



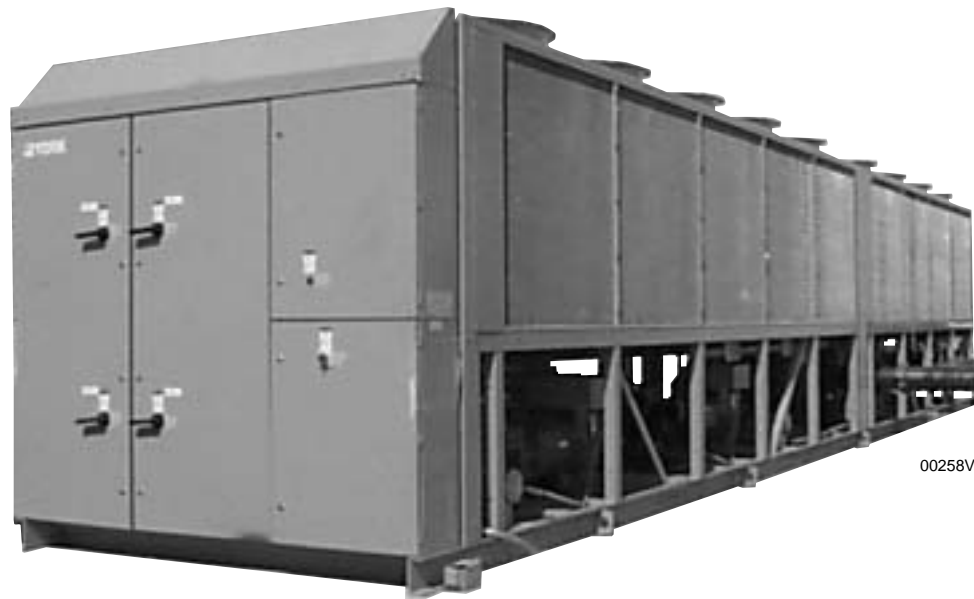
AIR-COOLED SCREW LIQUID CHILLERS

WIRING DIAGRAM

New Release

Form 201.19-W6 (1104)

YCAS AIR-COOLED LIQUID CHILLERS YCAS0218 THROUGH YCAS0328 (3 COMPRESSOR) YCAS0358 THROUGH YCAS0418 (4 COMPRESSOR) STYLE G (407C) (60 Hz)



00258VIP



200-3-60
230-3-60
380-3-60
460-3-60
575-3-60
MODELS ONLY



Metric Conversions



ALLY

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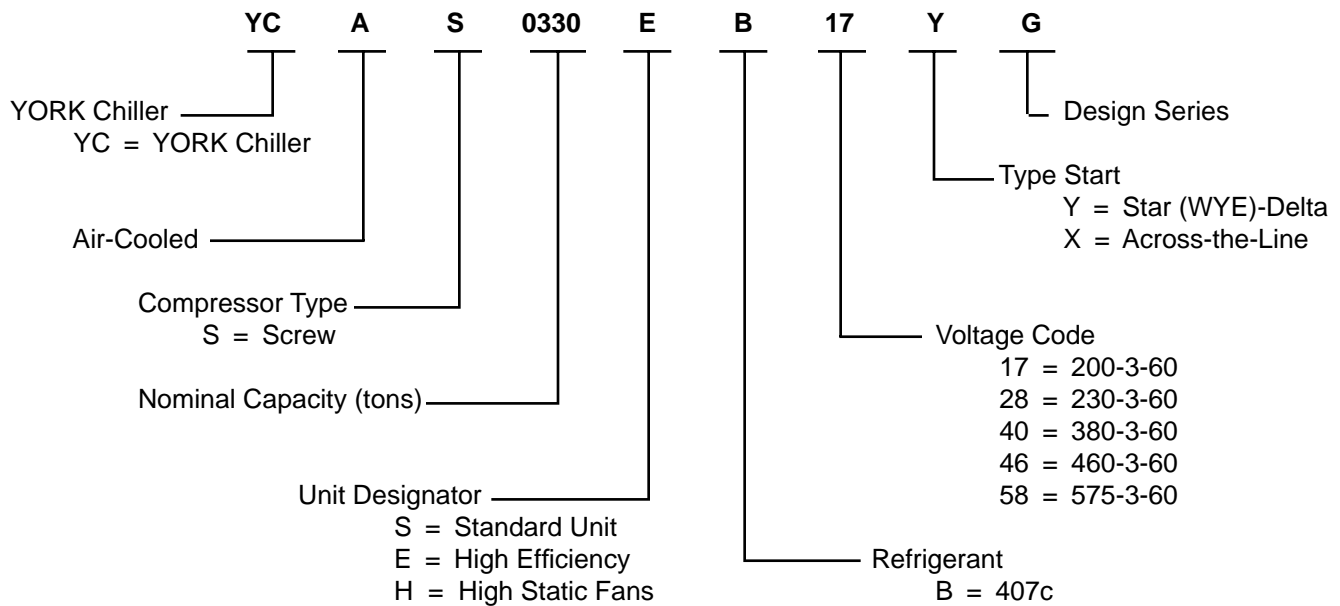
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NOMENCLATURE

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.

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ELECTRICAL NOTES

NOTES & LEGEND

LEGEND

ACR-LINE	ACROSS THE LINE START	
C.B.	CIRCUIT BREAKER	
D.E.	DUAL ELEMENT FUSE	VOLTAGE CODE
DISC SW	DISCONNECT SWITCH	-17 = 200-3-60
FACT CB	FACTORY-MOUNTED CIRCUIT BREAKER	-28 = 230-3-60
FLA	FULL LOAD AMPS	-40 = 380-3-60
HZ	HERTZ	-46 = 460-3-60
MAX	MAXIMUM	-58 = 575-3-60
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	

NOTES:

1. Minimum circuit ampacity (MCA) is based on 125% of the rated load amps for the largest motor plus 100% of the rated load amps for all other loads included in the circuit, per N.E.C. Article 430-24. If a Factory Mounted Control Transformer is provided, add the following to the system #1 MCA values in the YCAS Tables: -17, add 15 amps; -28, add 12 amps; -40, add 7 amps; -46, add 6 amps; -58, add 5 amps.
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 = $(1.5 \times \text{largest compressor RLA}) + \text{other compressor RLAs} + (\# \text{ fans} \times \text{each fan motor FLA})$.
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 = $(2.25 \times \text{largest compressor RLA}) + \text{other compressor RLAs} + (\# \text{ fans} \times \text{each fan motor FLA})$.
5. Minimum recommended circuit breaker is 150% maximum plus 100% of rated load amps included in the circuit. Minimum circuit breaker rating = $(1.5 \times \text{largest compressor RLA}) + \text{other compressor RLAs} + (\# \text{ fans} \times \text{each fan motor FLA})$.
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 = $(2.25 \times \text{largest compressor RLA}) + \text{other compressor RLAs} + (\# \text{ fans} \times \text{each fan motor FLA})$.
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 Electric Code and using **copper conductors** 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. Incoming ground wire range is #6 - 350 MCM.
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 (Wye)-Delta Compressor motor start must also include factory-provided individual system circuit breakers in each motor control center. All 3 & 4 Compressor machines equipped with Star-Delta compressor motor start must also include factory-provided individual system circuit breakers in each motor control center.
11. Consult factory for Electrical Data on units equipped with "High Static Fan" option. High Static Fans are 3.8 kW each.
12. FLA for "Low Noise Fan" motors: 200V = 8.0A, 230V = 7.8A, 380V = 4.4A, 460V = 3.6A, 575V = 2.9A.
13. Group Rated breaker must be HACR type for cU.L. Machines.

ELECTRICAL DATA

CONTROL POWER SUPPLY (UNITS WITHOUT STANDARD CONTROL CIRCUIT TRANSFORMER)

NO. OF COMPRESSORS	CONTROL POWER SUPPLY	MCA (MAX LOAD CURRENT)	MAX DUAL ELEMENT FUSE SIZE	NON-FUSED DISCONNECT SWITCH SIZE
3 or 4 (Non-CE 50/60Hz)	115V-1Ø	30A	30A	30A

CONTROL POWER SUPPLY (UNITS WITH STANDARD CONTROL CIRCUIT TRANSFORMER)

NO. OF COMPRESSORS	CONTROL POWER SUPPLY	MCA (MAX LOAD CURRENT)	RECOMMENDED DUAL ELEMENT FUSE SIZE	NON-FUSED DISCONNECT SWITCH SIZE
3 or 4	380V - 60 HZ 460V - 60 HZ 575V - 60 HZ	9.9A 8.2A 6.5A	30A 15A 15A	— — —

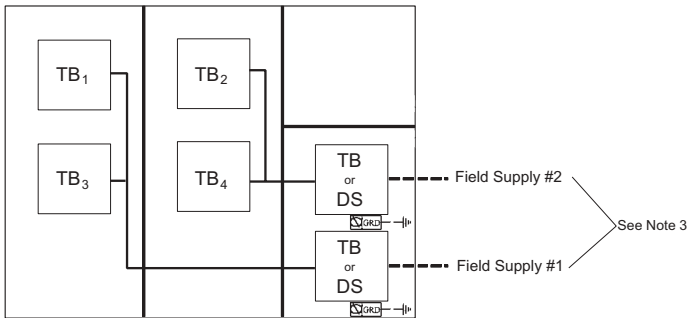
TABLE 2 – COMPRESSOR DATA

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-	-17	-28	-40	-46	-50	-58	-17	-28	-40	-46	-50	-58	-17	-28	-40	-46	-50
MAX kW	150	150	150	150	113	150	150	150	150	150	113	150	105	105	105	105	80	105
MAX AMPS	492	428	259	214	193	171	492	428	259	214	193	171	338	294	178	147	135	118

ELECTRICAL DATA

MULTIPLE POINT POWER SUPPLY CONNECTION

Suitable for:
Across-The-Line-Start



Two field provided power supply circuits to the unit. Field Power Wiring connections to factory provided, Non-Fused Disconnect Switches (Opt), or Terminal Blocks (Opt) in the Option Box.

See page 6 for notes.

LD05555

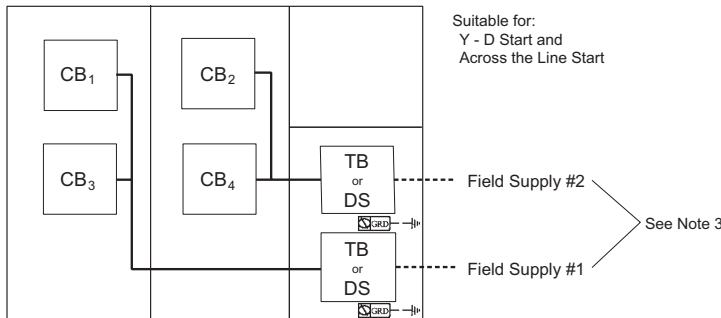
MULTIPLE POINT POWER SUPPLY CONNECTION - 3 & 4 Compressor Units

(Two Field Provided Power Supply Circuits to the Chiller. Field Connections to Factory provided Terminal Block (Std) or Disconnects (Opt) in the Options Panel.)

MODEL YCAS	VOLTS	SYSTEM #1 FIELD-SUPPLIED WIRING																
		FIELD PROVIDED POWER SUPPLY				FACTORY PROVIDED (LUGS) WIRE RANGE ⁷				COMPRESSOR #1			COMPRESSOR #3			FANS ^{11,12}		
		MCA ¹	MIN NF DISC SW ^{2,9}	OVER-CURRENT PROTECTION		STD. TERMINAL BLOCK	OPT. NF. DISC SW.	RLA	Y-D-LRA	XL-LRA	RLA	Y-D-LRA	XL-LRA	QTY	FLA (EA.)	LRA (EA.)		
				MIN ^{3,5}	MAX ^{4,6}													
0218EB	380	326	400	350	400	2/0 - 500	(2) 3/0 - 250	121	285	900	121	285	900	8	5.1	21.0		
	460	278	400	300	350	2/0 - 500	(2) 3/0 - 250	100	228	719	100	228	719	8	5.2	29.0		
	575	220	250	250	250	2/0 - 500	#6 - 350	80	182	574	80	182	574	8	3.9	25.9		
0248EB	380	441	600	500	600	(2) 1/0 - 300	(2) 250-500	121	285	900	213	343	1093	8	5.1	21.0		
	460	373	400	450	500	2/0 - 500	(2) 3/0 - 250	100	228	719	176	280	893	8	5.2	29.0		
	575	296	400	350	400	2/0 - 500	(2) 3/0 - 250	80	182	574	141	224	714	8	3.9	25.9		
0268EB	380	426	600	500	500	(2) 1/0 - 300	(2) 250-500	165	343	1093	165	343	1093	8	5.1	21.0		
	460	361	400	400	450	2/0 - 500	(2) 3/0 - 250	137	280	893	137	280	893	8	5.2	29.0		
	575	285	400	350	350	2/0 - 500	(2) 3/0 - 250	109	224	714	109	224	714	8	3.9	25.9		
0288EB	380	485	600	600	600	(2) 1/0 - 300	(2) 250-500	212	343	1093	166	343	1093	8	5.1	21.0		
	460	410	600	450	500	2/0 - 500	(2) 250-500	176	280	893	137	280	893	8	5.2	29.0		
	575	325	400	400	400	2/0 - 500	(2) 3/0 - 250	141	224	714	109	224	714	8	3.9	25.9		
0308EB	380	473	600	600	600	(2) 1/0 - 300	(2) 250-500	195	343	1093	166	343	1093	9	5.1	21.0		
	460	402	600	450	500	2/0 - 500	(2) 3/0 - 250	161	280	893	137	280	893	9	5.2	29.0		
	575	318	400	350	400	2/0 - 500	(2) 3/0 - 250	129	224	714	109	224	714	9	3.9	25.9		
0328EB	380	492	600	600	600	(2) 1/0 - 300	(2) 250-500	195	343	1093	184	343	1093	11	5.1	21.0		
	460	417	600	450	500	(2) 1/0 - 300	(2) 250-500	161	280	893	152	280	893	11	5.2	29.0		
	575	330	400	400	450	2/0 - 500	(2) 3/0 - 250	129	224	714	122	224	714	11	3.9	25.9		
0358EB	380	427	600	500	500	(2) 1/0 - 300	(2) 250-500	166	343	1093	166	343	1093	8	5.1	21.0		
	460	363	400	400	450	2/0 - 500	(2) 3/0 - 250	138	280	893	138	280	893	8	5.2	29.0		
	575	285	400	350	350	2/0 - 500	(2) 3/0 - 250	109	224	714	109	224	714	8	3.9	25.9		
0398EB	380	473	600	600	600	(2) 1/0 - 300	(2) 250-500	194	343	1093	166	343	1093	9	5.1	21.0		
	460	403	600	450	500	2/0 - 500	(2) 3/0 - 250	162	280	893	138	280	893	9	5.2	29.0		
	575	318	400	350	400	2/0 - 500	(2) 3/0 - 250	129	224	714	109	224	714	9	3.9	25.9		
0418EB	380	526	600	600	700	(2) 2/0 - 500	(2) 250-500	196	343	1093	213	343	1093	9	5.1	21.0		
	460	444	600	500	600	(2) 1/0 - 300	(2) 250-500	162	280	893	176	280	893	9	5.2	29.0		
	575	353	400	400	450	2/0 - 500	(2) 3/0 - 250	129	224	714	141	224	714	9	3.9	25.9		

ELECTRICAL DATA (CONT'D)

MULTIPLE POINT POWER SUPPLY CONNECTION WITH OPTIONAL INDIVIDUAL SYSTEM CIRCUIT BREAKERS



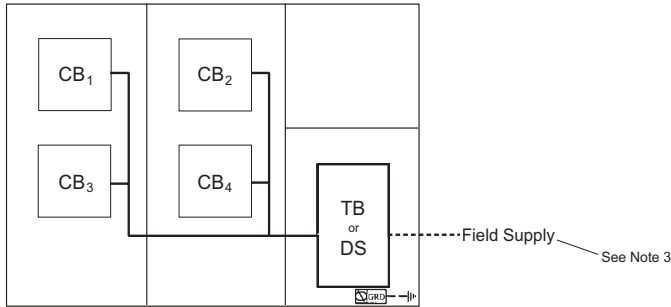
Two field provided power supply circuits to the unit with individual branch circuit protection. Field Power Wiring connections to factory provided, Non-Fused Disconnect Switches (Opt), or Terminal Blocks (Opt) in the Option Box. Factory connections to each of the Circuit Breakers in each of the two power panels.

See page 6 for notes.

MODEL YCAS	VOLTS	SYSTEM #2 FIELD-SUPPLIED WIRING														
		FIELD PROVIDED POWER SUPPLY				FACTORY PROVIDED (LUGS) WIRE RANGE ⁷		COMPRESSOR #2			COMPRESSOR #4			FANS ^{11, 12}		
		MCA ¹	MIN NF DISC SW ^{2, 9}	OVER-CURRENT PROTECTION		STD. TERMINAL BLOCK	OPT. NF. DISC SW.	RLA	Y-D-LRA	XL-LRA	RLA	Y-D-LRA	XL-LRA	QTY	FLA (EA.)	LRA (EA.)
				MIN ^{3, 5}	MAX ^{4, 6}											
0218EB	380	171	200	225	250	# 2 - 4/0	#4 - 300	121	285	900	—	—	—	4	5.1	21.0
	460	146	150	175	225	# 2 - 4/0	# 2 - 4/0	100	228	719	—	—	—	4	5.2	29.0
	575	115	150	150	175	# 2 - 4/0	# 2 - 4/0	80	182	574	—	—	—	4	3.9	25.9
0248EB	380	171	200	225	250	1/0 - 300	#6 - 350	121	285	900	—	—	—	4	5.1	21.0
	460	146	150	175	225	# 2 - 4/0	# 2 - 4/0	100	228	719	—	—	—	4	5.2	29.0
	575	115	150	150	175	# 2 - 4/0	# 2 - 4/0	80	182	574	—	—	—	4	3.9	25.9
0268EB	380	227	250	300	350	1/0 - 300	#6 - 350	165	343	1093	—	—	—	4	5.1	21.0
	460	192	200	250	300	# 2 - 4/0	#4 - 300	137	280	893	—	—	—	4	5.2	29.0
	575	152	150	200	250	# 2 - 4/0	# 2 - 4/0	109	224	714	—	—	—	4	3.9	25.9
0288EB	380	227	250	300	350	1/0 - 300	#6 - 350	166	343	1093	—	—	—	4	5.1	21.0
	460	193	200	250	300	# 2 - 4/0	#4 - 300	137	280	893	—	—	—	4	5.2	29.0
	575	152	150	200	250	# 2 - 4/0	# 2 - 4/0	109	224	714	—	—	—	4	3.9	25.9
0308EB	380	264	400	350	450	2/0 - 500	(2) 3/0 - 250	195	343	1093	—	—	—	5	5.1	21.0
	460	222	250	300	350	1/0 - 300	#4 - 300	161	280	893	—	—	—	5	5.2	29.0
	575	177	200	225	300	# 2 - 4/0	#6 - 350	129	224	714	—	—	—	5	3.9	25.9
0328EB	380	264	400	350	450	2/0 - 500	(2) 3/0 - 250	195	343	1093	—	—	—	5	5.1	21.0
	460	222	250	300	350	1/0 - 300	#4 - 300	161	280	893	—	—	—	5	5.2	29.0
	575	177	200	225	300	# 2 - 4/0	#6 - 350	129	224	714	—	—	—	5	3.9	25.9
0358EB	380	414	600	500	500	(2) 1/0 - 300	(2) 250-500	166	343	1093	166	343	1,093	8	5.1	21.0
	460	352	400	400	450	2/0 - 500	(2) 3/0 - 250	138	280	893	138	280	893	8	5.2	29.0
	575	277	400	350	350	2/0 - 500	(2) 3/0 - 250	109	224	714	109	224	714	8	3.9	25.9
0398EB	380	460	600	600	600	(2) 1/0 - 300	(2) 250-500	194	343	1093	166	343	1,093	9	5.1	21.0
	460	392	600	450	500	2/0 - 500	(2) 3/0 - 250	162	280	893	138	280	893	9	5.2	29.0
	575	309	400	350	400	2/0 - 500	(2) 3/0 - 250	129	224	714	109	224	714	9	3.9	25.9
0418EB	380	513	600	600	700	(2) 2/0 - 500	(2) 250-500	196	343	1093	213	343	1,093	9	5.1	21.0
	460	434	600	500	600	(2) 1/0 - 300	(2) 250-500	162	280	893	176	280	893	9	5.2	29.0
	575	344	400	400	450	2/0 - 500	(2) 3/0 - 250	129	224	714	141	224	714	9	3.9	25.9

ELECTRICAL DATA (CONT'D)

OPTIONAL SINGLE POINT POWER SUPPLY CONNECTION AND INDIVIDUAL SYSTEM CIRCUIT BREAKERS



Suitable for:
**Y - Δ Start and
 Across-The-Line-Start**

One field provided power supply circuits to the unit with individual branch circuit protection. Field Power Wiring connections to factory provided, Non-Fused Disconnect Switches (Opt), or Terminal Blocks (Opt) in the Option Box.

See page 6 for notes.

