



# TC Combination Condensing Units

## PRODUCT DATA & SPECIFICATIONS

Bulletin T40-TC-PDS  
Part # 1106711

**60**  
**Hz**

Cooler/Freezer Combo  
Condensing Units

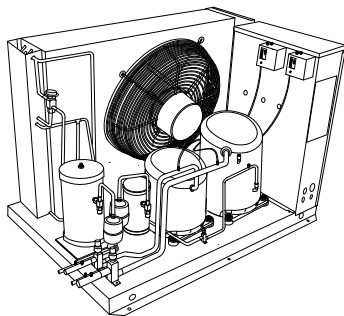
Medium/Low Temp. Combo  
Air Cooled Condensing Units  
Indoor/Outdoor

Maximum Combined Size: 10 HP

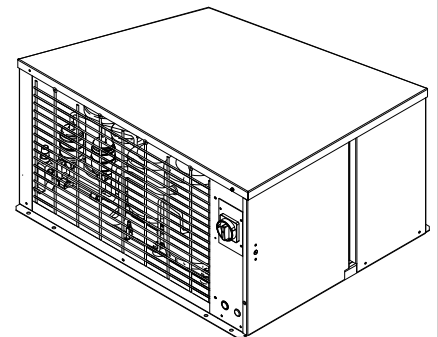
PRODUCT SUPPORT  
 web: [t-rp.com/tc](http://t-rp.com/tc)  
 email: [multicompcu@t-rp.com](mailto:multicompcu@t-rp.com)  
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scan:

### STANDARD MODELS



- TC\_A436 MT 3/4 HP + LT 1.5 HP
- TC\_A438 MT 3/4 HP + LT 2.0 HP
- TC\_A430 MT 3/4 HP + LT 2.5 HP
- TC\_A446 MT 1.0 HP + LT 1.5 HP
- TC\_A448 MT 1.0 HP + LT 2.0 HP
- TC\_A440 MT 1.0 HP + LT 2.5 HP

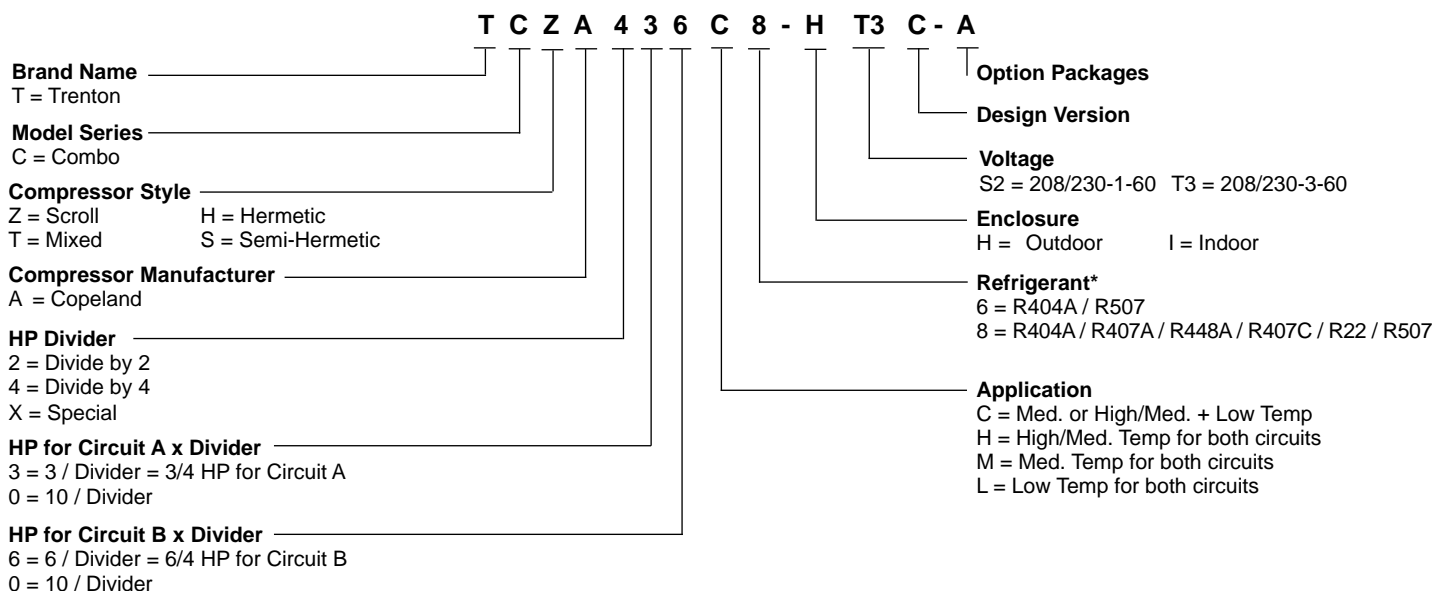


Other models available upon request

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# NOMENCLATURE



## STANDARD FEATURES

### **Indoor Unit:**

- One unit for both cooler and freezer boxes, saving space, installation time and shipping cost.
- Oversized condenser surface
- Oversized receiver
- Oversized electrical control panel
- Single point electrical hook up
- Fan guard protection
- Compatible with Low GWP Refrigerants
- Weatherproof electrical control box with compressor contactor and fused control circuit
- High efficiency enhanced tube and fin condenser design
- Energy efficient PSC condenser fan motor
- Receiver with fusible plug and liquid shut off valve
- Suction service valve
- Pre-formed copper tubing
- Liquid injection (low temp. models) for scroll compressors
- Unit leak tested and shipped with helium holding charge
- Fixed high pressure switch and adjustable low pressure control
- Receiver inlet valve on 2-fan units models only
- Discharge thermostat on applicable models only
- Painted cabinet
- QuickVac Evacuation and Refrigerant

### **Outdoor Unit: All Standard Features of Indoor Unit, Plus:**

- Painted weather-resistant housing with removable hood
- Flooded head pressure control (non adjustable) 150 PSIG for optimal efficiency for scroll compressors
- Crankcase heater and headmaster valves
- Fan cycling control with flex hose (2 fan units)

### **On Medium Temp. Circuit:**

- Sealed Liquid Line Filter Drier & Sight Glass

### **On Low Temp. Circuit:**

- Sealed liquid line filter drier and sight glass
- Electric Defrost Kit

- Discharge line check valve
- Receiver inlet ball valve
- Heated and Insulated receiver
- Over-sized receiver
- Sealed liquid line filter drier & sight-glass
- Ball valve - liquid line (shipped loose)
- Insulated suction lines
- Leg kits
- Discharge air hood
- Liquid line solenoid valve (with standard 230 volt coil) - shipped loose
- Variable speed EC motors only as head pressure control (see Bulletin T40-HPC-AG or [docs.t-rp.com/1101111.pdf](https://docs.t-rp.com/1101111.pdf) for details)
- Dual pressure control with flex hoses
- Compressor circuit breaker
- Current sensing relay - for use with oil safety control (where applicable)
- Defrost heater contactor c/w fuse block
- Evaporator fan contactor c/w fuse block
- Disconnect switch
- Disconnect fusing
- Pump down toggle switch
- Lock out control circuit relay
- Hoffmann speed control for condenser fan (replaces flooded valve)
- Time delay relay for compressor
- Mechanical time clock
- Electronic defrost kit
- Electronic voltage / Phase monitor
- **SmartSpeed Fan Motor Technology**

**CAPACITY DATA - R404A R507  
MEDIUM & LOW TEMPERATURE**

**TCZA436: 3/4 HP MT + 1.5 HP LT**

		CAPACITY BTU/H						R404A R507		AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP						SAT. SUC. TEMP. °F		LOW TEMP							
		80	85	90	95	100	105			110	80	85	90	95	100	105	110
40		13700	13200	12600	12000	11500	10900	10300	0		8870	8510	8140	7770	7390	7000	6630
35		12500	12000	11500	11000	10500	9960	9450	-5		8000	7670	7340	7000	6670	6320	5970
30		11400	10900	10500	10000	9570	9110	8650	-10		7170	6880	6580	6290	5990	5670	5360
25		10300	9890	9500	9100	8720	8320	7910	-15		6410	6140	5880	5620	5340	5060	4790
20		9270	8940	8600	8250	7910	7560	7210	-20		5690	5460	5230	4990	4750	4500	4250
15		8340	8050	7750	7460	7160	6860	6550	-25		5030	4830	4620	4410	4200	3990	3760
10		7480	7220	6970	6710	6450	6180	5920	-30		4430	4250	4070	3900	3710	3520	3300
5		6690	6460	6240	6020	5790	5550	5320	-35		3900	3750	3590	3430	3270	3110	2930
0		5940	5750	5550	5360	5160	4960	4760	-40		3420	3300	3160	3020	2890	2740	2590

