

Features/Benefits

These dependable split systems match SSI indoor air handlers and direct expansion coils with outdoor condensing units for a wide selection of commercial cooling solutions.

Constructed for long life

38AK (Scroll Compressor units) and 38AKS (semi-hermetic compressor units) are designed and built to last. The copper tube-aluminum fin outdoor coil construction provides years of trouble-free operation. Where conditions require them, copper fin coils are also available. Cabinets are constructed of 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

Building owners will appreciate the high unit EERs (Energy Efficiency Ratios) offered by the 38AK, 38AKS units. These units provide greater efficiency than similar units in the market place, which translates into year-round operating savings.

The 38AK & 38AKS condensing units offer the building owner operating controls and components designed for performance dependability. The highly efficient hermetic and semi hermetic compressors are reengineered for long life and durability. The compressors include overload protection and vibration isolation for enhancement of quiet operation. The high pressure switch protects the entire refrigeration system from abnormally high operating pressures. A low-pressure switch protects the system from low-pressure conditions, including loss of charge.

The 38AK008 to 38AKS044 units include a crankcase heater to eliminate liquid slugging at start-up. Units with semi-hermetic compressors are also equipped with an oil-level sight glass. Latest safety standard for 38AKS units are assured through UL (Underwriters Laboratories) and CSA (Canadian standards Association) approvals.

Innovative SSI 40RM packaged air handlers are custom matched to 38AK, 38AKS condensing units

The 40RM Series has excellent fan performance, efficient direct expansion (DX) coils, a unique combination of indoor – air quality features, and easy installation. Its versatility and state-of-the-art-features help to ensure that your split system provides economical performance now and in the future.

Indoor-air quality (IAQ) features- The unique combination of IAQ features in the 40RM Series air handlers help to ensure that only clean, fresh, conditioned air is delivered to the occupied space.

Direct-expansion (DX) cooling coils prevent the build-up of humidity in the room, even during part-load conditions.

Standard filters remove dust and airborne particles from the occupied space for cleaner air.

The drain pan can be adjusted for a right–or left-hand connection to suit many applications and provide positive drainage and to prevent standing condensate.

Economy - the 40RM Series packaged air handlers have low initial costs, and they continue to save money by providing reduced installation expense and energy-efficient performance.

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

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

The economizer accessory precisely controls the blend of outdoor air and room air achieves comfort levels.

When the outside air enthalpy is suitable, outside air dampers can fully open to provide “free” cooling without energizing mechanical cooling.

Rugged dependability – The 40RM series are made to last. The die-formed galvanized steel panels ensure structural integrity under all operation conditions. Galvanized steel fan housing is securely mounted to a die-formed galvanized steel fan deck. Rugged pillow-block bearings (40RM014-034) 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 40RM direct-expansion coils have galvanized steel casings: inlet and outlet connections are on the same end. The coils are designed for use with Refrigerant R22 (Also optionally R407C & R134a) and have 3/8-in diameter copper tubes mechanically bonded to aluminum fins. The coils include matched, factory-installed thermostatic expansion valves (TXVs) with matching distributor nozzles.

Easier installation and service – The multipoise design and component layout help you to get the installed and running quickly. 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.

38XD Series

38XD split systems are the premium solution for industrial and commercial applications where installers, consultants and building owners require optimal performances and maximum quality. The 38XD split systems are designed to meet current and future requirements in terms of energy efficiency and operating sound levels. They use the best technologies available today:

- Twin-rotor screw compressors with a variable capacity valve.
- Low-noise generation fans.
- PLC based control system.

Very economical operation

- Extremely high full load and part load energy efficiency:
 - New twin-rotor screw compressor equipped with a high efficiency motor and a variable capacity valve that permits exact matching of the cooling capacity to the load.
 - Efficient air cooled condenser.
 - Thermostatic expansion device permitting operation at a lower condensing pressure and improved utilization of the evaporator heat exchange surface (superheat control).

Low operating sound levels

- Compressors
 - Oil separator integrated in the compressor casing.
 - Suction piping with flexible connections to prevent noise and vibration transmission.
- Condenser section
 - Condenser coils in V-shape with an open angle, allowing quieter air flow across the coil.
 - Low-noise axial fans.
 - Rigid fan mounting preventing start-up noise.



Easy and fast installation

- Ready to be connected to direct expansion (DX) coil.
- Factory wired and ready to be connected to power.
- Simplified electrical connections.
- Fast commissioning

Environmental care

- R407C & R134a ozone friendly refrigerants.
- Leak-tight refrigerant circuit.
- Discharge shut-off valve and liquid line service valve for simplified maintenance.

PLC based control

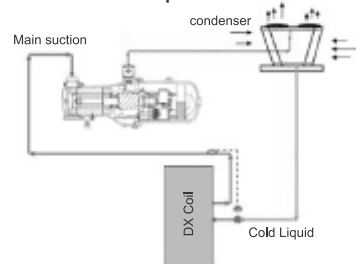
PLC control combines intelligence with operating simplicity. The control constantly monitors all machine parameters and precisely manages the operation of compressors, to improve efficiency.

Energy management

- Internal time schedule clock: controls split system on/off times and operation at a second set-point
- Ease-of-use
- User interface with large screen for intuitive access to the operating parameters. The information is in clear text.

Absolute reliability

- Screw compressors
 - Industrial-type screw compressors with oversized bearings and motor cooled by suction gas.
 - All compressor components are easily accessible on site minimizing down-time.
 - Protection increased by an electronic board.
- Air condenser
 - Copper tube aluminum fin, mechanically expanded to eliminate bond resistance.
- Auto-adaptive control
 - Control algorithm prevents excessive compressor cycling.
- Exceptional endurance tests
 - Partnerships with specialized laboratories and use of limit simulation tools (finite element calculation) for the design of critical components.



Benefits of screw compressor

Compact Screws are of two shaft rotary displacement design with newly-Developed profile geometry. The main parts of these compressors are the two rotors which are fitted into a closed housing. The rotors are precisely located at both ends in rolling contact bearings (radial and axial) which, in conjunction with the generously sized oil supply chambers, provides optimum emergency running characteristics.

Owing to the specific design this type of compressor does not require any working valves. To protect against reverse running when the compressor is switched off (expansion operation) a check valve is incorporated in the discharge chamber (this valve does not however replace any check valves)

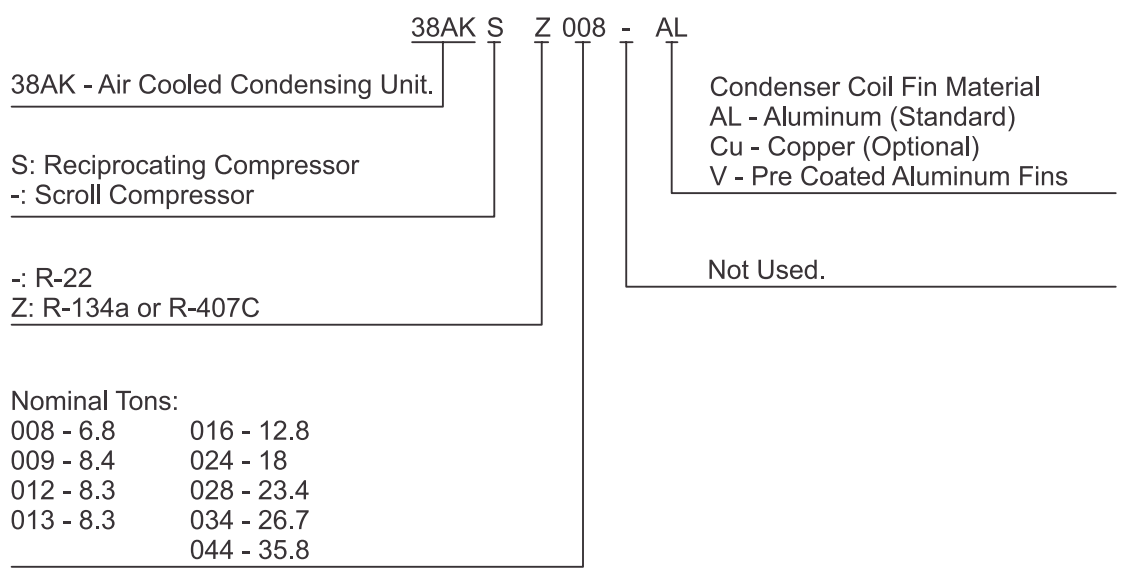
Fully equipped

- Capacity control / start unloading
- Discharge shut-off valve
- Suction flange with brazing / welding
- Bushing
- Check valve in discharge gas outlet
- Oil sight glass
- Insertion type oil heater with sleeve
- Oil service valve
- Suction gas filter with large surface area and fine mesh
- Internal pressure relief valve, an internal pressure relief valve is fitted as burst protection.

