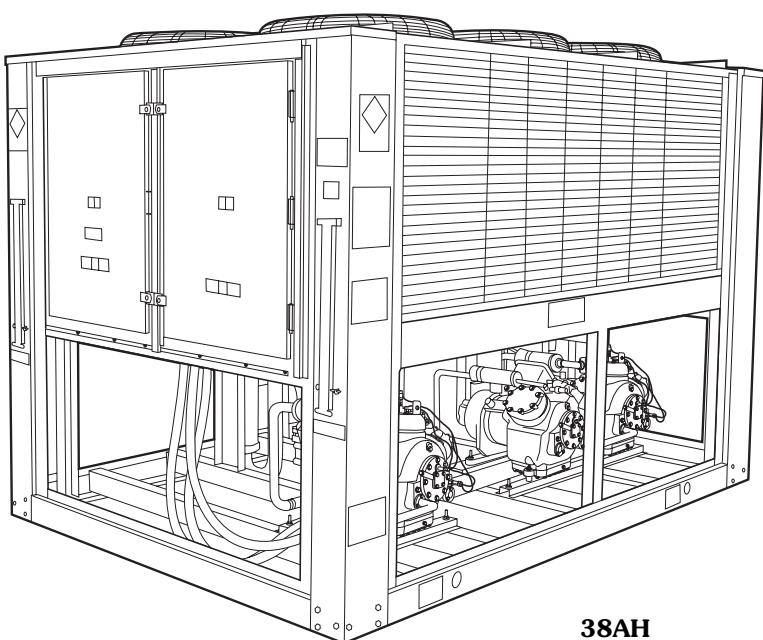




# Product Data

**38AH044-134**  
**Commercial Air-Cooled**  
**Condensing Units**  
**50/60 Hz**

40 to 130 Nominal Tons  
123 to 390 Nominal kW



38AH

This catalog describes the versatile 38AH condensing units. All 38AH condensing units may be matched to Carrier's 39 Series air handlers. See the applicable product data catalogs or use Carrier's exclusive **AHUBuilder®** (Air-Handling Unit) selection program to select these matching indoor units.

## Features/Benefits

- Up to 4 compressors and 2 independent refrigerant circuits provide design flexibility; the condensing unit can supply one or 2 air handlers
- Efficient 38AH Series units save energy, providing condensing unit EERs up to 10.9
- Variable air volume units operate at as low as 8% of nominal capacity without the use of energy-inefficient hot gas bypass
- Constant volume units operate at as low as 16% of nominal capacity (standard) or 8% of nominal capacity (with accessory unloader)
- Weatherized steel cabinet ensures corrosion protection
- Protection against high discharge and low suction refrigerant pressure, and low oil pressure ensure compressor reliability
- Crankcase heaters prevent oil dilution and ensure compressor lubrication

The 38AH condensing unit offers the utmost in system configuration and control adaptability. Its premium-quality standard components ensure durable, efficient, and reliable operation.

## Versatility

38AH Series condensing units feature up to 4 compressors and 2 refrigerant circuits, and can be matched with a wide variety of air-handling units. All condensing unit circuits can supply a single air handler or 2 separate air handlers.

Standard units have constant volume control. A variable air volume (VAV) option is available. The VAV units have electric unloaders on the compressors to closely match building loads. The VAV option requires only a simple connection to a discharge air controller, thereby saving installation time and cost.

## Durable construction

All 38AH units have weatherized cabinets constructed of heavy-duty galvanized steel prepainted with corrosion-resistant baked enamel. Inside and outside surfaces are protected

to ensure long life and good looks. The durable, galvanized steel, prepainted components exceed the requirements of the 500-hour salt spray test per ASTM (American Society for Testing and Materials) B117.

The unit's coils have aluminum fins mechanically bonded to copper tubes for long-term reliability and improved heat transfer. Copper fins on copper tubes are available for harsh industrial or coastal conditions. An inert epoxy barrier is available to provide improved durability in corrosive coastal environments.

## Reliability

The 38AH condensing units feature time-proven, highly reliable 06D and 06E semi-hermetic compressors. Unloading capability is a standard feature on each circuit's lead compressor. Each compressor has vibration isolators to provide quiet operation and reduced component stress.

The 38AH units have 2 independent circuits; they provide inherent backup capability. Each circuit is also protected by the following safety features:

- Time Guard anti-short-cycling device
- low oil pressure safety switch
- low refrigerant pressure switch (suction)
- high refrigerant pressure switch (discharge)
- calibrated circuit breakers for compressors and outdoor fans

## Easier installation and service

38AH units are equipped with hinged control-box access doors, liquid line shutoff valves, and service valves on the compressors.

Larger 38AH124 and 134 size units are shipped as 2 modules for easier handling and rigging.

# Table of contents

	Page
Features/Benefits . . . . .	1,2
Model Number Nomenclature . . . . .	3
Ratings Summary . . . . .	3,4
Options and Accessories . . . . .	5
Physical Data . . . . .	6-13
Dimensions . . . . .	14-20
Selection Procedure . . . . .	21
System Selection Procedure . . . . .	21
Performance Data . . . . .	22-66
Electrical Data . . . . .	67-71
Typical Piping and Wiring . . . . .	72-74
Controls . . . . .	75-77
Typical Control Wiring . . . . .	78
Application Data . . . . .	79-89
Guide Specifications . . . . .	90-92

# Model number nomenclature



	38AH	-	064	--	-	5	0	1	FA	
38AH —	Split System Condensing Unit									
<b>Start Options</b>										
- —	Across-the-Line Start									
<b>Nominal Capacity 60 Hz</b>	<b>Nominal Capacity 50 Hz</b>									
044 — 40 Tons (140 kW)	044 — 35 Tons (123 kW)									
054 — 50 Tons (175 kW)	054 — 41 Tons (144 kW)									
064 — 60 Tons (211 kW)	064 — 50 Tons (175 kW)									
074 — 70 Tons (246 kW)	074 — 61 Tons (214 kW)									
084 — 80 Tons (281 kW)	084 — 69 Tons (242 kW)									
094 — 90 Tons (316 kW)	094 — 78 Tons (274 kW)									
104 — 100 Tons (351 kW)	104 — 87 Tons (305 kW)									
124 — 120 Tons (422 kW)	124 — 100 Tons (351 kW)									
134 — 130 Tons (457 kW)	134 — 111 Tons (390 kW)									
<b>Not Used</b>										
<b>Condenser Fin Material</b>										
- — Aluminum (Standard)										
C — Copper (Optional)										
K — Pre-Coated Aluminum (Optional)										
E — E-Coated Al Fin/Cu Tube (Optional)										
F — E-Coated Al Fin/Cu Tube (Optional)										
<b>Voltage Designation</b>										
1 — 575-3-60										
2 — 380-3-60										
3 — 346-3-50 (Part Wind)										
5 — 208/230-3-60										
6 — 460-3-60										
8 — 230-3-50 (Part Wind, 044 Size)										
9 — 380/415-3-50										

### Factory-Installed Options

044-084:

BA — VAV (Variable Air Volume)  
Modification

DA — Single-Circuit Unit

FA — Single-Circuit Unit  
with VAV

094,104:

- — Standard Unit

BA — VAV Modifications

124,134:

DA — Standard Unit

FA — VAV Modifications

### Packaging

1 — Standard Domestic - Coil  
Protector

2 — Optional Domestic - Skid and  
Coil Protector

3 — Standard Export - Top and  
Bottom Skid, Coil Protector  
and Full Plastic Bag Enclosure

4 — Optional Export - Full Wooden  
Crate

### Revision Number

0 — Original Model

### LEGEND

AI — Aluminum  
Cu — Copper  
VAV — Variable Air Volume

### Quality Assurance



**Approvals:**  
ISO 9001  
EN 9000:2000

Certificate No FM 21837

## Ratings summary

UNIT SIZE 38AH	CAPACITY Nominal Tons (60 Hz)	CAPACITY Nominal Tons (50 Hz)	EER* (60 Hz)	EER* (50 Hz)	IPLV (60 Hz)	IPLV (50 Hz)
044	40	35	10.7	10.8	13.0	13.4
054	50	41	10.5	10.7	13.0	13.2
064	60	50	10.5	10.8	13.3	13.9
074	70	61	10.1	10.3	12.6	12.8
084	80	69	10.1	10.6	12.5	12.6
094	90	78	10.2	10.6	13.4	14.0
104	100	87	10.4	10.9	13.8	14.3
124	120	100	10.5	10.8	13.6	14.0
134	130	111	10.2	10.6	12.5	12.9

### LEGEND

EER — Energy Efficiency Ratio  
IPLV — Integrated Part Load Value

NOTE: Ratings are based on 45 F (7.2 C) suction temperature and 95 F (35 C) outside-air temperature, and include suction line losses.

\*Rated in accordance with ARI (Air Conditioning & Refrigeration Institute) standard 365.



# Ratings summary (cont)



## ESTIMATED SOUND POWER LEVEL (dB)

UNIT	OCTAVE BAND CENTER FREQUENCY (Hz)								
	63	125	250	500	1000	2000	4000	8000	dBA
38AH044	102	96	95	94	92	89	85	80	97
38AH054	102	96	95	94	92	89	85	80	97
38AH064	102	96	96	95	93	89	85	81	98
38AH074	103	95	97	95	93	90	86	81	98
38AH084	103	96	98	95	94	91	87	82	99
38AH094	104	95	97	95	94	93	89	87	99
38AH104	104	95	97	95	94	92	89	88	99
38AH124 Module A&B	102	96	96	95	93	89	85	81	98
38AH134 Module A	102	95	96	95	93	89	85	81	98
38AH134 Module B	102	95	96	95	93	89	85	81	98

NOTES:

1. Estimated sound power levels are -dB re 1 Picowatt.
2. The estimated sound power levels are assumed to originate at the acoustic center of the unit. The acoustic center of the unit is located at the projection of the condensing unit's geometric center on its base.

3. Sound power levels shown above were determined in accordance with ARI standard 370 for large outdoor refrigeration and air conditioning equipment.

## ESTIMATED SOUND POWER LEVEL (dB) UNITS WITH SOUND REDUCTION KIT

UNIT	OCTAVE BAND CENTER FREQUENCY (Hz)								
	63	125	250	500	1000	2000	4000	8000	dBA
38AH044	98	95	95	92	90	86	81	80	95
38AH054	98	95	95	92	90	86	81	80	95
38AH064	98	95	96	92	91	87	82	80	96
38AH074	99	96	95	92	90	86	82	79	95
38AH084	100	96	96	93	92	87	82	80	96
38AH094	99	92	93	93	91	90	85	87	97
38AH104	99	93	94	92	91	89	85	97	96
38AH124 Module A&B	99	95	96	93	91	87	82	80	—
38AH134 Module A	99	95	96	93	91	87	82	80	—
38AH134 Module B	99	96	95	93	91	86	82	79	—

NOTES:

1. Estimated sound power levels are -dB re 1 Picowatt.
2. The estimated sound power levels are assumed to originate at the acoustic center of the unit. The acoustic center of the unit is located at the projection of the condensing unit's geometric center on its base.

3. Sound power levels shown above were determined in accordance with ARI standard 370 for large outdoor refrigeration and air conditioning equipment.

# Options and accessories



## Factory-installed options

**VAV (variable air volume) control box modification** makes the condensing unit compatible with VAV controller. This option includes factory-installed accumulators and electric unloaders on the compressors as follows:

- 1 — 38AH044
- 2 — 38AH054-084,104
- 3 — 38AH094
- 4 — 38AH124,134 (2 per module)

**Single-circuit (sizes 38AH044-084 only)** includes factory-installed accumulators and all piping and wiring required to make the unit single circuit.

**Single-circuit with VAV (sizes 38AH044-084 only)** includes piping, wiring, and electric unloaders on the compressors (one on 38AH044 and 2 on 38AH054-084) to make the unit single circuit, VAV-ready. This option also includes factory-installed accumulators.

**Enviro-Shield™ condenser options** — Several options are available to match coil protection to site conditions for optimum durability. See the table below and refer to the Application Data for selection guidance. Consult your Carrier representative for further information.

## Field-installed accessories

**Transformer relay package** for a remote-control (24-v) thermostat. One 2-stage thermostat is required for use with the relay package.

**Additional electric unloader package** includes hardware to add an additional step of unloading (coil not included).

**Additional pressure unloader package** includes all unloader valves and hardware.

**Gage panel package** contains panel-mounted suction and discharge pressure gages.

**Hail guard package** protects coils against damage from hail and airborne debris.

**ModuPanel™ control** provides 10-step microprocessor-based control for VAV applications.

**Motormaster® V control** maintains correct condensing pressure at low ambient temperatures.

**Sound-reduction kit** provides a specially designed system of fan propellers and stacks that lower noise without reducing unit performance. The kit is compatible with the Motormaster V accessory.

**Unloader conversion kit** allows you to convert factory-installed pressure unloaders to electric unloading.

**Compressor grille package** protects the compressor area after the unit is installed.

**Condenser coil grille package** protects the condenser area after the unit is installed.

**Carrier's line of thermostats** provide both programmable and non-programmable capability. The line includes:

**Debonair®** commercial programmable thermostats, **TEMP System** controls to offer communication capability with staged heating and cooling, **Commercial Electronic** thermostats that provide 7-day programmable capability for economical applications, and **non-programmable** thermostats offer a multitude of staged heating and cooling subbase options.

## CONDENSER COIL OPTIONS

COPPER-TUBE COILS WITH ENVIRO-SHIELD OPTION	ENVIRONMENT					
	Standard	Mild Coastal	Moderate Coastal	Severe Coastal	Industrial	Combined Industrial/Coastal
Al Fins (Standard Coils)	X					
Cu Fins			X			
Al Fins, E-Coating					X	
Cu Fins, E-Coating				X		X
Al Fins, Pre-Coated		X				

### LEGEND

Al	— Aluminum
Cu	— Copper
E-Coated	— Epoxy Coating Applied to Entire Coil Assembly
Enviro-Shield	— Family of Coil Protection Options
Pre-Coated	— Epoxy Coating Applied to Fin Stock Material

# Physical data



60 Hz, ENGLISH

UNIT 38AH	044	054	064	074	084					
<b>NOMINAL CAPACITY (Tons)</b>	40	50	60	70	80					
<b>OPERATING WEIGHT WITH REFRIGERANT (lb) (approx)</b>	Cu-Al Cu-Cu	3259 3547	3309 3597	3565 3998	3812 4229					
<b>SHIPPING WEIGHT WITH COIL PROTECTION ONLY (lb) (approx)</b>	Cu-Al Cu-Cu	3250 3538	3290 3578	3530 3963	3780 4197					
<b>REFRIGERANT, TYPE</b>			R-22							
Shipping Charge (lb)		7	7	9	9					
Operating Charge, Typical (lb)		62	72	104	130					
<b>DUAL-CKT UNIT</b>										
<b>COMPRESSOR Type...Rpm</b>										
(Quantity) Cylinder Ckt*										
Model No. 06E	(4) A -250 17	(4) B -250 17	(4) A -250 17	(6) B -265 21	(6) A -265 21	(6) B -275 21	(6) A -275 21	(6) B -299 19	(6) A -299 19	(6) B -299 19
Oil Charge (pt)	100	100	100	84	100	71†	100	100	86	83
Capacity Control Steps (%)	75	79	58†	69†	48	43	29	33	67†	50
	50	42	21	32	16†	14†				33
	25									17†
<b>OPTIONAL SINGLE-CKT UNIT</b>										
<b>COMPRESSOR Type...Rpm</b>										
(Quantity) Cylinder Ckt**										
Model No. 06E	(4) A1 -250 17	(4) A2 -250 17	(6) A1 -265 21	(4) A2 -250 17	(6) A1 -275 21	(6) A2 -265 21	(6) A1 -299 19	(6) A2 -275 21	(6) A1 -299 19	(6) A2 -299 19
Oil Charge (pt)	100	100	100	82	100	81	100	100	83	83
Capacity Control Steps (%)	75	80	61†	64†	55	57	62†	62†	67†	50
	50	56	37	36	38	38	57	57	67†	50
	25									33
										17†
<b>CONDENSER FANS (4 Blade)</b>										
(Quantity) Dia (in.)			(4) 30							
Nominal Hp			1.0							
Airflow (cfm)			35,000							
Speed (rpm)			1140							
Total Power (kW)			6.2							
<b>CONDENSER COIL — Rows</b>		2	2	3	2	3				
Fins per in.	17	17	17	17	19	17				
Face Area (ft <sup>2</sup> )	80.5	80.5	80.5	80.5	116.7	80.5				
Storage Capacity (lb per circuit) at 120 F	35   35	35   35	55   55	55   55	55   55	80   80				
<b>FAN CYCLING CONTROL††</b>										
Close (psig)					255 ± 10					
Open (psig)					160 ± 10					
<b>CONNECTIONS</b>										
Suction, ODF (in.)***										
Liquid, ODF (in.)***										
Hot Gas Bypass, ODF (in.)										

## LEGEND

- Cu-Al — Copper Tubes with Aluminum Fins
- Cu-Cu — Copper Tubes with Copper Fins (Optional)
- ODF — Outside Diameter, Female
- VAV — Variable Air Volume

\*Circuit A compressor is lead.

†Unloading steps available only on units ordered with the VAV factory-installed option or on constant-volume units with additional field-installed accessory unloader.

\*\*Circuit A compressor is lead on standard units; circuit B compressor is lead on optional single-circuit units.

††On all 044-134 units, fans no. 3 and 4; also on 38AH074, 084 (dual-circuit units only) and 38AH094, 104, fans no. 5 and 6.

\*\*\*For optional single-circuit units, suction ODF is 2<sup>1</sup>/<sub>8</sub> in. and liquid ODF is 1<sup>1</sup>/<sub>8</sub> inches. Single circuit units have a single suction line and single liquid line. No field modification is required.

## NOTES:

1. Certified dimensional drawings available on request.
2. Refer to Unloading Sequences table, pages 80 and 81, for additional system capacity step data.



## 60 Hz, ENGLISH (cont)

UNIT 38AH	094	104	124		134	
			124A	124B	134A	134B
<b>NOMINAL CAPACITY (Tons)</b>	90	100	60	60	60	70
<b>OPERATING WEIGHT WITH REFRIGERANT (approx) — lb</b>						
Cu-Al	5088	5435	3630*	3630*	3630*	3877*
Cu-Cu	5813	6160	4063*	4063*	4063*	4294*
<b>SHIPPING WEIGHT WITH COIL PROTECTION AND SKID (approx) — lb</b>						
Cu-Al	5630	5990	3907*	3907*	3907*	4080*
Cu-Cu	6355	6715	4340*	4340*	4340*	4497*
<b>REFRIGERANT, TYPE</b>			R-22			
<b>Shipping Charge (lb)</b>	10	10	7	7	7	9
<b>Operating Charge, Typical (lb)</b>	148	135	88	88	88	104
<b>Qty of Circuits</b>	2	2	1	1	1	1
<b>COMPRESSOR Type...Rpm (Quantity Cylinder)</b>			Reciprocating	Semi-Hermetic...1750		
Comprt	(6)A1	(4)A2	(6)B1	(6)A1	(6)A2	(6)A1
Model No. 06E	-275 21	-250 17	-299 19	-265 21	-265 21	-265 21
Oil Charge (pt)				-275 21	-265 21	-275 21
Circuit Capacity — % (approx)	55	45	47	53	50	45
Capacity Control Steps**	6		8	4	4	4
<b>CONDENSER FANS (6 Blade)</b>						
Quantity...Dia (in.)	6...30	6...30	4...30	4...30	4...30	6...30
Nominal Hp	1.0	1.0	1.0	1.0	1.0	1.0
Airflow (cfm)	52,000	52,000	35,000	35,000	35,000	52,000
Speed (rpm)	1140	1140	1140	1140	1140	1140
Total Power (kW)	9.4	9.5	6.4	6.4	6.4	9.2
<b>CONDENSER COIL</b>			Enhanced Copper Tubes, Lanced Aluminum Fins			
Rows...Fins per in.	3...17	3...17	3...17	3...17	3...17	2...19
Face Area (sq ft)	128.3	128.3	80.5	80.5	80.5	116.7
Storage Capacity (lb per ckt) at 120 F	89	89	110	110	110	110
<b>FAN CYCLING CONTROLS††</b>			255 ± 10 160 ± 10			
Close (psig)						
Open (psig)						
<b>CONNECTIONS</b>						
Suction, ODF (in.)	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>
Liquid, ODF (in.)	7 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>
Hot Gas Bypass, ODF (in.)	5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>

### LEGEND

**Cu-Al** — Copper Tubes with Aluminum Fins

**Cu-Cu** — Copper Tubes with Copper Fins

**ODF** — Outside Diameter, Female

\*Includes piping and trim kit.

†Compressors are shipped with minimum oil charge.

\*\*Capacity control steps listed are for constant volume units with no accessories. Refer to Unloading Sequence table, pages 80 and 81, for additional system capacity information.

††On all 044-134 units, fans no. 3 and 4; also on 38AH074, 084 (dual-circuit units only) and 38AH094, 104, fans no. 5 and 6.

### NOTES:

1. Unit 38AH124 consists of one 124A module and one 124B module. Unit 38AH134 consists of one 134A module and one 134B module.
2. Certified dimensional drawings available on request.
3. Lead and lag circuits and compressors are as follows:

UNIT 38AH	094	104	124	134
<b>LEAD CIRCUIT</b>				
Compressor, Lead	A	A	Module 124A	Module 134A
Compressor, Lag	A1 A2	A1 A2	A1 A2	A1 A2
<b>LAG CIRCUIT</b>				
Compressor, Lead	B	B	Module 124B	Module 134B
Compressor, Lag	B1 B2	B1 B2	A1 A2	A1 A2

\*\*\*Circuit has only one compressor.

# Physical data (cont)



60 Hz, SI

UNIT 38AH	044	054	064	074	084				
<b>NOMINAL CAPACITY (kW)</b>	140	175	210	245	280				
<b>OPERATING WEIGHT WITH REFRIGERANT (kg) (approx)</b>	Cu-Al Cu-Cu 1478 1609	1500 1630	1615 1815	1790 1320	1840 2147				
<b>SHIPPING WEIGHT WITH COIL PROTECTION ONLY (kg) (approx)</b>	Cu-Al Cu-Cu 1474 1605	1492 1623	1600 1797	1714 1903	1814 2122				
<b>REFRIGERANT, TYPE</b>			R-22						
Shipping Charge (kg)	3	3	3	4	4				
Operating Charge, Typical (kg)	28	33	40	47	59				
<b>DUAL-CKT UNIT</b>									
<b>COMPRESSOR Type...r/s</b>									
(Quantity) Cylinder Ckt*									
Model No. 06E									
Oil Charge (L)									
Capacity Control Steps (%)	(4) A -250 8 100 75 50 25	(4) B -250 8 100 79 58† 42 21	(4) A -250 8 100 10 10 10 10	(6) B -265 10 84 69† 48 32 16†	(6) A -265 10 10 10 10 10 10	(6) B -275 9 86 71† 43 29 14†	(6) A -275 9 100 86 71† 43 29 14†	(6) B -299 9 100 83 67† 50 33 17†	(6) A -299 9 100 83 67† 50 33 17†
<b>OPTIONAL SINGLE-CKT UNIT</b>									
<b>COMPRESSOR Type...r/s</b>									
(Quantity) Cylinder Ckt**									
Model No. 06E									
Oil Charge (L)									
Capacity Control Steps (%)	(4) A1 -250 8 100 75 50 25	(4) A2 -250 8 100 80 61† 56 37	(6) A1 -265 8 100 10 10 10 10	(4) A2 -250 10 100 82 64† 55 36 18†	(6) A2 -265 10 100 81 62† 57 38 19†	(6) A1 -299 10 100 81 62† 57 38 19†	(6) A2 -275 9 100 83 67† 50 33 17†	(6) A1 -299 9 100 83 67† 50 33 17†	(6) A2 -299 9 100 83 67† 50 33 17†
<b>CONDENSER FANS (4 Blade)</b>									
(Quantity) Dia (mm)									
Nominal kW									
Airflow (l/s)									
Speed (r/s)									
Total Power (kW)									
<b>CONDENSER COIL — Rows</b>	2	2	3	2	3				
Fins per m.	669	669	669	782	669				
Face Area (m <sup>2</sup> )	7.5	7.5	7.5	10.8	10.8				
Storage Capacity (kg per circuit) at 49 C	16   16	16   16	25   25	25   25	36   36				
<b>FAN CYCLING CONTROL††</b>									
Close (kPa)				1768 ± 69					
Open (kPa)				1103 ± 69					
<b>CONNECTIONS</b>									
Suction, ODF (in.)***				2 <sup>1</sup> / <sub>8</sub>					
Liquid, ODF (in.)***				7 <sup>1</sup> / <sub>8</sub>					
Hot Gas Bypass, ODF (in.)				5 <sup>1</sup> / <sub>8</sub>					

## LEGEND

- Cu-Al — Copper Tubes with Aluminum Fins
- Cu-Cu — Copper Tubes with Copper Fins (Optional)
- ODF — Outside Diameter, Female
- VAV — Variable Air Volume

\*Circuit A compressor is lead.

†Unloading steps available only on units ordered with the VAV factory-installed option or on constant-volume units with additional field-installed accessory unloader.

\*\*Circuit A compressor is lead on standard units; circuit B compressor is lead on optional single-circuit units.

††On all 044-134 units, fans no. 3 and 4; also on 38AH074, 084 (dual-circuit units only) and 38AH094, 104, fans no. 5 and 6.

\*\*\*For optional single-circuit units, suction ODF is 2<sup>5</sup>/<sub>8</sub> in. and liquid ODF is 1<sup>1</sup>/<sub>8</sub> inches. Single circuit units have a single suction line and single liquid line. No field modification is required.

## NOTES:

1. Certified dimensional drawings available on request.
2. Refer to Unloading Sequences table, pages 80 and 81, for additional system capacity step data.
3. Equivalent connection values in mm are as follows:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
21/8	54.0
25/8	66.7



### 60 Hz, SI (cont)

UNIT 38AH	094	104	124		134							
			124A	124B	134A	134B						
<b>NOMINAL CAPACITY (Tons)</b>	316	350	210	210	210	245						
<b>OPERATING WEIGHT WITH REFRIGERANT (approx) — kg</b>												
Cu-Al	2208	2465	1647*	1647*	1647*	1759*						
Cu-Cu	2637	2794	1843*	1843*	1843*	1843*						
<b>SHIPPING WEIGHT WITH COIL PROTECTION AND SKID (approx) — kg</b>												
Cu-Al	2554	1717	1860*	1860*	1860*	1860*						
Cu-Cu	2883	3046	1928*	1968*	1968*	2040*						
<b>REFRIGERANT, TYPE</b>			R-22									
Shipping Charge (kg)	5	5	3	3	3	4						
Operating Charge, Typical (kg)	67	61	40	40	40	47						
Qty of Circuits	2	2	1	1	1	1						
<b>COMPRESSOR Type, r/s (Quantity Cylinder)</b>			Reciprocating Semi-Hermetic...29.2									
Comprt	(6)A1 -275 10	(4)A2 -250 8	(6)B1 -299 9	(6)A1 -265 10	(4)A2 -250 8	(6)B1 -265 10	(6)B2 -265 10	(6)A1 -275 10	(6)A2 -265 10	(6)A1 -275 10	(6)A2 -265 9	(6)A1 -299 10
Model No. 06E												
Oil Charge (L)												
Circuit Capacity — % (approx)	55	45	47	53	50	50	50	50	45	45	55	
Capacity Control Steps**	6		8	4	4	4	4	4	4	4	4	
<b>CONDENSER FANS (6 Blade)</b>												
Quantity...Dia (mm)	6...762		6...762		4...762		4...762		4...762		6...762	
Nominal kW	.746		.746		.746		.746		.746		.746	
Airflow (l/s)	24,544		24,544		46,250		16,250		16,254		24,544	
Speed (r/s)	19		19		19		19		19		19	
Total Power (kW)	9.4		9.5		6.4		6.4		6.4		9.2	
<b>CONDENSER COIL</b>			Enhanced Copper Tubes, Lanced Aluminum Fins									
Rows...Fins per m	3...669		3...669		3...669		3...669		3...669		2...78219	
Face Area (m <sup>2</sup> )	1139		139		7.5		7.5		7.5		10.8	
Storage Capacity (kg per ckt) at 120 F	40		40		50		50		50		50	
<b>FAN CYCLING CONTROLS††</b>					1958 ± 69							
Close (kPa)					1103 ± 69							
Open (kPa)												
<b>CONNECTIONS</b>												
Suction, ODF (in.)	2 <sup>1</sup> / <sub>8</sub> 7/ <sub>8</sub>		2 <sup>1</sup> / <sub>8</sub> 7/ <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>	
Liquid, ODF (in.)					5/ <sub>8</sub>		5/ <sub>8</sub>		5/ <sub>8</sub>		5/ <sub>8</sub>	
Hot Gas Bypass, ODF (in.)	5/ <sub>8</sub>		5/ <sub>8</sub>									

#### LEGEND

**Cu-Al** — Copper Tubes with Aluminum Fins

**Cu-Cu** — Copper Tubes with Copper Fins

**ODF** — Outside Diameter, Female

\*Includes piping and trim kit.

†Compressors are shipped with minimum oil charge.

\*\*Capacity control steps listed are for constant volume units with no accessories. Refer to Unloading Sequence table, pages 80 and 81, for additional system capacity information.

††On all 044-134 units, fans no. 3 and 4; also on 38AH074, 084 (dual-circuit units only) and 38AH094, 104, fans no. 5 and 6.

#### NOTES:

- Unit 38AH124 consists of one 124A module and one 124B module. Unit 38AH134 consists of one 134A module and one 134B module.
- Certified dimensional drawings available on request.

3. Lead and lag circuits and compressors are as follows:

UNIT 38AH	094	104	124	134
<b>LEAD CIRCUIT</b>				
Compressor, Lead	A	A	Module 124A	Module 134A
Compressor, Lag	A1 A2	A1 A2	A1 A2	A1 A2
<b>LAG CIRCUIT</b>				
Compressor, Lead	B	B	Module 124B	Module 134B
Compressor, Lag	B1 *** B2	B1 A2	A1 A2	A1 A2

\*\*\*Circuit has only one compressor.

4. Equivalent connection values in mm are as follows:

in.	mm
5/ <sub>8</sub>	15.9
7/ <sub>8</sub>	22.2
1 <sup>1</sup> / <sub>8</sub>	28.6
2 <sup>1</sup> / <sub>8</sub>	54.0
2 <sup>5</sup> / <sub>8</sub>	66.7

# Physical data (cont)



50 Hz, ENGLISH

UNIT 38AH	044	054	064	074	084					
<b>NOMINAL CAPACITY (Tons)</b>	35	41	50	61	69					
<b>OPERATING WEIGHT WITH REFRIGERANT (lb) (Approx.)</b>	Cu-Al Coils 3259 Cu-Cu Coils 3547	3309 3597	3565 3998	3812 4229	4057 4735					
<b>SHIPPING WEIGHT WITH COIL PROTECTION ONLY (lb) (Approx.)</b>	Cu-Al Coils 3250 Cu-Cu Coils 3538	3290 3578	3530 3963	3780 4197	4000 4678					
<b>TYPICAL OPERATING REFRIGERANT CHARGE (lb, approx.) R-22</b>	62	72	88	104	130					
<b>COMPRESSOR Type...Rpm (Qty Cylinder)* Circuit† Model No. 06E-Oil Charge (pt)</b>	(4) A 250 17	(4) B 250 17	(4) A 250 17	(6) B 265 21	(6) A 265 21	(6) B 275 21	(6) A 275 21	(6) B 299 19	(6) A 299 19	(6) B 299 19
<b>Capacity Control Steps**</b>	Reciprocating Semi-Hermetic...1460 4									
<b>CONDENSER FANS (4 Blade)</b> Qty...Dia (in.) Airflow (cfm) Speed (rpm) Total Power (kW)	4...30 35,000 950 6.2					52,000	6...30 950 9.3	51,000		
<b>CONDENSER COIL — Rows</b> Fins per...in. Face Area (ft <sup>2</sup> ) Storage Capacity (lb per circuit, approx.) at 120 F	2 17 80.5 35	2 17 80.5 35	3 17 80.5 55			2 19 116.7 55	2 17 116.7 80			
<b>FAN CYCLING CONTROLS ††</b> Close (psig) Open (psig)	255 ± 10 160 ± 10									
<b>CONNECTIONS</b> Suction, ODF (in.)*** Liquid, ODF (in.)*** Hot Gas Bypass, ODF (in.)	5/8	2 <sup>1</sup> / <sub>8</sub>   5/8 Ckt A	7/8   5/8 Ckt B				2 <sup>1</sup> / <sub>8</sub> 7/8 5/8			

## LEGEND

**Cu-Al** — Copper Tube, Aluminum Fin

**Cu-Cu** — Copper Tube, Copper Fin

**ODF** — Outside Diameter, Female

\*06E250 compressors have 4 cylinders; all others have 6.

†Circuit A compressor is lead on standard units; circuit B compressor is lead on optional single-circuit units.

\*\*Capacity control steps listed are for constant volume units with no accessories. Refer to Minimum Outdoor-Air Operating Temperature and Unloading Sequences tables, pages 80 and 81, for additional system capacity information.

††On all 044-134 units, fan no. 3 and 4; also on 38AH074,084 (dual-circuit units only) and 38AH094,104, fans no. 5 and 6.

\*\*\*For single-circuit units, suction ODF is 2<sup>5</sup>/<sub>8</sub> in. and liquid ODF is 1<sup>1</sup>/<sub>8</sub> inches. Single circuit units have a single suction line and single liquid line. No field modification is required.

NOTE: Certified dimensional drawings available on request.



## 50 Hz, ENGLISH (cont)

UNIT 38AH	094	104	124		134										
			124A	124B	134A	134B									
NOMINAL CAPACITY (Tons)	78	87	50	50	50	61									
OPERATING WEIGHT WITH REFRIGERANT (Approx.) (lb)															
Cu-Al	5088	5435	3630*	3630*	3630*	3877*									
Cu-Cu	5813	6160	4063*	4063*	4063*	4294*									
SHIPPING WEIGHT WITH COIL PROTECTION AND SKID (Approx.) (lb)															
Cu-Al	5630	5990	3907*	3907*	3907*	4080									
Cu-Cu	6355	6715	4340*	4340*	4340*	4497									
TYPICAL OPERATING REFRIGERANT			R-22												
Charge (Approx.) (lb)	148	135	88	88	88	104									
Qty of Circuits	2	2	1	1	1	1									
COMPRESSOR Type...Rpm (Qty Cylinder) Compressor†	(6)A1 -275 21	(4)A2 -250 17	(6)B1 -299 19	(6)A1 -265 21	(4)A2 -250 17	(6)B1 -265 21	(6)B2 -265 21	Reciprocating	Semi-Hermetic...1460	(6)A1 -275 21	(6)A2 -265 21	(6)A1 -275 21	(6)A2 -265 21	(6)A1 -299 19	(6)A2 -275 21
Model No. 06E	55	45	47	53	8	50	4			50	4	45	4	55	4
Oil Charge (pt)															
Circuit Capacity (%) (Approx.)															
Capacity Control Steps**	6														
CONDENSER FANS (4 Blade)															
Qty...Dia (in.)	6...30		6...30		4...30		4...30		4...30		4...30		6...30		
Airflow (cfm)	52,000		52,000		35,000		35,000		35,000		35,000		52,000		
Speed (rpm)	950		950		950		950		950		950		950		
Total Power (kW)	9.4		9.5		6.4		6.4		6.4		6.4		9.2		
CONDENSER COIL					Enhanced Copper Tubes, Lanced Aluminum Fins										
Rows...Fins per in.	3...17		3...17		3...17		3...17		3...17		3...17		3...17		2...19
Face Area (sq ft)	128.3		128.3		80.5		80.5		80.5		80.5		116.7		
Storage Capacity (kg per circuit, approx.) at 120 F	178		178		110		110		110		110		110		
FAN CYCLING CONTROLS††					255 ± 10										
Close (psig)					160 ± 10										
CONNECTIONS															
Suction, ODF (in.)	2 <sup>1</sup> / <sub>8</sub>		2 <sup>1</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>		
Liquid, ODF (in.)	7 <sup>1</sup> / <sub>8</sub>		7 <sup>1</sup> / <sub>8</sub>		11 <sup>1</sup> / <sub>8</sub>		11 <sup>1</sup> / <sub>8</sub>		11 <sup>1</sup> / <sub>8</sub>		11 <sup>1</sup> / <sub>8</sub>		11 <sup>1</sup> / <sub>8</sub>		
Hot Gas Bypass, ODF (in.)	5 <sup>1</sup> / <sub>8</sub>		5 <sup>1</sup> / <sub>8</sub>		5 <sup>1</sup> / <sub>8</sub>		5 <sup>1</sup> / <sub>8</sub>		5 <sup>1</sup> / <sub>8</sub>		5 <sup>1</sup> / <sub>8</sub>		5 <sup>1</sup> / <sub>8</sub>		

### LEGEND

Cu-Al — Copper Tube, Aluminum Fin

Cu-Cu — Copper Tube, Copper Fin

ODF — Outside Diameter, Female

\*Includes piping and trim kit.

†Compressor A1 is lead compressor on all circuits except circuit B on units 38AH094 and 104. Compressor B1 is lead on circuit B on units 38AH094 and 104. Compressors are shipped with minimum oil charge.

\*\*Capacity control steps listed are for constant volume units with no accessories. Refer to Minimum Outdoor-Air Operating Temperature and Unloading Sequences tables, pages 80 and 81, for additional system capacity information.

††On all 044-134 units, fan no. 3 and 4; also on 38AH074,084 (dual-circuit units only) and 38AH094,104, fans no. 5 and 6.

### NOTES:

- Unit 38AH124 consists of one 124A module and one 124B module. Unit 38AH134 consists of one 134A module and one 134B module.
- Certified dimensional drawings available on request.
- Lead and lag circuits and compressors are as follows:

UNIT 38AH	094	104	124	134
LEAD CIRCUIT	A	A	Module 124A	Module 134A
Compressor, Lead	A1	A1	A1	A1
Compressor, Lag	A2	A2	A2	A2
LAG CIRCUIT	B	B	Module 124B	Module 134B
Compressor, Lead	B1	B1	A1	A1
Compressor, Lag	***	B2	A2	A2

\*\*\*Circuit only has one compressor.

# Physical data (cont)



50 Hz, SI

UNIT 38AH	044	054	064	074	084					
<b>NOMINAL CAPACITY (kW)</b>	123	144	175	214	242					
<b>OPERATING WEIGHT WITH REFRIGERANT (kg) (Approx.)</b>	Cu-Al Coils Cu-Cu Coils	1480 1609	1501 1632	1617 1813	1729 1918					
<b>SHIPPING WEIGHT WITH COIL PROTECTION ONLY (kg) (Approx.)</b>	Cu-Al Coils Cu-Cu Coils	1474 1605	1492 1623	1601 1798	1715 1904					
<b>TYPICAL OPERATING REFRIGERANT CHARGE (kg, approx.) R-22</b>		28.1	32.7	39.9	47.2					
<b>COMPRESSOR Type...r/s (Qty Cylinder)* Circuit†</b> Model No. 06E- Oil Charge (L) <b>Capacity Control Steps**</b>	(4) A 250 8.0	(4) B 250 8.0	(4) A 250 8.0	(6) B 265 9.9	(6) A 265 9.9	(6) B 275 9.9	(6) A 275 9.9	(6) B 299 9.0	(6) A 299 9.0	(6) B 299 9.0
<b>CONDENSER FANS (4 Blade)</b> Qty...Dia (mm) Airflow (L/s) Speed (r/s) Total Power (kW)										
				4...762 16 500 15.8 6.2				24 500 15.8 9.3	6...762 24 100	
<b>CONDENSER COIL</b> Row...Fins per m Face Area (m <sup>2</sup> ) Storage Capacity (kg per circuit, approx.) at 48.9 C										
<b>FAN CYCLING CONTROLS ‡‡</b> Close (kPa) Open (kPa)										
<b>CONNECTIONS</b> Suction, ODF (in.)*** Liquid, ODF (in.)*** Hot Gas Bypass, ODF (in.)										

## LEGEND

**Cu-Al** — Copper Tube, Aluminum Fin

**Cu-Cu** — Copper Tube, Copper Fin

**ODF** — Outside Diameter, Female

\*06E250 compressors have 4 cylinders; all others have 6.

†Circuit A compressor is lead on standard units; circuit B compressor is lead on optional single-circuit units.

\*\*Capacity control steps listed are for constant volume units with no accessories. Refer to Minimum Outdoor-Air Operating Temperature and Unloading Sequences tables, pages 80 and 81, for additional system capacity information.

‡‡On all 044-134 units, fan no. 3 and 4; also on 38AH074,084 (dual-circuit units only) and 38AH094,104, fans no. 5 and 6.

\*\*\*For single-circuit units, suction ODF is 2<sup>5</sup>/<sub>8</sub> in. and liquid ODF is 1<sup>1</sup>/<sub>8</sub> inches. Single circuit units have a single suction line and single liquid line. No field modification is required.

## NOTES:

1. Certified dimensional drawings available on request.
2. Equivalent connection values in mm are as follows:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
21/8	54.0
25/8	66.7



## 50 Hz, SI (cont)

UNIT 38AH	094	104	124		134							
			124A	124B	134A	134B						
NOMINAL CAPACITY (kW)	274	305	175.5	175.5	175.5	214.5						
OPERATING WEIGHT WITH REFRIGERANT (Approx.) (kg)												
Cu-Al	2308	2465	1647*	1647*	1647*	1759*						
Cu-Cu	2637	2794	1843*	1843*	1843*	1843*						
SHIPPING WEIGHT WITH COIL PROTECTION AND SKID (Approx.) (kg)												
Cu-Al	2554	2717	1860*	1860*	1860*	1851						
Cu-Cu	2883	3046	1968*	1968*	1968*	2040						
TYPICAL OPERATING REFRIGERANT			R-22									
Charge (Approx.) (kg)	67.1	61.2	40	40	40	47.2						
Qty of Circuits	2	2	1	1	1	1						
COMPRESSOR Type...r/s (Qty Cylinder) Compressor†	(6)A1 -275 10 55	(4)A2 -250 8 45	(6)B1 -299 9 47	(6)A1 -265 10 8	(4)A2 -250 8 53	Reciprocating Semi-Hermetic...24.3 -275 10 50 4	(6)A1 -265 10 50 4	(6)A2 -265 10 50 4	(6)A1 -275 10 45 4	(6)A2 -265 10 45 4	(6)A1 -299 9 55	(6)A2 -275 10 45 4
Model No. 06E												
Oil Charge (L)												
Circuit Capacity (%) (Approx.)												
Capacity Control Steps**	6											
CONDENSER FANS (4 Blade)												
Qty...Dia (mm)	6...762		6...762		4...762		4...762		4...762		6...762	
Airflow (L/s)	24 544		24 544		16 520		16 520		16 520		24 544	
Speed (R/s)	15.8		15.8		15.8		15.8		15.8		15.8	
Total Power (kW)	9.4		9.5		6.4		6.4		6.4		9.2	
CONDENSER COIL												
Rows...Fins per m	3...669.3		Enhanced Copper Tubes, Lanced Aluminum Fins									
Face Area (sq m)	11.9		3...669.3		3...669.3		3...669.3		3...669.3		2...781.6	
Storage Capacity (kg per circuit, approx.) at 40 C	81		11.9		7.5		7.5		7.5		10.8	
FAN CYCLING CONTROLS††			81		50		50		50		50	
Close (kPa)					1758 ± 69							
Open (kPa)					1103 ± 69							
CONNECTIONS												
Suction, ODF (in.)	2 <sup>1</sup> / <sub>8</sub>		2 <sup>1</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>		2 <sup>5</sup> / <sub>8</sub>	
Liquid, ODF (in.)	7/ <sub>8</sub>		7/ <sub>8</sub>		11/ <sub>8</sub>		11/ <sub>8</sub>		11/ <sub>8</sub>		11/ <sub>8</sub>	
Hot Gas Bypass, ODF (in.)	5/ <sub>8</sub>		5/ <sub>8</sub>		5/ <sub>8</sub>		5/ <sub>8</sub>		5/ <sub>8</sub>		5/ <sub>8</sub>	

### LEGEND

**Cu-Al** — Copper Tube, Aluminum Fin  
**Cu-Cu** — Copper Tube, Copper Fin  
**ODF** — Outside Diameter, Female

\*Includes piping and trim kit.

†Compressor A1 is lead compressor on all circuits except circuit B on units 38AH094 and 104. Compressor B1 is lead on circuit B on units 38AH094 and 104. Compressors are shipped with minimum oil charge.

\*\*Capacity control steps listed are for constant volume units with no accessories. Refer to Minimum Outdoor-Air Operating Temperature and Unloading Sequences tables, pages 80 and 81, for additional system capacity information.

††On all 044-134 units, fan no. 3 and 4; also on 38AH074,084 (dual-circuit units only) and 38AH094,104, fans no. 5 and 6.

### NOTES:

- Unit 38AH124 consists of one 124A module and one 124B module. Unit 38AH134 consists of one 134A module and one 134B module.

2. Certified dimensional drawings available on request.

3. Equivalent connection values in mm are as follows:

in.	mm
5/ <sub>8</sub>	15.9
7/ <sub>8</sub>	22.2
1 <sup>1</sup> / <sub>8</sub>	28.6
2 <sup>1</sup> / <sub>8</sub>	54.0
2 <sup>5</sup> / <sub>8</sub>	66.7

4. Lead and lag circuits and compressors are as follows:

UNIT 38AH	094	104	124	134
LEAD CIRCUIT	A	A	Module 124A	Module 134A
Compressor, Lead	A1	A1	A1	A1
Compressor, Lag	A2	A2	A2	A2
LAG CIRCUIT	B	B	Module 124B	Module 134B
Compressor, Lead	B1	B1	A1	A1
Compressor, Lag	***	B2	A2	A2

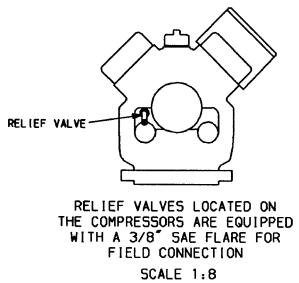
\*\*\*Circuit has only one compressor.

# Dimensions

**Carrier**

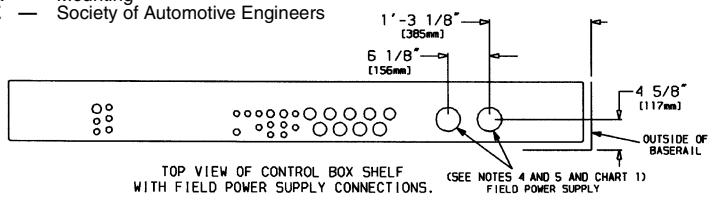
## SIZES 044-064 (See Page 16 for Corner Weights)

UNIT 38AH	DIMENSION Y	DIMENSION X
044	3'-2 <sup>3</sup> / <sub>4</sub> " [984 mm]	4'-1 <sup>1</sup> / <sub>2</sub> " [1232 mm]
044C	3'-3 <sup>1</sup> / <sub>8</sub> " [994 mm]	4'-9 <sup>1</sup> / <sub>16</sub> " [1234 mm]
054	3'-2 <sup>1</sup> / <sub>2</sub> " [978 mm]	4'-3 <sup>3</sup> / <sub>16</sub> " [1224 mm]
054C	3'-3" [991 mm]	4'-3 <sup>1</sup> / <sub>8</sub> " [1229 mm]
064	3'-2 <sup>1</sup> / <sub>2</sub> " [978 mm]	4'-1 <sup>1</sup> / <sub>2</sub> " [1232 mm]
064C	3'-3 <sup>3</sup> / <sub>16</sub> " [995 mm]	4'-5 <sup>1</sup> / <sub>8</sub> " [1235 mm]



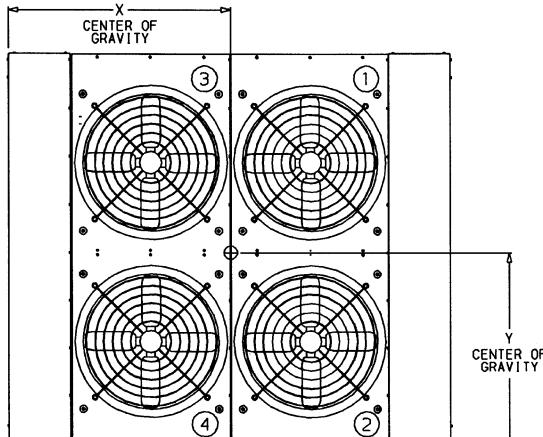
CONTROL BOX  
END

LEGEND  
C — Copper Fin Coils  
MTG — Mounting  
SAE — Society of Automotive Engineers



TOP VIEW OF CONTROL BOX SHELF  
WITH FIELD POWER SUPPLY CONNECTIONS.  
(SEE NOTES 4 AND 5 AND CHART  
FIELD POWER SUPPLY)

SCALE 1:10



TOP VIEW

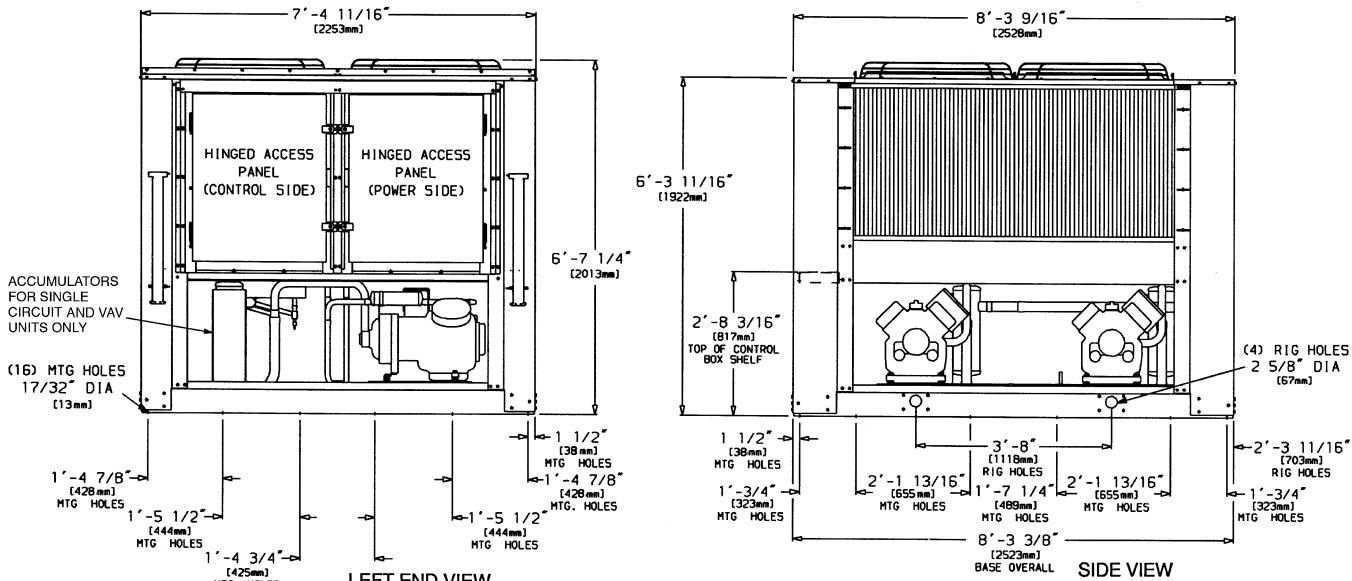


CHART 1A, FIELD POWER SUPPLY CONNECTIONS (60 Hz)

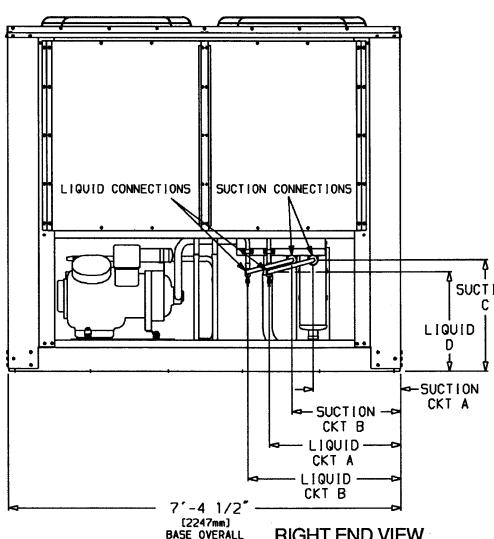
UNIT	VOLTAGE	DIA (in.)	QTY.
044,054	208/230	3	1
064		2	2
044,054,064	460	2	1
044,054,064	575	2	1
044,054,064	380	2	1

NOTES:

- The approximate operating weight of the unit is:  
 38AH044 → 3259 lb (1480 kg)  
 38AH044C → 3547 lb (1609 kg)  
 38AH054 → 3309 lb (1501 kg)  
 38AH054C → 3597 lb (1632 kg)  
 38AH064 → 3565 lb (1617 kg)  
 38AH064C → 3998 lb (1813 kg)
- Unit must have clearances for airflow as follows:  
 Top — Do not restrict in any way.  
 Ends — 5 ft [153 cm]  
 Sides — 6 ft [183 cm]
- Mounting holes may be used to mount unit to concrete pad. They are not recommended for mounting unit to spring isolators.
- Two 51 mm (2 in.) dia holes are recommended for parallel conductors on 044 (230-V) units.
- Circled numerals in Top View refer to condenser fans; refer to Electrical Data section, Fans table, pages 68 and 71 and Wiring Diagram book.
- If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.

