

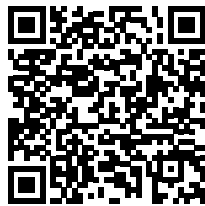


BEC-Line Condensing Units

PRODUCT DATA & SPECIFICATIONS

Bulletin B40-BEC-PDS-60

1030001

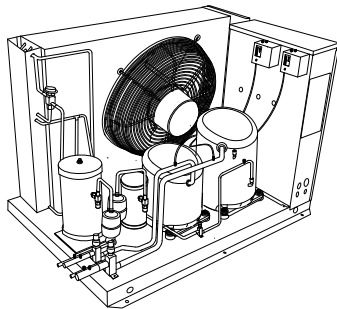


Latest product updates and further information
at www.ballyrefboxes.com

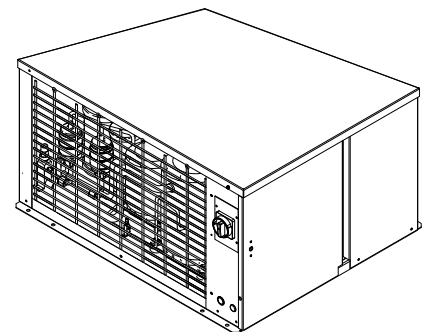
60
Hz

Cooler/Freezer Combo
Condensing Units
Medium/Low Temp. Combo
Air Cooled Condensing Units
Indoor/Outdoor

MEDIUM TEMP - 3/4 & 1.0 HP
LOW TEMP - 1.5, 2.0 & 2.5 HP



BECA306	MT 3/4 HP + LT 1.5 HP
BECA308	MT 3/4 HP + LT 2.0 HP
BECA310	MT 3/4 HP + LT 2.5 HP
BECA406	MT 1.0 HP + LT 1.5 HP
BECA408	MT 1.0 HP + LT 2.0 HP
BECA410	MT 1.0 HP + LT 2.5 HP



FEATURES

- One unit for both cooler and freezer boxes, saving space, installation time and shipping cost.
 - Over sized condenser surface
 - Over sized receiver
 - Over sized electrical control panel
 - Single point electrical hook up
 - Fan guard protection is standard
- Crankcase heater and headmaster valves are standard on outdoor models

CONTENTS

	Page
Nomenclature.....	2
Capacity Data	2 - 3
Electrical Data.....	4
Mechanical Specifications.....	4
Wiring Diagrams.....	5 - 10
Warranty.....	11
Project Information.....	11
“As Built” Service Parts List.....	BACK

NOMENCLATURE

B E C A 030 C 6 - H T3 B - A

Model Name

B = Bally

Model Series

EC = Excel Hermetic Medium
Temp/Low Temp Combo

Compressor Manufacturer

A = Copeland

Total Nominal HP

306 = 3/4HP (MT) + 1.5HP (LT)
308 = 3/4HP (MT) + 2.0HP (LT)
310 = 3/4HP (MT) + 2.5HP (LT)
406 = 1.0HP (MT) + 1.5HP (LT)
408 = 1.0HP (MT) + 2.0HP (LT)
410 = 1.0HP (MT) + 2.5HP (LT)

Options

Design Version

Voltage*

S2 = 208/230-1-60 T3 = 208/230-3-60

* Three phase not available on 3/4 HP Med Temp

Enclosure

H = Outdoor I = Indoor

Refrigerant*

6 = R404A / R507

C = Combo: Medium and Low Temp.



CAPACITY DATA - R404A R507 MEDIUM & LOW TEMPERATURE

60Hz

BECA306: 3/4 HP MT + 1.5 HP LT

CAPACITY BTU/H		R404A		R507		AMBIENT TEMPERATURE °F									
SUC TEMP °F	MEDIUM TEMP							SUC TEMP °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
30	9400	8930	8450	7990	7520	7060	6600	10	13500	12700	11900	11100	10300	9540	8740
25	8650	8210	7770	7340	6900	6470	6050	5	12400	11700	11000	10200	9490	8760	8020
20	7930	7520	7110	6700	6300	5900	5500	0	11300	10600	9960	9290	8610	7940	7270
15	7220	6850	6470	6090	5720	5360	4990	-5	10200	9580	8950	8330	7720	7100	6490
10	6550	6210	5860	5510	5170	4830	4490	-10	9060	8490	7930	7360	6800	6250	5700
5	5910	5600	5270	4960	4640	4330	4020	-15	7950	7420	6910	6390	5900	5410	4920
0	5300	5020	4730	4430	4150	3860	3590	-20	6860	6380	5910	5460	5010	4580	4160
-5	4510	4260	4010	3760	3510	3270	3030	-25	5820	5390	4970	4560	4170	3800	3440
								-30	4850	4450	4070	3730	3390	3080	2780

