Carrier®

Product Data

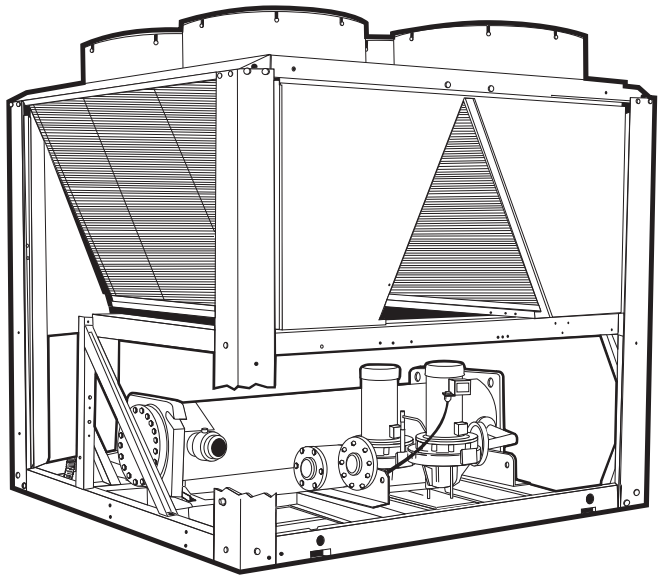
AQUASNAP® 30RB060-390 Air-Cooled Chillers

60 to 390 Nominal Tons
(210 to 1370 kW)

Model #: 30RBB0606
Serial #: 1507Q83427

AQUASNAP®

Size: 60 Ton
Year: 2007



Puron®
the environmentally sound refrigerant

ASHRAE 90.1 COMPLIANT

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 *Comfort*Link™ 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: 7' 10"
W: 7' 1"
H: 7' 6"

Operating Weight: 4,111 lbs

Model number nomenclature

30RB B 060 6

30RB A 190 6 – 8 0 – – – L

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, Cmpr Enclosures
7 – Copper Fin / Copper Tube, Cmpr Enclosures
8 – Aluminum Pre-Coat Fin / Copper Tube, Cmpr Enclosures
9 – Aluminum E-Coat Fin / Copper Tube, Cmpr Enclosures
B – Copper E-Coat Fin / Copper Tube, Cmpr Enclosures
C – Microchannel (MCHX), Cmpr Enclosures
D – E-Coat, Microchannel, Cmpr 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

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

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.

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

ARI* capacity ratings

30RB UNIT SIZE	CAPACITY		COMP	FAN	TOTAL POWER	FULL LOAD		IPLV		COOLER FLOW RATE		COOLER PD	
	Tons	kW	kW	kW	kW	EER	COP	EER	COP	GPM	L/s	ft wg	kPa
060	57.1	200.8	60.1	10.3	70.4	9.7	2.9	13.2	3.9	136.5	8.6	8.9	26.6
070	66.5	233.9	73.1	10.3	83.4	9.6	2.8	13.4	3.9	159.0	10.0	11.7	35.0
080	76.0	267.3	85.0	10.3	95.3	9.6	2.8	14.2	4.2	181.7	11.5	7.0	20.9
090	86.4	303.8	91.1	15.5	106.6	9.7	2.9	13.5	4.0	206.7	13.0	8.9	26.6
100	95.7	336.5	104.0	15.5	119.5	9.6	2.8	13.6	4.0	229.0	14.4	10.7	32.0
110	105.5	371.0	116.6	15.5	132.1	9.6	2.8	13.7	4.0	252.1	15.9	8.8	26.3
120	118.4	416.4	129.5	18.1	147.6	9.6	2.8	13.7	4.0	283.2	17.9	10.9	32.6
130	127.3	447.7	137.5	20.6	158.1	9.7	2.8	13.6	4.0	304.4	19.2	12.5	37.4
150	144.4	507.8	158.4	20.6	179.0	9.7	2.8	13.8	4.0	345.3	21.8	7.5	22.4
160	153.0	538.0	162.8	25.8	188.6	9.7	2.9	13.4	3.9	366.0	23.1	8.4	25.1
170	166.5	585.5	182.4	25.8	208.2	9.6	2.8	13.5	4.0	398.1	25.1	9.8	29.3
190	188.5	662.9	205.6	31.0	236.6	9.6	2.8	13.4	3.9	450.9	28.4	12.4	37.1
210	201.9	710.0	217.6	31.0	248.6	9.7	2.9	13.7	4.0	482.7	30.5	9.9	29.6
225	214.2	753.3	236.8	31.0	267.8	9.6	2.8	13.8	4.0	512.3	32.3	11.2	33.5
250	237.8	836.2	261.5	36.1	297.6	9.6	2.8	13.6	4.0	568.8	35.9	13.6	40.7
275	260.2	915.0	284.0	41.3	325.3	9.6	2.8	13.7	4.0	622.4	39.3	16.2	48.4
300	282.6	993.8	308.1	46.5	354.6	9.6	2.8	13.5	4.0	675.6	42.6	19.0	56.8
315	306.0	1076.1	325.7	51.6	377.3	9.7	2.9	13.4	3.9	731.9	46.2	8.4	25.1
330	319.5	1123.6	345.2	51.6	396.8	9.7	2.8	13.5	4.0	764.1	48.2	9.8	29.3
345	332.9	1170.7	364.8	51.6	416.4	9.6	2.8	13.5	4.0	796.3	50.2	9.8	29.3
360	355.0	1248.4	388.0	56.8	444.8	9.6	2.8	13.5	4.0	849.0	53.6	12.4	37.1
390	377.0	1325.8	411.1	62.0	473.1	9.6	2.8	13.4	3.9	901.7	56.9	12.4	37.1