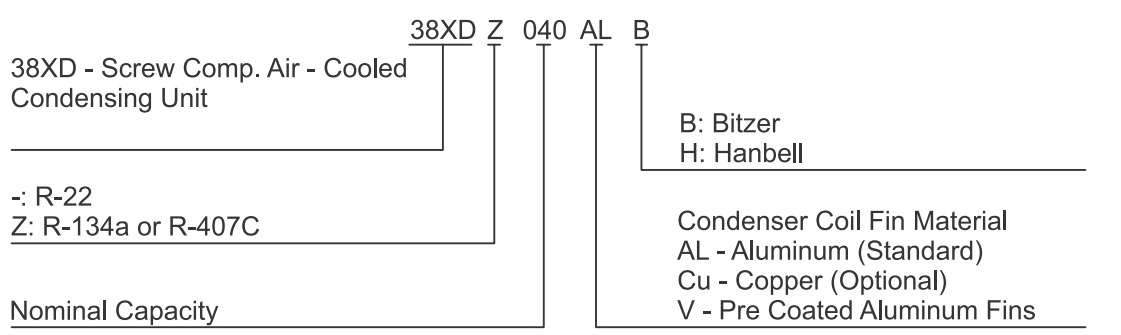
Model number nomenclature



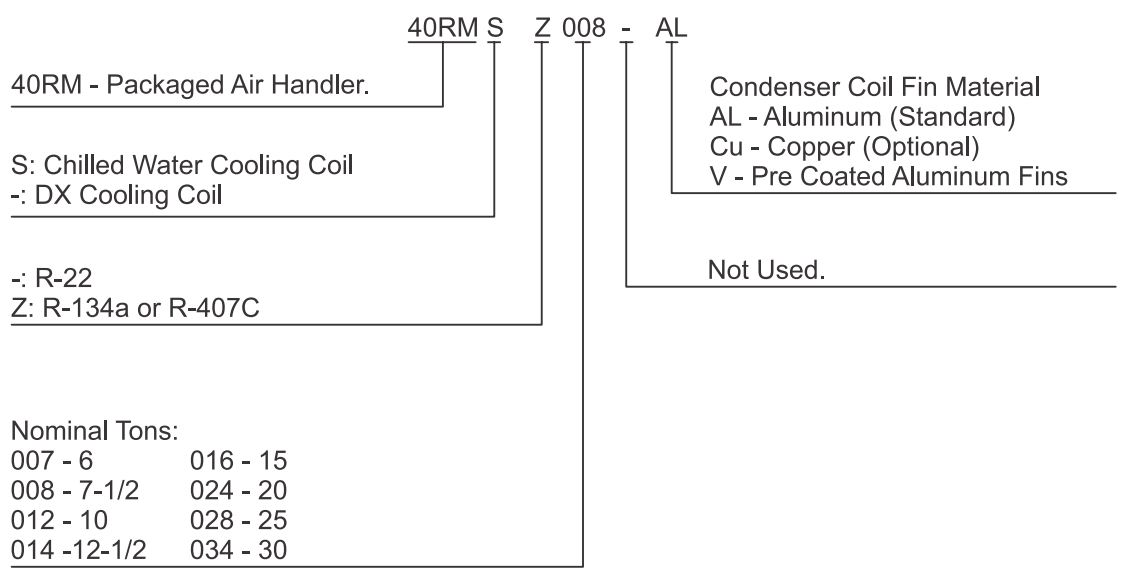
38AK & 38AKS



38XD



40RM



Capacity summary

CONDENSING UNIT	AIR HANDLING UNIT	AIR-HANDLING UNIT AIRFLOW		SYSTEM GROSS CAPACITY (Standard 3- ROW)		SYSTEM GROSS CAPACITY (High Capacity 4-Row Coil)		CONDENSING UNIT ONLY GROSS CAPACITY	
		L/S	cfm	kW*	Btuh†	kW*	Btuh†	kW**	Btuh††
38AK008	40RM007	1150	2,400	22.6	77,000	23.2	79,000	24.3	81,700
	40RM008	1400	3,000	24.2	82,000	24.7	84,300		
	40RM012	1900	4,000	26.3	89,000	26.5	90,500		
38AK009	40RM008	1400	3,000	28.0	95,000	28.8	98,100	29.9	101,000
	40RM012	1900	4,000	30.6	104,000	31.1	106,200		
38AK012	40RM008	1400	3,000	27.7	94,000	28.8	98,100	29.5	99,200
	40RM012	1900	4,000	30.0	103,000	31.1	106,200		
	40RM014	2350	5,000	31.5	107,000	32.9	112,400		
38AK013	40RM008	1400	3,000	28.3	96,000	30.0	102,400	30.4	102,000
	40RM012	1900	4,000	31.0	105,000	32.4	110,600		
	40RM014	2350	5,000	32.2	109,000	34.3	117,000		
38AK016	40RM014	2350	5,000	43.1	146,000	48.4	165,000	45.7	154,000
	40RM016	2800	6,000	46.2	157,000	51.2	174,600		
	40RM024	3800	8,000	49.6	167,000	54.7	186,500		
38AKS024	40RM016	2800	6,000	58.0	197,000	59.5	203,100	64.3	216,000
	40RM024	3800	8,000	63.3	215,000	65.7	224,100		
	40RM028	4700	10,000	67.0	226,000	69.3	236,300		
38AKS028	40RM024	3800	8,000	75.6	256,000	83.8	285,800	82.8	281,000
	40RM028	4700	10,000	80.4	273,000	84.3	287,700		
	40RM034	5650	12,000	84.6	288,000	88.7	302,800		
38AKS034	40RM028	4700	10,000	88.2	298,000	89.9	306,800	94.5	320,000
	40RM034	5650	12,000	93.1	316,000	94.8	323,500		
38AKS044	40RM034	5650	12,000	113.8	385,000	111.8	381,600	127.0	429,000

LEGEND

db - Dry Bulb

wb - Wet Bulb

SST- Saturated Suction Temperature

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

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

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

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

Dimension

Model	Dimensions (mm)			Wt (Kg.)	
	L	W	H	Al	Cu
38AK008	1185	1003	1053	231	262
38AK009	1185	1003	1053	256	287
38AK012	1185	1003	1053	256	287
38AK013	1937	1118	1013	332	374
38AK016	1937	1118	1013	358	421
38AKS024	1937	1118	1013	409	472
38AKS028	3247	1742	1413	748	818
38AKS034	3247	1742	1413	718	911
38AKS044	4424	1742	1413	1106	1246

