



Product Data

AquaSnap®
Air-Cooled Chillers
50/60 Hz
11 to 150 Nominal Tons
(39 to 528 Nominal kW)

Year: 2018
Size: 55 Tons

Model #: 30RAP05565C00100
Serial #: 0518Q61274



Operating Weight: 2,369 lbs
Shipping Weight: 3,000 lbs

30RAP018-150 Air-Cooled Chillers and
30RAP011-060 Air-Cooled Chillers with
Greenspeed® Intelligence
with Puron® Refrigerant (R-410A)

L: 7' 9"
W: 7' 5"
H: 6' 6"

Model number nomenclature



AQUASNAP® CHILLER MODEL NUMBER DESIGNATION, 30RAP011-060

30RA P 055 6 5 C 0 0 1 0 0

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



SEISMICOMPLIANT*

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

Physical data (cont)



ENGLISH (cont)

UNIT 30RAP	030	035	040	045	050	055	060	
OPERATING WEIGHT (lb)								
MCHX Condenser Coil, No Pump	1283	2163	2185	2238	2263	2369	2375	
MCHX Condenser Coil, Single Pump (60 Hz only)	1446	2507	2529	2582	2606	2713	2719	
MCHX Condenser Coil, Dual Pump (60 Hz only)	1608	2850	2872	2925	2950	3056	3062	
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)	—	—	—	—	—	—	—	
REFRIGERANT TYPE								
Total Refrigerant Charge (lb)	19.0	31.0	31.4	34.6	36.6	37.0	37.0	
Refrigerant Charge (lb) Ckt A/Ckt B	19.0/—	15.5/15.5	15.6/15.8	17.3/17.3	18.2/18.4	18.5/18.5	18.5/18.5	
Total Refrigerant Charge RTPF (lb)	—	—	—	—	—	—	—	
Refrigerant Charge RTPF (lb) Ckt A/Ckt B	—	—	—	—	—	—	—	
COMPRESSORS								
Quantity	2	4	4	4	4	4	4	
Speed (Rpm)			3500	(60 Hz)/2900 (50 Hz)				
(Qty) Tons, Ckt A	(2) 15	(2) 10	(2) 10	(2) 11	(2) 13	(2) 13	(2) 15	
(Qty) Tons, Ckt B	—	(2) 9	(2) 11	(2) 13	(2) 13	(2) 15	(2) 15	
Oil Charge (Pt) Ckt A/Ckt B	13.8/—	13.8/13.8	13.8/13.8	13.8/13.8	13.8/13.8	13.8/13.8	13.8/13.8	
No. Capacity Steps								
Standard	2	4	4	4	4	4	4	
With Hot Gas Bypass	3	5	5	5	5	5	5	
Digital Compressor Option	22	44	44	44	44	44	44	
Minimum Capacity Step (%)								
Standard	50	23	23	24	25	23	25	
With Hot Gas Bypass	32	9	11	12	14	13	16	
Digital Compressor Option	17	9	8	8	8	8	8	
Capacity (%)								
Circuit A	100	54	47	47	50	46	50	
Circuit B	—	46	53	53	50	54	50	
COOLER								
Weight (lb) (empty)	99.3	98	109	117	129	140	140	
Net Fluid Volume (gal)	2.62	3.4	3.9	4.2	4.6	5.2	5.2	
Maximum Refrigerant Pressure (psig)	565	565	565	565	565	565	565	
Maximum Water-Side Pressure Without Pump(s) (psig)	300	300	300	300	300	300	300	
Maximum Water-Side Pressure With Pump(s) (psig)	150	150	150	150	150	150	150	
CHILLER WATER CONNECTIONS (in.)								
Inlet and Outlet, Victaulic (IPS Carbon Steel)* Drain (NPT)	2 1/4	2 1/2 1/4	2 1/2 1/4	2 1/2 1/4	2 1/2 1/4	2 1/2 1/4	2 1/2 1/4	
CONDENSER FANS								
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 2	9...30 3	9...30 3	9...30 3	9...30 3	9...30 4	9...30 4	
Total Airflow 60 Hz (Cfm)	19,400	29,600	29,600	30,500	30,500	38,800	38,800	
Total Airflow 50 Hz (Cfm)	16,199	24,716	24,716	25,468	25,468	32,398	32,398	
Optional Value Sound Type			Propeller Type, Axial, Vertical Discharge 1140 (60 Hz)/950 (50 Hz)					
Fan Speed (Rpm)								
No. Blades...Diameter (in.)	4...30 2	4...30 3	4...30 3	4...30 3	4...30 3	4...30 4	4...30 4	
Total Airflow 60 Hz (Cfm)	20,900	32,000	32,000	33,300	33,300	41,800	41,800	
Total Airflow 50 Hz (Cfm)	17,452	26,720	26,720	27,805	27,805	34,903	34,903	
CONDENSER COILS								
Quantity (Ckt A/Ckt B)	1/—	1/1	1/1	1/1	1/1	1/1	1/1	
Total Face Area (sq ft)	33	53	53	66	66	66	66	
Maximum Refrigerant Pressure (psig)	656	656	656	656	656	656	656	
HYDRONIC MODULE (Optional, 60 Hz only)†								
Pump	Pump(s), Strainer with Blowdown Valve, Expansion Tank, Pressure Taps, Drain and Vent Plugs, Flow Switch, and Balance Valve							
Expansion Tank Volume (gal)	Single or Dual, Centrifugal Monocell Pump(s), 3500 Rpm. Dual pumps with check valves and isolation valves.							
Total/Acceptance	4.4/3.2						10.3/10.3	
CHASSIS DIMENSIONS (ft - in.)								
Length	7-5	7-5	7-5	7-5	7-5	7-5	7-5	
Width	3-5	7-9	7-9	7-9	7-9	7-9	7-9	
Height	6-6	5-6	5-6	6-6	6-6	6-6	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.

