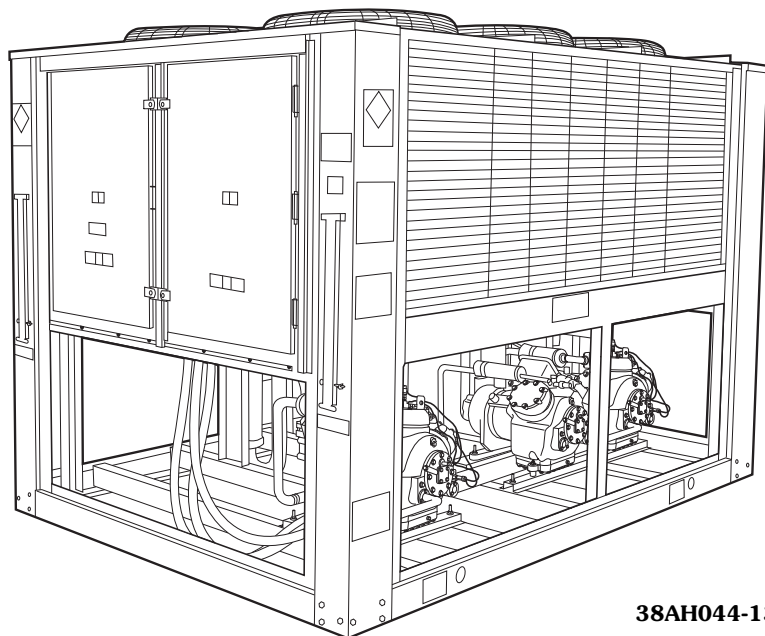




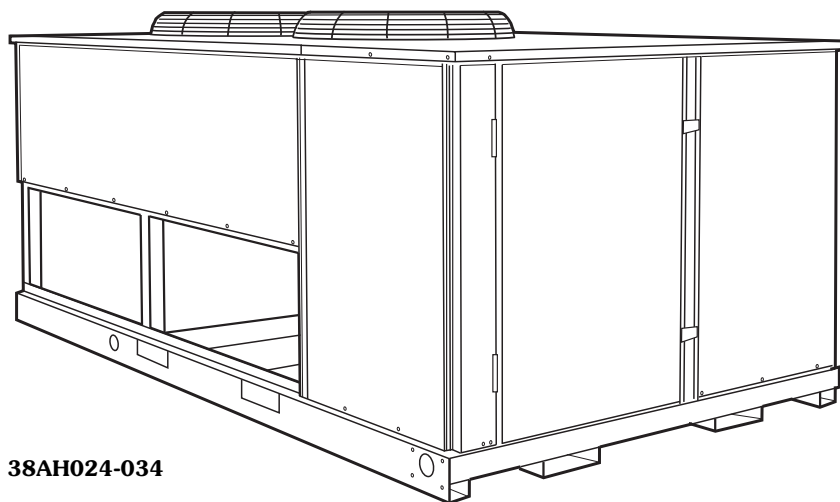
Product Data

38AH024-134 Commercial Air-Cooled Condensing Units 50/60 Hz

20 to 130 Nominal Tons
(63 to 390 Nominal kW)



38AH044-134



38AH024-034

These dependable split systems match Carrier's 40RM or 39 Series indoor-air handlers with the versatile outdoor 38AH condensing units for a wide selection of commercial cooling solutions.

- Up to 4 compressors and 2 independent refrigerant circuits
- Condensing unit can supply one or 2 air handlers
- EERs up to 10.9
- Variable air volume units operate as low as 8% of nominal capacity without the use of hot gas bypass
- Constant volume units operate as low as 16% of nominal capacity (standard) or 8% of nominal capacity (with accessory unloader)
- Weatherized steel cabinet
- Protection against high discharge and low suction refrigerant pressure, and low oil pressure
- Crankcase heaters

Features/Benefits

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

The 38AH units offer high unit EERs (Energy Efficiency Ratios). These units provide greater efficiency than similar units in the marketplace, which translates into year-round operating savings. Latest safety standards for 38AH units are assured through UL and UL, Canada, approvals.

Features/Benefits (cont)



Versatility

The 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

The 38AH units are equipped with hinged control-box access doors, control interface terminal boards, 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.

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Model number nomenclature



38AH - 064 - - - 5 0 - FA

38AH – Split System
Condensing
Unit

Start Options

- - Across-the-Line Start

Unit Size – Nominal Tons (kW)

Nominal Capacity 60 Hz		Nominal Capacity 50 Hz	
024 – 20 Tons (70 kW)	024 – 18 Tons (63 kW)	028 – 25 Tons (88 kW)	028 – 21 Tons (73 kW)
034 – 30 Tons (106 kW)	034 – 25 Tons (87 kW)	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)

Not Used

Condenser Fin Material

- - Aluminum (Standard)
- C** – Copper
- K** – Pre-Coated Aluminum
- E** – E-Coated Al Fin/Cu Tube
- F** – E-Coated Cu Fin/Cu Tube

Voltage Designation

- 1** – 575-3-60
- 2** – 380-3-60
- 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

- 024 – 034
AA – Standard Dual Circuit Unit
AC – Standard Unit, VAV
- 044 – 084
 - - Standard Dual Circuit Unit
BA – Std Unit, VAV
DA – Single-Circuit Unit
FA – Single-Circuit Unit, VAV
KA – Single-Circuit Unit, NFD
LA – Single-Circuit Unit, VAV, NFD
HA – Std Unit, NFD
JA – Std Unit, VAV, NFD
- 094 – 104
 - - Standard Dual Circuit Unit
BA – Std Unit, VAV
HA – Std Unit, NFD
JA – Std Unit, VAV, NFD
- 124 – 134
DA – Standard Dual Module Unit
FA – Single-Circuit Unit, VAV
KA – Single-Circuit Unit, NFD
LA – Single-Circuit Unit, VAV, NFD

Packaging*

- - 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

- 0** – Original Model

LEGEND

- Al** – Aluminum
- Cu** – Copper
- NFD** – Non-Fused Disconnect
- VAV** – Variable Air Volume

*Packaging options 2 and 4 are not available on 38AH024-034 units.

Quality Assurance

Certified to ISO 9001:2000

Capacity ratings



→38AH024-034 CAPACITY RATINGS — 60 Hz

38AH CONDENSING UNIT	40RM AIR HANDLER/ INDOOR COIL	SYSTEM			CONDENSING UNIT ONLY*		
		Net Capacity (Btuh)	EER	IPLV	Net Capacity (Btuh)	EER	IPLV
024	016H	222,000	9.8	9.4	251,000	11.7	13.7
	024H	240,000	9.6	9.7			
	028H	250,000	10.2	10.3			
028	024H	268,000	9.4	9.5	290,000	11.2	12.9
	028H	282,000	9.6	9.5			
	034H	290,000	9.4	9.3			
034	028H	324,000	9.4	9.2	344,000	11.1	12.9
	034H	332,000	9.5	8.9			

LEGEND

AHRI — Air Conditioning, Heating, and Refrigeration Institute
EER — Energy Efficiency Ratio
IPLV — Integrated Part Load Value
SST — Saturated Suction Temperature

*Condensing unit only ratings are at 45 F SST and 95 F entering-air temperature.

NOTES:

1. Unit performance is rated in accordance with AHRI Standard 365.
2. System performance is rated in accordance with AHRI Standard 340/360.

→38AH024-034 CAPACITY RATINGS — 50 Hz

38AH CONDENSING UNIT	40RM AIR-HANDLING UNIT	AIR-HANDLING UNIT AIRFLOW		SYSTEM GROSS CAPACITY (Standard 3-Row Coil)		SYSTEM GROSS CAPACITY (High-Capacity 4-Row Coil)		CONDENSING UNIT ONLY GROSS CAPACITY			
		L/s	Cfm	kW*	Btuh†	kW*	Btuh†	kW**	Btuh††	EER	IPLV
024	016	2800	6,000	57.3	195,000	60.2	205,300	63.0	216,000	11.8	13.1
	024	3800	8,000	62.5	214,000	64.7	220,600				
	028	4700	10,000	66.3	227,000	68.6	234,000				
028	024	3800	8,000	68.9	236,000	72.1	246,100	73.0	250,000	11.6	12.4
	028	4700	10,000	73.5	251,000	76.7	261,600				
	034	5650	12,000	77.6	265,000	80.5	274,500				
034	028	4700	10,000	82.6	283,000	86.0	293,600	87.0	297,000	11.6	13.4
	034	5650	12,000	87.7	300,000	90.9	310,000				

LEGEND

AHRI — Air Conditioning, Heating, and Refrigeration Institute
EER — Energy Efficiency Ratio
IPLV — Integrated Part Load Value
wb — Wet Bulb
SST — Saturated Suction Temperature

*System gross capacities are rated according to indoor unit airflow, 35 C air temperature entering condenser, and 20 C wb air temperature entering evaporator.

†System gross capacities are rated according to indoor unit airflow, 95 F air temperature entering condenser, and 67 F wb air temperature entering evaporator.

**Condensing unit gross capacity based on 36 C air temperature entering condenser and 8 C SST.

††Condensing unit gross capacity based on 95 F air temperature entering condenser and 45 F SST.

NOTES:

1. Unit performance is rated in accordance with AHRI Standard 365.
2. System performance is rated in accordance with AHRI Standard 340/360.

38AH044-134 CAPACITY RATINGS

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

AHRI — Air Conditioning, Heating, and Refrigeration Institute
EER — Energy Efficiency Ratio
IPLV — Integrated Part Load Value

NOTES:

1. Ratings are based on 45 F (7.2 C) suction temperature and 95 F (35 C) outside-air temperature, and include suction line losses.
2. Units are rated in accordance with AHRI standard 365.

Physical data



38AH024-134 UNITS, 60 Hz ENGLISH

UNIT 38AH	024		028		034	
	Ckt 1	Ckt 2	Ckt 1	Ckt 2	Ckt 1	Ckt 2
NOMINAL CAPACITY (tons)	20		25		30	
OPERATING WEIGHT (lb)						
Cu-Al Coil (standard)	1760		1820		1880	
Cu-Cu Coil (optional)	1923		1982		2097	
REFRIGERANT, TYPE*	R-22					
Operating Charge, Typical (lb)	20	20	20	20	25	25
COMPRESSOR			Reciprocating Semi-Hermetic			
(Qty) Model	(1) 06DH824	(1) 06DA824	(1) 06DH328	(1) 06DA328	(1) 06DH328	(1) 06DA537
No. Cylinders (per circuit)†	6	6	6	6	6	6
Speed (rpm)	1750	1750	1750	1750	1750	1750
Oil Charge Per Circuit (pt)			10			
Capacity Control Steps (%)	67**,33††	—	67**,33††	—	67**,33††	—
Unloader Setting (psig)			Factory Installed			
Load	76	—	76	—	76	—
Unload	58	—	58	—	58	—
CONDENSER FANS	Propeller Type — Direct Driven					
(Qty) Dia (in.)			(2) 30			
Nominal Hp	1.0		1.0		1.0	
Airflow (cfm)	16,700		16,700		16,700	
Speed (rpm)			1140			
Total Power (kW)			1.55			
CONDENSER COIL	Enhanced Copper Tubes, Lanced Aluminum Fins					
Rows...Fins/in.	2...19		2...19		3...17	
Face Area (sq ft)	39.20		39.20		39.20	
Storage Cap. (lb)***	37.7		37.7		56.6	
CONTROLS						
Pressurestat (psig)						
High Pressure						
Open	426 ± 7					
Close	320 ± 20					
Low Pressure						
Open	27 ± 3					
Close	44 ± 5					
Oil Pressure						
Open	Manual Reset					
Close	6.0					
Close	8.8					
FAN CYCLING CONTROLS						
No. 2 Fan:						
Temp Close (F)	70 ± 3					
Temp Open (F)	60 ± 3					
PRESSURE RELIEF						
Location	Liquid Line, Suction Line, Compressor					
Temperature (F)	210					
CONNECTIONS (in. ODM)						
Suction — in. OD	1 ³ / ₈					
Liquid — in. OD	5 ⁸ / ₈					
Hot Gas Bypass — in. OD	5 ⁸ / ₈					

LEGEND

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

NOTES:

1. Certified dimensional drawings available on request.
2. Refer to Unloading Sequences tables, pages 119-121 for additional capacity step data.

*Typical operating charge with 25 ft of interconnecting piping. Operating charge is approximate for maximum system capacity. Unit is factory supplied with nitrogen holding charge.

†Circuit A compressor is lead.

**Standard unit — single suction pressure-actuated unloader on compressor no. 1.

††VAV factory-installed option — two electrically actuated unloaders on compressor no. 1.

***Condenser 80% full of liquid R-22 at 120 F.

Physical data (cont)



38AH024-134 UNITS, 60 Hz ENGLISH (cont)

UNIT 38AH	044		054		064		074		084	
NOMINAL CAPACITY (tons)	40		50		60		70		80	
OPERATING WEIGHT WITH REFRIGERANT (lb) (approx)										
Cu-Al Coil (standard)	3259		3309		3565		3812		4057	
Cu-Cu Coil (optional)	3547		3597		3998		4229		4730	
SHIPPING WEIGHT WITH COIL PROTECTION ONLY (lb) (approx)										
Cu-Al Coil (standard)	3250		3290		3530		3780		4000	
Cu-Cu Coil (optional)	3538		3578		3963		4197		4678	
REFRIGERANT, TYPE*					R-22					
Operating Charge, Typical (lb)	62		72		88		104		130	
DUAL-CKT UNIT										
COMPRESSOR Type...Rpm	Reciprocating Semi-Hermetic...1750									
(Quantity) Cylinder Ckt†	(4) A	(4) B	(4) A	(6) B	(6) A	(6) B	(6) A	(6) B	(6) A	(6) B
Model No. 06E	-250	-250	-250	-265	-265	-275	-275	-299	-299	-299
Oil Charge (pt)	17	17	17	21	21	21	21	19	19	19
Capacity Control Steps (%)	100		100		100		100		100	
	75		79		84		86		83	
	50		58**		69**		71**		67**	
	25		42		48		43		50	
			21		32		29		33	
					16**		14**		17**	
OPTIONAL SINGLE-CKT UNIT										
COMPRESSOR Type...Rpm	Reciprocating Semi-Hermetic...1750									
(Quantity) Cylinder Ckt††	(4) A1	(4) A2	(6) A1	(4) A2	(6) A1	(6) A2	(6) A1	(6) A2	(6) A1	(6) A2
Model No. 06E	-250	-250	-265	-250	-275	-265	-299	-275	-299	-299
Oil Charge (pt)	17	17	21	17	21	21	19	21	19	19
Capacity Control Steps (%)	100		100		100		100		100	
	75		80		82		81		83	
	50		61**		64**		62**		67**	
	25		56		55		57		50	
			37		36		38		33	
					18**		19**		17**	
CONDENSER FANS (4 Blade)										
(Quantity) Dia (in.)	(4) 30					(6) 30				
Nominal Hp	1.0					1.0				
Airflow (cfm)	35,000					52,000				
Speed (rpm)	1140					1140				
Total Power (kW)	6.2					9.3				
CONDENSER COIL	Enhanced Copper Tubes, Lanced Aluminum Fins									
Rows...Fins per in.	2...17		2...17		3...17		2...19		3...17	
Face Area (sq ft)	80.5		80.5		80.5		116.7		116.7	
Storage Capacity (lb per circuit) at 120 F	35	35	35	35	55	55	55	55	80	80
FAN CYCLING CONTROLS***										
Close (psig)	255 ± 10									
Open (psig)	160 ± 10									
CONNECTIONS										
Suction, ODF (in.)†††	2 1/8									
Liquid, ODF (in.)†††	7/8									
Hot Gas Bypass, ODF (in.)	5/8									

LEGEND

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

***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 5/8 in. and liquid ODF is 1 1/8 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 tables, pages 119-121, for additional system capacity step data.

*Unit is factory supplied with nitrogen holding charge.

†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.



38AH024-134 UNITS, 60 Hz ENGLISH (cont)

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

LEGEND

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

*Includes piping and trim kit.
 †Unit is factory supplied with nitrogen holding charge.
 **Compressors are shipped with minimum oil charge.
 ††Capacity control steps listed are for constant volume units with no accessories. Refer to Unloading Sequence tables, pages 119-121, 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
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.

Physical data (cont)



38AH024-134 UNITS, 60 Hz SI

UNIT 38AH	024		028		034	
	Ckt 1	Ckt 2	Ckt 1	Ckt 2	Ckt 1	Ckt 2
NOMINAL CAPACITY (kW)	70		88		106	
OPERATING WEIGHT (kg) (approx)						
Cu-Al Coil (standard)	798		826		853	
Cu-Cu Coil (optional)	872		899		951	
REFRIGERANT, TYPE*			R-22			
Operating Charge, Typical (kg)	18		18		23	
DUAL-CKT UNIT	Reciprocating Semi-Hermetic					
Compressor Type...r/s						
(Quantity) Cylinder Ckt†	(6) A	(6) B	(6) A	(6) B	(6) A	(6) B
Model No. 06D	H824	A824	H328	A328	H328	A537
Oil Charge (L)	4.7					
Capacity Control Steps (%)	100					
	67**					
	33††					
CONDENSER FANS	Propeller Type — Direct Driven					
(Qty) Dia (mm)	(2) 762					
Nominal kW	.746					
Airflow (L/s)	7882					
Speed (r/s)	19					
Total Power (kW)	1.55					
CONDENSER COIL	Enhanced Copper Tubes, Lanced Aluminum Fins					
Rows...Fins per m	2...748		2...748		3...669	
Face Area (sq m)	3.6		3.6		3.6	
Storage Cap. (kg)***	17		17		26	
FAN CYCLING CONTROLS						
Close (C)	21 ± 2					
Open (C)	16 ± 2					
CONNECTIONS						
Suction — in. ODF†	2 1/8					
Liquid — in. ODF†	7/8					
Hot Gas Bypass — ODF (in.)	5/8					

LEGEND

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

*Typical operating charge with 7.6 m of interconnecting piping. Operating charge is approximate for maximum system capacity. Unit is factory supplied with nitrogen holding charge.

†Circuit A compressor is lead.

**Standard unit - single suction pressure actuated unloader on compressor no. 1.

††VAV factory-installed option - two electronically actuated unloaders on compressor no. 1.

***Condenser 80% full of liquid R-22 at 49 C.

NOTES:

1. Certified dimensional drawings available on request.
2. Refer to Unloading Sequences tables, pages 119-121, 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
1 1/8	28.6
2 1/8	54.0
2 5/8	66.7



38AH024-134 UNITS, 60 Hz SI (cont)

UNIT 38AH	044	054	064	074	084					
NOMINAL CAPACITY (kW)	140	175	210	245	280					
OPERATING WEIGHT WITH REFRIGERANT (kg) (approx)										
Cu-Al Coil (standard)	1480	1501	1617	1729	1840					
Cu-Cu Coil (optional)	1609	1632	1813	1918	2145					
SHIPPING WEIGHT WITH COIL PROTECTION ONLY (kg) (approx)										
Cu-Al Coil (standard)	1474	1492	1600	1714	1814					
Cu-Cu Coil (optional)	1605	1623	1797	1903	2122					
REFRIGERANT, TYPE*	R-22									
Operating Charge, Typical (kg)	28	33	40	47	59					
DUAL-CKT UNIT										
Compressor Type...r/s	Reciprocating Semi-Hermetic...29.2									
(Quantity) Cylinder Ckt†	(4) A	(4) B	(4) A	(6) B	(6) A	(6) B	(6) A	(6) B	(6) A	(6) B
Model No. 06E	-250	-250	-250	-265	-265	-275	-275	-299	-299	-299
Oil Charge (L)	8	8	8	10	10	10	10	9	9	9
Capacity Control Steps (%)	100	100	100	100	100	100	100	100	100	100
	75	79	84	86	83	83	83	83	83	83
	50	58**	69**	71**	67**	67**	67**	67**	67**	67**
	25	42	48	43	50	50	50	50	50	50
		21	32	29	33	33	33	33	33	33
			16**	14**	17**	17**	17**	17**	17**	17**
OPTIONAL SINGLE-CKT UNIT										
COMPRESSOR Type...r/s	Reciprocating Semi-Hermetic...29.2									
(Quantity) Cylinder Ckt††	(4) A1	(4) A2	(6) A1	(4) A2	(6) A1	(6) A2	(6) A1	(6) A2	(6) A1	(6) A2
Model No. 06E	-250	-250	-265	-250	-275	-265	-299	-275	-299	-299
Oil Charge (L)	8	8	8	10	10	10	10	9	9	9
Capacity Control Steps (%)	100	100	100	100	100	100	100	100	100	100
	75	80	82	81	83	83	83	83	83	83
	50	61**	64**	62**	67**	67**	67**	67**	67**	67**
	25	56	55	57	50	50	50	50	50	50
		37	36	38	33	33	33	33	33	33
			18**	19**	17**	17**	17**	17**	17**	17**
CONDENSER FANS (4 Blade)										
(Quantity) Dia (mm)	(4) 762					(6) 762				
Nominal kW	.746					.746				
Airflow (l/s)	16520					24544				
Speed (r/s)	19					19				
Total Power (kW)	6.2					9.3				
CONDENSER COIL										
Rows...Fins per m.	2...669		2...669		3...669		2...782		3...669	
Face Area (sq m)	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
FAN CYCLING CONTROLS***										
Close (kPa)	1768 ± 69									
Open (kPa)	1103 ± 69									
CONNECTIONS										
Suction, ODF (in.)†††	2 1/8									
Liquid, ODF (in.)†††	7/8									
Hot Gas Bypass, ODF (in.)	5/8									

LEGEND

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

*Unit is factory supplied with nitrogen holding charge.

†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 5/8 in. and liquid ODF is 1 1/8 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 tables, pages 119-121, 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
1 1/8	28.6
2 1/8	54.0
2 5/8	66.7

Physical data (cont)



38AH024-134 UNITS, 60 Hz SI (cont)

UNIT 38AH	094		104		124		134							
					124A	124B	134A	134B						
NOMINAL CAPACITY (kW)	316		350		210	210	210	245						
OPERATING WEIGHT WITH REFRIGERANT (approx) (kg)	2308		2465		1647*	1647*	1647*	1759*						
Cu-Al Coil (standard)	2637		2794		1843*	1843*	1843*	1843*						
SHIPPING WEIGHT WITH COIL PROTECTION AND SKID (approx) (kg)	2554		1717		1860*	1860*	1860*	1860*						
Cu-Al Coil (standard)	2883		3046		1928*	1968*	1968*	2040*						
REFRIGERANT, TYPE†	R-22													
Operating Charge, Typical (kg)	67		61		40	40	40	47						
Qty of Circuits	2		2		1	1	1	1						
COMPRESSOR Type, r/s (Quantity Cylinder)	Reciprocating Semi-Hermetic...29.2													
Compressor**	(6)A1	(4)A2	(6)B1	(6)A1	(4)A2	(6)B1	(6)B2	(6)A1	(6)A2	(6)A1	(6)A2	(6)A1	(6)A2	(6)A1
Model No. 06E	-275	-250	-299	-265	-250	-265	-265	-275	-265	-275	-265	-275	-265	-299
Oil Charge (L)	10	8	9	10	8	10	10	10	10	10	10	10	9	10
Circuit Capacity — % (approx)	55		47		53		50		50		45		55	
Capacity Control Steps††	6		8		8		4		4		4		4	
CONDENSER FANS (6 Blade)	(6) 762		(6) 762		(4) 762	(4) 762	(4) 762	(4) 762	(4) 762	(6) 762				
(Qty) Dia (mm)	.746		.746		.746	.746	.746	.746	.746	.746				
Nominal kW	24,544		24,544		46,250	16,250	16,250	16,254	16,254	24,544				
Airflow (l/s)	19		19		19	19	19	19	19	19				
Speed (r/s)	9.4		9.5		6.4	6.4	6.4	6.4	6.4	9.2				
Total Power (kW)	3...669		3...669		3...669	3...669	3...669	3...669	3...669	2...78219				
CONDENSER COIL	1139		139		7.5	7.5	7.5	7.5	7.5	10.8				
Rows...Fins per m	40		40		50	50	50	50	50	50				
Face Area (sq m)	40		40		50	50	50	50	50	50				
Storage Capacity (kg per ckt) at 120 F	1958 ± 69		1103 ± 69											
FAN CYCLING CONTROLS***	Close (kPa)		Open (kPa)											
CONNECTIONS	2 1/8		2 1/8		2 5/8	2 5/8	2 5/8	2 5/8	2 5/8	2 5/8				
Suction, ODF (in.)	7/8		7/8		1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8				
Liquid, ODF (in.)	5/8		5/8		5/8	5/8	5/8	5/8	5/8	5/8				
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
- ODM** — Outside Diameter, Male
- VAV** — Variable Air Volume

*Includes piping and trim kit.

†Unit is factory supplied with nitrogen holding charge.

**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 119-121, 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
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.

4. Equivalent connection values in mm are as follows:

in.	mm
5/8	15.9
7/8	22.2
1 1/8	28.6
2 1/8	54.0
2 5/8	66.7



38AH024-134 UNITS, 50 Hz ENGLISH

UNIT 38AH	024		028		034	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
NOMINAL CAPACITY (Tons)	18		21		25	
OPERATING WEIGHT (lb)						
Cu-AI (Standard)	1760		1820		1880	
Cu-Cu (Optional)	1923		1982		2097	
REFRIGERANT*	R-22					
Operating Charge, Typical (lb)	20	20	20	20	25	25
COMPRESSOR	Reciprocating Semi-Hermetic					
Qty...Model	1...06DH824	1...06DA824	1...06DH328	1...06DA328	1...06DH328	1...06DA537
No. Cylinders	6	6	6	6	6	6
Speed (rpm)	1450	1450	1450	1450	1450	1450
Oil Charge per Circuit (Pt)	10					
Capacity Steps (%)						
(FIOP or Acy)	100	100	100	100	100	100
Standard Unit	67*	—	67†	—	67*	—
VAV FIOP	33†	—	33**	—	33†	—
Unloader Setting (psig)	Factory Installed					
Load	76	—	76	—	76	—
Unload	58	—	58	—	58	—
CONDENSER FANS	Propeller Type — Direct Driven					
Qty...Speed (rpm)			2...950			
Diameter (in.)	30		30		30	
Nominal Hp	1.0		1.0		1.0	
Nominal Airflow (cfm)	16,700		16,700		15,700	
Watts (total)			3100			
CONDENSER COIL	Enhanced Copper Tubes, Aluminum Lanced Fin					
Rows...Fins/in.	2...19		2...19		3...17	
Face Area (sq ft)	39.20		39.20		39.20	
Storage Capacity (lb)††	37.7		37.7		56.6	
CONTROLS						
Pressurestat (psig)						
High Pressure						
Cutout	426 ± 7					
Cut-in	320 ± 20					
Low Pressure						
Cutout	27 ± 3					
Cut-in	44 ± 5					
Oil Pressure	Manual Reset					
Cutout	6.0					
Cut-in	8.8					
FAN CYCLING CONTROLS						
Temperature (F)						
No. 2 Fan, Close	70 ± 3					
Open	60 ± 3					
PRESSURE RELIEF	Fusible Plug					
Location	Liquid Line, Suction Line, Compressor					
Temperature (F)	210					
CONNECTIONS (in. ODM)						
Suction	1 ³ / ₈					
Liquid	5 ⁸ / ₈					

LEGEND

- Cu-AI** — Copper Tubes with Aluminum Fins
- Cu-Cu** — Copper Tubes with Copper Fins (Optional)
- FIOP** — Factory-Installed Option
- ODF** — Outside Diameter, Female
- ODM** — Outside Diameter, Male
- VAV** — Variable Air Volume

*Typical operating charge with 25 ft of interconnecting piping. Operating charge is approximate for maximum system capacity. Unit is factory supplied with nitrogen holding charge.

†Standard unit — single pressure-actuated suction unloader on compressor no. 1.

**VAV FIOP — double electrically actuated unloaders on compressor no. 1.

††Storage capacity of condenser coil with coil 80% full of liquid R-22 at 120 F.

Physical data (cont)



38AH024-134 UNITS, 50 Hz ENGLISH (cont)

UNIT 38AH	044	054	064	074	084					
NOMINAL CAPACITY (Tons)	35	41	50	61	69					
OPERATING WEIGHT WITH REFRIGERANT (lb) (Approx.)	Cu-Al Coils 3259 Cu-Cu Coils 3547	3309 3597	3565 3998	3812 4229	4057 4730					
SHIPPING WEIGHT WITH COIL PROTECTION ONLY (lb) (Approx.)	Cu-Al Coils 3250 Cu-Cu Coils 3538	3290 3578	3530 3963	3780 4197	4000 4678					
TYPICAL OPERATING REFRIGERANT CHARGE (lb, approx.) R-22*	62	72	88	104	130					
COMPRESSOR Type...Rpm (Qty Cylinder)† Circuit** Model No. 06E- Oil Charge (pt) Capacity Control Steps††	Reciprocating Semi-Hermetic...1460									
	(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
	4									
CONDENSER FANS (4 Blade) Qty...Dia (in.) Airflow (cfm) Speed (rpm) Total Power (kW)	4...30 35,000 950 6.2				6...30 52,000 950 9.3					
CONDENSER COIL Row...Fins per in. Face Area (ft ²) Storage Capacity (lb per circuit, approx.) at 120 F	Enhanced Copper Tubes, Lanced Aluminum Fins									
	2...17 80.5 35	2...17 80.5 35	3...17 80.5 55	2...19 116.7 55	3...17 116.7 80					
FAN CYCLING CONTROLS *** Close (psig) Open (psig)	255 ± 10 160 ± 10									
CONNECTIONS Suction, ODF (in.)††† Liquid, ODF (in.)††† Hot Gas Bypass, ODF (in.)	5/8				2 1/8 5/8 Ckt A		7/8 Ckt B		2 1/8 7/8 5/8	

LEGEND

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

***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 5/8 in. and liquid ODF is 1 1/8 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.

- *Unit is factory supplied with nitrogen holding charge.
- †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 119-121, for additional system capacity information.



38AH024-134 UNITS, 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† Charge (Approx.) (lb)	148		135		88	88	88	104																																																																																									
Qty of Circuits	2		2		1	1	1	1																																																																																									
COMPRESSOR Type...Rpm (Qty Cylinder) Compressor** Model No. 06E Oil Charge (pt) Circuit Capacity (%) (Approx.) Capacity Control Steps††	<table border="0" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="4"></td> <td colspan="4" style="text-align: center;">Reciprocating</td> <td colspan="4" style="text-align: center;">Semi-Hermetic...1460</td> </tr> <tr> <td>(6)A1</td><td>(4)A2</td><td>(6)B1</td><td>(6)A1</td><td>(4)A2</td><td>(6)B1</td><td>(6)B2</td><td>(6)A1</td><td>(6)A2</td><td>(6)A1</td><td>(6)A2</td><td>(6)A1</td><td>(6)A2</td><td>(6)A1</td><td>(6)A2</td> </tr> <tr> <td>-275</td><td>-250</td><td>-299</td><td>-265</td><td>-250</td><td>-265</td><td>-265</td><td>-275</td><td>-265</td><td>-275</td><td>-265</td><td>-275</td><td>-265</td><td>-299</td><td>-275</td> </tr> <tr> <td>21</td><td>17</td><td>19</td><td>21</td><td>17</td><td>21</td><td>21</td><td>21</td><td>21</td><td>21</td><td>21</td><td>21</td><td>21</td><td>19</td><td>21</td> </tr> <tr> <td colspan="2">55</td><td colspan="2">45</td><td colspan="2">47</td><td colspan="2">53</td><td colspan="2">50</td><td colspan="2">50</td><td colspan="2">45</td><td colspan="2">55</td> </tr> <tr> <td colspan="2">6</td><td colspan="2"></td><td colspan="2">8</td><td colspan="2"></td><td colspan="2">4</td><td colspan="2">4</td><td colspan="2">4</td><td colspan="2">4</td> </tr> </table>												Reciprocating				Semi-Hermetic...1460				(6)A1	(4)A2	(6)B1	(6)A1	(4)A2	(6)B1	(6)B2	(6)A1	(6)A2	(6)A1	(6)A2	(6)A1	(6)A2	(6)A1	(6)A2	-275	-250	-299	-265	-250	-265	-265	-275	-265	-275	-265	-275	-265	-299	-275	21	17	19	21	17	21	21	21	21	21	21	21	21	19	21	55		45		47		53		50		50		45		55		6				8				4		4		4		4	
				Reciprocating				Semi-Hermetic...1460																																																																																									
(6)A1	(4)A2	(6)B1	(6)A1	(4)A2	(6)B1	(6)B2	(6)A1	(6)A2	(6)A1	(6)A2	(6)A1	(6)A2	(6)A1	(6)A2																																																																																			
-275	-250	-299	-265	-250	-265	-265	-275	-265	-275	-265	-275	-265	-299	-275																																																																																			
21	17	19	21	17	21	21	21	21	21	21	21	21	19	21																																																																																			
55		45		47		53		50		50		45		55																																																																																			
6				8				4		4		4		4																																																																																			
CONDENSER FANS (4 Blade) Qty...Dia (in.) Airflow (cfm) Speed (rpm) Total Power (kW)	6...30 52,000 950 9.4		6...30 52,000 950 9.5		4...30 35,000 950 6.4		4...30 35,000 950 6.4		4...30 35,000 950 6.4		6...30 52,000 950 9.2																																																																																						
CONDENSER COIL Rows...Fins per in. Face Area (sq ft) Storage Capacity (kg per circuit, approx.) at 120 F	3...17 128.3 178		Enhanced Copper Tubes, Lanced Aluminum Fins				3...17 80.5 110		3...17 80.5 110		2...19 116.7 110																																																																																						
FAN CYCLING CONTROLS*** Close (psig) Open (psig)									255 ± 10 160 ± 10																																																																																								
CONNECTIONS Suction, ODF (in.) Liquid, ODF (in.) Hot Gas Bypass, ODF (in.)	2 1/8 7/8 5/8		2 1/8 7/8 5/8		2 5/8 1 1/8 5/8		2 5/8 1 1/8 5/8		2 5/8 1 1/8 5/8		2 5/8 1 1/8 5/8																																																																																						

LEGEND

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

*Includes piping and trim kit.

†Unit is factory supplied with nitrogen holding charge.

**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 119-121, 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:

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
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)



38AH024-134 UNITS, 50 Hz SI

UNIT 38AH	024		028		034	
	Circuit 1	Circuit 2	Circuit 1	Circuit 2	Circuit 1	Circuit 2
NOMINAL CAPACITY (kW)	63		73		87	
OPERATING WEIGHT (kg)						
Cu-AI Coil (Standard)	798		826		853	
Cu-Cu Coil (Optional)	872		899		951	
REFRIGERANT*	R-22					
Operating Charge, Typical (kg)	9.10	9.10	9.10	9.10	11.40	11.40
COMPRESSOR	Reciprocating Semi-Hermetic					
Qty...Model	1...06DH824	1...06DA824	1...06DH328	1...06DA328	1...06DH328	1...06DA537
No. Cylinders	6	6	6	6	6	6
Speed (r/s)	24.3	24.3	24.3	24.3	24.3	24.3
Oil Charge per Circuit (L)	4.73					
Capacity Steps (%)						
(FIOP or Acy)	100	100	100	100	100	100
Standard	67*	—	67†	—	67*	—
VAV FIOP	33†	—	33**	—	33†	—
Unloader Setting (kPa)	Factory Installed					
Load	524	—	524	—	524	—
Unload	400	—	400	—	400	—
CONDENSER FANS	Propeller Type — Direct Driven					
Qty...Speed (r/s)	2...16					
Diameter (mm)	762		762		762	
Nominal Hp	1.0		1.0		1.0	
Nominal Airflow (L/s)	7870		7870		7400	
Watts (total)			3100			
CONDENSER COIL	Enhanced Copper Tubes, Aluminum Lanced Fin					
Rows...Fins/m	2...748		2...748		3...670	
Total Face Area (sq m)	3.64		3.64		3.64	
Storage Capacity (kg)††	17.4		17.4		26.0	
CONTROLS						
Pressurestat (kPa)						
High Pressure						
Cutout	2940 ± 50					
Cut-in	2200 ± 140					
Low Pressure						
Cutout	185 ± 20					
Cut-in	300 ± 35					
Oil Pressure	Manual Reset					
Cutout	42					
Cut-in	62					
FAN CYCLING CONTROLS						
Temperature (C)						
No. 2 Fan, Close	21.1 ± 1.6					
Open	15.6 ± 1.6					
PRESSURE RELIEF	Fusible Plug					
Location	Liquid Line, Suction Line, Compressor					
Temperature (C)	100					
CONNECTIONS (in. ODM)						
Suction	1 ³ / ₈					
Liquid	5 ⁸ / ₈					

LEGEND

- Cu-AI** — Copper Tubes with Aluminum Fins
- Cu-Cu** — Copper Tubes with Copper Fins (Optional)
- FIOP** — Factory-Installed Option
- ODF** — Outside Diameter, Female
- ODM** — Outside Diameter, Male
- VAV** — Variable Air Volume

*Typical operating charge with 7.6 m of interconnecting piping. Operating charge is approximate for maximum system capacity. Unit is factory supplied with nitrogen holding charge.

†Standard unit — single pressure-actuated suction unloader on compressor no. 1.

**VAV FIOP — double electrically actuated unloaders on compressor no. 1.

††Storage capacity of condenser coil with coil 80% full of liquid R-22 at 48.8 C.



38AH024-134 UNITS, 50 Hz SI (cont)

UNIT 38AH	044	054	064	074	084					
NOMINAL CAPACITY (kW)	123	144	175	214	242					
OPERATING WEIGHT WITH REFRIGERANT (kg) (Approx.)	1480	1501	1617	1729	1840					
Cu-Al Coils	1609	1632	1813	1918	2145					
Cu-Cu Coils	1474	1492	1601	1715	1814					
SHIPPING WEIGHT WITH COIL PROTECTION ONLY (kg) (Approx.)	1605	1623	1798	1904	2122					
TYPICAL OPERATING REFRIGERANT CHARGE (kg, approx.) R-22*	28.1	32.7	39.9	47.2	58.9					
COMPRESSOR Type...r/s (Qty Cylinder)† Circuit** Model No. 06E-Oil Charge (L) Capacity Control Steps††	Reciprocating Semi-Hermetic...24.3									
	(4) A	(4) B	(4) A	(6) B	(6) A	(6) B	(6) A	(6) B	(6) A	(6) B
	250	250	250	265	265	275	275	299	299	299
	8.0	8.0	8.0	9.9	9.9	9.9	9.9	9.0	9.0	9.0
	4									
CONDENSER FANS (4 Blade) Qty...Dia (mm) Airflow (L/s) Speed (r/s) Total Power (kW)	4...762 16 500 15.8 6.2				6...762 24 500 15.8 9.3					
					24 100					
CONDENSER COIL Row...Fins per m Face Area (m²) Storage Capacity (kg per circuit, approx.) at 48.9 C	Enhanced Copper Tubes, Lanced Aluminum Fins									
	2...669	2...669	3...669	2...782	3...669	2...782	3...669	2...782	3...669	3...669
	7.48	7.48	7.48	10.84	7.48	10.84	7.48	10.84	7.48	10.84
	16	16	25	25	16	25	25	16	25	36
FAN CYCLING CONTROLS *** Close (kPa) Open (kPa)	1758 ± 69 1103 ± 69									
CONNECTIONS Suction, ODF (in.)††† Liquid, ODF (in.)††† Hot Gas Bypass, ODF (in.)	5/8				2 1/8 5/8 Ckt A		7/8 Ckt B		2 1/8 7/8 5/8	

LEGEND

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

* Unit is factory supplied with nitrogen holding charge.
 †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 119-121, 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 5/8 in. and liquid ODF is 1 1/8 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
1 1/8	28.6
2 1/8	54.0
2 5/8	66.7

Physical data (cont)



38AH024-134 UNITS, 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† 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**					R-22			
Model No. 06E								
Oil Charge (L)								
Circuit Capacity (%) (Approx.)								
Capacity Control Steps††								
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					Enhanced Copper Tubes, Lanced Aluminum Fins			
Rows...Fins per m	3...669.3		3...669.3		3...669.3	3...669.3	3...669.3	2...781.6
Face Area (sq m)	11.9		11.9		7.5	7.5	7.5	10.8
Storage Capacity (kg per circuit, approx.) at 40 C	81		81		50	50	50	50
FAN CYCLING CONTROLS***					1758 ± 69			
Close (kPa)					1103 ± 69			
Open (kPa)								
CONNECTIONS								
Suction, ODF (in.)	2 1/8		2 1/8		2 5/8	2 5/8	2 5/8	2 5/8
Liquid, ODF (in.)	7/8		7/8		1 1/8	1 1/8	1 1/8	1 1/8
Hot Gas Bypass, ODF (in.)	5/8		5/8		5/8	5/8	5/8	5/8

LEGEND

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

*Includes piping and trim kit.

†Unit is factory supplied with nitrogen holding charge.

**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 119-121, 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:

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
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.

4. Equivalent connection values in mm are as follows:

in.	mm
5/8	15.9
7/8	22.2
1 1/8	28.6
2 1/8	54.0
2 5/8	66.7

Options and accessories



ITEM	FACTORY-INSTALLED OPTION	FIELD-INSTALLED ACCESSORY
Enviro-Shield™ Condenser Options	X	
VAV Control Box Modification*	X	
Standard Dual Circuit with NFD (sizes 044-104 only)*	X	
Standard Dual Circuit with NFD and VAV (sizes 044-104 only)*	X	
Single Circuit (sizes 044-084 only)*	X	
Single Circuit with VAV (sizes 044-084 only)*	X	
Single Circuit with NFD (sizes 044-084 only)*	X	
Single Circuit with NFD and VAV (sizes 044-084 only)*	X	
Standard Dual Module with VAV (sizes 124,134 only)*	X	
Standard Dual Module with NFD (sizes 124,134 only)*	X	
Standard Dual Module with NFD and VAV (sizes 124,134 only)*	X	
-20 F Low-Ambient Controls		X
Gage Panel Package		X
Transformer Relay Package (sizes 044-134 only)		X
Additional Electric Unloader Package		X
Additional Pressure Unloader Package		X
Hail Guard Package (sizes 044-134 only)		X
ModuPanel™ Control		X
Sound-Reduction Kit (sizes 044-134 only)		X
Unloader Conversion Kit		X
Compressor Grille Package (sizes 044-134 only)		X
Condenser Coil Grille Package (sizes 044-134 only)		X
Accumulator (sizes 024-084 only)		X
Hot Gas Bypass Kit		X

LEGEND

NFD — Non-Fused Disconnect
VAV — Variable Air Volume

*See the Unloader, Accumulator, and NFD Factory-Installed Option Availability table for more detailed information.

Factory-installed options

Enviro-Shield™ condenser options are available to match coil protection to site conditions for optimum durability. See the Condenser Coil Options table on page 19 and refer to the Application Data for selection guidance. Consult your Carrier representative for further information.

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 — 38AH024-034,054-084,104
- 3 — 38AH094
- 4 — 38AH124,134 (2 per module)

Standard dual circuit with NFD (sizes 044-104 only) includes factory-installed non-fused disconnect switch.

Standard dual circuit with NFD and VAV (sizes 044-104 only) includes factory-installed accumulators, wiring, electric unloaders, and non-fused disconnect switch.

Single-circuit (sizes 044-084 only) includes factory-installed accumulators and all piping and wiring required to make the unit single circuit.

Single-circuit with VAV (sizes 044-084 only) includes piping, wiring, and electric unloaders on the compressors (one on size 044 and 2 on sizes 054-084) to make the unit single circuit, VAV-ready. This option also includes factory-installed accumulators.

Single circuit with NFD (sizes 044-084 only) includes factory-installed single-circuit piping modification, accumulators, and non-fused disconnect switch.

Single circuit with NFD and VAV (sizes 044-084 only) includes factory-installed single-circuit piping modification, accumulators, wiring, electric unloaders, and non-fused disconnect switch.

Standard dual module with VAV (sizes 124,134 only) includes factory-installed accumulators, wiring and electric unloaders.

Standard dual module with NFD (sizes 124,134 only) includes factory-installed single-circuit piping modification for each module (dual circuit unit), and non-fused disconnect switch.

Standard dual module with NFD and VAV (sizes 124,134 only) includes factory-installed single-circuit piping modification for each module (dual circuit unit), accumulators, wiring, electric unloaders, and non-fused disconnect switch.

Field-installed accessories

Motormaster® V -20 F low-ambient controls controls outdoor-fan motor operation to maintain the correct head pressure at low outdoor ambient temperatures. Only one low ambient temperature kit is required per unit.

Gage panel package provides a panel-mounted suction and a discharge pressure gage for the refrigerant circuit.

Transformer relay package (sizes 044-134 only) for a remote-control (24-v) thermostat. One 2-stage thermostat is required for use with the relay package.

Options and accessories (cont)



Additional electric unloader package includes hardware and solenoid valve to convert a pressure-operated unloader to electric unloading (coil not included).

Additional pressure unloader package includes all unloader valves and hardware.

Hail guard package (sizes 044-134 only) protects coils against damage from hail and airborne debris.

ModuPanel™ control provides 10-step microprocessor-based control for VAV applications. The control includes microprocessor, satellite sequencer, 4 status lights, 5-hour bypass timer, and locked enclosure.

Sound-reduction kit (sizes 044-134 only) 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 (sizes 044-134 only) protects the compressor area after the unit is installed.

Condenser coil grille package (sizes 044-134 only) protects the condenser area after the unit is installed.

Accumulator (sizes 024-084 only) should be used on any VAV application or any CV unit separated by 75 ft or more from indoor coil to minimize risk of liquid slug entering compressor. One accumulator needed per refrigerant circuit.

Hot gas bypass kit allows additional capacity reduction for unit and prevention of indoor coil freezing. Careful attention should be placed on system oil management.

UNLOADER, ACCUMULATOR, AND NFD FACTORY-INSTALLED AVAILABILITY

38AH UNIT SIZE	OPTION CODE																			
	AA				AC*				--				BA				DA			
	PU	EU	ACC	NFD	PU	EU	ACC	NFD	PU	EU	ACC	NFD	PU	EU	ACC	NFD	PU	EU	ACC	NFD
024	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
028	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
034	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
044	—	—	—	—	—	—	—	—	1	—	—	—	—	1	2	—	1	—	2	—
054	—	—	—	—	—	—	—	—	1	—	—	—	—	2	2	—	1	—	2	—
064	—	—	—	—	—	—	—	—	1	—	—	—	—	2	2	—	1	—	2	—
074	—	—	—	—	—	—	—	—	1	—	—	—	—	2	2	—	1	—	2	—
084	—	—	—	—	—	—	—	—	1	—	—	—	—	2	2	—	1	—	2	—
094	—	—	—	—	—	—	—	—	2	—	2	—	—	3	2	—	—	—	—	—
104	—	—	—	—	—	—	—	—	2	—	2	—	—	2	2	—	—	—	—	—
124	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	4	—
134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	4	—

38AH UNIT SIZE	OPTION CODE																			
	FA				KA				LA				HA				JA			
	PU	EU	ACC	NFD	PU	EU	ACC	NFD	PU	EU	ACC	NFD	PU	EU	ACC	NFD	PU	EU	ACC	NFD
024	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
028	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
034	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
044	—	1	2	—	1	—	2	1	—	1	2	1	1	—	—	1	—	1	2	1
054	—	2	2	—	1	—	2	1	—	2	2	1	1	—	—	1	—	2	2	1
064	—	2	2	—	1	—	2	1	—	2	2	1	1	—	—	1	—	2	2	1
074	—	2	2	—	1	—	2	1	—	2	2	1	1	—	—	1	—	2	2	1
084	—	2	2	—	1	—	2	1	—	2	2	1	1	—	—	1	—	2	2	1
094	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	1	—	3	2	1
104	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	1	—	2	2	1
124	—	4	4	—	2	—	4	2	—	4	4	2	—	—	—	—	—	—	—	—
134	—	4	4	—	2	—	4	2	—	4	4	2	—	—	—	—	—	—	—	—

LEGEND

- AA — Standard Unit, Dual Circuit (Sizes 024-034)
- AC — Standard Unit, VAV (Sizes 024-034)
- ACC — Accumulator
- BA — Standard Unit, VAV (Sizes 044-104)
- DA — Single Circuit (Sizes 044-084); Dual Module Unit (Sizes 124-134)
- EU — Electric Unloader
- FA — Single ckt and VAV (Sizes 044-084); Dual Module Unit, VAV (Sizes 124-134)
- HA — Standard Unit, NFD (Sizes 044-104)
- JA — Standard Unit, VAV, NFD (Sizes 044-104)
- KA — Single Circuit and NFD (Sizes 044-084); Dual Module Unit, NFD (Sizes 124-134)
- LA — Single Circuit, VAV and NFD (Sizes 044-084); Dual Module Unit, VAV, NFD (Sizes 124-134)
- NFD — Non-Fused Disconnect
- PU — Pressure Unloader
- VAV — Variable Air Volume
- — Standard Unit, Dual Circuit (Sizes 044-104)

*Requires 2 fielded-installed accumulators, part number KH73LZ001.



CONDENSER COIL OPTIONS*

COPPER-TUBE COILS WITH <i>ENVIRO-SHIELD</i> [™] OPTION	ENVIRONMENT					
	Standard	Mild Coastal	Moderate Coastal	Severe Coastal	Industrial	Combined Industrial/Coastal
Al Fins (Standard Coils)	X					
Cu Fins			X			
Al Fins, E-Coated					X	
Cu Fins, E-Coated				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

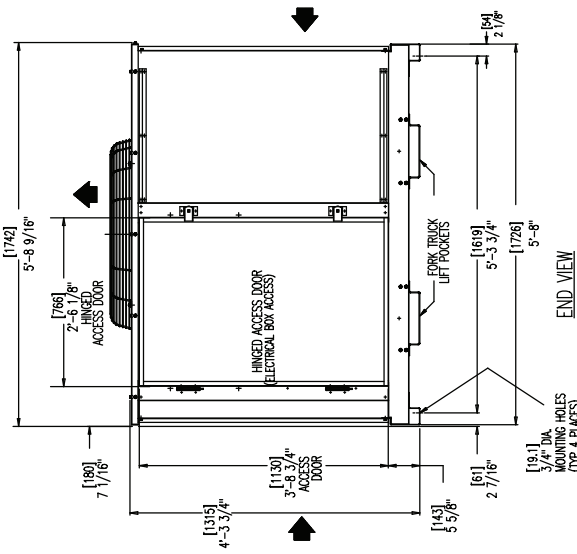
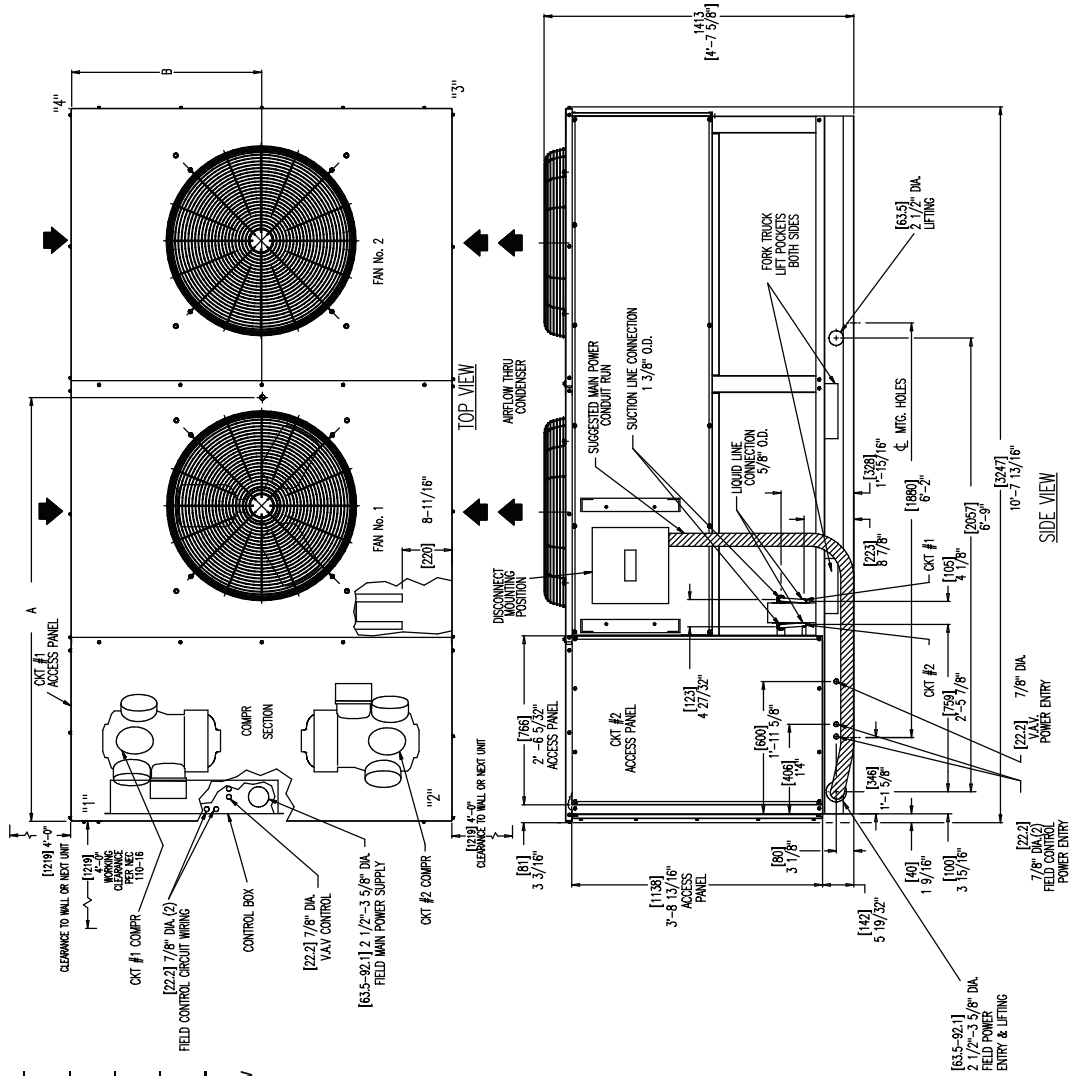
*See "Selection Guide: Environmental Corrosion Protection" Catalog No. 04-581006-01 for more information.

38AH024-034 UNITS

38AH UNIT	CORNER WEIGHT — lb [kg]				CENTER OF GRAVITY		TOTAL UNIT WT lb [kg]
	"1"	"2"	"3"	"4"	A Dim. in. [mm]	B Dim. in. [mm]	
024	632 [287]	578 [262]	263 [119]	288 [131]	40.00 [1016]		1760 [798]
024C	667 [302]	610 [277]	309 [140]	338 [153]	43.00 [1092]		1923 [872]
028	659 [299]	602 [273]	267 [121]	292 [132]	39.25 [997]	32.75 [832]	1820 [824]
028C	693 [314]	634 [288]	313 [142]	342 [155]	42.25 [1073]		1982 [899]
034	667 [303]	610 [277]	288 [131]	315 [143]	41.00 [1041]		1880 [853]
034C	718 [326]	657 [298]	345 [156]	377 [171]	44.00 [1117]		2097 [951]

NOTES:

- There must be 4 ft [1220 mm] for service and for unrestricted airflow on all sides of unit.
- There must be minimum 8 ft [2440 mm] clear air space above unit.
- "C" in the package number indicates copper coils.
- Dimensions in [] are in millimeters.
- The approximate operating weight of the unit is shown above.
- Certified dimensional drawing is available on request.



