Range[7]			Compressor			Fans[11, 12]		
				Min.[3, 5]	Max.[4, 6]	*Standard Terminal Block	*Optional NF. Disc Switch	Optional Circuit Breaker	RLA	Y-LRA	X-LRA	Qty.	FLA (Ea.)	LRA (Ea.)
0295EB	380	114	150	150	175	# 2 - 4/0	# 4 - 300	# 4 - 300	79	183	552	3	4.8	23.0
0335EB	380	159	150	200	250	# 2 - 4/0	# 4 - 300	# 6 - 250	115	217	690	3	4.8	23.0
0375EB	380	159	150	200	250	# 2 - 300	# 4 - 300	# 6 - 250	115	217	690	3	4.8	23.0
0425EB	380	152	150	200	250	# 2 - 300	# 6 - 250	# 6 - 250	106	217	690	4	4.8	23.0
0475EB	380	205	200	250	350	2/0 - 500	# 6 - 300	(2) 3/0 - 250	148	267	857	4	4.8	23.0
0515EB	380	205	200	250	350	# 2 - 300	# 6 - 300	# 6 - 350	148	267	857	4	4.8	23.0
0555EB	380	255	250	350	400	2/0 - 500	# 6 - 350	(2) 3/0 - 250	188	267	857	4	4.8	23.0
0575EB	380	255	250	350	400	2/0 - 500	# 6 - 350	(2) 3/0 - 250	188	267	857	4	4.8	23.0
0605EB	380	241	250	300	400	2/0 - 500	# 6 - 350	(2) 3/0 - 250	173	267	857	5	4.8	23.0

***** "Optional" Circuit Breakers are REQUIRED for units with CE mark.

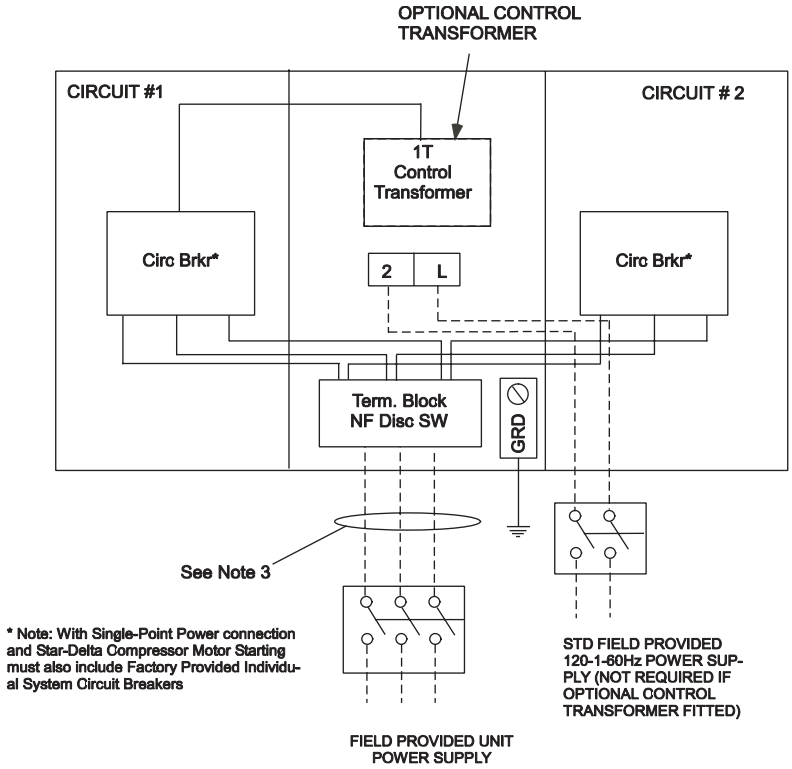
See page 4 for Electrical Data Notes.

ELECTRICAL DATA

Model YCAS	Volts	ELECTRICAL SYSTEM #2 FIELD SUPPLIED WIRING												
		MRA[1] (MCA)	Min. NF Disc. Sw.[2, 9]	Overcurrent Protection[13]		Factory Provided (Lugs) Wire Range[7]			Compressor			Fans[11, 12]		
				Min.[3, 5]	Max.[4, 6]	*Standard Terminal Block	*Optional NF. Disc Switch	Optional Circuit Breaker	RLA	Y-LRA	X-LRA	Qty.	FLA (Ea.)	LRA (Ea.)
0295EB	380	114	150	150	175	# 2 - 4/0	# 4 - 300	# 4 - 300	79	183	552	3	4.8	23.0
0335EB	380	114	150	150	175	# 2 - 4/0	# 4 - 300	# 4 - 300	79	183	552	3	4.8	23.0
0375EB	380	159	150	200	250	# 2 - 300	# 4 - 300	# 6 - 350	115	217	690	3	4.8	23.0
0425EB	380	152	150	200	250	# 2 - 300	# 6 - 350	# 6 - 350	106	217	690	4	4.8	23.0
0475EB	380	152	150	200	250	# 1 - 500	# 6 - 350	(2) 3/0 - 250	106	217	690	4	4.8	23.0
0515EB	380	205	200	250	350	# 2 - 300	# 6 - 350	# 6 - 350	148	267	857	4	4.8	23.0
0555EB	380	205	200	250	350	# 1 - 500	# 6 - 350	(2) 3/0 - 250	148	267	857	4	4.8	23.0
0575EB	380	255	250	350	400	# 1 - 500	# 6 - 350	(2) 3/0 - 250	188	267	857	4	4.8	23.0
0605EB	380	241	250	300	400	# 1 - 500	# 6 - 350	(2) 3/0 - 250	173	267	857	5	4.8	23.0

ELECTRICAL DATA

STYLE "G" 2 COMPRESSOR POWER WIRING CONNECTIONS



LD05549

OPTIONAL SINGLE POINT POWER SUPPLY WITH INDIVIDUAL SYSTEM CIRCUIT BREAKERS – 2 COMPRESSOR UNITS

One Field Provided Power Supply Circuit to the chiller. Field connections to Power Terminal Block or Non-Fused Disconnect in 'Option Panel'. Internal Branch Circuit Protection (Breakers) per Motor Control Center[10].

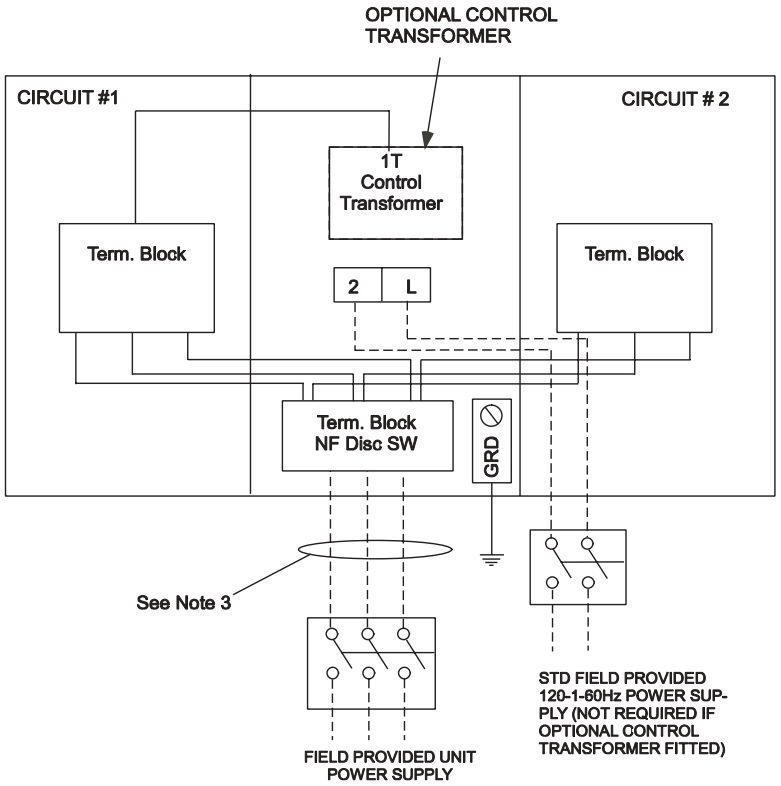
CHILLER MODEL YCAS	FIELD-SUPPLIED WIRING					
	FIELD PROVIDED POWER SUPPLY				FACTORY PROVIDED (LUGS) WIRE RANGE [7]	
	MRA[1]	MIN NF DISC SW [2,9]	OVER-CURRENT PROTECTION MIN.[3,5]	OVER-CURRENT PROTECTION MAX.[4,6]	STANDARD TERMINAL BLOCK	OPTIONAL NF DISC. SWITCH
0295EB	227	250	250	250	2/0 - 500	# 6 - 350
0335EB	272	400	300	350	2/0 - 500	(2) 3/0-250
0375EB	317	400	350	400	(2) # 2 - 300	(2) 3/0-250
0425EB	304	400	350	350	(2) # 2 - 300	(2) 3/0-250
0475EB	356	400	400	450	(2) # 1 - 500	(3) 2/0-400
0515EB	409	400	450	500	(2) # 2 - 300	(2) 3/0-250
0555EB	459	600	500	600	(2) # 1 - 500	(3) 2/0-400
0575EB	509	600	600	600	(2) # 1 - 500	(3) 2/0-400
0605EB	481	600	500	600	(2) # 1 - 500	(3) 2/0-400

See page 4 for Electrical Data footnotes.

CHILLER MODEL YCAS	ELECTRICAL SYSTEM #1							ELECTRICAL SYSTEM #2				
	COMPRESSOR DATA				FAN DATA[11, 12]			COMPRESSOR DATA			FAN DATA[11,12]	
	RLA	Y-LRA	X-LRA	QTY	FLA (EA)	LRA (EA)	RLA	Y-LRA	X-LRA	QTY	FLA (EA)	LRA (EA)
0295EB	79.0	183.0	552.0	3	4.8	23.0	79.0	183.0	552.0	3	4.8	23.0
0335EB	115.0	217.0	690.0	3	4.8	23.0	79.0	183.0	552.0	3	4.8	23.0
0375EB	115.0	217.0	690.0	3	4.8	23.0	115.0	217.0	690.0	3	4.8	23.0
0425EB	106.0	217.0	690.0	4	4.8	23.0	106.0	217.0	690.0	4	4.8	23.0
0475EB	148.0	267.0	857.0	4	4.8	23.0	106.0	217.0	690.0	4	4.8	23.0
0515EB	148.0	267.0	857.0	4	4.8	23.0	148.0	267.0	857.0	4	4.8	23.0
0555EB	188.0	267.0	857.0	4	4.8	23.0	148.0	267.0	857.0	4	4.8	23.0
0575EB	188.0	267.0	857.0	4	4.8	23.0	188.0	267.0	857.0	4	4.8	23.0
0605EB	173.0	267.0	857.0	5	4.8	23.0	173.0	267.0	857.0	5	4.8	23.0

ELECTRICAL DATA

STYLE "G" 2 COMPRESSOR POWER WIRING CONNECTIONS



LD05550

OPTIONAL SINGLE POINT POWER SUPPLY CONNECTION – 2 COMPRESSOR UNITS

One Field Provided Power Supply Circuit to the chiller. Field Connection to Power Terminal Block or Disconnect Switch in the 'Option Panel'.
No Internal System Circuit Breaker Protection per Motor Control Center[10].