Base unit dimensions — 30RAP035-060

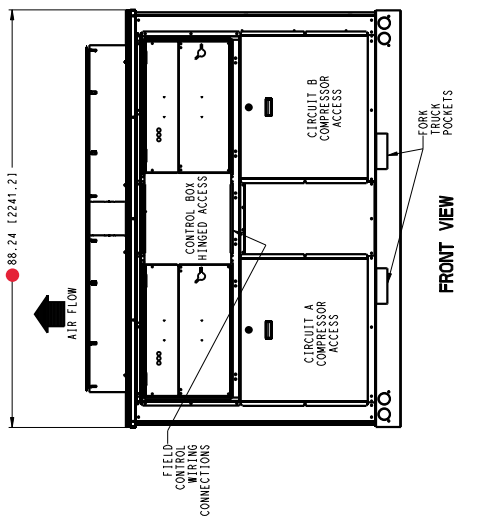
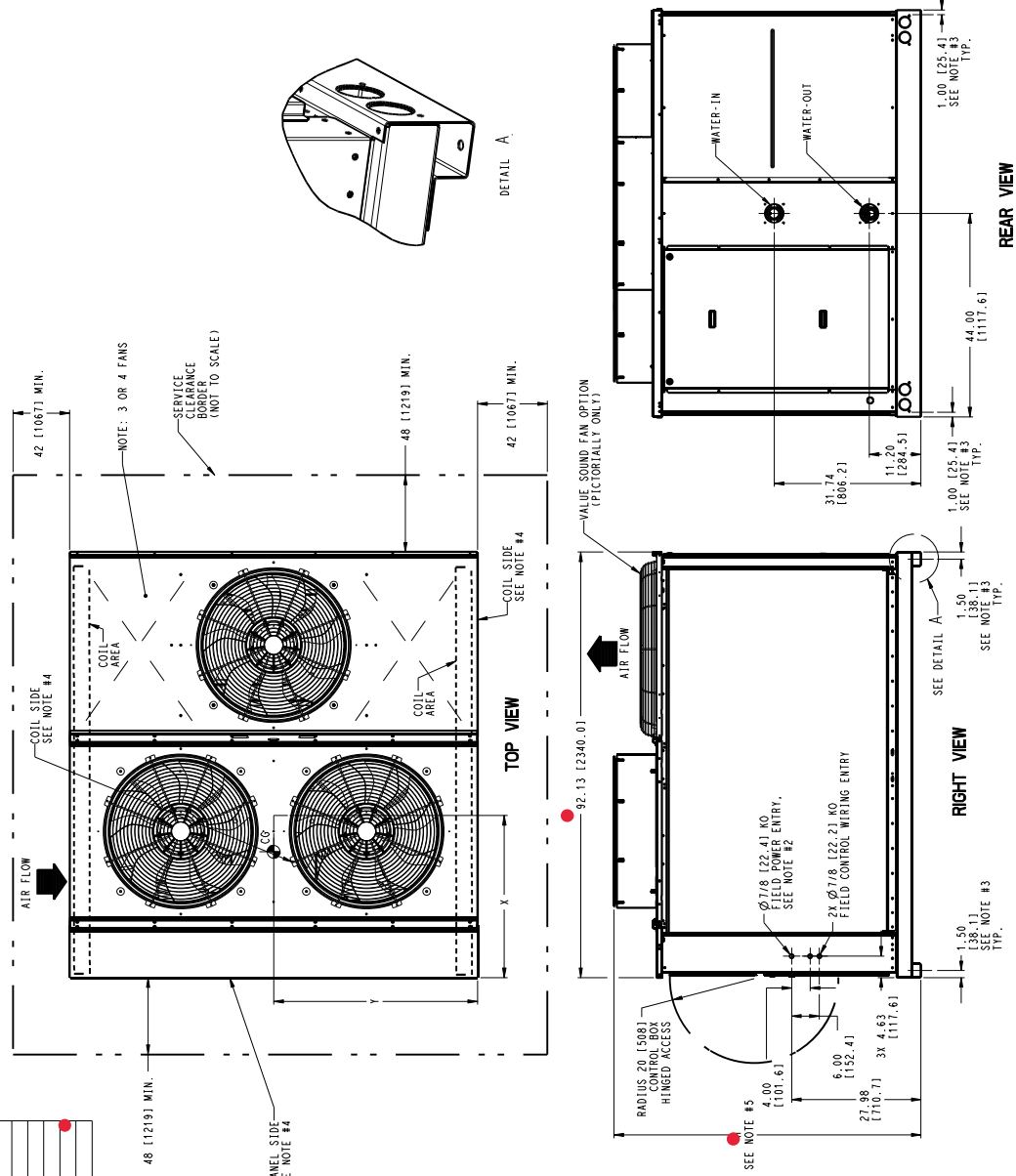
30RAP035-060 WITH FIXED SPEED FANS

UNIT	CENTER OF GRAVITY		UNIT HEIGHT		WATER CONNECTION	
	X	Y	H (STANDARD)	H (VALUE SOUND)	MECHANIC (P)	CARBON-STEEL
30RA035	36.45 (926.1)	46.08 (1170.1)	66.5 (1689)	61.0 (1549)	2-1/2"	2-1/2"
30RA040	36.24 (921.1)	44.03 (1118.1)	66.5 (1689)	61.0 (1549)	2-1/2"	2-1/2"
30RA045	36.24 (921.1)	46.15 (1172.1)	73.0 (1854)	73.0 (1854)	2-1/2"	2-1/2"
30RA050	36.00 (914.1)	44.00 (1118.1)	78.5 (1994)	73.0 (1854)	2-1/2"	2-1/2"
30RA055	36.48 (927.1)	44.60 (1133.1)	78.5 (1994)	73.0 (1854)	2-1/2"	2-1/2"
30RA060	36.50 (927.1)	44.56 (1132.1)	78.5 (1994)	73.0 (1854)	2-1/2"	2-1/2"