**TCZA438: 3/4 HP MT + 2.0 HP LT**

		CAPACITY BTU/H						R404A R507		AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP						SAT. SUC. TEMP. °F		LOW TEMP							
		80	85	90	95	100	105			110	80	85	90	95	100	105	110
40		13700	13200	12600	12000	11500	10900	10300	0		12800	12200	11600	11000	10400	9790	9150
35		12500	12000	11500	11000	10500	9960	9450	-5		11600	11100	10600	10000	9490	8930	8350
30		11400	10900	10500	10000	9570	9110	8650	-10		10500	10100	9600	9110	8620	8120	7600
25		10300	9890	9500	9100	8720	8320	7910	-15		9500	9100	8680	8250	7810	7370	6910
20		9270	8940	8600	8250	7910	7560	7210	-20		8550	8180	7810	7430	7060	6660	6260
15		8340	8050	7750	7460	7160	6860	6550	-25		7630	7320	6990	6670	6320	5970	5630
10		7480	7220	6970	6710	6450	6180	5920	-30		6760	6490	6210	5910	5620	5310	5010
5		6690	6460	6240	6020	5790	5550	5320	-35		5930	5680	5430	5180	4910	4650	4380
0		5940	5750	5550	5360	5160	4960	4760	-40		5100	4880	4660	4430	4210	3970	3740

**TCZA430: 3/4 HP MT + 2.5 HP LT**

		CAPACITY BTU/H						R404A R507		AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP						SAT. SUC. TEMP. °F		LOW TEMP							
		80	85	90	95	100	105			110	80	85	90	95	100	105	110
40		13700	13200	12600	12000	11500	10900	10300	0		16700	16100	15500	14900	14200	13500	12800
35		12500	12000	11500	11000	10500	9960	9450	-5		15100	14600	14100	13500	12900	12300	11700
30		11400	10900	10500	10000	9570	9110	8650	-10		13700	13200	12700	12200	11700	11200	10600
25		10300	9890	9500	9100	8720	8320	7910	-15		12300	11900	11500	11000	10600	10100	9600
20		9270	8940	8600	8250	7910	7560	7210	-20		11000	10700	10300	9900	9500	9100	8600
15		8340	8050	7750	7460	7160	6860	6550	-25		9900	9500	9200	8900	8500	8100	7700
10		7480	7220	6970	6710	6450	6180	5920	-30		8800	8500	8200	7900	7600	7200	6900
5		6690	6460	6240	6020	5790	5550	5320	-35		7800	7500	7300	7000	6700	6400	6100
0		5940	5750	5550	5360	5160	4960	4760	-40		6900	6600	6400	6200	5900	5600	5300

**TCZA446: 1.0 HP MT + 1.5 HP LT**

		CAPACITY BTU/H						R404A R507		AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP						SAT. SUC. TEMP. °F		LOW TEMP							
		80	85	90	95	100	105			110	80	85	90	95	100	105	110
40		17900	17300	16600	1600	15300	14600	13900	0		8870	8510	8140	7770	7390	7000	6630
35		16300	15700	15100	14500	13900	13300	12700	-5		8000	7670	7340	7000	6670	6320	5970
30		14800	14300	13800	13200	12700	12100	11500	-10		7170	6880	6580	6290	5990	5670	5360
25		13500	13000	12500	12000	11500	11000	10500	-15		6410	6140	5880	5620	5340	5060	4790
20		12200	11800	11400	10900	10500	10000	9530	-20		5690	5460	5230	4990	4750	4500	4250
15		11100	10700	10300	9920	9510	9090	8660	-25		5030	4830	4620	4410	4200	3990	3760
10		10000	9700	9360	9000	8630	8260	7880	-30		4430	4250	4070	3900	3710	3520	3300
5		9080	8770	8460	8150	7820	7490	7140	-35		3900	3750	3590	3430	3270	3110	2930
0		8180	7910	7620	7350	7070	6770	6460	-40		3420	3300	3160	3020	2890	2740	2590

**TCZA448: 1.0 HP MT + 2.0 HP LT**

		CAPACITY BTU/H						R404A R507		AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP						SAT. SUC. TEMP. °F		LOW TEMP							
		80	85	90	95	100	105			110	80	85	90	95	100	105	110
40		17900	17300	16600	1600	15300	14600	13900	0		12800	12200	11600	11000	10400	9790	9150
35		16300	15700	15100	14500	13900	13300	12700	-5		11600	11100	10600	10000	9490	8930	8350
30		14800	14300	13800	13200	12700	12100	11500	-10		10500	10100	9600	9110	8620	8120	7600
25		13500	13000	12500	12000	11500	11000	10500	-15		9500	9100	8680	8250	7810	7370	6910
20		12200	11800	11400	10900	10500	10000	9530	-20		8550	8180	7810	7430	7060	6660	6260
15		11100	10700	10300	9920	9510	9090	8660	-25		7630	7320	6990	6670	6320	5970	5630
10		10000	9700	9360	9000	8630	8260	7880	-30		6760	6490	6210	5910	5620	5310	5010
5		9080	8770	8460	8150	7820	7490	7140	-35		5930	5680	5430	5180	4910	4650	4380
0		8180	7910	7620	7350	7070	6770	6460	-40		5100	4880	4660	4430	4210	3970	3740

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**CAPACITY DATA - R404A R507  
MEDIUM & LOW TEMPERATURE (cont'd)**

**TCZA440: 1.0 HP MT + 2.5 HP LT**

		CAPACITY BTU/H							R404A R507 AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP							
	80	85	90	95	100	105	110		80	85	90	95	100	105	110	
40	17900	17300	16600	1600	15300	14600	13900	0	16700	16100	15500	14900	14200	13500	12800	
35	16300	15700	15100	14500	13900	13300	12700	-5	15100	14600	14100	13500	12900	12300	11700	
30	14800	14300	13800	13200	12700	12100	11500	-10	13700	13200	12700	12200	11700	11200	10600	
25	13500	13000	12500	12000	11500	11000	10500	-15	12300	11900	11500	11000	10600	10100	9600	
20	12200	11800	11400	10900	10500	10000	9530	-20	11000	10700	10300	9900	9500	9100	8600	
15	11100	10700	10300	9920	9510	9090	8660	-25	9900	9500	9200	8900	8500	8100	7700	
10	10000	9700	9360	9000	8630	8260	7880	-30	8800	8500	8200	7900	7600	7200	6900	
5	9080	8770	8460	8150	7820	7490	7140	-35	7800	7500	7300	7000	6700	6400	6100	
0	8180	7910	7620	7350	7070	6770	6460	-40	6900	6600	6400	6200	5900	5600	5300	

**CAPACITY DATA - R407A  
MEDIUM & LOW TEMPERATURE**

**TCZA436: 3/4 HP MT + 1.5 HP LT**

		CAPACITY BTU/H							R407A AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP							
	80	85	90	95	100	105	110		80	85	90	95	100	105	110	
40	12800	12400	12000	11700	11200	10800	10400	0	8190	7900	7610	7310	7000	6690	6380	
35	11800	11400	11000	10700	10300	9960	9620	-5	7270	7010	6750	6480	6210	5940	5660	
30	10700	10400	10100	9770	9450	9110	8790	-10	6420	6180	5950	5720	5480	5240	5000	
25	9790	9480	9190	8880	8590	8280	7980	-15	5640	5440	5230	5030	4810	4600	4380	
20	8850	8580	8320	8030	7750	7480	7180	-20	4910	4760	4580	4390	4210	4020	3830	
15	7970	7720	7470	7210	6950	6680	6410	-25	4280	4140	3980	3820	3680	3520	3350	
10	7130	6910	6670	6430	6170	5920	5660	-30	3720	3590	3480	3340	3210	3080	2940	
5	6360	6140	5920	5690	5450	5200	4920	-35	3230	3130	3030	2920	2810	2700	2590	
0	5650	5440	5230	5000	4760	4490	4230	-40	2840	2740	2660	2580	2490	2400	2320	

**TCZA438: 3/4 HP MT + 2.0 HP LT**

		CAPACITY BTU/H							R407A AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP							
	80	85	90	95	100	105	110		80	85	90	95	100	105	110	
40	12800	12400	12000	11700	11200	10800	10400	0	12000	11600	11000	10600	10100	9560	9020	
35	11800	11400	11000	10700	10300	9960	9620	-5	10700	10400	9950	9530	9090	8630	8150	
30	10700	10400	10100	9770	9450	9110	8790	-10	9660	9310	8960	8580	8190	7780	7340	
25	9790	9480	9190	8880	8590	8280	7980	-15	8630	8340	8020	7700	7350	6990	6600	
20	8850	8580	8320	8030	7750	7480	7180	-20	7700	7430	7170	6880	6580	6250	5920	
15	7970	7720	7470	7210	6950	6680	6410	-25	6810	6590	6360	6110	5850	5570	5260	
10	7130	6910	6670	6430	6170	5920	5660	-30	6000	5810	5600	5390	5150	4900	4630	
5	6360	6140	5920	5690	5450	5200	4920	-35	5220	5060	4880	4680	4480	4250	4010	
0	5650	5440	5230	5000	4760	4490	4230	-40	4470	4340	4180	4000	3810	3610	3390	