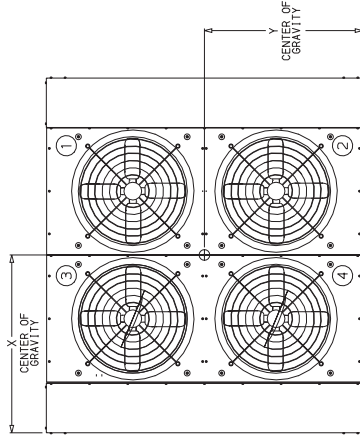
38AH044-064 UNITS (See Page 23 for Corner Weights)

UNIT SUCTION AND LIQUID LINES

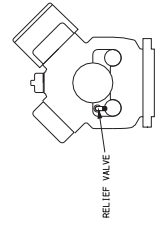
DESCRIPTION	DUAL CIRCUIT, ft.-in. [mm]	SINGLE CIRCUIT, ft.-in. [mm]
Suction Connection(s)	0-2 1/8 [54]	0-2 3/8 [67]
Liquid Connection(s)	0-7/8 [22]	0-1 1/8 [29]
Suction C	2-11/16 [627]	1-10 5/16 [567]
Liquid D	1-10 1/16 [561]	1-10 5/16 [567]
Suction (Ckt A)	1-7 13/16 [503]	2-5 5/8 [626]
Liquid (Ckt A)	2-5 3/4 [756]	2-11 1/8 [892]
Liquid (Ckt B)	2-10 5/8 [879]	—

FIELD POWER SUPPLY CONNECTIONS

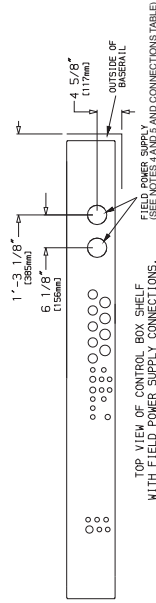
38AH UNIT SIZE	V-Ph-Hz	DIAMETER, in. [mm]	QTY
044	230-3-50	3 5/8 [92]	1
	208/230-3-60	3 5/8 [92]	1
	380/460/575-3-60	2 1/2 [63.5]	1
054	346/380-415/3/50	2 1/2 [63.5]	1
	208/230-3-60	3 5/8 [92]	1
064	380/460/575-3-60	2 1/2 [63.5]	1
	346-380/415-3-50	2 1/2 [63.5]	1
	208/230-3-60	2 1/2 [63.5]	2
064	380/460/575-3-60	2 1/2 [63.5]	1
	346-380/415-3-50	3 5/8 [92]	1



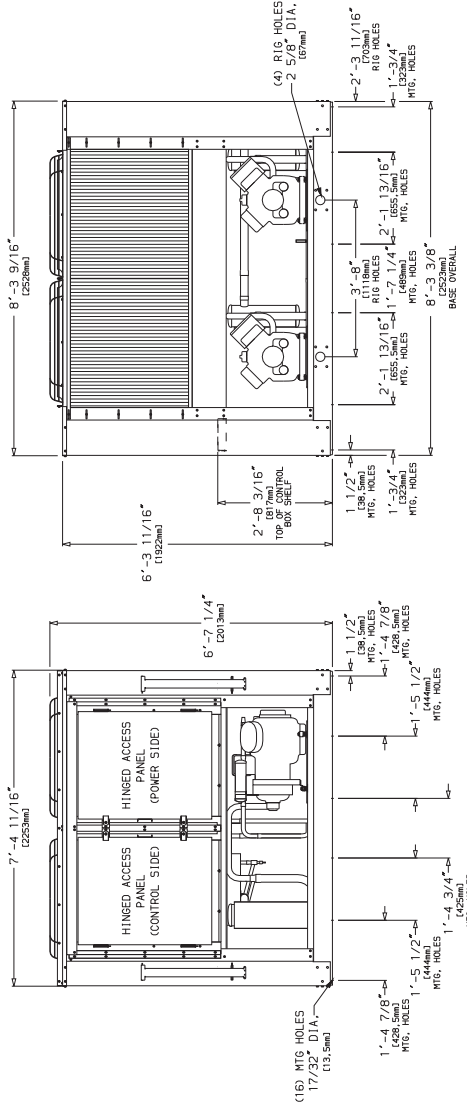
CONTROL BOX
END



RELIEF VALVES LOCATED ON THE COMPRESSORS ARE EQUIPPED WITH FIELD CONNECTION FOR SCALE 1:8



TOP VIEW OF CONTROL BOX SHELF WITH FIELD POWER SUPPLY CONNECTIONS. SCALE 1:10



LEGEND

MTG — Mounting
SAE — Society of Automotive Engineers

- NOTES:
- The approximate operating weight of the unit is:
 38AH044 → 926 lb (420 kg)
 38AH044C → 3527 lb (1600 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.

DIMENSIONS

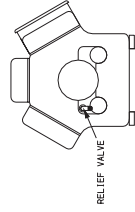
UNIT 38AH	DIMENSION Y ft.-in. [mm]	DIMENSION X ft.-in. [mm]
044	3-23/4 [984]	4-1/2 [1232]
044C	3-3 1/8 [994]	4-9/16 [1234]
054	3-2 1/2 [978]	4-3/16 [1224]
054C	3-3 [991]	4-3/8 [1229]
064	3-2 1/2 [978]	4-1/2 [1232]
064C	3-3 3/16 [995]	4-5/8 [1235]

- 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. If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.
 - Two 2 in. (51 mm) dia holes are recommended for parallel conductors on 044 (230-v) units and on 044 and 054 (208/230-v) units.
 - A 3 5/8 in. (86 mm) hole is recommended for single entry power on 064 (208/230-v) units.
 - "C" in the package number indicates copper coils.

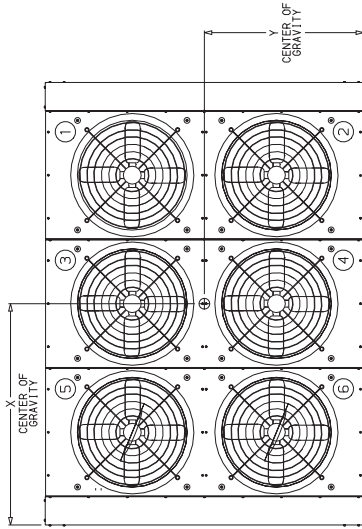
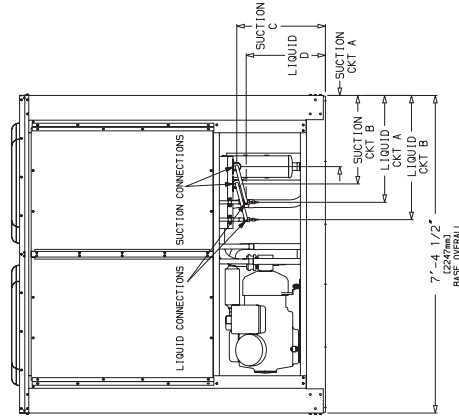
38AH074,084 UNITS (See Page 23 for Corner Weights)

FIELD POWER SUPPLY CONNECTIONS

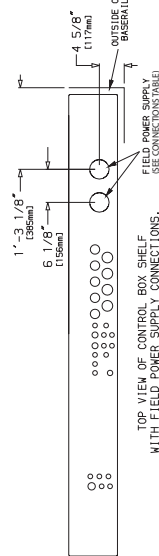
38AH UNIT SIZE	V-PH-Hz	DIAMETER, in. [mm]	QTY
074	230-3-60	2 1/2 [63.5]	2
	460-3-60	2 1/2 [63.5]	1
	575-3-60	2 1/2 [63.5]	1
	380-3-60	35/8 [92.0]	1
084	346-380/415-3-50	35/8 [92.0]	1
	208/230-3-60	35/8 [92.0]	2
	460-3-60	35/8 [92.0]	1
	575-3-60	2 1/2 [63.5]	1
380-3-60	35/8 [92.0]	1	
346-380/415-3-50	35/8 [92.0]	1	



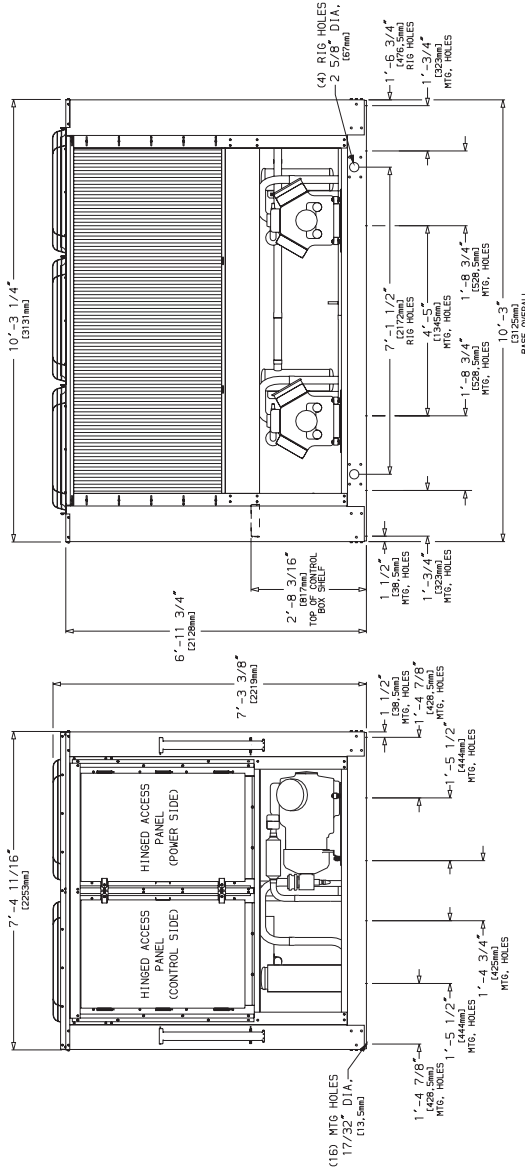
RELIEF VALVES LOCATED ON THE COMPRESSOR ARE PROVIDED WITH A 3/8" SAE FLARE FOR FIELD CONNECTION
SCALE 1:8



CONTROL BOX END



TOP VIEW OF CONTROL BOX SHELF WITH FIELD POWER SUPPLY CONNECTIONS, SCALE 1:10



LEGEND

MTG — Mounting
SAE — Society of Automotive Engineers

NOTES:

- The approximate operating weight of the unit is:
 38AH074 → 3612 lb [1729 kg]
 38AH074C → 4229 lb [1918 kg]
 38AH084 → 4057 lb [1840 kg]
 38AH084C → 4730 lb [2145 kg]

DIMENSIONS

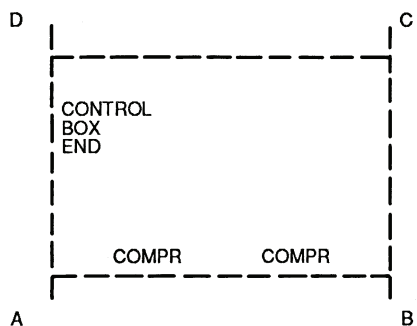
38AH UNIT	DIMENSION Y ft-in. [mm]	DIMENSION X ft-in. [mm]
074	3-3 1/8 [994 mm]	4-8 13/16 [1443 mm]
074C	3-3 3/8 [1006 mm]	4-8 1/2 [1425 mm]
084	3-3 [991 mm]	4-9 [1448 mm]
084C	3-3 11/16 [1008 mm]	4-8 [1422 mm]

2. 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]

3. Mounting holes may be used to mount unit to concrete pad. They are not recommended for mounting unit to spring isolators. If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.

4. "C" in the package number indicates copper coils.

38AH044-084 UNIT CORNER WEIGHTS



OPERATIONAL CORNER WEIGHTS WITH REFRIGERANT CHARGE (Approximate)

38AH UNIT	TOTAL WEIGHT lb [kg]	OPERATIONAL CORNER WEIGHT lb [kg]			
		A	B	C	D
044	3259 [1480]	939 [426]	893 [405]	695 [316]	732 [332]
044C	3547 [1609]	1013 [460]	967 [438]	765 [347]	802 [364]
054	3309 [1501]	964 [437]	905 [411]	697 [316]	742 [337]
054C	3597 [1632]	1034 [469]	978 [444]	771 [350]	814 [369]
064	3565 [1617]	1018 [462]	1011 [459]	765 [347]	771 [350]
064C	3998 [1813]	1125 [510]	1117 [508]	874 [397]	879 [399]
074	3812 [1729]	1146 [520]	986 [447]	777 [352]	903 [410]
074C	4229 [1918]	1272 [577]	1059 [481]	862 [391]	1035 [470]
084	4057 [1840]	1220 [553]	1049 [476]	827 [375]	961 [436]
084C	4730 [2145]	1425 [646]	1186 [538]	965 [438]	1159 [526]

NOTE: "C" in the package number indicates copper coils.

38AH094 UNIT

CORNER WEIGHTS

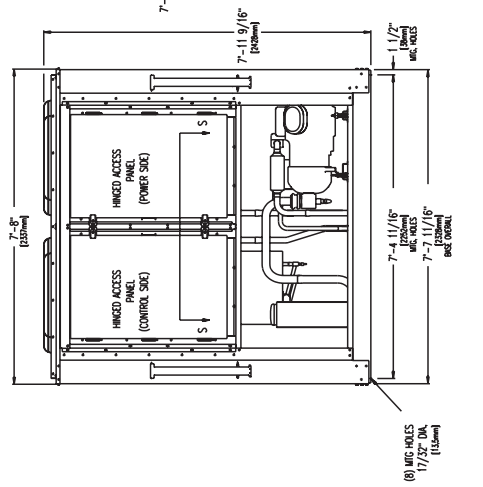
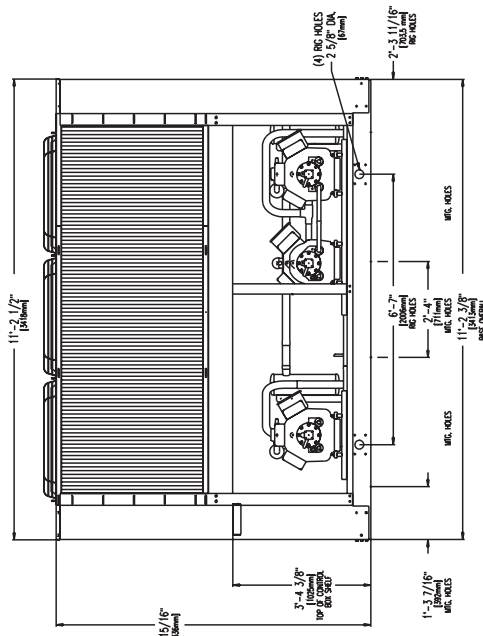
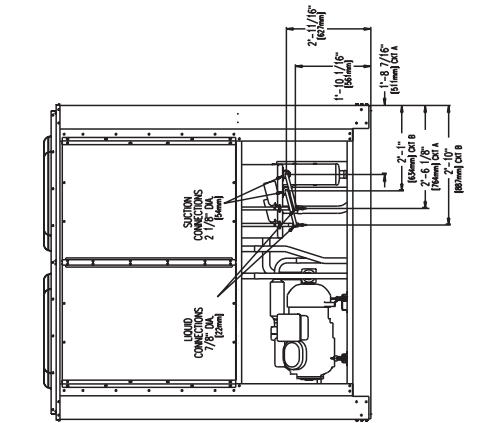
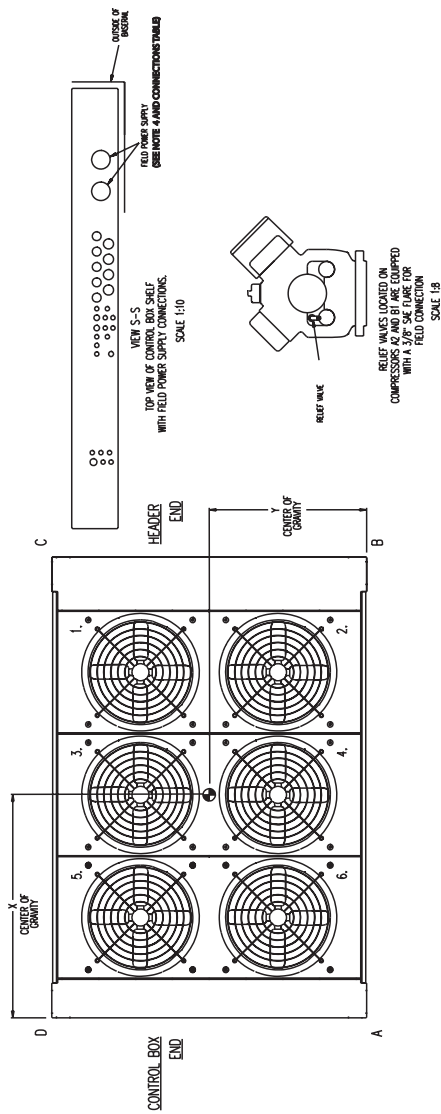
38AH UNIT	OPERATIONAL CORNER WEIGHTS — lb [kg]			
	A	B	C	D
094	1114 [505]	2192 [994]	1182 [536]	601 [273]
094C	1273 [577]	2504 [1136]	1350 [612]	686 [311]

FIELD POWER SUPPLY CONNECTIONS

38AH UNIT	V-Ph-Hz	DIAMETER in. [mm]	QUANTITY
094	346-380/415-3-50	35/8 [92]	1
	208/230-3-60	35/8 [92]	2
	460-575-380-3-60	35/8 [92]	1

DIMENSIONS

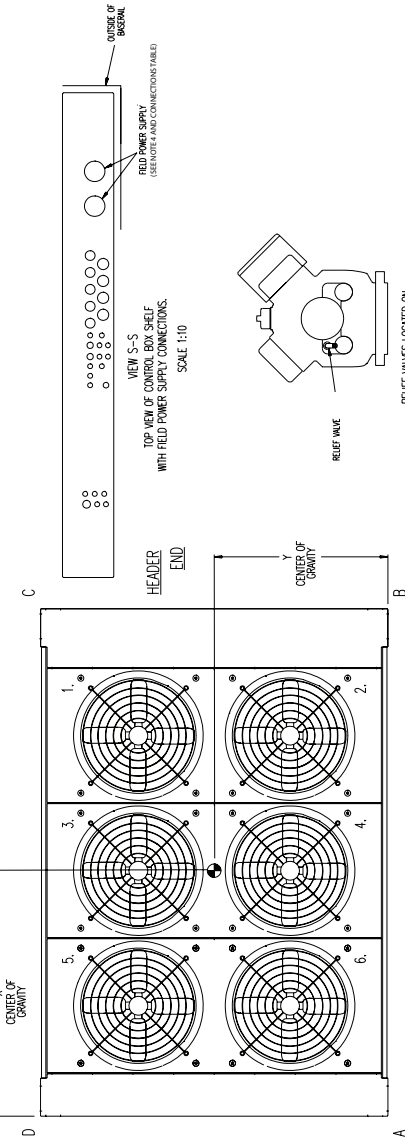
38AH UNIT	DIMENSIONS ft.-in. [mm]	
	X	Y
094	5-6 [1676]	2-7 [787]
094C	5-6 [1676]	2-7 [787]



- 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. If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.
- Two 35/8 [92 mm] diameter holes are recommended for parallel conductors on 208/230-v units.
- "C" in the package number indicates copper coils.

- LEGEND**
- 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.

38AH104 UNIT



CONTROL BOX END

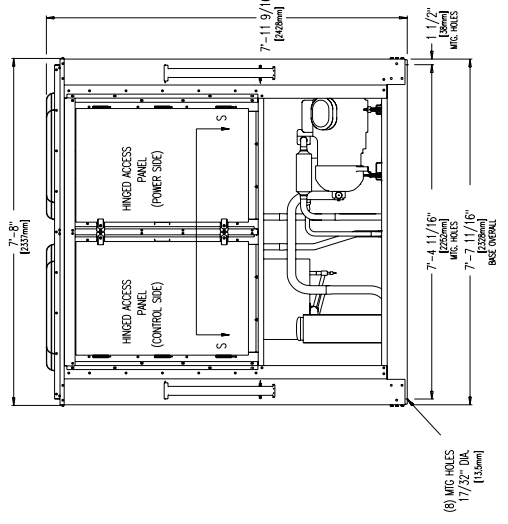
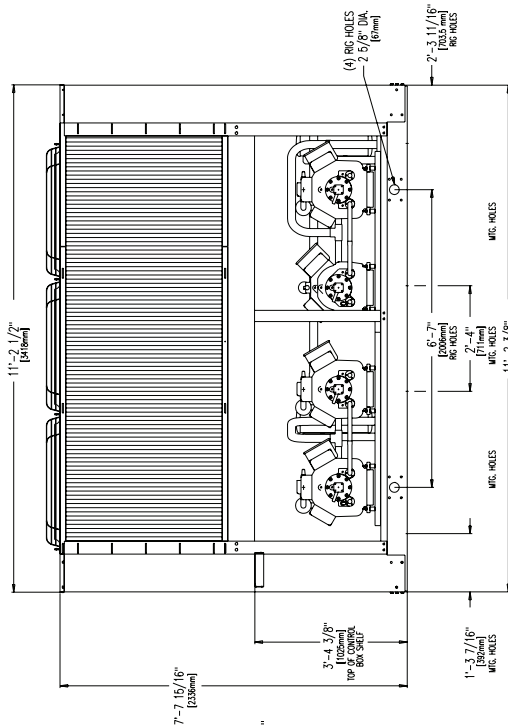
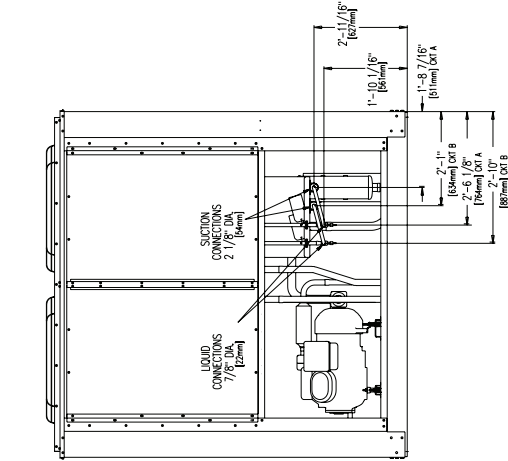
DIMENSIONS

38AH UNIT	DIMENSIONS ft.-in. [mm]	
	X	Y
104	5-3 [1600]	2-9 1/2 [851]
104C	5-3 [1600]	2-9 1/2 [851]

FIELD POWER SUPPLY CONNECTIONS

38AH UNIT SIZE	V-Ph-Hz	DIAMETER, in. [mm]	QTY
104	208/230-3-60	3 5/8 [92.0]	2
	380-460-575-3-60	3 5/8 [92.0]	1
	346-380/415-3-50	3 5/8 [92.0]	1

RELIEF VALVES LOCATED ON COMPRESSORS A2 AND B2 ARE EQUIPPED WITH A 3/8" SAE TUBE FOR FIELD CONNECTION
SCALE 1:10



CORNER WEIGHTS

38AH UNIT	OPERATIONAL CORNER WEIGHTS — lb [kg]			
	A	B	C	D
104	1240 [562]	2138 [970]	1302 [591]	755 [342]
104C	1405 [637]	2423 [1099]	1476 [670]	856 [388]

- Mounting holes may be used to mount unit to concrete pad. They are not recommended for mounting unit to spring isolators. If spring isolators are used, a perimeter support channel between the unit and the isolators is recommended.
- Two 35/8 in. [92-mm] diameter holes are recommended for parallel conductors on 208/230-v units.
- "C" in the package number indicates copper coils.

LEGEND

- MTG — Mounting
SAE — Society of Automotive Engineers

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]

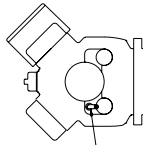
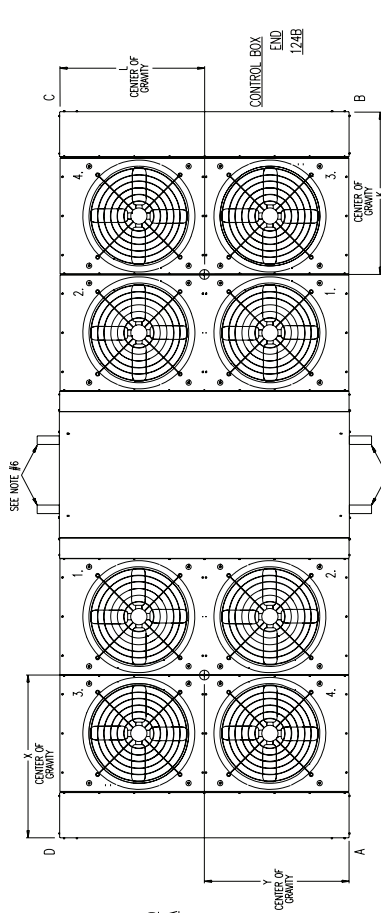
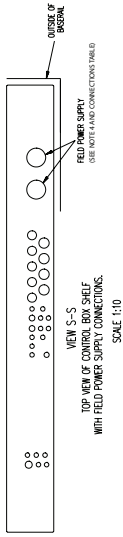
38AH124 UNIT

CORNER WEIGHTS

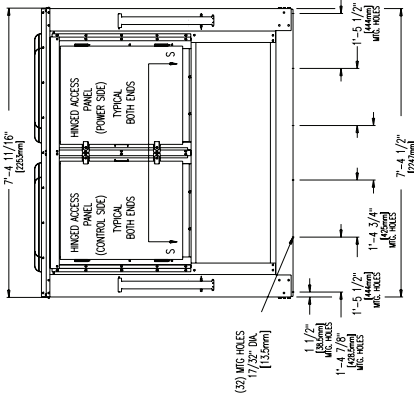
38AH UNIT MODULE	OPERATIONAL CORNER WEIGHTS — lb [kg]		
	A	B	C
124A	1037 [470]	1030 [467]	779 [353]
124B	—	—	785 [356]
124A-C	1144 [519]	1137 [516]	889 [403]
124B-C	—	—	894 [406]

FIELD POWER SUPPLY CONNECTIONS

38AH UNIT SIZE	V-Ph-Hz	DIAMETER, in. [mm]	QTY
124A	208/230-3-60	2 1/2 [63.5]	2
	380-460-575-3-60	2 1/2 [63.5]	1
	346-380/415-3-50	3-5/8 [92.0]	1
124B	208/230-3-60	2 1/2 [63.5]	2
	380-460-575-3-60	2 1/2 [63.5]	1
	346-380/415-3-50	3-5/8 [92.0]	1



RELIEF VALVES LOCKED ON THE COMPRESSORS ARE EQUIPPED WITH A 3/8" SAE FLARE FOR FIELD CONNECTION
SCALE 1:8



DIMENSIONS

38AH UNIT MODULE	DIMENSIONS ft.-in. [mm]			
	X	Y	K	L
124A	4-15/8 [1260]	3-2 1/8 [968]	—	—
124B	—	—	4-1 5/8 [1260]	3-2 1/8 [968]
124A-C	4-1 5/8 [1260]	3-2 7/8 [986]	—	—
124B-C	—	—	4-1 5/8 [1260]	3-2 7/8 [986]

perimeter support channel between the assembled unit and the isolators is required. Do not support each module separately.

- One 3/8" (92 mm) diameter hole is recommended for single power entry into each module (124A and 124B) of the unit.
- Each module must be rigged into position separately. The unit must not be rigged after modules have been connected.
- Suction and liquid connections can exit on either side of the unit.
- Field power supply connections are required for each module.
- "C" in the package number indicates copper coils.

LEGEND

MTG — Mounting
SAE — Society of Automotive Engineers

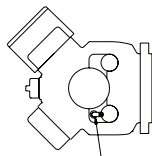
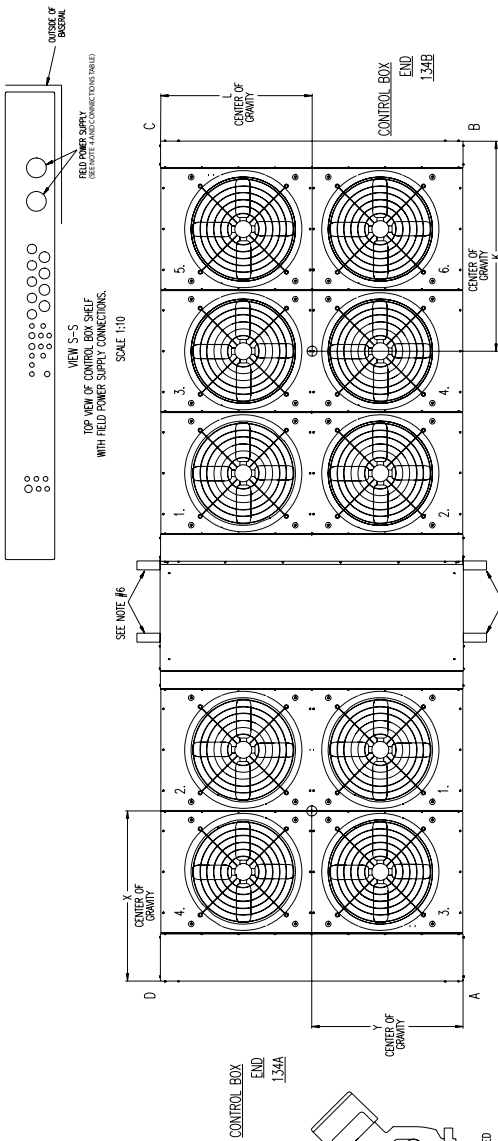
NOTES:

- The approximate operating weight of the unit is:
38AH124 — 7260 lb [3293 kg]
38AH124C — 8126 lb [3686 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. If spring isolators are used, a

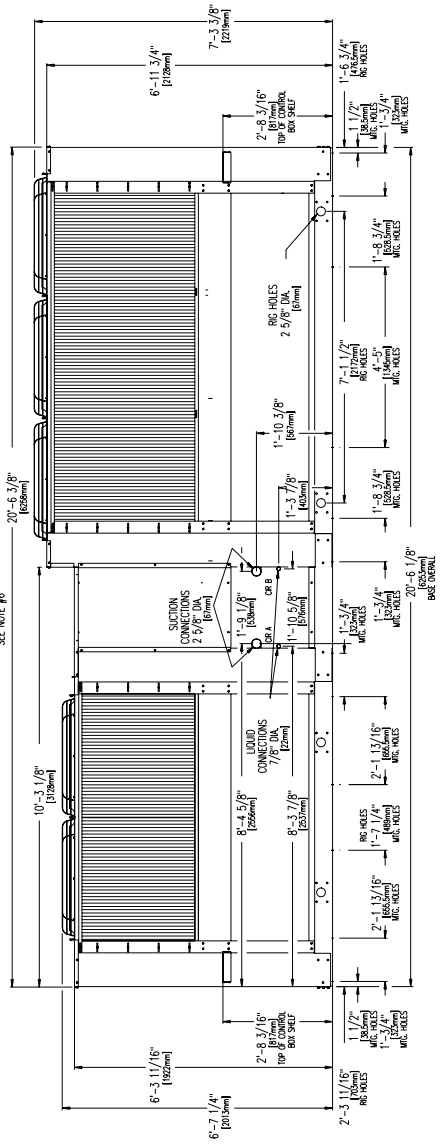
38AH134 UNIT

FIELD POWER SUPPLY CONNECTIONS

38AH UNIT MODULE	V-P-Hz	DIAMETER, in. [mm]	QTY
134A	208/230-3-60	2 1/2 [63.5]	2
	380-460-575-3-60	2 1/2 [63.5]	1
	346-380/415-3-50	3 5/8 [92.0]	1
134B	208/230-3-60	2 1/2 [63.5]	2
	460-575-3-60	2 1/2 [63.5]	1
	380-3-60	3 5/8 [92.0]	1
346-380/415-3-50	3 5/8 [92.0]	1	



RELIEF VALVES LOCATED ON THE COMPRESSORS ARE EQUIPPED WITH A SAFETY RELIEF VALVE. FIELD CONNECTION. SCALE 1:8



LEGEND

- MTG — Mounting
 SAE — Society of Automotive Engineers
- 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 [1524 mm]
 Slides — 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. If spring isolators are used, a

DIMENSIONS

38AH UNIT MODULE	DIMENSIONS ft-in. [mm]			
	X	Y	K	L
134A	4-1 5/8 [1260]	3-2 1/8 [968]	—	—
134B	—	—	4-8 7/8 [1443]	3-3 1/8 [993]
134A-C	4-1 5/8 [1260]	3-2 7/8 [986]	—	—
134B-C	—	—	4-8 1/8 [1425]	3-3 3/4 [1006]

- perimeter support channel between the assembled unit and the isolators is required. Do not support each module separately.
- One 3/8 in. [9.2 mm] diameter hole is recommended for single power entry into the 134A (208/230-V) module of the unit. Single power entry into the 134B module is not recommended.
 - Each module must be rigged into position separately. The unit must not be rigged after modules have been connected.
 - Suction and liquid connections can exit on either side of the unit.
 - Field power supply connections are required for each module.
 - "C" in the package number indicates copper coils.

Selection procedure



To select 38AH024-034 units — English:

NOTE: See the Performance Data section for combination ratings for 38AH024-034 units and matching 40RM air handlers. If the 38AH units are matched with 39 series air handlers, use the Carrier Electronic Catalog **AHUBuilder®** software package for combination ratings. If the 10RT DX (direct expansion) water coolers are used, determine the performance by cross-plotting the condensing unit performance found in the Performance Data section this book against the 10RT DX performance in the 10RT DX product data book. If the 38AH condensing units are matched with 2 independent 40RM units, cross-plot for performance ratings or contact Carrier Application Engineering for assistance.

I. Determine cooling load, evaporator-air temperature and quantity.

Given:

- Total Cooling Capacity
Required (TC) 235,000 Btuh
- Sensible Heat Capacity
Required (SHC) 185,000 Btuh
- Temperature Air Entering
Condenser (Edb) 95 F
- Temperature Air Entering
Evaporator (db/wb) 80 F db, 67 F wb
- Evaporator Air Quantity. 8000 cfm
- External Static Pressure 0.80 in. wg
- Length of Interconnecting
Refrigerant Piping 30 ft (Linear)

II Select condensing unit air-handler combination.

For this example, select a 38AH024 matched with a 40RM024. (See Combination Ratings table on page 39.) This 38AH024/40RM024 condensing unit-air handler combination provides 237,200 Btuh of total cooling capacity and 188,600 Btuh of sensible capacity at the given conditions. If other temperatures or airflow values are required, interpolate the values from the combination ratings.

III Determine sizes of liquid and suction lines.

Enter the Refrigerant Piping Requirements table on page 122. The sizes shown are based on a linear length of pipe. For this example, note in the linear length column that the proper pipe size is $5/8$ in. for the liquid lines and $1\ 3/8$ in. for the suction lines.

To select 38AH044-134 units — English:

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 on page 31 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 requirements can often be met by combining 38AH condensing units with one or two air handlers.

To select 38AH024-034 units — SI:

NOTE: This book contains combination ratings for 38AH024-034 units and matching 40RM air handlers. If the 38AH units are matched with 39 Series air handlers, use the Carrier AHU (Air-Handling Unit) selection program software package for combination ratings. If the 10RT DX water coolers are used, determine the performance by cross-plotting the condensing unit performance found in this book against the 10RT DX performance in the 10RT DX product data book. If the 38AH condensing units are matched with 2 independent 40RM units, cross-plot for performance ratings or contact Carrier Application Engineering for assistance.

I Determine cooling load, evaporator-air temperature and quantity.

Given:

- Total Cooling Capacity
Required (TC) 60 kW
- Sensible Heat Capacity
Required (SHC) 48 kW
- Temperature Air Entering
Condenser (Edb) 36 C
- Temperature Air Entering
Evaporator (db/wb) 26.7 C db, 20 C wb
- Evaporator Air Quantity. 3800 L/s
- External Static Pressure 150 Pa
- Length of Interconnecting
Refrigerant Piping 18 m (Linear)

II Select condensing unit air-handler combination.

For this example, select a 50 Hz, 38AH024 matched with a 40RM024. This 38AH024/40RM024 condensing unit-air handler combination provides 62.5 kW of total cooling capacity and 49.2 kW of sensible capacity at the given conditions shown on page 88. If other temperatures or airflow values are required, interpolate the values from the combination ratings.

III Determine sizes of liquid and suction lines.

Enter the Refrigerant Piping Requirements table on page 125. The sizes shown are based on an equivalent length of pipe. For this example, note in the linear length column that the proper pipe size is $5/8$ in. for the liquid lines and $1\ 3/8$ in. for the suction lines.



To select 38AH044-134 units — SI:

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

Given:

Cooling Load 183 kW

Saturated suction temperature 4 C

Entering-air temperature 35 C

- II. Enter the Condensing Unit Ratings table on page 43 at the given saturated suction temperature and entering-air temperature for the required cooling capacity.**

The 60 Hz, 38AH064 unit has a cooling capacity of 183.4 kW at 4 C SST and 35 C 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 34-38, 46-53, 61-68 and 80-87 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

38AH024						
SST (F)		Condenser Entering-Air Temperature (F)				
		85	95	100	105	115
20	TC	157	143	136	129	115
	kW	14.1	14.9	15.2	15.5	16.0
	SDT	105	115	120	125	135
25	TC	178	163	156	149	134
	kW	14.7	15.6	16.0	16.4	17.0
	SDT	106	116	121	126	135
30	TC	198	183	176	168	153
	kW	15.3	16.3	16.8	17.3	18.1
	SDT	107	117	121	126	135
35	TC	221	205	197	189	173
	kW	15.9	17.1	17.6	18.1	19.1
	SDT	109	118	123	128	137
40	TC	244	227	219	210	193
	kW	16.6	17.9	18.5	19.0	20.1
	SDT	111	120	125	129	138
45	TC	270	251	243	233	215
	kW	17.2	18.6	19.3	19.9	21.1
	SDT	113	122	127	131	140
50	TC	295	276	266	257	237
	kW	17.8	19.4	20.1	20.8	22.1
	SDT	116	125	129	133	142

38AH034						
SST (F)		Condenser Entering-Air Temperature (F)				
		85	95	100	105	115
20	TC	223	206	199	190	175
	kW	21.2	22.5	23.1	23.7	24.8
	SDT	107	117	122	127	137
25	TC	249	232	224	215	209
	kW	22.2	23.6	24.2	24.9	26.2
	SDT	109	118	123	128	137
30	TC	276	258	249	241	222
	kW	23.1	24.7	25.4	26.2	27.6
	SDT	110	119	124	129	138
35	TC	307	287	277	267	248
	kW	24.2	25.9	26.7	27.6	29.0
	SDT	112	121	126	130	140
40	TC	336	314	305	294	274
	kW	25.3	27.1	28.0	28.9	30.5
	SDT	115	123	128	132	141
45	TC	369	346	335	324	302
	kW	26.3	28.3	29.3	30.3	32.0
	SDT	117	126	136	135	144
50	TC	402	378	366	354	330
	kW	27.4	29.6	30.6	31.7	33.6
	SDT	120	128	133	137	146

LEGEND

- kW — Compressor Power
- SDT — Saturated Discharge Temperature at Compressor (F)
- SST — Saturated Suction Temperature (F)
- TC — Gross Cooling Capacity (1000 Btuh)

38AH028						
SST (F)		Condenser Entering-Air Temperature (F)				
		85	95	100	105	115
20	TC	187	173	167	160	147
	kW	17.1	18.1	18.6	19.1	19.9
	SDT	107	116	121	126	135
25	TC	209	194	187	180	166
	kW	17.9	19.1	19.6	20.1	21.1
	SDT	109	118	123	127	137
30	TC	231	216	208	200	185
	kW	18.7	20.0	20.6	21.2	22.2
	SDT	111	120	124	129	138
35	TC	256	239	231	223	206
	kW	19.5	20.9	21.6	22.2	23.4
	SDT	113	122	126	131	140
40	TC	282	263	254	245	228
	kW	20.3	21.9	22.6	23.3	24.6
	SDT	115	124	128	133	142
45	TC	310	290	280	271	252
	kW	21.1	22.8	23.6	24.4	25.9
	SDT	118	126	131	135	144
50	TC	338	317	306	296	275
	kW	22.0	23.8	24.6	25.5	27.1
	SDT	120	129	133	138	146



CONDENSING UNIT RATINGS, 60 Hz ENGLISH (cont)

38AH044								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	305.0	290.0	274.0	258.0	244.0	228.0	212.0
	kW	30.2	31.0	31.6	32.0	32.3	32.5	32.6
	SDT	107.0	112.0	117.0	122.0	126.0	131.0	136.0
25	TC	348.0	332.0	316.0	299.0	283.0	267.0	250.0
	kW	31.8	32.7	33.5	34.1	34.7	35.1	35.3
	SDT	108.0	112.0	117.0	122.0	127.0	132.0	137.0
30	TC	392.0	375.0	359.0	342.0	324.0	308.0	291.0
	kW	33.5	34.5	35.4	36.2	36.9	37.5	38.1
	SDT	109.0	114.0	118.0	123.0	128.0	133.0	138.0
35	TC	439.0	421.0	404.0	386.0	368.0	351.0	332.0
	kW	35.0	36.1	37.2	38.3	39.1	39.9	40.6
	SDT	110.0	115.0	120.0	125.0	129.0	134.0	139.0
40	TC	488.0	470.0	452.0	433.0	414.0	395.0	376.0
	kW	36.5	37.8	39.0	40.2	41.3	42.3	43.1
	SDT	112.0	117.0	121.0	126.0	131.0	136.0	140.0
45	TC	540.0	521.0	502.0	482.0	461.0	442.0	422.0
	kW	37.9	39.4	40.8	42.1	43.4	44.6	45.6
	SDT	114.0	119.0	123.0	128.0	132.0	137.0	142.0
50	TC	596.0	575.0	554.0	533.0	511.0	490.0	469.0
	kW	39.3	40.9	42.5	44.0	45.5	46.8	48.0
	SDT	116.0	120.0	125.0	130.0	135.0	139.0	143.0

38AH074								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	567.1	547.5	526.9	506.2	485.6	464.9	444.3
	kW	57.2	58.3	59.5	60.4	61.3	62.1	62.8
	SDT	108.0	113.0	118.0	122.0	127.0	132.0	137.0
25	TC	634.2	613.6	590.9	569.2	547.5	526.9	505.2
	kW	60.3	61.7	63.1	64.3	65.3	66.4	67.3
	SDT	110.0	114.0	119.0	124.0	129.0	133.0	138.0
30	TC	705.5	681.7	658.0	635.3	612.6	589.9	566.1
	kW	63.7	65.2	66.8	68.1	69.6	70.6	71.7
	SDT	111.0	116.0	121.0	125.0	130.0	135.0	139.0
35	TC	778.8	754.0	729.3	704.5	679.7	654.9	631.2
	kW	66.9	68.8	70.6	72.1	73.8	75.0	76.3
	SDT	113.0	118.0	122.0	127.0	132.0	136.0	141.0
40	TC	856.3	830.5	803.6	777.8	750.9	724.1	699.3
	kW	70.3	72.4	74.4	76.2	77.9	79.5	81.1
	SDT	115.0	120.0	124.0	129.0	133.0	138.0	143.0
45	TC	939.9	912.0	882.1	854.2	826.3	797.4	769.5
	kW	73.8	76.0	78.3	80.4	82.4	84.1	85.9
	SDT	118.0	122.0	127.0	131.0	136.0	140.0	145.0
50	TC	1026.7	995.7	965.8	934.8	904.8	873.8	843.9
	kW	77.3	79.9	82.3	84.6	86.7	88.9	90.8
	SDT	120.0	124.0	129.0	133.0	138.0	142.0	147.0

38AH054								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	357.0	342.0	325.0	309.0	293.0	277.0	261.0
	kW	36.4	37.2	38.0	38.5	38.9	39.3	39.5
	SDT	111.0	116.0	121.0	126.0	131.0	136.0	141.0
25	TC	407.0	389.0	372.0	354.0	337.0	320.0	303.0
	kW	38.4	39.4	40.3	41.1	41.7	42.2	42.7
	SDT	111.0	117.0	122.0	127.0	131.0	136.0	141.0
30	TC	458.0	439.0	422.0	403.0	384.0	366.0	347.0
	kW	40.4	41.5	42.6	43.6	44.4	45.2	45.8
	SDT	113.0	118.0	123.0	127.0	132.0	137.0	142.0
35	TC	512.0	493.0	473.0	454.0	434.0	414.0	395.0
	kW	42.4	43.7	45.0	46.1	47.1	48.0	48.9
	SDT	115.0	119.0	124.0	129.0	133.0	138.0	143.0
40	TC	568.0	548.0	527.0	506.0	486.0	465.0	444.0
	kW	44.5	45.9	47.2	48.5	49.8	50.9	51.9
	SDT	116.0	121.0	125.0	130.0	135.0	140.0	144.0
45	TC	627.0	605.0	583.0	561.0	540.0	518.0	496.0
	kW	46.5	48.1	49.6	51.1	52.5	53.8	55.0
	SDT	119.0	123.0	127.0	132.0	137.0	140.0	146.0
50	TC	688.0	665.0	642.0	619.0	595.0	573.0	—
	kW	48.6	50.3	52.1	53.6	55.2	56.7	—
	SDT	121.0	125.0	130.0	134.0	139.0	143.0	—

38AH084								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	646.3	623.4	600.5	577.7	556.9	534.0	513.3
	kW	67.9	69.3	70.5	71.8	72.8	73.8	74.7
	SDT	112.0	117.0	122.0	127.0	132.0	137.0	142.0
25	TC	725.2	700.3	677.4	652.5	627.6	604.7	581.8
	kW	71.6	73.1	74.7	76.1	77.4	78.6	79.6
	SDT	113.0	118.0	123.0	128.0	132.0	138.0	142.0
30	TC	810.4	783.4	757.4	731.5	705.5	679.5	653.5
	kW	75.4	77.1	78.9	80.6	82.0	83.5	84.8
	SDT	114.0	119.0	123.0	128.0	133.0	138.0	143.0
35	TC	898.7	869.6	842.6	813.5	786.5	757.4	730.4
	kW	79.1	81.2	83.3	85.1	86.8	88.4	90.0
	SDT	115.0	120.0	125.0	129.0	134.0	139.0	144.0
40	TC	991.2	960.0	930.9	899.8	870.7	840.6	810.4
	kW	83.1	85.4	87.6	89.8	91.8	93.6	95.4
	SDT	117.0	122.0	126.0	131.0	136.0	140.0	145.0
45	TC	1087.8	1054.6	1022.4	990.2	958.0	926.8	893.5
	kW	87.2	89.9	92.3	94.7	96.8	98.9	101.0
	SDT	119.0	124.0	128.0	133.0	138.0	142.0	147.0
50	TC	1188.6	1154.3	1119.0	1084.7	1050.4	1015.1	980.8
	kW	91.6	94.5	97.2	99.6	102.1	104.4	106.7
	SDT	122.0	126.0	131.0	135.0	140.0	144.0	149.0

LEGEND

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

38AH064								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	439.0	421.0	403.0	384.0	367.0	349.0	331.0
	kW	44.3	45.3	46.1	47.0	47.6	48.2	48.7
	SDT	109.0	114.0	119.0	124.0	129.0	134.0	139.0
25	TC	496.0	476.0	457.0	437.0	418.0	399.0	380.0
	kW	46.7	47.9	48.9	49.9	50.8	51.6	52.2
	SDT	111.0	115.0	120.0	125.0	130.0	135.0	139.0
30	TC	555.0	534.0	514.0	493.0	472.0	451.0	431.0
	kW	49.1	50.5	51.8	53.0	54.0	55.0	55.9
	SDT	112.0	117.0	122.0	126.0	131.0	136.0	141.0
35	TC	616.0	595.0	573.0	550.0	529.0	506.0	485.0
	kW	51.6	53.2	54.7	56.0	57.2	58.4	59.5
	SDT	114.0	119.0	123.0	128.0	133.0	137.0	142.0
40	TC	682.0	658.0	634.0	611.0	588.0	564.0	541.0
	kW	54.1	55.9	57.5	59.1	60.5	61.9	63.1
	SDT	116.0	121.0	125.0	130.0	135.0	139.0	144.0
45	TC	749.0	725.0	699.0	674.0	650.0	625.0	600.0
	kW	56.6	58.6	60.4	62.3	63.8	65.4	66.9
	SDT	118.0	123.0	127.0	132.0	136.0	141.0	146.0
50	TC	822.0	794.0	768.0	741.0	715.0	688.0	662.0
	kW	59.2	61.3	63.5	65.4	67.3	69.0	70.6
	SDT	120.0	125.0	130.0	134.0	139.0	143.0	148.0

Performance data (cont)



CONDENSING UNIT RATINGS, 60 Hz ENGLISH (cont)

38AH094		Condenser Entering-Air Temperature (F)						
SST (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	

38AH104		Condenser Entering-Air Temperature (F)						
SST (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	98.5
	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	

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 Btuh)

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



CONDENSING UNIT RATINGS, 60 Hz ENGLISH (cont)

38AH124		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
	SCT (A) or (B)	108	113	118	123	128	133	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
	SCT (A) or (B)	109	114	119	124	129	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
	SCT (A) or (B)	110	115	120	125	130	135	139
35	TC	1236	1192	1148	1104	1062	1018	974
	kW	103.2	106.4	109.4	112.0	114.6	116.8	119.0
	SDT (A) or (B)	114	118	123	128	132	137	142
	SCT (A) or (B)	112	117	121	126	131	136	141
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
	SCT (A) or (B)	114	118	123	128	133	137	142
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
	SCT (A) or (B)	116	120	125	130	135	139	144
50	TC	1644	1590	1536	1484	1432	1380	1326
	kW	118.8	123.0	127.0	131.0	134.6	138.2	141.4
	SDT (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		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
	SDT(B)	108	113	117	122	127	132	137
25	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
	SDT(B)	109	114	119	123	128	133	138
30	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
	SDT(B)	111	116	120	125	130	134	139
35	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
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
	SDT(B)	115	120	124	129	133	138	142
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
	SDT(B)	117	122	126	131	136	140	145
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
50	SCT(A)	118	122	127	132	137	141	146
	SCT(B)	115	119	124	129	133	138	142

Performance data (cont)



CONDENSING UNIT CIRCUIT AND MODULE RATINGS, 60 Hz ENGLISH

38AH024 — CIRCUIT NO. 1 OR 2*

SST (F)		Condenser Entering-Air Temperature (F)				
		85	95	100	105	115
20	TC	78	71	68	65	58
	kW	7.03	7.44	7.61	7.76	8.01
	SDT	105	115	120	125	135
25	TC	89	82	78	74	67
	kW	7.34	7.80	8.01	8.20	8.52
	SDT	106	116	121	126	135
30	TC	99	92	88	84	77
	kW	7.65	8.17	8.41	8.63	9.03
	SDT	107	117	121	126	135
35	TC	111	103	99	95	87
	kW	7.96	8.55	8.82	9.07	9.54
	SDT	109	118	123	128	137
40	TC	122	114	109	105	97
	kW	8.28	8.93	9.23	9.52	10.0
	SDT	111	120	125	129	138
45	TC	135	126	121	117	108
	kW	8.59	9.30	9.64	9.96	10.6
	SDT	113	122	127	131	140
50	TC	148	138	133	128	119
	kW	8.90	9.68	10.0	10.4	11.1
	SDT	116	125	129	133	142

38AH028 — CIRCUIT NO. 1 OR 2*

SST (F)		Condenser Entering-Air Temperature (F)				
		85	95	100	105	115
20	TC	93	87	83	80	74
	kW	8.55	9.07	9.31	9.54	9.97
	SDT	107	116	121	126	135
25	TC	104	97	94	90	83
	kW	8.95	9.53	9.80	10.1	10.5
	SDT	109	118	123	127	137
30	TC	116	108	104	100	93
	kW	9.35	9.99	10.3	10.6	11.1
	SDT	111	120	124	129	138
35	TC	128	120	116	111	103
	kW	9.76	10.5	10.8	11.1	11.7
	SDT	113	122	126	131	140
40	TC	141	132	127	123	114
	kW	10.2	10.9	11.3	11.6	12.3
	SDT	115	124	128	133	142
45	TC	155	145	140	135	126
	kW	10.6	11.4	11.8	12.2	12.9
	SDT	118	126	131	135	144
50	TC	169	158	153	148	138
	kW	11.0	11.9	12.3	12.7	13.5
	SDT	120	129	133	138	146

38AH034 — CIRCUIT NO. 1

SST (F)		Condenser Entering-Air Temperature (F)				
		85	95	100	105	115
20	TC	93	85	82	78	71
	kW	8.69	9.26	9.53	9.78	10.2
	SDT	105	115	120	125	135
25	TC	105	97	93	89	81
	kW	9.02	9.64	9.94	10.2	10.8
	SDT	106	116	121	125	135
30	TC	117	109	105	101	92
	kW	9.34	10.0	10.3	10.7	11.3
	SDT	107	116	121	126	135
35	TC	131	122	117	113	104
	kW	9.70	10.5	10.8	11.2	11.8
	SDT	109	118	123	127	137
40	TC	144	134	130	125	116
	kW	10.1	10.9	11.3	11.7	12.4
	SDT	111	120	124	129	138
45	TC	159	148	143	138	128
	kW	10.4	11.3	11.7	12.2	12.9
	SDT	113	122	127	131	140
50	TC	174	163	157	152	141
	kW	10.8	11.8	12.2	12.7	13.5
	SDT	116	124	129	133	142

38AH034 — CIRCUIT NO. 2

SST (F)		Condenser Entering-Air Temperature (F)				
		85	95	100	105	115
20	TC	130	121	117	112	104
	kW	12.5	13.2	13.6	13.9	14.6
	SDT	109	118	123	128	138
25	TC	144	135	131	126	117
	kW	13.2	14.0	14.3	14.7	15.4
	SDT	111	120	124	129	139
30	TC	159	149	144	140	130
	kW	13.8	14.7	15.1	15.5	16.3
	SDT	113	122	126	131	140
35	TC	176	165	160	154	144
	kW	14.5	15.4	15.9	16.4	17.2
	SDT	115	124	128	133	142
40	TC	192	180	175	169	158
	kW	15.2	16.2	16.7	17.2	18.1
	SDT	118	126	131	135	144
45	TC	210	198	192	186	174
	kW	15.9	17.0	17.6	18.1	19.1
	SDT	120	129	133	138	147
50	TC	228	215	209	202	189
	kW	16.6	17.8	18.4	19.0	20.1
	SDT	123	132	136	140	149

LEGEND

- kW — Compressor Power
- SDT — Saturated Discharge Temperature at Compressor (F)
- SST — Saturated Suction Temperature (F)
- TC — Gross Cooling Capacity (1000 Btuh)

*Circuits no. 1 and 2 on 38AH024 and 028 have identical capacities.

