



United Technologies
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38AUM Air Cooled Condensing Units – 50Hz



Quality Assurance
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04 100 950420



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Manufacturer's Name: Saudi Airconditioning Manufacturing Co. Ltd.

Country of origin : Jeddah, Saudi Arabia

Nearest port of embarkation: Jeddah Islamic port

Product classification: Commercial and Residential

Product Data Catalog

38AUM Air Cooled Condensing Units – 50Hz

Nominal Cooling Capacity 6.0 – 15.0 Tons

HFC R-410A Refrigerant

The 38AUM series outdoor air cooled condensing units matched with Carrier's 40RUM series indoor air handler's offer a wide variety of options for your HVAC application needs. Whether it's first cost with the 38AUM single compressor models or superior part load performance from the two compressor models, this series is designed for long, dependable operation as a rooftop or on-the-ground installation. All 38AUM and 40RUM series units use environmentally sound Puron ® R-410A refrigerant. Together, they create a reliable split system that provides easy solutions to a wide range of commercial HVAC needs.

Contact your local Carrier representative for additional reference materials.

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FEATURES / BENEFITS

Every compact one-piece unit arrives fully assembled, charged, tested, and ready to run.

Carrier's air-cooled air conditioning split systems:

- Provide a logical solution for commercial needs
- Have a rugged, dependable construction
- Are available in single and circuit scroll compressor capacity control
- Have cooling capability up to 125°F (52°C) ambient and down to 40°F (4°C) ambient standard

Constructed for long life

The 38AUMZ single circuit and 38AUMD dual circuit, scroll compressor models are designed and built to last. The high efficient designed outdoor coil construction allows for a more efficient design in a smaller cabinet size that utilizes an overall reduction in refrigerant charge. Where conditions require, special coil coating coil protection option is available. Cabinets are constructed of pre-painted galvanized steel, delivering unparalleled protection from the environment. Inside and outside surfaces are protected to ensure long life, good looks, and reliable operation. Safety controls are used for enhanced system protection and reliability.

Efficient operation

These air cooled condensing units will provide EER's up to 12.2 which meets ASHRAE 90.1 efficiency levels. The 38AUMD dual compressor models provide two (2) stages of cooling for remarkable partial load performance. This high efficiency will help reduce overall operating cost and energy consumption.

Innovative Carrier 40RUM packaged air handlers are custom matched to 38AUMZ/D condensing units

Information on matching 40RUM DX packaged air handler follows for convenience. See separate product data for more details. The 40RUM Series has excellent fan performance, efficient direct-expansion (DX) coils, a unique combination of indoor-air quality features, and is easy to install. Its versatility and state-of-the-art features help to ensure economical performance of the split system both now and in the future.

Indoor-Air Quality (IAQ) features

The unique combination of IAQ features in the 40RUM Series air handlers help to ensure that only clean, fresh, conditioned air is delivered to the occupied space. Direct-expansion (DX) 4 row cooling coils prevent the build-up of humidity in the room, even during part-load conditions.

Controls for performance dependability

The 38AU condensing units offer operating controls and components designed for performance dependability. The high efficiency hermetic scroll compressor is engineered for long life and durability. The compressors include vibration isolation for quiet operation. The high-pressure switch protects the entire refrigeration system from abnormally high operating pressures. A low-pressure switch protects the system from loss of charge. These units also include anti-short-cycling protection, which helps to protect the units against compressor failure. All units include a crankcase heater to eliminate liquid slugging at start-up. Each unit comes standard with the Comfort Alert control system. This provides:

- System Go LED indicator
- Fault LED indicator
- Compressor fault LED indicator
- Phase loss protection
- Phase reversal protection
- Safety pressure indicator
- Anti-short cycle protection

Standard 1-in (25.4mm) aluminum filters remove dust and airborne particles from the occupied space for cleaner air. The pitched, non-corroding drain pan can be adjusted for a right-hand or left-hand connection to suit many applications and provide positive drainage and prevent standing condensate.

Economy

The 40RUM Series packaged air handlers provide reduced installation expense and energy-efficient performance.

Quick installation is ensured by the multi-poise design. Units can be installed in either the horizontal or vertical configuration without modifications. Fan motors and contactors are pre-wired and thermostatic expansion valves (TXVs) are factory-installed on all 40RUM models.

High efficiency, precision-balanced fans minimize air turbulence, surging, and unbalanced operation, cutting operation expenses.

Rugged dependability

The 40RUM series units are made to last. The die-formed galvanized steel panels ensure structural integrity under all operating conditions. Galvanized steel fan housings are securely mounted to a die-formed galvanized steel fan deck.

Rugged pillow-block bearings (40RUM14 and 40RUM16) are securely fastened to the solid steel fan shaft with split collets and clamp locking devices. Smaller unit sizes have spider-type bearings.

Coil flexibility

Model 40RUM direct-expansion coils have galvanized steel casings; inlet and outlet connections are on the same end. The coils are designed for use with Puron (R-410A) refrigerant and have 3/8-in. diameter copper tubes mechanically bonded to aluminum sine-wave fins. The coils include matched, factory-installed thermostatic expansion valves (TXVs) with matching distributor nozzles and offers a removable power element and extended connections.

Easier installation and service

The multi-poise design and component layout ensures quick unit installation and operation. Units can be converted from horizontal to vertical operation by simply repositioning the unit. Drain pan connections are duplicated on both sides of the unit. The filters, motor, drive, TXVs, and coil connections are all easily accessed by removing a single side panel.

MODEL NUMBER NOMENCLATURE - 38AUM- R410A SERIES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
3	8	A	U	M	Z	0	7	A	9	A	0	-	0	-	0	A	0

Model Type
 38AUM = Puron® R-410A
 Air Cooled Condensing Unit

Refig. System Options
 Z = Single Circuit - Size: 07 - 08
 D = Dual Circuit - Size: 12 - 16

Nominal Ton
 07 - 6.0 Ton
 08 - 7.5 Ton
 12 - 10.0 Ton
 14 - 12.5 Ton
 16 - 15.0 Ton

Sensor Options
 A = None

Power Supply (V/Ph/Hz)
 9 = 400/3/50

Outdoor Coil Options
 A = Al/Cu
 B = Precoat Al/Cu
 F = Cu/Cu

Factory Assigned
 0 = Default

Design Review
 - = Factory Assigned

Base Unit Controls
 0 = Electromechanical Controller

Factory Assigned
 - = Default

Service Options
 0 = None

Electrical Options
 A = None

Brand/Packaging
 0 = Standard

AHRI CAPACITY RATING

Unit	Cooling Stages	Compressors	Nominal Capacity (Tons)	Net Cooling Capacity (MBH)	Total Power (kW)	EER
38AUMZ07 / 40RUM07	1	1	5.1	61.0	5.2	11.8
38AUMZ08 / 40RUM08	1	1	6.9	83.0	7.0	11.9
38AUMD12 / 40RUM12	2	2	8.9	107.0	8.8	12.2
38AUMD14 / 40RUM14	2	2	10.8	130.0	11.6	11.2
38AUMD16 / 40RUM16	2	2	13.7	164.0	13.8	11.9

Legend:

AHRI - Air Conditioning, Heating and Refrigeration Institute

EER - Energy Efficiency Ratio

Notes:

1. Rated in accordance with AHRI Standards 340/360.
2. Ratings are net values, reflecting the effects of circulating fan heat.
3. Rating are based on:
 - Cooling Standard: 80 F db, 67 wb indoor entering-air temperature and 95 F db air entering outdoor unit.

SOUND POWER LEVELS, dB

Unit	OUTDOOR SOUND (dB)								
	A-Weighted	63	125	250	500	1000	2000	4000	8000
38AUMZ07	83	81.7	88.2	84.0	79.7	78.1	74.0	71.4	68.0
38AUMZ08	83	81.7	88.2	84.0	79.7	78.1	74.0	71.4	68.0
38AUMD12	80	76.0	79.9	79.8	77.4	75.6	69.8	67.8	66.4
38AUMD14	79	73.1	75.3	79.1	77.6	78.0	75.9	71.0	65.7
38AUMD16	83	86.7	81.2	78.9	80.4	78.0	74.2	70.2	65.0

Legend:

dB - Decibel

Notes:

Outdoor sound data is measure in accordance with AHRI standard 270-2008.

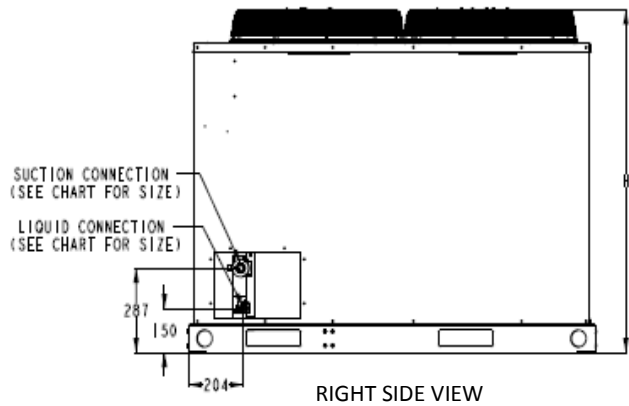
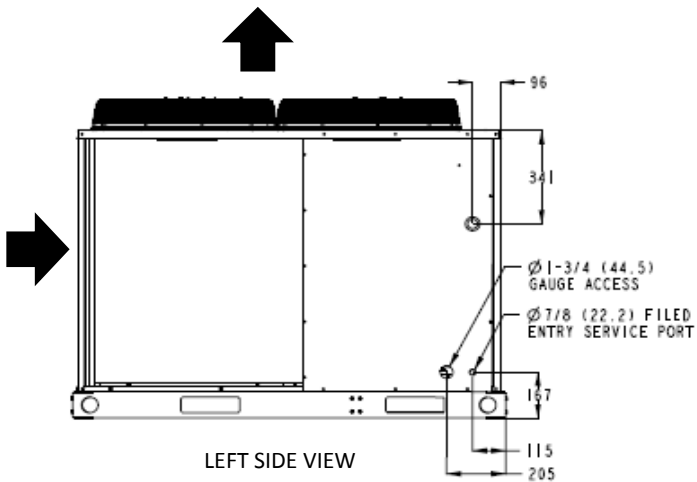
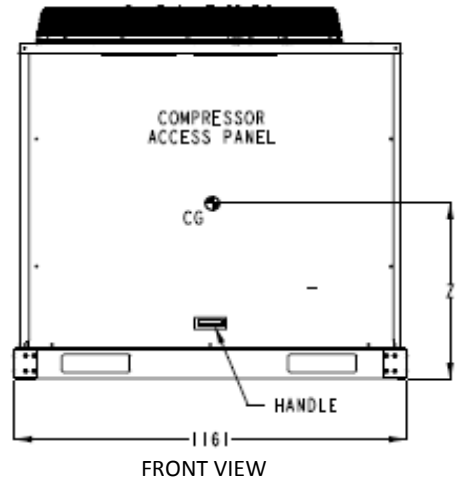
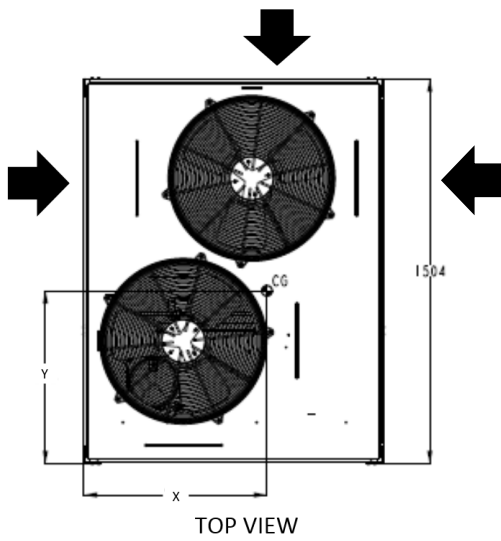
UNIT PHYSICAL DATA (ENGLISH UNITS)

Unit 38AUM	Z07	Z08	D12	D14	D16
Refrigeration System	Puron ®				
No. of Ckt / No. of Comp. / Type	1 / 1 / Scroll		2 / 2 / Scroll		
Initial Charge per Circuit (lb)	7.72	8.16	7.05 / 7.05	9.03 / 9.70	12.57 / 11.57
Operating Charge per Circuit (lb)	12.79	13.67	11.66 / 11.66	15.41 / 16.29	20.94 / 19.29
Metering Device	TXV				
High - Pressure Trip / Reset (PSIG)	630 / 505				
Low - Pressure Trip / Reset (PSIG)	54 / 117				
Condenser Coil	RTPF - Round Tube / Plate Fin Coil Design				
Material (Fin / Tube)	Al/Cu				
Fin Type	Double Wavy				
Rows / FPI	2 / 17		3 / 17	2 / 17	
Total Face Area (ft²)	17.5	25.1	28.8	23.5 x 2	
Condenser Fan & Motor					
Qty. / Motor Drive Type	2 / Direct				
Motor HP / RPM	1/4 / 900	1/3 / 1200		1/2 / 860	
Fan Diameter (mm)	559			660	

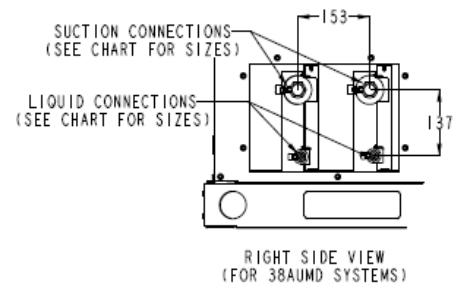
UNIT PHYSICAL DATA (SI UNITS)

Unit 38AUM	Z07	Z08	D12	D14	D16
Refrigeration System	Puron ®				
No. of Ckt / No. of Comp. / Type	1 / 1 / Scroll		2 / 2 / Scroll		
Initial Charge per Circuit (kg)	3.50	3.70	3.20 / 3.20	4.10 / 4.40	5.70 / 5.25
Operating Charge per Circuit (kg)	5.80	6.20	5.29 / 5.29	6.99 / 7.39	9.50 / 8.75
Metering Device	TXV				
High - Pressure Trip / Reset (PSIG)	630 / 505				
Low - Pressure Trip / Reset (PSIG)	54 / 117				
Condenser Coil	RTPF - Round Tube / Plate Fin Coil Design				
Material (Fin / Tube)	Al/Cu				
Fin Type	Double Wavy				
Rows / FPI	2 / 17		3 / 17	2 / 17	
Total Face Area (m²)	1.63	2.33	2.68	2.18 x 2	
Condenser Fan & Motor					
Qty. / Motor Drive Type	2 / Direct				
Motor HP / RPM	1/4 / 900	1/3 / 1200		1/2 / 860	
Fan Diameter (in)	22			26	

BASE UNIT DIMENSIONS – 38AUM Series Size Z07-D14



Unit 38AUM	Unit Weight (kg)	Height (mm)	Center of Gravity (mm)			Service Valve Connections	
			H	X	Y	Z	Suction
Z07	176.0	1165.0	457.2	609.6	533.4	1-1/8	3/8
Z08	177.0	1165.0	457.2	609.6	533.4	1-1/8	1/2
D12	234.0	1368.0	482.6	584.2	609.6	1-1/8	3/8
D14	297.0	1368.0	508.0	635.0	609.6	1-3/8	1/2

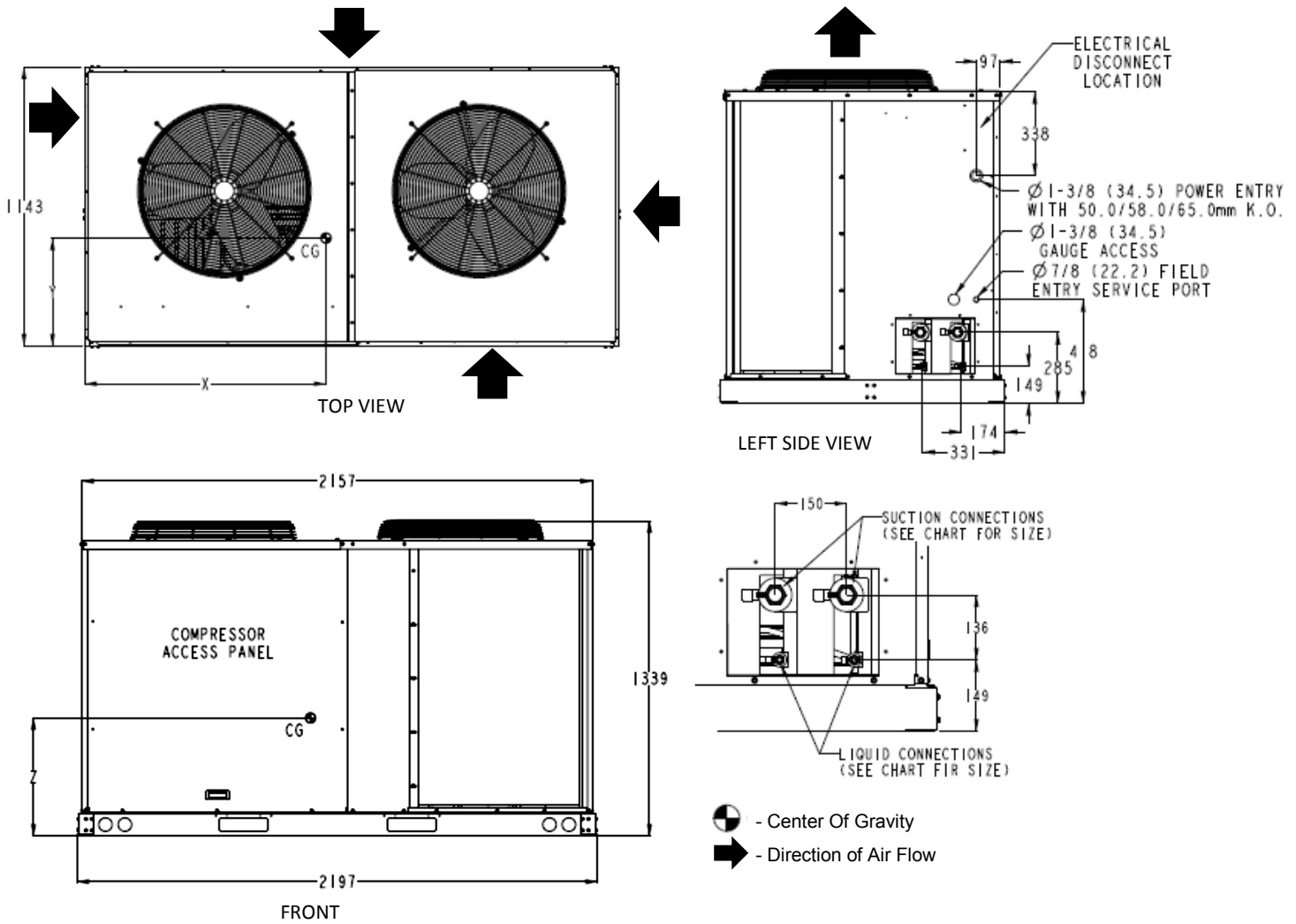


- Center Of Gravity
- Direction of Air Flow

NOTES:

1. Minimum clearance (Local codes or jurisdiction may prevail):
 - A. Bottom to combustible surfaces: 0 inches
 - B. Outdoor coil, for proper airflow: 36 inches one side, 12 inches the other. The side getting the greater clearance is optional.
 - C. Overhead: 60 inches, to assure proper outdoor fan operation.
 - D. Between units: Control box side: 42 inches per NEC.
 - E. Between unit and ungrounded surfaces: Control box side, 36 inches per NEC.
 - F. Between unit and block or concrete walls and other grounded surfaces: Control box side 42 inches per NEC.
2. With exception of the clearance for the outdoor coil as stated in note 1B, are movable fence or barricade requires no clearance.
3. Units may be installed on combustible floors made from wood or Class A, B or C roof covering material.

BASE UNIT DIMENSIONS – 38AUM Series Size D16



Unit 38AUM	Unit Weight (kg)	Height (mm)	Center of Gravity (mm)			Service Valve Connections	
			H	X	Y	Z	Suction
D16	332.0	1339	965.2	482.6	431.8	1-3/8	1/2

NOTES:

- Minimum clearance (Local codes or jurisdiction may prevail):
 - Bottom to combustibles surfaces: 0 Inches
 - Outdoor coil, for proper airflow: 36 inches one side, 12 inches the other. The side getting the greater clearance is optional.
 - Overhead: 60 inches, to assure proper outdoor fan operation.
 - Between units: control box side: 42 inches per NEC.
 - Between unit and ungrounded surfaces: Control box side, 36 inches per NEC.
 - Between unit and block or concrete walls and other grounded surfaces: Control box side 42 inches per NEC.
- With exception of the clearance for the outdoor coil as stated in note 1B, are movable fence or barricade requires no clearance.
- Units may be installed on combustible floor made from wood or Class A, B or C roof covering material.