Model	Dimensions (mm)			Wt (Kg.)	
	L	W	H	3 Row	4 Row
40RM007	1244	714	1424	173	181
40RM008	1244	714	1424	175	184
40RM012	1244	714	1424	184	193
40RM014	2261	716	1424	304	315
40RM016	2261	716	1424	311	323
40RM024	2261	716	1424	313	331
40RM028	2515	829	1665	463	470
40RM034	2515	829	1665	467	482

UNIT	38AK 008	38AK 009	38AK 012
NOMINAL CAPACITY (tons) *	7.5	8.5	10
OPERATION WEIGHT (lb)			
Aluminum Coils (standard)	510	564	564
Copper Coils (Optional)	578	632	632
RIGGING WEIGHT (lb)			
Aluminum Fin Coils (standard)	560	614	614
Copper Fin Coils (Optional)	628	682	682
REFRIGERANT†		R-22	
Operating charge ,Typical (lb)**	14.3	16.4	16.4
Shipping charge (lb)	2.0	2.0	2.0
COMPRESSOR		Scroll	
Qty... Model	1...ZR94	1...ZR125	2...ZR61 (see Note)
Speed (rpm)	2900	2900	2900
Oil charge (oz) (ea)	85	110	2*66
CONDENSER FAN		Propeller ;Direct Drive	
Qty...Rpm		1...960	
Diameter (in.)		26	
Motor Hp (NEMA)		1/3	
Nominal Airflow (Cfm)	5400	5400	5400
CONDENSER COIL		Copper Tubes ,Aluminum Fins	
Rows...Fins/in.		2...17	
Face Area (sq ft)	18.0	18.0	18.0
Storage Capacity (lb)	16.56	16.56	16.56
CONTROLS			
Pressure stat Settings (psig)			
High Cut-out		426 ± 7	
Cut-in		320 ± 20	
Low Cut-out		7 ± 3	
Cut-in		22 ± 5	
PIPING CONNECTIONS (Sweat)			
Suction (in.)	1 1/8	1 1/8	1 1/8
Liquid (in.)	1/2	5/8	1/2

LEGEND

NEMA — National Electrical Manufacturers Association

* Based on operation at 45 F saturated suction temperature and 95 F outdoor ambient.

† Unit is factory supplied with holding charge only.

** Typical operating charge with 25 ft of interconnecting piping.

NOTE :unit 38AK012 has 2 independent compressor system with the same amount of refrigerant in each.

UNIT	38AK 013	38AK 016	38AKS 024
NOMINAL CAPACITY (tons) *	10	15	20
OPERATION WEIGHT (lb)			
Aluminum Coils (standard)	732	789	900
Copper Coils (Optional)	825	929	1040
REFRIGERANT †	R-22		
Operating charge ,Typical (lb)**	22	23	28
Shipping charge (lb)	2.1	3.1	5
COMPRESSOR	Scroll		Reciprocating
Qty... Model	2...ZR61	2...ZR94	1...06E4250
Speed (rpm)	2900	2900	1450
CONDENSER FAN	Propeller ;Direct Drive		
Qty...Rpm	2...900		
Diameter (in.)	26		
Motor Hp (NEMA)	1/2		
Nominal Airflow (Cfm)	9210		
Watts (total)	1490	1750	1520
CONDENSER COIL	Copper Tubes ,Aluminum Fins		
Rows...Fins/in.	2...19	3...17	
Face Area (sq ft)	39.2	39.2	58.4
Storage Capacity (lb)	37.3	56.6	84.4
CONTROLS			
Pressure stat Settings (psig)			
High Cut-out	426 ± 10		
Cut-in	320 ± 20		
Low Cut-out	27 ± 4		
Cut-in	60 ± 7		
FAN CYCLING CONTROLS			
Operating Pressure (psig)			
No. 2 Fan, Close (psig)	255 ± 10		
Open (psig)	160 ± 10		
PIPING CONNECTIONS (Sweat)			
Suction (in.)	1 $\frac{3}{8}$	1 $\frac{3}{8}$	1 $\frac{3}{8}$
Liquid (in.)	$\frac{5}{8}$		
Hot Gas Stub	$\frac{3}{8}$		

LEGEND

NEMA — National Electrical Manufacturers Association

* Based on operation at 45 F saturated suction temperature and 95 F outdoor ambient.

† Unit is factory supplied with holding charge only.

** Typical operating charge with 25 ft of interconnecting piping.

NOTE :unit 38AK013, 016 has 2 independent compressor system with the same amount of refrigerant in each.

Physical Data (Cont.)



38AK013-016, 38AKS024

UNIT	38AKS 028	38AKS 034	38AKS 044
NOMINAL CAPACITY (tons) *	23.4	26.7	35.8
OPERATION WEIGHT (lb)			
Aluminum Coils (standard)	1650	1803	2437
Copper Coils (Optional)	1804	2009	2745
REFRIGERANT†	R-22		
Operating charge ,Typical (lb)**	30.5	43.5	65
COMPRESSOR	Reciprocating, Semi - Hermetic		
Model	06E9265	06E9275	06E9299
No. Cylinders (ea)	6	6	6
Speed (rpm)	1450	1450	1450
Oil (pt)	20.0	20.0	19.0
Capacity Steps	100%, 66%, 33%		
Unloader setting (psig)			
No. 1 load		76	
Unload		58	
No. 2 Load		78	
Unload		60	
Crankcase Heater Watts		180	
CONDENSER FAN	Propeller ; Type - Direct Drive		
Qty...Rpm	2...950		3...950
Diameter (in.)	28		
Nominal hp	1.0		
Nominal Airflow (Cfm)	15,700		23,700
Watts (total)	1490	1750	1520
CONDENSER COIL	Copper Tubes ,Aluminum Fins		
Rows...Fins/in.	2...19	3...17	3...17
Face Area (sq ft)	39.2	39.2	58.4
Storage Capacity (lb)-80% Full at 125 F	37.7	56.6	84.4
CONTROLS			
High-pressure Switch (psig)			
Cutout		426 ± 7	
Cut-in		320 ± 20	
High-pressure Switch (psig)			
Cutout		27 ± 3	
Cut-in		44± 5	
High-pressure Switch (psig)			
Close on rise		9.0	
Open on Fall		6.2	
FAN CYCLING CONTROLS			
Operating Pressure (psig)			
No. 2 Fan, Close (psig)		255 ± 10	
Open (psig)		160 ± 10	
PIPING CONNECTIONS (Sweat)			
Suction (in.)	1 $\frac{5}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$
Liquid (in.)		$\frac{7}{8}$	
Hot Gas Stub		$\frac{5}{8}$	

* Based on operation at 45 F saturated temperature and 95 F outdoor ambient temperatures.

Physical Data (Cont.)