CHILLER MODEL YCAS	FIELD-SUPPLIED WIRING					
	FIELD PROVIDED POWER SUPPLY				FACTORY PROVIDED (LUGS) WIRE RANGE [7]	
	MCA[1]	MIN NF DISC SW [2, 9]	OVER-CURRENT PROTECTION[13] MIN.[3, 5]	MAX.[4, 6]	STANDARD TERMINAL BLOCK	OPTIONAL NF DISC. SWITCH
0295EB	227	250	250	250	2/0-500	# 6 - 350
0335EB	272	400	300	350	2/0-500	(2) 3/0-250
0375EB	317	400	350	400	(2) # 2 - 300	(2) 3/0-250
0425EB	304	400	350	350	(2) # 2 - 300	(2) 3/0-250
0475EB	356	400	400	450	(2) # 1 - 500	(3) 2/0-400
0515EB	409	400	450	500	(2) # 2 - 300	(2) 3/0-250
0555EB	459	600	500	600	(2) # 1 - 500	(3) 2/0-400
0575EB	509	600	600	600	(2) # 1 - 500	(3) 2/0-400
0605EB	481	600	500	600	(2) # 1 - 500	(3) 2/0-400

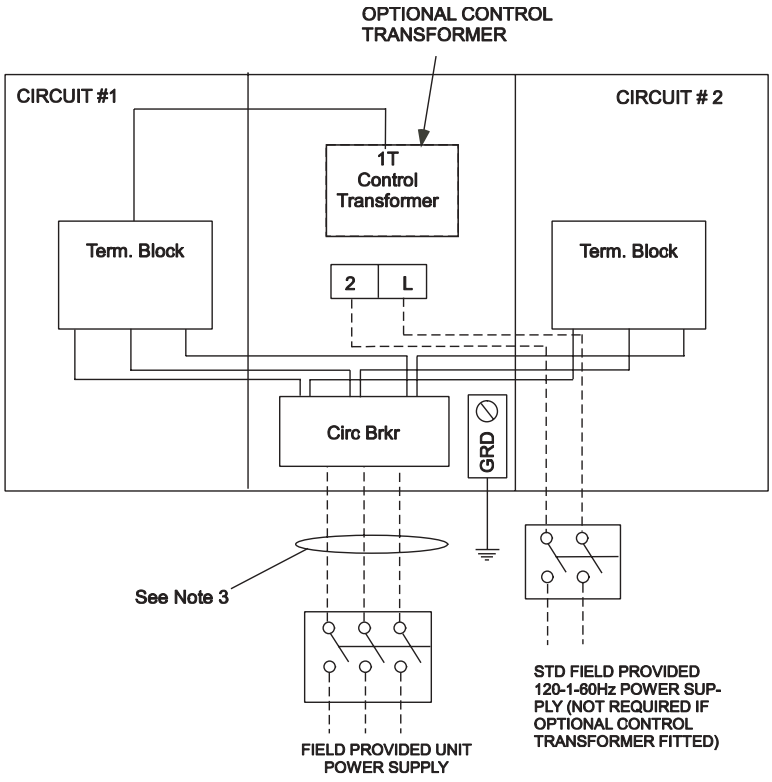
Option *NOT* available for units with CE mark.

See page 4 for Electrical Data footnotes.

ELECTRICAL DATA

CHILLER MODEL YCAS	SYSTEM #1					SYSTEM #2				
	COMPRESSOR DATA		FAN DATA[11, 12]			COMPRESSOR DATA		FAN DATA[11,12]		
	RLA	X-LRA	QTY	FLA (EA.)	LRA (EA)	RLA	X-LRA	QTY	FLA (EA)	LRA (EA)
0295EB	79	552	3	4.8	23.0	79	552	3	4.8	23.0
0335EB	115	690	3	4.8	23.0	79	552	3	4.8	23.0
0375EB	115	690	3	4.8	23.0	115	690	3	4.8	23.0
0425EB	106	690	4	4.8	23.0	106	690	4	4.8	23.0
0475EB	148	857	4	4.8	23.0	106	690	4	4.8	23.0
0515EB	148	857	4	4.8	23.0	148	857	4	4.8	23.0
0555EB	188	857	4	4.8	23.0	148	857	4	4.8	23.0
0575EB	188	857	4	4.8	23.0	188	857	4	4.8	23.0
0605EB	173	857	5	4.8	23.0	173	857	5	4.8	23.0

ELECTRICAL DATA (CONT'D)



LD05551

OPTIONAL SINGLE POINT POWER SUPPLY CONNECTION TO FACTORY CIRCUIT BREAKER – 2 COMPRESSOR UNITS

One Field Provided Power Supply Circuit to the chiller. Field connection to Circuit Breaker in "Option Panel".
No internal System Circuit Breaker Protection per Motor Control Center[10].

CHILLER MODEL YCAS	FIELD SUPPLIED WIRING			SYSTEM #1					SYSTEM #2				
	MRA[1]	FACTORY SUPPLIED BREAKER		COMPRESSOR		FANS [11, 12]			COMPRESSOR		FANS [11, 12]		
		RATING[5,6]	WIRE RANGE[7] (LUGS)	RLA	X-LRA	QTY	FLA (EA)	FLA (EA)	RLA	X-LRA	QTY	FLA (EA)	LRA (EA)
0295EB	227	250	# 6 - 350	79.0	552.0	3	4.8	23.0	79	552.0	3	4.8	23.0
0335EB	272	400	(2) 3/0-250	115.0	690.0	3	4.8	23.0	79	552.0	3	4.8	23.0
0375EB	317	450	(2) 3/0-250	115.0	690.0	3	4.8	23.0	115	690.0	3	4.8	23.0
0425EB	304	500	(2) 3/0-250	106.0	690.0	4	4.8	23.0	106	690.0	4	4.8	23.0
0475EB	356	600	(3) 2/0-400	148.0	857.0	4	4.8	23.0	106	690.0	4	4.8	23.0
0515EB	409	500	(2) 3/0-250	148.0	857.0	4	4.8	23.0	148	857.0	4	4.8	23.0
0555EB	459	600	(3) 2/0-400	188.0	857.0	4	4.8	23.0	148	857.0	4	4.8	23.0
0575EB	509	700	(3) 2/0-400	188.0	857.0	4	4.8	23.0	188	857.0	4	4.8	23.0
0605EB	481	600	(3) 2/0-400	173.0	857.0	5	4.8	23.0	173	857.0	5	4.8	23.0

Option *NOT* available for units with CE mark.

See page 4 for Electrical Data footnotes.

ELECTRICAL DATA (CONT'D)

COMPRESSOR DATA

MAXIMUM kW AND AMPERAGE VALUES FOR DXST COMPRESSORS			
	COMPRESSOR MODEL AND VOLTAGE CODE		
	DXS45LA – MOTOR CODE A (B5N, B5E, B6N, B6E)	DXS36LA – MOTOR CODE A (A5N, A5E, A6N, A6E)	DXS24LA – MOTOR CODE (TBD) (C5N, C5E, C6N, C6E)
VOLTAGE CODE-	-50	-50	-50
MAX kW	113	113	80
MAX AMPS	193	193	135

CONTROL POWER SUPPLY (UNITS WITHOUT STANDARD CONTROL CIRCUIT TRANSFORMERS)

NO. OF COMPRESSORS	CONTROL POWER SUPPLY	MCA (MAX LOAD CURRENT)	MAX DUAL ELEMENT FUSE SIZE	NON-FUSED DISCONNECT SWITCH SIZE
2	115V-1Ø	20A	20A	30A

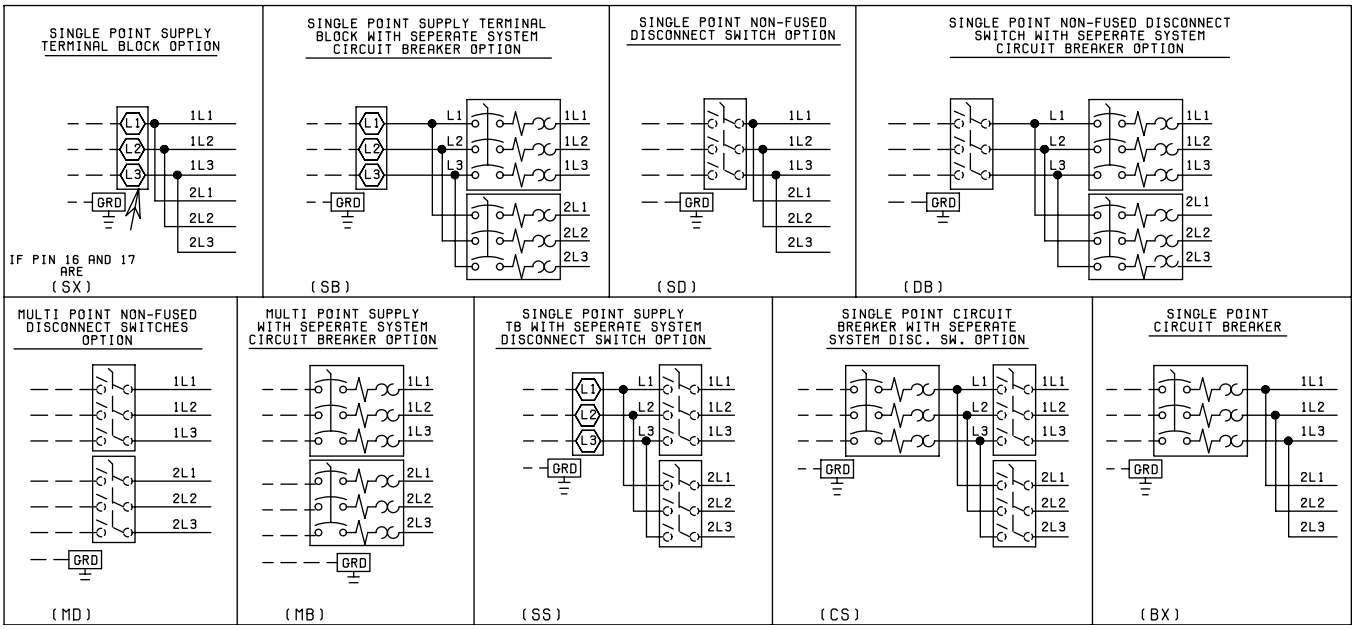
CONTROL POWER SUPPLY (UNITS WITH STANDARD CONTROL CIRCUIT TRANSFORMERS)

NO. OF COMPRESSORS	CONTROL POWER SUPPLY	MCA (MAX LOAD CURRENT)	RECOMMENDED DUAL ELEMENT FUSE SIZE	NON-FUSED DISCONNECT SWITCH SIZE
2	400V - 50Hz	6.3A	15A	——

WIRING DIAGRAM
ACROSS-THE-LINE START

OPTIONAL EQUIPMENT SEE NOTE 7.

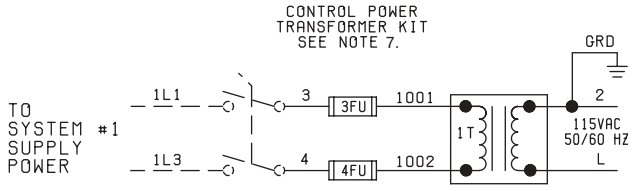
035 15164 103
REV F



NOTES:

LD09231

1. Field wiring to be in accordance with the current edition of the National Electrical Code as well as all other applicable codes and specifications.
2. Numbers along the right side of a diagram are line identification numbers. The numbers at each line indicate the line number location of relay contacts. An unlined contact location signifies a normally closed contact. Numbers adjacent to circuit lines are the circuit identification numbers.
3. Any customer supplied contacts must be suitable for switching 24VDC. (Gold contacts recommended.) Control Wiring must not be run in the same conduit with any line voltage wiring.
4. To cycle unit on and off automatically with contact shown, install a cycling device in series with the flow switch (FSLW). See Note 3 for contact rating and wiring specifications. Also refer to cautions on page 17.
5. To stop unit (Emergency Stop) with contacts other than those shown, install the stop contact between 5 and 1. If a stop device is not installed, a jumper must be connected between terminals 5 and 1. Device must have a minimum contact rating of 100VA at 115 volts A.C.
6. Alarm contacts are for annunciating alarm/unit malfunction. Contacts are rated at 115V, 100VA, resistive load only, and must be suppressed at load by user.
7. See Installation, Operation and Maintenance Manual when optional equipment is used.
8. Control panel to be securely connected to earth ground.
9. Use 2KVA transformer in optional transformer kit unless there are optional oil separator sump heaters which necessitates using a 3KVA transformer.