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

38AH074 CIRCUIT B								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	325.2	314.8	304.4	293.0	282.6	272.2	261.8
	kW	33.4	34.0	34.7	35.3	35.9	36.4	36.8
	SDT	108.0	113.0	118.0	122.0	127.0	132.0	137.0
25	TC	362.6	351.2	338.7	327.3	315.9	305.5	294.0
	kW	35.3	36.1	36.8	37.5	38.2	38.8	39.4
	SDT	110.0	114.0	119.0	124.0	129.0	133.0	138.0
30	TC	402.1	388.6	376.1	363.7	351.2	339.8	327.3
	kW	37.3	38.2	39.1	39.8	40.6	41.3	42.0
	SDT	112.0	116.0	121.0	126.0	130.0	135.0	140.0
35	TC	442.6	429.1	415.6	402.1	388.6	375.1	362.6
	kW	39.3	40.3	41.4	42.2	43.1	43.9	44.7
	SDT	114.0	118.0	123.0	128.0	132.0	137.0	141.0
40	TC	486.3	471.7	457.2	442.6	428.1	413.5	400.0
	kW	41.4	42.6	43.7	44.7	45.6	46.6	47.4
	SDT	116.0	121.0	125.0	130.0	134.0	139.0	143.0
45	TC	533.0	517.4	500.8	485.2	469.6	454.0	438.5
	kW	43.5	44.8	46.0	47.2	48.3	49.3	50.3
	SDT	118.0	123.0	127.0	132.0	137.0	141.0	146.0
50	TC	581.8	564.2	547.6	529.9	513.3	496.6	480.0
	kW	45.7	47.2	48.5	49.8	50.9	52.2	53.2
	SDT	121.0	125.0	130.0	134.0	139.0	143.0	148.0

38AH084 CIRCUIT A								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	322.1	310.7	299.2	287.8	277.4	266.0	255.6
	kW	34.1	34.7	35.4	36.0	36.5	37.0	37.4
	SDT	108.0	113.0	118.0	122.0	127.0	132.0	137.0
25	TC	361.6	349.1	337.7	325.2	312.7	301.3	289.9
	kW	36.0	36.7	37.4	38.2	38.8	39.4	39.9
	SDT	109.0	114.0	118.0	123.0	128.0	133.0	138.0
30	TC	404.2	390.7	378.2	364.7	352.2	338.7	326.2
	kW	37.8	38.7	39.6	40.4	41.2	41.9	42.5
	SDT	110.0	115.0	120.0	124.0	129.0	134.0	138.0
35	TC	448.8	434.3	420.8	406.2	392.7	378.2	364.7
	kW	39.7	40.8	41.8	42.7	43.5	44.4	45.1
	SDT	112.0	117.0	121.0	126.0	131.0	135.0	140.0
40	TC	495.6	480.0	465.5	449.9	435.3	419.8	405.2
	kW	41.7	42.8	44.0	45.0	46.0	47.0	47.8
	SDT	114.0	119.0	123.0	128.0	132.0	137.0	142.0
45	TC	544.4	527.8	511.2	495.6	479.0	463.4	446.8
	kW	43.8	45.1	46.2	47.5	48.5	49.6	50.6
	SDT	117.0	121.0	126.0	130.0	135.0	139.0	144.0
50	TC	595.3	577.7	560.0	542.4	525.7	508.1	490.4
	kW	45.9	47.4	48.7	50.0	51.2	52.4	53.5
	SDT	119.0	123.0	128.0	132.0	137.0	141.0	146.0

38AH084 CIRCUIT B								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	324.2	312.7	301.3	289.9	279.5	268.1	257.7
	kW	33.8	34.5	35.2	35.8	36.3	36.8	37.2
	SDT	108.0	113.0	118.0	122.0	127.0	132.0	137.0
25	TC	363.7	351.2	339.8	327.3	314.8	303.4	292.0
	kW	35.7	36.4	37.2	38.0	38.6	39.2	39.7
	SDT	110.0	114.0	119.0	124.0	129.0	133.0	138.0
30	TC	406.2	392.7	379.2	366.8	353.3	340.8	327.3
	kW	37.5	38.5	39.3	40.1	40.9	41.6	42.3
	SDT	112.0	116.0	121.0	126.0	130.0	135.0	140.0
35	TC	449.9	435.3	421.8	407.3	393.8	379.2	365.7
	kW	39.4	40.4	41.5	42.4	43.2	44.1	44.9
	SDT	114.0	118.0	123.0	128.0	132.0	137.0	141.0
40	TC	495.6	480.0	465.5	449.9	435.3	420.8	405.2
	kW	41.4	42.6	43.7	44.8	45.7	46.7	47.6
	SDT	116.0	121.0	125.0	130.0	134.0	139.0	143.0
45	TC	543.4	526.8	511.2	494.6	479.0	463.4	446.8
	kW	43.4	44.8	46.0	47.2	48.3	49.4	50.4
	SDT	118.0	123.0	127.0	132.0	137.0	141.0	146.0
50	TC	593.3	576.6	559.0	542.4	524.7	507.0	490.4
	kW	45.6	47.1	48.4	49.7	50.9	52.1	53.2
	SDT	121.0	125.0	130.0	134.0	139.0	143.0	148.0

LEGEND

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



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

38AH094 CIRCUIT A								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	385	368	352	335	318	300	283
	kW	39.0	39.8	40.4	40.9	41.4	41.6	41.7
	SDT	110	115	119	124	129	134	139
	SCT	108	113	118	123	128	133	138
25	TC	433	416	398	381	363	346	328
	kW	41.3	42.2	43.1	43.8	44.4	44.9	45.2
	SDT	112	116	121	126	130	135	140
	SCT	109	114	119	124	129	134	139
30	TC	482	464	446	428	410	392	373
	kW	43.7	44.8	45.7	46.6	47.4	48.1	48.6
	SDT	114	118	123	127	132	136	141
	SCT	111	115	120	125	130	135	140
35	TC	533	515	496	477	458	439	419
	kW	46.1	47.3	48.5	49.5	50.5	51.3	52.0
	SDT	116	121	125	130	134	138	143
	SCT	112	117	122	127	132	136	141
40	TC	587	568	548	528	508	487	467
	kW	48.6	50.0	51.3	52.5	53.6	54.6	55.5
	SDT	119	123	128	132	136	141	145
	SCT	114	119	124	129	133	138	143
45	TC	643	623	602	581	559	538	517
	kW	51.1	52.6	54.1	55.5	56.8	58.0	59.0
	SDT	122	126	130	135	139	143	148
	SCT	116	121	126	131	136	140	145
50	TC	702	680	658	636	613	591	568
	kW	53.7	55.4	57.0	58.6	60.0	61.4	62.6
	SDT	125	129	133	138	142	146	150
	SCT	118	123	128	133	138	142	147

38AH094 CIRCUIT B								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	315	304	294	283	273	262	252
	kW	32.1	32.8	33.4	34.0	34.6	35.1	35.6
	SDT	108	112	117	122	127	132	137
	SCT	106	111	116	121	126	131	136
25	TC	352	341	329	318	307	295	284
	kW	33.8	34.6	35.4	36.1	36.7	37.4	37.9
	SDT	109	113	118	123	128	133	138
	SCT	106	111	116	121	126	132	137
30	TC	391	379	366	354	342	330	318
	kW	35.7	36.6	37.4	38.2	39.0	39.7	40.3
	SDT	110	115	120	124	129	134	139
	SCT	107	112	117	122	127	132	137
35	TC	432	419	405	392	379	366	353
	kW	37.6	38.6	39.5	40.4	41.3	42.1	42.9
	SDT	112	117	121	126	131	135	140
	SCT	109	114	119	124	128	133	138
40	TC	475	460	446	432	418	404	390
	kW	39.5	40.6	41.7	42.7	43.7	44.6	45.4
	SDT	114	119	123	128	133	137	142
	SCT	110	115	120	125	130	135	140
45	TC	520	504	489	474	459	444	429
	kW	41.5	42.8	43.9	45.1	46.1	47.2	48.1
	SDT	117	121	126	130	135	139	144
	SCT	112	117	122	127	132	136	141
50	TC	567	551	534	518	502	486	470
	kW	43.6	44.9	46.2	47.5	48.7	49.8	50.9
	SDT	119	124	128	133	137	142	146
	SCT	114	119	124	129	133	138	143

38AH104 CIRCUIT A								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	365	349	334	318	302	287	271
	kW	35.8	36.6	37.4	38.0	38.6	39.0	39.3
	SDT	108	113	117	122	127	132	137
	SCT	106	111	116	121	126	131	136
25	TC	411	394	378	361	345	329	312
	kW	37.9	38.9	39.8	40.5	41.2	41.9	42.4
	SDT	110	114	119	123	128	133	137
	SCT	107	112	117	122	127	131	136
30	TC	458	441	423	406	389	372	354
	kW	40.1	41.1	42.2	43.1	44.0	44.7	45.4
	SDT	112	116	121	125	130	134	139
	SCT	109	113	118	123	128	133	137
35	TC	508	490	471	453	435	416	398
	kW	42.2	43.5	44.6	45.7	46.7	47.6	48.5
	SDT	114	118	123	127	132	136	141
	SCT	110	115	120	125	129	134	139
40	TC	561	541	521	502	482	463	444
	kW	44.5	45.8	47.2	48.4	49.5	50.6	51.6
	SDT	117	121	125	130	134	138	143
	SCT	112	117	122	127	131	136	141
45	TC	616	595	574	553	532	512	491
	kW	46.7	48.3	49.7	51.1	52.4	53.6	54.8
	SDT	119	124	128	132	136	141	145
	SCT	114	119	124	128	133	138	143
50	TC	673	651	629	607	585	563	541
	kW	49.1	50.8	52.4	53.9	55.3	56.7	58.0
	SDT	122	126	131	135	139	143	148
	SCT	116	121	126	131	135	140	145

38AH104 CIRCUIT B								
SST (F)		Condenser Entering-Air Temperature (F)						
		85	90	95	100	105	110	115
20	TC	417	400	384	368	352	337	321
	kW	41.6	42.6	43.5	44.3	45.0	45.7	46.3
	SDT	110	115	119	124	129	133	138
	SCT	107	112	117	122	127	132	137
25	TC	466	449	431	414	397	380	364
	kW	44.2	45.3	46.3	47.2	48.1	48.9	49.7
	SDT	112	116	121	126	130	135	139
	SCT	109	114	119	124	128	133	138
30	TC	519	500	481	463	444	426	408
	kW	46.8	48.0	49.2	50.3	51.3	52.2	53.1
	SDT	114	119	123	128	132	137	141
	SCT	111	115	120	125	130	135	140
35	TC	574	553	533	514	494	475	455
	kW	49.5	50.9	52.2	53.4	54.6	55.6	56.6
	SDT	117	121	126	130	134	139	143
	SCT	112	117	122	127	132	137	141
40	TC	631	610	588	567	546	525	504
	kW	52.3	53.8	55.3	56.6	57.9	59.1	60.3
	SDT	120	124	128	133	137	141	146
	SCT	114	119	124	129	134	139	143
45	TC	692	669	646	623	600	578	556
	kW	55.2	56.9	58.5	60.0	61.4	62.8	64.1
	SDT	123	127	131	135	140	144	148
	SCT	117	122	126	131	136	141	145
50	TC	756	731	706	682	658	634	610
	kW	58.2	60.0	61.7	63.4	65.0	66.5	67.9
	SDT	126	130	134	138	143	147	151
	SCT	119	124	129	133	138	143	148

LEGEND

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

Performance data (cont)



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

38AH124 MODULE 124A OR 124B; 38AH134 MODULE 134A								
SST (F)		Condenser Entering-Air Temperature (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

38AH134 MODULE 134B								
SST (F)		Condenser Entering-Air Temperature (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

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 Btuh)

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



CONDENSING UNIT COMBINATION RATINGS, 60 Hz ENGLISH

38AH024/40RM016 STANDARD 3-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm/BF									
	4500/0.03			6000/0.05			7500/0.08			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	231.9	209.9	—	244.2	223.5	203.7	252.5	232.4	213.2
	SHC	113.4	139.3	—	127.0	161.0	203.7	138.6	179.7	213.2
	kW	16.32	15.81	—	16.61	16.13	15.67	16.80	16.33	15.89
95	TC	222.4	202.0	—	233.6	214.6	196.4	241.3	222.8	205.5
	SHC	110.0	135.8	—	123.0	156.7	196.3	134.6	174.9	205.5
	kW	17.77	17.17	—	18.09	17.54	17.01	18.32	17.78	17.27
100	TC	217.8	197.6	179.2	228.6	210.0	192.1	236.2	218.0	201.3
	SHC	108.4	133.8	171.6	121.1	154.4	192.1	132.8	172.5	201.3
	kW	18.46	17.79	17.17	18.82	18.20	17.60	19.07	18.47	17.91
105	TC	212.4	193.1	175.3	222.6	204.9	187.9	229.9	212.5	196.8
	SHC	106.5	131.8	168.2	118.9	152.0	187.9	130.5	169.7	196.8
	kW	19.09	18.34	17.64	19.49	18.80	18.13	19.78	19.10	18.48
115	TC	202.0	183.9	167.1	211.3	194.8	179.0	218.2	201.9	187.8
	SHC	102.8	127.6	161.0	114.6	147.1	179.0	126.4	164.4	187.7
	kW	20.51	19.68	18.92	20.93	20.18	19.46	21.25	20.50	19.86

38AH024/40RM024 STANDARD 3-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm/BF									
	6000/0.03			8000/0.06			10,000/0.07			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	258.1	236.6	215.6	269.7	248.5	229.3	276.2	257.0	240.4
	SHC	132.6	167.1	207.7	149.3	193.3	229.3	163.9	217.2	240.4
	kW	16.93	16.43	15.94	17.19	16.70	16.26	17.34	16.90	16.52
95	TC	246.6	226.4	207.2	257.1	237.2	220.4	262.7	245.2	231.0
	SHC	128.2	162.9	200.5	144.8	188.6	220.4	159.2	211.8	230.9
	kW	18.47	17.88	17.32	18.78	18.20	17.71	18.94	18.43	18.02
100	TC	241.5	221.5	202.7	251.9	232.0	215.9	257.2	239.9	226.4
	SHC	126.2	160.9	196.5	142.8	186.4	215.9	157.3	209.4	226.4
	kW	19.25	18.58	17.96	19.59	18.93	18.40	19.77	19.20	18.75
105	TC	235.1	215.8	197.9	244.9	225.7	210.8	249.8	233.3	221.1
	SHC	123.8	158.5	192.4	140.3	183.7	210.8	154.6	206.4	221.1
	kW	19.98	19.23	18.53	20.37	19.61	19.03	20.56	19.91	19.43
115	TC	223.2	204.7	188.3	232.3	213.8	200.8	236.5	221.1	210.9
	SHC	119.3	154.0	184.0	135.8	178.7	200.8	150.0	200.8	210.9
	kW	21.47	20.63	19.89	21.89	21.04	20.45	22.08	21.38	20.91

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry Bulb
- Ewb — Entering Wet Bulb
- kW — Compressor Motor Power Input
- SHC — Sensible Heating Capacity (1000 Btu/h)
- TC — Total Capacity (1000 Btu/h)

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.
2. The SHC is based on 80 F dry-bulb temperature of air entering evaporator coil. Below 80 F dry-bulb, subtract (correction factor x cfm) from SHC. Above 80 F dry-bulb, add (correction factor x cfm) to SHC.

BYPASS FACTOR	ENTERING-AIR DRY-BULB TEMP (F)					
	79	78	77	76	75	under 75
	81	82	83	84	85	over 85
Correction Factor						
0.10	0.99	1.98	2.97	3.96	4.95	Use formula below.
0.20	0.88	1.76	2.64	3.52	4.40	
0.30	0.77	1.54	2.31	3.08	3.85	

Interpolation is permissible.

$$\text{Correction Factor} = 1.1 \times (1 - \text{BF}) \times (\text{db} - 80).$$

38AH024/40RM016 HIGH-CAPACITY 4-ROW COILS

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	4500			6000			7500			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	247.3	247.3	225.7	262.2	240.8	220.7	273.0	251.1	230.1
	SHC	117.0	117.0	140.5	128.9	159.5	189.5	139.3	176.7	211.9
	kW	16.43	16.43	15.89	16.77	16.27	15.77	17.02	16.52	16.00
95	TC	236.5	215.9	196.4	250.6	230.0	212.4	260.3	239.4	219.4
	SHC	112.5	136.1	158.6	123.9	154.8	185.2	134.8	172.1	206.1
	kW	17.90	17.27	16.64	18.34	17.72	17.13	18.59	17.99	17.38
100	TC	233.0	212.9	191.9	244.7	226.5	206.8	253.8	233.5	213.9
	SHC	111.1	135.0	156.5	121.7	153.6	183.7	132.2	169.6	203.2
	kW	18.95	18.22	17.26	19.09	18.74	17.98	19.37	18.72	18.05
105	TC	225.4	205.9	187.3	240.9	218.8	199.8	247.3	227.5	208.4
	SHC	108.1	131.5	154.3	120.4	150.0	179.4	130.0	167.2	200.3
	kW	19.35	18.62	17.88	20.14	19.10	18.38	20.13	19.42	18.71
115	TC	218.0	202.5	177.8	226.1	207.3	196.3	234.2	215.4	197.3
	SHC	105.2	130.3	149.9	114.8	145.6	178.7	125.4	162.5	193.4
	kW	21.36	19.93	19.10	21.27	20.46	19.60	21.61	20.82	20.02

38AH024/40RM024 HIGH-CAPACITY 4-ROW COILS

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	6000			8000			10,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	275.6	252.5	230.6	289.0	265.9	244.2	298.1	274.5	254.5
	SHC	132.9	166.6	208.6	148.2	191.3	231.4	162.5	214.1	254.5
	kW	17.12	16.60	16.07	17.40	16.91	16.42	17.61	17.11	16.64
95	TC	263.1	241.1	220.0	275.7	253.5	232.8	289.8	261.1	244.3
	SHC	128.2	161.5	193.8	143.4	186.4	225.4	159.6	208.9	244.3
	kW	18.72	18.10	17.45	19.06	18.47	17.85	19.99	18.67	18.19
100	TC	256.7	235.2	214.7	269.0	247.0	226.7	276.4	254.4	239.0
	SHC	125.7	159.2	191.3	141.1	183.9	222.2	155.1	206.5	239.0
	kW	19.49	18.82	18.13	19.88	19.21	18.54	20.08	19.43	18.95
105	TC	250.3	229.3	209.3	261.9	240.3	220.7	269.0	247.5	233.8
	SHC	123.4	156.8	188.8	138.6	181.3	220.7	152.6	203.8	233.8
	kW	20.27	19.53	18.79	20.66	19.93	19.21	20.88	20.18	18.70
115	TC	237.4	217.2	197.7	247.6	227.0	210.1	254.0	233.7	222.7
	SHC	118.5	151.9	183.3	133.6	176.3	210.1	147.6	198.5	222.7
	kW	21.78	20.95	20.07	22.18	21.35	20.62	22.43	21.63	21.16

3. Gross capacities shown do not include a deduction for evaporator fan motor heat.

4. Formulas:

$$t_{db} = t_{edb} - \frac{\text{sensible heat capacity (Btu/h)}}{1.1 \times \text{cfm}}$$

$$t_{wb} = \text{wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil } (h_{iwb})$$

$$h_{iwb} = h_{ewb} - \frac{\text{total capacity (Btu/h)}}{4.51 \times \text{cfm}}$$

5. Combination ratings are based on a 2° F line loss. For a close-coupled system (less than 15 ft), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 2° F line loss. All combination ratings are based on R-22.

Performance data (cont)



CONDENSING UNIT COMBINATION RATINGS, 60 Hz ENGLISH (cont)

38AH024/40RM028 STANDARD 3-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm/BF									
	7500/0.04			10,000/0.06			12,500/0.08			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC SHC kW	278.4 149.6 17.39	254.6 191.9 16.85	235.5 232.0 16.40	289.1 170.2 17.64	265.4 223.7 17.09	250.7 250.7 16.75	294.9 190.0 17.77	274.8 252.2 17.31	263.5 263.5 17.05
95	TC SHC kW	265.2 144.8 19.01	242.4 187.0 18.35	225.7 223.0 17.86	275.0 165.2 19.30	252.3 218.3 18.64	240.3 240.3 18.29	279.9 185.0 19.44	261.3 246.4 18.90	252.5 252.2 18.64
100	TC SHC kW	259.8 142.8 19.86	237.0 184.8 19.10	220.9 218.6 18.56	269.4 163.2 20.18	246.7 216.0 19.42	235.6 235.6 19.05	274.2 183.1 20.34	255.7 243.9 19.72	247.8 247.8 19.46
105	TC SHC kW	252.5 140.1 20.66	230.2 182.1 19.79	215.4 213.5 19.21	261.6 160.5 21.02	239.5 213.1 20.15	229.7 229.7 19.77	266.1 180.4 21.19	248.3 240.7 20.50	241.6 241.6 20.24
115	TC SHC kW	239.5 135.4 22.21	217.6 177.0 21.22	204.7 203.7 20.63	248.0 155.7 22.60	226.4 207.7 21.62	218.8 218.7 21.27	251.8 175.6 22.77	235.0 234.9 22.01	230.3 230.3 21.80

38AH028/40RM024 STANDARD 3-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm/BF									
	6000/0.03			8000/0.06			10,000/0.07			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC SHC kW	281.6 141.5 20.29	258.4 176.0 19.63	— — —	294.8 203.3 20.66	272.1 203.3 20.02	248.7 248.7 19.35	302.9 173.3 20.90	281.2 228.3 20.28	260.2 260.2 19.68
95	TC SHC kW	270.0 137.1 22.13	247.7 171.6 21.39	225.1 216.1 20.64	282.4 153.9 22.55	260.5 198.4 21.82	239.2 168.7 21.11	289.7 222.8 22.79	269.3 222.8 22.11	250.5 250.5 21.48
100	TC SHC kW	264.3 134.9 23.00	242.6 169.5 22.16	221.0 212.5 21.33	276.1 151.6 23.45	254.8 196.0 22.63	234.7 234.7 21.86	283.0 166.3 23.71	263.4 220.1 22.96	245.8 245.8 22.28
105	TC SHC kW	258.7 132.8 23.88	237.2 167.3 22.97	216.1 208.2 22.08	270.4 149.5 24.37	249.1 193.6 23.47	229.9 229.8 22.66	276.9 164.2 24.65	257.6 217.5 23.83	240.9 240.9 23.13
115	TC SHC kW	247.3 128.4 25.64	227.1 163.2 24.55	207.8 201.0 23.50	257.8 145.0 26.21	237.8 188.8 25.13	220.9 220.9 24.22	263.4 159.4 26.52	245.8 212.1 25.57	231.5 231.5 24.79

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry Bulb
- Ewb — Entering Wet Bulb
- kW — Compressor Motor Power Input
- SHC — Sensible Heating Capacity (1000 Btu/h)
- TC — Total Capacity (1000 Btu/h)

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.
2. The SHC is based on 80 F dry-bulb temperature of air entering evaporator coil. Below 80 F dry-bulb, subtract (correction factor x cfm) from SHC. Above 80 F dry-bulb, add (correction factor x cfm) to SHC.

BYPASS FACTOR	ENTERING-AIR DRY-BULB TEMP (F)					
	79	78	77	76	75	under 75
	81	82	83	84	85	over 85
	Correction Factor					
0.10	0.99	1.98	2.97	3.96	4.95	Use formula below.
0.20	0.88	1.76	2.64	3.52	4.40	
0.30	0.77	1.54	2.31	3.08	3.85	

Interpolation is permissible.

$$\text{Correction Factor} = 1.1 \times (1 - \text{BF}) \times (\text{db} - 80).$$

38AH024/40RM028 HIGH-CAPACITY 4-ROW COILS

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	7600			10,000			12,500			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC SHC kW	299.4 157.5 17.65	275.5 204.4 17.15	245.2 225.2 16.46	309.9 177.5 17.86	285.9 236.5 17.37	258.0 258.0 16.74	311.2 180.7 17.88	287.3 241.5 17.40	272.9 272.9 17.08
95	TC SHC kW	291.4 154.7 20.15	262.2 199.1 18.72	233.1 219.3 17.91	295.0 172.3 19.58	271.9 230.9 18.99	247.6 247.6 18.31	296.4 175.6 19.62	273.2 235.9 19.03	261.4 261.4 18.71
100	TC SHC kW	278.1 150.1 20.16	255.5 196.8 19.49	227.4 216.7 18.59	287.6 169.7 20.43	265.0 228.2 19.78	242.4 242.4 19.08	288.9 173.1 20.46	266.3 233.2 19.82	255.6 255.6 19.48
105	TC SHC kW	270.8 147.6 20.96	248.7 194.1 20.24	221.6 213.8 19.28	280.0 167.5 21.25	257.9 225.7 20.56	237.0 237.0 19.84	281.2 170.7 21.29	259.1 230.6 20.60	249.7 249.7 20.26
115	TC SHC kW	256.2 142.5 22.53	235.0 188.8 21.71	209.6 206.8 20.64	264.8 162.1 22.87	243.4 219.9 22.05	225.8 225.8 21.30	265.7 165.3 22.91	244.1 224.5 22.08	237.9 237.9 21.84

38AH028/40RM024 HIGH-CAPACITY 4-ROW COILS

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	6000			8000			10,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC SHC kW	302.4 143.6 20.63	277.4 177.3 19.94	253.6 209.7 19.25	318.8 159.1 21.07	293.3 202.7 20.40	269.1 243.6 19.71	329.4 173.3 21.33	303.6 225.5 20.68	279.9 272.3 20.02
95	TC SHC kW	290.0 138.7 22.43	266.0 172.3 21.63	243.1 204.6 20.83	304.9 154.0 22.91	280.5 197.1 22.11	257.5 238.1 21.33	320.2 170.5 24.02	290.1 219.9 22.44	267.4 267.4 21.68
100	TC SHC kW	283.8 136.2 23.32	260.1 169.7 22.45	237.5 202.1 21.58	298.0 151.5 23.82	274.1 194.5 22.96	251.1 234.9 22.11	307.3 165.7 24.14	283.3 217.5 23.31	261.9 261.9 22.51
105	TC SHC kW	277.3 133.6 24.19	258.7 169.2 22.96	231.9 199.5 22.33	290.9 148.9 24.71	267.4 192.0 23.80	245.4 232.2 22.90	300.0 163.1 25.06	276.4 214.9 24.15	255.9 255.9 23.32
115	TC SHC kW	263.8 128.5 25.94	241.8 162.0 24.91	226.3 197.5 23.87	276.4 143.7 26.53	254.2 186.8 25.51	233.6 226.1 24.53	284.5 157.9 26.90	262.0 209.5 25.87	244.9 244.9 25.05

3. Gross capacities shown do not include a deduction for evaporator fan motor heat.

4. Formulas:

$$t_{db} = t_{edb} - \frac{\text{sensible heat capacity (Btu/h)}}{1.1 \times \text{cfm}}$$

$$t_{wb} = \text{wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil } (h_{iwb})$$

$$h_{iwb} = h_{ewb} - \frac{\text{total capacity (Btu/h)}}{4.51 \times \text{cfm}}$$

5. Combination ratings are based on a 2° F line loss. For a close-coupled system (less than 15 ft), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 2° F line loss. All combination ratings are based on R-22.



CONDENSING UNIT COMBINATION RATINGS, 60 Hz ENGLISH (cont)

38AH028/40RM028 STANDARD 3-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm/BF									
	7500/0.04			10,000/0.06			12,500/0.08			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	304.2	279.9	256.5	316.4	291.8	272.1	323.5	301.5	285.4
	SHC	159.1	202.1	251.2	179.8	234.5	272.1	199.5	263.9	285.4
	kW	20.93	20.24	19.57	21.28	20.58	20.02	21.48	20.86	20.40
95	TC	291.5	267.4	246.2	303.0	278.7	261.6	309.3	288.3	274.6
	SHC	154.4	197.1	241.7	175.0	229.2	261.6	194.8	258.2	274.6
	kW	22.85	22.05	21.34	23.23	22.42	21.85	23.44	22.74	22.29
100	TC	284.9	261.3	241.3	295.9	272.2	256.4	301.9	281.6	269.2
	SHC	152.0	194.6	237.3	172.6	226.5	256.4	192.3	255.2	269.2
	kW	23.79	22.88	22.11	24.21	23.30	22.69	24.44	23.66	23.18
105	TC	279.0	255.3	236.1	289.8	266.0	251.3	295.6	275.4	264.0
	SHC	149.9	192.2	232.5	170.4	224.0	251.3	190.2	252.5	264.0
	kW	27.74	23.74	22.92	25.20	24.19	23.57	25.44	24.59	24.11
115	TC	265.8	243.1	226.3	275.7	253.0	240.9	280.7	262.0	253.1
	SHC	145.0	187.3	223.5	165.4	218.6	240.9	185.2	246.7	253.1
	kW	26.65	25.42	24.51	27.18	25.95	25.30	27.45	26.44	25.96

38AH028/40RM034 STANDARD 3-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm/BF									
	9000/0.04			12,000/0.06			15,000/0.08			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	324.3	297.3	276.8	335.5	309.2	294.1	341.6	319.6	289.1
	SHC	174.8	227.1	272.6	201.7	264.2	294.1	223.9	298.0	337.2
	kW	21.51	20.74	20.15	21.83	21.08	20.65	22.00	21.37	20.50
95	TC	310.3	283.6	265.2	320.8	295.0	282.3	326.2	305.1	253.1
	SHC	169.4	221.6	262.1	196.7	258.5	282.3	218.7	291.7	363.3
	kW	23.48	22.59	21.97	23.83	22.96	22.54	24.01	23.30	21.57
100	TC	302.8	276.7	259.5	312.8	287.6	276.3	317.9	297.5	237.4
	SHC	166.6	218.9	257.0	194.0	255.5	276.3	216.0	288.4	374.6
	kW	24.48	23.47	22.81	24.86	23.89	23.46	25.06	24.27	21.96
105	TC	296.6	270.3	253.9	306.4	281.1	270.7	311.3	291.1	221.1
	SHC	164.3	216.4	262.1	191.9	252.9	270.7	213.8	285.5	386.4
	kW	25.48	24.37	23.68	25.90	24.83	24.39	26.10	25.25	22.29
115	TC	281.8	256.6	242.6	290.5	266.6	258.6	294.7	276.0	195.2
	SHC	158.6	210.9	241.6	186.5	247.0	258.6	208.2	278.9	405.2
	kW	27.51	26.15	25.39	27.99	26.69	26.26	28.21	27.20	22.83

LEGEND

- BF** — Bypass Factor
Edb — Entering Dry Bulb
Ewb — Entering Wet Bulb
kW — Compressor Motor Power Input
SHC — Sensible Heating Capacity (1000 Btu/h)
TC — Total Capacity (1000 Btu/h)

NOTES:

- Direct interpolation is permissible. Do not extrapolate.
- The SHC is based on 80 F dry-bulb temperature of air entering evaporator coil. Below 80 F dry-bulb, subtract (correction factor x cfm) from SHC. Above 80 F dry-bulb, add (correction factor x cfm) to SHC.

BYPASS FACTOR	ENTERING-AIR DRY-BULB TEMP (F)					
	79	78	77	76	75	under 75
	81	82	83	84	85	over 85
Correction Factor						
0.10	0.99	1.98	2.97	3.96	4.95	Use formula below.
0.20	0.88	1.76	2.64	3.52	4.40	
0.30	0.77	1.54	2.31	3.08	3.85	

Interpolation is permissible.

$$\text{Correction Factor} = 1.1 \times (1 - \text{BF}) \times (\text{db} - 80).$$

38AH028/40RM028 HIGH-CAPACITY 4-ROW COILS

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	6000			8000			10,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	321.7	295.1	270.3	336.2	309.9	285.1	346.1	319.6	297.8
	SHC	156.6	197.5	236.7	174.2	226.5	274.6	190.8	253.4	297.8
	kW	21.19	20.49	19.79	21.56	20.90	20.23	21.83	21.16	20.55
95	TC	307.6	282.6	258.5	321.4	296.3	281.0	330.3	304.8	286.4
	SHC	151.0	191.9	231.1	168.9	221.1	272.5	185.7	247.5	286.4
	kW	23.04	22.24	21.42	23.49	22.71	21.99	23.76	22.98	22.36
100	TC	300.4	276.2	252.6	314.0	289.2	265.9	322.5	297.4	280.7
	SHC	148.4	189.3	228.4	166.4	218.4	265.9	183.0	245.0	280.7
	kW	23.95	23.10	22.22	24.43	23.58	22.71	24.71	23.86	23.26
105	TC	293.5	274.5	246.8	306.3	282.0	260.1	314.4	289.8	274.9
	SHC	145.8	188.5	225.7	163.8	215.7	260.1	180.3	242.1	274.9
	kW	24.86	23.67	23.01	25.34	24.44	23.55	25.63	24.74	24.15
115	TC	279.3	256.5	234.4	290.7	267.5	248.8	298.1	274.8	262.8
	SHC	140.5	181.5	219.8	158.4	210.2	248.8	174.9	236.3	262.8
	kW	26.71	25.68	24.64	27.22	26.19	25.30	27.54	26.52	25.96

38AH028/40RM034 HIGH-CAPACITY 4-ROW COILS

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	9000			12,000			15,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	341.1	313.9	288.0	354.8	327.1	303.5	363.5	323.2	320.5
	SHC	170.3	219.8	266.7	191.9	254.3	303.5	211.1	280.6	320.5
	kW	21.75	21.06	20.38	22.10	21.41	20.75	22.31	20.07	21.22
95	TC	326.4	299.9	274.8	338.7	312.1	292.1	347.0	320.4	307.8
	SHC	165.1	214.3	260.7	186.2	248.6	292.1	205.9	279.6	307.8
	kW	23.72	22.89	22.07	24.08	23.27	22.62	24.34	23.54	23.11
100	TC	318.7	292.7	268.4	330.6	304.6	286.4	338.6	312.6	301.4
	SHC	162.3	211.5	257.6	183.5	245.8	286.4	203.1	276.8	301.4
	kW	24.65	23.77	22.89	25.05	24.18	23.53	25.32	24.46	24.05
105	TC	310.9	291.1	262.1	322.4	297.0	280.3	330.2	304.9	294.9
	SHC	159.6	210.8	254.3	180.5	242.9	280.3	200.5	273.8	294.9
	kW	25.59	24.32	23.70	26.00	25.08	24.43	26.30	25.38	24.98
115	TC	295.2	271.0	248.8	306.0	281.6	268.0	313.1	288.2	282.0
	SHC	154.2	203.3	248.8	175.4	237.2	268.0	195.0	267.0	282.0
	kW	27.49	26.44	25.40	27.96	26.92	26.27	28.27	27.21	26.91

3. Gross capacities shown do not include a deduction for evaporator fan motor heat.

4. Formulas:

$$t_{db} = t_{edb} - \frac{\text{sensible heat capacity (Btu/h)}}{1.1 \times \text{cfm}}$$

$$t_{wb} = \text{wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil } (h_{iwb})$$

$$h_{iwb} = h_{ewb} - \frac{\text{total capacity (Btu/h)}}{4.51 \times \text{cfm}}$$

5. Combination ratings are based on a 2° F line loss. For a close-coupled system (less than 15 ft), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 2° F line loss. All combination ratings are based on R-22.

Performance data (cont)



CONDENSING UNIT COMBINATION RATINGS, 60 Hz ENGLISH (cont)

38AH034/40RM028 STANDARD 3-ROW COIL										
Temp (F) Air Entering Condenser (Edb)		Evaporator Air — Cfm/BF								
		7500/0.04			10,000/0.06			12,500/0.08		
		Evaporator Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
85	TC	338.9	312.7	282.3	353.8	326.9	299.0	363.1	337.4	313.5
	SHC	171.9	215.4	274.9	192.9	248.9	299.0	212.7	279.6	313.5
	kW	25.39	24.59	23.67	25.84	25.02	24.18	26.12	25.34	24.62
95	TC	325.5	299.5	271.5	339.6	313.0	288.1	348.2	323.5	302.4
	SHC	167.0	210.0	265.0	187.9	243.3	288.1	207.7	273.5	302.4
	kW	27.53	26.56	25.51	28.06	27.06	26.13	28.38	27.46	26.66
100	TC	319.5	294.4	268.1	332.8	307.2	284.1	340.8	317.3	297.9
	SHC	164.7	208.0	261.8	185.5	240.9	284.1	205.3	270.8	297.9
	kW	28.63	27.54	26.40	29.21	28.10	27.09	29.55	28.53	27.69
105	TC	312.6	287.4	262.1	325.7	300.0	278.2	333.4	310.2	292.0
	SHC	162.2	205.2	256.3	183.1	237.9	278.2	202.8	267.7	292.0
	kW	29.77	28.59	27.41	30.38	29.18	28.16	30.74	29.66	28.81
115	TC	281.0	257.3	237.8	291.8	268.1	253.0	297.7	277.5	265.8
	SHC	150.6	193.0	234.1	171.1	224.8	253.0	190.9	253.4	265.8
	kW	32.40	31.04	29.91	33.03	31.66	30.79	33.37	32.20	31.52

38AH034/40RM034 STANDARD 3-ROW COIL										
Temp (F) Air Entering Condenser (Edb)		Evaporator Air — Cfm/BF								
		9000/0.04			12,000/0.06			15,000/0.08		
		Evaporator Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
85	TC	363.5	334.5	306.8	377.7	348.6	325.5	385.9	360.0	417.3
	SHC	189.6	241.8	299.8	216.0	280.1	325.5	238.6	315.8	244.4
	kW	26.13	25.25	24.41	26.56	25.68	24.98	26.81	26.03	27.76
95	TC	348.8	319.9	294.7	362.1	333.5	313.2	369.6	344.7	362.7
	SHC	184.0	236.0	288.8	210.7	274.0	313.2	233.2	309.1	283.9
	kW	28.40	27.32	26.37	28.90	27.83	27.07	29.19	28.25	28.93
100	TC	341.4	313.6	290.1	353.9	326.4	308.0	360.8	337.2	337.8
	SHC	181.3	233.5	284.7	207.9	271.2	308.0	230.3	305.8	302.0
	kW	29.58	28.37	27.35	30.12	28.93	28.13	30.42	29.40	29.42
105	TC	334.2	306.1	283.6	346.4	318.8	301.6	353.1	329.6	315.0
	SHC	178.5	230.6	278.8	205.4	268.1	301.6	227.7	302.5	318.5
	kW	30.77	29.47	28.41	31.34	30.06	29.25	31.66	30.56	29.88
115	TC	298.7	272.4	255.8	308.5	283.3	272.6	313.5	293.2	226.5
	SHC	165.1	217.2	253.6	192.6	253.8	272.6	214.5	286.5	382.5
	kW	33.42	31.91	30.95	33.99	32.54	31.92	34.28	33.11	29.26

38AH034/40RM028 HIGH-CAPACITY 4-ROW COILS										
Temp (F) Air Entering Condenser (Edb)		Evaporator Air — Cfm								
		7500			10,000			12,500		
		Evaporator Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
85	TC	376.4	346.1	317.3	393.3	362.8	334.3	404.4	373.6	350.1
	SHC	185.9	234.4	281.1	207.1	269.0	322.7	226.9	300.8	350.1
	kW	26.61	25.60	24.61	27.19	26.18	25.21	27.55	26.55	25.72
95	TC	361.0	335.7	307.7	376.4	347.0	321.1	386.5	357.1	336.8
	SHC	180.1	230.3	276.8	201.2	262.9	313.4	220.8	294.4	336.8
	kW	28.71	27.60	26.33	29.32	28.19	27.14	29.71	28.60	27.75
100	TC	353.0	324.4	297.3	367.7	339.0	314.5	377.6	348.8	330.1
	SHC	177.2	225.4	271.3	198.2	259.8	308.5	217.9	291.3	330.1
	kW	29.75	28.55	27.37	30.36	29.18	28.11	30.79	29.60	28.76
105	TC	344.9	317.0	290.5	359.0	331.0	307.9	368.5	340.3	326.4
	SHC	174.2	222.5	267.9	195.2	256.7	303.7	214.9	288.0	326.3
	kW	30.80	29.55	28.30	31.44	30.20	29.10	31.87	30.63	29.50
115	TC	328.2	301.8	276.7	341.3	320.1	294.0	350.0	323.0	312.6
	SHC	168.0	216.4	262.1	189.1	253.1	294.0	208.7	281.1	312.6
	kW	32.88	31.50	30.14	33.55	32.23	31.05	33.99	32.63	31.78

38AH034/40RM034 HIGH-CAPACITY 4-ROW COILS										
Temp (F) Air Entering Condenser (Edb)		Evaporator Air — Cfm								
		9000			12,000			15,000		
		Evaporator Air — Ewb (F)								
		72	67	62	72	67	62	72	67	62
85	TC	385.1	353.5	323.6	402.4	370.6	342.0	413.9	381.8	358.4
	SHC	188.1	238.2	286.2	210.3	274.3	330.0	230.9	307.4	358.4
	kW	26.95	25.92	24.91	27.52	26.50	25.52	27.90	26.89	26.05
95	TC	369.4	352.8	310.0	385.2	354.6	329.8	395.8	365.3	344.7
	SHC	182.2	243.8	279.9	204.3	268.0	321.7	224.8	301.2	344.7
	kW	29.08	28.20	26.76	29.68	28.53	27.45	30.09	28.97	28.09
100	TC	365.2	346.0	303.2	376.3	346.5	321.8	386.7	356.9	337.8
	SHC	180.6	241.9	276.7	201.1	265.0	315.4	221.8	298.0	337.8
	kW	29.73	29.28	27.69	30.76	29.55	28.48	31.20	30.00	29.13
105	TC	356.5	337.7	296.3	367.6	338.4	315.0	377.6	348.2	331.1
	SHC	177.6	238.7	273.3	198.2	261.8	310.5	218.8	294.7	331.1
	kW	30.99	30.30	28.63	31.85	30.57	29.48	32.30	31.03	30.18
115	TC	335.8	311.7	282.5	349.7	324.0	300.7	358.7	332.7	317.4
	SHC	169.9	221.3	266.8	192.1	254.0	300.7	212.6	288.7	317.4
	kW	33.27	31.09	30.50	33.99	32.59	31.43	34.44	33.05	32.30

LEGEND

- BF — Bypass Factor
- Edb — Entering Dry Bulb
- Ewb — Entering Wet Bulb
- kW — Compressor Motor Power Input
- SHC — Sensible Heating Capacity (1000 Btu/h)
- TC — Total Capacity (1000 Btu/h)

NOTES:

1. Direct interpolation is permissible. Do not extrapolate.
2. The SHC is based on 80 F dry-bulb temperature of air entering evaporator coil. Below 80 F dry-bulb, subtract (correction factor x cfm) from SHC. Above 80 F dry bulb, add (correction factor x cfm) to SHC.

BYPASS FACTOR	ENTERING-AIR DRY-BULB TEMP (F)					
	79	78	77	76	75	under 75
	81	82	83	84	85	over 85
Correction Factor						
0.10	0.99	1.98	2.97	3.96	4.95	Use formula below.
0.20	0.88	1.76	2.64	3.52	4.40	
0.30	0.77	1.54	2.31	3.08	3.85	

Interpolation is permissible.

$$\text{Correction Factor} = 1.1 \times (1 - \text{BF}) \times (\text{db} - 80).$$

3. Gross capacities shown do not include a deduction for evaporator fan motor heat.

4. Formulas:

$$t_{db} = t_{edb} - \frac{\text{sensible heat capacity (Btu/h)}}{1.1 \times \text{cfm}}$$

$$t_{wb} = \text{wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil } (h_{wb})$$

$$h_{wb} = h_{ewb} - \frac{\text{total capacity (Btu/h)}}{4.51 \times \text{cfm}}$$

5. Combination ratings are based on a 2° F line loss. For a close-coupled system (less than 15 ft), add 2% to ratings. Refrigerant Piping Requirements tables on pages 123-129 are based on 2° F line loss. All combination ratings are based on R-22.



CONDENSING UNIT RATINGS, 60 Hz SI

SST (C)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	124.6	113.8	108.4	104.8	99.4	94.1	88.7	85.1	79.7	74.3	68.9
	kW	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	136.0	124.8	119.2	115.4	109.8	104.2	98.5	94.8	89.2	83.6	77.9
	kW	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	147.5	135.8	129.9	126.0	120.1	114.3	108.4	104.5	98.6	92.8	86.9
	kW	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	158.9	146.7	140.6	136.6	130.5	124.4	118.3	114.2	108.1	102.0	95.9
	kW	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	170.4	157.7	151.4	147.1	140.8	134.5	128.1	123.9	117.6	111.3	104.9
	kW	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	181.8	168.7	162.1	157.7	151.1	144.6	138.0	133.6	127.1	120.5	113.9
	kW	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	193.2	179.6	172.8	168.3	161.5	154.7	147.9	143.3	136.5	129.7	—
	kW	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	—

SST (C)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	144.5	132.9	127.1	123.2	117.4	111.5	105.7	101.8	96.0	90.2	84.4
	kW	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	157.4	145.2	139.1	135.0	129.0	122.9	116.8	112.7	106.6	100.5	94.5
	kW	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	170.2	157.5	151.2	146.9	140.6	134.2	127.9	123.6	117.3	110.9	104.6
	kW	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	183.1	169.8	163.2	158.8	152.2	145.5	138.9	134.5	127.9	121.3	114.6
	kW	41.3	43.7	44.9	45.7	46.9	48.1	49.3	50.1	51.3	52.5	53.7
	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	195.9	182.1	175.3	170.7	163.8	156.9	150.0	145.4	138.5	131.6	124.7
	kW	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	208.8	194.5	187.3	182.5	175.4	168.2	161.1	156.3	149.2	142.0	—
	kW	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	221.6	206.8	199.4	194.4	187.0	179.6	172.1	167.2	159.8	—	—
	kW	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	—	—

SST (C)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	174.0	161.0	154.5	150.1	143.6	137.0	130.5	126.1	119.6	113.1	106.5
	kW	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	188.9	175.1	168.3	163.7	156.9	150.0	143.1	138.6	131.7	124.9	118.0
	kW	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	203.7	189.3	182.1	177.3	170.2	163.0	155.8	151.0	143.8	136.6	129.5
	kW	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	218.5	203.5	196.0	191.0	183.4	175.9	168.4	163.4	155.9	148.4	140.9
	kW	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	233.3	217.6	209.8	204.6	196.7	188.9	181.1	175.9	168.0	160.2	152.4
	kW	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	248.1	231.8	223.6	218.2	210.0	201.9	193.7	188.3	180.1	172.0	163.8
	kW	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	262.9	245.9	237.5	231.8	223.3	214.8	206.4	200.7	192.2	183.8	175.3
	kW	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		Condenser Entering-Air Temperature (C)										
SST (C)		21	27	30	32	35	38	41	43	46	49	52
-2	TC	217.7	203.3	196.1	191.3	184.2	177.0	169.8	165.0	157.8	150.7	143.5
	kW	59.9	62.3	63.5	64.3	65.5	66.7	67.9	68.7	69.9	71.1	72.2
	SDT	35.4	41.0	43.7	45.6	48.4	51.1	53.9	55.7	58.5	61.3	64.0
0	TC	235.8	220.6	213.0	207.9	200.3	192.7	185.1	180.0	172.4	164.8	157.2
	kW	61.9	64.6	66.0	66.9	68.3	69.6	71.0	71.9	73.3	74.7	76.0
	SDT	36.4	41.9	44.6	46.5	49.3	52.0	54.8	56.6	59.4	62.1	64.9
2	TC	253.9	237.8	229.8	224.5	216.4	208.4	200.4	195.0	187.0	178.9	170.9
	kW	63.8	66.9	68.5	69.5	71.0	72.6	74.2	75.2	76.7	78.3	79.8
	SDT	37.3	42.8	45.5	47.4	50.2	52.9	55.7	57.5	60.3	63.0	65.8
4	TC	272.0	255.1	246.6	241.0	232.5	224.1	215.6	210.0	201.5	193.1	184.6
	kW	65.8	69.2	70.9	72.1	73.8	75.6	77.3	78.4	80.2	81.9	83.6
	SDT	38.2	43.7	46.4	48.3	51.1	53.8	56.6	58.4	61.2	63.9	66.7
6	TC	290.1	272.4	263.5	257.6	248.7	239.8	230.9	225.0	216.1	207.2	198.3
	kW	67.7	71.5	73.4	74.7	76.6	78.5	80.4	81.7	83.6	85.5	87.4
	SDT	39.1	44.6	47.3	49.2	52.0	54.7	57.5	59.3	62.1	64.8	67.6
8	TC	308.3	289.6	280.3	274.1	264.8	255.5	246.2	240.0	230.7	221.3	212.0
	kW	69.6	73.8	75.9	77.3	79.4	81.5	83.6	85.0	87.0	89.1	91.2
	SDT	40.0	45.5	48.2	50.1	52.9	55.6	58.4	60.2	63.0	65.7	68.5
10	TC	326.4	306.9	297.2	290.7	280.9	271.2	261.5	255.0	245.2	—	—
	kW	71.6	76.1	78.4	79.9	82.2	84.4	86.7	88.2	90.5	—	—
	SDT	40.9	46.4	49.1	51.0	53.8	56.5	59.3	61.1	63.9	—	—

38AH084		Condenser Entering-Air Temperature (C)										
SST (C)		21	27	30	32	35	38	41	43	46	49	52
-2	TC	250.5	234.1	225.9	220.4	212.2	204.0	195.8	190.3	182.1	173.9	165.7
	kW	70.6	73.5	74.9	75.9	77.3	78.7	80.2	81.1	82.5	84.0	85.4
	SDT	35.4	41.0	43.7	45.6	48.4	51.1	53.9	55.7	58.5	61.3	64.0
0	TC	271.8	254.4	245.7	239.9	231.2	222.5	213.8	208.0	199.2	190.5	181.8
	kW	73.0	76.2	77.9	78.9	80.6	82.2	83.8	84.9	86.5	88.1	89.7
	SDT	36.4	41.9	44.6	46.5	49.3	52.0	54.8	56.6	59.4	62.1	64.9
2	TC	293.0	274.6	265.4	259.3	250.1	240.9	231.7	225.6	216.4	207.2	198.0
	kW	75.4	79.0	80.8	82.0	83.8	85.6	87.4	88.6	90.4	92.3	94.1
	SDT	37.3	42.8	45.5	47.4	50.2	52.9	55.7	57.5	60.3	63.0	65.8
4	TC	314.3	294.9	285.2	278.8	269.1	259.4	249.7	243.3	233.6	223.9	214.2
	kW	77.7	81.7	83.7	85.1	87.1	89.1	91.1	92.4	94.4	96.4	98.4
	SDT	38.2	43.7	46.4	48.3	51.1	53.8	56.6	58.4	61.2	63.9	66.7
6	TC	335.5	315.2	305.0	298.2	288.1	277.9	267.7	260.9	250.8	240.6	230.4
	kW	80.1	84.5	86.6	88.1	90.3	92.5	94.7	96.1	98.3	100.5	102.7
	SDT	39.1	44.6	47.3	49.2	52.0	54.7	57.5	59.3	62.1	64.8	67.6
8	TC	356.8	335.4	324.8	317.7	307.0	296.4	285.7	278.6	267.9	257.3	246.6
	kW	82.4	87.2	89.6	91.2	93.5	95.9	98.3	99.9	102.3	104.7	107.1
	SDT	40.0	45.5	48.2	50.1	52.9	55.6	58.4	60.2	63.0	65.7	68.5
10	TC	378.0	355.7	344.6	337.1	326.0	314.8	303.7	296.2	285.1	—	—
	kW	84.8	89.9	92.5	94.2	96.8	99.4	101.9	103.7	106.2	—	—
	SDT	40.9	46.4	49.1	51.0	53.8	56.5	59.3	61.1	63.9	—	—

38AH094		Condenser Entering-Air Temperature (C)										
SST (C)		21	27	30	32	35	38	41	43	46	49	52
-2	TC	272.1	252.9	243.3	236.9	227.3	217.7	208.1	201.7	192.1	182.5	173.0
	kW	74.7	77.6	79.0	80.0	81.4	82.8	84.3	85.2	86.6	88.1	89.5
	SDT	35.6	41.2	44.0	45.9	48.7	51.5	54.4	56.2	59.0	61.9	64.7
0	TC	294.3	274.2	264.1	257.4	247.4	237.3	227.2	220.5	210.5	200.4	190.3
	kW	77.3	80.6	82.3	83.4	85.0	86.6	88.3	89.4	91.0	92.7	94.3
	SDT	36.7	42.3	45.1	46.9	49.7	52.5	55.3	57.2	59.9	62.7	65.5
2	TC	316.6	295.5	285.0	277.9	267.4	256.9	246.3	239.3	228.8	218.2	207.7
	kW	79.9	83.7	85.5	86.7	88.6	90.5	92.3	93.5	95.4	97.3	99.1
	SDT	37.8	43.4	46.1	48.0	50.7	53.5	56.2	58.1	60.8	63.6	66.4
4	TC	338.8	316.8	305.8	298.5	287.5	276.4	265.4	258.1	247.1	236.1	225.1
	kW	82.5	86.7	88.8	90.1	92.2	94.3	96.3	97.7	99.8	101.9	103.9
	SDT	39.0	44.4	47.2	49.0	51.7	54.5	57.2	59.0	61.7	64.5	67.2
6	TC	361.1	338.1	326.6	319.0	307.5	296.0	284.5	276.9	265.4	253.9	242.4
	kW	85.2	89.7	92.0	93.5	95.8	98.1	100.4	101.9	104.2	106.4	108.7
	SDT	40.1	45.5	48.2	50.0	52.7	55.4	58.1	59.9	62.6	65.3	68.0
8	TC	383.3	359.4	347.5	339.5	327.5	315.6	303.6	295.7	283.7	271.8	259.8
	kW	87.8	92.7	95.2	96.9	99.4	101.9	104.4	106.1	108.5	111.0	113.5
	SDT	41.2	46.6	49.3	51.0	53.7	56.4	59.1	60.9	63.5	66.2	68.9
10	TC	405.6	380.7	368.3	360.0	347.6	335.2	322.7	314.5	302.0	289.6	—
	kW	90.4	95.8	98.5	100.3	103.0	105.7	108.4	110.2	112.9	115.6	—
	SDT	42.4	47.7	50.3	52.1	54.7	57.4	60.0	61.8	64.4	67.1	—

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.