LD05557

OPTIONAL SINGLE-POINT POWER SUPPLY CONNECTION WITH INDIVIDUAL UNIT CIRCUIT BREAKERS 3 & 4 Compressor Units

(One Field Provided Power Supply Circuit to the chiller. Field connections to Power Terminal Block (standard) or Non-Fused Disconnect (option) in 'Option Panel'. Circuit Breakers in each Motor Control Center

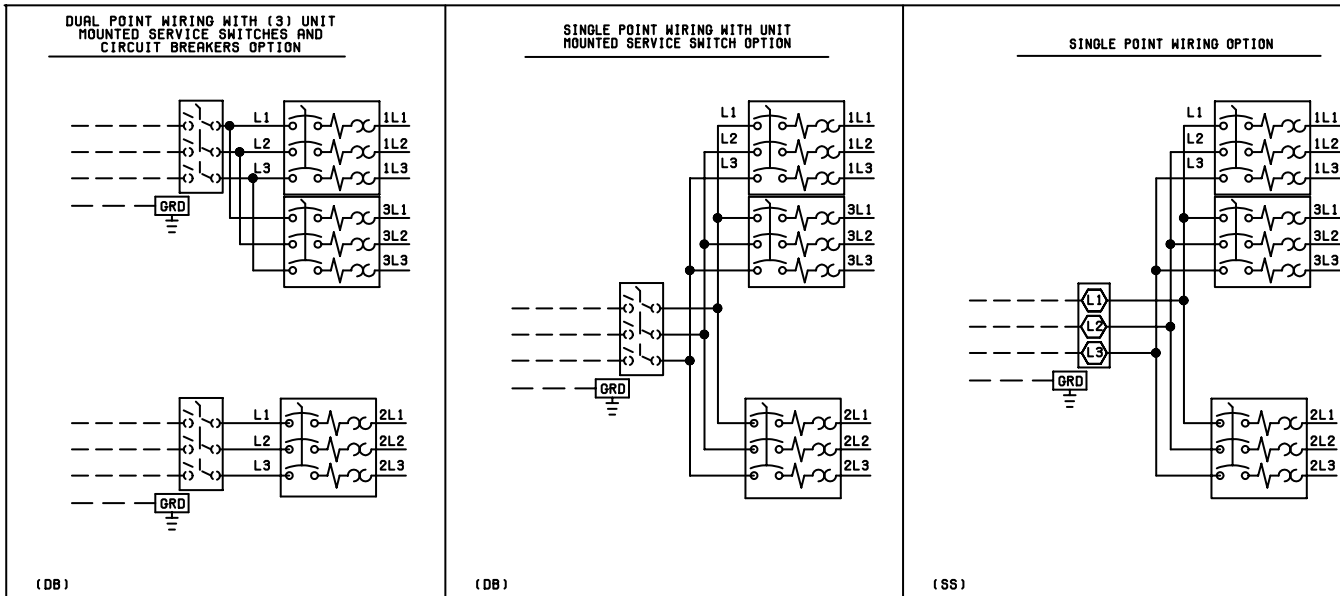
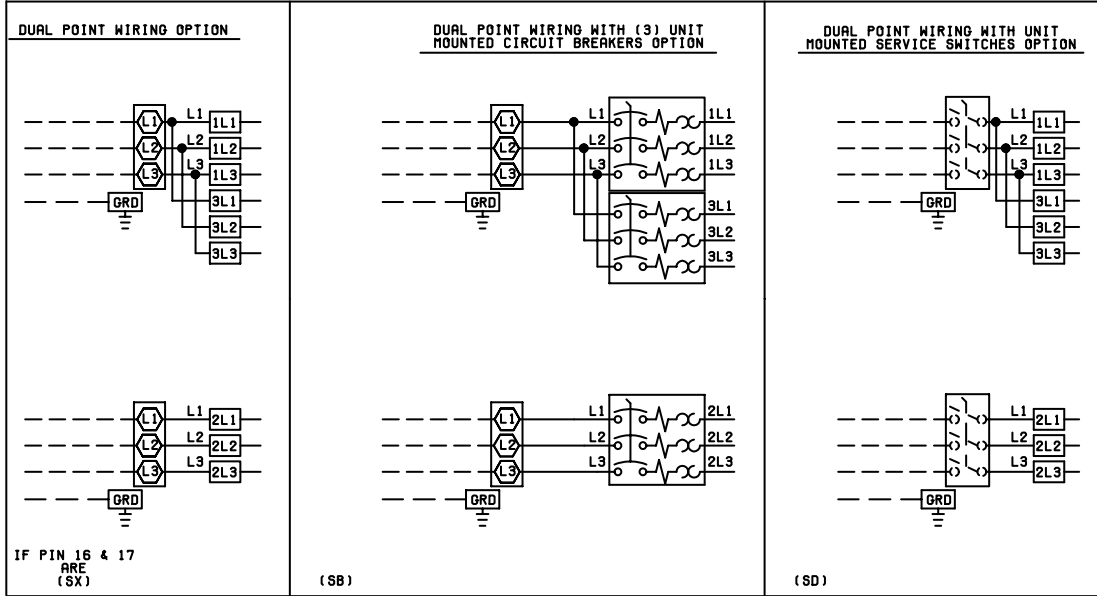
MODEL YCAS	VOLTS	SYSTEM #1 FIELD-SUPPLIED WIRING														
		FIELD PROVIDED POWER SUPPLY				FACTORY PROVIDED (LUGS) WIRE RANGE ⁷		COMPRESSOR #1			COMPRESSOR #3			FANS ^{11, 12}		
		MCA ¹	MIN NF DISC SW ^{2, 9}	OVER-CURRENT PROTECTION		STD. TERMINAL BLOCK	OPT. NF. DISC SW.	RLA	Y-D-LRA	XL-LRA	RLA	Y-D-LRA	XL-LRA	QTY	FLA (EA.)	LRA (EA.)
MIN. ^{3, 5}	MAX. ^{4, 6}															
0218EB	380	467	600	500	600	(2) 1/0 - 300	(2) 250-500	121	285	900	121	285	900	8	5.1	21.0
	460	399	600	450	500	(2) 1/0 - 300	(2) 250-500	100	228	719	100	228	719	8	5.2	29.0
	575	315	400	350	400	(2) # 2 - 4/0	(2) 3/0 - 250	80	182	574	80	182	574	8	3.9	25.9
0248EB	380	582	600	700	800	(2) 2/0 - 500	(2) 250-500	121	285	900	213	343	1093	8	5.1	21.0
	460	493	600	600	700	(2) 1/0 - 300	(2) 250-500	100	228	719	176	280	893	8	5.2	29.0
	575	391	600	450	600	(2) # 2 - 4/0	(2) 3/0 - 250	80	182	574	141	224	714	8	3.9	25.9
0268EB	380	612	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	165	343	1093	165	343	1093	8	5.1	21.0
	460	519	600	600	700	(2) 2/0 - 500	(2) 250-500	137	280	893	137	280	893	8	5.2	29.0
	575	410	600	450	500	(2) 1/0 - 300	(2) 250-500	109	224	714	109	224	714	8	3.9	25.9
0288EB	380	671	800	800	1000	(2) 2/0 - 500	(3) 2/0 - 400	212	343	1093	166	343	1093	8	5.1	21.0
	460	568	600	700	800	(2) 2/0 - 500	(2) 250-500	176	280	893	137	280	893	8	5.2	29.0
	575	450	600	500	600	(2) 1/0 - 300	(2) 250-500	141	224	714	109	224	714	8	3.9	25.9
0308EB	380	689	800	800	1000	(3) 1/0 - 300	(3) 2/0 - 400	195	343	1093	166	343	1093	9	5.1	21.0
	460	584	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	161	280	893	137	280	893	9	5.2	29.0
	575	462	600	500	600	(2) 1/0 - 300	(2) 250-500	129	224	714	109	224	714	9	3.9	25.9
0328EB	380	707	800	800	1000	(3) 1/0 - 300	(3) 2/0 - 400	195	343	1093	184	343	1093	11	5.1	21.0
	460	599	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	161	280	893	152	280	893	11	5.2	29.0
	575	475	600	500	600	(2) 1/0 - 300	(2) 250-500	129	224	714	122	224	714	11	3.9	25.9
0358EB	380	799	1000	1000	1000	(3) 2/0 - 500	(4) 250-500	166	343	1093	166	343	1093	8	5.1	21.0
	460	680	800	800	1000	(2) 2/0 - 500	(3) 2/0 - 400	138	280	893	138	280	893	8	5.2	29.0
	575	535	600	600	700	(2) 2/0 - 500	(3) 2/0 - 400	109	224	714	109	224	714	8	3.9	25.9
0398EB	380	884	1000	1000	1200	(3) 2/0 - 500	(4) 250-500	194	343	1093	166	343	1093	9	5.1	21.0
	460	754	1000	800	1000	(3) 1/0 - 300	(3) 2/0 - 400	162	280	893	138	280	893	9	5.2	29.0
	575	594	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	129	224	714	109	224	714	9	3.9	25.9
0418EB	380	985	1000	1200	1200	(3) 2/0 - 500	(4) 250-500	196	343	1093	213	343	1093	9	5.1	21.0
	460	834	1000	1000	1000	(3) 2/0 - 500	(4) 250-500	162	280	893	176	280	893	9	5.2	29.0
	575	661	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	129	224	714	141	224	714	9	3.9	25.9

ELECTRICAL DATA (CONT'D)

MODEL YCAS	VOLTS	SYSTEM #2 FIELD-SUPPLIED WIRING															
		FIELD PROVIDED POWER SUPPLY					FACTORY PROVIDED (LUGS) WIRE RANGE ⁷		COMPRESSOR #2			COMPRESSOR #4			FANS ^{11,12}		
		MCA ¹	MIN NF DISC SW ^{2,9}	OVER-CURRENT PROTECTION		STD. TERMINAL BLOCK	OPT. NF. DISC SW.	RLA	Y-D-LRA	XL-LRA	RLA	Y-D-LRA	XL-LRA	QTY	FLA (EA.)	LRA (EA.)	
				MIN ^{3,5}	MAX ^{4,6}												
0218EB	380	467	600	500	600	(2) 1/0 - 300	(2) 250-500	121	285	900	-	-	-	4	5.1	21.0	
	460	399	600	450	500	(2) 1/0 - 300	(2) 250-500	100	228	719	-	-	-	4	5.2	29.0	
	575	315	400	350	400	(2) # 2 - 4/0	(2) 3/0 - 250	80	182	574	-	-	-	4	3.9	25.9	
0248EB	380	582	600	700	800	(2) 2/0 - 500	(2) 250-500	121	285	900	-	-	-	4	5.1	21.0	
	460	493	600	600	700	(2) 1/0 - 300	(2) 250-500	100	228	719	-	-	-	4	5.2	29.0	
	575	391	600	450	600	(2) # 2 - 4/0	(2) 3/0 - 250	80	182	574	-	-	-	4	3.9	25.9	
0268EB	380	612	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	165	343	1093	-	-	-	4	5.1	21.0	
	460	519	600	600	700	(2) 2/0 - 500	(2) 250-500	137	280	893	-	-	-	4	5.2	29.0	
	575	410	600	450	500	(2) 1/0 - 300	(2) 250-500	109	224	714	-	-	-	4	3.9	25.9	
0288EB	380	671	800	800	1000	(2) 2/0 - 500	(3) 2/0 - 400	212	343	1093	-	-	-	4	5.1	21.0	
	460	568	600	700	800	(2) 2/0 - 500	(2) 250-500	176	280	893	-	-	-	4	5.2	29.0	
	575	450	600	500	600	(2) 1/0 - 300	(2) 250-500	141	224	714	-	-	-	4	3.9	25.9	
0308EB	380	689	800	800	1000	(3) 1/0 - 300	(3) 2/0 - 400	195	343	1093	-	-	-	5	5.1	21.0	
	460	584	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	161	280	893	-	-	-	5	5.2	29.0	
	575	462	600	500	600	(2) 1/0 - 300	(2) 250-500	129	224	714	-	-	-	5	3.9	25.9	
0328EB	380	707	800	800	1000	(3) 1/0 - 300	(3) 2/0 - 400	195	343	1093	-	-	-	5	5.1	21.0	
	460	599	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	161	280	893	-	-	-	5	5.2	29.0	
	575	475	600	500	600	(2) 1/0 - 300	(2) 250-500	129	224	714	-	-	-	5	3.9	25.9	
0358EB	380	799	1000	1000	1000	(3) 2/0 - 500	(4) 250-500	166	343	1093	166	343	1093	8	5.1	21.0	
	460	680	800	800	1000	(2) 2/0 - 500	(3) 2/0 - 400	138	280	893	138	280	893	8	5.2	29.0	
	575	535	600	600	700	(2) 2/0 - 500	(3) 2/0 - 400	109	224	714	109	224	714	8	3.9	25.9	
0398EB	380	884	1000	1000	1200	(3) 2/0 - 500	(4) 250-500	194	343	1093	166	343	1093	9	5.1	21.0	
	460	754	1000	800	1000	(3) 1/0 - 300	(3) 2/0 - 400	162	280	893	138	280	893	9	5.2	29.0	
	575	594	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	129	224	714	109	224	714	9	3.9	25.9	
0418EB	380	985	1000	1200	1200	(3) 2/0 - 500	(4) 250-500	196	343	1093	213	343	1093	9	5.1	21.0	
	460	834	1000	1000	1000	(3) 2/0 - 500	(4) 250-500	162	280	893	176	280	893	9	5.2	29.0	
	575	661	800	700	800	(2) 2/0 - 500	(3) 2/0 - 400	129	224	714	141	224	714	9	3.9	25.9	

ELEMENTARY WIRING DIAGRAM YCAS0218 - YCAS0328 (3 COMPRESSOR) DXST DIRECT DRIVE

035-15937-103
Rev - A



LD09350

FIG. 1 – WIRING DIAGRAM – DXST DIRECT DRIVE

ELEMENTARY WIRING DIAGRAM YCAS0218 - YCAS0328 (3 COMPRESSOR) ACROSS-THE-LINE START

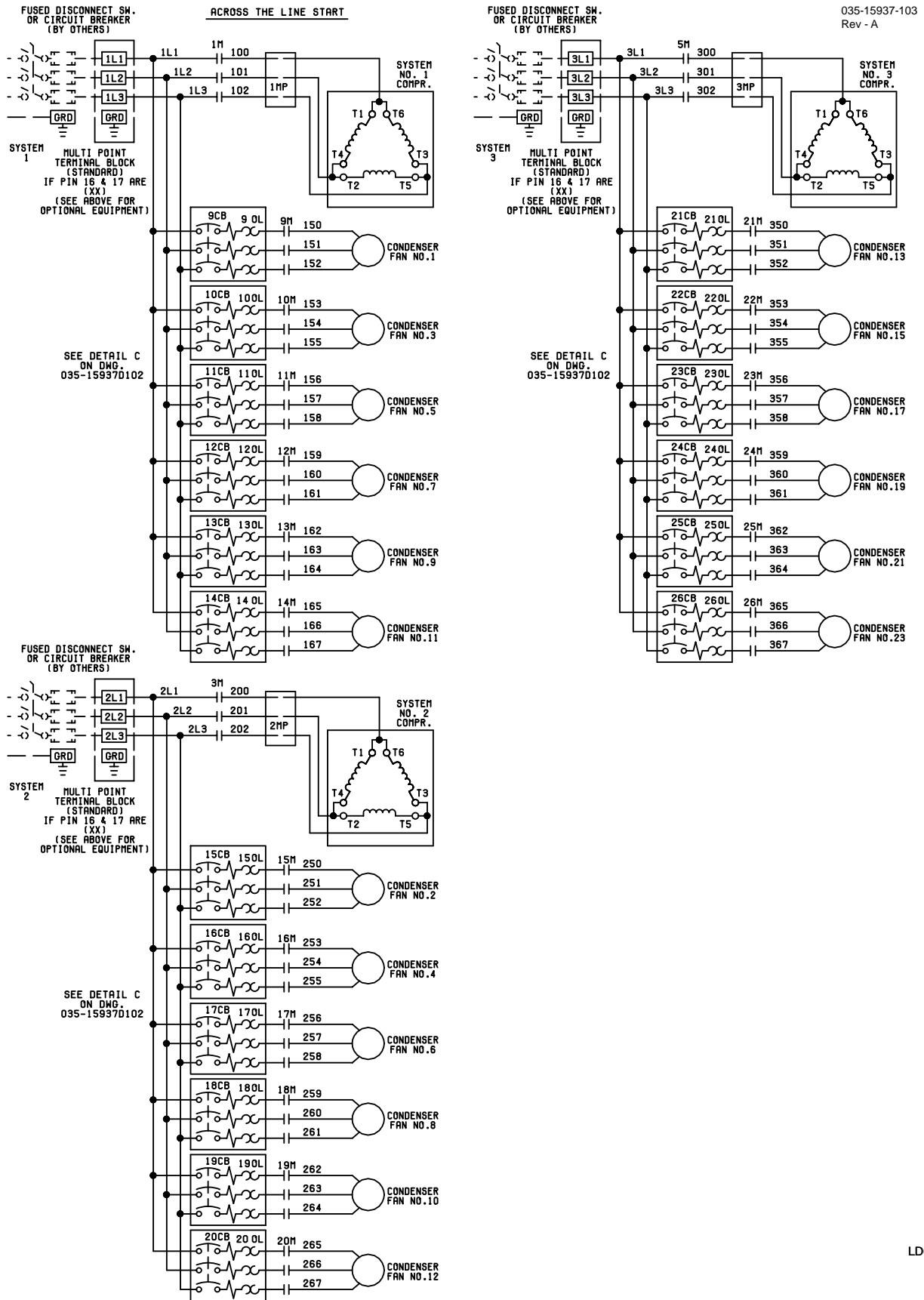


FIG. 2 – WIRING DIAGRAM – ACROSS-THE-LINE START
YORK INTERNATIONAL

ELEMENTARY WIRING DIAGRAM YCAS0218 - YCAS0328 (3 COMPRESSOR) WYE DELTA START

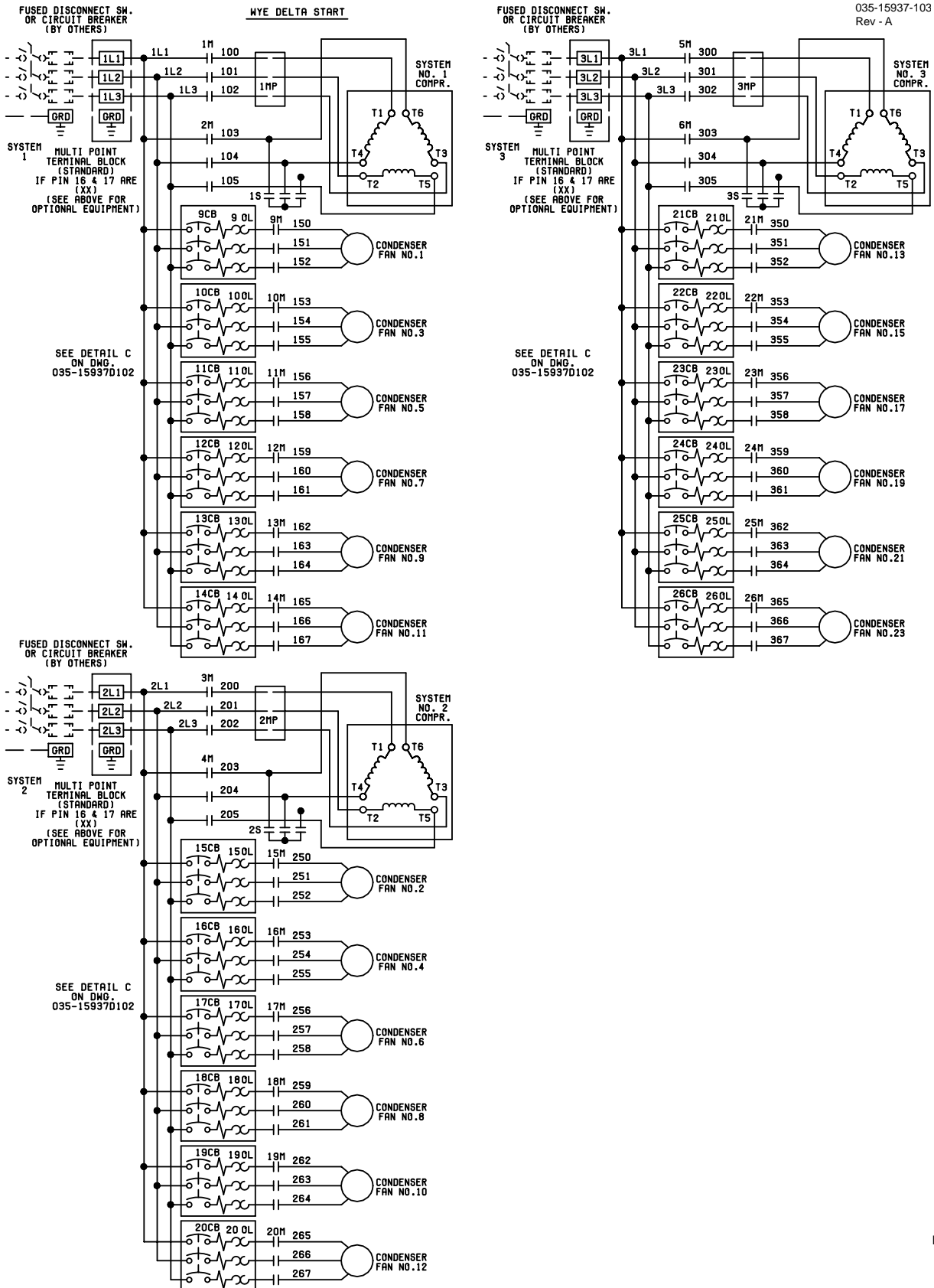








FIG. 3 – WIRING DIAGRAM – WYE DELTA START

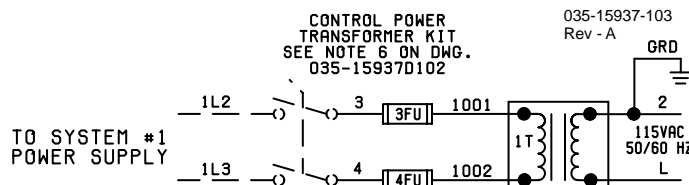
ELEMENTARY WIRING DIAGRAM (YCAS0218 - YCAS0328) ACROSS-THE-LINE START AND WYE-DELTA START

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 recommend). Wiring shall not be run in the same conduit with any line voltage wiring.
3. To cycle the unit on and off automatically with contact shown, install a cycling device in series with the flow switch (FLSW). 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 100A at 115 volts A.C.
5. Alarm contacts are for annunciating alarm/unit malfunction. Contacts are rated at 115V, 100VA, load only, and must be suppressed at load by user.
6. See Installation, Operation and Maintenance Manual when optional equipment is used.
7. Jumper must be installed for three compressor operation.