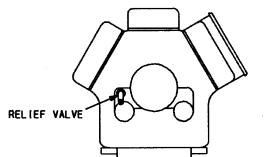
CHART 1B, FIELD POWER SUPPLY CONNECTIONS (50 Hz)

UNIT	VOLTAGE	DIAMETER	QTY.
044	230	35/8" [92 mm]	1
044,054	346	21/2" [63 mm]	1
064	346	35/8" [92 mm]	1
044,054	380/415	21/2" [63 mm]	1
064	380/415	35/8" [92 mm]	1



**SIZES 074,084 (See Page 16 for Corner Weights)**

UNIT 38AH	DIMENSION Y	DIMENSION X
074	3'-31/8" [994 mm]	4'-813/16" [1443 mm]
074C	3'-35/8" [1006 mm]	4'-81/8" [1425 mm]
084	3'-3" [991 mm]	4'-9" [1448 mm]
084C	3'-311/16" [1008 mm]	4'-8" [1422 mm]



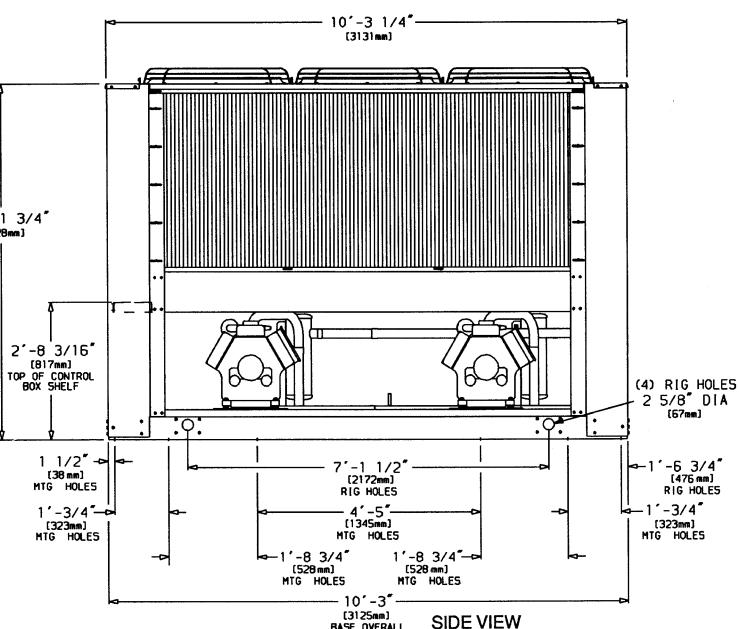
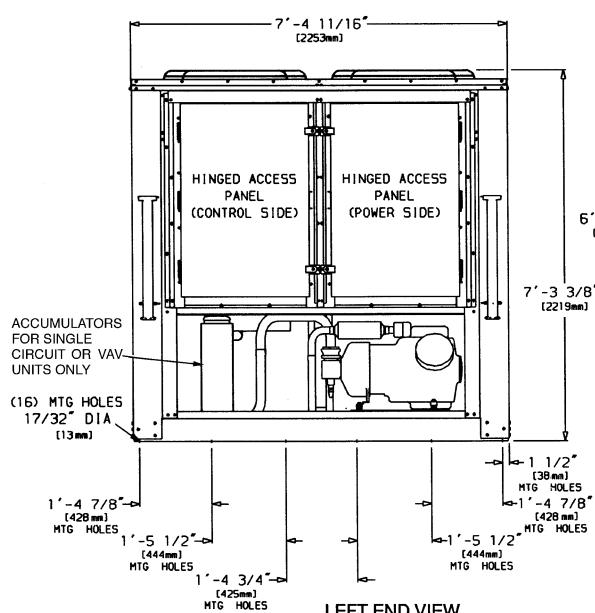
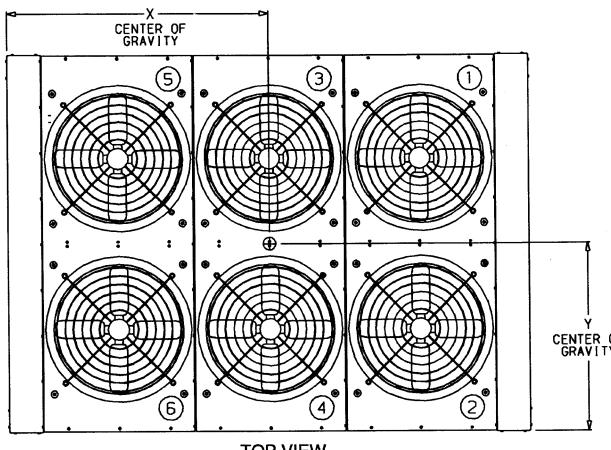
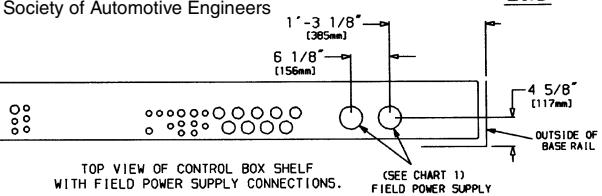
RELIEF VALVES LOCATED ON THE COMPRESSORS ARE EQUIPPED WITH A 3/8" SAE FLARE FOR FIELD CONNECTION

SCALE 1:8

**CONTROL BOX**  
**END**

**LEGEND**

C — Copper Fin Coils  
MTG — Mounting  
SAE — Society of Automotive Engineers



**CHART 1A, FIELD POWER SUPPLY CONNECTIONS (60 Hz)**

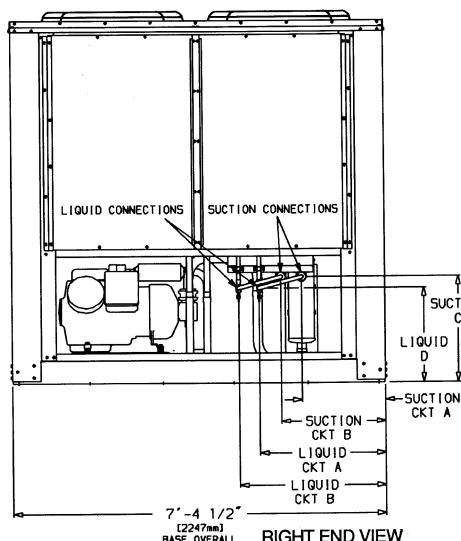
UNIT	VOLTAGE	DIA (in.)	QTY
074	208/230	2 1/2	2
084		3 5/8	2
074	460	2 1/2	1
084		3 5/8	1
074,084	575	2 1/2	1
074,084	380	3 5/8	1

NOTES:

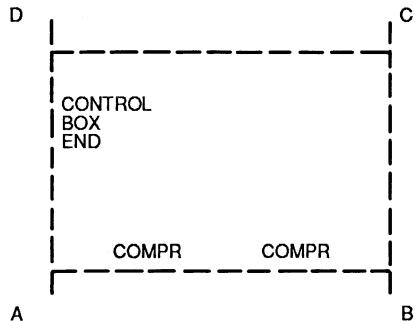
- The approximate operating weight of the unit is:  
38AH074 → 3812 lb (1729 kg)  
38AH074C → 4229 lb (1918 kg)  
38AH084 → 4057 lb (1840 kg)  
38AH084C → 4735 lb (2148 kg)
- Unit must have clearances for airflow as follows:  
Top — Do not restrict in any way.  
Ends — 5 ft [153 cm]  
Sides — 6 ft [183 cm]
- Mounting holes may be used to mount unit to concrete pad. They are not recommended for mounting unit to spring isolators.
- Circle numerals in Top View refer to condenser fans; refer to Electrical Data section, Fans table, page 68 and 71 and Wiring Diagram book.
- If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.

**CHART 1B, FIELD POWER SUPPLY CONNECTIONS (50 Hz)**

UNIT	VOLTAGE	DIAMETER	QTY
074,084	346	35/8" [92 mm]	1
074,084	380/415	35/8" [92 mm]	1



# Dimensions (cont)



**OPERATIONAL CORNER WEIGHTS WITH  
REFRIGERANT CHARGE (Approximate) — Kg**

UNIT 38AH	TOTAL WEIGHT	OPERATIONAL CORNER WEIGHT			
		A	B	C	D
044	1480	426	405	316	332
044C	1609	460	438	347	364
054	1501	437	411	316	337
054C	1632	469	444	350	369
064	1617	462	459	347	350
064C	1813	510	508	397	399
074	1729	520	447	352	410
074C	1918	577	481	391	470
084	1840	553	476	375	436
084C	2148	646	538	438	526

C — Copper Fin Coils

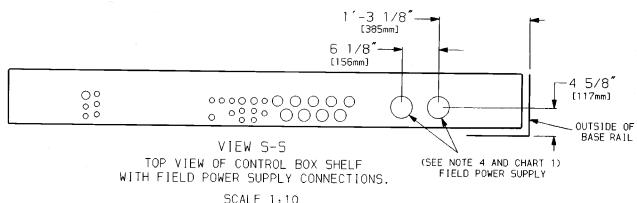
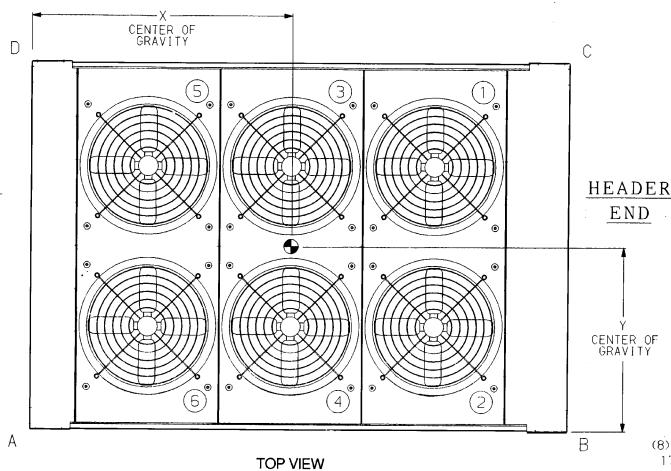
**OPERATIONAL CORNER WEIGHTS WITH  
REFRIGERANT CHARGE (Approximate) — Lb**

UNIT 38AH	TOTAL WEIGHT	OPERATIONAL CORNER WEIGHT			
		A	B	C	D
044	3259	939	893	695	732
044C	3547	1013	967	765	802
054	3309	964	905	697	742
054C	3597	1034	978	771	814
064	3565	1018	1011	765	771
064C	3998	1125	1117	874	879
074	3812	1146	986	777	903
074C	4229	1272	1059	862	1035
084	4057	1220	1049	827	961
084C	4735	1425	1186	965	1159

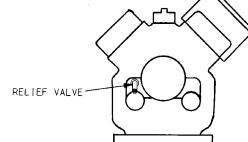
C — Copper Fin Coils

**UNIT 38AH094**

UNIT 38AH	DIMENSIONS ft-in. [mm]		OPERATIONAL CORNER WEIGHTS — lb [kg]			
	X	Y	A	B	C	D
094	5-6 [1676]	2-7 [787]	1114 [505]	2192 [994]	1182 [536]	601 [273]
094C	5-6 [1676]	2-7 [787]	1273 [577]	2504 [1136]	1350 [612]	686 [311]

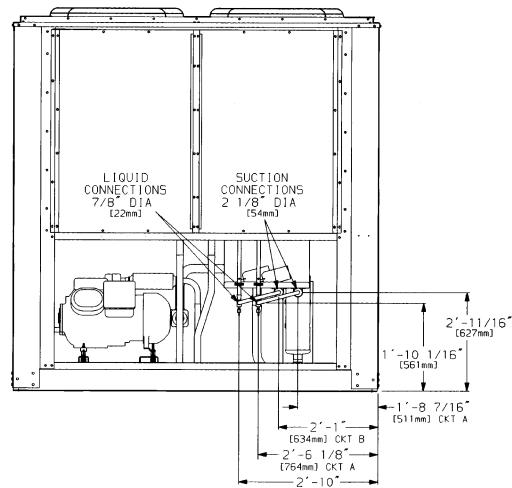
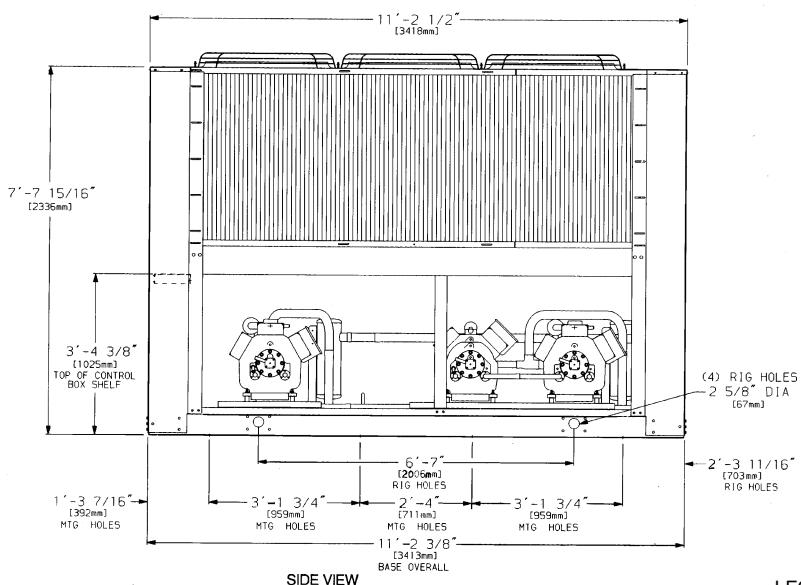
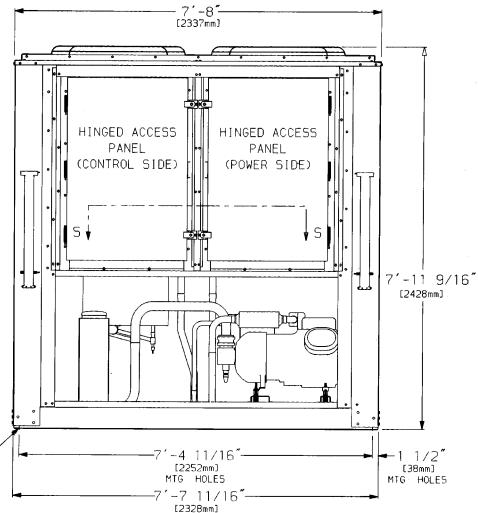

**CONTROL  
BOX END**

**CHART 1, FIELD POWER SUPPLY CONNECTIONS**

UNIT	VOLTAGE	Hz	DIAMETER in. [mm]	QUANTITY
094	346	50	3 5/8 [92]	1
	380/415			
	208/230	60	3 5/8 [92]	2
	460,575,380	60	3 5/8 [92]	1



RELIEF VALVES LOCATED ON  
COMPRESSORS A2 AND B1 ARE EQUIPPED  
WITH A 3 5/8" SAE FLARE FOR  
FIELD CONNECTION

SCALE 1:8


**LEGEND**

- C** — Copper Fin Coils
- MTG** — Mounting
- SAE** — Society of  
Automotive  
Engineers

**NOTES:**

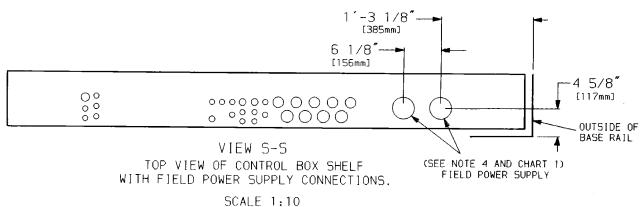
- The approximate operating weight of the unit is:  
38AH094 — 5088 lb [2308 kg]  
38AH094C — 5813 lb [2637 kg]
- Unit must have clearances for airflow as follows:  
Top — Do not restrict in any way.  
Ends — 5 ft [153 cm]  
Sides — 6 ft [183 cm]
- Mounting holes may be used to mount unit to concrete pad. They are not recommended for mounting unit to spring isolators.
- Circle numerals in Top View refer to condenser fans; refer to Electrical Data section, Fans table, pages 68 and 71 and Wiring Diagram book.
- If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.

# Dimensions (cont)

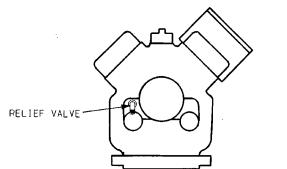


## UNIT 38AH104

UNIT 38AH	DIMENSIONS ft-in. [mm]		OPERATIONAL CORNER WEIGHTS			lb [kg]
	X	Y	A	B	C	D
104	5-3 [1600]	2-9½ [851]	1240 [562]	2138 [970]	1302 [591]	755 [342]
104C	5-3 [1600]	2-9½ [851]	1405 [637]	2423 [1099]	1476 [670]	856 [388]

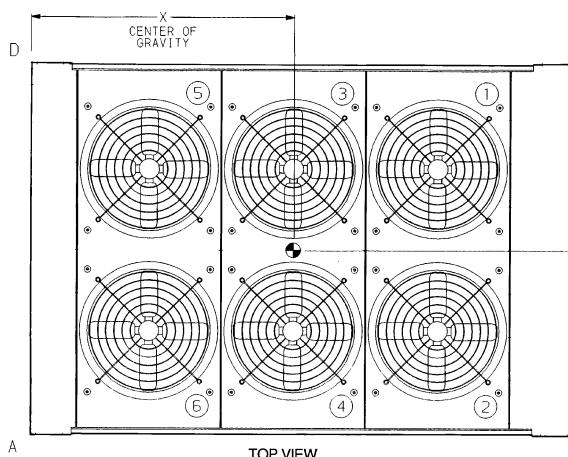


LEGEND  
 C — Copper Fin Coils  
 MTG — Mounting  
 SAE — Society of  
 Automotive  
 Engineers



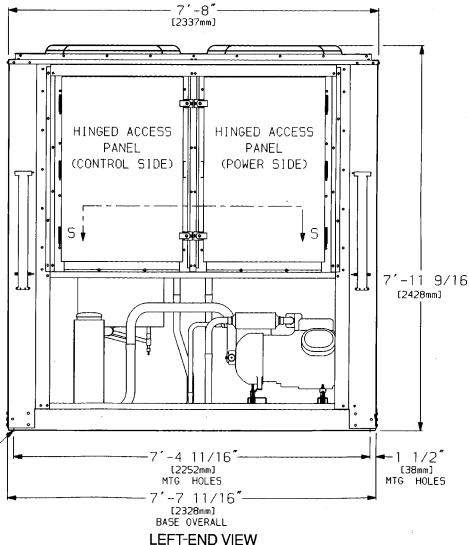
RELIEF VALVES LOCATED ON  
COMPRESSORS A2 AND B2 ARE EQUIPPED  
WITH A 3/8" SAE FLARE FOR  
FIELD CONNECTION  
SCALE 1:8

CONTROL  
BOX END

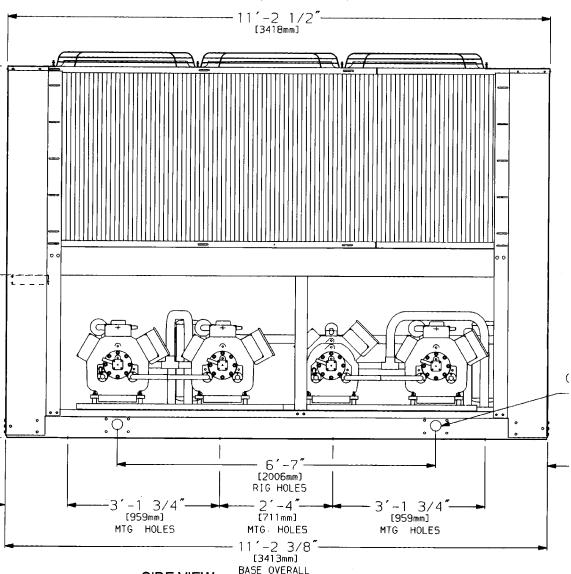


HEADER  
END

(8) MTG HOLES  
17/32" DIA.  
[13mm]



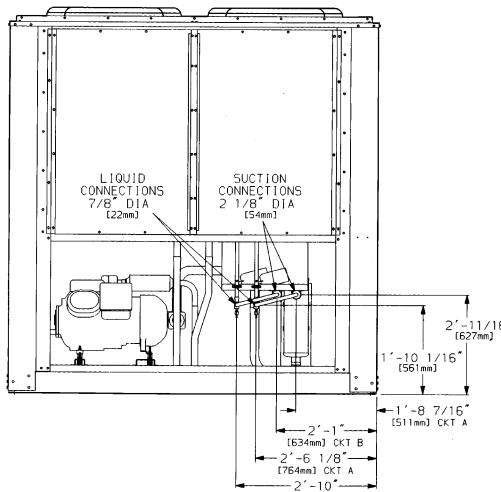
7'-7 15/16"  
[2335mm]  
TOP OF CONTROL  
BOX SHELF  
3'-4 3/8"  
[1025mm]  
1'-3 7/16"  
[397mm]  
MTG HOLES



(4) RIG HOLES  
2 5/8" DIA  
[67mm]

2'-3 11/16"  
[703mm]  
RIG HOLES

11'-2 3/8"  
[3413mm]  
BASE OVERALL



### NOTES:

- The approximate operating weight of the unit is:  
 38AH-104— 5435 lb (2465 kg)  
 38AH-104-C 6160 lb (2794 kg)
- Unit must have clearances for airflow as follows:  
 Top — Do not restrict in any way.  
 Ends — 5 ft [1524 mm]  
 Sides — 6 ft [1829 mm]
- Mounting holes may be used to mount unit to concrete pad. They are not recommended for mounting unit to spring isolators.
- Two 3 5/8" (92-mm) dia hole are recommended for parallel conductors on 208/230 v units.
- Circled numerals in Top View refer to condenser fans by position.
- If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.

CHART 1A, FIELD POWER SUPPLY  
CONNECTIONS (60 Hz)

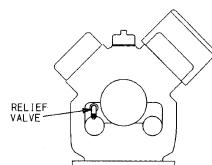
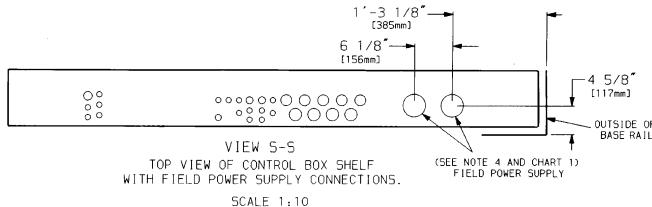
UNIT 38AH	VOLTAGE	Hz	DIAMETER — in. (mm)	QTY
104	208/230	60	3 5/8 (92)	2
	460, 575, 380	60	3 5/8 (92)	1
	346, 380/415	50	3 5/8 (92)	1

CHART 1B, FIELD POWER SUPPLY  
CONNECTIONS (50 Hz)

UNIT 38AH	VOLTAGE	Hz	DIAMETER — in. (mm)	QTY
104	208/230	60	3 5/8 (92)	2
	460, 575, 380	60	3 5/8 (92)	1
	346, 380/415	50	3 5/8 (92)	1

UNIT 38AH124

UNIT 38A MODULE	DIMENSIONS ft-in. [mm]				OPERATIONAL CORNER WEIGHTS — lb [kg]			
	X	Y	K	L	A	B	C	D
124A	4-15 <sup>1</sup> / <sub>8</sub> [1260]	3-2 <sup>1</sup> / <sub>8</sub> [968]	—	—	1037 [470]	1030 [467]	779 [353]	785 [356]
124B	—	—	4-15 <sup>1</sup> / <sub>8</sub> [1260]	3-2 <sup>1</sup> / <sub>8</sub> [968]				
124A-C	4-15 <sup>1</sup> / <sub>8</sub> [1260]	3-2 <sup>1</sup> / <sub>8</sub> [987]	—	—	1144 [519]	1137 [516]	889 [403]	894 [406]
124B-C	—	—	4-15 <sup>1</sup> / <sub>8</sub> [1260]	3-2 <sup>1</sup> / <sub>8</sub> [987]				

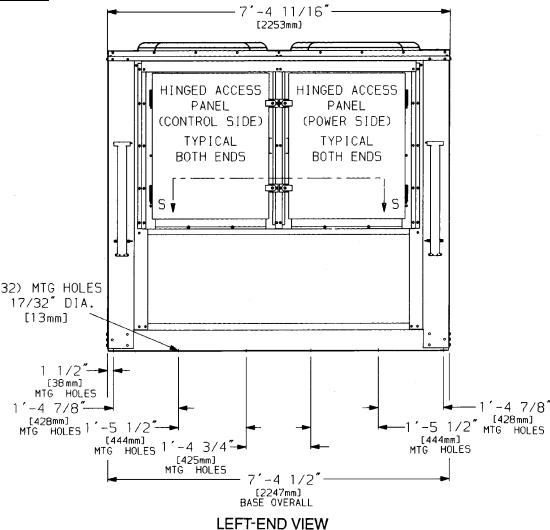


RELIEF VALVES LOCATED ON  
THE COMPRESSORS ARE EQUIPPED  
WITH A 3/8" SAE FLARE FOR  
FIELD CONNECTION

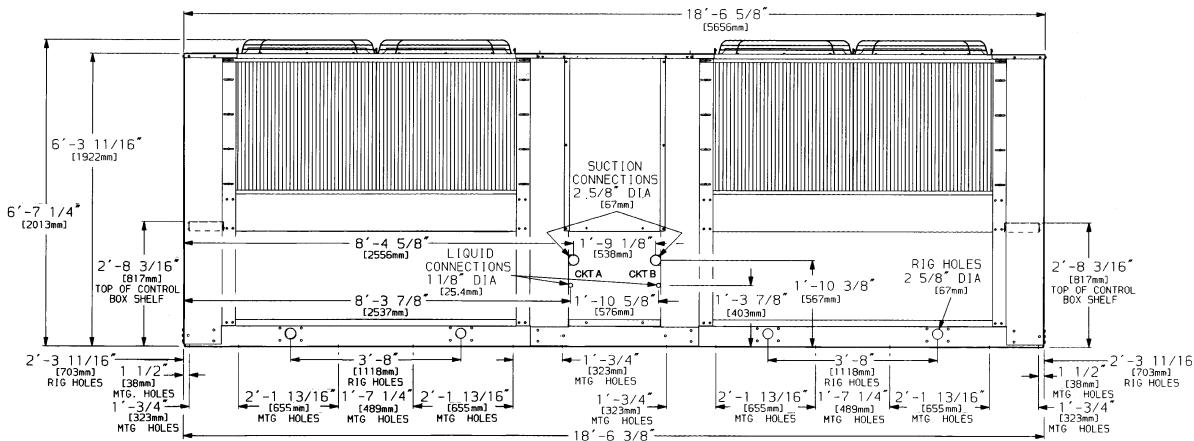
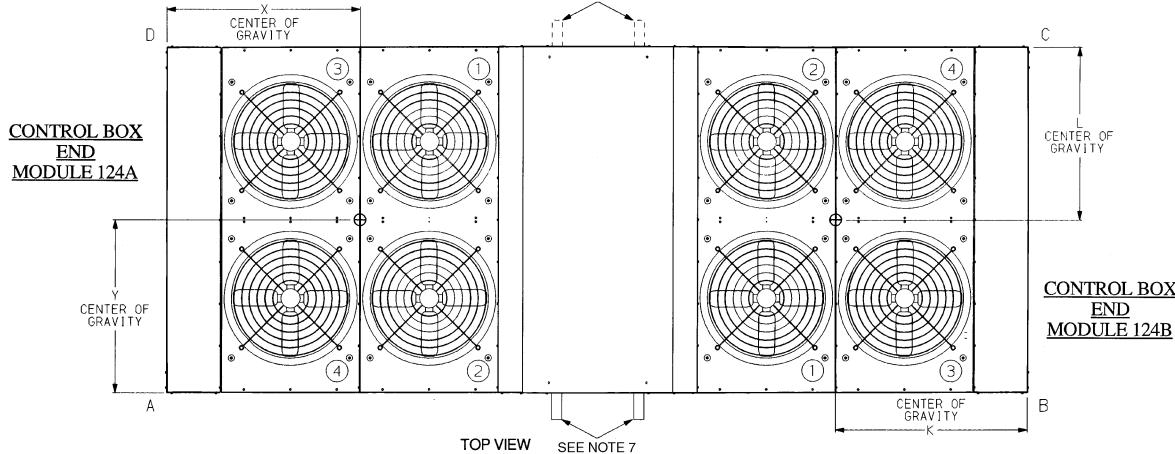
SCALE 1:8

## **CHART 1, FIELD POWER SUPPLY CONNECTIONS**

UNIT 38AH MODULE	VOLTAGE	Hz	DIAMETER in. [mm]	QUANTITY
124A 124B	208/230	60	3 <sup>5</sup> / <sub>8</sub>	1
	460,575,380	60	2 <sup>1</sup> / <sub>2</sub>	1
	346, 380/415	50	3 <sup>5</sup> / <sub>8</sub> [92]	1



SEE NOTE 7 LEFT-END VIEW



## NOTES:

- NOTES:**

  1. The approximate operating weight of the unit is:  
38AH124 — 7260 lb [3293 kg]  
38AH124C — 8126 lb [3686 kg]
  2. Unit must have clearances for airflow as follows:  
Top — Do not restrict in any way.  
Ends — 5 ft [153 cm]  
Sides — 6 ft [183 cm]
  3. Mounting holes may be used to mount unit to concrete pad. They are not recommended for mounting unit to spring isolators.
  4. Circled numerals in Top View refer to condenser fans; refer to Data section, Fans table, pages 68 and 71 and Wiring Diagram.
  5. If spring isolators are used, a perimeter support channel around the assembled unit and the isolators is required. Do not support module separately.
  6. Each module must be rigged into position separately. The top must be rigged after modules have been connected.
  7. Suction and liquid connections can exit on either side of the module.
  8. Field power supply connections are required for each module.

## LEGEND

# Dimensions (cont)

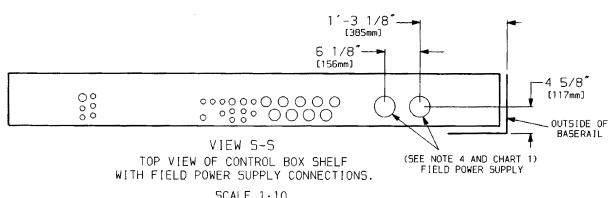
**Carrier**  
®

## UNIT 38AH134

UNIT 38AH MODULE	DIMENSIONS ft-in. [mm]				OPERATIONAL CORNER WEIGHTS — lb [kg]			
	X	Y	K	L	A	B	C	D
134A	4-15/8 [1260]	3-21/8 [968]	—	—	1037 [470]	1030 [467]	779 [353]	785 [356]
134B	—	—	4-87/8 [1445]	3-31/8 [994]	1167 [529]	997 [452]	789 [358]	924 [419]
134A-C	4-15/8 [1260]	3-27/8 [987]	—	—	1144 [519]	1137 [516]	889 [403]	894 [406]
134B-C	—	—	4-81/8 [1426]	3-33/4 [1010]	1293 [587]	1080 [490]	874 [396]	1047 [475]

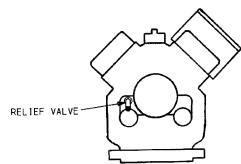
## CHART 1, FIELD POWER SUPPLY CONNECTIONS

UNIT 38AH MODULE	VOLTAGE	Hz	DIAMETER in. [mm]	QUANTITY
134A	208/230	60	35/8	1
	460,575,380	60	2 1/2	1
	208/230	60	2 1/2	2
	460,575	60	2 1/2	1
380	60	35/8	1	
134A 134B	346, 380/415	50	35/8 [92]	1



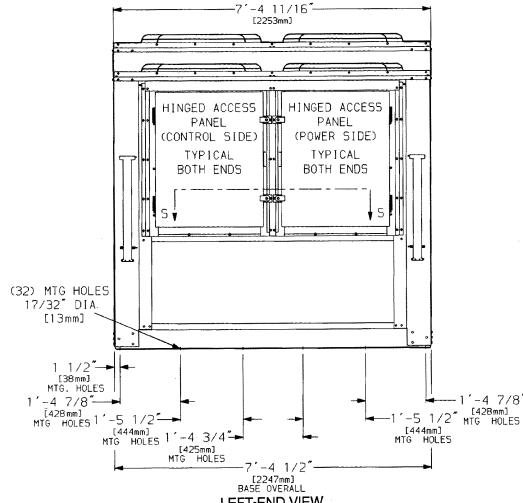
VIEW S-5  
TOP VIEW OF CONTROL BOX SHELF  
WITH FIELD POWER SUPPLY CONNECTIONS.

SCALE 1:10



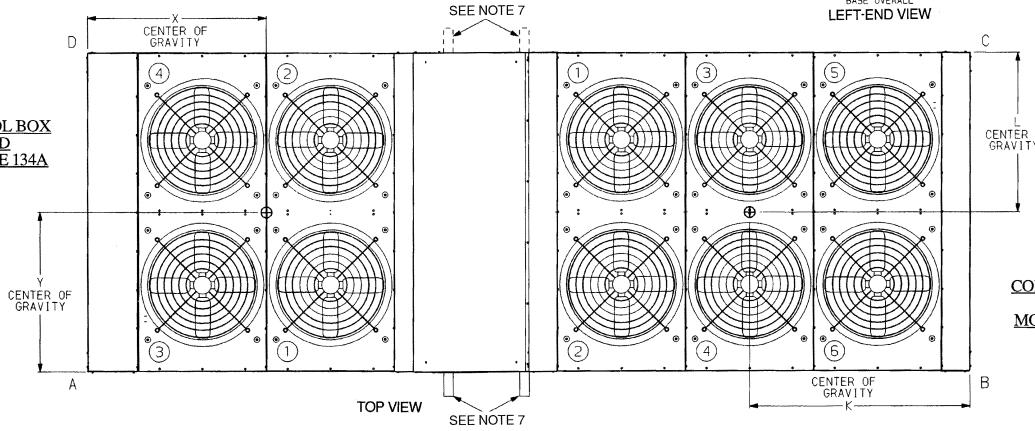
RELIEF VALVES LOCATED ON  
THE COMPRESSORS ARE EQUIPPED  
WITH A 3/8" SAE FLARE FOR  
FIELD CONNECTION

SCALE 1:8

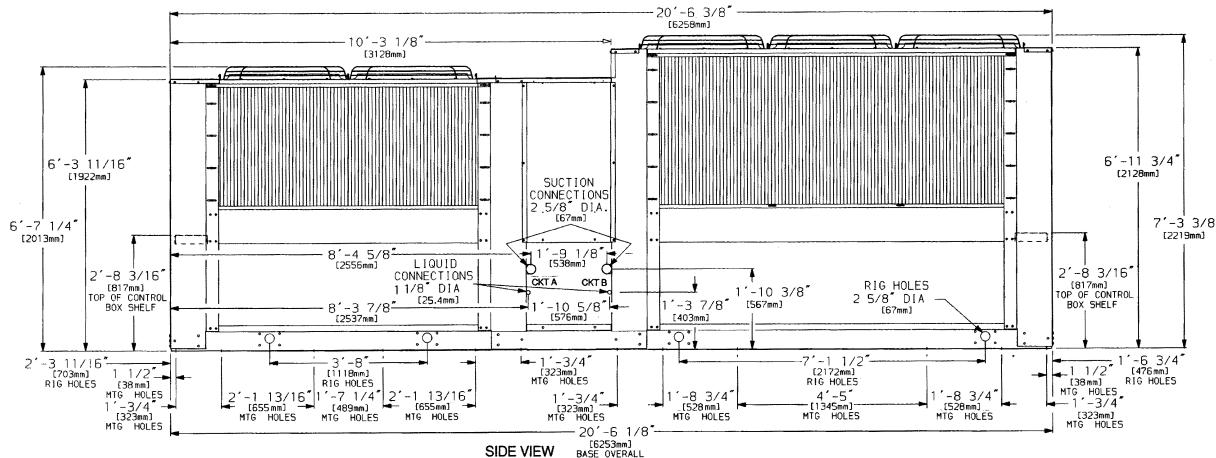


SEE NOTE 7

CONTROL BOX  
END  
MODULE 134A



CONTROL BOX  
END  
MODULE 134B



### NOTES:

- The approximate operating weight of the unit is:  
38AH134 — 7507 lb [3405 kg]  
38AH134C — 8357 lb [3791 kg]
- Unit must have clearances for airflow as follows:  
Top — Do not restrict in any way.  
Ends — 5 ft [153 cm]  
Sides — 6 ft [183 cm]
- Mounting holes may be used to mount unit to concrete pad. They are not recommended for mounting unit to spring isolators.

4. Circled numerals in Top View refer to condenser fans; refer to Electrical Data section, Fans table, pages 68 and 71 and Wiring Diagram book.
5. If spring isolators are used, a perimeter support channel between the assembled unit and the isolators is required. Do not support each module separately.
6. Each module must be rigged into position separately. The unit must not be rigged after modules have been connected.
7. Suction and liquid connections can exit on either side of the unit.
8. Field power supply connections are required for each module.

**C** LEGEND  
**MTG** — Copper Fin Coils  
**SAE** — Mounting  
— Society of Automotive Engineers

# Selection procedure



- I Determine required capacity, saturated suction temperature (SST) at the compressors, and the temperature of the air entering the condensing unit.**

Given:

Cooling Load ..... 625,000 Btuh  
Saturated suction temperature ..... 40 F  
Entering-air temperature ..... 95 F

- II Enter the Condensing Unit Ratings table at the given saturated suction temperature and entering-air temperature for the required cooling capacity.**

The 38AH064 unit has a cooling capacity of 634,000 Btuh at 40 F SST and 95 F entering-air temperature; the unit meets requirements according to the given conditions.

## System selection procedure — 38AH044-134

System requirements can often be met by combining 38AH condensing units with one or two air handlers.

### For systems with one air handler:

Use a personal computer and Carrier's **AHUBuilder®** Selection program to select a 39 series air handler with direct-expansion (DX) coils. Enter the software program and input your job requirements. From the list presented, select a 38AH condensing unit that you estimate will meet capacity requirements. For sizes 044-084, you can select either a standard dual-circuit unit (designated D) or an optional single-circuit manifolded unit (designated S). All other sizes have dual circuits only.

After you have selected a 38AH unit, you can check its performance with one or several DX coils. From the DX coil list presented on the screen, match the 38AH with any coil or all coils. The program calculates the combined performance of the condensing unit and each DX coil and presents the resulting system capacities and operating temperatures. Matching thermostatic expansion valves and nozzles for the DX coils are automatically selected and displayed.

### For systems with two air handlers:

Use a personal computer and Carrier's **AHUBuilder®** selection software to select a 39 series air handler with direct-expansion (DX) coils.

For the first air handler, enter the AHU selection program and input the job requirements. To choose a condensing unit, select the "Specify Your Own" option. The program asks you for condensing unit capacities at 30 F and 50 F SST. See the Condensing Unit Circuit and Module Ratings tables on pages 25-28, 32-40, 47-53 and 60-66 in this book, and enter the capacities from condenser circuit A or B (remember to use the correct Air Temperature Entering Condenser column when locating the circuit capacities).

For the second air handler, repeat the procedure to select the second DX coil for the condenser circuit (A or B) not used in the first selection.

# Performance data



## CONDENSING UNIT RATINGS, 60 Hz English

**38AH044**

SST (F)	Condenser Entering-Air Temperature (F)							
	85	90	95	100	105	110	115	
20	TC kW SDT	305.0 30.2 107.0	290.0 31.0 112.0	274.0 31.6 117.0	258.0 32.0 122.0	244.0 32.3 126.0	228.0 32.5 131.0	212.0 32.6 136.0
25	TC kW SDT	348.0 31.8 108.0	332.0 32.7 112.0	316.0 33.5 117.0	299.0 34.1 122.0	283.0 34.7 127.0	267.0 35.1 132.0	250.0 35.3 137.0
30	TC kW SDT	392.0 33.5 109.0	375.0 34.5 114.0	359.0 35.4 118.0	342.0 36.2 123.0	324.0 36.9 128.0	308.0 37.5 133.0	291.0 38.1 138.0
35	TC kW SDT	439.0 35.0 110.0	421.0 36.1 115.0	404.0 37.2 120.0	386.0 38.3 125.0	368.0 39.1 129.0	351.0 39.9 134.0	332.0 40.6 139.0
40	TC kW SDT	488.0 36.5 112.0	470.0 37.8 117.0	452.0 39.0 121.0	433.0 40.2 126.0	414.0 41.3 131.0	395.0 42.3 136.0	376.0 43.1 140.0
45	TC kW SDT	540.0 37.9 114.0	521.0 39.4 119.0	502.0 40.8 123.0	482.0 42.1 128.0	461.0 43.4 132.0	442.0 44.6 137.0	422.0 45.6 142.0
50	TC kW SDT	596.0 39.3 116.0	575.0 40.9 120.0	554.0 42.5 125.0	533.0 44.0 130.0	511.0 45.5 135.0	490.0 46.8 139.0	469.0 48.0 143.0

**38AH054**

SST (F)	Condenser Entering-Air Temperature (F)							
	85	90	95	100	105	110	115	
20	TC kW SDT	357.0 36.4 111.0	342.0 37.2 116.0	325.0 38.0 121.0	309.0 38.5 126.0	293.0 38.9 131.0	277.0 39.3 136.0	261.0 39.5 141.0
25	TC kW SDT	407.0 38.4 111.0	389.0 39.4 117.0	372.0 40.3 122.0	354.0 41.1 127.0	337.0 41.7 131.0	320.0 42.2 136.0	303.0 42.7 141.0
30	TC kW SDT	458.0 40.4 113.0	439.0 41.5 118.0	422.0 42.6 123.0	403.0 43.6 127.0	384.0 44.4 132.0	366.0 45.2 137.0	347.0 45.8 142.0
35	TC kW SDT	512.0 42.4 115.0	493.0 43.7 119.0	473.0 45.0 124.0	454.0 46.1 129.0	434.0 47.1 133.0	414.0 48.0 138.0	395.0 48.9 143.0
40	TC kW SDT	568.0 44.5 116.0	548.0 45.9 121.0	527.0 47.2 125.0	506.0 48.5 130.0	486.0 49.8 135.0	465.0 50.9 140.0	444.0 51.9 144.0
45	TC kW SDT	627.0 46.5 119.0	605.0 48.1 123.0	583.0 49.6 127.0	561.0 51.1 132.0	540.0 52.5 137.0	518.0 53.8 140.0	496.0 55.0 146.0
50	TC kW SDT	688.0 48.6 121.0	665.0 50.3 125.0	642.0 52.1 130.0	619.0 53.6 134.0	595.0 55.2 139.0	573.0 56.7 143.0	— — —

**38AH064**

SST (F)	Condenser Entering-Air Temperature (F)							
	85	90	95	100	105	110	115	
20	TC kW SDT	439.0 44.3 109.0	421.0 45.3 114.0	403.0 46.1 119.0	384.0 47.0 124.0	367.0 47.6 129.0	349.0 48.2 134.0	331.0 48.7 139.0
25	TC kW SDT	496.0 46.7 111.0	476.0 47.9 115.0	457.0 48.9 120.0	437.0 49.9 125.0	418.0 50.8 130.0	399.0 51.6 135.0	380.0 52.2 139.0
30	TC kW SDT	555.0 49.1 112.0	534.0 50.5 117.0	514.0 51.8 122.0	493.0 53.0 126.0	472.0 54.0 131.0	451.0 55.0 136.0	431.0 55.9 141.0
35	TC kW SDT	616.0 51.6 114.0	595.0 53.2 119.0	573.0 54.7 123.0	550.0 56.0 128.0	529.0 57.2 133.0	506.0 58.4 137.0	485.0 59.5 142.0
40	TC kW SDT	682.0 54.1 116.0	658.0 55.9 121.0	634.0 57.5 125.0	611.0 59.1 130.0	588.0 60.5 135.0	564.0 61.9 139.0	541.0 63.1 144.0
45	TC kW SDT	749.0 56.6 118.0	725.0 58.6 123.0	699.0 60.4 127.0	674.0 62.3 132.0	650.0 63.8 136.0	625.0 65.4 141.0	600.0 66.9 146.0
50	TC kW SDT	822.0 59.2 120.0	794.0 61.3 125.0	768.0 63.5 130.0	741.0 65.4 134.0	715.0 67.3 139.0	688.0 69.0 143.0	662.0 70.6 148.0

**38AH074**

SST (F)	Condenser Entering-Air Temperature (F)							
	85	90	95	100	105	110	115	
20	TC kW SDT	567.1 57.2 108.0	547.5 58.3 113.0	526.9 60.4 118.0	506.2 61.3 122.0	485.6 62.1 127.0	464.9 62.8 132.0	444.3 62.8 137.0
25	TC kW SDT	634.2 60.3 110.0	613.6 61.7 114.0	590.9 64.3 119.0	569.2 124.0	547.5 129.0	526.9 133.0	505.2 67.3 138.0
30	TC kW SDT	705.5 63.7 111.0	681.7 65.2 116.0	658.0 68.8 121.0	635.3 72.1 125.0	612.6 73.8 130.0	589.9 75.0 135.0	566.1 71.7 139.0
35	TC kW SDT	778.8 66.9 113.0	754.0 68.8 118.0	729.3 70.6 122.0	704.5 72.1 127.0	679.7 73.8 132.0	654.9 75.0 136.0	631.2 76.3 141.0
40	TC kW SDT	856.3 70.3 115.0	830.5 72.4 120.0	803.6 74.4 124.0	777.8 76.2 129.0	750.9 77.9 133.0	724.1 79.5 138.0	699.3 81.1 143.0
45	TC kW SDT	939.9 73.8 118.0	912.0 76.0 122.0	882.1 80.4 127.0	854.2 82.4 131.0	826.3 84.1 136.0	797.4 84.1 140.0	769.5 85.9 145.0
50	TC kW SDT	1026.7 77.3 120.0	995.7 79.9 124.0	965.8 82.3 129.0	934.8 84.6 133.0	904.8 86.7 138.0	873.8 88.9 142.0	843.9 90.8 147.0

**38AH084**

SST (F)	Condenser Entering-Air Temperature (F)						
	85	90	95	100	105	110	115
20	TC kW SDT	646.3 67.9 112.0	623.4 69.3 117.0	600.5 70.5 122.0	577.7 71.8 127.0	556.9 72.8 132.0	534.0 73.8 142.0
25	TC kW SDT	725.2 71.6 113.0	700.3 73.1 118.0	677.4 74.7 123.0	652.5 76.1 128.0	627.6 77.4 132.0	604.7 78.6 138.0
30	TC kW SDT	810.4 75.4 114.0	783.4 77.1 119.0	757.4 78.9 123.0	731.5 80.6 128.0	705.5 82.0 133.0	679.5 83.5 138.0
35	TC kW SDT	898.7 79.1 115.0	869.6 81.2 120.0	842.6 83.3 125.0	813.5 85.1 129.0	786.5 86.8 134.0	757.4 88.4 139.0
40	TC kW SDT	991.2 83.1 117.0	960.0 85.4 122.0	930.9 87.6 126.0	899.8 89.8 131.0	870.7 91.8 136.0	840.6 93.6 140.0
45	TC kW SDT	1087.8 87.2 119.0	1054.6 89.9 124.0	1022.4 92.3 128.0	990.2 94.7 133.0	958.0 96.8 138.0	926.8 98.9 142.0
50	TC kW SDT	1188.6 91.6 122.0	1154.3 94.5 126.0	1119.0 97.2 131.0	1084.7 99.6 135.0	1050.4 102.1 140.0	1015.1 104.4 144.0

### LEGEND

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (F)  
**SST** — Saturated Temperature Entering Compressor (F)  
**TC** — Gross Cooling Capacity (1000 Btuh)

**CONDENSING UNIT RATINGS, 60 Hz English (cont)**
**38AH094**

SST (F)	Condenser Entering-Air Temperature (F)							
	85	90	95	100	105	110	115	
20	TC	700	672	646	618	591	562	535
	KW	71.1	72.6	73.8	74.9	76.0	76.7	77.3
	SDT(A)	110	115	119	124	129	134	139
	SDT(B)	108	112	117	122	127	132	137
	SCT(A)	108	113	118	123	128	133	138
	SCT(B)	106	111	116	121	126	131	136
25	TC	785	757	727	699	670	641	612
	KW	75.1	76.8	78.5	79.9	81.1	82.3	83.1
	SDT(A)	112	116	121	126	130	135	140
	SDT(B)	109	113	118	123	128	133	138
	SCT(A)	109	114	119	124	129	134	139
	SCT(B)	106	111	116	121	126	132	137
30	TC	873	843	812	782	752	722	691
	KW	79.4	81.4	83.1	84.8	86.4	87.8	88.9
	SDT(A)	114	118	123	127	132	136	141
	SDT(B)	110	115	120	124	129	134	139
	SCT(A)	111	115	120	125	130	135	140
	SCT(B)	107	112	117	122	127	132	137
35	TC	965	934	901	869	837	805	772
	KW	83.7	85.9	88.0	89.9	91.8	93.4	94.9
	SDT(A)	116	121	125	130	134	138	143
	SDT(B)	112	117	121	126	131	135	140
	SCT(A)	112	117	122	127	132	136	141
	SCT(B)	109	114	119	124	128	133	138
40	TC	1062	1028	994	960	926	891	857
	KW	88.1	90.6	93.0	95.2	97.3	99.2	100.9
	SDT(A)	119	123	128	132	136	141	145
	SDT(B)	114	119	123	128	133	137	142
	SCT(A)	114	119	124	129	133	138	143
	SCT(B)	110	115	120	125	130	135	140
45	TC	1163	1127	1091	1055	1018	982	946
	KW	92.6	95.4	98.0	100.6	102.9	105.2	107.1
	SDT(A)	122	126	130	135	139	143	148
	SDT(B)	117	121	126	130	135	139	144
	SCT(A)	116	121	126	131	136	140	145
	SCT(B)	112	117	122	127	132	136	141
50	TC	1269	1231	1192	1154	1115	1077	1038
	KW	97.3	100.3	103.2	106.1	108.7	111.2	113.5
	SDT(A)	125	129	133	138	142	146	150
	SDT(B)	119	124	128	133	137	142	146
	SCT(A)	118	123	128	133	138	142	147
	SCT(B)	114	119	124	129	133	138	143

**LEGEND**

- kW** — Compressor Power  
**SCT** — Saturated Condensing Temperature (F)  
**SCT(A)** — Saturated Condensing Temperature for Circuit A  
**SCT(B)** — Saturated Condensing Temperature for Circuit B  
**SDT** — Saturated Discharge Temperature (F)  
**SDT(A)** — Saturated Discharge Temperature for Circuit A  
**SDT(B)** — Saturated Discharge Temperature for Circuit B  
**SST** — Saturated Suction Temperature Entering Condensing Unit (F)  
**TC** — Gross Cooling Capacity (1000 Btu/h)

NOTE: Units 38AH094 and 104 consist of circuits A and B.

**38AH104**

SST (F)	Condenser Entering-Air Temperature (F)							
	85	90	95	100	105	110	115	
20	TC	782	749	718	686	654	624	592
	KW	77.4	79.2	80.9	82.3	83.6	84.7	85.6
	SDT(A)	108	113	117	122	127	132	137
	SDT(B)	110	115	119	124	129	133	138
	SCT(A)	106	111	116	121	126	131	136
	SCT(B)	107	112	117	122	127	132	137
25	TC	877	843	809	775	742	709	676
	KW	82.1	84.2	86.1	87.7	89.3	90.8	92.1
	SDT(A)	110	114	119	123	128	133	137
	SDT(B)	112	116	121	126	130	135	139
	SCT(A)	107	112	117	122	127	131	136
	SCT(B)	109	114	119	124	128	133	138
30	TC	977	941	904	869	833	798	762
	KW	86.9	89.1	91.4	93.4	95.3	96.9	96.5
	SDT(A)	112	116	121	125	130	134	139
	SDT(B)	114	119	123	128	132	137	141
	SCT(A)	109	113	118	123	128	133	137
	SCT(B)	111	115	120	125	130	135	140
35	TC	1082	1043	1004	967	929	891	853
	KW	91.7	94.4	96.8	99.1	101.3	103.2	105.1
	SDT(A)	114	118	123	127	132	136	141
	SDT(B)	117	121	126	130	134	139	143
	SCT(A)	110	115	120	125	129	134	139
	SCT(B)	112	117	122	127	132	137	141
40	TC	1192	1151	1109	1069	1028	988	948
	KW	96.8	99.6	102.5	105	107.4	109.7	111.9
	SDT(A)	117	121	125	130	134	138	143
	SDT(B)	120	124	128	133	137	141	146
	SCT(A)	112	117	122	127	131	136	141
	SCT(B)	114	119	124	129	134	139	143
45	TC	1308	1264	1220	1176	1132	1090	1047
	KW	101.9	105.2	108.2	111.1	113.8	116.4	118.9
	SDT(A)	119	124	128	132	136	141	145
	SDT(B)	123	127	131	135	140	144	148
	SCT(A)	114	119	124	128	133	138	143
	SCT(B)	117	122	126	131	136	141	145
50	TC	1429	1382	1335	1289	1243	1197	1151
	KW	107.3	110.8	114.1	117.3	120.3	123.2	125.9
	SDT(A)	122	126	131	135	139	143	148
	SDT(B)	126	130	134	138	143	147	151
	SCT(A)	116	121	126	131	135	140	145
	SCT(B)	119	124	129	133	138	143	148

# Performance data (cont)



## CONDENSING UNIT RATINGS, 60 Hz English (cont)

38AH124

SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	884	848	810	774	738	702	668
	kW	88.6	90.6	92.4	94.0	95.2	96.4	97.4
	SDT (A) or (B)	109	114	119	124	129	134	138
25	TC	996	958	918	880	842	804	766
	kW	93.4	95.8	98.0	99.8	101.6	103.2	104.4
	SDT (A) or (B)	110	115	120	125	130	134	139
30	TC	1114	1072	1030	990	948	908	868
	kW	98.2	101.0	103.6	106.0	108.0	110.0	111.6
	SDT (A) or (B)	112	117	121	126	131	136	140
35	TC	1236	1192	1148	1104	1062	1018	974
	kW	103.2	106.4	109.4	112.0	114.6	116.8	119.0
	SCT (A) or (B)	114	118	123	128	132	137	142
40	TC	1366	1320	1272	1226	1180	1132	1086
	kW	108.4	111.8	115.2	118.2	121.2	123.8	126.2
	SDT (A) or (B)	116	120	125	130	134	139	143
45	TC	1502	1452	1402	1352	1302	1252	1204
	kW	113.6	117.4	121.0	124.6	127.8	131.0	133.8
	SDT (A) or (B)	118	123	127	132	136	141	145
50	TC	1644	1590	1536	1484	1432	1380	1326
	kW	118.8	123.0	127.0	131.0	134.6	138.2	141.4
	SCT (A) or (B)	121	125	130	134	139	143	148
	SCT (A) or (B)	118	122	127	132	137	141	146

### LEGEND

- kW** — Compressor Power
- SCT** — Saturated Condensing Temperature (F)
- SCT(A)** — Saturated Condensing Temperature for Module 38AH124A or 134A (F)
- SCT(B)** — Saturated Condensing Temperature for Module 38AH124B or 134B (F)
- SDT** — Saturated Discharge Temperature (F)
- SDT(A)** — Saturated Discharge Temperature for Module 38AH124A or 134A (F)
- SDT(B)** — Saturated Discharge Temperature for Module 38AH124B or 134B (F)
- SST** — Saturated Suction Temperature Entering Condensing Unit (F)
- TC** — Gross Cooling Capacity (1000 Btuh)

NOTE: Unit 38AH124 consists of Modules 124A and 124B. Unit 38AH134 consists of Modules 134A and 134B. Each module is one refrigeration circuit.