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 (11.10) HOLE USED FOR MOUNTING UNIT.
- UNIT MUST HAVE CLEARANCES AS FOLLOWS:
TOP - DO NOT RESTRICT FROM SOLID SURFACE.
COIL SIDE - 48 (1219) PER NEC.
PANEL SIDE - SEE NOTE #4
- SEE TABLE COLUMN H; DIMENSION FOR STANDARD FAN OR VALUE SOUND FAN OPTION.
- CARRIER DOES NOT RECOMMEND INSTALLATION IN A PIT.
- UNIT CAN BE HANDED USING THE FORK TRUCK LIFT POCKETS (MINIMUM OF 60" FORK LENGTH).
- WATER CONNECTIONS RECESSED 2-5/8 INCHES INSIDE UNIT. ALL WATER DRAIN AND VENTING HOLES ARE 1/4" NPT.

DIMENSIONS ARE IN INCHES (MM)



30RAP ELECTRICAL DATA

SINGLE POINT NO HYDRONIC PACKAGE, UNIT SIZES 011-060

UNIT 30RAP	UNIT VOLTAGE			POWER SUPPLY QTY REQD.	NO HYDRONIC PACKAGE STANDARD LOW-SOUND AEROACOUSTIC™ FAN				NO HYDRONIC PACKAGE OPTIMAL VALUE SOUND FANS			
	V-Hz (3 Ph)	Supplied			MCA	MOCP	ICF	Rec Fuse Size	MCA	MOCP	ICF	Rec Fuse Size
		Min	Max									
011	208/230-60	187	253	1	51.0	70	186.0	60	51.6	70	186.6	60
	380-60	342	418	1	27.7	35	85.4	35	27.7	35	85.4	35
	380/415-50	342	440	1	24.7	35	85.7	30	25.1	35	86.1	30
	460-60	414	506	1	24.7	35	85.7	30	25.1	35	86.1	30
	575-60	518	633	1	18.0	25	62.1	20	18.2	25	62.3	20
016	208/230-60	187	253	1	64.5	90	269.2	80	65.1	90	269.8	80
	380-60	342	418	1	36.1	50	151.1	40	36.1	50	151.1	40
	380/415-50	342	440	1	32.5	45	144.1	40	32.9	45	144.5	40
	460-60	414	506	1	32.5	45	144.1	40	32.9	45	144.5	40
	575-60	518	633	1	24.4	35	104.0	30	24.6	35	104.2	30
018	208/230-60	187	253	1	87.2	110	270.4	100	88.4	110	271.6	100
	380-60	342	418	1	51.1	70	167.0	60	51.1	70	167.0	60
	380/415-50	342	440	1	43.4	60	136.5	50	44.2	60	137.3	50
	460-60	414	506	1	43.4	60	136.5	50	44.2	60	137.3	50
	575-60	518	633	1	34.9	45	98.2	40	35.3	45	98.6	40
020	208/230-60	187	253	1	92.6	125	286.8	110	93.8	125	288.0	110
	380-60	342	418	1	61.2	80	176.5	70	61.2	80	176.5	70
	380/415-50	342	440	1	46.1	60	148.7	60	46.9	60	149.5	60
	460-60	414	506	1	46.1	60	148.7	60	46.9	60	149.5	60
	575-60	518	633	1	37.0	50	99.1	45	37.4	50	99.5	45
025	208/230-60	187	253	1	127.4	175	363.3	150	128.6	175	364.5	150
	380-60	342	418	1	68.3	90	173.7	80	68.3	90	173.7	80
	380/415-50	342	440	1	57.8	80	178.9	70	58.6	80	179.7	70
	460-60	414	506	1	57.8	80	178.9	70	58.6	80	179.7	70
	575-60	518	633	1	49.6	60	133.7	60	50.0	60	134.1	60
030	208/230-60	187	253	1	137.6	175	407.8	175	138.8	175	409.0	175
	380-60	342	418	1	84.3	110	237.8	100	84.3	110	237.8	100
	380/415-50	342	440	1	66.3	90	211.7	80	67.1	90	212.5	80
	460-60	414	506	1	66.3	90	211.7	80	67.1	90	212.5	80
	575-60	518	633	1	58.1	80	160.5	70	58.5	80	160.9	70