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



035-15937-103
REV A

LD09351

FIG. 4 – CONTROL POWER TRANSFORMER KIT

ELEMENTARY WIRING DIAGRAM YCAS0218 - YCAS0328 (3 COMPRESSOR)

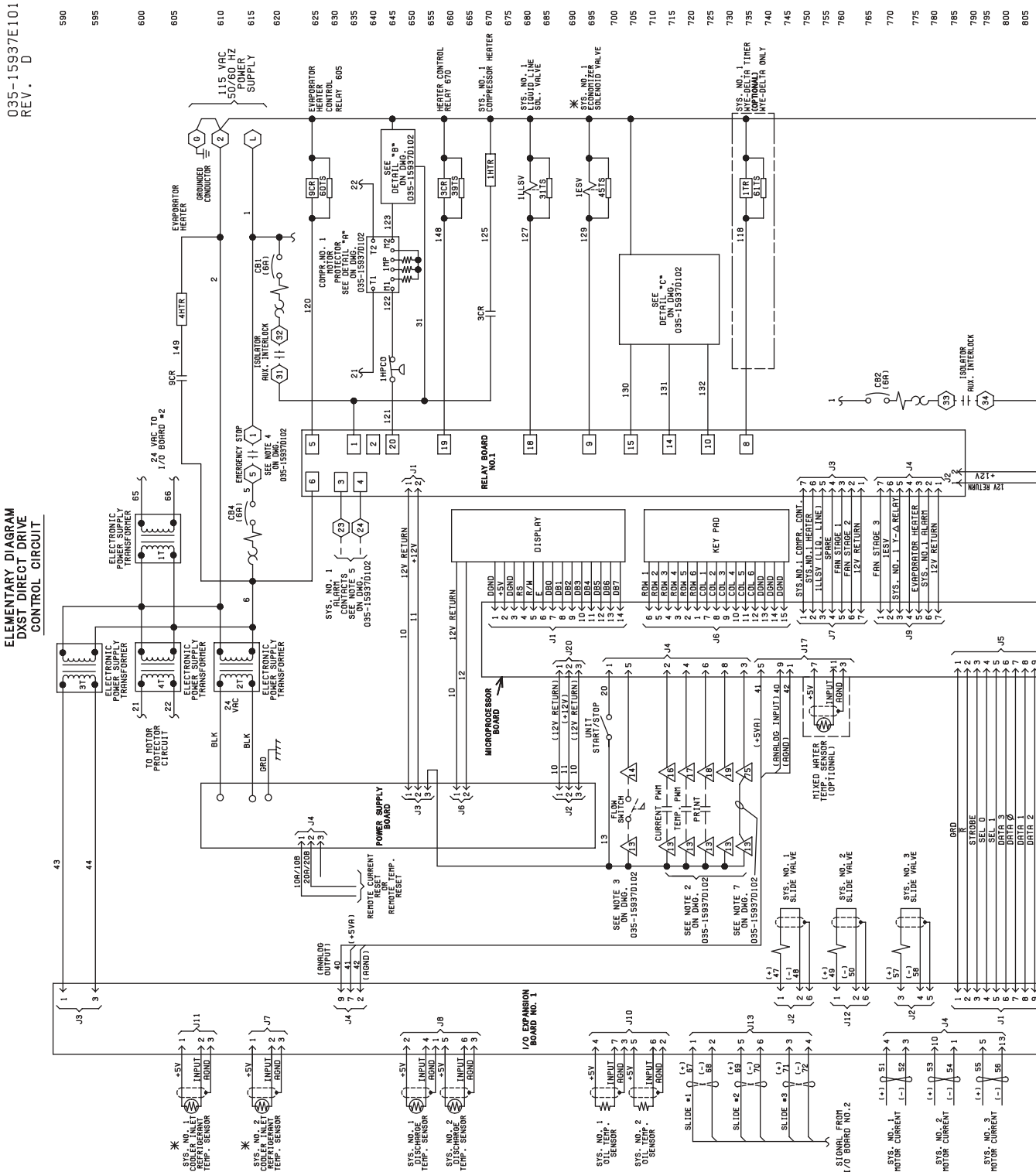


FIG. 5 - ELEMENTARY WIRING DIAGRAM

LD010031

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:

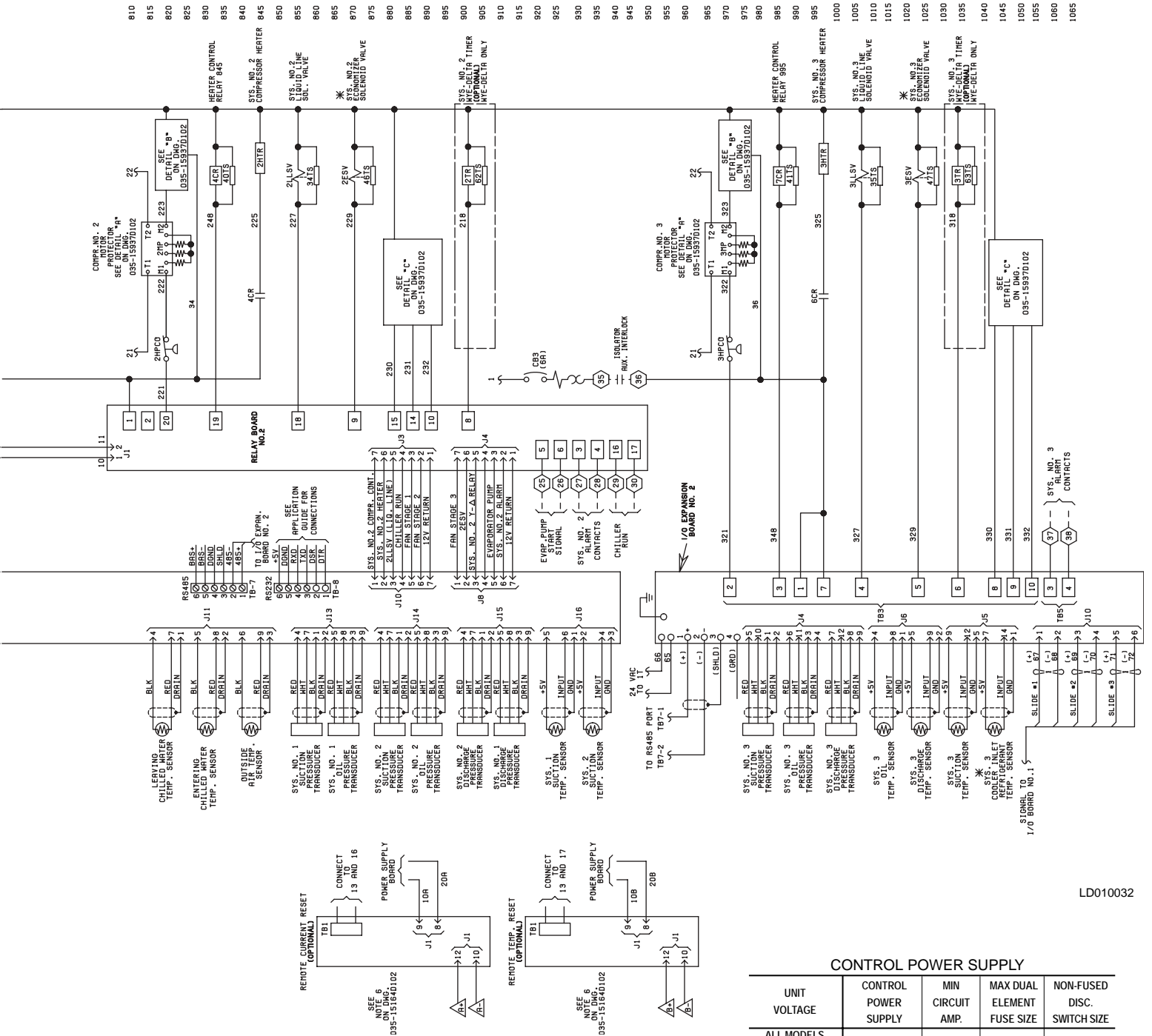
Any inductive devices (relays) wired in series with the flow switch for start/stop, into the Alarm circuitry, or pilot relays for pump starters wired through motor contactor auxiliary contacts must be

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.



LD010032

CONTROL POWER SUPPLY					
UNIT VOLTAGE	CONTROL POWER SUPPLY	MIN CIRCUIT AMP.	MAX DUAL ELEMENT FUSE SIZE	NON-FUSED DISC. SWITCH SIZE	
ALL MODELS W/O TRANS.	115-150/60	20A	20A 250V	30A 240V	
MODELS WITH TRANS.	-17 -28 -46 -58	200-1-60 230-1-60 400-1-60 575-1-60	15A 15A 8A 8A	15A 250V 15A 250V 8A 600V 8A 600V	30A 240V 30A 240V 30A 480V 30A 600V

* All primary and secondary wiring between transformer and control panel included.

CONNECTION DIAGRAM ELEC. BOX (YCAS0218 - YCAS0328)

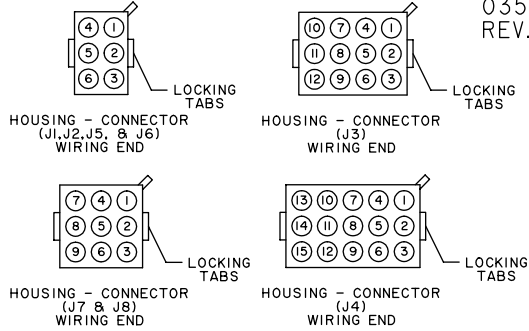
035-15937E104
REV. E

STANDARD AND REMOTE EVAP. UNITS

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

P1, P2, P3, P3A, — ELECTRONIC (MICRO) PANEL
P4, P4A, P5, & P6

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



- 1CR THRU 4CR, 9CR/ -CONTROL RELAYS
- K1 THRU -K4, -K9
- CB1, CB2, CB3/ -CIRCUIT BREAKERS
- QCB1, -QCB2, -QCB3
- 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)

LEGEND

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

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

PLUG NO.	WIRE NO.	PLUG PIN NO.	PLUG NO.	WIRE NO.	PLUG PIN NO.	PLUG NO.	WIRE NO.	PLUG PIN NO.	PLUG NO.	WIRE NO.	PLUG PIN NO.																																																																																																																																																																
P1	21	I	P2	21	I	P3	2	I	P4	2	I																																																																																																																																																																
	22	2		22	3		22	4		225	2	225	3	31	4	33	4	32	5	34	5	125	4	129	5	127	6	121	II	122	12	227	4	229	5	221	II	222	12	2	I	GRD	2	225A	3	227A	4	229A	5	221A	II	222	12	2	I	GRD	2	125A	4	129A	5	127A	6	121A	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	225	1	222	2	2	I	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	225	1	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9
	22	3		22	4		225	2		225	3	31	4	33	4	32	5	34	5	125	4	129	5	127	6	121	II	122	12	227	4	229	5	221	II	222	12	2	I	GRD	2	225A	3	227A	4	229A	5	221A	II	222	12	2	I	GRD	2	125A	4	129A	5	127A	6	121A	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	225	1	222	2	2	I	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	225	1	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9		
	22	4		225	2		225	3		31	4	33	4	32	5	34	5	125	4	129	5	127	6	121	II	122	12	227	4	229	5	221	II	222	12	2	I	GRD	2	225A	3	227A	4	229A	5	221A	II	222	12	2	I	GRD	2	125A	4	129A	5	127A	6	121A	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	225	1	222	2	2	I	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	225	1	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9				
	225	2		225	3		31	4		33	4	32	5	34	5	125	4	129	5	127	6	121	II	122	12	227	4	229	5	221	II	222	12	2	I	GRD	2	225A	3	227A	4	229A	5	221A	II	222	12	2	I	GRD	2	125A	4	129A	5	127A	6	121A	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	225	1	222	2	2	I	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	225	1	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9						
225	3	31	4	33	4		32	5		34	5	125	4	129	5	127	6	121	II	122	12	227	4	229	5	221	II	222	12	2	I	GRD	2	225A	3	227A	4	229A	5	221A	II	222	12	2	I	GRD	2	125A	4	129A	5	127A	6	121A	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	225	1	222	2	2	I	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	225	1	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9										
31	4	33	4	32	5	34	5	125		4	129	5	127	6	121	II	122	12	227	4	229	5	221	II	222	12	2	I	GRD	2	225A	3	227A	4	229A	5	221A	II	222	12	2	I	GRD	2	125A	4	129A	5	127A	6	121A	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	2	I	GRD	2	125	4	129	5	127	6	121	II	122	12	225	1	222	2	2	I	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	225	1	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9													
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129	5	127	6	121	II	122	12	225	1	222	2	2	I	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	225	1	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9																																																																																								
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121	II	122	12	225	1	222	2	2	I	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	225	1	2	2	223	3	240	4	241	5	242	6	34	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9	25	1	2	2	23	3	40	4	41	5	42	6	3X	7	TRX	8	44	9																																																																																												
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TRX	8	44	9																																																																																																																																																																								
44	9																																																																																																																																																																										

FIG. 6 – CONNECTION DIAGRAM 3 COMPRESSOR

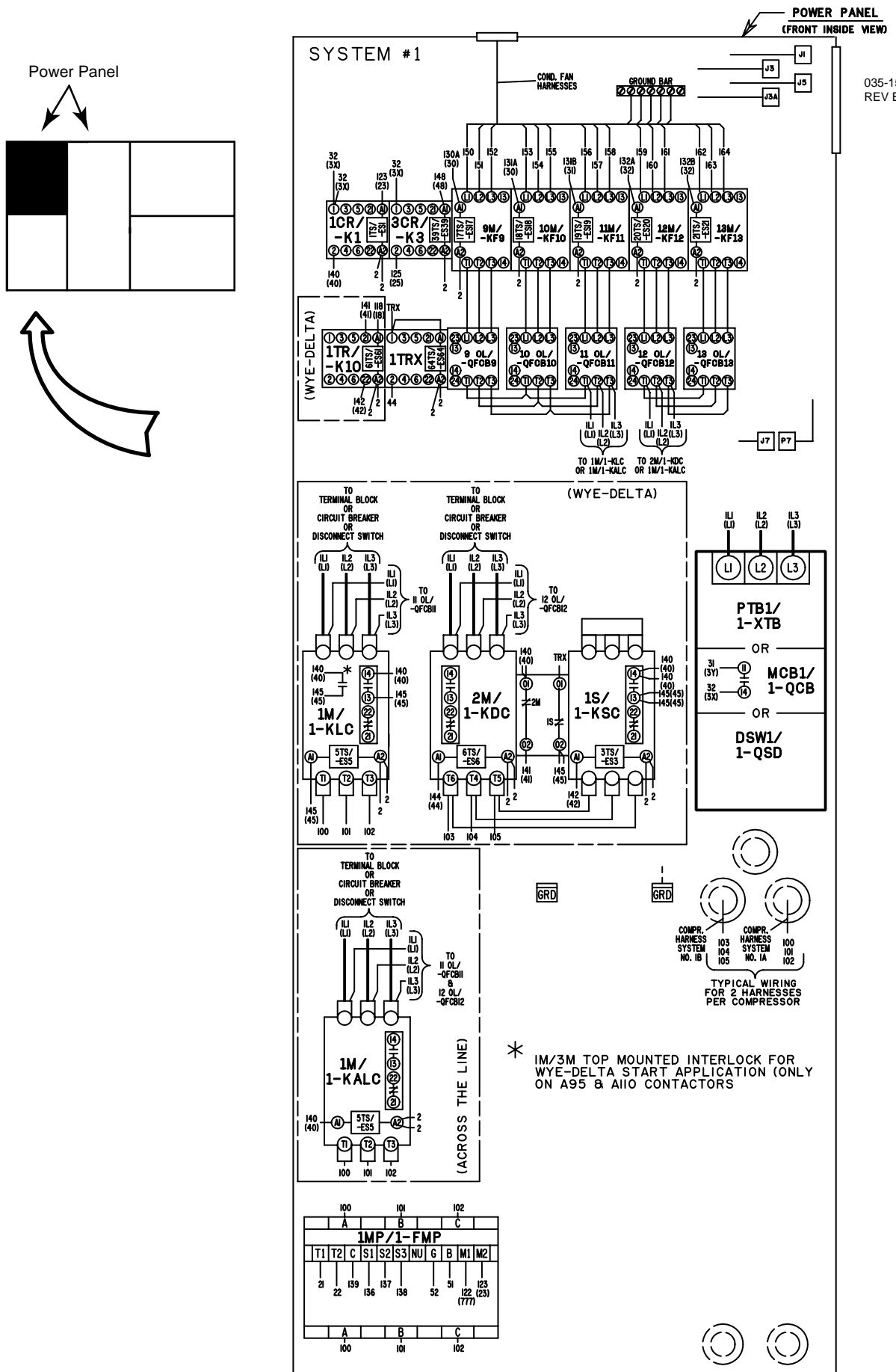


FIG. 7 – CONNECTION DIAGRAM 3 COMPRESSOR

CONNECTION WIRING DIAGRAM (CONT'D)

035-15937-104
REV E

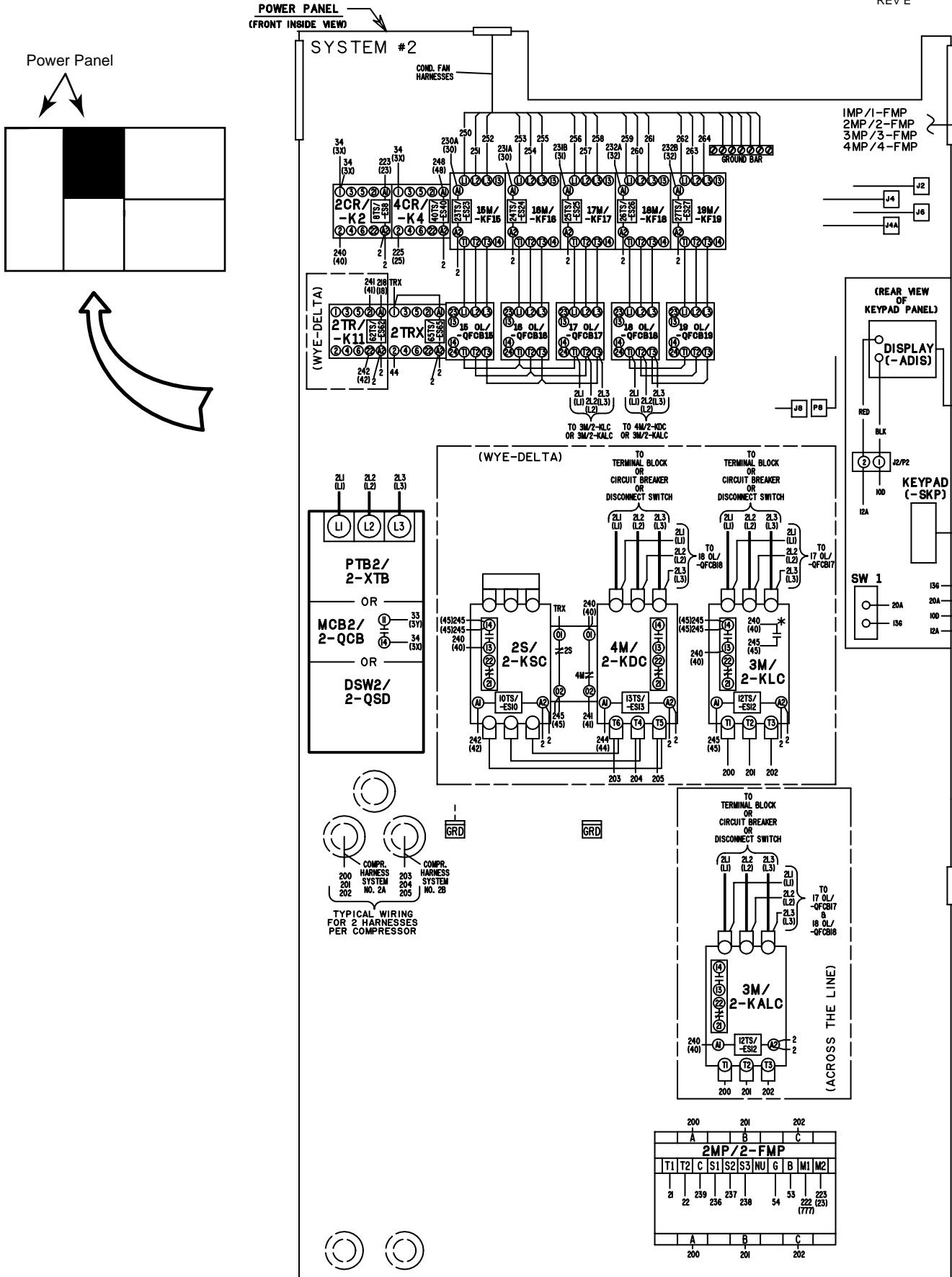
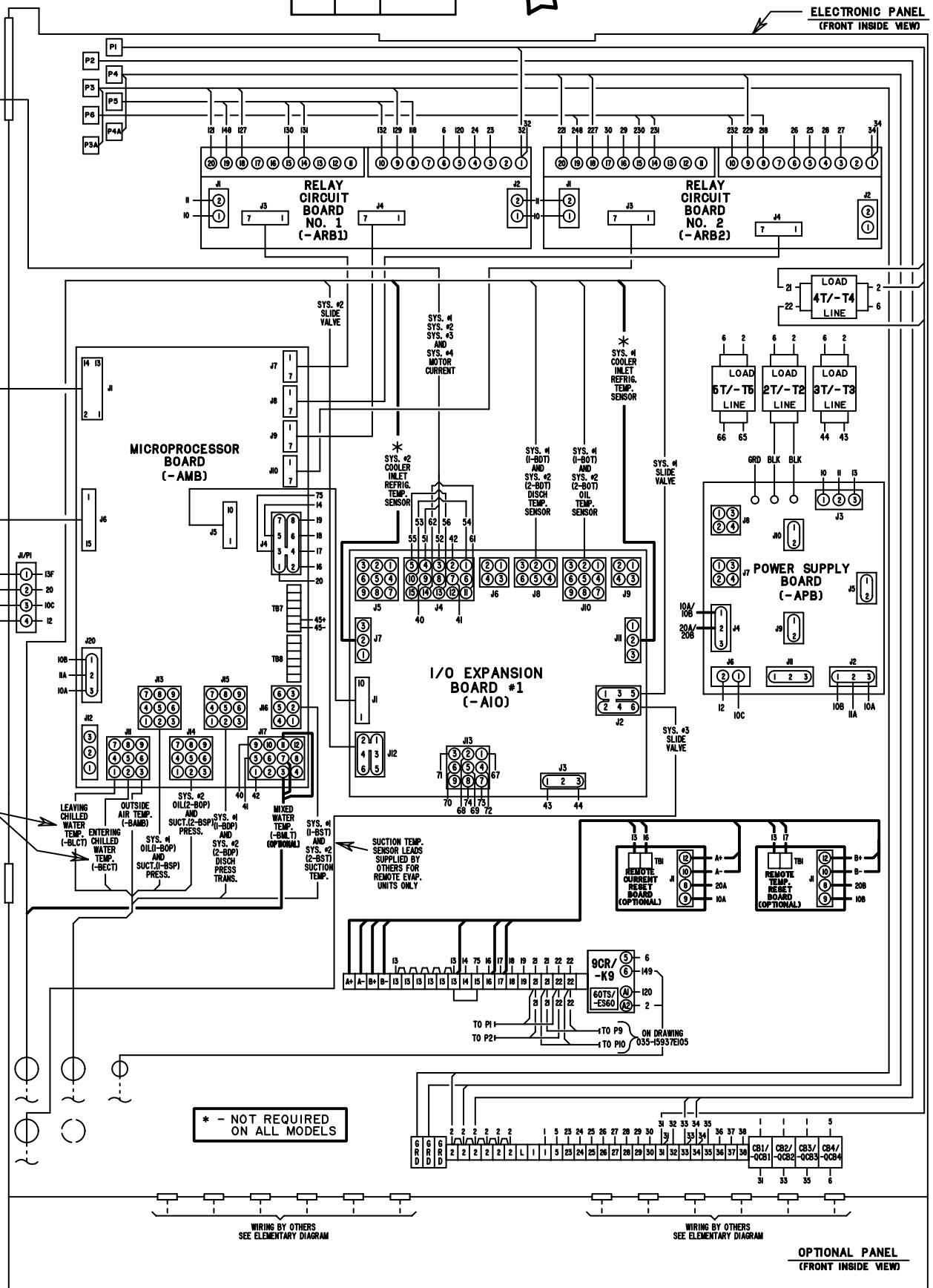
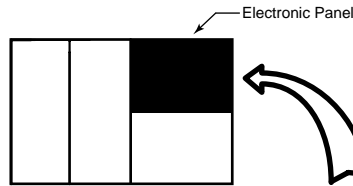


