

# Model number nomenclature



30XA B 180 6 J - 0 5 R 3 C  
 30XA 3 200 6 F - 0 - - - L

30XA – AquaForce® Air-Cooled Chiller

**Design Series**

**Unit Sizes\***

080	102	140	182	240	282	350	451
082	110	142	200	242	300	352	476
090	112	160	202	260	302	400	500
092	120	162	220	262	325	401	501
100	122	180	222	280	327	450	

**Voltage**

1 – 575-3-60	6 – 460-3-60
2 – 380-3-60	7 – 200-3-60
4 – 230-3-60	

**Condenser Coil/Ambient/Low Sound Options**

- – Aluminum Fin/Copper Tube, High Ambient Temperature
- 0 – Copper Fin/Copper Tube, High Ambient Temperature
- 1 – Aluminum Pre-Coat Fin/Copper Tube, High Ambient Temperature
- 2 – Aluminum E-Coat Fin/Copper Tube, High Ambient Temperature
- 3 – Copper E-Coat Fin/Copper Tube, High Ambient Temperature
- 4 – Novation® Heat Exchanger (MCHX), High Ambient Temperature
- 5 – MCHX E-Coat, High Ambient Temperature
- 6 – Aluminum Fin/Copper Tube, High Ambient Temperature, Low Sound
- 7 – Copper Fin/Copper Tube, High Ambient Temperature, Low Sound
- 8 – Aluminum Pre-Coat Fin/Copper Tube, High Ambient Temperature, Low Sound
- 9 – Aluminum E-Coat Fin/Copper Tube, High Ambient Temperature, Low Sound
- B – Copper E-Coat Fin/Copper Tube, High Ambient Temperature, Low Sound
- C – MCHX, High Ambient Temperature, Low Sound
- D – MCHX E-Coat, High Ambient Temperature, Low Sound
- F – Aluminum Fin/Copper Tube, Standard Ambient Temperature, Low Sound
- G – Copper Fin/Copper Tube, Standard Ambient Temperature, Low Sound
- H – Aluminum Pre-Coat Fin/Copper Tube, Standard Ambient Temperature, Low Sound
- J – Aluminum E-Coated Fin/Copper Tube, Standard Ambient Temperature, Low Sound
- K – Copper E-Coat Fin/Copper Tube, Standard Ambient Temperature, Low Sound
- L – MCHX, Standard Ambient Temperature, Low Sound
- M – MCHX E-Coat, Standard Ambient Temperature, Low Sound
- N – Aluminum Fin/Copper Tube, Standard Ambient Temperature
- P – Copper Fin/Copper Tube, Standard Ambient Temperature
- Q – Aluminum Pre-Coat Fin/Copper Tube, Standard Ambient Temperature
- R – Aluminum E-Coat Fin/Copper Tube, Standard Ambient Temperature
- S – Copper E-Coat Fin/Copper Tube, Standard Ambient Temperature
- T – MCHX, Standard Ambient Temperature
- V – MCHX E-Coat, Standard Ambient Temperature

**SEE NEXT PAGE  
FOR REMAINDER  
OF MODEL NUMBER  
NOMENCLATURE**

**Cooler Options**

- – Cooler without Heater
- 0 – Cooler with Heater†
- 1 – DX Cooler with Heater, Hydronic Package
- 3 – Flooded Cooler with Heater, Minus One Pass
- 5 – Flooded Cooler with Heater, Plus One Pass
- 6 – DX Cooler without Heater, Hydronic Package
- 7 – Cooler with Heater, Full End Screen, Coil Trim Panels, Grilles†
- 8 – DX Cooler with Heater, Hydronic Package, Full End Screen, Coil Trim Panels, Grilles
- F – DX Cooler without Heater, Hydronic Package, Full End Screen, Coil Trim Panels, Grilles
- G – DX Cooler without Heater, Full End Screen, Coil Trim Panels, Grilles
- K – Flooded Cooler with Heater, Minus One Pass, Full End Screen, Coil Trim Panels, Grilles
- M – Flooded Cooler with Heater, Plus One Pass, Full End Screen, Coil Trim Panels, Grilles