LD09232

LEGEND

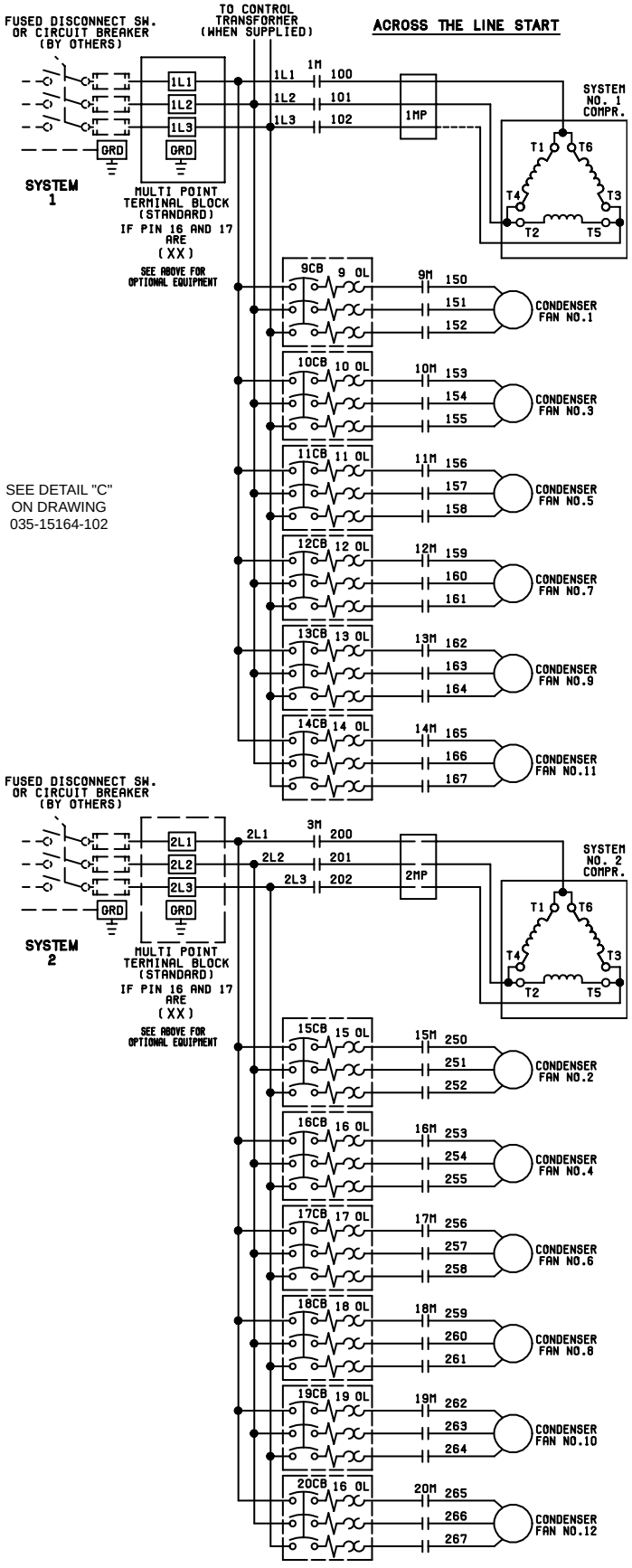
T S	Transient Voltage Suppression
⬡	Terminal Block for Customer Connections
△	Terminal Block for Customer Low Voltage (Class 2) Connections. See Note 2
▭	Terminal Block for YORK Connections Only
———	Wiring and Components by YORK
— - - —	Optional Equipment
—— ——	Wiring and/or Components by Others

FIG. 1 – WIRING DIAGRAM – ACROSS-THE-LINE START

WIRING DIAGRAM (CONT'D)

ACROSS-THE-LINE START

035 15164 103
REV F



LD09233

FIG. 2 – WIRING DIAGRAM – ACROSS-THE-LINE START

ELEMENTARY DIAGRAM

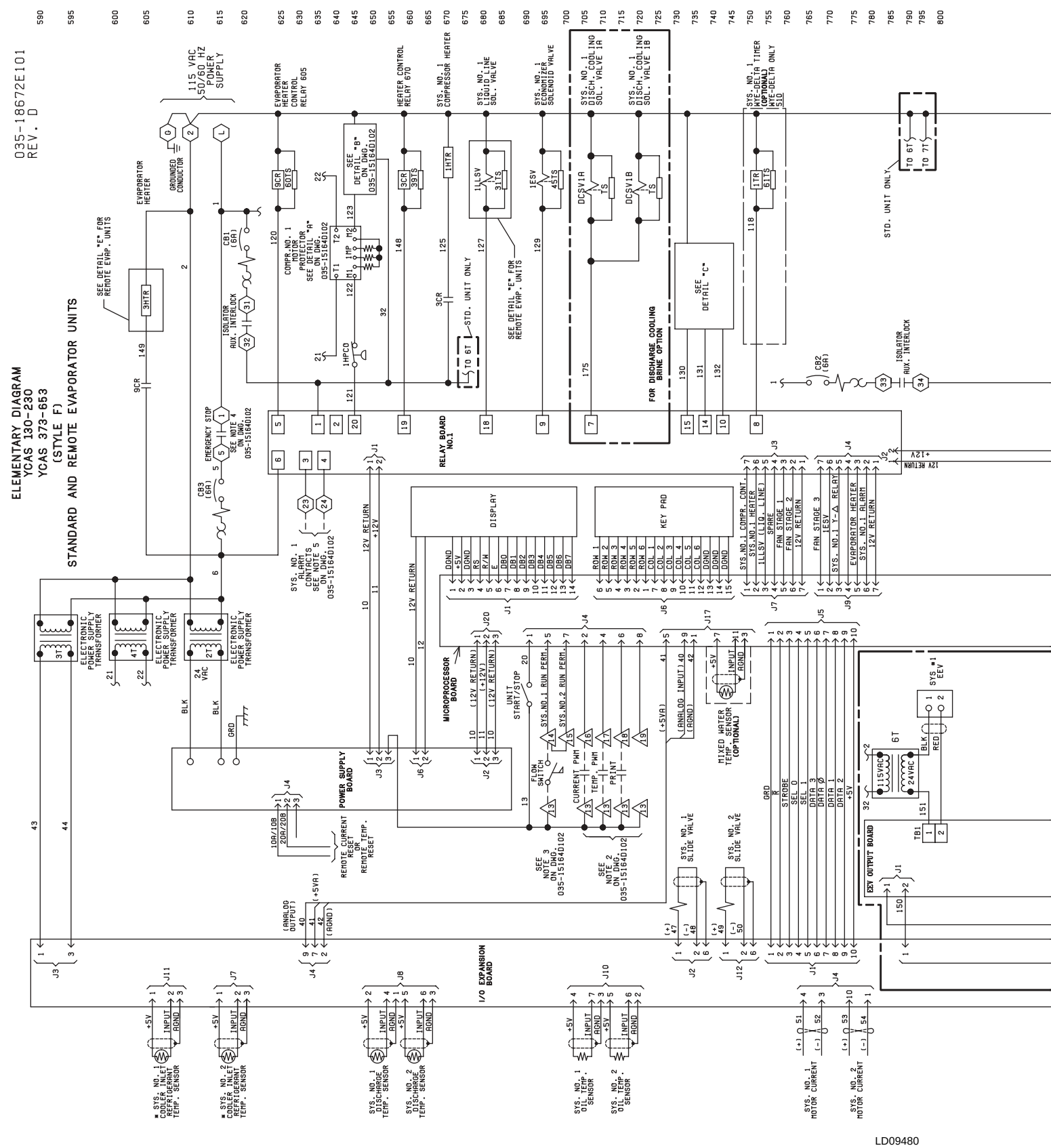
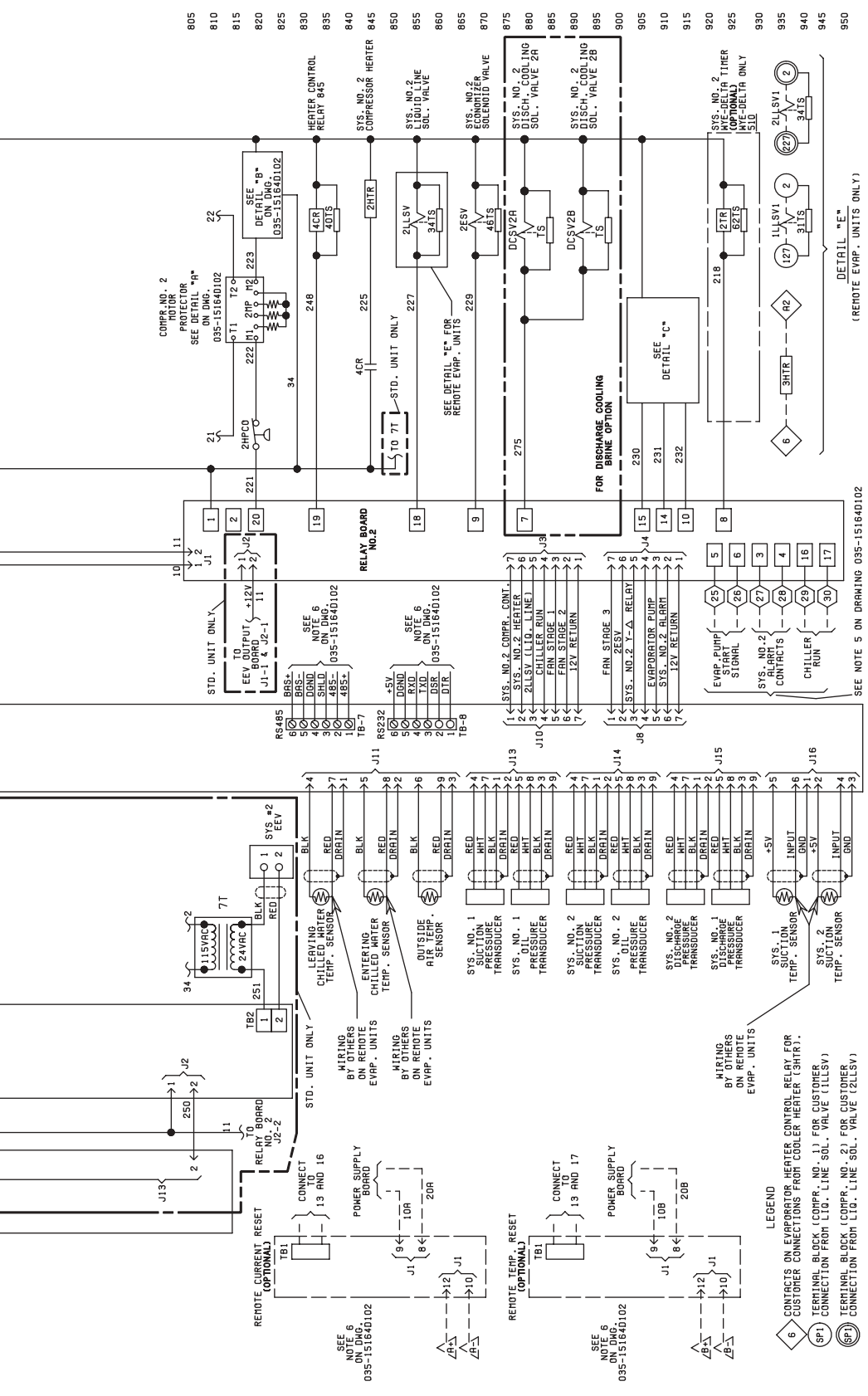


FIG. 3 – ELEMENTARY DIAGRAM – ACROSS-THE-LINE START

ELEMENTARY DIAGRAM (CONT'D)



LD09481

CAUTION:

No Controls (relays, etc.) should be mounted in the Smart Panel enclosure or connected to power supplies in the control panel. Additionally, control wiring not connected to the Smart Panel should not be run through the cabinet. This could result in nuisance faults.