**TCZA430: 3/4 HP MT + 2.5 HP LT**

		CAPACITY BTU/H							R407A AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP							
	80	85	90	95	100	105	110		80	85	90	95	100	105	110	
40	12800	12400	12000	11700	11200	10800	10400	0	14800	14400	14000	13400	12900	12500	11900	
35	11800	11400	11000	10700	10300	9960	9620	-5	13300	12900	12500	12100	11700	11200	10700	
30	10700	10400	10100	9770	9450	9110	8790	-10	11900	11600	11200	10800	10400	10000	9610	
25	9790	9480	9190	8880	8590	8280	7980	-15	10600	10300	9980	9650	9290	8940	8560	
20	8850	8580	8320	8030	7750	7480	7180	-20	9360	9100	8830	8540	8230	7910	7570	
15	7970	7720	7470	7210	6950	6680	6410	-25	8230	8000	7770	7520	7250	6970	6670	
10	7130	6910	6670	6430	6170	5920	5660	-30	7210	7010	6800	6570	6340	6100	5830	
5	6360	6140	5920	5690	5450	5200	4920	-35	6270	6110	5920	5720	5510	5290	5070	
0	5650	5440	5230	5000	4760	4490	4230	-40	5450	5290	5120	4950	4470	4580	4380	

**TCZA446: 1.0 HP MT + 1.5 HP LT**

		CAPACITY BTU/H							R407A AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP							
	80	85	90	95	100	105	110		80	85	90	95	100	105	110	
40	17300	16800	16300	15600	15100	14500	14000	0	8190	7900	7610	7310	7000	6690	6380	
35	15800	15300	14800	14300	13800	13200	12700	-5	7270	7010	6750	6480	6210	5940	5660	
30	14400	14000	13400	13000	12500	12100	11600	-10	6420	6180	5950	5720	5480	5240	5000	
25	13000	12600	12200	11800	11300	10900	10500	-15	5640	5440	5230	5030	4810	4600	4380	
20	11900	11400	11100	10700	10300	9930	9530	-20	4910	4760	4580	4390	4210	4020	3830	
15	10700	10400	10100	9720	9380	9020	8650	-25	4280	4140	3980	3820	3680	3520	3350	
10	9730	9440	9120	8810	8490	8170	7850	-30	3720	3590	3480	3340	3210	3080	2940	
5	8790	8530	8240	7970	7680	7390	7100	-35	3230	3130	3030	2920	2810	2700	2590	
0	7920	7690	7430	7180	6920	6660	6390	-40	2840	2740	2660	2580	2490	2400	2320	

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**CAPACITY DATA - R407A  
MEDIUM & LOW TEMPERATURE (cont'd)**

**TCZA448: 1.0 HP MT + 2.0 HP LT**

		CAPACITY BTU/H <b>R407A</b>							AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
		80	85	90	95	100	105	110		80	85	90	95	100	105	110
40		17300	16800	16300	15600	15100	14500	14000	0	12000	11600	11000	10600	10100	9560	9020
35		15800	15300	14800	14300	13800	13200	12700	-5	10700	10400	9950	9530	9090	8630	8150
30		14400	14000	13400	13000	12500	12100	11600	-10	9660	9310	8960	8580	8190	7780	7340
25		13000	12600	12200	11800	11300	10900	10500	-15	8630	8340	8020	7700	7350	6990	6600
20		11900	11400	11100	10700	10300	9930	9530	-20	7700	7430	7170	6880	6580	6250	5920
15		10700	10400	10100	9720	9380	9020	8650	-25	6810	6590	6360	6110	5850	5570	5260
10		9730	9440	9120	8810	8490	8170	7850	-30	6000	5810	5600	5390	5150	4900	4630
5		8790	8530	8240	7970	7680	7390	7100	-35	5220	5060	4880	4680	4480	4250	4010
0		7920	7690	7430	7180	6920	6660	6390	-40	4470	4340	4180	4000	3810	3610	3390

**TCZA440: 1.0 HP MT + 2.5 HP LT**

		CAPACITY BTU/H <b>R407A</b>							AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
		80	85	90	95	100	105	110		80	85	90	95	100	105	110
40		17300	16800	16300	15600	15100	14500	14000	0	14800	14400	14000	13400	12900	12500	11900
35		15800	15300	14800	14300	13800	13200	12700	-5	13300	12900	12500	12100	11700	11200	10700
30		14400	14000	13400	13000	12500	12100	11600	-10	11900	11600	11200	10800	10400	10000	9610
25		13000	12600	12200	11800	11300	10900	10500	-15	10600	10300	9980	9650	9290	8940	8560
20		11900	11400	11100	10700	10300	9930	9530	-20	9360	9100	8830	8540	8230	7910	7570
15		10700	10400	10100	9720	9380	9020	8650	-25	8230	8000	7770	7520	7250	6970	6670
10		9730	9440	9120	8810	8490	8170	7850	-30	7210	7010	6800	6570	6340	6100	5830
5		8790	8530	8240	7970	7680	7390	7100	-35	6270	6110	5920	5720	5510	5290	5070
0		7920	7690	7430	7180	6920	6660	6390	-40	5450	5290	5120	4950	4470	4580	4380

**CAPACITY DATA - R448A  
HIGH/MEDIUM & LOW TEMPERATURE**

**TCZA436: 3/4 HP MT + 1.5 HP LT**

		CAPACITY BTU/H <b>R448A</b>							AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
		80	85	90	95	100	105	110		80	85	90	95	100	105	110
40		13100	12700	12300	11800	11300	10900	10500	0	8470	8190	7900	7590	7300	6990	6680
35		12000	11600	11200	10800	10400	10000	9600	-5	7570	7310	7060	6790	6530	6250	5970
30		10900	10600	10200	9850	9480	9110	8760	-10	6730	6490	6260	6030	5800	5550	5310
25		9910	9580	9260	8940	8610	8280	7960	-15	5930	5730	5530	5330	5120	4900	4690
20		8960	8650	8370	8070	7780	7490	7200	-20	5220	5040	4860	4680	4500	4330	4140
15		8050	7780	7530	7270	7000	6750	6480	-25	4560	4410	4250	4110	3950	3780	3620
10		7210	6980	6750	6520	6290	6050	5810	-30	3970	3840	3720	3580	3450	3310	3170
5		6440	6230	6020	5820	5610	5410	5200	-35	3450	3350	3240	3130	3010	2900	2780
0		5730	5540	5370	5190	5000	4820	4630	-40	3010	2920	2840	2730	2640	2550	2440

**TCZA438: 3/4 HP MT + 2.0 HP LT**

		CAPACITY BTU/H <b>R448A</b>							AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
		80	85	90	95	100	105	110		80	85	90	95	100	105	110
40		13100	12700	12300	11800	11300	10900	10500	0	12200	11800	11200	10800	10300	9860	9390
35		12000	11600	11200	10800	10400	10000	9600	-5	10900	10500	10100	9720	9300	8880	8460
30		10900	10600	10200	9850	9480	9110	8760	-10	9790	9450	9090	8750	8380	8010	7650
25		9910	9580	9260	8940	8610	8280	7960	-15	8780	8460	8170	7860	7540	7230	6900
20		8960	8650	8370	8070	7780	7490	7200	-20	7840	7580	7320	7060	6780	6510	6220
15		8050	7780	7530	7270	7000	6750	6480	-25	6980	6760	6530	6300	6070	5830	5590
10		7210	6980	6750	6520	6290	6050	5810	-30	6170	5990	5790	5590	5390	5190	4980
5		6440	6230	6020	5820	5610	5410	5200	-35	5420	5250	5070	4900	4730	4560	4380
0		5730	5540	5370	5190	5000	4820	4630	-40	4660	4530	4370	4220	4060	3920	3760

**TCZA430: 3/4 HP MT + 2.5 HP LT**

		CAPACITY BTU/H <b>R448A</b>							AMBIENT TEMPERATURE °F							
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
		80	85	90	95	100	105	110		80	85	90	95	100	105	110
40		13100	12700	12300	11800	11300	10900	10500	0	15400	15000	14600	14200	13700	13100	12700
35		12000	11600	11200	10800	10400	10000	9600	-5	13900	13500	13100	12700	12300	11900	11400
30		10900	10600	10200	9850	9480	9110	8760	-10	12400	12100	11800	11300	11000	10600	10200
25		9910	9580	9260	8940	8610	8280	7960	-15	11000	10700	10500	10200	9830	9490	9140
20		8960	8650	8370	8070	7780	7490	7200	-20	9800	9540	9280	9010	8740	8430	8130
15		8050	7780	7530	7270	7000	6750	6480	-25	8660	8430	8200	7960	7720	7460	7190
10		7210	6980	6750	6520	6290	6050	5810	-30	7630	7430	7220	7000	6780	6560	6330
5		6440	6230	6020	5820	5610	5410	5200	-35	6700	6520	6330	6130	5930	5730	5530
0		5730	5540	5370	5190	5000	4820	4630	-40	5870	5700	5520	5340	5160	4990	4800

*tables continue on next page >>>*

**CAPACITY DATA - R448A**  
**MEDIUM & LOW TEMPERATURE (cont'd)**

TCZA446: 1.0 HP MT + 1.5 HP LT

CAPACITY BTU/H R448A AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
40	16700	16300	15900	15400	14900	14300	13700	0	8470	8190	7900	7590	7300	6990	6680
35	15000	14700	14400	14000	13400	12900	12300	-5	7570	7310	7060	6790	6530	6250	5970
30	13700	13300	12900	12600	12200	11700	11100	-10	6730	6490	6260	6030	5800	5550	5310
25	12300	12000	11700	11300	10900	10500	10000	-15	5930	5730	5530	5330	5120	4900	4690
20	11000	10800	10500	10200	9880	9500	9050	-20	5220	5040	4860	4680	4500	4330	4140
15	9920	9690	9450	9200	8900	8570	8170	-25	4560	4410	4250	4110	3950	3780	3620
10	8890	8680	8470	8270	8010	7730	7390	-30	3970	3840	3720	3580	3450	3310	3170
5	7960	7770	7590	7420	7220	6980	6680	-35	3450	3350	3240	3130	3010	2900	2780
0	7090	6930	6790	6650	6490	6300	6050	-40	3010	2920	2840	2730	2640	2550	2440