NOMINAL CAPACITY (tons)*

UNIT	40RM 007	40RM 008	40RM 012	40RM 014	40RM 016	40RM 024	40RM 028	40RM 034
NOMONAL CAPACITY (tons)	6	7 ½	10	12 ½	15	20	25	30
OPERATING WEIGHT (lb)								
Base Unit With TXV 3 Row/4-Row	381/399	385/404	405/425	670/695	685/713	690/730	1020/1050	1030/106
Plenum	175	175	175	225	225	225	325	325
FANS								
Qty ... Dia. (in.)	1...15	1...15	1...15	2...15	2...15	2...15	2...18	2...18
Nominal Airflow (cfm)	2400	3000	4000	5000	6000	8000	10	12
Airflow range (cfm)	1800-3000	2250-3750	3000-5000	3750-6250	4500-7500	6000-10,000	7500-12,500	9000-15,000
Nominal Motor Hp (Standard Motor)								
230-3-50, 400-3-50	2.4	2.4	2.9	2.9	2.9	5.0	7.5	10.0
Motor Speed (rpm)								
230-3-50, 400-3-50	1425							
REFRIGERANT	R-22							
Operating charge (lb) (approx per circuit)*	3.0	3.0	1.5/1.5	2.0/2.0	2.5/2.5	3.5/3.5	4.5/4.5	5.0/5.0
DIRECT-EXPANSION COIL	Copper Tubes, Aluminum Fins							
Max Working Pressure (psig)	435							
Face Area (sq ft)	6.67	8.33	10.0	13.25	17.67	19.88	24.86	29.83
No. of Splits	1	1	2	2	2	2	2	2
Split Type .. percentage	—	—	FACE...50/50					
No. of Circuits per split (3Row/4Row)	12/12	15/15	9/9	9/12	12/16	13/18	15/20	18/24
Fins/in.	15	15	17	15	15	17	15	15
STEAM COIL								
Max Working pressure (psig at 400F)	175							
Total Face Area (sq ft)	6.67	6.67	6.67	13.33	13.33	13.33	15.0	15.0
Rows .. Fins/in.	1...9	1...9	1...9	1...10	1...10	1...10	1...10	1...10
HOT WATER COIL								
Max Working pressure (psig)	150							
Total Face Area (sq ft)	6.67	6.67	6.67	13.33	13.33	13.33	15.0	15.0
Rows .. Fins/in.	2...8.5	2...8.5	2...8.5	2...8.5	2...8.5	2...8.5	2...12.5	2...12
Water Volume (gal)	8.3		13.9			14.3		
(ft ³)	1.1		1.85			1.90		
PIPING CONNECTIONS,								
Quantity ... size (in).								
DX Coil - Suction (ODF)	1...1 ⅛	1...1 ⅛	2...1 ⅛	2...1 ⅛	2...1 ⅛	2...1 ⅛	2...1 ¾	2...1 ¾
DX Coil - Liquid Refrigerant (ODF)	1... ⅝		2... ⅝					
Steam Coil, in (MPT)	1...2 ½				1...2 ½			
Steam Coil, Out (MPT)	1...1 ½			1...2 ½				
Hot Water Coil, in (MPT)	1...1 ½		1...1 ½		1...2			
Hot Water Coil, Out (MPT)	1...1 ½		1...1 ½		1...2			
Condensate	1...1¼							
FILTERS	Throwaway—Factory supplied							
Quantity... Size (in).	4...16x24x2			4...16x20x2 4...16x24x2			4...20x24x2 4...20x25x2	
Access Location	Right or Left side							

LEGEND

TXV — Thermostatic Expansion Valve

*Units are shipped without refrigerant charge.

UNIT	40RMS008	40RMS012	40RMS014	40RMS016	40RMS024	40RMS028	40RMS034		
OPERATING WEIGHT (lb)									
Base Unit	390	391	661	677	683	1035	1042		
Mixing Box	185	185	340	340	340	450	450		
Hot Water Coil	195	195	285	285	285	345	345		
Steam Coil	215	215	340	340	340	405	405		
FANS									
Qty ...Dia. (in)	1...15	1...15	2...15	2...15	2...15	2...18	2...18		
Nominal Airflow (cfm)	3000	4000	5000	6000	8000	10,000	12,000		
Airflow Range (cfm)	2250-3750	3000-5000	3750-6250	4500-7500	6000-10000	7500-12500	9000-15000		
CHILLED WATER COIL									
Copper Tubes ,Aluminum Fins									
Max Working Pressure (psig)	435								
Face Area (sq ft) - Upper	8.3	9.8	8.3	8.3	11	12.4	15.5		
Face Area (sq ft) - Lower	-	-	5.5	8.3	8.3	12.4	12.4		
Row...Fins/in.									
Water Volume (gal)				4...14					
(ft ³)	3	3.5	4.7	5.6	6.4	8.9	9.9		
	0.4	0.46	0.63	0.75	0.85	1.19	1.32		
HOT WATER COIL									
Max Working pressure (in Wg)	150								
Total Face Area (sq ft)	6.67	6.67	13.33	13.33	13.33	15.0	15.0		
Rows .. Fins/in.	2...8	2...8	2...8	2...8	2...8	2...14	2...14		
Water Volume (gal)	8.3		13.9			14.3			
(ft ³)	1.1		1.85			1.90			
PIPING CONNECTION									
Quantity ... size (in.)									
Chilled Water - In	1...1 3/8	2...1 3/8	2...1 3/8	2...1 3/8	2...1 3/8	2...2 1/8	2...2 1/8		
Chilled Water - Out	1...1 3/8	2...1 3/8	2...1 3/8	2...1 3/8	2...1 3/8	2...2 1/8	2...2 1/8		
Hot Water Coil, in (MPT)	1...1 1/2		1...2						
Hot Water Coil, Out (MPT)	1...1 1/2		1...2						
Condensate									
FILTERS									
Quantity ...Size (in.)	1...1 1/4								
	4...16	24	2	4...16	20	2	4...20	24	2
				4...16	24	2	4...20	25	2

Model	Dimensions (mm)					
	A	B	C	D	E	F
40RMS008	1244	714	1424	1311	1818	699
40RMS012	1244	714	1424	1311	1818	699
40RMS014	2261	716	1424	1311	1818	692
40RMS016	2261	716	1424	1311	1818	692
40RMS024	2261	716	1424	1311	1818	692
40RMS028	2515	829	1665	1578	2059	813
40RMS034	2515	829	1665	1578	2059	813

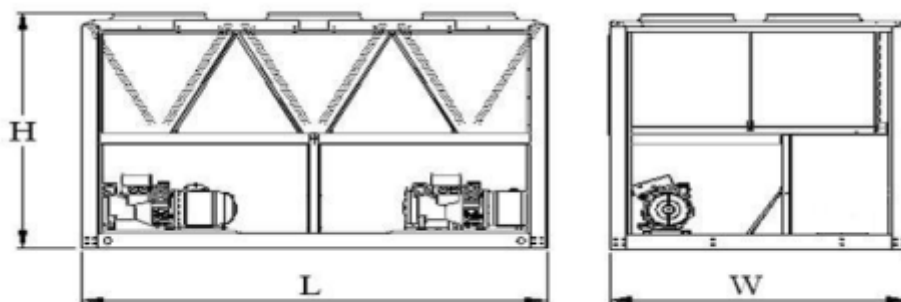
Physical Data (Cont.)



UNIT 38 XD		040	050	060	070	080	090	100	110	120
Operating weight (Kg)										
Al-Cu coils		1100	1300	1300	1850	1850	2000	2500	2500	2550
Cu-Cu coils		1250	1450	1450	2100	2100	2200	2750	2750	2800
Compressors										
Type		Semi Hermetic Compact Screw								
Quantity		1	1	1	1	2	2	2	2	2
Model @ Ckt 1	Bitzer	6553-50	6563-60	7553-70	7563-80	6553-50	6553-50	6563-60	6563-60	7553-70
Model @ Ckt 2	(CSH Series)	NA	NA	NA	NA	6553-50	6563-60	6563-60	7553-70	7553-70
Model @ Ckt 1	Hanbell	140B	170B	200B	230B	140B	140B	170B	170B	200B
Model @ Ckt 2	(Rc2 Series)	NA	NA	NA	NA	140B	170B	170B	200B	200B
Minimum capacity		50%	50%	50%	50%	25%	23%	25%	23%	25%
No. of Ckt.		1	1	1	1	2	2	2	2	2
Condenser										
Fan	Type	Axial - Vertical Discharge								
	Diameter (mm)	800	800	800	800	800	800	800	800	800
	Quantity	4	4	4	6	6	8	8	8	8
	Total Airflow (cfm)	48800	48800	48800	73200	73200	97600	97600	97600	97600
Coils	Type	Finned Tube								
	Rows...Fin/in	4...12	4...12	4...12	4...12	4...12	4...12	4...12	4...12	4...12
	No. of Coil Per Ckt.	4	4	4	6	3/3	4/4	4/4	4/4	4/4
	Total face area (sq.ft)	93.8	93.8	93.8	140.7	140.7	187.6	187.6	187.6	187.6