OPTIONS AND ACCESSORIES

38AUMZ/D Factory-Installed Options

Coil Description	Environment			
	Std Non- Corrosive	Mild Coastal	Moderate Coastal	Severe Coastal
Al Fins / Cu Tube	√			
Pre-Coated Al Fins / Cu Tube		√		
Cu Fins / Cu Tube			√	√

NOTE: Refer to the Guide Specifications for further detail.

40RUM OPTIONS AND ACCESSORIES

Item	Option*	Accessory♦
Alternate Fan Motors	X	
Alternate Drives	X	
Condensate Drain Trap		X
Discharge Plenum		X
Electric Heater		X
Overhead suspension package		X
Programmable Thermostats		X
Return Air Grille		X
Sub-base		X
UV-C Germicidal Lamp**		X

* Factory-installed option.

♦ Field-installed accessory.

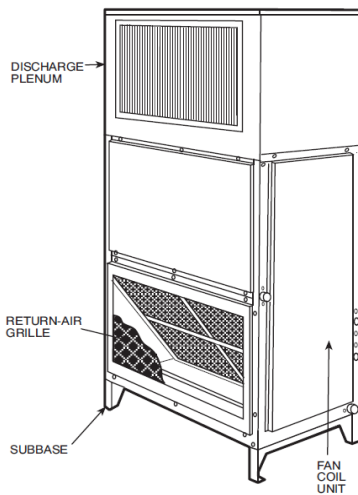
** Contact application engineer

40RUM factory-installed options

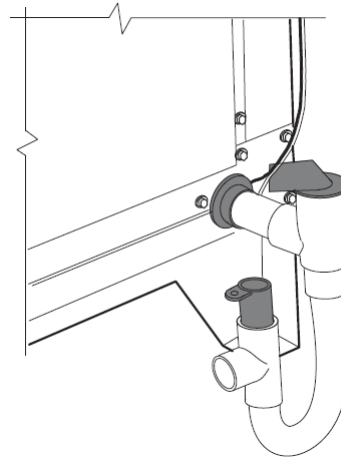
Alternate fan motors and drives are available to provide the widest possible range of performance.

40RUM field-installed accessories

- **Discharge plenum** directs the air discharge into the occupied space; integral horizontal and vertical louvers enable redirection of airflow. This accessory is available unpainted or painted.
- **Return-air grille** provides a protective barrier over the return-air opening and gives a finished appearance to units installed in the occupied space. This accessory is available unpainted or painted.
- **Sub-base** provides a stable, raised platform and room for condensate drain connection for floor-mounted units. This accessory is available unpainted or painted.
- **Overhead suspension package** includes necessary brackets to support units in horizontal installations.
- **Condensate drain trap** includes an overflow shutoff switch that can be wired to turn off the unit if the trap becomes plugged. The kit also includes a wire harness that can be connected to an alarm if desired. The transparent trap is designed for easy service and maintenance.
- **Electric resistance heat coils** have an open-wire design and are mounted in a rigid frame. Safety cutouts for high temperature conditions are standard. Terminal block for single-point power connection is included.
- **UV-C germicidal lamps** inhibit the growth of mold and fungus, which may grow on evaporator coil and condensate pan surfaces. The use of UV-C germicidal lamps reduces the foul odors that may result from this growth of mold and fungus. It also provides a self-cleaning function for the evaporator coil and drain pan.
- **Carrier's line of thermostat provides** both programmable and non-programmable capability with the new Debonair® line of commercial programmable thermostats. The TEMP System controls offer communication capability with staged heating and cooling, and the Commercial Electronic thermostats provide 7-day programmable capability for economical applications.



40RUM WITH DISCHARGE PLENUM GRILLE AND SUBBASE



40RUM WITH CONDENSATE TRAP

SELECTION PROCEDURE

Combination ratings for 38AUMZ/D units matched with 40RUM Series air handlers are in this book. If unit is used with an air handler, use the Carrier Electronic Catalog selection program to obtain combined ratings.

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

Given:

Total Cooling Capacity - Required (TC)	121,000 Btuh
Sensible Heat Capacity - Required (SHC)	95,000 Btuh
Compressor - Type	Scroll
Temperature Air Entering - Condenser (Edb)	95_F
Temperature Air Entering - Evaporator (db/wb)	80_F db, 67_F wb
Evaporator Air Quantity	4,000 cfm
External Static Pressure	0.4 in. wg
Length of Interconnecting - Refrigerant Piping	25 ft (Linear)
Power Supply (V-Ph-Hz)	400-3-60

II. Select condensing unit air-handler combination.

For this example, select a 38AUMD12 matched with a 40RUM12 coil. This 38AUMD12/40RUM12 condensing unit air-handler combination provides 122,000 Btuh of total cooling capacity and 97,200 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 Refrigerant Piping Sizes table. The sizes shown are based on an equivalent length of pipe. This equivalent length is equal to the linear length of pipe indicated at the top of each sizing column, plus a 50% allowance for fitting losses. (For a more accurate determination of actual equivalent length in place of using the estimated 50% value, refer to Carrier System Design Manual.) For this example, note in the linear length column that the proper pipe size is 1/2 in. for the liquid line and 13/8 in. for the suction line. For extended line lengths over 100 feet, contact your Carrier representative or application engineer.

IV. Determine fan rpm and bhp (brake horsepower).

Refer to the 40RUM Air Handler Catalog – Fan Performance table. Enter the Air Handler Fan Performance table at 40RUM12 at 4000 cfm and move to the External Static Pressure (ESP) column. Note that the conditions require 803 rpm at 1.77 bhp.

V. Determine motor and drive.

Enter the Fan Motor Data tables and find the standard motor for 40RUM12 unit rated at 2.4 Hp. Since the bhp required is 1.77, a standard motor satisfies the requirement and should be used. Next, find the type of drive that satisfies the 803 rpm requirement in the Drive Data tables. For the 40RUM12 unit, the Standard Drive table shows an rpm range of 666-863. Since the rpm required is 803, the standard drive satisfies the requirement and should be used.

PERFORMANCE DATA

38AUMZ07 - Condenser Only Ratings - SI

SST (°C)		Air Temperature Entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	11.1	10.8	10.1	9.4	8.5	7.4
	kW	3.4	3.7	4.1	4.7	5.3	5.9
	SDT	32.6	35.2	41.0	46.0	50.8	55.6
-4	TC	12.4	12.0	11.2	10.4	9.4	8.6
	kW	3.4	3.6	4.1	4.7	5.3	6.0
	SDT	32.6	35.2	40.4	45.3	49.9	55.2
-1	TC	13.6	13.3	12.5	11.6	10.6	9.9
	kW	3.3	3.6	4.1	4.7	5.3	6.2
	SDT	33.7	36.3	41.5	46.5	51.1	57.8
2	TC	14.9	14.6	13.7	12.9	11.8	11.0
	kW	3.3	3.5	4.0	4.7	5.4	6.2
	SDT	34.3	36.9	42.1	47.3	52.2	57.5
4	TC	16.3	15.9	15.0	14.1	13.2	12.1
	kW	3.2	3.5	4.0	4.7	5.3	6.2
	SDT	34.8	37.4	42.6	47.9	53.1	58.0
7	TC	17.6	17.2	16.3	15.4	14.5	13.3
	kW	3.1	3.4	3.9	4.6	5.3	6.1
	SDT	35.3	38.0	43.2	48.4	53.6	58.3
10	TC	19.0	18.6	17.7	16.8	15.8	14.7
	kW	3.0	3.3	3.9	4.6	5.3	6.1
	SDT	35.9	38.5	43.7	48.9	54.0	59.1

NOTE: Condensing unit only ratings are at 7.2°C SST and 35°C entering - air temperature.

LEGEND: kW - Compressor Power SST - Saturated Suction Temperature
SDT - Saturated Discharge Temperature at Compressor TC - Gross Cooling Capacity (KW)

38AUMZ07 - Condenser Only Ratings - English

SST (°F)		Air Temperature Entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	38.0	36.8	34.6	32.0	28.9	25.4
	kW	3.4	3.7	4.1	4.7	5.3	5.9
	SDT	90.7	95.4	105.7	114.8	123.4	132.1
25	TC	42.2	40.9	38.3	35.5	32.2	29.2
	kW	3.4	3.6	4.1	4.7	5.3	6.0
	SDT	90.7	95.3	104.7	113.6	121.8	131.4
30	TC	46.5	45.2	42.5	39.4	36.1	33.6
	kW	3.3	3.6	4.1	4.7	5.3	6.2
	SDT	92.7	97.4	106.8	115.8	124.0	136.1
35	TC	51.0	49.7	46.9	43.9	40.4	37.4
	kW	3.3	3.5	4.0	4.7	5.4	6.2
	SDT	93.7	98.3	107.8	117.2	126.0	135.5
40	TC	55.6	54.2	51.3	48.2	44.9	41.4
	kW	3.2	3.5	4.0	4.7	5.3	6.2
	SDT	94.6	99.3	108.8	118.1	127.5	136.5
45	TC	60.2	58.8	55.8	52.7	49.3	45.4
	kW	3.1	3.4	3.9	4.6	5.3	6.1
	SDT	95.6	100.3	109.7	119.1	128.4	136.9
50	TC	64.7	63.3	60.4	57.2	53.8	50.1
	kW	3.0	3.3	3.9	4.6	5.3	6.1
	SDT	96.6	101.3	110.7	120.0	129.2	138.3

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

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

PERFORMANCE DATA (cont.)

38AUMD12 - Condenser Only Ratings - SI

SST (°C)		Air Temperature Entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	20.2	19.5	18.2	16.8	15.2	13.6
	kW	5.0	5.4	6.2	7.1	7.9	8.8
	SDT	35.7	38.3	43.4	48.5	53.5	58.5
-4	TC	22.3	21.6	20.1	18.5	16.9	15.2
	kW	5.0	5.4	6.3	7.2	8.0	8.9
	SDT	36.4	38.9	44.0	49.1	54.1	59.0
-1	TC	24.6	23.8	22.2	20.5	18.7	16.9
	kW	5.1	5.5	6.4	7.3	8.1	9.0
	SDT	37.2	39.7	44.7	49.8	54.7	59.5
2	TC	26.9	26.1	24.3	22.5	20.6	18.7
	kW	5.2	5.6	6.4	7.3	8.2	9.1
	SDT	37.9	40.4	45.4	50.4	55.3	60.1
4	TC	29.4	28.5	26.6	24.7	22.6	20.5
	kW	5.3	5.7	6.5	7.4	8.3	9.2
	SDT	38.7	41.2	46.1	51.0	56.0	60.6
7	TC	32.1	31.1	29.0	26.9	24.7	22.4
	kW	5.4	5.7	6.6	7.5	8.4	9.3
	SDT	39.4	41.9	46.9	51.7	56.5	61.2
10	TC	34.9	33.7	31.5	29.2	26.8	24.2
	kW	5.4	5.8	6.7	7.6	8.4	9.4
	SDT	40.3	42.7	47.6	52.4	57.1	61.8

NOTE: Condensing unit only ratings are at 7.2°C SST and 35°C entering - air temperature.

LEGEND: kW - Compressor Power SST - Saturated Suction Temperature
SDT - Saturated Discharge Temperature at Compressor TC - Gross Cooling Capacity (KW)

38AUMD12 - Condenser Only Ratings - English

SST (°F)		Air Temperature Entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	69.0	66.7	62.0	57.2	51.9	46.4
	kW	5.0	5.4	6.2	7.1	7.9	8.8
	SDT	96.3	100.9	110.0	119.3	128.3	137.2
25	TC	76.1	73.7	68.6	63.3	57.8	51.9
	kW	5.0	5.4	6.3	7.2	8.0	8.9
	SDT	97.6	102.1	111.2	120.4	129.4	138.2
30	TC	83.8	81.1	75.6	69.8	63.9	57.6
	kW	5.1	5.5	6.4	7.3	8.1	9.0
	SDT	98.9	103.4	112.5	121.6	130.4	139.1
35	TC	91.9	89.0	83.0	76.8	70.4	63.7
	kW	5.2	5.6	6.4	7.3	8.2	9.1
	SDT	100.2	104.7	113.7	122.8	131.6	140.2
40	TC	100.4	97.3	90.8	84.2	77.3	69.9
	kW	5.3	5.7	6.5	7.4	8.3	9.2
	SDT	101.6	106.1	115.1	123.9	132.7	141.2
45	TC	109.5	106.0	99.0	91.8	84.2	76.3
	kW	5.4	5.7	6.6	7.5	8.4	9.3
	SDT	103.0	107.4	116.4	125.1	133.7	142.2
50	TC	119.0	115.1	107.5	99.6	91.3	82.6
	kW	5.4	5.8	6.7	7.6	8.4	9.4
	SDT	104.5	108.8	117.7	126.4	134.8	143.2

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

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

PERFORMANCE DATA (cont.)

38AUMD14 - Condenser Only Ratings - SI

SST (°C)		Air Temperature Entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	25.3	24.5	22.6	20.6	18.5	16.3
	kW	7.1	7.6	8.5	9.4	10.3	11.2
	SDT	35.8	38.3	43.2	48.0	52.8	57.4
-4	TC	27.9	26.9	24.9	22.8	20.6	18.3
	kW	7.2	7.7	8.6	9.6	10.5	11.5
	SDT	36.7	39.1	44.0	48.8	53.4	58.0
-1	TC	30.6	29.5	27.4	25.1	22.8	20.2
	kW	7.4	7.8	8.8	9.8	10.8	11.8
	SDT	37.5	39.9	44.7	49.5	54.2	58.7
2	TC	33.4	32.2	29.9	27.5	24.9	22.2
	kW	7.5	8.0	8.9	9.9	11.0	12.0
	SDT	38.4	40.8	45.5	50.3	54.9	59.4
4	TC	36.3	35.0	32.6	29.9	27.2	24.2
	kW	7.7	8.1	9.1	10.1	11.2	12.3
	SDT	39.2	41.6	46.4	51.1	55.6	60.0
7	TC	39.2	37.9	35.1	32.3	29.4	26.2
	kW	7.8	8.3	9.3	10.3	11.4	12.5
	SDT	40.2	42.5	47.2	51.9	56.3	60.7
10	TC	42.2	40.7	37.7	34.7	31.5	28.2
	kW	8.0	8.5	9.4	10.5	11.6	12.7
	SDT	41.1	43.5	48.1	52.7	57.1	61.4

NOTE: Condensing unit only ratings are at 7.2°C SST and 35°C entering - air temperature.

LEGEND: kW - Compressor Power
SST - Saturated Suction Temperature
SDT - Saturated Discharge Temperature at Compressor TC - Gross Cooling Capacity (KW)

38AUMD14 - Condenser Only Ratings - English

SST (°F)		Air Temperature Entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	86.4	83.4	77.0	70.2	63.0	55.7
	kW	7.1	7.6	8.5	9.4	10.3	11.2
	SDT	96.5	100.9	109.7	118.4	127.0	135.4
25	TC	95.1	91.9	85.0	77.9	70.1	62.3
	kW	7.2	7.7	8.6	9.6	10.5	11.5
	SDT	98.0	102.3	111.1	119.8	128.2	136.5
30	TC	104.3	100.7	93.5	85.7	77.8	69.0
	kW	7.4	7.8	8.8	9.8	10.8	11.8
	SDT	99.5	103.8	112.5	121.1	129.6	137.7
35	TC	113.8	110.0	102.1	94.0	85.1	75.9
	kW	7.5	8.0	8.9	9.9	11.0	12.0
	SDT	101.1	105.4	114.0	122.6	130.9	138.9
40	TC	123.7	119.5	111.1	102.1	92.7	82.7
	kW	7.7	8.1	9.1	10.1	11.2	12.3
	SDT	102.6	106.9	115.5	123.9	132.1	140.0
45	TC	133.8	129.2	119.9	110.3	100.3	89.4
	kW	7.8	8.3	9.3	10.3	11.4	12.5
	SDT	104.3	108.6	116.9	125.3	133.4	141.2
50	TC	143.9	139.0	128.8	118.6	107.5	96.1
	kW	8.0	8.5	9.4	10.5	11.6	12.7
	SDT	106.0	110.2	118.5	126.8	134.7	142.5

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

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

PERFORMANCE DATA (cont.)

38AUMD16 - Condenser Only Ratings - SI

SST (°C)		Air Temperature Entering Condenser (°C)					
		27	29	35	41	46	52
-7	TC	31.1	30.2	28.3	26.3	24.2	22.0
	kW	8.9	9.4	10.6	11.9	13.3	14.7
	SDT	36.7	39.3	44.6	49.8	55.0	60.1
-4	TC	34.3	33.3	31.2	29.0	26.7	24.3
	kW	9.1	9.7	10.8	12.1	13.5	15.0
	SDT	37.4	40.0	45.2	50.4	55.6	60.6
-1	TC	37.7	36.6	34.3	31.9	29.4	26.8
	kW	9.2	9.8	10.9	12.3	13.7	15.2
	SDT	38.1	40.8	45.9	51.1	56.2	61.2
2	TC	41.3	40.0	37.5	34.9	32.2	29.4
	kW	9.4	10.0	11.1	12.4	13.8	15.3
	SDT	38.9	41.5	46.7	51.8	56.8	61.7
4	TC	45.0	43.6	40.9	38.1	35.2	32.0
	kW	9.7	10.2	11.4	12.6	14.0	15.5
	SDT	39.8	42.3	47.4	52.5	57.4	62.2
7	TC	49.0	47.5	44.5	41.4	38.1	34.7
	kW	9.9	10.4	11.6	12.8	14.2	15.7
	SDT	40.6	43.1	48.1	53.1	58.1	62.9
10	TC	53.1	51.5	48.2	44.8	41.2	37.4
	kW	10.1	10.6	11.8	13.0	14.4	15.9
	SDT	41.5	44.0	48.9	53.9	58.7	63.4

NOTE: Condensing unit only ratings are at 7.2°C SST and 35°C entering - air temperature.

LEGEND: kW - Compressor Power
 SST - Saturated Suction Temperature
 SDT - Saturated Discharge Temperature at Compressor TC - Gross Cooling Capacity (KW)

38AUMD16 - Condenser Only Ratings - English

SST (°F)		Air Temperature Entering Condenser (°F)					
		80	85	95	105	115	125
20	TC	106.3	103.1	96.5	89.6	82.5	75.0
	kW	8.9	9.4	10.6	11.9	13.3	14.7
	SDT	98.0	102.7	112.2	121.6	131.0	140.2
25	TC	117.1	113.7	106.4	99.0	91.1	82.9
	kW	9.1	9.7	10.8	12.1	13.5	15.0
	SDT	99.3	104.0	113.4	122.7	132.1	141.2
30	TC	128.6	124.8	116.9	108.7	100.2	91.4
	kW	9.2	9.8	10.9	12.3	13.7	15.2
	SDT	100.7	105.4	114.7	124.0	133.1	142.1
35	TC	140.8	136.5	127.9	119.1	109.9	100.2
	kW	9.4	10.0	11.1	12.4	13.8	15.3
	SDT	102.1	106.7	116.0	125.2	134.2	143.1
40	TC	153.6	148.9	139.6	130.1	120.0	109.1
	kW	9.7	10.2	11.4	12.6	14.0	15.5
	SDT	103.6	108.1	117.3	126.4	135.3	144.0
45	TC	167.1	162.0	151.8	141.4	130.1	118.4
	kW	9.9	10.4	11.6	12.8	14.2	15.7
	SDT	105.0	109.7	118.7	127.7	136.6	145.1
50	TC	181.3	175.7	164.4	152.7	140.6	127.7
	kW	10.1	10.6	11.8	13.0	14.4	15.9
	SDT	106.7	111.2	120.1	129.0	137.7	146.2

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

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

PERFORMANCE DATA (cont.)