TCZA448: 1.0 HP MT + 2.0 HP LT

CAPACITY BTU/H R448A AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
40	16700	16300	15900	15400	14900	14300	13700	0	12200	11800	11200	10800	10300	9860	9390
35	15000	14700	14400	14000	13400	12900	12300	-5	10900	10500	10100	9720	9300	8880	8460
30	13700	13300	12900	12600	12200	11700	11100	-10	9790	9450	9090	8750	8380	8010	7650
25	12300	12000	11700	11300	10900	10500	10000	-15	8780	8460	8170	7860	7540	7230	6900
20	11000	10800	10500	10200	9880	9500	9050	-20	7840	7580	7320	7060	6780	6510	6220
15	9920	9690	9450	9200	8900	8570	8170	-25	6980	6760	6530	6300	6070	5830	5590
10	8890	8680	8470	8270	8010	7730	7390	-30	6170	5990	5790	5590	5390	5190	4980
5	7960	7770	7590	7420	7220	6980	6680	-35	5420	5250	5070	4900	4730	4560	4380
0	7090	6930	6790	6650	6490	6300	6050	-40	4660	4530	4370	4220	4060	3920	3760

TCZA440: 1.0 HP MT + 2.5 HP LT

CAPACITY BTU/H R448A AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
40	16700	16300	15900	15400	14900	14300	13700	0	15400	15000	14600	14200	13700	13100	12700
35	15000	14700	14400	14000	13400	12900	12300	-5	13900	13500	13100	12700	12300	11900	11400
30	13700	13300	12900	12600	12200	11700	11100	-10	12400	12100	11800	11300	11000	10600	10200
25	12300	12000	11700	11300	10900	10500	10000	-15	11000	10700	10500	10200	9830	9490	9140
20	11000	10800	10500	10200	9880	9500	9050	-20	9800	9540	9280	9010	8740	8430	8130
15	9920	9690	9450	9200	8900	8570	8170	-25	8660	8430	8200	7960	7720	7460	7190
10	8890	8680	8470	8270	8010	7730	7390	-30	7630	7430	7220	7000	6780	6560	6330
5	7960	7770	7590	7420	7220	6980	6680	-35	6700	6520	6330	6130	5930	5730	5530
0	7090	6930	6790	6650	6490	6300	6050	-40	5870	5700	5520	5340	5160	4990	4800

**208-230/1/60**

UNIT MODEL	HIGH / MEDIUM TEMP COMPRESSOR			LOW TEMP COMPRESSOR			CONDENSER FAN		UNIT	
	MODEL	RLA	LRA	MODEL	RLA	LRA	QTY	FLA	MCA	MOP
TCZA436	ZB07KAE-PFV	5.6	48.0	ZF05KAE-PFV	7.8	55.0	1	2.1	18	25
TCZA438	ZB07KAE-PFV	5.6	48.0	ZF07KAE-PFV	12.4	75.0	1	2.1	24	35
TCZA430	ZB07KAE-PFV	5.6	48.0	ZF08K4E-PFV	14.7	73.0	1	2.1	27	40
TCZA446	ZS09KAE-PFV	9.0	40.3	ZF05KAE-PFV	7.8	55.0	1	2.1	22	30
TCZA448	ZS09KAE-PFV	9.0	40.3	ZF07KAE-PFV	12.4	75.0	1	2.1	27	35
TCZA440	ZS09KAE-PFV	9.0	40.3	ZF08K4E-PFV	14.7	73.0	1	2.1	30	40

**208-230/3/60**

UNIT MODEL	HIGH / MEDIUM TEMP COMPRESSOR			LOW TEMP COMPRESSOR			CONDENSER FAN		UNIT	
	MODEL	RLA	LRA	MODEL	RLA	LRA	QTY	FLA	MCA	MOP
TCZA436	ZB07KAE-TF5	4.7	37.8	ZF05KAE-TF5	6.6	58.0	1	2.1	16	20
TCZA438	ZB07KAE-TF5	4.7	37.8	ZF07KAE-TF5	7.8	58.0	1	2.1	17	20
TCZA430	ZB07KAE-TF5	4.7	37.8	ZF08K4E-TF5	8.7	63.0	1	2.1	18	25
TCZA446	ZS09KAE-TF5	7.2	55.4	ZF05KAE-TF5	6.6	58.0	1	2.1	18	20
TCZA448	ZS09KAE-TF5	7.2	55.4	ZF07KAE-TF5	7.8	58.0	1	2.1	20	25
TCZA440	ZS09KAE-TF5	7.2	55.4	ZF08K4E-TF5	8.7	63.0	1	2.1	21	25

**MECHANICAL DATA**

UNIT MODEL	DIMENSIONS			CONNECTION SIZE				RECEIVER		SHIPPING WEIGHT LBS
				HIGH/MEDIUM TEMP		LOW TEMP		MT LBS	LT LBS	
	W	D	H	SUCTION	LIQUID	SUCTION	LIQUID			
TCZA436	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCZA438	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCZA430	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCZA446	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCZA448	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCZA440	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390



TCHA436: 3/4 HP MT + 1.5 HP LT

CAPACITY BTU/H		R404A		R507		AMBIENT TEMPERATURE °F									
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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

TCHA438: 3/4 HP MT + 2.0 HP LT

CAPACITY BTU/H		R404A		R507		AMBIENT TEMPERATURE °F									
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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

TCHA430: 3/4 HP MT + 2.5 HP LT

CAPACITY BTU/H		R404A		R507		AMBIENT TEMPERATURE °F									
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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

TCHA446: 1.0 HP MT + 1.5 HP LT

CAPACITY BTU/H		R404A		R507		AMBIENT TEMPERATURE °F									
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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

TCHA448: 1.0 HP MT + 2.0 HP LT

CAPACITY BTU/H		R404A		R507		AMBIENT TEMPERATURE °F									
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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

tables continue on next page >>>

**TCHA****CAPACITY DATA - R404A R507  
MEDIUM & LOW TEMPERATURE (cont'd)****60Hz**

TCHA440: 1.0 HP MT + 2.5 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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

**TCHA****ELECTRICAL DATA****60Hz**

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
TCHA436	RST55C1E-CAV	6.1	34	CF06K6E-PFV	10.3	59	1	2.1	21	30
TCHA438	RST55C1E-CAV	6.1	34	CF06K6E-PFV	10.3	59	1	2.1	21	30
TCHA430	RST55C1E-CAV	6.1	34	CF09K6E-PFV	15.0	87	1	2.1	27	40
TCHA446	RST70C1E-PFV	6.9	46	CF06K6E-PFV	10.3	59	1	2.1	22	30
TCHA448	RST70C1E-PFV	6.9	46	CF06K6E-PFV	10.3	59	1	2.1	22	30
TCHA440	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
TCHA436	RST55C1E-CAV	6.1	34	CF06K6E-TF5	6.3	52	1	2.1	16	20
TCHA438	RST55C1E-CAV	6.1	34	CF06K6E-TF5	6.3	52	1	2.1	16	20
TCHA430	RST55C1E-CAV	6.1	34	CF09K6E-TF5	9.2	72	1	2.1	20	30
TCHA446	RST70C1E-TF5	4.9	36	CF06K6E-TF5	6.3	52	1	2.1	15	20
TCHA448	RST70C1E-TF5	4.9	36	CF06K6E-TF5	6.3	52	1	2.1	15	20
TCHA440	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			
TCHA436	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCHA438	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCHA430	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCHA446	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCHA448	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCHA440	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390

TCTA436: 3/4 HP MT + 1.5 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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	0	8870	8510	8140	7770	7390	7000	6630
25	8650	8210	7770	7340	6900	6470	6050	-5	8000	7670	7340	7000	6670	6320	5970
20	7930	7520	7110	6700	6300	5900	5500	-10	7170	6880	6580	6290	5990	5670	5360
15	7220	6850	6470	6090	5720	5360	4990	-15	6410	6140	5880	5620	5340	5060	4790
10	6550	6210	5860	5510	5170	4830	4490	-20	5690	5460	5230	4990	4750	4500	4250
5	5910	5600	5270	4960	4640	4330	4020	-25	5030	4830	4620	4410	4200	3990	3760
0	5300	5020	4730	4430	4150	3860	3590	-30	4430	4250	4070	3900	3710	3520	3300
-5	4510	4260	4010	3760	3510	3270	3030	-35	3900	3750	3590	3430	3270	3110	2930
-10	4000	3780	3560	3330	3110	2890	2680	-40	3420	3300	3160	3020	2890	2740	2590