UNIT 38 XD		140	160	180	200	220	240	260	280
Operating weight (Kg)									
Al-Cu coils		2700	3100	3350	3600	4100	4550	4900	5300
Cu-Cu coils		3000	3400	3700	4000	4550	5100	5450	5950
Compressors									
Type		Semi Hermetic Compact Screw							
Quantity		2	2	2	2	2	2	2	2
Model @ Ckt 1	Bitzer	7563-80	7573-90	7573-90	8553-110	8553-110	8563-125	8563-125	8573-140
Model @ Ckt 2	(CSH Series)	7563-80	7573-90	8553-110	8553-110	8563-125	8563-125	8573-140	8573-140
Model @ Ckt 1	Hanbell	230B	260B	260B	310B	310B	370B	370B	410B
Model @ Ckt 2	(Rc2 Series)	230B	260B	310B	310B	370B	370B	410B	410B
Minimum capacity		25%	25%	23%	25%	23%	25%	24%	25%
No. of Ckt.		2	2	2	2	2	2	2	2
Condenser									
Fan	Type	Axial - Vertical Discharge							
	Diameter (mm)	800	800	800	800	800	800	800	800
	Quantity	8	12	12	12	14	16	16	16
	Total Airflow (cfm)	97600	146400	146400	146400	170800	195200	195200	195200
Coils	Type	Finned Tube							
	Rows...Fin/in	4...12	4...12	4...12	4...12	4...12	4...12	4...12	4...12
	No. of Coil Per Ckt.	4/4	6/6	6/6	6/6	8/6	8/8	8/8	8/8
	Total face area (sq.ft)	187.6	281.3	281.3	281.3	328.2	375.1	375.1	375.1

UNIT38 XD	040	050	060	070	080	090	100	110	120	140	160	180	200	220	240	260	280
L (mm)	2400	2400	2400	3600	3600	4800	4800	4800	4800	4800	7200	7200	7200	8400	9600	9600	9600
W (mm)	2254	2254	2254	2254	2254	2254	2254	2254	2254	2254	2254	2254	2254	2254	2254	2254	2254
H (mm)	2299	2299	2299	2299	2299	2299	2299	2299	2299	2299	2299	2299	2299	2299	2299	2299	2299



Performance Data (Cont.)



CONDENSING UNIT RATING

38AKS028								
SST (F)		Air Temperature Entering Condenser (F)						
		80	85	95	100	105	115	125
20	TC	181.0	167.0	161.0	154.0	141.0	134.0	128.0
	kW	17.4	18.3	18.6	19.0	19.6	19.8	20.0
	SDT	108.0	117.0	122.0	126.0	136.0	141.0	145.0
25	TC	202.0	187.0	180.0	173.0	159.0	152.0	145.0
	kW	18.5	19.4	19.8	20.2	20.9	21.2	21.5
	SDT	110.0	119.0	124.0	128.0	137.0	142.0	146.0
30	TC	225.0	209.0	201.0	193.0	178.0	171.0	163.0
	kW	19.5	20.6	21.0	21.5	22.3	22.7	23.0
	SDT	112.0	121.0	126.0	130.0	139.0	143.0	148.0
35	TC	249.0	231.0	223.0	215.0	198.0	190.0	182.0
	kW	20.6	21.7	22.3	22.8	23.7	24.2	24.6
	SDT	115.0	123.0	128.0	132.0	141.0	145.0	150.0
40	TC	274.0	256.0	246.0	237.0	220.0	211.0	202.0
	kW	21.6	23.0	23.6	24.1	25.2	25.7	26.2
	SDT	117.0	126.0	130.0	135.0	143.0	148.0	152.0
45	TC	301.0	281.0	271.0	261.0	242.0	233.0	224.0
	kW	22.8	24.2	24.9	25.5	26.7	27.3	27.8
	SDT	120.0	129.0	133.0	137.0	146.0	150.0	154.0
50	TC	329.0	307.0	297.0	287.0	266.0	256.0	246.0
	kW	23.9	25.5	26.2	26.9	28.3	28.9	29.5
	SDT	123.0	131.0	136.0	140.0	148.0	152.0	157.0

38AKS034								
SST (F)		Air Temperature Entering Condenser (F)						
		80	85	95	100	105	115	125
20	TC	203.0	187.0	178.0	170.0	153.0	145.0	136.0
	kW	20.0	20.8	21.1	21.4	21.8	21.8	21.8
	SDT	110.0	120.0	125.0	130.0	140.0	145.0	150.0
25	TC	230.0	212.0	204.0	195.0	176.0	167.0	158.0
	kW	21.0	22.0	22.4	22.8	23.4	23.6	23.7
	SDT	110.0	120.0	125.0	130.0	140.0	145.0	150.0
30	TC	256.0	239.0	230.0	221.0	202.0	192.0	182.0
	kW	22.0	23.0	23.7	24.1	24.9	25.3	25.5
	SDT	112.0	121.0	126.0	130.0	140.0	145.0	150.0
35	TC	283.0	265.0	256.0	247.0	228.0	218.0	208.0
	kW	23.1	24.4	25.0	25.5	26.5	26.9	27.2
	SDT	114.0	123.0	127.0	132.0	141.0	146.0	150.0
40	TC	311.0	292.0	282.0	273.0	253.0	243.0	233.0
	kW	24.3	25.7	26.4	27.0	28.1	28.6	29.0
	SDT	117.0	125.0	130.0	134.0	143.0	147.0	152.0
45	TC	340.0	320.0	310.0	300.0	279.0	269.0	259.0
	kW	25.4	27.0	27.8	28.5	29.7	30.3	30.8
	SDT	119.0	128.0	132.0	136.0	145.0	149.0	154.0
50	TC	371.0	350.0	339.0	328.0	307.0	296.0	285.0
	kW	26.6	28.4	29.2	30.0	31.4	32.1	32.7
	SDT	122.0	130.0	135.0	139.0	148.0	152.0	156.0

38AKS044								
SST (F)		Air Temperature Entering Condenser (F)						
		80	85	95	100	105	115	125
20	TC	271.0	252.0	243.0	234.0	216.0	208.0	199.0
	kW	27.3	28.5	29.0	29.5	30.3	30.7	31.0
	SDT	109.0	119.0	124.0	129.0	139.0	144.0	149.0
25	TC	305.0	284.0	274.0	264.0	245.0	235.0	225.0
	kW	28.6	30.0	30.7	31.3	32.3	32.8	33.2
	SDT	109.0	119.0	124.0	129.0	139.0	144.0	149.0
30	TC	341.0	319.0	308.0	297.0	275.0	265.0	254.0
	kW	29.9	31.5	32.3	33.0	34.2	34.8	35.3
	SDT	109.0	119.0	124.0	129.0	139.0	144.0	149.0
35	TC	377.0	355.0	343.0	332.0	309.0	297.0	286.0
	kW	31.3	33.1	33.9	34.7	36.1	36.8	37.4
	SDT	111.0	120.0	125.0	129.0	139.0	144.0	149.0
40	TC	415.0	391.0	379.0	367.0	343.0	331.0	319.0
	kW	32.9	34.8	35.7	36.6	38.2	38.9	39.6
	SDT	113.0	122.0	126.0	131.0	140.0	145.0	150.0
45	TC	455.0	429.0	416.0	403.0	377.0	365.0	352.0
	kW	34.5	36.6	37.6	38.6	40.3	41.1	41.9
	SDT	115.0	124.0	128.0	133.0	142.0	147.0	151.0
50	TC	497.0	468.0	455.0	441.0	413.0	400.0	386.0
	kW	36.1	38.4	39.5	40.6	42.5	43.5	44.3
	SDT	117.0	126.0	131.0	135.0	144.0	149.0	153.0

LEGEND

- Out of Range
- SDT — Saturated Discharge Temperature at Compressor (F)
- KW — Compressor power
- SST — Saturated Suction Temperature (F)
- TC — Gross Cooling Capacity (1000 Btuh)

Performance Data (Cont.)