Combination Ratings

English

38AUMZ07 with 40RUM-07		Ambient Temperature															
		85.0			95.0			105.0			115.0			125.0			
		EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
CFM	EAT(wb)	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	
1800	58.0	THC	58.4	58.4	65.8	56.6	56.6	63.8	54.5	54.5	61.5	52.4	52.4	59.1	49.4	49.4	55.7
		SHC	50.9	58.4	65.8	49.4	56.6	63.8	47.7	54.5	61.5	45.8	52.4	59.1	43.2	49.4	55.7
		kW	3.7			4.4			5.1			5.9			6.7		
	62.0	THC	59.5	59.5	65.2	57.3	57.3	64.0	55.0	55.0	62.6	52.6	52.6	61.0	49.7	49.7	58.2
		SHC	47.1	56.1	65.2	46.1	55.0	64.0	44.8	53.7	62.6	43.5	52.2	61.0	41.4	49.7	58.2
		kW	3.6			4.2			4.9			5.7			6.5		
	67.0	THC	64.4	64.4	64.4	62.1	62.1	62.1	59.5	59.5	59.5	56.8	56.8	56.8	53.8	53.8	53.8
		SHC	38.1	47.3	56.4	37.1	46.3	55.4	36.1	45.3	54.4	35.0	44.2	53.2	33.7	42.9	52.0
		kW	3.7			4.3			5.1			5.9			6.7		
	72.0	THC	70.1	70.1	70.1	67.7	67.7	67.7	65.1	65.1	65.1	62.1	62.1	62.1	58.9	58.9	58.9
		SHC	28.7	38.0	47.3	27.8	37.1	46.4	26.9	36.1	45.4	25.8	35.0	44.3	24.6	33.8	43.1
		kW	3.6			4.2			5.0			5.8			6.7		
76.0	THC	-	75.1	75.1	-	72.7	72.7	-	69.9	69.9	-	66.8	66.8	-	-	-	
	SHC	-	30.6	40.2	-	29.8	39.3	-	28.8	38.3	-	27.7	37.2	-	-	-	
	kW	3.6			4.2			5.0			5.8			6.7			
2100	58.0	THC	60.9	60.9	68.6	59.0	59.0	66.5	56.9	56.9	64.1	54.6	54.6	61.6	52.1	52.1	58.7
		SHC	53.1	60.9	68.6	51.5	59.0	66.5	49.6	56.9	64.1	47.8	54.6	61.6	45.5	52.1	58.7
		kW	3.7			4.3			5.1			5.9			6.7		
	62.0	THC	61.3	61.3	70.2	59.0	59.0	69.0	56.9	56.9	66.6	54.7	54.7	64.0	52.1	52.1	61.0
		SHC	50.1	60.1	70.2	49.0	59.0	69.0	47.3	56.9	66.6	45.5	54.7	64.0	43.4	52.1	61.0
		kW	3.7			4.3			5.1			5.9			6.7		
	67.0	THC	65.6	65.6	65.6	63.2	63.2	63.2	60.7	60.7	60.7	57.8	57.8	58.0	54.7	54.7	56.7
		SHC	40.3	50.7	61.2	39.3	49.7	60.2	38.3	48.8	59.1	37.1	47.6	58.0	35.9	46.3	56.7
		kW	3.7			4.3			5.1			5.8			6.7		
	72.0	THC	71.4	71.4	71.4	68.9	68.9	68.9	66.2	66.2	66.2	63.2	63.2	63.2	59.9	59.9	59.9
		SHC	29.6	40.2	50.7	28.7	39.3	49.7	27.8	38.3	48.8	26.7	37.2	47.7	25.5	36.0	46.5
		kW	3.6			4.2			5.0			5.8			6.6		
76.0	THC	-	76.2	76.2	-	73.7	73.7	-	70.8	70.8	-	-	-	-	-	-	
	SHC	-	31.7	42.5	-	30.8	41.7	-	29.8	40.7	-	-	-	-	-	-	
	kW	3.5			4.2			5.0			5.8			6.7			
2400	58.0	THC	62.9	62.9	70.9	60.9	60.9	68.7	58.7	58.7	66.2	56.4	56.4	63.6	53.8	53.8	60.7
		SHC	54.9	62.9	70.9	53.2	60.9	68.7	51.3	58.7	66.2	49.2	56.4	63.6	47.0	53.8	60.7
		kW	3.7			4.3			5.1			5.9			6.7		
	62.0	THC	63.0	63.0	73.7	61.0	61.0	71.3	58.8	58.8	68.7	56.4	56.4	66.0	53.8	53.8	63.0
		SHC	52.3	63.0	73.7	50.6	61.0	71.3	48.9	58.8	68.7	46.9	56.4	66.0	44.8	53.8	63.0
		kW	3.7			4.3			5.1			5.9			6.7		
	67.0	THC	66.6	66.6	66.6	64.2	64.2	64.7	61.6	61.6	63.6	58.7	58.7	62.3	55.5	55.5	60.9
		SHC	42.3	54.0	65.7	41.3	53.0	64.7	40.3	51.9	63.6	39.1	50.7	62.3	37.8	49.3	60.9
		kW	3.6			4.3			5.1			5.8			6.7		
	72.0	THC	72.3	72.3	72.3	69.9	69.9	69.9	67.1	67.1	67.1	64.0	64.0	64.0	60.5	60.5	60.5
		SHC	30.4	42.2	53.9	29.6	41.3	53.0	28.6	40.3	52.0	27.5	39.2	50.8	26.3	38.0	49.5
		kW	3.6			4.2			5.0			5.8			6.6		
76.0	THC	-	77.2	77.2	-	74.6	74.6	-	71.7	71.7	-	-	-	-	-	-	
	SHC	-	32.7	44.8	-	31.9	43.9	-	30.9	42.9	-	-	-	-	-	-	
	kW	3.5			4.2			5.0			5.8			6.7			
2700	58.0	THC	64.6	64.6	72.8	62.5	62.5	70.5	60.3	60.3	68.0	57.8	57.8	65.2	55.2	55.2	62.2
		SHC	56.4	64.6	72.8	54.5	62.5	70.5	52.6	60.3	68.0	50.5	57.8	65.2	48.2	55.2	62.2
		kW	3.7			4.3			5.1			5.8			6.7		
	62.0	THC	64.6	64.6	75.6	62.5	62.5	73.2	60.3	60.3	70.6	57.9	57.9	67.7	55.2	55.2	64.6
		SHC	53.7	64.6	75.6	51.9	62.5	73.2	50.1	60.3	70.6	48.1	57.9	67.7	45.9	55.2	64.6
		kW	3.7			4.3			5.1			5.8			6.7		
	67.0	THC	67.4	67.4	69.9	64.9	64.9	68.8	62.3	62.3	67.7	59.4	59.4	66.4	56.2	56.2	64.9
		SHC	44.2	57.0	69.9	43.2	56.0	68.8	42.2	54.9	67.7	41.0	53.6	66.4	39.6	52.2	64.9
		kW	3.6			4.3			5.0			5.8			6.7		
	72.0	THC	73.1	73.1	73.1	70.6	70.6	70.6	67.7	67.7	67.7	64.6	64.6	64.6	-	-	-
		SHC	31.2	44.2	57.0	30.3	43.2	56.1	29.3	42.2	55.0	28.2	41.1	53.9	-	-	-
		kW	3.6			4.2			5.0			5.8			6.7		
76.0	THC	-	78.0	78.0	-	75.4	75.4	-	72.4	72.4	-	-	-	-	-	-	
	SHC	-	33.8	47.0	-	32.9	46.1	-	31.9	45.1	-	-	-	-	-	-	
	kW	3.5			4.2			5.0			5.8			6.7			
3000	58.0	THC	66.0	66.0	74.4	63.9	63.9	72.0	61.6	61.6	69.4	59.1	59.1	66.6	56.3	56.3	63.4
		SHC	57.6	66.0	74.4	55.7	63.9	72.0	53.7	61.6	69.4	51.6	59.1	66.6	49.1	56.3	63.4
		kW	3.6			4.3			5.1			5.8			6.7		
	62.0	THC	66.0	66.0	77.2	63.9	63.9	74.8	61.6	61.6	72.1	59.1	59.1	69.2	56.3	56.3	65.9
		SHC	54.8	66.0	77.2	53.1	63.9	74.8	51.2	61.6	72.1	49.1	59.1	69.2	46.8	56.3	65.9
		kW	3.6			4.3			5.0			5.8			6.7		
	67.0	THC	68.0	68.0	73.8	65.6	65.6	72.7	62.9	62.9	71.5	60.0	60.0	70.1	56.8	56.8	68.3
		SHC	46.0	59.9	73.8	45.0	58.8	72.7	43.9	57.7	71.5	42.6	56.3	70.1	41.2	54.7	68.3
		kW	3.6			4.2			5.0			5.8			6.7		
	72.0	THC	73.7	73.7	73.7	71.1	71.1	71.1	68.3	68.3	68.3	65.1	65.1	65.1	-	-	-
		SHC	31.9	46.0	60.0	31.0	45.1	59.0	30.0	44.0	58.0	28.9	42.9	56.8	-	-	-
		kW	3.6			4.2			5.0			5.8			6.7		
76.0	THC	-	78.7	78.7	-	76.0	76.0	-	72.9	72.9	-	-	-	-	-	-	
	SHC	-	34.7	49.0	-	33.8	48.1	-	32.8	47.1	-	-	-	-	-	-	
	kW	3.5			4.2			5.0			5.8			6.7			

Legend:

-- = Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

SI

38AUMZ07 with 40RUM-07		Ambient Temperature															
		29.4			35.0			40.6			46.1			51.7			
		EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
L/S	EAT(wb)	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	
850	14.4	THC	17.1	17.1	19.3	16.6	16.6	18.7	16.0	16.0	18.0	15.4	15.4	17.3	14.5	14.5	16.3
		SHC	14.9	17.1	19.3	14.5	16.6	18.7	14.0	16.0	18.0	13.4	15.4	17.3	12.7	14.5	16.3
		kW	3.7			4.4			5.1			5.9			6.7		
	16.7	THC	17.4	17.4	19.1	16.8	16.8	18.8	16.1	16.1	18.3	15.4	15.4	17.9	14.6	14.6	17.1
		SHC	13.8	16.4	19.1	13.5	16.1	18.8	13.1	15.7	18.3	12.7	15.3	17.9	12.1	14.6	17.1
		kW	3.6			4.2			4.9			5.7			6.5		
	19.4	THC	18.9	18.9	18.9	18.2	18.2	18.2	17.4	17.4	17.4	16.7	16.7	16.7	15.8	15.8	15.8
		SHC	11.2	13.8	16.5	10.9	13.6	16.2	10.6	13.3	16.0	10.3	12.9	15.6	9.9	12.6	15.3
		kW	3.7			4.3			5.1			5.9			6.7		
	22.2	THC	20.5	20.5	20.5	19.8	19.8	19.8	19.1	19.1	19.1	18.2	18.2	18.2	17.3	17.3	17.3
		SHC	8.4	11.1	13.8	8.2	10.9	13.6	7.9	10.6	13.3	7.6	10.3	13.0	7.2	9.9	12.6
		kW	3.6			4.2			5.0			5.8			6.7		
24.4	THC		22.0	22.0		21.3	21.3		20.5	20.5		19.6	19.6	-	-	-	
	SHC		9.0	11.8		8.7	11.5		8.4	11.2		8.1	10.9	-	-	-	
	kW	3.6			4.2			5.0			5.8			6.7			
991	14.4	THC	17.9	17.9	20.1	17.3	17.3	19.5	16.7	16.7	18.8	16.0	16.0	18.1	15.3	15.3	17.2
		SHC	15.6	17.9	20.1	15.1	17.3	19.5	14.6	16.7	18.8	14.0	16.0	18.1	13.3	15.3	17.2
		kW	3.7			4.3			5.1			5.9			6.7		
	16.7	THC	18.0	18.0	20.6	17.3	17.3	20.2	16.7	16.7	19.5	16.0	16.0	18.8	15.3	15.3	17.9
		SHC	14.7	17.6	20.6	14.4	17.3	20.2	13.8	16.7	19.5	13.3	16.0	18.8	12.7	15.3	17.9
		kW	3.7			4.3			5.1			5.9			6.7		
	19.4	THC	19.2	19.2	19.2	18.5	18.5	18.5	17.8	17.8	17.8	16.9	16.9	17.0	16.0	16.0	16.6
		SHC	11.8	14.9	17.9	11.5	14.6	17.6	11.2	14.3	17.3	10.9	13.9	17.0	10.5	13.6	16.6
		kW	3.7			4.3			5.1			5.8			6.7		
	22.2	THC	20.9	20.9	20.9	20.2	20.2	20.2	19.4	19.4	19.4	18.5	18.5	18.5	17.6	17.6	17.6
		SHC	8.7	11.8	14.9	8.4	11.5	14.6	8.2	11.2	14.3	7.8	10.9	14.0	7.5	10.5	13.6
		kW	3.6			4.2			5.0			5.8			6.6		
24.4	THC	-	22.3	22.3	-	21.6	21.6	-	20.7	20.7	-	-	-	-	-	-	
	SHC	-	9.3	12.4	-	9.0	12.2	-	8.7	11.9	-	-	-	-	-	-	
	kW	3.5			4.2			5.0			5.8			6.6			
1133	14.4	THC	18.4	18.4	20.8	17.9	17.9	20.1	17.2	17.2	19.4	16.5	16.5	18.6	15.8	15.8	17.8
		SHC	16.1	18.4	20.8	15.6	17.9	20.1	15.0	17.2	19.4	14.4	16.5	18.6	13.8	15.8	17.8
		kW	3.7			4.3			5.1			5.9			6.7		
	16.7	THC	18.5	18.5	21.6	17.9	17.9	20.9	17.2	17.2	20.1	16.5	16.5	19.3	15.8	15.8	18.5
		SHC	15.3	18.5	21.6	14.8	17.9	20.9	14.3	17.2	20.1	13.7	16.5	19.3	13.1	15.8	18.5
		kW	3.7			4.3			5.1			5.9			6.7		
	19.4	THC	19.5	19.5	19.5	18.8	18.8	19.0	18.1	18.1	18.6	17.2	17.2	18.3	16.3	16.3	17.9
		SHC	12.4	15.8	19.3	12.1	15.5	19.0	11.8	15.2	18.6	11.5	14.9	18.3	11.1	14.5	17.9
		kW	3.6			4.3			5.1			5.8			6.7		
	22.2	THC	21.2	21.2	21.2	20.5	20.5	20.5	19.7	19.7	19.7	18.8	18.8	18.8	17.7	17.7	17.7
		SHC	8.9	12.4	15.8	8.7	12.1	15.5	8.4	11.8	15.3	8.1	11.5	14.9	7.7	11.1	14.5
		kW	3.6			4.2			5.0			5.8			6.6		
24.4	THC		22.6	22.6		21.9	21.9		21.0	21.0	-	-	-	-	-	-	
	SHC		9.6	13.1		9.3	12.9		9.1	12.6	-	-	-	-	-	-	
	kW	3.5			4.2			5.0			5.8			6.6			
1274	14.4	THC	18.9	18.9	21.3	18.3	18.3	20.7	17.7	17.7	19.9	16.9	16.9	19.1	16.2	16.2	18.2
		SHC	16.5	18.9	21.3	16.0	18.3	20.7	15.4	17.7	19.9	14.8	16.9	19.1	14.1	16.2	18.2
		kW	3.7			4.3			5.1			5.8			6.7		
	16.7	THC	18.9	18.9	22.1	18.3	18.3	21.4	17.7	17.7	20.7	17.0	17.0	19.8	16.2	16.2	18.9
		SHC	15.7	18.9	22.1	15.2	18.3	21.4	14.7	17.7	20.7	14.1	17.0	19.8	13.4	16.2	18.9
		kW	3.7			4.3			5.1			5.8			6.7		
	19.4	THC	19.8	19.8	20.5	19.0	19.0	20.2	18.3	18.3	19.8	17.4	17.4	19.5	16.5	16.5	19.0
		SHC	12.9	16.7	20.5	12.7	16.4	20.2	12.4	16.1	19.8	12.0	15.7	19.5	11.6	15.3	19.0
		kW	3.6			4.3			5.0			5.8			6.7		
	22.2	THC	21.4	21.4	21.4	20.7	20.7	20.7	19.8	19.8	19.8	18.9	18.9	18.9	-	-	-
		SHC	9.1	12.9	16.7	8.9	12.7	16.4	8.6	12.4	16.1	8.3	12.0	15.8	-	-	-
		kW	3.6			4.2			5.0			5.8			6.6		
24.4	THC		22.8	22.8		22.1	22.1		21.2	21.2	-	-	-	-	-	-	
	SHC		9.9	13.8		9.6	13.5		9.3	13.2	-	-	-	-	-	-	
	kW	3.5			4.2			5.0			5.8			6.6			
1416	14.4	THC	19.3	19.3	21.8	18.7	18.7	21.1	18.1	18.1	20.3	17.3	17.3	19.5	16.5	16.5	18.6
		SHC	16.9	19.3	21.8	16.3	18.7	21.1	15.7	18.1	20.3	15.1	17.3	19.5	14.4	16.5	18.6
		kW	3.6			4.3			5.1			5.8			6.7		
	16.7	THC	19.3	19.3	22.6	18.7	18.7	21.9	18.1	18.1	21.1	17.3	17.3	20.3	16.5	16.5	19.3
		SHC	16.1	19.3	22.6	15.6	18.7	21.9	15.0	18.1	21.1	14.4	17.3	20.3	13.7	16.5	19.3
		kW	3.6			4.3			5.0			5.8			6.7		
	19.4	THC	19.9	19.9	21.6	19.2	19.2	21.3	18.4	18.4	20.9	17.6	17.6	20.5	16.7	16.7	20.0
		SHC	13.5	17.6	21.6	13.2	17.2	21.3	12.9	16.9	20.9	12.5	16.5	20.5	12.1	16.0	20.0
		kW	3.6			4.2			5.0			5.8			6.7		
	22.2	THC	21.6	21.6	21.6	20.8	20.8	20.8	20.0	20.0	20.0	19.1	19.1	19.1	-	-	-
		SHC	9.3	13.5	17.6	9.1	13.2	17.3	8.8	12.9	17.0	8.5	12.6	16.7	-	-	-
		kW	3.6			4.2			5.0			5.8			6.6		
24.4	THC	-	23.1	23.1	-	22.3	22.3	-	21.4	21.4	-	-	-	-	-	-	
	SHC	-	10.2	14.4	-	9.9	14.1	-	9.6	13.8	-	-	-	-	-	-	
	kW	3.5			4.2			5.0			5.8			6.6			

Legend:

-- = Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

English

38AUMZ08 with 40RUM-08		Ambient Temperature															
		85.0			95.0			105.0			115.0			125.0			
		EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
CFM	EAT(wb)	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	
2250	58.0	THC	77.8	77.8	87.6	75.2	75.2	84.8	72.5	72.5	81.7	69.4	69.4	78.3	66.1	66.1	74.5
		SHC	67.9	77.8	87.6	65.7	75.2	84.8	63.2	72.5	81.7	60.6	69.4	78.3	57.7	66.1	74.5
		kW	4.4			5.2			6.0			7.0			7.9		
	62.0	THC	79.9	79.9	86.5	76.8	76.8	84.8	73.5	73.5	82.9	69.8	69.8	80.5	66.2	66.2	77.3
		SHC	62.7	74.6	86.5	61.2	72.9	84.8	59.5	71.2	82.9	57.4	69.0	80.5	54.9	66.2	77.3
		kW	4.4			5.2			6.1			7.0			7.9		
	67.0	THC	86.8	86.8	86.8	83.5	83.5	83.5	79.7	79.7	79.7	75.6	75.6	75.6	71.3	71.3	71.3
		SHC	50.8	62.9	75.0	49.5	61.5	73.6	47.9	60.0	72.0	46.4	58.3	70.3	44.6	56.6	68.6
		kW	4.7			5.5			6.3			7.2			8.2		
	72.0	THC	94.3	94.3	94.3	90.8	90.8	90.8	86.8	86.8	86.8	82.5	82.5	82.5	-	-	-
		SHC	38.6	50.7	62.8	37.3	49.4	61.5	35.8	47.9	60.0	34.2	46.3	58.3	-	-	-
		kW	4.6			5.3			6.2			7.1			-		
76.0	THC	-	100.5	100.5	-	96.9	96.9	-	92.8	92.8	-	88.3	88.3	-	-	-	
	SHC	-	40.8	53.3	-	39.5	52.0	-	38.1	50.5	-	36.6	49.0	-	-	-	
	kW	4.6			5.4			6.2			7.2			-			
2625	58.0	THC	81.4	81.4	91.7	78.7	78.7	88.7	75.7	75.7	85.3	72.4	72.4	81.6	68.9	68.9	77.6
		SHC	71.1	81.4	91.7	68.7	78.7	88.7	66.1	75.7	85.3	63.2	72.4	81.6	60.1	68.9	77.6
		kW	4.4			5.2			6.1			7.0			7.9		
	62.0	THC	82.1	82.1	93.9	78.9	78.9	92.2	75.7	75.7	88.6	72.5	72.5	84.8	69.0	69.0	80.6
		SHC	67.1	80.5	93.9	65.5	78.9	92.2	62.9	75.7	88.6	60.2	72.5	84.8	57.2	69.0	80.6
		kW	4.5			5.2			6.1			7.0			7.9		
	67.0	THC	88.7	88.7	88.7	85.1	85.1	85.1	81.3	81.3	81.3	77.1	77.1	77.1	72.6	72.6	75.0
		SHC	54.0	67.8	81.7	52.5	66.4	80.2	51.0	64.8	78.7	49.3	63.1	76.9	47.5	61.3	75.0
		kW	4.5			5.3			6.1			7.0			7.9		
	72.0	THC	96.2	96.2	96.2	92.4	92.4	92.4	88.5	88.5	88.5	84.0	84.0	84.0	79.1	79.1	79.1
		SHC	39.8	53.8	67.7	38.4	52.4	66.3	37.0	51.0	64.8	35.4	49.3	63.1	33.8	47.5	61.4
		kW	4.6			5.3			6.2			7.1			8.0		
76.0	THC	-	102.6	102.6	-	98.7	98.7	-	94.5	94.5	-	-	-	-	-	-	
	SHC	-	42.4	56.8	-	41.2	55.3	-	39.7	53.9	-	-	-	-	-	-	
	kW	4.6			5.4			6.3			-			-			
3000	58.0	THC	84.3	84.3	95.0	81.5	81.5	91.8	78.4	78.4	88.3	74.9	74.9	84.4	71.2	71.2	80.1
		SHC	73.6	84.3	95.0	71.1	81.5	91.8	68.4	78.4	88.3	65.4	74.9	84.4	62.1	71.2	80.1
		kW	4.5			5.2			6.1			7.0			7.9		
	62.0	THC	84.4	84.4	98.7	81.6	81.6	95.4	78.4	78.4	91.7	74.9	74.9	87.6	71.2	71.2	83.3
		SHC	70.1	84.4	98.7	67.7	81.6	95.4	65.1	78.4	91.7	62.2	74.9	87.6	59.2	71.2	83.3
		kW	4.5			5.2			6.1			7.0			7.9		
	67.0	THC	89.9	89.9	89.9	86.4	86.4	86.6	82.5	82.5	84.9	78.3	78.3	83.0	73.7	73.7	81.1
		SHC	56.8	72.4	88.0	55.4	71.0	86.6	53.9	69.4	84.9	52.1	67.6	83.0	50.2	65.6	81.1
		kW	4.5			5.3			6.1			7.1			8.0		
	72.0	THC	97.5	97.5	97.5	93.8	93.8	93.8	89.6	89.6	89.6	85.0	85.0	85.0	80.1	80.1	80.1
		SHC	40.9	56.7	72.3	39.6	55.3	71.0	38.1	53.8	69.5	36.6	52.2	67.8	34.8	50.4	66.1
		kW	4.6			5.4			6.2			7.1			8.0		
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
3375	58.0	THC	86.6	86.6	97.6	83.7	83.7	94.3	80.4	80.4	90.6	76.9	76.9	86.6	72.9	72.9	82.2
		SHC	75.6	86.6	97.6	73.0	83.7	94.3	70.2	80.4	90.6	67.1	76.9	86.6	63.7	72.9	82.2
		kW	4.5			5.3			6.1			7.0			7.9		
	62.0	THC	86.7	86.7	101.4	83.8	83.8	97.9	80.4	80.4	94.1	76.9	76.9	89.9	73.0	73.0	85.3
		SHC	72.0	86.7	101.4	69.6	83.8	97.9	66.9	80.4	94.1	63.9	76.9	89.9	60.6	73.0	85.3
		kW	4.5			5.3			6.1			7.0			7.9		
	67.0	THC	91.1	91.1	94.1	87.4	87.4	92.5	83.5	83.5	90.8	79.1	79.1	88.9	74.5	74.5	86.6
		SHC	59.6	76.8	94.1	58.0	75.3	92.5	56.5	73.7	90.8	54.7	71.8	88.9	52.7	69.7	86.6
		kW	4.5			5.3			6.1			7.1			8.0		
	72.0	THC	98.6	98.6	98.6	94.8	94.8	94.8	90.5	90.5	90.5	86.0	86.0	86.0	-	-	-
		SHC	42.1	59.5	76.9	40.7	58.1	75.4	39.3	56.6	74.0	37.6	55.0	72.3	-	-	-
		kW	4.6			5.4			6.2			7.1			-		
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
3750	58.0	THC	88.7	88.7	99.8	85.5	85.5	96.4	82.2	82.2	92.6	78.6	78.6	88.5	74.5	74.5	84.0
		SHC	77.4	88.7	99.8	74.7	85.5	96.4	71.8	82.2	92.6	68.6	78.6	88.5	65.0	74.5	84.0
		kW	4.5			5.3			6.1			7.1			8.0		
	62.0	THC	88.7	88.7	103.7	85.6	85.6	100.1	82.3	82.3	96.2	78.6	78.6	91.9	74.5	74.5	87.1
		SHC	73.7	88.7	103.7	71.2	85.6	100.1	68.4	82.3	96.2	65.2	78.6	91.9	61.9	74.5	87.1
		kW	4.5			5.3			6.1			7.1			8.0		
	67.0	THC	91.9	91.9	99.8	88.3	88.3	98.2	84.3	84.3	96.3	79.9	79.9	94.1	75.2	75.2	91.5
		SHC	62.1	81.0	99.8	60.6	79.4	98.2	59.0	77.6	96.3	57.1	75.5	94.1	54.9	73.2	91.5
		kW	4.5			5.3			6.1			7.1			8.0		
	72.0	THC	99.5	99.5	99.5	95.5	95.5	95.5	91.3	91.3	91.3	86.6	86.6	86.6	-	-	-
		SHC	43.1	62.2	81.3	41.8	60.9	79.8	40.3	59.3	78.4	38.7	57.6	76.7	-	-	-
		kW	4.6			5.4			6.2			7.1			-		
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			

Legend:

-- Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

SI

38AUMZ08 with 40RUM-08		Ambient Temperature															
		29.4			35.0			40.6			46.1			51.7			
		EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
L/S	EAT(wb)	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	
1062	14.4	THC	22.8	22.8	25.7	22.0	22.0	24.9	21.3	21.3	23.9	20.3	20.3	22.9	19.4	19.4	21.8
		SHC	19.9	22.8	25.7	19.3	22.0	24.9	18.5	21.3	23.9	17.8	20.3	22.9	16.9	19.4	21.8
		kW	4.4			5.2			6.0			7.0			7.9		
	16.7	THC	23.4	23.4	25.3	22.5	22.5	24.9	21.5	21.5	24.3	20.5	20.5	23.6	19.4	19.4	22.7
		SHC	18.4	21.9	25.3	17.9	21.4	24.9	17.4	20.9	24.3	16.8	20.2	23.6	16.1	19.4	22.7
		kW	4.4			5.2			6.1			7.0			7.9		
	19.4	THC	25.4	25.4	25.4	24.5	24.5	24.5	23.4	23.4	23.4	22.2	22.2	22.2	20.9	20.9	20.9
		SHC	14.9	18.4	22.0	14.5	18.0	21.6	14.0	17.6	21.1	13.6	17.1	20.6	13.1	16.6	20.1
		kW	4.7			5.5			6.3			7.2			8.2		
	22.2	THC	27.6	27.6	27.6	26.6	26.6	26.6	25.4	25.4	25.4	24.2	24.2	24.2	-	-	-
		SHC	11.3	14.9	18.4	10.9	14.5	18.0	10.5	14.0	17.6	10.0	13.6	17.1	-	-	-
		kW	4.6			5.3			6.2			7.1			-		
24.4	THC	-	29.5	29.5	-	28.4	28.4	-	27.2	27.2	-	25.9	25.9	-	-	-	
	SHC	-	12.0	15.6	-	11.6	15.2	-	11.2	14.8	-	10.7	14.4	-	-	-	
	kW	4.6			5.4			6.2			7.2			-			
1239	14.4	THC	23.8	23.8	26.9	23.1	23.1	26.0	22.2	22.2	25.0	21.2	21.2	23.9	20.2	20.2	22.7
		SHC	20.8	23.8	26.9	20.1	23.1	26.0	19.4	22.2	25.0	18.5	21.2	23.9	17.6	20.2	22.7
		kW	4.4			5.2			6.1			7.0			7.9		
	16.7	THC	24.1	24.1	27.5	23.1	23.1	27.0	22.2	22.2	26.0	21.3	21.3	24.9	20.2	20.2	23.6
		SHC	19.7	23.6	27.5	19.2	23.1	27.0	18.4	22.2	26.0	17.7	21.3	24.9	16.8	20.2	23.6
		kW	4.5			5.2			6.1			7.0			7.9		
	19.4	THC	26.0	26.0	26.0	24.9	24.9	24.9	23.8	23.8	23.8	22.6	22.6	22.6	21.3	21.3	22.0
		SHC	15.8	19.9	23.9	15.4	19.5	23.5	14.9	19.0	23.1	14.4	18.5	22.5	13.9	18.0	22.0
		kW	4.5			5.3			6.1			7.0			7.9		
	22.2	THC	28.2	28.2	28.2	27.1	27.1	27.1	25.9	25.9	25.9	24.6	24.6	24.6	23.2	23.2	23.2
		SHC	11.7	15.8	19.8	11.3	15.4	19.4	10.8	14.9	19.0	10.4	14.4	18.5	9.9	13.9	18.0
		kW	4.6			5.3			6.2			7.1			8.0		
24.4	THC	-	30.1	30.1	-	28.9	28.9	-	27.7	27.7	-	-	-	-	-	-	
	SHC	-	12.4	16.6	-	12.1	16.2	-	11.6	15.8	-	-	-	-	-	-	
	kW	4.6			5.4			6.3			-			-			
1416	14.4	THC	24.7	24.7	27.8	23.9	23.9	26.9	23.0	23.0	25.9	22.0	22.0	24.7	20.9	20.9	23.5
		SHC	21.6	24.7	27.8	20.8	23.9	26.9	20.0	23.0	25.9	19.2	22.0	24.7	18.2	20.9	23.5
		kW	4.5			5.2			6.1			7.0			7.9		
	16.7	THC	24.7	24.7	28.9	23.9	23.9	28.0	23.0	23.0	26.9	22.0	22.0	25.7	20.9	20.9	24.4
		SHC	20.6	24.7	28.9	19.8	23.9	28.0	19.1	23.0	26.9	18.2	22.0	25.7	17.3	20.9	24.4
		kW	4.5			5.2			6.1			7.0			7.9		
	19.4	THC	26.4	26.4	26.4	25.3	25.3	25.4	24.2	24.2	24.9	22.9	22.9	24.3	21.6	21.6	23.8
		SHC	16.6	21.2	25.8	16.2	20.8	25.4	15.8	20.3	24.9	15.3	19.8	24.3	14.7	19.2	23.8
		kW	4.5			5.3			6.1			7.1			8.0		
	22.2	THC	28.6	28.6	28.6	27.5	27.5	27.5	26.3	26.3	26.3	24.9	24.9	24.9	23.5	23.5	23.5
		SHC	12.0	16.6	21.2	11.6	16.2	20.8	11.2	15.8	20.4	10.7	15.3	19.9	10.2	14.8	19.4
		kW	4.6			5.4			6.2			7.1			8.0		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
1593	14.4	THC	25.4	25.4	28.6	24.5	24.5	27.6	23.6	23.6	26.6	22.5	22.5	25.4	21.4	21.4	24.1
		SHC	22.2	25.4	28.6	21.4	24.5	27.6	20.6	23.6	26.6	19.7	22.5	25.4	18.7	21.4	24.1
		kW	4.5			5.3			6.1			7.0			7.9		
	16.7	THC	25.4	25.4	29.7	24.6	24.6	28.7	23.6	23.6	27.6	22.5	22.5	26.4	21.4	21.4	25.0
		SHC	21.1	25.4	29.7	20.4	24.6	28.7	19.6	23.6	27.6	18.7	22.5	26.4	17.8	21.4	25.0
		kW	4.5			5.3			6.1			7.0			7.9		
	19.4	THC	26.7	26.7	27.6	25.6	25.6	27.1	24.5	24.5	26.6	23.2	23.2	26.0	21.8	21.8	25.4
		SHC	17.5	22.5	27.6	17.0	22.1	27.1	16.6	21.6	26.6	16.0	21.0	26.0	15.5	20.4	25.4
		kW	4.5			5.3			6.1			7.1			8.0		
	22.2	THC	28.9	28.9	28.9	27.8	27.8	27.8	26.5	26.5	26.5	25.2	25.2	25.2	-	-	-
		SHC	12.3	17.4	22.5	11.9	17.0	22.1	11.5	16.6	21.7	11.0	16.1	21.2	-	-	-
		kW	4.6			5.4			6.2			7.1			-		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
1770	14.4	THC	26.0	26.0	29.3	25.1	25.1	28.2	24.1	24.1	27.1	23.0	23.0	25.9	21.8	21.8	24.6
		SHC	22.7	26.0	29.3	21.9	25.1	28.2	21.0	24.1	27.1	20.1	23.0	25.9	19.1	21.8	24.6
		kW	4.5			5.3			6.1			7.1			8.0		
	16.7	THC	26.0	26.0	30.4	25.1	25.1	29.3	24.1	24.1	28.2	23.0	23.0	26.9	21.8	21.8	25.5
		SHC	21.6	26.0	30.4	20.9	25.1	29.3	20.0	24.1	28.2	19.1	23.0	26.9	18.1	21.8	25.5
		kW	4.5			5.3			6.1			7.1			8.0		
	19.4	THC	26.9	26.9	29.3	25.9	25.9	28.8	24.7	24.7	28.2	23.4	23.4	27.6	22.0	22.0	26.8
		SHC	18.2	23.7	29.3	17.8	23.3	28.8	17.3	22.7	28.2	16.7	22.1	27.6	16.1	21.5	26.8
		kW	4.5			5.3			6.1			7.1			8.0		
	22.2	THC	29.2	29.2	29.2	28.0	28.0	28.0	26.8	26.8	26.8	25.4	25.4	25.4	-	-	-
		SHC	12.6	18.2	23.8	12.2	17.8	23.4	11.8	17.4	23.0	11.3	16.9	22.5	-	-	-
		kW	4.6			5.4			6.2			7.1			-		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			

Legend:

-- Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

English

38AUMD12 with 40RUM-12		Ambient Temperature															
		85.0			95.0			105.0			115.0			125.0			
		EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
CFM	EAT(wb)	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	
3000	58.0	THC	103.2	103.2	116.3	99.6	99.6	112.1	95.5	95.5	107.6	91.1	91.1	102.7	86.1	86.1	97.0
		SHC	90.1	103.2	116.3	86.9	99.6	112.1	83.4	95.5	107.6	79.5	91.1	102.7	75.1	86.1	97.0
		kW	6.1			7.0			8.2			9.3			10.5		
	62.0	THC	105.0	105.0	116.5	100.8	100.8	114.0	95.9	95.9	111.3	91.2	91.2	106.7	86.2	86.2	100.8
		SHC	83.9	100.2	116.5	81.7	97.9	114.0	79.2	95.3	111.3	75.8	91.2	106.7	71.6	86.2	100.8
		kW	6.1			7.0			8.2			9.3			10.5		
	67.0	THC	114.0	114.0	114.0	109.3	109.3	109.3	104.1	104.1	104.1	98.3	98.3	98.3	92.0	92.0	92.0
		SHC	67.8	84.4	101.0	65.9	82.4	99.0	63.8	80.3	96.9	61.4	78.0	94.5	58.8	75.4	92.0
		kW	6.2			7.1			8.2			9.3			10.5		
	72.0	THC	123.7	123.7	123.7	118.8	118.8	118.8	113.4	113.4	113.4	107.3	107.3	107.3	100.5	100.5	100.5
		SHC	50.8	67.5	84.2	49.0	65.7	82.3	47.1	63.7	80.4	44.8	61.5	78.1	42.4	59.1	75.7
		kW	6.2			7.2			8.3			9.4			10.6		
76.0	THC	-	132.1	132.1	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	53.8	70.7	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	6.3			-			-			-			-			
3500	58.0	THC	107.8	107.8	121.6	104.0	104.0	117.2	99.7	99.7	112.3	95.0	95.0	107.1	89.8	89.8	101.2
		SHC	94.1	107.8	121.6	90.8	104.0	117.2	87.0	99.7	112.3	83.0	95.0	107.1	78.4	89.8	101.2
		kW	6.1			7.1			8.2			9.3			10.5		
	62.0	THC	108.2	108.2	125.4	104.1	104.1	121.7	99.8	99.8	116.7	95.1	95.1	111.2	89.8	89.8	105.0
		SHC	89.2	107.3	125.4	86.4	104.1	121.7	82.9	99.8	116.7	79.0	95.1	111.2	74.6	89.8	105.0
		kW	6.1			7.1			8.2			9.3			10.5		
	67.0	THC	116.3	116.3	116.3	111.5	111.5	111.5	106.0	106.0	106.0	100.1	100.1	103.4	93.6	93.6	100.8
		SHC	72.0	91.1	110.2	70.0	89.1	108.2	67.8	86.9	105.9	65.5	84.5	103.4	62.9	81.8	100.8
		kW	6.2			7.1			8.2			9.4			10.5		
	72.0	THC	126.1	126.1	126.1	120.9	120.9	120.9	115.3	115.3	115.3	109.1	109.1	109.1	102.3	102.3	102.3
		SHC	52.5	71.7	90.9	50.7	69.9	89.1	48.7	67.8	87.0	46.5	65.6	84.8	44.1	63.2	82.3
		kW	6.3			7.2			8.3			9.4			10.6		
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
4000	58.0	THC	111.5	111.5	125.6	107.5	107.5	121.1	103.0	103.0	116.1	98.1	98.1	110.5	92.6	92.6	104.4
		SHC	97.3	111.5	125.6	93.9	107.5	121.1	89.9	103.0	116.1	85.6	98.1	110.5	80.9	92.6	104.4
		kW	6.1			7.1			8.2			9.3			10.5		
	62.0	THC	111.6	111.6	130.6	107.6	107.6	125.8	103.1	103.1	120.6	98.2	98.2	114.8	92.7	92.7	108.5
		SHC	92.7	111.6	130.6	89.4	107.6	125.8	85.6	103.1	120.6	81.6	98.2	114.8	77.1	92.7	108.5
		kW	6.1			7.1			8.2			9.3			10.5		
	67.0	THC	118.0	118.0	118.9	113.1	113.1	116.8	107.5	107.5	114.5	101.5	101.5	111.9	95.0	95.0	108.9
		SHC	75.9	97.4	118.9	74.0	95.4	116.8	71.7	93.1	114.5	69.4	90.6	111.9	66.6	87.8	108.9
		kW	6.2			7.1			8.3			9.4			10.5		
	72.0	THC	127.8	127.8	127.8	122.5	122.5	122.5	116.8	116.8	116.8	110.5	110.5	110.5	-	-	-
		SHC	54.1	75.8	97.3	52.3	73.9	95.5	50.3	71.8	93.5	48.1	69.7	91.2	-	-	-
		kW	6.3			7.2			8.3			9.4			-		
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
4500	58.0	THC	114.6	114.6	129.2	110.4	110.4	124.3	105.8	105.8	119.2	100.6	100.6	113.4	95.0	95.0	107.1
		SHC	100.0	114.6	129.2	96.4	110.4	124.3	92.4	105.8	119.2	87.9	100.6	113.4	83.0	95.0	107.1
		kW	6.2			7.1			8.2			9.4			10.5		
	62.0	THC	114.7	114.7	134.1	110.5	110.5	129.2	105.9	105.9	123.8	100.8	100.8	117.8	95.1	95.1	111.2
		SHC	95.3	114.7	134.1	91.8	110.5	129.2	87.9	105.9	123.8	83.7	100.8	117.8	79.0	95.1	111.2
		kW	6.2			7.1			8.2			9.4			10.5		
	67.0	THC	119.3	119.3	127.1	114.3	114.3	125.0	108.8	108.8	122.5	102.7	102.7	119.6	96.0	96.0	116.1
		SHC	79.6	103.4	127.1	77.6	101.3	125.0	75.4	98.9	122.5	72.8	96.1	119.6	69.9	92.9	116.1
		kW	6.2			7.1			8.3			9.4			10.5		
	72.0	THC	129.2	129.2	129.2	123.7	123.7	123.7	117.9	117.9	117.9	-	-	-	-	-	-
		SHC	55.6	79.6	103.7	53.8	77.7	101.7	51.8	75.8	99.7	-	-	-	-	-	-
		kW	6.3			7.2			8.3			-			-		
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
5000	58.0	THC	117.2	117.2	131.9	112.9	112.9	127.1	108.0	108.0	121.8	102.8	102.8	115.9	97.0	97.0	109.3
		SHC	102.3	117.2	131.9	98.5	112.9	127.1	94.3	108.0	121.8	89.8	102.8	115.9	84.7	97.0	109.3
		kW	6.2			7.1			8.3			9.4			10.5		
	62.0	THC	117.2	117.2	137.0	112.9	112.9	132.1	108.2	108.2	126.5	102.9	102.9	120.3	97.1	97.1	113.5
		SHC	97.3	117.2	137.0	93.8	112.9	132.1	89.8	108.2	126.5	85.4	102.9	120.3	80.6	97.1	113.5
		kW	6.2			7.1			8.3			9.4			10.5		
	67.0	THC	120.5	120.5	134.8	115.4	115.4	132.5	109.9	109.9	129.7	103.8	103.8	126.3	97.2	97.2	121.9
		SHC	83.2	109.0	134.8	81.0	106.8	132.5	78.7	104.2	129.7	75.9	101.1	126.3	72.6	97.2	121.9
		kW	6.2			7.2			8.3			9.4			10.5		
	72.0	THC	130.2	130.2	130.2	124.8	124.8	124.8	-	-	-	-	-	-	-	-	-
		SHC	57.1	83.5	109.8	55.2	81.6	107.8	-	-	-	-	-	-	-	-	-
		kW	6.3			7.2			-			-			-		
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			