035	208/230-60	187	253	1	165.4	200	359.6	175	167.2	200	361.4	200
	380-60	342	418	1	103.5	125	218.9	110	103.5	125	218.9	110
	380/415-50	342	440	1	82.4	100	185.0	90	83.6	100	186.2	90
	460-60	414	506	1	82.4	100	185.0	90	83.6	100	186.2	90
	575-60	518	633	1	66.1	80	128.2	70	66.7	80	128.8	80
040	208/230-60	187	253	1	197.8	225	395.0	225	199.6	225	396.8	225
	380-60	342	418	1	112.5	125	227.8	125	112.5	125	227.8	125
	380/415-50	342	440	1	86.4	100	188.8	100	87.6	100	190.0	100
	460-60	414	506	1	86.4	100	188.8	100	87.6	100	190.0	100
	575-60	518	633	1	68.9	80	150.9	80	69.5	80	151.5	80
045	208/230-60	187	253	1	229.6	250	468.7	250	231.4	250	470.5	250
	380-60	342	418	1	119.6	125	228.2	125	119.6	125	228.8	125
	380/415-50	342	440	1	97.9	110	223.5	110	99.1	110	224.7	110
	460-60	414	506	1	97.9	110	223.5	110	99.1	110	224.7	110
	575-60	518	633	1	81.4	100	170.7	90	82.0	100	171.3	90
050	208/230-60	187	253	1	236.0	250	471.9	250	237.8	250	473.7	250
	380-60	342	418	1	126.0	150	231.4	150	126.0	150	231.4	150
	380/415-50	342	440	1	106.9	125	228.0	125	108.1	125	229.2	125
	460-60	414	506	1	106.9	125	228.0	125	108.1	125	229.2	125
	575-60	518	633	1	91.8	110	175.9	100	92.4	110	176.5	100
055	208/230-60	187	253	1	252.2	300	526.9	300	254.6	300	529.3	300
	380-60	342	418	1	145.9	175	306.5	175	145.9	175	306.5	175
	380/415-50	342	440	1	118.3	125	267.5	125	119.9	125	269.1	125
	460-60	414	506	1	118.3	125	267.5	125	119.9	125	269.1	125
	575-60	518	633	1	102.7	125	208.9	110	103.5	125	209.7	110
060	208/230-60	187	253	1	261.2	300	531.4	300	263.6	300	533.8	300
	380-60	342	418	1	160.1	175	313.6	175	160.1	175	313.6	175
	380/415-50	342	440	1	125.9	150	271.3	150	127.5	150	272.9	150
	460-60	414	506	1	125.9	150	271.3	150	127.5	150	272.9	150
	575-60	518	633	1	110.3	125	212.7	125	111.1	125	213.5	125

LEGEND

- ICF — Instantaneous Current Flow
- MCA — Minimum Circuit Amps
- MOCP — Maximum Overcurrent Protection

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/modules have single point primary power connection. (Each unit/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 and heater safety device are on.

4. Power draw control circuits include both crankcase heaters and cooler heaters (where used). Each compressor on sizes 070-090 has a crankcase heater which draws 90 watts of power at 60 Hz or 68 watts of power at 50 Hz, while each compressor on sizes 100-150 has a crankcase heater which draws 56 watts of power at 60 Hz or 42 watts of power at 50 Hz.

5. 30RAP chillers with Greenspeed® intelligence are not available on unit sizes 070-150.