FIG. 8 - CONNECTION DIAGRAM 3 COMPRESSOR

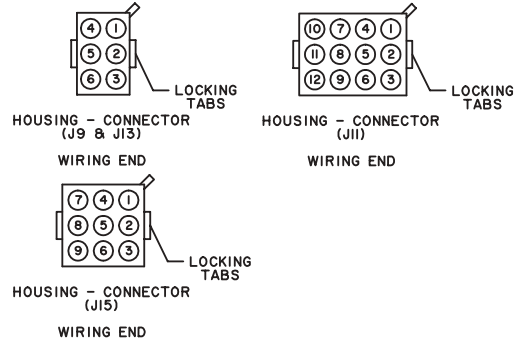
LD010035



CONNECTION DIAGRAM ELEC. BOX (YCAS0218 - YCAS0328)

STANDARD AND REMOTE EVAP. UNITS

- J9, JII, JIIA, JI3, JI5, PI5 — POWER PANEL
- P9, PII, PIIA, PI3, — ELECTRONIC (MICRO) PANEL



035-15937E105
REV. D

- 5CR & 7CR/ -K5 & -K7 — CONTROL RELAYS
- CB4, CB5, CB6/ -QCB4, -QBC5, -QCB6 — CIRCUIT BREAKERS
- 21CB THRU 26CB — OVERLOAD CIRCUIT BREAKERS (SYS. #3)
- 21 OL THRU 26 OL — MOTOR OVERLOADS (SYS. #3)
- QFCB21 THRU -QFCB26 — MOTOR OVERLOADS W/OVERLOAD CIRCUIT BREAKERS (SYS. #3)
- 3FU, 4FU/ -F3, -F4 — TRANSFORMER FUSE (OPTIONAL)

- LEGEND**
- 5M — COMPRESSOR CONTACTORS
 - 3-KLC OR 3-KALC — COMPRESSOR CONTACTORS
 - 6M/ — COMPRESSOR CONTACTORS
 - 3-KDC — COMPRESSOR CONTACTORS
 - 3S/ — COMPRESSOR CONTACTORS
 - 3-KSC — COMPRESSOR CONTACTORS
 - 21M THRU 26M/ -KF21 THRU -KF26 — CONDENSER FAN CONTACTORS (SYS. #3)
 - 3MP/3-FMP — MOTOR PROTECTOR (SYS. #3)
 - 1T/-T1 — CONTROL TRANSFORMER 2KVA (OPTIONAL)

- 6T, 7T, 8T/ -T6, -T7, -T8 — MICRO PANEL TRANSFORMERS
- 3TR/ — TIMER RELAYS
- K12 — TRANSIENT SUPPRESSORS
- TS/-ES — POWER TERMINAL BLOCK
- PTB3/ 3-XTB, MCB3/ 3-QCB, DSW3/ 3-QSD, — MOTOR CIRCUIT BREAKER
- DISCONNECT SERVICE SWITCH
- WIRING BY YORK
- - - - - WIRING BY OTHERS
- OPTIONAL WIRING AND/OR COMPONENTS

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

PLUG NO.	WIRE NO.	PLUG PIN NO.
P9	2I	1
	2	2
	22	3
	35	4
	36	5

PLUG NO.	WIRE NO.	PLUG PIN NO.
PII	2	1
	GRD	2
	325	3
	329	5
	327	4
	32I	11
	322	12

PLUG NO.	WIRE NO.	PLUG PIN NO.
PI3	330	1
	33I	2
	332	3
	348	4
	318	6

PLUG NO.	WIRE NO.	PLUG PIN NO.
PI5	325	1
	2	2
	323	3
	340	4
	34I	5
	342	6
	32	7
	TRX	8
	44	9

PLUG NO.	WIRE NO.	PLUG PIN NO.
J9	2I	1
	2	2
	22	3
	3Y	4
3X	5	

PLUG NO.	WIRE NO.	PLUG PIN NO.
JII	2	1
	GRD	2
	325A	3
	329A	5
	327A	4
	32IA	11
	322	12

PLUG NO.	WIRE NO.	PLUG PIN NO.
JI3	30	1
	3I	2
	32	3
	48	4
	18	6

PLUG NO.	WIRE NO.	PLUG PIN NO.
JI5	25	1
	2	2
	23	3
	40	4
	4I	5
	42	6
	3X	7
	TRX	8
	44	9

PLUG NO.	WIRE NO.	PLUG PIN NO.
PIIA	325	1
	322	2

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

FIG. 9 – CONNECTION DIAGRAM 3 COMPRESSOR

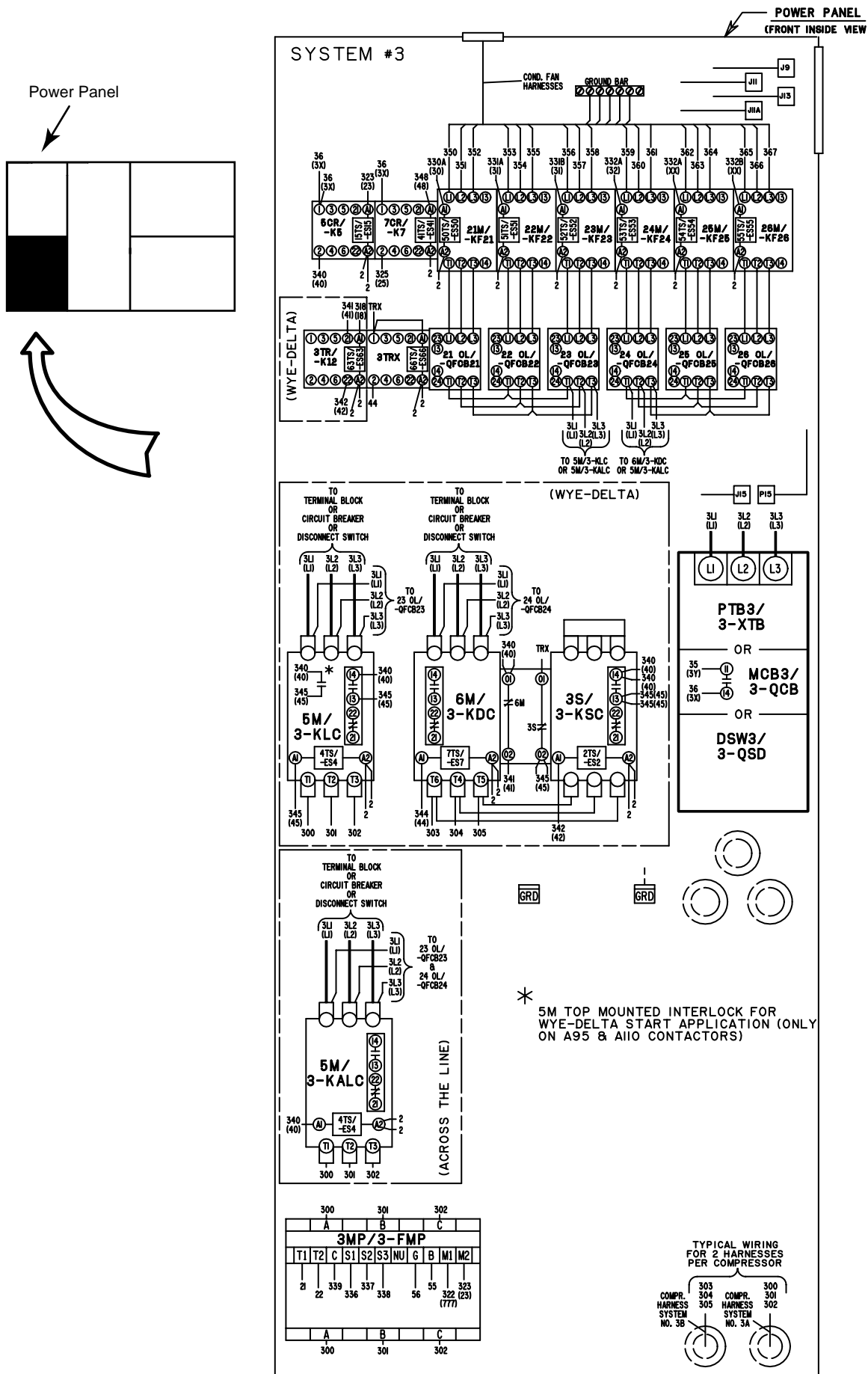
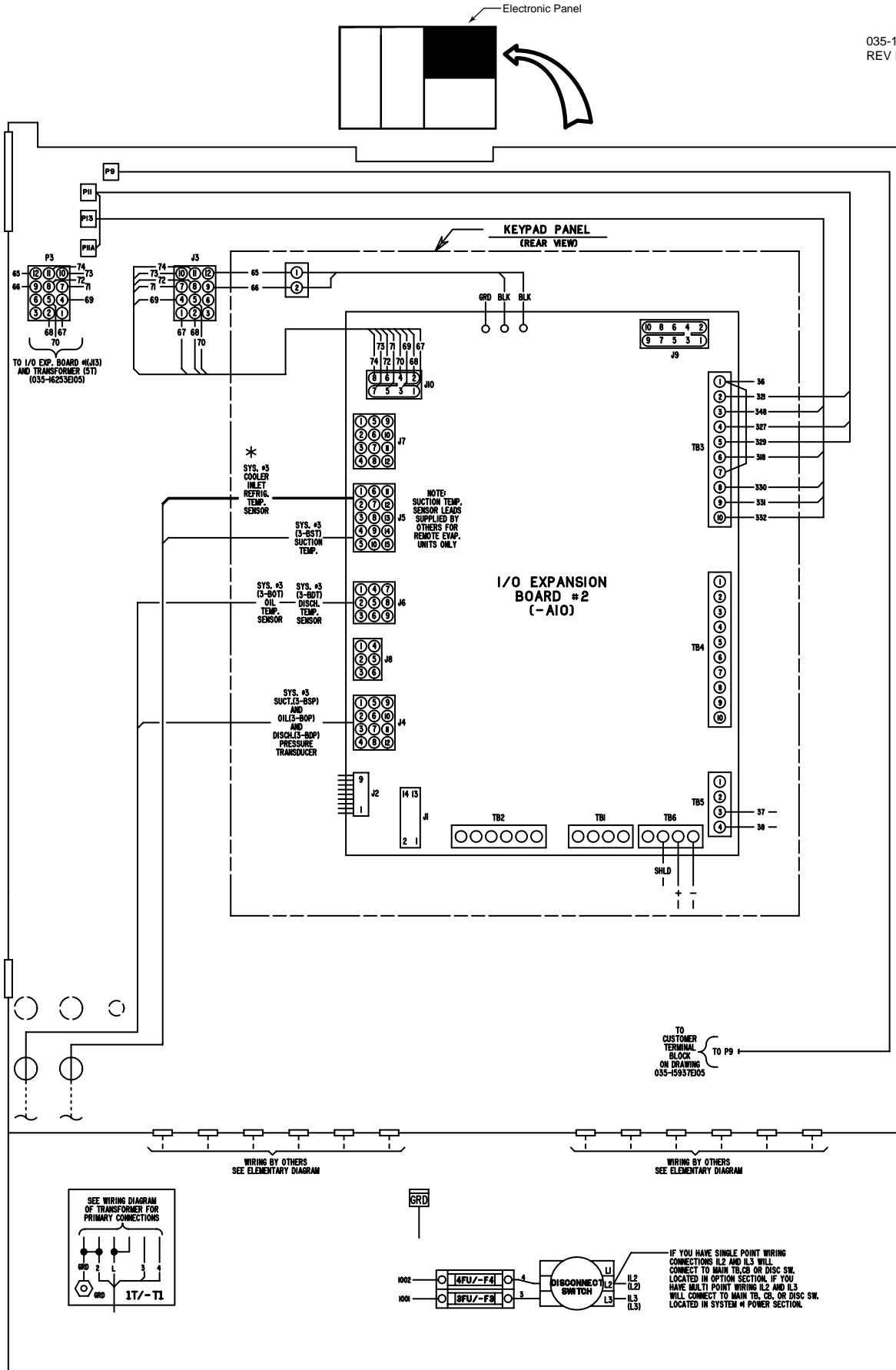


FIG. 10 – CONNECTION DIAGRAM 3 COMPRESSOR

CONNECTION DIAGRAM ELEC. BOX (YCAS0218 - YCAS0328)

035-15937-105
REV D



LD010038

FIG. 11 – CONNECTION DIAGRAM 3 COMPRESSOR

ELEMENTARY DIAGRAM DXST DRIVE CONTROL CIRCUIT

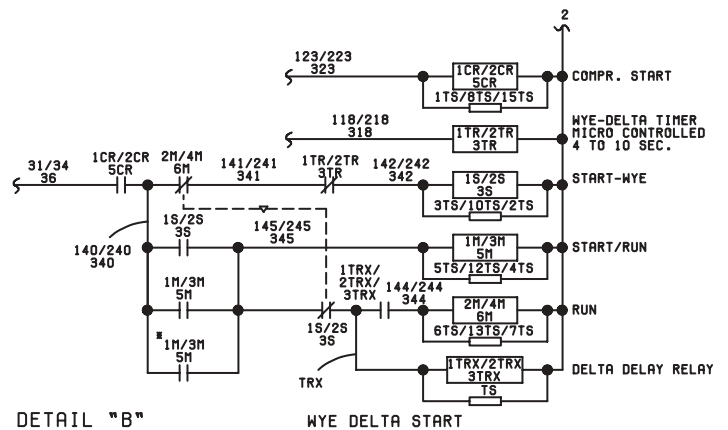
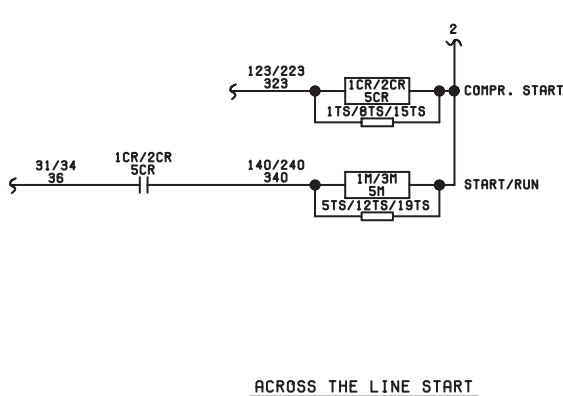
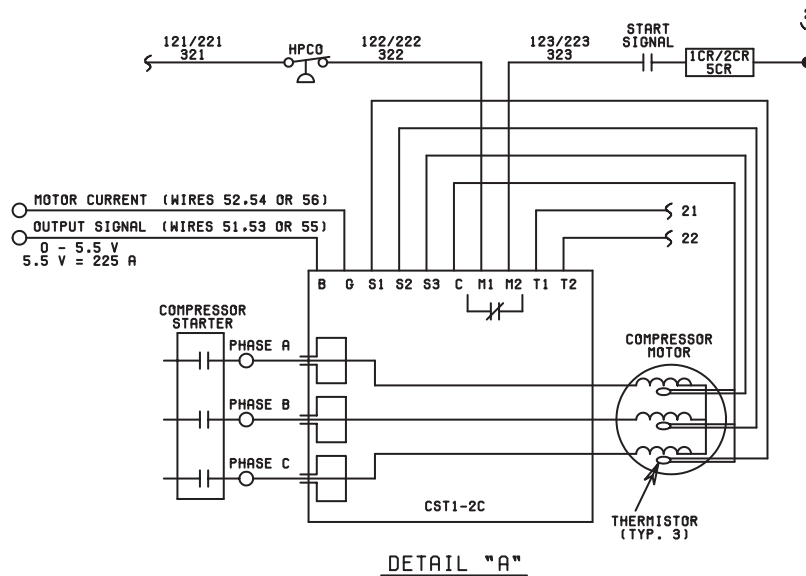
035 15937 102
REV. D

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 WIRING.
3. TO CYCLE UNIT ON AND OFF AUTOMATICALLY WITH CONTACT SHOWN, INSTALL A CYCLING DEVICE IN SERIES WITH THE FLOW SWITCH (FLSW). 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 I. IF A STOP DEVICE IS NOT INSTALLED, A JUMPER MUST BE CONNECTED BETWEEN TERMINALS 5 AND I. DEVICE MUST HAVE A MINIMUM CONTACT RATING OF 100VA AT 115VOLTS A.C.
5. 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.
6. SEE INSTALLATION, OPERATION AND MAINTENANCE MANUAL WHEN OPTIONAL EQUIPMENT IS USED.
7. JUMPER MUST BE INSTALLED FOR THREE COMPRESSOR OPERATION.

LEGEND

- TS 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

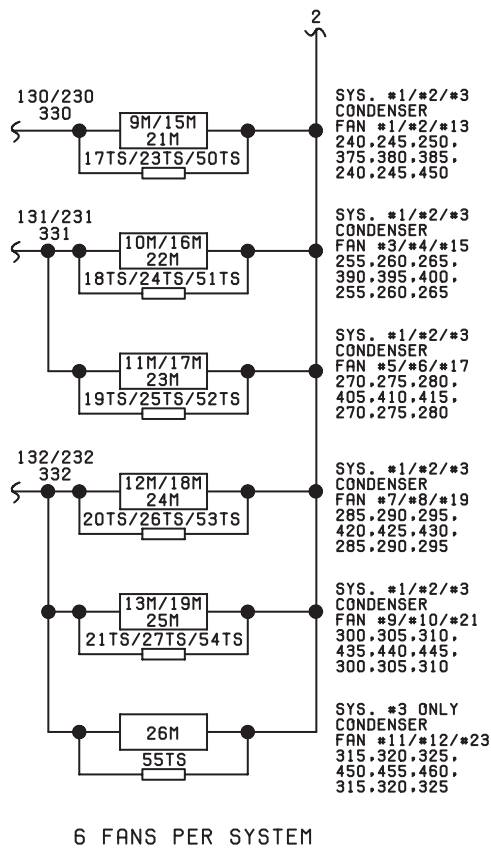
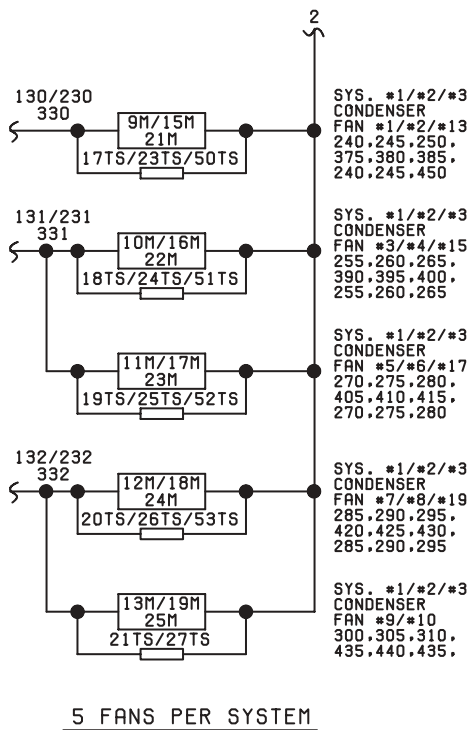
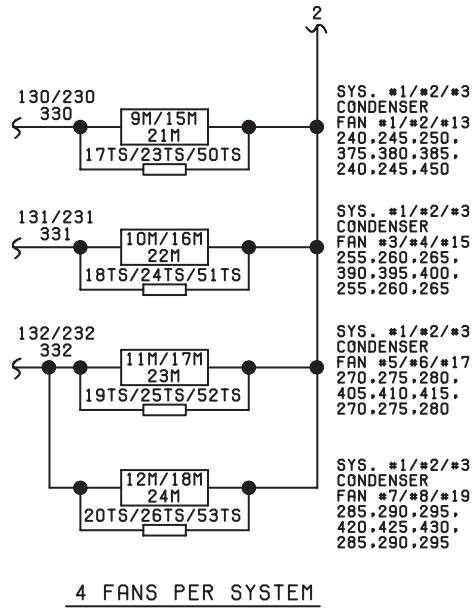
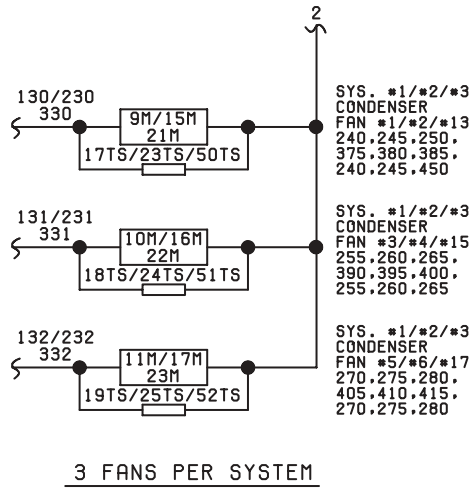