Legend:

- = Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

SI

38AUMD12 with 40RUM-12		Ambient Temperature															
		29.4			35.0			40.6			46.1			51.7			
		EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
L/S	EAT(wb)	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	
1416	14.4	THC	30.3	30.3	34.1	29.2	29.2	32.9	28.0	28.0	31.5	26.7	26.7	30.1	25.2	25.2	28.4
		SHC	26.4	30.3	34.1	25.5	29.2	32.9	24.4	28.0	31.5	23.3	26.7	30.1	22.0	25.2	28.4
		kW	6.1			7.0			8.2			9.3			10.5		
	16.7	THC	30.8	30.8	34.1	29.5	29.5	33.4	28.1	28.1	32.6	26.7	26.7	31.3	25.3	25.3	29.5
		SHC	24.6	29.4	34.1	23.9	28.7	33.4	23.2	27.9	32.6	22.2	26.7	31.3	21.0	25.3	29.5
		kW	6.1			7.0			8.2			9.3			10.5		
	19.4	THC	33.4	33.4	33.4	32.0	32.0	32.0	30.5	30.5	30.5	28.8	28.8	28.8	27.0	27.0	27.0
		SHC	19.9	24.7	29.6	19.3	24.2	29.0	18.7	23.5	28.4	18.0	22.9	27.7	17.2	22.1	27.0
		kW	6.2			7.1			8.2			9.3			10.5		
	22.2	THC	36.3	36.3	36.3	34.8	34.8	34.8	33.2	33.2	33.2	31.4	31.4	31.4	29.5	29.5	29.5
		SHC	14.9	19.8	24.7	14.4	19.3	24.1	13.8	18.7	23.6	13.1	18.0	22.9	12.4	17.3	22.2
		kW	6.2			7.2			8.3			9.4			10.6		
24.4	THC	-	38.7	38.7	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	15.8	20.7	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	6.3			-			-			-			-			
1651	14.4	THC	31.6	31.6	35.6	30.5	30.5	34.3	29.2	29.2	32.9	27.8	27.8	31.4	26.3	26.3	29.7
		SHC	27.6	31.6	35.6	26.6	30.5	34.3	25.5	29.2	32.9	24.3	27.8	31.4	23.0	26.3	29.7
		kW	6.1			7.1			8.2			9.3			10.5		
	16.7	THC	31.7	31.7	36.8	30.5	30.5	35.7	29.2	29.2	34.2	27.9	27.9	32.6	26.3	26.3	30.8
		SHC	26.1	31.4	36.8	25.3	30.5	35.7	24.3	29.2	34.2	23.2	27.9	32.6	21.9	26.3	30.8
		kW	6.1			7.1			8.2			9.3			10.5		
	19.4	THC	34.1	34.1	34.1	32.7	32.7	32.7	31.1	31.1	31.1	29.3	29.3	30.3	27.4	27.4	29.5
		SHC	21.1	26.7	32.3	20.5	26.1	31.7	19.9	25.5	31.0	19.2	24.8	30.3	18.4	24.0	29.5
		kW	6.2			7.1			8.2			9.4			10.5		
	22.2	THC	36.9	36.9	36.9	35.4	35.4	35.4	33.8	33.8	33.8	32.0	32.0	32.0	30.0	30.0	30.0
		SHC	15.4	21.0	26.6	14.9	20.5	26.1	14.3	19.9	25.5	13.6	19.2	24.8	12.9	18.5	24.1
		kW	6.3			7.2			8.3			9.4			10.6		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
1889	14.4	THC	32.7	32.7	36.8	31.5	31.5	35.5	30.2	30.2	34.0	28.7	28.7	32.4	27.1	27.1	30.6
		SHC	28.5	32.7	36.8	27.5	31.5	35.5	26.4	30.2	34.0	25.1	28.7	32.4	23.7	27.1	30.6
		kW	6.1			7.1			8.2			9.3			10.5		
	16.7	THC	32.7	32.7	38.3	31.5	31.5	36.9	30.2	30.2	35.3	28.8	28.8	33.6	27.2	27.2	31.8
		SHC	27.2	32.7	38.3	26.2	31.5	36.9	25.1	30.2	35.3	23.9	28.8	33.6	22.6	27.2	31.8
		kW	6.1			7.1			8.2			9.3			10.5		
	19.4	THC	34.6	34.6	34.8	33.1	33.1	34.2	31.5	31.5	33.5	29.7	29.7	32.8	27.8	27.8	31.9
		SHC	22.2	28.6	34.8	21.7	28.0	34.2	21.0	27.3	33.5	20.3	26.5	32.8	19.5	25.7	31.9
		kW	6.2			7.1			8.3			9.4			10.5		
	22.2	THC	37.4	37.4	37.4	35.9	35.9	35.9	34.2	34.2	34.2	32.4	32.4	32.4			
		SHC	15.9	22.2	28.5	15.3	21.6	28.0	14.7	21.0	27.4	14.1	20.4	26.7			
		kW	6.3			7.2			8.3			9.4			-		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
2134	14.4	THC	33.6	33.6	37.9	32.4	32.4	36.4	31.0	31.0	34.9	29.5	29.5	33.2	27.8	27.8	31.4
		SHC	29.3	33.6	37.9	28.2	32.4	36.4	27.1	31.0	34.9	25.8	29.5	33.2	24.3	27.8	31.4
		kW	6.2			7.1			8.2			9.4			10.5		
	16.7	THC	33.6	33.6	39.3	32.4	32.4	37.9	31.0	31.0	36.3	29.5	29.5	34.5	27.9	27.9	32.6
		SHC	27.9	33.6	39.3	26.9	32.4	37.9	25.8	31.0	36.3	24.5	29.5	34.5	23.2	27.9	32.6
		kW	6.2			7.1			8.2			9.4			10.5		
	19.4	THC	35.0	35.0	37.3	33.5	33.5	36.6	31.9	31.9	35.9	30.1	30.1	35.1	28.1	28.1	34.0
		SHC	23.3	30.3	37.3	22.7	29.7	36.6	22.1	29.0	35.9	21.3	28.2	35.1	20.5	27.2	34.0
		kW	6.2			7.1			8.3			9.4			10.5		
	22.2	THC	37.9	37.9	37.9	36.3	36.3	36.3	34.6	34.6	34.6	-	-	-	-	-	-
		SHC	16.3	23.3	30.4	15.8	22.8	29.8	15.2	22.2	29.2	-	-	-	-	-	-
		kW	6.3			7.2			8.3			-			-		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
2360	14.4	THC	34.3	34.3	38.7	33.1	33.1	37.3	31.7	31.7	35.7	30.1	30.1	34.0	28.4	28.4	32.0
		SHC	30.0	34.3	38.7	28.9	33.1	37.3	27.6	31.7	35.7	26.3	30.1	34.0	24.8	28.4	32.0
		kW	6.2			7.1			8.3			9.4			10.5		
	16.7	THC	34.3	34.3	40.1	33.1	33.1	38.7	31.7	31.7	37.1	30.2	30.2	35.2	28.5	28.5	33.3
		SHC	28.5	34.3	40.1	27.5	33.1	38.7	26.3	31.7	37.1	25.0	30.2	35.2	23.6	28.5	33.3
		kW	6.2			7.1			8.3			9.4			10.5		
	19.4	THC	35.3	35.3	39.5	33.8	33.8	38.8	32.2	32.2	38.0	30.4	30.4	37.0	28.5	28.5	35.7
		SHC	24.4	31.9	39.5	23.7	31.3	38.8	23.1	30.5	38.0	22.2	29.6	37.0	21.3	28.5	35.7
		kW	6.2			7.2			8.3			9.4			10.5		
	22.2	THC	38.2	38.2	38.2	36.6	36.6	36.6	-	-	-	-	-	-	-	-	-
		SHC	16.7	24.5	32.2	16.2	23.9	31.6	-	-	-	-	-	-	-	-	-
		kW	6.3			7.2			-			-			-		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			

Legend:

-- Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

English

CFM		EAT(wb)		Ambient Temperature														
				85.0			95.0			105.0			115.0			125.0		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
		75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0		
3600	58.0	THC	132.0	132.0	148.7	127.4	127.4	143.6	122.3	122.3	137.8	116.5	116.5	131.2	109.9	109.9	123.9	
		SHC	115.3	132.0	148.7	111.2	127.4	143.6	106.8	122.3	137.8	101.7	116.5	131.2	96.0	109.9	123.9	
		kW	8.3			9.4			10.7			11.9			13.2			
	62.0	THC	134.5	134.5	147.9	129.1	129.1	144.9	123.1	123.1	141.4	116.6	116.6	136.3	110.1	110.1	128.7	
		SHC	106.8	127.4	147.9	104.1	124.6	144.9	100.9	121.2	141.4	96.8	116.6	136.3	91.4	110.1	128.7	
		kW	8.3			9.4			10.7			11.9			13.2			
	67.0	THC	144.9	144.9	144.9	139.0	139.0	139.0	132.6	132.6	132.6	125.2	125.2	125.2	117.1	117.1	117.1	
		SHC	85.9	106.9	127.7	83.6	104.4	125.3	80.8	101.8	122.6	78.0	98.8	119.7	74.7	95.6	116.4	
		kW	8.5			9.7			10.9			12.1			13.5			
	72.0	THC	157.2	157.2	157.2	150.0	150.0	150.0	143.1	143.1	143.1	135.5	135.5	135.5	126.9	126.9	126.9	
		SHC	64.5	85.6	106.5	61.8	82.9	103.9	59.3	80.4	101.3	56.6	77.6	98.6	53.6	74.5	95.5	
		kW	8.7			9.9			11.0			12.3			13.7			
76.0	THC	-	168.3	168.3	-	-	-	-	-	-	-	-	-	-	-	-		
	SHC	-	68.5	89.9	-	-	-	-	-	-	-	-	-	-	-	-		
	kW	8.9			-			-			-			-				
4200	58.0	THC	137.5	137.5	154.9	132.6	132.6	149.3	127.2	127.2	143.3	121.2	121.2	136.6	114.2	114.2	128.7	
		SHC	120.0	137.5	154.9	115.7	132.6	149.3	111.1	127.2	143.3	105.8	121.2	136.6	99.8	114.2	128.7	
		kW	8.4			9.5			10.8			12.0			13.3			
	62.0	THC	137.9	137.9	160.6	132.8	132.8	155.2	127.4	127.4	148.9	121.3	121.3	141.8	114.4	114.4	133.7	
		SHC	114.1	137.3	160.6	110.3	132.8	155.2	105.8	127.4	148.9	100.7	121.3	141.8	95.0	114.4	133.7	
		kW	8.4			9.5			10.8			12.0			13.3			
	67.0	THC	147.7	147.7	147.7	141.4	141.4	141.4	134.9	134.9	134.9	127.4	127.4	131.1	118.9	118.9	127.5	
		SHC	91.1	115.3	139.4	88.7	112.8	136.8	86.1	110.1	134.2	83.1	107.1	131.1	79.7	103.6	127.5	
		kW	8.6			9.7			10.9			12.1			13.5			
	72.0	THC	160.3	160.3	160.3	152.5	152.5	152.5	145.4	145.4	145.4	137.6	137.6	137.6	128.7	128.7	128.7	
		SHC	66.8	90.9	115.2	64.0	88.1	112.3	61.4	85.6	109.8	58.7	82.8	107.0	55.5	79.7	103.8	
		kW	8.8			9.9			11.1			12.3			13.7			
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	kW	-			-			-			-			-				
4800	58.0	THC	141.9	141.9	159.9	136.8	136.8	154.1	131.1	131.1	147.8	124.8	124.8	140.6	117.6	117.6	132.6	
		SHC	123.9	141.9	159.9	119.3	136.8	154.1	114.5	131.1	147.8	109.0	124.8	140.6	102.7	117.6	132.6	
		kW	8.5			9.7			10.8			12.1			13.5			
	62.0	THC	142.1	142.1	166.1	136.9	136.9	160.0	131.2	131.2	153.5	124.9	124.9	146.1	117.8	117.8	137.7	
		SHC	118.0	142.0	166.1	113.7	136.9	160.0	109.0	131.2	153.5	103.7	124.9	146.1	97.8	117.8	137.7	
		kW	8.5			9.7			10.8			12.1			13.5			
	67.0	THC	149.7	149.7	150.5	143.2	143.2	147.8	136.6	136.6	144.9	129.0	129.0	141.6	120.5	120.5	137.8	
		SHC	96.1	123.3	150.5	93.5	120.7	147.8	90.8	117.9	144.9	87.8	114.7	141.6	84.4	111.1	137.8	
		kW	8.6			9.8			10.9			12.2			13.5			
	72.0	THC	162.8	162.8	162.8	154.3	154.3	154.3	147.0	147.0	147.0	139.0	139.0	139.0	-	-	-	
		SHC	68.8	96.1	123.5	65.9	93.2	120.5	63.3	90.6	117.9	60.6	87.9	115.2	-	-	-	
		kW	8.8			10.0			11.1			12.4			-			
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	kW	-			-			-			-			-				
5400	58.0	THC	145.5	145.5	164.0	140.2	140.2	158.0	134.4	134.4	151.5	127.8	127.8	144.0	120.5	120.5	135.8	
		SHC	127.0	145.5	164.0	122.4	140.2	158.0	117.3	134.4	151.5	111.6	127.8	144.0	105.2	120.5	135.8	
		kW	8.5			9.7			10.9			12.2			13.5			
	62.0	THC	145.6	145.6	170.3	140.3	140.3	164.0	134.5	134.5	157.3	127.9	127.9	149.6	120.5	120.5	141.0	
		SHC	120.9	145.6	170.3	116.5	140.3	164.0	111.8	134.5	157.3	106.2	127.9	149.6	100.1	120.5	141.0	
		kW	8.5			9.7			10.9			12.2			13.5			
	67.0	THC	151.4	151.4	160.9	144.7	144.7	158.0	137.9	137.9	155.0	130.2	130.2	151.4	121.7	121.7	147.0	
		SHC	100.9	130.9	160.9	98.2	128.1	158.0	95.3	125.2	155.0	92.2	121.8	151.4	88.4	117.6	147.0	
		kW	8.6			9.8			11.0			12.2			13.6			
	72.0	THC	164.5	164.5	164.5	155.8	155.8	155.8	148.2	148.2	148.2	-	-	-	-	-	-	
		SHC	70.8	101.1	131.5	67.7	98.1	128.4	65.1	95.5	125.8	-	-	-	-	-	-	
		kW	8.9			10.0			11.1			-			-			
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	kW	-			-			-			-			-				
6000	58.0	THC	148.6	148.6	167.5	143.0	143.0	161.1	137.0	137.0	154.4	130.3	130.3	146.9	122.7	122.7	138.4	
		SHC	129.8	148.6	167.5	124.9	143.0	161.1	119.7	137.0	154.4	113.8	130.3	146.9	107.2	122.7	138.4	
		kW	8.6			9.8			11.0			12.2			13.6			
	62.0	THC	148.7	148.7	173.9	143.1	143.1	167.4	137.1	137.1	160.3	130.4	130.4	152.5	122.9	122.9	143.6	
		SHC	123.5	148.7	173.9	118.9	143.1	167.4	113.9	137.1	160.3	108.4	130.4	152.5	102.0	122.9	143.6	
		kW	8.6			9.8			11.0			12.2			13.6			
	67.0	THC	152.9	152.9	170.7	146.0	146.0	167.6	139.0	139.0	164.2	131.5	131.5	160.0	123.0	123.0	154.2	
		SHC	105.3	138.0	170.7	102.5	135.1	167.6	99.5	131.9	164.2	96.0	127.9	160.0	91.8	123.0	154.2	
		kW	8.7			9.8			11.0			12.2			13.6			
	72.0	THC	166.0	166.0	166.0	157.2	157.2	157.2	-	-	-	-	-	-	-	-	-	
		SHC	72.7	106.0	139.3	69.6	102.9	136.2	-	-	-	-	-	-	-	-	-	
		kW	8.9			10.0			-			-			-			
76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	kW	-			-			-			-			-				

Legend:

- = Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

SI

38AUMD14 with 40RUM-14		Ambient Temperature															
		29.4			35.0			40.6			46.1			51.7			
		EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)			
L/S	EAT(wb)	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	
1699	14.4	THC	38.7	38.7	43.6	37.3	37.3	42.1	35.8	35.8	40.4	34.1	34.1	38.5	32.2	32.2	36.3
		SHC	33.8	38.7	43.6	32.6	37.3	42.1	31.3	35.8	40.4	29.8	34.1	38.5	28.1	32.2	36.3
		kW	8.3			9.4			10.7			11.9			13.2		
	16.7	THC	39.4	39.4	43.3	37.8	37.8	42.5	36.1	36.1	41.4	34.2	34.2	40.0	32.3	32.3	37.7
		SHC	31.3	37.3	43.3	30.5	36.5	42.5	29.6	35.5	41.4	28.4	34.2	40.0	26.8	32.3	37.7
		kW	8.3			9.4			10.7			11.9			13.2		
	19.4	THC	42.5	42.5	42.5	40.8	40.8	40.8	38.9	38.9	38.9	36.7	36.7	36.7	34.3	34.3	34.3
		SHC	25.2	31.3	37.4	24.5	30.6	36.7	23.7	29.8	35.9	22.9	29.0	35.1	21.9	28.0	34.1
		kW	8.5			9.7			10.9			12.1			13.5		
	22.2	THC	46.1	46.1	46.1	44.0	44.0	44.0	41.9	41.9	41.9	39.7	39.7	39.7	37.2	37.2	37.2
		SHC	18.9	25.1	31.2	18.1	24.3	30.5	17.4	23.6	29.7	16.6	22.7	28.9	15.7	21.8	28.0
		kW	8.7			9.9			11.0			12.3			13.7		
24.4	THC	-	49.3	49.3	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	20.1	26.3	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	8.9			-			-			-			-			
1982	14.4	THC	40.3	40.3	45.4	38.9	38.9	43.8	37.3	37.3	42.0	35.5	35.5	40.0	33.5	33.5	37.7
		SHC	35.2	40.3	45.4	33.9	38.9	43.8	32.6	37.3	42.0	31.0	35.5	40.0	29.2	33.5	37.7
		kW	8.4			9.5			10.8			12.0			13.3		
	16.7	THC	40.4	40.4	47.1	38.9	38.9	45.5	37.3	37.3	43.6	35.5	35.5	41.5	33.5	33.5	39.2
		SHC	33.4	40.3	47.1	32.3	38.9	45.5	31.0	37.3	43.6	29.5	35.5	41.5	27.8	33.5	39.2
		kW	8.4			9.5			10.8			12.0			13.3		
	19.4	THC	43.3	43.3	43.3	41.4	41.4	41.4	39.5	39.5	39.5	37.3	37.3	38.4	34.8	34.8	37.4
		SHC	26.7	33.8	40.8	26.0	33.1	40.1	25.2	32.3	39.3	24.4	31.4	38.4	23.4	30.4	37.4
		kW	8.6			9.7			10.9			12.1			13.5		
	22.2	THC	47.0	47.0	47.0	44.7	44.7	44.7	42.6	42.6	42.6	40.3	40.3	40.3	37.7	37.7	37.7
		SHC	19.6	26.6	33.7	18.7	25.8	32.9	18.0	25.1	32.2	17.2	24.3	31.4	16.3	23.4	30.4
		kW	8.8			9.9			11.1			12.3			13.7		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
2265	14.4	THC	41.6	41.6	46.9	40.1	40.1	45.2	38.4	38.4	43.3	36.6	36.6	41.2	34.5	34.5	38.9
		SHC	36.3	41.6	46.9	35.0	40.1	45.2	33.5	38.4	43.3	32.0	36.6	41.2	30.1	34.5	38.9
		kW	8.5			9.7			10.8			12.1			13.5		
	16.7	THC	41.6	41.6	48.7	40.1	40.1	46.9	38.5	38.5	45.0	36.6	36.6	42.8	34.5	34.5	40.4
		SHC	34.6	41.6	48.7	33.3	40.1	46.9	32.0	38.5	45.0	30.4	36.6	42.8	28.7	34.5	40.4
		kW	8.5			9.7			10.8			12.1			13.5		
	19.4	THC	43.9	43.9	44.1	42.0	42.0	43.3	40.0	40.0	42.5	37.8	37.8	41.5	35.3	35.3	40.4
		SHC	28.2	36.1	44.1	27.4	35.4	43.3	26.6	34.5	42.5	25.7	33.6	41.5	24.7	32.6	40.4
		kW	8.6			9.8			10.9			12.2			13.5		
	22.2	THC	47.7	47.7	47.7	45.2	45.2	45.2	43.1	43.1	43.1	40.8	40.8	40.8	-	-	-
		SHC	20.2	28.2	36.2	19.3	27.3	35.3	18.5	26.5	34.5	17.8	25.8	33.7	-	-	-
		kW	8.8			10.0			11.1			12.4			-		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
2548	14.4	THC	42.6	42.6	48.1	41.1	41.1	46.3	39.4	39.4	44.4	37.5	37.5	42.2	35.3	35.3	39.8
		SHC	37.2	42.6	48.1	35.9	41.1	46.3	34.4	39.4	44.4	32.7	37.5	42.2	30.8	35.3	39.8
		kW	8.5			9.7			10.9			12.2			13.5		
	16.7	THC	42.7	42.7	49.9	41.1	41.1	48.1	39.4	39.4	46.1	37.5	37.5	43.8	35.3	35.3	41.3
		SHC	35.4	42.7	49.9	34.1	41.1	48.1	32.8	39.4	46.1	31.1	37.5	43.8	29.3	35.3	41.3
		kW	8.5			9.7			10.9			12.2			13.5		
	19.4	THC	44.4	44.4	47.2	42.4	42.4	46.3	40.4	40.4	45.4	38.2	38.2	44.4	35.7	35.7	43.1
		SHC	29.6	38.4	47.2	28.8	37.5	46.3	27.9	36.7	45.4	27.0	35.7	44.4	25.9	34.5	43.1
		kW	8.6			9.8			11.0			12.2			13.6		
	22.2	THC	48.2	48.2	48.2	45.7	45.7	45.7	43.4	43.4	43.4	-	-	-	-	-	-
		SHC	20.7	29.6	38.5	19.8	28.7	37.6	19.1	28.0	36.9	-	-	-	-	-	-
		kW	8.9			10.0			11.1			-			-		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			
2832	14.4	THC	43.5	43.5	49.1	41.9	41.9	47.2	40.2	40.2	45.3	38.2	38.2	43.0	36.0	36.0	40.6
		SHC	38.0	43.5	49.1	36.6	41.9	47.2	35.1	40.2	45.3	33.4	38.2	43.0	31.4	36.0	40.6
		kW	8.6			9.8			11.0			12.2			13.6		
	16.7	THC	43.6	43.6	51.0	41.9	41.9	49.0	40.2	40.2	47.0	38.2	38.2	44.7	36.0	36.0	42.1
		SHC	36.2	43.6	51.0	34.8	41.9	49.0	33.4	40.2	47.0	31.8	38.2	44.7	29.9	36.0	42.1
		kW	8.6			9.8			11.0			12.2			13.6		
	19.4	THC	44.8	44.8	50.0	42.8	42.8	49.1	40.8	40.8	48.1	38.5	38.5	46.9	36.0	36.0	45.2
		SHC	30.9	40.5	50.0	30.0	39.6	49.1	29.2	38.7	48.1	28.1	37.5	46.9	26.9	36.0	45.2
		kW	8.7			9.8			11.0			12.2			13.6		
	22.2	THC	48.6	48.6	48.6	46.1	46.1	46.1	-	-	-	-	-	-	-	-	-
		SHC	21.3	31.1	40.8	20.4	30.2	39.9	-	-	-	-	-	-	-	-	-
		kW	8.9			10.0			-			-			-		
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	kW	-			-			-			-			-			

Legend:

-- Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

English

CFM		EAT(wb)		Ambient Temperature														
				85.0			95.0			105.0			115.0			125.0		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
		75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0	75.0	80.0	85.0		
4500	58.0	THC	155.3	155.3	175.0	150.0	150.0	169.0	144.2	144.2	162.5	138.0	138.0	155.6	131.2	131.2	147.8	
		SHC	135.6	155.3	175.0	130.9	150.0	169.0	126.0	144.2	162.5	120.5	138.0	155.6	114.6	131.2	147.8	
		kW	9.8			11.0			12.4			13.9			15.5			
	62.0	THC	159.4	159.4	172.6	152.8	152.8	169.1	146.0	146.0	165.3	138.8	138.8	160.0	131.3	131.3	153.6	
		SHC	125.1	148.9	172.6	121.8	145.5	169.1	118.4	141.9	165.3	114.1	137.1	160.0	109.1	131.3	153.6	
		kW	9.8			11.0			12.4			13.9			15.5			
	67.0	THC	173.1	173.1	173.1	165.9	165.9	165.9	158.3	158.3	158.3	149.9	149.9	149.9	141.0	141.0	141.0	
		SHC	101.5	125.5	149.6	98.5	122.5	146.6	95.4	119.4	143.4	92.0	116.0	140.0	88.4	112.4	136.4	
		kW	10.0			11.2			12.5			14.0			15.6			
	72.0	THC	187.7	187.7	187.7	180.0	180.0	180.0	171.9	171.9	171.9	162.9	162.9	162.9	153.3	153.3	153.3	
		SHC	76.8	101.0	125.1	74.0	98.2	122.3	70.9	95.1	119.2	67.6	91.8	115.9	64.1	88.3	112.3	
		kW	10.2			11.4			12.7			14.2			15.7			
	76.0	THC	-	199.8	199.8	-	191.8	191.8	-	183.1	183.1	-	-	-	-	-	-	
		SHC	-	80.9	105.7	-	78.3	102.9	-	75.3	99.8	-	-	-	-	-	-	
		kW	10.4			11.6			12.9			-			-			
	5250	58.0	THC	162.5	162.5	183.1	156.7	156.7	176.6	150.6	150.6	169.7	143.9	143.9	162.2	136.6	136.6	153.9
			SHC	141.9	162.5	183.1	136.9	156.7	176.6	131.5	150.6	169.7	125.6	143.9	162.2	119.2	136.6	153.9
			kW	9.9			11.1			12.5			13.9			15.5		
62.0		THC	163.8	163.8	187.6	157.3	157.3	182.2	150.7	150.7	176.2	144.0	144.0	168.4	136.7	136.7	159.9	
		SHC	133.9	160.7	187.6	129.8	156.0	182.2	125.2	150.7	176.2	119.7	144.0	168.4	113.6	136.7	159.9	
		kW	9.9			11.1			12.5			13.9			15.5			
67.0		THC	176.7	176.7	176.7	169.3	169.3	169.3	161.3	161.3	161.3	152.7	152.7	153.1	143.5	143.5	149.3	
		SHC	107.7	135.3	163.0	104.6	132.2	159.9	101.4	129.0	156.7	98.0	125.5	153.1	94.3	121.8	149.3	
		kW	10.1			11.3			12.6			14.0			15.6			
72.0		THC	191.3	191.3	191.3	183.4	183.4	183.4	174.9	174.9	174.9	165.7	165.7	165.7	155.6	155.6	155.6	
		SHC	79.3	107.1	134.9	76.4	104.2	132.0	73.3	101.2	128.9	70.1	97.8	125.5	66.5	94.3	121.9	
		kW	10.3			11.5			12.8			14.2			15.8			
76.0		THC	-	203.5	203.5	-	195.2	195.2	-	-	-	-	-	-	-	-	-	
		SHC	-	84.1	112.5	-	81.4	109.6	-	-	-	-	-	-	-	-	-	
		kW	10.5			11.7			-			-			-			
6000		58.0	THC	168.3	168.3	189.7	162.3	162.3	182.8	155.7	155.7	175.5	148.7	148.7	167.6	140.9	140.9	158.8
			SHC	147.0	168.3	189.7	141.6	162.3	182.8	136.0	155.7	175.5	129.8	148.7	167.6	123.1	140.9	158.8
			kW	10.0			11.2			12.5			14.0			15.6		
	62.0	THC	168.5	168.5	197.0	162.4	162.4	189.9	155.9	155.9	182.2	148.8	148.8	174.0	141.0	141.0	164.9	
		SHC	140.0	168.5	197.0	134.8	162.4	189.9	129.5	155.9	182.2	123.6	148.8	174.0	117.2	141.0	164.9	
		kW	10.0			11.2			12.5			14.0			15.6			
	67.0	THC	179.4	179.4	179.4	171.8	171.8	172.7	163.5	163.5	169.3	154.8	154.8	165.5	145.3	145.3	161.5	
		SHC	113.5	144.6	175.8	110.4	141.5	172.7	107.1	138.1	169.3	103.5	134.5	165.5	99.7	130.6	161.5	
		kW	10.1			11.3			12.6			14.1			15.6			
	72.0	THC	194.0	194.0	194.0	185.8	185.8	185.8	177.2	177.2	177.2	167.7	167.7	167.7	157.4	157.4	157.4	
		SHC	81.6	112.9	144.3	78.7	110.1	141.4	75.6	107.0	138.2	72.3	103.5	134.9	68.8	100.0	131.3	
		kW	10.3			11.5			12.8			14.3			15.8			
	76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		kW	-			-			-			-			-			
	6750	58.0	THC	173.0	173.0	195.0	166.7	166.7	187.9	159.9	159.9	180.2	152.5	152.5	171.8	144.3	144.3	162.7
			SHC	151.0	173.0	195.0	145.6	166.7	187.9	139.6	159.9	180.2	133.1	152.5	171.8	126.1	144.3	162.7
			kW	10.0			11.2			12.6			14.0			15.6		
62.0		THC	173.1	173.1	202.5	166.8	166.8	195.0	160.0	160.0	187.1	152.6	152.6	178.4	144.4	144.4	168.9	
		SHC	143.8	173.1	202.5	138.5	166.8	195.0	132.9	160.0	187.1	126.7	152.6	178.4	120.0	144.4	168.9	
		kW	10.0			11.2			12.6			14.0			15.6			
67.0		THC	181.5	181.5	188.1	173.8	173.8	184.8	165.4	165.4	181.2	156.4	156.4	177.2	146.9	146.9	172.5	
		SHC	118.9	153.5	188.1	115.8	150.3	184.8	112.4	146.8	181.2	108.8	143.0	177.2	104.8	138.7	172.5	
		kW	10.0			11.2			12.6			14.0			15.6			
72.0		THC	196.1	196.1	196.1	187.8	187.8	187.8	178.8	178.8	178.8	169.2	169.2	169.2	158.7	158.7	158.7	
		SHC	83.8	118.6	153.5	80.9	115.7	150.5	77.7	112.6	147.4	74.4	109.2	144.0	70.8	105.6	140.3	
		kW	10.4			11.5			12.9			14.3			15.8			
76.0		THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		kW	-			-			-			-			-			
7500		58.0	THC	177.0	177.0	199.5	170.4	170.4	192.0	163.3	163.3	184.1	155.7	155.7	175.4	147.3	147.3	165.9
			SHC	154.5	177.0	199.5	148.8	170.4	192.0	142.6	163.3	184.1	135.9	155.7	175.4	128.6	147.3	165.9
			kW	10.1			11.3			12.6			14.1			15.7		
	62.0	THC	177.1	177.1	207.1	170.6	170.6	199.4	163.4	163.4	191.1	155.8	155.8	182.1	147.3	147.3	172.3	
		SHC	147.1	177.1	207.1	141.6	170.6	199.4	135.8	163.4	191.1	129.4	155.8	182.1	122.4	147.3	172.3	
		kW	10.1			11.3			12.6			14.1			15.7			
	67.0	THC	183.2	183.2	199.7	175.3	175.3	196.2	166.9	166.9	192.1	158.0	158.0	187.6	148.4	148.4	182.0	
		SHC	124.2	161.9	199.7	120.9	158.5	196.2	117.4	154.8	192.1	113.6	150.5	187.6	109.0	145.5	182.0	
		kW	10.2			11.4			12.7			14.1			15.7			
	72.0	THC	197.7	197.7	197.7	189.2	189.2	189.2	180.3	180.3	180.3	170.3	170.3	170.3	-	-	-	
		SHC	85.9	124.2	162.4	83.0	121.2	159.5	79.9	118.1	156.3	76.5	114.7	152.9	-	-	-	
		kW	10.4			11.6			12.9			14.3			-			
	76.0	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		kW	-			-			-			-			-			

Legend:

-- Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

PERFORMANCE DATA (cont.)

Combination Ratings

SI

L/S		38AUMD16 with 40RUM-16		Ambient Temperature														
				29.4			35.0			40.6			46.1			51.7		
				EAT (db)			EAT (db)			EAT (db)			EAT (db)			EAT (db)		
EAT(wb)		23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4	23.9	26.7	29.4		
2124	14.4	THC	45.5	45.5	51.3	44.0	44.0	49.5	42.3	42.3	47.6	40.5	40.5	45.6	38.5	38.5	43.3	
		SHC	39.7	45.5	51.3	38.4	44.0	49.5	36.9	42.3	47.6	35.3	40.5	45.6	33.6	38.5	43.3	
		kW	9.8			11.0			12.4			13.9			15.5			
	16.7	THC	46.7	46.7	50.6	44.8	44.8	49.6	42.8	42.8	48.4	40.7	40.7	46.9	38.5	38.5	45.0	
		SHC	36.7	43.6	50.6	35.7	42.6	49.6	34.7	41.6	48.4	33.4	40.2	46.9	32.0	38.5	45.0	
		kW	9.8			11.0			12.4			13.9			15.5			
	19.4	THC	50.7	50.7	50.7	48.6	48.6	48.6	46.4	46.4	46.4	43.9	43.9	43.9	41.3	41.3	41.3	
		SHC	29.7	36.8	43.8	28.9	35.9	43.0	28.0	35.0	42.0	27.0	34.0	41.0	25.9	32.9	40.0	
		kW	10.0			11.2			12.5			14.0			15.6			
	22.2	THC	55.0	55.0	55.0	52.8	52.8	52.8	50.4	50.4	50.4	47.7	47.7	47.7	44.9	44.9	44.9	
		SHC	22.5	29.6	36.7	21.7	28.8	35.9	20.8	27.9	34.9	19.8	26.9	34.0	18.8	25.9	32.9	
		kW	10.2			11.4			12.7			14.2			15.7			
24.4	THC	-	58.5	58.5	-	56.2	56.2	-	53.7	53.7	-	-	-	-	-	-		
	SHC	-	23.7	31.0	-	22.9	30.2	-	22.1	29.3	-	-	-	-	-	-		
	kW	10.4			11.6			12.9			-			-				
2478	14.4	THC	47.6	47.6	53.7	45.9	45.9	51.8	44.1	44.1	49.7	42.2	42.2	47.5	40.0	40.0	45.1	
		SHC	41.6	47.6	53.7	40.1	45.9	51.8	38.5	44.1	49.7	36.8	42.2	47.5	34.9	40.0	45.1	
		kW	9.9			11.1			12.5			13.9			15.5			
	16.7	THC	48.0	48.0	55.0	46.1	46.1	53.4	44.2	44.2	51.6	42.2	42.2	49.3	40.1	40.1	46.9	
		SHC	39.2	47.1	55.0	38.0	45.7	53.4	36.7	44.2	51.6	35.1	42.2	49.3	33.3	40.1	46.9	
		kW	9.9			11.1			12.5			13.9			15.5			
	19.4	THC	51.8	51.8	51.8	49.6	49.6	49.6	47.3	47.3	47.3	44.7	44.7	44.9	42.1	42.1	43.8	
		SHC	31.6	39.7	47.8	30.6	38.8	46.9	29.7	37.8	45.9	28.7	36.8	44.9	27.6	35.7	43.8	
		kW	10.1			11.3			12.6			14.0			15.6			
	22.2	THC	56.1	56.1	56.1	53.7	53.7	53.7	51.3	51.3	51.3	48.6	48.6	48.6	45.6	45.6	45.6	
		SHC	23.2	31.4	39.5	22.4	30.5	38.7	21.5	29.7	37.8	20.5	28.7	36.8	19.5	27.6	35.7	
		kW	10.3			11.5			12.8			14.2			15.8			
24.4	THC	-	59.6	59.6	-	57.2	57.2	-	-	-	-	-	-	-	-	-		
	SHC	-	24.7	33.0	-	23.8	32.1	-	-	-	-	-	-	-	-	-		
	kW	10.5			11.7			-			-			-				
2832	14.4	THC	49.3	49.3	55.6	47.6	47.6	53.6	45.6	45.6	51.4	43.6	43.6	49.1	41.3	41.3	46.5	
		SHC	43.1	49.3	55.6	41.5	47.6	53.6	39.8	45.6	51.4	38.0	43.6	49.1	36.1	41.3	46.5	
		kW	10.0			11.2			12.5			14.0			15.6			
	16.7	THC	49.4	49.4	57.7	47.6	47.6	55.6	45.7	45.7	53.4	43.6	43.6	51.0	41.3	41.3	48.3	
		SHC	41.0	49.4	57.7	39.5	47.6	55.6	37.9	45.7	53.4	36.2	43.6	51.0	34.3	41.3	48.3	
		kW	10.0			11.2			12.5			14.0			15.6			
	19.4	THC	52.6	52.6	52.6	50.3	50.3	50.6	47.9	47.9	49.6	45.4	45.4	48.5	42.6	42.6	47.3	
		SHC	33.3	42.4	51.5	32.3	41.5	50.6	31.4	40.5	49.6	30.3	39.4	48.5	29.2	38.3	47.3	
		kW	10.1			11.3			12.6			14.1			15.6			
	22.2	THC	56.9	56.9	56.9	54.5	54.5	54.5	51.9	51.9	51.9	49.1	49.1	49.1	46.1	46.1	46.1	
		SHC	23.9	33.1	42.3	23.1	32.3	41.5	22.1	31.3	40.5	21.2	30.3	39.5	20.2	29.3	38.5	
		kW	10.3			11.5			12.8			14.3			15.8			
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	kW	-			-			-			-			-				
3186	14.4	THC	50.7	50.7	57.2	48.9	48.9	55.1	46.9	46.9	52.8	44.7	44.7	50.3	42.3	42.3	47.7	
		SHC	44.3	50.7	57.2	42.7	48.9	55.1	40.9	46.9	52.8	39.0	44.7	50.3	36.9	42.3	47.7	
		kW	10.0			11.2			12.6			14.0			15.6			
	16.7	THC	50.7	50.7	59.3	48.9	48.9	57.2	46.9	46.9	54.8	44.7	44.7	52.3	42.3	42.3	49.5	
		SHC	42.1	50.7	59.3	40.6	48.9	57.2	38.9	46.9	54.8	37.1	44.7	52.3	35.2	42.3	49.5	
		kW	10.0			11.2			12.6			14.0			15.6			
	19.4	THC	53.2	53.2	55.1	50.9	50.9	54.2	48.5	48.5	53.1	45.8	45.8	51.9	43.1	43.1	50.6	
		SHC	34.9	45.0	55.1	33.9	44.1	54.2	32.9	43.0	53.1	31.9	41.9	51.9	30.7	40.6	50.6	
		kW	10.0			11.2			12.6			14.0			15.6			
	22.2	THC	57.5	57.5	57.5	55.0	55.0	55.0	52.4	52.4	52.4	49.6	49.6	49.6	46.5	46.5	46.5	
		SHC	24.6	34.8	45.0	23.7	33.9	44.1	22.8	33.0	43.2	21.8	32.0	42.2	20.8	31.0	41.1	
		kW	10.4			11.5			12.9			14.3			15.8			
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	kW	-			-			-			-			-				
3540	14.4	THC	51.9	51.9	58.5	50.0	50.0	56.3	47.9	47.9	53.9	45.6	45.6	51.4	43.2	43.2	48.6	
		SHC	45.3	51.9	58.5	43.6	50.0	56.3	41.8	47.9	53.9	39.8	45.6	51.4	37.7	43.2	48.6	
		kW	10.1			11.3			12.6			14.1			15.7			
	16.7	THC	51.9	51.9	60.7	50.0	50.0	58.4	47.9	47.9	56.0	45.7	45.7	53.4	43.2	43.2	50.5	
		SHC	43.1	51.9	60.7	41.5	50.0	58.4	39.8	47.9	56.0	37.9	45.7	53.4	35.9	43.2	50.5	
		kW	10.1			11.3			12.6			14.1			15.7			
	19.4	THC	53.7	53.7	58.5	51.4	51.4	57.5	48.9	48.9	56.3	46.3	46.3	55.0	43.5	43.5	53.3	
		SHC	36.4	47.4	58.5	35.4	46.4	57.5	34.4	45.4	56.3	33.3	44.1	55.0	32.0	42.6	53.3	
		kW	10.2			11.4			12.7			14.1			15.7			
	22.2	THC	57.9	57.9	57.9	55.5	55.5	55.5	52.8	52.8	52.8	49.9	49.9	49.9	-	-	-	
		SHC	25.2	36.4	47.6	24.3	35.5	46.7	23.4	34.6	45.8	22.4	33.6	44.8	-	-	-	
		kW	10.4			11.6			12.9			14.3			-			
24.4	THC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	SHC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	kW	-			-			-			-			-				

