

# Model number nomenclature



## AQUASNAP® CHILLER MODEL NUMBER DESIGNATION, 30RAP011-060

**30RA P 020 5 J C 0 K F 0 4**

30RA P 011 6 D C 0 D 0 0 0

**30RA** – Air-Cooled AquaSnap Chiller

### Refrigerant Type

**P** – Puron®

### Unit Sizes

011 025 045  
016 030 050  
018 035 055  
**020** 040 060

### Voltage

1 – 575-3-60  
2 – 380-3-60  
**5** – 208/230-3-60  
6 – 460-3-60  
9 – 380/415-3-50

### Condenser Coil and Low Sound Options

5 – MCHX, Value Sound Fan  
6 – MCHX, E-Coat, Value Sound Fan  
D – MCHX, AeroAcoustic Fan  
F – MCHX, E-Coat, AeroAcoustic Fan  
**J** – MCHX, AeroAcoustic Fan, Compressor Blanket(s)  
K – MCHX, E-Coat, AeroAcoustic Fan, Compressor Blanket(s)

### Revision Level

**C** – Current Revision Level

### Hydronic System

**0** – No Pump  
2 – Single Pump, 1.5 Hp  
3 – Single Pump, 3 Hp  
4 – Single Pump, 3 Hp High Head  
5 – Single Pump, 5 Hp  
6 – Single Pump, 5 Hp High Head  
7 – Single Pump, 7.5 Hp  
Z – Single Pump, 10 Hp  
9 – Dual Pump, 1.5 Hp  
B – Dual Pump, 3 Hp  
C – Dual Pump, 3 Hp High Head  
D – Dual Pump, 5 Hp  
F – Dual Pump, 5 Hp High Head  
G – Dual Pump, 7.5 Hp  
H – Dual Pump, 10 Hp

### Packaging/Security Options

0 – Std Packaging  
**4** – Security Grilles/Hail Guards Only  
8 – Skid Only  
D – Skid, Security Grilles/Hail Guards  
J – Skid, Top Crate, Bag  
N – Skid, Top Crate, Bag, Security Grilles/Hail Guards

### Controls/Communications Options

**0** – Std  
1 – Std, BACnet Communication  
5 – EMM  
6 – EMM, BACnet Communication  
B – EMM, GFI  
C – EMM, GFI, BACnet Communication  
H – GFI  
J – GFI, BACnet Communication

### Electrical Options

0 – No Disconnect, No Cooler Heater  
1 – No Disconnect, Cooler Heater  
D – Non-Fused Disconnect, No Cooler Heater  
**F** – Non-Fused Disconnect, Cooler Heater

### Ambient/Capacity Control/High SCCR Options\*

0 – Std Comp  
1 – Hot Gas Bypass  
2 – Digital Comp  
3 – Std Comp, High SCCR  
4 – Hot Gas Bypass, High SCCR  
5 – Digital Comp, High SCCR  
6 – Low Ambient, Std Comp  
7 – Low Ambient, Hot Gas Bypass  
8 – Low Ambient, Digital Comp  
9 – Low Ambient, Std Comp, High SCCR  
B – Low Ambient, Hot Gas Bypass, High SCCR  
C – Low Ambient, Digital Comp, High SCCR  
D – Std Comp, High-Efficiency Variable Condenser Fans  
F – Hot Gas Bypass, High-Efficiency Variable Condenser Fans  
G – Digital Comp, High-Efficiency Variable Condenser Fans  
H – Std Comp, High SCCR, High-Efficiency Variable Condenser Fans  
J – Hot Gas Bypass, High SCCR, High-Efficiency Variable Condenser Fans  
**K** – Digital Comp, High SCCR, High-Efficiency Variable Condenser Fans

\*High-efficiency variable condenser fans (codes D, F, G, H, J, and K) are the only choices for sizes 011 and 016.

### LEGEND

**EMM** – Energy Management Module  
**GFI** – Ground Fault Interrupting  
**MCHX** – Microchannel Heat Exchanger  
**SCCR** – Short Circuit Current Rating



### Quality Assurance

ISO 9001: 2008-certified processes



### SEISMI COMPLIANT\*

\* Meets IBC 2006, ASCE-7-05, CBC 2007, and OSHPD seismic requirements.