BECA308: 3/4 HP MT + 2.0 HP LT

CAPACITY BTU/H		R404A		R507		AMBIENT TEMPERATURE °F									
SUC TEMP °F	MEDIUM TEMP							SUC TEMP °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
30	9400	8930	8450	7990	7520	7060	6600	10	15200	14300	13500	12700	11800	11000	10100
25	8650	8210	7770	7340	6900	6470	6050	5	13900	13100	12300	11500	10700	9950	9170
20	7930	7520	7110	6700	6300	5900	5500	0	12500	11800	11100	10400	9660	8940	8210
15	7220	6850	6470	6090	5720	5360	4990	-5	11200	10600	9890	9230	8580	7920	7270
10	6550	6210	5860	5510	5170	4830	4490	-10	9910	9300	8690	8100	7500	6910	6320
5	5910	5600	5270	4960	4640	4330	4020	-15	8640	8070	7530	6980	6450	5920	5400
0	5300	5020	4730	4430	4150	3860	3590	-20	7410	6900	6410	5910	5440	4970	4520
-5	4510	4260	4010	3760	3510	3270	3030	-25	6260	5800	5340	4900	4480	4080	3700
								-30	5200	4770	4370	3980	3620	3280	2960

tables continue on next page >>>

BECA310: 3/4 HP MT + 2.5 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SUC TEMP °F	MEDIUM TEMP							SUC TEMP °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
30	9400	8930	8450	7990	7520	7060	6600	10	23900	22600	21300	20100	18800	17500	16300
25	8650	8210	7770	7340	6900	6470	6050	5	21700	20500	19300	18100	17000	15800	14600
20	7930	7520	7110	6700	6300	5900	5500	0	19500	18400	17300	16200	15200	14100	13100
15	7220	6850	6470	6090	5720	5360	4990	-5	17300	16300	15300	14400	13400	12400	11500
10	6550	6210	5860	5510	5170	4830	4490	-10	15200	14300	13400	12500	11700	10800	9940
5	5910	5600	5270	4960	4640	4330	4020	-15	13200	12400	11600	10800	10000	9230	8470
0	5300	5020	4730	4430	4150	3860	3590	-20	11300	10500	9810	9100	8420	7750	7090
-5	4510	4260	4010	3760	3510	3270	3030	-25	9440	8790	8150	7540	6940	6360	5810
								-30	7760	7180	6640	6110	5610	5110	4650

BECA406: 1.0 HP MT + 1.5 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SUC TEMP °F	MEDIUM TEMP							SUC TEMP °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
30	11600	11100	10600	10100	9620	9120	8610	10	13500	12700	11900	11100	10300	9540	8740
25	10700	10200	9790	9350	8880	8430	7960	5	12400	11700	11000	10200	9490	8760	8020
20	9790	9390	8990	8580	8160	7740	7250	0	11300	10600	9960	9290	8610	7940	7270
15	8940	8580	8200	7770	7390	7000	6600	-5	10200	9580	8950	8330	7720	7100	6490
10	8070	7740	7400	7060	6710	6340	5990	-10	9060	8490	7930	7360	6800	6250	5700
5	7280	6970	6670	6350	6030	5700	5380	-15	7950	7420	6910	6390	5900	5410	4920
0	6510	6240	5950	5670	5330	5040	4740	-20	6860	6380	5910	5460	5010	4580	4160
-5	5490	5250	5000	4750	4490	4230	3960	-25	5820	5390	4970	4560	4170	3800	3440
								-30	4850	4450	4070	3730	3390	3080	2780

BECA408: 1.0 HP MT + 2.0 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SUC TEMP °F	MEDIUM TEMP							SUC TEMP °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
30	11600	11100	10600	10100	9620	9120	8610	10	15200	14300	13500	12700	11800	11000	10100
25	10700	10200	9790	9350	8880	8430	7960	5	13900	13100	12300	11500	10700	9950	9170
20	9790	9390	8990	8580	8160	7740	7250	0	12500	11800	11100	10400	9660	8940	8210
15	8940	8580	8200	7770	7390	7000	6600	-5	11200	10600	9890	9230	8580	7920	7270
10	8070	7740	7400	7060	6710	6340	5990	-10	9910	9300	8690	8100	7500	6910	6320
5	7280	6970	6670	6350	6030	5700	5380	-15	8640	8070	7530	6980	6450	5920	5400
0	6510	6240	5950	5670	5330	5040	4740	-20	7410	6900	6410	5910	5440	4970	4520
-5	5490	5250	5000	4750	4490	4230	3960	-25	6260	5800	5340	4900	4480	4080	3700
								-30	5200	4770	4370	3980	3620	3280	2960