COMBINATION RATING

Table 38AK016/40RM024: Performance data for 38AK016/40RM024 with standard 3-row coil. Columns include Temp (F) Air Entering Condenser (Edb) and Evaporator Air - Cfm (6000, 8000, 10000) and Evaporator Air - Ewb (F) (72, 67, 62). Rows include TC, SHC, and KW for temperatures 85, 95, 100, 105, 115, and 125.

Table 38AK024/40RM016: Performance data for 38AK024/40RM016 with standard 3-row coil. Columns include Temp (F) Air Entering Condenser (Edb) and Evaporator Air - Cfm (2500, 3000, 3750) and Evaporator Air - Ewb (F) (72, 67, 62). Rows include TC, SHC, and KW for temperatures 85, 95, 100, 105, 115, and 125.

Table 38AKS024/40RM016: Performance data for 38AKS024/40RM016 with standard 3-row coil. Columns include Temp (F) Air Entering Condenser (Edb) and Evaporator Air - Cfm (2500, 3000, 3750) and Evaporator Air - Ewb (F) (72, 67, 62). Rows include TC, SHC, and KW for temperatures 85, 95, 100, 105, 115, and 125.

Table 38AKS028/40RM028: Performance data for 38AKS028/40RM028 with standard 3-row coil. Columns include Temp (F) Air Entering Condenser (Edb) and Evaporator Air - Cfm (7500, 10000, 12500) and Evaporator Air - Ewb (F) (72, 67, 62). Rows include TC, SHC, and KW for temperatures 85, 95, 100, 105, 115, and 125.

Table 38AKS024/40RM024: Performance data for 38AKS024/40RM024 with standard 3-row coil. Columns include Temp (F) Air Entering Condenser (Edb) and Evaporator Air - Cfm (6000, 8000, 10000) and Evaporator Air - Ewb (F) (72, 67, 62). Rows include TC, SHC, and KW for temperatures 85, 95, 100, 105, 115, and 125.

Table 38AKS028/40RM034: Performance data for 38AKS028/40RM034 with standard 3-row coil. Columns include Temp (F) Air Entering Condenser (Edb) and Evaporator Air - Cfm (9000, 12000, 15000) and Evaporator Air - Ewb (F) (72, 67, 62). Rows include TC, SHC, and KW for temperatures 85, 95, 100, 105, 115, and 125.

Table 38AKS024/40RM028: Performance data for 38AKS024/40RM028 with standard 3-row coil. Columns include Temp (F) Air Entering Condenser (Edb) and Evaporator Air - Cfm (7500, 10000, 12500) and Evaporator Air - Ewb (F) (72, 67, 62). Rows include TC, SHC, and KW for temperatures 85, 95, 100, 105, 115, and 125.

Table 38AKS034/40RM028: Performance data for 38AKS034/40RM028 with standard 3-row coil. Columns include Temp (F) Air Entering Condenser (Edb) and Evaporator Air - Cfm (7500, 10000, 12500) and Evaporator Air - Ewb (F) (72, 67, 62). Rows include TC, SHC, and KW for temperatures 85, 95, 100, 105, 115, and 125.

38AKS034/40RM028			WITH STANDARD 3-ROW COIL								
Temp (F) Air Entering Condenser (Edb)		Evaporator Air - Cfm									
		7500			10000			12500			
		Evaporator Air - Ewb (F)									
		72	67	62	72	67	62	72	67	62	
85	TC	280.1	305.6	332.5	294.8	320.8	347.7	307.1	331.0	357.9	
	SHC	235.6	187.1	137.0	276.9	217.7	154.8	307.1	246.9	172.1	
	KW	23.75	24.89	26.04	24.40	25.54	26.70	24.96	25.98	27.15	
95	TC	267.9	292.7	318.7	282.5	306.8	332.7	295.4	316.4	342.2	
	SHC	230.9	182.8	133.3	271.9	213.6	151.0	295.4	242.9	168.4	
	KW	25.19	26.45	27.75	25.93	27.17	28.43	26.59	27.65	28.90	
100	TC	261.8	286.0	311.1	276.0	299.7	325.0	289.5	308.7	334.2	
	SHC	228.6	180.6	131.1	268.8	211.6	149.2	289.5	240.7	166.7	
	KW	25.88	27.20	28.55	26.67	27.94	29.27	27.39	28.43	29.76	
105	TC	255.7	279.2	303.7	268.8	292.5	317.1	283.4	300.9	325.8	
	SHC	226.3	178.5	129.1	268.8	209.5	147.4	283.4	238.5	164.8	
	KW	26.61	27.98	29.38	27.39	28.74	30.13	28.22	29.23	30.63	
115	TC	243.0	265.3	288.7	256.2	277.4	301.1	271.0	285.0	308.7	
	SHC	221.5	174.2	125.2	256.2	205.3	143.6	271.0	234.0	160.8	
	KW	27.99	29.48	31.00	28.88	30.27	31.81	29.86	30.76	32.29	

LEGEND

- — Out of Range
- Edb** — Entering Dry Bulb
- Ewb** — Entering Wet Bulb
- Kw** — Compressor Motor Power input
- SHC** — Sensible Heat Capacity (1000 Btuh) Gross
- TC** — Total Capacity (1000 Btuh) Gross

NOTE :

1. Direct interpolation is permissible Do not extrapolate.
2. SHC is based on 80 F db air entering indoor coil.
3. Formulas:

$$Ldb F = Edb F - \frac{SHC \text{ Btuh}}{1.10 \times cfm}$$

Lwb = wet-bulb temperature corresponding to enthalpy air leaving indoor coil (h lwb)

$$Ldb F: hlwb = hewb - \frac{TC \text{ Btuh}}{4.5 \times cfm}$$

Where hewb = enthalpy of air entering evaporator coil (Btuh/lb)

4. Capacities are based on 25 actual ft (40 equivalent ft) of interconnecting piping sized to the outdoor unit field connections. (Equivalent length is equal to the actual length plus a 50% allowance for fitting losses.) for other equivalent lengths, refer to the Carrier System Design Manual, part 3, for line losses.