38AH134

SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	992	955	916	878	840	802	765
	kW	99.8	102.0	104.0	105.7	107.2	108.6	109.7
	SDT(A)	109	114	119	124	129	134	138
25	SDT(B)	108	113	117	122	127	132	137
	SCT(A)	108	113	118	123	128	133	138
	SCT(B)	104	109	114	119	124	129	134
30	TC	1113	1073	1032	992	952	912	872
	kW	105.3	107.9	110.3	112.3	114.3	116.0	117.5
	SDT(A)	110	115	120	125	130	134	139
35	SDT(B)	109	114	119	124	129	134	139
	SCT(A)	109	114	119	124	129	134	139
	SCT(B)	106	111	115	120	125	130	134
40	TC	1240	1197	1154	1111	1068	1025	983
	kW	110.9	113.9	116.7	119.2	121.5	123.6	125.5
	SDT(A)	112	117	121	126	131	136	140
45	SDT(B)	111	116	120	125	130	134	139
	SCT(A)	110	115	120	125	130	135	139
	SCT(B)	107	112	117	122	126	131	136
50	TC	1373	1327	1281	1235	1190	1145	1099
	kW	116.6	120.0	123.2	126.1	128.9	131.3	133.7
	SDT(A)	114	118	123	128	132	137	142
	SDT(B)	113	118	122	127	131	136	141
	SCT(A)	112	117	121	126	131	136	141
	SCT(B)	109	114	119	123	128	133	137
40	TC	1514	1465	1415	1367	1318	1269	1220
	kW	122.5	126.2	129.8	133.1	136.3	139.2	141.8
	SDT(A)	116	120	124	129	133	138	142
45	SDT(B)	115	120	124	129	133	138	142
	SCT(A)	114	118	123	128	133	137	142
	SCT(B)	110	116	120	125	130	134	139
45	TC	1662	1609	1557	1504	1452	1399	1348
	kW	128.4	132.6	136.5	140.3	143.8	147.2	150.3
	SDT(A)	118	123	127	132	136	141	145
50	SDT(B)	117	122	126	131	136	140	145
	SCT(A)	116	120	125	130	135	139	144
	SCT(B)	113	117	122	127	131	136	141
50	TC	1817	1761	1704	1649	1593	1537	1481
	kW	134.4	139.0	143.4	147.6	151.5	155.4	158.9
	SDT(A)	121	125	130	134	139	143	148
	SDT(B)	120	124	129	133	138	142	147
	SCT(A)	118	122	127	132	137	141	146
	SCT(B)	115	119	124	129	133	138	142



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz English

**38AH044 CIRCUIT A**

	SST (F)	Air Temperature Entering Condenser (F)						
		85	90	95	100	105	110	115
20	TC	153.0	146.0	138.0	130.0	123.0	115.0	107.0
	kW	15.0	15.4	15.7	15.9	16.1	16.2	16.3
	SDT	105.0	110.0	115.0	120.0	124.0	129.0	134.0
25	TC	174.0	166.0	158.0	150.0	142.0	134.0	126.0
	kW	15.8	16.3	16.7	17.0	17.3	17.5	17.6
	SDT	107.0	111.0	116.0	121.0	125.0	130.0	135.0
30	TC	195.0	187.0	179.0	171.0	162.0	154.0	146.0
	kW	16.7	17.2	17.6	18.0	18.4	18.7	19.0
	SDT	108.0	113.0	117.0	122.0	127.0	131.0	136.0
35	TC	218.0	209.0	201.0	192.0	183.0	175.0	166.0
	kW	17.5	18.0	18.6	19.1	19.5	19.9	20.2
	SDT	110.0	115.0	119.0	124.0	128.0	133.0	138.0
40	TC	241.0	233.0	224.0	215.0	205.0	196.0	187.0
	kW	18.3	18.9	19.5	20.1	20.6	21.1	21.5
	SDT	112.0	117.0	121.0	126.0	130.0	135.0	139.0
45	TC	266.0	257.0	248.0	238.0	228.0	219.0	209.0
	kW	19.1	19.8	20.5	21.1	21.7	22.3	22.8
	SDT	114.0	119.0	123.0	128.0	132.0	137.0	141.0
50	TC	293.0	283.0	273.0	263.0	252.0	242.0	232.0
	kW	19.9	20.6	21.4	22.1	22.8	23.4	24.0
	SDT	117.0	121.0	126.0	130.0	135.0	139.0	143.0

**38AH054 CIRCUIT A**

	SST (F)	Air Temperature Entering Condenser (F)						
		85	90	95	100	105	110	115
20	TC	152.0	145.0	137.0	129.0	121.0	113.0	105.0
	kW	15.4	15.7	16.0	16.1	16.2	16.3	16.2
	SDT	110.0	115.0	120.0	125.0	130.0	135.0	140.0
25	TC	175.0	167.0	159.0	150.0	142.0	134.0	125.0
	kW	16.2	16.6	17.0	17.3	17.5	17.6	17.7
	SDT	110.0	115.0	120.0	125.0	130.0	135.0	140.0
30	TC	199.0	190.0	182.0	173.0	164.0	155.0	146.0
	kW	16.9	17.4	17.9	18.3	18.6	18.9	19.1
	SDT	111.0	116.0	121.0	125.0	130.0	135.0	140.0
35	TC	223.0	215.0	206.0	197.0	188.0	178.0	169.0
	kW	17.6	18.2	18.8	19.3	19.7	20.1	20.4
	SDT	112.0	116.0	121.0	126.0	131.0	136.0	141.0
40	TC	249.0	240.0	231.0	221.0	212.0	202.0	192.0
	kW	18.4	19.0	19.6	20.2	20.8	21.3	21.7
	SDT	113.0	118.0	122.0	127.0	132.0	137.0	141.0
45	TC	275.0	266.0	256.0	246.0	237.0	227.0	217.0
	kW	19.1	19.8	20.5	21.2	21.8	22.4	22.9
	SDT	115.0	119.0	124.0	128.0	133.0	138.0	142.0
50	TC	303.0	293.0	283.0	273.0	262.0	252.0	—
	kW	19.8	20.6	21.4	22.1	22.8	23.5	—
	SDT	117.0	121.0	126.0	130.0	135.0	139.0	—

**38AH064 CIRCUIT A**

	SST (F)	Air Temperature Entering Condenser (F)						
		85	90	95	100	105	110	115
20	TC	207.0	198.0	190.0	181.0	173.0	165.0	157.0
	kW	20.8	21.3	21.7	22.2	22.5	22.9	23.2
	SDT	109.0	114.0	119.0	124.0	129.0	134.0	139.0
25	TC	234.0	224.0	215.0	206.0	197.0	188.0	179.0
	kW	21.9	22.5	23.0	23.5	24.0	24.4	24.8
	SDT	111.0	115.0	120.0	125.0	130.0	135.0	139.0
30	TC	262.0	252.0	242.0	232.0	222.0	212.0	203.0
	kW	23.1	23.8	24.4	25.0	25.5	26.0	26.5
	SDT	112.0	117.0	122.0	126.0	131.0	136.0	141.0
35	TC	291.0	281.0	270.0	259.0	249.0	238.0	228.0
	kW	24.3	25.1	25.8	26.4	27.0	27.6	28.2
	SDT	114.0	119.0	123.0	128.0	133.0	137.0	142.0
40	TC	323.0	311.0	299.0	288.0	277.0	265.0	254.0
	kW	25.6	26.4	27.2	27.9	28.6	29.3	29.9
	SDT	116.0	121.0	126.0	130.0	135.0	139.0	144.0
45	TC	355.0	343.0	330.0	318.0	306.0	294.0	282.0
	kW	26.8	27.8	28.6	29.5	30.2	31.0	31.7
	SDT	119.0	123.0	128.0	132.0	137.0	141.0	146.0
50	TC	390.0	376.0	363.0	350.0	337.0	324.0	311.0
	kW	28.1	29.1	30.1	31.0	31.9	32.7	33.5
	SDT	121.0	126.0	130.0	135.0	139.0	144.0	148.0

### LEGEND

**KW** — Compressor Power  
**SDT** — Saturated Temperature Leaving Compressor (F)  
**SST** — Saturated Temperature Entering Compressor (F)  
**TC** — Gross Cooling Capacity (1000 Btuh)

**38AH044 CIRCUIT B**

	SST (F)	Air Temperature Entering Condenser (F)						
		85	90	95	100	105	110	115
20	TC	152.0	144.0	136.0	128.0	121.0	113.0	105.0
	kW	15.2	15.6	15.9	16.1	16.2	16.3	16.3
	SDT	108.0	113.0	118.0	123.0	128.0	133.0	138.0
25	TC	174.0	166.0	158.0	150.0	142.0	134.0	126.0
	kW	16.0	16.4	16.8	17.1	17.4	17.6	17.7
	SDT	109.0	113.0	118.0	123.0	128.0	133.0	138.0
30	TC	197.0	188.0	180.0	171.0	162.0	154.0	145.0
	kW	16.8	17.3	17.8	18.2	18.5	18.8	19.1
	SDT	109.0	114.0	119.0	124.0	129.0	134.0	139.0
35	TC	221.0	212.0	203.0	194.0	185.0	176.0	166.0
	kW	17.5	18.1	18.6	19.2	19.6	20.0	20.4
	SDT	110.0	115.0	120.0	125.0	130.0	135.0	139.0
40	TC	247.0	237.0	228.0	218.0	209.0	199.0	189.0
	kW	18.2	18.9	19.5	20.1	20.7	21.2	21.6
	SDT	112.0	116.0	121.0	126.0	131.0	136.0	140.0
45	TC	274.0	264.0	254.0	244.0	233.0	223.0	213.0
	kW	18.8	19.6	20.3	21.0	21.7	22.3	22.8
	SDT	113.0	118.0	123.0	127.0	132.0	137.0	142.0
50	TC	303.0	292.0	281.0	270.0	259.0	248.0	237.0
	kW	19.4	20.3	21.1	21.9	22.7	23.4	24.0
	SDT	115.0	119.0	124.0	129.0	134.0	139.0	143.0

**38AH054 CIRCUIT B**

	SST (F)	Air Temperature Entering Condenser (F)						
		85	90	95	100	105	110	115
20	TC	205.0	197.0	188.0	180.0	172.0	164.0	156.0
	kW	21.0	21.5	22.0	22.4	22.7	22.3	23.3
	SDT	112.0	117.0	122.0	126.0	131.0	136.0	141.0
25	TC	232.0	222.0	213.0	204.0	195.0	186.0	178.0
	kW	22.2	22.8	23.3	23.8	24.2	24.6	25.0
	SDT	113.0	118.0	123.0	128.0	132.0	137.0	142.0
30	TC	259.0	249.0	240.0	230.0	220.0	211.0	201.0
	kW	23.5	24.1	24.7	25.3	25.8	26.3	26.7
	SDT	115.0	120.0	124.0	129.0	134.0	138.0	143.0
35	TC	289.0	278.0	267.0	257.0	246.0	236.0	226.0
	kW	24.8	25.					

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz English (cont)

### 38AH074 CIRCUIT A

SST (F)	Condenser Entering-Air Temperature (F)						
	85	90	95	100	105	110	115
20 TC KW SDT	241.9 23.8 108.0	232.7 24.3 113.0	222.4 24.7 118.0	213.2 25.1 122.0	203.0 25.4 127.0	192.7 25.8 132.0	182.5 26.0 137.0
25 TC KW SDT	271.6 25.0 109.0	262.4 25.7 114.0	252.2 26.3 118.0	241.9 26.8 123.0	231.7 27.2 128.0	221.4 27.6 133.0	211.2 27.9 138.0
30 TC KW SDT	303.4 26.4 110.0	293.2 27.1 115.0	281.9 27.7 120.0	271.6 28.3 124.0	261.4 29.3 129.0	250.1 29.7 134.0	238.8 29.7 138.0
35 TC KW SDT	336.2 27.6 112.0	324.9 28.5 117.0	313.7 29.2 121.0	302.4 29.9 126.0	291.1 30.6 131.0	279.8 31.1 135.0	268.6 31.7 140.0
40 TC KW SDT	370.0 28.9 114.0	358.8 29.8 119.0	346.5 30.7 123.0	335.2 31.6 128.0	322.9 32.3 132.0	310.6 33.0 137.0	299.3 33.7 142.0
45 TC KW SDT	406.9 30.2 117.0	394.6 31.2 121.0	381.3 32.3 126.0	369.0 33.2 130.0	356.7 34.1 135.0	343.4 34.8 139.0	331.1 35.6 144.0
50 TC KW SDT	444.9 31.6 119.0	431.5 32.7 123.0	418.2 33.8 128.0	404.9 34.8 132.0	391.6 35.8 137.0	377.2 36.7 141.0	363.9 37.6 146.0

### 38AH084 CIRCUIT A

SST (F)	Condenser Entering-Air Temperature (F)						
	85	90	95	100	105	110	115
20 TC KW SDT	322.1 34.1 108.0	310.7 34.7 113.0	299.2 35.4 118.0	287.8 36.0 122.0	277.4 36.5 127.0	266.0 37.0 132.0	255.6 37.4 137.0
25 TC KW SDT	361.6 36.0 109.0	349.1 36.7 114.0	337.7 37.4 118.0	325.2 38.2 123.0	312.7 38.8 128.0	301.3 39.4 133.0	289.9 39.9 138.0
30 TC KW SDT	404.2 37.8 110.0	390.7 38.7 115.0	378.2 39.6 120.0	364.7 40.4 124.0	352.2 41.2 129.0	338.7 41.9 134.0	326.2 42.5 138.0
35 TC KW SDT	448.8 39.7 112.0	434.3 40.8 117.0	420.8 41.8 121.0	406.2 42.7 126.0	392.7 43.5 131.0	378.2 44.4 135.0	364.7 45.1 140.0
40 TC KW SDT	495.6 41.7 114.0	480.0 42.8 119.0	465.5 44.0 123.0	449.9 45.0 128.0	435.3 46.0 132.0	419.8 47.0 137.0	405.2 47.8 142.0
45 TC KW SDT	544.4 43.8 117.0	527.8 45.1 121.0	511.2 46.2 126.0	495.6 47.5 130.0	479.0 48.5 135.0	463.4 49.6 139.0	446.8 50.6 144.0
50 TC KW SDT	595.3 45.9 119.0	577.7 47.4 123.0	560.0 48.7 128.0	542.4 50.0 132.0	525.7 51.2 137.0	508.1 52.4 141.0	490.4 53.5 146.0

### LEGEND

**KW** — Compressor Power  
**SDT** — Saturated Temperature Leaving Compressor (F)  
**SST** — Saturated Temperature Entering Compressor (F)  
**TC** — Gross Cooling Capacity (1000 Btu/h)

### 38AH074 CIRCUIT B

SST (F)	Condenser Entering-Air Temperature (F)						
	85	90	95	100	105	110	115
20 TC KW SDT	325.2 33.4 108.0	314.8 34.0 113.0	304.4 34.7 118.0	293.0 35.3 122.0	282.6 35.9 127.0	272.2 36.4 132.0	261.8 36.8 137.0
25 TC KW SDT	362.6 35.3 110.0	351.2 36.1 114.0	338.7 36.8 119.0	327.3 37.5 124.0	315.9 38.2 129.0	305.5 38.8 133.0	294.0 39.4 138.0
30 TC KW SDT	402.1 37.3 112.0	388.6 38.2 116.0	376.1 39.1 121.0	363.7 39.8 126.0	351.2 40.6 130.0	339.8 41.3 135.0	327.3 42.0 140.0
35 TC KW SDT	442.6 39.3 114.0	429.1 40.3 118.0	415.6 41.4 123.0	402.1 42.2 128.0	388.6 43.1 132.0	375.1 43.9 137.0	362.6 44.7 141.0
40 TC KW SDT	486.3 41.4 116.0	471.7 42.6 121.0	457.2 43.7 125.0	442.6 44.7 130.0	428.1 45.6 134.0	413.5 46.6 139.0	400.0 47.4 143.0
45 TC KW SDT	533.0 43.5 118.0	517.4 44.8 123.0	500.8 46.0 127.0	485.2 47.2 132.0	469.6 48.3 137.0	454.0 49.3 141.0	438.5 50.3 146.0
50 TC KW SDT	581.8 45.7 121.0	564.2 47.2 125.0	547.6 48.5 130.0	529.9 49.8 134.0	513.3 50.9 139.0	496.6 52.2 143.0	480.0 53.2 148.0

### 38AH084 CIRCUIT B

SST (F)	Condenser Entering-Air Temperature (F)						
	85	90	95	100	105	110	115
20 TC KW SDT	324.2 33.8 108.0	312.7 34.5 113.0	301.3 35.2 118.0	289.9 35.8 122.0	279.5 36.3 127.0	268.1 36.8 132.0	257.7 37.2 137.0
25 TC KW SDT	363.7 35.7 110.0	351.2 36.4 114.0	339.8 37.2 119.0	327.3 38.0 124.0	314.8 38.6 129.0	303.4 39.2 133.0	292.0 39.7 138.0
30 TC KW SDT	406.2 37.5 112.0	392.7 38.5 116.0	379.2 39.3 121.0	366.8 40.1 126.0	353.3 40.9 130.0	340.8 41.6 135.0	327.3 42.3 140.0
35 TC KW SDT	449.9 39.4 114.0	435.3 40.4 118.0	421.8 41.5 123.0	407.3 42.4 128.0	393.8 43.2 132.0	379.2 44.1 137.0	365.7 44.9 141.0
40 TC KW SDT	495.6 41.4 116.0	480.0 42.6 121.0	465.5 43.7 125.0	449.9 44.8 130.0	435.3 45.7 134.0	420.8 46.7 139.0	405.2 47.6 143.0
45 TC KW SDT	543.4 43.4 118.0	526.8 44.8 123.0	511.2 46.0 127.0	494.6 47.2 132.0	479.0 48.3 137.0	463.4 49.4 141.0	446.8 50.4 146.0
50 TC KW SDT	593.3 45.6 121.0	576.6 47.1 125.0	559.0 48.4 130.0	542.4 49.7 134.0	524.7 50.9 139.0	507.0 52.1 143.0	490.4 53.2 148.0



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz English (cont)

**38AH094 CIRCUIT A**

SST (F)	Air Temperature Entering Condenser (F)							
	85	90	95	100	105	110	115	
20	TC kW	385	368	352	335	318	300	283
	SDT	39.0	39.8	40.4	40.9	41.4	41.6	41.7
	SCT	110	115	119	124	129	134	139
		108	113	118	123	128	133	138
25	TC kW	433	416	398	381	363	346	328
	SDT	41.3	42.2	43.1	43.8	44.4	44.9	45.2
	SCT	112	116	121	126	130	135	140
		109	114	119	124	129	134	139
30	TC kW	482	464	446	428	410	392	373
	SDT	43.7	44.8	45.7	46.6	47.4	48.1	48.6
	SCT	114	118	123	127	132	136	141
		111	115	120	125	130	135	140
35	TC kW	533	515	496	477	458	439	419
	SDT	46.1	47.3	48.5	49.5	50.5	51.3	52.0
	SCT	116	121	125	130	134	138	143
		112	117	122	127	132	136	141
40	TC kW	587	568	548	528	508	487	467
	SDT	48.6	50.0	51.3	52.5	53.6	54.6	55.5
	SCT	119	123	128	132	136	141	145
		114	119	124	129	133	138	143
45	TC kW	643	623	602	581	559	538	517
	SDT	51.1	52.6	54.1	55.5	56.8	58.0	59.0
	SCT	122	126	130	135	139	143	148
		116	121	126	131	136	140	145
50	TC kW	702	680	658	636	613	591	568
	SDT	53.7	55.4	57.0	58.6	60.0	61.4	62.6
	SCT	125	129	133	138	142	146	150
		118	123	128	133	138	142	147

**38AH104 CIRCUIT A**

SST (F)	Air Temperature Entering Condenser (F)							
	85	90	95	100	105	110	115	
20	TC kW	365	349	334	318	302	287	271
	SDT	35.8	36.6	37.4	38.0	38.6	39.0	39.3
	SCT	108	113	117	122	127	132	137
		106	111	116	121	126	131	136
25	TC kW	411	394	378	361	345	329	312
	SDT	37.9	38.9	39.8	40.5	41.2	41.9	42.4
	SCT	110	114	119	123	128	133	137
		107	112	117	122	127	131	136
30	TC kW	458	441	423	406	389	372	354
	SDT	40.1	41.1	42.2	43.1	44.0	44.7	45.4
	SCT	112	116	121	125	130	134	139
		109	113	118	123	128	133	137
35	TC kW	508	490	471	453	435	416	398
	SDT	42.2	43.5	44.6	45.7	46.7	47.6	48.5
	SCT	114	118	123	127	132	136	141
		110	115	120	125	129	134	139
40	TC kW	561	541	521	502	482	463	444
	SDT	44.5	45.8	47.2	48.4	49.5	50.6	51.6
	SCT	117	121	125	130	134	138	143
		112	117	122	127	131	136	141
45	TC kW	616	595	574	553	532	512	491
	SDT	46.7	48.3	49.7	51.1	52.4	53.6	54.8
	SCT	119	124	128	132	136	141	145
		114	119	124	128	133	138	143
50	TC kW	673	651	629	607	585	563	541
	SDT	49.1	50.8	52.4	53.9	55.3	56.7	58.0
	SCT	122	126	131	135	139	143	148
		116	121	126	131	135	140	145

### LEGEND

- TC — Compressor Power
- SCT — Saturated Condenser Temperature (F)
- SDT — Saturated Temperature Leaving Compressor (F)
- SST — Saturated Temperature Entering Compressor (F)
- TC — Gross Cooling Capacity (1000 Btu/h)

**38AH094 CIRCUIT B**

SST (F)	Air Temperature Entering Condenser (F)							
	85	90	95	100	105	110	115	
20	TC kW	315	304	294	283	273	262	252
	SDT	32.1	32.8	33.4	34.0	34.6	35.1	35.6
	SCT	108	112	117	122	127	132	137
		106	111	116	121	126	131	136
25	TC kW	352	341	329	318	307	295	284
	SDT	33.8	34.6	35.4	36.1	36.7	37.4	37.9
	SCT	109	113	118	123	128	133	138
		106	111	116	121	126	132	137
30	TC kW	391	379	366	354	342	330	318
	SDT	35.7	36.6	37.4	38.2	39.0	39.7	40.3
	SCT	110	115	120	124	129	134	139
		107	112	117	122	127	132	137
35	TC kW	432	419	405	392	379	366	353
	SDT	37.6	38.6	39.5	40.4	41.3	42.1	42.9
	SCT	112	117	121	126	131	135	140
		109	114	119	124	128	133	138
40	TC kW	475	460	446	432	418	404	390
	SDT	40.5	40.6	41.7	42.7	43.7	44.6	45.4
	SCT	114	119	123	128	133	137	142
		110	115	120	125	130	135	140
45	TC kW	520	504	489	474	459	444	429
	SDT	41.5	42.8	43.9	45.1	46.1	47.2	48.1
	SCT	117	121	126	130	135	139	144
		112	117	122	127	132	136	141
50	TC kW	567	551	534	518	502	486	470
	SDT	43.6	44.9	46.2	47.5	48.7	49.8	50.9
	SCT	119	124	128	133	137	142	146
		114	119	124	129	133	138	143

**38AH104 CIRCUIT B**

SST (F)	Air Temperature Entering Condenser (F)							
	85	90	95	100	105	110	115	
20	TC kW	417	400	384	368	352	337	321
	SDT	41.6	42.6	43.5	44.3	45.0	45.7	46.3
	SCT	110	115	124	129	133	138	138
		107	112	117	122	127	132	137
25	TC kW	466	449	431	414	397	380	364
	SDT	44.2	45.3	46.3	47.2	48.1	48.9	49.7
	SCT	112	116	121	126	130	135	139
		109	114	119	124	128	133	138
30	TC kW	519	500	481	463	444	426	408
	SDT	46.8	48.0	49.2	50.3	51.3	52.2	53.1
	SCT	114	119	123	128	132	137	141
		111	115	120	125	130	135	140
35	TC kW	574	553	533	514	494	475	455
	SDT	49.5	50.9	52.2	53.4	54.6	55.6	56.6
	SCT	117	121	126	130	134	139	143
		112	117	122	127	132	137	141
40	TC kW	631	610	588	567	546	525	504
	SDT	52.3	53.8	55.3	56.6	57.9	59.1	60.3
	SCT	120	124	128	133	137	141	146
		114	119	124	129	134	139	143
45	TC kW	692	669	646	623	600	578	556
	SDT	55.2	56.9	58.5	60.0	61.4	62.8	64.1
	SCT	123	127	131	135	140	144	148
		117	122	126	131	136	141	145
50	TC kW	756	731	706	682	658	634	610
	SDT	58.2	60.0	61.7	63.4	65.0	66.5	67.9
	SCT	126	130	134	138	143	147	151
		119	124	129	133	138	143	148

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz English (cont)

38AH124 MODULE 124A OR 124B; 38AH134 MODULE 134A

SST (F)	Air Temperature Entering Condenser (F)							
	85	90	95	100	105	110	115	
20	TC	442	424	405	387	369	351	334
	kW	44.3	45.3	46.2	47.0	47.6	48.2	48.7
	SDT	109	114	119	124	129	134	138
	SCT	108	113	118	123	128	133	138
25	TC	498	479	459	440	421	402	383
	kW	46.7	47.9	49.0	49.9	50.8	51.6	52.2
	SDT	110	115	120	125	130	134	139
	SCT	109	114	119	124	129	134	139
30	TC	557	536	515	495	474	454	434
	kW	49.1	50.5	51.8	53.0	54.0	55.0	55.8
	SDT	112	117	121	126	131	136	140
	SCT	110	115	120	125	130	135	139
35	TC	618	596	574	552	531	509	487
	kW	51.6	53.2	54.7	56.0	57.3	58.4	59.5
	SDT	114	118	123	128	132	137	142
	SCT	112	117	121	126	131	136	141
40	TC	683	660	636	613	590	566	543
	kW	54.2	55.9	57.6	59.1	60.6	61.9	63.1
	SDT	116	120	125	130	134	139	143
	SCT	114	118	123	128	133	137	142
45	TC	751	726	701	676	651	626	602
	kW	56.8	58.7	60.5	62.3	63.9	65.5	66.9
	SDT	118	123	127	132	136	141	145
	SCT	116	120	125	130	135	139	144
50	TC	822	795	768	742	716	690	663
	kW	59.4	61.5	63.5	65.5	67.3	69.1	70.7
	SDT	121	125	130	134	139	143	148
	SCT	118	122	127	132	137	141	146

### LEGEND

- kW** — Compressor Power
- SCT** — Saturated Condensing Temperature (F)
- SDT** — Saturated Discharge Temperature (F)
- SST** — Saturated Suction Temperature Entering Condensing Unit (F)
- TC** — Gross Cooling Capacity (1000 Btu/h)

NOTE: Unit 38AH124 consists of Modules 124A and 124B. Unit 38AH134 consists of Modules 134A and 134B. Each module is one circuit.

38AH134 MODULE 134B

SST (F)	Air Temperature Entering Condenser (F)							
	85	90	95	100	105	110	115	
20	TC	550	531	511	491	471	451	431
	kW	55.5	56.7	57.8	58.7	59.6	60.4	61.0
	SDT	108	113	117	122	127	132	137
	SCT	104	109	114	119	124	129	134
25	TC	615	594	573	552	531	510	489
	kW	58.6	60.0	61.3	62.4	63.5	64.4	65.3
	SDT	109	114	119	123	128	133	138
	SCT	106	111	115	120	125	130	134
30	TC	683	661	639	616	594	571	549
	kW	61.8	63.4	64.9	66.2	67.5	68.6	69.7
	SDT	111	116	120	125	130	134	139
	SCT	107	112	117	122	126	131	136
35	TC	755	731	707	683	659	636	612
	kW	65.0	66.8	68.5	70.1	71.6	72.9	74.2
	SDT	113	118	122	127	131	136	141
	SCT	109	114	119	123	128	133	137
40	TC	831	805	779	754	728	703	677
	kW	68.3	70.3	72.2	74.0	75.7	77.3	78.7
	SDT	115	120	124	129	133	138	142
	SCT	111	116	120	125	130	134	139
45	TC	911	883	856	828	801	773	746
	kW	71.6	73.9	76.0	78.0	79.9	81.7	83.4
	SDT	117	122	126	131	136	140	145
	SCT	113	117	122	127	131	136	141
50	TC	995	966	936	907	877	847	818
	kW	75.0	77.5	79.9	82.1	84.2	86.3	88.2
	SDT	120	124	129	133	138	142	147
	SCT	115	119	124	129	133	138	142



## CONDENSING UNIT RATINGS, 60 Hz SI

**38AH044**

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kw	124.6	113.8	108.4	104.8	99.4	94.1	88.7	85.1	79.7	74.3	68.9
	SDT	31.8	33.1	33.7	34.2	34.8	35.5	36.1	36.6	37.2	37.9	38.5
	SDT	33.8	39.6	42.5	44.4	47.3	50.2	53.1	55.0	57.9	60.8	63.7
0	TC kw	136.0	124.8	119.2	115.4	109.8	104.2	98.5	94.8	89.2	83.6	77.9
	SDT	32.4	34.0	34.8	35.3	36.1	36.9	37.7	38.2	39.0	39.8	40.6
	SDT	34.7	40.4	43.3	45.2	48.0	50.9	53.8	55.7	58.5	61.4	64.3
2	TC kw	147.5	135.8	129.9	126.0	120.1	114.3	108.4	104.5	98.6	92.8	86.9
	SDT	33.1	35.0	35.9	36.5	37.4	38.3	39.3	39.9	40.8	41.7	42.6
	SDT	35.5	41.2	44.0	45.9	48.7	51.6	54.4	56.3	59.1	62.0	64.8
4	TC kw	158.9	146.7	140.6	136.6	130.5	124.4	118.3	114.2	108.1	102.0	95.9
	SDT	33.8	35.9	36.9	37.7	38.7	39.8	40.8	41.5	42.6	43.7	44.7
	SDT	36.3	41.9	44.7	46.6	49.4	52.2	55.0	56.9	59.7	62.5	65.3
6	TC kw	170.4	157.7	151.4	147.1	140.8	134.5	128.1	123.9	117.6	111.3	104.9
	SDT	34.4	36.8	38.0	38.8	40.0	41.2	42.4	43.2	44.4	45.6	46.8
	SDT	37.2	42.7	45.5	47.3	50.1	52.9	55.7	57.5	60.3	63.1	65.9
8	TC kw	181.8	168.7	162.1	157.7	151.1	144.6	138.0	133.6	127.1	120.5	113.9
	SDT	35.1	37.8	39.1	40.0	41.3	42.6	44.0	44.9	46.2	47.5	48.9
	SDT	38.0	43.5	46.2	48.1	50.8	53.6	56.3	58.2	60.9	63.7	66.4
10	TC kw	193.2	179.6	172.8	168.3	161.5	154.7	147.9	143.3	136.5	129.7	—
	SDT	35.7	38.7	40.2	41.1	42.6	44.1	45.5	46.5	48.0	49.5	—
	SDT	38.8	44.3	47.0	48.8	51.5	54.3	57.0	58.8	61.5	64.2	—

**38AH054**

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kw	144.5	132.9	127.1	123.2	117.4	111.5	105.7	101.8	96.0	90.2	84.4
	SDT	38.4	39.9	40.7	41.2	42.0	42.7	43.5	44.0	44.8	45.5	46.3
	SDT	35.5	41.5	44.5	46.5	49.6	52.6	55.6	57.6	60.6	63.6	66.6
0	TC kw	157.4	145.2	139.1	135.0	129.0	122.9	116.8	112.7	106.6	100.5	94.5
	SDT	39.4	41.2	42.1	42.7	43.6	44.5	45.4	46.0	47.0	47.9	48.8
	SDT	36.4	42.4	45.3	47.3	50.3	53.2	56.2	58.1	61.1	64.1	67.0
2	TC kw	170.2	157.5	151.2	146.9	140.6	134.2	127.9	123.6	117.3	110.9	104.6
	SDT	40.3	42.5	43.5	44.2	45.3	46.3	47.4	48.1	49.1	50.2	51.3
	SDT	37.4	43.2	46.1	48.0	51.0	53.9	56.8	58.7	61.6	64.5	67.4
4	TC kw	183.1	169.8	163.2	158.8	152.2	145.5	138.9	134.5	127.9	121.3	114.6
	SDT	41.3	43.7	44.9	45.7	46.9	48.8	51.7	54.5	57.4	59.3	62.1
	SDT	38.4	44.1	46.9	48.8	51.7	54.5	57.4	59.3	62.1	65.0	67.8
6	TC kw	195.9	182.1	175.3	170.7	163.8	156.9	150.0	145.4	138.5	131.6	124.7
	SDT	42.3	45.0	46.3	47.2	48.6	49.9	51.3	52.2	53.5	54.9	56.2
	SDT	39.3	44.9	47.7	49.6	52.4	55.1	57.9	59.8	62.6	65.4	68.2
8	TC kw	208.8	194.5	187.3	182.5	175.4	168.2	161.1	156.3	149.2	142.0	—
	SDT	43.3	46.3	47.8	48.8	50.2	51.7	53.2	54.2	55.7	57.2	—
	SDT	40.3	45.7	48.5	50.3	53.1	55.8	58.5	60.4	63.1	65.8	—
10	TC kw	221.6	206.8	199.4	194.4	187.0	179.6	172.1	167.2	159.8	—	—
	SDT	44.3	47.5	49.2	50.3	51.9	53.5	55.2	56.3	57.9	—	—
	SDT	41.2	46.6	49.3	51.1	53.8	56.4	59.1	60.9	63.6	—	—

**38AH064**

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kw	174.0	161.0	154.5	150.1	143.6	137.0	130.5	126.1	119.6	113.1	106.5
	SDT	46.4	48.4	49.3	50.0	50.9	51.9	52.9	53.5	54.5	55.5	56.4
	SDT	35.1	40.9	43.8	45.7	48.6	51.5	54.4	56.3	59.2	62.1	65.0
0	TC kw	188.9	175.1	168.3	163.7	156.9	150.0	143.1	138.6	131.7	124.9	118.0
	SDT	47.7	50.0	51.1	51.9	53.0	54.1	55.3	56.0	57.1	58.3	59.4
	SDT	36.2	41.9	44.8	46.7	49.5	52.4	55.3	57.2	60.0	62.9	65.7
2	TC kw	203.7	189.3	182.1	177.3	170.2	163.0	155.8	151.0	143.8	136.6	129.5
	SDT	49.0	51.6	52.9	53.7	55.0	56.3	57.6	58.5	59.8	61.1	62.4
	SDT	37.2	42.9	45.7	47.6	50.4	53.3	56.1	58.0	60.8	63.7	66.5
4	TC kw	218.5	203.5	196.0	191.0	183.4	175.9	168.4	163.4	155.9	148.4	140.9
	SDT	50.3	53.2	54.7	55.6	57.1	58.6	60.0	61.0	62.5	63.9	65.4
	SDT	38.2	43.8	46.7	48.5	51.3	54.1	56.9	58.8	61.6	64.4	67.2
6	TC kw	233.3	217.6	209.8	204.6	196.7	188.9	181.1	175.9	168.0	160.2	152.4
	SDT	51.5	54.8	56.4	57.5	59.1	60.8	62.4	63.5	65.1	66.7	68.4
	SDT	39.3	44.8	47.6	49.4	52.2	55.0	57.8	59.6	62.4	65.2	68.0
8	TC kw	248.1	231.8	223.6	218.2	210.0	201.9	193.7	188.3	180.1	172.0	163.8
	SDT	52.8	56.4	58.2	59.4	61.2	63.0	64.8	66.0	67.8	69.6	71.4
	SDT	40.3	45.8	48.5	50.4	53.1	55.9	58.6	60.5	63.2	66.0	68.7
10	TC kw	262.9	245.9	237.5	231.8	223.3	214.8	206.4	200.7	192.2	183.8	175.3
	SDT	54.1	58.0	60.0	61.3	63.3	65.2	67.2	68.5	70.4	72.4	74.3
	SDT	41.3	46.8	49.5	51.3	54.0	56.8	59.5	61.3	64.0	66.7	69.5

### LEGEND

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT RATINGS, 60 Hz SI (cont)

38AH074

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	217.7 59.9 35.4	203.3 62.3 41.0	196.1 63.5 43.7	191.3 64.3 45.6	184.2 65.5 48.4	177.0 66.7 51.1	169.8 67.9 53.9	165.0 68.7 55.7	157.8 69.9 58.5	150.7 71.1 61.3	143.5 72.2 64.0
0	TC kW SDT	235.8 61.9 36.4	220.6 64.6 41.9	213.0 66.0 44.6	207.9 66.9 46.5	200.3 68.3 49.3	192.7 71.0 52.0	185.1 72.6 52.9	180.0 74.2 55.7	172.4 75.2 57.5	164.8 76.0 62.1	157.2 76.0 64.9
2	TC kW SDT	253.9 63.8 37.3	237.8 66.9 42.8	229.8 68.5 45.5	224.5 69.5 47.4	216.4 71.0 50.2	208.4 72.6 52.9	200.4 74.2 53.8	195.0 75.2 56.6	187.0 76.7 58.4	178.9 78.3 60.3	170.9 79.8 65.8
4	TC kW SDT	272.0 65.8 38.2	255.1 69.2 43.7	246.6 70.9 46.4	241.0 72.1 48.3	232.5 73.8 51.1	224.1 75.6 53.8	215.6 77.3 56.6	210.0 78.4 58.4	201.5 80.2 61.2	193.1 81.9 63.9	184.6 83.6 66.7
6	TC kW SDT	290.1 67.7 39.1	272.4 71.5 44.6	263.5 73.4 47.3	257.6 74.7 49.2	248.7 76.6 52.0	239.8 78.5 54.7	230.9 80.4 57.5	225.0 81.7 59.3	216.1 83.6 62.1	207.2 85.5 64.8	198.3 87.4 67.6
8	TC kW SDT	308.3 69.6 40.0	289.6 73.8 45.5	280.3 75.9 48.2	274.1 77.3 50.1	264.8 79.4 52.9	255.5 81.5 55.6	246.2 83.6 58.4	240.0 85.0 60.2	230.7 87.0 63.0	221.3 89.1 65.7	212.0 91.2 68.5
10	TC kW SDT	326.4 71.6 40.9	306.9 76.1 46.4	297.2 78.4 49.1	290.7 79.9 51.0	280.9 82.2 53.8	271.2 84.4 56.5	261.5 86.7 59.3	255.0 88.2 61.1	245.2 90.5 63.9	— — —	— — —

38AH084

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	250.5 70.6 35.4	234.1 73.5 41.0	225.9 74.9 43.7	220.4 75.9 45.6	212.2 77.3 48.4	204.0 78.7 51.1	195.8 80.2 53.9	190.3 81.1 55.7	182.1 82.5 58.5	173.9 84.0 61.3	165.7 85.4 64.0
0	TC kW SDT	271.8 73.0 36.4	254.4 76.2 41.9	245.7 77.9 44.6	239.9 80.6 46.5	231.2 82.2 49.3	222.5 83.8 52.0	213.8 84.9 54.8	208.0 86.5 56.6	199.2 88.1 59.4	190.5 89.7 62.1	181.8 89.7 64.9
2	TC kW SDT	293.0 75.4 37.3	274.6 79.0 42.8	265.4 80.8 45.5	259.3 82.0 47.4	250.1 83.8 50.2	240.9 85.6 52.9	231.7 87.4 55.7	225.6 88.6 57.5	216.4 90.4 60.3	207.2 92.3 63.0	198.0 94.1 65.8
4	TC kW SDT	314.3 77.7 38.2	294.9 81.7 43.7	285.2 83.7 46.4	278.8 85.1 48.3	269.1 87.1 51.1	259.4 89.1 53.8	249.7 91.1 56.6	243.3 92.4 58.4	233.6 94.4 61.2	223.9 96.4 63.9	214.2 98.4 66.7
6	TC kW SDT	335.5 80.1 39.1	315.2 84.5 44.6	305.0 86.6 47.3	298.2 88.1 49.2	288.1 90.3 52.0	277.9 92.5 54.7	267.7 94.7 57.5	260.9 96.1 59.3	250.8 98.3 62.1	240.6 100.5 64.8	230.4 102.7 67.6
8	TC kW SDT	356.8 82.4 40.0	335.4 87.2 45.5	324.8 89.6 48.2	317.7 91.2 50.1	307.0 93.5 52.9	296.4 95.9 55.6	285.7 98.3 58.4	278.6 99.9 60.2	267.9 102.3 63.0	257.3 104.7 65.7	246.6 107.1 68.5
10	TC kW SDT	378.0 84.8 40.9	355.7 89.9 46.4	344.6 92.5 49.1	337.1 94.2 51.0	326.0 96.8 53.8	314.8 99.4 56.5	303.7 101.9 59.3	296.2 103.7 61.1	285.1 106.2 63.9	— — —	— — —

38AH094

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	272.1 74.7 35.6	252.9 77.6 41.2	243.3 79.0 44.0	236.9 80.0 45.9	227.3 81.4 48.7	217.7 82.8 51.5	208.1 84.3 54.4	201.7 85.2 56.2	192.1 86.6 59.0	182.5 88.1 61.9	173.0 89.5 64.7
0	TC kW SDT	294.3 77.3 36.7	274.2 80.6 42.3	264.1 82.3 45.1	257.4 83.4 46.9	247.4 85.0 49.7	237.3 86.6 52.5	227.2 88.3 55.3	220.5 89.4 57.2	210.5 91.0 59.9	200.4 92.7 62.7	190.3 94.3 65.5
2	TC kW SDT	316.6 79.9 37.8	295.5 83.7 43.4	285.0 85.5 46.1	277.9 86.7 48.0	267.4 88.6 50.7	256.9 90.5 53.5	246.3 92.3 56.2	239.3 93.5 58.1	228.8 95.4 59.0	218.2 97.3 63.6	207.7 99.1 66.4
4	TC kW SDT	338.8 82.5 39.0	316.8 86.7 44.4	305.8 88.8 47.2	298.5 90.1 49.0	287.5 92.2 51.7	276.4 94.3 54.5	265.4 96.3 57.2	258.1 97.7 59.0	247.1 99.8 61.7	236.1 101.9 64.5	225.1 103.9 67.2
6	TC kW SDT	361.1 85.2 40.1	338.1 89.7 45.5	326.6 92.0 48.2	319.0 93.5 50.0	307.5 95.8 52.7	296.0 98.1 55.4	284.5 100.4 58.1	276.9 101.9 59.9	265.4 104.2 62.6	253.9 106.4 65.3	242.4 108.7 68.0
8	TC kW SDT	383.3 87.8 41.2	359.4 92.7 46.6	347.5 95.2 49.3	339.5 96.9 51.0	327.5 99.4 53.7	315.6 101.9 56.4	303.6 104.4 59.1	295.7 106.1 60.9	283.7 108.5 63.5	271.8 111.0 66.2	259.8 113.5 68.9
10	TC kW SDT	405.6 90.4 42.4	380.7 95.8 47.7	368.3 98.5 50.3	360.0 100.3 52.1	347.6 103.0 54.7	335.2 105.7 57.4	322.7 108.4 60.0	314.5 110.2 61.8	302.0 112.9 64.4	289.6 115.6 67.1	— — —

### LEGEND

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

kW — Compressor Power  
SDT — Saturated Discharge Temperature (leaving compressor) (C)  
SST — Saturated Suction Temperature (entering condensing unit)  
TC — Gross Cooling Capacity (kW)


**CONDENSING UNIT RATINGS, 60 Hz SI (cont)**
**38AH104**

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kw SDT	304.0 81.0 37.1	281.9 84.6 42.5	270.9 86.3 45.1	263.5 87.5 46.9	252.5 89.3 49.6	241.4 91.0 52.2	230.4 92.8 54.9	223.0 94.0 56.7	212.0 95.8 59.3	200.9 97.5 62.0	189.9 99.3 64.6
	0	TC kw SDT	329.8 84.0 38.3	306.5 88.0 43.5	294.8 90.0 46.2	287.0 91.4 47.9	275.3 93.4 50.6	263.6 95.4 53.2	251.9 97.4 55.8	244.1 98.7 57.6	232.4 100.7 60.2	220.7 102.7 62.9
	2	TC kw SDT	355.6 87.1 39.4	331.0 91.5 44.6	318.6 93.8 47.2	310.4 95.3 48.9	298.1 97.5 51.6	285.7 99.7 54.2	273.4 102.0 56.8	265.1 103.4 58.5	252.8 105.7 61.1	240.5 107.9 63.7
4	TC kw SDT	381.5 90.1 40.5	355.5 95.0 45.7	342.5 97.5 48.3	333.8 99.1 50.0	320.8 101.6 52.6	307.9 104.1 55.1	294.9 106.5 57.7	286.2 108.2 59.4	273.2 110.6 62.0	260.2 113.1 64.6	247.2 115.6 67.2
	6	TC kw SDT	407.3 93.1 41.7	380.0 98.5 46.8	366.4 101.2 49.3	357.3 103.0 51.0	343.6 105.7 53.6	330.0 108.4 56.1	316.4 111.1 58.7	307.3 112.9 60.4	293.6 115.6 62.9	280.0 118.3 65.5
	8	TC kw SDT	433.1 96.1 42.8	404.5 102.0 47.8	390.2 104.9 50.4	380.7 106.9 52.0	366.4 109.8 54.6	352.1 112.7 57.1	337.9 115.7 59.6	328.3 117.6 61.3	314.1 120.5 63.8	299.8 123.5 66.3
10	TC kw SDT	458.9 99.1 43.9	429.0 105.5 48.9	414.1 108.6 51.4	404.1 110.7 53.1	389.2 113.9 55.6	374.3 117.1 58.1	359.4 120.2 60.5	349.4 122.3 62.2	— — —	— — —	— — —

**38AH124**

SST (C)	Air Temperature Entering Condenser (C)												
	21	27	30	32	35	38	41	43	46	49	52		
-2	TC kw SDT	347.1 92.5 35.4	321.5 96.5 41.3	308.7 98.5 44.2	300.1 99.8 46.1	287.3 101.7 49.1	274.5 103.7 52.0	261.7 105.7 55.0	253.2 107.0 56.9	240.4 109.0 59.9	227.6 110.9 62.8	214.8 112.9 65.7	
	0	TC kw SDT	377.2 95.3 36.4	350.1 99.8 42.2	336.6 102.1 45.1	327.6 103.6 47.0	314.1 105.9 49.9	300.6 108.2 52.8	287.1 110.5 55.7	278.1 112.0 57.6	264.6 114.3 60.5	251.1 116.6 63.3	
	2	TC kw SDT	407.3 98.0 37.5	378.8 103.2 43.1	364.6 105.8 46.0	355.1 107.5 47.9	340.9 110.1 50.7	326.7 112.7 53.5	312.5 115.3 56.3	303.0 117.0 58.2	288.8 119.6 61.1	274.6 122.2 63.9	
4	TC kw SDT	437.4 100.7 38.5	407.5 106.5 44.1	392.6 109.4 46.9	382.6 111.4 48.7	367.7 114.3 51.5	352.8 117.2 54.3	337.9 120.1 57.0	327.9 122.0 58.9	313.0 124.9 61.7	298.1 127.8 64.4	283.2 130.7 67.2	
	6	TC kw SDT	467.4 103.5 39.6	436.2 109.9 45.0	420.6 113.1 47.8	410.2 115.2 49.6	394.5 118.4 52.3	378.9 121.7 55.0	363.3 124.9 57.7	352.9 127.0 59.5	337.2 130.2 62.3	321.6 133.4 65.0	306.0 136.7 67.7
	8	TC kw SDT	497.5 106.2 40.7	464.9 113.2 46.0	448.5 116.8 48.6	437.7 119.1 50.4	421.3 122.6 53.1	405.0 126.1 55.8	388.7 129.7 58.4	377.8 132.0 60.2	361.4 135.5 62.9	345.1 139.1 65.5	328.8 142.6 68.2
10	TC kw SDT	527.6 108.9 41.7	493.6 116.6 46.9	476.5 120.4 49.5	465.2 123.0 51.3	448.1 126.8 53.9	431.1 130.6 56.5	414.0 134.5 59.1	402.7 137.0 60.8	385.6 140.9 63.5	368.6 144.7 66.1	— — —	

**38AH134**

SST (C)	Air Temperature Entering Condenser (C)												
	21	27	30	32	35	38	41	43	46	49	52		
-2	TC kw SDT	384.1 104.2 35.3	357.5 108.6 41.1	344.2 110.8 44.0	335.4 112.2 45.9	322.1 114.4 48.8	308.7 116.6 51.7	295.4 118.8 54.6	286.6 120.3 56.5	273.3 122.4 59.4	260.0 124.6 62.3	246.7 126.8 65.2	
	0	TC kw SDT	417.0 107.5 36.3	388.8 112.5 42.0	374.7 115.0 44.8	365.3 116.7 46.7	351.2 119.2 49.6	337.1 121.7 52.5	323.0 124.2 55.3	313.6 125.9 57.2	299.5 128.4 60.1	285.4 133.4 63.0	271.3 136.7 65.8
	2	TC kw SDT	449.8 110.8 37.2	420.0 116.5 42.9	405.1 119.3 45.7	395.2 121.2 47.6	380.3 124.0 50.4	365.4 126.8 53.2	350.5 129.7 56.1	340.6 131.5 58.0	325.7 134.4 60.8	310.8 137.2 63.6	295.9 140.0 66.5
4	TC kw SDT	482.6 114.1 38.1	451.2 120.4 43.7	435.6 123.5 46.5	425.1 125.6 48.4	409.4 128.8 51.2	393.7 131.9 54.0	378.0 135.1 56.8	367.6 137.2 58.7	351.9 140.3 61.5	336.2 143.5 64.3	320.5 146.6 67.1	
	6	TC kw SDT	515.4 117.4 39.0	482.5 124.3 44.6	466.0 127.8 47.4	455.0 130.1 49.2	438.5 133.6 52.0	422.1 137.0 54.8	405.6 140.5 57.6	394.6 142.8 59.4	378.1 146.3 62.2	361.6 149.8 65.0	345.1 153.2 67.8
	8	TC kw SDT	548.3 120.7 40.0	513.7 128.3 45.5	496.4 132.0 48.2	484.9 134.6 50.1	467.7 138.4 52.8	450.4 142.2 55.6	433.1 145.9 58.3	421.6 148.5 60.1	404.3 152.3 62.9	387.0 156.0 65.6	369.8 159.8 68.4
10	TC kw SDT	581.1 124.0 40.9	545.0 132.2 46.3	526.9 136.3 49.1	514.8 139.0 50.9	496.8 143.2 53.6	478.7 147.3 56.3	460.6 151.4 59.1	448.6 154.1 60.9	430.5 158.2 63.6	412.5 162.3 66.3	— — —	

**LEGEND**

**KW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI

38AH044 CIRCUIT A

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	62.0 16.0 33.1	56.8 16.6 39.0	54.2 16.8 42.0	52.4 17.0 43.9	49.8 17.3 46.9	47.2 17.6 49.8	44.6 17.9 52.7	42.9 18.1 54.7	40.2 18.4 57.6	37.6 18.7 60.6	35.0 19.0 63.5
0	TC kW SDT	67.5 16.3 34.2	62.1 17.1 40.0	59.3 17.4 42.9	57.5 17.7 44.8	54.8 18.0 47.7	52.0 18.4 50.6	49.3 18.8 53.4	47.5 19.0 55.4	44.8 19.4 58.2	42.0 19.7 61.1	39.3 20.1 64.0
2	TC kW SDT	73.0 16.7 35.3	67.3 17.6 40.9	64.5 18.0 43.7	62.6 18.3 45.6	59.7 18.7 48.5	56.9 19.1 51.3	54.0 19.6 54.1	52.1 19.9 56.0	49.3 20.3 58.8	46.4 20.7 61.7	43.6 21.2 64.5
4	TC kW SDT	78.5 17.1 36.3	72.6 18.1 41.9	69.6 18.6 44.6	67.7 18.9 46.5	64.7 19.4 49.3	61.7 19.9 52.0	58.8 20.4 54.8	56.8 20.7 56.7	53.8 21.2 59.4	50.8 21.7 62.2	47.9 22.2 65.0
6	TC kW SDT	84.1 17.4 37.4	77.9 18.6 42.8	74.8 19.1 45.5	72.7 19.5 47.3	69.7 20.1 50.1	66.6 20.7 52.8	63.5 21.2 55.5	61.4 21.6 57.3	58.3 22.2 60.0	55.3 22.7 62.8	52.2 23.3 65.5
8	TC kW SDT	89.6 17.8 38.4	83.2 19.1 43.8	80.0 19.7 46.4	77.8 20.1 48.2	74.6 20.8 50.9	71.4 21.4 53.5	68.2 22.0 56.2	66.1 22.5 58.0	62.9 23.1 60.6	59.7 23.7 63.3	56.5 24.4 66.0
10	TC kW SDT	95.1 18.2 39.5	88.4 19.6 44.7	85.1 20.3 47.3	82.9 20.7 49.1	79.6 21.5 51.7	76.3 22.2 54.3	72.9 22.9 56.9	70.7 23.3 58.6	67.4 24.0 61.2	64.1 24.7 63.9	— — —

38AH044 CIRCUIT B

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	62.6 15.8 34.5	57.0 16.5 40.2	54.3 16.9 43.1	52.4 17.1 44.9	49.6 17.5 47.8	46.9 18.2 50.6	44.1 18.4 53.5	42.2 18.8 55.4	39.5 19.1 58.2	36.7 19.5 61.0	33.9 19.5 63.9
0	TC kW SDT	68.5 16.1 35.1	62.7 17.0 40.8	59.8 17.4 43.7	57.9 17.7 45.5	55.0 18.1 48.4	52.1 18.5 51.2	49.2 18.9 54.1	47.3 19.2 56.0	44.4 19.6 58.8	41.5 20.1 61.6	38.6 20.5 64.5
2	TC kW SDT	74.4 16.4 35.7	68.4 17.4 41.4	65.4 17.9 44.3	63.4 18.2 46.1	60.4 18.7 49.0	57.4 19.2 51.8	54.4 19.7 54.7	52.4 20.0 56.6	49.4 20.5 59.4	46.3 21.0 62.2	43.3 21.5 65.1
4	TC kW SDT	80.4 16.7 36.3	74.1 17.8 42.0	71.0 18.4 44.9	68.9 18.8 46.7	65.8 19.3 49.6	62.6 19.9 52.4	59.5 20.4 55.3	57.4 20.8 57.2	54.3 21.4 60.0	51.2 21.9 62.8	48.1 22.5 65.7
6	TC kW SDT	86.3 17.0 36.9	79.8 18.3 42.6	76.6 18.9 45.5	74.4 19.3 47.4	71.2 19.9 50.2	67.9 20.6 53.0	64.7 21.2 55.9	62.5 21.6 57.8	59.3 22.2 60.6	56.0 22.8 63.4	52.8 23.5 66.3
8	TC kW SDT	92.2 17.3 37.5	85.5 18.7 43.2	82.1 19.4 46.1	79.9 19.8 48.0	76.5 20.5 50.8	73.2 21.2 53.6	69.8 21.9 56.5	67.6 22.4 58.4	64.2 23.1 61.2	60.8 23.8 64.0	57.5 24.5 66.9
10	TC kW SDT	98.2 17.6 38.1	91.2 19.1 43.8	87.7 19.9 46.7	85.4 20.4 48.6	81.9 21.2 51.4	78.4 21.9 54.2	75.0 22.7 57.1	72.6 23.2 59.0	69.1 23.9 61.8	65.7 24.7 64.6	— — —

### LEGEND

KW — Compressor Power  
SDT — Saturated Discharge Temperature (leaving compressor) (C)  
SST — Saturated Suction Temperature (entering condensing unit)  
TC — Gross Cooling Capacity, Gross (kW)

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.


**CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI (cont)**
**38AH054 CIRCUIT A**

SST (C)	Air Temperature Entering Condenser (C)										
	21	27	30	32	35	38	41	43	46	49	52
-2	TC kW	64.1	58.4	55.5	53.6	50.7	47.8	44.9	43.0	40.1	37.3
	KW	16.4	16.9	17.2	17.4	17.7	18.0	18.2	18.4	18.7	19.0
	SDT	33.5	39.8	43.0	45.2	48.3	51.5	54.7	56.9	60.0	63.2
0	TC kW	69.7	63.8	60.9	58.9	56.0	53.0	50.1	48.1	45.2	42.3
	KW	16.6	17.3	17.7	17.9	18.3	18.6	19.0	19.2	19.6	20.0
	SDT	34.6	40.7	43.8	45.9	48.9	52.0	55.1	57.2	60.2	66.4
2	TC kW	75.3	69.3	66.3	64.3	61.3	58.3	55.3	53.3	50.3	47.3
	KW	16.9	17.7	18.2	18.5	18.9	19.3	19.8	20.1	20.5	21.4
	SDT	35.7	41.6	44.6	46.6	49.5	52.5	55.5	57.5	60.4	66.4
4	TC kW	80.8	74.7	71.6	69.6	66.5	63.5	60.4	58.4	55.3	52.2
	KW	17.1	18.1	18.7	19.0	19.5	20.0	20.5	20.9	21.4	22.4
	SDT	36.8	42.5	45.4	47.3	50.1	53.0	55.9	57.8	60.6	66.4
6	TC kW	86.4	80.1	77.0	74.9	71.8	68.7	65.6	63.5	60.4	57.2
	KW	17.4	18.5	19.1	19.5	20.1	20.7	21.3	21.7	22.3	22.9
	SDT	37.9	43.4	46.2	48.0	50.7	53.5	56.3	58.1	60.8	66.3
8	TC kW	91.9	85.6	82.4	80.3	77.1	73.9	70.7	68.6	65.4	62.2
	KW	17.6	19.0	19.6	20.1	20.7	21.4	22.1	22.5	23.2	23.9
	SDT	39.0	44.3	46.9	48.7	51.3	54.0	56.6	58.4	61.0	66.3
10	TC kW	97.5	91.0	87.8	85.6	82.4	79.1	75.9	73.7	70.5	67.2
	KW	17.9	19.4	20.1	20.6	21.4	22.1	22.8	23.3	24.1	24.8
	SDT	40.1	45.2	47.7	49.4	51.9	54.5	57.0	58.7	61.2	63.8

**38AH054 CIRCUIT B**

SST (C)	Air Temperature Entering Condenser (C)										
	21	27	30	32	35	38	41	43	46	49	52
-2	TC kW	80.4	74.5	71.6	69.6	66.6	63.7	60.8	58.8	55.8	52.9
	KW	22.0	23.0	23.5	23.8	24.3	24.8	25.3	25.6	26.1	27.0
	SDT	37.5	43.2	46.0	47.9	50.8	53.6	56.4	58.3	61.2	66.8
0	TC kW	87.7	81.4	78.2	76.1	73.0	69.8	66.7	64.6	61.4	58.3
	KW	22.8	23.9	24.4	24.8	25.3	25.9	26.4	26.8	27.4	28.5
	SDT	38.3	44.0	46.8	48.7	51.6	54.4	57.2	59.1	62.0	67.6
2	TC kW	95.0	88.3	84.9	82.7	79.3	76.0	72.6	70.4	67.0	63.7
	KW	23.5	24.7	25.3	25.8	26.4	27.0	27.6	28.0	28.6	29.9
	SDT	39.1	44.8	47.6	49.5	52.4	55.2	58.0	59.9	62.8	68.4
4	TC kW	102.3	95.1	91.6	89.2	85.6	82.1	78.5	76.1	72.6	69.0
	KW	24.2	25.6	26.3	26.7	27.4	28.1	28.8	29.3	29.9	31.3
	SDT	39.9	45.6	48.4	50.3	53.2	56.0	58.8	60.7	63.6	69.2
6	TC kW	109.5	102.0	98.2	95.7	92.0	88.2	84.4	81.9	78.2	74.4
	KW	24.9	26.4	27.2	27.7	28.5	29.2	30.0	30.5	31.2	32.7
	SDT	40.7	46.4	49.2	51.1	54.0	56.8	59.6	61.5	64.4	70.0
8	TC kW	116.8	108.9	104.9	102.3	98.3	94.3	90.4	87.7	83.7	79.8
	KW	25.7	27.3	28.1	28.7	29.5	30.3	31.2	31.7	32.5	33.3
	SDT	41.5	47.2	50.0	51.9	54.8	57.6	60.4	62.3	65.2	68.0
10	TC kW	124.1	115.8	111.6	108.8	104.6	100.5	96.3	93.5	89.3	—
	KW	26.4	28.2	29.1	29.7	30.6	31.4	32.3	32.9	33.8	—
	SDT	42.3	48.0	50.8	52.7	55.6	58.4	61.2	63.1	66.0	—

**LEGEND**

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI (cont)

### 38AH064 CIRCUIT A

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	81.9 21.6 35.0	75.7 22.6 40.9	72.7 23.1 43.8	70.6 23.4 45.8	67.5 24.0 48.7	64.4 24.5 51.7	61.4 25.0 54.6	59.3 25.3 56.6	56.2 25.8 59.5	53.2 26.3 62.4	50.1 26.9 65.4
0	TC kW SDT	89.0 22.3 36.3	82.5 23.4 42.0	79.3 24.0 44.9	77.1 24.4 46.8	73.9 25.0 49.7	70.6 25.5 52.6	67.3 26.1 55.5	65.2 26.5 57.4	61.9 27.1 60.3	58.7 27.7 63.2	55.4 28.2 66.1
2	TC kW SDT	96.2 22.9 37.5	89.3 24.2 43.2	85.9 24.9 46.0	83.6 25.3 47.9	80.2 26.0 50.7	76.8 26.6 53.6	73.3 27.3 56.4	71.0 27.7 58.3	67.6 28.3 61.1	64.2 29.0 63.9	60.7 29.6 66.8
4	TC kW SDT	103.4 23.6 38.8	96.1 25.1 44.3	92.5 25.8 47.1	90.1 26.3 48.9	86.5 27.0 51.7	82.9 27.7 54.5	79.3 28.4 57.3	76.9 28.9 59.1	73.3 29.6 61.9	69.7 30.3 64.7	66.1 31.0 67.4
6	TC kW SDT	110.5 24.3 40.0	102.9 25.9 45.5	99.2 26.7 48.2	96.6 27.2 50.0	92.8 28.0 52.7	89.1 28.8 55.4	85.3 29.6 58.2	82.8 30.1 60.0	79.0 30.9 62.7	75.2 31.6 65.4	71.4 32.4 68.1
8	TC kW SDT	117.7 25.0 41.3	109.7 26.7 46.6	105.8 27.6 49.3	103.1 29.0 51.1	99.2 29.8 53.7	95.2 30.7 56.4	91.3 31.3 59.1	88.6 31.3 60.8	84.7 32.1 63.5	80.7 33.0 66.2	76.7 33.8 68.8
10	TC kW SDT	124.8 25.7 42.5	116.5 27.5 47.8	112.4 28.5 50.4	109.6 29.1 52.1	105.5 30.0 54.7	101.4 30.9 57.3	97.2 31.8 59.9	94.5 32.5 61.7	90.3 33.4 64.3	86.2 34.3 66.9	82.1 35.2 69.5

### 38AH064 CIRCUIT B

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	92.2 24.9 35.3	85.3 25.8 41.0	81.8 26.2 43.8	79.5 26.5 45.7	76.0 27.0 48.5	72.6 27.4 51.4	69.1 27.9 54.2	66.8 28.2 56.1	63.4 28.7 58.9	59.9 29.1 61.8	56.5 29.6 64.6
0	TC kW SDT	99.8 25.4 36.1	92.6 26.6 41.8	89.0 27.1 44.6	86.6 27.5 46.5	83.0 28.0 49.3	79.4 28.6 52.2	75.8 29.1 55.0	73.4 29.5 56.9	69.8 30.1 59.7	66.2 30.6 62.6	62.6 31.2 65.4
2	TC kW SDT	107.5 26.0 36.9	100.0 27.3 42.6	96.2 28.0 45.4	93.7 28.4 47.3	90.0 29.1 50.1	86.2 29.7 53.0	82.5 30.4 55.8	80.0 30.8 57.7	76.2 31.5 60.5	72.5 32.1 63.4	68.7 32.8 66.2
4	TC kW SDT	115.1 26.6 37.7	107.3 28.1 43.4	103.4 28.9 46.2	100.8 29.4 48.1	96.9 30.1 50.9	93.0 30.9 53.8	89.1 31.6 56.6	86.5 32.1 58.5	82.6 32.9 61.3	78.7 33.6 64.2	74.8 34.4 67.0
6	TC kW SDT	122.8 27.2 38.5	114.7 28.9 44.2	110.6 29.8 47.0	107.9 30.3 48.9	103.9 31.2 51.7	99.8 32.0 54.6	95.8 32.9 57.4	93.1 33.4 59.3	89.1 34.3 62.1	85.0 35.1 65.0	81.0 35.9 67.8
8	TC kW SDT	130.4 27.8 39.3	122.0 29.7 45.0	117.8 30.6 47.8	115.1 31.3 49.7	110.9 32.2 52.5	106.7 33.1 55.4	102.5 34.1 58.2	99.7 34.7 60.1	95.5 35.7 62.9	91.3 36.6 65.8	87.1 37.5 68.6
10	TC kW SDT	138.1 28.4 40.1	129.4 30.5 45.8	125.1 31.5 48.6	122.2 32.2 50.5	117.8 33.3 53.3	113.5 34.3 56.2	109.1 35.3 59.0	106.2 36.0 60.9	101.9 37.1 63.7	97.5 38.1 66.6	93.2 39.1 69.4

#### LEGEND

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

#### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.


**CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI (cont)**
**38AH074 CIRCUIT A**

SST (C)	Air Temperature Entering Condenser (C)										
	21	27	30	32	35	38	41	43	46	49	52
-2	TC kW	94.6	87.8	84.5	82.2	78.8	75.5	72.1	69.8	66.5	63.1
	SDT	24.9	25.9	26.4	26.7	27.2	27.7	28.2	28.5	29.0	29.4
		33.9	39.8	42.7	44.7	47.6	50.6	53.5	55.5	58.4	61.3
0	TC kW	102.5	95.4	91.9	89.5	86.0	82.4	78.9	76.6	73.0	69.5
	SDT	25.6	26.8	27.3	27.7	28.3	28.9	29.4	29.8	30.4	31.0
		35.1	40.9	43.8	45.7	48.6	51.5	54.4	56.3	59.2	62.1
2	TC kW	110.3	102.9	99.3	96.8	93.1	89.4	85.8	83.3	79.6	75.9
	SDT	26.3	27.6	28.3	28.7	29.4	30.1	30.7	31.2	31.8	32.5
		36.4	42.1	44.9	46.8	49.6	52.4	55.3	57.2	60.0	62.8
4	TC kW	118.1	110.5	106.6	104.1	100.3	96.4	92.6	90.0	86.2	82.4
	SDT	27.0	28.5	29.2	29.7	30.5	31.2	32.0	32.5	33.2	34.0
		37.7	43.2	46.0	47.8	50.6	53.4	56.2	58.0	60.8	66.3
6	TC kW	126.0	118.0	114.0	111.4	107.4	103.4	99.4	96.8	92.8	88.8
	SDT	27.7	29.4	30.2	30.8	31.6	32.4	33.3	33.8	34.7	35.5
		38.9	44.4	47.1	48.9	51.6	54.3	57.1	58.9	61.6	67.0
8	TC kW	133.8	125.6	121.4	118.7	114.5	110.4	106.3	103.5	99.4	95.2
	SDT	28.4	30.2	31.1	31.8	32.7	33.6	34.5	35.2	36.1	37.9
		40.2	45.5	48.2	49.9	52.6	55.3	57.9	59.7	62.4	67.7
10	TC kW	141.7	133.1	128.8	126.0	121.7	117.4	113.1	110.2	105.9	101.6
	SDT	29.1	31.1	32.1	32.8	33.8	34.8	35.8	36.5	37.5	38.5
		41.4	46.7	49.3	51.0	53.6	56.2	58.8	60.6	63.2	65.8

**38AH074 CIRCUIT B**

SST (C)	Air Temperature Entering Condenser (C)										
	21	27	30	32	35	38	41	43	46	49	52
-2	TC kW	123.1	115.5	111.7	109.1	105.3	101.5	97.7	95.2	91.4	87.6
	SDT	35.0	36.4	37.1	37.6	38.3	39.0	39.7	40.2	40.9	42.3
		37.0	42.2	44.8	46.5	49.1	51.7	54.3	56.0	58.6	63.8
0	TC kW	133.3	125.2	121.1	118.4	114.3	110.2	106.2	103.4	99.4	95.3
	SDT	36.2	37.8	38.6	39.2	40.0	40.8	41.6	42.1	42.9	43.7
		37.6	42.8	45.5	47.2	49.9	52.5	55.2	56.9	59.6	64.9
2	TC kW	143.6	134.9	130.6	127.7	123.3	119.0	114.6	111.7	107.3	103.0
	SDT	37.5	39.3	40.2	40.8	41.7	42.5	43.4	44.0	44.9	46.7
		38.1	43.5	46.2	48.0	50.7	53.4	56.1	57.9	60.6	66.0
4	TC kW	153.9	144.6	140.0	136.9	132.3	127.7	123.0	120.0	115.3	110.7
	SDT	38.8	40.7	41.7	42.4	43.3	44.3	45.3	46.9	47.9	48.9
		38.7	44.2	46.9	48.7	51.5	54.2	57.0	58.8	61.6	67.1
6	TC kW	164.1	154.3	149.4	146.2	141.3	136.4	131.5	128.2	123.3	118.4
	SDT	40.0	42.2	43.2	43.9	45.0	46.1	47.2	47.9	48.9	51.1
		39.2	44.8	47.6	49.5	52.3	55.1	57.9	59.8	62.6	68.2
8	TC kW	174.4	164.1	158.9	155.4	150.3	145.1	139.9	136.5	131.3	126.1
	SDT	41.3	43.6	44.8	45.5	46.7	47.9	49.0	49.8	51.0	53.3
		39.8	45.5	48.3	50.2	53.1	55.9	58.8	60.7	63.6	69.3
10	TC kW	184.7	173.8	168.3	164.7	159.3	153.8	148.4	144.7	139.3	121.0
	SDT	42.5	45.0	46.3	47.1	48.4	49.6	50.9	51.7	53.0	52.1
		40.3	46.1	49.0	51.0	53.9	56.8	59.7	61.7	64.6	66.4

**LEGEND**

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI (cont)

38AH084 CIRCUIT A

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	125.0 35.6 33.9	116.8 37.0 39.8	112.7 37.7 42.7	109.9 38.2 44.7	105.8 38.8 47.6	101.7 39.5 50.6	97.6 40.2 53.5	94.9 40.7 55.5	90.8 41.4 58.4	86.7 42.1 61.3	82.6 42.8 64.3
0	TC kW SDT	135.7 36.8 35.1	127.0 38.3 40.9	122.6 39.1 43.8	119.7 39.7 45.7	115.4 40.4 48.6	111.0 41.2 51.5	106.7 42.0 54.4	103.8 42.6 56.3	99.4 43.4 59.2	95.1 44.1 62.1	90.7 44.9 65.0
2	TC kW SDT	146.4 37.9 36.4	137.2 39.7 42.1	132.6 40.6 44.9	129.5 41.2 46.8	124.9 42.1 49.6	120.3 42.9 52.4	115.7 43.8 55.3	112.7 44.4 57.2	108.1 45.3 60.0	103.5 46.2 62.8	98.9 47.1 65.6
4	TC kW SDT	157.0 39.0 37.7	147.4 41.0 43.2	142.5 42.0 46.0	139.3 42.7 47.8	134.5 43.7 50.6	129.6 44.7 53.4	124.8 45.6 56.2	121.5 46.3 58.0	116.7 47.3 60.8	111.9 48.3 63.6	107.0 49.3 66.3
6	TC kW SDT	167.7 40.2 38.9	157.6 42.4 44.4	152.5 43.4 47.1	149.1 44.2 48.9	144.0 45.3 51.6	138.9 46.4 54.3	133.8 47.5 57.1	130.4 48.2 58.9	125.3 49.3 61.6	120.3 50.4 64.3	115.2 51.5 67.0
8	TC kW SDT	178.4 41.3 40.2	167.7 43.7 45.5	162.4 44.9 48.2	158.9 45.7 49.9	153.5 46.9 52.6	148.2 48.1 55.3	142.9 49.3 57.9	139.3 50.1 59.7	134.0 51.2 62.4	128.7 52.4 65.0	123.3 53.6 67.7
10	TC kW SDT	189.1 42.4 41.4	177.9 45.0 46.7	172.4 46.3 49.3	168.6 47.2 51.0	163.1 48.5 53.6	157.5 49.8 56.2	151.9 51.1 58.8	148.2 51.9 60.6	142.6 53.2 63.2	— — —	— — —

38AH084 CIRCUIT B

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	125.5 35.0 37.0	117.3 36.5 42.2	113.2 37.2 44.8	110.5 38.5 46.5	106.3 39.2 49.1	102.2 39.9 51.7	98.1 40.4 54.3	95.4 40.4 56.0	91.3 41.2 58.6	87.2 41.9 61.2	83.1 42.6 63.8
0	TC kW SDT	136.1 36.2 37.6	127.4 37.9 42.8	123.0 38.7 45.5	120.1 39.3 47.2	115.8 40.1 49.9	111.4 40.9 52.5	107.1 41.8 55.2	104.2 42.3 56.9	99.8 43.1 59.6	95.5 44.0 62.2	91.1 44.8 64.9
2	TC kW SDT	146.7 37.5 38.1	137.5 39.3 43.5	132.9 40.2 46.2	129.8 40.8 48.0	125.2 41.7 50.7	120.6 42.7 53.4	116.0 43.6 56.1	112.9 44.2 57.9	108.4 45.1 60.6	103.8 46.0 63.3	99.2 47.0 66.0
4	TC kW SDT	157.2 38.7 38.7	147.5 40.7 44.2	142.7 41.7 46.9	139.5 42.4 48.7	134.6 43.4 51.5	129.8 44.4 54.2	125.0 45.4 57.0	121.7 46.1 58.8	116.9 47.1 61.6	112.0 48.1 64.3	107.2 49.1 67.1
6	TC kW SDT	167.8 39.9 39.2	157.6 42.1 44.8	152.5 43.2 47.6	149.1 43.9 49.5	144.1 45.0 52.3	139.0 46.1 55.1	133.9 47.2 57.9	130.5 48.0 59.8	125.4 49.1 62.6	120.3 50.2 65.4	115.2 51.3 68.2
8	TC kW SDT	178.4 41.1 39.8	167.7 43.5 45.5	162.4 44.7 48.3	158.8 45.5 50.2	153.5 46.7 53.1	148.2 47.9 55.9	142.8 49.1 58.8	139.3 49.8 60.7	133.9 51.0 63.6	128.6 52.2 66.4	123.3 53.4 69.3
10	TC kW SDT	188.9 42.3 40.3	177.8 44.9 46.1	172.2 46.2 49.0	168.5 47.0 51.0	162.9 48.3 53.9	157.3 49.6 56.8	151.8 50.9 59.7	148.0 51.7 61.7	142.5 53.0 64.6	— — —	— — —

### LEGEND

**KW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.


**CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI (cont)**
**38AH094 CIRCUIT A**

SST (C)	Air Temperature Entering Condenser (C)										
	21	27	30	32	35	38	41	43	46	49	52
-2	TC kW	151.9	140.3	134.5	130.7	124.9	119.1	113.3	109.4	103.6	97.8
	SDT	41.7	43.0	43.7	44.1	44.8	45.5	46.1	46.6	47.3	48.6
		37.3	42.7	45.4	47.1	49.8	52.5	55.2	57.0	59.7	65.1
0	TC kW	164.2	152.2	146.1	142.1	136.0	130.0	124.0	119.9	113.9	107.9
	SDT	43.1	44.7	45.5	46.0	46.8	47.6	48.4	49.0	49.8	51.4
		38.3	43.7	46.4	48.1	50.8	53.5	56.2	58.0	60.7	63.4
2	TC kW	176.5	164.0	157.7	153.5	147.2	141.0	134.7	130.5	124.2	118.0
	SDT	44.4	46.3	47.3	47.9	48.8	49.8	50.7	51.4	52.3	54.2
		39.3	44.7	47.4	49.1	51.8	54.5	57.2	59.0	61.7	67.1
4	TC kW	188.8	175.8	169.3	164.9	158.4	151.9	145.4	141.1	134.5	128.0
	SDT	45.8	48.0	49.1	49.8	50.9	51.9	53.0	53.7	54.8	57.0
		40.3	45.7	48.4	50.1	52.8	55.5	58.2	60.0	62.7	68.1
6	TC kW	201.1	187.6	180.8	176.4	169.6	162.9	156.1	151.6	144.9	138.1
	SDT	47.2	49.6	50.8	51.7	52.9	54.1	55.3	56.1	57.3	59.8
		41.3	46.7	49.4	51.1	53.8	56.5	59.2	61.0	63.7	69.1
8	TC kW	213.4	199.4	192.4	187.8	180.8	173.8	166.8	162.2	155.2	148.2
	SDT	48.6	51.3	52.6	53.5	54.9	56.2	57.6	58.5	59.8	62.5
		42.3	47.7	50.4	52.1	54.8	57.5	60.2	62.0	64.7	70.0
10	TC kW	225.7	211.2	204.0	199.2	192.0	184.7	177.5	172.7	165.5	158.3
	SDT	50.0	52.9	54.4	55.4	56.9	58.4	59.9	60.9	62.3	63.8
		43.3	48.7	51.4	53.1	55.8	58.5	61.2	63.0	65.7	68.4

**38AH094 CIRCUIT B**

SST (C)	Air Temperature Entering Condenser (C)										
	21	27	30	32	35	38	41	43	46	49	52
-2	TC kW	120.1	112.6	108.8	106.2	102.5	98.7	94.9	92.3	88.5	84.8
	SDT	33.1	34.6	35.3	35.8	36.6	37.4	38.1	38.6	39.4	40.9
		33.9	39.8	42.7	44.7	47.6	50.6	53.5	55.5	58.4	64.3
0	TC kW	130.1	122.1	118.0	115.3	111.3	107.3	103.3	100.6	96.5	92.5
	SDT	34.3	36.0	36.8	37.3	38.2	39.0	39.8	40.4	41.2	42.9
		35.1	40.9	43.8	45.7	48.6	51.5	54.4	56.3	59.2	65.0
2	TC kW	140.1	131.5	127.3	124.4	120.2	115.9	111.6	108.8	104.5	100.3
	SDT	35.5	37.3	38.2	38.9	39.8	40.7	41.6	42.2	43.1	44.9
		36.4	42.1	44.9	46.8	49.6	52.4	55.3	57.2	60.0	65.6
4	TC kW	150.0	141.0	136.5	133.5	129.0	124.5	120.0	117.0	112.5	108.0
	SDT	36.7	38.7	39.7	40.4	41.3	42.3	43.3	44.0	45.0	47.0
		37.7	43.2	46.0	47.8	50.6	53.4	56.2	58.0	60.8	66.3
6	TC kW	160.0	150.5	145.8	142.6	137.9	133.2	128.4	125.3	120.5	115.8
	SDT	38.0	40.1	41.2	41.9	42.9	44.0	45.1	45.8	46.8	49.0
		38.9	44.4	47.1	48.9	51.6	54.3	57.1	58.9	61.6	67.0
8	TC kW	170.0	160.0	155.0	151.7	146.8	141.8	136.8	133.5	128.5	123.6
	SDT	39.2	41.5	42.6	43.4	44.5	45.7	46.8	47.6	48.7	51.0
		40.2	45.5	48.2	49.9	52.6	55.3	57.9	59.7	62.4	67.7
10	TC kW	179.9	169.5	164.3	160.8	155.6	150.4	145.2	141.7	136.5	131.3
	SDT	40.4	42.8	44.1	44.9	46.1	47.3	48.5	49.4	50.6	53.0
		41.4	46.7	49.3	51.0	53.6	56.2	58.8	60.6	63.2	68.4

**LEGEND**

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI (cont)

### 38AH104 CIRCUIT A

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	143.2 37.4 35.7	132.4 39.1 41.3	127.1 39.9 44.1	123.5 40.4 45.9	118.1 41.2 48.7	112.7 42.1 51.5	107.4 42.9 54.3	103.8 43.4 56.2	98.4 44.2 58.9	93.0 45.1 61.7	87.7 45.9 64.5
0	TC kW SDT	155.4 38.7 37.0	144.1 40.6 42.4	138.4 41.5 45.2	134.7 42.1 47.0	129.0 43.1 49.7	123.3 44.0 52.5	117.7 44.9 55.2	113.9 45.6 57.0	108.2 46.5 59.7	102.5 47.4 62.5	96.9 48.4 65.2
2	TC kW SDT	167.7 40.0 38.2	155.7 42.1 43.6	149.8 43.2 46.3	145.8 43.9 48.0	139.9 44.9 50.7	133.9 46.0 53.4	127.9 47.0 56.1	124.0 47.7 57.9	118.0 48.8 60.5	112.0 49.8 63.2	106.1 50.9 65.9
4	TC kW SDT	179.9 41.3 39.5	167.4 43.6 44.7	161.1 44.8 47.4	157.0 45.6 49.1	150.7 46.7 51.7	144.5 47.9 54.3	138.2 49.1 57.0	134.0 49.9 58.7	127.8 51.0 61.3	121.5 52.2 64.0	115.3 53.4 66.6
6	TC kW SDT	192.2 42.6 40.7	179.1 45.2 45.9	172.5 46.4 48.4	168.1 47.3 50.2	161.6 48.6 52.7	155.0 49.9 55.3	148.5 51.1 57.9	144.1 52.0 59.6	137.6 53.3 62.1	131.0 54.6 64.7	124.5 55.9 67.3
8	TC kW SDT	204.4 43.9 42.0	190.7 46.7 47.0	183.9 48.1 49.5	179.3 49.0 51.2	172.5 50.4 53.7	165.6 51.8 56.2	158.8 53.2 58.7	154.2 54.1 60.4	147.4 55.5 62.9	140.5 56.9 65.4	133.7 58.3 68.0
10	TC kW SDT	216.6 45.2 43.3	202.4 48.2 48.2	195.2 49.7 50.6	190.5 50.7 52.3	183.3 52.3 54.7	176.2 53.8 57.2	169.0 55.3 59.6	164.3 56.3 61.3	157.2 57.8 63.7	— — —	— — —

### 38AH104 CIRCUIT B

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	160.8 43.6 38.6	149.5 45.5 43.6	143.8 46.5 46.2	140.0 47.1 47.9	134.4 48.0 50.4	128.7 49.0 52.9	123.0 49.9 55.5	119.2 50.6 57.2	113.5 51.5 59.7	107.9 52.5 62.2	102.2 53.4 64.8
0	TC kW SDT	174.4 45.3 39.6	162.4 47.5 44.6	156.3 48.5 47.2	152.3 49.2 48.9	146.3 50.3 51.4	140.2 51.4 53.9	134.2 52.4 56.5	130.2 53.2 58.2	124.2 54.2 60.7	118.1 55.3 63.2	112.1 56.4 65.8
2	TC kW SDT	188.0 47.1 40.6	175.2 49.4 45.6	168.8 50.6 48.2	164.6 51.4 49.9	158.2 52.6 52.4	151.8 53.8 54.9	145.4 54.9 57.5	141.2 55.7 59.1	134.8 56.9 61.7	128.4 58.1 64.2	122.0 59.3 66.8
4	TC kW SDT	201.5 48.8 41.6	188.1 51.4 46.6	181.3 52.7 49.2	176.9 53.5 50.9	170.1 54.8 53.4	163.4 56.1 55.9	156.7 57.4 58.5	152.2 58.3 60.1	145.4 59.6 62.7	138.7 60.9 65.2	132.0 62.2 67.8
6	TC kW SDT	215.1 50.5 42.6	200.9 53.3 47.6	193.9 54.8 50.2	189.1 55.7 51.9	182.0 57.1 54.4	175.0 58.5 56.9	167.9 59.9 59.5	163.2 60.9 61.1	156.1 62.3 63.7	149.0 63.7 66.2	141.9 65.1 68.7
8	TC kW SDT	228.7 52.2 43.6	213.8 55.3 48.6	206.4 56.8 51.2	201.4 57.9 52.9	194.0 59.4 55.4	186.5 60.9 57.9	179.1 62.4 60.5	174.1 63.5 62.1	166.7 65.0 64.7	159.3 66.5 67.2	— — —
10	TC kW SDT	242.2 54.0 44.6	226.7 57.3 49.6	218.9 58.9 52.2	213.7 60.0 53.9	205.9 61.7 56.4	198.1 63.3 58.9	190.3 64.9 61.5	185.1 66.0 63.1	174.1 67.2 —	159.3 66.5 —	— — —

#### LEGEND

**KW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

#### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.


**CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI (cont)**
**38AH124 CIRCUIT A**

SST (C)	Air Temperature Entering Condenser (C)										
	21	27	30	32	35	38	41	43	46	49	52
-2	TC kW	173.5	160.7	154.3	150.1	143.7	137.3	130.9	126.6	120.2	113.8
	SDT	46.3	48.2	49.2	49.9	50.9	51.9	52.8	53.5	54.5	56.5
		35.4	41.3	44.2	46.1	49.1	52.0	55.0	56.9	59.9	62.8
0	TC kW	188.6	175.1	168.3	163.8	157.1	150.3	143.6	139.1	132.3	125.5
	SDT	47.6	49.9	51.1	51.8	53.0	54.1	55.2	56.0	57.1	59.4
		36.4	42.2	45.1	47.0	49.9	52.8	55.7	57.6	60.5	63.3
2	TC kW	203.6	189.4	182.3	177.6	170.5	163.4	156.2	151.5	144.4	137.3
	SDT	49.0	51.6	52.9	53.8	55.0	56.3	57.6	58.5	59.8	62.4
		37.5	43.1	46.0	47.9	50.7	53.5	56.3	58.2	61.1	63.9
4	TC kW	218.7	203.8	196.3	191.3	183.9	176.4	168.9	164.0	156.5	149.0
	SDT	50.4	53.3	54.7	55.7	57.1	58.6	60.0	61.0	62.5	65.4
		38.5	44.1	46.9	48.7	51.5	54.3	57.0	58.9	61.7	64.4
6	TC kW	233.7	218.1	210.3	205.1	197.3	189.4	181.6	176.4	168.6	160.8
	SDT	51.7	54.9	56.5	57.6	59.2	60.8	62.4	63.5	65.1	68.3
		39.6	45.0	47.8	49.6	52.3	55.0	57.7	59.5	62.3	65.0
8	TC kW	248.8	232.4	224.3	218.8	210.7	202.5	194.3	188.9	180.7	172.6
	SDT	53.1	56.6	58.4	59.6	61.3	63.1	64.8	66.0	67.8	71.3
		40.7	46.0	48.6	50.4	53.1	55.8	58.4	60.2	62.9	65.5
10	TC kW	263.8	246.8	238.3	232.6	224.1	215.5	207.0	201.3	192.8	184.3
	SDT	54.5	58.3	60.2	61.5	63.4	65.3	67.2	68.5	70.4	72.3
		41.7	46.9	49.5	51.3	53.9	56.5	59.1	60.8	63.5	66.1

**38AH124 CIRCUIT B**

SST (C)	Air Temperature Entering Condenser (C)										
	21	27	30	32	35	38	41	43	46	49	52
-2	TC kW	173.5	160.7	154.3	150.1	143.7	137.3	130.9	126.6	120.2	113.8
	SDT	46.3	48.2	49.2	49.9	50.9	51.9	52.8	53.5	54.5	56.5
		35.4	41.3	44.2	46.1	49.1	52.0	55.0	56.9	59.9	62.8
0	TC kW	188.6	175.1	168.3	163.8	157.1	150.3	143.6	139.1	132.3	125.5
	SDT	47.6	49.9	51.1	51.8	53.0	54.1	55.2	56.0	57.1	59.4
		36.4	42.2	45.1	47.0	49.9	52.8	55.7	57.6	60.5	63.3
2	TC kW	203.6	189.4	182.3	177.6	170.5	163.4	156.2	151.5	144.4	137.3
	SDT	49.0	51.6	52.9	53.8	55.0	56.3	57.6	58.5	59.8	62.4
		37.5	43.1	46.0	47.9	50.7	53.5	56.3	58.2	61.1	63.9
4	TC kW	218.7	203.8	196.3	191.3	183.9	176.4	168.9	164.0	156.5	149.0
	SDT	50.4	53.3	54.7	55.7	57.1	58.6	60.0	61.0	62.5	65.4
		38.5	44.1	46.9	48.7	51.5	54.3	57.0	58.9	61.7	64.4
6	TC kW	233.7	218.1	210.3	205.1	197.3	189.4	181.6	176.4	168.6	160.8
	SDT	51.7	54.9	56.5	57.6	59.2	60.8	62.4	63.5	65.1	68.3
		39.6	45.0	47.8	49.6	52.3	55.0	57.7	59.5	62.3	65.0
8	TC kW	248.8	232.4	224.3	218.8	210.7	202.5	194.3	188.9	180.7	172.6
	SDT	53.1	56.6	58.4	59.6	61.3	63.1	64.8	66.0	67.8	71.3
		40.7	46.0	48.6	50.4	53.1	55.8	58.4	60.2	62.9	65.5
10	TC kW	263.8	246.8	238.3	232.6	224.1	215.5	207.0	201.3	192.8	184.3
	SDT	54.5	58.3	60.2	61.5	63.4	65.3	67.2	68.5	70.4	72.3
		41.7	46.9	49.5	51.3	53.9	56.5	59.1	60.8	63.5	66.1

**LEGEND**

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz SI (cont)

38AH134 CIRCUIT A

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	173.5 46.3 35.4	160.7 48.2 41.3	154.3 49.2 44.2	150.1 49.9 46.1	143.7 50.9 49.1	137.3 51.9 52.0	130.9 52.8 55.0	126.6 53.5 56.9	120.2 54.5 59.9	113.8 55.5 62.8	107.4 56.5 65.7
0	TC kW SDT	188.6 47.6 36.4	175.1 49.9 42.2	168.3 51.1 45.1	163.8 51.8 47.0	157.1 53.0 49.9	150.3 54.1 52.8	143.6 55.2 57.6	139.1 56.0 57.6	132.3 57.1 60.5	125.5 58.3 63.3	118.8 59.4 66.2
2	TC kW SDT	203.6 49.0 37.5	189.4 51.6 43.1	182.3 52.9 46.0	177.6 53.8 47.9	170.5 55.0 50.7	163.4 56.3 53.5	156.2 57.6 56.3	151.5 58.5 58.2	144.4 59.8 61.1	137.3 61.1 63.9	130.2 62.4 66.7
4	TC kW SDT	218.7 50.4 38.5	203.8 53.3 44.1	196.3 54.7 46.9	191.3 55.7 48.7	183.9 57.1 51.5	176.4 58.6 54.3	168.9 60.0 57.0	164.0 61.0 58.9	156.5 62.5 61.7	149.0 63.9 64.4	141.6 65.4 67.2
6	TC kW SDT	233.7 51.7 39.6	218.1 54.9 45.0	210.3 56.5 47.8	205.1 57.6 49.6	197.3 59.2 52.3	189.4 60.8 55.0	181.6 62.4 57.7	176.4 63.5 59.5	168.6 65.1 62.3	160.8 66.7 65.0	153.0 68.3 67.7
8	TC kW SDT	248.8 53.1 40.7	232.4 56.6 46.0	224.3 58.4 48.6	218.8 59.6 50.4	210.7 61.3 53.1	202.5 63.1 55.8	194.3 64.8 58.4	188.9 66.0 60.2	180.7 67.8 62.9	172.6 69.5 65.5	164.4 71.3 68.2
10	TC kW SDT	263.8 54.5 41.7	246.8 58.3 46.9	238.3 60.2 49.5	232.6 61.5 51.3	224.1 63.4 53.9	215.5 65.3 56.5	207.0 67.2 59.1	201.3 68.5 60.8	192.8 70.4 63.5	184.3 72.3 66.1	— — —

38AH134 CIRCUIT B

SST (C)	Air Temperature Entering Condenser (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC kW SDT	210.6 57.9 35.3	196.8 60.3 41.0	189.9 61.5 43.8	185.3 62.3 45.7	178.4 63.6 48.5	171.5 64.8 51.4	164.6 66.0 54.2	160.0 66.8 56.1	153.1 68.0 58.9	146.2 69.2 61.8	139.3 70.4 64.6
0	TC kW SDT	228.4 59.9 36.1	213.7 62.6 41.8	206.3 64.0 44.6	201.5 64.9 46.5	194.1 66.3 49.3	186.8 67.6 52.2	179.4 69.0 55.0	174.5 69.9 56.9	167.2 71.3 59.7	159.8 72.6 62.6	152.5 74.0 65.4
2	TC kW SDT	246.2 61.8 36.9	230.6 64.9 42.6	222.8 66.4 45.4	217.6 67.4 47.3	209.8 69.0 50.1	202.0 70.5 53.0	194.3 72.0 55.8	189.1 73.0 57.7	181.3 74.6 60.5	173.5 76.1 63.4	165.7 77.6 66.2
4	TC kW SDT	263.9 63.7 37.7	247.5 67.1 43.4	239.3 68.8 46.2	233.8 70.0 48.1	225.6 71.7 50.9	217.3 73.3 53.8	209.1 75.0 56.6	203.6 76.2 58.5	195.4 77.9 61.3	187.2 79.6 64.2	178.9 81.3 67.0
6	TC kW SDT	281.7 65.7 38.5	264.4 69.4 44.2	255.7 71.2 47.0	249.9 72.5 48.9	241.3 74.4 51.7	232.6 76.2 54.6	223.9 78.1 57.4	218.2 79.3 59.3	209.5 81.2 62.1	200.8 83.0 65.0	192.2 84.9 67.8
8	TC kW SDT	299.5 67.6 39.3	281.3 71.6 45.0	272.2 73.7 47.8	266.1 75.0 49.7	257.0 77.1 52.5	247.9 79.1 55.4	238.8 81.1 58.2	232.7 82.5 60.1	223.6 84.5 62.9	214.5 86.5 65.8	205.4 88.5 68.6
10	TC kW SDT	317.3 69.5 40.1	298.2 73.9 45.8	288.6 76.1 48.6	282.3 77.6 50.5	272.7 79.8 53.3	263.2 81.9 56.2	253.6 84.1 59.0	247.3 85.6 60.9	237.7 87.8 63.7	228.2 90.0 66.6	218.6 92.2 69.4

### LEGEND

KW — Compressor Power  
 SDT — Saturated Discharge Temperature (leaving compressor) (C)  
 SST — Saturated Suction Temperature (entering condensing unit)  
 TC — Gross Cooling Capacity (kW)

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.



## CONDENSING UNIT RATINGS, 50 Hz English

### 38AH044

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC KW SDT	293.0 22.9 91.0	268.0 24.4 102.0	255.0 25.1 106.0	242.0 25.8 111.0	230.0 26.2 116.0	216.0 26.6 121.0	202.0 26.9 125.5	189.3 27.0 131.0	175.9 27.1 135.5	162.6 27.0 140.5	149.1 26.7 145.5
	TC KW SDT	332.0 23.7 91.6	305.0 25.5 101.5	292.0 26.3 106.5	279.0 27.1 111.5	265.0 27.8 116.0	251.0 28.4 121.0	238.0 28.8 126.0	224.0 29.1 131.0	210.0 29.4 136.0	195.1 29.6 141.0	180.8 29.5 146.0
	TC KW SDT	373.0 24.4 92.4	345.0 26.5 102.0	331.0 27.5 107.0	317.0 28.4 112.0	303.0 29.2 116.5	289.0 30.0 121.5	274.0 30.6 126.5	259.0 31.1 131.5	244.0 31.6 136.5	230.0 31.9 141.0	214.0 32.1 146.0
35	TC KW SDT	416.0 25.1 93.6	387.0 27.5 103.5	372.0 28.6 108.0	357.0 29.6 113.0	342.0 30.6 118.0	328.0 31.4 122.5	312.0 32.3 127.0	297.0 33.0 132.5	281.0 33.6 136.5	265.0 34.1 141.5	250.0 34.5 146.5
	TC KW SDT	462.0 25.8 94.9	431.0 28.4 104.5	415.0 29.7 109.5	400.0 30.9 113.5	384.0 31.9 118.5	368.0 33.0 123.5	351.0 34.0 128.0	336.0 34.8 133.0	320.0 35.6 138.0	303.0 36.3 142.5	287.0 36.9 147.5
	TC KW SDT	509.0 26.4 96.4	477.0 29.3 106.0	460.0 30.6 111.0	444.0 32.0 115.0	427.0 33.2 120.0	411.0 34.4 124.5	394.0 35.5 129.5	376.0 36.5 134.5	359.0 37.5 139.0	343.0 38.4 144.0	325.0 39.2 148.5
50	TC KW SDT	560.0 27.0 98.0	525.0 30.2 107.5	508.0 31.7 112.5	491.0 33.1 117.0	473.0 34.5 121.5	455.0 35.8 126.0	438.0 37.1 131.0	419.0 38.2 135.5	401.0 39.3 140.5	384.0 40.4 145.5	366.0 41.3 149.5

### 38AH054

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC KW SDT	341.0 27.8 95.5	313.0 29.5 105.5	299.0 30.2 110.5	286.0 30.9 115.5	272.0 31.5 120.5	259.0 32.0 125.5	245.0 32.4 130.5	231.2 32.6 135.5	217.6 32.9 140.5	204.9 33.0 145.5	191.2* 33.0* 150.5*
	TC KW SDT	387.0 28.9 96.0	357.0 30.9 105.5	342.0 31.8 110.5	327.0 32.6 115.5	312.0 33.4 120.5	297.0 34.1 125.5	282.0 34.7 130.5	268.0 35.1 135.5	253.0 35.6 140.5	239.2 35.9 145.5	225.1* 36.0* 150.5*
	TC KW SDT	435.0 29.9 96.7	403.0 32.3 106.5	386.0 33.3 111.0	371.0 34.3 116.0	355.0 35.3 121.0	340.0 36.1 126.0	323.0 36.8 131.0	308.0 37.4 136.0	292.0 38.0 141.0	277.0 38.5 145.5	261.0* 38.9* 150.5*
35	TC KW SDT	485.0 30.9 97.7	451.0 33.5 107.0	434.0 34.8 112.0	417.0 35.9 117.0	401.0 37.0 121.5	384.0 38.0 126.5	367.0 38.9 131.5	350.0 39.7 136.5	333.0 40.5 141.0	316.0 41.1 146.0	300.0* 41.7* 151.0*
	TC KW SDT	538.0 31.9 99.2	503.0 34.8 108.5	485.0 36.1 113.0	467.0 37.5 118.0	449.0 38.7 123.0	431.0 39.9 128.0	412.0 41.0 132.5	395.0 41.9 137.0	377.0 42.9 142.0	359.0 43.7 146.5	341.0* 44.5* 151.5*
	TC KW SDT	593.0 32.9 100.9	555.0 36.1 110.0	537.0 37.6 114.5	518.0 39.1 119.5	499.0 40.4 124.0	480.0 41.8 128.5	461.0 43.0 133.5	442.0 44.1 138.5	423.0 45.2 143.0	403.0 46.3 148.0	385.0* 47.1* 153.0*
50	TC KW SDT	652.0 34.0 102.7	611.0 37.4 112.0	592.0 39.1 116.5	571.0 40.6 121.0	551.0 42.2 126.0	532.0 43.7 130.0	511.0 45.0 135.0	491.0 46.3 139.5	471.0 47.5 144.5	450.0* 48.8* 149.0*	431.0* 49.8* 153.5*

### 38AH064

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC KW SDT	415.0 33.6 93.4	383.0 35.7 103.0	368.0 36.7 108.0	352.0 37.5 113.0	337.0 38.3 118.0	321.0 39.0 123.0	306.0 39.6 128.0	290.0 40.1 133.0	275.0 40.5 138.0	261.0 40.8 143.0	246.0 41.0 148.0
	TC KW SDT	468.0 34.9 94.0	434.0 37.4 104.0	417.0 38.6 109.0	401.0 39.6 113.5	384.0 40.6 118.5	367.0 41.4 123.5	350.0 42.2 128.5	335.0 42.8 133.5	318.0 43.4 138.0	302.0 43.9 143.0	285.0 44.3 148.0
	TC KW SDT	523.0 36.2 95.0	487.0 39.0 104.5	469.0 40.3 109.5	451.0 41.5 114.5	434.0 42.7 119.0	416.0 43.7 124.0	399.0 44.7 129.0	380.0 45.5 134.0	363.0 46.3 139.0	346.0 47.0 144.0	328.0 47.5 149.0
35	TC KW SDT	582.0 37.4 96.3	544.0 40.6 105.5	525.0 42.1 110.5	505.0 43.5 115.5	487.0 44.8 120.5	467.0 46.0 125.0	448.0 47.2 130.0	429.0 48.2 134.5	410.0 49.2 139.5	393.0 50.0 144.5	374.0 50.7 149.5
	TC KW SDT	644.0 38.7 98.0	603.0 42.2 107.5	582.0 43.9 112.5	562.0 45.5 116.5	542.0 47.0 121.5	521.0 48.3 126.5	501.0 49.6 131.5	481.0 50.8 136.0	461.0 52.0 140.5	442.0 53.0 145.5	421.0* 54.0* 150.5*
	TC KWP SDT	708.0 40.0 100.0	664.0 43.9 109.0	642.0 45.7 114.0	620.0 47.4 118.5	600.0 49.1 123.5	578.0 50.7 128.0	556.0 52.2 132.5	535.0 53.5 137.5	514.0 54.9 142.5	493.0 56.1 146.6	471.0* 57.1* 151.5*
50	TC KW SDT	776.0 41.2 102.0	729.0 45.5 111.0	706.0 47.5 116.0	682.0 49.4 120.5	660.0 51.3 125.0	636.0 53.0 130.0	614.0 54.7 134.5	591.0 56.2 139.5	569.0 57.7 143.5	546.0 59.1 148.5	523.0* 60.3* 153.5*

#### LEGEND

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (F)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

#### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT RATINGS, 50 Hz English (cont)

38AH074

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC kW SDT	513.0 42.4 92.1	478.0 44.9 102.0	461.0 46.0 107.0	444.0 47.1 112.0	427.0 48.1 117.0	410.0 48.9 122.0	393.0 49.6 126.5	376.0 50.2 131.5	360.0 50.8 136.5	342.0 51.2 142.0	326.0 51.6 147.0
25	TC kW SDT	574.0 44.1 92.7	538.0 47.0 102.5	520.0 48.3 107.0	501.0 49.6 112.0	482.0 50.7 117.0	465.0 51.7 122.0	446.0 52.7 127.0	428.0 53.5 132.0	410.0 54.3 137.0	392.0 54.9 142.0	373.0 55.4 147.0
30	TC kW SDT	638.0 45.8 93.9	600.0 49.1 103.5	580.0 50.6 108.0	561.0 52.1 113.0	541.0 53.4 118.0	522.0 54.6 123.0	503.0 55.8 128.0	483.0 56.8 132.5	463.0 57.8 137.0	444.0 58.6 142.0	425.0 59.3 147.0
35	TC kW SDT	706.0 47.7 95.5	664.0 51.3 104.5	643.0 53.0 109.5	623.0 54.6 114.5	603.0 56.1 119.0	581.0 57.6 123.5	561.0 58.8 128.5	540.0 60.1 133.5	520.0 61.3 138.0	499.0 62.3 143.0	479.0 63.2 148.0
40	TC kW SDT	776.0 49.5 97.3	731.0 53.6 106.5	710.0 55.4 111.5	688.0 57.2 116.0	666.0 58.9 120.5	644.0 60.5 125.5	622.0 62.0 130.0	600.0 63.4 134.5	578.0 64.8 139.5	557.0 66.0 144.0	534.0 67.1 148.5
45	TC kW SDT	850.0 51.2 99.3	803.0 55.8 108.5	780.0 57.8 113.0	756.0 59.8 118.0	733.0 61.8 122.5	709.0 63.5 127.0	686.0 65.3 131.5	662.0 66.8 136.5	640.0 68.4 141.0	616.0 69.8 145.5	593.0* 71.1* 150.0*
50	TC kW SDT	930.0 53.0 101.5	879.0 57.9 110.5	853.0 60.3 115.0	828.0 62.5 120.0	803.0 64.6 124.5	778.0 66.6 129.0	753.0 68.6 133.5	727.0 70.3 138.0	703.0 72.1 143.0	678.0 73.7 147.0	653.0* 75.1* 152.0*

38AH084

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC kW SDT	574.0 50.7 97.1	536.0 53.3 107.0	518.0 54.5 112.0	500.0 55.6 117.0	482.0 56.6 122.0	464.0 57.6 127.0	446.0 58.4 132.0	429.0 59.2 137.0	412.0 59.9 142.0	395.0 60.6 147.0	378.0* 61.1* 152.0*
25	TC kW SDT	644.0 52.9 97.2	604.0 55.9 107.0	584.0 57.3 112.0	564.0 58.7 117.0	544.0 59.9 122.0	524.0 61.0 127.0	505.0 62.1 132.0	486.0 63.0 137.0	467.0 64.0 142.0	448.0 64.8 147.0	430.0* 65.5* 152.0*
30	TC kW SDT	721.0 54.9 97.4	676.0 58.5 107.0	654.0 60.1 112.0	632.0 61.7 117.0	611.0 63.1 122.0	590.0 64.5 127.0	568.0 65.7 132.0	548.0 66.8 137.0	526.0 68.0 142.0	506.0 69.0 147.0	486.0* 69.9* 152.0*
35	TC kW SDT	802.0 56.9 98.1	754.0 60.9 108.0	730.0 62.9 113.0	706.0 64.7 118.0	683.0 66.3 123.0	660.0 67.9 128.0	636.0 69.3 133.0	614.0 70.7 138.0	590.0 72.0 143.0	568.0 72.0 147.0	546.0* 74.4* 152.0*
40	TC kW SDT	887.0 58.9 99.2	835.0 63.5 109.0	809.0 65.5 113.5	785.0 67.5 118.5	759.0 69.5 123.5	734.0 71.3 128.0	709.0 72.9 133.0	684.0 74.5 138.0	659.0 76.1 143.0	634.0 77.5 148.0	610.0* 78.8* 153.0*
45	TC kW SDT	976.0 61.1 100.5	920.0 66.1 110.5	893.0 68.3 115.0	866.0 70.6 119.5	839.0 72.7 124.5	811.0 74.7 129.5	785.0 76.7 134.0	758.0 78.5 139.0	731.0 80.2 144.0	705.0 81.8 149.0	679.0* 83.3* 154.0*
50	TC kW SDT	1067.0 63.3 102.5	1009.0 68.7 112.0	980.0 71.3 116.5	950.0 73.7 121.5	922.0 76.1 126.0	892.0 78.3 130.5	864.0 80.5 135.5	836.0 82.4 140.5	807.0 84.4 145.0	779.0 86.2 150.0	750.0* 87.9* 154.5*

### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

kW — Compressor Power  
SDT — Saturated Discharge Temperature (leaving compressor) (F)  
SST — Saturated Suction Temperature (entering condensing unit)  
TC — Gross Cooling Capacity (kW)


**CONDENSING UNIT RATINGS, 50 Hz English (cont)**
**38AH094**

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	657.0	611.0	588.0	564.0	540.0	517.0	494.0	470.0	446.0	423.0	400.0
	kW	54.3	57.4	59.0	60.2	61.4	62.4	63.2	63.9	64.4	64.7	64.8
	SDT(A)	93.9	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
	SDT(B)	92.1	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	SCT(A)	91.7	102.0	107.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
25	SCT(B)	90.4	101.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	142.0	147.0
	TC	738.0	689.0	663.0	638.0	614.0	589.0	564.0	538.0	514.0	488.0	463.0
	kW	56.5	60.2	62.0	63.5	64.9	66.2	67.3	68.3	69.1	69.8	70.2
	SDT(A)	95.0	105.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
	SDT(B)	92.4	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
30	SCT(A)	92.1	102.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT(B)	90.2	100.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
	TC	821.0	769.0	743.0	716.0	691.0	664.0	638.0	611.0	585.0	557.0	531.0
	kW	58.8	62.9	65.0	66.8	68.5	70.0	71.5	72.7	73.8	74.7	75.5
	SDT(A)	96.7	106.0	111.0	115.0	120.0	125.0	130.0	134.0	139.0	144.0	149.0
35	SDT(B)	93.3	103.0	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	147.0
	SCT(A)	93.0	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT(B)	90.5	101.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
	TC	907.0	853.0	825.0	798.0	771.0	742.0	714.0	686.0	658.0	630.0	602.0
	kW	61.3	65.8	68.1	70.2	72.0	73.8	75.5	77.0	78.4	79.6	80.7
40	SDT(A)	98.7	108.0	112.0	117.0	122.0	126.0	131.0	136.0	140.0	145.0	150.0
	SDT(B)	94.7	104.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT(A)	94.3	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
	SCT(B)	91.2	101.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	TC	999.0	940.0	911.0	882.0	853.0	824.0	793.0	764.0	734.0	704.0	675.0
45	kW	63.8	68.8	71.3	73.6	75.8	77.8	79.7	81.4	83.1	84.5	85.9
	SDT(A)	101.0	110.0	115.0	119.0	124.0	128.0	133.0	137.0	142.0	146.0	151.0
	SDT(B)	96.5	106.0	111.0	115.0	120.0	125.0	129.0	134.0	139.0	144.0	149.0
	SCT(A)	95.7	106.0	111.0	116.0	121.0	126.0	131.0	135.0	140.0	145.0	150.0
	SCT(B)	92.3	102.0	108.0	113.0	118.0	122.0	127.0	132.0	137.0	142.0	147.0
50	TC	1093.0	1031.0	1001.0	970.0	939.0	908.0	877.0	845.0	814.0	782.0	751.0
	kW	66.3	71.8	74.6	77.1	79.5	81.8	83.9	86.0	87.9	89.6	91.2
	SDT(A)	104.0	112.0	117.0	121.0	126.0	130.0	135.0	139.0	144.0	148.0	153.0
	SDT(B)	98.6	108.0	112.0	117.0	122.0	126.0	131.0	136.0	140.0	145.0	150.0
	SCT(A)	97.4	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	146.0	151.0
50	SCT(B)	93.6	104.0	109.0	114.0	119.0	124.0	129.0	134.0	138.0	143.0	148.0
	TC	1193.0	1127.0	1095.0	1062.0	1029.0	996.0	963.0	929.0	896.0	862.0	829.0
	kW	68.9	74.8	77.8	80.7	83.3	85.8	88.3	90.5	92.7	94.7	96.6
	SDT(A)	106.0	115.0	119.0	124.0	128.0	133.0	137.0	142.0	146.0	150.0	155.0*
	SDT(B)	101.0	110.0	114.0	119.0	124.0	128.0	133.0	137.0	142.0	147.0	151.0
50	SCT(A)	99.1	109.0	114.0	119.0	124.0	129.0	134.0	139.0	143.0	148.0	153.0
	SCT(B)	95.1	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0	149.0

**LEGEND**

- kW** — Compressor Power  
**SCT(A)** — Saturated Condensing Temperature (F) for Circuit A (38AH094,104), or Module 38AH124A or 134A  
**SCT(B)** — Saturated Condensing Temperature (F) for Circuit B (38AH094,104), or Module 38AH124B or 134B  
**SDT(A)** — Saturated Discharge Temperature (F) for Circuit A (38AH094,104), or Module 38AH124A or 134A  
**SDT(B)** — Saturated Discharge Temperature (F) for Circuit B (38AH094,104), or Module 38AH124B or 134B  
**SST** — Saturated Suction Temperature Entering Condensing Unit  
**TC** — Gross Cooling Capacity (1000 Btu/h)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT RATINGS, 50 Hz English (cont)

38AH104

SST (F)	TC kW	Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	SDT(A)	747.0	689.0	661.0	633.0	604.0	577.0	549.0	523.0	495.0	469.0	443.0
	kW	58.4	62.2	63.9	65.6	67.0	68.3	69.5	70.5	71.3	71.9	72.4
	SDT(B)	91.9	102.0	107.0	112.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
	SCT(A)	93.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	142.0	147.0
	SCT(B)	89.8	100.0	105.0	110.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
25	TC	747.0	777.0	747.0	718.0	687.0	658.0	628.0	599.0	571.0	541.0	513.0
	kW	61.0	65.2	67.3	69.2	70.9	72.6	74.0	75.2	76.4	77.4	78.1
	SDT(A)	93.0	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	141.0	146.0
	SDT(B)	95.1	104.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT(A)	90.2	100.0	105.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
30	SCT(B)	91.7	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	TC	932.0	869.0	837.0	805.0	773.0	742.0	711.0	680.0	649.0	619.0	588.0
	kW	63.8	68.5	70.8	72.9	74.9	76.8	78.5	80.0	81.4	82.7	83.8
	SDT(A)	94.7	104.0	109.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	147.0
	SDT(B)	97.1	106.0	111.0	115.0	120.0	125.0	129.0	134.0	139.0	144.0	148.0
35	SCT(A)	91.2	101.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
	SCT(B)	92.9	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
	TC	1032.0	964.0	930.0	896.0	863.0	829.0	796.0	763.0	731.0	698.0	665.0
	kW	66.7	71.8	74.4	76.8	78.9	81.0	83.1	84.9	86.6	88.1	89.5
	SDT(A)	96.7	106.0	110.0	115.0	119.0	124.0	129.0	133.0	138.0	143.0	148.0
40	SDT(B)	99.4	108.0	113.0	117.0	122.0	126.0	131.0	136.0	140.0	145.0	150.0
	SCT(A)	92.5	103.0	108.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	SCT(B)	94.4	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	148.0
	TC	1137.0	1065.0	1029.0	993.0	957.0	921.0	886.0	851.0	816.0	781.0	747.0
	kW	69.5	75.2	78.1	80.7	83.2	85.5	87.8	89.9	91.8	93.6	95.3
45	SDT(A)	98.9	108.0	112.0	117.0	121.0	126.0	130.0	135.0	140.0	144.0	149.0
	SDT(B)	102.0	111.0	115.0	120.0	124.0	128.0	133.0	137.0	142.0	147.0	151.0
	SCT(A)	94.0	104.0	109.0	114.0	119.0	124.0	128.0	133.0	138.0	143.0	148.0
	SCT(B)	96.0	106.0	111.0	116.0	121.0	126.0	131.0	135.0	140.0	145.0	150.0
	TC	1247.0	1170.0	1132.0	1094.0	1054.0	1017.0	980.0	942.0	905.0	868.0	831.0
50	kW	72.4	78.7	81.8	84.7	87.4	90.1	92.5	94.9	97.1	99.2	101.2
	SDT(A)	101.0	110.0	115.0	119.0	124.0	128.0	132.0	137.0	141.0	146.0	150.0
	SDT(B)	105.0	113.0	118.0	122.0	126.0	131.0	135.0	140.0	144.0	149.0	153.0
	SCT(A)	95.6	106.0	111.0	116.0	120.0	125.0	130.0	135.0	140.0	144.0	149.0
	SCT(B)	97.8	108.0	113.0	118.0	123.0	128.0	132.0	137.0	142.0	147.0	151.0
50	TC	1363.0	1281.0	1240.0	1199.0	1158.0	1117.0	1077.0	1037.0	998.0	958.0	919.0
	kW	75.5	82.2	85.6	88.8	91.7	94.7	97.4	100.1	102.6	104.9	107.1
	SDT(A)	104.0	113.0	117.0	122.0	126.0	130.0	135.0	139.0	144.0	148.0	152.0
	SDT(B)	108.0	116.0	120.0	125.0	129.0	133.0	138.0	142.0	146.0	151.0	155.0*
	SCT(A)	97.3	107.0	112.0	117.0	122.0	127.0	132.0	137.0	141.0	146.0	151.0
	SCT(B)	99.6	110.0	115.0	120.0	125.0	130.0	134.0	139.0	144.0	148.0	153.0

### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.