LEGEND

COP — Coefficient of Performance
EER — Energy Efficiency Ratios
IPLV — Integrated Part Load Value
PD — Pressure Drop

*Air Conditioning and Refrigeration Institute.

NOTE: Based on ARI-550/590 standard rating conditions. Ratings are for standard chillers only. Ratings do not include options.

ARI PERFORMANCE CERTIFIED™
ARI Standard 550/590 AC

Physical data

30RB060-300 — ENGLISH

UNIT 30RB	060	070	080	090	100	110	120	130	150
OPERATING WEIGHT (lb)*									
Al-Cu Condenser Coil	4111	4317	4600	5932	6155	6519	7690	8045	9174
Cu-Cu Condenser Coil	4593	4799	5082	6656	6879	7243	8534	9010	10139
MCHX Condenser Coil	3783	3978	4267	5449	5663	6027	7119	7402	8517
REFRIGERANT TYPE	R-410A, EXV Controlled System								
Refrigerant Charge (lb)									
Std Coil, Ckt A/Ckt B/Ckt C	89.5/40.5/—	112/40.5/—	68.5/68.5/—	94/76/—	94/96/—	94/106/—	94/133/—	133/106/—	133/133/—
MCHX Coil, Ckt A/Ckt B/Ckt C	43/21/—	43/21/—	34/36/—	42/43/—	42/43/—	42/56/—	42/61/—	58/47/—	60/66/—
COMPRESSORS	Scroll, Hermetic								
Quantity	3	3	4	4	4	5	5	6	6
Speed (rpm)					3500				
(Qty) Compressor Model Number Ckt A	(2) SH240	(2) SH300	(2) SH240	(2) SH300	(2) SH300	(2) SH300	(2) SH300	(3) SH300	(3) SH300
(Qty) Compressor Model Number Ckt B	(1) SH240	(1) SH240	(2) SH240	(2) SH240	(2) SH300	(3) SH240	(3) SH300	(3) SH240	(3) SH300
(Qty) Compressor Model Number Ckt C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oil Charge (Pt, Ckt A/Ckt B/Ckt C)	26.2/13.1/—	26.2/13.1/—	26.2/26.2/—	26.2/26.2/—	26.2/26.2/—	26.2/39.4/—	26.2/39.4/—	39.4/39.4/—	39.4/39.4/—
No. Capacity Steps									
Standard	3	3	4	4	4	5	5	6	6
Optional (Maximum)	4	4	5	5	5	6	6	7	7
Minimum Capacity Step (%)									
Standard	33	29	25	22	25	18	20	15	17
Optional	22	19	16	14	18	12	14	10	12
Capacity (%)									
Ckt A	67	71	50	56	50	45	40	56	50
Ckt B	33	29	50	44	50	55	60	44	50
Ckt C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COOLER	Direct Expansion, Shell and Tube Type								
Weight (empty, lb)	715	715	856	856	856	970	970	970	1518
Net Fluid Volume (gal)	28.2	28.2	31.3	31.3	31.3	45.8	45.8	45.8	73.5
Maximum Refrigerant Pressure (psig)	445	445	445	445	445	445	445	445	445
Maximum Water-Side Pressure without Pumps (psig)	300	300	300	300	300	300	300	300	300
Maximum Water-Side Pressure with Pumps (psig)	150	150	150	150	150	150	150	150	150
COOLER WATER CONNECTIONS (in.)									
Inlet and Outlet, Victaulic	4	4	4	4	4	6	6	6	6
Drain (NPT)	3/4	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	1140
No. Blades...Diameter (in.)	9...30	9…30	9…30	9…30	9…30	9…30	9…30	9…30	9…30
No. Fans (Ckt A/Ckt B/Ckt C)	3/1/—	3/1/—	2/2/—	3/3/—	3/3/—	3/3/—	3/4/—	4/4/—	4/4/—
Total Airflow (cfm)	49,600	49,600	49,600	74,400	74,400	74,400	86,800	99,200	99,200
CONDENSER COILS									
No. Coils (Ckt A/Ckt B/Ckt C)	3/1/—	3/1/—	2/2/—	3/3/—	3/3/—	3/3/—	3/4/—	4/4/—	4/4/—
Total Face Area (sq ft)	94	94	94	141	141	141	164	188	188
Max Working Refrigerant Pressure (psig)	656	656	656	656	656	656	656	656	656
OPTIONAL HEAT RECOVERY CONDENSER	Flooded, Shell and Tube Type								
Weight (lb) (empty)	753	753	753	872	872	872	1236	1236	1236
Net Fluid Volume (gal)	8.0	8.0	8.0	10.0	10.0	10.0	15.1	15.1	15.1
Maximum Refrigerant Pressure (psig)	656	656	656	656	656	656	656	656	656
Maximum Water-Side Pressure (psig)	300	300	300	300	300	300	300	300	300
Water Connections (in.)									
Inlet and Outlet, Victaulic	3	3	3	3	3	3	5	5	5
Drain (NPT)	3/8	3/8	3/8	3/8	3/8	3/8	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								
CHASSIS DIMENSIONS (ft-in.)									
Length		7-11			11-10			15-9	
Width					7-4 25/32				
Height					7-6 7/16				