38AKS034/40RM034			WITH STANDARD 3-ROW COIL								
Temp (F) Air Entering Condenser (Edb)		Evaporator Air - Cfm									
		9000			12000			15000			
		Evaporator Air - Ewb (F)									
		72	67	62	72	67	62	72	67	62	
85	TC	297.9	324.3	352.1	312.9	338.8	366.7	330.1	347.7	375.8	
	SHC	267.9	210.7	151.5	312.9	247.8	173.3	330.1	282.1	194.1	
	KW	24.55	25.70	26.90	25.21	26.34	27.53	25.95	26.72	27.91	
95	TC	284.9	310.5	337.1	300.9	323.5	350.5	317.7	331.8	358.8	
	SHC	262.5	206.5	147.7	300.9	243.5	169.7	317.7	277.4	190.2	
	KW	26.07	27.35	28.66	26.87	27.99	29.32	27.72	28.39	29.73	
100	TC	278.3	303.5	329.5	295.0	315.7	342.2	311.0	323.8	350.3	
	SHC	260.2	204.5	145.9	295.0	241.3	167.8	311.0	275.1	188.5	
	KW	26.81	28.15	29.51	27.69	28.80	30.17	28.56	29.21	30.58	
105	TC	271.7	296.2	321.7	289.0	307.8	333.7	304.3	315.7	341.5	
	SHC	257.6	202.4	143.9	289.0	239.1	165.8	304.3	272.9	186.6	
	KW	27.57	28.97	30.40	28.55	29.63	31.06	29.42	30.06	31.49	
115	TC	257.9	280.9	305.5	276.5	291.8	316.4	290.6	299.1	323.6	
	SHC	251.0	198.0	139.9	276.5	234.5	161.9	290.6	267.7	182.7	
	KW	28.99	30.49	32.08	30.21	31.18	32.75	31.11	31.66	33.21	

38AKS044/40RM034			WITH STANDARD 3-ROW COIL								
Temp (F) Air Entering Condenser (Edb)		Evaporator Air - Cfm									
		9000			12000			15000			
		Evaporator Air - Ewb (F)									
		72	67	62	72	67	62	72	67	62	
85	TC	347.6	378.8	411.3	367.0	398.3	431.0	380.2	410.6	443.5	
	SHC	287.1	228.1	167.7	338.3	265.2	189.3	380.2	300.0	209.8	
	KW	33.03	34.90	36.81	34.20	36.06	38.02	34.97	36.77	38.73	
95	TC	334.0	363.8	395.1	351.4	381.6	412.9	365.8	393.1	424.4	
	SHC	282.2	223.4	163.4	331.7	260.3	184.7	365.8	295.2	205.3	
	KW	34.80	36.76	38.83	35.94	37.95	40.03	36.90	38.70	40.79	
100	TC	327.2	356.3	386.8	344.0	373.1	403.6	359.2	384.3	414.8	
	SHC	279.4	221.0	161.2	328.7	257.8	182.5	359.2	292.8	203.2	
	KW	35.71	37.74	39.87	36.87	38.91	41.05	37.96	39.69	41.83	
105	TC	319.9	348.7	378.4	336.6	364.6	394.3	352.0	375.4	405.0	
	SHC	276.5	218.5	159.0	325.2	255.4	180.2	352.0	290.3	201.0	
	KW	36.56	38.69	40.89	37.78	39.85	42.05	38.93	40.65	42.84	
115	TC	305.3	332.4	360.5	320.5	347.2	375.3	337.6	357.2	385.3	
	SHC	271.1	213.5	153.9	320.5	250.4	175.6	337.6	285.1	196.5	
	KW	38.19	40.43	42.74	39.46	41.63	43.95	40.85	42.46	44.79	

R-22		Entering Air Temperature (deg. C)							
SST = 0 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	110	29	103	32	97	35	89	38	
050	137	37	129	41	121	44	112	48	
060	157	43	153	44	136	50	122	55	
070	187	49	175	53	162	59	151	63	
080	220	58	206	64	194	70	178	76	
090	247	66	232	73	218	79	201	86	
100	274	74	258	82	242	88	224	96	
110	294	80	282	85	257	94	234	103	
120	314	86	306	88	272	100	244	110	
140	374	98	350	106	324	118	302	126	
160	424	112	400	124	372	136	348	146	
180	468	124	440	136	405	149	375	160	
200	512	136	480	148	438	162	402	174	
220	553	147	521	159	479	174	438	189	
240	594	158	562	170	520	186	474	204	
260	636	170	608	181	560	201	517	219	
280	678	182	654	192	600	216	560	234	

R-407C		Entering Air Temperature (deg. C)							
SST = 0 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	106	28	99	31	93	34	86	37	
050	132	36	124	39	116	42	108	46	
060	151	41	147	42	131	48	117	53	
070	180	47	168	51	156	57	145	61	
080	212	56	198	62	187	67	171	73	
090	238	63	223	70	210	76	193	83	
100	263	71	248	79	233	85	215	92	
110	283	77	271	82	247	90	225	99	
120	302	83	294	85	262	96	235	106	
140	360	94	337	102	312	113	290	121	
160	408	108	385	119	358	131	335	140	
180	450	119	423	131	389	143	361	154	
200	492	131	462	142	421	156	387	167	
220	532	141	501	153	461	167	421	182	
240	571	152	540	163	500	179	456	196	
260	612	163	585	174	538	193	497	211	
280	652	175	629	185	577	208	538	225	

R-22		Entering Air Temperature (deg. C)							
SST = 7 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	139	32	133	34	124	37	113	41	
050	172	39	162	43	152	47	141	52	
060	198	47	187	50	173	55	160	59	
070	234	53	222	57	207	63	191	69	
080	278	64	266	68	248	74	226	82	
090	311	71	295	77	276	84	254	93	
100	344	78	324	86	304	94	282	104	
110	370	86	349	93	325	102	301	111	
120	396	94	374	100	346	110	320	118	
140	468	106	444	114	414	126	382	138	
160	530	120	504	130	472	144	438	158	
180	592	134	554	145	520	158	477	173	
200	654	148	604	160	568	172	516	188	
220	703	159	655	173	617	185	565	203	
240	752	170	706	186	666	198	614	218	
260	803	181	756	199	715	213	660	235	
280	854	192	806	212	764	228	706	252	

R-407C		Entering Air Temperature (deg. C)							
SST = 7 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	134	31	128	33	119	36	109	39	
050	165	38	156	41	146	45	136	50	
060	190	45	180	48	166	53	154	57	
070	225	51	213	55	199	61	184	66	
080	267	62	256	65	238	71	217	79	
090	299	68	284	74	265	81	244	89	
100	331	75	312	83	292	90	271	100	
110	356	83	336	89	313	98	289	107	
120	381	90	360	96	333	106	308	113	
140	450	102	427	110	398	121	367	133	
160	510	115	485	125	454	138	421	152	
180	569	129	533	139	500	152	459	166	
200	629	142	581	154	546	165	496	181	
220	676	153	630	166	593	178	543	195	
240	723	163	679	179	640	190	590	210	
260	772	174	727	191	688	205	635	226	
280	821	185	775	204	735	219	679	242	

R-22		Entering Air Temperature (deg. C)							
SST =10 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	152	33	145	36	136	39	126	42	
050	188	40	178	44	169	48	160	53	
060	218	49	206	52	193	56	146	61	
070	259	55	244	60	227	65	214	70	
080	304	66	290	72	272	78	252	84	
090	340	73	323	80	305	87	286	95	
100	376	80	356	88	338	96	320	106	
110	406	89	384	96	362	104	306	114	
120	436	98	412	104	386	112	292	122	
140	518	110	488	120	454	130	428	140	
160	578	126	552	136	518	148	486	160	
180	643	141	610	152	572	164	528	178	
200	708	156	668	168	626	180	570	196	
220	765	167	720	181	678	193	622	211	
240	822	178	772	194	730	206	674	226	
260	878	189	826	207	782	221	723	243	
280	934	200	880	220	834	236	772	260	

R-407C		Entering Air Temperature (deg. C)							
SST =10 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	146	32	139	35	131	38	121	40	
050	181	38	171	42	163	46	154	51	
060	210	47	198	50	186	54	140	59	
070	249	53	235	58	218	63	206	67	
080	292	63	279	69	262	75	242	81	
090	327	70	311	77	293	84	275	91	
100	362	77	342	85	325	92	308	102	
110	390	86	369	92	348	100	294	110	
120	419	94	396	100	371	108	281	117	
140	498	106	469	115	437	125	412	135	
160	556	121	531	131	498	142	467	154	
180	618	136	587	146	550	158	508	171	
200	681	150	642	162	602	173	548	188	
220	736	161	692	174	652	186	598	203	
240	790	171	742	187	702	198	648	217	
260	844	182	794	199	752	213	695	234	
280	898	192	846	212	802	227	742	250	