2. Ratings include suction line losses due to an accumulator.

- KW** — Compressor Power
- SCT(A)** — Saturated Condensing Temperature (F) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SCT(B)** — Saturated Condensing Temperature (F) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SDT(A)** — Saturated Discharge Temperature (F) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SDT(B)** — Saturated Discharge Temperature (F) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SST** — Saturated Suction Temperature Entering Condensing Unit
- TC** — Gross Cooling Capacity (kW)



## CONDENSING UNIT RATINGS, 50 Hz English (cont)

**38AH124**

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	834.0	772.0	740.0	710.0	678.0	648.0	618.0	588.0	558.0	528.0	498.0
	kW	67.2	71.4	73.4	75.2	76.8	78.0	79.2	80.2	81.0	81.6	82.0
	SDT(A) OR (B)	93.3	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT(A) OR (B)	92.4	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
25	TC	940.0	872.0	840.0	806.0	772.0	740.0	708.0	674.0	642.0	610.0	578.0
	kW	69.8	74.6	77.0	79.2	81.0	82.8	84.4	85.6	86.8	87.8	88.6
	SDT(A) OR (B)	94.0	104.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT(A) OR (B)	92.8	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
30	TC	1050.0	980.0	944.0	908.0	872.0	838.0	802.0	768.0	732.0	698.0	662.0
	kW	72.4	78.0	80.6	83.2	85.4	87.4	89.4	91.0	92.6	94.0	95.0
	SDT(A) OR (B)	95.0	105.0	110.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
	SCT(A) OR (B)	93.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
35	TC	1168.0	1092.0	1052.0	1014.0	978.0	940.0	902.0	864.0	828.0	790.0	752.0
	kW	75.0	81.2	84.2	87.0	89.6	92.0	94.4	96.4	98.4	100.0	101.4
	SDT(A) OR (B)	96.4	106.0	111.0	116.0	120.0	125.0	130.0	135.0	140.0	144.0	149.0
	SCT(A) OR (B)	94.6	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
40	TC	1290.0	1208.0	1168.0	1126.0	1086.0	1046.0	1006.0	966.0	926.0	888.0	848.0
	kW	77.6	84.4	87.8	91.0	94.0	96.8	99.4	101.6	104.0	106.0	108.0
	SDT(A) OR (B)	98.1	108.0	112.0	117.0	122.0	126.0	131.0	136.0	141.0	146.0	150.0
	SCT(A) OR (B)	95.9	106.0	111.0	116.0	120.0	125.0	130.0	135.0	140.0	145.0	150.0
45	TC	1418.0	1332.0	1288.0	1244.0	1202.0	1158.0	1116.0	1074.0	1032.0	988.0	946.0
	kW	80.0	87.8	91.6	95.0	98.2	101.4	104.4	107.0	109.8	112.2	114.4
	SDT(A) OR (B)	100.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	142.0	147.0	152.0
	SCT(A) OR (B)	97.5	107.0	112.0	117.0	122.0	127.0	131.0	136.0	141.0	146.0	151.0
50	TC	1552.0	1460.0	1414.0	1368.0	1322.0	1276.0	1232.0	1186.0	1140.0	1096.0	1050.0
	kW	82.6	91.0	95.2	99.0	102.6	106.2	109.4	112.4	115.6	118.2	120.8
	SDT(A) OR (B)	102.0	112.0	116.0	121.0	125.0	130.0	135.0	139.0	144.0	149.0	153.0
	SCT(A) OR (B)	99.3	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	147.0	152.0

### LEGEND

- kW** — Compressor Power
- SCT(A)** — Saturated Condensing Temperature (F) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SCT(B)** — Saturated Condensing Temperature (F) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SDT(A)** — Saturated Discharge Temperature (F) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SDT(B)** — Saturated Discharge Temperature (F) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SST** — Saturated Suction Temperature Entering Condensing Unit
- TC** — Gross Cooling Capacity (1000 Btuh)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT RATINGS, 50 Hz English (cont)

38AH134

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	930.0	864.0	831.0	799.0	766.0	734.0	702.0	670.0	638.0	606.0	575.0
	KW	76.0	80.6	82.8	84.7	86.4	87.9	89.2	90.3	91.3	92.1	92.6
	SDT(A)	93.3	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
	SDT(B)	92.0	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	SCT(A)	92.4	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
25	SCT(B)	87.6	97.7	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0
	TC	1045.0	974.0	940.0	905.0	869.0	835.0	801.0	765.0	731.0	697.0	663.0
	KW	79.0	84.3	86.8	89.1	91.2	93.1	94.9	96.3	97.7	98.8	99.8
	SDT(A)	94.0	104.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	148.0
	SDT(B)	92.7	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
30	SCT(A)	92.8	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT(B)	88.6	98.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0
	TC	1164.0	1090.0	1052.0	1015.0	978.0	941.0	904.0	868.0	830.0	794.0	756.0
	KW	82.0	88.1	90.9	93.6	96.1	98.3	100.4	102.2	104.0	105.6	106.8
	SDT(A)	95.0	105.0	110.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
35	SDT(B)	93.8	103.0	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	147.0
	SCT(A)	93.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT(B)	90.0	99.7	105.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0
	TC	1290.0	1211.0	1170.0	1130.0	1092.0	1052.0	1013.0	973.0	934.0	895.0	855.0
	KW	85.1	91.9	95.1	98.1	100.9	103.5	106.0	108.2	110.4	112.2	113.9
40	SDT(A)	96.4	106.0	111.0	116.0	120.0	125.0	130.0	135.0	140.0	144.0	149.0
	SDT(B)	95.4	105.0	110.0	114.0	119.0	124.0	128.0	133.0	138.0	143.0	148.0
	SCT(A)	94.6	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
	SCT(B)	91.5	101.0	106.0	111.0	116.0	120.0	125.0	130.0	135.0	139.0	144.0
	TC	1422.0	1337.0	1294.0	1252.0	1210.0	1168.0	1126.0	1084.0	1042.0	1001.0	959.0
45	KW	88.2	95.7	99.3	102.7	105.9	108.9	111.7	114.2	116.7	119.0	121.1
	SDT(A)	98.1	108.0	112.0	117.0	122.0	126.0	131.0	136.0	141.0	146.0	150.0
	SDT(B)	97.2	107.0	111.0	116.0	121.0	125.0	130.0	135.0	139.0	144.0	149.0
	SCT(A)	95.9	106.0	111.0	116.0	120.0	125.0	130.0	135.0	140.0	145.0	150.0
	SCT(B)	93.0	103.0	107.0	112.0	117.0	122.0	127.0	131.0	136.0	141.0	145.0
50	TC	1561.0	1470.0	1425.0	1379.0	1335.0	1289.0	1245.0	1200.0	1156.0	1111.0	1066.0
	KW	91.2	99.6	103.6	107.3	110.8	114.2	117.4	120.3	123.2	125.8	128.3
	SDT(A)	100.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	142.0	147.0	152.0
	SDT(B)	99.2	109.0	113.0	118.0	122.0	127.0	132.0	136.0	141.0	145.0	150.0
	SCT(A)	97.5	107.0	112.0	117.0	122.0	127.0	131.0	136.0	141.0	145.0	150.0
50	SCT(B)	94.6	104.0	109.0	114.0	119.0	123.0	128.0	133.0	137.0	142.0	147.0
	TC	1707.0	1610.0	1562.0	1513.0	1465.0	1417.0	1370.0	1322.0	1274.0	1227.0	1179.0
	KW	94.2	103.4	107.8	111.9	115.9	119.7	123.2	126.5	129.8	132.7	135.5
	SDT(A)	102.0	112.0	116.0	121.0	125.0	130.0	135.0	139.0	144.0	149.0	153.0
	SDT(B)	101.0	111.0	115.0	120.0	124.0	129.0	134.0	138.0	143.0	147.0	152.0
50	SCT(A)	99.3	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	147.0	152.0
	SCT(B)	96.3	106.0	111.0	116.0	120.0	125.0	130.0	134.0	139.0	144.0	148.0

### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

**KW** — Compressor Power  
**SCT(A)** — Saturated Condensing Temperature (F) for Circuit A (38AH094,104), or Module 38AH124A or 134A  
**SCT(B)** — Saturated Condensing Temperature (F) for Circuit B (38AH094,104), or Module 38AH124B or 134B  
**SDT(A)** — Saturated Discharge Temperature (F) for Circuit A (38AH094,104), or Module 38AH124A or 134A  
**SDT(B)** — Saturated Discharge Temperature (F) for Circuit B (38AH094,104), or Module 38AH124B or 134B  
**SST** — Saturated Suction Temperature Entering Condensing Unit  
**TC** — Gross Cooling Capacity (1000 Btuh)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz English

### 38AH044 CIRCUIT A

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC KW SDT	147.0 11.3 89.4	135.0 12.1 99.1	128.0 12.4 104.0	122.0 12.8 109.0	116.0 13.0 114.0	109.0 13.2 119.0	102.0 13.4 124.0	95.6 13.5 129.0	88.9 13.6 134.0	82.2 13.5 139.0	75.5 13.4 144.0
	TC KW SDT	166.0 11.7 90.3	153.0 12.6 99.9	147.0 13.0 105.0	140.0 13.4 110.0	133.0 13.8 114.0	126.0 14.1 119.0	120.0 14.3 124.0	113.0 14.5 129.0	106.0 14.7 134.0	98.6 14.8 139.0	91.5 14.8 144.0
	TC KW SDT	186.0 12.1 91.6	172.0 13.1 101.0	166.1 13.6 106.0	159.0 14.1 111.0	152.0 144.5 115.0	145.0 14.9 120.0	138.0 15.2 125.0	130.0 15.5 130.0	123.0 15.7 135.0	116.0 15.9 139.0	108.0 16.0 144.0
35	TC KW SDT	207.0 12.5 93.2	193.0 13.7 103.0	185.0 14.2 107.0	178.0 14.7 112.0	171.0 15.2 117.0	164.0 15.6 121.0	156.0 16.1 126.0	149.0 16.4 131.0	141.0 16.7 135.0	133.0 17.0 140.0	126.0 17.2 145.0
	TC KW SDT	229.0 12.9 95.0	214.0 14.2 104.0	206.0 14.8 109.0	199.0 15.4 113.0	191.0 15.9 118.0	183.0 16.4 123.0	175.0 16.9 127.0	168.0 17.3 132.0	160.0 17.7 137.0	152.0 18.1 141.0	144.0 18.4 146.0
	TC KW SDT	252.0 13.3 96.9	236.0 14.7 106.0	228.0 15.3 111.0	220.0 16.0 115.0	212.0 16.6 120.0	204.0 17.2 124.0	196.0 17.7 129.0	187.0 18.2 134.0	179.0 18.7 138.0	171.0 19.1 143.0	162.0 19.5 147.0
50	TC KW SDT	276.0 13.7 99.0	259.0 15.2 108.0	251.0 15.9 113.0	243.0 16.6 117.0	234.0 17.3 122.0	225.0 17.9 126.0	217.0 18.5 131.0	208.0 19.1 135.0	199.0 19.6 140.0	191.0 20.1 145.0	182.0 20.6 149.0

### 38AH054 CIRCUIT A

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC KW SDT	146.0 11.8 95.1	133.0 12.5 105.0	127.0 12.8 110.0	121.0 13.1 115.0	114.0 13.3 120.0	108.0 13.4 125.0	101.0 13.5 130.0	94.2 13.5 135.0	87.6 13.5 140.0	80.9 13.4 145.0	74.2* 13.2* 150.0*
	TC KW SDT	166.0 12.2 95.1	153.0 13.1 105.0	146.0 13.5 110.0	139.0 13.8 115.0	132.0 14.1 120.0	125.0 14.4 125.0	118.0 14.6 130.0	111.0 14.7 135.0	104.0 14.8 140.0	97.2 14.8 150.0*	90.1* 14.7* 150.0*
	TC KW SDT	188.0 12.5 95.3	174.0 13.6 105.0	166.0 14.0 110.0	159.0 14.5 115.0	152.0 14.9 120.0	145.0 15.2 125.0	137.0 15.5 130.0	130.0 15.7 135.0	122.0 15.9 140.0	115.0 16.0 145.0	107.0* 16.1* 150.0*
35	TC KW SDT	210.0 12.8 95.7	195.0 14.0 105.0	188.0 14.6 110.0	180.0 15.1 115.0	173.0 15.6 120.0	165.0 16.0 125.0	157.0 16.4 130.0	149.0 16.7 135.0	141.0 17.0 140.0	133.0 17.2 145.0	125.0* 17.4* 150.0*
	TC KW SDT	234.0 13.1 96.4	219.0 14.4 106.0	211.0 15.0 111.0	203.0 15.6 116.0	195.0 16.2 121.0	187.0 16.7 126.0	178.0 17.2 131.0	170.0 17.6 135.0	162.0 18.0 140.0	153.0 18.6* 145.0	145.0* 18.6* 150.0*
	TC KW SDT	258.0 13.4 97.7	242.0 14.8 107.0	234.0 15.5 112.0	226.0 16.2 117.0	218.0 16.8 121.0	209.0 17.4 126.0	201.0 17.9 131.0	192.0 18.4 136.0	183.0 18.9 141.0	174.0 19.4 146.0	166.0* 19.7* 151.0*
50	TC KW SDT	284.0 13.7 99.3	267.0 15.2 109.0	259.0 16.0 113.0	250.0 16.7 118.0	241.0 17.4 123.0	233.0 18.1 127.0	224.0 18.7 132.0	215.0 19.3 137.0	206.0 19.8 142.0	196.0* 20.4* 146.0*	187.0* 20.8* 151.0*

### 38AH064 CIRCUIT A

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC KW SDT	197.0 15.7 93.5	181.0 16.7 103.0	174.0 17.2 108.0	166.0 17.6 113.0	159.0 18.0 118.0	151.0 18.4 123.0	144.0 18.7 128.0	137.0 19.0 133.0	130.0 19.3 138.0	124.0 19.5 143.0	117.0 19.7 148.0
	TC KW SDT	222.0 16.3 94.2	205.0 17.5 104.0	197.0 18.1 109.0	189.0 18.6 114.0	181.0 19.1 119.0	173.0 19.5 124.0	165.0 19.9 129.0	158.0 20.3 134.0	150.0 20.6 138.0	143.0 20.9 143.0	135.0 21.2 148.0
	TC KW SDT	249.0 17.0 95.4	231.0 18.3 105.0	222.0 18.9 110.0	213.0 19.5 115.0	205.0 20.1 119.0	196.0 20.6 124.0	188.0 21.1 129.0	179.0 21.6 134.0	171.0 21.9 139.0	163.0 22.3 144.0	155.0 22.6 149.0
35	TC KW SDT	278.0 17.6 96.9	258.0 19.1 106.0	249.0 19.8 111.0	239.0 20.5 116.0	230.0 21.1 121.0	220.0 21.7 125.0	211.0 22.3 130.0	202.0 22.8 135.0	193.0 23.3 140.0	185.0 23.7 145.0	176.0 24.1 150.0
	TC KW SDT	308.0 18.3 98.8	287.0 19.9 108.0	276.0 20.7 113.0	266.0 21.5 117.0	256.0 22.2 122.0	246.0 22.8 127.0	236.0 23.4 132.0	227.0 24.0 136.0	217.0 24.6 141.0	208.0 25.1 146.0	198.0* 25.6* 151.0*
	TC KW SDT	339.0 19.0 101.0	316.0 20.8 110.0	305.0 21.6 115.0	294.0 22.4 119.0	284.0 23.2 124.0	273.0 24.0 129.0	262.0 24.7 133.0	252.0 25.3 138.0	242.0 26.0 143.0	232.0 26.6 147.0	221.0* 27.1* 152.0*
50	TC KW SDT	372.0 19.6 103.0	348.0 21.6 112.0	336.0 22.5 117.0	324.0 23.4 121.0	313.0 24.3 126.0	301.0 25.1 131.0	290.0 25.9 135.0	279.0 26.6 140.0	268.0 27.3 144.0	257.0 28.0 149.0	246.0* 28.6* 154.0*

#### LEGEND

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (F)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Total Cooling Capacity, Gross (1000 Btu/h)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

#### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz English (cont)

### 38AH044 CIRCUIT B

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	146.0	133.0	127.0	120.0	114.0	107.0	100.0	93.7	87.0	80.4	73.6
	KW	11.6	12.3	12.7	13.0	13.2	13.4	13.5	13.5	13.5	13.5	13.3
	SDT	92.6	103.0	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	147.0
25	TC	166.0	152.0	145.0	139.0	132.0	125.0	118.0	111.0	104.0	96.5	89.3
	KW	12.0	12.9	13.3	13.7	14.0	14.3	14.5	14.6	14.7	14.8	14.7
	SDT	92.9	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
30	TC	187.0	173.0	165.0	158.0	151.0	144.0	136.0	129.0	121.0	114.0	106.0
	KW	12.3	13.4	13.9	14.3	14.7	15.1	15.4	15.6	15.9	16.0	16.1
	SDT	93.2	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
35	TC	209.0	194.0	187.0	179.0	171.0	164.0	156.0	148.0	140.0	132.0	124.0
	KW	12.6	13.8	14.4	14.9	15.4	15.8	16.2	16.6	16.9	17.1	17.3
	SDT	93.9	104.0	109.0	114.0	119.0	124.0	128.0	133.0	138.0	143.0	148.0
40	TC	233.0	217.0	209.0	201.0	193.0	185.0	176.0	168.0	160.0	151.0	143.0
	KW	12.9	14.2	14.9	15.5	16.0	16.6	17.1	17.4	17.9	18.2	18.5
	SDT	94.7	105.0	110.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
45	TC	257.0	241.0	232.0	224.0	215.0	207.0	198.0	189.0	180.0	172.0	163.0
	KW	13.1	14.6	15.3	16.0	16.6	17.2	17.8	18.3	18.8	19.3	19.7
	SDT	95.8	106.0	111.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0	150.0
50	TC	284.0	266.0	257.0	248.0	239.0	230.0	221.0	211.0	202.0	193.0	184.0
	KW	13.3	15.0	15.8	16.5	17.2	17.9	18.6	19.1	19.7	20.3	20.7
	SDT	97.0	107.0	112.0	117.0	121.0	126.0	131.0	136.0	141.0	146.0	150.0

### 38AH054 CIRCUIT B

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	195.0	180.0	172.0	165.0	158.0	151.0	144.0	137.0	130.0	124.0	117.0*
	KW	16.0	17.0	17.4	17.8	18.2	18.6	18.9	19.1	19.4	19.6	19.8*
	SDT	96.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0	151.0*
25	TC	221.0	204.0	196.0	188.0	180.0	172.0	164.0	157.0	149.0	142.0	135.0*
	KW	16.7	17.8	18.3	18.8	19.3	19.7	20.1	20.4	20.8	21.1	21.3*
	SDT	96.8	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0	151.0*
30	TC	247.0	229.0	220.0	212.0	203.0	195.0	186.0	178.0	170.0	162.0	154.0*
	KW	17.4	18.7	19.3	19.8	20.4	20.9	21.3	21.7	22.1	22.5	22.8*
	SDT	98.1	108.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	146.0	151.0*
35	TC	275.0	256.0	246.0	237.0	228.0	219.0	210.0	201.0	192.0	183.0	175.0*
	KW	18.1	19.5	20.2	20.8	21.4	22.0	22.5	23.0	23.5	23.9	24.3*
	SDT	99.7	109.0	114.0	119.0	123.0	128.0	133.0	138.0	142.0	147.0	152.0*
40	TC	304.0	284.0	274.0	264.0	254.0	244.0	234.0	225.0	215.0	206.0	196.0*
	KW	18.8	20.4	21.1	21.9	22.5	23.2	23.8	24.3	24.9	25.4	25.9*
	SDT	102.0	111.0	115.0	120.0	125.0	130.0	134.0	139.0	144.0	148.0	153.0*
45	TC	335.0	313.0	303.0	292.0	281.0	271.0	260.0	250.0	240.0	229.0	219.0*
	KW	19.5	21.3	22.1	22.9	23.6	24.4	25.1	25.7	26.3	26.9	27.4*
	SDT	104.0	113.0	117.0	122.0	127.0	131.0	136.0	141.0	145.0	150.0	155.0*
50	TC	368.0	344.0	333.0	321.0	310.0	299.0	287.0	276.0	265.0	254.0*	244.0*
	KW	20.3	22.2	23.1	23.9	24.8	25.6	26.3	27.0	27.7	28.4*	29.0*
	SDT	106.0	115.0	120.0	124.0	129.0	133.0	138.0	142.0	147.0	152.0*	156.0*

### 38AH064 CIRCUIT B

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	218.0	202.0	194.0	186.0	178.0	170.0	162.0	153.0	145.0	137.0	129.0
	KW	17.9	19.0	19.5	19.9	20.3	20.6	20.9	21.1	21.2	21.3	21.3
	SDT	93.2	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
25	TC	246.0	229.0	220.0	212.0	203.0	194.0	185.0	177.0	168.0	159.0	150.0
	KW	18.6	19.9	20.5	21.0	21.5	21.9	22.3	22.5	22.8	23.0	23.1
	SDT	93.7	104.0	109.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
30	TC	274.0	256.0	247.0	238.0	229.0	220.0	211.0	201.0	192.0	183.0	173.0
	KW	19.2	20.7	21.4	22.0	22.6	23.1	23.6	24.0	24.4	24.7	24.9
	SDT	94.5	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
35	TC	304.0	286.0	276.0	266.0	257.0	247.0	237.0	227.0	217.0	208.0	198.0
	KW	19.8	21.5	22.3	23.0	23.7	24.3	24.9	25.4	25.9	26.3	26.6
	SDT	95.7	105.0	110.0	115.0	120.0	125.0	130.0	134.0	139.0	144.0	149.0
40	TC	336.0	316.0	306.0	296.0	286.0	275.0	265.0	254.0	244.0	234.0	223.0*
	KW	20.4	22.3	23.2	24.0	24.8	25.5	26.2	26.8	27.4	27.9	28.4*
	SDT	97.1	107.0	112.0	116.0	121.0	126.0	131.0	136.0	140.0	145.0	150.0*
45	TC	369.0	348.0	337.0	326.0	316.0	305.0	294.0	283.0	272.0	261.0	250.0*
	KW	21.0	23.1	24.1	25.0	25.9	26.7	27.5	28.2	28.9	29.5	30.0*
	SDT	98.9	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	146.0	151.0*
50	TC	404.0	381.0	370.0	358.0	347.0	335.0	324.0	312.0	301.0	289.0	277.0*
	KW	21.6	23.9	25.0	26.0	27.0	27.9	28.8	29.6	30.4	31.1	31.7*
	SDT	101.0	110.0	115.0	120.0	124.0	129.0	134.0	139.0	143.0	148.0	153.0*

#### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

#### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz English (cont)

**38AH074 CIRCUIT A**

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC KW SDT	221.0 17.8 92.4	205.0 18.9 102.0	197.0 19.4 107.0	189.0 19.9 112.0	181.0 20.3 117.0	173.0 20.6 122.0	165.0 20.9 127.0	157.0 21.0 132.0	149.0 21.2 137.0	140.0 21.3 142.0	132.0 21.3 147.0
25	TC KW SDT	249.0 18.4 92.7	232.0 19.7 103.0	224.0 20.3 107.0	215.0 21.4 112.0	206.0 21.8 117.0	198.0 22.2 122.0	189.0 22.5 127.0	180.0 22.8 132.0	172.0 23.0 137.0	163.0 23.1 142.0	154.0 23.1 147.0
30	TC KW SDT	277.0 19.0 93.6	260.0 20.5 103.0	251.0 21.2 108.0	242.0 21.9 113.0	233.0 22.5 118.0	224.0 23.0 123.0	215.0 23.5 128.0	206.0 23.9 133.0	196.0 24.3 137.0	187.0 24.6 142.0	178.0 24.8 147.0
35	TC KW SDT	307.0 19.7 95.0	288.0 21.3 104.0	279.0 22.1 109.0	270.0 22.8 114.0	261.0 23.5 119.0	251.0 24.2 123.0	242.0 24.7 128.0	232.0 25.3 133.0	222.0 25.8 138.0	212.0 26.2 143.0	203.0 26.5 148.0
40	TC KW SDT	338.0 20.3 96.7	318.0 22.2 106.0	309.0 23.0 111.0	299.0 23.8 115.0	289.0 24.6 120.0	279.0 25.3 125.0	269.0 26.0 129.0	259.0 26.6 134.0	249.0 27.2 139.0	239.0 27.7 143.0	228.0 28.2 148.0
45	TC KW SDT	370.0 20.9 98.6	350.0 23.0 108.0	340.0 23.9 112.0	329.0 24.8 117.0	319.0 25.7 122.0	308.0 26.5 126.0	298.0 27.3 131.0	287.0 28.0 136.0	277.0 28.7 140.0	266.0 29.3 145.0	255.0* 29.9* 149.0*
50	TC KW SDT	405.0 21.5 101.0	383.0 23.7 110.0	372.0 24.8 114.0	361.0 25.8 119.0	350.0 26.8 124.0	339.0 27.7 128.0	328.0 28.6 133.0	316.0 29.4 137.0	305.0 30.2 142.0	294.0 30.9 146.0	282.0* 31.5* 151.0*

**38AH084 CIRCUIT A**

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC KW SDT	286.0 25.5 98.1	267.0 26.8 108.0	258.0 27.4 113.0	249.0 27.9 118.0	240.0 28.4 123.0	231.0 28.9 128.0	222.0 29.3 133.0	214.0 29.7 138.0	205.0 30.0 143.0	197.0 30.4 148.0	188.0* 30.6* 153.0*
25	TC KW SDT	321.0 26.6 98.1	301.0 28.1 108.0	291.0 28.8 113.0	281.0 29.5 118.0	271.0 30.1 123.0	261.0 30.6 128.0	252.0 31.2 133.0	242.0 31.6 138.0	233.0 32.1 143.0	223.0 32.5 148.0	214.0* 32.8* 153.0*
30	TC KW SDT	360.0 27.6 98.3	337.0 29.4 108.0	326.0 30.2 113.0	315.0 31.0 118.0	305.0 31.7 123.0	294.0 32.4 128.0	283.0 33.0 133.0	273.0 33.5 138.0	262.0 34.1 143.0	252.0 34.6 148.0	242.0* 35.0* 153.0*
35	TC KW SDT	400.0 28.6 98.9	376.0 30.6 109.0	364.0 31.6 114.0	352.0 32.5 119.0	341.0 33.3 124.0	329.0 34.1 129.0	317.0 34.8 134.0	306.0 35.5 139.0	294.0 36.1 144.0	283.0 36.7 148.0	272.0* 37.3* 153.0*
40	TC KW SDT	443.0 29.6 99.9	417.0 31.9 110.0	404.0 32.9 114.0	392.0 33.9 119.0	379.0 34.9 124.0	366.0 35.8 129.0	354.0 36.6 134.0	341.0 37.4 139.0	329.0 38.2 144.0	316.0 38.9 149.0	304.0* 39.5* 154.0*
45	TC KW SDT	488.0 30.7 101.0	460.0 33.2 111.0	446.0 34.3 116.0	433.0 35.5 120.0	419.0 36.5 125.0	405.0 37.5 130.0	392.0 38.5 135.0	379.0 39.4 140.0	365.0 40.2 145.0	352.0 41.0 150.0	339.0* 41.8* 155.0*
50	TC KW SDT	534.0 31.8 103.0	505.0 34.5 113.0	490.0 35.8 117.0	475.0 37.0 122.0	461.0 38.2 127.0	446.0 39.3 131.0	432.0 40.4 136.0	418.0 41.3 141.0	403.0 42.3 146.0	389.0* 43.2* 151.0*	375.0* 44.1* 155.0*

**LEGEND**

**KW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (F)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Total Cooling Capacity, Gross (1000 Btu/h)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz English (cont)

### 38AH074 CIRCUIT B

SST (F)	TC kW SDT	Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	
20	TC kW SDT	292.0 24.6 91.7	273.0 26.0 102.0	264.0 26.6 107.0	255.0 27.2 112.0	246.0 27.8 117.0	237.0 28.3 122.0	228.0 28.7 126.0	219.0 29.2 131.0	211.0 29.6 136.0	202.0 29.9 142.0	194.0 30.3 147.0
25	TC kW SDT	325.0 25.7 92.7	306.0 27.3 102.0	296.0 28.0 107.0	286.0 28.7 112.0	276.0 29.3 117.0	267.0 29.9 122.0	257.0 30.5 127.0	248.0 31.0 132.0	238.0 31.5 137.0	229.0 31.9 142.0	219.0 32.3 147.0
30	TC kW SDT	361.0 26.8 94.2	340.0 28.6 104.0	329.0 29.4 108.0	319.0 30.2 113.0	308.0 30.9 118.0	298.0 31.6 123.0	288.0 32.3 128.0	277.0 32.9 132.0	267.0 33.5 137.0	257.0 34.0 142.0	247.0 34.5 147.0
35	TC kW SDT	399.0 28.0 96.0	376.0 30.0 105.0	364.0 30.9 110.0	353.0 31.8 115.0	342.0 32.6 119.0	330.0 33.4 124.0	319.0 34.1 129.0	308.0 34.8 134.0	298.0 35.5 138.0	287.0 36.1 143.0	276.0 36.7 148.0
40	TC kW SDT	438.0 29.2 97.9	413.0 31.4 107.0	401.0 32.4 112.0	389.0 33.4 117.0	377.0 34.3 121.0	365.0 35.2 126.0	353.0 36.0 131.0	341.0 36.8 135.0	329.0 37.6 140.0	318.0 38.3 145.0	306.0 38.9 149.0
45	TC kW SDT	480.0 30.3 100.0	453.0 32.8 109.0	440.0 33.9 114.0	427.0 35.0 119.0	414.0 36.1 123.0	401.0 37.0 128.0	388.0 38.0 132.0	375.0 38.8 137.0	363.0 39.7 142.0	350.0 40.5 146.0	338.0* 41.2* 151.0*
50	TC kW SDT	525.0 31.5 102.0	496.0 34.2 111.0	481.0 35.5 116.0	467.0 36.7 121.0	453.0 37.8 125.0	439.0 38.9 130.0	425.0 40.0 134.0	411.0 40.9 139.0	398.0 41.9 144.0	384.0 42.8 148.0	371.0* 43.6* 153.0*

### 38AH084 CIRCUIT B

SST (F)	TC kW SDT	Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	
20	TC kW SDT	288.0 25.2 96.1	269.0 26.5 106.0	260.0 27.1 111.0	251.0 27.7 116.0	242.0 28.2 121.0	233.0 28.7 126.0	224.0 29.1 131.0	215.0 29.5 136.0	207.0 29.9 141.0	198.0 30.2 146.0	190.0* 30.5* 151.0*
25	TC kW SDT	323.0 26.3 96.2	303.0 27.8 106.0	293.0 28.5 111.0	283.0 29.2 116.0	273.0 29.8 121.0	263.0 30.4 126.0	253.0 30.9 131.0	244.0 31.4 136.0	234.0 31.9 141.0	225.0 32.3 146.0	216.0* 32.7* 151.0*
30	TC kW SDT	361.0 27.3 96.5	339.0 29.1 106.0	328.0 29.9 111.0	317.0 30.7 116.0	306.0 31.4 121.0	296.0 32.1 126.0	285.0 32.7 131.0	275.0 33.3 136.0	264.0 33.9 141.0	254.0 34.4 146.0	244.0* 34.9* 151.0*
35	TC kW SDT	402.0 28.3 97.3	378.0 30.3 107.0	366.0 31.3 112.0	354.0 32.2 117.0	342.0 33.0 122.0	331.0 33.8 127.0	319.0 34.5 132.0	308.0 35.2 137.0	296.0 35.9 142.0	285.0 36.5 146.0	274.0* 37.1* 151.0*
40	TC kW SDT	444.0 29.3 98.5	418.0 31.6 108.0	405.0 32.6 113.0	393.0 33.6 118.0	380.0 34.6 123.0	368.0 35.5 127.0	355.0 36.3 132.0	343.0 37.1 137.0	330.0 37.9 142.0	318.0 38.6 147.0	306.0* 39.3* 152.0*
45	TC kW SDT	488.0 30.4 100.0	460.0 32.9 110.0	447.0 34.0 114.0	433.0 35.1 119.0	420.0 36.2 124.0	406.0 37.2 129.0	393.0 38.2 133.0	379.0 39.1 138.0	366.0 40.0 143.0	353.0 40.8 148.0	340.0* 41.5* 153.0*
50	TC kW SDT	533.0 31.5 102.0	504.0 34.2 111.0	490.0 35.5 116.0	475.0 36.7 121.0	461.0 37.9 125.0	446.0 39.0 130.0	432.0 40.1 135.0	418.0 41.1 140.0	404.0 42.1 144.0	390.0 43.0 149.0	375.0* 43.8* 154.0*

#### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

#### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

kW — Compressor Power  
SDT — Saturated Discharge Temperature (leaving compressor) (F)  
SST — Saturated Suction Temperature (entering condensing unit)  
TC — Total Cooling Capacity, Gross (1000 Btu/h)


**CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz English (cont)**
**38AH094 CIRCUIT A**

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC	366.0	338.0	324.0	310.0	295.0	281.0	266.0	251.0	236.0	221.0	207.0
	KW	29.7	31.4	32.3	33.0	33.6	34.1	34.4	34.7	34.8	34.7	34.5
	SDT	93.9	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
	SCT	91.7	102.0	107.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
25	TC	411.0	382.0	367.0	352.0	337.0	322.0	307.0	291.0	276.0	260.0	244.0
	KW	30.9	33.0	34.0	34.8	35.6	36.3	36.8	37.3	37.6	37.8	37.8
	SDT	95.0	105.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
	SCT	92.1	102.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
30	TC	457.0	427.0	412.0	396.0	381.0	365.0	349.0	333.0	317.0	300.0	284.0
	KW	32.2	34.5	35.7	36.7	37.6	38.4	39.2	39.8	40.3	40.7	41.0
	SDT	96.7	106.0	111.0	115.0	120.0	125.0	130.0	134.0	139.0	144.0	149.0
	SCT	93.0	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
35	TC	505.0	474.0	458.0	442.0	426.0	409.0	392.0	376.0	359.0	342.0	325.0
	KW	33.6	36.1	37.4	38.6	39.6	40.6	41.5	42.3	43.0	43.6	44.1
	SDT	98.7	108.0	112.0	117.0	122.0	126.0	131.0	136.0	140.0	145.0	150.0
	SCT	94.3	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
40	TC	556.0	522.0	506.0	489.0	472.0	455.0	437.0	420.0	402.0	384.0	367.0
	KW	35.0	37.8	39.2	40.5	41.7	42.8	43.9	44.8	45.7	46.4	47.1
	SDT	101.0	110.0	115.0	119.0	124.0	128.0	133.0	137.0	142.0	146.0	151.0
	SCT	95.7	106.0	111.0	116.0	121.0	126.0	131.0	135.0	140.0	145.0	150.0
45	TC	608.0	573.0	556.0	538.0	520.0	502.0	484.0	465.0	447.0	428.0	410.0
	KW	36.4	39.4	41.0	42.4	43.8	45.1	46.2	47.4	48.4	49.3	50.1
	SDT	104.0	112.0	117.0	121.0	126.0	130.0	135.0	139.0	144.0	148.0	153.0
	SCT	97.4	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	146.0	151.0
50	TC	663.0	626.0	608.0	589.0	570.0	551.0	532.0	512.0	493.0	473.0	454.0
	KW	37.8	41.1	42.8	44.4	45.9	47.3	48.7	49.9	51.1	52.2	53.2
	SDT	106.0	115.0	119.0	124.0	128.0	133.0	137.0	142.0	146.0	150.0	155.0*
	SCT	99.1	109.0	114.0	119.0	124.0	129.0	134.0	139.0	143.0	148.0	153.0

**38AH104 CIRCUIT A**

SST (F)	Air Temperature Entering Condenser (F)											
	70	80	85	90	95	100	105	110	115	120	125	
20	TC	349.0	321.0	308.0	294.0	280.0	267.0	253.0	240.0	226.0	213.0	200.0
	KW	27.0	28.8	29.6	30.4	31.0	31.6	32.1	32.5	32.8	32.9	33.0
	SDT	91.9	102.0	107.0	112.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
	SCT	89.8	100.0	105.0	110.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
25	TC	392.0	363.0	349.0	335.0	320.0	306.0	291.0	277.0	263.0	248.0	234.0
	KW	28.1	30.1	31.1	32.0	32.8	33.6	34.2	34.7	35.2	35.6	35.8
	SDT	93.0	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	141.0	146.0
	SCT	90.2	100.0	105.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
30	TC	437.0	407.0	392.0	377.0	361.0	346.0	331.0	316.0	301.0	286.0	271.0
	KW	29.3	31.6	32.7	33.7	34.6	35.5	36.3	37.0	37.6	38.1	38.6
	SDT	94.7	104.0	109.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	147.0
	SCT	91.2	101.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
35	TC	484.0	452.0	436.0	420.0	404.0	388.0	372.0	356.0	340.0	324.0	308.0
	KW	30.6	33.0	34.3	35.4	36.4	37.4	38.4	39.2	40.0	40.7	41.3
	SDT	96.7	106.0	110.0	115.0	119.0	124.0	129.0	133.0	138.0	143.0	148.0
	SCT	92.5	103.0	108.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
40	TC	534.0	500.0	483.0	466.0	449.0	432.0	415.0	398.0	381.0	364.0	348.0
	KW	38.1	34.5	35.9	37.1	38.3	39.4	40.5	41.5	42.4	43.2	44.0
	SDT	98.9	108.0	112.0	117.0	121.0	126.0	130.0	135.0	140.0	144.0	149.0
	SCT	94.0	104.0	109.0	114.0	119.0	124.0	128.0	133.0	138.0	143.0	148.0
45	TC	586.0	550.0	532.0	514.0	495.0	478.0	460.0	442.0	424.0	406.0	388.0
	KW	33.0	36.0	37.5	38.9	40.2	41.5	42.6	43.8	44.8	45.8	46.7
	SDT	101.0	110.0	115.0	119.0	124.0	128.0	132.0	137.0	141.0	146.0	150.0
	SCT	95.6	106.0	111.0	116.0	120.0	125.0	130.0	135.0	140.0	144.0	149.0
50	TC	640.0	602.0	583.0	564.0	544.0	525.0	506.0	487.0	468.0	449.0	431.0
	KW	34.3	37.5	39.2	40.7	42.1	43.5	44.8	46.1	47.3	48.4	49.4
	SDT	104.0	113.0	117.0	122.0	126.0	130.0	135.0	139.0	144.0	148.0	152.0
	SCT	97.3	107.0	112.0	117.0	122.0	127.0	132.0	137.0	141.0	146.0	151.0

**LEGEND**

**kW** — Compressor Power  
**SCT** — Saturated Condensing Temperature (F)  
**SDT** — Saturated Discharge Temperature (leaving compressor) (F)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Total Cooling Capacity, Gross (1000 Btuh)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz English (cont)

### 38AH094 CIRCUIT B

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	291.0	273.0	264.0	254.0	245.0	236.0	228.0	219.0	210.0	202.0	193.0
	KW	24.6	26.0	26.7	27.2	27.8	28.3	28.8	29.2	29.6	30.0	30.3
	SDT	92.1	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	SCT	90.4	101.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	142.0	147.0
25	TC	327.0	307.0	296.0	286.0	277.0	267.0	257.0	247.0	238.0	228.0	219.0
	KW	25.6	27.2	28.0	28.7	29.3	29.9	30.5	31.0	31.5	32.0	32.4
	SDT	92.4	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	SCT	90.2	100.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
30	TC	364.0	342.0	331.0	320.0	310.0	299.0	289.0	278.0	268.0	257.0	247.0
	KW	26.6	28.4	29.3	30.1	30.9	31.6	32.3	32.9	33.5	34.0	34.5
	SDT	93.3	103.0	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	147.0
	SCT	90.5	101.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
35	TC	402.0	379.0	367.0	356.0	345.0	333.0	322.0	310.0	299.0	288.0	277.0
	KW	27.7	29.7	30.7	31.6	32.4	33.2	34.0	34.7	35.4	36.0	36.6
	SDT	94.7	104.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT	91.2	101.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
40	TC	443.0	418.0	405.0	393.0	381.0	369.0	356.0	344.0	332.0	320.0	308.0
	KW	28.8	31.0	32.1	33.1	34.1	35.0	35.8	36.6	37.4	38.1	38.8
	SDT	96.5	106.0	111.0	115.0	120.0	125.0	129.0	134.0	139.0	144.0	149.0
	SCT	92.3	102.0	108.0	113.0	118.0	122.0	127.0	132.0	137.0	142.0	147.0
45	TC	485.0	458.0	445.0	432.0	419.0	406.0	393.0	380.0	367.0	354.0	341.0
	KW	29.9	32.4	33.6	34.7	35.7	36.7	37.7	38.6	39.5	40.3	41.1
	SDT	98.6	108.0	112.0	117.0	122.0	126.0	131.0	136.0	140.0	145.0	150.0
	SCT	93.6	104.0	109.0	114.0	119.0	124.0	129.0	134.0	138.0	143.0	148.0
50	TC	530.0	501.0	487.0	473.0	459.0	445.0	431.0	417.0	403.0	389.0	375.0
	KW	31.1	33.7	35.0	36.3	37.4	38.5	39.6	40.6	41.6	42.5	43.4
	SDT	101.0	110.0	114.0	119.0	124.0	128.0	133.0	137.0	142.0	147.0	151.0
	SCT	95.1	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0	149.0

### 38AH104 CIRCUIT B

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	398.0	368.0	353.0	339.0	324.0	310.0	296.0	283.0	269.0	256.0	243.0
	KW	31.4	33.4	34.3	35.2	36.0	36.7	37.4	38.0	38.5	39.0	39.4
	SDT	93.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	142.0	147.0
	SCT	90.9	101.0	106.0	111.0	116.0	122.0	127.0	132.0	137.0	142.0	147.0
25	TC	445.0	414.0	398.0	383.0	367.0	352.0	337.0	322.0	308.0	293.0	279.0
	KW	32.9	35.1	36.2	37.2	38.1	39.0	39.8	40.5	41.2	41.8	42.3
	SDT	95.1	104.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT	91.7	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
30	TC	495.0	462.0	445.0	428.0	412.0	396.0	380.0	364.0	348.0	333.0	317.0
	KW	34.5	36.9	38.1	39.2	40.3	41.3	42.2	43.0	43.8	44.6	45.2
	SDT	97.1	106.0	111.0	115.0	120.0	125.0	129.0	134.0	139.0	144.0	148.0
	SCT	92.9	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
35	TC	548.0	512.0	494.0	476.0	459.0	441.0	424.0	407.0	391.0	374.0	357.0
	KW	36.1	38.8	40.1	41.4	42.5	43.6	44.7	45.7	46.6	47.4	48.2
	SDT	99.4	108.0	113.0	117.0	122.0	126.0	131.0	136.0	140.0	145.0	150.0
	SCT	94.4	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	148.0
40	TC	603.0	565.0	546.0	527.0	508.0	489.0	471.0	453.0	435.0	417.0	399.0
	KW	37.7	40.7	42.2	43.6	44.9	46.1	47.3	48.4	49.4	50.4	51.3
	SDT	102.0	111.0	115.0	120.0	124.0	128.0	133.0	137.0	142.0	147.0	151.0
	SCT	96.0	106.0	111.0	116.0	121.0	126.0	131.0	135.0	140.0	145.0	150.0
45	TC	661.0	620.0	600.0	580.0	559.0	539.0	520.0	500.0	481.0	462.0	443.0
	KW	39.4	42.7	44.3	45.8	47.2	48.6	49.9	51.1	52.3	53.4	54.5
	SDT	105.0	113.0	118.0	122.0	126.0	131.0	135.0	140.0	144.0	149.0	153.0
	SCT	97.8	108.0	113.0	118.0	123.0	128.0	132.0	137.0	142.0	147.0	151.0
50	TC	723.0	679.0	657.0	635.0	614.0	592.0	571.0	550.0	530.0	509.0	488.0
	KW	41.2	44.7	46.4	48.1	49.6	51.2	52.6	54.0	55.3	56.5	57.7
	SDT	108.0	116.0	120.0	125.0	129.0	133.0	138.0	142.0	146.0	151.0	155.0*
	SCT	99.6	110.0	115.0	120.0	125.0	130.0	134.0	139.0	144.0	148.0	153.0

#### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

#### NOTES:

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.

2. Ratings include suction line losses due to an accumulator.



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz English (cont)

**38AH124 MODULE 124A OR 124B; 38AH134 MODULE 134A**

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	417.0	386.0	370.0	355.0	339.0	324.0	309.0	294.0	279.0	264.0	249.0
	KW	33.6	35.7	36.7	37.6	38.4	39.0	39.6	40.1	40.5	40.8	41.0
	SDT	93.3	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT	92.4	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
25	TC	470.0	436.0	420.0	403.0	386.0	370.0	354.0	337.0	321.0	305.0	289.0
	KW	34.9	37.3	38.5	39.6	40.5	41.4	42.2	42.8	43.4	43.9	44.3
	SDT	94.0	104.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	148.0
	SCT	92.8	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
30	TC	525.0	490.0	472.0	454.0	436.0	419.0	401.0	384.0	366.0	349.0	331.0
	KW	36.2	39.0	40.3	41.6	42.7	43.7	44.7	45.5	46.3	47.0	47.5
	SDT	95.0	105.0	110.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
	SCT	93.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
35	TC	584.0	546.0	526.0	507.0	489.0	470.0	451.0	432.0	414.0	395.0	376.0
	KW	37.5	40.6	42.1	43.5	44.8	46.0	47.2	48.2	49.2	50.0	50.7
	SDT	96.4	106.0	111.0	116.0	120.0	125.0	130.0	135.0	140.0	144.0	149.0
	SCT	94.6	104.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
40	TC	645.0	604.0	584.0	563.0	543.0	523.0	503.0	483.0	463.0	444.0	424.0
	KW	38.8	42.2	43.9	45.5	47.0	48.4	49.7	50.8	52.0	53.0	54.0
	SDT	98.1	108.0	112.0	117.0	122.0	126.0	131.0	136.0	141.0	146.0	150.0
	SCT	95.9	106.0	111.0	116.0	120.0	125.0	130.0	135.0	140.0	145.0	150.0
45	TC	709.0	666.0	644.0	622.0	601.0	579.0	558.0	537.0	516.0	494.0	473.0
	KW	40.0	43.9	45.8	47.5	49.1	50.7	52.2	53.5	54.9	56.1	57.2
	SDT	100.0	109.0	114.0	119.0	123.0	128.0	133.0	138.0	142.0	147.0	152.0
	SCT	97.5	107.0	112.0	117.0	122.0	127.0	131.0	136.0	141.0	146.0	151.0
50	TC	776.0	730.0	707.0	684.0	661.0	638.0	616.0	593.0	570.0	548.0	525.0
	KW	41.3	45.5	47.6	49.5	51.3	53.1	54.7	56.2	57.8	59.1	60.4
	SDT	102.0	112.0	116.0	121.0	125.0	130.0	135.0	139.0	144.0	149.0	153.0
	SCT	99.3	109.0	114.0	119.0	123.0	128.0	133.0	138.0	143.0	147.0	152.0

**38AH134 MODULE 134B**

SST (F)		Air Temperature Entering Condenser (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	513.0	478.0	461.0	444.0	427.0	410.0	393.0	376.0	359.0	342.0	326.0
	KW	42.4	44.9	46.1	47.1	48.0	48.9	49.6	50.2	50.8	51.3	51.6
	SDT	92.0	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	SCT	87.6	97.7	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0
25	TC	575.0	538.0	520.0	502.0	483.0	465.0	447.0	428.0	410.0	392.0	374.0
	KW	44.1	47.0	48.3	49.5	50.7	51.7	52.7	53.5	54.3	54.9	55.5
	SDT	92.7	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
	SCT	88.6	98.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0
30	TC	639.0	600.0	580.0	561.0	542.0	522.0	503.0	484.0	464.0	445.0	425.0
	KW	45.8	49.1	50.6	52.0	53.4	54.6	55.7	56.7	57.7	58.6	59.3
	SDT	93.8	103.0	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	147.0
	SCT	90.0	99.7	105.0	109.0	114.0	119.0	124.0	129.0	134.0	139.0	144.0
35	TC	706.0	665.0	644.0	623.0	603.0	582.0	562.0	541.0	520.0	500.0	479.0
	KW	47.6	51.3	53.0	54.6	56.1	57.5	58.8	60.0	61.2	62.2	63.2
	SDT	95.4	105.0	110.0	114.0	119.0	124.0	128.0	133.0	138.0	143.0	148.0
	SCT	91.5	101.0	106.0	111.0	116.0	120.0	125.0	130.0	135.0	139.0	144.0
40	TC	777.0	733.0	710.0	689.0	667.0	645.0	623.0	601.0	579.0	557.0	535.0
	KW	49.4	53.5	55.4	57.2	58.9	60.5	62.0	63.4	64.7	66.0	67.1
	SDT	97.2	107.0	111.0	116.0	121.0	125.0	130.0	135.0	139.0	144.0	149.0
	SCT	93.0	103.0	107.0	112.0	117.0	122.0	127.0	131.0	136.0	141.0	145.0
45	TC	852.0	804.0	781.0	757.0	734.0	710.0	687.0	663.0	640.0	617.0	593.0
	KW	51.2	55.7	57.8	59.8	61.7	63.5	65.2	66.8	68.3	69.7	71.1
	SDT	99.2	109.0	113.0	118.0	122.0	127.0	132.0	136.0	141.0	145.0	150.0
	SCT	94.6	104.0	109.0	114.0	119.0	123.0	128.0	133.0	137.0	142.0	147.0
50	TC	931.0	880.0	855.0	829.0	804.0	779.0	754.0	729.0	704.0	679.0	654.0
	KW	52.9	57.9	60.2	62.4	64.6	66.6	68.5	70.3	72.0	73.6	75.1
	SDT	101.0	111.0	115.0	120.0	124.0	129.0	134.0	138.0	143.0	147.0	152.0
	SCT	96.3	106.0	111.0	116.0	120.0	125.0	130.0	134.0	139.0	144.0	148.0

**LEGEND**

**kW** — Compressor Power  
**SCT** — Saturated Condensing Temperature (F)  
**SDT** — Saturated Discharge Temperature (leaving compressor) (F)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Total Cooling Capacity, Gross (1000 Btuh)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 15 F superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT RATINGS, 50 Hz SI

38AH044

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC kW SDT	105.5 24.2 33.3	96.9 26.3 39.2	92.6 27.3 42.1	89.6 27.9 44.0	85.1 28.8 46.9	80.6 29.4 49.9	76.1 30.1 52.8	73.1 30.4 54.8	68.4 30.9 57.7	63.8 31.2 60.7	59.2 31.3 63.6
	TC kW SDT	114.2 24.7 33.7	105.4 27.0 39.5	100.8 28.2 42.4	97.8 28.8 44.3	93.2 29.8 47.2	88.6 30.6 50.2	83.9 31.4 53.0	80.7 31.8 55.0	75.9 32.4 57.9	71.1 32.9 60.9	66.4 33.1 63.7
	TC kW SDT	123.6 25.1 34.2	114.3 27.7 39.9	109.6 28.9 42.8	106.5 29.7 44.8	101.7 30.8 47.7	96.9 31.8 50.5	92.1 32.6 53.4	88.8 33.1 55.3	83.9 34.4 58.3	78.9 34.9 61.1	73.9 34.9 64.0
2	TC kW SDT	133.1 25.6 34.7	123.6 28.4 40.5	118.7 29.7 43.3	115.4 30.5 45.2	110.4 31.7 48.1	105.5 32.8 51.0	100.4 33.8 53.8	97.1 34.4 55.7	92.0 35.3 58.6	86.8 36.0 61.5	81.7 36.6 64.4
	TC kW SDT	143.1 26.1 35.3	133.1 29.0 41.0	128.0 30.5 43.9	124.7 31.4 45.7	119.5 32.7 48.6	114.4 33.9 51.4	109.1 35.0 54.3	105.6 35.7 56.2	100.4 36.7 59.0	95.1 37.5 61.9	89.7 38.3 64.8
	TC kW SDT	153.5 26.6 35.9	143.1 29.7 41.6	137.9 31.2 44.5	134.3 32.2 46.4	128.9 33.6 49.2	123.6 34.9 52.0	118.2 36.1 54.8	114.5 36.9 56.7	109.1 38.0 59.6	103.5 39.0 62.4	98.0* 39.9* 65.3*
8	TC kW SDT	164.1 27.0 36.6	153.3 30.4 42.3	147.9 31.9 45.1	144.2 32.9 47.0	138.6 34.5 49.8	133.0 36.0 52.6	127.3 37.2 55.4	123.6 38.1 57.3	117.9 39.3 60.1	112.2 40.5 62.9	106.5* 41.5* 65.8*

38AH054

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC kW SDT	123.0 29.5 35.7	113.2 32.0 41.6	108.1 33.0 44.5	104.9 33.7 46.5	100.0 34.6 49.5	95.1 35.5 52.4	90.2 36.2 55.4	87.0 36.7 57.4	82.2 37.3 60.3	77.4 37.6 63.3	72.6* 38.0* 66.3*
	TC kW SDT	133.3 30.2 36.0	123.0 32.9 41.8	117.8 34.2 44.8	114.3 34.9 46.7	109.1 36.0 49.6	104.0 37.0 52.6	98.9 37.8 55.5	95.6 38.3 57.5	90.4 39.1 60.5	85.4 39.6 63.5	80.4* 40.1* 66.4*
	TC kW SDT	144.2 30.9 36.5	133.4 33.8 42.2	128.0 35.1 45.2	124.4 36.0 47.1	119.0 37.2 50.0	113.6 38.3 52.9	108.3 39.3 55.8	104.8 39.9 57.8	99.4 40.7 60.7	94.1 41.5 63.6	88.8* 42.2* 66.6*
4	TC kW SDT	155.4 31.6 36.5	144.2 34.7 42.7	138.5 36.2 45.5	134.7 37.1 47.5	129.1 38.5 50.3	123.5 39.6 53.3	117.9 40.8 56.1	114.1 41.5 58.1	108.5 42.4 61.0	103.0 43.4 63.9	97.4* 44.1* 66.9*
	TC kW SDT	167.0 32.5 37.6	155.3 35.7 43.3	149.4 37.2 46.1	145.5 38.3 48.0	139.6 39.7 50.8	133.8 41.0 53.7	127.9 42.3 56.5	124.0 43.0 58.5	118.1 44.2 61.3	112.3 45.1 64.2	106.5* 46.1* 67.2*
	TC kW SDT	178.9 33.2 38.4	166.8 36.6 44.0	160.7 38.3 46.7	156.6 39.4 48.6	150.5 41.0 51.4	144.4 42.4 54.2	138.3 43.7 57.0	134.2 44.6 59.0	128.2 45.9 61.8	122.0 47.0 64.7	116.0* 48.0* 67.5*
10	TC kW SDT	191.2 33.9 39.2	179.0 37.6 44.7	172.2 39.3 47.4	168.0 40.5 49.3	161.6 42.2 52.0	155.2 43.7 54.8	148.8 45.2 57.6	144.6 46.1 59.5	138.3 47.5 62.3	132.0* 48.8* 65.2*	125.5* 50.0* 68.0*

38AH064

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC kW SDT	148.5 35.7 34.7	137.2 38.6 40.5	131.7 40.0 43.5	127.9 40.8 45.5	122.4 42.0 48.3	116.9 43.1 51.3	111.4 44.0 54.2	107.8 44.6 56.2	102.3 45.4 59.2	97.0 46.0 62.1	91.6 46.5 65.1
	TC kW SDT	160.3 36.6 35.1	148.6 39.8 40.9	142.8 41.3 43.8	138.9 42.3 45.7	133.1 43.5 48.6	127.3 44.8 51.6	121.6 45.8 54.5	117.8 46.4 56.4	112.1 47.4 59.3	106.4 48.2 62.3	100.7 48.9 65.2
	TC kW SDT	172.9 37.5 35.7	160.7 41.0 41.5	154.6 42.6 44.3	150.5 43.6 46.3	144.4 45.0 49.1	138.4 46.4 52.0	132.4 47.6 54.9	128.4 48.3 56.9	122.4 49.5 59.8	116.4 50.4 62.7	110.5 51.2 65.6
4	TC kW SDT	185.8 38.4 36.4	173.1 42.2 42.1	166.6 43.9 44.9	162.4 45.0 46.8	156.1 46.6 49.7	149.8 48.1 52.6	143.4 49.4 55.4	139.2 50.2 57.3	133.0 51.5 60.2	126.7 52.6 63.1	120.5 53.5 66.0
	TC kW SDT	199.4 39.3 37.2	185.9 43.4 42.8	179.2 45.3 45.6	174.7 46.4 47.5	168.1 48.2 50.3	161.4 49.7 53.2	154.8 51.2 56.0	150.5 52.2 57.9	143.8 53.5 60.7	137.3 54.7 63.6	130.8* 55.9* 66.4*
	TC kW SDT	213.0 40.2 38.0	198.9 44.5 43.6	192.4 46.5 46.4	187.5 47.8 48.2	180.6 49.7 51.1	173.7 51.4 53.9	166.7 53.1 56.7	162.2 54.1 58.5	155.2 55.6 61.4	148.4 57.0 64.2	141.6* 58.2* 67.0*
10	TC kW SDT	227.0 41.1 38.9	213.0 45.7 44.4	205.8 47.9 47.2	200.3 49.3 49.1	193.7 51.3 51.8	186.0 53.2 54.6	178.9 54.9 57.4	174.0 56.0 59.3	166.8 57.6 62.0	159.6 59.1 64.8	152.5* 60.5* 67.6*

### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.