# Base unit dimensions — 30RAP018-030



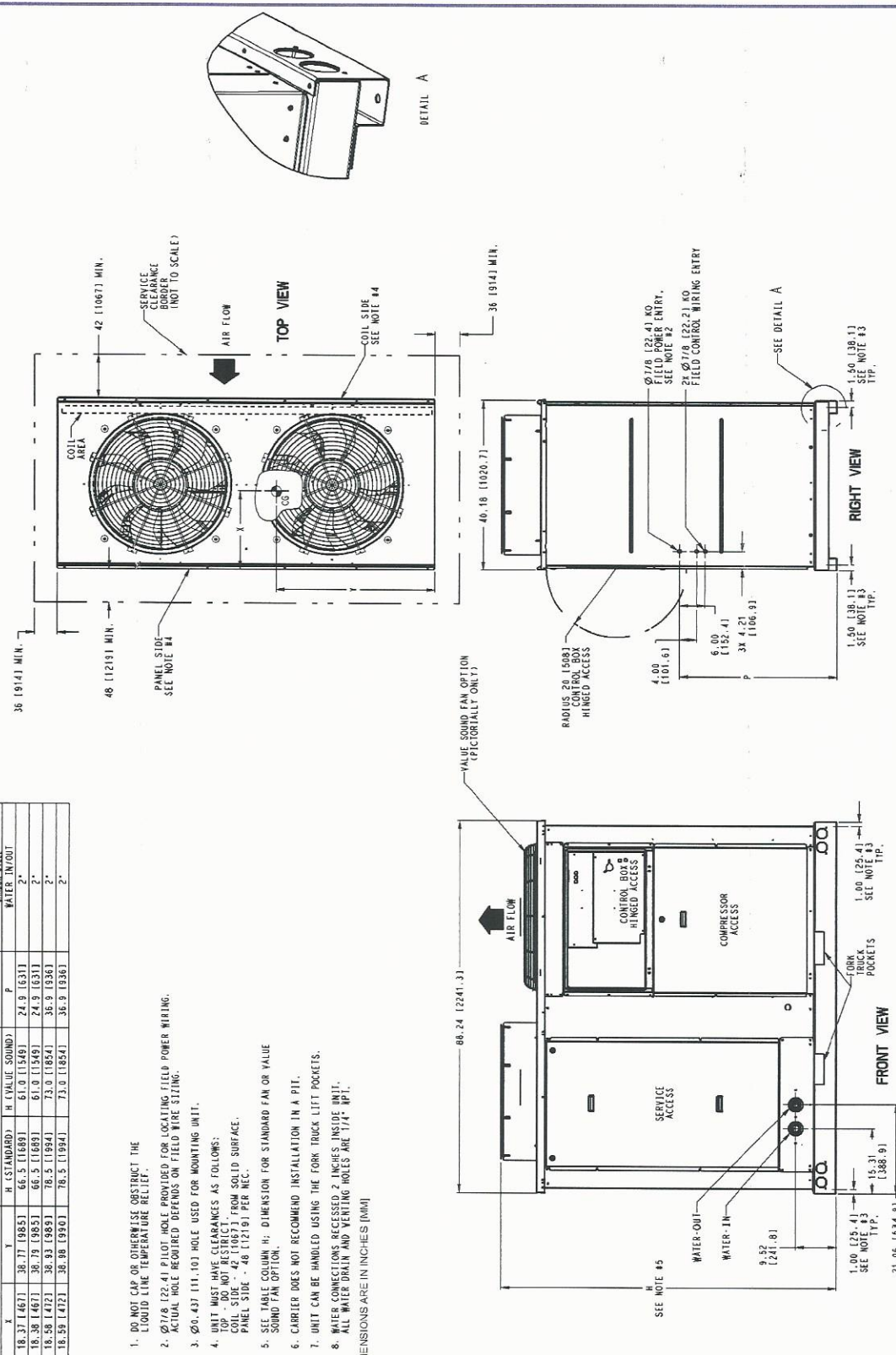
## 30RAP018-030 WITH FIXED SPEED FANS

UNIT	CENTER OF GRAVITY		UNIT HEIGHT		POWER ENTRY	WATER CONNECTION VICIAR/CULIPS LABOR SPLIT
	X	Y	H (STANDARD)	H (VALUE SOUND)		
30RA018	18.37 (467.1)	38.77 (985.5)	66.5 (1689.1)	61.0 (1549.9)	24.9 (631.1)	2*
30RA020	18.38 (467.1)	38.79 (985.5)	66.5 (1689.1)	61.0 (1549.9)	24.9 (631.1)	2*
30RA025	18.58 (472.1)	38.93 (989.3)	78.5 (1994.1)	73.0 (1854.1)	35.9 (912.6)	2*
30RA030	18.58 (472.1)	38.98 (990.0)	78.5 (1994.1)	73.0 (1854.1)	35.9 (912.6)	2*

### NOTES:

- DO NOT CAP OR OTHERWISE OBSTRUCT THE LIQUID LINE TEMPERATURE RELIEF.
- Ø7/8 (22.4) PILOT HOLE PROVIDED FOR LOCATING FIELD POWER WIRING. ACTUAL HOLE REQUIRED DEPENDS ON FIELD WIRE SIZING.
- Ø0.437 (11.103) HOLE USED FOR MOUNTING UNIT.
- UNIT MUST HAVE CLEARANCES AS FOLLOWS:  
 COIL SIDE - 42 (1067.7) FROM SOLID SURFACE.  
 PANEL SIDE - 48 (1219.1) PER NEC.  
 SOUND FAN OPTION.
- SEE TABLE COLUMN H; DIMENSION FOR STANDARD FAN OR VALUE SOUND FAN OPTION.
- CARRIER DOES NOT RECOMMEND INSTALLATION IN A PIT.
- UNIT CAN BE HANDLED USING THE FORK TRUCK LIFT POCKETS.
- WATER CONNECTIONS RECESSED 2 INCHES INSIDE UNIT. ALL WATER DRAIN AND VENTING HOLES ARE 1/4" IP.

DIMENSIONS ARE IN INCHES (MM)