CAUTION:

Any inductive devices (relays) wired in series with the flow switch for start/stop, into the Alarm circuitry, or pilot relays for pump starters wired through motor contactor auxiliary contacts must be suppressed with YORK P/N 031-00808-000 suppressor across the relay/ contactor coil.

Any contacts connected to flow switch inputs or BAS inputs on terminals 13 - 19 or TB3, or any other terminals, must be suppressed with a YORK P/N 031-00808-000 suppressor across the relay/contactor coil.

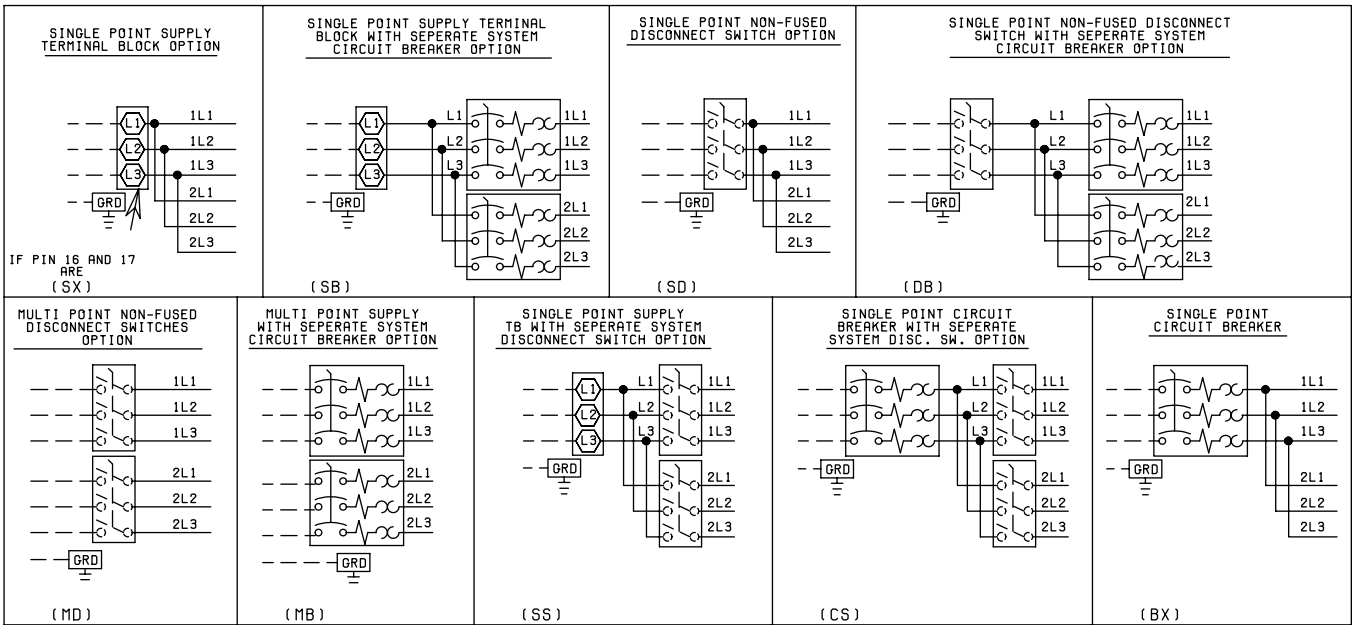
CAUTION:

Control wiring connected to the control panel should never be run in the same conduit with power wiring.

WIRING DIAGRAM
WYE-DELTA START

OPTIONAL EQUIPMENT SEE NOTE 7.

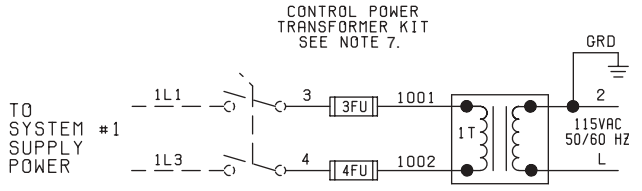
035 15164 103
REV F



NOTES:

LD09231

1. Field wiring to be in accordance with the current edition of the National Electrical Code as well as all other applicable codes and specifications.
2. Numbers along the right side of a diagram are line identification numbers. The numbers at each line indicate the line number location of relay contacts. An unlined contact location signifies a normally closed contact. Numbers adjacent to circuit lines are the circuit identification numbers.
3. Any customer supplied contacts must be suitable for switching 24VDC. (Gold contacts recommended.) Control Wiring must not be run in the same conduit with any line voltage wiring.
4. To cycle unit on and off automatically with contact shown, install a cycling device in series with the flow switch (FSLW). See Note 3 for contact rating and wiring specifications. Also refer to cautions on page 21.
5. To stop unit (Emergency Stop) with contacts other than those shown, install the stop contact between 5 and 1. If a stop device is not installed, a jumper must be connected between terminals 5 and 1. Device must have a minimum contact rating of 100VA at 115 volts A.C.
6. Alarm contacts are for annunciating alarm/unit malfunction. Contacts are rated at 115V, 100VA, resistive load only, and must be suppressed at load by user.
7. See Installation, Operation and Maintenance Manual when optional equipment is used.
8. Control panel to be securely connected to earth ground.



LD09232

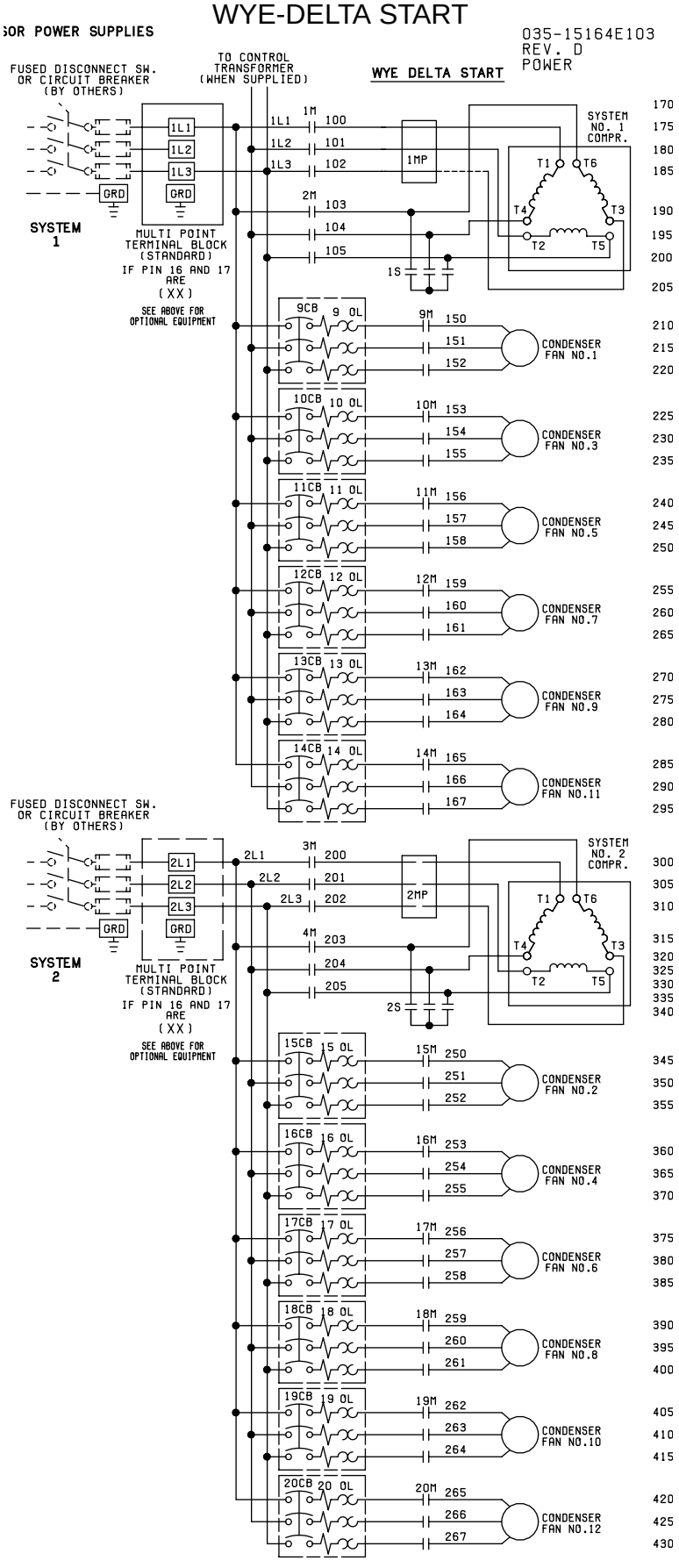
LEGEND

T S	Transient Voltage Suppression
⬡	Terminal Block for Customer Connections
△	Terminal Block for Customer Low Voltage (Class 2) Connections. See Note 2
▭	Terminal Block for YORK Connections Only
———	Wiring and Components by YORK
— — — —	Optional Equipment
—— ——	Wiring and/or Components by Others

FIG. 4 – WIRING DIAGRAM – WYE-DELTA START

WIRING DIAGRAM (CONT'D)