**CONDENSING UNIT RATINGS, 50 Hz SI (cont)**
**38AH074**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC KW SDT	181.6 45.2 34.1	169.2 48.7 39.8	163.2 50.2 42.8	159.1 51.1 44.7	153.1 52.4 47.6	147.1 53.8 50.5	141.0 54.9 53.5	137.0 55.6 55.4	131.0 56.6 58.4	125.0 57.4 61.3	118.9 58.1 64.3
0	TC KW SDT	194.7 46.5 34.6	182.1 50.2 40.3	176.1 51.9 43.2	171.9 53.0 45.0	165.6 54.5 47.9	159.3 55.9 50.8	153.0 57.2 53.7	148.8 57.9 55.6	142.5 59.1 58.5	136.2 60.1 61.4	129.8 61.0 64.4
2	TC KW SDT	209.1 47.8 35.3	196.3 51.8 41.0	189.3 53.7 43.8	185.3 54.8 45.7	178.4 56.5 48.5	172.1 58.1 51.3	165.5 59.5 54.1	161.2 60.4 56.1	154.6 61.6 58.9	148.1 62.8 61.8	141.4 63.8 64.7
4	TC KW SDT	224.6 49.1 36.0	210.5 53.4 41.6	203.5 55.4 44.4	199.4 56.7 46.3	192.4 58.4 49.1	185.2 60.2 51.9	178.1 61.7 54.7	173.8 62.7 56.6	166.9 64.2 59.4	160.1 66.4 62.2	153.2 66.6 65.1
6	TC KW SDT	239.0 50.4 36.8	225.1 55.0 42.4	217.9 57.2 45.2	212.8 58.5 47.0	205.6 60.5 49.8	198.3 62.4 52.6	192.1 64.0 55.4	186.9 65.1 57.3	179.6 66.7 60.0	172.5 68.1 62.8	165.3 69.5 65.6
8	TC KW SDT	257.0 51.6 37.6	241.0 56.6 43.2	234.0 59.0 45.9	228.4 60.4 47.8	221.0 62.6 50.6	212.6 64.5 53.3	205.2 66.5 56.1	200.0 67.6 57.9	192.5 69.4 60.7	185.1 71.0 63.5	177.6* 72.4* 66.2*
10	TC KW SDT	273.0 52.8 38.5	257.0 58.3 44.0	248.0 60.7 46.8	243.0 62.3 48.6	236.0 64.6 51.4	227.1 66.8 54.1	219.5 68.8 56.9	214.1 70.1 58.7	206.6 71.9 61.5	198.0 73.7 64.2	190.4* 75.3* 66.9*

**38AH084**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC KW SDT	204.0 54.1 36.2	190.6 57.9 42.2	183.9 59.5 45.2	179.3 60.6 47.2	172.7 62.1 50.2	166.1 63.4 53.1	159.6 64.8 56.2	155.3 65.5 58.2	148.9 66.6 61.2	142.5 67.7 64.2	136.2* 68.6* 67.2*
0	TC KW SDT	221.0 55.6 36.3	206.0 59.7 42.3	198.9 61.5 45.3	194.2 62.7 47.3	187.1 64.4 50.3	180.1 65.9 53.2	173.2 67.3 56.2	168.6 68.2 58.2	161.7 69.6 61.2	154.9 70.8 64.2	148.2* 71.8* 67.2*
2	TC KW SDT	238.0 57.0 36.7	223.0 61.5 42.6	215.0 63.5 45.5	210.0 64.9 47.5	203.0 66.7 50.4	195.3 68.3 53.4	187.9 69.9 56.4	183.1 70.9 58.4	175.7 72.4 61.4	168.5 73.8 64.3	161.3* 75.0* 67.3*
4	TC KW SDT	256.0 58.5 37.1	240.0 63.3 42.9	232.0 65.5 45.8	226.0 66.9 47.8	219.0 68.9 50.7	211.0 70.9 53.6	203.0 72.7 56.6	197.9 73.7 58.6	190.1 75.3 61.5	182.5 76.9 63.5	174.9* 78.2* 67.4*
6	TC KW SDT	274.0 60.0 37.7	258.0 65.1 43.4	250.0 67.5 46.3	244.0 69.1 48.2	236.0 71.3 51.1	227.0 73.3 54.1	219.0 75.3 57.0	214.0 76.5 58.9	205.0 78.3 61.9	197.0 79.9 64.8	189.0* 81.5* 67.7*
8	TC KW SDT	294.0 61.6 38.4	276.0 67.1 44.1	268.0 69.7 46.9	262.0 71.3 48.8	252.0 73.7 51.7	244.0 75.9 54.5	236.0 78.0 57.4	230.0 79.3 59.4	221.0 81.3 62.3	212.0 83.1 65.2	204.0* 84.8* 68.1*
10	TC KW SDT	314.0 63.2 39.2	294.0 69.1 44.8	286.0 71.7 47.6	280.0 73.5 49.5	270.0 76.1 52.3	261.0 78.5 55.2	252.0 80.7 58.0	246.0 82.1 59.9	236.0 84.3 62.7	228.0 86.3 65.6	219.0* 88.1* 68.5*

**LEGEND**

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Total Cooling Capacity, Gross (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT RATINGS, 50 Hz SI (cont)

38AH094

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	233.0	216.5	209.1	202.9	195.6	187.3	178.7	173.1	164.8	156.5	148.2
	kW	58.1	62.3	64.3	65.6	67.4	68.9	70.3	71.1	72.2	73.2	73.9
	SDT(A)	35.5	41.2	44.0	45.9	48.8	51.6	54.5	56.5	59.4	62.3	65.3
	SDT(B)	33.8	39.6	42.5	44.5	47.4	50.4	53.4	55.4	58.3	61.3	64.3
	SCT(A)	33.6	39.7	42.8	44.8	47.8	50.8	53.9	55.9	58.9	61.9	64.9
0	SCT(B)	32.3	38.5	41.5	43.6	46.7	49.7	52.8	54.8	57.9	60.9	63.9
	TC	251.0	234.0	226.0	220.2	211.7	203.3	194.8	188.5	180.0	171.4	162.7
	kW	59.7	64.3	66.6	67.9	69.9	71.7	73.3	74.2	75.6	76.7	77.7
	SDT(A)	36.2	41.8	44.5	46.4	49.2	52.0	54.9	56.8	59.6	62.5	65.4
	SDT(B)	34.2	39.9	42.8	44.8	47.7	50.6	53.5	55.5	58.4	61.4	64.4
2	SCT(A)	34.0	40.1	43.1	45.1	48.1	51.1	54.1	56.0	59.0	62.0	64.9
	SCT(B)	32.4	38.6	41.7	43.7	46.8	49.8	52.8	54.8	57.9	60.9	63.9
	TC	269.0	252.0	243.0	237.0	228.0	219.6	211.0	204.6	196.0	186.4	177.9
	kW	61.5	66.5	68.9	70.4	72.5	74.4	76.2	77.4	78.9	80.2	81.5
	SDT(A)	37.1	42.6	45.3	47.2	49.9	52.7	55.5	57.4	60.2	63.0	65.8
4	SDT(B)	34.9	40.5	43.4	45.3	48.2	51.0	53.9	55.9	58.8	61.7	64.6
	SCT(A)	34.6	40.6	43.7	45.7	48.6	51.6	54.5	56.5	59.4	62.3	65.3
	SCT(B)	32.8	39.0	42.0	44.0	47.1	50.1	53.1	55.1	58.1	61.1	64.1
	TC	289.0	270.0	261.0	255.0	246.0	237.0	227.0	221.7	211.9	202.2	193.4
	kW	63.3	68.6	71.3	72.9	75.2	77.2	79.3	80.5	82.3	83.8	85.2
6	SDT(A)	38.0	43.5	46.2	48.0	50.7	53.4	56.2	58.0	60.8	63.5	66.3
	SDT(B)	35.6	41.2	44.0	45.9	48.7	51.5	54.4	56.3	59.2	62.1	65.0
	SCT(A)	35.2	41.2	44.3	46.3	49.2	52.1	55.0	57.0	59.9	62.7	65.6
	SCT(B)	33.3	39.4	42.4	44.4	47.4	50.4	53.4	55.4	58.4	61.3	64.3
	TC	309.0	290.0	279.0	274.0	264.0	254.0	245.0	238.0	228.0	219.2	209.3
8	kW	65.1	70.8	73.6	75.4	77.9	80.2	82.4	83.7	85.6	87.5	89.1
	SDT(A)	39.0	44.4	47.1	48.9	51.6	54.3	57.0	58.8	61.5	64.2	66.9
	SDT(B)	36.4	41.9	44.7	46.5	49.3	52.1	55.0	56.9	59.7	62.5	65.4
	SCT(A)	35.8	41.9	44.9	46.9	49.9	52.8	55.7	57.6	60.5	63.3	66.2
	SCT(B)	33.8	39.9	42.9	44.9	47.9	50.9	53.8	55.8	58.8	61.7	64.7
10	TC	329.0	309.0	299.0	292.0	282.0	273.0	263.0	256.0	246.0	235.0	225.0
	kW	66.9	73.0	76.0	77.9	80.6	83.1	85.5	87.0	89.1	91.0	92.9
	SDT(A)	40.1	45.4	48.0	49.8	52.5	55.2	57.9	59.6	62.3	65.0	67.7*
	SDT(B)	37.3	42.7	45.5	47.3	50.1	52.9	55.7	57.5	60.3	63.1	66.0
	SCT(A)	36.5	42.6	45.6	47.6	50.6	53.5	56.4	58.3	61.1	64.0	66.8
SST	SCT(B)	34.3	40.4	43.5	45.5	48.4	51.4	54.4	56.3	59.3	62.2	65.1
	TC	350.0	329.0	319.0	312.0	301.0	291.0	281.0	274.0	263.0	253.0	242.0
kW	SCT(A)	68.7	75.2	78.4	80.5	83.3	86.0	88.7	90.3	92.5	94.7	96.8
	SDT(A)	41.1	46.4	49.1	50.8	53.5	56.2	58.8	60.5	63.2	65.9	68.5*
SDT(B)	38.2	43.6	46.3	48.2	50.9	53.7	56.4	58.3	61.0	63.8	66.6	
	SCT(A)	37.2	43.3	46.4	48.4	51.3	54.2	57.1	59.0	61.8	64.7	67.5*
SCT(B)	34.9	41.0	44.1	46.1	49.0	52.0	54.9	56.9	59.8	62.7	65.6	

### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

- KW** — Compressor Power
- SCT(A)** — Saturated Condensing Temperature (C) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SCT(B)** — Saturated Condensing Temperature (C) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SDT(A)** — Saturated Discharge Temperature (C) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SDT(B)** — Saturated Discharge Temperature (C) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SST** — Saturated Suction Temperature Entering Condensing Unit
- TC** — Gross Cooling Capacity (kW)


**CONDENSING UNIT RATINGS, 50 Hz SI (cont)**
**38AH104**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	265.0	245.0	235.0	229.0	219.0	209.3	199.6	192.4	183.1	173.6	164.2
	KW	62.8	67.7	70.1	71.6	73.6	75.5	77.2	78.3	79.7	81.0	82.1
	SDT(A)	34.4	40.0	42.8	44.7	47.5	50.4	53.3	55.2	58.1	61.1	64.0
	SDT(B)	35.7	41.2	43.9	45.8	48.6	51.4	54.3	56.2	59.1	61.9	64.9
	SCT(A)	32.6	38.6	41.7	43.7	46.7	49.7	52.7	54.6	57.7	60.7	63.7
	SCT(B)	33.5	39.5	42.6	44.5	47.5	50.5	53.5	55.5	58.5	61.4	64.4
0	TC	285.0	264.0	254.0	247.0	237.0	227.0	217.0	209.8	199.8	190.0	180.1
	KW	64.9	70.1	72.6	74.3	76.5	78.6	80.5	81.8	83.4	84.9	86.2
	SDT(A)	35.1	40.6	43.4	45.2	48.0	50.8	53.6	55.5	58.4	61.3	64.1
	SDT(B)	36.5	41.9	44.7	46.5	49.2	52.0	54.8	56.7	59.5	62.3	65.2
	SCT(A)	33.1	39.1	42.1	44.0	47.0	49.9	52.9	54.9	57.8	60.8	63.7
	SCT(B)	34.0	40.0	43.1	45.0	48.0	50.9	53.9	55.8	58.8	61.7	64.6
2	TC	307.0	285.0	273.0	267.0	256.0	246.0	235.0	228.0	217.0	207.3	197.2
	KW	66.9	72.6	75.3	77.0	79.5	81.7	84.0	85.3	87.1	88.8	90.4
	SDT(A)	36.0	41.4	44.1	46.0	48.7	51.5	54.3	56.1	58.9	61.7	64.6
	SDT(B)	37.5	42.9	45.5	47.3	50.0	52.8	55.5	57.4	60.1	62.9	65.7
	SCT(A)	33.6	39.6	42.6	44.6	47.5	50.4	53.3	55.3	58.2	61.1	64.0
	SCT(B)	34.7	40.7	43.7	45.7	48.6	51.5	54.4	56.4	59.3	62.2	65.1
4	TC	328.0	306.0	294.0	287.0	275.0	265.0	254.0	246.0	235.0	225.0	213.4
	KW	68.9	75.0	78.0	79.8	82.5	85.0	87.3	88.8	90.9	92.8	94.5
	SDT(A)	36.9	42.3	44.9	46.7	49.5	52.2	54.9	56.7	59.5	62.3	65.1
	SDT(B)	38.5	43.8	46.4	48.2	50.9	53.6	56.3	58.1	60.8	63.6	66.3
	SCT(A)	34.2	40.2	43.2	45.1	48.1	51.0	53.9	55.8	58.7	61.5	64.4
	SCT(B)	35.3	41.4	44.4	46.3	49.3	52.2	55.1	57.0	59.8	62.7	65.6
6	TC	351.0	328.0	316.0	308.0	296.0	285.0	273.0	265.0	254.0	242.0	231.0
	KW	71.0	77.5	80.7	82.7	85.6	88.3	90.8	92.4	94.7	96.8	98.8
	SDT(A)	37.9	43.2	45.8	47.6	50.3	53.0	55.7	57.5	60.2	63.0	65.7
	SDT(B)	39.6	44.8	47.4	49.2	51.8	54.5	57.2	59.0	61.7	64.4	67.1*
	SCT(A)	34.8	40.8	43.8	45.8	48.7	51.6	54.5	56.4	59.2	62.1	64.9
	SCT(B)	36.0	42.1	45.1	47.1	50.0	52.9	55.7	57.7	60.5	63.4	66.2
8	TC	375.0	351.0	338.0	330.0	317.0	305.0	294.0	285.0	273.0	261.0	250.0
	KW	73.1	80.0	83.5	85.6	88.6	91.5	94.3	96.1	98.6	100.8	103.0
	SDT(A)	38.9	44.1	46.8	48.6	51.2	53.9	56.6	58.4	61.0	63.7	66.4
	SDT(B)	40.7	45.9	48.5	50.2	52.8	55.5	58.1	59.9	62.6	65.2	67.9*
	SCT(A)	35.5	41.5	44.5	46.5	49.4	52.3	55.1	57.1	59.9	62.7	65.5
	SCT(B)	36.7	42.8	45.8	47.8	50.7	53.6	56.5	58.4	61.2	64.1	66.9
10	TC	400.0	374.0	361.0	353.0	340.0	327.0	313.0	305.0	292.0	281.0	268.0
	KW	75.4	82.6	86.3	88.5	91.7	94.9	97.8	99.7	102.4	105.0	107.4
	SDT(A)	39.9	45.2	47.8	49.5	52.2	54.8	57.4	59.2	61.9	64.5	67.2
	SDT(B)	41.9	47.0	49.5	51.3	53.9	56.5	59.1	60.8	63.5	66.1	68.7*
	SCT(A)	36.2	42.2	45.2	47.2	50.1	53.0	55.8	57.8	60.6	63.4	66.2
	SCT(B)	37.5	43.6	46.6	48.6	51.5	54.4	57.3	59.2	62.0	64.8	67.6*

**LEGEND**

- kW** — Compressor Power  
**SCT(A)** — Saturated Condensing Temperature (C) for Circuit A (38AH094,104), or Module 38AH124A or 134A  
**SCT(B)** — Saturated Condensing Temperature (C) for Circuit B (38AH094,104), or Module 38AH124B or 134B  
**SDT(A)** — Saturated Discharge Temperature (C) for Circuit A (38AH094,104), or Module 38AH124A or 134A  
**SDT(B)** — Saturated Discharge Temperature (C) for Circuit B (38AH094,104), or Module 38AH124B or 134B  
**SST** — Saturated Suction Temperature Entering Condensing Unit  
**TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT RATINGS, 50 Hz SI (cont)

38AH124

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	298.0	276.0	264.0	258.0	246.0	236.0	224.0	218.0	206.0	195.6	185.0
	kW	71.4	77.2	80.0	81.6	84.0	86.2	88.0	89.0	90.8	92.0	93.2
	SDT(A) OR (B)	34.7	40.5	43.4	45.4	48.3	51.3	54.2	56.2	59.1	62.1	65.1
	SCT(A) OR (B)	33.9	39.9	42.9	44.9	47.9	50.9	53.8	55.9	58.9	61.9	64.8
0	TC	322.0	298.0	286.0	280.0	268.0	256.0	244.0	238.0	226.0	214.0	204.0
	kW	73.4	79.6	82.6	84.4	87.2	89.4	91.6	92.8	94.8	96.4	97.8
	SDT(A) OR (B)	35.2	40.9	43.8	45.8	48.7	51.6	54.4	56.4	59.4	62.3	65.2
	SCT(A) OR (B)	34.3	40.2	43.2	45.2	48.1	51.1	54.0	56.0	59.0	62.0	65.0
2	TC	346.0	322.0	310.0	302.0	290.0	278.0	266.0	258.0	246.0	234.0	222.0
	kW	75.2	82.0	85.2	87.4	90.2	92.8	95.2	96.8	99.0	100.8	102.4
	SDT(A) OR (B)	35.8	41.5	44.4	46.3	49.2	52.0	54.9	56.8	59.7	62.7	65.6
	SCT(A) OR (B)	34.7	40.7	43.6	45.6	48.5	51.5	54.4	56.4	59.3	62.3	65.2
4	TC	372.0	348.0	334.0	326.0	314.0	300.0	288.0	280.0	268.0	254.0	242.0
	kW	77.0	84.2	88.0	90.2	93.2	96.2	99.0	100.6	103.0	105.2	107.2
	SDT(A) OR (B)	36.5	42.1	45.0	46.9	49.7	52.6	55.4	57.3	60.2	63.1	65.9
	SCT(A) OR (B)	35.3	41.2	44.1	46.1	49.0	51.9	54.8	56.8	59.7	62.6	65.5
6	TC	400.0	372.0	360.0	350.0	338.0	324.0	310.0	302.0	290.0	276.0	264.0
	kW	78.8	86.6	90.6	93.0	96.4	99.6	102.6	104.4	107.2	109.6	111.8
	SDT(A) OR (B)	37.2	42.9	45.7	47.6	50.4	53.2	56.0	57.9	60.7	63.6	66.4
	SCT(A) OR (B)	35.9	41.8	44.7	46.6	49.5	52.5	55.4	57.3	60.2	63.1	66.0
8	TC	428.0	400.0	386.0	376.0	362.0	348.0	334.0	326.0	312.0	298.0	284.0
	kW	80.6	89.2	93.2	95.8	99.6	103.0	106.2	108.2	111.2	114.0	116.4
	SDT(A) OR (B)	38.1	43.7	46.5	48.3	51.1	53.9	56.7	58.6	61.4	64.2	67.0
	SCT(A) OR (B)	36.6	42.4	45.3	47.3	50.2	53.1	55.9	57.9	60.7	63.6	66.5
10	TC	456.0	426.0	412.0	402.0	388.0	374.0	358.0	350.0	334.0	320.0	306.0
	kW	82.6	91.6	96.0	98.8	102.6	106.4	110.0	112.2	115.4	118.4	121.2
	SDT(A) OR (B)	39.0	44.5	47.3	49.1	51.9	54.7	57.4	59.3	62.1	64.8	67.6
	SCT(A) OR (B)	37.3	43.1	46.0	48.0	50.8	53.7	56.6	58.5	61.3	64.2	67.0

### LEGEND

- kW** — Compressor Power
- SCT(A)** — Saturated Condensing Temperature (C) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SCT(B)** — Saturated Condensing Temperature (C) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SDT(A)** — Saturated Discharge Temperature (C) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SDT(B)** — Saturated Discharge Temperature (C) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SST** — Saturated Suction Temperature Entering Condensing Unit
- TC** — Gross Cooling Capacity (kW)

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.



## CONDENSING UNIT RATINGS, 50 Hz SI (cont)

**38AH134**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
<b>-2</b>	TC	330.0	307.0	295.0	288.0	276.0	265.0	253.0	246.0	234.0	222.8	211.5
	kW	80.9	87.2	90.1	91.9	94.5	96.9	98.9	100.1	102.0	103.4	104.8
	SDT(A)	34.7	40.5	43.4	45.4	48.3	51.3	54.2	56.2	59.1	62.1	65.1
	SDT(B)	34.0	39.8	42.7	44.6	47.5	50.4	53.4	55.4	58.3	61.3	64.3
	SCT(A)	33.9	39.9	42.9	44.9	47.9	50.9	53.8	55.9	58.9	61.9	64.8
<b>0</b>	SCT(B)	31.9	37.7	40.7	42.6	45.5	48.5	51.4	53.4	56.3	59.3	62.2
	TC	356.0	331.0	319.0	312.0	300.0	287.0	275.0	268.0	256.0	243.0	232.0
	kW	83.2	90.0	93.1	95.1	98.0	100.5	102.9	104.3	106.5	108.3	109.9
	SDT(A)	35.2	40.9	43.8	45.8	48.7	51.6	54.4	56.4	59.4	62.3	65.2
	SDT(B)	34.5	40.2	43.1	45.0	47.8	50.7	53.6	55.5	58.4	61.4	64.3
<b>2</b>	SCT(A)	34.3	40.2	43.2	45.2	48.1	51.1	54.0	56.0	59.0	62.0	65.0
	SCT(B)	32.4	38.2	41.2	43.1	46.0	48.9	51.7	53.6	56.5	59.4	62.4
	TC	383.0	357.0	345.0	336.0	324.0	311.0	299.0	290.0	278.0	265.0	253.0
	kW	85.4	92.8	96.2	98.5	101.5	104.4	107.0	108.7	111.1	113.1	114.9
	SDT(A)	35.8	41.5	44.4	46.3	49.2	52.0	54.9	56.8	59.7	62.7	65.6
<b>4</b>	SDT(B)	35.2	40.9	43.7	45.6	48.4	51.3	54.1	56.0	58.9	61.8	64.6
	SCT(A)	34.7	40.7	43.6	45.6	48.5	51.5	54.4	56.4	59.3	62.3	65.2
	SCT(B)	33.0	38.8	41.7	43.7	46.5	49.4	52.3	54.2	57.0	59.9	62.7
	TC	410.0	385.0	371.0	362.0	349.0	335.0	323.0	314.0	301.0	287.0	274.0
	kW	87.5	95.5	99.4	101.7	105.1	108.2	111.2	113.0	115.6	118.0	120.1
<b>6</b>	SDT(A)	36.5	42.1	45.0	46.9	49.7	52.6	55.4	57.3	60.2	63.1	65.9
	SDT(B)	36.0	41.6	44.4	46.3	49.1	51.9	54.7	56.5	59.3	62.2	65.0
	SCT(A)	35.3	41.2	44.1	46.1	49.0	51.9	54.8	56.8	59.7	62.6	65.5
	SCT(B)	33.6	39.5	42.3	44.3	47.1	50.0	52.8	54.7	57.5	60.3	63.1
	TC	440.0	412.0	398.0	388.0	375.0	361.0	347.0	338.0	325.0	311.0	297.0
<b>8</b>	kW	89.7	98.3	102.4	105.0	108.7	112.1	115.4	117.3	120.3	122.9	125.3
	SDT(A)	37.2	42.9	45.7	47.6	50.4	53.2	56.0	57.9	60.7	63.6	66.4
	SDT(B)	36.7	42.3	45.1	47.0	49.8	52.6	55.3	57.2	60.0	62.8	65.5
	SCT(A)	35.9	41.8	44.7	46.6	49.5	52.5	55.4	57.3	60.2	63.1	66.0
	SCT(B)	34.3	40.1	43.0	44.9	47.7	50.6	53.4	55.3	58.1	60.9	63.7
<b>10</b>	TC	470.0	441.0	426.0	416.0	402.0	387.0	373.0	364.0	349.0	335.0	320.0
	kW	91.8	101.2	105.5	108.3	112.3	116.0	119.5	121.7	124.9	127.9	130.6
	SDT(A)	38.1	43.7	46.5	48.3	51.1	53.9	56.7	58.6	61.4	64.2	67.0
	SDT(B)	37.6	43.1	45.9	47.8	50.5	53.3	56.1	57.9	60.7	63.4	66.2
	SCT(A)	36.6	42.4	45.3	47.3	50.2	53.1	55.9	57.9	60.7	63.6	66.5
<b>SST</b>	Saturated Suction Temperature Entering Condensing Unit											
	<b>TC</b>	Gross Cooling Capacity (kW)										

### LEGEND

- kW** — Compressor Power
- SCT(A)** — Saturated Condensing Temperature (C) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SCT(B)** — Saturated Condensing Temperature (C) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SDT(A)** — Saturated Discharge Temperature (C) for Circuit A (38AH094,104), or Module 38AH124A or 134A
- SDT(B)** — Saturated Discharge Temperature (C) for Circuit B (38AH094,104), or Module 38AH124B or 134B
- SST** — Saturated Suction Temperature Entering Condensing Unit
- TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz SI

### 38AH044 CIRCUIT A

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC kW SDT	52.7	48.5	46.4	44.9	42.7	40.5	38.3	36.8	34.5	32.2	29.9
		12.0	13.0	13.5	13.8	14.3	14.6	15.0	15.1	15.4	15.6	15.6
		32.8	38.5	41.3	43.2	46.1	49.0	51.9	53.8	56.7	59.7	62.6
0	TC kW SDT	56.9	52.6	50.4	48.9	46.7	44.4	42.1	40.5	38.2	35.8	33.5
		12.3	13.4	14.0	14.3	14.8	15.2	15.6	15.8	16.1	16.4	16.5
		33.4	39.0	41.8	43.7	46.5	49.4	52.2	54.2	57.0	59.9	62.7
2	TC kW SDT	61.4	56.9	54.6	53.1	50.8	48.4	46.1	44.5	42.1	39.6	37.2
		12.5	13.8	14.4	14.8	15.3	15.8	16.2	16.5	16.8	17.1	17.4
		34.0	39.6	42.4	44.3	47.1	49.9	52.7	54.6	57.5	60.3	63.1
4	TC kW SDT	66.0	61.4	59.0	57.4	55.0	52.6	50.1	48.5	46.0	43.5	41.0
		12.8	14.2	14.8	15.2	15.8	16.3	16.8	17.1	17.6	17.9	18.2
		34.7	40.3	43.0	44.9	47.7	50.5	53.3	55.1	57.9	60.8	63.6
6	TC kW SDT	70.8	66.0	63.5	61.9	59.4	56.9	54.3	52.6	50.1	47.5	44.9
		13.1	14.5	15.2	15.7	16.3	16.9	17.4	17.8	18.3	18.7	19.1
		35.5	41.0	43.8	45.6	48.4	51.1	53.9	55.8	58.5	61.3	64.1
8	TC kW SDT	75.8	70.8	68.3	66.5	63.9	61.3	58.7	56.9	54.3	51.6	48.9*
		13.4	14.9	15.6	16.1	16.8	17.4	18.0	18.4	18.9	19.4	19.9*
		36.3	41.8	44.5	46.4	49.1	51.8	54.6	56.4	59.2	61.9	64.7*
10	TC kW SDT	80.9	75.7	73.1	71.3	68.6	65.9	63.1	61.3	58.5	55.8	53.0*
		13.7	15.3	16.0	16.5	17.3	18.0	18.6	19.0	19.6	20.2	20.7*
		37.1	42.6	45.3	47.1	49.9	52.6	55.3	57.1	59.9	62.6	65.3*

### 38AH054 CIRCUIT A

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC kW SDT	53.0	48.7	46.4	44.9	42.7	40.4	38.1	36.5	34.2	31.9	29.5*
		12.4	13.5	13.9	14.2	14.6	15.0	15.2	15.4	15.6	15.6	15.6*
		35.0	41.0	44.0	46.0	49.0	52.0	55.0	57.0	60.0	63.0	66.0*
0	TC kW SDT	57.6	53.1	50.8	49.2	46.8	44.5	42.1	40.5	38.0	35.6	33.2*
		12.6	13.8	14.4	14.7	15.2	15.6	15.9	16.1	16.4	16.5	16.6*
		35.1	41.0	44.1	46.0	49.0	52.0	55.0	57.0	60.0	63.0	66.0*
2	TC kW SDT	62.5	57.8	55.4	53.8	51.4	48.9	46.4	44.8	42.2	39.7	37.2*
		12.8	14.1	14.7	15.1	15.6	16.1	16.5	16.8	17.1	17.4	17.6*
		35.3	41.2	44.2	46.1	49.1	52.1	55.1	57.1	60.0	63.0	66.0*
4	TC kW SDT	67.5	62.7	60.2	58.5	56.0	53.5	50.9	49.1	46.5	43.9	41.2*
		13.0	14.4	15.1	15.5	16.1	16.6	17.1	17.4	17.8	18.2	18.4*
		35.6	41.4	44.3	46.3	49.2	52.2	55.1	57.1	60.1	63.1	66.1*
6	TC kW SDT	72.6	67.7	65.1	63.4	60.8	58.2	55.5	53.7	51.0	48.3	45.5*
		13.3	14.7	15.4	15.9	16.5	17.1	17.7	18.0	18.5	18.9	19.3*
		36.0	41.8	44.7	46.6	49.5	52.4	55.3	57.3	60.2	63.2	66.2*
8	TC kW SDT	77.9	72.8	70.2	68.4	65.7	63.0	60.3	58.4	55.7	52.8	50.0*
		13.5	15.0	15.8	16.3	17.0	17.6	18.2	18.6	19.2	19.7	20.1*
		36.6	42.3	45.1	47.0	49.9	52.7	55.6	57.6	60.5	63.4	66.3*
10	TC kW SDT	83.2	78.0	75.3	73.5	70.8	68.0	65.1	63.2	60.4	57.5*	54.5*
		13.7	15.3	16.1	16.6	17.4	18.1	18.8	19.2	19.8	20.4*	20.9*
		37.3	42.8	45.6	47.5	50.3	53.2	56.0	57.9	60.8	63.7*	66.5*

### 38AH064 CIRCUIT A

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC kW SDT	70.7	65.0	62.3	60.4	57.7	55.1	52.5	50.8	48.2	45.8	43.3
		16.7	18.1	18.8	19.2	19.8	20.3	20.8	21.1	21.5	21.9	22.2
		34.9	40.7	43.6	45.5	48.4	51.4	54.3	56.3	59.2	62.2	65.1
0	TC kW SDT	76.4	70.5	67.5	65.7	62.8	60.0	57.3	55.5	52.8	50.1	47.5
		17.2	18.7	19.4	19.9	20.5	21.1	21.6	21.9	22.4	22.9	23.3
		35.4	41.1	44.0	45.9	48.8	51.7	54.6	56.5	59.4	62.5	65.3
2	TC kW SDT	82.5	76.3	73.2	71.2	68.2	65.3	62.4	60.5	57.6	54.8	52.1
		17.7	19.3	20.1	20.5	21.2	21.9	22.5	22.8	23.4	23.9	24.3
		36.1	41.7	44.6	46.5	49.3	52.2	55.1	57.0	59.9	62.8	65.7
4	TC kW SDT	88.8	82.3	79.0	76.9	73.8	70.7	67.6	65.6	62.6	59.6	56.7
		18.1	19.9	20.7	21.2	22.0	22.7	23.3	23.7	24.4	24.9	25.4
		36.8	42.4	45.2	47.1	49.9	52.8	55.6	57.5	60.3	63.2	66.1
6	TC kW SDT	95.4	88.5	85.1	82.8	79.5	76.2	73.0	70.9	67.7	64.6	61.5*
		18.6	20.5	21.4	21.9	22.8	23.5	24.2	24.7	25.3	25.9	26.5*
		37.7	43.2	46.0	47.8	50.6	53.4	56.2	58.1	60.9	63.8	66.6*
8	TC kW SDT	102.0	94.9	91.4	89.0	85.5	82.1	78.7	76.5	73.1	69.8	66.6*
		19.1	21.1	22.0	22.6	23.5	24.3	25.1	25.6	26.3	27.0	27.6*
		38.6	44.1	46.8	48.6	51.4	54.2	57.0	58.8	61.6	64.4	67.2*
10	TC kW SDT	109.0	102.0	97.8	95.3	91.7	88.0	84.5	82.1	78.6	75.1	71.7*
		19.6	21.7	22.7	23.4	24.3	25.2	26.0	26.5	27.3	28.0	28.7*
		39.5	44.9	47.7	49.5	52.2	55.0	57.7	59.6	62.3	65.1	67.9*

#### LEGEND

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

#### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.


**CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz SI (cont)**
**38AH044 CIRCUIT B**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	52.8	48.4	46.2	44.7	42.4	40.1	37.8	36.3	33.9	31.6	29.3
	kW	12.2	13.3	13.8	14.1	14.5	14.8	15.1	15.3	15.5	15.6	15.7
	SDT	33.8	39.8	42.8	44.8	47.7	50.7	53.7	55.7	58.7	61.6	64.6
0	TC	57.3	52.8	50.4	48.9	46.5	44.2	41.8	40.2	37.7	35.3	32.9
	kW	12.4	13.6	14.2	14.5	15.0	15.4	15.8	16.0	16.3	16.5	16.6
	SDT	34.0	40.0	42.9	44.9	47.9	50.9	53.8	55.8	58.8	61.8	64.7
2	TC	62.2	57.4	55.0	53.4	50.9	48.5	46.0	44.3	41.8	39.3	36.7
	kW	12.6	13.9	14.5	14.9	15.5	16.0	16.4	16.6	17.0	17.3	17.5
	SDT	34.3	40.2	43.2	45.2	48.2	51.1	54.0	56.0	59.0	61.9	64.9
4	TC	67.1	62.2	59.7	58.0	55.4	52.9	50.3	48.6	46.0	43.3	40.7
	kW	12.8	14.2	14.9	15.3	15.9	16.5	17.0	17.3	17.7	18.1	18.4
	SDT	34.7	40.6	43.5	45.5	48.4	51.4	54.3	56.3	59.2	62.2	65.1
6	TC	72.3	67.1	64.5	62.8	60.1	57.5	54.8	53.0	50.3	47.6	44.8
	kW	13.0	14.5	15.3	15.7	16.4	17.0	17.6	17.9	18.4	18.8	19.2
	SDT	35.1	41.0	43.9	45.8	48.8	51.7	54.6	56.6	59.5	62.5	65.4
8	TC	77.7	72.3	69.6	67.8	65.0	62.3	59.5	57.6	54.8	51.9	49.1*
	kW	13.2	14.8	15.6	16.1	16.8	17.5	18.1	18.5	19.1	19.6	20.0*
	SDT	35.5	41.4	44.4	46.3	49.2	52.1	55.0	57.0	59.9	62.8	65.8*
10	TC	83.2	77.6	74.8	72.9	70.0	67.1	64.2	62.3	59.4	56.4	53.5*
	kW	13.3	15.1	15.9	16.4	17.2	18.0	18.6	19.1	19.7	20.3	20.8*
	SDT	36.0	41.9	44.8	46.8	49.7	52.6	55.5	57.4	60.3	63.2	66.1*

**38AH054 CIRCUIT B**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	70.0	64.5	61.7	60.0	57.3	54.7	52.1	50.5	48.0	45.5	43.1*
	kW	17.1	18.5	19.1	19.5	20.0	20.5	21.0	21.3	21.7	22.0	22.4*
	SDT	36.4	42.1	45.0	47.0	49.9	52.8	55.7	57.7	60.6	63.6	66.5*
0	TC	75.7	69.9	67.0	65.1	62.3	59.5	56.8	55.1	52.4	49.8	47.2*
	kW	17.6	19.1	19.8	20.2	20.8	21.4	21.9	22.2	22.7	23.1	23.5*
	SDT	36.9	42.6	45.5	47.4	50.2	53.1	56.0	58.0	60.9	63.9	66.8*
2	TC	81.7	75.6	72.6	70.6	67.6	64.7	61.9	60.0	57.2	54.4	51.6*
	kW	18.1	19.7	20.4	20.9	21.6	22.2	22.8	23.1	23.6	24.1	24.6*
	SDT	37.6	43.2	46.1	48.0	50.8	53.7	56.5	58.5	61.3	64.2	67.2*
4	TC	87.9	81.5	78.3	76.2	73.1	70.0	67.0	65.0	62.0	59.1	56.2
	kW	18.6	20.3	21.1	21.6	22.4	23.0	23.7	24.1	24.6	25.2	25.7*
	SDT	38.4	43.9	46.7	48.6	51.4	54.3	57.1	59.0	61.8	64.7	67.6*
6	TC	94.4	87.6	84.3	82.1	78.8	75.6	72.4	70.3	67.1	64.0	61.0*
	kW	19.2	21.0	21.8	22.4	23.2	23.9	24.6	25.0	25.7	26.2	26.8*
	SDT	39.2	44.7	47.5	49.3	52.1	54.9	57.7	59.6	62.4	65.2	68.1
8	TC	101.0	94.0	90.5	88.2	84.8	81.4	78.0	75.8	72.5	69.2	66.0*
	kW	19.7	21.6	22.5	23.1	24.0	24.8	25.5	26.0	26.7	27.3	27.9*
	SDT	40.2	45.6	48.3	50.1	52.9	55.7	58.4	60.3	63.1	65.9	68.7*
10	TC	108.0	101.0	96.9	94.5	90.8	87.2	83.7	81.4	77.9	74.5*	71.0*
	kW	20.2	22.3	23.2	23.9	24.8	25.6	26.4	26.9	27.7	28.4*	29.1*
	SDT	41.1	46.5	49.2	51.0	53.7	56.4	59.2	61.0	63.8	66.6*	69.4*

**38AH064 CIRCUIT B**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	77.8	72.2	69.4	67.5	64.7	61.8	58.9	57.0	54.1	51.2	48.3
	kW	19.0	20.5	21.2	21.6	22.2	22.8	23.2	23.5	23.9	24.1	24.3
	SDT	34.5	40.3	43.3	45.3	48.2	51.2	54.1	56.1	59.1	62.0	65.0
0	TC	83.9	78.1	75.2	73.2	70.3	67.3	64.3	62.3	59.3	56.3	53.2
	kW	19.4	21.1	21.9	22.4	23.0	23.7	24.2	24.5	25.0	25.3	25.6
	SDT	34.8	40.7	43.6	45.5	48.4	51.4	54.3	56.3	59.2	62.2	65.1
2	TC	90.4	84.4	81.4	79.3	76.2	73.1	70.0	67.9	64.8	61.6	58.4
	kW	19.8	21.7	22.5	23.1	23.8	24.5	25.1	25.5	26.1	26.5	26.9
	SDT	35.3	41.2	44.0	46.0	48.9	51.8	54.7	56.7	59.6	62.5	65.4
4	TC	97.0	90.8	87.6	85.5	82.3	79.1	75.8	73.6	70.4	67.1	63.8
	kW	20.3	22.3	23.2	23.8	24.6	25.4	26.1	26.5	27.1	27.7	28.1
	SDT	35.9	41.7	44.6	46.5	49.4	52.3	55.2	57.1	60.0	62.9	65.8
6	TC	104.0	97.4	94.1	91.9	88.6	85.2	81.8	79.6	76.1	72.7	69.3*
	kW	20.7	22.9	23.9	24.5	25.4	26.2	27.0	27.5	28.2	28.8	29.4*
	SDT	36.6	42.4	45.2	47.1	50.0	52.9	55.7	57.6	60.4	63.3	66.2*
8	TC	111.0	104.0	101.0	98.5	95.1	91.6	88.0	85.7	82.1	78.6	75.0*
	kW	21.1	23.4	24.5	25.2	26.2	27.1	28.0	28.5	29.3	30.0	30.6*
	SDT	37.4	43.1	45.9	47.8	50.7	53.5	56.3	58.2	61.1	63.9	66.7*
10	TC	118.0	111.0	108.0	105.0	102.0	98.0	94.4	91.9	88.2	84.5	80.8*
	kW	21.5	24.0	25.2	25.9	27.0	28.0	28.9	29.5	30.3	31.1	31.8*
	SDT	38.2	43.9	46.7	48.6	51.4	54.2	57.0	59.8	61.7	64.5	67.3*

**LEGEND**

**kW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz SI (cont)

### 38AH074 CIRCUIT A

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC kW SDT	78.6 18.8 33.9	73.2 20.4 39.7	70.5 21.1 42.7	68.6 21.5 44.6	65.8 22.1 47.6	63.0 22.7 50.5	60.1 23.1 53.5	58.2 23.4 55.5	55.3 23.8 58.5	52.4 24.1 61.4	49.5 24.3 64.4
0	TC kW SDT	84.7 19.3 34.4	79.1 20.9 40.1	76.3 21.7 43.0	74.4 22.2 44.8	71.5 22.9 47.7	68.6 23.5 50.7	65.6 24.1 53.6	63.6 24.4 55.5	60.6 24.9 58.5	57.6 25.3 61.4	54.5 25.6 64.4
2	TC kW SDT	91.1 19.7 35.0	85.3 21.5 40.7	82.3 22.4 43.5	80.3 22.9 45.4	77.4 23.7 48.2	74.3 24.4 51.1	71.3 25.0 53.9	69.3 25.4 55.9	66.2 25.9 58.7	63.1 26.4 61.6	59.9 26.8 64.6
4	TC kW SDT	97.6 20.2 35.7	91.5 22.1 41.3	88.5 23.0 44.1	86.4 23.6 46.0	83.4 24.4 48.8	80.2 25.2 51.6	77.1 25.9 54.4	75.0 26.3 56.3	71.8 27.0 59.1	68.6 27.5 61.9	65.4 28.0 64.8
6	TC kW SDT	104.0 20.6 36.4	98.1 22.7 42.0	94.9 23.7 44.8	92.8 24.3 46.6	89.6 25.2 49.4	86.3 26.1 52.2	83.1 26.8 55.0	80.9 27.3 56.9	77.6 28.0 59.6	74.3 28.6 62.4	70.9 29.2 65.3
8	TC kW SDT	112.0 21.0 37.2	105.0 23.3 42.7	102.0 24.4 45.5	99.4 25.0 47.4	96.0 26.0 50.2	92.6 26.9 52.9	89.2 27.8 55.7	87.0 28.3 57.5	83.5 29.1 60.3	80.1 29.8 63.0	76.6* 30.4* 65.8*
10	TC kW SDT	119.0 21.4 38.0	112.0 23.9 43.5	108.0 25.0 46.3	106.0 25.7 48.1	103.0 26.8 50.9	99.1 27.8 53.6	95.5 28.7 56.4	93.1 29.3 58.2	89.6 30.1 61.0	86.0 30.9 63.7	82.4* 31.6* 66.4*

### 38AH084 CIRCUIT A

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC kW SDT	102.0 27.2 36.7	95.0 29.1 42.7	91.7 29.9 45.7	89.4 30.4 47.7	86.1 31.2 50.7	82.8 31.8 53.6	79.5 32.5 56.7	77.4 32.9 58.7	74.2 33.4 61.7	71.0 33.9 64.7	67.8* 34.4* 67.7**
0	TC kW SDT	110.0 28.0 36.8	103.0 30.0 42.8	99.2 30.9 45.8	96.8 31.5 47.8	93.3 32.3 50.8	89.8 33.1 53.7	86.3 33.8 56.7	84.0 34.2 58.7	80.6 34.9 61.7	77.2 35.5 64.7	73.8* 36.0* 67.7**
2	TC kW SDT	119.0 28.7 37.1	111.0 30.9 43.0	107.0 31.9 46.0	105.0 32.6 48.0	101.0 33.5 50.9	97.4 34.3 53.9	93.7 35.1 56.9	91.3 35.6 58.9	87.6 36.3 61.9	84.0 36.3 64.8	80.4* 37.6* 67.8*
4	TC kW SDT	128.0 29.4 37.5	120.0 31.8 43.3	116.0 32.9 46.2	113.0 33.6 48.2	109.0 34.6 51.2	105.0 35.6 54.1	101.0 36.5 57.1	98.7 37.0 59.1	94.8 37.8 62.0	91.0 38.6 65.0	87.2* 39.2* 67.9*
6	TC kW SDT	137.0 30.2 38.0	129.0 32.7 43.8	125.0 33.9 46.7	122.0 34.7 48.6	118.0 35.8 51.5	113.0 36.8 54.5	109.0 37.8 57.4	107.0 38.4 59.4	102.0 39.3 62.3	98.3 40.1 65.2	94.3* 40.9* 68.2*
8	TC kW SDT	147.0 31.0 38.7	138.0 33.7 44.4	134.0 35.0 47.3	131.0 35.8 49.2	126.0 37.0 52.0	122.0 38.1 54.9	118.0 39.1 57.8	115.0 39.8 59.8	110.0 40.8 62.7	106.0 41.7 65.6	102.0* 42.5* 68.5*
10	TC kW SDT	157.0 31.8 39.5	147.0 34.7 45.1	143.0 36.0 47.9	140.0 36.9 49.8	135.0 38.2 52.6	130.0 39.4 55.5	126.0 40.5 58.3	123.0 41.2 60.3	118.0 42.3 63.1	114.0* 43.3* 66.0*	109.0* 44.2* 68.9*

#### LEGEND

**KW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

#### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.


**CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz SI (cont)**
**38AH074 CIRCUIT B**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC KW SDT	103.0 26.4 34.2	96.0 28.3 39.9	92.7 29.1 42.8	90.5 29.6 44.7	87.3 30.4 47.6	84.1 31.1 50.5	80.9 31.8 53.4	78.8 32.2 55.3	75.7 32.8 58.2	72.6 33.3 61.2	69.4 33.8 64.1
0	TC KW SDT	110.0 27.2 34.8	103.0 29.3 40.5	99.8 30.2 43.3	97.5 30.8 45.2	94.1 31.6 48.0	90.7 32.4 50.9	87.4 33.1 53.7	85.2 33.5 55.7	81.9 34.2 58.5	78.6 34.8 61.4	75.3 35.4 64.3
2	TC KW SDT	118.0 28.1 35.6	111.0 30.3 41.2	107.0 31.3 44.0	105.0 31.9 45.9	101.0 32.8 48.7	97.8 33.7 51.5	94.2 34.5 54.3	91.9 35.0 56.2	88.4 35.7 59.1	85.0 36.4 61.9	81.5 37.0 64.8
4	TC KW SDT	127.0 28.9 36.3	119.0 31.3 41.9	115.0 32.4 44.7	113.0 33.1 46.6	109.0 34.0 49.4	105.0 35.0 52.2	101.0 35.8 55.0	98.8 36.4 56.9	95.1 37.2 59.7	91.5 37.9 62.5	87.8 38.6 65.3
6	TC KW SDT	135.0 29.8 37.1	127.0 32.3 42.7	123.0 33.5 45.5	120.0 34.2 47.4	116.0 35.3 50.2	112.0 36.3 52.9	109.0 37.2 55.7	106.0 37.8 57.6	102.0 38.7 60.4	98.2 39.5 63.1	94.4 40.3 65.9
8	TC KW SDT	145.0 30.6 38.0	136.0 33.3 43.6	132.0 34.6 46.3	129.0 35.4 48.2	125.0 36.6 51.0	120.0 37.6 53.7	116.0 38.7 56.5	113.0 39.3 58.3	109.0 40.3 61.1	105.0 41.2 63.9	101.0* 42.0* 66.6*
10	TC KW SDT	154.0 31.4 38.9	145.0 34.4 44.4	140.0 35.7 47.2	137.0 36.6 49.0	133.0 37.8 51.8	128.0 39.0 54.5	124.0 40.1 57.3	121.0 40.8 59.1	117.0 41.8 61.9	112.0 42.8 64.6	108.0* 43.7* 67.4*

**38AH084 CIRCUIT B**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC KW SDT	102.0 26.9 35.7	95.6 28.8 41.6	92.2 29.6 44.6	89.9 30.2 46.6	86.6 30.9 49.6	83.3 31.6 52.6	80.1 32.3 55.6	77.9 32.6 57.6	74.7 33.2 60.6	71.5 33.8 63.6	68.4* 34.2* 66.6*
0	TC KW SDT	111.0 27.6 35.8	103.0 29.7 41.8	99.7 30.6 44.7	97.4 31.2 46.7	93.8 32.1 49.7	90.3 32.8 52.7	86.9 33.5 55.6	84.6 34.0 57.6	81.1 34.7 60.6	77.7 35.3 63.6	74.4* 35.8* 66.6*
2	TC KW SDT	119.0 28.3 36.2	112.0 30.6 42.1	108.0 31.6 45.0	105.0 32.3 47.0	102.0 33.2 49.9	97.9 34.0 52.9	94.2 34.8 55.8	91.8 35.3 57.8	88.1 36.1 60.8	84.5 36.8 63.7	80.8* 37.4* 66.7*
4	TC KW SDT	128.0 29.1 36.7	120.0 31.5 42.5	116.0 32.6 45.4	113.0 33.3 47.3	110.0 34.3 50.2	106.0 35.3 53.1	102.0 36.2 56.1	99.2 36.7 58.1	95.3 37.5 61.0	91.5 38.3 63.9	87.7* 39.0* 66.9*
6	TC KW SDT	137.0 29.8 37.3	129.0 32.4 43.0	125.0 33.6 45.9	122.0 34.4 47.8	118.0 35.5 50.7	114.0 36.5 53.6	110.0 37.5 56.5	107.0 38.1 58.4	103.0 39.0 61.4	98.7 39.8 64.3	94.7* 40.6* 67.2*
8	TC KW SDT	147.0 30.6 38.1	138.0 33.4 43.7	134.0 34.7 46.5	131.0 35.5 48.4	126.0 36.7 51.3	122.0 37.8 54.1	118.0 38.9 57.0	115.0 39.5 58.9	111.0 40.5 61.8	106.0 41.4 64.7	102.0* 42.3* 67.6*
10	TC KW SDT	157.0 31.4 38.9	147.0 34.4 44.5	143.0 35.7 47.3	140.0 36.6 49.1	135.0 37.9 51.9	131.0 39.1 54.8	126.0 40.2 57.6	123.0 40.9 59.5	118.0 42.0 62.3	114.0 43.0 65.2	110.0* 43.9* 68.1*

**LEGEND**

**KW** — Compressor Power  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz SI (cont)

### 38AH094 CIRCUIT A

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	130.0	120.0	116.0	112.0	108.0	103.0	97.6	94.2	89.1	84.0	78.8
	KW	31.8	34.2	35.3	36.0	37.0	37.8	38.5	38.9	39.4	39.8	40.0
	SDT	35.5	41.2	44.0	45.9	48.8	51.6	54.5	56.5	59.4	62.3	65.3
	SCT	33.6	39.7	42.8	44.8	47.8	50.8	53.9	55.9	58.9	61.9	64.9
0	TC	140.0	130.0	125.0	122.0	117.0	112.0	107.0	103.0	97.9	92.6	87.3
	KW	32.7	35.3	36.6	37.3	38.4	39.4	40.2	40.7	41.4	41.9	42.3
	SDT	36.2	41.8	44.5	46.4	49.2	52.0	54.9	56.8	59.6	62.5	65.4
	SCT	34.0	40.1	43.1	45.1	48.1	51.1	54.1	56.0	59.0	62.0	64.9
2	TC	150.0	140.0	135.0	131.0	126.0	121.0	116.0	112.0	107.0	101.0	96.0
	KW	33.7	36.5	37.9	38.7	39.9	40.9	41.9	42.5	43.3	43.9	44.5
	SDT	37.1	42.6	45.3	47.2	49.9	52.7	55.5	57.4	60.2	63.0	65.8
	SCT	34.6	40.6	43.7	45.7	48.6	51.6	54.5	56.5	59.4	62.3	65.3
4	TC	161.0	150.0	145.0	141.0	136.0	131.0	125.0	122.0	116.0	110.0	105.0
	KW	34.7	37.7	39.2	40.1	41.4	42.5	43.6	44.3	45.2	46.0	46.7
	SDT	38.0	43.5	46.2	48.0	50.7	53.4	56.2	58.0	60.8	63.5	66.3
	SCT	35.2	41.2	44.3	46.3	49.2	52.1	55.0	57.0	59.9	62.7	65.6
6	TC	172.0	161.0	155.0	152.0	146.0	140.0	135.0	131.0	125.0	120.0	114.0
	KW	35.7	38.9	40.5	41.5	42.9	44.2	45.4	46.1	47.1	48.1	48.9
	SDT	39.0	44.4	47.1	48.9	51.6	54.3	57.0	58.8	61.5	64.2	66.9
	SCT	35.8	41.9	44.9	46.9	49.9	52.8	55.7	57.6	60.5	63.3	66.2
8	TC	183.0	172.0	166.0	162.0	156.0	151.0	145.0	141.0	135.0	129.0	123.0
	KW	36.7	40.1	41.8	42.9	44.4	45.8	47.1	47.9	49.1	50.1	51.1
	SDT	40.1	45.4	48.0	49.8	52.5	55.2	57.9	59.6	62.3	65.0	67.7
	SCT	36.5	42.6	45.6	47.6	50.6	53.5	56.4	58.3	61.1	64.0	66.8
10	TC	195.0	183.0	177.0	173.0	167.0	161.0	155.0	151.0	145.0	139.0	132.0
	KW	37.7	41.3	43.1	44.3	45.9	47.4	48.9	49.8	51.0	52.2	53.3
	SDT	41.1	46.4	49.1	50.8	53.5	56.2	58.8	60.5	63.2	65.9	68.5*
	SCT	37.2	43.3	46.4	48.4	51.3	54.2	57.1	59.0	61.8	64.7	67.5

### 38AH104 CIRCUIT A

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	124.0	115.0	110.0	107.0	102.0	97.3	92.6	89.4	84.7	80.0	75.3
	KW	28.9	31.2	32.4	33.1	34.0	34.9	35.7	36.2	36.8	37.3	37.7
	SDT	34.4	40.0	42.8	44.7	47.5	50.4	53.3	55.2	58.1	61.1	64.0
	SCT	32.6	38.6	41.7	43.7	46.7	49.7	52.7	54.6	57.7	60.7	63.7
0	TC	134.0	124.0	119.0	116.0	111.0	106.0	101.0	97.8	92.8	88.0	83.1
	KW	29.8	32.3	33.5	34.3	35.3	36.3	37.2	37.8	38.5	39.2	39.7
	SDT	35.1	40.6	43.4	45.2	48.0	50.8	53.6	55.5	58.4	61.3	64.1
	SCT	33.1	39.1	42.1	44.0	47.0	49.9	52.9	54.9	57.8	60.8	63.7
2	TC	144.0	134.0	128.0	125.0	120.0	115.0	110.0	106.0	101.0	96.3	91.2
	KW	30.7	33.4	34.7	35.5	36.7	37.7	38.8	39.4	40.2	41.0	41.7
	SDT	36.0	41.4	44.1	46.0	48.7	51.5	54.3	56.1	58.9	61.7	64.6
	SCT	33.6	39.6	42.6	44.6	47.5	50.4	53.3	55.3	58.2	61.1	64.0
4	TC	154.0	144.0	138.0	135.0	129.0	124.0	119.0	115.0	110.0	105.0	99.4
	KW	31.5	34.4	35.9	36.7	38.0	39.2	40.3	41.0	42.0	42.8	43.6
	SDT	36.9	42.3	44.9	46.7	49.5	52.2	54.9	56.7	59.5	62.3	65.1
	SCT	34.2	40.2	43.2	45.1	48.1	51.0	53.9	55.8	58.7	61.5	64.4
6	TC	165.0	154.0	148.0	145.0	139.0	134.0	128.0	124.0	119.0	113.0	108.0
	KW	32.4	35.5	37.1	38.0	39.4	40.7	41.9	42.6	43.7	44.7	45.6
	SDT	37.9	43.2	45.8	47.6	50.3	53.0	55.7	57.5	60.2	63.0	65.7
	SCT	34.8	40.8	43.8	45.8	48.7	51.6	54.5	56.4	59.2	62.1	64.9
8	TC	176.0	165.0	159.0	155.0	149.0	143.0	138.0	134.0	128.0	122.0	117.0
	KW	33.3	36.6	38.3	39.3	40.7	42.1	43.4	44.3	45.5	46.5	47.5
	SDT	38.9	44.1	46.8	48.6	51.2	53.9	56.6	58.4	61.0	63.7	66.4
	SCT	35.5	41.5	44.5	46.5	49.4	52.3	55.1	57.1	59.9	62.7	65.5
10	TC	188.0	176.0	170.0	166.0	160.0	154.0	147.0	143.0	137.0	132.0	126.0
	KW	34.3	37.7	39.5	40.6	42.1	43.6	45.0	45.9	47.2	48.4	49.5
	SDT	39.9	45.2	47.8	49.5	52.2	54.8	57.4	59.2	61.9	64.5	67.2
	SCT	36.2	42.2	45.2	47.2	50.1	53.0	55.8	57.8	60.6	63.4	66.2

### LEGEND

**KW** — Compressor Power  
**SCT** — Saturated Condensing Temperature (C)  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.


**CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz SI (cont)**
**38AH094 CIRCUIT B**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	103.0	96.5	93.1	90.9	87.6	84.3	81.1	78.9	75.7	72.5	69.4
	KW	26.3	28.1	29.0	29.6	30.4	31.1	31.8	32.2	32.8	33.4	33.9
	SDT	33.8	39.6	42.5	44.5	47.4	50.4	53.4	55.4	58.3	61.3	64.3
	SCT	32.3	38.5	41.5	43.6	46.7	49.7	52.8	54.8	57.9	60.9	63.9
0	TC	111.0	104.0	101.0	98.2	94.7	91.3	87.8	85.5	82.1	78.8	75.4
	KW	27.0	29.0	30.0	30.6	31.5	32.3	33.1	33.5	34.2	34.8	35.4
	SDT	34.2	39.9	42.8	44.8	47.7	50.6	53.5	55.5	58.4	61.4	64.4
	SCT	32.4	38.6	41.7	43.7	46.8	49.8	52.8	54.8	57.9	60.9	63.9
2	TC	119.0	112.0	108.0	106.0	102.0	98.6	95.0	92.6	89.0	85.4	81.9
	KW	27.8	30.0	31.0	31.7	32.6	33.5	34.3	34.9	35.6	36.3	37.0
	SDT	34.9	40.5	43.4	45.3	48.2	51.0	53.9	55.9	58.8	61.7	64.6
	SCT	32.8	39.0	42.0	44.0	47.1	50.1	53.1	55.1	58.1	61.1	64.1
4	TC	128.0	120.0	116.0	114.0	110.0	106.0	102.0	99.7	95.9	92.2	88.4
	KW	28.6	30.9	32.1	32.8	33.8	34.7	35.7	36.2	37.1	37.8	38.5
	SDT	35.6	41.2	44.0	45.9	48.7	51.5	54.4	56.3	59.2	62.1	65.0
	SCT	33.3	39.4	42.4	44.4	47.4	50.4	53.4	55.4	58.4	61.3	64.3
6	TC	137.0	129.0	124.0	122.0	118.0	114.0	110.0	107.0	103.0	99.2	95.3
	KW	29.4	31.9	33.1	33.9	35.0	36.0	37.0	37.6	38.5	39.4	40.2
	SDT	36.4	41.9	44.7	46.5	49.3	52.1	55.0	56.9	59.7	62.5	65.4
	SCT	33.8	39.9	42.9	44.9	47.9	50.9	53.8	55.8	58.8	61.7	64.7
8	TC	146.0	137.0	133.0	130.0	126.0	122.0	118.0	115.0	111.0	106.0	102.0
	KW	30.2	32.9	34.2	35.0	36.2	37.3	38.4	39.1	40.0	40.9	41.8
	SDT	37.3	42.7	45.5	47.3	50.1	52.9	55.7	57.5	60.3	63.1	66.0
	SCT	34.3	40.4	43.5	45.5	48.4	51.4	54.4	56.3	59.3	62.2	65.1
10	TC	155.0	146.0	142.0	139.0	134.0	130.0	126.0	123.0	118.0	114.0	110.0
	KW	31.0	33.9	35.3	36.2	37.4	38.6	39.8	40.5	41.5	42.5	43.5
	SDT	38.2	43.6	46.3	48.2	50.9	53.7	56.4	58.3	61.0	63.8	66.6
	SCT	34.9	41.0	44.1	46.1	49.0	52.0	54.9	56.9	59.8	62.7	65.6

**38AH104 CIRCUIT B**

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	141.0	130.0	125.0	122.0	117.0	112.0	107.0	103.0	98.4	93.6	88.9
	KW	33.9	36.5	37.7	38.5	39.6	40.6	41.5	42.1	42.9	43.7	44.4
	SDT	35.7	41.2	43.9	45.8	48.6	51.4	54.3	56.2	59.1	61.9	64.9
	SCT	33.5	39.5	42.6	44.5	47.5	50.5	53.5	55.5	58.5	61.4	64.4
0	TC	151.0	140.0	135.0	131.0	126.0	121.0	116.0	112.0	107.0	102.0	97.0
	KW	35.1	37.8	39.1	40.0	41.2	42.3	43.3	44.0	44.9	45.7	46.5
	SDT	36.5	41.9	44.7	46.5	49.2	52.0	54.8	56.7	59.5	62.3	65.2
	SCT	34.0	40.0	43.1	45.0	48.0	50.9	53.9	55.8	58.8	61.7	64.6
2	TC	163.0	151.0	145.0	142.0	136.0	131.0	125.0	122.0	116.0	111.0	106.0
	KW	36.2	39.2	40.6	41.5	42.8	44.0	45.2	45.9	46.9	47.8	48.7
	SDT	37.5	42.9	45.5	47.3	50.0	52.8	55.5	57.4	60.1	62.9	65.7
	SCT	34.7	40.7	43.7	45.7	48.6	51.5	54.4	56.4	59.3	62.2	65.1
4	TC	174.0	162.0	156.0	152.0	146.0	141.0	135.0	131.0	125.0	120.0	114.0
	KW	37.4	40.6	42.1	43.1	44.5	45.8	47.0	47.8	48.9	50.0	50.9
	SDT	38.5	43.8	46.4	48.2	50.9	53.6	56.3	58.1	60.8	63.6	66.3
	SCT	35.3	41.4	44.4	46.3	49.3	52.2	55.1	57.0	59.8	62.7	65.6
6	TC	186.0	174.0	168.0	163.0	157.0	151.0	145.0	141.0	135.0	129.0	123.0
	KW	38.6	42.0	43.6	44.7	46.2	47.6	48.9	50.1	51.0	52.1	53.2
	SDT	39.6	44.8	47.4	49.2	51.8	54.5	57.2	59.0	61.7	64.4	67.1
	SCT	36.0	42.1	45.1	47.1	50.0	52.9	55.7	57.7	60.5	63.4	66.2
8	TC	199.0	186.0	179.0	175.0	168.0	162.0	156.0	151.0	145.0	139.0	133.0
	KW	39.8	43.4	45.2	46.3	47.9	49.4	50.9	51.8	53.1	54.3	55.5
	SDT	40.7	45.9	48.5	50.2	52.8	55.5	58.1	59.9	62.6	65.2	67.9
	SCT	36.7	42.8	45.8	47.8	50.7	53.6	56.5	58.4	61.2	64.1	66.9
10	TC	212.0	198.0	191.0	187.0	180.0	173.0	166.0	162.0	155.0	149.0	142.0
	KW	41.1	44.9	46.8	47.9	49.6	51.3	52.8	53.8	55.2	56.6	57.9
	SDT	41.9	47.0	49.5	51.3	53.9	56.5	59.1	60.8	63.5	66.1	68.7*
	SCT	37.5	43.6	46.6	48.6	51.5	54.4	57.3	59.2	62.0	64.8	67.6

**LEGEND**

**kW** — Compressor Power  
**SCT** — Saturated Condensing Temperature (C)  
**SDT** — Saturated Discharge Temperature (leaving compressor) (C)  
**SST** — Saturated Suction Temperature (entering condensing unit)  
**TC** — Gross Cooling Capacity (kW)

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

**NOTES:**

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Performance data (cont)



## CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 50 Hz SI (cont)

### 38AH124 MODULE 124A OR 124B; 38AH134 MODULE 134A

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	149.0	138.0	132.0	129.0	123.0	118.0	112.0	109.0	103.0	97.8	92.5
	KW	35.7	38.6	40.0	40.8	42.0	43.1	44.0	44.5	45.4	46.0	46.6
	SDT	34.7	40.5	43.4	45.4	48.3	51.3	54.2	56.2	59.1	62.1	65.1
	SCT	33.9	39.9	42.9	44.9	47.9	50.9	53.8	55.9	58.9	61.9	64.8
0	TC	161.0	149.0	143.0	140.0	134.0	128.0	122.0	119.0	113.0	107.0	102.0
	KW	36.7	39.8	41.3	42.2	43.6	44.7	45.8	46.4	47.4	48.2	48.9
	SDT	35.2	40.9	43.8	45.8	48.7	51.6	54.4	56.4	59.4	62.3	65.2
	SCT	34.3	40.2	43.2	45.2	48.1	51.1	54.0	56.0	59.0	62.0	65.0
2	TC	173.0	161.0	155.0	151.0	145.0	139.0	133.0	129.0	123.0	117.0	111.0
	KW	37.6	41.0	42.6	43.7	45.1	46.4	47.6	48.4	49.5	50.4	51.2
	SDT	35.8	41.5	44.4	46.3	49.2	52.0	54.9	56.8	59.7	62.7	65.6
	SCT	34.7	40.7	43.6	45.6	48.5	51.5	54.4	56.4	59.3	62.3	65.2
4	TC	186.0	174.0	167.0	163.0	157.0	150.0	144.0	140.0	134.0	127.0	121.0
	KW	38.5	42.1	44.0	45.1	46.6	48.1	49.5	50.3	51.5	52.6	53.5
	SDT	36.5	42.1	45.0	46.9	49.7	52.6	55.4	57.3	60.2	63.1	65.9
	SCT	35.3	41.2	44.1	46.1	49.0	51.9	54.8	56.8	59.7	62.6	65.5
6	TC	200.0	186.0	180.0	175.0	169.0	162.0	155.0	151.0	145.0	138.0	132.0
	KW	39.4	43.3	45.3	46.5	48.2	49.8	51.3	52.2	53.6	54.8	55.9
	SDT	37.2	42.9	45.7	47.6	50.4	53.2	56.0	57.9	60.7	63.6	66.4
	SCT	35.9	41.8	44.7	46.6	49.5	52.5	55.4	57.3	60.2	63.1	66.0
8	TC	214.0	200.0	193.0	188.0	181.0	174.0	167.0	163.0	156.0	149.0	142.0
	KW	40.3	44.6	46.6	47.9	49.8	51.5	53.1	54.1	55.6	57.0	58.2
	SDT	38.1	43.7	46.5	48.3	51.1	53.9	56.7	58.6	61.4	64.2	67.0
	SCT	36.6	42.4	45.3	47.3	50.2	53.1	55.9	57.9	60.7	63.6	66.5
10	TC	228.0	213.0	206.0	201.0	194.0	187.0	179.0	175.0	167.0	160.0	153.0
	KW	41.3	45.8	48.0	49.4	51.3	53.2	55.0	56.1	57.7	59.2	60.6
	SDT	39.0	44.5	47.3	49.1	51.9	54.7	57.4	59.3	62.1	64.8	67.6*
	SCT	37.3	43.1	46.0	48.0	50.8	53.7	56.6	58.5	61.3	64.2	67.0

### 38AH134 MODULE 134B

SST (C)		Air Temperature Entering Condenser (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	181.0	169.0	163.0	159.0	153.0	147.0	141.0	137.0	131.0	125.0	119.0
	KW	45.2	48.6	50.1	51.1	52.5	53.8	54.9	55.6	56.6	57.4	58.2
	SDT	34.0	39.8	42.7	44.6	47.5	50.4	53.4	55.4	58.3	61.3	64.3
	SCT	31.9	37.7	40.7	42.6	45.5	48.5	51.4	53.4	56.3	59.3	62.2
0	TC	195.0	182.0	176.0	172.0	166.0	159.0	153.0	149.0	143.0	136.0	130.0
	KW	46.5	50.2	51.8	52.9	54.4	55.8	57.1	57.9	59.1	60.1	61.0
	SDT	34.5	40.2	43.1	45.0	47.8	50.7	53.6	55.5	58.4	61.4	64.3
	SCT	32.4	38.2	41.2	43.1	46.0	48.9	51.7	53.6	56.5	59.4	62.4
2	TC	210.0	196.0	190.0	185.0	179.0	172.0	166.0	161.0	155.0	148.0	142.0
	KW	47.8	51.8	53.6	54.8	56.4	58.0	59.4	60.3	61.6	62.7	63.7
	SDT	35.2	40.9	43.7	45.6	48.4	51.3	54.1	56.0	58.9	61.8	64.6
	SCT	33.0	38.8	41.7	43.7	46.5	49.4	52.3	54.2	57.0	59.9	62.7
4	TC	224.0	211.0	204.0	199.0	192.0	185.0	179.0	174.0	167.0	160.0	153.0
	KW	49.0	53.4	55.4	56.6	58.5	60.1	61.7	62.7	64.1	65.4	66.6
	SDT	36.0	41.6	44.4	46.3	49.1	51.9	54.7	56.5	59.3	62.2	65.0
	SCT	33.6	39.5	42.3	44.3	47.1	50.0	52.8	54.7	57.5	60.3	63.1
6	TC	240.0	226.0	218.0	213.0	206.0	199.0	192.0	187.0	180.0	173.0	165.0
	KW	50.3	55.0	57.1	58.5	60.5	62.3	64.1	65.1	66.7	68.1	69.4
	SDT	36.7	42.3	45.1	47.0	49.8	52.6	55.3	57.2	60.0	62.8	65.5
	SCT	34.3	40.1	43.0	44.9	47.7	50.6	53.4	55.3	58.1	60.9	63.7
8	TC	256.0	241.0	233.0	228.0	221.0	213.0	206.0	201.0	193.0	186.0	178.0
	KW	51.5	56.6	58.9	60.4	62.5	64.5	66.4	67.6	69.3	70.9	72.4
	SDT	37.6	43.1	45.9	47.8	50.5	53.3	56.1	57.9	60.7	63.4	66.2
	SCT	34.9	40.7	43.6	45.5	48.4	51.2	54.0	55.9	58.7	61.5	64.2
10	TC	273.0	257.0	249.0	244.0	236.0	228.0	220.0	215.0	207.0	199.0	191.0
	KW	52.8	58.2	60.7	62.2	64.6	66.7	68.8	70.0	71.9	73.7	75.3
	SDT	38.4	44.0	46.7	48.6	51.3	54.1	56.8	58.7	61.4	64.2	66.9
	SCT	35.6	41.4	44.3	46.2	49.0	51.8	54.7	56.5	59.3	62.1	64.8

### LEGEND

\*May require replacement of the high-pressure cutout switches with switches of a higher setting.

### NOTES:

1. Ratings are based on 8.3 C superheat and use of R-22 refrigerant.
2. Ratings include suction line losses due to an accumulator.

# Electrical data



## 38AH044-084 DUAL-CIRCUIT CONDENSING UNITS, 60 Hz

UNIT 38AH	VOLTAGE DESIGNATION	COMPRESSOR MODEL (A/B)	NAMEPLATE V-Ph-Hz	SUPPLY VOLTAGE*		POWER SUPPLY			COMPRESSOR†			
				Min	Max	MCA	MOCP	ICF	A		B	
				RLA	LRA	RLA	LRA		RLA	LRA	RLA	LRA
044	500	06E-250/250	208/230-3-60	187	254	177.0	225	434.7	67.9	345	67.9	345
	600		460-3-60	414	508	90.1	110	218.6	34.6	173	34.6	173
	100		575-3-60	518	632	78.4	100	162.4	28.8	120	28.8	120
	200		380-3-60	342	418	93.5	125	241.2	34.6	191	34.6	191
054	500	06E-250/265	208/230-3-60	187	254	204.3	250	535.7	67.9	345	89.7	446
	600		460-3-60	414	508	101.3	125	268.6	34.5	173	43.6	223
	100		575-3-60	518	632	88.0	110	206.4	28.8	120	36.5	164
	200		380-3-60	342	418	107.1	150	297.2	34.6	191	45.5	247
064	500	06E-265/275	208/230-3-60	187	254	246.4	350	617.5	89.7	446	106.4	506
	600		460-3-60	414	508	114.3	150	307.6	43.6	223	46.8	253
	100		575-3-60	518	632	100.6	125	226.1	36.5	164	40.4	176
	200		380-3-60	342	418	126.9	175	341.1	45.5	247	52.6	280
074	500	06E-275/299	208/230-3-60	187	254	327.2	450	829.0	106.4	506	147.4	690
	600		460-3-60	414	508	147.4	200	408.2	46.8	253	65.4	345
	100		575-3-60	518	632	132.2	175	336.8	40.4	176	57.1	276
	200		380-3-60	342	418	174.5	250	458.0	52.6	280	78.8	382
084	500	06E-299/299	208/230-3-60	187	254	368.2	500	870.0	147.4	690	147.4	690
	600		460-3-60	414	508	166.0	225	426.8	65.4	345	65.4	345
	100		575-3-60	518	632	148.9	200	353.5	57.1	276	57.1	276
	200		380-3-60	342	418	200.7	250	484.2	78.8	382	78.8	382

## 38AH094,104 DUAL-CIRCUIT CONDENSING UNITS, 60 Hz

UNIT 38AH	VOLTAGE DESIGNATION	COMPRESSOR A1/A2/B1/B2 MODEL NO.	NAMEPLATE V-Ph-Hz	SUPPLY VOLTAGE*		POWER SUPPLY			COMPRESSOR†			
				Min	Max	MCA	MOCP	ICF	A1	A2	B1	B2
				RLA	LRA	RLA	LRA	RLA	RLA	LRA	RLA	LRA
094	500	06E-275/ 250/299/-	208/230-3-60	187	254	396.0	500	754.2	106.4	506	67.9	345
	600		460-3-60	414	508	182.0	225	369.4	46.8	253	34.6	173
	100		575-3-60	518	632	160.9	200	282.3	40.4	176	28.8	120
	200		380-3-60	342	418	209.1	250	416.8	52.6	280	34.6	191
104	500	06E-265/250/ 265/265	208/230-3-60	187	254	396.8	450	725.9	89.7	446	67.9	345
	600		460-3-60	414	508	195.1	225	361.2	43.6	223	34.6	173
	100		575-3-60	518	632	168.0	200	286.2	36.5	164	28.8	120
	200		380-3-60	342	418	205.9	250	396.0	45.5	247	34.6	191

## 38AH124,134 DUAL-CIRCUIT CONDENSING UNITS, 60 Hz

UNIT 38AH MODULE	VOLTAGE DESIGNATION	COMPRESSOR A1/A2 MODEL NO.	NAMEPLATE V-Ph-Hz	SUPPLY VOLTAGE*		POWER SUPPLY**			COMPRESSOR†			
				Min	Max	MCA	MOCP	ICF	A1	A2		
				RLA	LRA	RLA	LRA	RLA	RLA	LRA	RLA	LRA
124A	500	06E-275/ 265	208/230-3-60	187	254	246.9	350	573.8	106.4	506	89.7	446
	600		460-3-60	414	508	114.3	150	280.8	46.8	253	43.6	223
	100		575-3-60	518	632	100.6	125	218.0	40.4	176	36.5	164
	200		380-3-60	342	418	126.9	175	315.2	52.6	280	45.5	247
134B	500	06E-299/ 275	208/230-3-60	187	254	327.2	450	685.6	147.4	690	106.4	506
	600		460-3-60	414	508	147.4	200	334.8	65.4	345	46.8	253
	100		575-3-60	518	632	132.2	175	253.5	57.1	276	40.4	176
	200		380-3-60	342	418	174.5	250	382.2	78.8	382	52.6	280

See Legend on page 69.

# Electrical data (cont)



## 38AH044-084 OPTIONAL SINGLE-CIRCUIT CONDENSING UNITS, 60 Hz

UNIT 38AH	VOLTAGE DESIGNATION	COMPRESSOR MODEL (A1/A2)	NAMEPLATE V-Ph-Hz	SUPPLY VOLTAGE*		POWER SUPPLY			COMPRESSOR†			
				Min	Max	MCA	MOCP	ICF	A1		A2	
									RLA	LRA	RLA	LRA
044	500	06E-250/250	208/230-3-60	187	254	177.0	225	434.7	67.9	345	67.9	345
	600		460-3-60	414	508	90.1	110	218.6	34.6	173	34.6	173
	100		575-3-60	518	632	78.4	100	162.4	28.8	120	28.8	120
	200		380-3-60	342	418	93.5	125	241.2	34.6	191	34.6	191
054	500	06E-265/250	208/230-3-60	187	254	204.3	250	456.5	89.7	446	67.9	345
	600		460-3-60	414	508	101.3	125	227.6	43.6	223	34.6	173
	100		575-3-60	518	632	88.0	110	170.1	36.5	164	28.8	120
	200		380-3-60	342	418	107.1	150	252.1	45.5	247	34.6	191
064	500	06E-275/265	208/230-3-60	187	254	246.4	350	573.8	106.4	506	89.7	446
	600		460-3-60	414	508	114.3	150	280.8	46.8	253	43.6	223
	100		575-3-60	518	632	100.6	125	218.0	40.4	176	36.5	164
	200		380-3-60	342	418	126.9	175	315.2	52.6	280	45.5	247
074	500	06E-299/275	208/230-3-60	187	254	327.2	450	685.6	147.4	690	106.4	506
	600		460-3-60	414	508	147.4	200	334.8	65.4	345	46.8	253
	100		575-3-60	518	632	132.2	175	253.5	57.1	276	40.4	176
	200		380-3-60	342	418	174.5	250	382.2	78.8	382	52.6	280
084	500	06E-299/299	208/230-3-60	187	254	368.2	500	870.0	147.4	690	147.4	690
	600		460-3-60	414	508	166.0	225	426.8	65.4	345	65.4	345
	100		575-3-60	518	632	148.9	200	353.5	57.1	276	57.1	276
	200		380-3-60	342	418	200.7	250	484.2	78.8	382	78.8	382

### FANS

UNIT 38AH	CONDENSER FAN MOTORS				
	Nameplate V-Ph-Hz	Qty	Hp	Total kW	(No.) FLA Each
044	208/230-3-60	4	1	6.2	(1,2) 5.5 (3,4) 6.6
	460-3-60				(1,2) 2.8 (3,4) 3.3
	575-3-60				(1-4) 3.4
	380-3-60				(1-4) 3.9
054	208/230-3-60	4	1	6.2	(1,2) 5.5 (3,4) 6.6
	460-3-60				(1,2) 2.8 (3,4) 3.3
	575-3-60				(1-4) 3.4
	380-3-60				(1-4) 3.9
064	208/230-3-60	4	1	6.2	(1,2) 5.5 (3,4) 6.6
	460-3-60				(1,2) 2.8 (3,4) 3.3
	575-3-60				(1-4) 3.4
	380-3-60				(1-4) 3.9
074	208/230-3-60	6	1	9.3	(1,2) 5.5 (3-6) 6.6
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
	380-3-60				(1-6) 3.9
084	208/230-3-60	6	1	9.3	(1,2) 5.5 (3-6) 6.6
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
	380-3-60				(1-6) 3.9
094	208/230-3-60	6	1	9.4	(1,2) 5.5 (3-6) 6.6
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
	380-3-60				(1-6) 3.9
104	208/230-3-60	6	1	9.5	(1,2) 5.5 (3-6) 6.6
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
	380-3-60				(1-6) 3.9
Modules 124A, 124B, 134A	208/230-3-60	4	1	6.4	(1,2) 5.5 (3,4) 6.6
	460-3-60				(1,2) 2.8 (3,4) 3.3
	575-3-60				(1-4) 3.4
	380-3-60				(1-4) 3.9
Module 134B	208/230-3-60	6	1	9.2	(1,2) 5.5 (3-6) 6.6
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
	380-3-60				(1-6) 3.9

### CONTROL CIRCUIT

38AH 044-134	UNIT POWER	CONTROL POWER		AMPS
		V-Ph-Hz	V-Ph-Hz	
-500	208/230-3-60	115-1-60	103	127
-600	460-3-60	115-1-60	103	127
-100	575-3-60	115-1-60	103	127
-200	380-3-60	230-1-60	207	253

See Legend on page 69.

## LEGEND and NOTES (for pages 67 and 68)

### LEGEND

<b>AWG</b>	American Wire Gage
<b>FLA</b>	Full Load Amps
<b>ICF</b>	Maximum Instantaneous Current Flow During Starting. (The point in the starting sequence where the sum of the LRA for the starting compressors, plus the total RLA for all running compressors plus the FLA for all running fan motors is maximum.)
<b>IFC</b>	Indoor-Fan Contactor
<b>kcmil</b>	Thousand Circular Mils
<b>LLS</b>	Liquid Line Solenoid
<b>LRA</b>	Locked Rotor Amps
<b>MCA</b>	Minimum Circuit Amps (used for sizing; complies with National Electrical Code [NEC] section 430-24.)
<b>MOCP</b>	Maximum Overcurrent Protection (used for sizing disconnect; complies with NEC Article 440-22.)
<b>RLA</b>	Rated Load Amps
<b>UL</b>	Underwriters' Laboratories

\*Units are suitable for use on electrical systems where voltage supplied to unit terminals is within listed minimum to maximum limits.

†All compressors are across-the-line start only.

\*\*38AH124 and 134 units require a separate power supply for each unit module.

### NOTES:

1. Maximum allowable phase imbalance:  
Voltage — 2%  
Amps — 10%
2. Maximum incoming wire size for terminal block is 500 kcmil.
3. Wiring for field power supply must be rated 75 C minimum. Use copper, copper-clad aluminum, or aluminum conductors. Maximum incoming wire size for each terminal block is 500 kcmil.
4. Terminal blocks TB3 and TB4 are for external field control connections. Control connections are to be class 1 wiring.

5. Field-supplied components (IFC, LLS-A, and LLS-B) must have a maximum sealed coil rating of 30 va each (0.25 amp at 120 vac and 0.13 amp at 230 vac). Thermostats must have a minimum pilot duty rating as follows:

38AH	VA (Each Stage)	AMPS	VAC
<b>044-084</b>	300	2.5 1.3	120 240
<b>094</b>	275	2.29 1.15	120 240
<b>104</b>	325	2.70 1.35	120 240
<b>124</b>	300	2.50	120
<b>134</b>	300	2.50	120

6. Units have the following va of power available for field-installed accessories:

38AH044-084 — 175 va

38AH094 — 140 va

38AH104 — 130 va

38AH124,134 — 175 va each module

7. To minimize voltage drop, the following wire sizes are recommended:

LENGTH (ft)	INSULATED WIRE — AWG (35 C Minimum)
<b>Up to 50</b>	No. 18
<b>50-75</b>	No. 16
<b>More Than 75</b>	No. 14

8. The 575-v base units are UL, Canada approved.
9. The 208/230-v and 460-v base units are UL and UL, Canada approved.
10. Unit 38AH124 consists of Modules 124A and 124B. Unit 38AH134 consists of Modules 134A and 134B. Each module has a control box.
11. All fans are protected by a single circuit breaker.



# Electrical data (cont)



## 38AH044-084, 50 Hz

UNIT 38AH	VOLTAGE DESIGNATION	COMPRESSOR MODEL (A/B DUAL-CIRCUIT) (A1/A2 SINGLE-CIRCUIT)	NAMEPLATE VOLTS-PH-Hz	SUPPLY VOLTAGE*			POWER SUPPLY			COMPRESSOR†			
				Min	Max	MCA	MOCP	ICF	A		B		
				RLA	LRA	RLA	LRA	RLA	A	LRA	RLA	LRA	
044	800 (PW) 900 300 (PW)	06E-250/250	230-3-50 380/415-3-50 346-3-50	198 348 325	254 440 367	179.0 90.7 92.6	225 100 125	296.7 219.6 165.9	67.9 34.6 33.3	207 173 115	67.9 34.6 33.3	207 173 115	
054	900 300 (PW)	06E-250/265	380/415-3-50 346-3-50	342 325	440 367	101.9 107.0	125 150	269.6 198.9	34.6 33.3	173 115	43.6 44.9	223 148	
064	900 300 (PW)	06E-265/275	380/415-3-50 346-3-50	342 325	440 367	114.9 129.8	150 175	335.6 230.5	43.6 44.9	223 148	46.8 53.8	280 168	
074	900 300 (PW)	06E-275/299	380/415-3-50 346-3-50	342 325	440 367	148.2 170.8	200 250	403.8 300.4	46.8 53.8	280 168	65.4 79.5	345 229	
084	900 300 (PW)	06E-299/299	380/415-3-50 346-3-50	342 325	440 367	166.8 205.3	225 250	428.4 334.9	65.4 79.5	345 229	65.4 79.5	345 229	

## 38AH094 and 104, 50 Hz

UNIT 38AH	VOLTAGE DESIGNATION	COMPRESSOR A1/A2/B1/B2 MODEL NO.	NAMEPLATE VOLTS-PH-Hz	SUPPLY VOLTAGE*			POWER SUPPLY			COMPRESSOR†						
				Min	Max	MCA	MOCP	ICF	A1		A2		B1		B2	
				RLA	LRA	RLA	LRA	RLA	A1	LRA	RLA	LRA	RLA	LRA	RLA	
094	300 (PW)	06E-275/250/ 299/—	346-3-50	325	380	212.9	250	343	53.8	168	33.3	115	79.5	229	—	—
	900		380/415-3-50	342	440	182.8	225	444	46.8	280	34.6	173	65.4	345	—	—
104	300 (PW)	06E-265/250/ 265/265	346-3-50	325	380	205.6	250	298	44.9	148	33.3	229	44.9	148	49.9	148
	900		380/415-3-50	342	440	195.9	225	363	43.6	223	34.6	173	43.6	223	43.6	223

## 38AH124 and 134, 50 Hz

UNIT 38AH MODULE	VOLTAGE DESIGNATION	COMPRESSOR A1/A2 MODEL NO.	NAMEPLATE VOLTS-PH-Hz	SUPPLY VOLTAGE*			POWER SUPPLY**			COMPRESSOR†			
				Min	Max	MCA	MOCP	ICF	A1		A2		
				RLA	LRA	RLA	LRA	RLA	A1	LRA	RLA	LRA	
124A 124B 134A	300 (PW)	06E-275/265	346-3-50	325	367	129.8	175	231	53.8	168	44.9	148	
	900		380/415-3-50	342	440	114.9	150	336	46.8	280	43.6	223	
134B	300 (PW)	06E-299/275	346-3-50	325	367	170.8	250	300	79.5	229	53.8	168	
	900		380/415-3-50	342	440	148.2	200	404	65.4	345	46.8	280	

See Legend and Notes on page 71.



## FANS

UNIT/MODULE 38AH	CONDENSER FAN MOTORS				
	Nameplate Volts-Ph-Hz	Qty	Hp	Total kW	(No.) FLA Each
044	230-3-50 380/415-3-50 346-3-50	4	1	6.2	(1,2) 6.3 (3,4) 6.8 (1,2) 3.0 (3,4) 3.4 (1-4) 4.4
054	380/415-3-50 346-3-50	4	1	6.2	(1,2) 3.0 (3,4) 3.4 (1-4) 4.4
064	380/415-3-50 346-3-50	4	1	6.2	(1,2) 3.0 (3,4) 3.4 (1-4) 4.4
074	380/415-3-50 346-3-50	6	1	9.3	(1,2) 3.0 (3-6) 3.4 (1-6) 4.4
084	380/415-3-50 346-3-50	6	1	9.3	(1,2) 3.0 (3-6) 3.4 (1-6) 4.4
094	380/415-3-50 346-3-50	6	1	9.4	(1,2) 3.0 (3-6) 3.4 (1-6) 4.4
104	380/415-3-50 346-3-50	6	1	9.5	(1,2) 3.0 (3-6) 3.4 (1-6) 4.4
124A 124B 134A	380/415-3-50 346-3-50	4	1	6.4	(1,2) 3.0 (3,4) 3.4 (1-4) 4.4
134B	380/415-3-50 346-3-50	6	1	9.2	(1,2) 3.0 (3,4) 3.4 (1-6) 4.4

## CONTROL CIRCUIT

38AH 044-134	UNIT POWER V-Ph-Hz	CONTROL POWER			AMPS
		V-Ph-Hz	Min	Max	
-800	230-3-50	230-1-50	207	253	2.0
-300	346-3-50	200-1-50	180	220	2.4
-900	380/415-3-50	230-1-50	207	253	2.0

## LEGEND and NOTES (for pages 70 and 71)

**AWG** — American Wire Gage

**FLA** — Full Load Amps

**ICF** — Maximum Instantaneous Current Flow During Starting.  
(The point in the starting sequence where the sum of the LRA for the starting compressors, plus the total RLA for all running compressors plus the FLA for all running fan motors is maximum.)

**IFC** — Indoor-Fan Contactor

**kcmil** — Thousand Circular Mils

**LLS** — Liquid Line Solenoid

**LRA** — Locked Rotor Amps

**MCA** — Minimum Circuit Amps (used for sizing; complies with National Electrical Code [NEC] section 430-24, U.S.A.)

**MOCP** — Maximum Overcurrent Protection (used for sizing disconnect; complies with NEC Article 440-22, U.S.A.)

**PW** — Part Wind

**RLA** — Rated Load Amps

\*Units are suitable for use on electrical systems where voltage supplied to unit terminals is within listed minimum to maximum limits.

†Compressors are across-the-line start unless voltage designation shows (PW).

\*\*38AH124 and 134 units require a separate power supply for each unit module.

### NOTES:

- Maximum allowable phase imbalance:

Voltage — 2%

Amps — 10%

- Maximum incoming wire size for terminal block is 500 kcmil.

- Wiring for field power supply must be rated 75 C minimum. Use copper, copper-clad aluminum, or aluminum conductors. Maximum incoming wire size for each terminal block is 500 kcmil.

- Terminal blocks TB3 and TB4 are for external field control connections. Control connections are to be class 1 wiring.

- Field-supplied components (IFC, LLS-A, and LLS-B) must have a maximum sealed coil rating of 30 va each or less (0.13 amp at 230 vac). Thermostats must have a minimum pilot duty rating as follows:

38AH	VA (Each Stage)	AMPS	CONTROL CIRCUIT VOLTAGE
044-084	300	1.30	
094	275	1.15	
104	325	1.35	
124	300	1.30	240
134	300	1.30	

- Units have the following va of power available for field-installed accessories:

38AH044-084 — 175 va

38AH094 — 140 va

38AH104 — 130 va

38AH124,134 — 175 va each module

- To minimize voltage drop, the following wire sizes are recommended:

LENGTH (Ft)	INSULATED WIRE — AWG (35 C Minimum)
Up to 50	No. 18
50-75	No. 16
More Than 75	No. 14

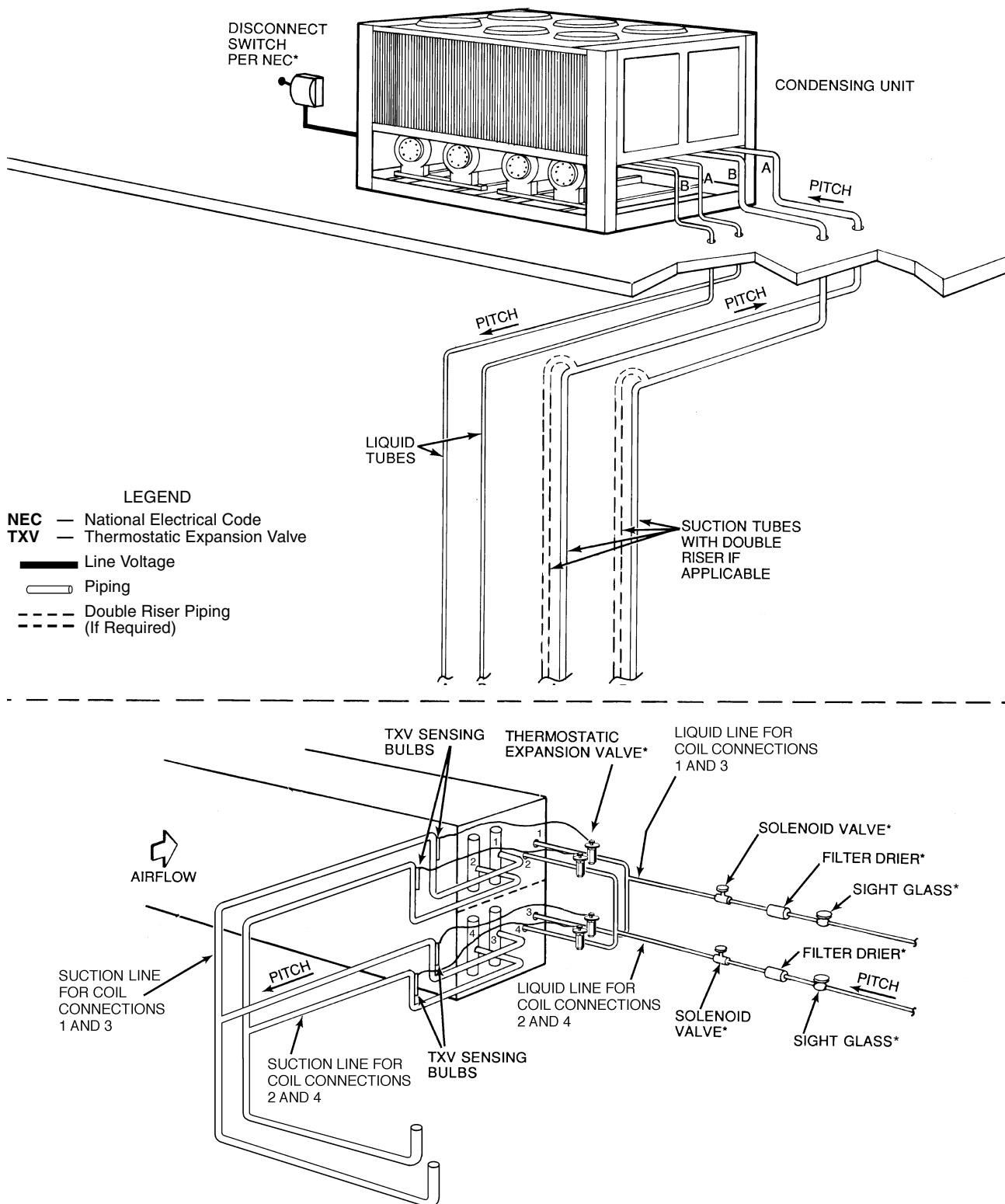
- Unit 38AH124 consists of Modules 124A and 124B. Unit 38AH134 consists of Modules 134A and 134B. Each module has a control box.

- All fans are protected by a single circuit breaker.

# Typical piping and wiring 38AH044-134



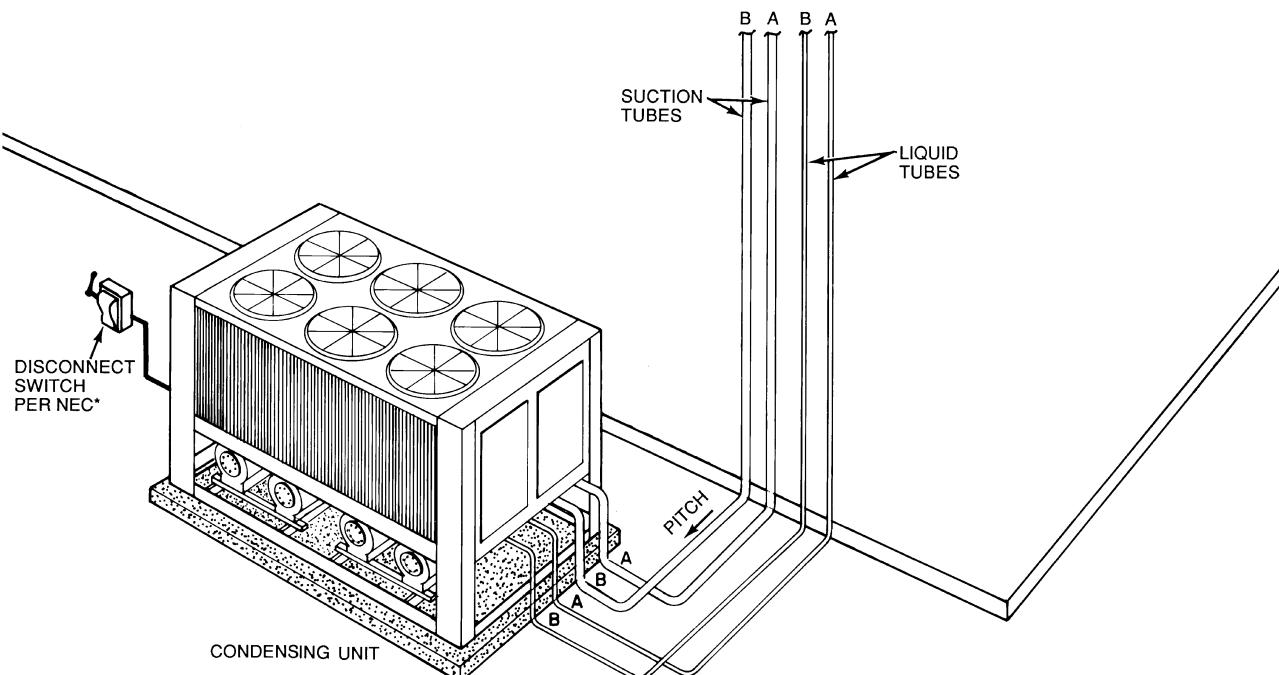
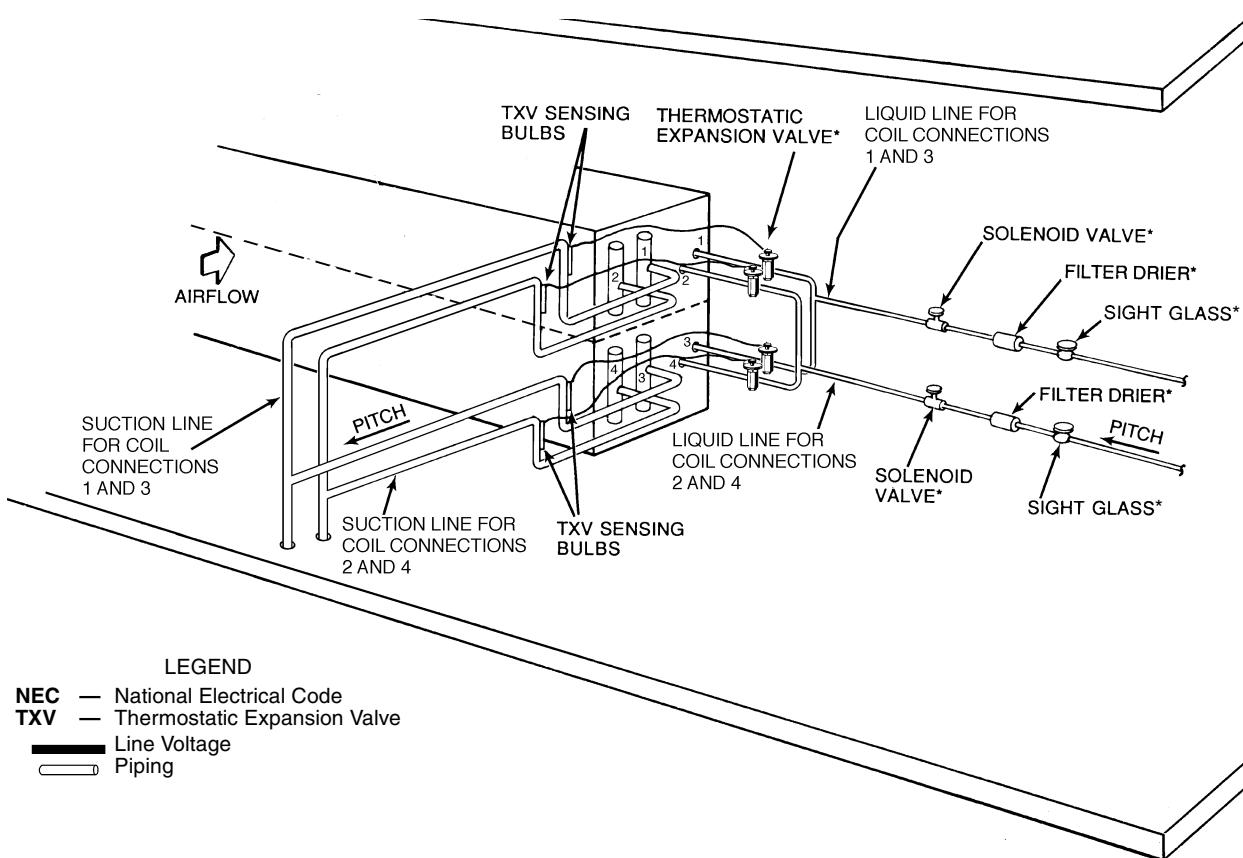
## ROOFTOP INSTALLATION — UNIT 38AH104 WITH SINGLE AIR HANDLER SHOWN



\*Field supplied, see Refrigerant Specialties table on page 74 for recommended component part numbers.

### NOTES:

1. All piping must follow standard refrigerant piping techniques. Refer to Carrier System Design Manual for details.
2. All wiring must comply with the applicable local and national codes.
3. Wiring and piping shown are general points-of-connection guides only and are not intended for, or to include all details for, a specific installation. Row-split connection shown.
4. Liquid line solenoid valve (solenoid drop control) is required to minimize refrigerant migration to the compressor.

**GROUND-LEVEL INSTALLATION — UNIT 38AH104 WITH SINGLE AIR HANDLER SHOWN**


\*Field supplied, see Refrigerant Specialties table on page 74 for recommended component part numbers.

**NOTES:**

1. All piping must follow standard refrigerant piping techniques. Refer to Carrier System Design Manual for details.
2. All wiring must comply with the applicable local and national codes.
3. Wiring and piping shown are general points-of-connection guides only and are not intended for, or to include all details for, a specific installation. Row-split connection shown.
4. Liquid line solenoid valve (solenoid drop control) is required to minimize refrigerant migration to the compressor.

# Typical piping and wiring 38AH044-134 (cont)



## REFRIGERANT SPECIALTIES PART NUMBERS

UNIT	LIQUID LINE SIZE*	LIQUID LINE SOLENOID VALVE (LLS)	LLS COIL 50 Hz UNITS	LLS COIL 60 Hz UNITS	SIGHT GLASS	FILTER DRIER
38AH044	5/8"	240RA9T5M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT5 Qty 2	P502-8757S† Qty 2
	7/8"	240RA9T7M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT7 Qty 2	P502-8757S Qty 2
38AH054	5/8"	240RA9T7M† Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT5 Qty 2	C-967† Qty 2
	7/8"	240RA9T7M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT7 Qty 2	C-967 Qty 2
38AH064	7/8"	240RA9T7M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT7 Qty 2	C-969† Qty 2
	1 1/8"	240RA9T9M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT9 Qty 2	C-969 Qty 2
38AH074-084	7/8"	240RA16T9M† Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT7 Qty 2	C-1449† Qty 2
	1 1/8"	240RA16T9M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT9 Qty 2	C-1449 Qty 2
	1 3/8"	240RA16T11M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT9† Qty 2	C-14411 Qty 2
38AH094-104	7/8"	240RA16T9M† Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT7 Qty 2	C-14411† Qty 2
	1 1/8"	240RA16T9M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT9 Qty 2	C-14411† Qty 2
	1 3/8"	240RA16T11M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT9† Qty 2	C-14411 Qty 2
38AH124	7/8"	240RA9T7M Qty 4	AMG/208-240V Qty 4	AMG/120V Qty 4	AMI-1TT7 Qty 2	C-19211† Qty 2
	1 1/8"	240RA9T9M Qty 4	AMG/208-240V Qty 4	AMG/120V Qty 4	AMI-1TT9 Qty 2	C-19211† Qty 2
38AH134 Module A	7/8"	240RA9T7M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT7 Qty 1	C-19211† Qty 1
	1 1/8"	240RA9T9M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT9 Qty 1	C-19211† Qty 1
38AH134 Module B	7/8"	240RA16T9M† Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT7 Qty 1	C-19211† Qty 1
	1 1/8"	240RA16T9M Qty 2	AMG/208-240V Qty 2	AMG/120V Qty 2	AMI-1TT9 Qty 1	C-19211† Qty 1

### LEGEND

LLS — Liquid Line Solenoid

\*Choose liquid line size using the tables on pages 82-87 before choosing refrigerant specialty parts.

†Bushings required.

NOTE: 38AH044-084 Single Circuit units, refrigerant specialties are installed in the branch sections of the liquid line at the indoor unit.

# Controls



## 38AH044-084

### Sequence of operation

Circuits A1 and B1 are controlled by independent circuitry, making it possible to maintain partial cooling capability even if one compressor is inoperable.

NOTE: Single-circuit units do not have independent control circuitry.

On a call for cooling, the first-stage cooling thermostat TC1 closes, energizing the first stage of the condenser fans and timer motor TM-A (TM for single-circuit units). After 12 seconds, the timer energizes lead compressor contactor C-A1 and the lead compressor starts. (Circuit A compressor is the lead on dual-circuit units, and compressor A1 is the lead on single-circuit units.) At the same time, solenoid drop relay SDR2 energizes and closes its contacts, which energizes and opens liquid line solenoid valve LLS-A (LLS-A1 for single-circuit units). Circuit A (compressor A1 for single-circuit units) is now operational.

A set of bypass contacts in timer TM-A allows the circuit A compressor (compressor A1 for single-circuit units) 40 seconds to build sufficient oil pressure. If the oil pressure is insufficient after 40 seconds, circuit A (compressor A1 for single-circuit units) shuts down and must be reset manually.

A second set of bypass contacts in timer TM-A (TM for single-circuit units) allows the refrigerant circuit  $2\frac{1}{2}$  minutes to build sufficient low-side pressure. This time delay is a start-up feature for low ambient conditions; no accessory is required. If refrigerant circuit pressure is insufficient to close the low-pressure switch after  $2\frac{1}{2}$  minutes, the circuit A compressor (compressor A1 for single-circuit units) shuts down for 5 minutes and then automatically attempts to restart. No manual reset is required.

**For dual-circuit units** — If circuit A is insufficient for the cooling requirements, second-stage thermostat TC2 closes to bring circuit B on line. Circuit B follows the same sequence of operation as circuit A, except a relay delays circuit B compressor start-up for 40 seconds after a call for cooling. Because circuit A has a 12-second delay after TC1 closes, and circuit B has a 40-second delay after TC2 closes, the two compressors cannot start at the same time.

**For optional single-circuit units** — If compressor A1 is insufficient for the cooling requirements, second-stage thermostat TC2 closes, which opens liquid line solenoid valve LLS-A2. Compressor A2 starts only after the D-D2 contacts in timer TM close (approximately  $2\frac{1}{2}$  minutes after compressor A1 is energized) and the suction pressure is sufficient to close capacity control pressure switches CCPS1 and CCPS2.

NOTE: Liquid line solenoid valves must be field-supplied and installed at the evaporator for both dual-circuit and optional single-circuit units.

**Indoor-fan operation** — When the fan switch on the thermostat is set for automatic operation (AUTO), the field-supplied indoor-fan contactor (IFC) is cycled with the lead compressor. If the fan switch is set at the continuous position (CONT), the IFC is energized as long as the unit power is on.

# Controls (cont)

## 38AH094-134

### Sequence of operation

Units are controlled with electromechanical components. Each refrigeration circuit is operated by an independent timer motor, which controls the circuit's operation. It is possible to maintain partial cooling capability even if one circuit is inoperable.

On a call for cooling, first stage cooling thermostat TC1 closes. Condenser fans and timer motor (TM) are energized. After approximately 7 seconds, timer contacts E-E1 close. Approximately 12 seconds after TC1 closes, normally open timer contacts B-B1 close for 1 second. This energizes compressor A1 contacts CA1 and starts the compressor. At the same time, solenoid drop relays (SDRs) and liquid line solenoid valve no. 1 (LLS-A1) open, and timer relay no. 1 (TR1) is energized. Normally open TR1 contacts close completing a circuit around B-B1 and through compressor A1 contactors to maintain compressor operation when B-B1 contacts open. Contacts E-E1 remain closed for approximately 40 seconds to bypass the oil pressure switch. If oil pressure is insufficient when contacts E-E1 open, the compressor stops, the timer cycles off, and the control circuit locks out. At start-up, timer motor contacts D-D1 are closed, bypassing low-pressure relay contacts LPR-A for  $2\frac{1}{2}$  minutes. This provides a winter start-up feature.

Approximately  $2\frac{1}{2}$  minutes after TC1 closes, timer contacts D-D1 open and D-D2 close. If pressure is insufficient to close the low-pressure switch, the low-pressure switch relay remains open, the compressor shuts down, and the Time Guard control is initiated. Time Guard control prevents the compressor from restarting for 5 minutes after the demand for cooling is satisfied.

**Units 38AH094 and 104 —** If circuit A operation is insufficient for the cooling requirements, the thermostat second stage TC2 closes to bring circuit B on-line for cooling. This circuit follows the same sequence of operation as the lead circuit, except a 60-second time-delay relay (TDR) delays compressor start-up for 60 seconds after the call for cooling.

**Modules 124A, 124B, 134A, and 134B —** If compressor A1 is insufficient for the cooling requirements, the thermostat second stage closes, which opens the liquid line solenoid valve LLS-A2. Compressor A2 starts only after D-D2 contacts in the timer close and the suction pressure is sufficient to close the capacity control switches.

**All units —** When the fan switch is set for automatic (AUTO) operation, the indoor-fan contactor (IFC) is cycled with the lead compressor. If the fan switch is set for continuous operation (CONT), the IFC is energized as long as the unit power is on.

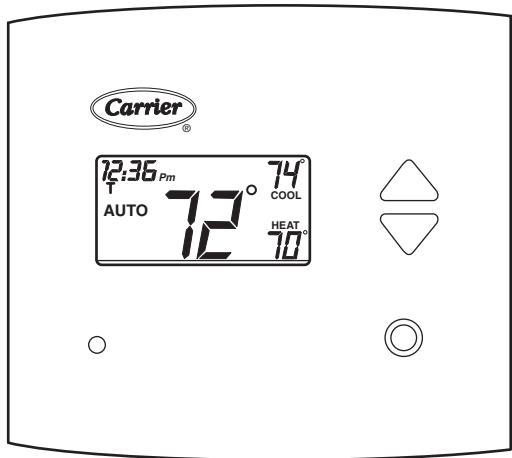
**Restart after stoppage by safety control —** The high-pressure switch and the oil pressure switch must be reset manually by breaking the control power supply at any of the following points: Control circuit fuse, fan motor circuit breaker, or thermostat. Restart follows the Time Guard control 5-minute delay. Stoppage by the low-pressure switch results in a Time Guard control 5-minute delay, then the unit attempts to restart.

The compressor motor overcurrent protectors are manual-reset circuit breakers. A control circuit reset may also be necessary.