R-134a		Entering Air Temperature (deg. C)							
SST = 0 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	79	17	74	19	70	21	64	23	
050	99	22	93	24	87	26	81	29	
060	114	26	107	28	100	31	92	34	
070	133	29	124	32	115	35	106	38	
080	158	35	149	38	139	42	129	47	
090	178	39	168	43	157	48	145	53	
100	198	43	187	48	175	53	162	58	
110	213	47	200	52	187	57	173	63	
120	227	51	214	56	199	62	184	69	
140	265	58	248	63	231	70	212	77	
160	304	67	286	73	268	81	248	89	
180	342	74	323	82	302	90	281	100	
200	380	82	359	90	337	99	314	110	
220	407	88	384	96	361	106	336	118	
240	433	93	410	103	384	113	358	125	
260	467	100	441	110	414	121	386	134	
280	500	107	473	117	444	129	413	143	

R-134a		Entering Air Temperature (deg. C)							
SST = 7 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	103	19	97	21	91	23	85	25	
050	129	23	122	26	115	28	107	31	
060	151	28	142	30	133	33	123	37	
070	175	31	165	34	153	37	142	41	
080	206	37	194	41	183	45	170	50	
090	232	42	219	46	206	51	192	56	
100	258	46	244	51	229	56	214	62	
110	280	51	264	56	247	61	230	68	
120	301	55	284	60	265	66	246	73	
140	350	63	329	68	307	75	283	82	
160	399	72	377	78	354	86	329	94	
180	447	80	423	87	397	96	370	105	
200	495	88	469	96	441	105	412	116	
220	530	94	501	103	472	113	441	124	
240	564	100	534	109	503	120	470	133	
260	608	107	575	117	541	129	506	142	
280	651	114	616	125	580	137	542	151	

R-134a		Entering Air Temperature (deg. C)							
SST =10 (C)		30		35		40		45	
UNIT 38XD	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	CAP. KW	POWER KW	
040	114	20	108	21	101	24	95	26	
050	143	24	135	27	127	29	119	32	
060	168	29	158	32	148	35	137	38	
070	195	33	183	36	171	39	158	43	
080	228	39	216	43	203	47	189	52	
090	257	44	243	48	229	53	213	58	
100	286	49	270	53	254	59	237	65	
110	311	53	294	58	275	64	256	70	
120	336	58	317	63	296	69	275	76	
140	390	66	366	72	341	78	316	85	
160	444	75	419	82	393	89	366	98	
180	496	83	469	91	441	99	411	109	
200	548	92	519	100	489	109	457	121	
220	587	98	555	107	523	117	489	129	
240	625	104	592	114	557	125	521	138	
260	673	112	637	122	600	134	561	147	
280	721	119	683	130	643	142	601	157	

38AKS008-044									
UNIT 38AKS	Nominal voltage (V-PH-Hz)	VOLTAGE RANGE*		COMPRESSOR		OFM		POWER SUPPLY	
		Min	Max	RLA	LRA	Qty	FLA(ea)†	MCA	MOCP**
008	230-3-50	198	253	31.5	160	1	1.5	40.9	50
	400-3-50	342	460	15.7	80	1	1.5	21.1	25
009	230-3-50	198	253	39.7	198	1	1.5	51.1	60
	400-3-50	342	460	19.9	99	1	1.5	26.4	30
012	230-3-50	198	253	39.7	198	1	1.5	52.7	60
	400-3-50	342	460	19.9	99	1	1.5	26.3	30
013	230-3-50	198	264	32.9	128	2	3.5 (2.9)	47.5	80
	400-3-50	342	457	20.0	74	2	3.5 (2.9)	31.4	50
016	230-3-50	198	264	47.9	200	2	3.5 (2.9)	66.9	100
	400-3-50	342	457	29.3	115	2	3.5 (2.9)	43.0	70
024	346-3-50	311	380	33.3	115	2	3.5 (2.9)	50.5	80
	230-3-50	198	254	67.9	207	2	3.5 (2.9)	88.1	150
028	400-3-50	342	440	34.6	173	2	3.5 (2.9)	49.3	80
	346-3-50	311	380	44.9	155	2	4.4	64.9	100
034	230-3-50	198	254	76.9	205	2	6.4	109.0	175
	400-3-50	342	440	43.6	223	2	3.0	60.5	100
044	346-3-50	311	380	53.9	176	2	4.4	76.1	125
	230-3-50	198	254	85.9	220	2	6.4	120.2	200
044	400-3-50	342	440	50.0	253	2	3.0	68.5	110
	346-3-50	311	380	79.5	240	3	4.4	112.6	175
044	230-3-50	198	254	105.1	327	3	6.4	150.6	250
	400-3-50	342	440	65.4	345	3	3.0	90.8	150

40RM STANDARD MOTORS						
UNIT 40RM	V*-PH- HZ	VOLTAGE LIMITS	FAN MOTOR			
			kW (Hp)	FLA	Minimum circuit Amps	MOCP
007	230-3-50	207-253	1.79 (2.4)	5.2	6.5	15
	400-3-50	360-440	1.79 (2.4)	2.6	3.3	15
008	230-3-50	207-253	1.79 (2.4)	5.2	6.5	15
	400-3-50	360-440	1.79 (2.4)	2.6	3.3	15
012	230-3-50	207-253	2.16 (2.9)	7.5	9.4	15
	400-3-50	360-440	2.16 (2.9)	3.4	4.3	15
014	230-3-50	207-253	2.16 (2.9)	7.5	9.4	15
	400-3-50	360-440	2.16 (2.9)	3.4	4.3	15
016	230-3-50	207-253	2.16 (2.9)	7.5	9.4	15
	400-3-50	360-440	2.16 (2.9)	3.4	4.3	15
024	230-3-50	207-253	3.73 (5.0)	13.2	16.5	25
	400-3-50	360-440	3.73 (5.0)	7.6	9.5	15
028	230-3-50	207-253	5.59 (7.5)	19.8	24.8	40
	400-3-50	360-440	5.59 (7.5)	11.4	14.3	25
034	230-3-50	207-253	7.46 (10.0)	28.0	35.0	60
	400-3-50	360-440	7.46 (10.0)	16.1	20.1	30

LEGEND

FLA	— Full Load Amps
HACR	— Heating, Air Conditioning Refrigeration
LRA	— Locked Rotor Amps
MCA	— Minimum Circuit Amps per NEC Section 430-24
MOCP	— Maximum Over current Protection
NEC	— National Electrical Code (U.S.A Standard)
OFM	— Outdoor-Fan Motor
RLA	— Rated Load Amps (Compressor)

* Permissible limits of the voltage range at which unit will operate satisfactorily.

† Value in parenthesis () is FLA of second fan motor.

** Fuse or HACR circuit breaker.

NOTES:

- Control circuit is 24 v on all units and requires an external power source.
- MCA and MOCP values are calculated in accordance with NEC (National Electric Code) (U.S.A. Standard), Article 440.
- Motor FLA and RLA values are established in accordance with UL (Underwriters Laboratories) Standard 1995 (U.S.A. standard).
- 38AKS028-044 Units Only:
220-v and 346-v units are part-wind-start units; the value under compressor LRA is for the first winding energized. The 400-v units are across-the-line-start units; value shown is for all windings energized.