BECA410: 1.0 HP MT + 2.5 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SUC TEMP °F	MEDIUM TEMP							SUC TEMP °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
30	11600	11100	10600	10100	9620	9120	8610	10	23900	22600	21300	20100	18800	17500	16300
25	10700	10200	9790	9350	8880	8430	7960	5	21700	20500	19300	18100	17000	15800	14600
20	9790	9390	8990	8580	8160	7740	7250	0	19500	18400	17300	16200	15200	14100	13100
15	8940	8580	8200	7770	7390	7000	6600	-5	17300	16300	15300	14400	13400	12400	11500
10	8070	7740	7400	7060	6710	6340	5990	-10	15200	14300	13400	12500	11700	10800	9940
5	7280	6970	6670	6350	6030	5700	5380	-15	13200	12400	11600	10800	10000	9230	8470
0	6510	6240	5950	5670	5330	5040	4740	-20	11300	10500	9810	9100	8420	7750	7090
-5	5490	5250	5000	4750	4490	4230	3960	-25	9440	8790	8150	7540	6940	6360	5810
								-30	7760	7180	6640	6110	5610	5110	4650

208-230/1/60

UNIT MODEL	MEDIUM TEMP COMPRESSOR			LOW TEMP COMPRESSOR			CONDENSER FAN		UNIT	
	MODEL	RLA	LRA	MODEL	RLA	LRA	QTY	FLA	MCA	MOP
BECA306	RST55C1E-CAV	6.1	34	CF06K6E-PFV	10.3	59	1	2.1	21	30
BECA308	RST55C1E-CAV	6.1	34	CF06K6E-PFV	10.3	59	1	2.1	21	30
BECA310	RST55C1E-CAV	6.1	34	CF09K6E-PFV	15.0	87	1	2.1	27	40
BECA406	RST70C1E-PFV	6.9	46	CF06K6E-PFV	10.3	59	1	2.1	22	30
BECA408	RST70C1E-PFV	6.9	46	CF06K6E-PFV	10.3	59	1	2.1	22	30
BECA410	RST70C1E-PFV	6.9	46	CF09K6E-PFV	15.0	87	1	2.1	28	40

208-230/3/60

UNIT MODEL	MEDIUM TEMP COMPRESSOR			LOW TEMP COMPRESSOR			CONDENSER FAN		UNIT	
	MODEL	RLA	LRA	MODEL	RLA	LRA	QTY	FLA	MCA	MOP
BECA306	RST55C1E-CAV	6.1	34	CF06K6E-TF5	6.3	52	1	2.1	16	20
BECA308	RST55C1E-CAV	6.1	34	CF06K6E-TF5	6.3	52	1	2.1	16	20
BECA310	RST55C1E-CAV	6.1	34	CF09K6E-TF5	9.2	72	1	2.1	20	30
BECA406	RST70C1E-TF5	4.9	36	CF06K6E-TF5	6.3	52	1	2.1	15	20
BECA408	RST70C1E-TF5	4.9	36	CF06K6E-TF5	6.3	52	1	2.1	15	20
BECA410	RST70C1E-TF5	4.9	36	CF09K6E-TF5	9.2	72	1	2.1	19	30

