



Product Data

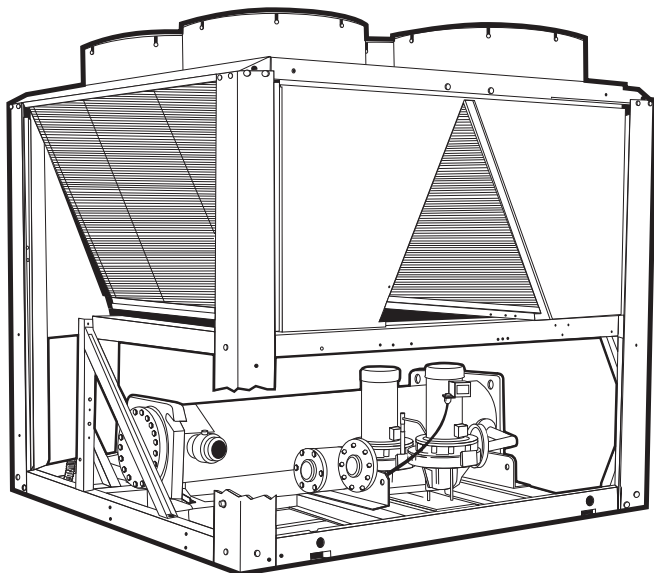
AQUASNAP® 30RB060-390 Air-Cooled Chillers

60 to 390 Nominal Tons
(210 to 1370 kW)

AQUASNAP®

Model #: 30RBA1606--0D--C
Serial #: 0506Q80793

Year: 2006
Size: 160 Tons



Operating Weight: 10,266 lbs.

The AquaSnap chiller is an effective all-in-one package that is easy to install and easy to own. AquaSnap chillers cost less to purchase and install, and then operate quietly and efficiently. Value-added features include:

- Rotary scroll compression
- Puron® HFC refrigerant (R-410A)
- Quiet AeroAcoustic™ fan system
- Easy to use ComfortLink™ controls
- Integrated hydronic pump or full heat reclaim package
- Microchannel condenser coil technology

Features/Benefits

Carrier's superior chiller design provides savings at initial purchase, at installation, and for years afterward.

Costs less right from the start

Carrier's AquaSnap chillers feature a compact, all-in-one package design that installs quickly and easily on the ground or the rooftop. The optional pump and hydronic components are already built in; this costs less than buying and installing the components individually. The chiller's fully integrated and pre-assembled hydronic system installs in minutes. No other chiller in this class installs so easily and inexpensively. The preassembled and integrated hydronic module utilizes top-quality components and pumps to ensure years of reliable operation. The AquaSnap unit's high efficiency keeps operating costs down.



L: 19' 8" W: 7' 5" H: 7' 7"

Model number nomenclature



30RB A 160 6 - - 0 D - - C

30RB – Air-Cooled AquaSnap® Chiller

Design Series

Nominal Sizes

060	110	170	275
070	120	190	300
080	130	210	315*
090	150	225	330*
100	160	250	345*
			360*
			390*

Voltage

- 1 – 575-3-60
- 2 – 380-3-60
- 5 – 208/230-3-60
- 6 – 460-3-60

Condenser Coil / Low Sound Options

- Aluminum Fin / Copper Tube
- 0 – Copper Fin / Copper Tube
- 1 – Aluminum Pre-Coat Fin / Copper Tube
- 2 – Aluminum E-Coat Fin / Copper Tube
- 3 – Copper E-Coat Fin / Copper Tube
- 4 – Microchannel (MCHX)
- 5 – E-Coat, Microchannel (MCHX)
- 6 – Aluminum Fin / Copper Tube, Cmptr Enclosures
- 7 – Copper Fin / Copper Tube, Cmptr Enclosures
- 8 – Aluminum Pre-Coat Fin / Copper Tube, Cmptr Enclosures
- 9 – Aluminum E-Coat Fin / Copper Tube, Cmptr Enclosures
- B – Copper E-Coat Fin / Copper Tube, Cmptr Enclosures
- C – Microchannel (MCHX), Cmptr Enclosures
- D – E-Coat, Microchannel, Cmptr Enclosures