■ INTERLOCK ON TOP MOUNTED RELAY, WYE-DELTA ONLY ON A95 & A110 CONTACTORS)

FIG. 12 – ELEMENTARY DIAGRAM 3 COMPRESSOR

ELEMENTARY WIRING DIAGRAM (CONT'D)

035 15937 102
REV. D



DETAIL "C"

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

FIG. 13 – ELEMENTARY DIAGRAM DXST DIRECT DRIVE - 3 COMPRESSOR

CONNECTION DIAGRAM SYSTEM WIRING (YCAS0218 - YCAS0328)

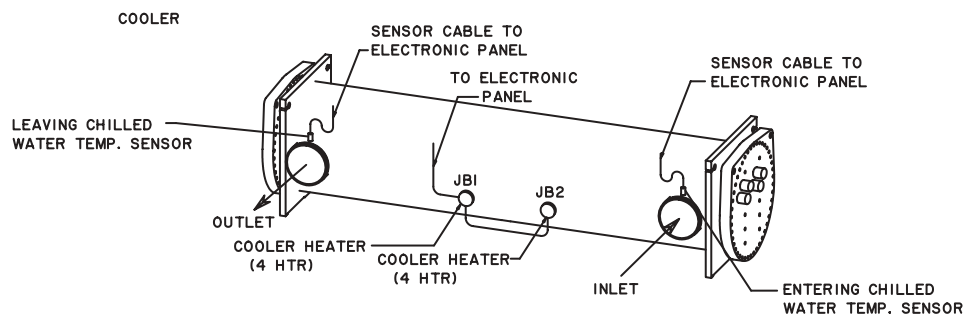
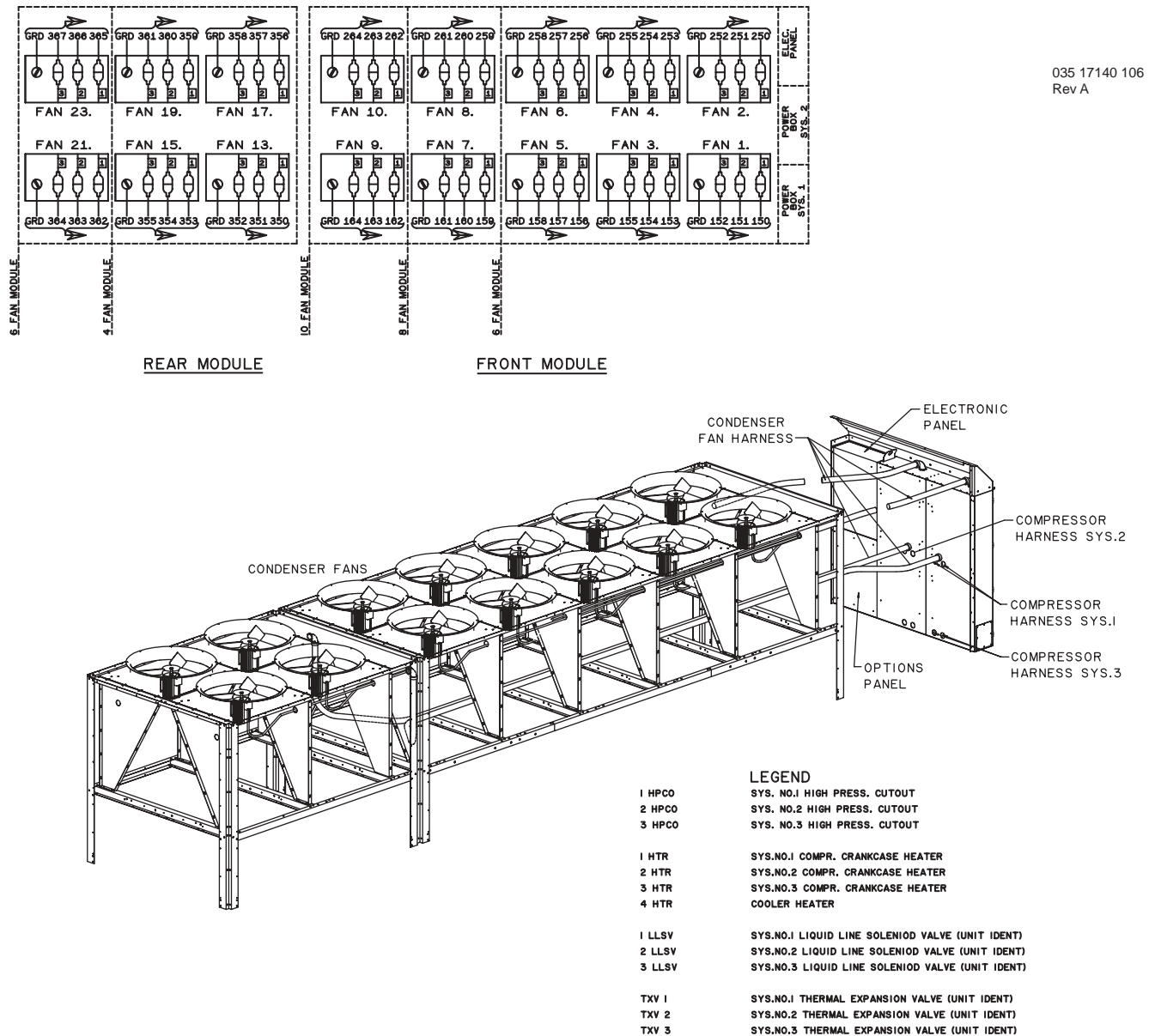
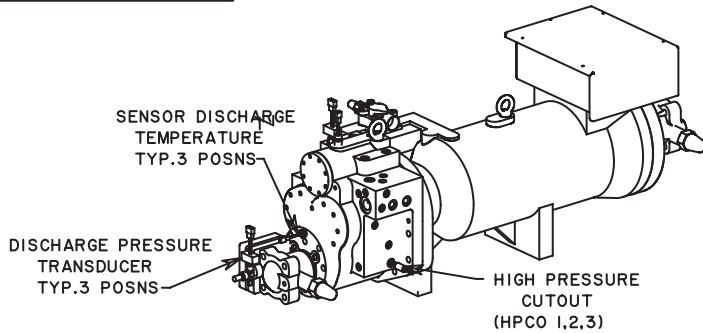
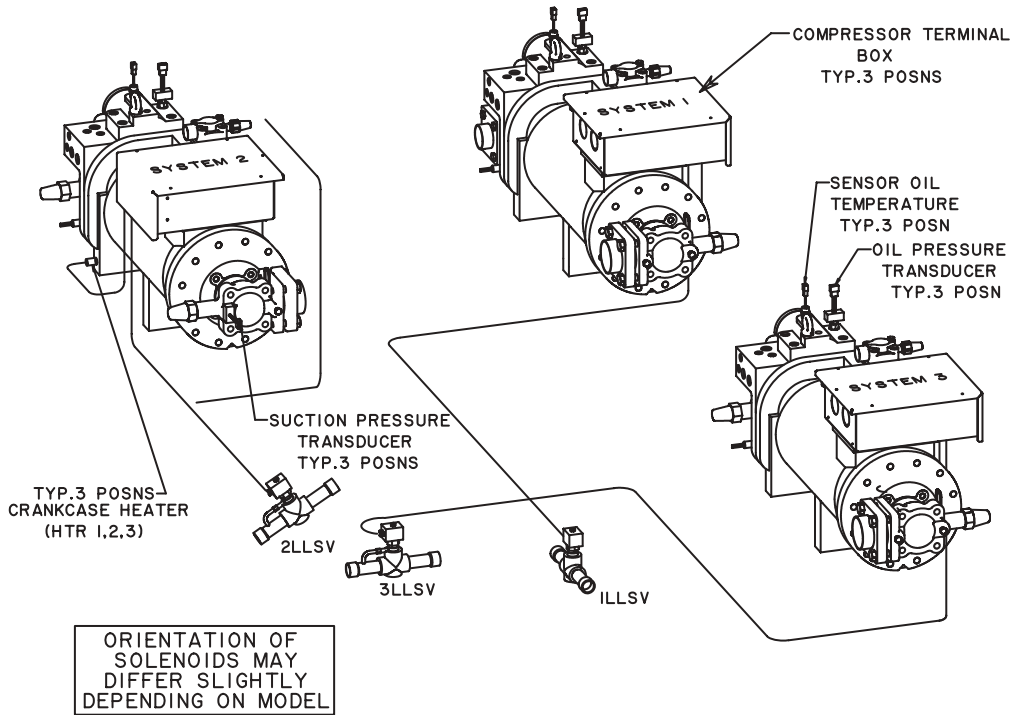


FIG. 14 – CONNECTION DIAGRAM SYSTEM WIRING 3 COMPRESSOR

CONNECTION DIAGRAM SYSTEM WIRING

COMPRESSORS
(SYSTEMS 1,2,3)

035 17140 106
Rev A

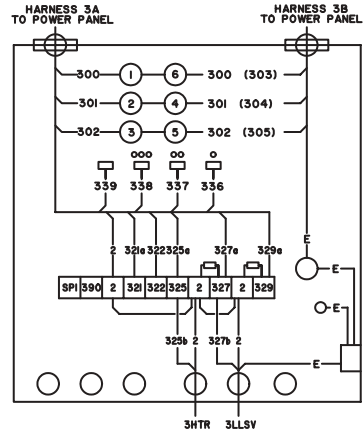
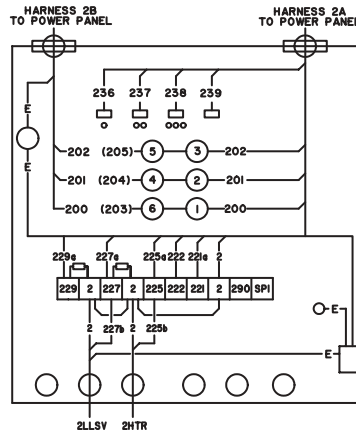
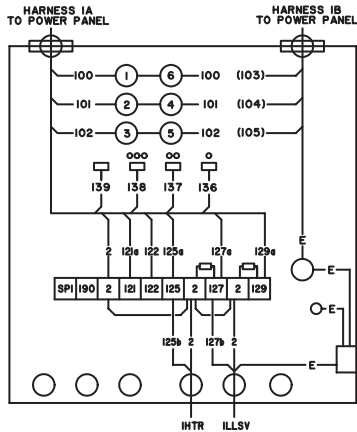


SYSTEM 1
COMPRESSOR TERMINAL BOX
ACROSS THE LINE
USE (XXX) FOR WYE-DELTA-START

SEE SAFTY RELIEF DEVICE KIT FOR
WIRING OF RELIEF DEVICES IN CMTB
JUMPERS ONLY REQUIRED ON
ACROSS THE LINE UNITS

SYSTEM 2
COMPRESSOR TERMINAL BOX
ACROSS THE LINE
USE (XXX) FOR WYE-DELTA-START

SYSTEM 3
COMPRESSOR TERMINAL BOX
ACROSS THE LINE
USE (XXX) FOR WYE-DELTA-START



LD010043

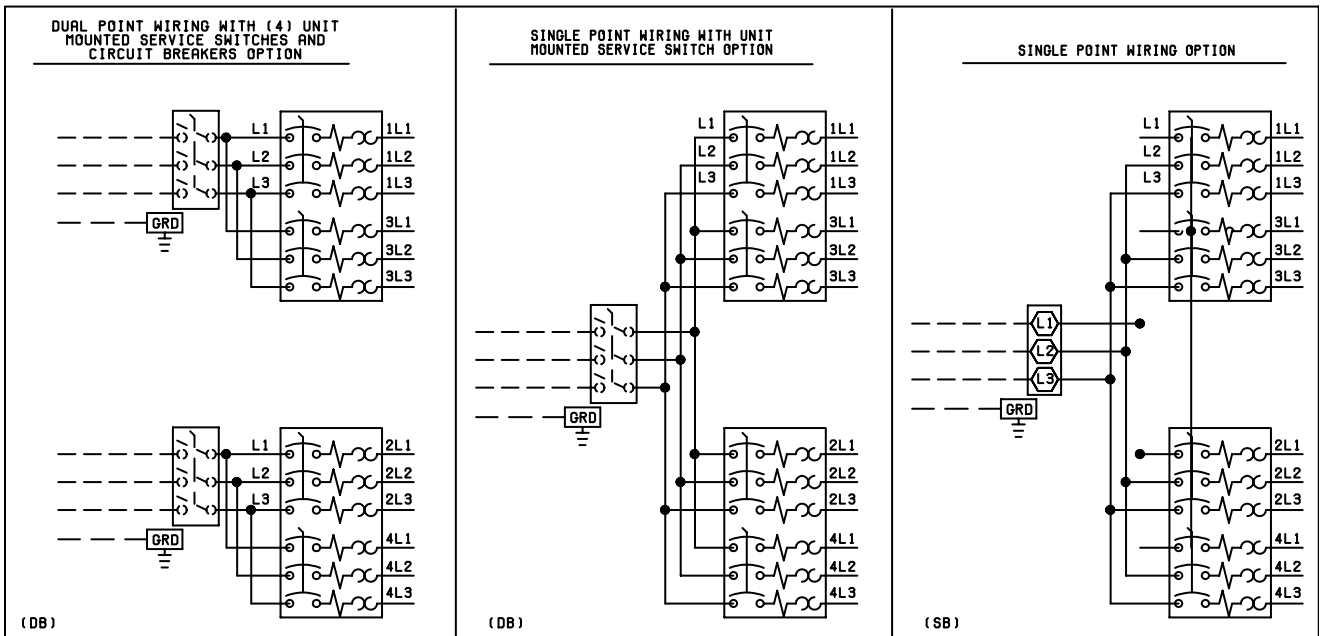
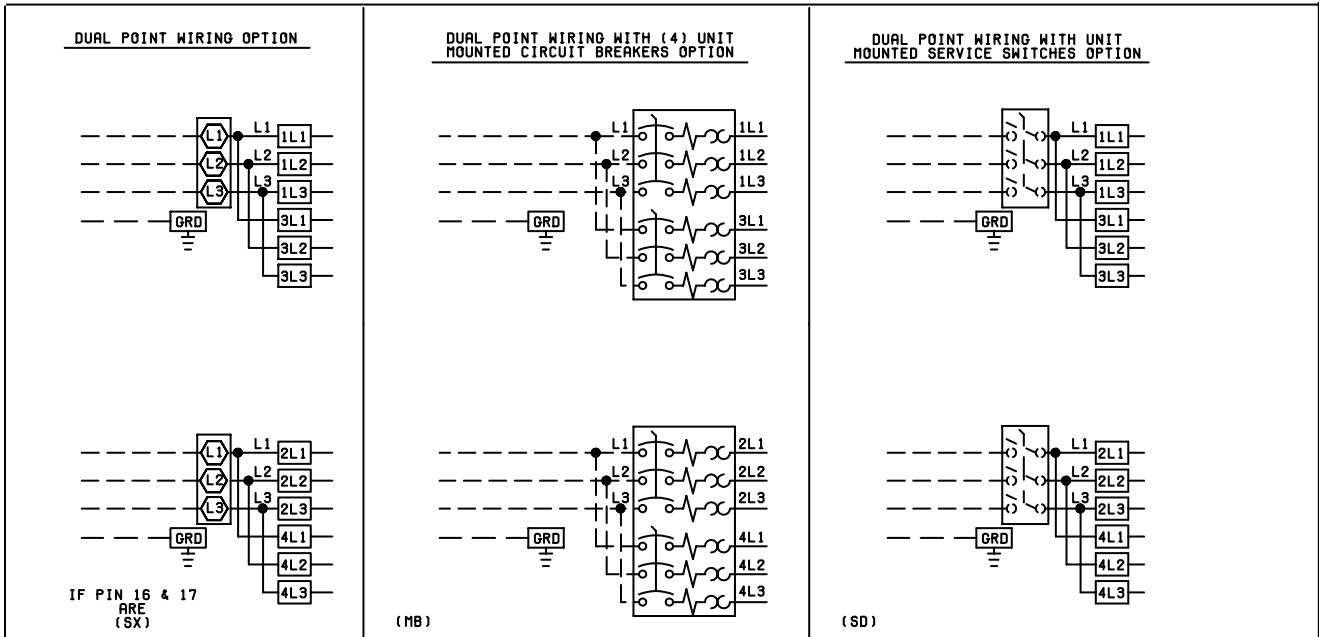
FIG. 15 – CONNECTION DIAGRAM STSTEM WIRING - 3 COMPRESSOR

ELEMENTARY WIRING DIAGRAM YCAS0358 - YCAS0418 (4 COMPRESSOR)

ELEMENTARY DIAGRAM DXST DIRECT DRIVE POWER CIRCUIT

035-16253E103
REV. A

--- INDICATES CUSTOMER WIRING
OPTIONAL EQUIPMENT SEE NOTE 6 ON DWG. 035-16253D102



LD09367

FIG. 16 – ELEMENTARY WIRING DIAGRAM - 4 COMPRESSOR

ELEMENTARY WIRING DIAGRAM YCAS0358 - YCAS0418 (4 COMPRESSOR)

035 16253 103
REV A

035-16253-10C
Rev - A

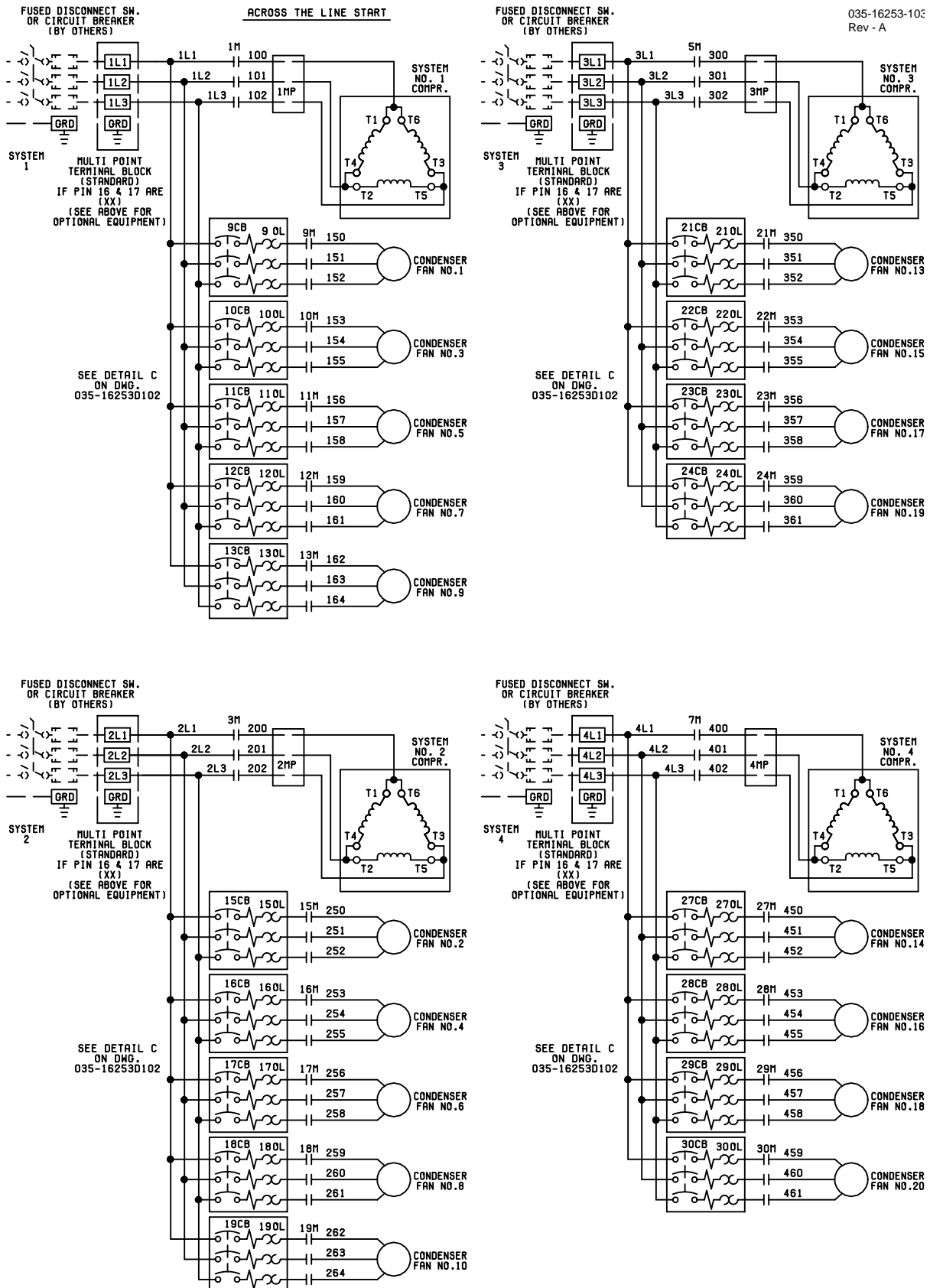


FIG. 17 – ELEMENTARY WIRING DIAGRAM - ACROSS-THE-LINE START

ELEMENTARY WIRING DIAGRAM YCAS0358 - YCAS0418 (4 COMPRESSOR)