MECHANICAL DATA

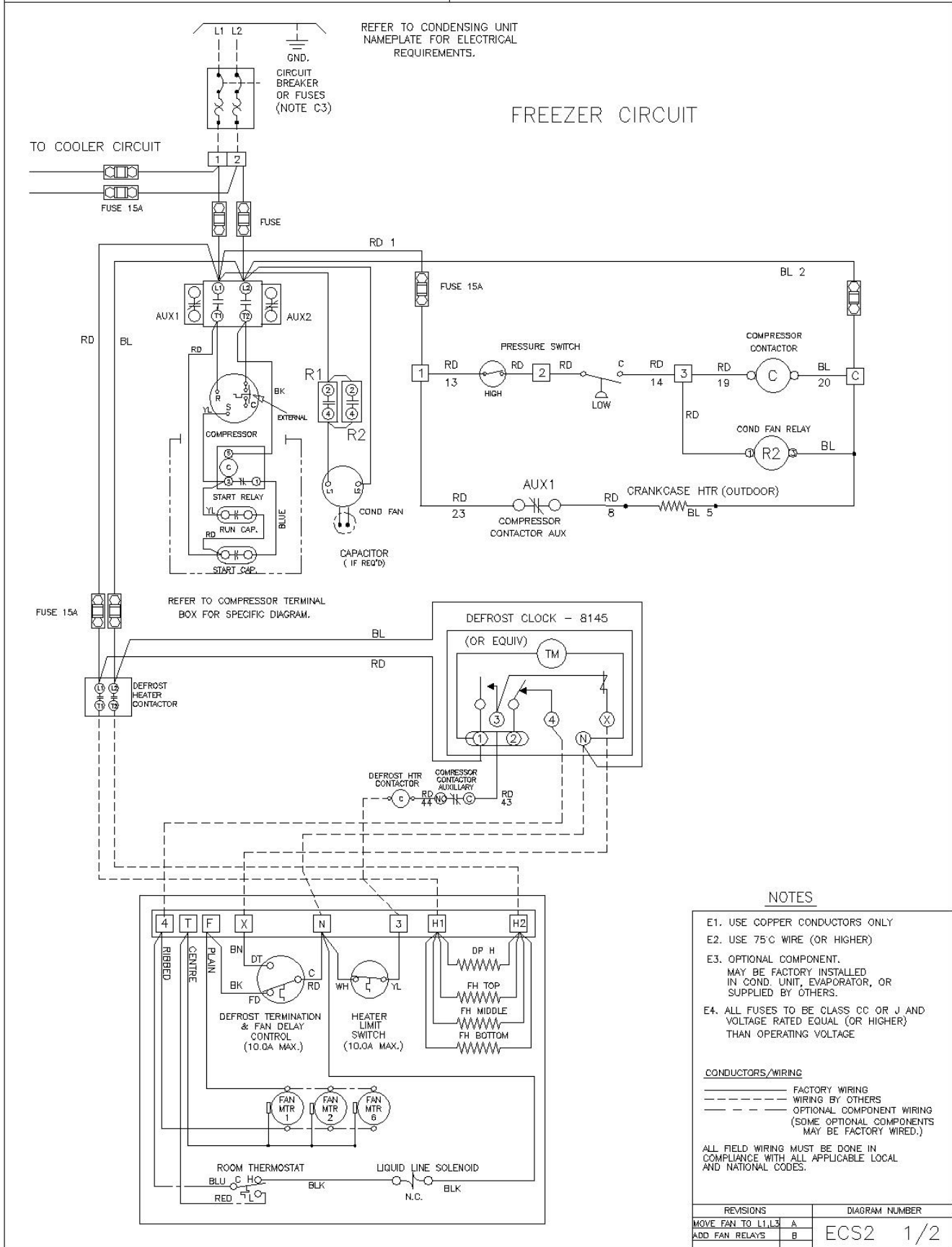
UNIT MODEL	DIMENSIONS			CONNECTION SIZE				RECEIVER		SHIPPING WEIGHT LBS
				MEDIUM TEMP		LOW TEMP		MT LBS	LT LBS	
	W	D	H	SUCTION	LIQUID	SUCTION	LIQUID			
BECA306	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
BECA308	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
BECA310	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
BECA406	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
BECA408	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	398
BECA410	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	398