CONDENSING UNIT RATINGS, 60 Hz SI (cont)

38AH104

SST (C)	Condenser Entering-Air Temperature (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC	304.0	281.9	270.9	263.5	252.5	241.4	230.4	223.0	212.0	200.9	189.9
	kW	81.0	84.6	86.3	87.5	89.3	91.0	92.8	94.0	95.8	97.5	99.3
	SDT	37.1	42.5	45.1	46.9	49.6	52.2	54.9	56.7	59.3	62.0	64.6
0	TC	329.8	306.5	294.8	287.0	275.3	263.6	251.9	244.1	232.4	220.7	209.0
	kW	84.0	88.0	90.0	91.4	93.4	95.4	97.4	98.7	100.7	102.7	104.7
	SDT	38.3	43.5	46.2	47.9	50.6	53.2	55.8	57.6	60.2	62.9	65.5
2	TC	355.6	331.0	318.6	310.4	298.1	285.7	273.4	265.1	252.8	240.5	228.1
	kW	87.1	91.5	93.8	95.3	97.5	99.7	102.0	103.4	105.7	107.9	110.1
	SDT	39.4	44.6	47.2	48.9	51.6	54.2	56.8	58.5	61.1	63.7	66.3
4	TC	381.5	355.5	342.5	333.8	320.8	307.9	294.9	286.2	273.2	260.2	247.2
	kW	90.1	95.0	97.5	99.1	101.6	104.1	106.5	108.2	110.6	113.1	115.6
	SDT	40.5	45.7	48.3	50.0	52.6	55.1	57.7	59.4	62.0	64.6	67.2
6	TC	407.3	380.0	366.4	357.3	343.6	330.0	316.4	307.3	293.6	280.0	266.4
	kW	93.1	98.5	101.2	103.0	105.7	108.4	111.1	112.9	115.6	118.3	121.0
	SDT	41.7	46.8	49.3	51.0	53.6	56.1	58.7	60.4	62.9	65.5	68.0
8	TC	433.1	404.5	390.2	380.7	366.4	352.1	337.9	328.3	314.1	299.8	—
	kW	96.1	102.0	104.9	106.9	109.8	112.7	115.7	117.6	120.5	123.5	—
	SDT	42.8	47.8	50.4	52.0	54.6	57.1	59.6	61.3	63.8	66.3	—
10	TC	458.9	429.0	414.1	404.1	389.2	374.3	359.4	349.4	—	—	—
	kW	99.1	105.5	108.6	110.7	113.9	117.1	120.2	122.3	—	—	—
	SDT	43.9	48.9	51.4	53.1	55.6	58.1	60.5	62.2	—	—	—

38AH124

SST (C)	Condenser Entering-Air Temperature (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC	347.1	321.5	308.7	300.1	287.3	274.5	261.7	253.2	240.4	227.6	214.8
	kW	92.5	96.5	98.5	99.8	101.7	103.7	105.7	107.0	109.0	110.9	112.9
	SDT	35.4	41.3	44.2	46.1	49.1	52.0	55.0	56.9	59.9	62.8	65.7
0	TC	377.2	350.1	336.6	327.6	314.1	300.6	287.1	278.1	264.6	251.1	237.6
	kW	95.3	99.8	102.1	103.6	105.9	108.2	110.5	112.0	114.3	116.6	118.8
	SDT	36.4	42.2	45.1	47.0	49.9	52.8	55.7	57.6	60.5	63.3	66.2
2	TC	407.3	378.8	364.6	355.1	340.9	326.7	312.5	303.0	288.8	274.6	260.4
	kW	98.0	103.2	105.8	107.5	110.1	112.7	115.3	117.0	119.6	122.2	124.8
	SDT	37.5	43.1	46.0	47.9	50.7	53.5	56.3	58.2	61.1	63.9	66.7
4	TC	437.4	407.5	392.6	382.6	367.7	352.8	337.9	327.9	313.0	298.1	283.2
	kW	100.7	106.5	109.4	111.4	114.3	117.2	120.1	122.0	124.9	127.8	130.7
	SDT	38.5	44.1	46.9	48.7	51.5	54.3	57.0	58.9	61.7	64.4	67.2
6	TC	467.4	436.2	420.6	410.2	394.5	378.9	363.3	352.9	337.2	321.6	306.0
	kW	103.5	109.9	113.1	115.2	118.4	121.7	124.9	127.0	130.2	133.4	136.7
	SDT	39.6	45.0	47.8	49.6	52.3	55.0	57.7	59.5	62.3	65.0	67.7
8	TC	497.5	464.9	448.5	437.7	421.3	405.0	388.7	377.8	361.4	345.1	328.8
	kW	106.2	113.2	116.8	119.1	122.6	126.1	129.7	132.0	135.5	139.1	142.6
	SDT	40.7	46.0	48.6	50.4	53.1	55.8	58.4	60.2	62.9	65.5	68.2
10	TC	527.6	493.6	476.5	465.2	448.1	431.1	414.0	402.7	385.6	368.6	—
	kW	108.9	116.6	120.4	123.0	126.8	130.6	134.5	137.0	140.9	144.7	—
	SDT	41.7	46.9	49.5	51.3	53.9	56.5	59.1	60.8	63.5	66.1	—

38AH134

SST (C)	Condenser Entering-Air Temperature (C)											
	21	27	30	32	35	38	41	43	46	49	52	
-2	TC	384.1	357.5	344.2	335.4	322.1	308.7	295.4	286.6	273.3	260.0	246.7
	kW	104.2	108.6	110.8	112.2	114.4	116.6	118.8	120.3	122.4	124.6	126.8
	SDT	35.3	41.1	44.0	45.9	48.8	51.7	54.6	56.5	59.4	62.3	65.2
0	TC	417.0	388.8	374.7	365.3	351.2	337.1	323.0	313.6	299.5	285.4	271.3
	kW	107.5	112.5	115.0	116.7	119.2	121.7	124.2	125.9	128.4	130.9	133.4
	SDT	36.3	42.0	44.8	46.7	49.6	52.5	55.3	57.2	60.1	63.0	65.8
2	TC	449.8	420.0	405.1	395.2	380.3	365.4	350.5	340.6	325.7	310.8	295.9
	kW	110.8	116.5	119.3	121.2	124.0	126.8	129.7	131.5	134.4	137.2	140.0
	SDT	37.2	42.9	45.7	47.6	50.4	53.2	56.1	58.0	60.8	63.6	66.5
4	TC	482.6	451.2	435.6	425.1	409.4	393.7	378.0	367.6	351.9	336.2	320.5
	kW	114.1	120.4	123.5	125.6	128.8	131.9	135.1	137.2	140.3	143.5	146.6
	SDT	38.1	43.7	46.5	48.4	51.2	54.0	56.8	58.7	61.5	64.3	67.1
6	TC	515.4	482.5	466.0	455.0	438.5	422.1	405.6	394.6	378.1	361.6	345.1
	kW	117.4	124.3	127.8	130.1	133.6	137.0	140.5	142.8	146.3	149.8	153.2
	SDT	39.0	44.6	47.4	49.2	52.0	54.8	57.6	59.4	62.2	65.0	67.8
8	TC	548.3	513.7	496.4	484.9	467.7	450.4	433.1	421.6	404.3	387.0	369.8
	kW	120.7	128.3	132.0	134.6	138.4	142.2	145.9	148.5	152.3	156.0	159.8
	SDT	40.0	45.5	48.2	50.1	52.8	55.6	58.3	60.1	62.9	65.6	68.4
10	TC	581.1	545.0	526.9	514.8	496.8	478.7	460.6	448.6	430.5	412.5	—
	kW	124.0	132.2	136.3	139.0	143.2	147.3	151.4	154.1	158.2	162.3	—
	SDT	40.9	46.3	49.1	50.9	53.6	56.3	59.1	60.9	63.6	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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	62.0	56.8	54.2	52.4	49.8	47.2	44.6	42.9	40.2	37.6	35.0
	kW	16.0	16.6	16.8	17.0	17.3	17.6	17.9	18.1	18.4	18.7	19.0
	SDT	33.1	39.0	42.0	43.9	46.9	49.8	52.7	54.7	57.6	60.6	63.5
0	TC	67.5	62.1	59.3	57.5	54.8	52.0	49.3	47.5	44.8	42.0	39.3
	kW	16.3	17.1	17.4	17.7	18.0	18.4	18.8	19.0	19.4	19.7	20.1
	SDT	34.2	40.0	42.9	44.8	47.7	50.6	53.4	55.4	58.2	61.1	64.0
2	TC	73.0	67.3	64.5	62.6	59.7	56.9	54.0	52.1	49.3	46.4	43.6
	kW	16.7	17.6	18.0	18.3	18.7	19.1	19.6	19.9	20.3	20.7	21.2
	SDT	35.3	40.9	43.7	45.6	48.5	51.3	54.1	56.0	58.8	61.7	64.5
4	TC	78.5	72.6	69.6	67.7	64.7	61.7	58.8	56.8	53.8	50.8	47.9
	kW	17.1	18.1	18.6	18.9	19.4	19.9	20.4	20.7	21.2	21.7	22.2
	SDT	36.3	41.9	44.6	46.5	49.3	52.0	54.8	56.7	59.4	62.2	65.0
6	TC	84.1	77.9	74.8	72.7	69.7	66.6	63.5	61.4	58.3	55.3	52.2
	kW	17.4	18.6	19.1	19.5	20.1	20.7	21.2	21.6	22.2	22.7	23.3
	SDT	37.4	42.8	45.5	47.3	50.1	52.8	55.5	57.3	60.0	62.8	65.5
8	TC	89.6	83.2	80.0	77.8	74.6	71.4	68.2	66.1	62.9	59.7	56.5
	kW	17.8	19.1	19.7	20.1	20.8	21.4	22.0	22.5	23.1	23.7	24.4
	SDT	38.4	43.8	46.4	48.2	50.9	53.5	56.2	58.0	60.6	63.3	66.0
10	TC	95.1	88.4	85.1	82.9	79.6	76.3	72.9	70.7	67.4	64.1	—
	kW	18.2	19.6	20.3	20.7	21.5	22.2	22.9	23.3	24.0	24.7	—
	SDT	39.5	44.7	47.3	49.1	51.7	54.3	56.9	58.6	61.2	63.9	—

38AH044 CIRCUIT B

SST (C)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	62.6	57.0	54.3	52.4	49.6	46.9	44.1	42.2	39.5	36.7	33.9
	kW	15.8	16.5	16.9	17.1	17.5	17.8	18.2	18.4	18.8	19.1	19.5
	SDT	34.5	40.2	43.1	44.9	47.8	50.6	53.5	55.4	58.2	61.0	63.9
0	TC	68.5	62.7	59.8	57.9	55.0	52.1	49.2	47.3	44.4	41.5	38.6
	kW	16.1	17.0	17.4	17.7	18.1	18.5	18.9	19.2	19.6	20.1	20.5
	SDT	35.1	40.8	43.7	45.5	48.4	51.2	54.1	56.0	58.8	61.6	64.5
2	TC	74.4	68.4	65.4	63.4	60.4	57.4	54.4	52.4	49.4	46.3	43.3
	kW	16.4	17.4	17.9	18.2	18.7	19.2	19.7	20.0	20.5	21.0	21.5
	SDT	35.7	41.4	44.3	46.1	49.0	51.8	54.7	56.6	59.4	62.2	65.1
4	TC	80.4	74.1	71.0	68.9	65.8	62.6	59.5	57.4	54.3	51.2	48.1
	kW	16.7	17.8	18.4	18.8	19.3	19.9	20.4	20.8	21.4	21.9	22.5
	SDT	36.3	42.0	44.9	46.7	49.6	52.4	55.3	57.2	60.0	62.8	65.7
6	TC	86.3	79.8	76.6	74.4	71.2	67.9	64.7	62.5	59.3	56.0	52.8
	kW	17.0	18.3	18.9	19.3	19.9	20.6	21.2	21.6	22.2	22.8	23.5
	SDT	36.9	42.6	45.5	47.4	50.2	53.0	55.9	57.8	60.6	63.4	66.3
8	TC	92.2	85.5	82.1	79.9	76.5	73.2	69.8	67.6	64.2	60.8	57.5
	kW	17.3	18.7	19.4	19.8	20.5	21.2	21.9	22.4	23.1	23.8	24.5
	SDT	37.5	43.2	46.1	48.0	50.8	53.6	56.5	58.4	61.2	64.0	66.9
10	TC	98.2	91.2	87.7	85.4	81.9	78.4	75.0	72.6	69.1	65.7	—
	kW	17.6	19.1	19.9	20.4	21.2	21.9	22.7	23.2	23.9	24.7	—
	SDT	38.1	43.8	46.7	48.6	51.4	54.2	57.1	59.0	61.8	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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	64.1	58.4	55.5	53.6	50.7	47.8	44.9	43.0	40.1	37.3	34.4
	kW	16.4	16.9	17.2	17.4	17.7	18.0	18.2	18.4	18.7	19.0	19.3
	SDT	33.5	39.8	43.0	45.2	48.3	51.5	54.7	56.9	60.0	63.2	66.4
0	TC	69.7	63.8	60.9	58.9	56.0	53.0	50.1	48.1	45.2	42.3	39.3
	kW	16.6	17.3	17.7	17.9	18.3	18.6	19.0	19.2	19.6	20.0	20.3
	SDT	34.6	40.7	43.8	45.9	48.9	52.0	55.1	57.2	60.2	63.3	66.4
2	TC	75.3	69.3	66.3	64.3	61.3	58.3	55.3	53.3	50.3	47.3	44.3
	kW	16.9	17.7	18.2	18.5	18.9	19.3	19.8	20.1	20.5	20.9	21.4
	SDT	35.7	41.6	44.6	46.6	49.5	52.5	55.5	57.5	60.4	63.4	66.4
4	TC	80.8	74.7	71.6	69.6	66.5	63.5	60.4	58.4	55.3	52.2	49.2
	kW	17.1	18.1	18.7	19.0	19.5	20.0	20.5	20.9	21.4	21.9	22.4
	SDT	36.8	42.5	45.4	47.3	50.1	53.0	55.9	57.8	60.6	63.5	66.4
6	TC	86.4	80.1	77.0	74.9	71.8	68.7	65.6	63.5	60.4	57.2	54.1
	kW	17.4	18.5	19.1	19.5	20.1	20.7	21.3	21.7	22.3	22.9	23.5
	SDT	37.9	43.4	46.2	48.0	50.7	53.5	56.3	58.1	60.8	63.6	66.3
8	TC	91.9	85.6	82.4	80.3	77.1	73.9	70.7	68.6	65.4	62.2	59.0
	kW	17.6	19.0	19.6	20.1	20.7	21.4	22.1	22.5	23.2	23.9	24.5
	SDT	39.0	44.3	46.9	48.7	51.3	54.0	56.6	58.4	61.0	63.7	66.3
10	TC	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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	80.4	74.5	71.6	69.6	66.6	63.7	60.8	58.8	55.8	52.9	50.0
	kW	22.0	23.0	23.5	23.8	24.3	24.8	25.3	25.6	26.1	26.5	27.0
	SDT	37.5	43.2	46.0	47.9	50.8	53.6	56.4	58.3	61.2	64.0	66.8
0	TC	87.7	81.4	78.2	76.1	73.0	69.8	66.7	64.6	61.4	58.3	55.1
	kW	22.8	23.9	24.4	24.8	25.3	25.9	26.4	26.8	27.4	27.9	28.5
	SDT	38.3	44.0	46.8	48.7	51.6	54.4	57.2	59.1	62.0	64.8	67.6
2	TC	95.0	88.3	84.9	82.7	79.3	76.0	72.6	70.4	67.0	63.7	60.3
	kW	23.5	24.7	25.3	25.8	26.4	27.0	27.6	28.0	28.6	29.3	29.9
	SDT	39.1	44.8	47.6	49.5	52.4	55.2	58.0	59.9	62.8	65.6	68.4
4	TC	102.3	95.1	91.6	89.2	85.6	82.1	78.5	76.1	72.6	69.0	65.5
	kW	24.2	25.6	26.3	26.7	27.4	28.1	28.8	29.3	29.9	30.6	31.3
	SDT	39.9	45.6	48.4	50.3	53.2	56.0	58.8	60.7	63.6	66.4	69.2
6	TC	109.5	102.0	98.2	95.7	92.0	88.2	84.4	81.9	78.2	74.4	70.6
	kW	24.9	26.4	27.2	27.7	28.5	29.2	30.0	30.5	31.2	32.0	32.7
	SDT	40.7	46.4	49.2	51.1	54.0	56.8	59.6	61.5	64.4	67.2	70.0
8	TC	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	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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	81.9	75.7	72.7	70.6	67.5	64.4	61.4	59.3	56.2	53.2	50.1
	kW	21.6	22.6	23.1	23.4	24.0	24.5	25.0	25.3	25.8	26.3	26.9
	SDT	35.0	40.9	43.8	45.8	48.7	51.7	54.6	56.6	59.5	62.4	65.4
0	TC	89.0	82.5	79.3	77.1	73.9	70.6	67.3	65.2	61.9	58.7	55.4
	kW	22.3	23.4	24.0	24.4	25.0	25.5	26.1	26.5	27.1	27.7	28.2
	SDT	36.3	42.0	44.9	46.8	49.7	52.6	55.5	57.4	60.3	63.2	66.1
2	TC	96.2	89.3	85.9	83.6	80.2	76.8	73.3	71.0	67.6	64.2	60.7
	kW	22.9	24.2	24.9	25.3	26.0	26.6	27.3	27.7	28.3	29.0	29.6
	SDT	37.5	43.2	46.0	47.9	50.7	53.6	56.4	58.3	61.1	63.9	66.8
4	TC	103.4	96.1	92.5	90.1	86.5	82.9	79.3	76.9	73.3	69.7	66.1
	kW	23.6	25.1	25.8	26.3	27.0	27.7	28.4	28.9	29.6	30.3	31.0
	SDT	38.8	44.3	47.1	48.9	51.7	54.5	57.3	59.1	61.9	64.7	67.4
6	TC	110.5	102.9	99.2	96.6	92.8	89.1	85.3	82.8	79.0	75.2	71.4
	kW	24.3	25.9	26.7	27.2	28.0	28.8	29.6	30.1	30.9	31.6	32.4
	SDT	40.0	45.5	48.2	50.0	52.7	55.4	58.2	60.0	62.7	65.4	68.1
8	TC	117.7	109.7	105.8	103.1	99.2	95.2	91.3	88.6	84.7	80.7	76.7
	kW	25.0	26.7	27.6	28.1	29.0	29.8	30.7	31.3	32.1	33.0	33.8
	SDT	41.3	46.6	49.3	51.1	53.7	56.4	59.1	60.8	63.5	66.2	68.8
10	TC	124.8	116.5	112.4	109.6	105.5	101.4	97.2	94.5	90.3	86.2	82.1
	kW	25.7	27.5	28.5	29.1	30.0	30.9	31.8	32.5	33.4	34.3	35.2
	SDT	42.5	47.8	50.4	52.1	54.7	57.3	59.9	61.7	64.3	66.9	69.5

38AH064 CIRCUIT B

SST (C)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	92.2	85.3	81.8	79.5	76.0	72.6	69.1	66.8	63.4	59.9	56.5
	kW	24.9	25.8	26.2	26.5	27.0	27.4	27.9	28.2	28.7	29.1	29.6
	SDT	35.3	41.0	43.8	45.7	48.5	51.4	54.2	56.1	58.9	61.8	64.6
0	TC	99.8	92.6	89.0	86.6	83.0	79.4	75.8	73.4	69.8	66.2	62.6
	kW	25.4	26.6	27.1	27.5	28.0	28.6	29.1	29.5	30.1	30.6	31.2
	SDT	36.1	41.8	44.6	46.5	49.3	52.2	55.0	56.9	59.7	62.6	65.4
2	TC	107.5	100.0	96.2	93.7	90.0	86.2	82.5	80.0	76.2	72.5	68.7
	kW	26.0	27.3	28.0	28.4	29.1	29.7	30.4	30.8	31.5	32.1	32.8
	SDT	36.9	42.6	45.4	47.3	50.1	53.0	55.8	57.7	60.5	63.4	66.2
4	TC	115.1	107.3	103.4	100.8	96.9	93.0	89.1	86.5	82.6	78.7	74.8
	kW	26.6	28.1	28.9	29.4	30.1	30.9	31.6	32.1	32.9	33.6	34.4
	SDT	37.7	43.4	46.2	48.1	50.9	53.8	56.6	58.5	61.3	64.2	67.0
6	TC	122.8	114.7	110.6	107.9	103.9	99.8	95.8	93.1	89.1	85.0	81.0
	kW	27.2	28.9	29.8	30.3	31.2	32.0	32.9	33.4	34.3	35.1	35.9
	SDT	38.5	44.2	47.0	48.9	51.7	54.6	57.4	59.3	62.1	65.0	67.8
8	TC	130.4	122.0	117.8	115.1	110.9	106.7	102.5	99.7	95.5	91.3	87.1
	kW	27.8	29.7	30.6	31.3	32.2	33.1	34.1	34.7	35.7	36.6	37.5
	SDT	39.3	45.0	47.8	49.7	52.5	55.4	58.2	60.1	62.9	65.8	68.6
10	TC	138.1	129.4	125.1	122.2	117.8	113.5	109.1	106.2	101.9	97.5	93.2
	kW	28.4	30.5	31.5	32.2	33.3	34.3	35.3	36.0	37.1	38.1	39.1
	SDT	40.1	45.8	48.6	50.5	53.3	56.2	59.0	60.9	63.7	66.6	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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	94.6	87.8	84.5	82.2	78.8	75.5	72.1	69.8	66.5	63.1	59.7
	kW	24.9	25.9	26.4	26.7	27.2	27.7	28.2	28.5	29.0	29.4	29.9
	SDT	33.9	39.8	42.7	44.7	47.6	50.6	53.5	55.5	58.4	61.3	64.3
0	TC	102.5	95.4	91.9	89.5	86.0	82.4	78.9	76.6	73.0	69.5	66.0
	kW	25.6	26.8	27.3	27.7	28.3	28.9	29.4	29.8	30.4	31.0	31.5
	SDT	35.1	40.9	43.8	45.7	48.6	51.5	54.4	56.3	59.2	62.1	65.0
2	TC	110.3	102.9	99.3	96.8	93.1	89.4	85.8	83.3	79.6	75.9	72.3
	kW	26.3	27.6	28.3	28.7	29.4	30.1	30.7	31.2	31.8	32.5	33.1
	SDT	36.4	42.1	44.9	46.8	49.6	52.4	55.3	57.2	60.0	62.8	65.6
4	TC	118.1	110.5	106.6	104.1	100.3	96.4	92.6	90.0	86.2	82.4	78.5
	kW	27.0	28.5	29.2	29.7	30.5	31.2	32.0	32.5	33.2	34.0	34.7
	SDT	37.7	43.2	46.0	47.8	50.6	53.4	56.2	58.0	60.8	63.6	66.3
6	TC	126.0	118.0	114.0	111.4	107.4	103.4	99.4	96.8	92.8	88.8	84.8
	kW	27.7	29.4	30.2	30.8	31.6	32.4	33.3	33.8	34.7	35.5	36.3
	SDT	38.9	44.4	47.1	48.9	51.6	54.3	57.1	58.9	61.6	64.3	67.0
8	TC	133.8	125.6	121.4	118.7	114.5	110.4	106.3	103.5	99.4	95.2	91.1
	kW	28.4	30.2	31.1	31.8	32.7	33.6	34.5	35.2	36.1	37.0	37.9
	SDT	40.2	45.5	48.2	49.9	52.6	55.3	57.9	59.7	62.4	65.0	67.7
10	TC	141.7	133.1	128.8	126.0	121.7	117.4	113.1	110.2	105.9	101.6	—
	kW	29.1	31.1	32.1	32.8	33.8	34.8	35.8	36.5	37.5	38.5	—
	SDT	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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	123.1	115.5	111.7	109.1	105.3	101.5	97.7	95.2	91.4	87.6	83.8
	kW	35.0	36.4	37.1	37.6	38.3	39.0	39.7	40.2	40.9	41.6	42.3
	SDT	37.0	42.2	44.8	46.5	49.1	51.7	54.3	56.0	58.6	61.2	63.8
0	TC	133.3	125.2	121.1	118.4	114.3	110.2	106.2	103.4	99.4	95.3	91.2
	kW	36.2	37.8	38.6	39.2	40.0	40.8	41.6	42.1	42.9	43.7	44.5
	SDT	37.6	42.8	45.5	47.2	49.9	52.5	55.2	56.9	59.6	62.2	64.9
2	TC	143.6	134.9	130.6	127.7	123.3	119.0	114.6	111.7	107.3	103.0	98.6
	kW	37.5	39.3	40.2	40.8	41.7	42.5	43.4	44.0	44.9	45.8	46.7
	SDT	38.1	43.5	46.2	48.0	50.7	53.4	56.1	57.9	60.6	63.3	66.0
4	TC	153.9	144.6	140.0	136.9	132.3	127.7	123.0	120.0	115.3	110.7	106.1
	kW	38.8	40.7	41.7	42.4	43.3	44.3	45.3	45.9	46.9	47.9	48.9
	SDT	38.7	44.2	46.9	48.7	51.5	54.2	57.0	58.8	61.6	64.3	67.1
6	TC	164.1	154.3	149.4	146.2	141.3	136.4	131.5	128.2	123.3	118.4	113.5
	kW	40.0	42.2	43.2	43.9	45.0	46.1	47.2	47.9	48.9	50.0	51.1
	SDT	39.2	44.8	47.6	49.5	52.3	55.1	57.9	59.8	62.6	65.4	68.2
8	TC	174.4	164.1	158.9	155.4	150.3	145.1	139.9	136.5	131.3	126.1	121.0
	kW	41.3	43.6	44.8	45.5	46.7	47.9	49.0	49.8	51.0	52.1	53.3
	SDT	39.8	45.5	48.3	50.2	53.1	55.9	58.8	60.7	63.6	66.4	69.3
10	TC	184.7	173.8	168.3	164.7	159.3	153.8	148.4	144.7	139.3	—	—
	kW	42.5	45.0	46.3	47.1	48.4	49.6	50.9	51.7	53.0	—	—
	SDT	40.3	46.1	49.0	51.0	53.9	56.8	59.7	61.7	64.6	—	—

LEGEND

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

38AH084 CIRCUIT B

SST (C)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	125.5	117.3	113.2	110.5	106.3	102.2	98.1	95.4	91.3	87.2	83.1
	kW	35.0	36.5	37.2	37.7	38.5	39.2	39.9	40.4	41.2	41.9	42.6
	SDT	37.0	42.2	44.8	46.5	49.1	51.7	54.3	56.0	58.6	61.2	63.8
0	TC	136.1	127.4	123.0	120.1	115.8	111.4	107.1	104.2	99.8	95.5	91.1
	kW	36.2	37.9	38.7	39.3	40.1	40.9	41.8	42.3	43.1	44.0	44.8
	SDT	37.6	42.8	45.5	47.2	49.9	52.5	55.2	56.9	59.6	62.2	64.9
2	TC	146.7	137.5	132.9	129.8	125.2	120.6	116.0	112.9	108.4	103.8	99.2
	kW	37.5	39.3	40.2	40.8	41.7	42.7	43.6	44.2	45.1	46.0	47.0
	SDT	38.1	43.5	46.2	48.0	50.7	53.4	56.1	57.9	60.6	63.3	66.0
4	TC	157.2	147.5	142.7	139.5	134.6	129.8	125.0	121.7	116.9	112.0	107.2
	kW	38.7	40.7	41.7	42.4	43.4	44.4	45.4	46.1	47.1	48.1	49.1
	SDT	38.7	44.2	46.9	48.7	51.5	54.2	57.0	58.8	61.6	64.3	67.1
6	TC	167.8	157.6	152.5	149.1	144.1	139.0	133.9	130.5	125.4	120.3	115.2
	kW	39.9	42.1	43.2	43.9	45.0	46.1	47.2	48.0	49.1	50.2	51.3
	SDT	39.2	44.8	47.6	49.5	52.3	55.1	57.9	59.8	62.6	65.4	68.2
8	TC	178.4	167.7	162.4	158.8	153.5	148.2	142.8	139.3	133.9	128.6	123.3
	kW	41.1	43.5	44.7	45.5	46.7	47.9	49.1	49.8	51.0	52.2	53.4
	SDT	39.8	45.5	48.3	50.2	53.1	55.9	58.8	60.7	63.6	66.4	69.3
10	TC	188.9	177.8	172.2	168.5	162.9	157.3	151.8	148.0	142.5	—	—
	kW	42.3	44.9	46.2	47.0	48.3	49.6	50.9	51.7	53.0	—	—
	SDT	40.3	46.1	49.0	51.0	53.9	56.8	59.7	61.7	64.6	—	—

LEGEND

- kW — Compressor Power
- SDT — Saturated Discharge Temperature (leaving compressor) (C)
- SST — Saturated Suction Temperature (entering condensing unit)
- TC — Gross Cooling Capacity (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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	151.9	140.3	134.5	130.7	124.9	119.1	113.3	109.4	103.6	97.8	92.0
	kW	41.7	43.0	43.7	44.1	44.8	45.5	46.1	46.6	47.3	47.9	48.6
	SDT	37.3	42.7	45.4	47.1	49.8	52.5	55.2	57.0	59.7	62.4	65.1
0	TC	164.2	152.2	146.1	142.1	136.0	130.0	124.0	119.9	113.9	107.9	101.8
	kW	43.1	44.7	45.5	46.0	46.8	47.6	48.4	49.0	49.8	50.6	51.4
	SDT	38.3	43.7	46.4	48.1	50.8	53.5	56.2	58.0	60.7	63.4	66.1
2	TC	176.5	164.0	157.7	153.5	147.2	141.0	134.7	130.5	124.2	118.0	111.7
	kW	44.4	46.3	47.3	47.9	48.8	49.8	50.7	51.4	52.3	53.2	54.2
	SDT	39.3	44.7	47.4	49.1	51.8	54.5	57.2	59.0	61.7	64.4	67.1
4	TC	188.8	175.8	169.3	164.9	158.4	151.9	145.4	141.1	134.5	128.0	121.5
	kW	45.8	48.0	49.1	49.8	50.9	51.9	53.0	53.7	54.8	55.9	57.0
	SDT	40.3	45.7	48.4	50.1	52.8	55.5	58.2	60.0	62.7	65.4	68.1
6	TC	201.1	187.6	180.8	176.4	169.6	162.9	156.1	151.6	144.9	138.1	131.4
	kW	47.2	49.6	50.8	51.7	52.9	54.1	55.3	56.1	57.3	58.5	59.8
	SDT	41.3	46.7	49.4	51.1	53.8	56.5	59.2	61.0	63.7	66.4	69.1
8	TC	213.4	199.4	192.4	187.8	180.8	173.8	166.8	162.2	155.2	148.2	141.2
	kW	48.6	51.3	52.6	53.5	54.9	56.2	57.6	58.5	59.8	61.2	62.5
	SDT	42.3	47.7	50.4	52.1	54.8	57.5	60.2	62.0	64.7	67.4	70.0
10	TC	225.7	211.2	204.0	199.2	192.0	184.7	177.5	172.7	165.5	158.3	—
	kW	50.0	52.9	54.4	55.4	56.9	58.4	59.9	60.9	62.3	63.8	—
	SDT	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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	120.1	112.6	108.8	106.2	102.5	98.7	94.9	92.3	88.5	84.8	81.0
	kW	33.1	34.6	35.3	35.8	36.6	37.4	38.1	38.6	39.4	40.1	40.9
	SDT	33.9	39.8	42.7	44.7	47.6	50.6	53.5	55.5	58.4	61.3	64.3
0	TC	130.1	122.1	118.0	115.3	111.3	107.3	103.3	100.6	96.5	92.5	88.5
	kW	34.3	36.0	36.8	37.3	38.2	39.0	39.8	40.4	41.2	42.1	42.9
	SDT	35.1	40.9	43.8	45.7	48.6	51.5	54.4	56.3	59.2	62.1	65.0
2	TC	140.1	131.5	127.3	124.4	120.2	115.9	111.6	108.8	104.5	100.3	96.0
	kW	35.5	37.3	38.2	38.9	39.8	40.7	41.6	42.2	43.1	44.0	44.9
	SDT	36.4	42.1	44.9	46.8	49.6	52.4	55.3	57.2	60.0	62.8	65.6
4	TC	150.0	141.0	136.5	133.5	129.0	124.5	120.0	117.0	112.5	108.0	103.5
	kW	36.7	38.7	39.7	40.4	41.3	42.3	43.3	44.0	45.0	46.0	47.0
	SDT	37.7	43.2	46.0	47.8	50.6	53.4	56.2	58.0	60.8	63.6	66.3
6	TC	160.0	150.5	145.8	142.6	137.9	133.2	128.4	125.3	120.5	115.8	111.1
	kW	38.0	40.1	41.2	41.9	42.9	44.0	45.1	45.8	46.8	47.9	49.0
	SDT	38.9	44.4	47.1	48.9	51.6	54.3	57.1	58.9	61.6	64.3	67.0
8	TC	170.0	160.0	155.0	151.7	146.8	141.8	136.8	133.5	128.5	123.6	118.6
	kW	39.2	41.5	42.6	43.4	44.5	45.7	46.8	47.7	48.7	49.9	51.0
	SDT	40.2	45.5	48.2	49.9	52.6	55.3	57.9	59.7	62.4	65.0	67.7
10	TC	179.9	169.5	164.3	160.8	155.6	150.4	145.2	141.7	136.5	131.3	126.1
	kW	40.4	42.8	44.1	44.9	46.1	47.3	48.5	49.4	50.6	51.8	53.0
	SDT	41.4	46.7	49.3	51.0	53.6	56.2	58.8	60.6	63.2	65.8	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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	143.2	132.4	127.1	123.5	118.1	112.7	107.4	103.8	98.4	93.0	87.7
	kW	37.4	39.1	39.9	40.4	41.2	42.1	42.9	43.4	44.2	45.1	45.9
	SDT	35.7	41.3	44.1	45.9	48.7	51.5	54.3	56.2	58.9	61.7	64.5
0	TC	155.4	144.1	138.4	134.7	129.0	123.3	117.7	113.9	108.2	102.5	96.9
	kW	38.7	40.6	41.5	42.1	43.1	44.0	44.9	45.6	46.5	47.4	48.4
	SDT	37.0	42.4	45.2	47.0	49.7	52.5	55.2	57.0	59.7	62.5	65.2
2	TC	167.7	155.7	149.8	145.8	139.9	133.9	127.9	124.0	118.0	112.0	106.1
	kW	40.0	42.1	43.2	43.9	44.9	46.0	47.0	47.7	48.8	49.8	50.9
	SDT	38.2	43.6	46.3	48.0	50.7	53.4	56.1	57.9	60.5	63.2	65.9
4	TC	179.9	167.4	161.1	157.0	150.7	144.5	138.2	134.0	127.8	121.5	115.3
	kW	41.3	43.6	44.8	45.6	46.7	47.9	49.1	49.9	51.0	52.2	53.4
	SDT	39.5	44.7	47.4	49.1	51.7	54.3	57.0	58.7	61.3	64.0	66.6
6	TC	192.2	179.1	172.5	168.1	161.6	155.0	148.5	144.1	137.6	131.0	124.5
	kW	42.6	45.2	46.4	47.3	48.6	49.9	51.1	52.0	53.3	54.6	55.9
	SDT	40.7	45.9	48.4	50.2	52.7	55.3	57.9	59.6	62.1	64.7	67.3
8	TC	204.4	190.7	183.9	179.3	172.5	165.6	158.8	154.2	147.4	140.5	133.7
	kW	43.9	46.7	48.1	49.0	50.4	51.8	53.2	54.1	55.5	56.9	58.3
	SDT	42.0	47.0	49.5	51.2	53.7	56.2	58.7	60.4	62.9	65.4	68.0
10	TC	216.6	202.4	195.2	190.5	183.3	176.2	169.0	164.3	157.2	—	—
	kW	45.2	48.2	49.7	50.7	52.3	53.8	55.3	56.3	57.8	—	—
	SDT	43.3	48.2	50.6	52.3	54.7	57.2	59.6	61.3	63.7	—	—

38AH104 CIRCUIT B

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

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.



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

38AH124 CIRCUIT A OR CIRCUIT B; 38AH134 CIRCUIT A

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

38AH134 CIRCUIT B

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

Performance data (cont)



CONDENSING UNIT RATINGS, 50 Hz ENGLISH

38AH024								
SST (F)		Condenser Entering-Air Temperature (F)						
		75	85	95	100	105	115	125
20	TC	141.8	130.6	119.0	113.2	107.4	96.2	84.8
	kW	11.4	11.7	12.4	12.7	12.9	13.3	13.8
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
25	TC	161.6	149.4	136.8	130.6	124.4	112.0	99.6
	kW	11.7	12.1	12.9	13.3	13.6	14.2	14.8
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
30	TC	181.6	168.2	154.8	148.0	141.4	128.0	114.6
	kW	11.9	12.5	13.5	13.9	14.3	15.0	15.8
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
35	TC	202.4	188.4	174.4	167.4	160.4	146.4	132.4
	kW	12.2	12.9	14.0	14.5	14.9	15.8	16.6
	SDT	97.0	107.0	116.0	121.0	126.0	135.0	145.0
40	TC	223.0	208.0	194.0	186.8	179.6	165.0	150.5
	kW	12.5	13.4	14.5	15.0	15.6	16.5	17.5
	SDT	98.0	108.0	117.0	122.0	126.0	136.0	146.0
45	TC	247.6	232.0	216.0	208.0	200.0	184.4	168.6
	kW	12.8	13.8	15.0	15.6	16.2	17.3	18.4
	SDT	101.0	110.0	119.0	123.0	128.0	137.0	146.0
50	TC	268.0	254.0	236.0	228.0	220.0	204.0	188.0
	kW	13.1	14.2	15.6	16.2	16.8	18.0	19.3
	SDT	103.0	112.0	121.0	125.0	130.0	139.0	148.0

38AH034								
SST (F)		Condenser Entering-Air Temperature (F)						
		75	85	95	100	105	115	125
20	TC	198.0	185.5	171.2	164.4	157.6	144.4	131.0
	kW	16.6	17.4	18.5	19.0	19.5	20.4	21.4
	SDT	97.0	107.0	117.0	122.0	127.0	137.0	147.0
25	TC	223.5	209.4	194.4	187.0	179.6	165.3	150.8
	kW	17.1	18.1	19.3	19.8	20.5	21.5	22.6
	SDT	97.0	107.0	117.0	122.0	127.0	137.0	147.0
30	TC	249.4	234.3	217.7	210.0	202.3	186.0	170.2
	kW	17.6	18.7	20.1	20.7	21.3	22.5	23.8
	SDT	97.0	107.0	117.0	122.0	127.0	137.0	147.0
35	TC	276.2	260.0	243.0	235.5	226.5	209.8	193.2
	kW	18.0	19.4	20.8	21.5	22.2	23.6	25.0
	SDT	99.0	109.0	118.0	123.0	128.0	137.0	147.0
40	TC	304.5	287.0	269.0	260.0	251.0	233.5	215.8
	kW	18.7	20.0	21.7	22.4	23.2	24.7	26.2
	SDT	101.0	110.0	119.0	124.0	129.0	138.0	147.0
45	TC	335.0	316.0	297.0	287.0	278.0	259.0	240.0
	kW	19.3	20.7	22.6	23.3	24.2	25.8	27.4
	SDT	103.0	112.0	121.0	126.0	130.0	140.0	149.0
50	TC	367.0	346.0	325.0	314.0	305.0	283.0	262.0
	kW	19.7	21.4	23.4	24.3	25.2	27.0	28.8
	SDT	106.0	115.0	124.0	128.0	133.0	141.0	150.0

LEGEND

- kW — Compressor Power
- SDT — Saturated Discharge Temperature at Compressor (F)
- SST — Saturated Suction Temperature
- TC — Gross Cooling Capacity (1000 Btu/h)

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.

38AH028								
SST (F)		Condenser Entering-Air Temperature (F)						
		75	85	95	100	105	115	125
20	TC	168.4	157.6	145.6	139.8	134.0	122.8	111.4
	kW	13.5	14.1	15.0	15.4	15.8	16.6	17.4
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
25	TC	189.0	177.4	164.6	158.4	152.2	140.2	128.0
	kW	13.9	14.6	15.7	16.1	16.6	17.4	18.3
	SDT	97.0	106.0	116.0	121.0	126.0	135.0	145.0
30	TC	210.2	197.4	183.8	177.2	170.6	157.4	144.2
	kW	14.3	15.2	16.3	16.8	17.3	18.3	19.3
	SDT	98.0	107.0	117.0	121.0	126.0	136.0	146.0
35	TC	231.6	220.0	204.0	197.6	190.4	176.4	162.6
	kW	14.8	15.7	17.0	17.6	18.1	19.2	20.3
	SDT	99.0	109.0	118.0	123.0	128.0	137.0	147.0
40	TC	256.8	242.0	226.0	218.0	210.0	195.2	179.8
	kW	15.1	16.3	17.7	18.3	18.9	20.2	21.5
	SDT	102.0	111.0	120.0	125.0	129.0	138.0	147.0
45	TC	284.0	266.0	250.0	242.0	232.0	216.0	199.0
	kW	15.7	16.9	18.3	19.0	19.7	21.0	22.3
	SDT	104.0	113.0	122.0	127.0	131.0	140.0	149.0
50	TC	306.0	292.0	272.0	264.0	256.0	238.0	221.0
	kW	16.0	17.4	19.0	19.8	20.6	22.0	23.5
	SDT	106.0	115.0	124.0	129.0	133.0	142.0	151.0



CONDENSING UNIT RATINGS, 50 Hz ENGLISH (cont)

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

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

SST (F)		Condenser Entering-Air Temperature (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	415.0	383.0	368.0	352.0	337.0	321.0	306.0	290.0	275.0	261.0	246.0
	kW	33.6	35.7	36.7	37.5	38.3	39.0	39.6	40.1	40.5	40.8	41.0
	SDT	93.4	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
25	TC	468.0	434.0	417.0	401.0	384.0	367.0	350.0	335.0	318.0	302.0	285.0
	kW	34.9	37.4	38.6	39.6	40.6	41.4	42.2	42.8	43.4	43.9	44.3
	SDT	94.0	104.0	109.0	113.5	118.5	123.5	128.5	133.5	138.0	143.0	148.0
30	TC	523.0	487.0	469.0	451.0	434.0	416.0	399.0	380.0	363.0	346.0	328.0
	kW	36.2	39.0	40.3	41.5	42.7	43.7	44.7	45.5	46.3	47.0	47.5
	SDT	95.0	104.5	109.5	114.5	119.0	124.0	129.0	134.0	139.0	144.0	149.0
35	TC	582.0	544.0	525.0	505.0	487.0	467.0	448.0	429.0	410.0	393.0	374.0
	kW	37.4	40.6	42.1	43.5	44.8	46.0	47.2	48.2	49.2	50.0	50.7
	SDT	96.3	105.5	110.5	115.5	120.5	125.0	130.0	135.0	139.5	144.5	149.5
40	TC	644.0	603.0	582.0	562.0	542.0	521.0	501.0	481.0	461.0	442.0	421.0*
	kW	38.7	42.2	43.9	45.5	47.0	48.3	49.6	50.8	52.0	53.0	54.0*
	SDT	98.0	107.5	112.5	116.5	121.5	126.5	131.5	136.0	140.5	145.5	150.5*
45	TC	708.0	664.0	642.0	620.0	600.0	578.0	556.0	535.0	514.0	493.0	471.0*
	kW	40.0	43.9	45.7	47.4	49.1	50.7	52.2	53.5	54.9	56.1	57.1*
	SDT	100.0	109.0	114.0	118.5	123.5	128.0	132.5	137.5	142.5	146.6	151.5*
50	TC	776.0	729.0	706.0	682.0	660.0	636.0	614.0	591.0	569.0	546.0	523.0*
	kW	41.2	45.5	47.5	49.4	51.3	53.0	54.7	56.2	57.7	59.1	60.3*
	SDT	102.0	111.0	116.0	120.5	125.0	130.0	134.5	139.5	143.5	148.5	153.5*

LEGEND

- kW — Compressor Power
- SDT — Saturated Discharge Temperature (leaving compressor) (F)
- 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)

38AH074		Condenser Entering-Air Temperature (F)										
SST (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	360.0	342.0	326.0
	kW	42.4	44.9	46.0	47.1	48.1	48.9	49.6	50.2	50.8	51.2	51.6
	SDT	92.1	102.0	107.0	112.0	117.0	122.0	126.5	131.5	136.5	142.0	147.0
25	TC	574.0	538.0	520.0	501.0	482.0	465.0	446.0	428.0	410.0	392.0	373.0
	kW	44.1	47.0	48.3	49.6	50.7	51.7	52.7	53.5	54.3	54.9	55.4
	SDT	92.7	102.5	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
30	TC	638.0	600.0	580.0	561.0	541.0	522.0	503.0	483.0	463.0	444.0	425.0
	kW	45.8	49.1	50.6	52.1	53.4	54.6	55.8	56.8	57.8	58.6	59.3
	SDT	93.9	103.5	108.0	113.0	118.0	123.0	128.0	132.5	137.0	142.0	147.0
35	TC	706.0	664.0	643.0	623.0	603.0	581.0	561.0	540.0	520.0	499.0	479.0
	kW	47.7	51.3	53.0	54.6	56.1	57.6	58.8	60.1	61.3	62.3	63.2
	SDT	95.5	104.5	109.5	114.5	119.0	123.5	128.5	133.5	138.0	143.0	148.0
40	TC	776.0	731.0	710.0	688.0	666.0	644.0	622.0	600.0	578.0	557.0	534.0
	kW	49.5	53.6	55.4	57.2	58.9	60.5	62.0	63.4	64.8	66.0	67.1
	SDT	97.3	106.5	111.5	116.0	120.5	125.5	130.0	134.5	139.5	144.0	148.5
45	TC	850.0	803.0	780.0	756.0	733.0	709.0	686.0	662.0	640.0	616.0	593.0*
	kW	51.2	55.8	57.8	59.8	61.8	63.5	65.3	66.8	68.4	69.8	71.1*
	SDT	99.3	108.5	113.0	118.0	122.5	127.0	131.5	136.5	141.0	145.5	150.0*
50	TC	930.0	879.0	853.0	828.0	803.0	778.0	753.0	727.0	703.0	678.0	653.0*
	kW	53.0	57.9	60.3	62.5	64.6	66.6	68.6	70.3	72.1	73.7	75.1*
	SDT	101.5	110.5	115.0	120.0	124.5	129.0	133.5	138.0	143.0	147.0	152.0*

38AH084		Condenser Entering-Air Temperature (F)										
SST (F)		70	80	85	90	95	100	105	110	115	120	125
20	TC	574.0	536.0	518.0	500.0	482.0	464.0	446.0	429.0	412.0	395.0	378.0*
	kW	50.7	53.3	54.5	55.6	56.6	57.6	58.4	59.2	59.9	60.6	61.1*
	SDT	97.1	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0	152.0*
25	TC	644.0	604.0	584.0	564.0	544.0	524.0	505.0	486.0	467.0	448.0	430.0*
	kW	52.9	55.9	57.3	58.7	59.9	61.0	62.1	63.0	64.0	64.8	65.5*
	SDT	97.2	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0	152.0*
30	TC	721.0	676.0	654.0	632.0	611.0	590.0	568.0	548.0	526.0	506.0	486.0*
	kW	54.9	58.5	60.1	61.7	63.1	64.5	65.7	66.8	68.0	69.0	69.9*
	SDT	97.4	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0	152.0*
35	TC	802.0	754.0	730.0	706.0	683.0	660.0	636.0	614.0	590.0	568.0	546.0*
	kW	56.9	60.9	62.9	64.7	66.3	67.9	69.3	70.7	72.0	73.2	74.4*
	SDT	98.1	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	147.0	152.0*
40	TC	887.0	835.0	809.0	785.0	759.0	734.0	709.0	684.0	659.0	634.0	610.0*
	kW	58.9	63.5	65.5	67.5	69.5	71.3	72.9	74.5	76.1	77.5	78.8*
	SDT	99.2	109.0	113.5	118.5	123.5	128.0	133.0	138.0	143.0	148.0	153.0*
45	TC	976.0	920.0	893.0	866.0	839.0	811.0	785.0	758.0	731.0	705.0	679.0*
	kW	61.1	66.1	68.3	70.6	72.7	74.7	76.7	78.5	80.2	81.8	83.3*
	SDT	100.5	110.5	115.0	119.5	124.5	129.5	134.0	139.0	144.0	149.0	154.0*
50	TC	1067.0	1009.0	980.0	950.0	922.0	892.0	864.0	836.0	807.0	779.0	750.0*
	kW	63.3	68.7	71.3	73.7	76.1	78.3	80.5	82.4	84.4	86.2	87.9*
	SDT	102.5	112.0	116.5	121.5	126.0	130.5	135.5	140.5	145.0	150.0	154.5*

LEGEND

- kW — Compressor Power
- SDT — Saturated Discharge Temperature (leaving compressor) (F)
- 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.



CONDENSING UNIT RATINGS, 50 Hz ENGLISH (cont)

38AH094

SST (F)		Condenser Entering-Air Temperature (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
	SCT(B)	90.4	101.0	106.0	111.0	116.0	121.0	126.0	131.0	136.0	142.0	147.0
25	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
	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
30	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
	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
35	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
	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
40	TC	999.0	940.0	911.0	882.0	853.0	824.0	793.0	764.0	734.0	704.0	675.0
	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
45	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
	SCT(B)	93.6	104.0	109.0	114.0	119.0	124.0	129.0	134.0	138.0	143.0	148.0
50	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
	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 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)

38AH104		Condenser Entering-Air Temperature (F)										
SST (F)		70	80	85	90	95	100	105	110	115	120	125
20	TC	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(A)	91.9	102.0	107.0	112.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
	SDT(B)	93.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	142.0	147.0
	SCT(A)	89.8	100.0	105.0	110.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0
	SCT(B)	90.9	101.0	106.0	111.0	116.0	122.0	127.0	132.0	137.0	142.0	147.0
25	TC	837.0	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
	SCT(B)	91.7	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
30	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
	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
35	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
	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
40	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
	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
45	TC	1247.0	1170.0	1132.0	1094.0	1054.0	1017.0	980.0	942.0	905.0	868.0	831.0
	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

- 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.



CONDENSING UNIT RATINGS, 50 Hz ENGLISH (cont)

38AH124

SST (F)		Condenser Entering-Air Temperature (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)

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		Condenser Entering-Air Temperature (F)										
SST (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
	SCT(B)	87.6	97.7	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0
25	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
	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
30	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
	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
35	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
	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
40	TC	1422.0	1337.0	1294.0	1252.0	1210.0	1168.0	1126.0	1084.0	1042.0	1001.0	959.0
	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
45	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
	SCT(B)	94.6	104.0	109.0	114.0	119.0	123.0	128.0	133.0	137.0	142.0	147.0
50	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
	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

- 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)

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

38AH024 CIRCUIT NO. 1 OR 2								
SST (F)		Condenser Entering-Air Temperature (F)						
		75	85	95	100	105	115	125
20	TC	70.9	65.3	59.5	56.6	53.7	48.1	42.4
	kW	5.7	5.9	6.2	6.3	6.5	6.7	6.9
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
25	TC	80.8	74.7	68.4	65.3	62.2	56.0	49.8
	kW	5.8	6.1	6.5	6.7	6.8	7.1	7.4
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
30	TC	90.8	84.1	77.4	74.0	70.7	64.0	57.3
	kW	6.0	6.3	6.7	7.0	7.2	7.5	7.9
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
35	TC	101.2	94.2	87.2	83.7	80.2	73.2	66.2
	kW	6.1	6.5	7.0	7.2	7.5	7.9	8.3
	SDT	97.0	107.0	116.0	121.0	126.0	135.0	145.0
40	TC	111.5	104.0	97.0	93.4	89.8	82.5	75.3
	kW	6.3	6.7	7.3	7.5	7.8	8.3	8.8
	SDT	98.0	108.0	117.0	122.0	126.0	136.0	146.0
45	TC	123.8	116.0	108.0	104.0	100.0	92.2	84.3
	kW	6.4	6.9	7.5	7.8	8.1	8.6	9.2
	SDT	101.0	110.0	119.0	123.0	128.0	137.0	146.0
50	TC	134.0	127.0	118.0	114.0	110.0	102.0	94.0
	kW	6.6	7.1	7.8	8.1	8.4	9.0	9.6
	SDT	103.0	112.0	121.0	125.0	130.0	139.0	148.0

38AH034 CIRCUIT NO. 1								
SST (F)		Condenser Entering-Air Temperature (F)						
		75	85	95	100	105	115	125
20	TC	82.4	76.5	70.2	67.1	64.0	58.0	51.9
	kW	6.7	7.0	7.5	7.7	7.9	8.3	8.7
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
25	TC	93.8	87.4	80.4	77.0	73.6	67.0	60.3
	kW	6.9	7.3	7.8	8.0	8.3	8.7	9.2
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
30	TC	105.4	98.3	90.7	87.0	83.3	76.0	68.7
	kW	7.0	7.5	8.1	8.4	8.6	9.1	9.7
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
35	TC	117.2	110.0	102.0	98.5	94.5	86.8	79.2
	kW	7.1	7.7	8.3	8.6	8.9	9.5	10.1
	SDT	97.0	106.0	116.0	121.0	126.0	135.0	145.0
40	TC	130.5	122.0	114.0	110.0	106.0	97.5	89.3
	kW	7.3	7.9	8.6	8.9	9.2	9.9	10.5
	SDT	97.0	107.0	116.0	121.0	126.0	135.0	145.0
45	TC	145.0	135.0	127.0	122.0	118.0	109.0	100.0
	kW	7.4	8.1	8.9	9.2	9.6	10.3	11.0
	SDT	99.0	109.0	118.0	123.0	127.0	137.0	147.0
50	TC	158.0	149.0	139.0	134.0	130.0	120.0	110.5
	kW	7.6	8.3	9.2	9.5	9.9	10.7	11.5
	SDT	102.0	111.0	120.0	125.0	129.0	138.0	147.0

38AH028 CIRCUIT NO. 1 OR 2								
SST (F)		Condenser Entering-Air Temperature (F)						
		75	85	95	100	105	115	125
20	TC	84.2	78.8	72.8	69.9	67.0	61.4	55.7
	kW	6.7	7.0	7.5	7.7	7.9	8.3	8.7
	SDT	95.0	105.0	115.0	120.0	125.0	135.0	145.0
25	TC	94.5	88.7	82.3	79.2	76.1	70.1	64.0
	kW	6.9	7.3	7.8	8.1	8.3	8.7	9.2
	SDT	97.0	106.0	116.0	121.0	126.0	135.0	145.0
30	TC	105.1	98.7	91.9	88.6	85.3	78.7	72.1
	kW	7.2	7.6	8.2	8.4	8.7	9.2	9.7
	SDT	98.0	107.0	117.0	121.0	126.0	136.0	146.0
35	TC	115.8	110.0	102.0	98.8	95.2	88.2	81.3
	kW	7.4	7.9	8.5	8.8	9.1	9.6	10.2
	SDT	99.0	109.0	118.0	123.0	128.0	137.0	147.0
40	TC	128.4	121.0	113.0	109.0	105.0	97.6	89.9
	kW	7.6	8.2	8.8	9.2	9.5	10.1	10.7
	SDT	102.0	111.0	120.0	125.0	129.0	138.0	147.0
45	TC	142.0	133.0	125.0	121.0	116.0	108.0	99.5
	kW	7.8	8.4	9.2	9.5	9.9	10.5	11.2
	SDT	104.0	113.0	122.0	127.0	131.0	140.0	149.0
50	TC	153.0	146.0	136.0	132.0	128.0	119.0	110.5
	kW	8.0	8.7	9.5	9.9	10.3	11.0	11.8
	SDT	106.0	115.0	124.0	129.0	133.0	142.0	151.0

38AH034 CIRCUIT NO. 2								
SST (F)		Condenser Entering-Air Temperature (F)						
		75	85	95	100	105	115	125
20	TC	115.6	109.0	101.0	97.3	93.6	86.4	79.1
	kW	9.9	10.4	11.0	11.3	11.6	12.1	12.7
	SDT	98.0	108.0	118.0	123.0	128.0	138.0	148.0
25	TC	129.7	122.0	114.0	110.0	106.0	98.3	90.5
	kW	10.2	10.8	11.5	11.8	12.2	12.8	13.5
	SDT	98.0	108.0	118.0	123.0	128.0	138.0	148.0
30	TC	144.0	136.0	127.0	123.0	119.0	110.0	101.5
	kW	10.6	11.2	12.0	12.3	12.7	13.4	14.1
	SDT	98.0	109.0	118.0	123.0	128.0	138.0	148.0
35	TC	159.0	150.0	141.0	137.0	132.0	123.0	114.0
	kW	10.9	11.7	12.5	12.9	13.3	14.1	14.9
	SDT	101.0	111.0	120.0	125.0	129.0	139.0	149.0
40	TC	174.0	165.0	155.0	150.0	145.0	136.0	126.5
	kW	11.4	12.1	13.1	13.5	14.0	14.8	15.7
	SDT	104.0	113.0	122.0	127.0	131.0	140.0	149.0
45	TC	190.0	181.0	170.0	165.0	160.0	150.0	140.0
	kW	11.9	12.6	13.7	14.1	14.6	15.5	16.4
	SDT	106.0	115.0	124.0	129.0	133.0	142.0	151.0
50	TC	209.0	197.0	186.0	180.0	175.0	163.0	151.5
	kW	12.1	13.1	14.2	14.8	15.3	16.3	17.4
	SDT	110.0	118.0	127.0	131.0	136.0	144.0	153.0

LEGEND

- kW — Compressor Power
- SDT — Saturated Discharge Temperature at Compressor (F)
- SST — Saturated Suction Temperature
- TC — Gross Cooling Capacity (1000 Btuh)

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

38AH054 CIRCUIT A												
SST (F)		Condenser Entering-Air Temperature (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	146.0	133.0	127.0	121.0	114.0	108.0	101.0	94.2	87.6	80.9	74.2*
	kW	11.8	12.5	12.8	13.1	13.3	13.4	13.5	13.5	13.5	13.4	13.2*
	SDT	95.1	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0	150.0*
25	TC	166.0	153.0	146.0	139.0	132.0	125.0	118.0	111.0	104.0	97.2	90.1*
	kW	12.2	13.1	13.5	13.8	14.1	14.4	14.6	14.7	14.8	14.8	14.7*
	SDT	95.1	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0	150.0*
30	TC	188.0	174.0	166.0	159.0	152.0	145.0	137.0	130.0	122.0	115.0	107.0*
	kW	12.5	13.6	14.0	14.5	14.9	15.2	15.5	15.7	15.9	16.0	16.1*
	SDT	95.3	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0	150.0*
35	TC	210.0	195.0	188.0	180.0	173.0	165.0	157.0	149.0	141.0	133.0	125.0*
	kW	12.8	14.0	14.6	15.1	15.6	16.0	16.4	16.7	17.0	17.2	17.4*
	SDT	95.7	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0	150.0*
40	TC	234.0	219.0	211.0	203.0	195.0	187.0	178.0	170.0	162.0	153.0	145.0*
	kW	13.1	14.4	15.0	15.6	16.2	16.7	17.2	17.6	18.0	18.3	18.6*
	SDT	96.4	106.0	111.0	116.0	121.0	126.0	131.0	135.0	140.0	145.0	150.0*
45	TC	258.0	242.0	234.0	226.0	218.0	209.0	201.0	192.0	183.0	174.0	166.0*
	kW	13.4	14.8	15.5	16.2	16.8	17.4	17.9	18.4	18.9	19.4	19.7*
	SDT	97.7	107.0	112.0	117.0	121.0	126.0	131.0	136.0	141.0	146.0	151.0*
50	TC	284.0	267.0	259.0	250.0	241.0	233.0	224.0	215.0	206.0	196.0*	187.0*
	kW	13.7	15.2	16.0	16.7	17.4	18.1	18.7	19.3	19.8	20.4*	20.8*
	SDT	99.3	109.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	146.0*	151.0*

38AH064 CIRCUIT A												
SST (F)		Condenser Entering-Air Temperature (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	197.0	181.0	174.0	166.0	159.0	151.0	144.0	137.0	130.0	124.0	117.0
	kW	15.7	16.7	17.2	17.6	18.0	18.4	18.7	19.0	19.3	19.5	19.7
	SDT	93.5	103.0	108.0	113.0	118.0	123.0	128.0	133.0	138.0	143.0	148.0
25	TC	222.0	205.0	197.0	189.0	181.0	173.0	165.0	158.0	150.0	143.0	135.0
	kW	16.3	17.5	18.1	18.6	19.1	19.5	19.9	20.3	20.6	20.9	21.2
	SDT	94.2	104.0	109.0	114.0	119.0	124.0	129.0	134.0	138.0	143.0	148.0
30	TC	249.0	231.0	222.0	213.0	205.0	196.0	188.0	179.0	171.0	163.0	155.0
	kW	17.0	18.3	18.9	19.5	20.1	20.6	21.1	21.6	21.9	22.3	22.6
	SDT	95.4	105.0	110.0	115.0	119.0	124.0	129.0	134.0	139.0	144.0	149.0
35	TC	278.0	258.0	249.0	239.0	230.0	220.0	211.0	202.0	193.0	185.0	176.0
	kW	17.6	19.1	19.8	20.5	21.1	21.7	22.3	22.8	23.3	23.7	24.1
	SDT	96.9	106.0	111.0	116.0	121.0	125.0	130.0	135.0	140.0	145.0	150.0
40	TC	308.0	287.0	276.0	266.0	256.0	246.0	236.0	227.0	217.0	208.0	198.0*
	kW	18.3	19.9	20.7	21.5	22.2	22.8	23.4	24.0	24.6	25.1	25.6*
	SDT	98.8	108.0	113.0	117.0	122.0	127.0	132.0	136.0	141.0	146.0	151.0*
45	TC	339.0	316.0	305.0	294.0	284.0	273.0	262.0	252.0	242.0	232.0	221.0*
	kW	19.0	20.8	21.6	22.4	23.2	24.0	24.7	25.3	26.0	26.6	27.1*
	SDT	101.0	110.0	115.0	119.0	124.0	129.0	133.0	138.0	143.0	147.0	152.0*
50	TC	372.0	348.0	336.0	324.0	313.0	301.0	290.0	279.0	268.0	257.0	246.0*
	kW	19.6	21.6	22.5	23.4	24.3	25.1	25.9	26.6	27.3	28.0	28.6*
	SDT	103.0	112.0	117.0	121.0	126.0	131.0	135.0	140.0	144.0	149.0	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 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.