035 16253 103
REV A

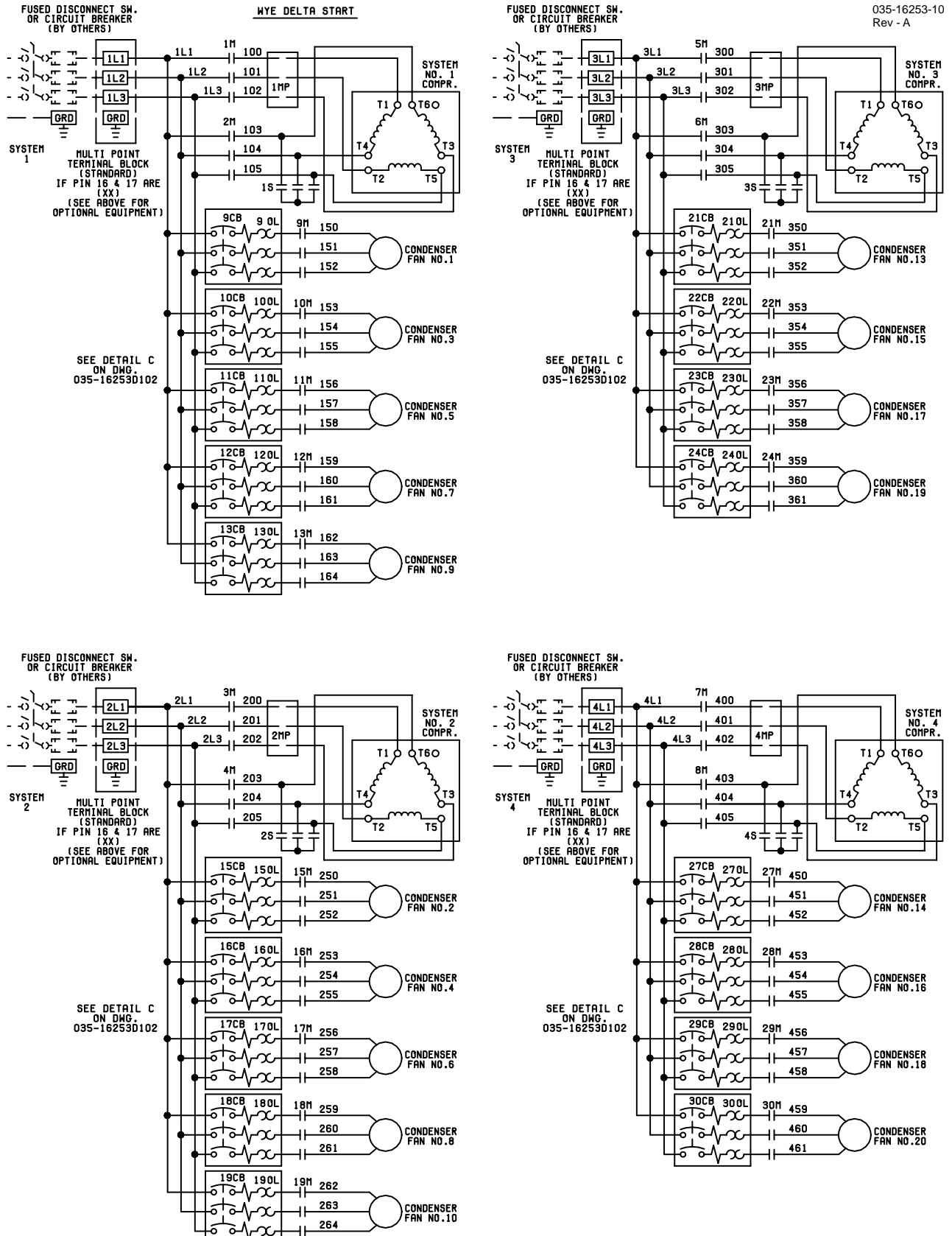








FIG. 18 – ELEMENTARY WIRING DIAGRAM - WYE DELTA

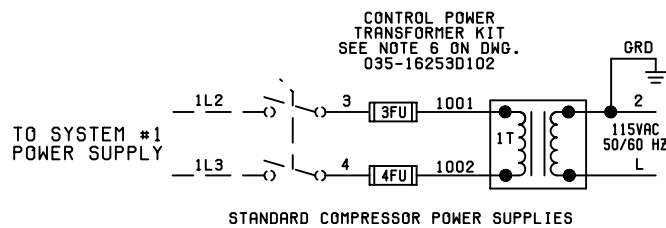
ELEMENTARY WIRING DIAGRAM (YCAS0358 - YCAS0418) ACROSS-THE-LINE START AND WYE-DELTA START

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 recommend). Wiring shall not be run in the same conduit with any line voltage wiring.
3. To cycle the unit on and off automatically with contact shown, install a cycling device in series with the flow switch (FLSW). 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 100A at 115 volts A.C.
5. Alarm contacts are for annunciating alarm/unit malfunction. Contacts are rated at 115V, 100VA, load only, and must be suppressed at load by user.
6. See Installation, Operation and Maintenance Manual when optional equipment is used.

LEGEND

TS	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



035-16253-103
REV A

035-16253-103
Rev - A

LD09368

FIG. 19 – CONTROL POWER TRANSFORMER KIT

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ELEMENTARY WIRING DIAGRAM YCAS0358 - YCAS0418 (4 COMPRESSOR)

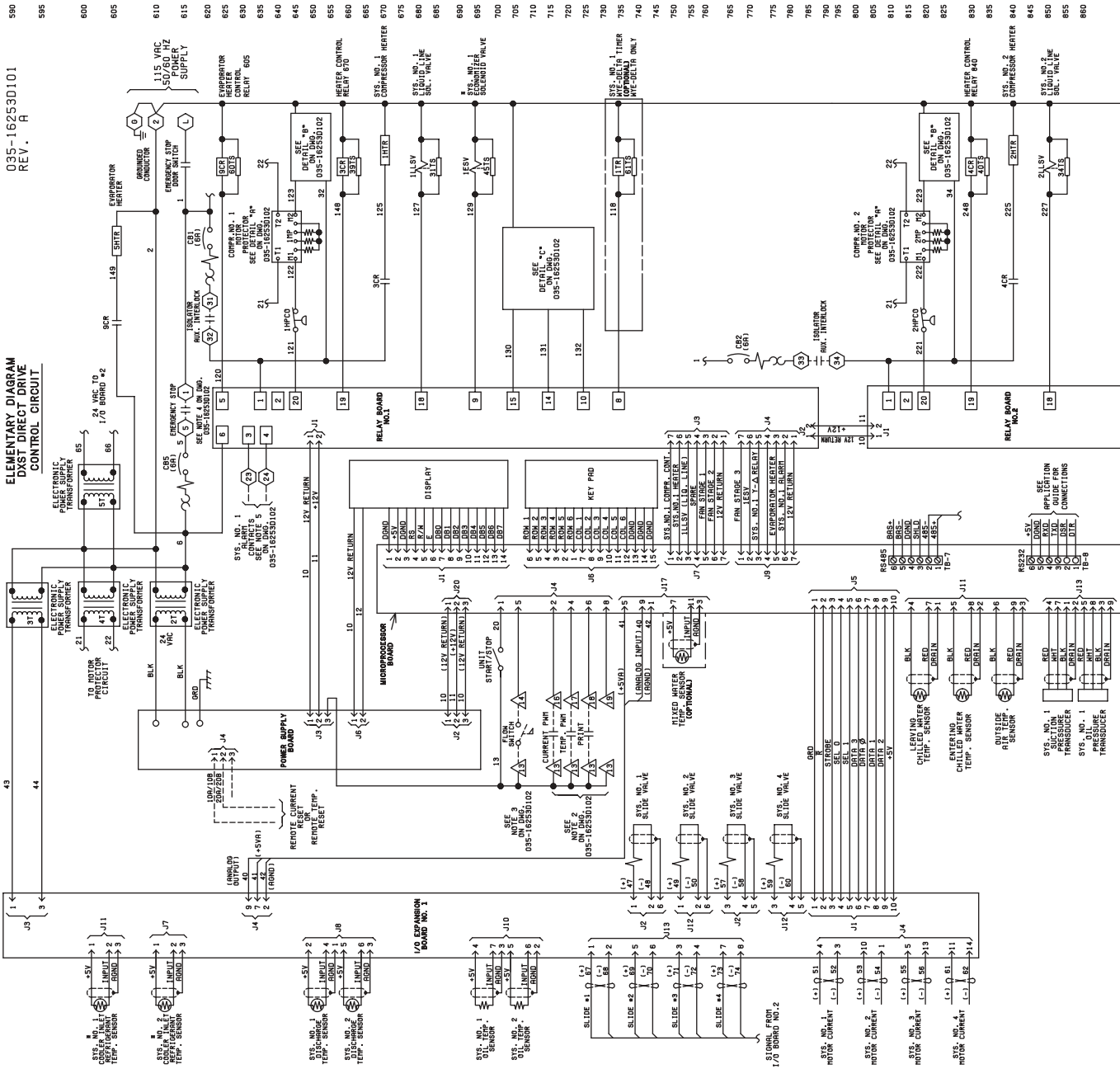


FIG. 20 – ELEMENTARY WIRING DIAGRAM

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.

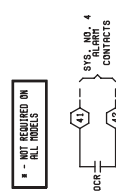
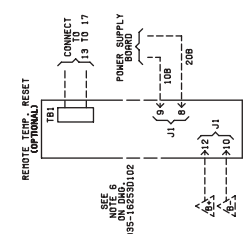
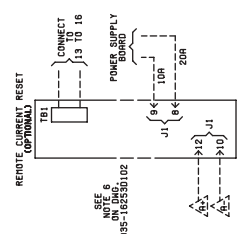
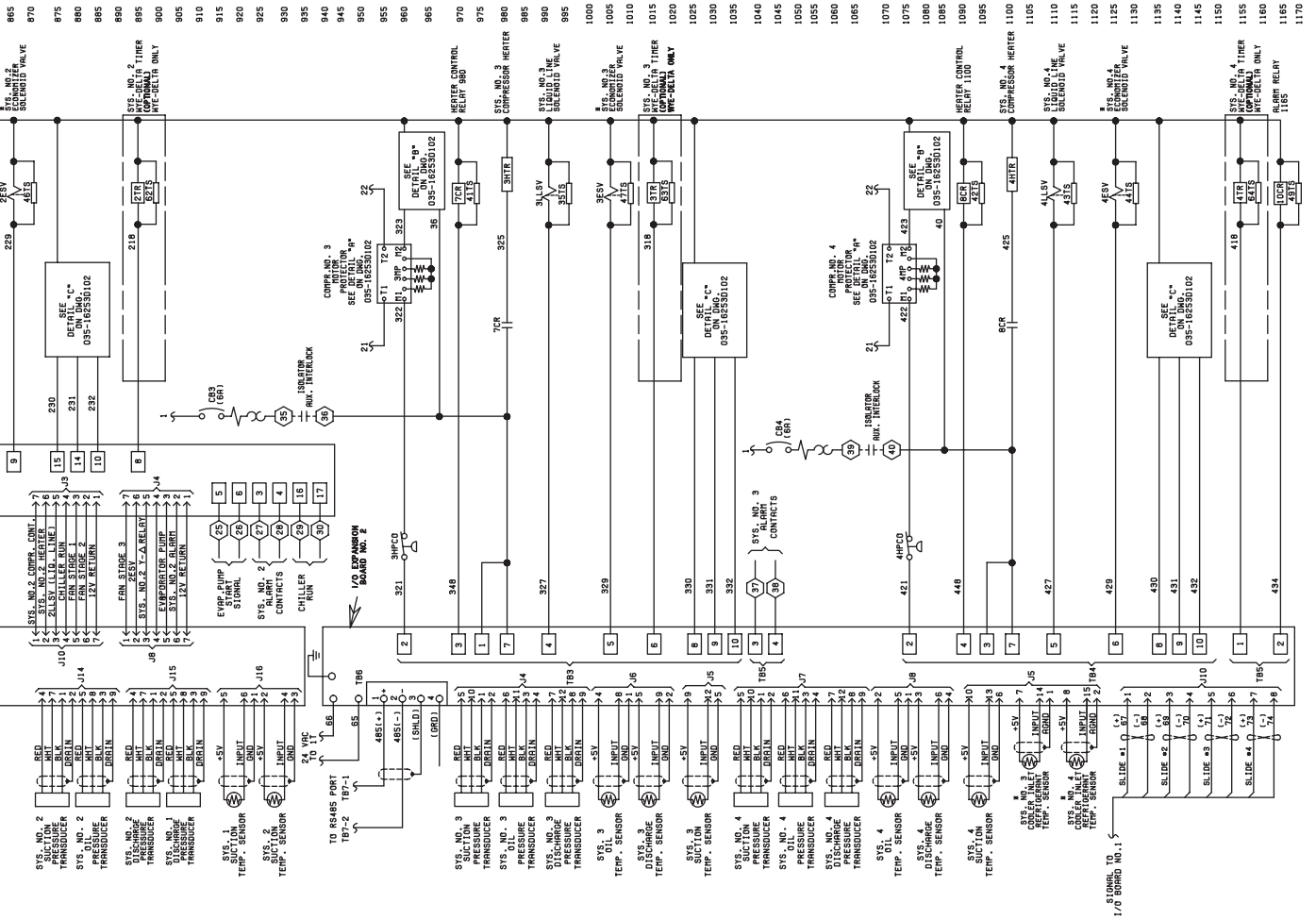
CAUTION:

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.

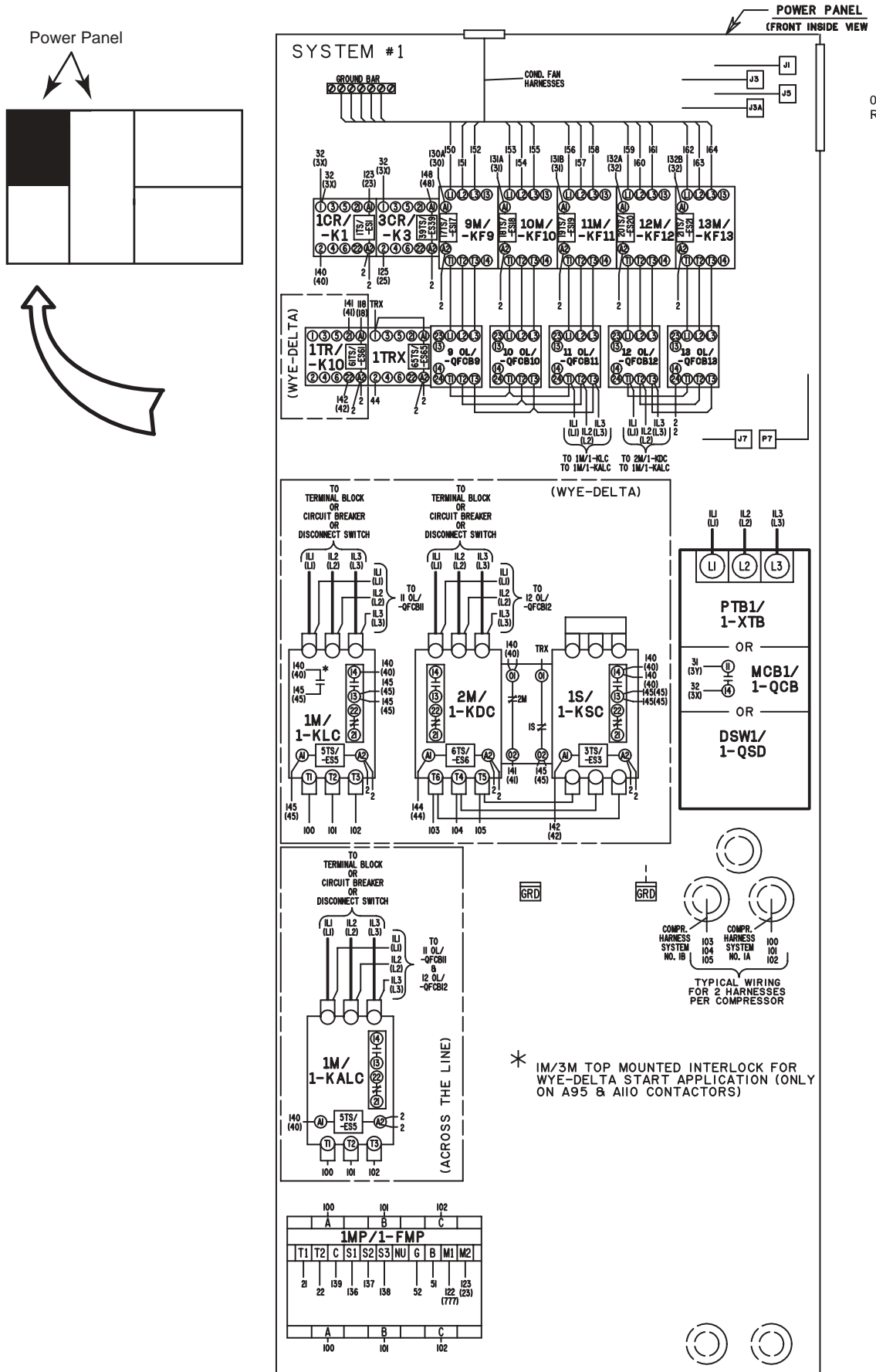


LD010045

CONTROL POWER SUPPLY

UNIT VOLTAGE	CONTROL POWER SUPPLY	MIN CIRCUIT AMP.	MAX DUAL ELEMENT FUSE SIZE	NON-FUSED DISC. SWITCH SIZE	
ALL MODELS W/O TRANS.	115-1-50/60	20A	20A 250V	30A 240V	
MODELS WITH TRANS.	-17	200-1-60	15A	15A 250V	30A 240V
	-28	230-1-60	15A	15A 250V	30A 240V
	-46	400-1-60	8A	8A 600V	30A 480V
	-58	575-1-60	8A	8A 600V	30A 600V

* All primary and secondary wiring between transformer and control panel included.