208-230/1/60 - FREEZER CIRCUIT

CONDENSING UNIT WIRING DIAGRAM

- 208/230V-1-60 Hz
- STANDARD CONTROL CIRCUIT

PAGE 1/2

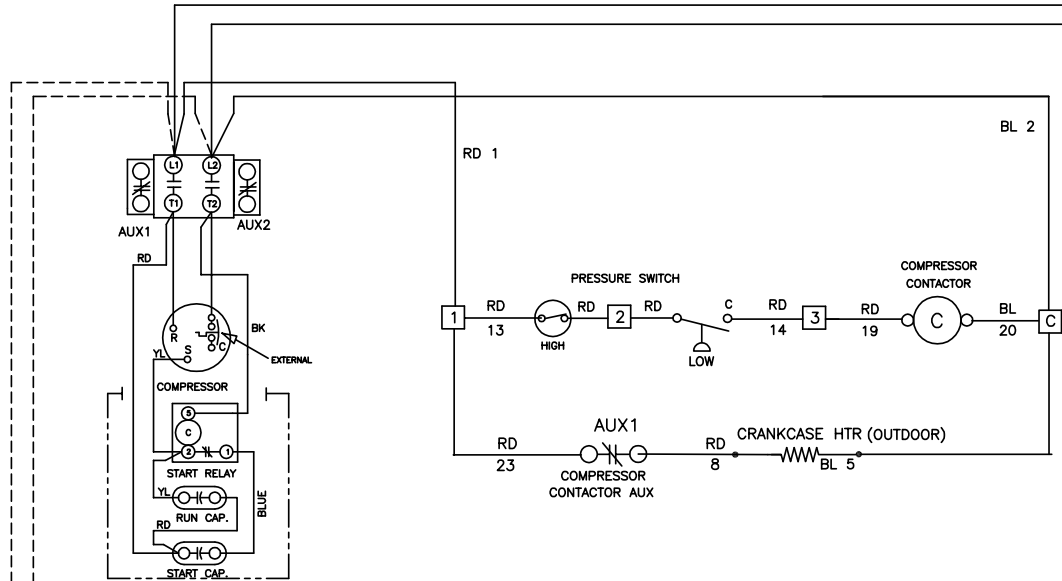


208-230/3/60 - COOLER CIRCUIT

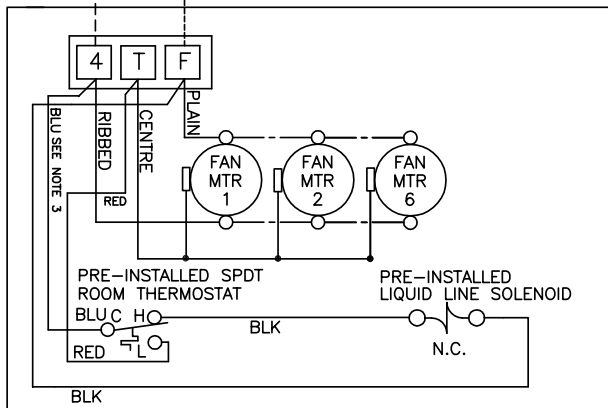
CONDENSING UNIT WIRING DIAGRAM - 208/230V-1-60 Hz - STANDARD CONTROL CIRCUIT PAGE 2/2

COOLER CIRCUIT

FROM MAIN POWER BLOCK



REFER TO COMPRESSOR TERMINAL BOX FOR SPECIFIC DIAGRAM.



NOTES

- E1. USE COPPER CONDUCTORS ONLY
- E2. USE 75°C WIRE (OR HIGHER)
- E3. OPTIONAL COMPONENT. MAY BE FACTORY INSTALLED IN COND. UNIT, EVAPORATOR, OR SUPPLIED BY OTHERS.
- E4. ALL FUSES TO BE CLASS CC OR J AND VOLTAGE RATED EQUAL (OR HIGHER) THAN OPERATING VOLTAGE

CONDUCTORS/WIRING

- FACTORY WIRING
- - - - - WIRING BY OTHERS
- · - · - OPTIONAL COMPONENT WIRING (SOME OPTIONAL COMPONENTS MAY BE FACTORY WIRED.)