TCTA438: 3/4 HP MT + 2.0 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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	0	12800	12200	11600	11000	10400	9790	9150
25	8650	8210	7770	7340	6900	6470	6050	-5	11600	11100	10600	10000	9490	8930	8350
20	7930	7520	7110	6700	6300	5900	5500	-10	10500	10100	9600	9110	8620	8120	7600
15	7220	6850	6470	6090	5720	5360	4990	-15	9500	9100	8680	8250	7810	7370	6910
10	6550	6210	5860	5510	5170	4830	4490	-20	8550	8180	7810	7430	7060	6660	6260
5	5910	5600	5270	4960	4640	4330	4020	-25	7630	7320	6990	6670	6320	5970	5630
0	5300	5020	4730	4430	4150	3860	3590	-30	6760	6490	6210	5910	5620	5310	5010
-5	4510	4260	4010	3760	3510	3270	3030	-35	5930	5680	5430	5180	4910	4650	4380
-10	4000	3780	3560	3330	3110	2890	2680	-40	5100	4880	4660	4430	4210	3970	3740

TCTA430: 3/4 HP MT + 2.5 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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	0	16700	16100	15500	14900	14200	13500	12800
25	8650	8210	7770	7340	6900	6470	6050	-5	15100	14600	14100	13500	12900	12300	11700
20	7930	7520	7110	6700	6300	5900	5500	-10	13700	13200	12700	12200	11700	11200	10600
15	7220	6850	6470	6090	5720	5360	4990	-15	12300	11900	11500	11000	10600	10100	9600
10	6550	6210	5860	5510	5170	4830	4490	-20	11000	10700	10300	9900	9500	9100	8600
5	5910	5600	5270	4960	4640	4330	4020	-25	9900	9500	9200	8900	8500	8100	7700
0	5300	5020	4730	4430	4150	3860	3590	-30	8800	8500	8200	7900	7600	7200	6900
-5	4510	4260	4010	3760	3510	3270	3030	-35	7800	7500	7300	7000	6700	6400	6100
-10	4000	3780	3560	3330	3110	2890	2680	-40	6900	6600	6400	6200	5900	5600	5300

TCTA446: 1.0 HP MT + 1.5 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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	0	8870	8510	8140	7770	7390	7000	6630
25	10700	10200	9790	9350	8880	8430	7960	-5	8000	7670	7340	7000	6670	6320	5970
20	9790	9390	8990	8580	8160	7740	7250	-10	7170	6880	6580	6290	5990	5670	5360
15	8940	8580	8200	7770	7390	7000	6600	-15	6410	6140	5880	5620	5340	5060	4790
10	8070	7740	7400	7060	6710	6340	5990	-20	5690	5460	5230	4990	4750	4500	4250
5	7280	6970	6670	6350	6030	5700	5380	-25	5030	4830	4620	4410	4200	3990	3760
0	6510	6240	5950	5670	5330	5040	4740	-30	4430	4250	4070	3900	3710	3520	3300
-5	5490	5250	5000	4750	4490	4230	3960	-35	3900	3750	3590	3430	3270	3110	2930
-10	4840	4620	4390	4160	3930	3690	3440	-40	3420	3300	3160	3020	2890	2740	2590

TCTA448: 1.0 HP MT + 2.0 HP LT

CAPACITY BTU/H R404A R507 AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. 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	0	12800	12200	11600	11000	10400	9790	9150
25	10700	10200	9790	9350	8880	8430	7960	-5	11600	11100	10600	10000	9490	8930	8350
20	9790	9390	8990	8580	8160	7740	7250	-10	10500	10100	9600	9110	8620	8120	7600
15	8940	8580	8200	7770	7390	7000	6600	-15	9500	9100	8680	8250	7810	7370	6910
10	8070	7740	7400	7060	6710	6340	5990	-20	8550	8180	7810	7430	7060	6660	6260
5	7280	6970	6670	6350	6030	5700	5380	-25	7630	7320	6990	6670	6320	5970	5630
0	6510	6240	5950	5670	5330	5040	4740	-30	6760	6490	6210	5910	5620	5310	5010
-5	5490	5250	5000	4750	4490	4230	3960	-35	5930	5680	5430	5180	4910	4650	4380
-10	4840	4620	4390	4160	3930	3690	3440	-40	5100	4880	4660	4430	4210	3970	3740

tables continue on next page >>>

**CAPACITY DATA - R404A R507**  
**MEDIUM & LOW TEMPERATURE (cont'd)**

TCTA440: 1.0 HP MT + 2.5 HP LT

		CAPACITY BTU/H							R404A R507		AMBIENT TEMPERATURE °F						
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. 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	0		16700	16100	15500	14900	14200	13500	12800
25		10700	10200	9790	9350	8880	8430	7960	-5		15100	14600	14100	13500	12900	12300	11700
20		9790	9390	8990	8580	8160	7740	7250	-10		13700	13200	12700	12200	11700	11200	10600
15		8940	8580	8200	7770	7390	7000	6600	-15		12300	11900	11500	11000	10600	10100	9600
10		8070	7740	7400	7060	6710	6340	5990	-20		11000	10700	10300	9900	9500	9100	8600
5		7280	6970	6670	6350	6030	5700	5380	-25		9900	9500	9200	8900	8500	8100	7700
0		6510	6240	5950	5670	5330	5040	4740	-30		8800	8500	8200	7900	7600	7200	6900
-5		5490	5250	5000	4750	4490	4230	3960	-35		7800	7500	7300	7000	6700	6400	6100
-10		4840	4620	4390	4160	3930	3690	3440	-40		6900	6600	6400	6200	5900	5600	5300

**CAPACITY DATA - R448A**  
**MEDIUM & LOW TEMPERATURE**

TCTA436: 3/4 HP MT + 1.5 HP LT

		CAPACITY BTU/H							R448A		AMBIENT TEMPERATURE °F						
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F		LOW TEMP						
		80	85	90	95	100	105	110			80	85	90	95	100	105	110
30		9030	8650	8270	7900	7520	7140	6770	0		8470	8190	7900	7590	7300	6990	6680
25		8100	7860	7410	7070	6740	6410	6080	-5		7570	7310	7060	6790	6530	6250	5970
20		7220	6910	6620	6320	6020	5720	5430	-10		6730	6490	6260	6030	5800	5550	5310
15		6430	6150	5890	5630	5360	5090	4830	-15		5930	5730	5530	5330	5120	4900	4690
10		5690	5460	5220	4990	4760	4530	4280	-20		5220	5040	4860	4680	4500	4330	4140
5		5030	4820	4610	4410	4200	3990	3790	-25		4560	4410	4250	4110	3950	3780	3620
0		4430	4240	4050	3890	3700	3520	3330	-30		3970	3840	3720	3580	3450	3310	3170
-5		3680	3570	3360	3260	3050	2940	-	-35		3450	3350	3240	3130	3010	2900	2780
-10		3260	3150	2940	2840	-	-	-	-40		3010	2920	2840	2730	2640	2550	2440

TCTA438: 3/4 HP MT + 2.0 HP LT

		CAPACITY BTU/H							R448A		AMBIENT TEMPERATURE °F						
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F		LOW TEMP						
		80	85	90	95	100	105	110			80	85	90	95	100	105	110
30		9030	8650	8270	7900	7520	7140	6770	0		12200	11800	11200	10800	10300	9860	9390
25		8100	7860	7410	7070	6740	6410	6080	-5		10900	10500	10100	9720	9300	8880	8460
20		7220	6910	6620	6320	6020	5720	5430	-10		9790	9450	9090	8750	8380	8010	7650
15		6430	6150	5890	5630	5360	5090	4830	-15		8780	8460	8170	7860	7540	7230	6900
10		5690	5460	5220	4990	4760	4530	4280	-20		7840	7580	7320	7060	6780	6510	6220
5		5030	4820	4610	4410	4200	3990	3790	-25		6980	6760	6530	6300	6070	5830	5590
0		4430	4240	4050	3890	3700	3520	3330	-30		6170	5990	5790	5590	5390	5190	4980
-5		3680	3570	3360	3260	3050	2940	-	-35		5420	5250	5070	4900	4730	4560	4380
-10		3260	3150	2940	2840	-	-	-	-40		4660	4530	4370	4220	4060	3920	3760

TCTA430: 3/4 HP MT + 2.5 HP LT

		CAPACITY BTU/H							R448A		AMBIENT TEMPERATURE °F						
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F		LOW TEMP						
		80	85	90	95	100	105	110			80	85	90	95	100	105	110
30		9030	8650	8270	7900	7520	7140	6770	0		15400	15000	14600	14200	13700	13100	12700
25		8100	7860	7410	7070	6740	6410	6080	-5		13900	13500	13100	12700	12300	11900	11400
20		7220	6910	6620	6320	6020	5720	5430	-10		12400	12100	11800	11300	11000	10600	10200
15		6430	6150	5890	5630	5360	5090	4830	-15		11000	10700	10500	10200	9830	9490	9140
10		5690	5460	5220	4990	4760	4530	4280	-20		9800	9540	9280	9010	8740	8430	8130
5		5030	4820	4610	4410	4200	3990	3790	-25		8660	8430	8200	7960	7720	7460	7190
0		4430	4240	4050	3890	3700	3520	3330	-30		7630	7430	7220	7000	6780	6560	6330
-5		3680	3570	3360	3260	3050	2940	-	-35		6700	6520	6330	6130	5930	5730	5530
-10		3260	3150	2940	2840	-	-	-	-40		5870	5700	5520	5340	5160	4990	4800