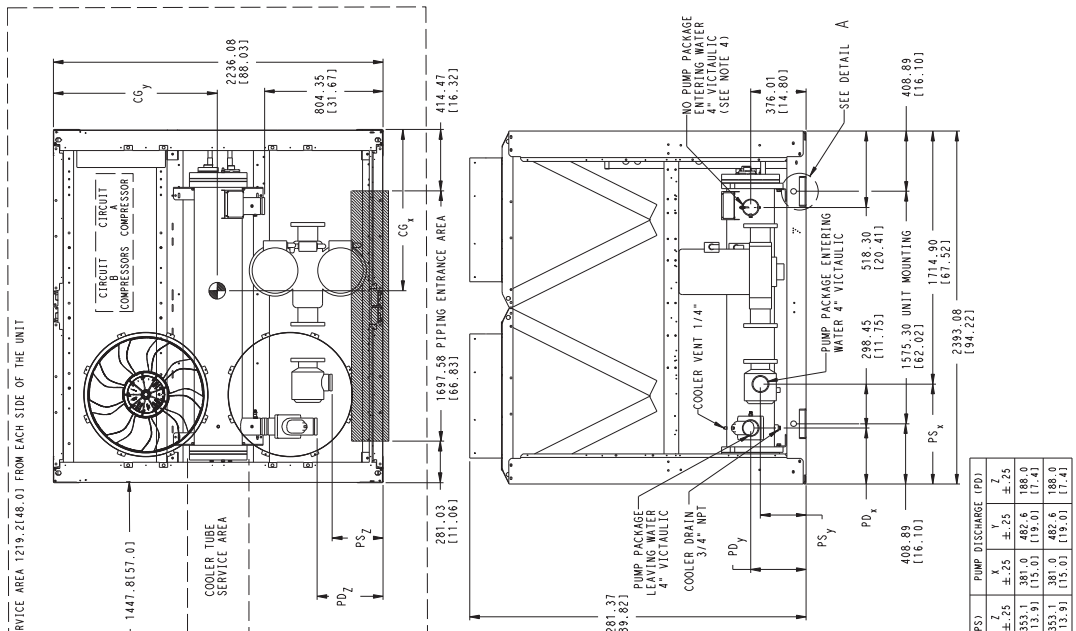
LEGEND

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.

Dimensions

30RB060, 070 AIR-COOLED CHILLER



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].

	WEIGHT CU/AL lb/kg	MAX WEIGHT CU/AL PUMP lb/kg	MAX WEIGHT CU/CU lb/kg	MAX WEIGHT CU/CU PUMP lb/kg	MCHX WEIGHT lb/kg	MAX WEIGHT MCHX PUMP lb/kg	CENTER OF GRAVITY			PUMP SUCTION (PS)			PUMP DISCHARGE (PD)		
							CGx	CGy	CGz	X ± .25	Y ± .25	Z ± .25	X ± .25	Y ± .25	Z ± .25
							MM [INCH]	MM [INCH]	MM [INCH]	MM [INCH]	MM [INCH]	MM [INCH]	MM [INCH]	MM [INCH]	MM [INCH]
30RB-060	4111 1869	4944 2247	4593 2088	5426 2466	3783 1716	4616 2094	1164 [45.82]	1038 [40.86]		675.6 [26.6]	309.9 [12.2]	353.1 [13.9]	381.0 [15.0]	482.6 [19.0]	188.0 [7.4]
30RB-070	4317 1932	5150 2641	4799 2181	5632 2560	3978 1804	4811 2182	1165 [45.86]	1013 [39.88]		675.6 [26.6]	309.9 [12.2]	353.1 [13.9]	381.0 [15.0]	482.6 [19.0]	188.0 [7.4]

MCHX — Microchannel Condenser Coil