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

38AH044 CIRCUIT B												
SST (F)		Condenser Entering-Air Temperature (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)		Condenser Entering-Air Temperature (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)		Condenser Entering-Air Temperature (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

- KW** — Compressor Power
- 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)

38AH074 CIRCUIT A

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

38AH084 CIRCUIT A

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



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

38AH074 CIRCUIT B												
SST (F)		Condenser Entering-Air Temperature (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	292.0	273.0	264.0	255.0	246.0	237.0	228.0	219.0	211.0	202.0	194.0
	kW	24.6	26.0	26.6	27.2	27.8	28.3	28.7	29.2	29.6	29.9	30.3
	SDT	91.7	102.0	107.0	112.0	117.0	122.0	126.0	131.0	136.0	142.0	147.0
25	TC	325.0	306.0	296.0	286.0	276.0	267.0	257.0	248.0	238.0	229.0	219.0
	kW	25.7	27.3	28.0	28.7	29.3	29.9	30.5	31.0	31.5	31.9	32.3
	SDT	92.7	102.0	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	147.0
30	TC	361.0	340.0	329.0	319.0	308.0	298.0	288.0	277.0	267.0	257.0	247.0
	kW	26.8	28.6	29.4	30.2	30.9	31.6	32.3	32.9	33.5	34.0	34.5
	SDT	94.2	104.0	108.0	113.0	118.0	123.0	128.0	132.0	137.0	142.0	147.0
35	TC	399.0	376.0	364.0	353.0	342.0	330.0	319.0	308.0	298.0	287.0	276.0
	kW	28.0	30.0	30.9	31.8	32.6	33.4	34.1	34.8	35.5	36.1	36.7
	SDT	96.0	105.0	110.0	115.0	119.0	124.0	129.0	134.0	138.0	143.0	148.0
40	TC	438.0	413.0	401.0	389.0	377.0	365.0	353.0	341.0	329.0	318.0	306.0
	kW	29.2	31.4	32.4	33.4	34.3	35.2	36.0	36.8	37.6	38.3	38.9
	SDT	97.9	107.0	112.0	117.0	121.0	126.0	131.0	135.0	140.0	145.0	149.0
45	TC	480.0	453.0	440.0	427.0	414.0	401.0	388.0	375.0	363.0	350.0	338.0*
	kW	30.3	32.8	33.9	35.0	36.1	37.0	38.0	38.8	39.7	40.5	41.2*
	SDT	100.0	109.0	114.0	119.0	123.0	128.0	132.0	137.0	142.0	146.0	151.0*
50	TC	525.0	496.0	481.0	467.0	453.0	439.0	425.0	411.0	398.0	384.0	371.0*
	kW	31.5	34.2	35.5	36.7	37.8	38.9	40.0	40.9	41.9	42.8	43.6*
	SDT	102.0	111.0	116.0	121.0	125.0	130.0	134.0	139.0	144.0	148.0	153.0*

38AH084 CIRCUIT B												
SST (F)		Condenser Entering-Air Temperature (F)										
		70	80	85	90	95	100	105	110	115	120	125
20	TC	288.0	269.0	260.0	251.0	242.0	233.0	224.0	215.0	207.0	198.0	190.0*
	kW	25.2	26.5	27.1	27.7	28.2	28.7	29.1	29.5	29.9	30.2	30.5*
	SDT	96.1	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0	151.0*
25	TC	323.0	303.0	293.0	283.0	273.0	263.0	253.0	244.0	234.0	225.0	216.0*
	kW	26.3	27.8	28.5	29.2	29.8	30.4	30.9	31.4	31.9	32.3	32.7*
	SDT	96.2	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0	151.0*
30	TC	361.0	339.0	328.0	317.0	306.0	296.0	285.0	275.0	264.0	254.0	244.0*
	kW	27.3	29.1	29.9	30.7	31.4	32.1	32.7	33.3	33.9	34.4	34.9*
	SDT	96.5	106.0	111.0	116.0	121.0	126.0	131.0	136.0	141.0	146.0	151.0*
35	TC	402.0	378.0	366.0	354.0	342.0	331.0	319.0	308.0	296.0	285.0	274.0*
	kW	28.3	30.3	31.3	32.2	33.0	33.8	34.5	35.2	35.9	36.5	37.1*
	SDT	97.3	107.0	112.0	117.0	122.0	127.0	132.0	137.0	142.0	146.0	151.0*
40	TC	444.0	418.0	405.0	393.0	380.0	368.0	355.0	343.0	330.0	318.0	306.0*
	kW	29.3	31.6	32.6	33.6	34.6	35.5	36.3	37.1	37.9	38.6	39.3*
	SDT	98.5	108.0	113.0	118.0	123.0	127.0	132.0	137.0	142.0	147.0	152.0*
45	TC	488.0	460.0	447.0	433.0	420.0	406.0	393.0	379.0	366.0	353.0	340.0*
	kW	30.4	32.9	34.0	35.1	36.2	37.2	38.2	39.1	40.0	40.8	41.5*
	SDT	100.0	110.0	114.0	119.0	124.0	129.0	133.0	138.0	143.0	148.0	153.0*
50	TC	533.0	504.0	490.0	475.0	461.0	446.0	432.0	418.0	404.0	390.0	375.0*
	kW	31.5	34.2	35.5	36.7	37.9	39.0	40.1	41.1	42.1	43.0	43.8*
	SDT	102.0	111.0	116.0	121.0	125.0	130.0	135.0	140.0	144.0	149.0	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 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 A

SST (F)		Condenser Entering-Air Temperature (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)		Condenser Entering-Air Temperature (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.



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

38AH094 CIRCUIT B

SST (F)		Condenser Entering-Air Temperature (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)		Condenser Entering-Air Temperature (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

- 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)

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

SST (F)		Condenser Entering-Air Temperature (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)		Condenser Entering-Air Temperature (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.



CONDENSING UNIT COMBINATION RATINGS, 50 Hz ENGLISH

38AH024 AND 40RM016 WITH STANDARD 3-ROW COIL										
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	4500			6000			7500			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	211.3	191.6	173.6	221.7	203.6	186.3	229.2	211.4	195.4
	SHC	106.1	131.1	166.6	118.5	151.3	186.3	130.3	169.2	195.4
	kW	13.46	13.13	12.83	13.63	13.33	13.04	13.75	13.46	13.19
95	TC	202.6	184.4	167.6	211.9	195.4	179.6	218.9	202.5	188.3
	SHC	103.0	127.9	161.4	114.9	147.4	179.6	126.6	164.7	188.3
	kW	14.70	14.28	13.90	14.91	14.53	14.17	15.06	14.69	14.37
100	TC	198.0	180.5	164.3	206.8	191.0	175.8	213.5	197.8	184.4
	SHC	101.4	126.1	158.5	112.9	145.2	175.8	124.7	162.4	184.4
	kW	15.32	14.82	14.36	15.57	15.12	14.69	15.75	15.31	14.93
105	TC	193.2	176.4	160.8	201.5	186.4	172.0	208.0	192.9	180.3
	SHC	99.7	124.3	155.4	111.0	143.0	172.0	122.7	160.0	180.3
	kW	16.00	15.51	15.05	16.25	15.80	15.38	16.43	15.99	15.62
115	TC	183.5	167.7	153.1	191.0	177.0	163.7	197.0	183.0	171.8
	SHC	96.3	120.4	148.6	107.0	138.5	163.7	118.8	155.0	171.8
	kW	17.26	16.61	16.01	17.57	17.00	16.45	17.82	17.24	16.78
125	TC	173.2	158.7	145.1	179.8	167.2	155.1	185.4	172.5	162.9
	SHC	92.7	116.3	141.6	102.8	133.7	155.1	114.6	149.8	162.9
	kW	18.63	17.91	17.23	18.96	18.33	17.73	19.23	18.60	18.11

38AH024 AND 40RM024 WITH STANDARD 3-ROW COIL										
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	6,000			8,000			10,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	234.5	214.7	196.5	244.6	224.8	209.7	249.6	232.7	220.2
	SHC	123.6	158.1	191.1	140.2	183.3	209.7	154.6	206.1	220.2
	kW	13.84	13.51	13.21	14.01	13.68	13.43	14.09	13.81	13.60
95	TC	223.9	205.4	188.9	233.0	214.5	201.4	237.2	221.8	211.5
	SHC	119.5	154.3	184.5	136.0	179.0	201.4	150.2	201.1	211.5
	kW	15.18	14.76	14.38	15.39	14.96	14.67	15.48	15.13	14.90
100	TC	218.4	200.4	184.7	227.0	209.1	196.9	230.9	216.2	206.8
	SHC	117.4	152.2	180.9	133.9	176.7	196.9	148.0	198.6	206.8
	kW	15.89	15.39	14.94	16.14	15.63	15.29	16.25	15.83	15.57
105	TC	212.7	195.4	180.4	220.9	203.5	192.4	224.4	210.4	202.0
	SHC	115.3	150.2	177.1	131.7	174.4	192.4	145.7	195.9	202.0
	kW	16.57	16.06	15.62	16.82	16.30	15.98	16.92	16.51	16.26
115	TC	201.6	185.1	171.4	209.2	192.5	183.0	212.1	199.1	192.3
	SHC	111.0	145.9	169.3	127.4	169.7	183.0	141.4	190.8	192.3
	kW	18.01	17.33	16.76	18.32	17.6	17.24	18.44	17.91	17.63
125	TC	189.8	174.3	162.0	196.6	180.8	173.1	198.9	187.1	182.0
	SHC	106.5	141.5	161.1	122.8	164.8	173.1	136.7	185.3	182.0
	kW	19.45	18.68	18.07	19.79	19.01	18.62	19.90	19.32	19.07

LEGEND

- Edb — Entering Dry Bulb
- Ewb — Entering Wet-Bulb
- kW — Compressor Motor Power Input
- Ldb — Leaving Dry Bulb
- Lwb — Leaving Wet Bulb
- SHC — Sensible Heating Capacity (1000 Btu/h)
- TC — Total Capacity (1000 Btu/h)

NOTES:

1. All combination ratings are based on refrigerant R-22.
2. Direct interpolation is permissible. Do not extrapolate.
3. The SHC is based on 80 F dry-bulb temperature of air entering the evaporator coil.
4. Gross capacities shown do not include a deduction for evaporator-fan motor heat.

38AH024 AND 40RM028 WITH STANDARD 3-ROW COIL										
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	7,500			10,000			12,500			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	62
85	TC	252.4	229.4	214.3	261.8	239.0	229.0	266.4	248.1	241.2
	SHC	140.1	181.8	212.5	160.6	212.9	229.0	180.5	240.6	241.2
	kW	14.14	13.76	13.50	14.30	13.92	13.75	14.37	14.07	13.95
95	TC	240.2	218.3	205.3	248.7	227.1	219.4	252.6	235.7	230.9
	SHC	135.6	177.3	204.2	155.9	208.0	219.4	175.9	235.2	230.9
	kW	15.55	15.05	14.76	15.74	15.25	15.08	15.83	15.45	15.34
100	TC	234.0	212.6	200.5	242.1	221.0	214.3	245.7	229.4	225.6
	SHC	133.3	175.0	199.9	153.6	205.5	214.3	173.6	229.4	225.6
	kW	16.34	15.73	15.39	16.56	15.97	15.78	16.67	16.21	16.10
105	TC	227.7	206.7	195.6	235.3	214.8	209.1	238.6	223.0	220.1
	SHC	131.0	172.6	195.3	151.2	202.9	209.1	171.2	223.0	220.1
	kW	17.01	16.40	16.07	17.24	16.63	16.47	17.34	16.88	16.79
115	TC	215.5	195.1	185.6	222.6	202.6	198.8	225.4	210.6	209.5
	SHC	126.6	167.9	186.2	146.8	197.9	198.8	166.8	210.6	209.5
	kW	18.58	17.74	17.35	18.87	18.05	17.89	18.99	18.38	18.33
125	TC	202.4	182.9	175.0	208.8	189.8	187.7	211.2	197.4	197.9
	SHC	121.8	163.0	176.5	141.9	189.8	187.7	162.1	197.4	197.9
	kW	20.08	19.11	18.72	20.40	19.45	19.35	20.52	19.83	19.86

38AH028 AND 40RM024 WITH STANDARD 3-ROW COIL										
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	6,000			8,000			10,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	62
85	TC	256.2	235.7	215.7	267.1	247.0	228.8	273.1	255.0	239.4
	SHC	131.8	166.7	207.8	148.3	192.7	228.8	162.9	216.3	239.4
	kW	16.65	16.14	15.64	16.93	16.42	15.97	17.08	16.63	16.24
95	TC	246.0	225.8	206.6	256.5	236.5	219.8	262.0	244.5	230.4
	SHC	127.9	162.6	200.0	144.5	188.3	219.8	159.0	211.5	230.4
	kW	18.20	17.70	17.22	18.46	17.96	17.54	18.60	18.16	17.81
100	TC	240.9	220.9	202.1	251.2	231.3	215.3	256.5	239.3	225.9
	SHC	126.0	160.6	196.1	142.6	186.1	215.3	157.0	209.1	225.9
	kW	18.97	18.38	17.84	19.27	18.69	18.22	19.42	18.92	18.53
105	TC	234.4	215.6	198.2	243.9	225.2	210.7	248.5	232.6	220.8
	SHC	123.5	158.5	192.7	139.9	183.5	210.7	154.2	206.1	220.8
	kW	19.79	19.10	18.47	20.13	19.45	18.93	20.30	19.72	19.29
115	TC	223.6	205.8	189.8	232.3	214.5	201.9	236.3	221.6	211.6
	SHC	119.4	154.4	185.3	135.8	179.0	201.9	149.9	201.0	211.6
	kW	21.29	20.61	19.99	21.63	20.94	20.46	21.78	21.22	20.83
125	TC	196.6	180.3	167.0	203.9	187.4	178.6	206.6	193.9	187.8
	SHC	109.1	144.0	165.5	125.5	167.5	178.6	139.4	188.4	187.8
	kW	23.11	22.43	21.88	23.41	22.72	22.36	23.52	23.00	22.74

5. Formulas

$$t_{db} = t_{edb} - \frac{\text{sensible heat capacity (Btu/h)}}{1.1 \times \text{cfm}}$$

t_{lwb} = wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

$$h_{ldb} = h_{edb} - \frac{\text{total capacity (Btu/h)}}{4.5 \text{ cfm}}$$

where h_{ewb} = enthalpy of air entering evaporator coil

6. Combination ratings are based on a 2° F line loss. For a close-coupled system (less than 15 ft), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 2° F line loss.

Performance data (cont)



CONDENSING UNIT COMBINATION RATINGS, 50 Hz ENGLISH (cont)

38AH028 AND 40RM028 WITH STANDARD 3-ROW COIL											
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm										
	7,500			10,000			12,500				
	Evaporator Air — Ewb (F)										
	72	67	62	72	67	62	72	67	62		
85	TC	275.2	252.7	234.7	285.3	262.8	249.2	290.6	271.7	261.4	
	SHC	148.5	191.1	231.2	168.8	222.6	249.2	188.5	250.9	261.4	
	kW	17.13	16.57	16.12	17.38	16.82	16.48	17.52	17.04	16.78	
95	TC	264.5	241.8	225.1	274.3	251.6	239.7	279.2	260.6	251.9	
	SHC	144.5	186.7	222.4	164.9	218.0	239.7	184.7	246.1	251.9	
	kW	18.66	18.09	17.68	18.91	18.34	18.04	19.03	18.56	18.35	
100	TC	259.1	236.3	220.3	268.7	246.0	235.0	273.5	255.0	247.2	
	SHC	142.6	184.5	218.0	163.0	215.7	235.0	182.8	243.6	247.2	
	kW	19.50	18.83	18.37	19.78	19.12	18.79	19.92	19.38	19.15	
105	TC	251.2	229.6	215.2	260.0	238.6	229.2	264.3	247.1	240.8	
	SHC	139.7	181.8	213.4	159.9	212.7	229.2	179.8	240.2	240.8	
	kW	20.40	19.61	19.09	20.72	19.94	19.60	20.87	20.25	20.02	
115	TC	239.3	218.3	205.6	247.4	226.7	219.2	251.1	234.9	230.4	
	SHC	135.3	177.2	204.6	155.5	207.8	219.2	175.4	234.8	230.4	
	kW	21.89	21.09	20.60	22.21	21.41	21.12	22.35	21.73	21.55	
125	TC	210.1	189.8	180.9	217.0	197.1	194.0	219.6	205.1	204.6	
	SHC	124.6	1165.7	181.9	144.8	195.7	194.0	164.9	221.8	204.6	
	kW	23.67	22.82	22.45	23.96	23.13	23.00	24.07	23.46	23.44	

38AH034 AND 40RM028 WITH STANDARD 3-ROW COIL											
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm										
	7,500			10,000			12,500				
	Evaporator Air — Ewb (F)										
	72	67	62	72	67	62	72	67	62		
85	TC	307.8	283.0	258.8	320.5	295.3	274.6	327.8	305.2	288.2	
	SHC	160.5	203.4	253.3	181.2	236.0	274.6	200.9	265.5	288.2	
	kW	20.50	19.90	19.32	20.81	20.20	19.70	20.99	20.44	20.03	
95	TC	295.9	271.4	249.2	307.9	283.1	264.9	314.6	292.9	278.2	
	SHC	156.1	198.7	244.5	176.8	231.0	264.9	196.5	260.2	278.2	
	kW	22.57	21.78	21.06	22.95	22.15	21.57	23.17	22.47	22.00	
100	TC	289.5	265.4	244.4	301.0	276.7	259.9	307.3	286.3	272.9	
	SHC	153.7	196.3	240.2	174.3	228.3	259.9	194.1	257.3	272.9	
	kW	23.38	22.58	21.88	23.77	22.96	22.40	23.98	23.28	22.83	
105	TC	283.7	259.5	239.3	295.0	270.6	254.8	301.0	280.3	267.8	
	SHC	151.6	193.9	235.4	172.2	225.8	254.8	192.0	254.6	267.8	
	kW	24.41	23.52	22.77	24.83	23.93	23.34	25.05	24.28	23.82	
115	TC	271.0	247.4	229.4	281.4	257.8	244.5	286.8	267.2	257.2	
	SHC	146.9	189.0	226.4	167.5	220.6	244.5	187.3	248.9	257.2	
	kW	26.32	25.30	24.52	26.77	25.75	25.18	27.00	26.15	25.72	
125	TC	257.9	234.9	219.0	267.5	244.6	233.7	272.3	253.7	246.0	
	SHC	142.1	184.0	216.8	162.6	215.2	233.7	182.4	243.1	246.0	
	kW	28.29	27.15	26.36	28.76	27.63	27.09	29.00	28.08	27.70	

38AH028 AND 40RM034 WITH STANDARD 3-ROW COIL											
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm										
	9,000			12,000			15,000				
	Evaporator Air — Ewb (F)										
	72	67	62	72	67	62	72	67	62		
85	TC	291.7	266.7	251.6	300.7	276.9	267.5	305.2	286.3	280.5	
	SHC	162.4	214.9	249.7	189.9	251.2	267.5	211.7	283.4	280.5	
	kW	17.54	16.92	16.54	17.77	17.17	16.94	17.88	17.41	17.26	
95	TC	280.4	255.1	241.3	289.1	265.1	257.4	293.2	274.5	270.3	
	SHC	158.1	210.3	240.4	186.0	246.5	257.4	207.7	274.5	270.3	
	kW	19.06	18.43	18.08	19.28	18.68	18.48	19.38	18.91	18.81	
100	TC	274.7	249.3	236.2	283.2	259.2	252.3	287.2	268.7	265.2	
	SHC	156.0	208.0	235.8	184.0	244.1	252.3	205.7	268.7	265.2	
	kW	19.95	19.21	18.83	20.20	19.50	19.30	20.32	19.78	19.68	
105	TC	265.5	241.5	229.0	273.2	250.6	245.1	276.7	259.5	257.4	
	SHC	152.5	204.9	230.1	180.6	240.6	245.1	202.2	259.5	257.4	
	kW	20.92	20.04	19.62	21.20	20.38	20.18	21.32	20.70	20.62	
115	TC	252.4	229.1	219.2	259.4	237.6	234.0	262.2	246.2	245.8	
	SHC	147.5	200.0	220.4	175.9	235.4	234.0	197.5	246.2	245.8	
	kW	22.40	21.50	21.12	22.67	21.83	21.69	22.78	22.16	22.14	
125	TC	221.1	198.5	192.2	226.8	206.2	206.4	228.9	214.4	217.6	
	SHC	135.6	187.9	195.9	164.9	206.2	206.4	186.3	214.4	217.6	
	kW	24.13	23.19	22.92	24.37	23.51	23.52	24.45	23.85	23.98	

38AH034 AND 40RM034 WITH STANDARD 3-ROW COIL											
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm										
	9,000			12,000			15,000				
	Evaporator Air — Ewb (F)										
	72	67	62	72	67	62	72	67	62		
85	TC	328.6	301.1	279.6	340.3	313.3	297.3	346.7	324.0	311.8	
	SHC	176.4	228.6	275.2	203.3	265.9	297.3	225.6	300.0	311.8	
	kW	21.00	20.34	19.82	21.29	20.64	20.25	21.44	20.89	20.60	
95	TC	315.5	288.3	268.9	326.5	300.0	286.3	332.2	310.4	300.5	
	SHC	171.4	223.5	265.4	198.6	260.5	286.3	220.7	294.0	300.5	
	kW	23.19	22.32	21.70	23.55	22.70	22.26	23.73	23.03	22.71	
100	TC	308.2	281.5	263.3	318.6	292.8	280.4	324.0	303.0	294.4	
	SHC	168.7	220.8	260.4	196.0	257.6	280.4	218.0	290.8	294.0	
	kW	24.01	23.12	22.51	24.35	23.49	23.08	24.53	23.83	23.55	
105	TC	302.1	275.2	257.8	312.3	286.4	275.0	317.5	296.6	288.9	
	SHC	166.3	218.3	255.4	193.9	255.0	275.0	215.8	287.9	288.9	
	kW	25.09	24.10	23.45	25.47	24.51	24.09	25.66	24.89	24.60	
115	TC	287.9	261.8	246.6	297.3	272.3	263.2	301.8	282.1	276.7	
	SHC	161.0	213.0	245.2	188.8	249.4	263.2	210.6	281.6	276.7	
	kW	27.05	25.92	25.26	27.45	26.37	25.98	27.65	26.80	26.56	
125	TC	273.5	247.9	234.8	282.0	257.8	251.1	—	267.4	264.1	
	SHC	155.5	207.5	234.6	183.6	243.5	251.1	—	267.4	264.1	
	kW	29.06	27.79	27.14	29.48	28.28	27.95	—	28.76	28.59	

LEGEND

- Edb — Entering Dry Bulb
- Ewb — Entering Wet-Bulb
- kW — Compressor Motor Power Input
- Ldb — Leaving Dry Bulb
- Lwb — Leaving Wet Bulb
- SHC — Sensible Heating Capacity (1000 Btu/h)
- TC — Total Capacity (1000 Btu/h)

NOTES:

1. All combination ratings are based on refrigerant R-22.
2. Direct interpolation is permissible. Do not extrapolate.
3. The SHC is based on 80 F dry-bulb temperature of air entering the evaporator coil.
4. Gross capacities shown do not include a deduction for evaporator-fan motor heat.

5. Formulas

$$t_{db} = t_{edb} - \frac{\text{sensible heat capacity (Btu/h)}}{1.1 \times \text{cfm}}$$

$$t_{lwb} = \text{wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil } (h_{lwb})$$

$$h_{ldb} = h_{edb} - \frac{\text{total capacity (Btu/h)}}{4.5 \text{ cfm}}$$

where h_{ewb} = enthalpy of air entering evaporator coil

6. Combination ratings are based on a 2° F line loss. For a close-coupled system (less than 15 ft), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 2° F line loss.



CONDENSING UNIT COMBINATION RATINGS, 50 Hz ENGLISH (cont)

38AH024 AND 40RM016 WITH HIGH-CAPACITY 4-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	4500			6000			7500			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	221.8	203.3	185.6	234.0	215.3	197.3	242.4	223.6	205.5
	SHC	106.7	130.4	153.4	117.7	148.7	178.2	128.1	165.2	198.2
	kW	13.92	13.52	13.11	14.16	13.78	13.37	14.32	13.96	13.57
95	TC	212.2	194.1	177.0	223.2	205.3	187.7	231.0	213.0	195.6
	SHC	102.8	126.3	149.4	113.6	144.6	172.7	124.1	161.5	191.8
	kW	15.26	14.75	14.25	15.56	15.08	14.57	15.76	15.28	14.80
100	TC	209.1	189.4	172.7	217.8	200.2	183.4	225.2	207.3	190.7
	SHC	101.7	124.4	147.2	111.6	142.5	171.0	122.1	159.4	190.7
	kW	16.18	15.36	14.81	16.22	15.70	15.17	16.44	15.92	15.40
105	TC	201.7	184.5	168.3	212.1	195.1	178.5	219.2	201.7	186.2
	SHC	98.3	122.3	145.4	109.5	140.6	168.7	120.1	157.0	186.2
	kW	16.54	15.95	15.35	16.88	16.32	15.73	17.11	16.54	16.00
115	TC	191.3	175.0	159.5	200.8	184.4	168.9	206.9	190.3	177.3
	SHC	94.4	118.4	141.3	105.6	136.4	164.2	115.8	152.7	177.3
	kW	17.78	17.11	16.43	18.18	17.50	16.85	18.41	17.74	17.21

38AH024 AND 40RM028 WITH HIGH-CAPACITY 4-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	7,500			10,000			12,500			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	257.1	236.6	217.2	266.5	245.9	232.4	272.7	252.2	244.3
	SHC	134.3	174.6	210.8	151.6	202.4	232.4	167.7	227.4	244.3
	kW	14.64	14.27	13.87	14.82	14.45	14.18	14.94	14.58	14.41
95	TC	245.0	225.2	207.0	253.8	234.0	222.7	259.5	238.9	234.2
	SHC	130.1	170.3	207.0	147.5	198.0	222.7	163.7	222.3	234.2
	kW	16.13	15.65	15.17	16.34	15.88	15.58	16.48	15.95	15.88
100	TC	238.9	219.5	202.0	247.4	226.8	217.7	252.5	232.6	228.8
	SHC	128.1	168.0	202.0	145.2	195.4	217.7	161.4	219.3	228.8
	kW	16.85	16.33	15.80	17.08	16.48	16.27	17.21	16.67	16.58
105	TC	232.7	213.7	197.8	240.7	220.6	212.7	245.6	226.5	223.3
	SHC	126.0	165.8	197.8	142.9	193.0	212.7	158.8	216.8	223.3
	kW	17.56	16.98	16.45	17.80	17.15	16.94	17.94	17.36	17.28
115	TC	220.2	202.0	188.4	227.0	208.9	202.7	231.7	213.6	212.3
	SHC	121.6	161.5	188.4	138.3	188.2	202.7	154.8	210.1	212.3
	kW	18.93	18.25	17.70	19.17	18.50	18.26	19.33	18.68	18.63

38AH024 AND 40RM024 WITH HIGH-CAPACITY 4-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	6,000			8,000			10,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	241.2	221.6	203.0	251.8	231.8	213.2	258.5	238.5	227.7
	SHC	118.7	151.5	182.7	133.0	174.3	213.2	146.1	195.6	227.6
	kW	14.33	13.95	13.54	14.53	14.16	13.77	14.65	14.29	14.22
95	TC	230.3	211.4	193.6	239.8	220.6	207.0	245.9	225.5	215.5
	SHC	114.7	147.4	178.4	128.8	169.9	207.0	142.0	190.4	215.5
	kW	15.76	15.28	14.78	15.98	15.53	15.28	16.13	15.58	15.38
100	TC	224.7	206.1	188.2	233.6	214.9	199.4	239.5	220.9	210.8
	SHC	112.7	145.3	175.8	126.7	168.1	199.4	139.7	188.8	210.8
	kW	16.46	15.91	15.35	16.69	16.17	15.70	16.85	16.35	16.04
105	TC	218.9	200.6	183.3	227.4	209.1	195.1	233.1	213.9	205.8
	SHC	110.6	143.1	173.4	124.7	165.9	195.1	137.8	186.1	205.8
	kW	17.12	16.53	15.93	17.38	16.81	16.34	17.55	16.91	16.69
115	TC	207.0	189.6	173.5	214.8	197.5	186.0	220.0	202.0	195.9
	SHC	106.3	138.9	168.5	120.5	161.5	186.0	133.6	181.8	195.9
	kW	18.41	17.73	17.06	18.71	18.04	17.58	18.91	18.18	17.97

38AH028 AND 40RM024 WITH HIGH-CAPACITY 4-ROW COIL

Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	6,000			8,000			10,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	266.7	245.1	224.2	279.5	257.5	236.4	288.2	265.9	245.9
	SHC	128.3	161.2	192.7	142.7	184.5	223.3	156.1	205.9	245.9
	kW	17.38	16.84	16.29	17.67	17.16	16.62	17.88	17.38	16.85
95	TC	255.2	234.3	214.3	267.1	246.1	226.3	274.9	253.4	236.3
	SHC	123.9	156.6	188.0	138.3	180.0	218.0	151.6	201.2	236.3
	kW	18.95	18.31	17.67	19.31	18.69	18.07	19.54	18.91	18.36
100	TC	249.4	229.0	209.5	260.9	240.2	220.9	268.1	247.2	231.5
	SHC	121.8	154.5	185.7	136.2	177.7	215.1	149.3	198.9	231.5
	kW	19.72	19.03	18.35	20.11	19.43	18.76	20.34	19.66	19.12
105	TC	243.5	223.6	204.5	254.6	234.2	215.2	261.2	240.9	226.7
	SHC	119.5	152.2	183.5	133.9	175.4	213.3	147.1	196.4	226.7
	kW	20.48	19.74	19.01	20.90	20.15	19.43	21.12	20.39	19.86
115	TC	231.8	212.7	194.7	241.5	222.1	205.1	247.6	228.4	216.9
	SHC	115.2	147.8	179.0	129.4	170.8	205.1	142.5	191.6	216.9
	kW	22.03	21.21	20.38	22.45	21.62	20.85	22.70	21.89	21.39

LEGEND

- Edb — Entering Dry Bulb
- Ewb — Entering Wet-Bulb
- kW — Compressor Motor Power Input
- Ldb — Leaving Dry Bulb
- Lwb — Leaving Wet Bulb
- SHC — Sensible Heating Capacity (1000 Btuh)
- TC — Total Capacity (1000 Btuh)

NOTES:

1. All combination ratings are based on refrigerant R-22.
2. Direct interpolation is permissible. Do not extrapolate.
3. The SHC is based on 80 F dry-bulb temperature of air entering the evaporator coil.
4. Gross capacities shown do not include a deduction for evaporator-fan motor heat.

5. Formulas

$$t_{ldb} = t_{edb} - \frac{\text{sensible heat capacity (Btuh)}}{1.1 \times \text{cfm}}$$

$$t_{lwb} = \text{wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (} h_{lwb} \text{)}$$

$$h_{ldb} = h_{edb} - \frac{\text{total capacity (Btuh)}}{4.5 \text{ cfm}}$$

where h_{ewb} = enthalpy of air entering evaporator coil

6. Combination ratings are based on a 2° F line loss. For a close-coupled system (less than 15 ft), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 2° F line loss.

Performance data (cont)



CONDENSING UNIT COMBINATION RATINGS, 50 Hz ENGLISH (cont)

38AH028 AND 40RM028 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	7,500			10,000			12,500			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	285.9	263.2	241.7	297.4	274.3	254.4	304.8	281.7	268.6
	SHC	143.0	184.1	223.3	160.7	212.8	254.4	177.1	238.7	268.6
	kW	17.85	17.34	16.79	18.11	17.59	17.09	18.28	17.77	17.45
95	TC	273.4	251.4	230.4	283.7	261.6	244.6	290.6	268.5	257.8
	SHC	138.5	179.5	218.0	156.1	207.9	244.6	172.4	233.6	257.8
	kW	19.53	18.89	18.23	19.81	19.20	18.66	20.00	19.40	19.06
100	TC	266.9	245.3	225.0	276.9	255.2	239.9	283.5	262.0	252.4
	SHC	136.2	177.1	215.3	153.7	205.6	239.9	170.0	231.2	252.4
	kW	20.34	19.64	18.94	20.64	19.97	19.45	20.85	20.20	19.86
105	TC	260.3	239.3	219.6	269.9	248.8	234.7	276.5	255.4	246.9
	SHC	133.9	174.8	212.9	151.3	203.2	234.7	167.8	228.8	246.9
	kW	21.13	20.37	19.63	21.45	20.73	20.20	21.68	20.97	20.64
115	TC	247.1	227.1	208.3	256.1	235.9	227.7	261.9	241.4	236.1
	SHC	129.3	170.1	208.3	146.8	198.4	227.7	163.1	222.7	236.1
	kW	22.72	21.88	21.05	23.11	22.27	22.38	23.34	22.50	22.26

38AH034 AND 40RM028 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	7,500			10,000			12,500			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	318.7	292.7	268.2	333.2	307.0	282.7	342.6	316.4	297.8
	SHC	155.8	196.5	235.8	173.7	225.6	271.4	190.2	252.2	296.2
	kW	22.08	21.29	20.50	22.53	21.74	20.97	22.83	22.04	21.51
95	TC	305.5	280.6	256.7	318.6	293.6	271.4	327.6	302.4	284.3
	SHC	150.9	191.6	230.3	168.6	220.4	263.4	185.1	246.8	284.3
	kW	23.91	23.00	22.08	24.37	23.48	22.63	24.70	23.82	23.10
100	TC	298.8	274.2	251.1	311.3	286.8	267.4	319.9	295.4	278.7
	SHC	148.4	189.0	227.7	166.0	217.8	260.9	182.5	244.2	278.6
	kW	24.80	23.82	22.87	25.28	24.33	23.56	25.62	24.69	23.96
105	TC	291.8	267.8	245.3	303.9	280.0	260.3	312.2	288.2	273.0
	SHC	145.8	186.4	224.9	163.4	215.2	255.3	179.9	241.6	273.0
	kW	25.70	24.67	23.67	26.21	25.21	24.33	26.57	25.58	24.86
115	TC	277.7	255.0	233.7	289.1	266.4	248.4	296.6	273.4	261.4
	SHC	140.8	181.4	219.5	158.4	210.0	247.1	174.9	235.7	261.4
	kW	27.46	26.34	25.23	28.03	26.93	25.98	28.40	27.28	26.63

38AH028 AND 40RM034 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	9,000			12,000			15,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	301.1	277.2	254.8	311.7	287.8	275.9	318.8	294.6	287.0
	SHC	156.2	205.6	249.4	177.2	239.4	275.9	196.8	269.2	287.0
	kW	18.23	17.70	17.16	18.48	17.96	17.72	18.66	18.12	17.91
95	TC	287.5	264.6	244.2	297.5	274.5	262.4	303.7	280.0	275.5
	SHC	151.5	200.9	244.2	172.5	234.3	262.4	191.9	263.6	275.5
	kW	19.97	19.33	18.70	20.26	19.63	19.24	20.44	19.76	19.63
100	TC	280.7	258.2	239.1	290.3	267.7	256.9	296.0	273.4	269.5
	SHC	149.2	198.4	239.1	170.1	231.9	256.9	189.4	260.6	269.5
	kW	20.81	20.12	19.46	21.13	20.43	20.06	21.29	20.57	20.46
105	TC	273.8	251.8	234.2	282.9	260.7	251.5	288.4	266.5	263.5
	SHC	146.7	196.0	234.2	167.7	229.2	251.5	187.2	257.1	263.5
	kW	21.64	20.90	20.23	21.96	21.21	20.86	22.14	21.39	21.28
115	TC	259.9	239.0	227.5	267.9	246.6	240.4	272.9	252.5	251.2
	SHC	142.1	191.4	211.8	162.9	223.5	240.4	182.4	249.8	251.2
	kW	23.33	22.47	21.97	23.63	22.79	22.50	23.83	23.01	22.95

38AH034 AND 40RM034 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (F) Air Entering Condenser (Edb)	Evaporator Air — Cfm									
	9,000			12,000			15,000			
	Evaporator Air — Ewb (F)									
	72	67	62	72	67	62	72	67	62	
85	TC	337.9	310.7	285.0	351.6	324.3	302.5	360.6	333.0	317.7
	SHC	169.4	218.7	264.9	190.8	253.2	299.1	210.5	284.4	317.7
	kW	22.70	21.89	21.08	23.12	22.33	21.61	23.40	22.60	22.06
95	TC	323.5	297.4	273.2	336.2	310.0	291.7	344.3	317.7	306.9
	SHC	164.3	213.6	259.5	185.4	247.8	291.7	205.1	278.3	306.9
	kW	24.58	23.66	22.75	25.06	24.14	23.43	25.34	24.41	24.03
100	TC	316.2	290.7	267.1	328.5	302.6	284.3	336.0	310.2	299.6
	SHC	161.6	210.9	255.2	182.9	245.1	284.3	202.4	275.3	299.6
	kW	25.50	24.53	23.57	25.99	25.01	24.22	26.28	25.30	24.84
105	TC	308.8	283.9	261.8	320.5	295.2	278.5	327.8	302.6	293.3
	SHC	159.0	208.3	251.5	180.3	242.3	278.5	199.8	272.1	293.3
	kW	26.44	25.42	24.45	26.94	25.91	25.13	27.24	26.21	25.77
115	TC	294.0	270.2	249.9	304.3	279.3	267.0	311.0	287.3	280.5
	SHC	153.9	203.1	243.2	174.9	233.1	267.0	194.5	265.3	280.5
	kW	28.30	27.16	26.10	28.80	27.57	26.95	29.11	27.99	27.60

LEGEND

- Edb** — Entering Dry Bulb
- Ewb** — Entering Wet-Bulb
- kW** — Compressor Motor Power Input
- Ldb** — Leaving Dry Bulb
- Lwb** — Leaving Wet Bulb
- SHC** — Sensible Heating Capacity (1000 Btu/h)
- TC** — Total Capacity (1000 Btu/h)

NOTES:

1. All combination ratings are based on refrigerant R-22.
2. Direct interpolation is permissible. Do not extrapolate.
3. The SHC is based on 80 F dry-bulb temperature of air entering the evaporator coil.
4. Gross capacities shown do not include a deduction for evaporator-fan motor heat.

5. Formulas

$$t_{db} = t_{edb} - \frac{\text{sensible heat capacity (Btu/h)}}{1.1 \times \text{cfm}}$$

$$t_{lwb} = \text{wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (} h_{lwb} \text{)}$$

$$h_{ldb} = h_{edb} - \frac{\text{total capacity (Btu/h)}}{4.5 \text{ cfm}}$$

where h_{edb} = enthalpy of air entering evaporator coil

6. Combination ratings are based on a 2° F line loss. For a close-coupled system (less than 15 ft), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 2° F line loss.



CONDENSING UNIT RATINGS, 50 Hz SI

38AH024									
SST (C)		Condenser Entering-Air Temperature (C)							
		24	28	32	36	40	44	48	52
-6	TC	42.9	40.6	38.0	35.6	33.0	30.6	28.2	25.7
	kW	11.3	11.6	12.1	12.6	13.0	13.4	13.7	14.2
	SDT	35.2	39.2	43.2	47.1	51.1	55.2	59.2	63.2
-4	TC	47.0	44.6	41.8	39.2	36.6	34.0	31.4	28.8
	kW	11.5	11.9	12.5	13.0	13.5	13.9	14.3	14.9
	SDT	35.2	39.2	43.2	47.2	51.2	55.2	59.2	63.2
-2	TC	51.4	48.6	45.8	43.0	40.2	37.4	34.8	31.8
	kW	11.7	12.1	12.8	13.4	14.0	14.5	15.0	15.6
	SDT	35.2	39.2	43.2	47.2	51.2	55.2	59.2	63.2
0	TC	55.5	52.8	49.8	47.0	44.0	41.2	38.4	35.5
	kW	11.9	12.4	13.1	13.8	14.5	15.0	15.6	16.3
	SDT	35.6	39.6	43.5	47.4	51.3	55.3	59.2	63.2
2	TC	59.9	57.0	54.0	51.0	48.2	45.2	42.2	39.3
	kW	12.1	12.7	13.5	14.2	14.9	15.5	16.1	16.9
	SDT	36.2	40.1	43.9	47.8	51.6	55.5	59.3	63.2
4	TC	64.3	61.4	58.2	55.2	52.2	49.0	46.0	42.9
	kW	12.3	13.0	13.8	14.6	15.4	16.0	16.7	17.5
	SDT	36.9	40.7	44.4	48.1	51.9	55.6	59.4	63.1
6	TC	69.2	66.0	62.8	59.6	56.4	53.2	50.0	46.8
	kW	12.5	13.3	14.1	15.0	15.8	16.5	17.3	18.1
	SDT	37.7	41.4	45.1	48.8	52.4	56.2	59.9	63.6
8	TC	74.1	70.8	67.4	64.0	60.8	57.4	54.0	50.7
	kW	12.8	13.6	14.5	15.4	16.3	17.1	17.8	18.8
	SDT	38.5	42.1	45.8	49.4	53.1	56.8	60.4	64.1
10	TC	78.9	75.6	72.0	68.6	65.2	61.6	58.2	54.7
	kW	13.0	13.8	14.8	15.8	16.7	17.6	18.4	19.4
	SDT	39.2	42.9	46.5	50.1	53.8	57.4	61.0	64.7

38AH034									
SST (C)		Condenser Entering-Air Temperature (C)							
		24	28	32	36	40	44	48	52
-6	TC	59.8	57.1	54.0	51.1	48.1	45.3	42.4	39.5
	kW	16.6	17.3	18.1	18.9	19.7	20.4	21.0	21.8
	SDT	35.9	40.0	43.9	47.9	51.9	55.9	59.9	63.8
-4	TC	65.5	62.2	59.2	56.0	52.9	49.8	46.8	43.5
	kW	17.0	17.7	18.6	19.5	20.3	21.0	21.8	22.7
	SDT	36.1	40.1	44.0	48.0	51.9	55.9	59.9	63.8
-2	TC	70.8	67.5	64.2	60.8	57.5	54.3	51.0	47.7
	kW	17.3	18.1	19.1	20.0	21.0	21.7	22.6	23.5
	SDT	36.2	40.3	44.1	48.1	52.0	56.0	59.9	63.9
0	TC	76.4	73.0	69.5	66.0	62.5	59.1	55.7	52.2
	kW	17.6	18.6	19.5	20.6	21.6	22.5	23.4	24.5
	SDT	36.8	40.7	44.5	48.4	52.2	56.1	60.1	63.8
2	TC	82.2	78.7	75.0	71.4	67.7	64.2	60.6	57.0
	kW	18.0	19.0	20.1	21.2	22.2	23.2	24.1	25.3
	SDT	37.5	41.3	45.1	48.8	52.7	56.4	60.3	64.0
4	TC	88.0	84.3	80.5	76.8	72.9	69.2	65.5	61.7
	kW	18.4	19.5	20.7	21.8	22.9	24.0	24.9	26.2
	SDT	38.2	42.0	45.6	49.3	53.0	56.8	60.5	64.2
6	TC	94.4	90.4	86.5	82.4	78.5	74.6	70.6	66.7
	kW	18.9	20.0	21.2	22.5	23.6	24.7	25.8	27.1
	SDT	39.0	42.8	46.4	50.0	53.7	57.4	61.1	64.8
8	TC	100.8	96.7	92.5	88.2	84.1	80.0	75.8	71.7
	kW	19.4	20.5	21.8	23.1	24.3	25.5	26.6	28.0
	SDT	39.9	43.7	47.2	50.8	54.5	58.1	61.7	65.4
10	TC	107.3	102.9	98.6	94.1	89.7	85.5	81.1	76.8
	kW	19.6	20.9	22.3	23.7	25.1	26.3	27.5	29.0
	SDT	40.9	44.5	48.1	51.7	55.3	58.9	62.4	66.0

LEGEND

- kW** — Compressor Power
- SDT** — Saturated Discharge Temperature at Compressor (C)
- SST** — Saturated Suction Temperature
- 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.

38AH028									
SST (C)		Condenser Entering-Air Temperature (C)							
		24	28	32	36	40	44	48	52
-6	TC	51.1	48.6	46.0	43.4	40.8	38.4	36.0	33.3
	kW	13.4	14.0	14.7	15.3	15.9	16.5	17.1	17.7
	SDT	35.4	39.3	43.3	47.3	51.2	55.2	59.1	63.1
-4	TC	55.2	52.8	50.0	47.4	44.8	42.2	39.6	37.0
	kW	13.8	14.3	15.1	15.8	16.5	17.1	17.7	18.4
	SDT	36.0	39.8	43.7	47.6	51.4	55.3	59.2	63.0
-2	TC	59.7	57.0	54.2	51.4	48.6	46.0	43.2	40.5
	kW	14.1	14.7	15.5	16.3	17.0	17.7	18.3	19.1
	SDT	36.5	40.3	44.1	47.8	51.6	55.5	59.3	63.1
0	TC	64.5	61.6	58.6	55.6	52.8	49.8	47.0	43.9
	kW	14.4	15.1	15.9	16.8	17.5	18.3	19.0	19.8
	SDT	37.1	40.9	44.6	48.4	52.1	55.9	59.6	63.4
2	TC	69.3	66.2	63.2	60.0	57.0	54.0	51.0	47.9
	kW	14.7	15.5	16.4	17.3	18.1	18.9	19.7	20.6
	SDT	37.8	41.7	45.3	49.0	52.7	56.5	60.2	64.0
4	TC	74.0	71.0	67.6	64.4	61.2	58.0	54.8	51.6
	kW	15.0	15.9	16.8	17.8	18.7	19.5	20.4	21.3
	SDT	38.8	42.4	46.1	49.7	53.4	57.1	60.7	64.4
6	TC	79.4	76.2	72.6	69.2	65.8	62.4	59.2	55.6
	kW	15.3	16.3	17.3	18.3	19.2	20.2	21.0	22.2
	SDT	39.6	43.3	46.9	50.5	54.1	57.8	61.4	65.1
8	TC	85.0	81.6	77.8	74.2	70.6	67.0	63.4	59.8
	kW	15.7	16.6	17.7	18.8	19.8	20.8	21.8	22.9
	SDT	40.5	44.1	47.7	51.3	54.9	58.5	62.2	65.7
10	TC	90.6	86.8	83.0	79.0	75.2	71.6	67.8	64.0
	kW	16.0	17.0	18.2	19.3	20.4	21.4	22.4	23.6
	SDT	41.5	45.0	48.6	52.1	55.7	59.3	62.9	66.4

Performance data (cont)



CONDENSING UNIT RATINGS, 50 Hz SI (cont)

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

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

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

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.



CONDENSING UNIT RATINGS, 50 Hz SI (cont)

38AH074

SST (C)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	181.6	169.2	163.2	159.1	153.1	147.1	141.0	137.0	131.0	125.0	118.9
	kW	45.2	48.7	50.2	51.1	52.4	53.8	54.9	55.6	56.6	57.4	58.1
	SDT	34.1	39.8	42.8	44.7	47.6	50.5	53.5	55.4	58.4	61.3	64.3
0	TC	194.7	182.1	176.1	171.9	165.6	159.3	153.0	148.8	142.5	136.2	129.8
	kW	46.5	50.2	51.9	53.0	54.5	55.9	57.2	57.9	59.1	60.1	61.0
	SDT	34.6	40.3	43.2	45.0	47.9	50.8	53.7	55.6	58.5	61.4	64.4
2	TC	209.1	196.3	189.3	185.3	178.4	172.1	165.5	161.2	154.6	148.1	141.4
	kW	47.8	51.8	53.7	54.8	56.5	58.1	59.5	60.4	61.6	62.8	63.8
	SDT	35.3	41.0	43.8	45.7	48.5	51.3	54.1	56.1	58.9	61.8	64.7
4	TC	224.6	210.5	203.5	199.4	192.4	185.2	178.1	173.8	166.9	160.1	153.2
	kW	49.1	53.4	55.4	56.7	58.4	60.2	61.7	62.7	64.2	65.4	66.6
	SDT	36.0	41.6	44.4	46.3	49.1	51.9	54.7	56.6	59.4	62.2	65.1
6	TC	239.0	225.1	217.9	212.8	205.6	198.3	192.1	186.9	179.6	172.5	165.3
	kW	50.4	55.0	57.2	58.5	60.5	62.4	64.0	65.1	66.7	68.1	69.5
	SDT	36.8	42.4	45.2	47.0	49.8	52.6	55.4	57.3	60.0	62.8	65.6
8	TC	257.0	241.0	234.0	228.4	221.0	212.6	205.2	200.0	192.5	185.1	177.6*
	kW	51.6	56.6	59.0	60.4	62.6	64.5	66.5	67.6	69.4	71.0	72.4*
	SDT	37.6	43.2	45.9	47.8	50.6	53.3	56.1	57.9	60.7	63.5	66.2*
10	TC	273.0	257.0	248.0	243.0	236.0	227.1	219.5	214.1	206.6	198.0	190.4*
	kW	52.8	58.3	60.7	62.3	64.6	66.8	68.8	70.1	71.9	73.7	75.3*
	SDT	38.5	44.0	46.8	48.6	51.4	54.1	56.9	58.7	61.5	64.2	66.9*

38AH084

SST (C)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	TC	204.0	190.6	183.9	179.3	172.7	166.1	159.6	155.3	148.9	142.5	136.2*
	kW	54.1	57.9	59.5	60.6	62.1	63.4	64.8	65.5	66.6	67.7	68.6*
	SDT	36.2	42.2	45.2	47.2	50.2	53.1	56.2	58.2	61.2	64.2	67.2*
0	TC	221.0	206.0	198.9	194.2	187.1	180.1	173.2	168.6	161.7	154.9	148.2*
	kW	55.6	59.7	61.5	62.7	64.4	65.9	67.3	68.2	69.6	70.8	71.8*
	SDT	36.3	42.3	45.3	47.3	50.3	53.2	56.2	58.2	61.2	64.2	67.2*
2	TC	238.0	223.0	215.0	210.0	203.0	195.3	187.9	183.1	175.7	168.5	161.3*
	kW	57.0	61.5	63.5	64.9	66.7	68.3	69.9	70.9	72.4	73.8	75.0*
	SDT	36.7	42.6	45.5	47.5	50.4	53.4	56.4	58.4	61.4	64.3	67.3*
4	TC	256.0	240.0	232.0	226.0	219.0	211.0	203.0	197.9	190.1	182.5	174.9*
	kW	58.5	63.3	65.5	66.9	68.9	70.9	72.7	73.7	75.3	76.9	78.2*
	SDT	37.1	42.9	45.8	47.8	50.7	53.6	56.6	58.6	61.5	63.5	67.4*
6	TC	274.0	258.0	250.0	244.0	236.0	227.0	219.0	214.0	205.0	197.0	189.0*
	kW	60.0	65.1	67.5	69.1	71.3	73.3	75.3	76.5	78.3	79.9	81.5*
	SDT	37.7	43.4	46.3	48.2	51.1	54.1	57.0	58.9	61.9	64.8	67.7*
8	TC	294.0	276.0	268.0	262.0	252.0	244.0	236.0	230.0	221.0	212.0	204.0*
	kW	61.6	67.1	69.7	71.3	73.7	75.9	78.0	79.3	81.3	83.1	84.8*
	SDT	38.4	44.1	46.9	48.8	51.7	54.5	57.4	59.4	62.3	65.2	68.1*
10	TC	314.0	294.0	286.0	280.0	270.0	261.0	252.0	246.0	236.0	228.0	219.0*
	kW	63.2	69.1	71.7	73.5	76.1	78.5	80.7	82.1	84.3	86.3	88.1*
	SDT	39.2	44.8	47.6	49.5	52.3	55.2	58.0	59.9	62.7	65.6	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		Condenser Entering-Air Temperature (C)										
SST (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
	SCT(B)	32.3	38.5	41.5	43.6	46.7	49.7	52.8	54.8	57.9	60.9	63.9
0	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
	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
2	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
	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
4	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
	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
6	TC	309.0	290.0	279.0	274.0	264.0	254.0	245.0	238.0	228.0	219.2	209.3
	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
8	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
	SCT(B)	34.3	40.4	43.5	45.5	48.4	51.4	54.4	56.3	59.3	62.2	65.1
10	TC	350.0	329.0	319.0	312.0	301.0	291.0	281.0	274.0	263.0	253.0	242.0
	kW	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

- 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.



CONDENSING UNIT RATINGS, 50 Hz SI (cont)

38AH104		SST (C)	Condenser Entering-Air Temperature (C)									
			21	27	30	32	35	38	41	43	46	49
-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		Condenser Entering-Air Temperature (C)										
SST (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)		Condenser Entering-Air Temperature (C)										
		21	27	30	32	35	38	41	43	46	49	52
-2	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
	SCT(B)	31.9	37.7	40.7	42.6	45.5	48.5	51.4	53.4	56.3	59.3	62.2
0	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
	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
2	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
	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
4	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
	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
6	TC	440.0	412.0	398.0	388.0	375.0	361.0	347.0	338.0	325.0	311.0	297.0
	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
8	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
	SCT(B)	34.9	40.7	43.6	45.5	48.4	51.2	54.0	55.9	58.7	61.5	64.2
10	TC	501.0	470.0	455.0	445.0	430.0	415.0	399.0	390.0	374.0	359.0	344.0
	kW	94.1	104.0	108.7	111.6	115.9	119.9	123.8	126.1	129.6	132.9	135.9
	SDT(A)	39.0	44.5	47.3	49.1	51.9	54.7	57.4	59.3	62.1	64.8	67.6*
	SDT(B)	38.4	44.0	46.7	48.6	51.3	54.1	56.8	58.7	61.4	64.2	66.9
	SCT(A)	37.3	43.1	46.0	48.0	50.8	53.7	56.6	58.5	61.3	64.2	67.0
	SCT(B)	35.6	41.4	44.3	46.2	49.0	51.8	54.7	56.5	59.3	62.1	64.8

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

38AH024 CIRCUIT NO. 1 OR 2

SST (C)		Condenser Entering-Air Temperature (C)							
		24	28	32	36	40	44	48	52
-6	TC	21.5	20.3	19.0	17.8	16.5	15.3	14.1	12.8
	kW	5.6	5.8	6.1	6.3	6.5	6.7	6.9	7.1
	SDT	35.2	39.2	43.2	47.1	51.1	55.2	59.2	63.2
-4	TC	23.5	22.3	20.9	19.6	18.3	17.0	15.7	14.4
	kW	5.7	5.9	6.2	6.5	6.8	7.0	7.2	7.5
	SDT	35.2	39.2	43.2	47.2	51.2	55.2	59.2	63.2
-2	TC	25.7	24.3	22.9	21.5	20.1	18.7	17.4	15.9
	kW	5.8	6.1	6.4	6.7	7.0	7.3	7.5	7.8
	SDT	35.2	39.2	43.2	47.2	51.2	55.2	59.2	63.2
0	TC	27.8	26.4	24.9	23.5	22.0	20.6	19.2	17.7
	kW	5.9	6.2	6.6	6.9	7.2	7.5	7.8	8.2
	SDT	35.6	39.6	43.5	47.4	51.3	55.3	59.2	63.2
2	TC	29.9	28.5	27.0	25.5	24.1	22.6	21.1	19.7
	kW	6.1	6.4	6.7	7.1	7.5	7.8	8.1	8.5
	SDT	36.2	40.1	43.9	47.8	51.6	55.5	59.3	63.2
4	TC	32.2	30.7	29.1	27.6	26.1	24.5	23.0	21.4
	kW	6.2	6.5	6.9	7.3	7.7	8.0	8.4	8.8
	SDT	36.9	40.7	44.4	48.1	51.9	55.6	59.4	63.1
6	TC	34.6	33.0	31.4	29.8	28.2	26.6	25.0	23.4
	kW	6.3	6.6	7.1	7.5	7.9	8.3	8.6	9.1
	SDT	37.7	41.4	45.1	48.8	52.4	56.2	59.9	63.6
8	TC	37.0	35.4	33.7	32.0	30.4	28.7	27.0	25.4
	kW	6.4	6.8	7.2	7.7	8.1	8.5	8.9	9.4
	SDT	38.5	42.1	45.8	49.4	53.1	56.8	60.4	64.1
10	TC	39.5	37.8	36.0	34.3	32.6	30.8	29.1	27.3
	kW	6.5	6.9	7.4	7.9	8.4	8.8	9.2	9.7
	SDT	39.2	42.9	46.5	50.1	53.8	57.4	61.0	64.7

38AH028 CIRCUIT NO. 1 OR 2

SST (C)		Condenser Entering-Air Temperature (C)							
		24	28	32	36	40	44	48	52
-6	TC	25.5	24.3	23.0	21.7	20.4	19.2	18.0	16.7
	kW	6.7	7.0	7.3	7.7	8.0	8.3	8.5	8.9
	SDT	35.4	39.3	43.3	47.3	51.2	55.2	59.1	63.1
-4	TC	27.6	26.4	25.0	23.7	22.4	21.1	19.8	18.5
	kW	6.9	7.2	7.5	7.9	8.2	8.5	8.9	9.2
	SDT	36.0	39.8	43.7	47.6	51.4	55.3	59.2	63.0
-2	TC	29.8	28.5	27.1	25.7	24.3	23.0	21.6	20.3
	kW	7.0	7.4	7.8	8.1	8.5	8.8	9.2	9.5
	SDT	36.5	40.3	44.1	47.8	51.6	55.5	59.3	63.1
0	TC	32.2	30.8	29.3	27.8	26.4	24.9	23.5	22.0
	kW	7.2	7.6	8.0	8.4	8.8	9.1	9.5	9.9
	SDT	37.1	40.9	44.6	48.4	52.1	55.9	59.6	63.4
2	TC	34.7	33.1	31.6	30.0	28.5	27.0	25.5	23.9
	kW	7.4	7.8	8.2	8.6	9.1	9.5	9.8	10.3
	SDT	37.8	41.7	45.3	49.0	52.7	56.5	60.2	64.0
4	TC	37.0	35.5	33.8	32.2	30.6	29.0	27.4	25.8
	kW	7.5	7.9	8.4	8.9	9.3	9.8	10.2	10.7
	SDT	38.8	42.4	46.1	49.7	53.4	57.1	60.7	64.4
6	TC	39.7	38.1	36.3	34.6	32.9	31.2	29.6	27.8
	kW	7.7	8.1	8.6	9.2	9.6	10.1	10.5	11.1
	SDT	39.6	43.3	46.9	50.5	54.1	57.8	61.4	65.1
8	TC	42.5	40.8	38.9	37.1	35.3	33.5	31.7	29.9
	kW	7.8	8.3	8.9	9.4	9.9	10.4	10.9	11.4
	SDT	40.5	44.1	47.7	51.3	54.9	58.5	62.2	65.7
10	TC	45.3	43.4	41.5	39.5	37.6	35.8	33.9	32.0
	kW	8.0	8.5	9.1	9.7	10.2	10.7	11.2	11.8
	SDT	41.5	45.0	48.6	52.1	55.7	59.3	62.9	66.4

LEGEND

kW — Compressor Power
SDT — Saturated Discharge Temperature at Compressor (C)
SST — Saturated Suction Temperature
TC — Gross Cooling Capacity (kW)

38AH034 CIRCUIT NO. 1

SST (C)		Condenser Entering-Air Temperature (C)							
		24	28	32	36	40	44	48	52
-6	TC	25.0	23.7	22.3	21.0	19.6	18.3	17.0	15.6
	kW	6.7	7.0	7.3	7.7	8.0	8.3	8.5	8.9
	SDT	35.2	39.2	43.2	47.2	51.2	55.2	59.3	63.2
-4	TC	27.5	26.0	24.6	23.1	21.7	20.3	18.9	17.4
	kW	6.8	7.1	7.5	7.9	8.2	8.5	8.9	9.2
	SDT	35.2	39.2	43.2	47.2	51.2	55.2	59.3	63.2
-2	TC	29.9	28.4	26.8	25.2	23.7	22.2	20.7	19.1
	kW	6.9	7.2	7.7	8.1	8.5	8.8	9.2	9.6
	SDT	35.1	39.2	43.2	47.3	51.3	55.3	59.3	63.4
0	TC	32.4	30.8	29.2	27.6	25.9	24.4	22.8	21.2
	kW	7.0	7.4	7.8	8.3	8.7	9.1	9.5	9.9
	SDT	35.5	39.5	43.4	47.4	51.3	55.3	59.3	63.2
2	TC	35.0	33.4	31.7	30.0	28.3	26.7	25.0	23.4
	kW	7.1	7.5	8.0	8.5	8.9	9.3	9.7	10.2
	SDT	36.1	39.9	43.8	47.6	51.5	55.3	59.2	63.0
4	TC	37.7	35.9	34.2	32.5	30.7	29.0	27.3	25.5
	kW	7.2	7.7	8.2	8.7	9.1	9.6	10.0	10.5
	SDT	36.6	40.4	44.1	47.8	51.6	55.4	59.2	62.9
6	TC	40.6	38.7	36.9	35.0	33.2	31.4	29.6	27.7
	kW	7.3	7.8	8.3	8.9	9.4	9.8	10.3	10.9
	SDT	37.2	41.1	44.7	48.4	52.1	55.9	59.6	63.4
8	TC	43.5	41.5	39.6	37.6	35.7	33.8	31.9	29.9
	kW	7.5	8.0	8.5	9.1	9.6	10.1	10.6	11.2
	SDT	38.2	41.9	45.5	49.1	52.8	56.5	60.1	63.8
10	TC	46.3	44.3	42.3	40.2	38.2	36.3	34.3	32.3
	kW	7.6	8.1	8.7	9.3	9.9	10.4	10.9	11.5
	SDT	39.1	42.7	46.3	49.9	53.5	57.1	60.7	64.3

38AH034 CIRCUIT NO. 2

SST (C)		Condenser Entering-Air Temperature (C)							
		24	28	32	36	40	44	48	52
-6	TC	34.8	33.4	31.7	30.1	28.5	27.0	25.4	23.9
	kW	9.9	10.3	10.8	11.2	11.7	12.1	12.5	13.0
	SDT	36.7	40.7	44.6	48.6	52.6	56.5	60.5	64.4
-4	TC	38.0	36.2	34.6	32.9	31.2	29.5	27.9	26.1
	kW	10.2	10.6	11.1	11.6	12.1	12.5	12.9	13.4
	SDT	36.9	41.0	44.8	48.7	52.6	56.6	60.5	64.5
-2	TC	40.9	39.1	37.4	35.6	33.8	32.1	30.3	28.6
	kW	10.4	10.9	11.4	11.9	12.5	12.9	13.4	13.9
	SDT	37.3	41.3	45.0	48.8	52.7	56.6	60.5	64.3
0	TC	44.0	42.2	40.3	38.4	36.6	34.7	32.9	31.0
	kW	10.6	11.2	11.7	12.3	12.9	13.4	13.9	14.5
	SDT	38.1	41.8	45.6	49.3	53.1	56.9	60.8	64.4
2	TC	47.2	45.3	43.3	41.4	39.4	37.5	35.6	33.6
	kW	10.9	11.5	12.1	12.7	13.3	13.9	14.4	15.1
	SDT	38.8	42.7	46.3	50.0	53.8	57.5	61.3	65.0
4	TC	50.4	48.4	46.3	44.3	42.2	40.2	38.2	36.1
	kW	11.2	11.8	12.5	13.1	13.8	14.4	14.9	15.7
	SDT	39.8	43.5	47.1	50.8	54.4	58.1	61.8	65.4
6	TC	53.9	51.7	49.6	47.4	45.3	43.2	41.0	38.9
	kW	11.6	12.2	12.9	13.6	14.2	14.9	15.5	16.2
	SDT	40.7	44.4	48.0	51.6	55.2	58.9	62.5	66.2
8	TC	57.4	55.2	52.9	50.6	48.4	46.2	43.9	41.7
	kW	11.9	12.5	13.3	14.0	14.7	15.4	16.0	16.8
	SDT	41.7	45.4	48.9	52.5	56.1	59.7	63.3	66.9
10	TC	61.0	58.6	56.3	53.9	51.5	49.2	46.8	44.5
	kW	12.1	12.8	13.6	14.4	15.2	15.9	16.6	17.4
	SDT	42.8	46.3	49.9	53.4	57.0	60.6	64.1	67.7

NOTES:

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



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

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

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

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

Performance data (cont)



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

38AH044 CIRCUIT B

SST (C)		Condenser Entering-Air Temperature (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)		Condenser Entering-Air Temperature (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)		Condenser Entering-Air Temperature (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	58.9	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.