# Physical data



## ENGLISH

UNIT 30RAP	011	016	018	020	025
<b>OPERATING WEIGHT (lb)</b>					
MCHX Condenser Coil, No Pump	762	800	1125	1133	1242
MCHX Condenser Coil, Single Pump (60 Hz only)	924	962	1288	1296	1405
MCHX Condenser Coil, Dual Pump (60 Hz only)	1087	1125	1450	1458	1567
Al-Cu Condenser Coil, No Pump	—	—	—	—	—
Al-Cu Condenser Coil, Single Pump (60 Hz only)	—	—	—	—	—
Al-Cu Condenser Coil, Dual Pump (60 Hz only)	—	—	—	—	—
Cu-Cu Condenser Coil, No Pump	—	—	—	—	—
Cu-Cu Condenser Coil, Single Pump (60 Hz only)	—	—	—	—	—
Cu-Cu Condenser Coil, Dual Pump (60 Hz only)	—	—	—	—	—
<b>REFRIGERANT TYPE</b>					
Total Refrigerant Charge (lb)	8.3	9.3	R-410A, EXV Controlled System		16.7
Refrigerant Charge (lb) Ckt A/Ckt B	8.3/—	9.3/—	14.6/—	15.2/—	16.7/—
Total Refrigerant Charge RTPF (lb)	—	—	—	—	—
Refrigerant Charge RTPF (lb) Ckt A/Ckt B	—	—	—	—	—
<b>COMPRESSORS</b>					
Quantity	2	2	Scroll, Hermetic		2
Speed (Rpm)	—	—	3500 (60 Hz)/2900 (50 Hz)		—
(Qty) Tons, Ckt A	(2) 6/4	(2) 9/6	(2) 9	(2) 10	(2) 13
(Qty) Tons, Ckt B	—	—	—	—	—
Oil Charge (Pt) Ckt A/Ckt B	6.4/—	9.1/—	13.8/—	13.8/—	13.8/—
No. Capacity Steps	—	—	—	—	—
Standard	3	3	2	2	2
With Hot Gas Bypass	—	—	3	3	3
Digital Compressor Option	21	21	22	22	22
Minimum Capacity Step (%)	—	—	—	—	—
Standard	40	40	50	50	50
With Hot Gas Bypass	—	—	20	24	29
Digital Compressor Option	20	20	17	17	17
Capacity (%)	—	—	—	—	—
Circuit A	100	100	100	100	100
Circuit B	—	—	—	—	—
<b>COOLER</b>					
Weight (lb) (empty)	22.4	Braze, Direct-Expansion Plate Heat Exchanger			46.3
Net Fluid Volume (gal)	0.6	31.8	31.8	40.3	—
Maximum Refrigerant Pressure (psig)	505	0.9	0.9	1.2	1.4
Maximum Water-Side Pressure	—	505	505	505	505
Without Pump(s) (psig)	300	300	300	300	300
Maximum Water-Side Pressure With Pump(s) (psig)	150	150	150	150	150
<b>CHILLER WATER CONNECTIONS (in.)</b>					
Inlet and Outlet, Victaulic (IPS Carbon Steel)* Drain (NPT)	2 1/4	2 1/4	2 1/4	2 1/4	2 1/4
<b>CONDENSER FANS</b>					
Standard Low-Sound AeroAcoustic™ Type					
Fan Speed (Rpm)					
Plastic Type, Axial, Vertical Discharge 850 (60 Hz)/710 (50 Hz)					
No. Blades...Diameter (in.)	9...30	9...30	9...30	9...30	9...30
No. Fans	1	1	2	2	2
Total Airflow 60 Hz (Cfm)	9400	9400	17,500	17,500	19,400
Total Airflow 50 Hz (Cfm)	7849	7849	14,613	14,613	16,199
Optional Value Sound Type					
Propeller Type, Axial, Vertical Discharge 1140 (60 Hz)/950 (50 Hz)					
Fan Speed (Rpm)	4...30	4...30	4...30	4...30	4...30
No. Blades...Diameter (in.)	4...30	4...30	4...30	4...30	4...30
No. Fans	1	1	2	2	2
Total Airflow 60 Hz (Cfm)	10,100	10,100	18,500	18,500	20,900
Total Airflow 50 Hz (Cfm)	8434	8434	15,448	15,448	17,452
<b>CONDENSER COILS</b>					
Novation® MCHX Aluminum Tube, Aluminum Fin					
Quantity (Ckt A/Ckt B)	1/—	1/—	1/—	1/—	1/—
Total Face Area (sq ft)	19	19	26	26	33
Maximum Refrigerant Pressure (psig)	656	656	656	656	656
<b>HYDRONIC MODULE (Optional, 60 Hz only)†</b>					
Pump	Pump(s), Strainer with Blowdown Valve, Expansion Tank, Pressure Taps, Drain and Vent Plugs, Flow Switch, and Balance Valve				
Expansion Tank Volume (gal) Total/Acceptance	Single or Dual, Centrifugal MonoCell Pump(s), 3500 Rpm. Dual pumps with check valves and isolation valves. 4.4/3.2				
<b>CHASSIS DIMENSIONS (ft - in.)</b>					
Length	5-7	5-7	7-5	7-5	7-5
Width	3-5	3-5	3-5	3-5	3-5
Height	5-6	5-6	5-6	5-6	6-6

### LEGEND

- EXV — Electronic Expansion Valve
- MCHX — Microchannel Heat Exchanger
- RTPF — Round Tube, Plate Fin (Condenser Coil)

\*Unit connection is IPS Carbon Steel piping.

†Flow switch and strainer are standard on all units, with or without hydronic package.

NOTE: 30RAP chillers with Greenspeed® intelligence are not available on unit sizes 070-150.