TCTA446: 1.0 HP MT + 1.5 HP LT

		CAPACITY BTU/H							R448A		AMBIENT TEMPERATURE °F						
SAT. SUC. TEMP. °F		HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F		LOW TEMP						
		80	85	90	95	100	105	110			80	85	90	95	100	105	110
30		11300	10900	10500	10090	9650	8590	8190	0		8470	8190	7900	7590	7300	6990	6680
25		10370	9990	9600	9190	8790	7740	7380	-5		7570	7310	7060	6790	6530	6250	5970
20		9430	9060	8690	8340	7960	6950	6640	-10		6730	6490	6260	6030	5800	5550	5310
15		8520	8180	7850	7510	7170	6250	5950	-15		5930	5730	5530	5330	5120	4900	4690
10		7650	7350	7050	6740	6420	5590	5330	-20		5220	5040	4860	4680	4500	4330	4140
5		6840	6560	6290	6000	5700	4980	4760	-25		4560	4410	4250	4110	3950	3780	3620
0		6080	5820	5550	5290	5030	4430	-	-30		3970	3840	3720	3580	3450	3310	3170
-5		5150	4940	4620	4410	4200	-	-	-35		3450	3350	3240	3130	3010	2900	2780
-10		4520	4310	4100	3890	-	-	-	-40		3010	2920	2840	2730	2640	2550	2440

tables continue on next page >>>

**CAPACITY DATA - R448A**  
**MEDIUM & LOW TEMPERATURE (cont'd)**

TCTA448: 1.0 HP MT + 2.0 HP LT

CAPACITY BTU/H R448A AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
30	11300	10900	10500	10090	9650	8590	8190	0	12200	11800	11200	10800	10300	9860	9390
25	10370	9990	9600	9190	8790	7740	7380	-5	10900	10500	10100	9720	9300	8880	8460
20	9430	9060	8690	8340	7960	6950	6640	-10	9790	9450	9090	8750	8380	8010	7650
15	8520	8180	7850	7510	7170	6250	5950	-15	8780	8460	8170	7860	7540	7230	6900
10	7650	7350	7050	6740	6420	5590	5330	-20	7840	7580	7320	7060	6780	6510	6220
5	6840	6560	6290	6000	5700	4980	4760	-25	6980	6760	6530	6300	6070	5830	5590
0	6080	5820	5550	5290	5030	4430		-30	6170	5990	5790	5590	5390	5190	4980
-5	5150	4940	4620	4410	4200	-		-35	5420	5250	5070	4900	4730	4560	4380
-10	4520	4310	4100	3890	-	-		-40	4660	4530	4370	4220	4060	3920	3760

TCTA440: 1.0 HP MT + 2.5 HP LT

CAPACITY BTU/H R448A AMBIENT TEMPERATURE °F															
SAT. SUC. TEMP. °F	HIGH/MEDIUM TEMP							SAT. SUC. TEMP. °F	LOW TEMP						
	80	85	90	95	100	105	110		80	85	90	95	100	105	110
30	11300	10900	10500	10090	9650	8590	8190	0	15400	15000	14600	14200	13700	13100	12700
25	10370	9990	9600	9190	8790	7740	7380	-5	13900	13500	13100	12700	12300	11900	11400
20	9430	9060	8690	8340	7960	6950	6640	-10	12400	12100	11800	11300	11000	10600	10200
15	8520	8180	7850	7510	7170	6250	5950	-15	11000	10700	10500	10200	9830	9490	9140
10	7650	7350	7050	6740	6420	5590	5330	-20	9800	9540	9280	9010	8740	8430	8130
5	6840	6560	6290	6000	5700	4980	4760	-25	8660	8430	8200	7960	7720	7460	7190
0	6080	5820	5550	5290	5030	4430		-30	7630	7430	7220	7000	6780	6560	6330
-5	5150	4940	4620	4410	4200	-		-35	6700	6520	6330	6130	5930	5730	5530
-10	4520	4310	4100	3890	-	-		-40	5870	5700	5520	5340	5160	4990	4800

**ELECTRICAL DATA**

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
TCTA436	RST55C1E-CAV	6.1	34	ZF05KAE-PFV	7.8	55.0	1	2.1	18.0	25
TCTA438	RST55C1E-CAV	6.1	34	ZF07KAE-PFV	12.4	75.0	1	2.1	23.7	35
TCTA430	RST55C1E-CAV	6.1	34	ZF08K4E-PFV	14.7	73.0	1	2.1	26.6	40
TCTA446	RST70C1E-PFV	6.9	46	ZF05KAE-PFV	7.8	55.0	1	2.1	18.8	25
TCTA448	RST70C1E-PFV	6.9	46	ZF07KAE-PFV	12.4	75.0	1	2.1	24.5	35
TCTA440	RST70C1E-PFV	6.9	46	ZF08K4E-PFV	14.7	73.0	1	2.1	23.8	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
TCTA436	RST55C1E-CAV	6.1	34	ZF05KAE-TF5	6.6	58.0	1	2.1	16.5	20
TCTA438	RST55C1E-CAV	6.1	34	ZF07KAE-TF5	7.8	58.0	1	2.1	18.0	25
TCTA430	RST55C1E-CAV	6.1	34	ZF08K4E-TF5	8.7	63.0	1	2.1	19.1	25
TCTA446	RST70C1E-TF5	4.9	36	ZF05KAE-TF5	6.6	58.0	1	2.1	15.3	20
TCTA448	RST70C1E-TF5	4.9	36	ZF07KAE-TF5	7.8	58.0	1	2.1	16.8	20
TCTA440	RST70C1E-TF5	4.9	36	ZF08K4E-TF5	8.7	63.0	1	2.1	17.9	25

**MECHANICAL DATA**

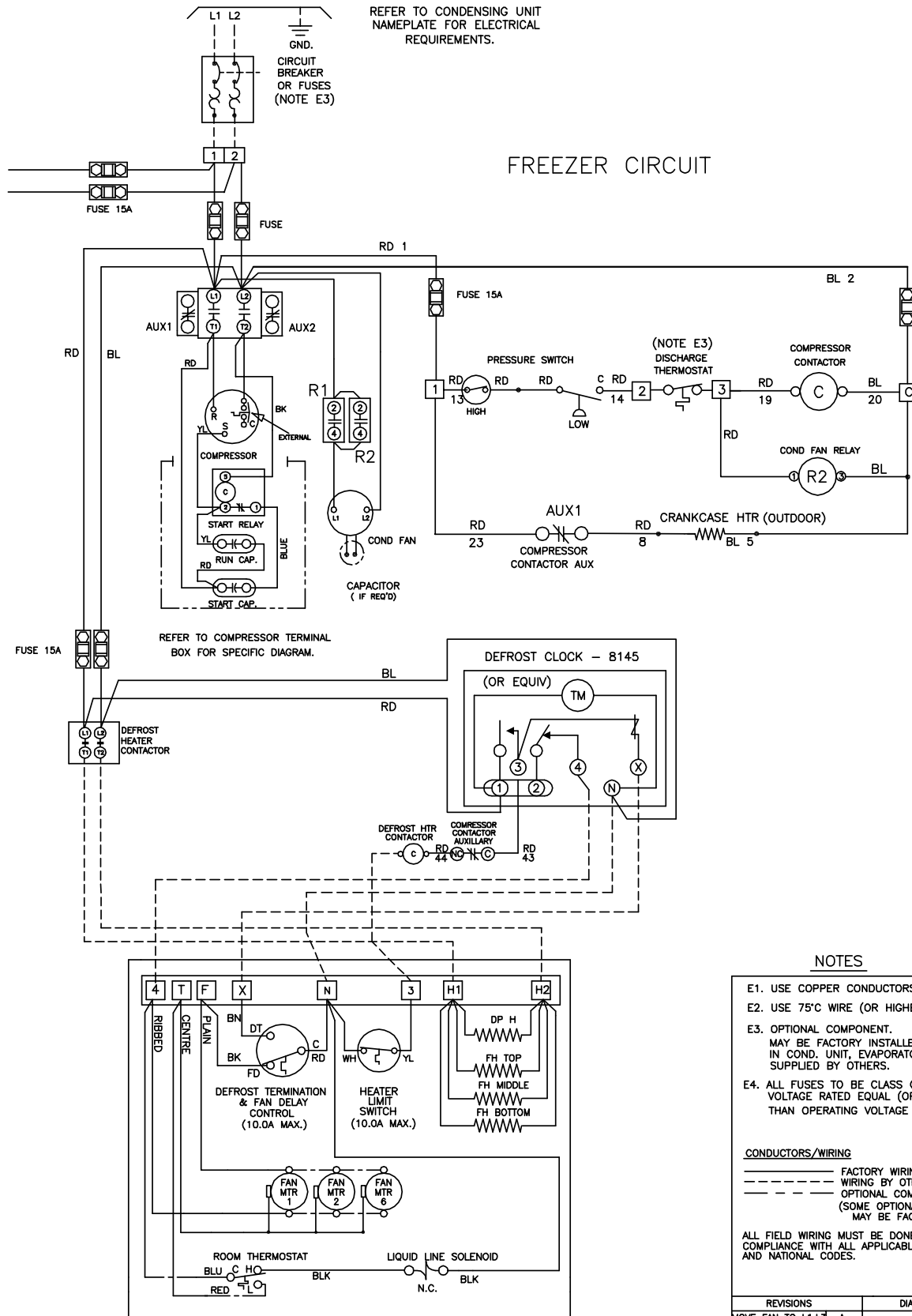
UNIT MODEL	DIMENSIONS			CONNECTION SIZE				RECEIVER		SHIPPING WEIGHT LBS
				MEDIUM TEMP		LOW TEMP		MT LBS	LT LBS	
	W	D	H	SUCTION	LIQUID	SUCTION	LIQUID			
TCTA436	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCTA438	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCTA430	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCTA446	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCTA448	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390
TCTA440	47 3/8	32 7/8	30 3/8	5/8	3/8	7/8	3/8	11.3	14.4	390