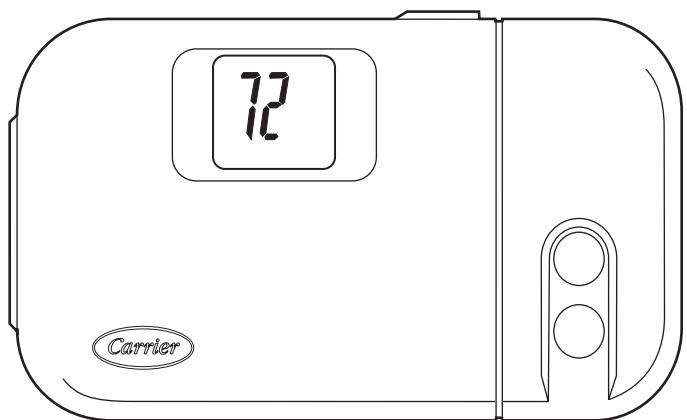


## CARRIER CONTROLS

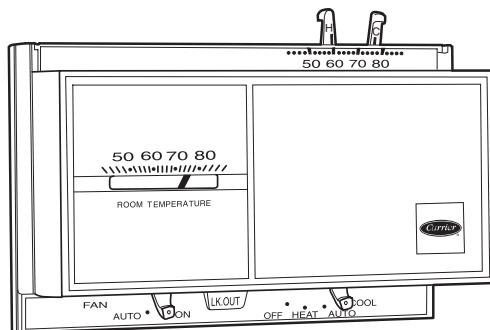
DEBONAIR® COMMERCIAL PROGRAMMABLE THERMOSTAT



COMMERCIAL ELECTRONIC THERMOSTAT



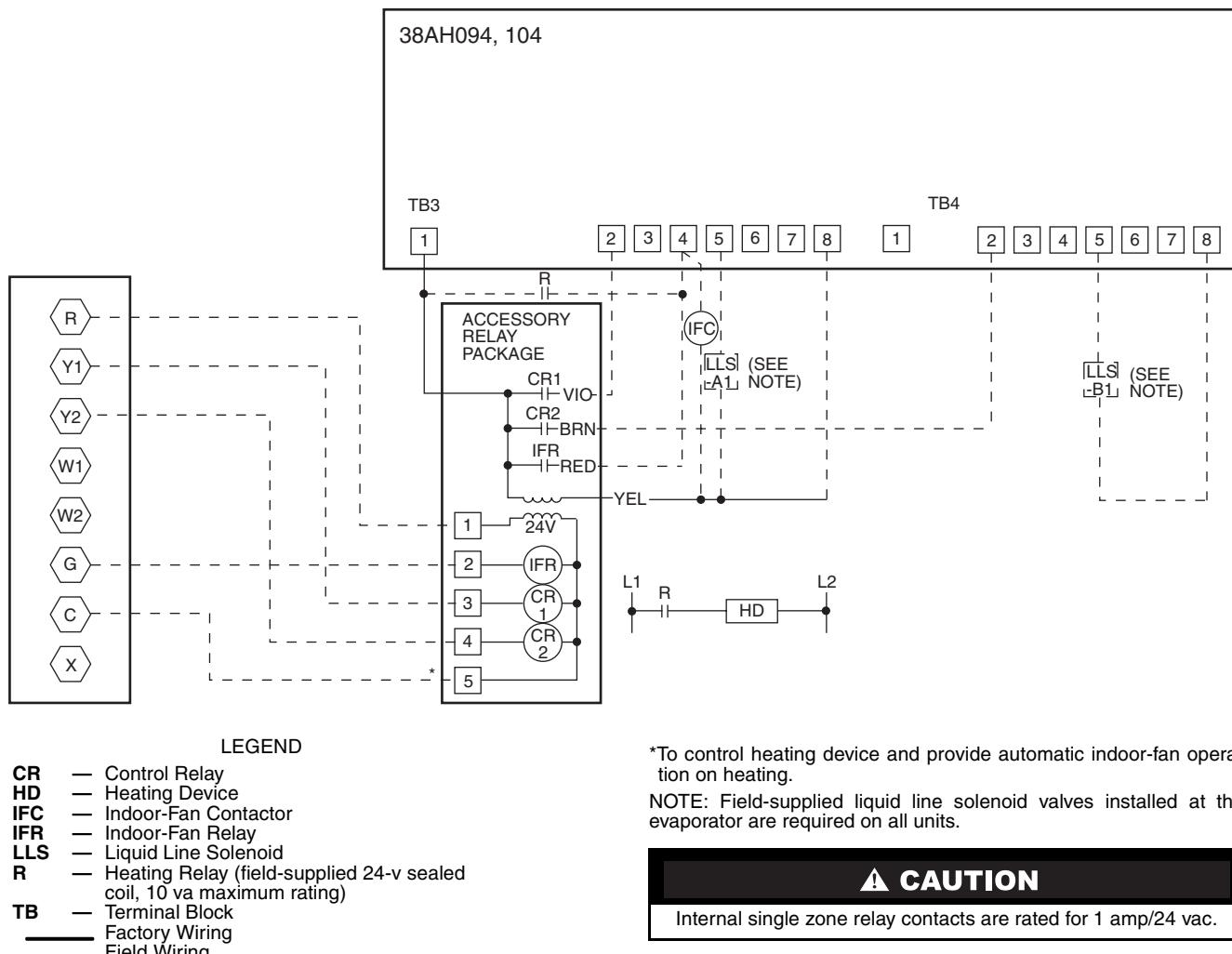
NON-PROGRAMMABLE THERMOSTAT



# Typical control wiring



## 24-V THERMOSTAT WIRING — UNITS 38AH044-104



# Application data



## Operating limits

Maximum outdoor ambient . . . . .	60 Hz, 115 F (46 C)
	50 Hz, 125 F (57.7 C)
Minimum outdoor ambient . . . . .	Refer to Minimum Outdoor-Air Operating Temperature table, pages 81 and 82.
Minimum return-air temperature . . . . .	55 F (12.8 C)
Maximum return-air temperature . . . . .	95 F (35 C)
Range of acceptable saturation suction temperature . . . . .	20 to 50 F (-6.7 to 10 C)
Maximum discharge temperature . . . . .	275 F (135 C)
Minimum discharge superheat . . . . .	60 F (15.6 C)

### NOTES:

1. Select indoor equipment at no less than 300 cfm/ton (40L/s/kW) (nominal condensing unit capacity).
2. The total combined draw of the 2 field-supplied liquid line solenoid valves and one air handler fan contactor must not exceed 90 va. If the specified va must be exceeded, use a remote relay to control the load.
3. Select equipment to match or to be slightly less than peak load.
4. Evaluate oil return when selecting vapor line sizes, especially for partial load conditions.
5. The indoor fan must operate when the outdoor unit is operating.
6. For VAV systems, the total building load is NOT the sum of the individual peak loads. Equipment selected for the sum of the individual peak loads will be oversized.
7. For VAV systems with supply-to-return air recycling, use the equipment room as a return-air plenum.
8. To minimize air recirculation, do not use concentric supply and return grilles.

## E-coated coils

**E-coated aluminum-fin coils** have a flexible and durable epoxy coating uniformly applied to all coil surfaces. Unlike brittle phenolic dip and bake coatings, E-coat provides superior protection with unmatched flexibility, edge coverage, metal adhesion, thermal performance, and most importantly, corrosion resistance.

E-coated coils provide this protection since all coil surfaces are completely encapsulated from environmental contamination. This coating is especially suitable in industrial environments.

**E-coated copper-fin coils** have the same flexible and durable epoxy coating as E-coated aluminum-fin coils. However, this option combines the natural salt and environmental resistance of all-copper construction with high levels of corrosion protection. This coating is recommended for harsh combinations of coastal and industrial environments.

## LIQUID LINE DATA (60 Hz)

UNIT 38AH	MAXIMUM ALLOWABLE LIQUID LIFT		LIQUID LINE		
	(ft)	(m)	Max Allowable Pressure Drop	Max Allowable Temp Loss	
044	69	21			
054	75	23			
064	75	23			
074	45	14			
084	75	23	7	48.3	2
094	55	17			1.1
104	50	15			
124	75	23			
134	45	14			

## LIQUID LINE DATA (50 Hz)

UNIT 38AH	MAXIMUM ALLOWABLE LIQUID LIFT		LIQUID LINE		
	m	ft	Max Allowable Pressure Drop	Max Allowable Temp Loss	
044	17.5	57.5			
054	23.0	75.0			
064	19.8	65.0			
074	11.4	37.5			
084	23.0	75.0	48.3	7	1.1
094	14.0	46.0			2
104	12.8	42.0			
124	19.8	65.0			
134	11.4	37.5			

NOTE: Values shown are for units operating at 7.2 C (45 F) saturated suction at condensing unit and 35 C (95 F) entering outdoor air.

## UNLOADING SEQUENCES — STANDARD CONSTANT VOLUME (CV) UNITS\*

UNIT 38AH	CAPACITY/STAGE (%)	
	Standard Units	Optional Single-Circuit Units
044	100, 75, 50, 25	100, 75, 50, 25
054	100, 79, 42, 21	100, 80, 56, 37
064	100, 84, 48, 32	100, 82, 55, 36
074	100, 86, 43, 29	100, 81, 57, 38
084	100, 83, 50, 33	100, 83, 50, 33
094	100, 85, 55, 44, 33, 22	—
104	100, 91, 74, 65, 47, 38, 26, 17	—
124	100, 91, 77, 68, 50, 41, 27, 18	—
134	100, 90, 76, 66, 45, 37, 25, 16	—

\*Additional unloading available with field-installed accessory unloader.

## UNLOADING SEQUENCES — OPTIONAL VARIABLE AIR VOLUME (VAV) UNITS

UNIT 38AH	CAPACITY/STAGE (%)	
	Standard Dual-Circuit Units	Optional Single-Circuit Units
044	100, 75, 50, 25	100, 75, 50, 25
054	100, 79, 58, 42, 21	100, 80, 61, 56, 37
064	100, 84, 69, 48, 32, 16	100, 82, 64, 55, 36, 18
074	100, 86, 71, 43, 29, 14	100, 81, 62, 57, 38, 19
084	100, 83, 67, 50, 33, 17	100, 83, 67, 50, 33, 17
094	100, 85, 70, 55, 44, 33, 22	—
104	100, 91, 74, 65, 47, 38, 26, 17	—
124	100, 91, 82, 77, 68, 50, 41, 32, 27, 18, 9	—
134	100, 90, 79, 76, 66, 45, 37, 28, 25, 16, 8	—

### NOTES:

1. Capacities are based on 45 F (7.2 C) saturated suction temperature and 95 F (35 C) outdoor-air temperature.
2. Single-circuit option available for sizes 044-084 only.

# Application data (cont)



## MINIMUM OUTDOOR-AIR OPERATING TEMPERATURE AND UNLOADING SEQUENCES — 38AH044-084 DUAL-CIRCUIT UNITS

UNIT 38AH	QUANTITY OF LOADED COMPRESSOR CYLINDERS			SYSTEM CAPACITY (%)	MINIMUM OUTDOOR OPERATING TEMP			
					w/Std Fans		w/Motormaster® V Control	
	Ckt A	Ckt B	Total		C	F	C	F
044	4	4	8	100 75 50 25	10.0	50	-28.9	-20
	2	4	6					
	4	0	4					
	2	0	2					
054	4	6	10	100 79 58* 42 21	8.9	48	-28.9	-20
	2	6	8					
	2	4	6*					
	4	0	4					
	2	0	2					
064	6	6	12	100 84 69* 48 32 16*	3.9	39	-28.9	-20
	4	6	10					
	2	6	8*					
	6	0	6					
	4	0	4					
	2	0	2*					
074	6	6	12	100 86 71* 43 29 14*	-0.6	31	-28.9	-20
	4	6	10					
	2	6	8*					
	6	0	6					
	4	0	4					
	2	0	2*					
084	6	6	12	100 83 67* 50 33 17*	-6.7	20	-28.9	-20
	4	6	10					
	2	6	8*					
	6	0	6					
	4	0	4					
	2	0	2*					

\*Requires units with VAV (variable air volume) factory-supplied option.

2. Minimum operating temperature is the higher outdoor temperature of the 2 circuits.

3. Minimum outdoor-air operating temperature is based on 32 C (90 F) saturated condensing temperature and 100% capacity.

## MINIMUM OUTDOOR-AIR OPERATING TEMPERATURE AND UNLOADING SEQUENCES — 38AH044-084 SINGLE-CIRCUIT UNITS

UNIT 38AH	QUANTITY OF LOADED CYLINDERS			SYSTEM CAPACITY (%)	MINIMUM OUTDOOR OPERATING TEMP			
					w/Std Fans		w/Motormaster V Control	
	C	F	C		C	F	C	F
044	8	100	8.3	47	-28.9	-20	-28.9	-20
	6	75						
	4	50						
	2	25						
054	10	100	5.0	41	-28.9	-20	-28.9	-20
	8	80						
	6*	61*						
	6	56						
	4	37						
064	12	100	3.3	38	-28.9	-20	-28.9	-20
	10	82						
	8*	64*						
	6	55						
	4	36						
	2*	18*						
074	12	100	-5.6	22	-28.9	-20	-28.9	-20
	10	81						
	8*	62*						
	6	57						
	4	38						
	2*	19*						
084	12	100	-6.7	20	-28.9	-20	-28.9	-20
	10	83						
	8*	67*						
	6	50						
	4	33						
	2*	17*						

\*Requires VAV (variable air volume) factory-supplied option or accessory unloader.

NOTE: Minimum outdoor-air operating temperature is based on 32 C (90 F) saturated condensing temperature and 100% capacity.



**MINIMUM OUTDOOR-AIR OPERATING TEMPERATURE AND UNLOADING SEQUENCES —  
38AH094-134 DUAL CIRCUIT UNITS**

UNIT 38AH	QUANTITY OF LOADED COMPRESSOR CYLINDERS			SYSTEM CAPACITY (%)	MINIMUM OUTDOOR OPERATING TEMP						
	Ckt A	Ckt B	Total		W/Std Fans				w/Motormaster® V Control		
					Ckt A		Ckt B		C	F	
	C	F	Total		C	F	C	F	C	F	
094	10	6	16	100	-13.9	7	-3.9	25	-28.9	-20	
	10	4	14	85							
	10	2*	12	70*							
	10	0	10	55							
	8	0	8	44							
	6	0	6	33							
	4	0	4	22							
104	10	12	22	100	-10.0	14	-15.0	5	-28.9	-20	
	10	10	20	91							
	10	8†	18	82†							
	10	6	16	74							
	10	4	14	65							
	10	2†	12	56†							
	10	0	10	47							
	8	0	8	38							
	6	0	6	26							
	4	0	4	17							
124	2†	0	2	9†	3.3	38	3.3	38	-28.9	-20	
	12	12	24	100							
	12	10	22	91							
	12	8†	20	82*							
	12	6	18	77							
	12	4	16	68							
	12	2†	14	59†							
	12	0	12	50							
	10	0	10	41							
	8*	0	8	32*							
	6	0	6	27							
	4	0	4	18							
	2*	0	2	9*							
134	12	12	24	100	3.3	38	-5.6	22	-28.9	-20	
	12	10	22	90							
	12	8	20	79*							
	12	6	18	76							
	12	4	16	66							
	12	2†	14	56†							
	12	0	12	45							
	10	0	10	37							
	8	0	8	28*							
	6	0	6	25							
	4	0	4	16							
	2*	0	2	8*							

\*Requires VAV (variable air volume) unit or accessory unloader(s) field installed on circuit lead compressor. Lead compressor is identified in Physical Data section, pages 6-13.

†Requires field-installed accessory unloader on circuit lead compressor. Lead compressor is identified in Physical Data section, pages 6-13.

NOTES:

1. Temperatures calculated with the minimum number of fans operating per circuit.
2. For 38AH124 and 134 units, circuit A is Module 38AH124A or 134A. Circuit B is Module 38AH124B or 134B.
3. Minimum outdoor-air operating temperature is based on 32 °C (90 °F) saturated condensing temperature and 100% capacity.

# Application data (cont)



## REFRIGERANT PIPING REQUIREMENTS 38AH044-084 DUAL-CIRCUIT UNITS, 60 Hz

UNIT 38AH		TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
		15-25 (4.6-7.6)		25-50 (7.6-15.2)		50-75 (15.2-22.9)		75-100 (22.9-30.5)		100-150 (30.5-45.7)		150-200 (45.7-61.0)	
		L	S	L	S	L	S	L	S	L	S	L	S
044	Ckt A	5/8	15/8	7/8	15/8	7/8	21/8	7/8	21/8	7/8	21/8	7/8	21/8
	Ckt B	5/8	15/8	7/8	15/8	7/8	21/8	7/8	21/8	7/8	21/8	7/8	21/8
054	Ckt A	5/8	15/8	7/8	15/8	7/8	21/8	7/8	21/8	7/8	21/8	7/8	21/8
	Ckt B	7/8	15/8	7/8	21/8	7/8	21/8	11/8	21/8	11/8	21/8	11/8	25/8*
064	Ckt A	7/8	15/8	7/8	21/8	7/8	21/8	7/8	21/8	11/8	21/8	11/8	25/8†
	Ckt B	7/8	21/8	7/8	21/8	7/8	21/8	11/8	21/8	11/8	25/8	11/8	25/8
074	Ckt A	7/8	21/8	7/8	21/8	7/8	21/8	11/8	21/8	11/8	25/8†	11/8	25/8†
	Ckt B	7/8	21/8	11/8	21/8	11/8	21/8	11/8	21/8	13/8	25/8	13/8	25/8
084	Ckt A	7/8	21/8	11/8	21/8	11/8	21/8	11/8	21/8	13/8	25/8†	13/8	25/8†
	Ckt B	7/8	21/8	11/8	21/8	11/8	21/8	11/8	25/8	13/8	25/8	13/8	25/8

### LEGEND

- L — Liquid Line  
 S — Suction Line  
 VAV — Variable Air Volume

\*Double suction riser required on units with field installed unloader on circuit B compressor if condensing unit is elevated above evaporator.

†Double suction riser required on units with field installed unloader on circuit A compressor if condensing unit is elevated above evaporator.

### NOTES:

1. Addition of 2 unloaders to circuit B compressor is not recommended.
2. Piping sizes are based on unit operation above 40 F (4.4 C) saturated suction temperature (SST). When operating below 40 F (4.4 C), refer to Carrier System Design Manual, E20-II® piping design program, or ASHRAE Handbook to select proper line sizes.
3. Pipe sizes are based on the total linear length shown for each column, plus a 50% allowance for fittings.
4. Suction and liquid line sizing is based on pressure drop equivalent to 2 F (1.1 C) at nominal rating conditions. Higher pressure drop design

criteria may allow selection of smaller pipe sizes, but at a penalty of decreased system capacity and efficiency.

5. Double suction risers may be required if condensing unit is elevated above the evaporator. See footnotes and double suction riser table below.
6. Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.
7. All pipe sizes are OD inches. Equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
13/8	34.9
15/8	41.3
21/8	54.0
25/8	66.7
31/8	79.4

## 38AH054-084 DUAL-CIRCUIT UNITS DOUBLE SUCTION RISER, 60 Hz

UNIT 38AH		TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
		50-75 (15.2-22.9)			75-100 (22.9-30.5)			100-150 (30.5-45.7)			150-200 (45.7-61.0)		
		A	B	C	A	B	C	A	B	C	A	B	C
054	Ckt A	—	—	—	—	—	—	—	—	—	15/8	21/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—
064	Ckt A	—	—	—	—	—	—	—	—	—	15/8	21/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—
074	Ckt A	—	—	—	—	—	—	15/8	21/8	25/8	15/8	21/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—
084	Ckt A	—	—	—	15/8	21/8	25/8	15/8	21/8	25/8	15/8	21/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—

### LEGEND

- Not Required  
 Pipe A — Suction Riser Without Trap  
 Pipe B — Suction Riser With Trap  
 Pipe C — Suction Line to Condensing Unit

### NOTES:

1. See Refrigerant Piping Requirements table at top of page to determine need for double suction risers.
2. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
3. Suction and liquid line sizing is based on pressure drop equivalent to 2 F (1.1 C) at nominal rating conditions. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.

4. Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.

5. All pipe sizes are OD inches. Equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
13/8	34.9
15/8	41.3
21/8	54.0
25/8	66.7
31/8	79.4



## REFRIGERANT PIPING REQUIREMENTS (cont)

**38AH044-084 OPTIONAL SINGLE-CIRCUIT UNITS; 38AH124,134 MODULAR UNITS (DUAL-CIRCUIT), 60 Hz**

UNIT 38AH	TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
	15-25 (4.6-7.6)		25-50 (7.6-15.2)		50-75 (15.2-22.9)		75-100 (22.9-30.5)		100-150 (30.5-45.7)		150-200 (45.7-61.0)	
	L	S	L	S	L	S	L	S	L	S	L	S
044	7/8	21/8	7/8	21/8	11/8	25/8†**	11/8	25/8†**	13/8	25/8†**	13/8	31/8†**
054	7/8	21/8	11/8	25/8†**	11/8	25/8†**	11/8	25/8†**	13/8	31/8†**	13/8	31/8†**
064; Modules 124A, 124B,134A	11/8	21/8	11/8	25/8†**	11/8	25/8†**	13/8	31/8†**	13/8	31/8†**	13/8	31/8†**
074; Module 134B	11/8	21/8	11/8	25/8†**	13/8	31/8†**	13/8	31/8†**	13/8	31/8†**	15/8	35/8†**
084	11/8	25/8†**	11/8	25/8†**	13/8	31/8†**	13/8	31/8†**	15/8	35/8†**	15/8	35/8†**

### LEGEND

**CV** — Constant Volume  
**L** — Liquid Line  
**S** — Suction Line  
**VAV** — Variable Air Volume

\*Standard CV unit with 1 unloader on circuit A and 1 field-installed unloader on circuit B; double suction riser required.

†Units with factory-installed VAV option or field-installed accessory unloader — 2 unloaders on circuit A, and 1 unloader on circuit B; double suction riser required.

\*\*Units with 2 field-installed unloaders on circuit A and 2 on circuit B; double suction riser required.

### NOTES:

1. It is possible to install 2 unloaders on circuit B, but not recommended.
2. Double risers may be required if condensing unit is elevated above evaporator. See footnotes and double suction riser table below.
3. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.

4. Suction line sizing is based on 2° F (1.1 C) pressure drop at nominal rating conditions. Liquid line sizing is based on 2° F (1.1 C) pressure drop. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.

5. Suction line riser selections are based on using maximum possible unloaders.

6. Refer to Carrier System Design Manual or to E20-II® design programs for further information on selecting pipe sizes for split systems.

7. All pipe sizes are OD inches. Equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
13/8	34.9
15/8	41.3
21/8	54.0
25/8	66.7
31/8	79.4

**38AH044-084 OPTIONAL SINGLE-CIRCUIT UNITS;  
38AH124,134 MODULAR UNITS (DUAL-CIRCUIT) —  
DOUBLE SUCTION RISER, 60 Hz**

UNIT 38AH	TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)														
	15-50 (4.6-15.2)			50-75 (15.2-22.9)			75-100 (22.9-30.5)			100-150 (30.5-45.7)			150-200 (45.7-61.0)		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
044	—	—	—	15/8	21/8	25/8	15/8	21/8	25/8	15/8	21/8	25/8	15/8	25/8	31/8
054	15/8	21/8	25/8	15/8	21/8	25/8	15/8	21/8	25/8	15/8	25/8	31/8	15/8	25/8	31/8
064; Modules 124A, 124B,134A	15/8	21/8	25/8	15/8	21/8	25/8	15/8	25/8	31/8	15/8	25/8	31/8	15/8	25/8	31/8
074; Module 134B	15/8	21/8	25/8	15/8	25/8	31/8	15/8	25/8	31/8	15/8	25/8	31/8	21/8	31/8	35/8
084	15/8	21/8	25/8	15/8	25/8	31/8	15/8	25/8	31/8	21/8	31/8	35/8	21/8	31/8	35/8

### LEGEND

— Not Required  
**Pipe A** — Suction Riser Without Trap  
**Pipe B** — Suction Riser With Trap  
**Pipe C** — Suction Line to Condensing Unit

### NOTES:

1. See Refrigerant Piping Requirements table at top of page to determine need for double suction risers.
2. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
3. Suction line sizing is based on 2° F (1.1 C) pressure drop at nominal rating conditions. Liquid line sizing is based on 2° F (1.1 C) pressure drop. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.

4. Suction line riser selections are based on using maximum possible unloaders.

5. Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.

6. All pipe sizes are OD inches. Equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
13/8	34.9
15/8	41.3
21/8	54.0
25/8	66.7
31/8	79.4

# Application data (cont)



## REFRIGERANT PIPING REQUIREMENTS (cont) 38AH094-104 DUAL-CIRCUIT UNITS, 60 Hz

UNIT 38AH	TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
	15-25 (4.6-7.6)		25-50 (7.6-15.2)		50-75 (15.2-22.9)		75-100 (22.9-30.5)		100-150 (30.5-45.7)		150-200 (45.7-61.0)	
	L	S	L	S	L	S	L	S	L	S	L	S
094 Ckt A	7/8	2 <sup>1</sup> /8	1 <sup>1</sup> /8	2 <sup>1</sup> /8	1 <sup>1</sup> /8	2 <sup>5</sup> /8†**	1 <sup>1</sup> /8	2 <sup>5</sup> /8†**	1 <sup>3</sup> /8	2 <sup>5</sup> /8†**	1 <sup>3</sup> /8	3 <sup>1</sup> /8*†**
094 Ckt B	7/8	2 <sup>1</sup> /8	7/8	2 <sup>1</sup> /8	1 <sup>1</sup> /8	2 <sup>1</sup> /8**	1 <sup>1</sup> /8	2 <sup>5</sup> /8**	1 <sup>1</sup> /8	2 <sup>5</sup> /8**	1 <sup>3</sup> /8	2 <sup>5</sup> /8**
104 Ckt A	7/8	2 <sup>1</sup> /8	7/8	2 <sup>1</sup> /8	1 <sup>1</sup> /8	2 <sup>5</sup> /8†	1 <sup>1</sup> /8	2 <sup>5</sup> /8†	1 <sup>1</sup> /8	2 <sup>5</sup> /8†	1 <sup>3</sup> /8	3 <sup>1</sup> /8*†**
104 Ckt B	7/8	2 <sup>1</sup> /8	1 <sup>1</sup> /8	2 <sup>1</sup> /8	1 <sup>1</sup> /8	2 <sup>5</sup> /8**	1 <sup>1</sup> /8	2 <sup>5</sup> /8**	1 <sup>3</sup> /8	3 <sup>1</sup> /8*†**	1 <sup>3</sup> /8	3 <sup>1</sup> /8*†**

### LEGEND

**CV** — Constant Volume  
**L** — Liquid Line  
**S** — Suction Line  
**VAV** — Variable Air Volume

\*Standard CV unit with 1 unloader on circuit A and 1 unloader on circuit B; double suction riser required.

†Units with factory-installed VAV option or field-installed accessory unloader — 2 unloaders on circuit A, and 1 unloader on circuit B; double suction riser required.

\*\*Units with 2 field-installed unloaders on circuit A and 2 on circuit B; double suction riser required.

### NOTES:

1. It is possible to install 2 unloaders on circuit B, but not recommended.
2. Double risers may be required if condensing unit is elevated above evaporator. See footnotes and double suction riser table below.
3. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.

4. Suction line sizing is based on 2° F (1.1 C) pressure drop at nominal rating conditions. Liquid line sizing is based on 2° F (1.1 C) pressure drop. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.
5. Suction line riser selections are based on using maximum possible unloaders.
6. Refer to Carrier System Design Manual or to E20-II® design programs for further information on selecting pipe sizes for split systems.
7. All pipe sizes are OD inches. Equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
1 <sup>1</sup> /8	28.6
1 <sup>3</sup> /8	34.9
1 <sup>5</sup> /8	41.3
2 <sup>1</sup> /8	54.0
2 <sup>5</sup> /8	66.7
3 <sup>1</sup> /8	79.4

## 38AH094-104 DUAL-CIRCUIT UNITS, DOUBLE SUCTION RISER, 60 Hz

UNIT 38AH	TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)														
	25-50 (7.6-15.2)			50-75 (15.2-22.9)			75-100 (22.9-30.5)			100-150 (30.5-45.7)			150-200 (45.7-61.0)		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
094 Ckt A	—	—	—	1 <sup>5</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>5</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>5</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>5</sup> /8	2 <sup>5</sup> /8	3 <sup>1</sup> /8
094 Ckt B	—	—	—	1 <sup>3</sup> /8	1 <sup>5</sup> /8	2 <sup>1</sup> /8	1 <sup>5</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>5</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>5</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8
104 Ckt A	—	—	—	1 <sup>3</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>3</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>3</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>5</sup> /8	2 <sup>5</sup> /8	3 <sup>1</sup> /8
104 Ckt B	—	—	—	1 <sup>3</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>3</sup> /8	2 <sup>1</sup> /8	2 <sup>5</sup> /8	1 <sup>3</sup> /8	2 <sup>5</sup> /8	3 <sup>1</sup> /8	1 <sup>5</sup> /8	2 <sup>5</sup> /8	3 <sup>1</sup> /8

### LEGEND

— Not Required  
**Pipe A** — Suction Riser Without Trap  
**Pipe B** — Suction Riser With Trap  
**Pipe C** — Suction Line to Condensing Unit

### NOTES:

1. See Refrigerant Piping Requirements table at top of page to determine need for double suction risers.
2. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
3. Suction line sizing is based on 2° F (1.1 C) pressure drop at nominal rating conditions. Liquid line sizing is based on 2° F (1.1 C) pressure drop. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.
4. Suction line riser selections are based on using maximum possible unloaders.
5. Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.

6. All pipe sizes are OD inches. Equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
1 <sup>1</sup> /8	28.6
1 <sup>3</sup> /8	34.9
1 <sup>5</sup> /8	41.3
2 <sup>1</sup> /8	54.0
2 <sup>5</sup> /8	66.7
3 <sup>1</sup> /8	79.4



## REFRIGERANT PIPING REQUIREMENTS 38AH044-084 DUAL-CIRCUIT UNITS, 50 Hz

UNIT 38AH		TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
		15-25 (4.6-7.6)		25-50 (7.6-15.2)		50-75 (15.2-22.9)		75-100 (22.9-30.5)		100-150 (30.5-45.7)		150-200 (45.7-61.0)	
		L	S	L	S	L	S	L	S	L	S	L	S
044	Ckt A	5/8	13/8	7/8	15/8	7/8	15/8	7/8	21/8	7/8	21/8	7/8	21/8
	Ckt B	5/8	13/8	7/8	15/8	7/8	15/8	7/8	21/8	7/8	21/8	7/8	21/8
054	Ckt A	5/8	13/8	7/8	15/8	7/8	15/8	7/8	21/8	7/8	21/8	7/8	21/8
	Ckt B	7/8	15/8	7/8	15/8	7/8	15/8	7/8	21/8	11/8	21/8	11/8	25/8*
064	Ckt A	7/8	15/8	7/8	15/8	7/8	21/8†	7/8	21/8†	11/8	21/8†	11/8	25/8**
	Ckt B	7/8	15/8	7/8	21/8	7/8	11/8	21/8	11/8	25/8	11/8	25/8	25/8*
074	Ckt A	7/8	15/8	7/8	21/8	7/8	11/8	7/8	21/8	11/8	25/8†	11/8	25/8†
	Ckt B	7/8	21/8	7/8	21/8	11/8	21/8	7/8	25/8	11/8	25/8	11/8	25/8
084	Ckt A	7/8	21/8	7/8	21/8	7/8	11/8	21/8	11/8	25/8†	11/8	25/8†	11/8
	Ckt B	7/8	21/8	7/8	21/8	11/8	21/8	7/8	25/8	11/8	25/8	11/8	25/8

### LEGEND

L — Liquid Line  
S — Suction Line

\*Double suction riser required on units with field-installed unloader on circuit B compressor if condensing unit is elevated above evaporator.

†Double suction riser required on units with field-installed unloader on circuit A compressor if condensing unit is elevated above evaporator.

\*\*Double suction riser required on all unit configurations if condensing unit is elevated above evaporator.

### NOTES:

- Addition of 2 unloaders to circuit B compressor is not recommended.
- Piping sizes are based on unit operation above 40 F (4.4 C) saturated suction temperature (SST). When operating below 40 F (4.4 C), refer to Carrier System Design Manual, E20-II® piping design program, or ASHRAE Handbook to select proper line sizes.
- Pipe sizes are based on the total linear length shown for each column, plus a 50% allowance for fittings.

- Suction and liquid line sizing is based on pressure drop equivalent to 2 F (1.1 C) at nominal rating conditions. Higher pressure drop design criteria may allow selection of smaller pipe sizes, but at a penalty of decreased system capacity and efficiency.
- Double suction risers may be required if condensing unit is elevated above the evaporator. See footnotes and double suction riser table below.
- Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.
- All pipe sizes are OD inches. Equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
13/8	34.9
15/8	41.3
21/8	54.0
25/8	66.7
31/8	79.4

## REFRIGERANT PIPING REQUIREMENTS FOR DOUBLE SUCTION RISERS, 38AH054-084 DUAL-CIRCUIT UNITS, 50 Hz

UNIT 38AH		TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
		50-75 (15.2-22.9)			75-100 (22.9-30.5)			100-150 (30.5-45.7)			150-200 (45.7-61.0)		
		A	B	C	A	B	C	A	B	C	A	B	C
054	Ckt A	—	—	—	—	—	—	—	—	—	15/8	21/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—
064	Ckt A	13/8	15/8	21/8	13/8	15/8	21/8	15/8	15/8	21/8	15/8	21/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	15/8	21/8	25/8
074	Ckt A	—	—	—	—	—	—	15/8	21/8	25/8	15/8	21/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—
084	Ckt A	—	—	—	15/8	21/8	25/8	15/8	21/8	25/8	15/8	21/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—

### LEGEND

— Not Required  
Pipe A — Suction Riser Without Trap  
Pipe B — Suction Riser With Trap  
Pipe C — Suction Line to Condensing Unit

### NOTES:

- See Refrigerant Piping Requirements table at top of page to determine need for double suction risers.
- Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
- Suction and liquid line sizing is based on pressure drop equivalent to 2 F (1.1 C) at nominal rating conditions. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.

- Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.
- All pipe sizes are OD inches. Equivalent sizes in millimeters follows:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
13/8	34.9
15/8	41.3
21/8	54.0
25/8	66.7
31/8	79.4

# Application data (cont)



## 38AH044-084 OPTIONAL SINGLE-CIRCUIT UNITS; 38AH124,134 MODULAR UNITS (DUAL-CIRCUIT), 50 Hz

UNIT 38AH	TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
	15-20 (4.6-6.1)		20-50 (6.1-15.2)		50-75 (15.2-22.9)		75-100 (22.9-30.5)		100-150 (30.5-45.7)		150-200 (45.7-61.0)	
	L	S	L	S	L	S	L	S	L	S	L	S
044	7/8	2 1/8	7/8	2 1/8	1 1/8	2 1/8	1 1/8	2 5/8*	1 1/8	2 5/8*	1 3/8	2 5/8*
054	7/8	2 1/8	1 1/8	2 1/8	1 1/8	2 5/8*	1 1/8	2 5/8*	1 1/8	2 5/8*	1 3/8	3 1/8*
064; Modules 124A, 124B, 134A	7/8	2 1/8	1 1/8	2 5/8†	1 1/8	2 5/8†	1 1/8	2 5/8†	1 3/8	3 1/8*	1 3/8	3 1/8*
074; Module 134B	7/8	2 1/8	1 1/8	2 5/8†	1 1/8	2 5/8†	1 1/8	3 1/8*	1 3/8	3 1/8*	1 3/8	3 1/8*
084	1 1/8	2 1/8	1 1/8	2 5/8†	1 3/8	3 1/8*	1 1/8	3 1/8*	1 3/8	3 1/8*	1 5/8	3 5/8*

### LEGEND

**CV** — Constant Volume  
**L** — Liquid Line  
**S** — Suction Line  
**VAV** — Variable Air Volume

\*Double suction riser required on all units configurations if condensing unit is elevated above evaporator.

†Double suction riser required on units with factory installed VAV option or CV units with additional field installed unloader on circuit A1 (lead) compressor if condensing unit is elevated above evaporator.

### NOTES:

1. Double risers are required if condensing unit is elevated above evaporator. See *footnotes and double suction riser table below*.
2. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
3. Suction line sizing is based on 1.1 C (2 F) pressure drop at nominal rating conditions. Liquid line sizing is based on 1.1 C (2 F) pressure drop. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.

4. Suction line sizing is based on using the same diameter tube from the evaporator riser outlet to the condensing unit.
5. Suction line riser selections are based on using maximum possible unloaders.
6. Refer to Carrier System Design Manual or to E20-II® design programs for further information on selecting pipe sizes for split systems.
7. All pipe sizes are OD inches; equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
13/8	34.9
15/8	41.3
21/8	54.0
25/8	66.7
31/8	79.4
35/8	92.1

## 38AH044-084 OPTIONAL SINGLE-CIRCUIT UNITS; 38AH124,134 MODULAR UNITS (DUAL-CIRCUIT) — DOUBLE SUCTION RISER, 50 Hz

UNIT 38AH	TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)												150-200 (45.7-61.0)					
	15-20 (4.6-6.1)			20-50 (6.1-15.2)			50-75 (15.2-22.9)			75-100 (22.9-30.5)			100-150 (30.5-45.7)			150-200 (45.7-61.0)		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
044	—	—	—	—	—	—	—	—	—	15/8	2 1/8	2 5/8	15/8	2 5/8	25/8	15/8	2 5/8	25/8
054	—	—	—	—	—	—	15/8	2 1/8	2 5/8	15/8	2 1/8	2 5/8	15/8	2 1/8	2 5/8	15/8	2 5/8	31/8
064; Modules 124A, 124B, 134A	—	—	—	15/8	2 1/8	2 5/8	15/8	2 1/8	2 5/8	15/8	2 1/8	2 5/8	15/8	2 5/8	31/8	15/8	2 5/8	31/8
074; Module 134B	—	—	—	15/8	2 1/8	2 5/8	15/8	2 1/8	2 5/8	15/8	2 1/8	2 5/8	15/8	2 1/8	2 5/8	15/8	31/8	35/8
084	—	—	—	15/8	2 1/8	2 5/8	15/8	2 5/8	31/8	15/8	2 5/8	31/8	15/8	2 5/8	31/8	15/8	31/8	35/8

### LEGEND

— Not Required  
**Pipe A** — Suction Riser Without Trap  
**Pipe B** — Suction Riser With Trap  
**Pipe C** — Suction Line to Condensing Unit

### NOTES:

1. See Refrigerant Piping Requirements table at top of page to determine need for double suction risers.
2. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
3. Suction line sizing is based on 1.1 C (2 F) pressure drop at nominal rating conditions. Liquid line sizing is based on 1.1 C (2 F) pressure drop. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.
4. Suction line sizing is based on using the same diameter tube from the evaporator riser outlet to the condensing unit.

5. Suction line riser selections are based on using maximum possible unloaders.
6. Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.
7. All pipe sizes are OD inches; equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
11/8	28.6
13/8	34.9
15/8	41.3
21/8	54.0
25/8	66.7
31/8	79.4
35/8	92.1



## REFRIGERANT PIPING REQUIREMENTS 38AH094,104 DUAL-CIRCUIT UNITS, 50 Hz

UNIT 38AH		TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
		15-25 (4.6-7.6)		25-50 (7.6-15.2)		50-75 (15.2-22.9)		75-100 (22.9-30.5)		100-150 (30.5-45.7)		150-200 (45.7-61.0)	
		L	S	L	S	L	S	L	S	L	S	L	S
094	Ckt A	7/8	2 1/8	1 1/8	2 1/8	1 1/8	25/8**	1 1/8	2 1/8**	1 1/8	25/8**	1 3/8	3 1/8**
	Ckt B	7/8	2 1/8	7/8	2 1/8	11/8	21/8	11/8	25/8†	11/8	25/8†	11/8	25/8†
104	Ckt A	7/8	2 1/8	7/8	2 1/8	1 1/8	2 1/8	11/8	25/8**	1 1/8	2 1/8**	1 3/8	3 1/8**
	Ckt B	7/8	2 1/8	11/8	2 1/8	11/8	25/8	11/8	25/8	13/8	25/8	13/8	3 1/8**

### LEGEND

L — Liquid Line  
 S — Suction Line

\*Double suction riser required on units with field-installed unloader on circuit B compressor if condensing unit is elevated above evaporator.

†Double suction riser required on units with field-installed unloader on circuit A compressor if condensing unit is elevated above evaporator.

\*\*Double suction riser required on all unit configurations if condensing unit is elevated above evaporator.

### NOTES:

1. Double risers are required if condensing unit is elevated above evaporator. See footnotes and double suction riser table below.
2. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
3. Suction line sizing is based on 1.1 C (2 F) pressure drop at nominal rating conditions. Liquid line sizing is based on 1.1 C (2 F) pressure drop. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.

4. Suction line sizing is based on using the same diameter tube from the evaporator riser outlet to the condensing unit.

5. Suction line riser selections are based on using maximum possible unloaders.

6. Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.

7. All pipe sizes are OD inches; equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
1 1/8	28.6
1 3/8	34.9
1 5/8	41.3
2 1/8	54.0
2 5/8	66.7
3 1/8	79.4
3 5/8	92.1

## 38AH094,104 DUAL-CIRCUIT UNITS, DOUBLE SUCTION RISER, 50 Hz

UNIT 38AH		TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
		50-75 (15.2-22.9)			75-100 (22.9-30.5)			100-150 (30.5-45.7)			150-200 (45.7-61.0)		
		A	B	C	A	B	C	A	B	C	A	B	C
094	Ckt A	1 3/8	2 1/8	2 5/8	1 3/8	2 1/8	25/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8
	Ckt B	—	—	—	13/8	21/8	25/8	15/8	21/8	25/8	15/8	21/8	25/8
104	Ckt A	—	—	—	13/8	21/8	25/8	15/8	—	21/8	25/8	15/8	25/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	15/8	3 1/8

### LEGEND

Pipe A — Suction Riser Without Trap  
 Pipe B — Suction Riser With Trap  
 Pipe C — Suction Line to Condensing Unit

### NOTES:

1. See Refrigerant Piping Requirements table at top of page to determine need for double suction risers.
2. Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
3. Suction line sizing is based on 1.1 C (2 F) pressure drop at nominal rating conditions. Liquid line sizing is based on 1.1 C (2 F) pressure drop. Higher design pressure drop criteria may allow selection of smaller pipe sizes but at a penalty of decreased system capacity and efficiency.
4. Suction line sizing is based on using the same diameter tube from the evaporator riser outlet to the condensing unit.

5. Suction line riser selections are based on using maximum possible unloaders.

6. Refer to Carrier System Design Manual or to E20-II design programs for further information on selecting pipe sizes for split systems.

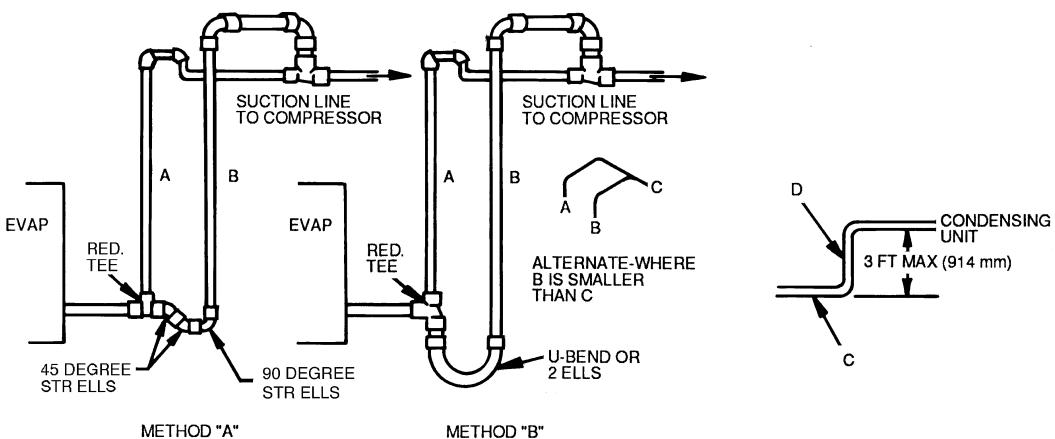
7. All pipe sizes are OD inches; equivalent sizes in millimeters follow:

in.	mm
5/8	15.9
7/8	22.2
1 1/8	28.6
1 3/8	34.9
1 5/8	41.3
2 1/8	54.0
2 5/8	66.7
3 1/8	79.4
3 5/8	92.1

# Application data (cont)



## REFRIGERANT PIPING REQUIREMENTS DOUBLE SUCTION RISER CONSTRUCTION



### LEGEND

- A** — Pipe A, Suction Riser, Lower Trap
- B** — Pipe B, Suction Riser with Trap
- C** — Suction Line to Condensing Unit
- D** — Pipe D, Suction Riser Short Lift
- RED.** — Reducer
- STR** — Street

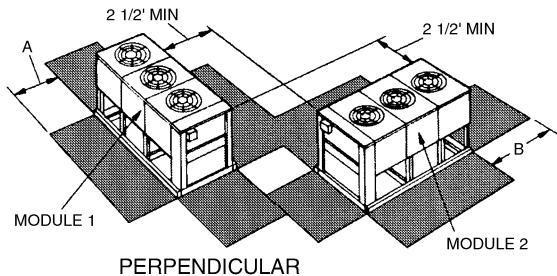
NOTE: Short riser, pipe D, is used when routing suction line to condensing unit connection. See table below:

UNIT 38AH	PIPE D DIAMETER*		Single Circuit	
	Dual Circuit			
	A	B		
044	15/8	15/8	21/8	
054	15/8	15/8	21/8	
064	15/8	21/8	21/8	
074	21/8	21/8	21/8	
084	21/8	21/8	25/8	
094	21/8	21/8	—	
104	21/8	21/8	—	
124A,B	21/8	21/8	—	
134A,B	21/8	21/8	—	

\*Maximum length of riser is 3 ft (914 mm).

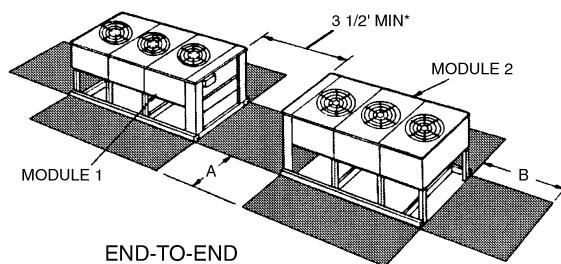
## Multiple condensing unit arrangements

**38AH044-104**



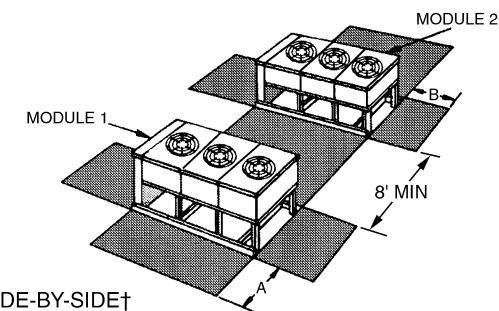
PERPENDICULAR

**38AH044-104**



END-TO-END

**38AH044-104**



SIDE-BY-SIDE†

■ Space for Service and Airflow

\*For clearances between controls and grounded surfaces, check local codes.

†Observe minimum recommended space requirements.

DIMENSIONS (ft)	
A	B
6 (2 m)	5 (1.5 m)

# Guide specifications



## Commercial Air-Cooled Condensing Units

### HVAC Guide Specifications

Size Range: **40 to 130 Tons Nominal at 60 Hz**  
**123 to 390 kW Nominal at 50 Hz**

Carrier Model Number: **38AH**

### Part 1 — General

#### 1.01 SYSTEM DESCRIPTION

Outdoor-mounted, air-cooled condensing unit suitable for on-the-ground or rooftop installation. Unit shall have 2 independent refrigeration circuits and shall consist of 2, 3, or 4 semi-hermetic reciprocating compressors, air-cooled coils, propeller-type condenser fans, and a control box. Unit shall discharge condenser air upward as shown on contract drawings. Unit shall be used in refrigeration circuit matched with a central station air-handling unit or direct-expansion coils.

#### 1.02 QUALITY ASSURANCE

- A. Unit performance shall be rated in accordance with ARI Standard 365-94, U.S.A.
- B. Unit construction shall comply with latest edition of ASHRAE, ISO 9001:2000 and with NEC (U.S.A.).
- C. Base unit shall be constructed in accordance with UL standards and shall carry the UL label of approval. Unit shall have UL, Canada approval.
- D. Unit cabinet shall be capable of withstanding 500-hour salt-spray exposure per ASTM B117 (scribed specimen).
- E. Air-cooled condenser coils shall be leak tested at 150 psig (1034 kPa) and pressure tested at 450 psig (3310 kPa).

#### 1.03 DELIVERY, STORAGE, AND HANDLING

Unit shall be shipped as single package or 2-container package, and shall be stored and handled per unit manufacturer's recommendations.

#### 1.04 WARRANTY (FOR INCLUSION BY SPECIFYING ENGINEER)

### Part 2 — Products

#### 2.01 EQUIPMENT

##### A. General:

Factory assembled, single-piece or 2-piece, air-cooled condensing unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, compressors, holding charge (R-22), and special features required prior to field start-up.

##### B. Unit Cabinet:

1. Unit cabinet shall be constructed of galvanized steel, bonderized, and coated with a prepainted, baked enamel finish.
2. Unit access panels shall be hinged for control box service access.
3. Lifting holes shall be provided to facilitate rigging.

##### C. Fans:

1. Condenser fans shall be direct-drive propeller type, discharging air vertically upward.
2. Condenser fan motors shall be 3-phase type with class B insulation and permanently lubricated bearings. Motors shall be drip proof with sealed bearings.
3. Shafts shall have inherent corrosion resistance.
4. Fan blades shall be statically and dynamically balanced.
5. Condenser-fan openings shall be equipped with PVC-coated steel wire safety guards.

##### D. Compressors:

1. Compressors shall be serviceable, reciprocating, semi-hermetic type.
2. Compressors shall be equipped with an automatically reversible oil pump, operating oil charge, suction and discharge shutoff valves, and an insert-type factory-sized crankcase heater to control oil dilution.
3. Compressors shall be mounted on spring vibration isolators with an isolation efficiency of no less than 95%.
4. Compressor speed shall not exceed 1750 rpm (60 Hz), 1460 rpm (50 Hz).
5. Lead compressors on each circuit shall unload using suction cutoff unloading (electric solenoid unloading shall be available as an accessory).

##### E. Condenser Coils:

1. Condenser coils shall be air cooled and circuited for integral subcooler.
2. Coil shall be constructed of aluminum fins mechanically bonded to internally grooved, seamless copper tubes which are then cleaned, dehydrated, and sealed. Copper fins shall be available as an option.

##### F. Refrigeration Components:

Refrigeration circuit components shall include hot gas muffler, hot gas bypass stub tubes, high-side pressure relief device, liquid line shutoff valve, suction and discharge shutoff valves, holding charge of refrigerant R-22, and compressor oil. 38AH094-134 and all 38AH044-084 single-circuit units shall have suction line accumulators. Variable air volume (VAV) units shall also have suction line accumulators.

##### G. Controls and Safeties:

1. Minimum control functions shall include:
  - a. Five-minute protection to prevent compressor short-cycling.
  - b. Lockout on auto-reset safety until reset from thermostat.
  - c. Capacity control on the lead compressor shall be by suction cutoff unloaders in response to compressor suction pressure. Electric solenoid unloading shall be available as an accessory.

- d. Head pressure control for mild ambient temperature operation through fan cycling. Condenser fans (except fans 1 and 2) shall be cycled by discharge pressure to maintain proper head pressure.
- e. Winter start control to prevent nuisance tripouts at low ambient temperatures.
- 2. Minimum safety devices shall include:
  - Automatic reset (after resetting first at thermostat)
  - a. Low suction pressure cutout.
  - b. Condenser-fan motors protected against overloads or single-phase condition by internal overloads.
  - c. Low oil pressure cutout.

Manual reset at the unit

- a. Electrical overload protection through the use of definite-purpose contactors and calibrated, ambient compensated, magnetic trip circuit breakers. Circuit breakers shall open all 3 phases in the event of an overload in any one of the phases or a single-phase condition.
- b. High discharge-pressure cutout.

H. Operating Characteristics:

1. The capacity of the condensing unit shall meet or exceed \_\_\_\_\_ Btuh at a suction temperature of \_\_\_\_\_ F. The power consumption at full load shall not exceed \_\_\_\_\_ kW.
2. The combination of the condensing unit and the evaporator or air handling unit shall have a total net cooling capacity of \_\_\_\_\_ Btuh or greater at conditions of \_\_\_\_\_ cfm entering-air temperature at the evaporator at \_\_\_\_\_ F wet bulb and \_\_\_\_\_ F dry bulb, and air entering the condensing unit at \_\_\_\_\_ F.
3. The system shall have an Energy Efficiency Ratio (EER) of \_\_\_\_\_ Btuh/watt or greater at standard ARI conditions.

I. Electrical Requirements:

1. Nominal unit electrical characteristics shall be \_\_\_\_\_ v, 3-ph, 60 Hz or \_\_\_\_\_ 3 ph, 50 Hz. The unit shall be capable of satisfactory operation within voltage limits of \_\_\_\_\_ v to \_\_\_\_\_ v.
2. Unit or module electrical power shall be single-point connection.
3. Unit control circuit shall be 115 v, or 230 v for 380-3-60 units and all 50 Hz units (except 346-3-50 units, these units shall be 200 v).

J. Special Features:

1. Unloader Conversion Kit:

Unloader valve, piston, and hardware shall be supplied to convert any pressure-operated compressor unloader to 115-v (or 230-v) electrical unloading. Accessory control or field-supplied

step controller shall be required for electrical unloading.

2. Gage Panel:

A gage panel package shall be provided which includes a suction and discharge pressure gage for each refrigerant circuit.

3. Accessory Transformer Relay Package:

Relay shall be provided for use with a remote-control 24-v thermostat.

4. Electric Unloader Package:

Electric unloader shall provide an additional step of electric unloading.

5. Pressure Unloader Package:

Pressure unloader shall provide an additional step of pressure unloading.

6. Accessory Control:

Indoor mounted control shall provide up to 10 steps of microprocessor-based control for variable air volume (VAV) applications.

7. Low Ambient Control:

Control shall maintain correct condensing pressure at low ambient temperatures.

8. Optional Condenser Coil Materials:

a. Pre-Coated Aluminum-Fin Coils:

Shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments. Coating shall be applied to the aluminum fin stock prior to the fin stamping process to create an inert barrier between the aluminum fin and copper tube. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.

b. Copper-Fin Coils:

Shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets. Galvanized steel tube sheets shall not be acceptable. All copper construction shall provide protection in moderate coastal applications.

A polymer strip shall prevent the coil assembly from contacting the sheet metal coil pan to minimize the potential for galvanic corrosion between the coil and the pan. All copper construction shall provide protection in moderate coastal environments.

c. E-Coated Aluminum-Fin Coils:

Shall be constructed of aluminum fins mechanically bonded to copper tubes. Coating process shall have a flexible epoxy polymer coating uniformly applied to all coil surfaces without material bridging between the fins. The coating process shall ensure complete coil encapsulation. Color shall be high-gloss black with gloss at 60° F of 65% to 90% per ASTM D523-89. Uniform dry film thickness shall be

# Guide specifications (cont)



0.8 mil to 1.2 mil on all surfaces, including the fin edges. Superior hardness characteristics shall meet those requirements of 2H, per ASTM D3363-92A. Cross-hatch adhesion shall meet the requirements of 4B-5B, per ASTM D3359-93. Impact resistance shall be up to 160 in./lb, per ASTM D2794-93. Humidity resistance shall be up to a minimum of 1000 hours per ASTM D2247-92. Water immersion resistance shall be up to a minimum of 250 hours per ASTM D870-92. Durability shall be confirmed through testing to no less than 1000 hours of salt spray per ASTM B117-90.

## d. E-Coated Copper Fin Coils:

Shall be copper fins mechanically bonded to copper tubes with copper tube sheets. Coating process shall have a flexible epoxy polymer coating uniformly applied to all coil surfaces without material bridging between the fins. The coating process shall ensure complete coil encapsulation. Shall be high-gloss black with gloss at 60° F of 65% to 90% per ASTM D523-89. Uniform dry film thickness shall be 0.8 mil to 1.2 mil on all surfaces, including the fin edges. Superior hardness characteristics shall meet those requirements of 2H, per ASTM D3363-92A. Cross-hatch adhesion shall meet the requirements of 4B-5B, per ASTM D3359-93. Impact resistance shall be up to 150 in./lb, per ASTM D2794-93. Humidity resistance shall be up to a minimum of 1000 hours per ASTM D2247-92. Water immersion resistance shall be up to a minimum of 250 hours per ASTM D980-92. Durability shall be confirmed through testing to no less than 1000 hours of salt spray per ASTM B117-90.

## 9. Thermostat Controls:

- Programmable multi-stage thermostat with 7-day clock, holiday scheduling, large backlit display, remote sensor capability, and Title 24 compliance.
- TEMP System programmable communicating multi-stage thermostat with fan switch, timeclock, LCD display, °F/°C capability, and CCN (Carrier Comfort Network) compatibility.

c. Commercial Electronic Thermostat with 7-day timeclock, auto-changeover, multi-stage capability, and large LCD temperature display.

d. Non-programmable thermostat with fan switch subbase.

## 10. Hail Guard:

Unit shall be equipped with louvered condenser coil hail guard protection and installation hardware.

## 11. Security Grilles:

A set of PVC-coated metal grilles complete with support retainers and fasteners shall be provided for the protection of the condensing coils, compressors, or both.

## 12. Sound Reduction Package Kit:

This field-installed accessory kit shall consist of a specially designed fan system containing fans and orifices for reducing system noise without compromising unit performance. No fan motor change shall be required for accessory installation.

## 13. VAV Control Box:

Modification shall include electric unloaders on compressors (1 for 38AH044; 2 for 38AH054-084 and 104; 3 for 38AH094; and 4 for 38AH124,134) to make condensing unit compatible with VAV controller. Unit shall include factory-installed accumulator.

## 14. Single-Circuit Modification (sizes 044-084 only):

Modification shall include all piping and wiring to make unit single circuit. Unit shall include factory-installed accumulator.

## 15. Single-Circuit Modification with VAV:

Modification shall include piping, wiring, and electric unloaders on compressors (one on 38AH044 and 2 on 38AH054-084) to make unit single circuit, VAV ready.