WYE-DELTA START



LD09236

FIG. 5 – ELEMENTARY DIAGRAM – WYE-DELTA START

ELEMENTARY DIAGRAM

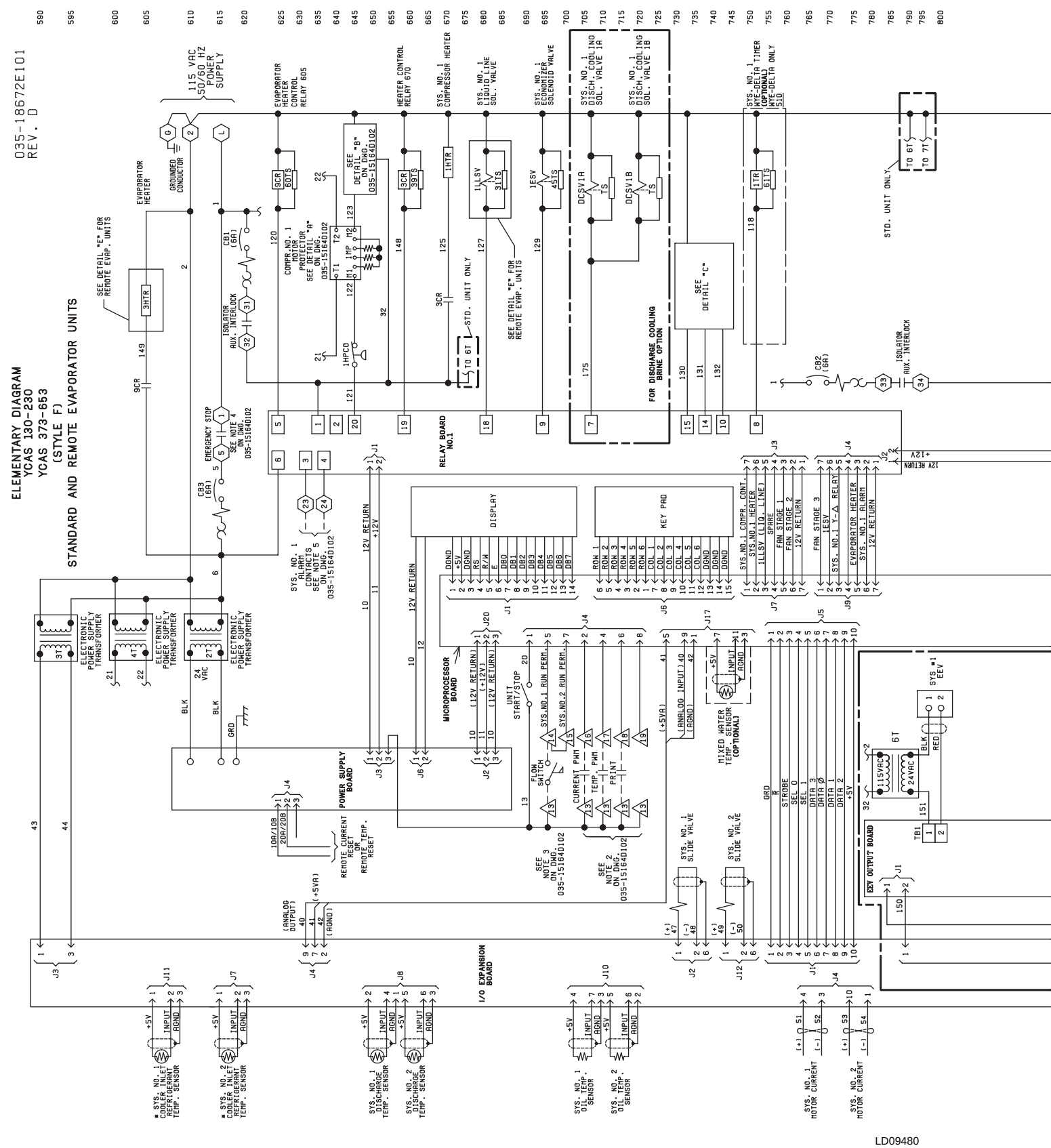
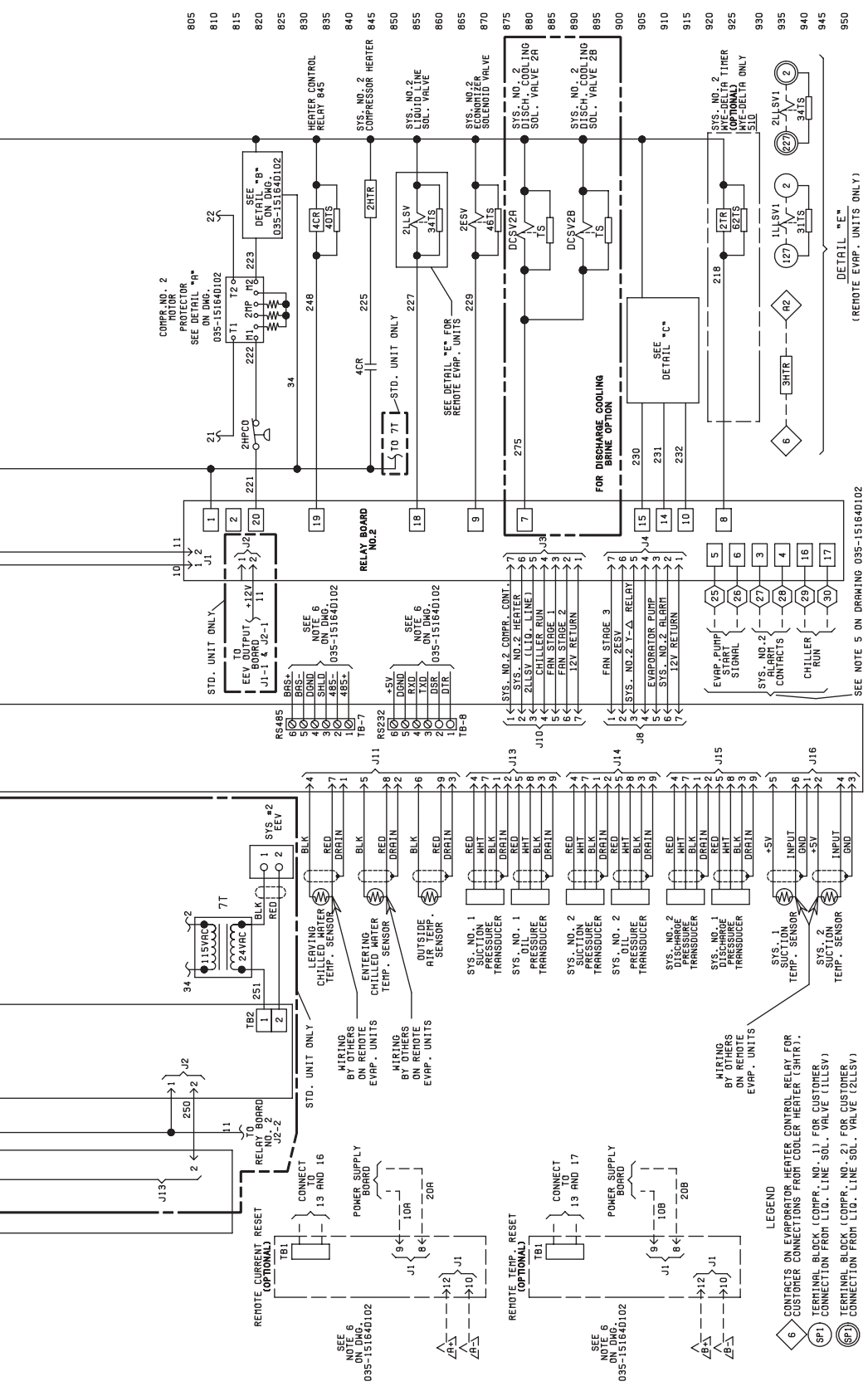


FIG. 6 – ELEMENTARY DIAGRAM – WYE-DELTA START

ELEMENTARY DIAGRAM (CONT'D)



CAUTION:

No Controls (relays, etc.) should be mounted in the Smart Panel enclosure or connected to power supplies in the control panel. Additionally, control wiring not connected to the Smart Panel should not be run through the cabinet. This could result in nuisance faults.

CAUTION:

Any inductive devices (relays) wired in series with the flow switch for start/stop, into the Alarm circuitry, or pilot relays for pump starters wired through motor contactor auxiliary contacts must be suppressed with YORK P/N 031-00808-000 suppressor across the relay/ contactor coil.

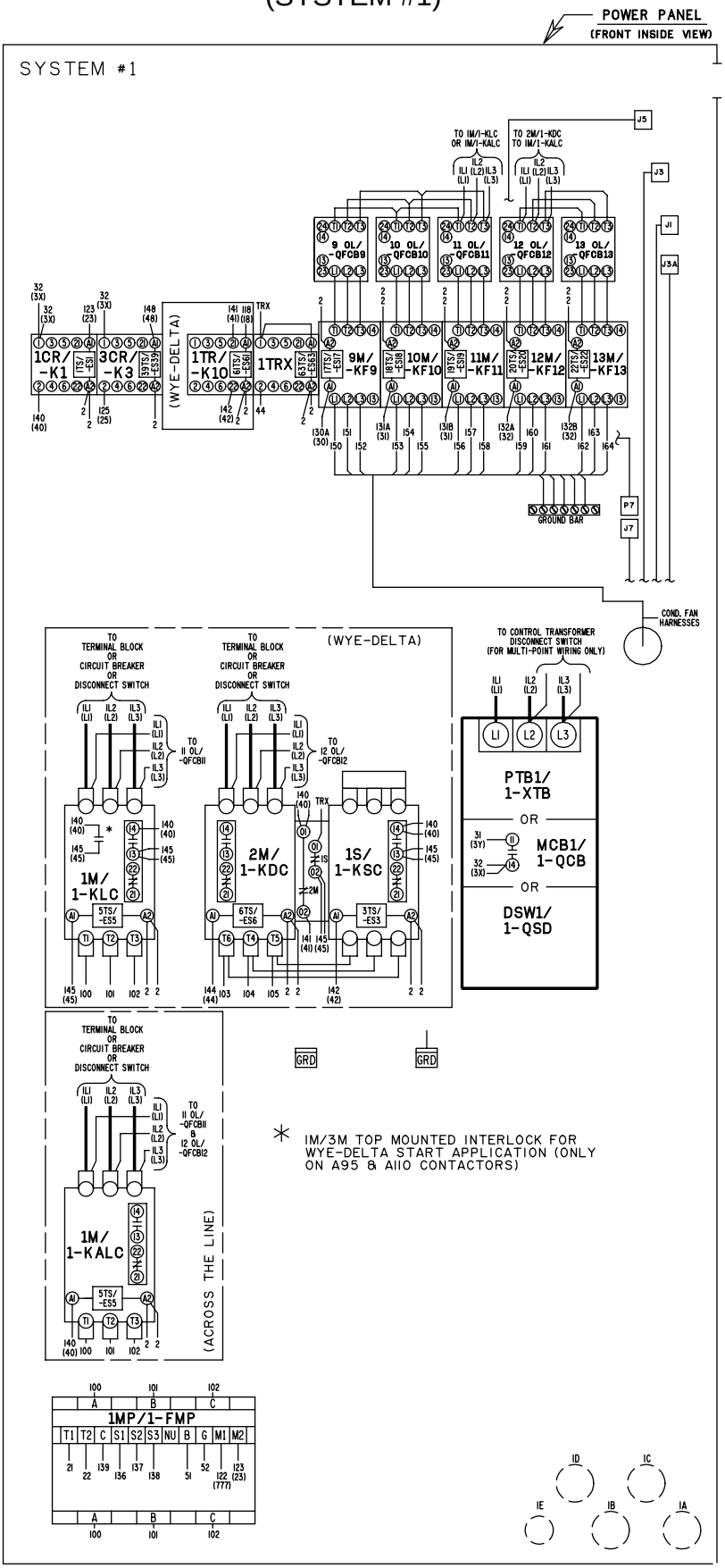
Any contacts connected to flow switch inputs or BAS inputs on terminals 13 - 19 or TB3, or any other terminals, must be suppressed with a YORK P/N 031-00808-000 suppressor across the relay/contactor coil.

CAUTION:

Control wiring connected to the control panel should never be run in the same conduit with power wiring.

POWER PANEL
(SYSTEM #1)