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REV D

FIG. 22 – CONNECTION DIAGRAM 4 COMPRESSOR

CONNECTION WIRING DIAGRAM

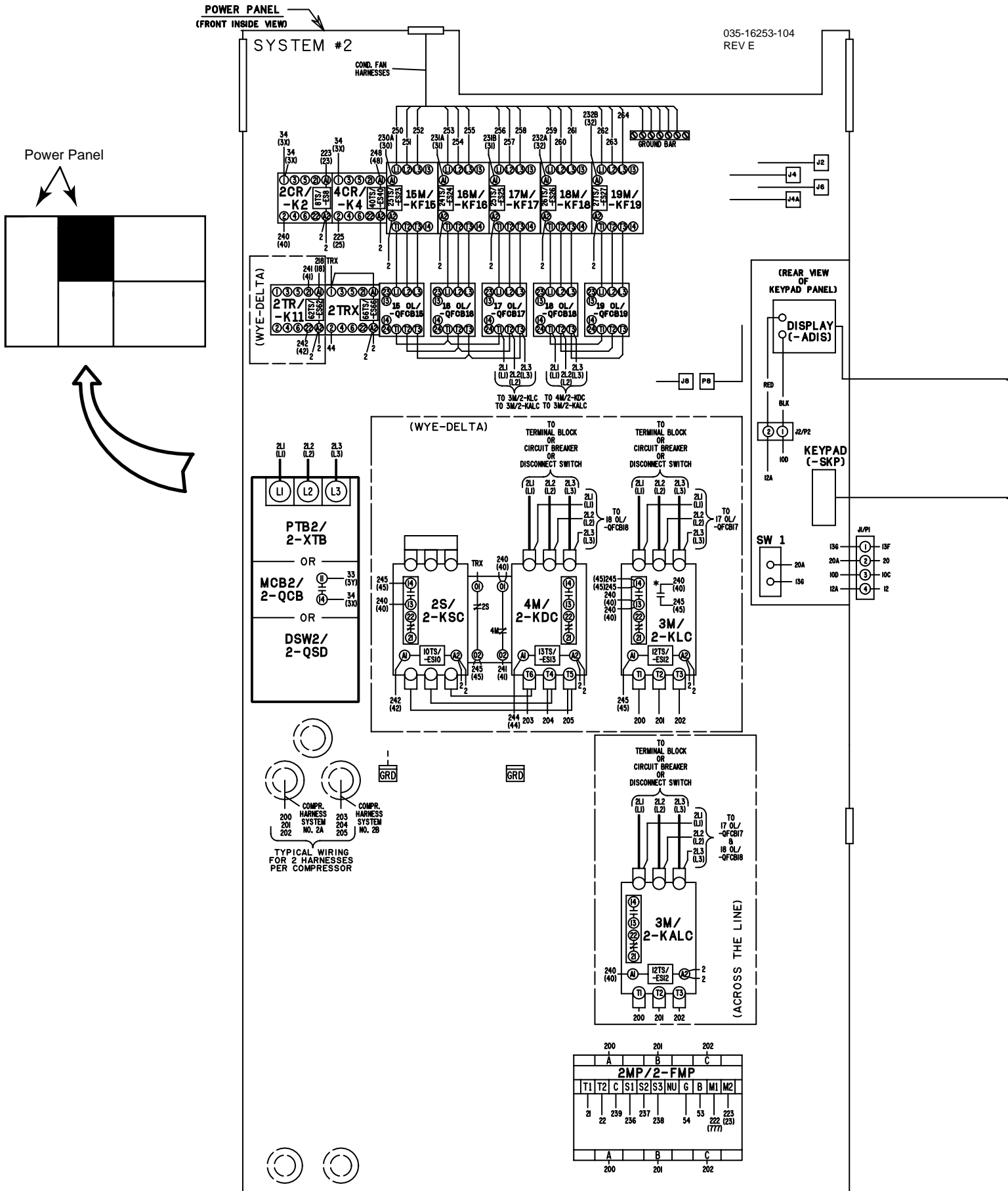


FIG. 23 – CONNECTION WIRING DIAGRAM

LD10048

CONNECTION WIRING DIAGRAM

035-16253-104
REV E

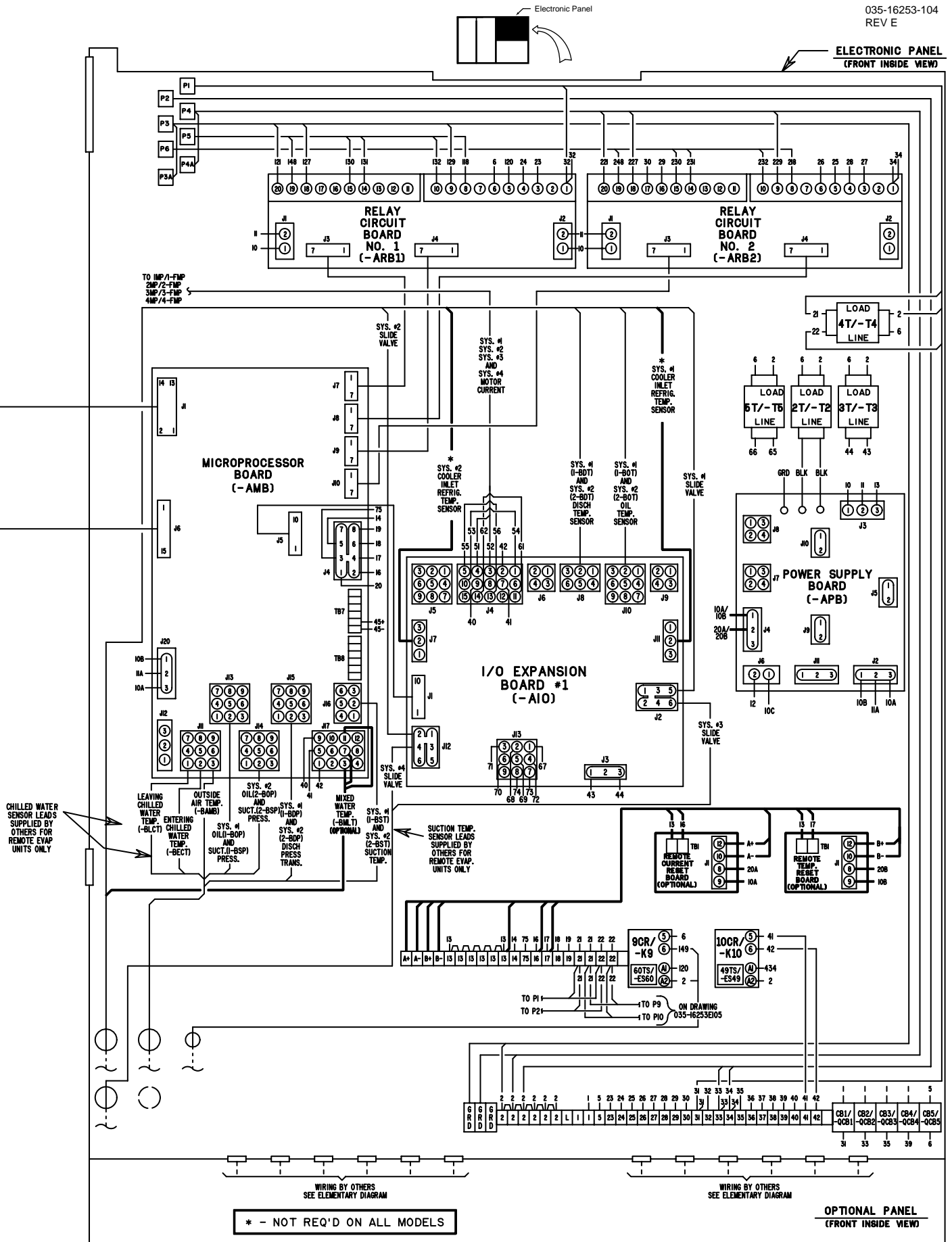


FIG. 24 - CONNECTION WIRING DIAGRAM

LD10049

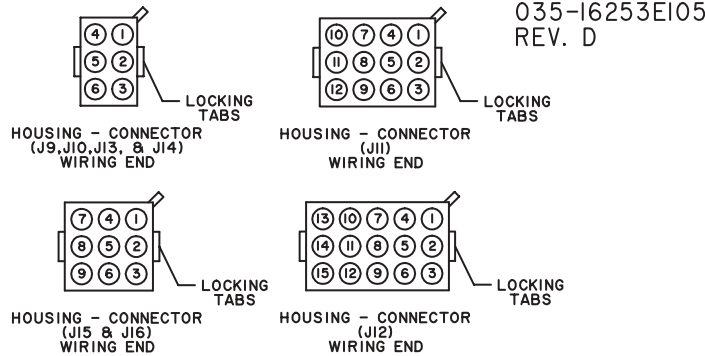
CONNECTION DIAGRAM ELEC. BOX (YCAS0358 - YCAS0418)

STANDARD AND REMOTE EVAP. UNITS

J9, J10, J11, J11A, J12, J12A, — POWER PANEL
J13, J14, J15, J16, P15 & P16

P9, P10, P11, P11A,
P12, P12A, P13, & P14 — ELECTRONIC (MICRO) PANEL

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



- 5CR THRU 8CR, 10CR/ -CONTROL RELAYS
- K5 THRU -K8, -K10
- CB4, CB5, CB6/ -CIRCUIT BREAKERS
- QCB4,-QCB5,-QCB6
- 21CB THRU 24CB -OVERLOAD CIRCUIT BREAKERS (SYS. #3)
- 27CB THRU 30CB -OVERLOAD CIRCUIT BREAKERS (SYS. #4)
- 21 OL THRU 24 OL -MOTOR OVERLOADS (SYS. #3)
- 27 OL THRU 30 OL -MOTOR OVERLOADS (SYS. #4)
- QFCB21 THRU -QFCB24 -MOTOR OVERLOADS W/OVERLOAD CIRCUIT BREAKERS (SYS. #3)
- QFCB27 THRU -QFCB30 -MOTOR OVERLOADS W/OVERLOAD CIRCUIT BREAKERS (SYS. #4)
- 3FU, 4FU/ -TRANSFORMER FUSE (OPTIONAL)
- F3, -F4

LEGEND

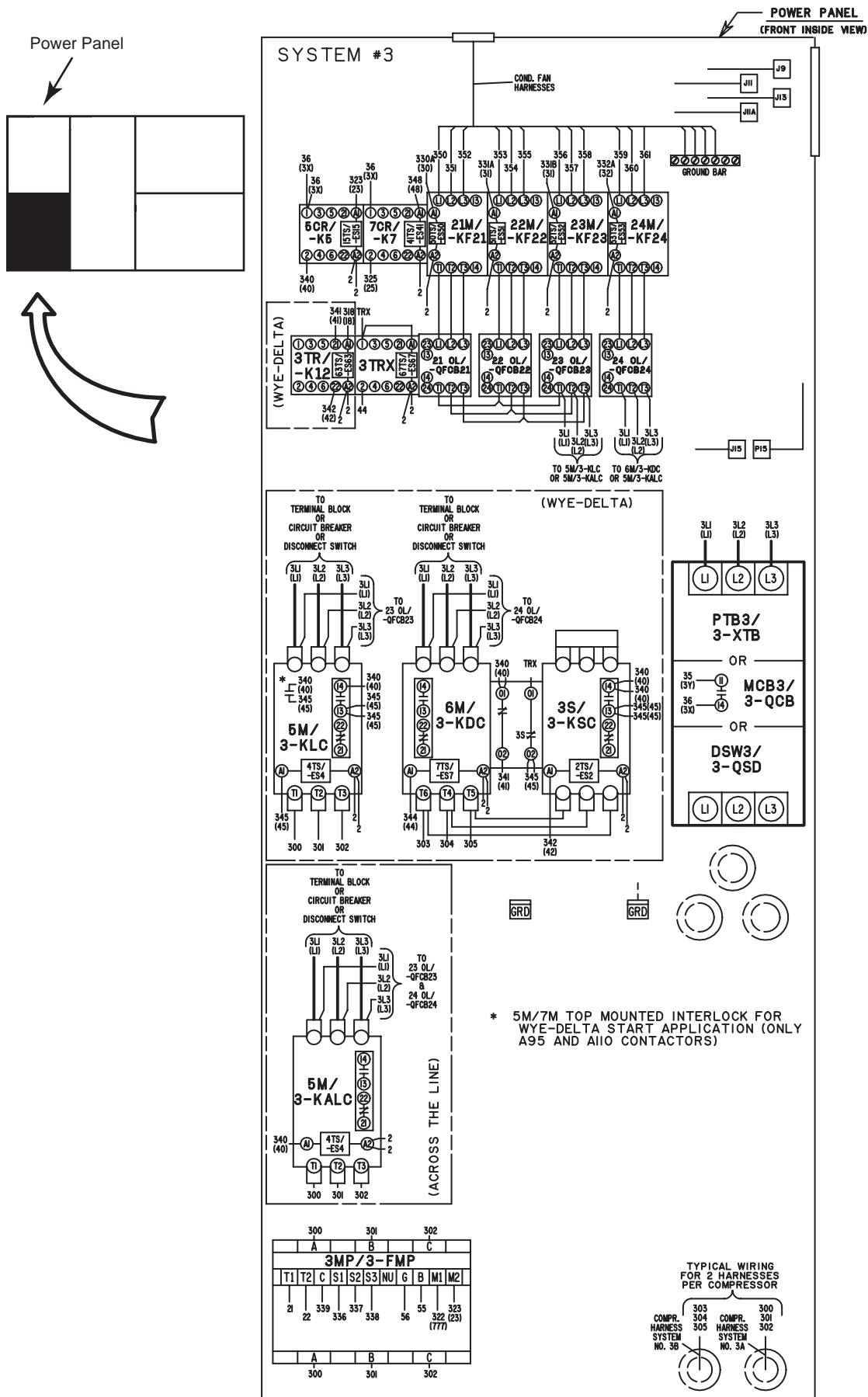
- 5M, 7M/ -COMPRESSOR CONTACTORS
- 3-KLC OR 3-KALC, 4-KLC OR 4-KALC
- 6M, 8M/ -COMPRESSOR CONTACTORS
- 3-KDC, 4-KDC
- 3S, 4S/ -COMPRESSOR CONTACTORS
- 3-KSC, 4-KSC
- 21M THRU 24M/ -CONDENSER FAN CONTACTORS (SYS. #3)
- KF21 THRU -KF24
- 27M THRU 30M/ -CONDENSER FAN CONTACTORS (SYS. #4)
- KF27 THRU -KF30
- 3MP/3-FMP -MOTOR PROTECTOR (SYS. #3)
- 4MP/4-FMP -MOTOR PROTECTOR (SYS. #4)
- 1T/-T1 -CONTROL TRANSFORMER 2KVA (OPTIONAL)

- 6T, 7T, 8T/ -MICRO PANEL TRANSFORMERS
- T6, -T7, -T8
- 3TR, 4TR/ -TIMER RELAYS
- K12, -K13
- TS/-ES -TRANSIENT SUPPRESSORS
- PTB3, PTB4/ -POWER TERMINAL BLOCK
- 3-XTB, 4-XTB -MOTOR CIRCUIT BREAKER
- 3-QCB, 4-QCB
- DSW3, DSW4/ -DISCONNECT SERVICE SWITCH
- 3-QSD, 4-QSD
- -WIRING BY YORK
- -WIRING BY OTHERS
- -OPTIONAL WIRING AND/OR COMPONENTS

PLUG NO.	WIRE NO.	PLUG PIN NO.	PLUG NO.	WIRE NO.	PLUG PIN NO.	PLUG NO.	WIRE NO.	PLUG PIN NO.	PLUG NO.	WIRE NO.	PLUG PIN NO.	PLUG NO.	WIRE NO.	PLUG PIN NO.	PLUG NO.	WIRE NO.	PLUG PIN NO.						
P9	21	1	P10	21	1	P11	2	1	P12	2	1	P13	330	1	P14	430	1	P15	325	1	P16	425	1
	2	2		2	2		GRD	2		GRD	2		331	2		431	2		2	2		2	2
	22	3		22	3		325	3		425	4		332	3		432	3		323	3		423	3
	35	4		39	4		329	5		427	6		348	4		448	4		340	4		440	4
	36	5		40	5		327	4		429	5		318	6		418	6		341	5		441	5
							321	11		421	11								342	6		442	6
							322	12		422	12					32	7		34	7		34	7
J9	21	1	J10	21	1	J11	2	1	J12	2	1	J13	30	1	J14	30	1	J15	25	1	J16	25	1
	2	2		2	2		GRD	2		GRD	2		31	2		31	2		2	2		2	2
	22	3		22	3		325A	3		425A	4		32	3		32	3		23	3		23	3
	3Y	4		3Y	4		329A	5		427A	6		48	4		48	4		40	4		40	4
	3X	5		3X	5		327A	4		429A	5		18	6		18	6		41	5		41	5
P11A	325	1	P12A	425	1	J11	321A	11	J12	421A	11								42	6		42	6
	322	2		422	2		322	12		422	12								3X	7		3X	7
J11A	25	1	J12A	25	1											TRX	8		TRX	8		TRX	8
	777	2		777	2											44	9		44	9		44	9

FIG. 25 – CONNECTION DIAGRAM 4 COMPRESSOR

CONNECTION WIRING DIAGRAM



035-16253-105
REV D

FIG. 26 – CONNECTION DIAGRAM 4 COMPRESSOR

CONNECTION WIRING DIAGRAM

POWER PANEL
(FRONT INSIDE VIEW)

035-16253-105
REV D

Power Panel

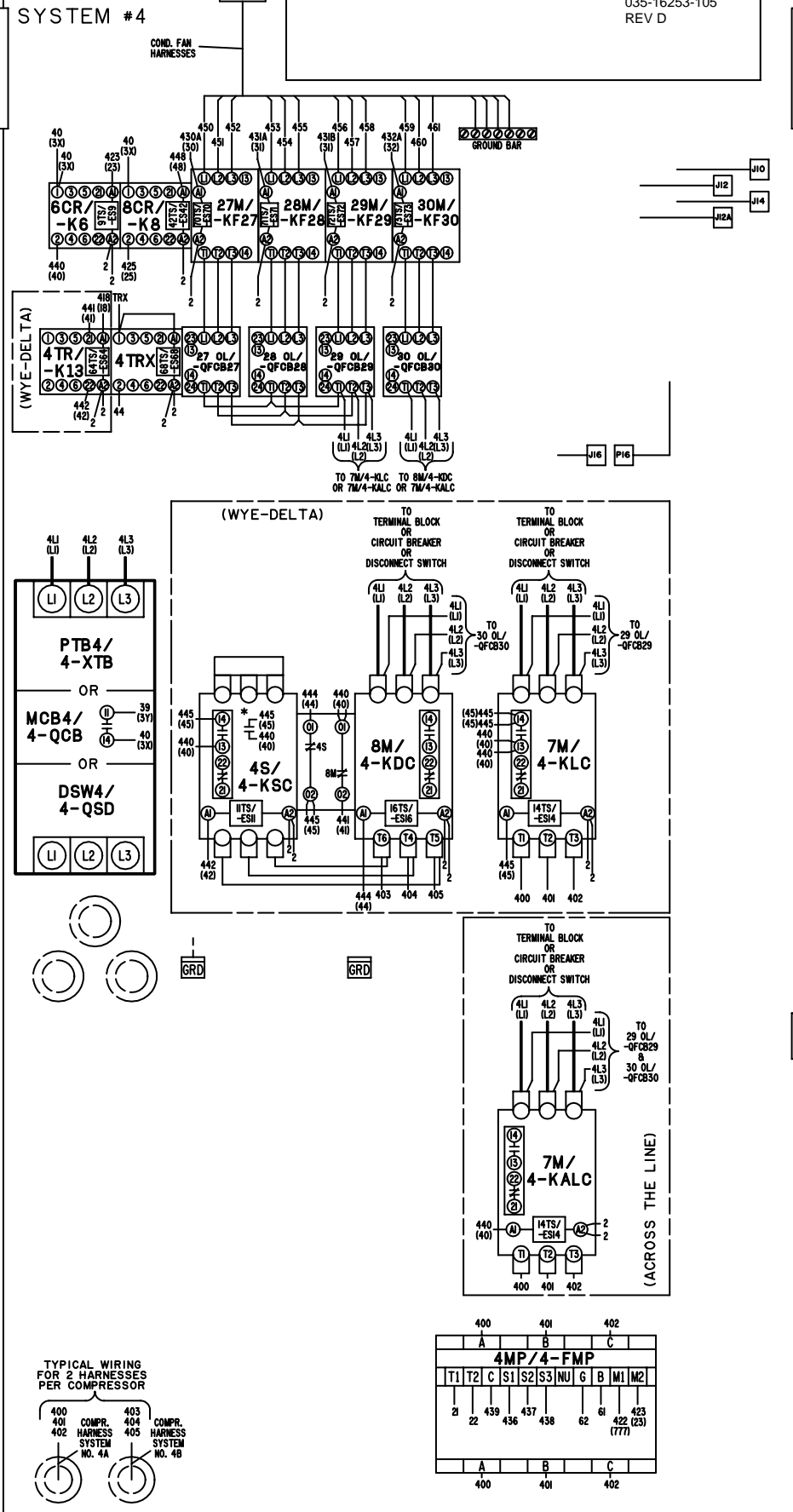
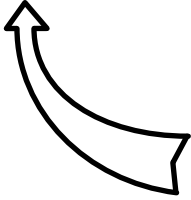
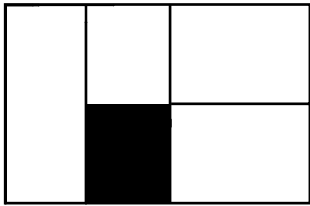


