Carrier®

Product Data

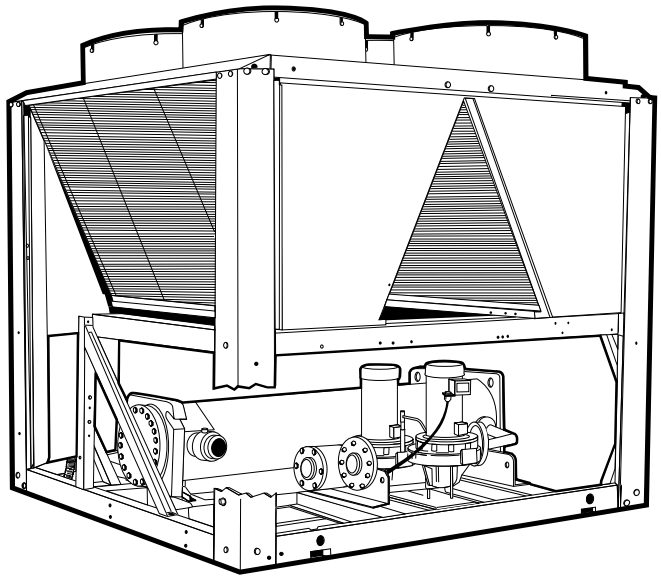
AQUASNAP® 30RB060-390 Air-Cooled Chillers

60 to 390 Nominal Tons
(210 to 1370 kW)

AQUASNAP®

Model #: 30RBA1506-C0D-73
Serial #: 0208Q85193

Year: 2008
Size: 150 Tons



Shipping Weight: 10,000 lbs.
Operating Weight: 9,174 lbs.

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: 15' 9"
W: 7' 5"
H: 7' 7"

Model number nomenclature

30RB A150 6 - C0D - 7 3

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

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

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

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

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

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

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.

30RB ELECTRICAL DATA — SINGLE POINT UNITS (cont)

UNIT 30RB	UNIT VOLTAGE			7.5 HP PUMP, 1750/3450 RPM				10 HP PUMP, 3450 RPM				15 HP PUMP, 3450 RPM			
	V-Hz (3 Ph)	Supplied		MCA	MOCP	ICF	Rec Fuse Size	MCA	MOCP	ICF	Rec Fuse Size	MCA	MOCP	ICF	Rec Fuse Size
		Min	Max	XL	XL	XL		XL	XL	XL		XL	XL	XL	
060	208/230-60	187	253	317.2	350	708.5	350	325.1	400	716.4	350	—	—	—	—
	380-60	342	418	165.0	200	376.9	175	169.3	200	381.3	200	—	—	—	—
	460-60	414	506	139.5	150	313.6	150	143.1	175	317.2	175	—	—	—	—
	575-60	518	633	111.7	125	254.0	125	114.6	125	256.9	125	—	—	—	—
070	208/230-60	187	253	360.4	450	802.7	400	368.3	450	810.6	400	—	—	—	—
	380-60	342	418	189.5	225	442.8	225	193.9	225	447.2	225	—	—	—	—
	460-60	414	506	159.5	200	367.5	175	163.1	200	371.1	175	—	—	—	—
	575-60	518	633	129.0	150	296.7	150	131.9	150	299.6	150	—	—	—	—
080	208/230-60	187	253	392.2	450	783.5	450	400.1	450	791.4	450	416.3	450	807.6	450
	380-60	342	418	203.4	225	415.3	225	207.7	225	419.7	225	216.6	250	428.5	250
	460-60	414	506	172.2	200	346.3	200	175.8	200	349.9	200	183.1	200	357.2	200
	575-60	518	633	137.9	150	280.2	150	140.8	150	283.1	150	146.6	150	288.9	150
090	208/230-60	187	253	459.3	500	901.6	500	467.2	500	909.5	500	483.4	500	925.7	500
	380-60	342	418	241.0	250	494.3	250	245.3	250	498.7	250	254.2	300	507.5	300
	460-60	414	506	203.0	225	411.0	225	206.6	225	414.6	225	213.9	250	421.9	225
	575-60	518	633	163.9	175	331.5	175	166.8	200	334.4	200	172.6	200	340.2	200
100	208/230-60	187	253	497.7	500	940.0	500	505.6	600	947.9	600	521.8	600	964.1	600
	380-60	342	418	262.8	300	516.1	300	267.1	300	520.5	300	276.0	300	529.3	300
	460-60	414	506	220.8	250	428.8	250	224.4	250	432.4	250	231.7	250	439.7	250
	575-60	518	633	179.3	200	346.9	200	182.2	200	349.8	200	188.0	200	355.6	200
110	208/230-60	187	253	534.3	600	976.6	600	542.2	600	984.5	600	558.4	600	1000.7	600
	380-60	342	418	279.4	300	532.7	300	283.7	300	537.1	300	292.6	300	545.9	300
	460-60	414	506	235.7	250	443.7	250	239.3	250	447.3	250	246.6	250	454.6	250
	575-60	518	633	190.1	200	357.7	200	193.0	225	360.6	225	198.8	225	366.4	225
120	208/230-60	187	253	603.8	700	1046.1	600	611.8	700	1054.0	700	627.9	700	1070.2	700
	380-60	342	418	318.6	350	572.0	350	323.0	350	576.4	350	331.8	350	585.2	350
	460-60	414	506	267.8	300	425.8	300	271.4	300	479.4	300	278.7	300	486.7	300
	575-60	518	633	217.5	250	385.1	250	220.4	250	388.0	250	226.2	250	393.8	250
130	208/230-60	187	253	652.3	700	1094.6	700	660.3	700	1102.5	700	676.4	700	1118.7	700
	380-60	342	418	341.8	350	595.1	350	346.1	350	599.5	350	355.0	400	608.3	400
	460-60	414	506	288.1	300	496.1	300	291.7	300	499.7	300	299.0	300	507.0	300
	575-60	518	633	232.6	250	400.3	250	235.5	250	403.2	250	241.3	250	409.0	250
150	208/230-60	187	253	709.9	800	1152.2	800	717.9	800	1160.1	800	734.0	800	1176.3	800
	380-60	342	418	374.5	400	627.8	400	378.8	400	632.2	400	387.7	400	641.0	400
	460-60	414	506	314.8	350	522.8	350	318.4	350	526.4	350	325.7	350	533.7	350
	575-60	518	633	255.7	300	423.4	300	258.6	300	426.3	300	264.4	300	432.1	300
160	208/230-60	187	253	770.4	800	1212.7	800	778.4	800	1220.6	800	794.5	800	1236.8	800
	380-60	342	418	404.1	450	657.5	450	408.5	450	661.9	450	417.3	450	670.7	450
	460-60	414	506	340.5	350	548.5	350	344.1	350	552.1	350	351.4	400	559.4	400
	575-60	518	633	275.2	300	442.8	300	278.0	300	445.7	300	283.9	300	451.5	300
170	208/230-60	187	253	828.0	1000	1270.3	1000	836.0	1000	1278.2	1000	852.1	1000	1294.4	1000
	380-60	342	418	436.8	450	690.2	450	441.2	450	694.6	450	450.0	500	703.4	500
	460-60	414	506	367.2	400	575.2	400	370.8	400	578.8	400	378.1	400	586.1	400
	575-60	518	633	298.3	300	465.9	300	301.1	350	468.8	350	307.0	350	474.6	350
190	208/230-60	187	253	946.1	1000	1388.4	1000	954.1	1000	1396.3	1000	970.2	1000	1412.5	1000
	380-60	342	418	499.2	500	752.5	500	503.6	600	756.9	600	512.4	600	765.7	600
	460-60	414	506	419.6	450	627.6	450	423.2	450	631.2	450	430.5	450	638.5	450
	575-60	518	633	340.8	350	508.4	350	343.7	350	511.3	350	349.5	350	517.1	350