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

38AH074 CIRCUIT A

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

38AH084 CIRCUIT A

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

Performance data (cont)



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

38AH074 CIRCUIT B

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

38AH084 CIRCUIT B

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



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

38AH094 CIRCUIT A		Condenser Entering-Air Temperature (C)										
SST (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		Condenser Entering-Air Temperature (C)										
SST (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	46.5	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.

Performance data (cont)



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

38AH094 CIRCUIT B		Condenser Entering-Air Temperature (C)										
SST (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		Condenser Entering-Air Temperature (C)										
SST (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	49.8	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.



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

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

SST (C)		Condenser Entering-Air Temperature (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)		Condenser Entering-Air Temperature (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

- 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 COMBINATION RATINGS, 50 Hz SI

38AH024 AND 40RM016 WITH STANDARD 3-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		2100		2800			3500			
		Evaporator Air — Ewb (C)								
	22	20	16	22	20	16	22	20	16	
24	TC	63.9	59.4	53.2	67.3	62.9	56.9	69.8	64.9	59.2
	SHC	32.7	37.7	53.2	36.4	43.2	56.9	40.1	48.3	59.2
	KW	12.18	11.90	11.52	12.39	12.11	11.75	12.54	12.24	11.89
28	TC	62.2	57.6	51.7	65.4	61.0	55.3	67.8	63.0	57.6
	SHC	32.0	36.9	51.7	35.7	42.4	55.3	39.4	47.3	57.6
	KW	13.06	12.78	12.40	13.26	12.99	12.63	13.41	13.11	12.77
32	TC	60.4	56.0	50.3	63.5	59.2	53.7	65.8	61.1	56.0
	SHC	31.4	36.2	50.3	35.0	41.5	53.7	38.7	46.3	56.0
	KW	13.89	13.51	13.01	14.16	13.79	13.31	14.36	13.95	13.51
36	TC	58.6	54.2	48.8	61.5	57.3	52.1	63.7	59.1	54.4
	SHC	30.7	35.4	48.8	34.2	40.6	52.1	38.0	45.3	54.4
	KW	14.91	14.51	14.02	15.17	14.79	14.32	15.37	14.96	14.52
40	TC	56.7	52.3	47.0	59.5	55.2	50.3	61.7	57.1	52.5
	SHC	30.0	34.6	47.0	33.5	39.7	50.3	37.3	44.3	52.5
	KW	15.84	15.34	14.74	16.15	15.67	15.10	16.40	15.88	15.36
44	TC	54.8	50.5	45.5	57.3	53.2	48.6	59.5	55.0	50.8
	SHC	29.2	33.8	45.5	32.8	38.8	48.6	36.5	43.2	50.8
	KW	16.73	16.11	15.40	17.09	16.50	15.84	17.40	16.76	16.16
48	TC	52.8	48.6	43.8	55.1	51.1	46.8	57.2	52.9	49.0
	SHC	28.5	32.9	43.8	32.0	37.8	46.8	35.7	42.1	49.0
	KW	17.72	17.09	16.38	18.07	17.47	16.82	18.39	17.73	17.15
52	TC	50.8	46.6	42.1	53.0	49.0	44.9	55.0	50.7	47.1
	SHC	27.7	32.1	42.1	31.2	36.9	44.9	35.0	41.0	47.1
	KW	18.71	18.07	17.37	19.05	18.44	17.81	19.37	18.70	18.14

38AH024 AND 40RM024 WITH STANDARD 3-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		2900		3800			4700			
		Evaporator Air — Ewb (C)								
	22	20	16	22	20	16	22	20	16	
24	TC	71.3	66.0	59.9	74.4	68.9	63.5	76.4	71.3	66.3
	SHC	38.0	45.1	59.9	43.1	52.1	63.5	47.6	58.3	66.3
	KW	12.63	12.31	11.93	12.82	12.48	12.15	12.94	12.63	12.32
28	TC	69.2	64.0	58.1	72.2	66.9	61.7	74.1	69.2	64.5
	SHC	37.2	44.3	58.1	42.3	51.2	61.7	46.8	57.3	64.5
	KW	13.50	13.18	12.81	13.69	13.35	13.03	13.81	13.50	13.20
32	TC	67.1	62.0	56.4	69.9	64.7	59.9	71.7	66.9	62.6
	SHC	36.3	43.5	56.4	41.5	50.2	59.9	45.9	56.2	62.6
	KW	14.48	14.03	13.55	14.72	14.27	13.84	14.87	14.46	14.08
36	TC	65.0	59.9	54.7	67.5	62.5	58.0	69.2	64.6	60.7
	SHC	35.5	42.6	54.7	40.6	49.2	58.0	45.1	55.2	60.7
	KW	15.49	15.03	14.55	15.72	15.27	14.86	15.87	15.46	15.10
40	TC	62.9	57.8	52.7	65.4	60.4	56.1	67.0	62.4	58.7
	SHC	34.7	41.8	52.7	39.8	48.3	56.1	44.3	54.2	58.7
	KW	16.54	15.96	15.38	16.82	16.26	15.76	17.00	16.49	16.06
44	TC	60.6	55.6	50.9	62.9	58.1	54.1	64.4	60.0	56.7
	SHC	33.8	40.9	50.9	39.0	47.3	54.1	43.4	53.1	56.7
	KW	17.56	16.84	16.17	17.89	17.20	16.63	18.10	17.47	17.00
48	TC	58.2	53.4	48.9	60.4	55.8	52.1	61.8	57.5	54.6
	SHC	32.8	40.0	48.9	38.0	46.2	52.1	42.5	51.9	54.6
	KW	18.54	17.80	17.14	18.86	18.17	17.61	19.07	18.43	17.99
52	TC	56.0	51.1	46.9	58.0	53.5	50.0	59.3	55.1	52.5
	SHC	31.9	39.0	46.9	37.2	45.2	50.0	41.6	50.8	52.5
	KW	19.51	18.76	18.12	19.82	19.12	18.60	20.02	19.38	18.97

LEGEND

- Edb — Entering Dry Bulb
- Ewb — Entering Wet-Bulb
- kW — Compressor Motor Power Input
- Ldb — Leaving Dry Bulb
- Lwb — Leaving Wet Bulb
- SHC — Sensible Heating Capacity (kW)
- TC — Total Capacity (kW)

NOTES:

1. All combination ratings are based on refrigerant R-22.
2. Direct interpolation is permissible. Do not extrapolate.
3. The SHC is based on 26.7 C db temperature of air entering the indoor unit.
4. Gross capacities shown do not include a deduction for evaporator-fan motor heat.

38AH024 AND 40RM028 WITH STANDARD 3-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		3500		4700			5900			
		Evaporator Air — Ewb (C)								
	22	20	16	22	20	16	22	20	16	
24	TC	77.3	70.6	65.0	79.7	73.4	68.9	81.2	76.1	72.2
	SHC	43.2	51.6	65.0	49.3	60.1	68.9	55.2	67.6	72.2
	KW	13.00	12.58	12.24	13.14	12.76	12.48	13.24	12.92	12.68
28	TC	75.1	68.1	63.1	77.4	71.1	67.0	78.8	73.7	70.2
	SHC	42.4	50.9	63.1	48.5	59.1	67.0	54.4	66.6	70.2
	KW	13.87	13.43	13.12	14.01	13.62	13.36	14.10	13.78	13.56
32	TC	72.8	65.5	61.1	74.8	68.7	65.0	76.1	71.2	68.1
	SHC	41.5	50.2	61.1	47.6	58.1	65.0	53.5	65.5	68.1
	KW	14.97	14.34	13.96	15.15	14.62	14.29	15.26	14.83	14.56
36	TC	70.4	62.9	59.1	72.2	66.3	62.9	73.4	68.7	66.0
	SHC	40.6	49.5	59.1	46.7	57.0	62.9	52.5	64.3	66.0
	KW	15.98	15.30	14.96	16.15	15.61	15.30	16.26	15.83	15.58
40	TC	68.3	60.4	57.1	69.9	64.0	60.9	71.1	66.4	64.0
	SHC	39.9	48.8	57.1	45.9	56.0	60.9	51.8	63.3	64.0
	KW	17.15	16.25	15.88	17.34	16.66	16.31	17.47	16.94	16.66
44	TC	65.8	57.7	55.0	67.2	61.4	58.7	68.3	63.7	61.7
	SHC	38.9	48.0	55.0	44.9	54.9	58.7	50.8	62.1	61.7
	KW	18.30	17.14	16.76	18.50	17.67	17.28	18.65	18.00	17.72
48	TC	63.2	55.0	52.8	64.4	58.8	56.4	65.4	61.0	59.4
	SHC	38.0	47.2	52.8	43.9	53.8	56.4	49.8	60.9	59.4
	KW	19.28	18.04	17.72	19.46	18.62	18.26	19.60	18.95	18.71
52	TC	60.8	52.3	50.7	61.8	56.3	54.2	62.7	58.4	57.1
	SHC	37.1	46.5	50.7	43.0	52.7	54.2	48.9	58.1	57.1
	KW	20.25	18.94	18.69	20.41	19.55	19.24	20.54	19.89	19.69

38AH028 AND 40RM024 WITH STANDARD 3-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		2900		3800			4700			
		Evaporator Air — Ewb (C)								
	22	20	16	22	20	16	22	20	16	
24	TC	77.4	71.9	64.7	81.1	75.1	68.6	83.5	77.9	71.6
	SHC	40.4	47.5	64.7	45.5	54.9	68.6	50.1	61.3	71.6
	KW	15.16	14.77	14.25	15.42	14.99	14.53	15.59	15.20	14.75
28	TC	75.6	70.1	63.2	79.1	73.2	67.0	81.3	75.9	70.0
	SHC	39.7	46.8	63.2	44.8	54.0	67.0	49.3	60.4	70.0
	KW	16.26	15.96	15.58	16.46	16.14	15.79	16.59	16.28	15.96
32	TC	73.4	68.1	61.6	76.7	71.1	65.3	78.8	73.6	68.2
	SHC	38.8	45.9	61.6	43.9	53.1	65.3	48.4	59.3	68.2
	KW	17.36	16.95	16.44	17.62	17.18	16.72	17.79	17.38	16.95
36	TC	71.3	66.0	59.8	74.4	68.9	63.4	76.4	71.4	66.3
	SHC	38.0	45.1	59.8	43.1	52.1	63.4	47.6	58.3	66.3
	KW	18.51	17.98	17.36	18.82	18.27	17.72	19.02	18.52	18.01
40	TC	69.1	63.9	58.0	72.1	66.7	61.5	74.0	69.0	64.3
	SHC	37.1	44.2	58.0	42.2	51.1	61.5	46.7	57.2	64.3
	KW	19.61	18.96	18.23	19.98	19.32	18.67	20.22	19.60	19.02
44	TC	66.9	61.7	56.2	69.6	64.5	59.6	71.4	66.7	62.4
	SHC	36.2	43.4	56.2	41.4	50.1	59.6	45.8	56.1	62.4
	KW	20.78	20.11	19.39	21.15	20.47	19.84	21.38	20.76	20.19
48	TC	64.7	59.6	54.4	67.3	62.3	57.8	68.9	64.3	60.4
	SHC	35.4	42.5	54.4	40.5	49.1	57.8	45.0	56.1	60.4
	KW	21.75	21.06	20.35	22.10	21.42	20.80	22.33	21.70	21.17
52	TC	62.0	57.2	52.4	64.3	59.6	55.6	65.7	61.5	58.1
	SHC	34.3	41.5	52.4	39.4	47.9	55.6	43.9	53.7	58.1
	KW	23.63	22.55	21.49	24.15	23.10	22.20	24.48	23.52	22.76



CONDENSING UNIT COMBINATION RATINGS, 50 Hz SI (cont)

38AH028 AND 40RM028 WITH STANDARD 3-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		3500			4700			5900		
		Evaporator Air — Ewb (C)								
		22	20	16	22	20	16	22	20	16
24	TC	84.1	78.3	70.6	87.3	80.6	74.8	89.3	83.5	78.2
	SHC	45.8	53.8	70.6	52.0	63.2	74.8	57.9	70.9	78.2
	KW	15.64	15.22	14.67	15.87	15.39	14.97	16.01	15.60	15.22
28	TC	82.1	75.9	68.9	85.0	78.4	73.0	86.9	81.3	76.4
	SHC	45.0	53.1	68.9	51.2	62.3	73.0	57.1	69.9	76.4
	KW	16.63	16.28	15.89	16.79	16.42	16.12	16.89	16.58	16.31
32	TC	79.6	73.2	67.0	82.3	75.9	70.9	83.9	78.6	74.3
	SHC	44.1	52.3	67.0	50.2	61.2	70.9	56.1	68.7	74.3
	KW	17.85	17.35	16.86	18.06	17.56	17.17	18.19	17.77	17.43
36	TC	77.4	70.6	65.0	79.9	73.5	68.9	81.4	76.2	72.2
	SHC	43.3	51.6	65.0	49.4	60.1	68.9	55.2	67.7	72.2
	KW	19.12	18.44	17.88	19.37	18.73	18.27	19.52	19.00	18.60
40	TC	75.0	67.9	63.0	77.2	71.0	66.8	78.7	73.6	70.1
	SHC	42.4	50.9	63.0	48.4	59.1	66.8	54.3	66.5	70.1
	KW	20.35	19.46	18.84	20.63	19.85	19.33	20.81	20.18	19.74
44	TC	72.5	65.2	60.9	74.5	68.5	64.7	75.9	71.0	67.9
	SHC	41.4	50.1	60.9	47.5	58.0	64.7	53.4	65.3	67.9
	KW	21.52	20.56	20.00	21.78	20.99	20.50	21.96	21.32	20.92
48	TC	70.1	62.6	58.9	71.9	66.0	62.6	73.1	68.4	65.7
	SHC	40.6	49.4	58.9	46.6	56.9	62.6	52.4	64.2	65.7
	KW	22.49	21.46	20.96	22.73	21.92	21.47	22.90	22.25	21.89
52	TC	67.0	59.4	56.5	68.5	62.9	60.1	69.5	65.1	63.0
	SHC	39.4	48.5	56.5	45.4	55.6	60.1	51.2	62.8	63.0
	KW	24.77	23.07	22.41	25.10	23.84	23.21	25.33	24.34	23.87

38AH028 AND 40RM034 WITH STANDARD 3-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		4250			5650			7050		
		Evaporator Air — Ewb (C)								
		22	20	16	22	20	16	22	20	16
24	TC	90.2	81.9	75.9	92.7	85.5	80.5	94.4	88.5	84.3
	SHC	50.5	61.0	75.9	58.3	70.8	80.5	65.4	79.8	84.3
	KW	16.07	15.48	15.05	16.25	15.73	15.38	16.37	15.95	15.63
28	TC	87.8	79.6	73.9	90.2	83.1	78.5	91.7	86.0	82.2
	SHC	49.6	60.0	73.9	57.4	69.7	78.5	64.5	78.7	82.2
	KW	16.95	16.49	16.17	17.08	16.68	16.43	17.16	16.84	16.63
32	TC	85.0	76.9	71.7	87.1	80.2	76.1	88.5	82.9	79.7
	SHC	48.5	58.9	71.7	56.3	68.4	76.1	63.4	77.4	79.7
	KW	18.27	17.64	17.23	18.43	17.89	17.58	18.55	18.11	17.86
36	TC	82.5	74.4	69.5	84.4	77.6	73.9	85.8	80.3	77.5
	SHC	47.6	57.9	69.5	55.4	67.3	73.9	62.5	76.2	77.5
	KW	19.63	18.82	18.33	19.82	19.14	18.77	19.96	19.41	19.13
40	TC	79.9	71.7	67.3	81.5	74.9	71.6	82.7	77.5	75.1
	SHC	46.5	56.8	67.3	54.4	66.1	71.6	61.5	74.9	75.1
	KW	20.96	19.94	19.38	21.17	20.33	19.92	21.32	20.66	20.36
44	TC	77.1	69.0	65.0	78.6	72.1	69.2	79.7	74.6	72.6
	SHC	45.5	55.6	65.0	53.3	64.9	69.2	60.5	73.6	72.6
	KW	22.12	21.07	20.53	22.31	21.46	21.08	22.45	21.79	21.53
48	TC	74.4	66.4	62.7	75.7	69.4	66.8	76.7	71.8	70.1
	SHC	44.4	54.6	62.7	52.3	63.7	66.8	59.5	72.4	70.1
	KW	23.08	21.99	21.48	23.25	22.39	22.04	23.38	22.72	22.49
52	TC	70.9	63.2	60.0	71.8	65.9	63.8	72.6	68.1	67.0
	SHC	43.1	53.2	60.0	51.0	62.2	63.8	58.2	68.1	67.0
	KW	25.63	23.91	23.19	25.85	24.51	24.05	26.03	25.02	24.76

LEGEND

Edb — Entering Dry Bulb
Ewb — Entering Wet-Bulb
kW — Compressor Motor Power Input
Ldb — Leaving Dry Bulb
Lwb — Leaving Wet Bulb
SHC — Sensible Heating Capacity (kW)
TC — Total Capacity (kW)

NOTES:

- All combination ratings are based on refrigerant R-22.
- Direct interpolation is permissible. Do not extrapolate.
- The SHC is based on 26.7 C db temperature of air entering the indoor unit.
- Gross capacities shown do not include a deduction for evaporator-fan motor heat.

38AH034 AND 40RM028 WITH STANDARD 3-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		35000			4700			5900		
		Evaporator Air — Ewb (C)								
		22	20	16	22	20	16	22	20	16
24	TC	93.1	88.9	78.1	97.3	90.2	82.5	99.8	93.5	86.2
	SHC	49.1	56.8	78.1	55.5	67.3	82.5	61.4	75.3	86.2
	KW	18.80	18.47	17.63	19.13	18.57	17.97	19.32	18.83	18.26
28	TC	90.8	86.1	76.1	94.8	87.7	80.4	97.2	90.9	84.1
	SHC	48.2	56.0	76.1	54.6	66.2	80.4	60.5	74.2	84.1
	KW	20.03	19.66	18.86	20.35	19.79	19.21	20.54	20.04	19.50
32	TC	88.5	83.4	74.2	92.2	85.3	78.5	94.4	88.3	82.1
	SHC	47.4	55.2	74.2	53.7	65.2	78.5	59.6	73.1	82.1
	KW	21.40	20.89	19.97	21.77	21.08	20.40	21.99	21.38	20.76
36	TC	86.0	80.5	72.1	89.4	82.6	76.4	91.5	85.6	79.9
	SHC	46.5	54.4	72.1	52.7	64.0	76.4	58.6	71.9	79.9
	KW	22.88	22.30	21.44	23.23	22.52	21.87	23.44	22.83	22.24
40	TC	83.6	77.6	70.1	86.7	80.0	74.2	88.7	82.9	77.7
	SHC	45.6	53.6	70.1	51.8	62.9	74.2	57.7	70.7	77.7
	KW	24.24	23.49	22.55	24.63	23.79	23.07	24.87	24.15	23.50
44	TC	81.1	74.7	67.9	84.0	77.3	72.1	85.8	80.2	75.5
	SHC	44.6	52.8	67.9	50.8	61.8	72.1	56.7	69.5	75.5
	KW	25.66	24.72	23.71	26.09	25.11	24.32	26.35	25.53	24.83
48	TC	78.4	71.7	65.7	80.9	74.5	69.8	82.6	77.2	73.1
	SHC	43.6	51.9	65.7	49.7	60.6	69.8	55.6	68.1	73.1
	KW	27.17	25.99	24.94	27.62	26.49	25.65	27.91	26.97	26.24
52	TC	75.8	68.7	63.4	78.2	71.8	67.4	79.7	74.5	70.7
	SHC	42.7	51.1	63.4	48.8	59.4	67.4	54.7	66.9	70.7
	KW	28.74	27.45	26.51	29.16	28.01	27.23	29.44	28.50	27.83

38AH034 AND 40RM034 WITH STANDARD 3-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		4250			5650			7050		
		Evaporator Air — Ewb (C)								
		22	20	16	22	20	16	22	20	16
24	TC	100.3	92.2	84.4	103.9	96.2	89.4	106.2	99.5	93.4
	SHC	54.4	65.3	84.4	62.2	75.4	89.4	69.3	84.8	93.4
	KW	19.36	18.73	18.12	19.65	19.04	18.51	19.82	19.30	18.82
28	TC	97.8	89.6	82.1	101.2	93.4	87.1	103.3	96.7	91.1
	SHC	53.4	64.2	82.1	61.2	74.2	87.1	68.3	83.5	91.1
	KW	20.59	19.93	19.34	20.86	20.24	19.74	21.02	20.50	20.06
32	TC	95.1	86.9	80.0	98.2	90.7	84.8	100.1	93.8	88.8
	SHC	52.4	63.1	80.0	60.2	73.0	84.8	67.3	82.2	88.8
	KW	22.06	21.24	20.55	22.37	21.62	21.03	22.56	21.93	21.43
36	TC	92.3	84.1	77.6	95.1	87.7	82.4	96.9	90.8	86.2
	SHC	51.3	61.9	77.6	59.1	71.7	82.4	66.2	80.9	86.2
	KW	23.53	22.67	22.01	23.82	23.05	22.50	24.00	23.37	22.90
40	TC	89.6	81.3	75.3	92.1	84.8	80.0	93.8	87.8	83.8
	SHC	50.3	60.7	75.3	58.1	70.5	80.0	65.2	79.5	83.8
	KW	24.99	23.95	23.20	25.30	24.39	23.78	25.51	24.77	24.26
44	TC	86.8	78.5	72.9	89.1	81.9	77.5	90.6	84.8	81.2
	SHC	49.2	59.6	72.9	57.0	69.2	77.5	64.1	78.2	81.2
	KW	26.50	25.28	24.45	26.84	25.78	25.13	27.07	26.21	25.68
48	TC	83.7	75.5	70.4	85.6	78.7	74.9	87.0	81.5	78.5
	SHC	48.0	58.3	70.4	55.8	67.8	74.9	62.9	76.7	78.5
	KW	28.11	26.66	25.77	28.45	27.24	26.55	28.70	27.72	27.19
52	TC	80.9	72.6	67.9	82.6	75.8	72.3	83.9	78.5	75.9
	SHC	46.9	57.1	67.9	54.7	66.5	72.3	61.9	75.4	75.9
	KW	29.65	28.16	27.31	29.97	28.74	28.11	30.20	29.22	28.75

Performance data (cont)



CONDENSING UNIT COMBINATION RATINGS, 50 Hz SI (cont)

38AH024 AND 40RM016 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (C) Air Entering Condenser (Edb)	TC SHC kW	Evaporator Air — L/s								
		2100			2800			3500		
		Evaporator Air — Ewb (C)								
		22	19	17	22	19	17	22	19	17
29	TC	64.9	59.5	54.3	68.5	63.0	57.8	71.0	65.5	60.2
	SHC	31.2	38.2	44.9	34.5	43.5	52.2	37.5	48.4	58.0
	kW	13.92	13.52	13.11	14.16	13.78	13.37	14.32	13.96	13.57
35	TC	62.1	56.8	51.8	65.3	60.1	55.0	67.6	62.4	57.3
	SHC	30.1	37.0	43.8	33.3	42.3	50.6	36.3	47.3	56.2
	kW	15.26	14.75	14.25	15.56	15.08	14.57	15.76	15.28	14.80
38	TC	61.2	55.5	50.6	63.8	58.6	53.7	65.9	60.7	55.8
	SHC	29.8	36.4	43.1	32.7	41.7	50.1	35.7	46.7	55.8
	kW	16.18	15.36	14.81	16.22	15.70	15.17	16.44	15.92	15.40
41	TC	59.1	54.0	49.3	62.1	57.1	52.3	64.2	59.1	54.5
	SHC	28.8	35.8	42.6	32.1	41.2	49.4	35.2	46.0	54.5
	kW	16.54	15.95	15.35	16.88	16.32	15.73	17.11	16.54	16.00
46	TC	56.0	51.3	46.7	58.8	54.0	49.4	60.6	55.7	51.9
	SHC	27.6	34.7	41.4	30.9	39.9	48.1	33.9	44.7	51.9
	kW	17.78	17.11	16.43	18.18	17.50	16.85	18.41	17.74	17.21

38AH024 AND 40RM028 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (C) Air Entering Condenser (Edb)	TC SHC kW	Evaporator Air — L/s								
		3540			4720			5900		
		Evaporator Air — Ewb (C)								
		22	19	17	22	19	17	22	19	17
29	TC	75.3	69.3	63.6	78.0	72.0	68.1	79.9	73.8	71.5
	SHC	39.3	51.1	61.7	44.4	59.3	68.1	49.1	66.6	71.5
	kW	14.64	14.27	13.87	14.82	14.45	14.18	14.94	14.58	14.41
35	TC	71.7	66.0	60.6	74.3	68.5	65.2	76.0	69.9	68.6
	SHC	38.1	49.9	60.6	43.2	58.0	65.2	47.9	65.1	68.6
	kW	16.13	15.65	15.17	16.34	15.88	15.58	16.48	15.95	15.88
38	TC	70.0	64.3	59.1	72.4	66.4	63.8	73.9	68.1	67.0
	SHC	37.5	49.2	59.1	42.5	57.2	63.8	47.3	64.2	67.0
	kW	16.85	16.33	15.80	17.08	16.48	16.27	17.21	16.67	16.58
41	TC	68.1	62.6	57.9	70.5	64.6	62.3	71.9	66.3	65.4
	SHC	36.9	48.6	57.9	41.8	56.5	62.3	46.5	63.5	65.4
	kW	17.56	16.98	16.45	17.80	17.15	16.94	17.94	17.36	17.28
46	TC	64.5	59.2	55.2	66.5	61.2	59.4	67.8	62.6	62.2
	SHC	35.6	47.3	55.2	40.5	55.1	59.4	45.3	61.5	62.2
	kW	18.93	18.25	17.70	19.17	18.50	18.26	19.33	18.68	18.63

38AH024 AND 40RM024 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (C) Air Entering Condenser (Edb)	TC SHC kW	Evaporator Air — L/s								
		2830			3780			4720		
		Evaporator Air — Ewb (C)								
		22	19	17	22	19	17	22	19	17
29	TC	70.6	64.9	59.4	73.7	67.9	62.4	75.7	69.8	66.7
	SHC	34.7	44.3	53.5	38.9	51.0	62.4	42.8	57.3	66.6
	kW	14.33	13.95	13.54	14.53	14.16	13.77	14.65	14.29	14.22
35	TC	67.4	61.9	56.7	70.2	64.6	60.6	72.0	66.0	63.1
	SHC	33.6	43.2	52.2	37.7	49.8	60.6	41.6	55.8	63.1
	kW	15.76	15.28	14.78	15.98	15.53	15.28	16.13	15.58	15.38
38	TC	65.8	60.3	55.1	68.4	62.9	58.4	70.1	64.7	61.7
	SHC	33.0	42.5	51.5	37.1	49.2	58.4	40.9	55.3	61.7
	kW	16.46	15.91	15.35	16.69	16.17	15.70	16.85	16.35	16.04
41	TC	64.1	58.7	53.7	66.6	61.2	57.1	68.2	62.6	60.3
	SHC	32.4	41.9	50.8	36.5	48.6	57.1	40.3	54.5	60.3
	kW	17.12	16.53	15.93	17.38	16.81	16.34	17.55	16.91	16.69
46	TC	60.6	55.5	50.8	62.9	57.8	54.4	64.4	59.1	57.4
	SHC	31.1	40.7	49.3	35.3	47.3	54.4	39.1	53.2	57.4
	kW	18.41	17.73	17.06	18.71	18.04	17.58	18.91	18.18	17.97

38AH028 AND 40RM024 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (C) Air Entering Condenser (Edb)	TC SHC kW	Evaporator Air — L/s								
		2830			3780			4720		
		Evaporator Air — Ewb (C)								
		22	19	17	22	19	17	22	19	17
29	TC	78.1	71.8	65.6	81.8	75.4	69.2	84.4	77.8	72.0
	SHC	37.6	47.2	56.4	41.8	54.0	65.4	45.7	60.3	72.0
	kW	17.38	16.84	16.29	17.67	17.16	16.62	17.88	17.38	16.85
35	TC	74.7	68.6	62.8	78.2	72.0	66.3	80.5	74.2	69.2
	SHC	36.3	45.9	55.1	40.5	52.7	63.8	44.4	58.9	69.2
	kW	18.95	18.31	17.67	19.31	18.69	18.07	19.54	18.91	18.36
38	TC	73.0	67.0	61.3	76.4	70.3	64.7	78.5	72.4	67.8
	SHC	35.7	45.2	54.4	39.9	52.0	63.0	43.7	58.2	67.8
	kW	19.72	19.03	18.35	20.11	19.43	18.76	20.34	19.66	19.12
41	TC	71.3	65.5	59.9	74.5	68.6	63.0	76.5	70.5	66.4
	SHC	35.0	44.6	53.7	39.2	51.4	62.5	43.1	57.5	66.4
	kW	20.48	19.74	19.01	20.90	20.15	19.43	21.12	20.39	19.86
46	TC	67.9	62.3	57.0	70.7	65.0	60.0	72.5	66.9	63.5
	SHC	33.7	43.3	52.4	37.9	50.0	60.0	41.7	56.1	63.5
	kW	22.03	21.21	20.38	22.45	21.62	20.85	22.70	21.89	21.39

LEGEND

- Edb — Entering Dry Bulb
- Ewb — Entering Wet-Bulb
- kW — Compressor Motor Power Input
- Ldb — Leaving Dry Bulb
- Lwb — Leaving Wet Bulb
- SHC — Sensible Heating Capacity (kW)
- TC — Total Capacity (kW)

NOTES:

1. All combination ratings are based on refrigerant R-22.
2. Direct interpolation is permissible. Do not extrapolate.
3. The SHC is based on 26.7 C db temperature of air entering the indoor unit.
4. Gross capacities shown do not include a deduction for evaporator-fan motor heat.

5. Formulas (cooling)

$$t_{ldb} = t_{edb} - \frac{\text{sensible heat capacity (kW)}}{1.23 \times 10^{-3} \times (\text{L/s})}$$

t_{lwb} = wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

$$h_{ldb} = h_{edb} - \frac{\text{total capacity (kW)}}{1.20 \times 10^{-3} \times (\text{L/s})}$$

where h_{ewb} = enthalpy of air entering evaporator coil (kJ/kg).

6. Combination ratings are based on a 1.1° C line loss. For a close-coupled system (less than 4.5 m), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 1.1° C line loss.



CONDENSING UNIT COMBINATION RATINGS, 50 Hz SI (cont)

38AH028 AND 40RM028 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		3500			4700			5900		
		Evaporator Air — Ewb (C)								
		22	19	17	22	19	17	22	19	17
29	TC	83.7	77.1	70.8	87.1	80.3	74.5	89.3	82.5	78.6
	SHC	41.9	53.9	65.4	47.1	62.3	74.5	51.9	69.9	78.6
	KW	17.85	17.34	16.79	18.11	17.59	17.09	18.28	17.77	17.45
35	TC	80.0	73.6	67.5	83.1	76.6	71.6	85.1	78.6	75.5
	SHC	40.5	52.6	63.8	45.7	60.9	71.6	50.5	68.4	75.5
	KW	19.53	18.89	18.23	19.81	19.20	18.66	20.00	19.40	19.06
38	TC	78.1	71.8	65.9	81.1	74.7	70.2	83.0	76.7	73.9
	SHC	39.9	51.9	63.0	45.0	60.2	70.2	49.8	67.7	73.9
	KW	20.34	19.64	18.94	20.64	19.97	19.45	20.85	20.20	19.86
41	TC	76.2	70.1	64.3	79.0	72.9	68.7	81.0	74.8	72.3
	SHC	39.2	51.2	62.3	44.3	59.5	68.7	49.1	67.0	72.3
	KW	21.13	20.37	19.63	21.45	20.73	20.20	21.68	20.97	20.64
46	TC	72.4	66.5	61.0	75.0	69.1	66.7	76.7	70.7	69.1
	SHC	37.9	49.8	61.0	43.0	58.1	66.7	47.7	65.2	69.1
	KW	22.72	21.88	21.05	23.11	22.27	22.38	23.34	22.50	22.26

38AH034 AND 40RM028 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		3500			4700			5900		
		Evaporator Air — Ewb (C)								
		22	19	17	22	19	17	22	19	17
29	TC	93.3	85.7	78.5	97.6	89.9	82.8	100.3	92.6	87.2
	SHC	45.6	57.6	69.0	50.9	66.1	79.5	55.7	73.9	86.7
	KW	22.08	21.29	20.50	22.53	21.74	20.97	22.83	22.04	21.51
35	TC	89.5	82.2	75.2	93.3	86.0	79.5	95.9	88.5	83.3
	SHC	44.2	56.1	67.4	49.4	64.5	77.1	54.2	72.3	83.3
	KW	23.91	23.00	22.08	24.37	23.48	22.63	24.70	23.82	23.10
38	TC	87.5	80.3	73.5	91.2	84.0	78.3	93.7	86.5	81.6
	SHC	43.5	55.3	66.7	48.6	63.8	76.4	53.4	71.5	81.6
	KW	24.80	23.82	22.87	25.28	24.33	23.56	25.62	24.69	23.96
41	TC	85.4	78.4	71.8	89.0	82.0	76.2	91.4	84.4	79.9
	SHC	42.7	54.6	65.9	47.8	63.0	74.8	52.7	70.7	79.9
	KW	25.70	24.67	23.67	26.21	25.21	24.33	26.57	25.58	24.86
46	TC	81.3	74.7	68.4	84.6	78.0	72.7	86.9	80.1	76.6
	SHC	41.2	53.1	64.3	46.4	61.5	72.3	51.2	69.0	76.6
	KW	27.46	26.34	25.23	28.03	26.93	25.98	28.40	27.28	26.63

38AH028 AND 40RM034 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		4250			5660			7080		
		Evaporator Air — Ewb (C)								
		22	19	17	22	19	17	22	19	17
29	TC	88.2	81.2	74.6	91.3	84.3	80.8	93.3	86.3	84.0
	SHC	45.7	60.2	73.0	51.9	70.1	80.8	57.6	78.8	84.0
	KW	18.23	17.70	17.16	18.48	17.96	17.72	18.66	18.12	17.91
35	TC	84.2	77.5	71.5	87.1	80.4	76.8	88.9	82.0	80.7
	SHC	44.4	58.8	71.5	50.5	68.6	76.8	56.2	77.2	80.7
	KW	19.97	19.33	18.70	20.26	19.63	19.24	20.44	19.76	19.63
38	TC	82.2	75.6	70.0	85.0	78.4	75.2	86.7	80.0	78.9
	SHC	43.7	58.1	70.0	49.8	67.9	75.2	55.5	76.3	78.9
	KW	20.81	20.12	19.46	21.13	20.43	20.06	21.29	20.57	20.46
41	TC	80.2	73.7	68.6	82.8	76.3	73.6	84.4	78.0	77.1
	SHC	43.0	57.4	68.6	49.1	67.1	73.6	54.8	75.3	77.1
	KW	21.64	20.90	20.23	21.96	21.21	20.86	22.14	21.39	21.28
46	TC	76.1	70.0	66.6	78.4	72.2	70.4	79.9	73.9	73.6
	SHC	41.6	56.0	62.0	47.7	65.4	70.4	53.4	73.1	73.6
	KW	23.33	22.47	21.97	23.63	22.79	22.50	23.83	23.01	22.95

38AH034 AND 40RM034 WITH HIGH-CAPACITY 4-ROW COIL										
Temp (C) Air Entering Condenser (Edb)		Evaporator Air — L/s								
		4250			5660			7080		
		Evaporator Air — Ewb (C)								
		22	19	17	22	19	17	22	19	17
29	TC	98.9	91.0	83.5	102.9	95.0	88.6	105.6	97.5	93.0
	SHC	49.6	64.0	77.6	55.9	74.1	87.6	61.6	83.3	93.0
	KW	22.70	21.89	21.08	23.12	22.33	21.61	23.40	22.60	22.06
35	TC	94.7	87.1	80.0	98.5	90.8	85.4	100.8	93.0	89.9
	SHC	48.1	62.5	76.0	54.3	72.6	85.4	60.1	81.5	89.9
	KW	24.58	23.66	22.75	25.06	24.14	23.43	25.34	24.41	24.03
38	TC	92.6	85.1	78.2	96.2	88.6	83.3	98.4	90.8	87.7
	SHC	47.3	61.8	74.7	53.6	71.8	83.3	59.3	80.6	87.7
	KW	25.50	24.53	23.57	25.99	25.01	24.22	26.28	25.30	24.84
41	TC	90.4	83.1	76.7	93.8	86.4	81.6	96.0	88.6	85.9
	SHC	46.6	61.0	73.6	52.8	70.9	81.6	58.5	79.7	85.9
	KW	26.44	25.42	24.45	26.94	25.91	25.13	27.24	26.21	25.77
46	TC	86.1	79.1	73.2	89.1	81.8	78.2	91.1	84.1	82.1
	SHC	45.1	59.5	71.2	51.2	68.3	78.2	56.9	77.7	82.1
	KW	28.30	27.16	26.10	28.80	27.57	26.95	29.11	27.99	27.60

LEGEND

- Edb — Entering Dry Bulb
- Ewb — Entering Wet-Bulb
- kW — Compressor Motor Power Input
- Ldb — Leaving Dry Bulb
- Lwb — Leaving Wet Bulb
- SHC — Sensible Heating Capacity (kW)
- TC — Total Capacity (kW)

NOTES:

1. All combination ratings are based on refrigerant R-22.
2. Direct interpolation is permissible. Do not extrapolate.
3. The SHC is based on 26.7 C db temperature of air entering the indoor unit.
4. Gross capacities shown do not include a deduction for evaporator-fan motor heat.

5. Formulas (cooling)

$$t_{ldb} = t_{edb} - \frac{\text{sensible heat capacity (kW)}}{1.23 \times 10^{-3} \times (L/s)}$$

t_{lwb} = wet-bulb temperature corresponding to enthalpy of air leaving evaporator coil (h_{lwb})

$$h_{ldb} = h_{edb} - \frac{\text{total capacity (kW)}}{1.20 \times 10^{-3} \times (L/s)}$$

where h_{ewb} = enthalpy of air entering evaporator coil (kJ/kg).

6. Combination ratings are based on a 1.1° C line loss. For a close-coupled system (less than 4.5 m), add 2% to ratings. Piping sizes in Refrigerant Piping Requirements tables on pages 123-129 are based on 1.1° C line loss.

Performance data (cont)



ESTIMATED RADIATED SOUND POWER LEVEL (dB), 60 Hz

UNIT	OCTAVE BAND CENTER FREQUENCY (Hz)								dBA
	63	125	250	500	1000	2000	4000	8000	
38AH024	95	95	93	90	89	84	82	81	93.5
38AH028	95	95	93	90	89	84	82	81	93.5
38AH034	96	96	94	91	90	85	83	83	94.6
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:

- Estimated sound power levels are -dB re 1 Picowatt.
- 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.
- Sound power levels shown above were determined in accordance with AHRI standard 370 for large outdoor refrigeration and air conditioning equipment.

ESTIMATED SOUND POWER LEVEL (dB), 60 Hz — UNITS WITH SOUND REDUCTION KIT

UNIT	OCTAVE BAND CENTER FREQUENCY (Hz)								dBA
	63	125	250	500	1000	2000	4000	8000	
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:

- Estimated sound power levels are -dB re 1 Picowatt.
- 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.
- Sound power levels shown above were determined in accordance with AHRI standard 370 for large outdoor refrigeration and air conditioning equipment.

ESTIMATED RADIATED SOUND POWER LEVELS, dB, 50 Hz

UNIT	OCTAVE BAND CENTER FREQUENCY, Hz								dB(A)
	63	125	250	500	1000	2000	4000	8000	
38AH024	97.7	93.6	91.0	88.5	87.6	85.7	78.8	74.4	92.5
38AH028	97.7	93.6	91.1	88.6	87.9	85.6	78.5	74.5	92.6
38AH034	98.5	94.2	91.9	89.5	88.7	86.1	76.0	74.9	93.2

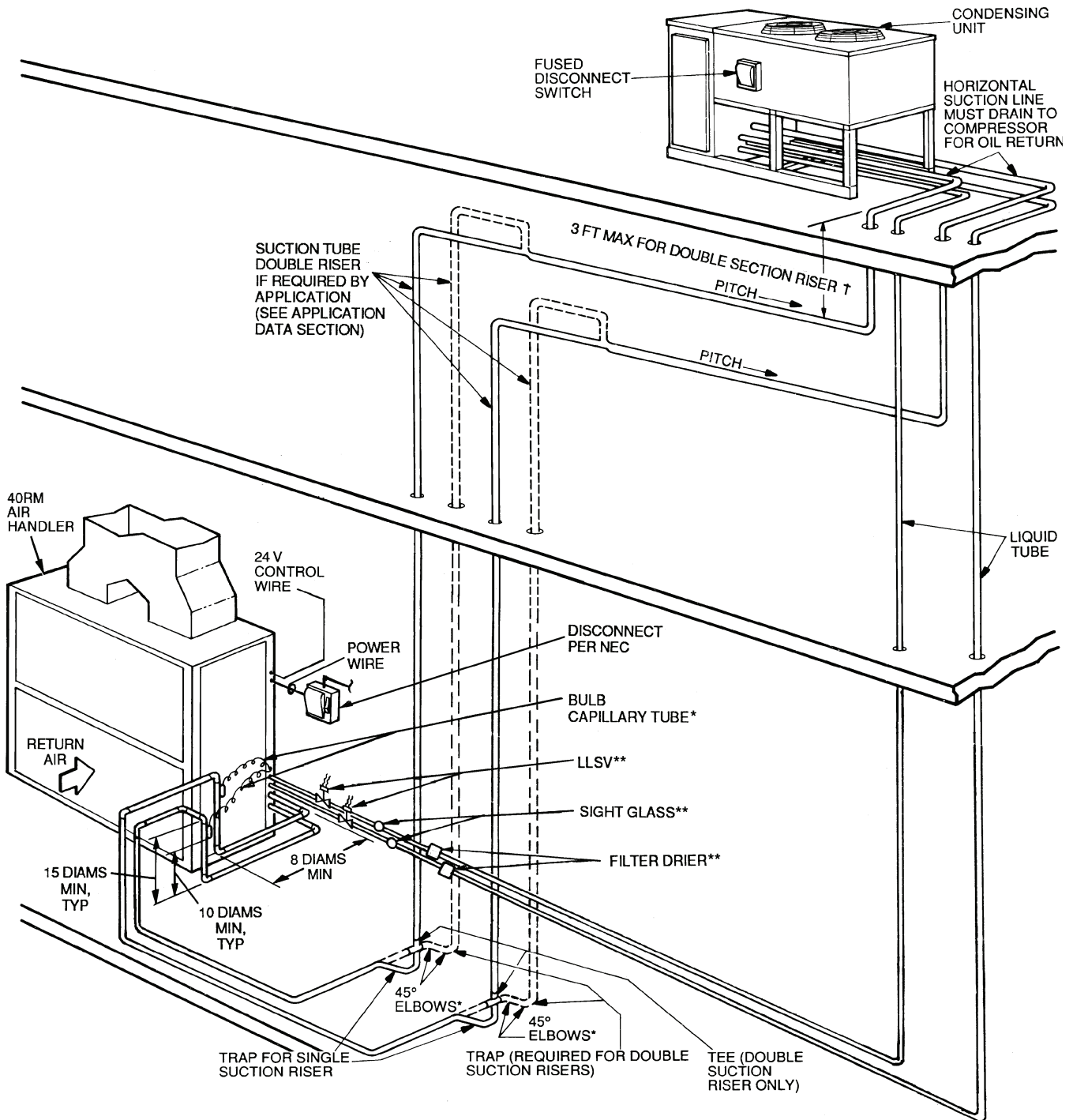
NOTES:

- Estimated sound power levels, dB re 1 Picowatt
This data is based upon a limited amount of actual testing with the estimated sound power data being generated from this data in accordance with AHRI (Air Conditioning, Heating, and Refrigeration Institute, U.S.A. Standard) standard 370 for large outdoor refrigerating and air conditioning equipment.
- Since this data is estimated, the sound power levels should not be guaranteed or certified as being the actual sound power levels. The acoustic center of the unit is located at the geometric center of the unit.

Typical piping and wiring



ROOFTOP INSTALLATION — 38AH024-034



LEGEND

- LLSV — Liquid Line Solenoid Valve
- NEC — National Electrical Code
- TXV — Thermostatic Expansion Valve
- Piping
- ==== Double Riser Piping (if required)

*Field supplied.

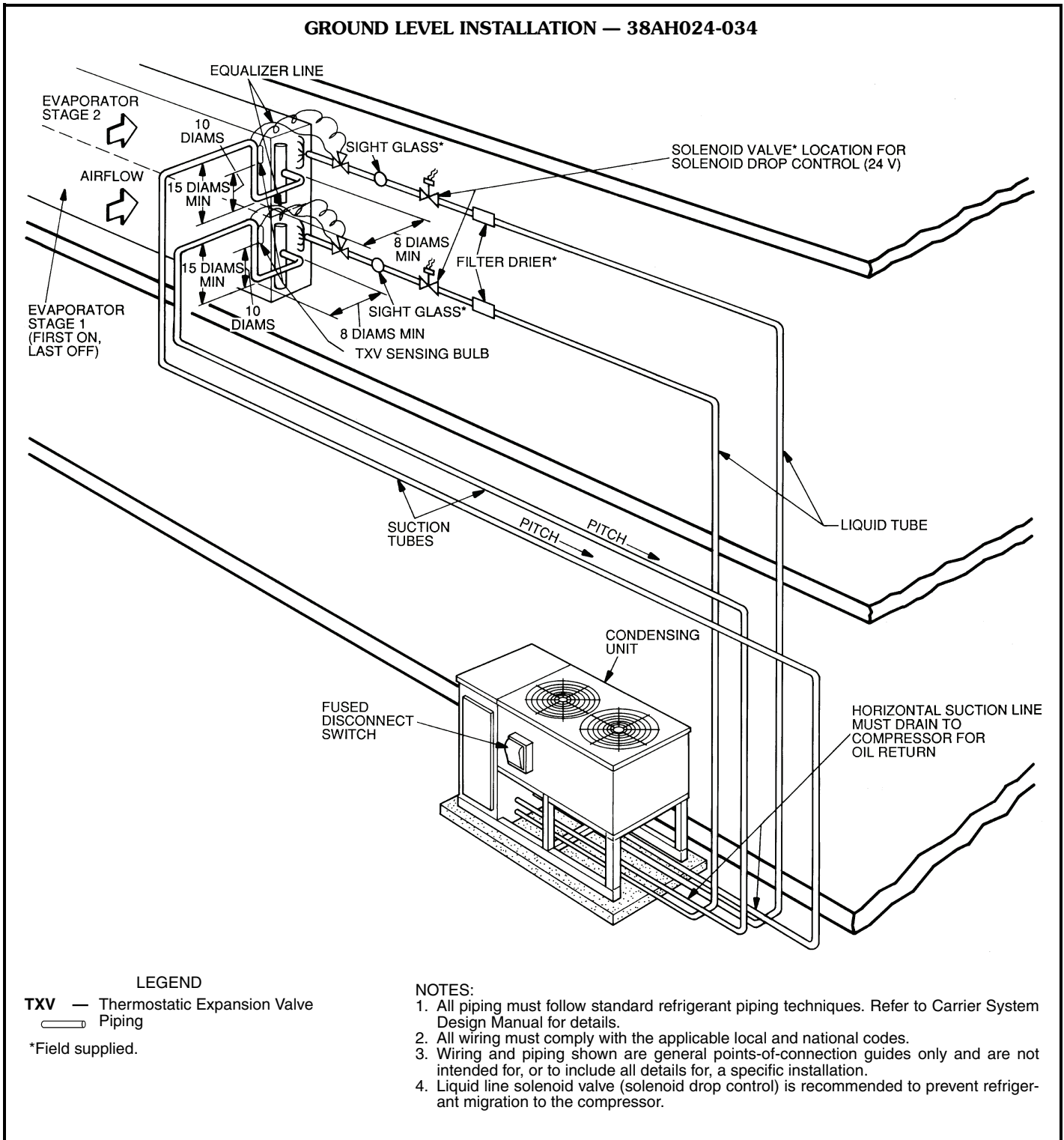
†If double suction riser is required for piping system, size pipe diameter of 3 ft (maximum) riser according to application data on pages 123-129.

**See Refrigerant Specialties Part Numbers table on page 97.

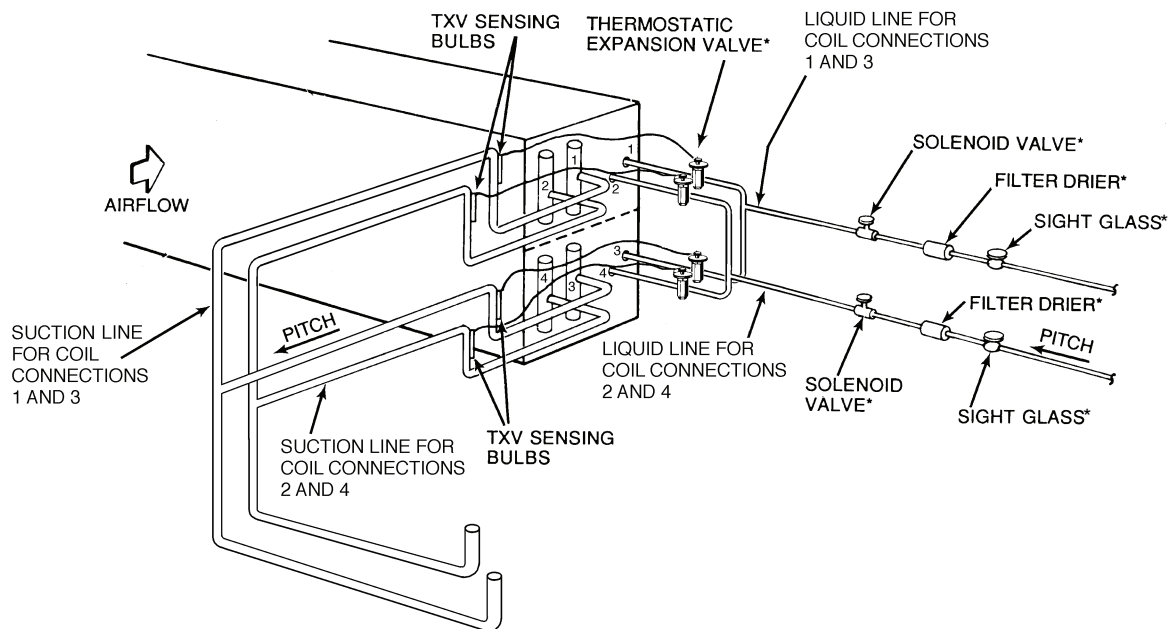
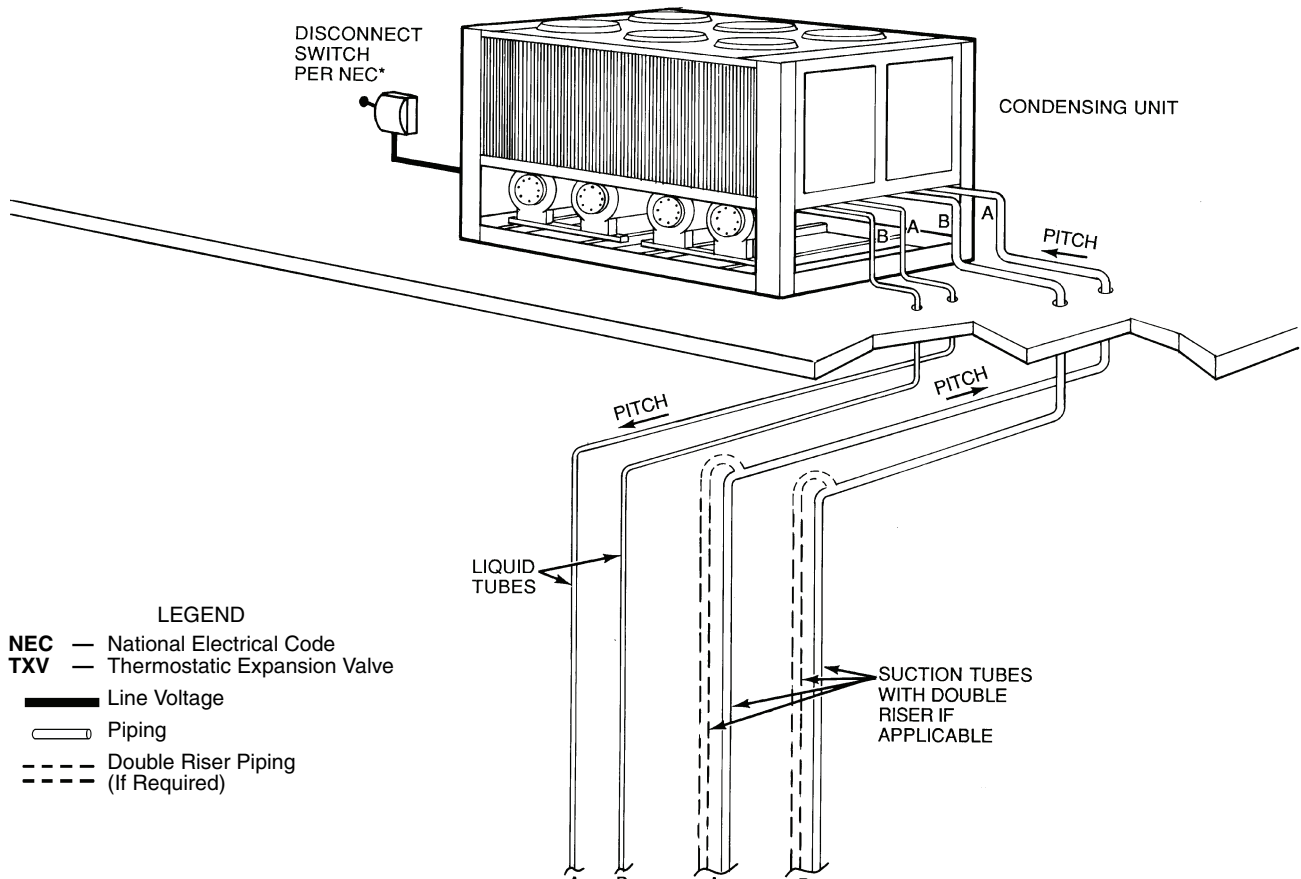
NOTES:

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.
4. Liquid line solenoid valve (solenoid drop control) is recommended to prevent refrigerant migration to the compressor.
5. Internal factory-supplied TXVs not shown.