Hydronics Option

- No Pump Installed
- 0 – Single Pump, 3 HP
- 1 – Single Pump, 5 HP
- 2 – Single Pump, 7.5 HP
- 3 – Single Pump, 10 HP
- 4 – Single Pump, 15 HP
- 6 – Dual Pump, 3 HP
- 7 – Dual Pump, 5 HP
- 8 – Dual Pump, 7.5 HP, Low Head
- 9 – Dual Pump, 7.5 HP, High Head
- B – Dual Pump, 10 HP
- C – Dual Pump, 15 HP
- Z – Special order designation

Cooler / Brine Options

- Integral Cooler
- 0 – Integral Cooler, Cooler Heater
- 4 – Integral Cooler, Microchannel (MCHX)
- 5 – Integral Cooler, Cooler Heater, Microchannel (MCHX)
- 9 – Integral Cooler, Medium Temperature Brine
- B – Integral Cooler, Cooler Heater, Medium Temperature Brine
- D – Integral Cooler, Medium Temperature Brine, Microchannel (MCHX)
- F – Integral Cooler, Cooler Heater, Medium Temperature Brine, Microchannel (MCHX)
- T – Integral Cooler, Microchannel (MCHX), Heat Reclaim
- V – Integral Cooler, Cooler Heater, Microchannel (MCHX), Heat Reclaim

LEGEND

- EMM – Energy Management Module
- GFI-CO – Ground Fault Interrupting Convenience Outlet
- LON – Local Operating Network
- SCCR – Short Circuit Current Rating
- XL – Across-the-Line Start

*Refer to unit sizes and modular combinations below.

†Sponsored by ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers).

NOTE: A "Z" in position 11 indicates a special order machine. Digits following do not correspond to tables.

Security/Packaging Option

- L – No Packaging
- 0 – Skid
- 1 – Skid, Top Crate and Bag
- 3 – Condenser Coil Trim Panels
- 4 – Skid, Condenser Coil Trim Panels
- 5 – Skid, Top Crate and Bag, Condenser Coil Trim Panels
- 7 – Condenser Coil Trim Panels, Upper and Lower Grilles
- 8 – Skid, Condenser Coil Trim Panels, Upper and Lower Grilles
- 9 – Skid, Top Crate and Bag, Condenser Coil Trim Panels, Upper and Lower Grilles
- C – Condenser Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards
- D – Skid, Condenser Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards
- F – Skid, Top Crate and Bag, Condenser Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards
- H – Skid, High SCCR
- J – Skid, Top Crate, Bag, High SCCR
- K – High SCCR
- M – Coil Trim Panels, High SCCR
- N – Skid, Coil Trim Panels, High SCCR
- P – Skid, Top Crate, Bag, Coil Trim Panels, High SCCR
- R – Coil Trim Panels, Upper and Lower Grilles, High SCCR
- S – Skid, Coil Trim Panels, Upper and Lower Grilles, High SCCR
- T – Skid, Top Crate, Bag, Coil Trim Panels, Upper and Lower Grilles, High SCCR
- W – Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards, High SCCR
- X – Skid, Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards, High SCCR
- Y – Skid, Top Crate, Bag, Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards, High SCCR

Controls/Communication Option

- None
- 0 – EMM
- 1 – Remote Service Port, GFI-CO
- 2 – EMM, Remote Service Port, GFI-CO
- 7 – BACnet† Translator
- 8 – BACnet Translator, EMM
- 9 – BACnet Translator, Remote Service Port, GFI-CO
- B – BACnet Translator, EMM, Remote Service Port, GFI-CO
- H – LON Translator
- J – LON Translator, EMM
- K – LON Translator, Remote Service Port, GFI-CO
- L – LON Translator, EMM, Remote Service Port, GFI-CO

Electrical Option

- Single Power Connection, Terminal Block, XL
- 0 – Single Power Connection, Terminal Block, XL, Full End Covers
- 3 – Dual Power Connection, Terminal Block, XL
- 4 – Dual Power Connection, Terminal Block, XL, Full End Covers
- 7 – Single Power Connection, Non-Fused Disconnect, XL
- 8 – Single Power Connection, Non-Fused Disconnect, XL, Full End Covers
- C – Dual Power Connection, Non-Fused Disconnect, XL
- D – Dual Power Connection, Non-Fused Disconnect, XL, Full End Covers