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

REVISIONS	DIAGRAM NUMBER
	ECS2 2/2

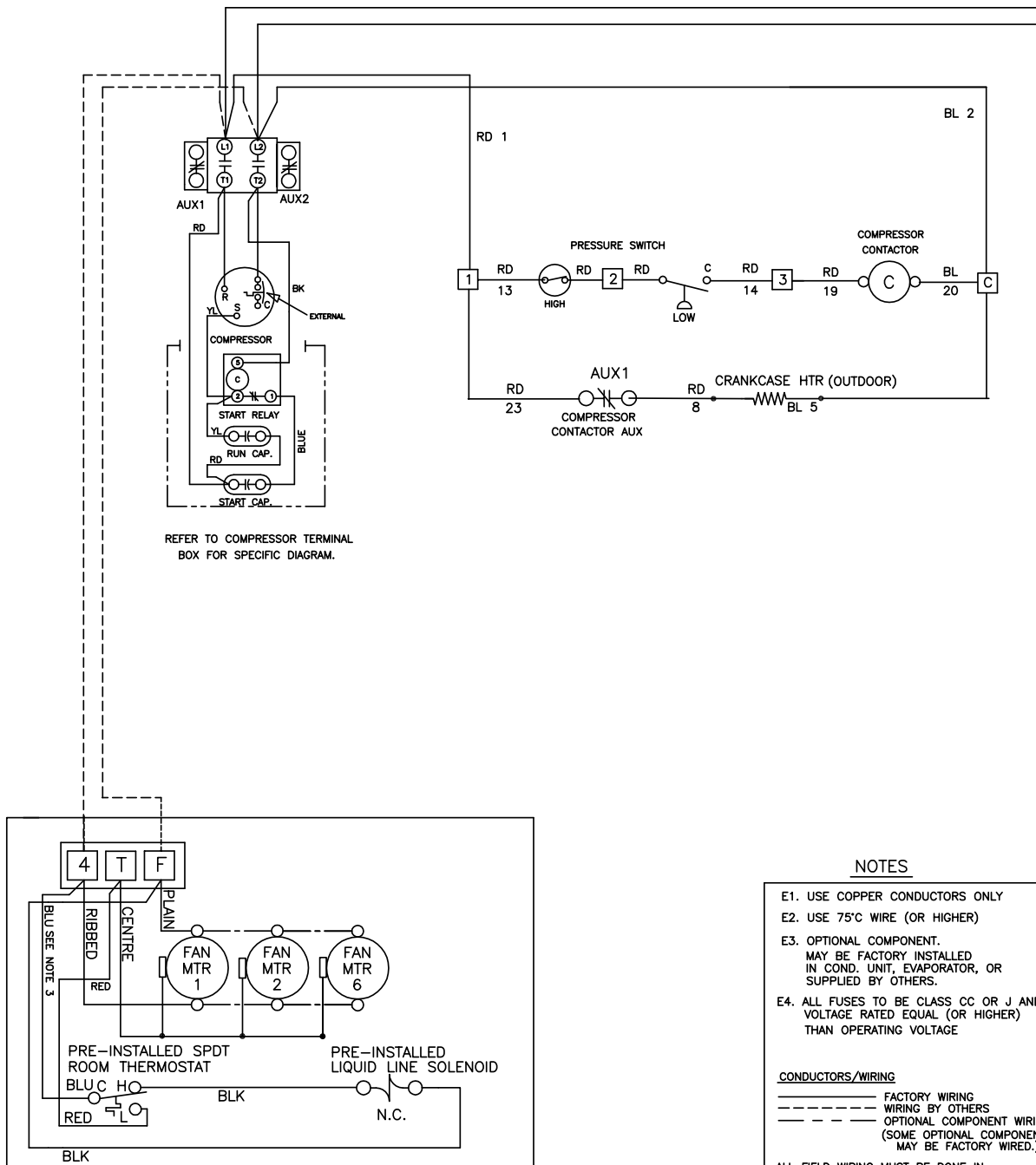
CONDENSING UNIT WIRING DIAGRAM

- 208/230V-3-60 Hz WITH 3/4HP COOLER CIRCUIT
 - STANDARD CONTROL CIRCUIT

PAGE 2/2

COOLER CIRCUIT

FROM MAIN POWER BLOCK



NOTES

- E1. USE COPPER CONDUCTORS ONLY
- E2. USE 75°C WIRE (OR HIGHER)