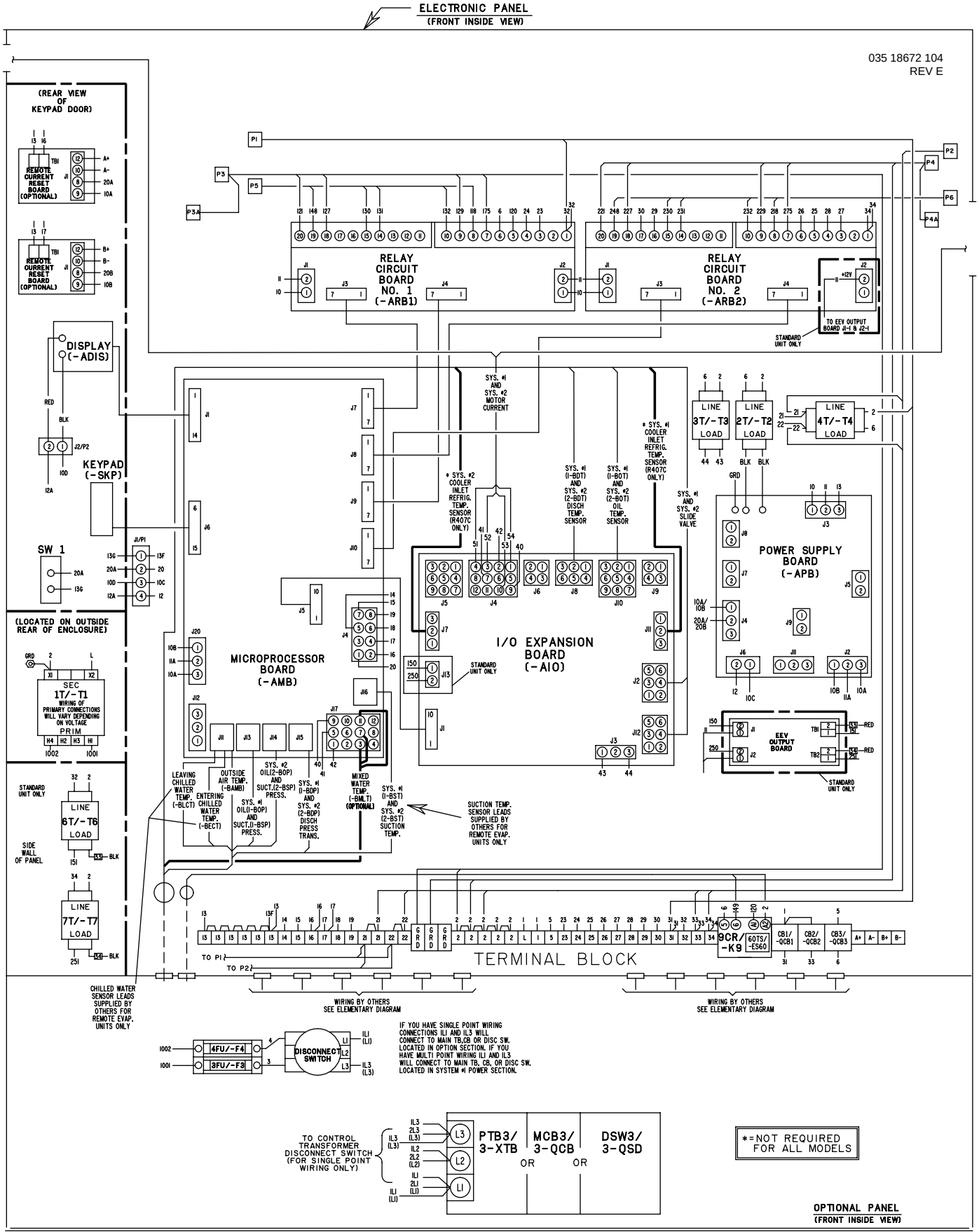
035 18672 104
REV E



LD09238

FIG. 7 – POWER PANEL (SYSTEM #1) COMPONENT LOCATIONS

CONTROL PANEL

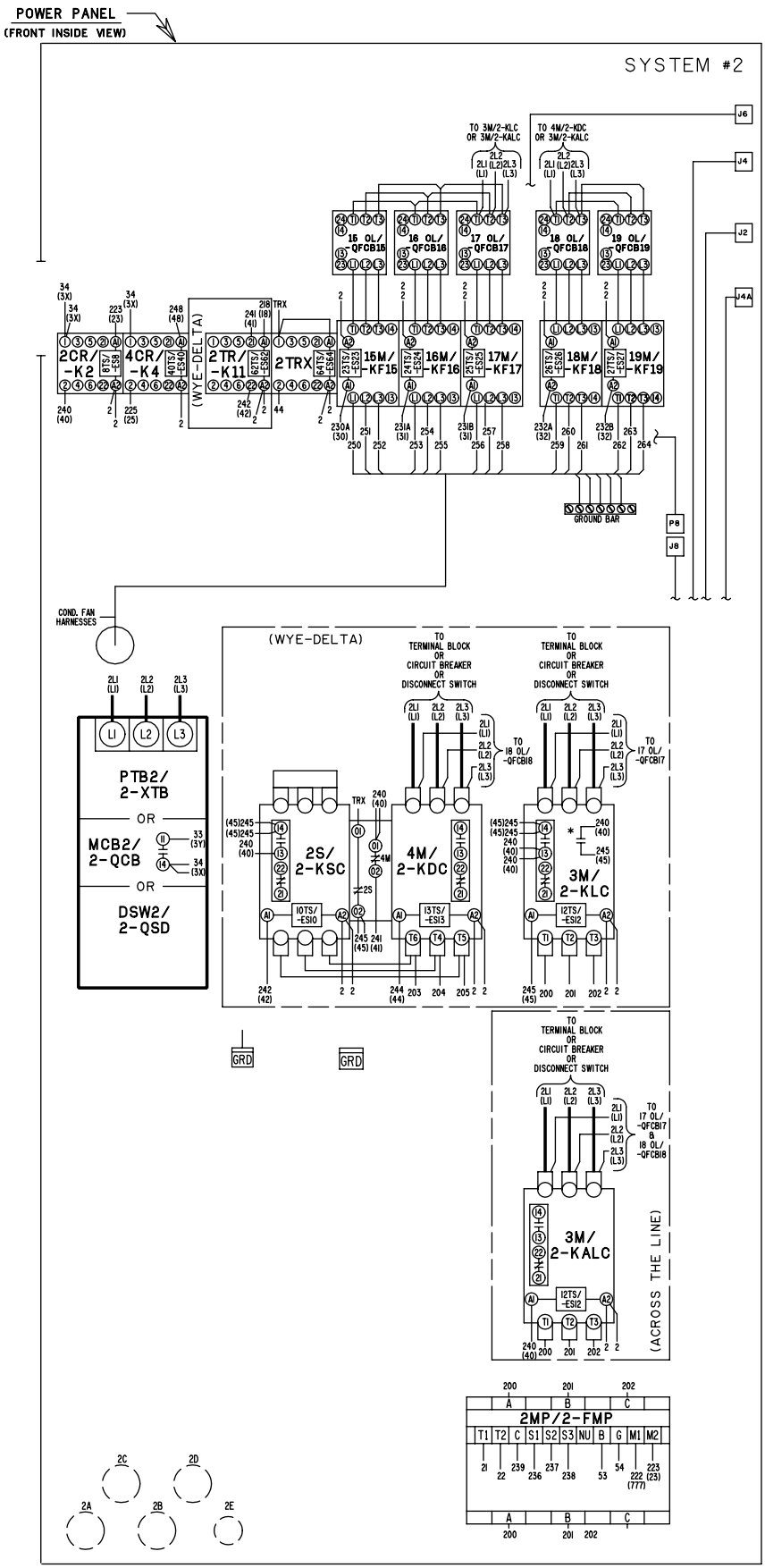


LD010026

FIG. 8 – CONTROL PANEL COMPONENT LOCATION

POWER PANEL
(SYSTEM #2)

035 18672 104
REV E



LD09240

FIG. 9 – POWER PANEL (SYSTEM #2) COMPONENT LOCATIONS

LEGEND

1CR THRU 4CR, 9CR/ -K1 THRU -K4, -K9	-CONTROL RELAYS
CB1, CB2, CB3/ -QCB1,-QBC2,-QCB3	-CIRCUIT BREAKERS
9CB THRU 13CB	-OVERLOAD CIRCUIT BREAKERS (SYS. #1)
15CB THRU 19CB	-OVERLOAD CIRCUIT BREAKERS (SYS. #2)
9 OL THRU 13 OL	-MOTOR OVERLOADS (SYS. #1)
15 OL THRU 19 OL	-MOTOR OVERLOADS (SYS. #2)
-QFCB9 THRU -QFCB13	-MOTOR OVERLOADS W/OVERLOAD CIRCUIT BREAKERS (SYS. #1)
-QFCB15 THRU -QFCB19	-MOTOR OVERLOADS W/OVERLOAD CIRCUIT BREAKERS (SYS. #2)
3FU, 4FU/ -F3, -F4	-TRANSFORMER FUSE (OPTIONAL)

LEGEND

1M, 3M/ 1-KLC OR 1-KALC,	-COMPRESSOR CONTACTORS 2-KLC OR 2-KALC
2M, 4M/ 1-KDC, 2-KDC	-COMPRESSOR CONTACTORS
1S, 2S/ 1-KSC, 2-KSC	-COMPRESSOR CONTACTORS
9M THRU 13M/ -KF9 THRU -KF13	-CONDENSER FAN CONTACTORS (SYS. #1)
15M THRU 19M/ -KF15 THRU -KF19	-CONDENSER FAN CONTACTORS (SYS. #2)
1MP/1-FMP	-MOTOR PROTECTOR (SYS. #1)
2MP/2-FMP	-MOTOR PROTECTOR (SYS. #2)
1T/-T1	-CONTROL TRANSFORMER 2KVA (OPTIONAL)

2T, 3T, 4T/ -T2, -T3, -T4	-MICRO PANEL TRANSFORMERS
1TR, 2TR/ -K10, -K11	-TIMER RELAYS
TS/-ES	-TRANSIENT SUPPRESSORS
PTB1, PTB2/ 1-XTB, 2-XTB	-POWER TERMINAL BLOCK
MCB1, MCB2/ 1-QCB, 2-QCB	-MOTOR CIRCUIT BREAKER
DSW1, DSW2/ 1-QSD, 2-QSD	-DISCONNECT SERVICE SWITCH
————	-WIRING BY YORK
— — —	-WIRING BY OTHERS
▬▬▬	-OPTIONAL WIRING AND/OR COMPONENTS

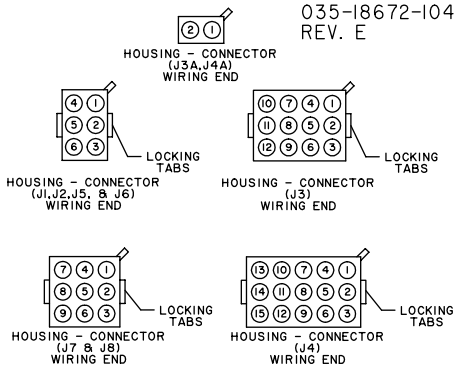
CONNECTION DIAGRAM, ELEC. BOX
YCAS 130-230
YCAS 373-653
(STYLE F)
STANDARD AND REMOTE EVAP. UNITS

035-18672-104
REV. E

J1, J2, J3, J3A, J4, J4A, —— POWER PANEL
J5, J6, J7, J8, P7 & P8

P1, P2, P3,
P4, P5, & P6 —— ELECTRONIC (MICRO) PANEL

NOTE: WIRE NUMBERS IDENTIFIED IN (PARENTHESIS) INDICATE THE ACTUAL HARNESS CODE STAMPED ON THE WIRE.



PLUG NO.	WIRE NO.	PLUG PIN NO.
P1	21	1
	2	2
	22	3
	31	4
	32	5

PLUG NO.	WIRE NO.	PLUG PIN NO.
P2	21	1
	2	2
	22	3
	33	4
	34	5

PLUG NO.	WIRE NO.	PLUG PIN NO.
P3	2	1
	GRD	2
	125(25)	4
	129	5
	127	6
	175	7
	121	11
	222(777)	12

PLUG NO.	WIRE NO.	PLUG PIN NO.
P4	2	1
	GRD	2
	225(25)	3
	227	4
	229	5
	275	7
	221	11
	222(777)	12

PLUG NO.	WIRE NO.	PLUG PIN NO.
J1	21	1
	2	2
	22	3
	3Y	4
	3X	5

PLUG NO.	WIRE NO.	PLUG PIN NO.
J2	21	1
	2	2
	22	3
	3Y	4
	3X	5

PLUG NO.	WIRE NO.	PLUG PIN NO.
J3	2	1
	GRD	2
	125A	4
	129A	5
	127A	6
	175A	7
	121A	11
	122	12

PLUG NO.	WIRE NO.	PLUG PIN NO.
J4	2	1
	GRD	2
	225A	3
	227A	4
	229A	5
	275A	7
	221A	11
	222	12

PLUG NO.	WIRE NO.	PLUG PIN NO.
P3A	125	1
	122	2

PLUG NO.	WIRE NO.	PLUG PIN NO.
J3A	25	1
	777	2

PLUG NO.	WIRE NO.	PLUG PIN NO.
P4A	225	1
	225	2

PLUG NO.	WIRE NO.	PLUG PIN NO.
J4A	25	1
	777	2

PLUG NO.	WIRE NO.	PLUG PIN NO.
P5	130	1
	131	2
	132	3
	148	4
	118	6

PLUG NO.	WIRE NO.	PLUG PIN NO.
P6	230	1
	231	2
	232	3
	248	4
	218	6

PLUG NO.	WIRE NO.	PLUG PIN NO.
J5	30	1
	31	2
	32	3
	48	4
	18	6

PLUG NO.	WIRE NO.	PLUG PIN NO.
J6	30	1
	31	2
	32	3
	48	4
	18	6

PLUG NO.	WIRE NO.	PLUG PIN NO.
P7	125	1
	2	2
	123	3
	140	4
	141	5
	142	6
	32	7
	TRX	8
	44	9

PLUG NO.	WIRE NO.	PLUG PIN NO.
P8	225	1
	2	2
	223	3
	240	4
	241	5
	242	6
	34	7
	TRX	8
	44	9

PLUG NO.	WIRE NO.	PLUG PIN NO.
J7	25	1
	2	2
	23	3
	40	4
	41	5
	42	6
	3X	7
	TRX	8
	44	9

PLUG NO.	WIRE NO.	PLUG PIN NO.
J8	25	1
	2	2
	23	3
	40	4
	41	5
	42	6
	3X	7
	TRX	8
	44	9

LD010027

NOTES:

1. FIELD WIRING TO BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE AS WELL AS ALL OTHER APPLICABLE CODES AND SPECIFICATIONS.
2. CONTACTS MUST BE SUITABLE FOR SWITCHING 24VDC, (GOLD CONTACTS RECOMMENDED). WIRING SHALL NOT BE RUN IN THE SAME CONDUIT WITH ANY LINE VOLTAGE (CLASS 1) WIRING.
3. TO CYCLE UNIT ON AND OFF AUTOMATICALLY WITH CONTACT SHOWN, INSTALL A CYCLING DEVICE IN SERIES WITH THE FLOW SWITCH. SEE NOTE 2 FOR CONTACT RATING AND WIRING SPECIFICATIONS.
4. TO STOP UNIT (EMERGENCY STOP) WITH CONTACTS OTHER THAN THOSE SHOWN, INSTALL THE STOP CONTACT BETWEEN TERMINALS 5 AND 1. IF A STOP DEVICE IS NOT INSTALLED, A JUMPER MUST BE CONNECTED BETWEEN TERMINALS 5 AND 1. DEVICE MUST HAVE A MINIMUM CONTACT RATING OF 6A AT 115VOLTS A.C.
5. CONTACTS ARE RATED AT 115V, 100VA, RESISTIVE LOAD ONLY, AND MUST BE SUPPRESSED AT LOAD BY USER.
6. SEE INSTALLATION, OPERATION AND MAINTENANCE MANUAL WHEN OPTIONAL EQUIPMENT IS USED.

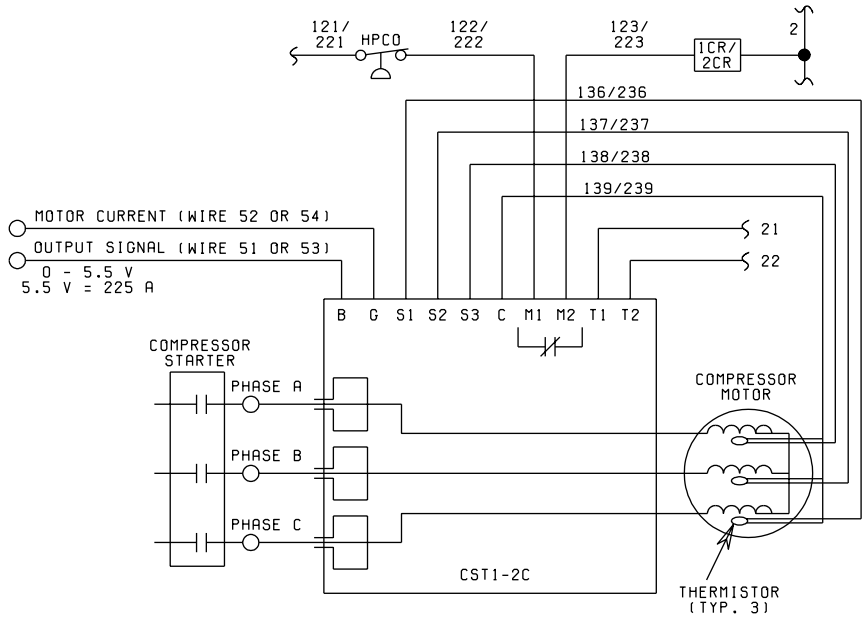
035 15164 102
REV E

LD03282

LEGEND

TS	TRANSIENT VOLTAGE SUPRESSION
⬡	TERMINAL BLOCK FOR CUSTOMER CONNECTIONS
△	TERMINAL BLOCK FOR CUSTOMER LOW VOLTAGE (CLASS 2) CONNECTIONS. SEE NOTE 2.
▭	TERMINAL BLOCK FOR YORK CONNECTIONS ONLY
———	WIRING AND COMPONENTS BY YORK
——–—–	OPTIONAL EQUIPMENT
— — — —	WIRING AND/OR COMPONENTS BY OTHERS

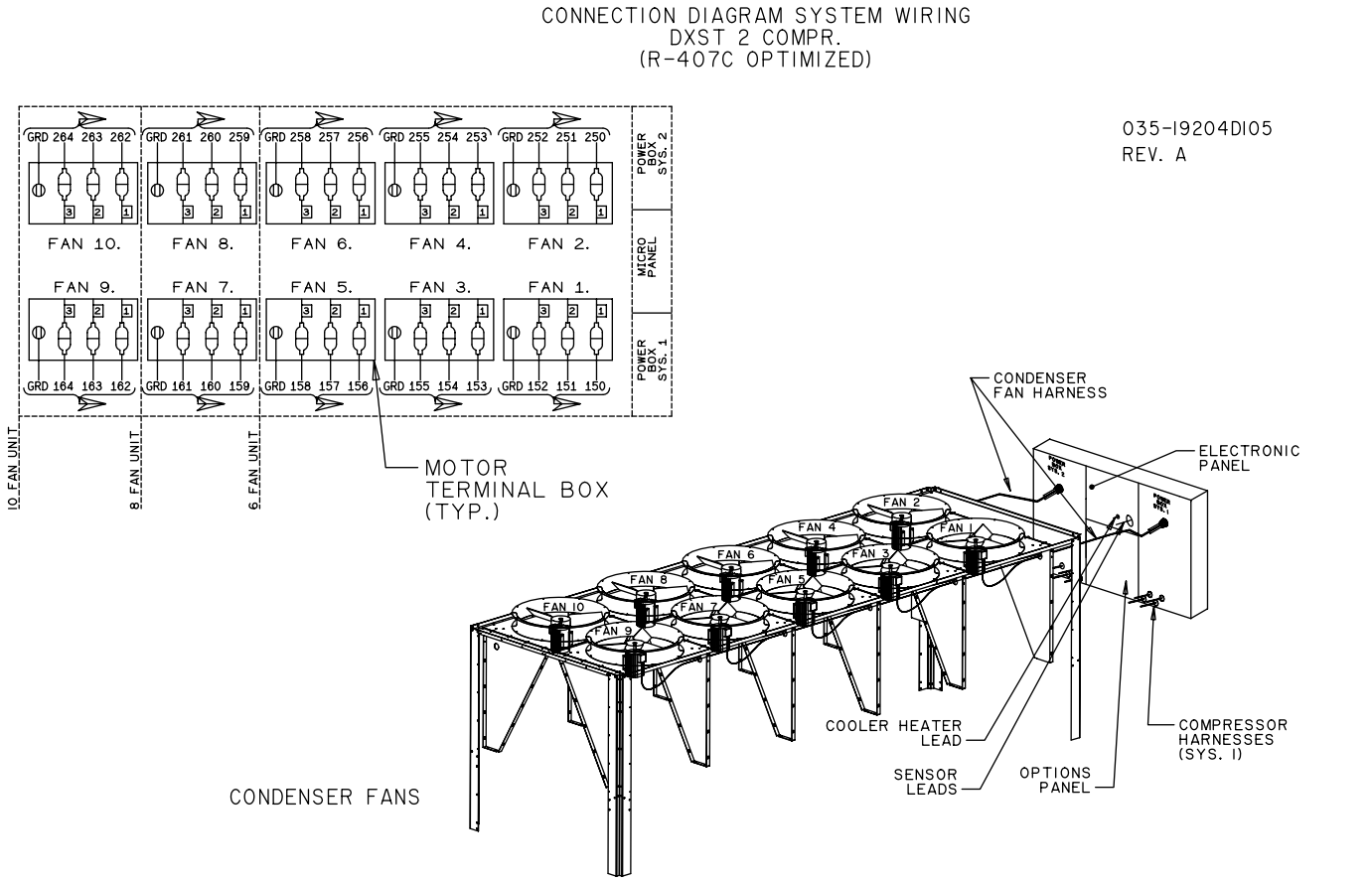
LD03283



DETAIL "A"

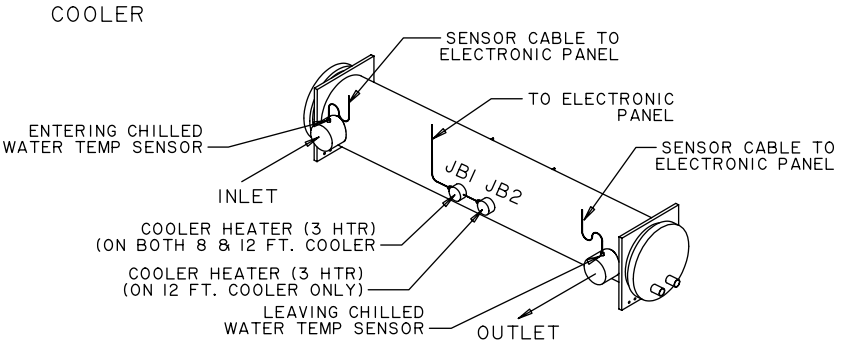
LD03284

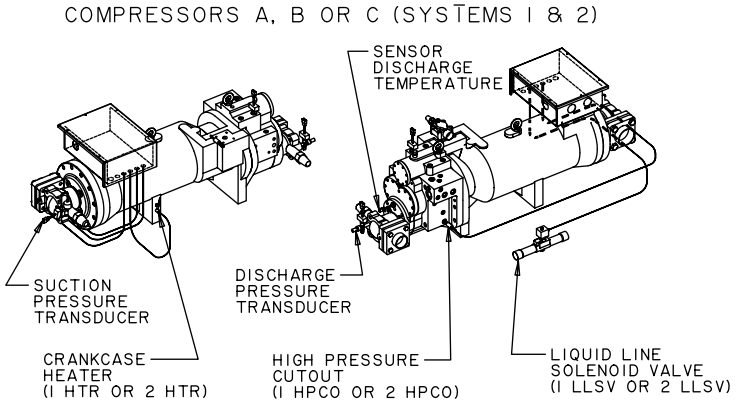
CONNECTION DIAGRAM (SYSTEM WIRING)



LEGEND

1 HPCO	SYS. No.1 HIGH PRESS. CUTOUT
2 HPCO	SYS. No.2 HIGH PRESS. CUTOUT
1 HTR	SYS. No.1 COMPR. CRANKCASE HEATER
2 HTR	SYS. No.2 COMPR. CRANKCASE HEATER
3 HTR	COOLER HEATER
1 LLSV	SYS. No.1 LIQUID LINE SOLENOID VALVE (UNIT IDENT)
2 LLSV	SYS. No.2 LIQUID LINE SOLENOID VALVE (UNIT IDENT)
TXV 1	SYS. No.1 THERMAL EXPANSION VALVE (UNIT IDENT)
TXV 2	SYS. No.2 THERMAL EXPANSION VALVE (UNIT IDENT)