Legend:

- = Do not operate EAT(wb) = Entering air temp (wet bulb) SHC = Sensible heat capacity (Gross) EAT(db) = Entering air temp (dry bulb)
 L/s = Liters per second kW = Compressor kilowatts THC = Total heat capacity (Gross) Cfm = Cubic feet per minute (supply air)

ELECTRICAL DATA TABLE

Single Circuit Unit - 400V-3Ph-50Hz

Unit	VOLTAGE RANGE		COMP 1		COMP 2		OFM (ea)		POWER SUPPLY	
	MIN	MAX	RLA	LRA	RLA	LRA	HP	FLA	MCA	MOCP
38AUMZ07	360	440	9.7	64	-	-	1/4	0.7	13.5	20
38AUMZ08	360	440	12.2	100	-	-	1/3	1.8	18.9	30

Dual Circuit Unit - 400V-3Ph-50Hz

V-Ph-Hz	VOLTAGE RANGE		COMP 1		COMP 2		OFM (ea)		POWER SUPPLY	
	MIN	MAX	RLA	LRA	RLA	LRA	HP	FLA	MCA	MOCP
38AUMD12	360	440	7.8	51.5	7.8	51.5	1/3	1.8	21.2	25
38AUMD14	360	440	10.6	74	10.6	74	1/3	1.8	27.5	35
38AUMD16	360	440	12.2	101	12.2	101	1/2	1.7	30.9	40

Legend and Notes for Electrical Data Table

FLA - Full Load Amps

IFM - Indoor (Evaporator) Fan Motor

LRA - Locked Rotor Amps

MCA - Minimum Circuit Amps

MOCP - Maximum Overcurrent Protection

Application heater kW (Using multiplication factor table in Electric Resistance Heater Data Table)

NEC - National Electrical Code

OFM - Outdoor (Condenser) Fan Motor

RLA - Rated Load Amps

HACR - Heating, Air-Conditioning and Refrigeration

◇ Fuse or HACR Circuit Breaker

Unbalanced 3-Phase Supply Voltage

Never operate a motor where phase imbalance in supply voltage is greater than 2%.

Use the following formula to determine the percentage of voltage imbalance

$$= 100 \times \frac{\text{Maximum Deviation From Average Voltage}}{\text{Average Voltage}}$$

Example: Supply Voltage is 400V - 3ph - 60Hz

AB = 392v	Average Voltage = $\frac{392 + 404 + 395}{3}$
BC = 404v	
AC = 395v	$= \frac{1191}{3} = 397V$

Determine maximum deviation from average voltage.

(AB) $397 - 392 = 5v$

(BC) $404 - 397 = 7v$

(AC) $457 - 397 = 2v$

Maximum Deviation is 7v.

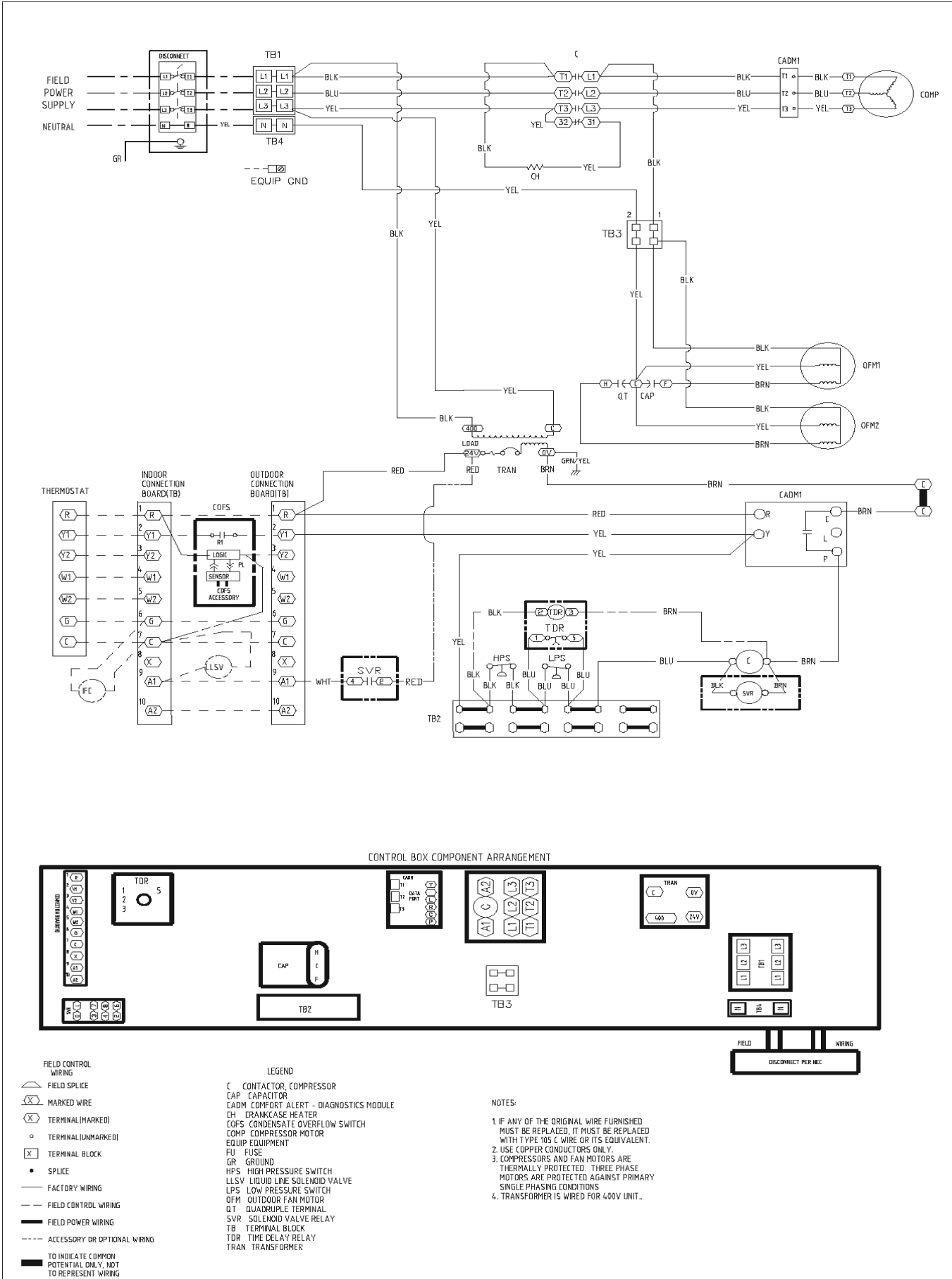
Determine Percentage Voltage Imbalance.

$$\% \text{ Voltage Imbalance} = 100 \times \frac{7}{397} = 1.76\%$$

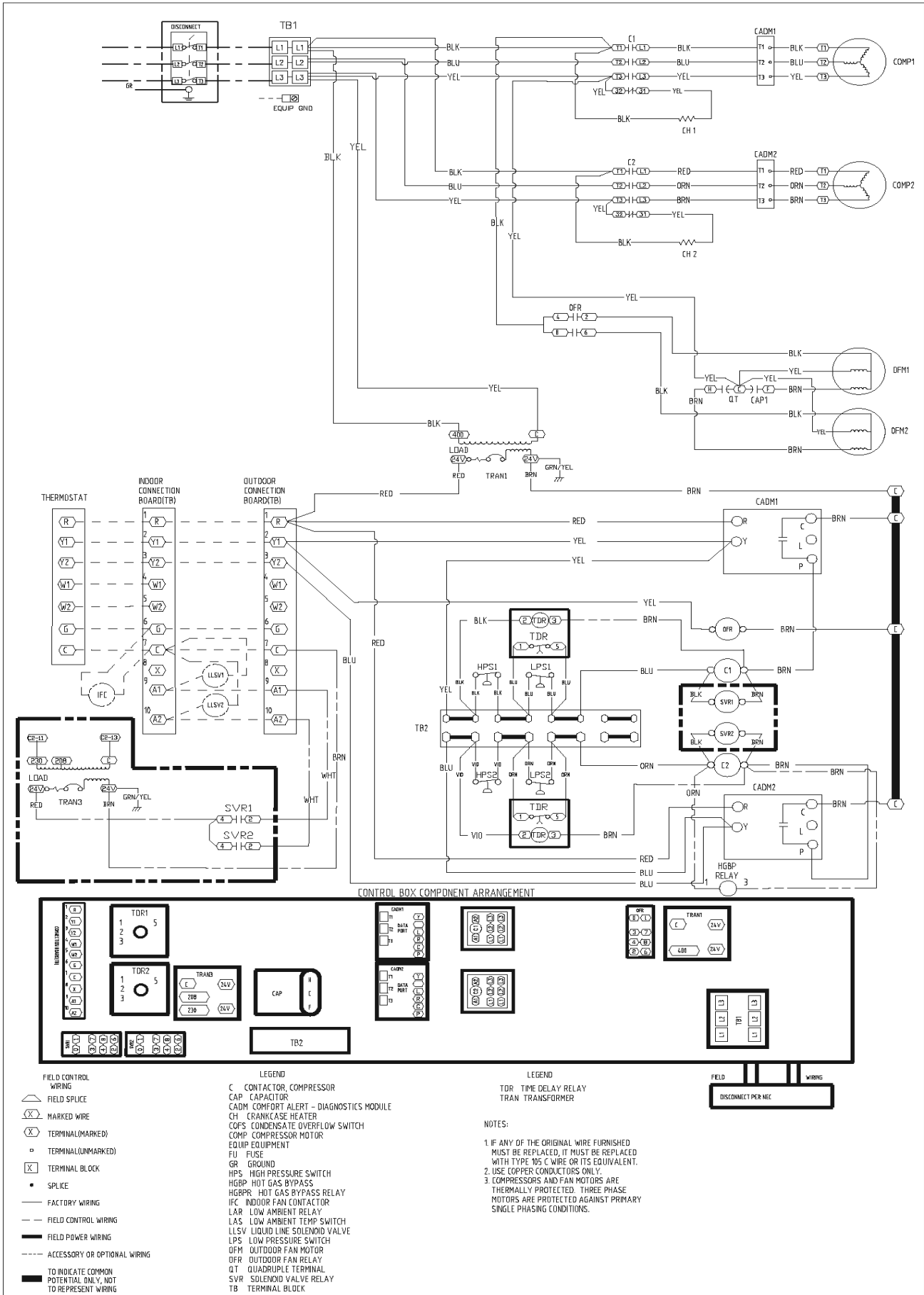
This amount of phase imbalance is satisfactory as it is below the maximum allowable 2%

IMPORTANT: If the supply voltage phase imbalance is more than 2% contact your local electric utility company

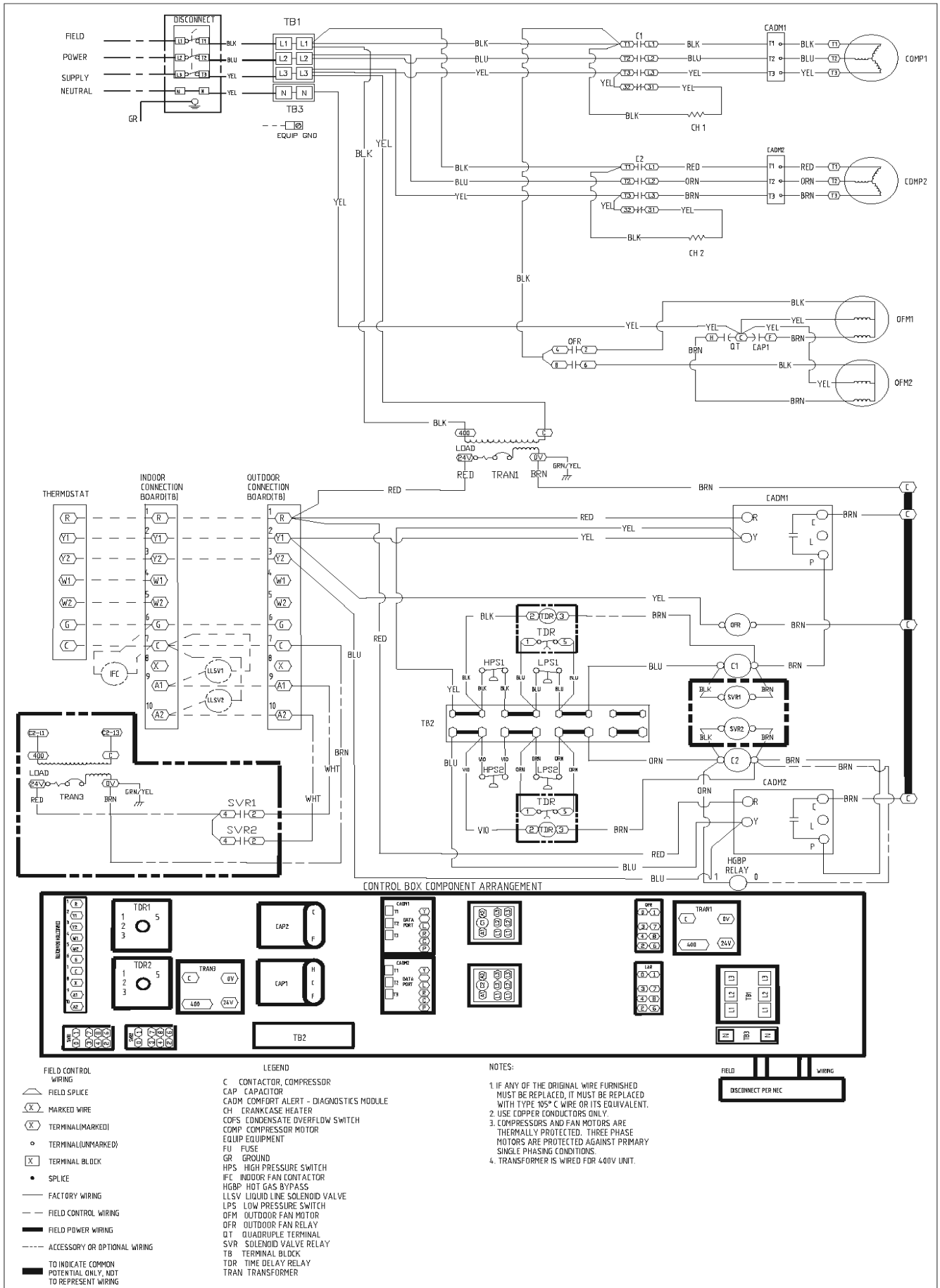
TYPICAL WIRING SCHEMATIC – 38AUMZ07/08



TYPICAL WIRING SCHEMATIC – 38AUMD12/14



TYPICAL WIRING SCHEMATIC – 38AUMD16



PIPING RECOMMENDATION

38AUMZ07-08 PIPING RECOMMENDATION (SINGLE CIRCUIT UNIT)

Model	Equivalent Length					
	Ft	0-38	38-75	75-113	113-150	150-188
	m	0-12	12-23	23-34	34-46	46-57
	Linear Length					
	Ft	0-25	25-50	50-75	75-100	100-125
	m	0-8	8-15	15-23	23-30	30-38
38AUMZ07	Liquid Line	3/8	3/8	3/8	3/8	3/8
	Max Lift (ft)	25	50	75	100	125
	Suction Line	7/8	7/8	7/8	7/8	7/8
	Charge (lbs)	12.8	13.9	17.0	18.8	20.6
38AUMZ08	Liquid Line	1/2	1/2	1/2	1/2	1/2
	Max Lift (ft)	25	50	75	100	93
	Suction Line	7/8	7/8	7/8	7/8	7/8
	Charge (lbs)	13.7	14.8	16.8	18.9	20.6

38AUMD12-16 PIPING RECOMMENDATION (DUAL CIRCUIT UNIT)

Model	Equivalent Length					
	Ft	0-38	38-75	75-113	113-150	150-188
	m	0-12	12-23	23-34	34-46	46-57
	Linear Length					
	Ft	0-25	25-50	50-75	75-100	100-125
	m	0-8	8-15	15-23	23-30	30-38
38AUMD12	Liquid Line	3/8	3/8	3/8	3/8	3/8
	Max Lift (ft)	25	50	75	83	62
	Suction Line	7/8	7/8	7/8	7/8	7/8
	Charge (lbs)	11.7/11.7	12.7/12.7	14.2/14.2	15.3/15.3	16.5/16.5
38AUMD14	Liquid Line	3/8	3/8	3/8	3/8	3/8
	Max Lift (ft)	25	50	75	54	45
	Suction Line	7/8	7/8	7/8	7/8	7/8
	Charge (lbs)	15.4/16.3	16.4/17.3	20.2/21.1	19/19.9	20.2/21.1
38AUMD16	Liquid Line	1/2	1/2	1/2	1/2	1/2
	Max Lift (ft)	25	50	75	54	45
	Suction Line	7/8	7/8	7/8	7/8	7/8
	Charge (lbs)	20.9/19.3	21.9/20.3	25.7/24.1	24.5/22.9	25.7/24.1

Legend:

Equivalent: Length Equivalent tubing length, including effects of refrigeration specialties devices

Linear Length: Linear tubing length, feet

Liquid Line: Tube size, inches OD.

