Model #: 30RAP0406DC00100
Serial #: 1616Q56350

2016
40 Ton

Product Data

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

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

Operating Weight: 2,185

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

Model number nomenclature

AQUASNAP® CHILLER MODEL NUMBER DESIGNATION, 30RAP011-060

30RA P 040 6 D 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

ASHRAE 90.1 COMPLIANT

Quality Assurance

ISO 9001: 2008-certified processes

INTERTEK ETL LISTED C US

SEISMICOMPLIANT*

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

Base unit dimensions — 30RAP011, 016

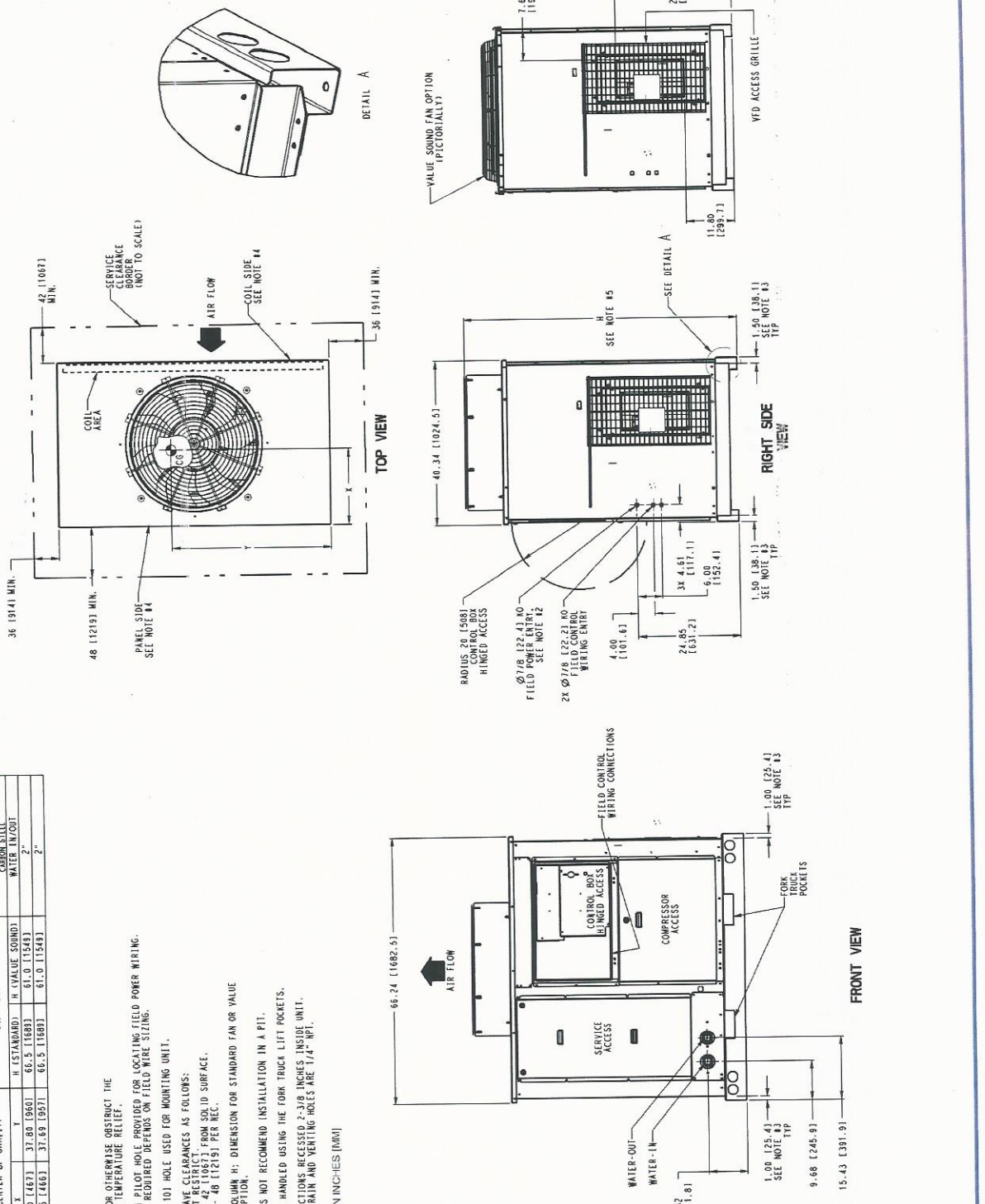
30RAP011, 016 WITH GREENSPEED® INTELLIGENCE

	UNIT	CENTER OF GRAVITY		UNIT HEIGHT		WATER CONNECTION (VICTAULIC FOR CARBON STEEL)
		X	Y	H (STANDARD)	H (VALUE SOUND)	WATER IN/OUT
STANDARD	30RAP011	18.40 [467]	37.80 [960]	66.5 [1689]	61.0 [1549]	2"
	30RAP016	18.35 [466]	37.69 [957]	66.5 [1689]	61.0 [1549]	2"

NOTES:

1. DO NOT CAP OR OTHERWISE OBSTRUCT THE LIQUID LINE TEMPERATURE RELIEF.
2. Ø1/8 [22.4] PILOT HOLE PROVIDED FOR LOCATING FIELD POWER WIRING. ACTUAL HOLE REQUIRED DEPENDS ON FIELD WIRE SIZING.
3. Ø0.437 [11.10] HOLE USED FOR MOUNTING UNIT.
4. UNIT MUST HAVE CLEARANCES AS FOLLOWS:
   TOP - DO NOT RESTRICT.
   COIL SIDE - 42 [1067] FROM SOLID SURFACE.
   PANEL SIDE - 40 [1219] PER NEC.
5. SEE TABLE COLUMN H: DIMENSION FOR STANDARD FAN OR VALUE SOUND FAN OPTION.
6. CARRIER DOES NOT RECOMMEND INSTALLATION IN A PIT.
7. UNIT CAN BE HANDLED USING THE FORK TRUCK LIFT POCKETS.
8. WATER CONNECTIONS RECESSED 2-3/8 INCHES INSIDE UNIT. ALL WATER DRAIN AND VENTING HOLES ARE 1/4" NPT.

DIMENSIONS ARE IN INCHES [MM]



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	R-410A, EXV Controlled System						
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	Scroll, Hermetic						
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	Brazed, Direct-Expansion Plate Heat Exchanger						
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)*	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Drain (NPT)	1/4	1/4	1/4	1/4	1/4	1/4	1/4
CONDENSER FANS							
Standard Low-Sound AeroAcoustic™ Type	Plastic Type, Axial, Vertical Discharge						
Fan Speed (Rpm)	850 (60 Hz)/710 (50 Hz)						
No. Blades...Diameter (in.)	9...30	9...30	9...30	9...30	9...30	9...30	9...30
No. Fans	2	3	3	3	3	4	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						
Fan Speed (Rpm)	1140 (60 Hz)/950 (50 Hz)						
No. Blades...Diameter (in.)	4...30	4...30	4...30	4...30	4...30	4...30	4...30
No. Fans	2	3	3	3	3	4	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	Novation® MCHX Aluminum Tube, Aluminum Fin						
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(s), Strainer with Blowdown Valve, Expansion Tank, Pressure Taps, Drain and Vent Plugs, Flow Switch, and Balance Valve						
Pump	Single or Dual, Centrifugal Monocell Pump(s), 3500 Rpm. Dual pumps with check valves and isolation valves.						
Expansion Tank Volume (gal) 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.