Typical piping and wiring (cont)



**ROOFTOP INSTALLATION — 38AH044-134 UNITS
38AH104 UNIT WITH SINGLE AIR HANDLER SHOWN**



*Field supplied, see Refrigerant Specialties Part Numbers table on page 97 for recommended component part numbers.

NOTES:

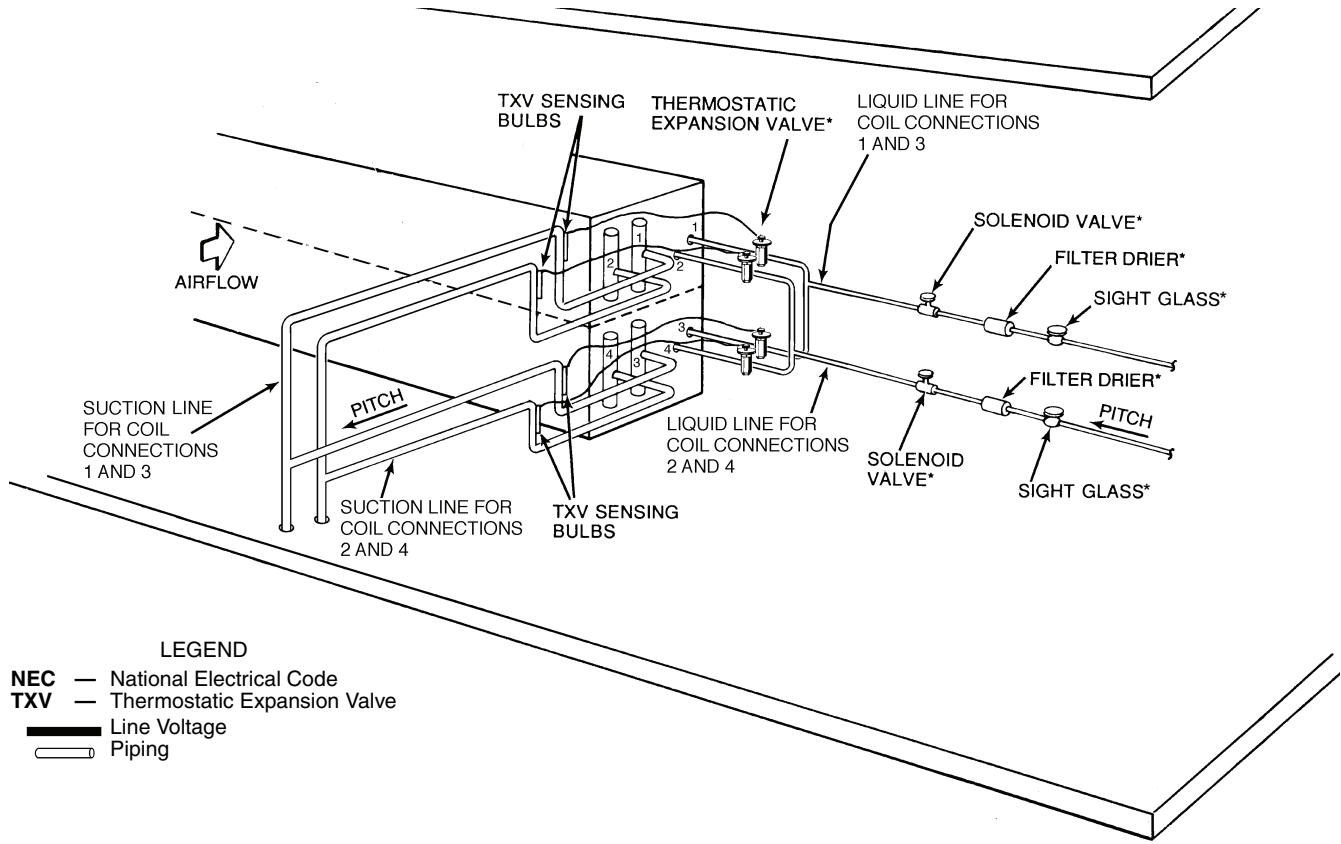
1. All piping must follow standard refrigerant piping techniques. Refer to Carrier System Design Manual for details.
2. All wiring must comply with the applicable local and national codes.

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 (cont)

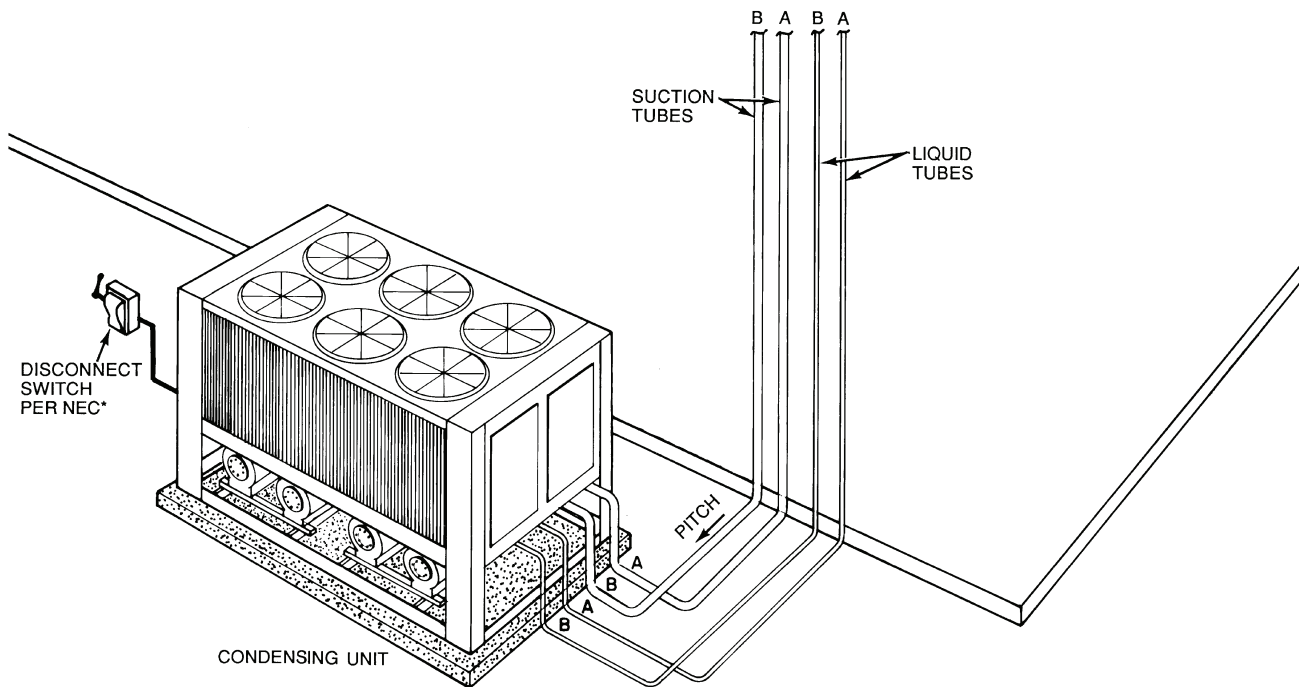


GROUND-LEVEL INSTALLATION — 38AH044-134 UNITS 38AH104 UNIT WITH SINGLE AIR HANDLER SHOWN



LEGEND

- NEC — National Electrical Code
- TXV — Thermostatic Expansion Valve
- Line Voltage
- Piping



*Field supplied, see Refrigerant Specialties Part Numbers table on page 97 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.



REFRIGERANT SPECIALTIES PART NUMBERS

UNIT	LIQUID LINE SIZE* (in.)	LIQUID LINE SOLENOID VALVE (LLS)	LLS COIL 50 Hz UNITS	LLS COIL 60 Hz UNITS	SIGHT GLASS	FILTER DRIER
38AH024	1/2	200RB6T4M Qty 2	—	AMG/24V Qty 2	AMI-1TT4 Qty 2	P502-8304S Qty 2
	5/8	200RB6T5M Qty 2	—	AMG/24V Qty 2	AMI-1TT5 Qty 2	P502-8305S Qty 2
	7/8	200RB7T7M Qty 2	—	AMG/24V Qty 2	AMI-1TT7 Qty 2	P502-8307S Qty 2
38AH028	1/2	200RB6T4M Qty 2	—	AMG/24V Qty 2	AMI-1TT4 Qty 2	P502-8305S† Qty 2
	5/8	200RB6T5M Qty 2	—	AMG/24V Qty 2	AMI-1TT5 Qty 2	P502-8305S Qty 2
	7/8	200RB7T7M Qty 2	—	AMG/24V Qty 2	AMI-1TT7 Qty 2	P502-8307S Qty 2
38AH034	1/2	200RB6T4M Qty 2	—	AMG/24V Qty 2	AMI-1TT4 Qty 2	P502-8307S† Qty 2
	5/8	200RB6T5M Qty 2	—	AMG/24V Qty 2	AMI-1TT5 Qty 2	P502-8307S† Qty 2
	7/8	200RB7T7M Qty 2	—	AMG/24V Qty 2	AMI-1TT7 Qty 2	P502-8307S Qty 2
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 123-129 *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.

Electrical data



38AH024-034 UNITS, 60 Hz

UNIT 38AH	NOMINAL VOLTAGE	VOLTAGE RANGE*		COMPRESSOR				FAN MOTOR† (Qty 2)			POWER SUPPLY		
				RLA		LRA		FLA (ea)	Nominal Hp	Nominal kW	MCA	MOCP**	ICF
				Ckt 1	Ckt 2	Ckt 1	Ckt 2						
024	208/230	187	254	39.3	39.3	198	198	(1) 5.5 (2) 6.6	1	0.75	100.5	125	249.7
	380††	342	418	24.0	24.0	93	93	3.9					
	460	414	508	19.6	19.6	99	99	(1) 2.8 (2) 3.3					
	575	518	632	15.7	15.7	79	79	3.4					
028	208/230	187	254	43.6	43.6	228	228	(1) 5.5 (2) 6.6	1	0.75	110.2	150	284.0
	380††	342	418	26.4	26.4	104	104	3.9					
	460	414	508	22.1	22.1	114	114	(1) 2.8 (2) 3.3					
	575	518	632	19.7	19.7	91	91	3.4					
034	208/230	187	254	43.6	63.6	228	266	(1) 5.5 (2) 6.6	1	0.75	135.2	175	322.0
	380††	342	418	26.4	34.3	104	145	3.9					
	460	414	508	22.1	30.0	114	120	(1) 2.9 (2) 3.3					
	575	518	632	17.9	22.9	91	96	3.4					

LEGEND

FLA — Full Load Amps
HACR — Heating, Air Conditioning and Refrigeration
ICF — Maximum Instantaneous Current Flow
LRA — Locked Rotor Amps
MCA — Minimum Circuit Amps
MOCP — Maximum Overcurrent Protection
RLA — Rated Load Amps
UL — Underwriters Laboratories

*Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed minimum and maximum limits.

†All fans are protected by a single circuit breaker.

**Fuse or HACR circuit breaker.

††380-v units are export models.

NOTES:

- The 208/230-v, 460-v and 575-v base units are UL and UL, Canada approved.
- The maximum ICF during starting is defined as the point in the starting sequence where the sum of the LRA for the starting compressor, plus the total RLA for all running compressors, plus the total FLA for all running fan motors is maximum.
- Minimum circuit amps complies with National Electrical Code [NEC], Section 430-24.



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
044	5	06E-250/250	208/230-3-60	187	254	177.0	225	434.7	67.9	345	67.9	345
	2		380-3-60	342	418	93.5	125	241.2	34.6	191	34.6	191
	6		460-3-60	414	508	90.1	110	218.6	34.6	173	34.6	173
	1		575-3-60	518	632	78.4	100	162.4	28.8	120	28.8	120
054	5	06E-250/265	208/230-3-60	187	254	204.3	250	535.7	67.9	345	89.7	446
	2		380-3-60	342	418	107.1	150	297.2	34.6	191	45.5	247
	6		460-3-60	414	508	101.3	125	268.6	34.5	173	43.6	223
	1		575-3-60	518	632	88.0	110	206.4	28.8	120	36.5	164
064	5	06E-265/275	208/230-3-60	187	254	246.4	350	617.5	89.7	446	106.4	506
	2		380-3-60	342	418	126.9	175	341.1	45.5	247	52.6	280
	6		460-3-60	414	508	114.3	150	307.6	43.6	223	46.8	253
	1		575-3-60	518	632	100.6	125	226.1	36.5	164	40.4	176
074	5	06E-275/299	208/230-3-60	187	254	327.2	450	829.0	106.4	506	147.4	690
	2		380-3-60	342	418	174.5	250	458.0	52.6	280	78.8	382
	6		460-3-60	414	508	147.4	200	408.2	46.8	253	65.4	345
	1		575-3-60	518	632	132.2	175	336.8	40.4	176	57.1	276
084	5	06E-299/299	208/230-3-60	187	254	368.2	500	870.0	147.4	690	147.4	690
	2		380-3-60	342	418	200.7	250	484.2	78.8	382	78.8	382
	6		460-3-60	414	508	166.0	225	426.8	65.4	345	65.4	345
	1		575-3-60	518	632	148.9	200	353.5	57.1	276	57.1	276

See Legend on page 100.



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	LRA	RLA	LRA
094	5	06E-275/ 250/299/-	208/230-3-60	187	254	396.0	500	754.2	106.4	506	67.9	345	147.4	690	—	—
	2		380-3-60	342	418	209.1	250	416.8	52.6	280	34.6	191	78.8	382	—	—
	6		460-3-60	414	508	182.0	225	369.4	46.8	253	34.6	173	65.4	345	—	—
	1		575-3-60	518	632	160.9	200	282.3	40.4	176	28.8	120	57.1	276	—	—
104	5	06E-265/250/ 265/265	208/230-3-60	187	254	396.8	450	725.9	89.7	446	67.9	345	89.7	446	89.7	446
	2		380-3-60	342	418	205.9	250	396.0	45.5	247	34.6	191	45.5	247	45.5	247
	6		460-3-60	414	508	195.1	225	361.2	43.6	223	34.6	173	43.6	223	43.6	223
	1		575-3-60	518	632	168.0	200	286.2	36.5	164	28.8	120	36.5	164	36.5	164

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
124A 124B 134A	5	06E-275/ 265	208/230-3-60	187	254	246.9	350	573.8	106.4	506	89.7	446
	2		380-3-60	342	418	126.9	175	315.2	52.6	280	45.5	247
	6		460-3-60	414	508	114.3	150	280.8	46.8	253	43.6	223
	1		575-3-60	518	632	100.6	125	218.0	40.4	176	36.5	164
134B	5	06E-299/ 275	208/230-3-60	187	254	327.2	450	685.6	147.4	690	106.4	506
	2		380-3-60	342	418	174.5	250	382.2	78.8	382	52.6	280
	6		460-3-60	414	508	147.4	200	334.8	65.4	345	46.8	253
	1		575-3-60	518	632	132.2	175	253.5	57.1	276	40.4	176

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	5	06E-250/250	208/230-3-60	187	254	177.0	225	434.7	67.9	345	67.9	345
	2		380-3-60	342	418	93.5	125	241.2	34.6	191	34.6	191
	6		460-3-60	414	508	90.1	110	218.6	34.6	173	34.6	173
	1		575-3-60	518	632	78.4	100	162.4	28.8	120	28.8	120
054	5	06E-265/250	208/230-3-60	187	254	204.3	250	456.5	89.7	446	67.9	345
	2		380-3-60	342	418	107.1	150	252.1	45.5	247	34.6	191
	6		460-3-60	414	508	101.3	125	227.6	43.6	223	34.6	173
	1		575-3-60	518	632	88.0	110	170.1	36.5	164	28.8	120
064	5	06E-275/265	208/230-3-60	187	254	246.4	350	573.8	106.4	506	89.7	446
	2		380-3-60	342	418	126.9	175	315.2	52.6	280	45.5	247
	6		460-3-60	414	508	114.3	150	280.8	46.8	253	43.6	223
	1		575-3-60	518	632	100.6	125	218.0	40.4	176	36.5	164
074	5	06E-299/275	208/230-3-60	187	254	327.2	450	685.6	147.4	690	106.4	506
	2		380-3-60	342	418	174.5	250	382.2	78.8	382	52.6	280
	6		460-3-60	414	508	147.4	200	334.8	65.4	345	46.8	253
	1		575-3-60	518	632	132.2	175	253.5	57.1	276	40.4	176
084	5	06E-299/299	208/230-3-60	187	254	368.2	500	870.0	147.4	690	147.4	690
	2		380-3-60	342	418	200.7	250	484.2	78.8	382	78.8	382
	6		460-3-60	414	508	166.0	225	426.8	65.4	345	65.4	345
	1		575-3-60	518	632	148.9	200	353.5	57.1	276	57.1	276

See Legend on page 100.

Electrical data (cont)



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
	380-3-60				(1-4) 3.9
	460-3-60				(1,2) 2.8 (3,4) 3.3
	575-3-60				(1-4) 3.4
054	208/230-3-60	4	1	6.2	(1,2) 5.5 (3,4) 6.6
	380-3-60				(1-4) 3.9
	460-3-60				(1,2) 2.8 (3,4) 3.3
	575-3-60				(1-4) 3.4
064	208/230-3-60	4	1	6.2	(1,2) 5.5 (3,4) 6.6
	380-3-60				(1-4) 3.9
	460-3-60				(1,2) 2.8 (3,4) 3.3
	575-3-60				(1-4) 3.4
074	208/230-3-60	6	1	9.3	(1,2) 5.5 (3-6) 6.6
	380-3-60				(1-6) 3.9
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
084	208/230-3-60	6	1	9.3	(1,2) 5.5 (3-6) 6.6
	380-3-60				(1-6) 3.9
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
094	208/230-3-60	6	1	9.4	(1,2) 5.5 (3-6) 6.6
	380-3-60				(1-6) 3.9
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
104	208/230-3-60	6	1	9.5	(1,2) 5.5 (3-6) 6.6
	380-3-60				(1-6) 3.9
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4
Modules 124A, 124B, 134A	208/230-3-60	4	1	6.4	(1,2) 5.5 (3,4) 6.6
	380-3-60				(1-4) 3.9
	460-3-60				(1,2) 2.8 (3,4) 3.3
	575-3-60				(1-4) 3.4
Module 134B	208/230-3-60	6	1	9.2	(1,2) 5.5 (3-6) 6.6
	380-3-60				(1-6) 3.9
	460-3-60				(1,2) 2.8 (3-6) 3.3
	575-3-60				(1-6) 3.4

CONTROL CIRCUIT

38AH 044-134	UNIT POWER	CONTROL POWER		AMPS	
	V-Ph-Hz	V-Ph-Hz	Min		Max
5	208/230-3-60	115-1-60	103	127	4.1
2	380-3-60	230-1-60	207	253	2.0
6	460-3-60	115-1-60	103	127	4.1
1	575-3-60	115-1-60	103	127	4.1

LEGEND AND NOTES (for pages 98-100)

LEGEND

AWG	— American Wire Gage
FLA	— Full Load Amps
ICF	— Maximum Instantaneous Current Flow During Starting
IFC	— Indoor-Fan Contactor
kcmil	— Thousand Circular Mills
LLS	— Liquid Line Solenoid
LRA	— Locked Rotor Amps
MCA	— Minimum Circuit Amps
MOCP	— Maximum Overcurrent Protection
RLA	— Rated Load Amps
UL	— 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:

- 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.
- The maximum ICF during starting is defined as the point in the starting sequence where the sum of the LRA for the starting compressor, plus the total RLA for all running compressors, plus the total FLA for all running fan motors is maximum.
- Minimum circuit amps is used for sizing; complies with National Electrical Code [NEC] section 430-24.
- Maximum overcurrent protection is used for sizing disconnect; complies with NEC Article 440-22.

- 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
044-084	300	2.5	120
		1.3	240
094	275	2.29	120
		1.15	240
104	325	2.70	120
		1.35	240
124	300	2.50	120
134	300	2.50	120

- 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

- The 575-v base units are UL, Canada approved.
- The 208/230-v and 460-v base units are UL and UL, Canada approved.
- 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.





38AH024-034 UNITS, 50 Hz

UNIT 38AH	NOMINAL VOLTAGE (V-Ph-Hz)	VOLTAGE RANGE*		COMPRESSOR				FAN MOTORS† (Qty 2)			POWER SUPPLY		
		Min	Max	RLA		LRA		FLA (ea)	Nominal Hp	Nominal kW	MCA	MOCP	ICF
				Ckt 1	Ckt 2	Ckt 1	Ckt 2						
024	230-3-50	198	254	39.3	39.3	128	128	6.3	1	0.75	101.0	125	268.8
	380/415-3-50	342	440	18.0	18.0	99	99	3.0			46.5	60	204.0
028	230-3-50	198	254	43.6	43.6	143	143	6.3	1	0.75	110.7	150	298.8
	380/415-3-50	342	440	22.1	22.1	114	114	3.0			55.7	70	234.0
034	230-3-50	198	254	43.6	63.6	143	200	6.3	1	0.75	135.7	175	355.8
	380/415-3-50	342	440	22.1	30.0	114	120	3.0			65.6	90	240.0

LEGEND

- FLA** — Full Load Amps
- ICF** — Maximum Instantaneous Current Flow During Starting
- LRA** — Locked Rotor Amps
- MCA** — Minimum Circuit Amps
- MOCP** — Maximum Overcurrent Protection
- RLA** — Rated Load Amps

*Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed minimum and maximum.
 †All fans are protected by a single circuit breaker.

NOTES:

1. MCA and MOCP values are calculated in accordance with NEC (National Electrical Code) (U.S.A. standard), Article 440.
2. Motor FLA values are established in accordance with UL (Underwriters Laboratories) Standard 1995 (U.S.A. standard).
3. The maximum ICF during starting is defined as the point in the starting sequence where the sum of the LRA for the starting compressor, plus the total RLA for all running compressors, plus the total FLA for all running fan motors is maximum.
4. Minimum circuit amps complies with National Electrical Code [NEC] Section 430-24) (U.S.A. Standard).



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
044	8	06E-250/250	230-3-50	198	254	179.0	225	296.7	67.9	207	67.9	207
	9	06E-250/250	380/415-3-50	348	440	90.7	100	219.6	34.6	173	34.6	173
054	9	06E-250/265	380/415-3-50	342	440	101.9	125	269.6	34.6	173	43.6	223
064	9	06E-265/275	380/415-3-50	342	440	114.9	150	335.6	43.6	223	46.8	280
074	9	06E-275/299	380/415-3-50	342	440	148.2	200	403.8	46.8	280	65.4	345
084	9	06E-299/299	380/415-3-50	342	440	166.8	225	428.4	65.4	345	65.4	345

38AH094,104, 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	LRA	RLA	LRA
094	9	06E-275/250/ 299/—	380/415-3-50	342	440	182.8	225	444	46.8	280	34.6	173	65.4	345	—	—
104	9	06E-265/250/ 265/265	380/415-3-50	342	440	195.9	225	363	43.6	223	34.6	173	43.6	223	43.6	223

See Legend and Notes on page 102.

Electrical data (cont)



38AH124,134, 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
124A 124B 134A	9	06E-275/265	380/415-3-50	342	440	114.9	150	336	46.8	280	43.6	223
134B	9	06E-299/275	380/415-3-50	342	440	148.2	200	404	65.4	345	46.8	280

FANS

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

CONTROL CIRCUIT

38AH 044-134	UNIT POWER	CONTROL POWER		AMPS	
	V-Ph-Hz	V-Ph-Hz	Min		Max
8	230-3-50	230-1-50	207	253	2.0
9	380/415-3-50	230-1-50	207	253	2.0

LEGEND AND NOTES (for pages 101 and 102)

LEGEND

- AWG** — American Wire Gage
FLA — Full Load Amps
ICF — Maximum Instantaneous Current Flow During Starting
IFC — Indoor-Fan Contactor
kcmil — Thousand Circular Mils
LLS — Liquid Line Solenoid
LRA — Locked Rotor Amps
MCA — Minimum Circuit Amps
MOCP — Maximum Overcurrent Protection
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.
- The maximum ICF during starting is defined as the point in the starting sequence where the sum of the LRA for the starting compressor, plus the total RLA for all running compressors, plus the total FLA for all running fan motors is maximum.
- Minimum circuit amps used for sizing; complies with National Electrical Code [NEC] section 430-24, U.S.A.

- Maximum Overcurrent Protection used for sizing disconnect; complies with NEC Article 440-22, U.S.A.
- 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	240
094	275	1.15	
104	325	1.35	
124	300	1.30	
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.

38AH024-034 operating sequences

38AH024-034 standard constant volume unit with 2-stage cooling thermostat — Seven seconds after a thermostat call for the first stage of cooling, compressor no. 1 and the outdoor fans start. The no. 2 fan only starts if the outdoor ambient temperature is above 70 F (21.1 C). The oil-pressure switch and the low-pressure switch are bypassed for the 1 and 2¹/₂ minutes, respectively. If either the low-pressure switch or oil pressure switch remain open after the delay, the unit shuts down and goes into alarm mode. The indoor-fan motor starts immediately whenever there is a call for cooling. If a liquid line solenoid valve has been installed (for refrigerant control during the off cycle), then the solenoid valve for compressor no. 1 opens immediately upon a call for cooling.

On standard units, compressor no. 1 operates either fully loaded or at one step of unloading, depending on the suction pressure, which is dependent on the evaporator load conditions.

As the cooling demand increases, the thermostat calls for the second stage of cooling. Within 7 seconds from a call for the second stage of cooling, compressor no. 2 starts. The oil switch and low-pressure switch for circuit no. 2 are bypassed during start-up.

As the cooling load is satisfied, the thermostat stops the call for the second stage of cooling, which in turn deenergizes compressor no. 2, closes the no. 2 liquid line solenoid (if installed) and energizes the compressor no. 2 crankcase heater.

If the space temperature continues to decrease, then the thermostat stops the call for the first stage of cooling, which then deenergizes compressor no. 1 and the outdoor fans, closes the no. 1 liquid line solenoid valve (if installed), and energizes the compressor no. 1 crankcase heater.

The unit controls prevent both compressors from reenergizing within 3 minutes from a previous call for operation.

If the unit safeties trip during operation, refer to the Start-Up, Installation and Service instructions.

NOTE: If the thermostat fan switch is in the auto position, the indoor fan cycles on and off as the thermostat calls for cooling (or heating). If the switch is in the continuous position, the fan runs when the outdoor unit is powered.

38AH024-034 optional variable air volume unit with ModuPanel™ control — The ModuPanel control regulates up to 10 stages of cooling to maintain a leaving-air temperature for variable air volume (VAV) applications. When connected to one 38AH condensing unit, only 6 stages are used. See the tables on next page for unit loading and compressor operating sequence.

When the timeclock connected to the panel closes, the indoor-fan contactor is energized through a field-supplied relay. (The relay must be a pilot-duty SPST relay with 115-v coil and 30 va maximum coil draw.) After the time delays programmed into the ModuPanel control have elapsed, and with the leaving air above the set point, the stages of mechanical cooling are sequenced as follows:

1. Stage 1 starts compressor no. 1 with 2 banks of cylinders unloaded (1/3 loaded). Both unloader solenoids are energized.

2. Stage 2 loads one bank of compressor no. 1 cylinders (2/3 loaded) by deenergizing unloader solenoid no. 1.
3. Stage 3 loads the second bank of compressor no. 1 by deenergizing unloader solenoid no. 2.
4. Stage 4 starts compressor no. 2 and unloads 2 banks of compressor no. 1 cylinders unloaded (1/3 loaded). Both unloader solenoids are energized.
5. Stage 5 loads one bank of compressor no. 1 cylinders (2/3 loaded) by deenergizing unloader solenoid no. 1.
6. Stage 6 loads one bank of compressor no. 1 cylinders (fully loaded) by deenergizing unloader solenoid no. 2.

Two 38AH024-034 optional variable air volume units with a single ModuPanel™ control — The ModuPanel control regulates up to 10 stages of cooling to maintain a leaving-air temperature for variable air volume (VAV) applications. When connected to two 38AH condensing units, all 10 stages are used. See the following table for unit loading and compressor operating sequence.

When the timeclock connected to the panel closes, the indoor-fan contactor is energized through a field-supplied relay. (The relay must be a pilot-duty SPST relay with 115-v coil and 30 va maximum coil draw.) After the time delays programmed into the ModuPanel control have elapsed, and with the leaving air above the set point, the stages of mechanical cooling are sequenced as follows:

1. Stage 1 starts unit no. 1 compressor no. 1 with 2 banks of cylinders unloaded (1/3 loaded). Both unloader solenoids are energized.
2. Stage 2 loads one bank of unit no. 1 compressor no. 1 cylinders (2/3 loaded) by deenergizing unloader solenoid no. 1.
3. Stage 3 turns off unit no. 1 compressor no. 1 and starts compressor no. 2 fully loaded.
4. Stage 4 starts unit no. 1 compressor no. 1 with 2 banks of cylinders unloaded (1/3 loaded). Both unloader solenoids are energized.
5. Stage 5 loads one bank of unit no. 1 compressor no. 1 cylinders (2/3 loaded) by deenergizing unloader solenoid no. 1.
6. Stage 6 loads one bank of unit no. 1 compressor no. 1 cylinders (fully loaded) by deenergizing unloader solenoid no. 2.
7. Stage 7 starts unit no. 2 compressor no. 1 with 2 banks of cylinders unloaded (1/3 loaded). Both unloader solenoids are energized.
8. Stage 8 turns off unit no. 2 compressor no. 1 and starts compressor no. 2 fully loaded.
9. Stage 9 starts unit no. 2 compressor no. 1 with 2 banks of cylinders unloaded (1/3 loaded). Both unloader solenoids are energized.
10. Stage 10 loads 2 banks of unit no. 2 compressor no. 1 cylinders (fully loaded) by deenergizing both unloader solenoids.

Controls (cont)



38AH UNIT LOADING SEQUENCE WITH MODUPANEL™ CONTROL

STAGE	NO. CYLINDERS	LOADED CYLINDERS		CAPACITY STEP (%)
		Compressor No. 1	Compressor No. 2	
1	2	2	—	17
2	4	4	—	33
3	6	6	—	50
4	8	2	6	67
5	10	4	6	83
6	12	6	6	100

LOADING SEQUENCE, TWO 38AH CONDENSING UNITS WITH MODUPANEL CONTROL

STAGE	NO. CYLINDERS	UNIT 1 LOADED CYLINDERS		UNIT 2 LOADED CYLINDERS		CAPACITY STEP (%)
		Compressor No. 1	Compressor No. 2	Compressor No. 1	Compressor No. 2	
1	2	2	—	—	—	8
2	4	4	—	—	—	17
3	6	—	6	—	—	25
4	8	2	6	—	—	33
5	10	4	6	—	—	41
6	12	6	6	—	—	50
7	14	6	6	2	—	58
8	18	6	6	—	6	75
9	20	6	6	2	6	83
10	24	6	6	6	6	100

Restart — Manual reset of the 24-v control circuit is required if unit is shut down by any of the safety devices. Applicable devices include the high-pressure switch (HPS), low-pressure switch (LPS), oil-pressure switch (OPS), and compressor overtemperature protection (COTP) switch. To restart the unit after the unit has been shut down, raise the thermostat set point above the space temperature (thereby removing the call for cooling) and then lower the set point back to the desired setting.

If unit circuit breakers trip during unit shutdown, they must be reset manually.

Causes of complete unit shutdown:

- interruption of supplied power
- open compressor overtemperature protection (COTP)
- compressor electrical overload protection (CB1 or CB2)
- open high-pressure or low-pressure safety switches
- open oil pressure switch

38AH044-084 operating sequences

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 2¹/₂ 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 2¹/₂ 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 2¹/₂ 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.

38AH094-134 operating sequences

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 2¹/₂ minutes. This provides a winter start-up feature.

Approximately 2¹/₂ 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.

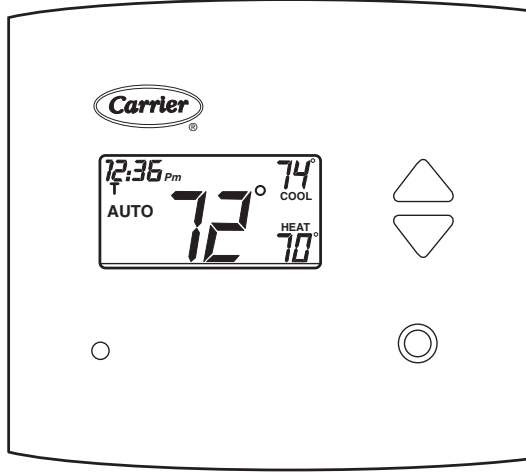
All units — When the fan switch is set for automatic (AUTO) operation, the indoor-fan contactor (IFC) is cycled with the lead compressor. If the fan switch is set for continuous operation (CONT), the IFC is energized as long as the unit power is on.

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.

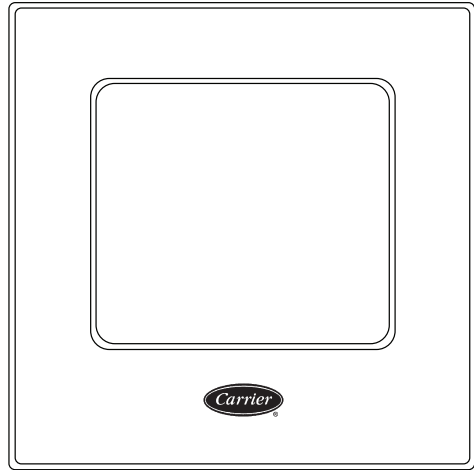
The compressor motor overcurrent protectors are manual-reset circuit breakers. A control circuit reset may also be necessary.

CARRIER CONTROLS

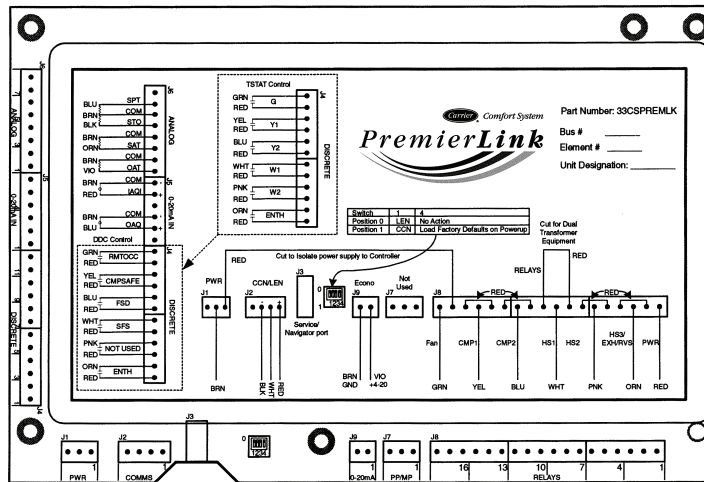
DEBONAIR® COMMERCIAL PROGRAMMABLE THERMOSTAT



EDGE® PRO COMMERCIAL THERMOSTAT



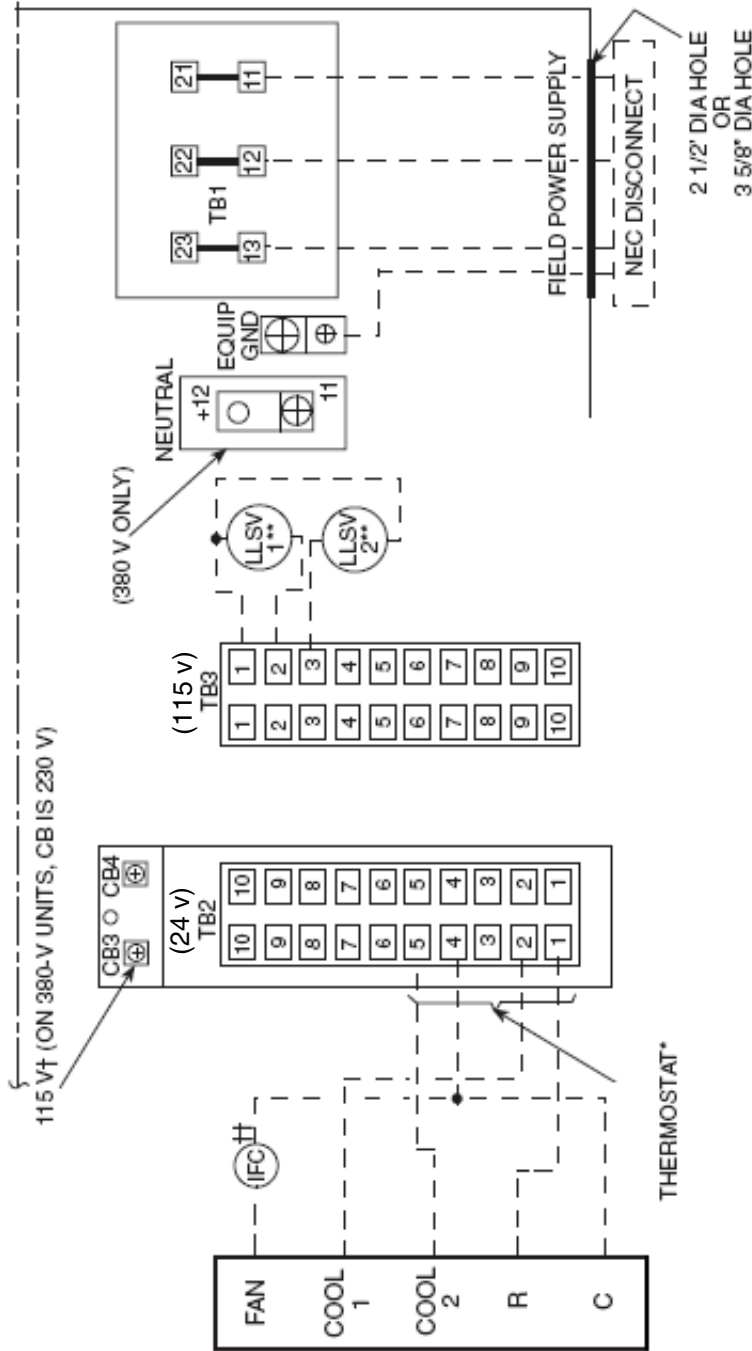
PREMIERLINK™ COMMUNICATING CONTROLS



Typical control wiring schematics



→ 38AH024-034 UNITS WITH SINGLE AIR HANDLER



LEGEND

- CB — Circuit Breaker
- EQUIP — Equipment
- GND — Ground
- IFC — Indoor Fan Contactor
- LLSV — Liquid Line Solenoid Valve
- NEC — National Electrical Code
- TB — Terminal Block
- Field Control Wiring
- Factory Wiring
- Field Power Wiring

*Use thermostat wiring shown here for single air-handler applications.
 †CB3 protects control circuit at the following unit voltages:

CONTROL CIRCUIT PROTECTED AT: (V-Ph-Hz)	UNIT (V-Ph-Hz)
115-1-60	208/230-3-60 460-3-60 575-3-60
230-1-60	380-3-60

**For a single air handler, LLSV valve 1 is to be used on the lower (no. 1) evaporator circuit. The LLSV valve 2 is to be used on the upper (no. 2) evaporator circuit.

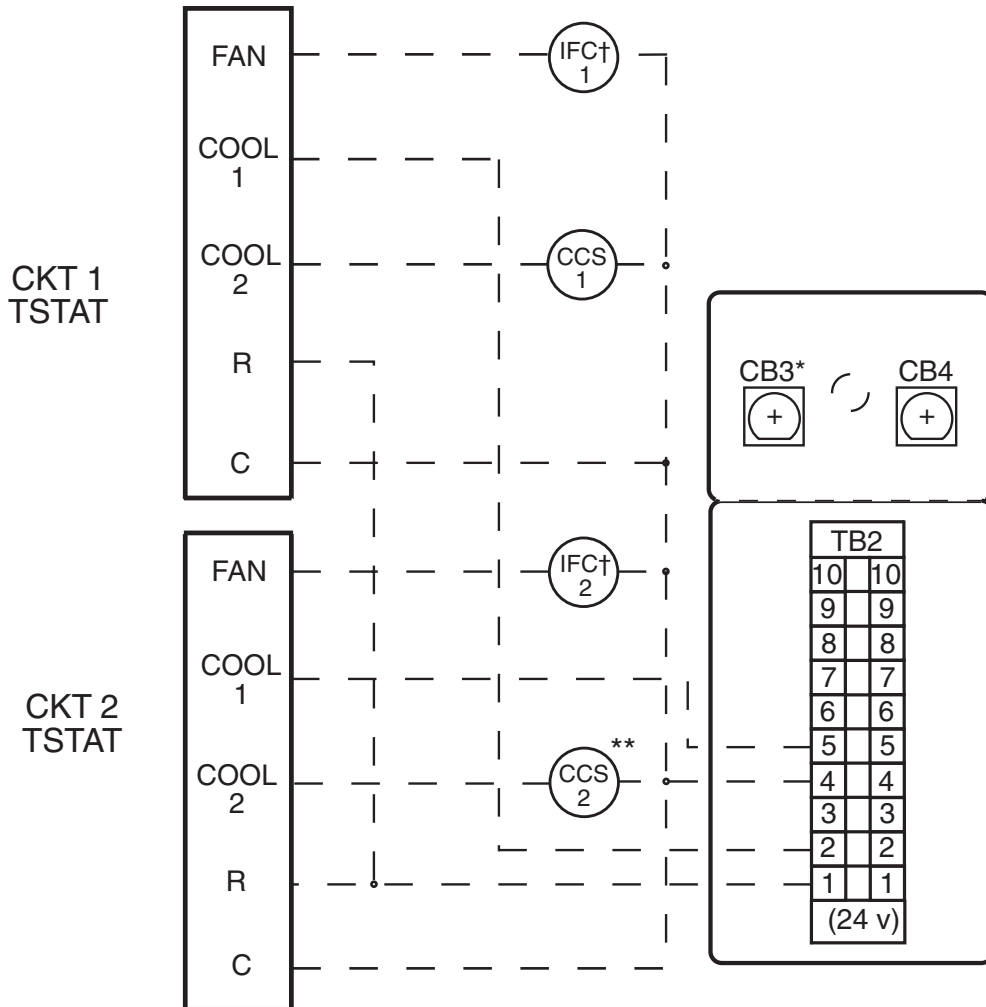
††Only one indoor-fan contactor is required on single air-handler applications. Use Carrier accessory part no. 40RR900181 for indoor-fan contactor.

NOTES:
 1. CB4 protects TB2 circuit; CB3 protects TB3 circuits.
 2. LLSV1 and LLSV2 are field supplied.
 3. TB2 is 24 v and TB3 is 115 v.

Typical control wiring schematics (cont)



38AH024-034 UNITS WITH 2 AIR HANDLERS THERMOSTAT WIRING → OPTIONAL WIRING TO FACILITATE CONNECTION TO OTHER CONTROL DEVICES



LEGEND

- CB** — Circuit Breaker
- CCS** — Capacity Control Solenoid
- IFC** — Indoor-Fan Contactor
- Field Control Wiring

*CB3 protects control circuit as follows:

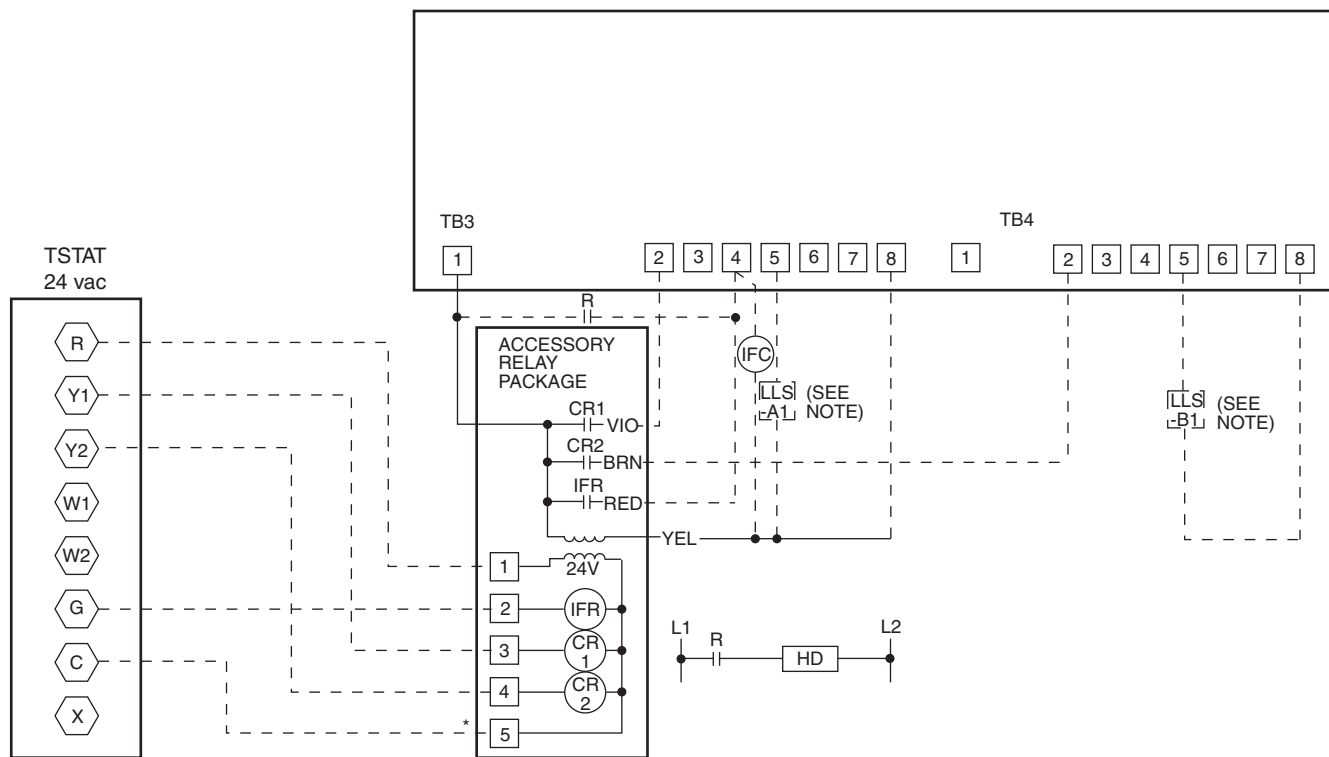
CONTROL CIRCUIT PROTECTED AT: (V-Ph-Hz)	UNIT (V-Ph-Hz)
115-1-60	208/230-3-60 460-3-60 575-3-60
230-1-60	380-3-60

†Use Carrier accessory part no. 40RR900181 for indoor-fan contactor.

**Do not install CCS2 unless accessory unloader is field-installed on circuit no. 2 compressor.

NOTE: Capacity control solenoid (and liquid line solenoid drop refrigerant control) valves are field supplied.

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



LEGEND

- CR** — Control Relay
- HD** — Heating Device
- IFC** — Indoor-Fan Contactor
- IFR** — Indoor-Fan Relay
- LLS** — Liquid Line Solenoid
- R** — Heating Relay (field-supplied 24-v sealed coil, 10 va maximum rating)
- TB** — Terminal Block
- Factory Wiring
- - - - Field Wiring

*To control heating device and provide automatic indoor-fan operation on heating.

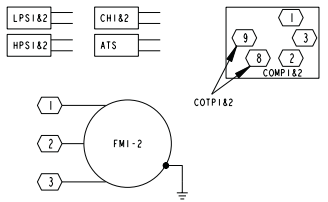
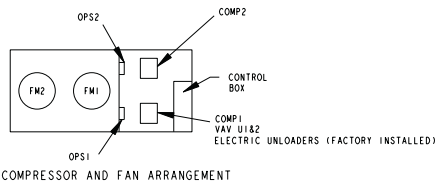
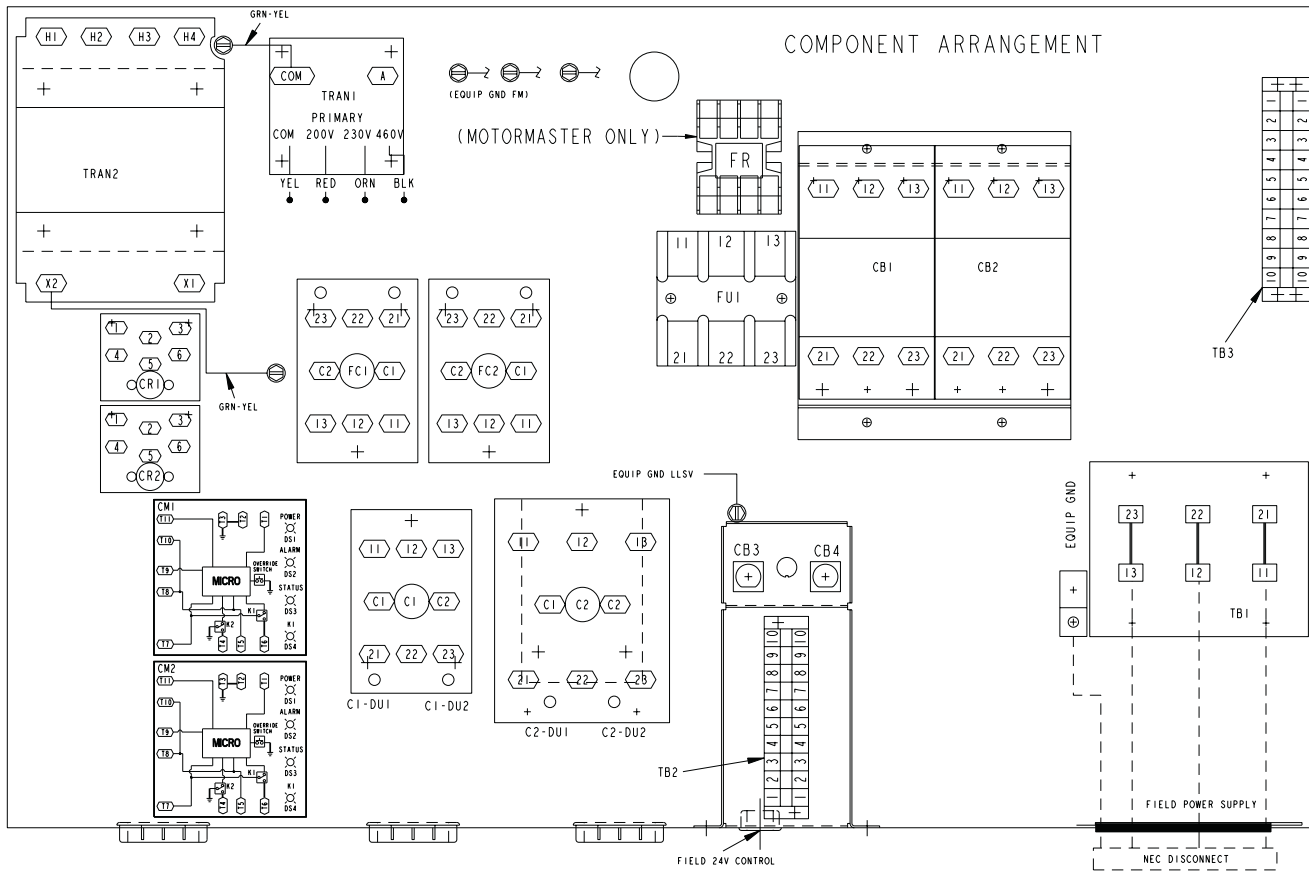
NOTES:

1. Field-supplied liquid line solenoid valves installed at the evaporator are required on all units.
2. Internal single zone relay contacts are rated for 1 amp/24 vac.
3. TB3 and TB4 control voltages are as follows:
 115 v for 208/230, 460, and 575 v units
 230 v for 380/415 and 380 v units
 200 v for 346 v units

Typical control wiring schematics (cont)



38AH024-034 COMPONENT ARRANGEMENT (60 Hz)



- NOTES:**
1. FOR TRANS 2 FOR 208/230V CONNECT TO H3. FOR 460V CONNECT TO H4.
 2. TRANS 1 CONNECTED TO ORANGE LEAD FOR 208/230 AND TO BLK FOR 460V.
 3. COMPRESSOR & FAN MOTORS THERMALLY PROTECTED. THREE PHASE MOTORS PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
 4. REPLACEMENT OF ORIGINAL WIRES MUST BE WITH TYPE 90°C WIRE OR ITS EQUIVALENT.
 5. FACTORY WIRING IS IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC). FIELD MODIFICATIONS OR ADDITIONS MUST BE IN COMPLIANCE WITH ALL APPLICABLE CODES. ALUMINUM OR ALUMINUM CONDUCTORS.
 6. WIRING FOR FIELD POWER SUPPLY MUST BE RATED 75°C. USE COPPER, COPPER-CLAD ALUMINUM OR ALUMINUM CONDUCTORS.
 7. V.A. AVAILABLE TB2 IS 140A.
 8. FU1 (208-230V ONLY).

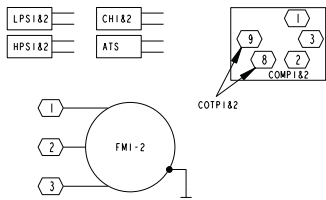
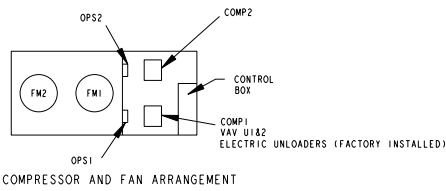
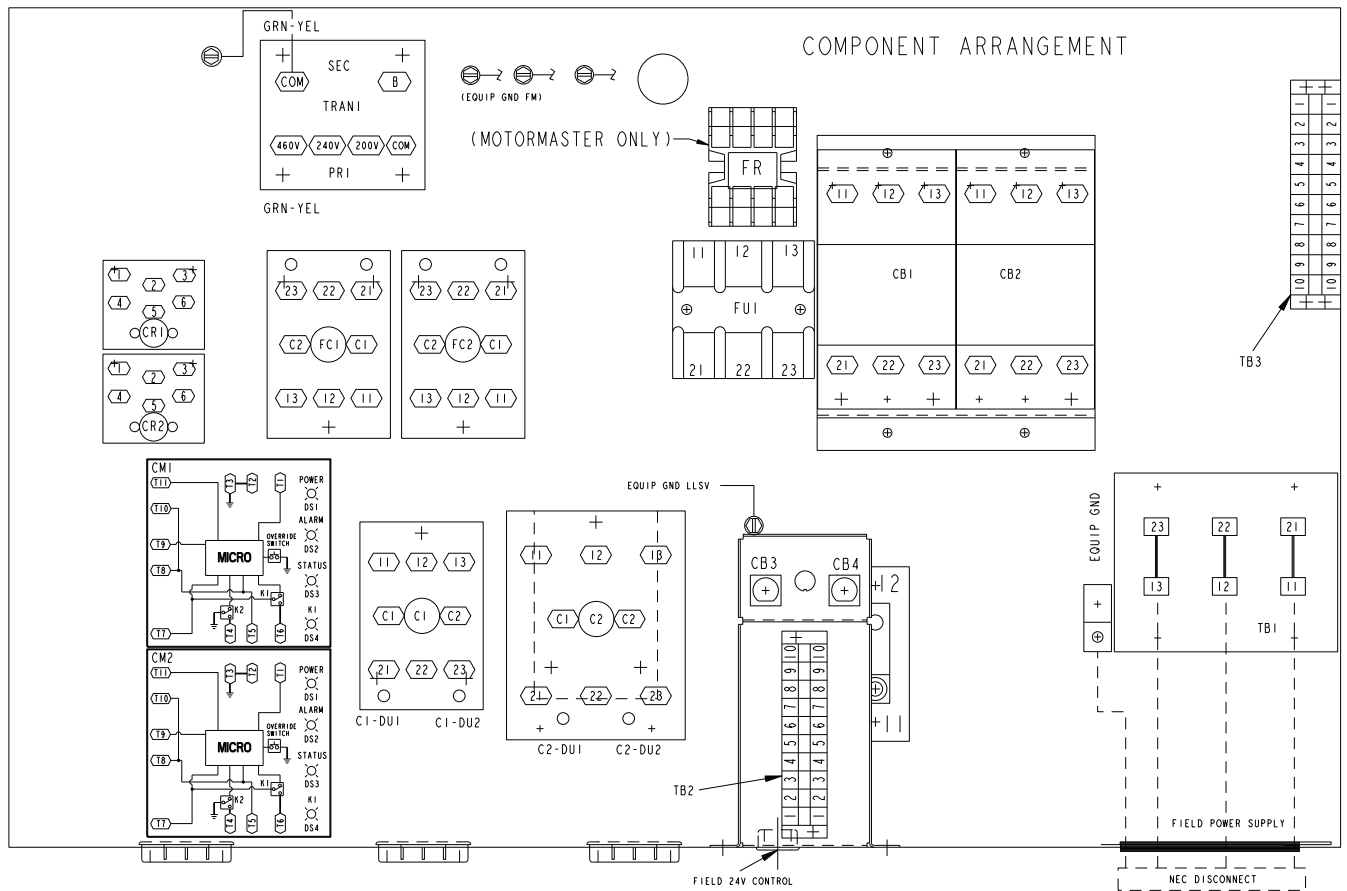
CM ALARM CODES				
LED	NUMBER OF BLINKS *	TIME (sec)		STATUS
		ON	OFF	
DS1 POWER LED				
	1	1/4	1/4	NORMAL OPERATION
		STEADY		LOCKOUT STATE
DS2 ALARM LED				
		STEADY		HPS OR COTP OPEN
	1	1/4	1	LPS OPEN
	2	1/4	1	OPS OPEN
	3	1/4	1	LPS/OPS OPEN
DS3 STATUS LED				
		STEADY	STEADY	NO CALL FOR COOLING
		STEADY		COOLING
	1	1/4	1/4	3 MIN. CMP DELAY
DS4 "KT" LED				
		STEADY		RELAY KI CLOSED

* - MULTIPLE BLINKS ARE A SERIES OF ON/OFF FLASHES OF EQUAL DURATION FOLLOWED BY 1 SECOND OFF.