- E3. OPTIONAL COMPONENT. MAY BE FACTORY INSTALLED IN COND. UNIT, EVAPORATOR, OR SUPPLIED BY OTHERS.
- E4. ALL FUSES TO BE CLASS CC OR J AND VOLTAGE RATED EQUAL (OR HIGHER) THAN OPERATING VOLTAGE

CONDUCTORS/WIRING

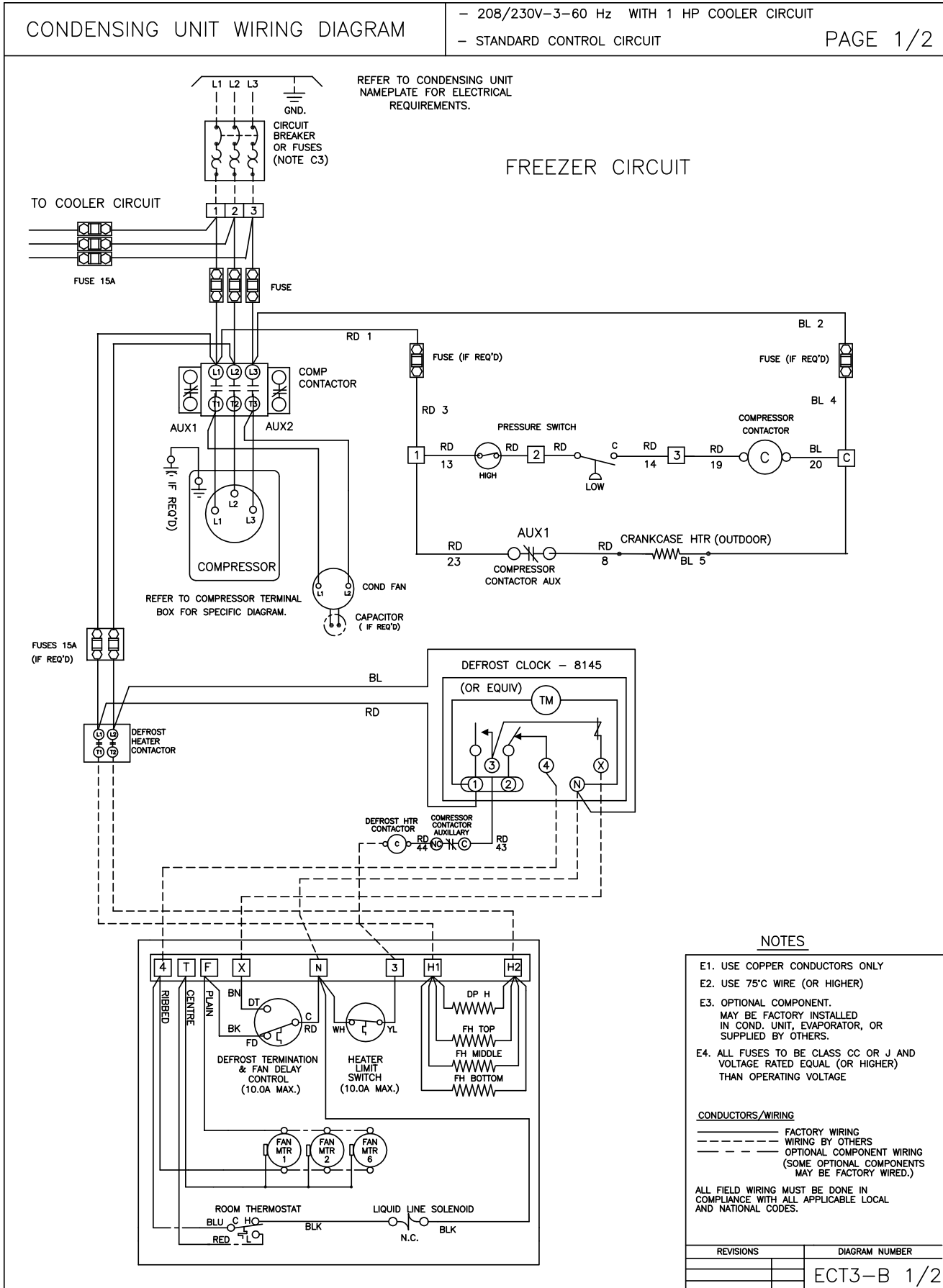
- FACTORY WIRING
- WIRING BY OTHERS
- OPTIONAL COMPONENT WIRING (SOME OPTIONAL COMPONENTS MAY BE FACTORY WIRED.)