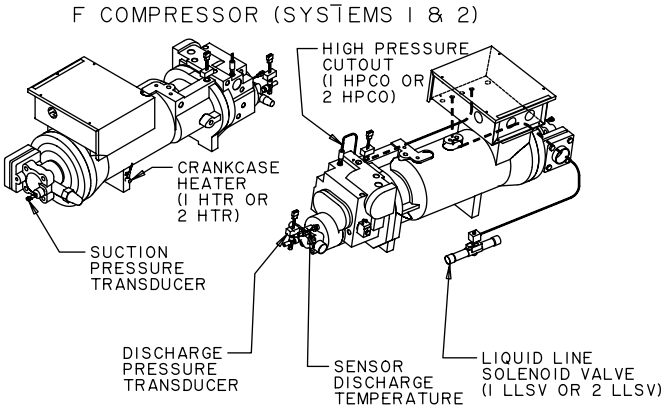


FIG. 10 – CONNECTION DIAGRAM (SYSTEM WIRING)

LD010030

COMPRESSOR TERMINAL BOX

035-I9204DI05
REV. A

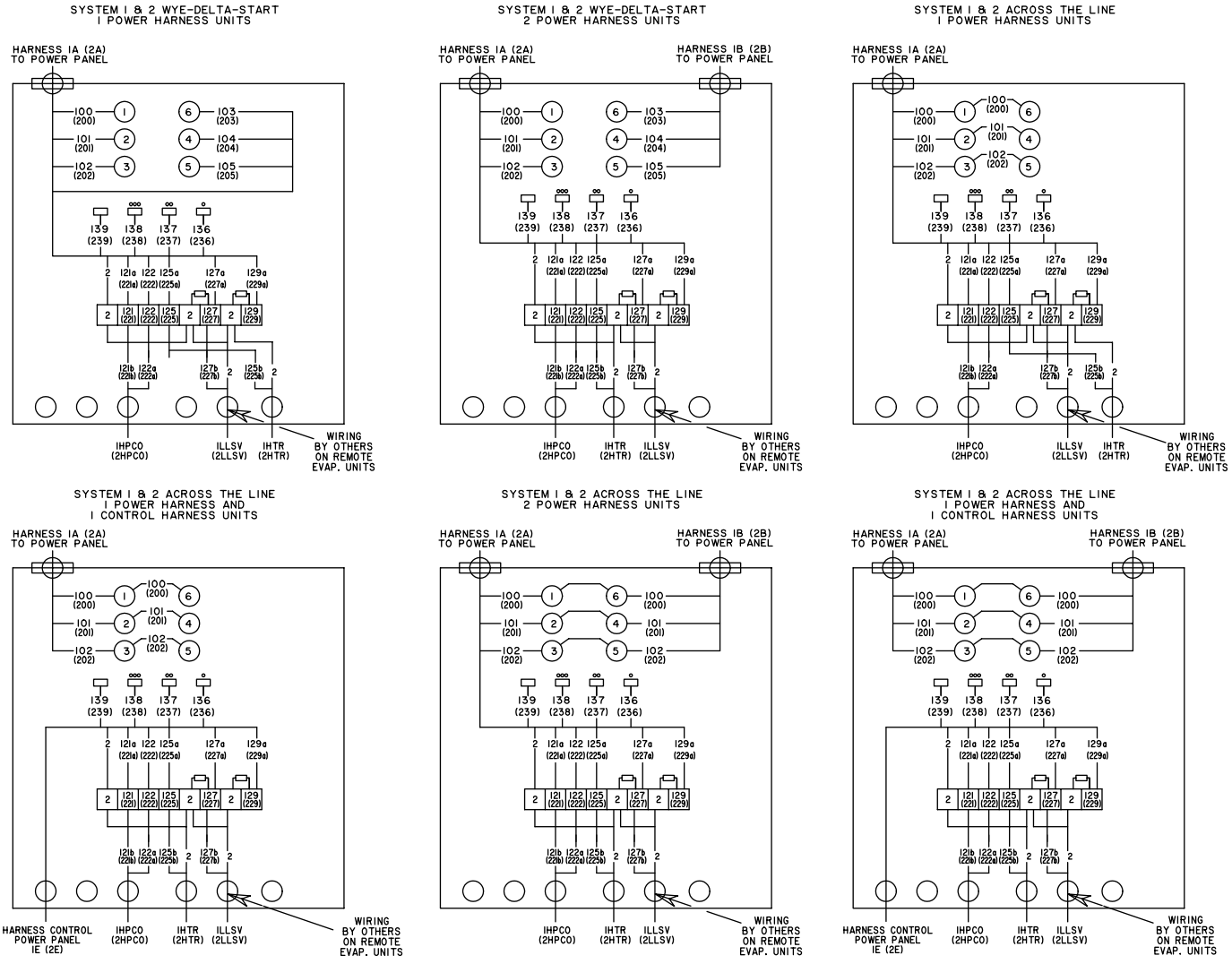
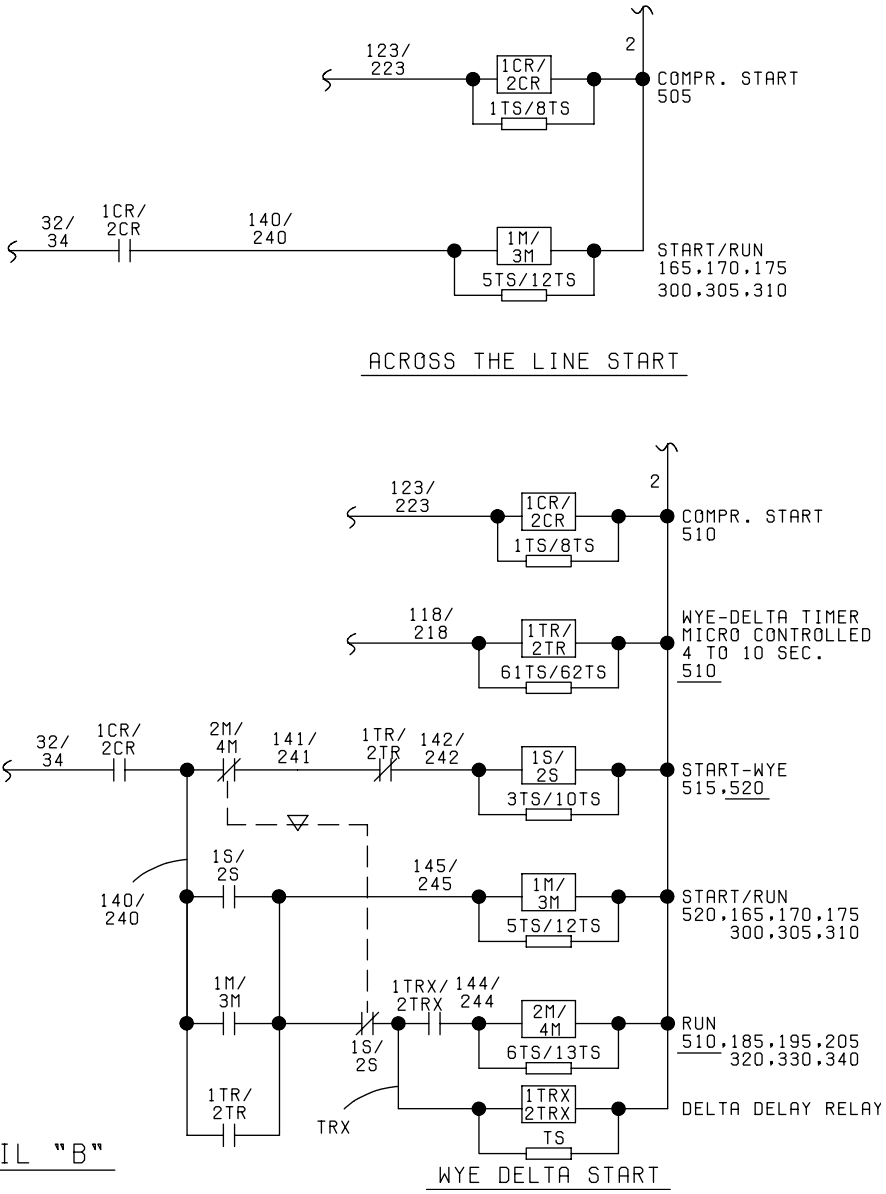


FIG. 11 – COMPRESSOR TERMINAL BOX

LD010029

ELEMENTARY DIAGRAM
STARTER CONTROL CIRCUIT

035 15164 102
REV E

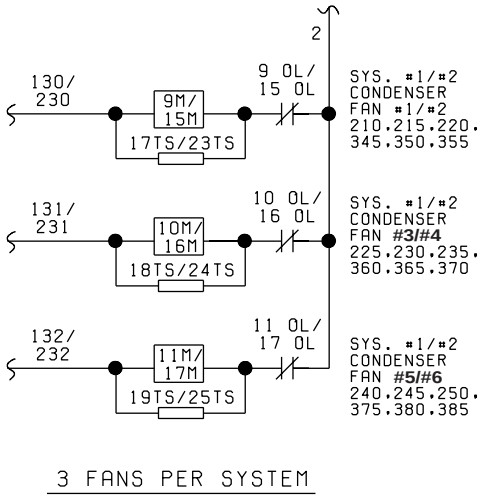


LD010028

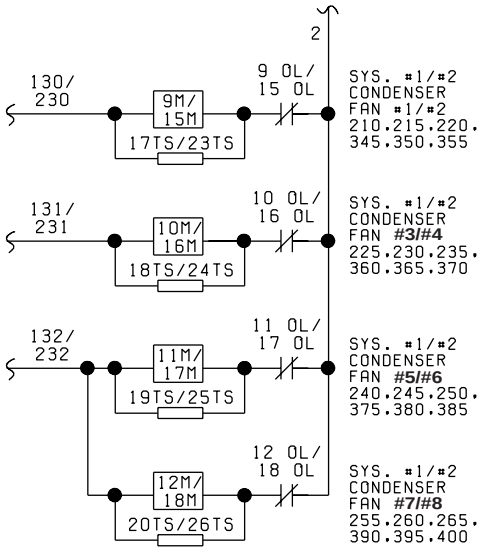
FIG. 12 – ELEMENTARY DIAGRAM STARTER CONTROL CIRCUIT

ELEMENTARY DIAGRAM
FAN CONTROL

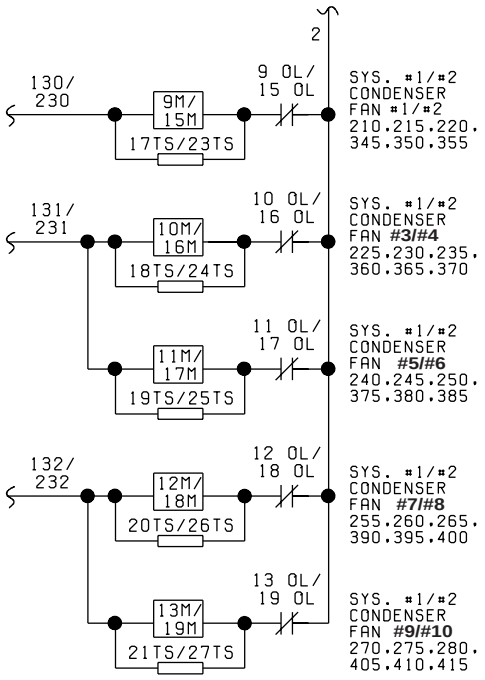
035 15164 102
REV E



3 FANS PER SYSTEM



4 FANS PER SYSTEM



5 FANS PER SYSTEM

DETAIL "C"

SEE ENGINEERING GUIDE OR INSTALLATION, OPERATION AND MAINTENANCE MANUAL FOR NUMBER OF CONDENSER FANS FOR CHILLER MODEL.

LD06840

FIG. 13 – ELEMENTARY DIAGRAM FAN CONTROL CIRCUIT

NOTES

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