Suction Line: Tube size, inches OD

Max Lift: Maximum liquid lift (indoor unit ABOVE outdoor unit only), at maximum permitted liquid line pressure drop:

- Linear Length Less than 75 ft (23 m): Minimum 2.0° F subcooling entering TXV
- Linear Length Greater than 75 ft (23m): Minimum 0.5° F subcooling entering TXV

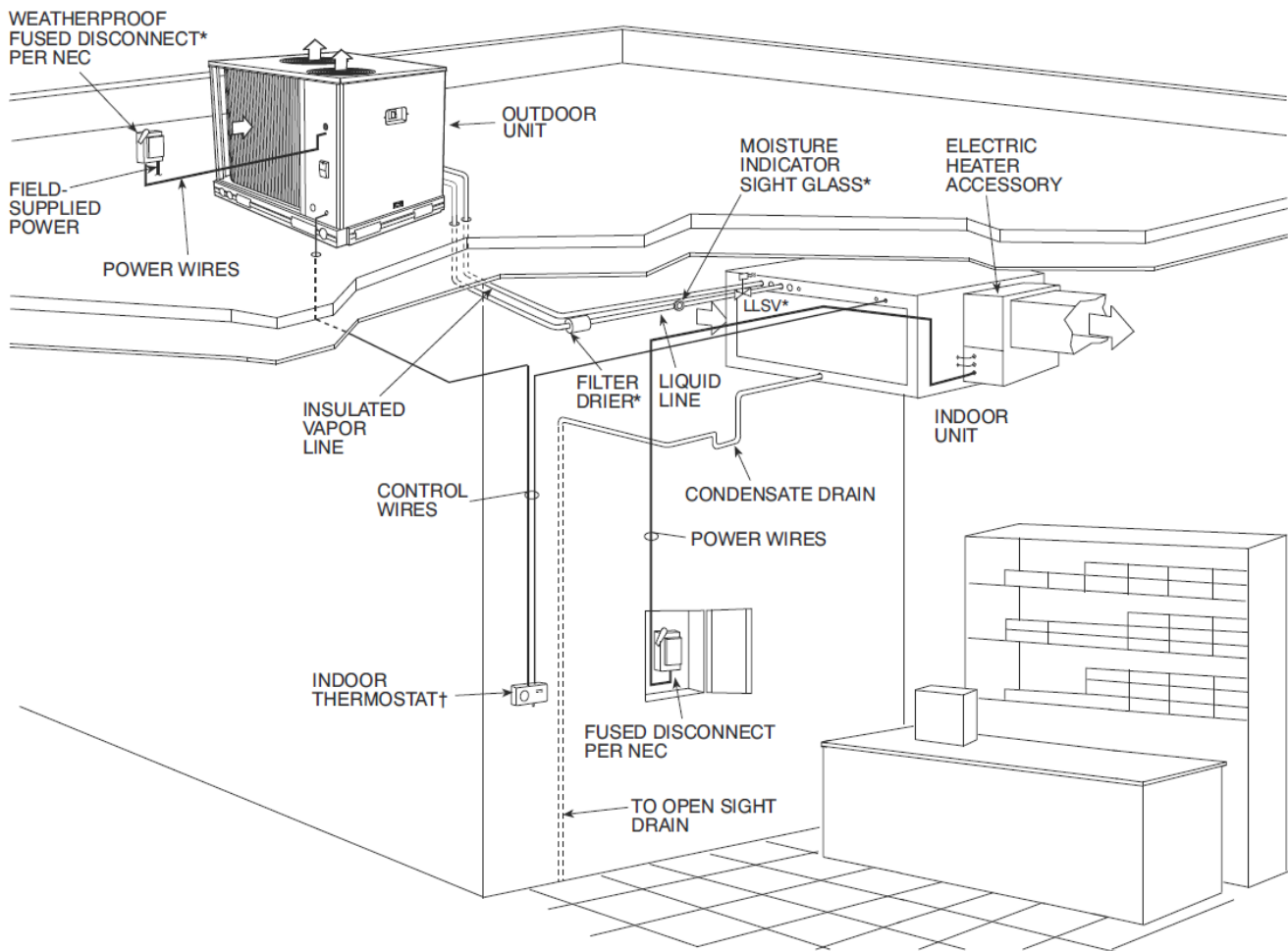
Charge Charge Quantity, lbs. Calculated for both liquid line sizes (where applicable), but only with larger suction line size (where applicable)

DNU Do Not Use (pressure drop exceeds available subcooling in this model)

NOTE: For applications with equivalent length greater than 188 ft (57 m) and/or linear length greater than 125 ft (38 m), contact your local Carrier representative.

TYPICAL PIPING AND WIRING

Roof Installation and a Ceiling-Mounted Fan Coil



LEGEND:

NEC - National Electrical Code

TXV - Thermostatic Expansion Valve

* Field -supplied

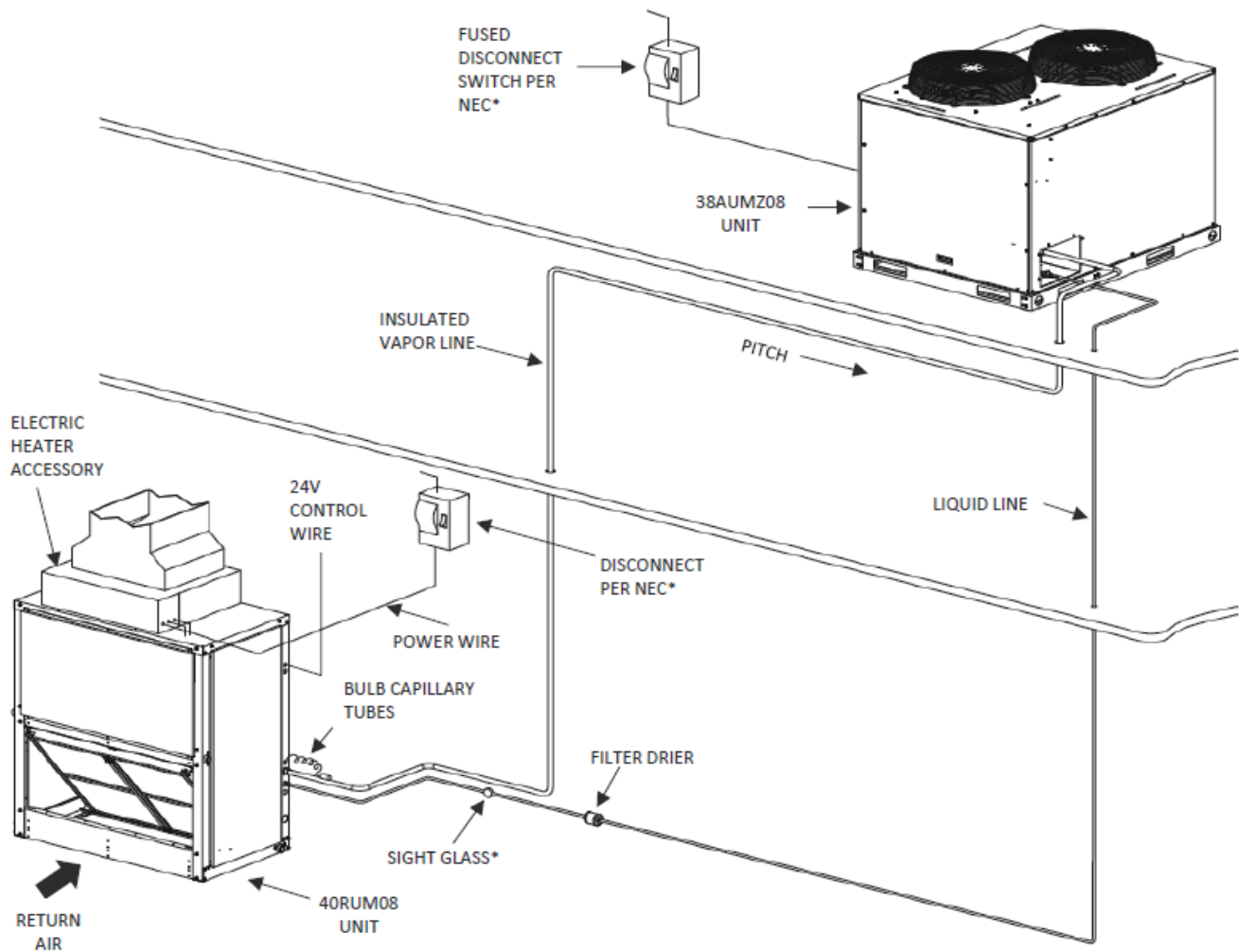
† Double riser may be required. Consult condensing unit product data catalog for details.

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. Filter driers must be bi-flow type suited for heat pump duty.
6. Internal factory-supplied TXVs and check valves not shown.

TYPICAL PIPING AND WIRING (cont.)

Roof Installation and a Vertical Discharge Fan Coil



LEGEND:

NEC - National Electrical Code

TXV - Thermostatic Expansion Valve

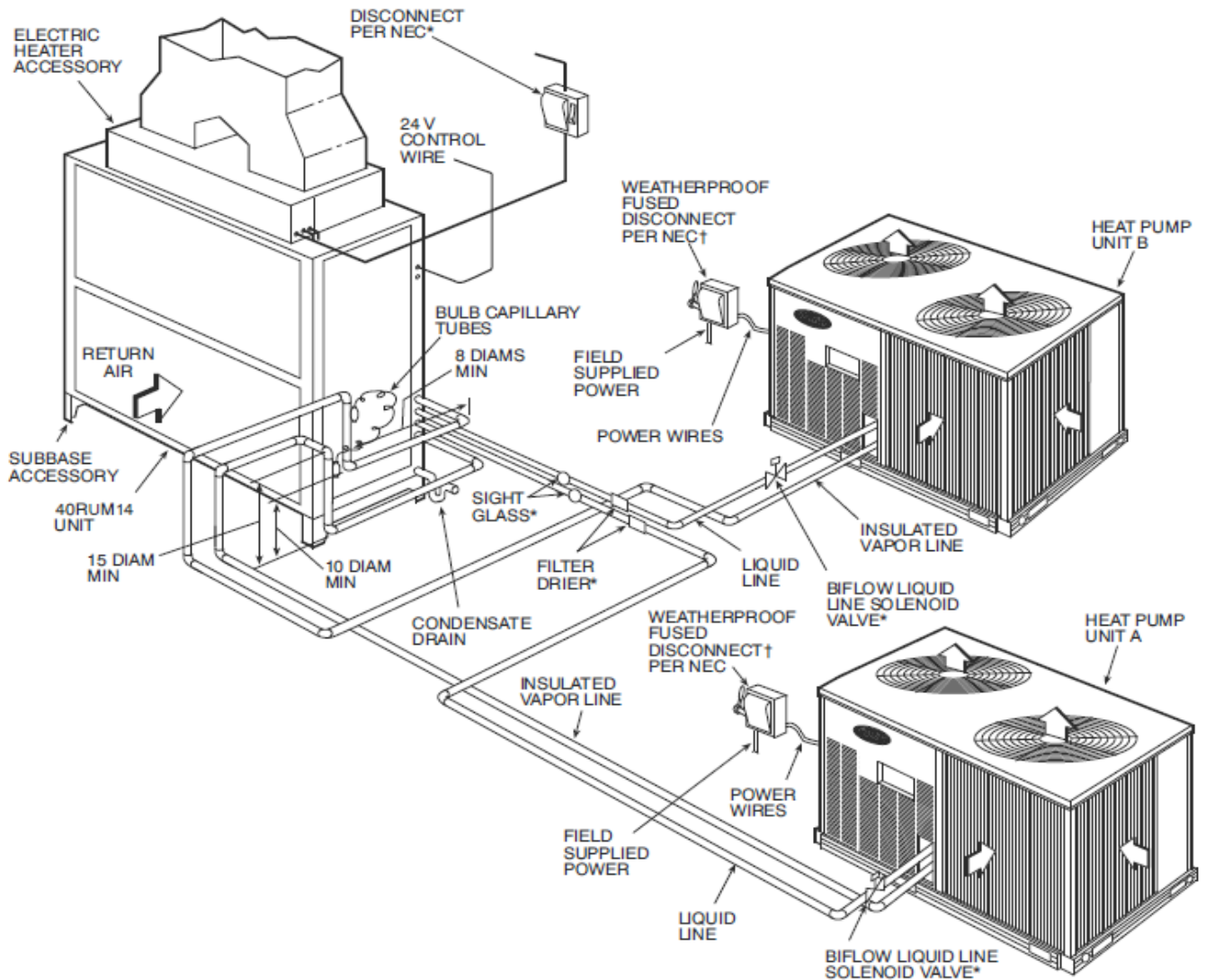
* Field -supplied

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. Filter driers must be bi-flow type suited for heat pump duty.
5. Internal factory-supplied TXVs and check valves not shown.

TYPICAL PIPING AND WIRING (cont.)

Dual Condensing Units and a Dual Circuit Fan



LEGEND:

NEC - National Electrical Code

TXV - Thermostatic Expansion Valve

* Field –supplied

† Field supplied; not required if FIOP disconnect is supplied.

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. Filter driers must be bi-flow type suited for heat pump duty.
5. Heat Pump Unit A should be the first on, last off and be connected to the lower half of the coil.
6. Internal factory-supplied TXVs and check valves not shown.

APPLICATION DATA

Operating limits

Maximum outdoor temperature 125°F
 Minimum return-air temperature (40RUM) 55°F
 Maximum return-air temperature (40RUM) 95°F
 Range of acceptable saturation suction temperature 20 to 50°F
 Maximum discharge temperature 275°F
 Minimum discharge superheat 60°F

NOTES:

1. Select air handler at no less than 300 cfm/ton (nominal condensing unit capacity).
2. Total combined draw of the field-supplied liquid line solenoid valve and air handler fan contactor must not exceed 22 va. If the specified va must be exceeded, use a remote relay to control the load.

Minimum Outdoor-air Operating Temperature

UNIT 38AUM	Minimum Outdoor Temp (°F)
	Std
Z07	35
Z08	35
D12	35
D14	35
D16	35

Refrigerant piping

IMPORTANT: Do not bury refrigerant piping underground.

It is recommended that the refrigerant piping for all commercial split systems include a liquid line solenoid valve, a liquid line filter drier and a sight glass. For refrigerant lines longer than 75 lineal ft, a liquid line solenoid valve installed at the indoor unit and a suction accumulator are required.

Puron-duty Filter Drier(s)

Model-Size	Qty	Liquid Line OD	Desiccant Volume
38AUMZ07	1	(5/8)	8 cu. in.
38AUMZ08	1	(5/8)	16 cu. in.
38AUMD12	2	(5/8)	8 cu. in.
38AUMD14	2	(5/8)	16 cu. in.
38AUMD16	2	(5/8)	16 cu. in.

CONTROLS

Operating sequences

When the wall thermostat calls for cooling, terminals G and Y1 are energized. As a result, the indoor fan contactor (IFC) and the compressor contactor (C1) are energized, causing the indoor fan motor (IFM), compressor #1, and outdoor fans (OFM) to start. The field-supplied and field-installed liquid line valve also opens, allowing the system to function in Cooling mode.

If the unit has 2 stages of cooling, the wall thermostat will additionally energize Y2. The Y2 signal will energize compressor contactor #2 (C2), causing compressor #2 to start.

Regardless of the number of stages, the field—supplied liquid line valve shall opens and the outdoor fan motors(OFM) runs continuously while unit is cooling.

When cooling demand decrease, the thermostat will de-energize Y2. Y2 signal will de-energize compressor contactor #2 (C2), causing compressor #2 to stop. When cooling demand has been satisfied, the thermostat will de-energize Y1, and G terminals. Y1 and G signal will de--energize compressor contactor #1 (C1), causing compressor #1 to stop. If the wall thermostat is set to continuous (CONT), the indoor fan motor will continue to operate. Otherwise, the indoor fan motor will stop.

The outdoor fan motors (OFM) will turn off and field--supplied liquid line valve shall close , minimizing the potential for refrigerant migration.

GUIDE SPECIFICATIONS – 38AUM



Commercial Air-Cooled Condensing Units HVAC Guide Specifications Size Range: 6.0 to 15.0 Nominal Tons

Part 1 — General

1.01 SYSTEM DESCRIPTION

Outdoor-mounted, air-cooled condensing unit suitable for on-the-ground or rooftop installation. Unit shall consist of a hermetic scroll air-conditioning compressor(s) assembly, an air-cooled coil, propeller-type condenser fans, and a control box. Unit shall discharge supply air upward as shown on contract drawings. Unit shall be used in a refrigeration circuit matched with a packaged air-handling unit.

1.02 QUALITY ASSURANCE

- A. Unit shall be rated in accordance with AHRI Standard 360.
- B. Unit construction shall comply with ANSI/ASHRAE 15 safety code latest revision and comply with NEC.
- C. Unit shall be constructed in accordance with UL 1995 standard and shall carry the UL and UL, Canada label.
- D. Unit cabinet shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).
- E. Air-cooled condenser coils for hermetic scroll compressor units (38AUZ) and 38AUD shall be leak tested at 150 psig, and pressure tested at 650 psig.
- F. Unit shall be manufactured in a facility registered to ISO 9001:2000 manufacturing quality standard.

1.03 DELIVERY, STORAGE, AND HANDLING

Unit shall be shipped as single package only, and shall be stored and handled according to unit manufacturer's recommendations.

1.04 WARRANTY (FOR INCLUSION BY SPECIFYING ENGINEER.)

Part 2 — Products

2.01 EQUIPMENT

A. General:

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

B. Unit Cabinet:

- a. Unit cabinet shall be constructed of galvanized steel, bonderized and coated with a prepainted baked enamel finish.
- b. A heavy-gauge roll-formed perimeter base rail with forklift slots and lifting holes shall be provided to facilitate rigging.

C. Condenser Fans:

- a. Condenser fans shall be direct driven, propeller type, discharging air vertically upward.
- b. Fan blades shall be balanced.
- c. Condenser fan discharge openings shall be equipped with PVC-coated steel wire safety guards.
- d. Condenser fan and motor shaft shall be corrosion resistant.

D. Compressor:

- a. Compressor shall be of the hermetic scroll type .
- b. Compressor shall be mounted on rubber grommets.
- c. Compressors shall include overload protection.
- d. Compressors shall be equipped with a crankcase heater.
- e. Compressor shall be equipped with internal high pressure and high temperature protection.

E. Condenser Coils:

- 1. Standard Aluminum fin - Copper Tube Coils:
 - a. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.
 - b. Evaporator coils shall be leak, pressure and burst tested to 350 psig.
 - c. Condenser coils shall be leak, pressure and burst tested to 450 psig.
- 2. Optional Pre-coated aluminum-fin condenser coils:
 - a. Shall have a durable epoxy-phenolic coating to provide protection in mildly corrosive coastal environments.
 - b. 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.
 - c. Epoxy-phenolic barrier shall minimize galvanic action between dissimilar metals.

3. Optional Copper-fin evaporator and condenser coils:
 - a. Shall be constructed of copper fins mechanically bonded to copper tubes and copper tube sheets.
 - b. Galvanized steel tube sheets shall not be acceptable.
 - c. A polymer strip shall prevent coil assembly from contacting the sheet metal coil pan to minimize potential for galvanic corrosion between coil and pan.
- F. Refrigeration Components
Refrigeration circuit components shall include liquid line service valve, suction line service valve, a full charge of compressor oil, and a partial holding charge of refrigerant.
- G. Controls and Safeties: Minimum control functions shall include:
1. Control wire terminal blocks.
 2. Compressor lockout on auto-reset safety until reset from thermostat.
 3. Each unit shall utilize the Comfort Alert Diagnostic Board that provides:
 - (1.) System Pressure Trip fault code indication
 - (2.) Short Cycling fault code indication
 - (3.) Locked Rotor fault code indication
 - (4.) Open Circuit fault code indication
 - (5.) Reverse Phase 3 fault code indication
 - (6.) Welded Contactor fault code indication
 - (7.) Low Voltage fault code indication
 - (8.) Anti-short cycle protection
 - (9.) Phase reversal protection
- 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 fan coil 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 EER of _____ Btuh/Watt or greater at standard AHRI conditions.
 4. Standard unit shall be capable to operate up to 125°F (52°C) and down to 40°F (4°C)
- I. Electrical Requirements:
1. Nominal unit electrical characteristics shall be _____ v, 3-ph, 60 Hz. The unit shall be capable of satisfactory operation within voltage limits of _____ v to _____ v.
 2. Unit electrical power shall be single-point connection.
 3. Unit control circuit shall contain a 24-v transformer for unit control.
- J. Special Features:
1. Thermostat Controls:
 - a. Programmable multi-stage thermostat shall have 7-day clock, holiday scheduling, large backlit display, remote sensor capability, and Title 24 compliance.
 - b. Commercial Electronic Thermostat shall have 7-day time clock, auto-changeover, multi-stage capability, and large LCD (liquid crystal display) temperature display.