208-230/1/60 - FREEZER CIRCUIT

CONDENSING UNIT WIRING DIAGRAM

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

PAGE 1/2



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	
MOVE FAN TO L1,L3	A	S2ACA	1/2
ADD FAN RELAYS	B		

208-230/1/60 - COOLER CIRCUIT

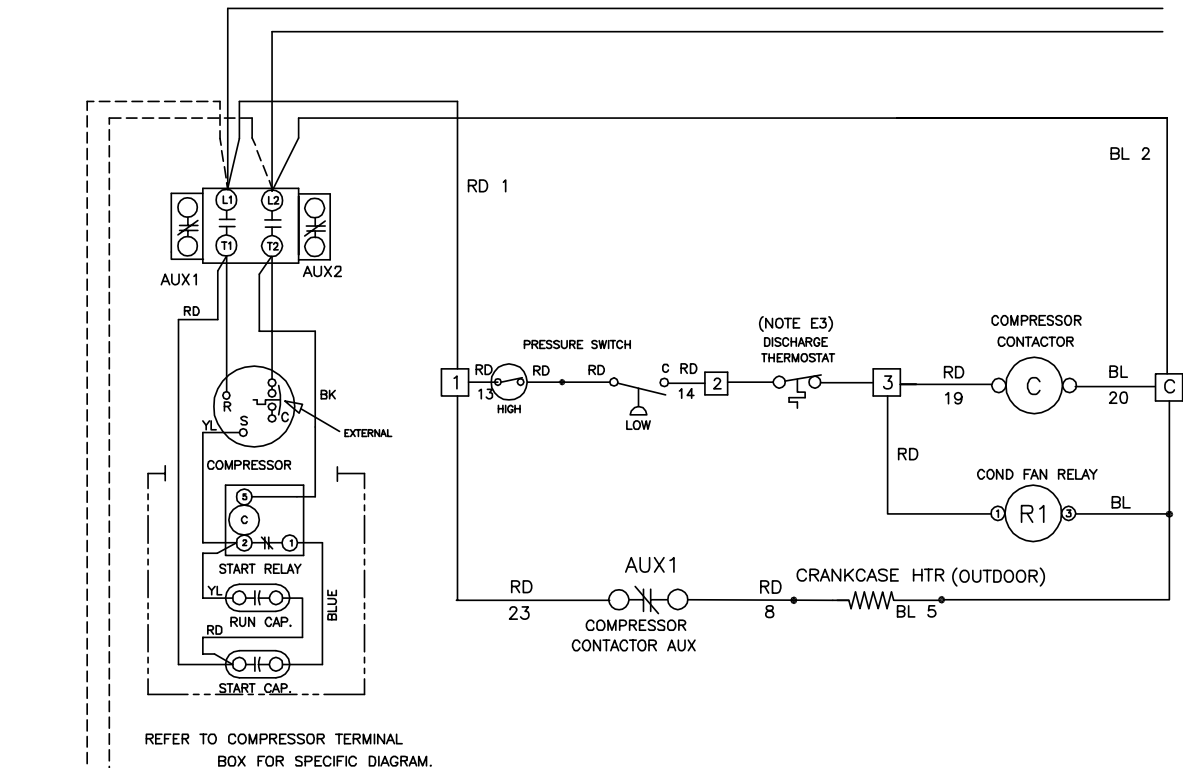
CONDENSING UNIT WIRING DIAGRAM

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

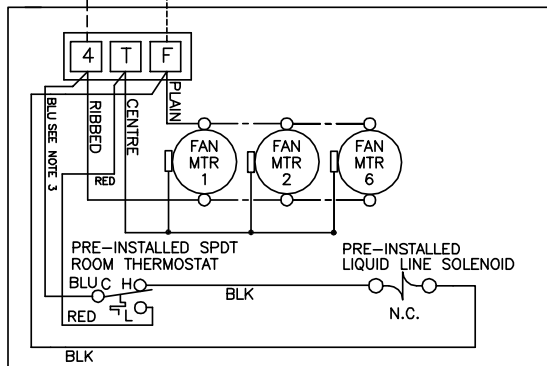
PAGE 2/2

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.

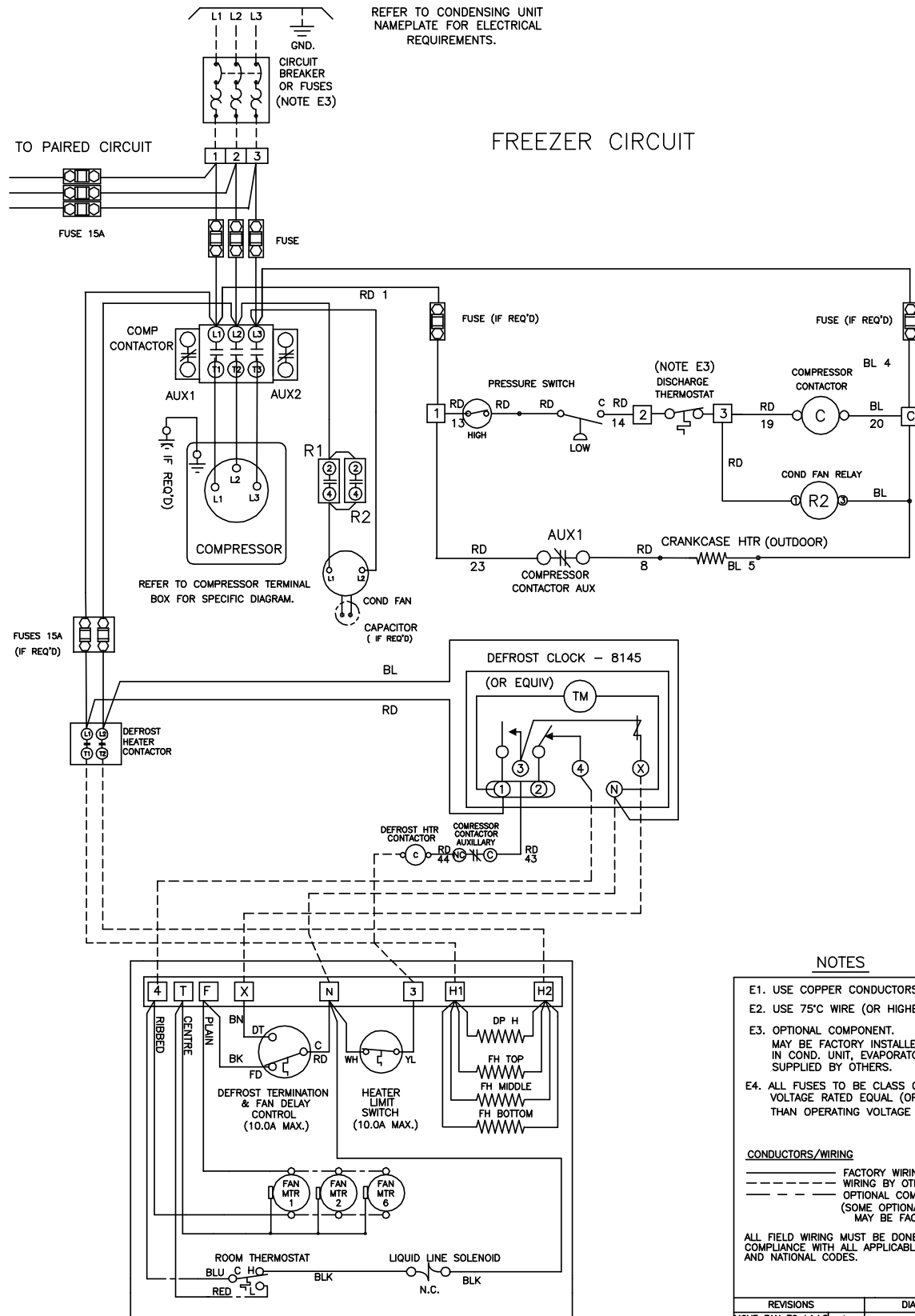
REVISIONS		DIAGRAM NUMBER
MOVE FAN TO L1,L3	A	S2ACA 2/2
ADD FAN RELAYS	B	

208-230/3/60 - FREEZER CIRCUIT

CONDENSING UNIT WIRING DIAGRAM

- 208/230V-3-60 Hz  
- STANDARD CONTROL CIRCUIT

PAGE 1/2



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
MOVE FAN TO L1,L3	A
ADD FAN RELAYS	B
	T3ACA-A 1/2