FIG. 27 – CONNECTION DIAGRAM 4 COMPRESSOR

CONNECTION WIRING DIAGRAM

035-16253-105
REV D

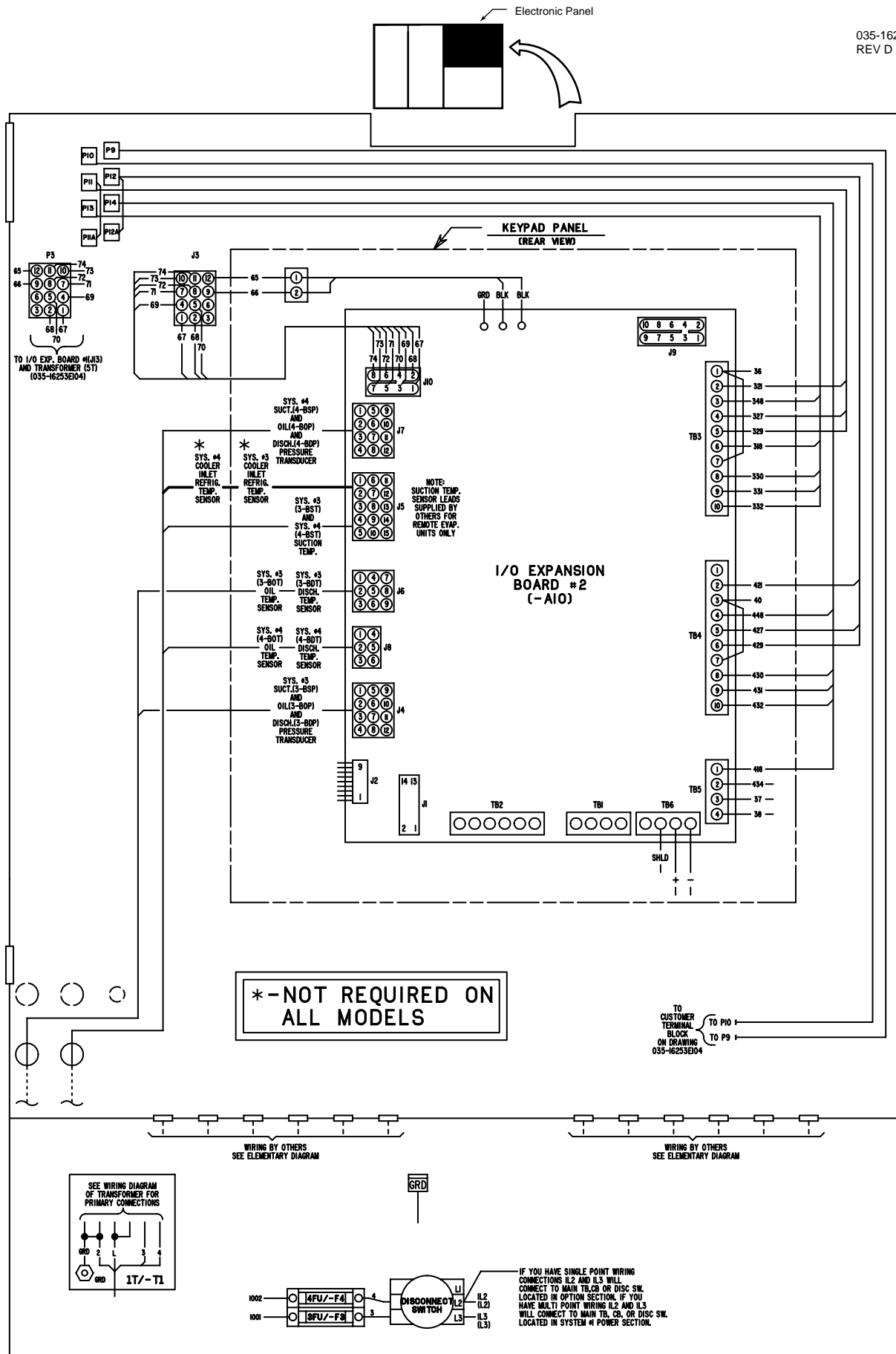


FIG. 28 – CONNECTION DIAGRAM 4 COMPRESSOR

LD10053

ELEMENTARY DIAGRAM DXST STARTER CONTROL CIRCUIT

035-16253-102
REV D

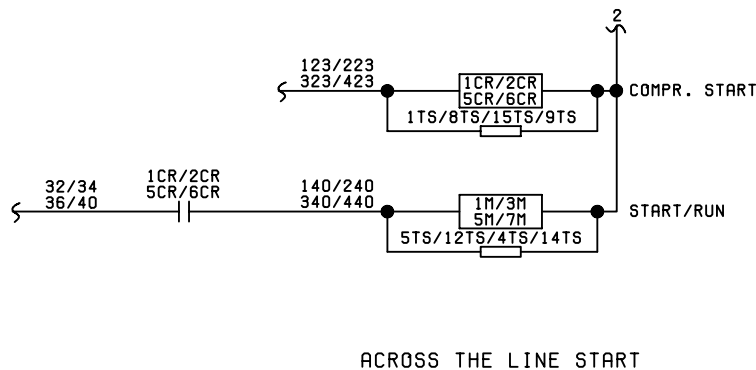
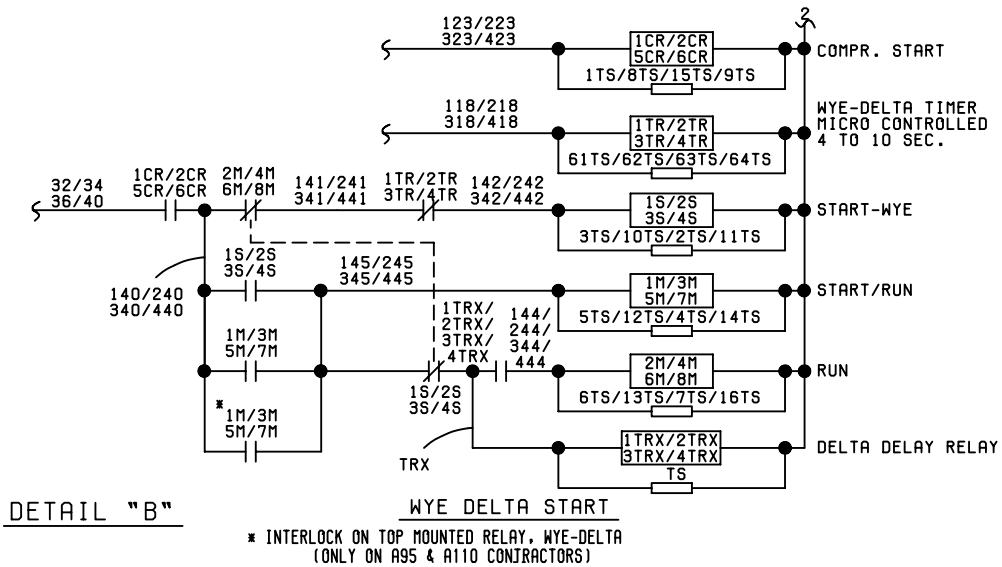
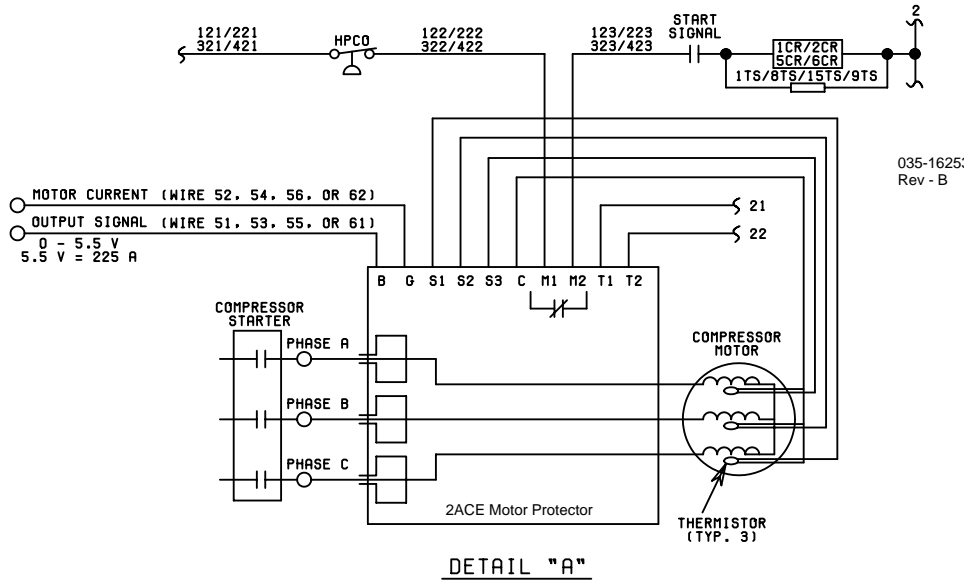


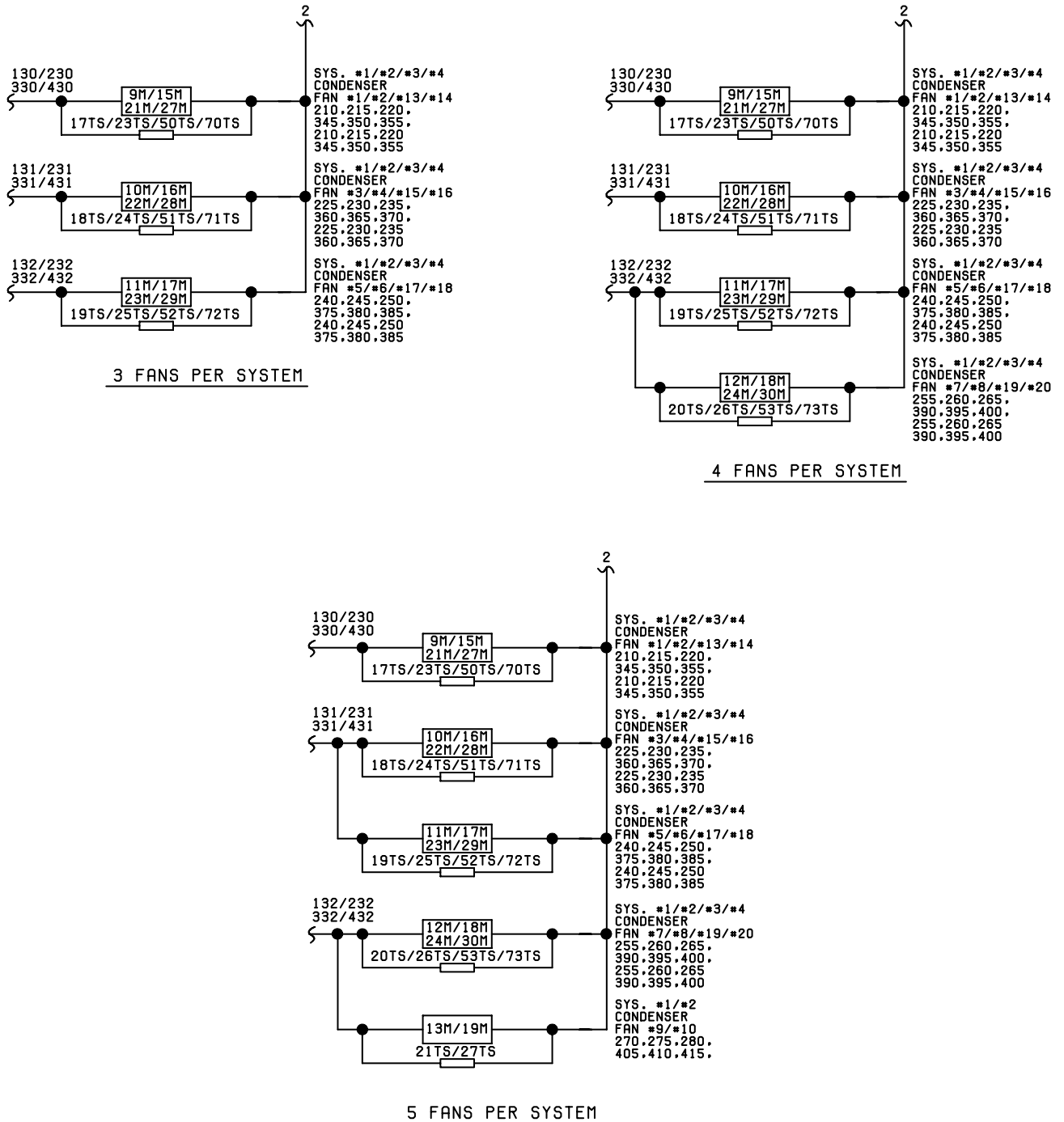
FIG. 29 – ELEMENTARY DIAGRAM - DXST STARTER CONTROL CIRCUIT

LD09373

ELEMENTARY DIAGRAM DXST FAN CONTROL CIRCUIT

035-16253-102
REV D

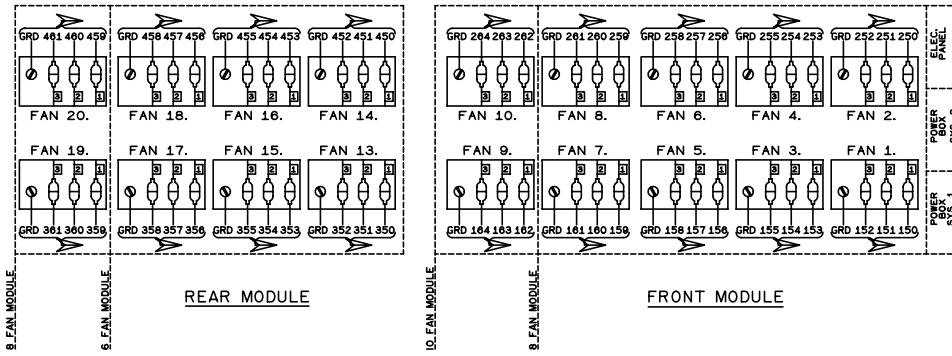
035-16253-102
Rev - B



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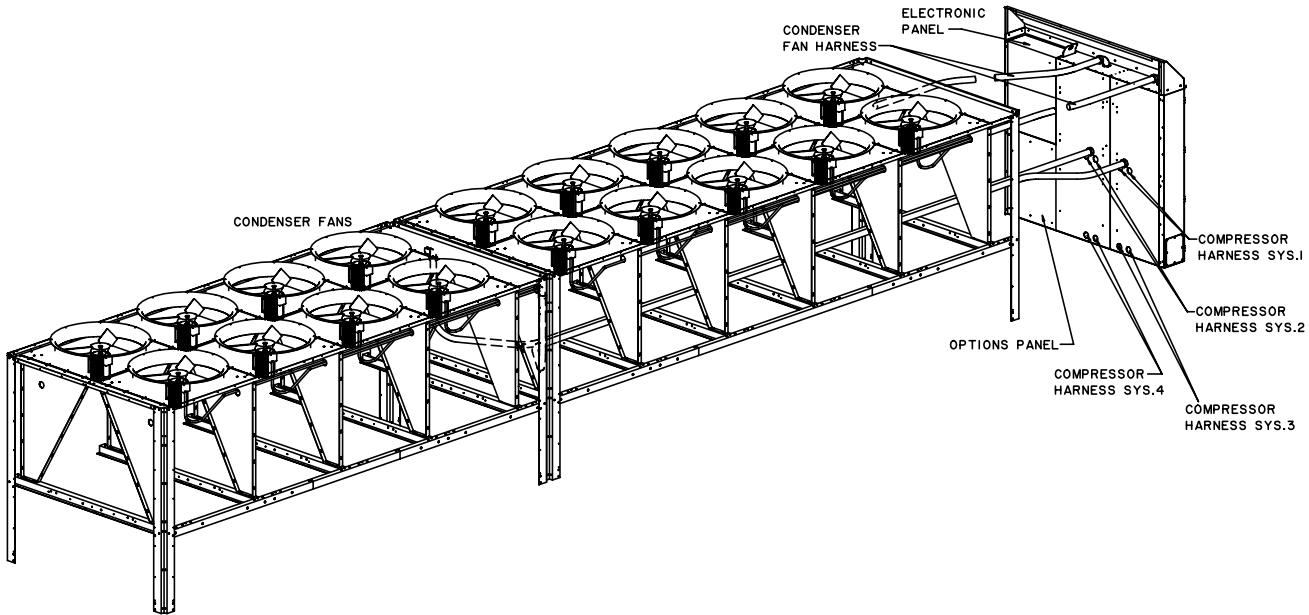
FIG. 30 – ELEMENTARY DIAGRAM - DXST FAN CONTROL CIRCUIT

CONNECTION DIAGRAM SYSTEM WIRING STANDARD AND REMOTE EVAP UNITS



CONNECTION DIAGRAMS SYSTEM WIRING
YCAS 0360 - 0440
STANDARD & REMOTE EVAP. UNITS

035-19206-106
R035-19206-106
REV A



LEGEND

- | | |
|--------|--|
| 1 HPCO | SYS. NO.1 HIGH PRESS. CUTOUT |
| 2 HPCO | SYS. NO.2 HIGH PRESS. CUTOUT |
| 3 HPCO | SYS. NO.3 HIGH PRESS. CUTOUT |
| 4 HPCO | SYS. NO.4 HIGH PRESS. CUTOUT |
| 1 HTR | SYS.NO.1 COMPR. CRANKCASE HEATER |
| 2 HTR | SYS.NO.2 COMPR. CRANKCASE HEATER |
| 3 HTR | SYS.NO.3 COMPR. CRANKCASE HEATER |
| 4 HTR | SYS.NO.4 COMPR. CRANKCASE HEATER |
| 5 HTR | COOLER HEATER |
| 1 LLSV | SYS.NO.1 LIQUID LINE SOLENIOD VALVE (UNIT IDENT) |
| 2 LLSV | SYS.NO.2 LIQUID LINE SOLENIOD VALVE (UNIT IDENT) |
| 3 LLSV | SYS.NO.3 LIQUID LINE SOLENIOD VALVE (UNIT IDENT) |
| 4 LLSV | SYS.NO.4 LIQUID LINE SOLENIOD VALVE (UNIT IDENT) |
| 1 ESV | ECONOMIZER SOLENIOD VAVLE (UNIT IDENT) |
| 2 ESV | ECONOMIZER SOLENIOD VAVLE (UNIT IDENT) |
| 3 ESV | ECONOMIZER SOLENIOD VAVLE (UNIT IDENT) |
| 4 ESV | ECONOMIZER SOLENIOD VAVLE (UNIT IDENT) |
| TXV 1 | SYS.NO.1 THERMAL EXPANSION VALVE (UNIT IDENT) |
| TXV 2 | SYS.NO.2 THERMAL EXPANSION VALVE (UNIT IDENT) |
| TXV 3 | SYS.NO.3 THERMAL EXPANSION VALVE (UNIT IDENT) |
| TXV 4 | SYS.NO.4 THERMAL EXPANSION VALVE (UNIT IDENT) |

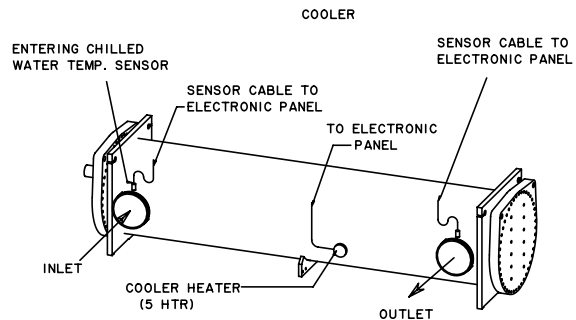


FIG. 31 – CONNECTION DIAGRAM SYSTEM WIRING

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CONNECTION DIAGRAM SYSTEM WIRING STANDARD AND REMOTE EVAP UNITS

035-19206-106
REV A
035-19206-106
Rev -

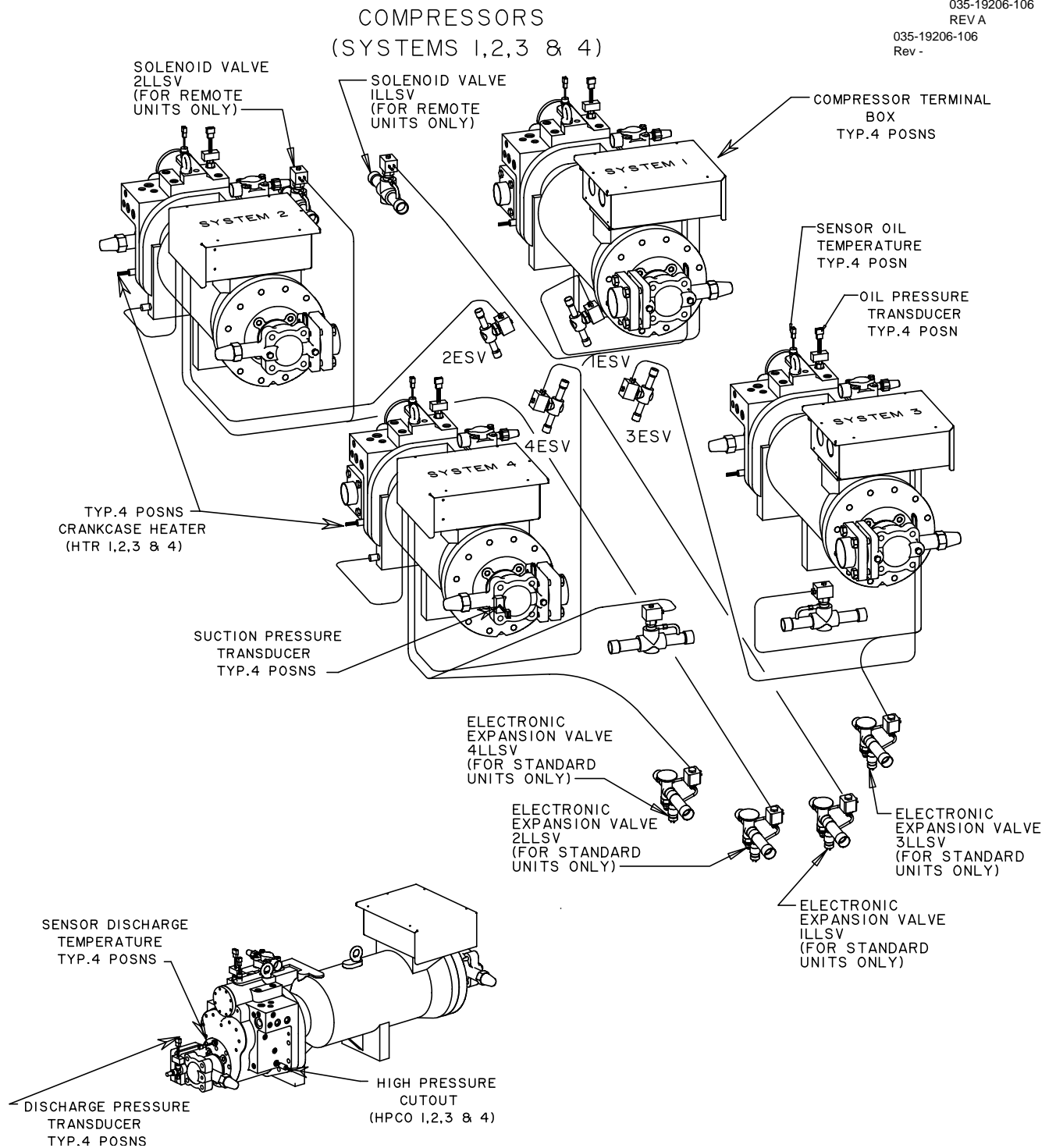


FIG. 32 – CONNECTION DIAGRAM SYSTEM WIRING

COMPRESSOR TERMINAL BOX SYSTEM 1 THROUGH 4

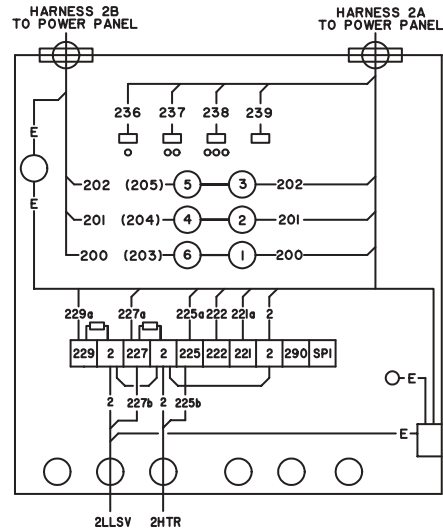
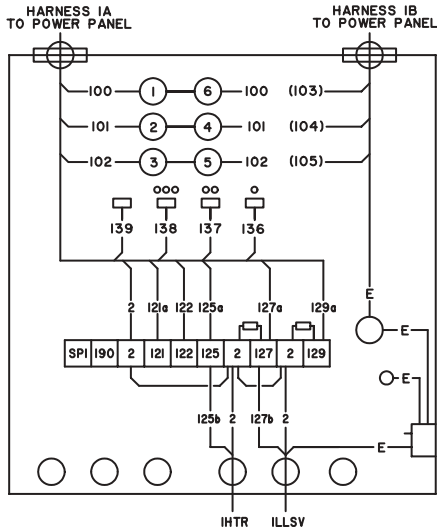
035-19206-106
REV A

SYSTEM 1
COMPRESSOR TERMINAL BOX
ACROSS THE LINE
USE (XXX) FOR WYE-DELTA-START

SEE SAFTY RELIEF DEVICE KIT FOR
WIRING OF RELIEF DEVICES IN CMTB

JUMPERS ONLY REQUIRED
ON ACROSS THE LINE UNITS

SYSTEM 2
COMPRESSOR TERMINAL BOX
ACROSS THE LINE
USE (XXX) FOR WYE-DELTA-START



SYSTEM 3
COMPRESSOR TERMINAL BOX
ACROSS THE LINE
USE (XXX) FOR WYE-DELTA-START

SYSTEM 4
COMPRESSOR TERMINAL BOX
ACROSS THE LINE
USE (XXX) FOR WYE-DELTA-START

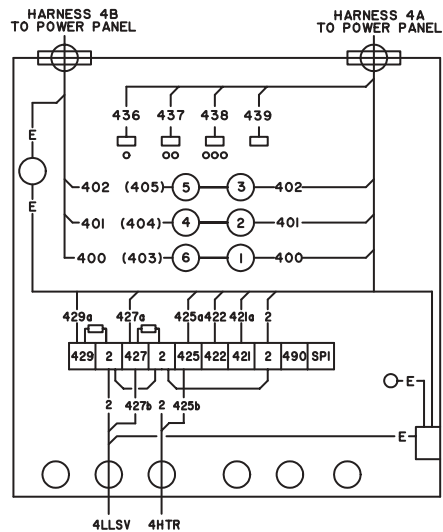
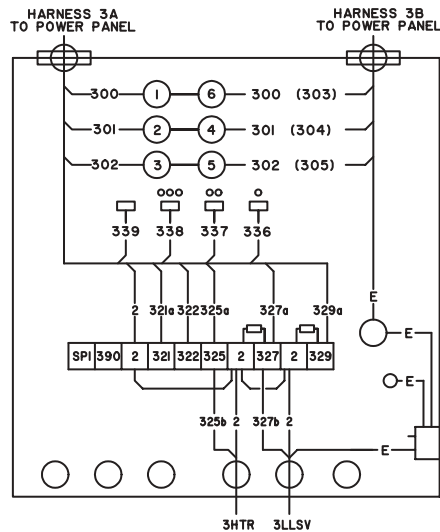


FIG. 33 – COMPRESSOR TERMINAL BOX, SYSTEM 1-4

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