Refrigeration Circuit Option

- No Suction Line Insulation
- 0 – Suction Insulation
- 1 – Suction Service Valves
- 2 – Low Ambient Head Pressure Control Operation
- 3 – Suction Insulation, Suction Service Valves
- 4 – Suction Insulation, Low Ambient Head Pressure Control Operation
- 5 – Suction Service Valves, Low Ambient Head Pressure Control Operation
- 6 – Suction Insulation, Service Valves, Low Ambient Head Pressure Control Operation
- 7 – Minimum Load Control
- 8 – Suction Insulation, Minimum Load Control Operation
- 9 – Suction Service Valves, Minimum Load Control Operation
- B – Low Ambient Operation, Minimum Load Control Operation
- C – Suction Insulation, Suction Service Valves, Minimum Load Control Operation
- D – Suction Insulation, Low Ambient Head Pressure Control Operation, Minimum Load Control Operation
- F – Suction Service Valves, Low Ambient Head Pressure Control Operation, Minimum Load Control Operation
- G – Suction Insulation, Suction Service Valves, Low Ambient Head Pressure Control Operation, Minimum Load Control Operation

Quality Assurance

Certified to ISO 9001:2000

UNIT SIZES AND MODULAR COMBINATIONS

UNIT 30RB	NOMINAL TONS	NOMINAL KW	MODULE A	MODULE B
060	60	210	—	—
070	70	245	—	—
080	80	280	—	—
090	90	315	—	—
100	100	350	—	—
110	110	385	—	—
120	120	421	—	—
130	130	456	—	—
150	150	526	—	—
160	160	562	—	—
170	170	597	—	—

UNIT 30RB	NOMINAL TONS	NOMINAL KW	MODULE A	MODULE B
190	190	667	—	—
210	210	737	—	—
225	225	791	—	—
250	250	879	—	—
275	275	967	—	—
300	300	1055	—	—
315	315	1107	160	160
330	330	1160	170	160
345	345	1213	170	170
360	360	1266	190	170
390	390	1370	190	190



30RB060-300 — ENGLISH (cont)