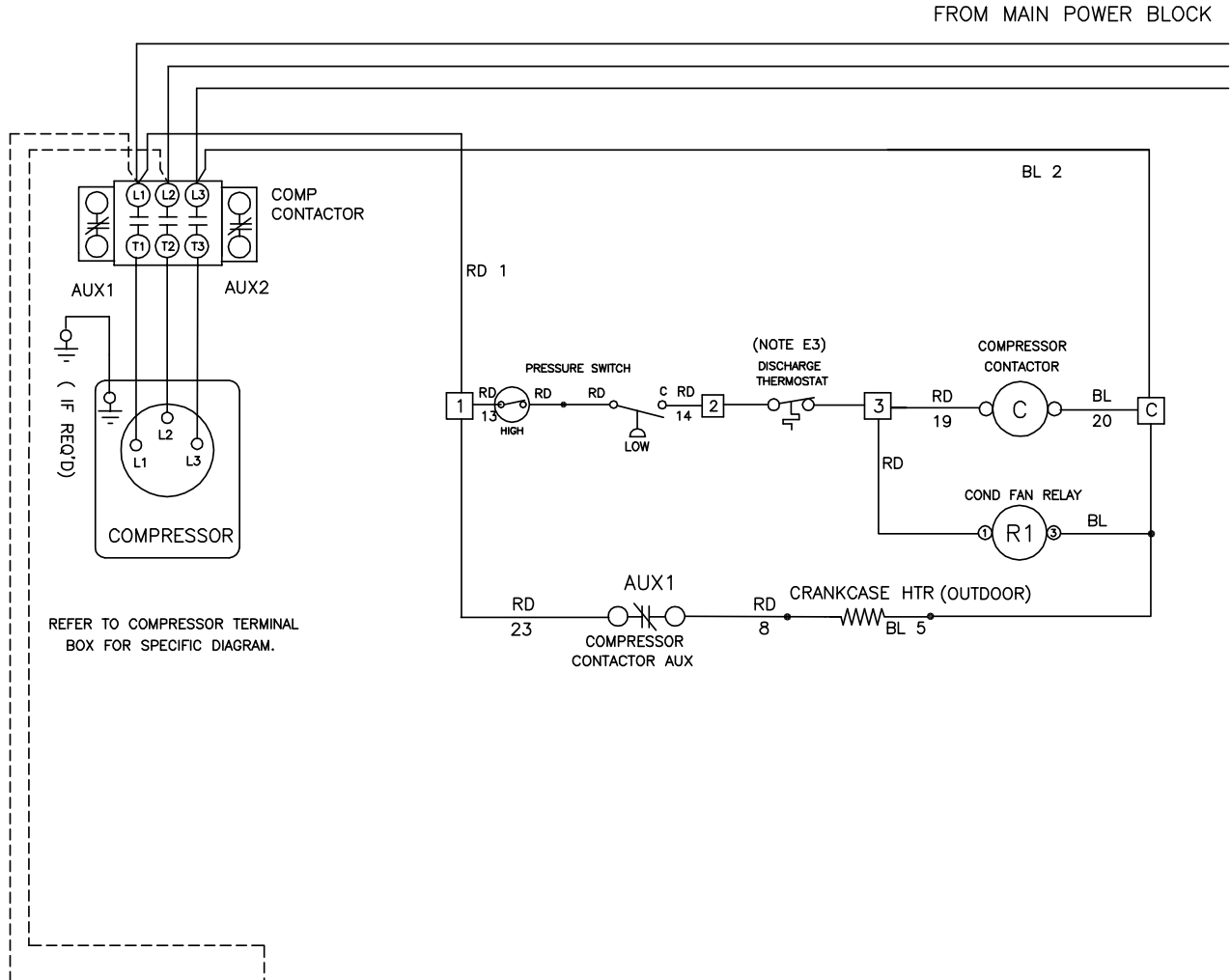
208-230/3/60 - COOLER CIRCUIT

CONDENSING UNIT WIRING DIAGRAM

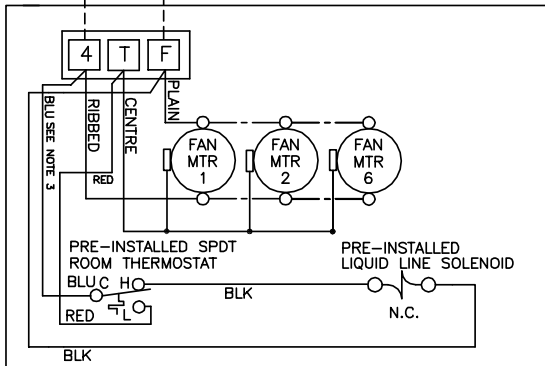
- 208/230V-3-60 Hz  
- STANDARD CONTROL CIRCUIT

PAGE 2/2

COOLER CIRCUIT



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.)

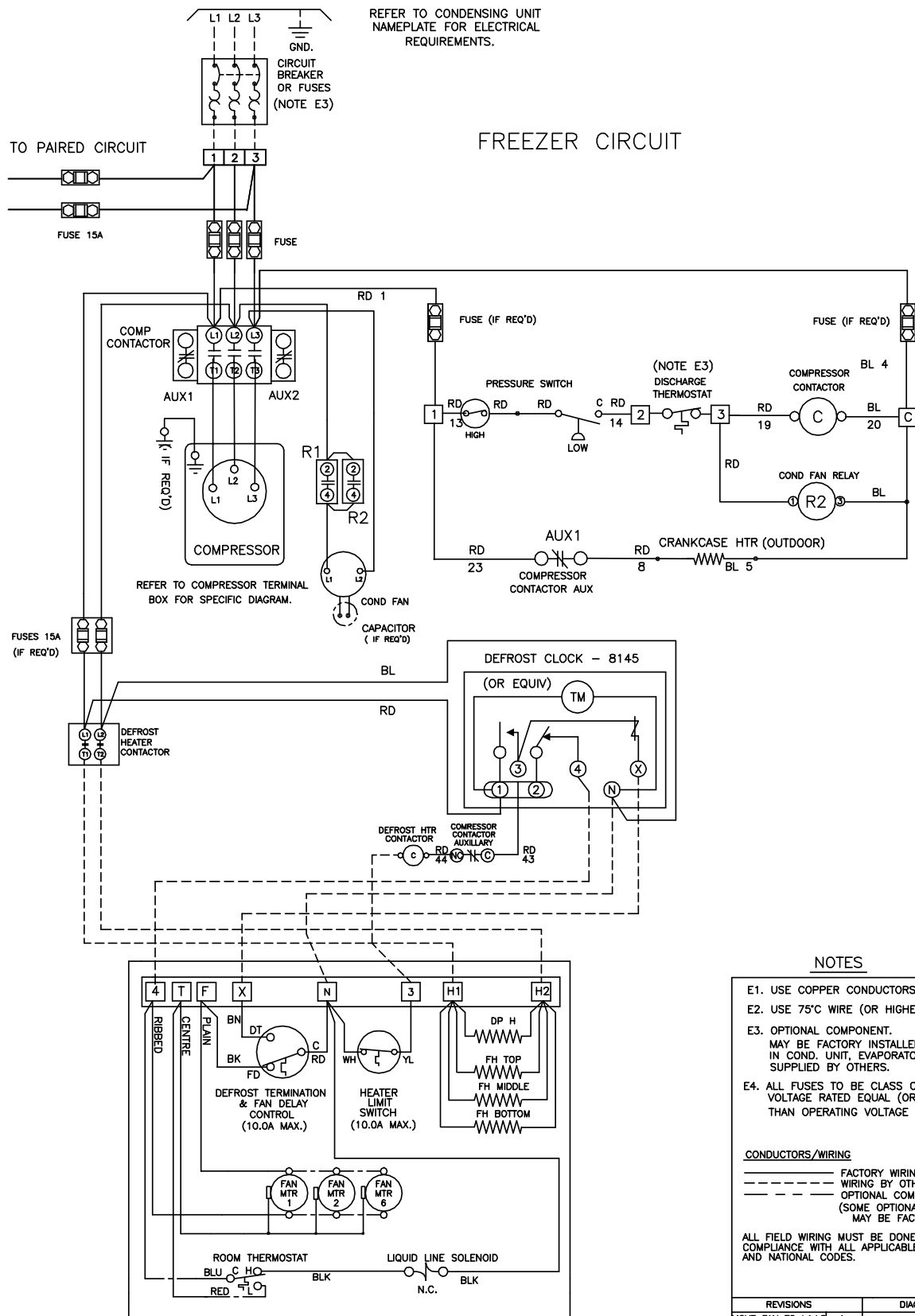
ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

REVISIONS	DIAGRAM NUMBER
MOVE FAN TO L1,L3	A
ADD FAN RELAYS	B
	T3ACA-A 2/2

208-230/1/60 with 3/4 HP COOLER - FREEZER CIRCUIT

CONDENSING UNIT WIRING DIAGRAM

- 208/230V-3-60 Hz WITH 1 Ph COOLER CIRCUIT  
 - STANDARD CONTROL 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
MOVE FAN TO L1,L3	A
ADD FAN RELAYS	B

T3ACA-B

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

  
PRODUCT SUPPORT

*web:* [t-rp.com/tc](http://t-rp.com/tc)  
*email:* [multicompcu@t-rp.com](mailto:multicompcu@t-rp.com)  
*call:* 1-844-893-3222 x524

  
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*email:* [troubleshooting@t-rp.com](mailto:troubleshooting@t-rp.com)  
*call:* 1-844-893-3222 x529

  
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