LEGEND

ICF — Instantaneous Current Flow
MCA — Minimum Circuit Amps
MOCP — Maximum Overcurrent Protection
XL — Across-the-Line Start

NOTES:

1. Units are suitable for use on electrical systems where voltage supplied to the unit terminals is not below or above the listed minimum and maximum limits. Maximum allowable phase imbalance is: voltage, 2%; amps 10%.
2. All units and modules have single point primary power connection. (Each unit or module requires its own power supply.) Main power must be supplied from a field-supplied disconnect.
3. Cooler heater is wired into the control circuit so it is always operable as long as the power supply disconnect is on, even if any safety device is open.
4. For MCA that is less than or equal to 380 amps, 3 conductors are required.
   For MCA between 381 and 760 amps, 6 conductors are required.
   For MCA between 761 and 1140 amps, 9 conductors are required.
   For MCA between 1141 and 1520 amps, 12 conductors are required.
   Calculation of conductors required is based on 75 C copper wire.
5. Wiring for main field supply must be rated 75 C minimum. Use copper for all units.
   a. Incoming wire size range for the terminal block is no. 4 AWG (American Wire Gage) to 500 kcmil.
   b. Incoming wire size range of non-fused disconnect with MCA up to 599.9 amps is 3/0 to 500 kcmil.
   c. Incoming wire size range of non-fused disconnect with MCA from 600 to 799.9 amps is 1/0 to 500 kcmil.
   d. Incoming wire size range of non-fused disconnect with MCA from 800 to 1199.9 amps is 250 kcmil to 500 kcmil.
6. Hydronic pump packages are not available as a factory-installed option for units 30RB210-390.
7. Power draw includes both crankcase heaters and cooler heaters (where used). Each compressor has a crankcase heater which draws 56 watts of power. Units ordered with the cooler heater option have 1 (060-150) or 2 (160-300) cooler heaters, 825 watts each.

ETL C LISTED ®

208/230
460
575 v only