- LEGEND**
- ATS** — Air Temperature Switch
 - C** — Contactor, Compressor
 - CB** — Circuit Breaker
 - CH** — Crankcase Heater
 - CM** — Control Module
 - COMP** — Compressor
 - COTP** — Compressor Overtemperature Protection
 - CR** — Control Relay
 - EQUIP** — Equipment
 - FC** — Fan Contactor
 - FM** — Fan Motor
 - FR** — Fan Relay
 - FU** — Fuseblock
 - GND** — Ground
 - HPS** — High-Pressure Switch
 - LLSV** — Liquid Line Solenoid Valve
 - LPS** — Low-Pressure Switch
 - NEC** — National Electronic Code

- OPS** — Oil Pressure Switch
- PL** — Plug Assembly
- TB** — Terminal Block
- TRAN** — Transformer
- U** — Unloader
- VAV** — Variable Air Volume
- Terminal Block Connection
- Marked Terminal
- Unmarked Terminal
- Unmarked Splice
- Factory Wiring
- Field Power Wiring
- Indicates Common Potential, Does Not Represent Wiring

38AH024-034 COMPONENT ARRANGEMENT (50 Hz)



- NOTES:**
1. COMPRESSOR & FAN MOTORS THERMALLY PROTECTED. THREE PHASE MOTORS PROTECTED AGAINST PRIMARY SINGLE PHASING CONDITIONS.
 2. REPLACEMENT OF ORIGINAL WIRES MUST BE WITH TYPE 90°C WIRE OR ITS EQUIVALENT.
 3. FACTORY WIRING IS IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC).
 4. FIELD MODIFICATIONS OR ADDITIONS MUST BE IN COMPLIANCE WITH ALL APPLICABLE CODES. WIRING FOR FIELD POWER SUPPLY MUST BE RATED 75°C. USE COPPER, COPPER-CLAD ALUMINUM OR ALUMINUM CONDUCTORS.
 5. V.A. AVAILABLE TB2 IS (40A)
 6. FU1 (230 & 346V ONLY)

CM ALARM CODES				
LED	NUMBER OF BLINKS *	ON TIME (sec)	OFF TIME (sec)	STATUS
DS1 POWER LED	1	1/4	1/4	NORMAL OPERATION
		STEADY		LOCKOUT STATE
DS2 ALARM LED		STEADY		HPS OR COTP OPEN
	1	1/4	1	LPS OPEN
	2	1/4	1	OPS OPEN
DS3 STATUS LED	3	1/4	1	LPS/OPS OPEN
		STEADY	STEADY	NO CALL FOR COOLING
DS4 "KI" LED		STEADY		COOLING
	1	1/4	1/4	3 MIN. CMP DELAY
		STEADY		RELAY KI CLOSED

* - MULTIPLE BLINKS ARE A SERIES OF ON/OFF FLASHES OF EQUAL DURATION FOLLOWED BY 1 SECOND OFF.

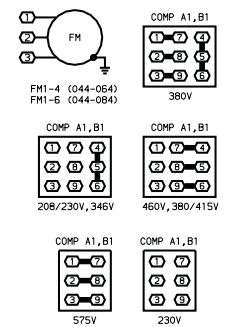
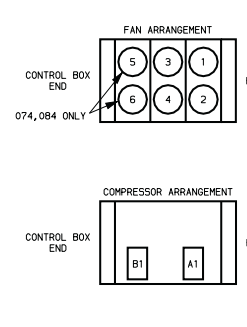
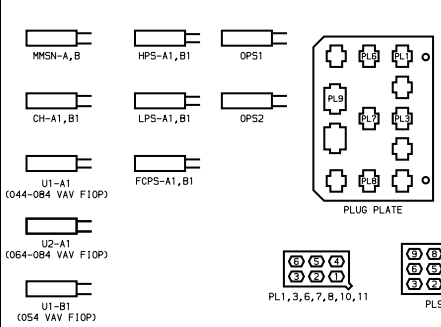
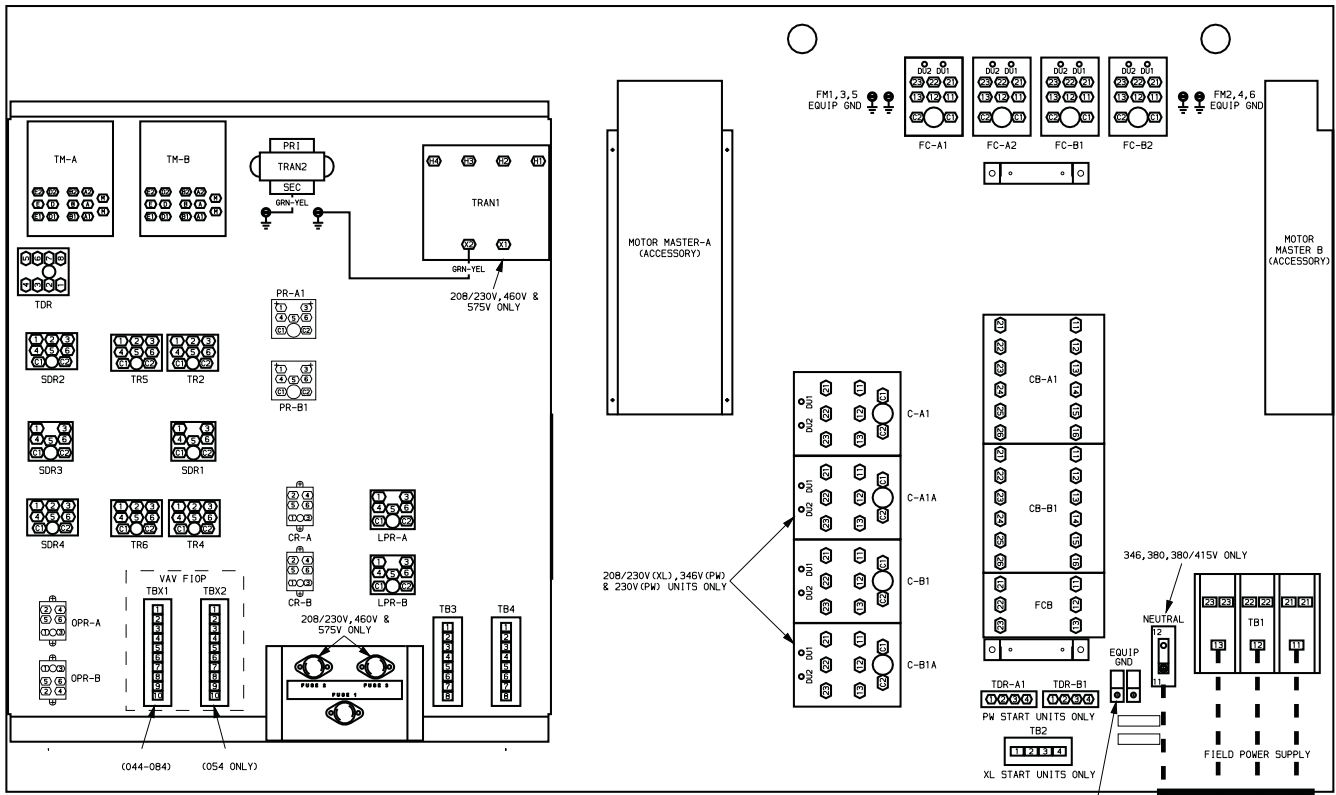
- LEGEND**
- ATS — Air Temperature Switch
 - C — Contactor, Compressor
 - CB — Circuit Breaker
 - CH — Crankcase Heater
 - CM — Control Module
 - COMP — Compressor
 - COTP — Compressor Overtemperature Protection
 - CR — Control Relay
 - EQUIP — Equipment
 - FC — Fan Contactor
 - FM — Fan Motor
 - FR — Fan Relay
 - FU — Fuseblock
 - GND — Ground
 - HPS — High-Pressure Switch
 - LLSV — Liquid Line Solenoid Valve
 - LPS — Low-Pressure Switch
 - NEC — National Electrical Code (U.S.A. Standard)

- OPS — Oil Pressure Switch
- TB — Terminal Block
- TRAN — Transformer
- U — Unloader
- VAV — Variable Air Volume
- Terminal Block Connection
- Marked Terminal
- Unmarked Terminal
- Unmarked Splice
- Factory Wiring
- Field Power Wiring
- Indicates Common Potential, Does Not Represent Wiring

Typical control wiring schematics (cont)



38AH044-084 DUAL CIRCUIT COMPONENT ARRANGEMENT, ALL VOLTAGES



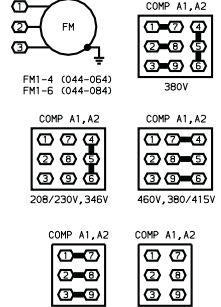
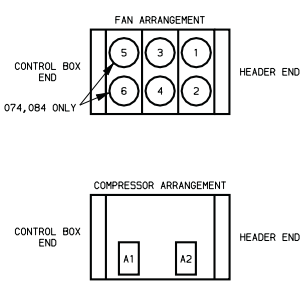
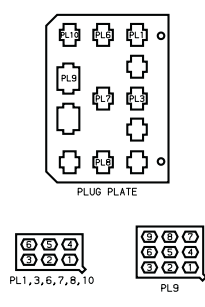
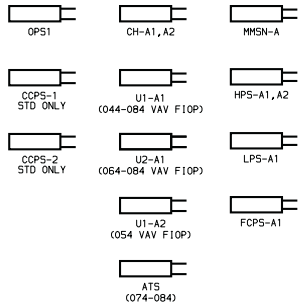
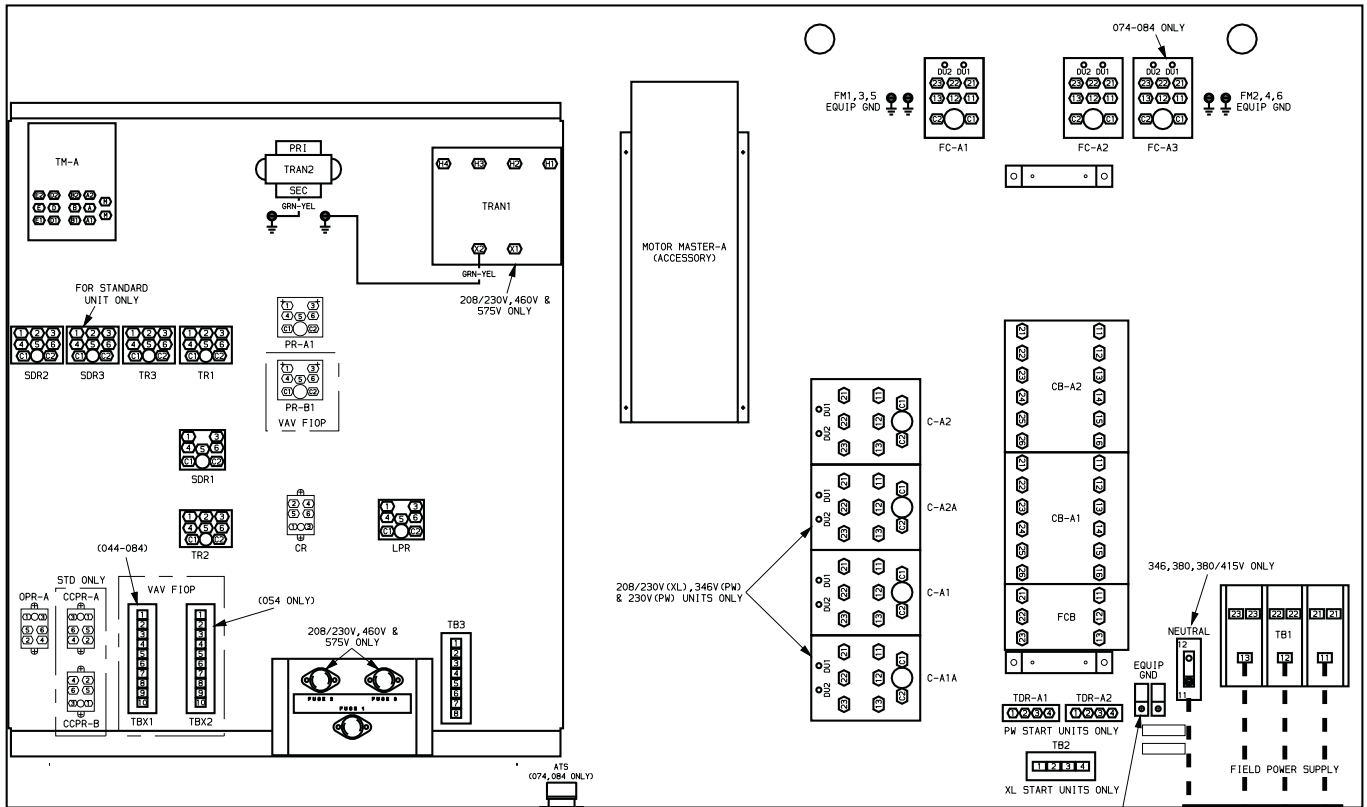
LEGEND

AHMS — Air Handler ModuPanel™ Switch	PW — Part-Wind Start
C — Compressor Contactor	SDR — Solenoid Drop Relay
CB — Compressor Circuit Breaker	SEC — Secondary
CH — Crankcase Heater	TB — Terminal Block
COMP — Compressor	TDR — Time-Delay Relay
CR — Control Relay	TM — Timer Motor
DU — Dummy Terminal	TR — Timer Relay
EQUIP — Equipment	TRAN — Transformer
FC — Fan Contactor	U — Unloader
FCB — Fan Circuit Breaker	VAV — Variable Air Volume
FCPS — Fan Cycling Pressure Switch	XL — Across-the-Line Start
FIOP — Factory-Installed Option	Terminal Block Connection
FM — Fan Motor	Marked Terminal
GND — Ground	Unmarked Terminal
HPS — High-Pressure Switch	Unmarked Splice
IFC — Indoor-Fan Contactor	Marked Wire
kcmil — Thousand circular mils	Factory Wiring
LLS — Liquid Line Solenoid	Field Wiring
LPR — Low-Pressure Relay	Indicates Common Potential;
LPS — Low-Pressure Switch	Does Not Represent Wiring
MMSN — Motormaster® Sensor	
NEC — National Electrical Code (U.S.A. Standard, NFPA 70)	
OPR — Oil Pressure Relay	
OPS — Oil Pressure Switch	
PL — Plug Assembly	
PR — Power Relay	
PRI — Primary	

NOTES:

- 208/230V units are factory wired for 230-v power supply. For 208-v power supply, connect yellow wire to terminal marked H2. For 460-v power supply, connect yellow wire to terminal marked H4. For 575-v power supply, connect yellow wire to terminal marked H2.
- For units with 115-v controls, connect black wire to the white lead of TRAN2. For units with 230-v controls, connect black wire to the blue lead of TRAN2. For units with 200-v controls, connect black wire to the blue lead of TRAN2.
- Terminal blocks TB3, TBX1, and TBX2 are for external field control connections. Control connections are to be class 1 wiring.
- Field-supplied components (IFC, LLS-A1 and LLS-A2) must have a maximum sealed coil rating of 30 va each (0.25 amp at 120 vac, 0.13 amp at 230 vac). Thermostats must have a minimum pilot duty rating of 120 va (1 amp at 120 vac). The fan switch must have a minimum pilot duty rating of 30 va (0.25 amp at 120 vac, 0.13 amp at 230 vac). On VAV units, the AHMS IFC, AUX and control staging contacts must have a minimum pilot duty rating of 120 VA (1 amp at 120 vac).
- 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.
- Replacement of factory wires must be with type 105 C wire or its equivalent.
- Factory wiring is in accordance with National Electrical Code (NEC). Field modifications or additions must be in compliance with all applicable codes.
- Compressors and fan motors are thermally protected. Three phase motors are protected against primary single phasing conditions.
- Line numbers on the left side of the label diagrams indicate the contact number. The numbers on the right side of the label diagrams match the contacts with their corresponding coils. A plain number indicates normally open contacts. An underlined number indicates normally closed contacts.
- Control circuit power available for field-installed accessories.

38AH044-084 SINGLE CIRCUIT COMPONENT ARRANGEMENT, ALL VOLTAGES



LEGEND

AHMS — Air Handler ModuPanel™ Switch	PW — Part-Wind Start
ATS — Air Temperature Switch	PR — Power Relay
C — Compressor Contactor	PRI — Primary
CB — Compressor Circuit Breaker	SDR — Solenoid Drop Relay
CCPR — Capacity Control Pressure Relay	SEC — Secondary
CCPS — Capacity Control Pressure Switch	TB — Terminal Block
CH — Crankcase Heater	TDR — Time-Delay Relay
COMP — Compressor	TM — Timer Motor
CR — Control Relay	TR — Timer Relay
DU — Dummy Terminal	TRAN — Transformer
EQUIP — Equipment	U — Unloader
FC — Fan Contactor	VAV — Variable Air Volume
FCB — Fan Circuit Breaker	XL — Across-the-Line Start
FCPS — Fan Cycling Pressure Switch	Terminal Block Connection
FIOP — Factory-Installed Option	Marked Terminal
FM — Fan Motor	Unmarked Terminal
GND — Ground	Unmarked Splice
HPS — High-Pressure Switch	Marked Wire
IFC — Indoor-Fan Contactor	Factory Wiring
kcmil — Thousand circular mils	Field Wiring
LLS — Liquid Line Solenoid	Indicates Common Potential;
LPR — Low-Pressure Relay	Does Not Represent Wiring
LPS — Low-Pressure Switch	
MMSN — Motormaster® Sensor	
NEC — National Electrical Code (U.S.A. Standard, NFPA 70)	
OPR — Oil Pressure Relay	
OPS — Oil Pressure Switch	
PL — Plug Assembly	

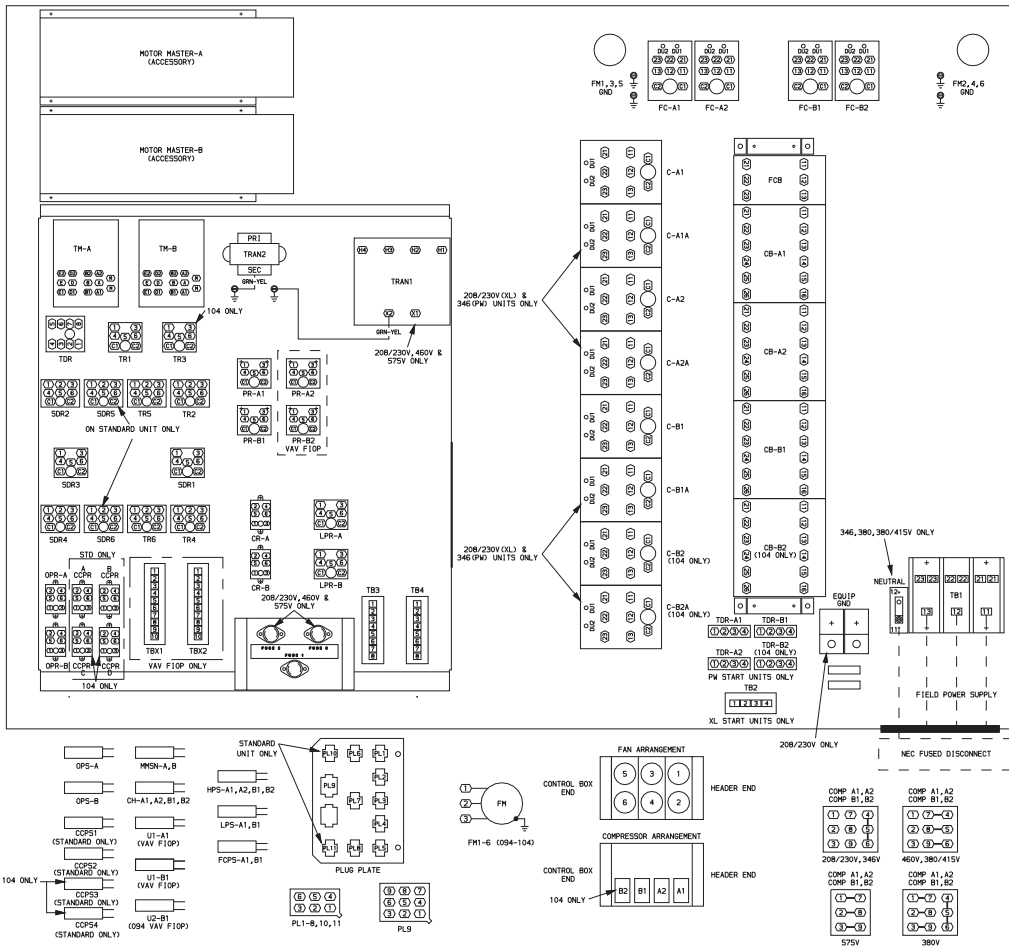
NOTES:

- 208/230V units are factory wired for 230-v power supply. For 208-v power supply, connect yellow wire to terminal marked H2. For 460-v power supply, connect yellow wire to terminal marked H4. For 575-v power supply, connect yellow wire to terminal marked H2.
- For units with 115-v controls, connect black wire to the white lead of TRAN2. For units with 230-v controls, connect black wire to the red lead of TRAN2. For units with 200-v controls, connect black wire to the blue lead of TRAN2.
- Terminal blocks TB3, TBX1, and TBX2 are for external field control connections. Control connections are to be class 1 wiring.
- Field-supplied components (IFC, LLS-A1 and LLS-A2) must have a maximum sealed coil rating of 30 va each (0.25 amp at 120 vac, 0.13 amp at 230 vac). Thermostats must have a minimum pilot duty rating of 120 va (1 amp at 120 vac). The fan switch must have a minimum pilot duty rating of 30 va (0.25 amp at 120 vac, 0.13 amp at 230 vac). On VAV units, the AHMS IFC AUX and control staging contacts must have a minimum pilot duty rating of 120 VA (1 amp at 120 vac).
- 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.
- Replacement of factory wires must be with type 105 C wire or its equivalent.
- Factory wiring is in accordance with National Electrical Code (NEC). Field modifications or additions must be in compliance with all applicable codes.
- Compressors and fan motors are thermally protected. Three phase motors are protected against primary single phasing conditions.
- Line numbers on the left side of the label diagrams indicate the contact number. The numbers on the right side of the label diagrams match the contacts with their corresponding coils. A plain number indicates normally open contacts. An underlined number indicates normally closed contacts.
- Control circuit power available for field-installed accessories.

Typical control wiring schematics (cont)



38AH094-104 DUAL CIRCUIT COMPONENT ARRANGEMENT, ALL VOLTAGES



CONTROL VOLTAGE CONNECTIONS

POWER SUPPLY	CONTROL VOLTAGE	TRAN1 CONNECTION	TRAN2 CONNECTION
60-Hz Units			
208	115	YEL to H2	BLK wire to WHT lead
230	115	YEL to H3	BLK wire to WHT lead
460	115	YEL to H4	BLK wire to WHT lead
575	115	YEL to H2	BLK wire to WHT lead
380	230	N/A	BLK wire to RED lead
50-Hz Units			
230	230	N/A	BLK wire to RED lead
346	200	N/A	BLK wire to BLU lead
380/415	230	N/A	BLK wire to RED lead

LEGEND

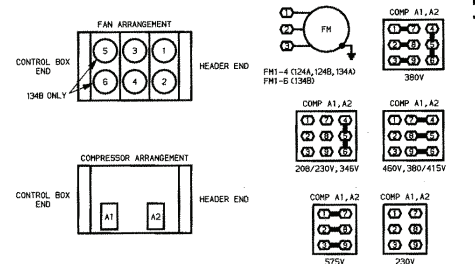
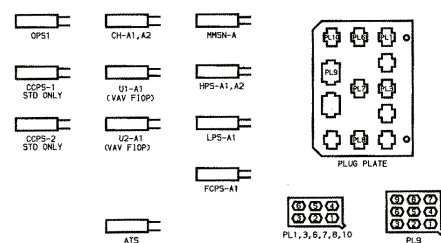
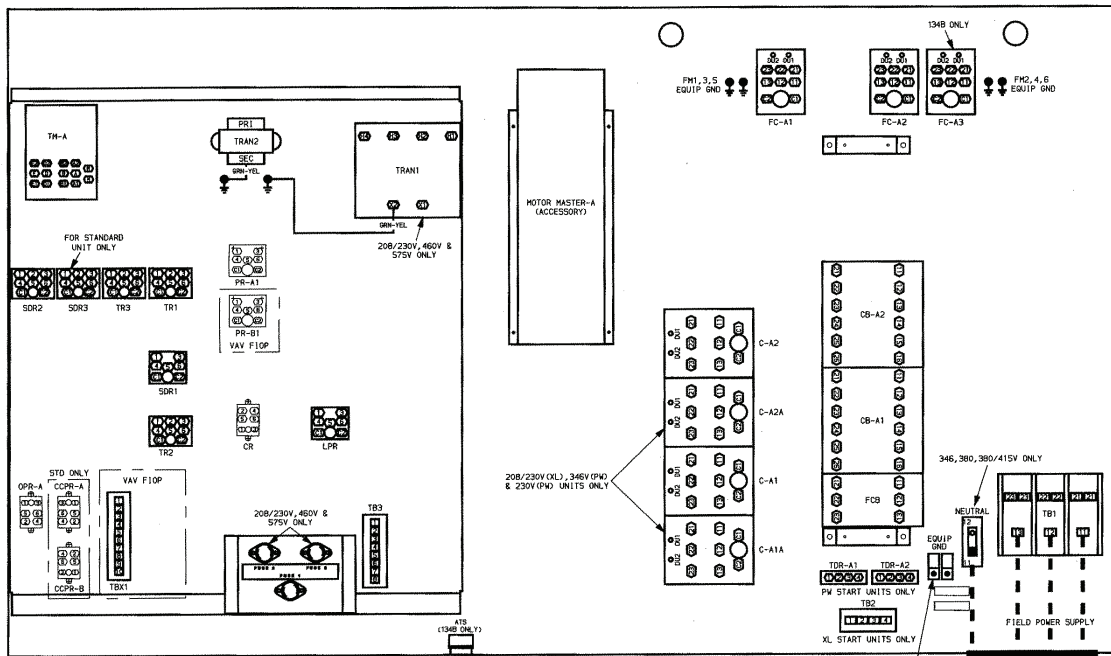
AHMS — Air Handler ModuPanel™ Switch	PW — Part-Wind Start
C — Compressor Contactor	SDR — Solenoid Drop Relay
CB — Compressor Circuit Breaker	SEC — Secondary
CH — Crankcase Heater	TB — Terminal Block
COMP — Compressor	TDR — Time-Delay Relay
CR — Control Relay	TM — Timer Motor
DU — Dummy Terminal	TR — Timer Relay
EQUIP — Equipment	TRAN — Transformer
FCB — Fan Contactor	U — Unloader
FC — Fan Circuit Breaker	VAV — Variable Air Volume
FCPS — Fan Cycling Pressure Switch	XL — Across-the-Line Start
FIOP — Factory-Installed Option	Terminal Block Connection
FM — Fan Motor	Ground
GND — Ground	Marked Terminal
HPS — High-Pressure Switch	Unmarked Terminal
IFC — Indoor-Fan Contactor	Unmarked Splice
kcmil — Thousand circular mils	Marked Wire
LLS — Liquid Line Solenoid	Factory Wiring
LPR — Low-Pressure Relay	Field Wiring
LPS — Low-Pressure Switch	Indicates Common Potential;
MMSN — Motormaster® Sensor	Does Not Represent Wiring
NEC — National Electrical Code (U.S.A. Standard, NFPA 70)	
OPR — Oil Pressure Relay	
OPS — Oil Pressure Switch	
PL — Plug Assembly	
PR — Power Relay	
PRI — Primary	

NOTES:

- For units with 115-v controls, connect black wire to the white lead of TRAN2. For units with 230-v controls, connect black wire to the red lead of TRAN2. For units with 200-v controls, connect black wire to the blue lead of TRAN2.
- Terminal blocks TB3, TB4, TBX1, and TBX2 are for external field control connections. Control connections are to be class 1 wiring.
- Field-supplied components (IFC, LLS-A1 and LLS-A2) must have a maximum sealed coil rating of 30 va each (0.25 amp at 120 vac, 0.13 amp at 230 vac). Thermostats must have a minimum pilot duty rating of 120 va (1 amp at 120 vac). The fan switch must have a minimum pilot duty rating of 30 va (0.25 amp at 120 vac, 0.13 amp at 230 vac). On VAV units, the AHMS IFC_AUX and control staging contacts must have a minimum pilot duty rating of 120 VA (1 amp at 120 vac).
- 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.
- Replacement of factory wires must be with type 105 C wire or its equivalent.
- Factory wiring is in accordance with NEC (U.S.A. Standard). Field modifications or additions must be in compliance with all applicable codes.
- Compressors and fan motors are thermally protected. The 3-phase motors are protected against primary single-phasing conditions.
- Line numbers on the left side of the label diagrams indicate the contact number. The numbers on the right side of the label diagrams match the contacts with their corresponding coils. A plain number indicates normally open contacts. An underlined number indicates normally closed contacts.
- Control circuit power available for field-installed accessories:

Standard Unit	VAV Unit
094 — 165 VA	094 — 75 VA
104 — 60 VA	104 — 0 VA
124 — 120 VA	124 — 120 VA
134 — 120 VA	134 — 120 VA

38AH124A,124B,134A,134B MODULES COMPONENT ARRANGEMENT, ALL VOLTAGES



CONTROL VOLTAGE CONNECTIONS

POWER SUPPLY	CONTROL VOLTAGE	TRAN1 CONNECTION	TRAN2 CONNECTION
60-Hz Units			
208	115	YEL to H2	BLK wire to WHT lead
230	115	YEL to H3	BLK wire to WHT lead
460	115	YEL to H4	BLK wire to WHT lead
575	115	YEL to H2	BLK wire to WHT lead
380	230	N/A	BLK wire to RED lead
50-Hz Units			
230	230	N/A	BLK wire to RED lead
346	200	N/A	BLK wire to BLU lead
380/415	230	N/A	BLK wire to RED lead

LEGEND

- | | |
|---|-----------------------------|
| AHMS — Air Handler ModuPanel™ Switch | PR — Power Relay |
| ATS — Air Temperature Switch | PRI — Primary |
| C — Compressor Contactor | SDR — Solenoid Drop Relay |
| CB — Compressor Circuit Breaker | SEC — Secondary |
| CCPR — Capacity Control Pressure Relay | TB — Terminal Block |
| CCPS — Capacity Control Pressure Switch | TDR — Time-Delay Relay |
| CH — Crankcase Heater | TM — Timer Motor |
| COMP — Compressor | TR — Timer Relay |
| CR — Control Relay | TRAN — Transformer |
| DU — Dummy Terminal | U — Unloader |
| EQUIP — Equipment | VAV — Variable Air Volume |
| FC — Fan Contactor | XL — Across-the-Line Start |
| FCB — Fan Circuit Breaker | |
| FCPS — Fan Cycling Pressure Switch | Terminal Block Connection |
| FIOP — Factory-Installed Option | Marked Terminal |
| FM — Fan Motor | Unmarked Terminal |
| GND — Ground | Unmarked Splice |
| HPS — High-Pressure Switch | Marked Wire |
| IFC — Indoor-Fan Contactor | Factory Wiring |
| kmil — Thousand circular mils | Field Wiring |
| LLS — Liquid Line Solenoid | Indicates Common Potential; |
| LPR — Low-Pressure Relay | Does Not Represent Wiring |
| LPS — Low-Pressure Switch | |
| MMSN — Motormaster® Sensor | |
| NEC — National Electrical Code (U.S.A. Standard, NFPA 70) | |
| OPR — Oil Pressure Relay | |
| OPS — Oil Pressure Switch | |
| PL — Plug Assembly | |
| PW — Part-Wind Start | |

NOTES:

- For units with 115-v controls, connect black wire to the white lead of TRAN2. For units with 230-v controls, connect black wire to the blue lead of TRAN2.
- Terminal blocks TB3, TB4, TBX1, and TBX2 are for external field control connections. Control connections are to be class 1 wiring.
- Field-supplied components (IFC, LLS-A1 and LLS-A2) must have a maximum sealed coil rating of 30 va each (0.25 amp at 120 vac, 0.13 amp at 230 vac). Thermostats must have a minimum pilot duty rating of 120 va (1 amp at 120 vac). The fan switch must have a minimum pilot duty rating of 30 va (0.25 amp at 120 vac, 0.13 amp at 230 vac). On VAV units, the AHMS IFC, AUX and control staging contacts must have a minimum pilot duty rating of 120 VA (1 amp at 120 vac).
- 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.
- Replacement of factory wires must be with type 105 C wire or its equivalent.
- Factory wiring is in accordance with NEC (U.S.A. Standard). Field modifications or additions must be in compliance with all applicable codes.
- Compressors and fan motors are thermally protected. The 3-phase motors are protected against primary single-phasing conditions.
- Line numbers on the left side of the label diagrams indicate the contact number. The numbers on the right side of the label diagrams match the contacts with their corresponding coils. A plain number indicates normally open contacts. An underlined number indicates normally closed contacts.
- Control circuit power available for field-installed accessories:

Standard Unit	VAV Unit
094 — 165 VA	094 — 75 VA
104 — 60 VA	104 — 0 VA
124 — 120 VA	124 — 120 VA
134 — 120 VA	134 — 120 VA

Application data



Installation

Select equipment to match or to be slightly less than peak load. This provides better humidity control, less unit cycling, and less part-load operation.

When selecting vapor line sizes, oil return must be evaluated, particularly at part-load conditions.

The indoor fan must always be operating when outdoor unit is operating.

IMPORTANT: When application is in a VAV (variable air volume) system, total building load is not the sum of the individual peak loads. If individual peak loads are summed, the equipment tends to be oversized for the load.

To minimize return-air temperature extremes, use the equipment room as a return-air plenum when applying VVT® (variable volume and temperature) systems with supply-to-return air recycle as used with VVT control systems.

Ductwork should be sized according to unit size, not building load.

To minimize the possibility of air recirculation, avoid the use of concentric supply/return grilles.

Indoor equipment should be selected at no less than 300 cfm/ton (40 L/s per kW).

Do NOT bury refrigerant piping underground.

IMPORTANT: Condensing units applied in VVT or VAV systems must have field-supplied and installed accumulators. Order part number KH-73LZ-001 from Service Parts.

OPERATING LIMITS

Maximum Outdoor Ambient	115 F (46 C)
Minimum Outdoor Ambient	See Minimum Outdoor-Air Operating Temperature table, pages 119-121.
Minimum Return-Air Temperature	55 F (12.8 C)
Maximum Return-Air Temperature	95 F (35 C)
Normal Acceptable Saturation Suction Temperature Range	20 to 50 F (-6.6 to 10.0 C)
Maximum Discharge Temperature	275 F (135 C)
Minimum Discharge Superheat	60 F (15.6 C)

MAXIMUM LIQUID LIFT, 38AH024-034 UNITS

UNIT 38AH	MAXIMUM LIQUID LIFT PER CIRCUIT, Ft (m)
024	76 (23.2)
028	73 (22.3)
034	100 (30.5)

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 119-121.

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), 38AH044-134 UNITS

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



LIQUID LINE DATA (50 Hz)

UNIT 38AH	MAXIMUM ALLOWABLE LIQUID LIFT		LIQUID LINE			
			Max Allowable Pressure Drop		Max Allowable Temp Loss	
	m	ft	kPa	Psi	C	F
044	17.5	57.5	48.3	7	1.1	2
054	23.0	75.0				
064	19.8	65.0				
074	11.4	37.5				
084	23.0	75.0				
094	14.0	46.0				
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
024	100, 83, 50, 33	—
028	100, 83, 50, 33	—
034	100, 85, 43, 28	—
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.
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.

UNLOADING SEQUENCES — OPTIONAL VARIABLE AIR VOLUME (VAV) UNITS

UNIT 38AH	CAPACITY/STAGE (%)	
	Standard Dual-Circuit Units	Optional Single-Circuit Units
024	100, 83, 67, 50, 33, 17	—
028	100, 83, 67, 50, 33, 17	—
034	100, 85, 71, 43, 28, 14	—
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 — 38AH024-084 DUAL-CIRCUIT UNITS

UNIT 38AH	QUANTITY OF LOADED COMPRESSOR CYLINDERS			SYSTEM CAPACITY (%)	MINIMUM OUTDOOR OPERATING TEMP			
	Ckt A	Ckt B	Total		with Std Fans		with Motormaster® V Control	
					C	F	C	F
024	6	6	12	100	11.7	53	-28.9	-20
	4	6	10	83				
	2	6	8	67*†				
	6	0	6	50				
	4	0	4	33				
	2	0	2	17*†				
028	6	6	12	100	10	53	-28.9	-20
	4	6	10	83				
	2	6	8	67*†				
	6	0	6	50				
	4	0	4	33				
	2	0	2	17*†				
034	6	6	12	100	9.4	53	-28.9	-20
	4	6	10	85				
	2	6	8	71*†				
	6	0	6	43				
	4	0	4	28				
	2	0	2	14*†				
044	4	4	8	100	10.0	50	-28.9	-20
	2	4	6	75				
	4	0	4	50				
	2	0	2	25				
054	4	6	10	100	8.9	48	-28.9	-20
	2	6	8	79				
	2	4	6*	58*				
	4	0	4	42				
2	0	2	21					
064	6	6	12	100	3.9	39	-28.9	-20
	4	6	10	84				
	2	6	8*	69*				
	6	0	6	48				
	4	0	4	32				
	2	0	2*	16*				
074	6	6	12	100	-0.6	31	-28.9	-20
	4	6	10	86				
	2	6	8*	71*				
	6	0	6	43				
	4	0	4	29				
	2	0	2*	14*				
084	6	6	12	100	-6.7	20	-28.9	-20
	4	6	10	83				
	2	6	8*	67*				
	6	0	6	50				
	4	0	4	33				
	2	0	2*	17*				

*Requires units with VAV (variable air volume) factory-supplied option.
†Motormaster V cannot be used with 2 unloaders when unit is connected to 2 separate air handlers.

NOTES:

1. Units have 2 independent refrigeration circuits. Circuit A is lead circuit.

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			
			with Std Fans		with Motormaster® V Control	
			C	F	C	F
044	8	100	8.3	47	-28.9	-20
	6	75				
	4	50				
	2	25				
054	10	100	5.0	41	-28.9	-20
	8	80				
	6*	61*				
	6	56				
	4	37				
064	12	100	3.3	38	-28.9	-20
	10	82				
	8*	64*				
	6	55				
	4	36				
	2*	18*				
074	12	100	-5.6	22	-28.9	-20
	10	81				
	8*	62*				
	6	57				
	4	38				
	2*	19*				
084	12	100	-6.7	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.

Application data (cont)



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		with Std Fans				with Motormaster® V Control	
					Ckt A		Ckt B		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						
2†	0	2	9†							
124	12	12	24	100	3.3	38	3.3	38	-28.9	-20
	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 5-16.

†Requires field-installed accessory unloader on circuit lead compressor. Lead compressor is identified in Physical Data section, pages 5-16.

NOTES:

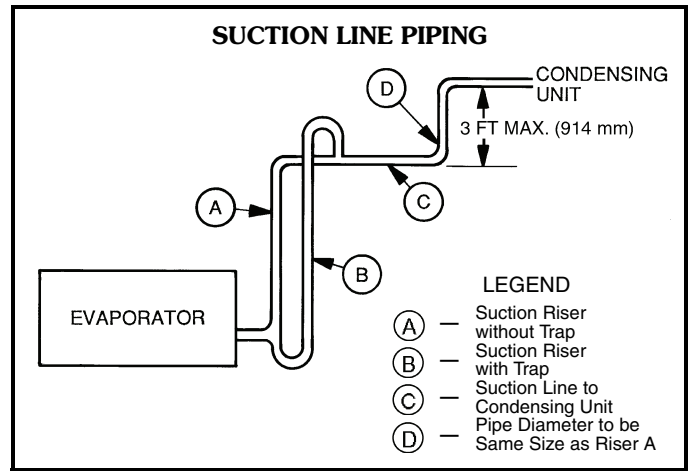
1. Temperatures calculated with the minimum number of fans operating per circuit.
2. For 38AH124 and 134 units, circuit A is Module 38AH124A or 134A. Circuit B is Module 38AH124B or 134B.
3. Minimum outdoor-air operating temperature is based on 32 C (90 F) saturated condensing temperature and 100% capacity.

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-coating 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 in harsh combinations of coastal and industrial environments.



MULTIPLE CONDENSING UNIT ARRANGEMENTS*

PERPENDICULAR

2 1/2' MIN (0.8 m)

2 1/2' MIN (0.8 m)

MODULE 1

MODULE 2

END-TO-END

6' MIN* (1.8 m)

MODULE 1

MODULE 2

SIDE-BY-SIDE

6' (1.8 m) MIN (SIZES 024-034)

8' (2.4 m) MIN (SIZES 044-104)

MODULE 1

MODULE 2

Space for Service and Airflow

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

38AH	DIMENSIONS, Ft (m)	
	A	B
028-034	4 (1.2)	4 (1.2)
044-134	6 (2.0)	5 (1.5)

Application data (cont)



REFRIGERANT PIPING REQUIREMENTS 38AH024-084 DUAL-CIRCUIT UNITS, 60 Hz

UNIT 38AH		TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — Ft (m)											
		0-25 (0-7.6)		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
024	Ckt A	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	5/8	1 5/8*	7/8	1 5/8*	7/8	1 5/8*
	Ckt B	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	5/8	1 5/8†	7/8	1 5/8†	7/8	1 5/8†
028	Ckt A	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	7/8	1 5/8*	7/8	2 1/8**	7/8	2 1/8**
	Ckt B	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	7/8	1 5/8†	7/8	2 1/8**	7/8	2 1/8**
034	Ckt A	1/2	1 1/8	5/8	1 3/8	5/8	1 5/8*	7/8	1 5/8*	7/8	2 1/8**	7/8	2 1/8**
	Ckt B	1/2	1 3/8	5/8	1 5/8	7/8	1 5/8	7/8	1 5/8	7/8	2 1/8†	7/8	2 1/8†
044	Ckt A	5/8	1 5/8	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8
	Ckt B	5/8	1 5/8	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8
054	Ckt A	5/8	1 5/8	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8
	Ckt B	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	1 1/8	2 1/8	1 1/8	2 1/8	1 1/8	2 5/8
064	Ckt A	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8	1 1/8	2 1/8	1 1/8	2 5/8†
	Ckt B	7/8	2 1/8	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
074	Ckt A	7/8	2 1/8	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†
	Ckt B	7/8	2 1/8	1 1/8	2 1/8	1 1/8	2 1/8	1 1/8	2 5/8	1 3/8	2 5/8	1 3/8	2 5/8
084	Ckt A	7/8	2 1/8	1 1/8	2 1/8	1 1/8	2 1/8	1 1/8	2 5/8†	1 3/8	2 5/8†	1 3/8	2 5/8†
	Ckt B	7/8	2 1/8	1 1/8	2 1/8	1 1/8	2 1/8	1 1/8	2 5/8	1 3/8	2 5/8	1 3/8	2 5/8

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.

**Double suction riser required if evaporator is below condensing unit and compressor has one or more unloader(s).

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
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

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
024	Ckt A	—	—	—	1 1/8	1 3/8	1 5/8	1 1/8	1 3/8	1 5/8	1 1/8	1 3/8	1 5/8
	Ckt B	—	—	—	1 1/8	1 3/8	1 5/8	1 3/8	1 5/8	1 3/8	1 3/8	1 3/8	1 5/8
028	Ckt A	—	—	—	1 1/8	1 3/8	1 5/8	1 3/8	1 5/8	2 1/8	1 3/8	1 5/8	2 1/8
	Ckt B	—	—	—	1 1/8	1 3/8	1 5/8	1 3/8	1 5/8	2 1/8	1 3/8	1 5/8	2 1/8
034	Ckt A	1 1/8	1 3/8	1 5/8	1 1/8	1 3/8	1 5/8	1 3/8	1 5/8	2 1/8	1 3/8	1 5/8	2 1/8
	Ckt B	—	—	—	—	—	—	1 3/8	1 5/8	2 1/8	1 3/8	1 5/8	2 1/8
054	Ckt A	—	—	—	—	—	—	—	—	—	—	—	—
	Ckt B	—	—	—	—	—	—	—	—	—	1 5/8	2 1/8	2 5/8
064	Ckt A	—	—	—	—	—	—	—	—	—	1 5/8	2 1/8	2 5/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—
074	Ckt A	—	—	—	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—
084	Ckt A	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8
	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 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



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	2 1/8	7/8	2 1/8	1 1/8	2 5/8†**	1 1/8	2 5/8†**	1 3/8	2 5/8†**	1 3/8	3 1/8†**
054	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†**
064; Modules 124A, 124B,134A	1 1/8	2 1/8	1 1/8	2 5/8†**	1 1/8	2 5/8†**	1 3/8	3 1/8†**	1 3/8	3 1/8†**	1 3/8	3 1/8†**
074; Module 134B	1 1/8	2 1/8	1 1/8	2 5/8†**	1 3/8	3 1/8†**	1 3/8	3 1/8†**	1 3/8	3 1/8†**	1 5/8	3 5/8†**
084	1 1/8	2 5/8†**	1 1/8	2 5/8†**	1 3/8	3 1/8†**	1 3/8	3 1/8†**	1 5/8	3 5/8†**	1 5/8	3 5/8†**

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
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

**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	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8
054	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8
064 Modules 124A, 124B,134A	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8
074; Module 134B	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8	2 1/8	3 1/8	3 5/8
084	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8	2 1/8	3 1/8	3 5/8	2 1/8	3 1/8	3 5/8

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 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 (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 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†**	1 3/8	3 1/8*†**
094 Ckt B	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**
104 Ckt A	7/8	2 1/8	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*†**
104 Ckt B	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	3 1/8*†**	1 3/8	3 1/8*†**

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:

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

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

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 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8
094 Ckt B	—	—	—	1 3/8	1 5/8	2 1/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8
104 Ckt A	—	—	—	1 3/8	2 1/8	2 5/8	1 3/8	2 1/8	2 5/8	1 3/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8
104 Ckt B	—	—	—	1 3/8	2 1/8	2 5/8	1 3/8	2 1/8	2 5/8	1 3/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8

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 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.

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



REFRIGERANT PIPING REQUIREMENTS (cont)
38AH024-084 DUAL-CIRCUIT UNITS, 50 Hz

UNIT 38AH		TOTAL LINEAR LENGTH OF INTERCONNECTING PIPE — FT (M)											
		0-25 (0-7.6)		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
024	Ckt A	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	5/8	1 3/8	7/8	1 5/8*	7/8	1 5/8*
	Ckt B	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	5/8	1 3/8	7/8	1 5/8*	7/8	1 5/8*
028	Ckt A	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	5/8	1 3/8	7/8	1 5/8*	7/8	1 5/8*
	Ckt B	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	5/8	1 3/8	7/8	1 5/8*	7/8	1 5/8*
034	Ckt A	1/2	1 1/8	5/8	1 3/8	5/8	1 3/8	5/8	1 3/8	7/8	1 5/8*	7/8	1 5/8*
	Ckt B	1/2	1 3/8	5/8	1 5/8	5/8	1 5/8	7/8	1 5/8	7/8	2 1/8*	7/8	2 1/8*
044	Ckt A	5/8	1 3/8	7/8	1 5/8	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8
	Ckt B	5/8	1 3/8	7/8	1 5/8	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8
054	Ckt A	5/8	1 3/8	7/8	1 5/8	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8
	Ckt B	7/8	1 5/8	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	1 1/8	2 1/8	1 1/8	2 5/8*
064	Ckt A	7/8	1 5/8	7/8	1 5/8	7/8	2 1/8†	7/8	2 1/8†	1 1/8	2 1/8†	1 1/8	2 5/8**
	Ckt B	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8	1 1/8	2 5/8*	1 1/8	2 5/8*
074	Ckt A	7/8	1 5/8	7/8	2 1/8	7/8	2 1/8	7/8	2 1/8	1 1/8	2 5/8†	1 1/8	2 5/8†
	Ckt B	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 1/8	2 5/8
084	Ckt A	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 1/8	2 5/8†
	Ckt B	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 1/8	2 5/8

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
1/2	12.7
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

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
024	Ckt A	—	—	—	—	—	—	1 1/8	1 3/8	1 5/8	1 1/8	1 3/8	1 5/8
	Ckt B	—	—	—	—	—	—	1 3/8	1 3/8	1 5/8	1 3/8	1 3/8	1 5/8
028	Ckt A	—	—	—	—	—	—	1 1/8	1 3/8	1 5/8	1 1/8	1 3/8	1 5/8
	Ckt B	—	—	—	—	—	—	1 1/8	1 3/8	1 5/8	1 1/8	1 3/8	1 5/8
034	Ckt A	—	—	—	—	—	—	1 1/8	1 3/8	1 5/8	1 1/8	1 3/8	1 5/8
	Ckt B	—	—	—	—	—	—	1 3/8	1 3/8	1 5/8	1 3/8	1 3/8	1 5/8
054	Ckt A	—	—	—	—	—	—	—	—	—	—	—	—
	Ckt B	—	—	—	—	—	—	—	—	—	1 5/8	2 1/8	2 5/8
064	Ckt A	1 3/8	1 5/8	2 1/8	1 3/8	1 5/8	2 1/8	1 5/8	1 5/8	2 1/8	1 5/8	2 1/8	2 5/8
	Ckt B	—	—	—	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8
074	Ckt A	—	—	—	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8
	Ckt B	—	—	—	—	—	—	—	—	—	—	—	—
084	Ckt A	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8
	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
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

Application data (cont)



REFRIGERANT PIPING REQUIREMENTS (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:

- Double risers are required if condensing unit is elevated above evaporator. See footnotes and double suction riser table below.
- Pipe sizes are based on the total linear length, shown for each column, plus a 50% allowance for fittings.
- 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.

- Suction line sizing is based on using the same diameter tube from the evaporator riser outlet to the condensing unit.
- Suction line riser selections are based on using maximum possible unloaders.
- 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
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

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)																	
	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	—	—	—	—	—	—	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	2 5/8	1 5/8	2 5/8	3 1/8
054	—	—	—	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8
064; Modules 124A, 124B, 134A	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8
074; Module 134B	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8	1 5/8	3 1/8	3 5/8
084	—	—	—	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8	1 5/8	2 5/8	3 1/8	1 5/8	3 1/8	3 5/8

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

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



REFRIGERANT PIPING REQUIREMENTS (cont)
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	2 5/8*	1 1/8	2 1/8*	1 1/8	2 5/8*	1 3/8	3 1/8*
	Ckt B	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 1/8	2 5/8†
104	Ckt A	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	3 1/8*
	Ckt B	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	1 3/8	3 1/8*

LEGEND

L — Liquid Line
S — Suction Line

*Double suction riser required on all unit configurations 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. 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	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8
	Ckt B	—	—	—	1 3/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8
104	Ckt A	—	—	—	1 3/8	2 1/8	2 5/8	1 5/8	2 1/8	2 5/8	1 5/8	2 5/8	3 1/8
	Ckt B	—	—	—	—	—	—	—	—	—	1 5/8	2 5/8	3 1/8

LEGEND

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

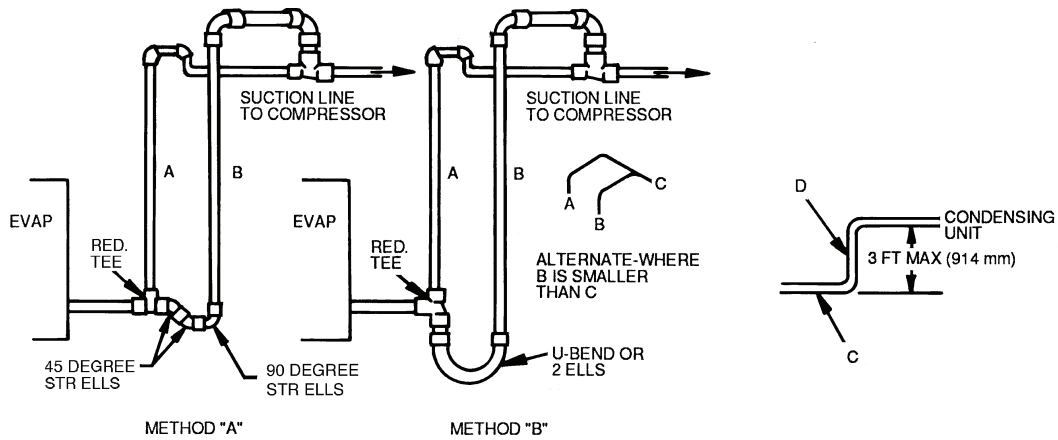
NOTES:

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

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*		
	Dual Circuit		Single Circuit
	A	B	
044	1 ⁵ / ₈	1 ⁵ / ₈	2 ¹ / ₈
054	1 ⁵ / ₈	1 ⁵ / ₈	2 ¹ / ₈
064	1 ⁵ / ₈	2 ¹ / ₈	2 ¹ / ₈
074	2 ¹ / ₈	2 ¹ / ₈	2 ¹ / ₈
084	2 ¹ / ₈	2 ¹ / ₈	2 ⁵ / ₈
094	2 ¹ / ₈	2 ¹ / ₈	—
104	2 ¹ / ₈	2 ¹ / ₈	—
124A,B	2 ¹ / ₈	2 ¹ / ₈	—
134A,B	2 ¹ / ₈	2 ¹ / ₈	—

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

Guide specifications



Commercial Air-Cooled Condensing Units

HVAC Guide Specifications

Size Range: **20 to 130 Tons Nominal at 60 Hz**

63 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 AHRI Standard 365, latest edition. System performance shall be rated in accordance with AHRI Standard 340/360, latest edition.
- 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). Coils shall be pressure tested at 480 psig (3310 kPa) for unit sizes 024-034 and at 450 psig (3310 kPa) for unit sizes 044-134.

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, nitrogen holding charge, 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, nitrogen holding charge, 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 (sizes 044-134). Three minute time delay protection to prevent compressor short cycling (sizes 024-034).
 - b. Lockout on auto-reset safety until reset from thermostat.

Guide specifications (cont)



- 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 (sizes 044-134) or ambient temperature (sizes 024-034) to maintain proper head pressure.
- e. Winter start control to prevent nuisance tripouts at low ambient temperatures.
- f. Power and control terminal blocks (sizes 024-034).

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.
- d. Compressor over temperature 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 AHRI conditions.

I. Electrical Requirements:

- 1. Nominal unit electrical characteristics shall be _____ v, 3-ph, 60 Hz or _____ v, 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 (sizes 044-134). Unit control circuit shall contain a 24-v transformer for unit control with capacity to operate an indoor fan interlock.

J. Special Features:

1. Electric 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. ModuPanel™ VAV 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 regulate fan motor speed in response to the saturated condensing temperature of the unit. The control shall be capable of maintaining a condensing temperature of 100 F ± 10° F with outdoor temperatures at -20 F.

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 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. Hail Guard:

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

10. 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.

11. 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.

12. VAV Control Box:

Modification shall include electric unloaders on compressors (1 for 38AH044; 2 for 38AH024-034, 054-084 and 104; 3 for 38AH094; and 4 for 38AH124,134) to make condensing unit compatible with VAV controller. Unit shall include factory-installed accumulator (except for 38AH024-034 units where accumulator is field installed).

13. 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.

14. 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.

15. Hot Gas Bypass Kit:

A hot gas bypass kit is available for additional capacity reduction for unit and prevention of indoor coil freezing. Careful attention should be placed on system oil management.

16. Non-Fused Disconnect:

A non-fused disconnect is available on single circuit, dual circuit, and dual module units.