UNIT 30RB	160	170	190	210	225	250	275	300
OPERATING WEIGHT (lb)*								
Al-Cu Condenser Coil	10,266	10,601	12,013	13,734	14,067	15,468	16,915	18,306
Cu-Cu Condenser Coil	11,472	11,807	13,460	15,181	15,514	17,157	18,845	20,477
MCHX Condenser Coil	9,475	9,799	11,064	12,772	13,093	14,349	15,647	16,893
REFRIGERANT TYPE	R-410A, EXV Controlled System							
Refrigerant Charge (lb)								
Std Coil, Ckt A/Ckt B/Ckt C	162/106/—	162/130/—	162/162/—	133/106/133	133/133/133	133/133/162	162/162/133	162/162/162
MCHX Coil, Ckt A/Ckt B/Ckt C	86/59/—	86/68/—	86/93/—	63/57/68	63/63/68	63/63/95	86/93/72	86/93/100
COMPRESSORS	Scroll, Hermetic							
Quantity	7	7	8	9	9	10	11	12
Speed (rpm)				3500				
(Qty) Compressor Model Number Ckt A	(4) SH300	(4) SH300	(4) SH300	(3) SH300	(3) SH300	(3) SH300	(4) SH300	(4) SH300
(Qty) Compressor Model Number Ckt B	(3) SH240	(3) SH300	(4) SH300	(3) SH240	(3) SH300	(3) SH300	(4) SH300	(4) SH300
(Qty) Compressor Model Number Ckt C	N/A	N/A	N/A	(3) SH300	(3) SH300	(4) SH300	(3) SH300	(4) SH300
Oil Charge (Pt, Ckt A/Ckt B/Ckt C)	52.5/39.4/—	52.5/39.4/—	52.5/52.5/—	39.4/39.4/39.4	39.4/39.4/39.4	39.4/39.4/52.5	52.5/52.5/39.4	52.5/52.5/52.5
No. Capacity Steps								
Standard	7	7	8	9	9	10	11	12
Optional (Maximum)	8	8	9	10	10	11	12	13
Minimum Capacity Step (%)								
Standard	13	14	13	10	11	10	9	8
Optional	8	10	9	6	8	7	7	6
Capacity (%)								
Ckt A	62	57	50	36	33	30	36	33
Ckt B	38	43	50	28	33	30	36	33
Ckt C	N/A	N/A	N/A	36	33	40	28	33
COOLER	Direct Expansion, Shell and Tube Type							
Weight (empty, lb)	1518	1518	1518	2382	2382	2382	2382	2382
Net Fluid Volume (gal)	73.5	73.5	73.5	86.6	86.6	86.6	86.6	86.6
Maximum Refrigerant Pressure (psig)	445	445	445	445	445	445	445	445
Maximum Water-Side Pressure without Pumps (psig)	300	300	300	300	300	300	300	300
Maximum Water-Side Pressure with Pumps (psig)	150	150	150	150	150	150	150	150
COOLER WATER CONNECTIONS (in.)								
Inlet and Outlet, Victaulic	6	6	6	6	6	6	6	6
Drain (NPT)	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
CONDENSER FANS	Shrouded Axial Type, Vertical Discharge							
Standard Low Noise Type								
Fan Speed (rpm) Standard	1140	1140	1140	1140	1140	1140	1140	1140
No. Blades...Diameter (in.)	9...30	9...30	9...30	9...30	9...30	9...30	9...30	9...30
No. Fans (Ckt A/Ckt B/Ckt C)	6/4/—	6/4/—	6/6/—	4/4/4	4/4/4	4/4/6	6/6/4	6/6/6
Total Airflow (cfm)	124,000	124,000	148,800	148,800	148,800	173,600	198,400	223,200
CONDENSER COILS								
No. Coils (Ckt A/Ckt B/Ckt C)	6/4/—	6/4/—	6/6/—	4/4/4	4/4/4	4/4/6	6/6/4	6/6/6
Total Face Area (sq ft)	235	235	282	282	282	328	375	422
Max Working Refrigerant Pressure (psig)	656	656	656	656	656	656	656	656
OPTIONAL HEAT RECOVERY CONDENSER	Flooded, Shell and Tube Type							
Weight (lb) (empty)	1296	1296	1296	—	—	—	—	—
Net Fluid Volume (gal)	17.4	17.4	17.4	—	—	—	—	—
Maximum Refrigerant Pressure (psig)	656	656	656	—	—	—	—	—
Maximum Water-Side Pressure (psig)	300	300	300	—	—	—	—	—
Water Connections (in.)								
Inlet and Outlet, Victaulic	5	5	5	—	—	—	—	—
Drain (NPT)	3/8	3/8	3/8	—	—	—	—	—
HYDRONIC MODULE (Optional)	Pump(s) with pressure/temperature taps and combination valve.							
Pump	Single or Dual, 1800 or 3600 rpm				Not available			
CHASSIS DIMENSIONS (ft-in.)								
Length	19-8			23-7		27-6	31-5	35-4
Width					7-4 ²⁵ / ₃₂			
Height					7-6 ⁷ / ₁₆			

LEGEND

Al-Cu	—	Aluminum Fin/Copper Tube Condenser Coil
Cu-Cu	—	Copper Fin/Copper Tube Condenser Coil
EXV	—	Electronic Expansion Valve
MCHX	—	Microchannel Condenser Coil
N/A	—	Not Applicable

*Operating weight does not include any options.



- NOTES:**
1. Unit must have clearances as follows:
Top — Do not restrict.
Sides and End — 6" from solid surface.
 2. All pumps have drains located at the bottom of volute for draining.
 3. Temperature relief devices located on suction line, liquid line and filter drier of each circuit and have 1/4" flare connection.
 4. Units without a pump package have the same leaving water connection, Y and Z dimensions (entering water), and Pump Discharge X dimensions as units with a pump package.
 5. **Dimensions are in mm [inches].**

MCHX — Microchannel Condenser Coil