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

REVISIONS

DIAGRAM NUMBER

ECT3-A 2/2

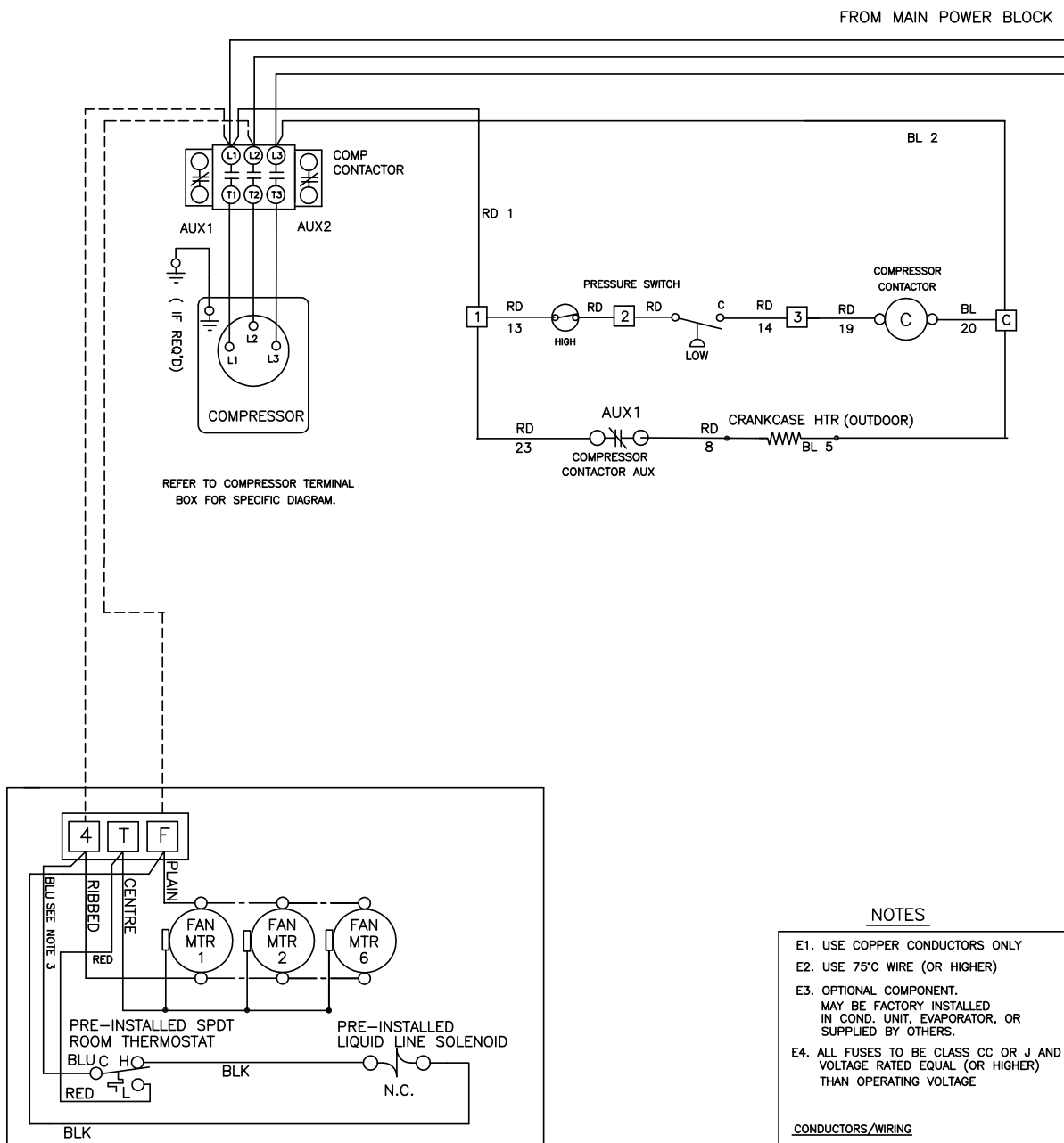


CONDENSING UNIT WIRING DIAGRAM

- 208/230V-3-60 Hz WITH 1 HP COOLER CIRCUIT
 - STANDARD CONTROL CIRCUIT

PAGE 2/2

COOLER CIRCUIT



NOTES

- E1. USE COPPER CONDUCTORS ONLY
- E2. USE 75°C WIRE (OR HIGHER)
- E3. OPTIONAL COMPONENT. MAY BE FACTORY INSTALLED IN COND. UNIT, EVAPORATOR, OR SUPPLIED BY OTHERS.
- E4. ALL FUSES TO BE CLASS CC OR J AND VOLTAGE RATED EQUAL (OR HIGHER) THAN OPERATING VOLTAGE

CONDUCTORS/WIRING

- FACTORY WIRING
- WIRING BY OTHERS
- - - - - OPTIONAL COMPONENT WIRING (SOME OPTIONAL COMPONENTS MAY BE FACTORY WIRED.)

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

REVISIONS	DIAGRAM NUMBER
	ECT3-B 2/2

FINISHED GOODS WARRANTY

The terms and conditions as described below in the General Warranty Policy cover all products manufactured by National Coil Company.

GENERAL WARRANTY POLICY

Subject to the terms and conditions hereof, the Company warrants all Products, including Service Parts, manufactured by the Company to be free of defects in material or workmanship, under normal use and application for a period of one (1) year from the original date of installation, or eighteen (18) months from the date of shipment from the Company, whichever occurs first. Any replacement part(s) so supplied will be warranted for the balance of the product's original warranty. The part(s) to be replaced must be made available in exchange for the replacement part(s) and reasonable proof of the original installation date of the product must be presented in order to establish the effective date of the warranty, failing which, the effective date will be based upon the date of manufacture plus thirty (30) days. Any labour, material, refrigerant, transportation, freight or other charges incurred in connection with the performance of this warranty will be the responsibility of the owner at the current rates and prices then in effect. This warranty may be transferred to a subsequent owner of the product.

THIS WARRANTY DOES NOT COVER

(a) Damages caused by accident, abuse, negligence, misuse, riot, fire, flood, or Acts of God (b) damages caused by operating the product in a corrosive atmosphere (c) damages caused by any unauthorized alteration or repair of the system affecting the product's reliability or performance (d) damages caused by improper matching or application of the product or the product's components (e) damages caused by failing to provide routine and proper maintenance or service to the product (f) expenses incurred for the erecting, disconnecting, or dismantling the product (g) parts used in connection with normal maintenance, such as filters or belts (h) products no longer at the site of the original installation (i) products installed or operated other than in accordance with the printed instructions, with the local installation or building codes and with good trade practices (j) products lost or stolen.

No one is authorized to change this WARRANTY or to create for or on behalf of the Company any other obligation or liability in connection with the Product(s). There is no other representation, warranty or condition in any respect, expressed or implied, made by or binding upon the Company other than the above or as provided by provincial or state law and which cannot be limited or excluded by such law, nor will we be liable in any way for incidental, consequential, or special damages however caused.

The provisions of this additional written warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies provided by Federal, Provincial or State laws.

PROJECT INFORMATION

System	
Model Number	Date of Start-Up
Serial Number	Service Contractor
Refrigerant	Phone
Electrical Supply	Fax

“AS BUILT” SERVICE PARTS LIST

Service Parts List
Label
To Be Attached
HERE



General Sales, Parts & Service Manufacturing & Engineering
135 Little Nine Drive, Morehead City, NC 28557
252-240-2829 • 1-800-24-BALLY • FAX: 252-240-0384
e-mail: ballysales@ballyrefboxes.com • www.ballyrefboxes.com



DISTRIBUTED BY:

*Due to Manufacturer's policy of continuous product improvement,
the Manufacturer reserves the right to make changes without notice.*