**Hydronic Pump Package Options**

- – None
- 1 – Single Pump, 5 HP
- 2 – Single Pump, 7.5 HP
- 3 – Single Pump, 10 HP
- 4 – Single Pump, 15 HP
- 7 – Dual Pump, 5 HP
- 8 – Dual Pump, 7.5 HP
- B – Dual Pump, 10 HP
- C – Dual Pump, 15 HP
- G – Single Pump, 5 HP with VFD
- H – Single Pump, 7.5 HP with VFD
- J – Single Pump, 10 HP with VFD
- K – Single Pump, 15 HP with VFD
- N – Dual Pump, 5 HP with VFD
- P – Dual Pump, 7.5 HP with VFD
- Q – Dual Pump, 10 HP with VFD
- R – Dual Pump, 15 HP with VFD

**LEGEND**

- CFSP – Coil Face Shipping Protection
- DX – Direct Expansion
- EMM – Energy Management Module
- LON – Local Operating Network
- SCCR – Short Circuit Current Rating
- VFD – Variable Frequency Drive
- XL – Across-the-Line Starter

\*xx0, xx1, xx5, and xx6 size units contain flooded style evaporators.  
 xx2 and xx7 size units contain direct expansion (DX) style evaporators.  
 †Both flooded and DX cooler.  
 \*\*Available in Middle East only.

**Quality Assurance**  
 Certified to ISO 9001

0 5 R 3 C

30XA 3 200 6 F - 0

**SEE PREVIOUS PAGE  
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**Refrigeration Circuit Options**

- None
- 0 - Suction Line Insulation
- 1 - Isolation Valves
- 2 - Low Ambient Head Pressure Control
- 3 - Suction Line Insulation, Isolation Valves
- 4 - Suction Line Insulation, Low Ambient Head Pressure Control
- 5 - Isolation Valves, Low Ambient Head Pressure Control
- 6 - Suction Line Insulation, Isolation Valves, Head Pressure Control
- 7 - Minimum Load Control
- 8 - Suction Line Insulation, Minimum Load Control
- 9 - Isolation Valves, Minimum Load Control
- B - Low Ambient Head Pressure Control Operation, Minimum Load Control
- C - Suction Line Insulation, Isolation Valves, Minimum Load Control
- D - Suction Line Insulation, Head Pressure Control, Minimum Load Control
- F - Isolation Valves, Head Pressure Control, Minimum Load Control
- G - Suction Line Insulation, Isolation Valves, Head Pressure Control, Minimum Load Control
- H - None (High Ambient)\*\*
- J - Suction Line Insulation (High Ambient)\*\*
- K - Isolation Valve (High Ambient)\*\*
- M - Suction Line Insulation (High Ambient), Isolation Valve (High Ambient)\*\*
- R - Minimum Load Control (High Ambient)\*\*
- S - Suction Line Insulation (High Ambient), Minimum Load Control (High Ambient)\*\*
- T - Isolation Valve (High Ambient), Minimum Load Control (High Ambient)\*\*
- W - Suction Line Insulation (High Ambient), Minimum Load Control (High Ambient), Isolation Valve (High Ambient)\*\*

**Electrical Options**

- Single Point Power, XL, Terminal Block, No Control Transformer
- 0 - Single Point Power, Wye-Delta, Terminal Block, No Control Transformer
- 3 - Dual Point Power, XL, Terminal Block, No Control Transformer
- 4 - Dual Point Power, Wye-Delta, Terminal Block, No Control Transformer
- 7 - Single Point Power, XL, Disconnect, No Control Transformer
- 8 - Single Point Power, Wye-Delta, Disconnect, No Control Transformer
- C - Dual Point Power, XL, Disconnect, No Control Transformer
- D - Dual Point Power, Wye-Delta, Disconnect, No Control Transformer
- H - Single Point Power, XL, Terminal Block, Control Transformer
- J - Single Point Power, Wye-Delta, Terminal Block, Control Transformer
- M - Dual Point Power, XL, Terminal Block, Control Transformer
- N - Dual Point Power, Wye-Delta, Terminal Block, Control Transformer
- R - Single Point Power, XL, Disconnect, Control Transformer
- S - Single Point Power, Wye-Delta, Disconnect, Control Transformer
- W - Dual Point Power, XL, Disconnect, Control Transformer
- X - Dual Point Power, Wye-Delta, Disconnect, Control Transformer

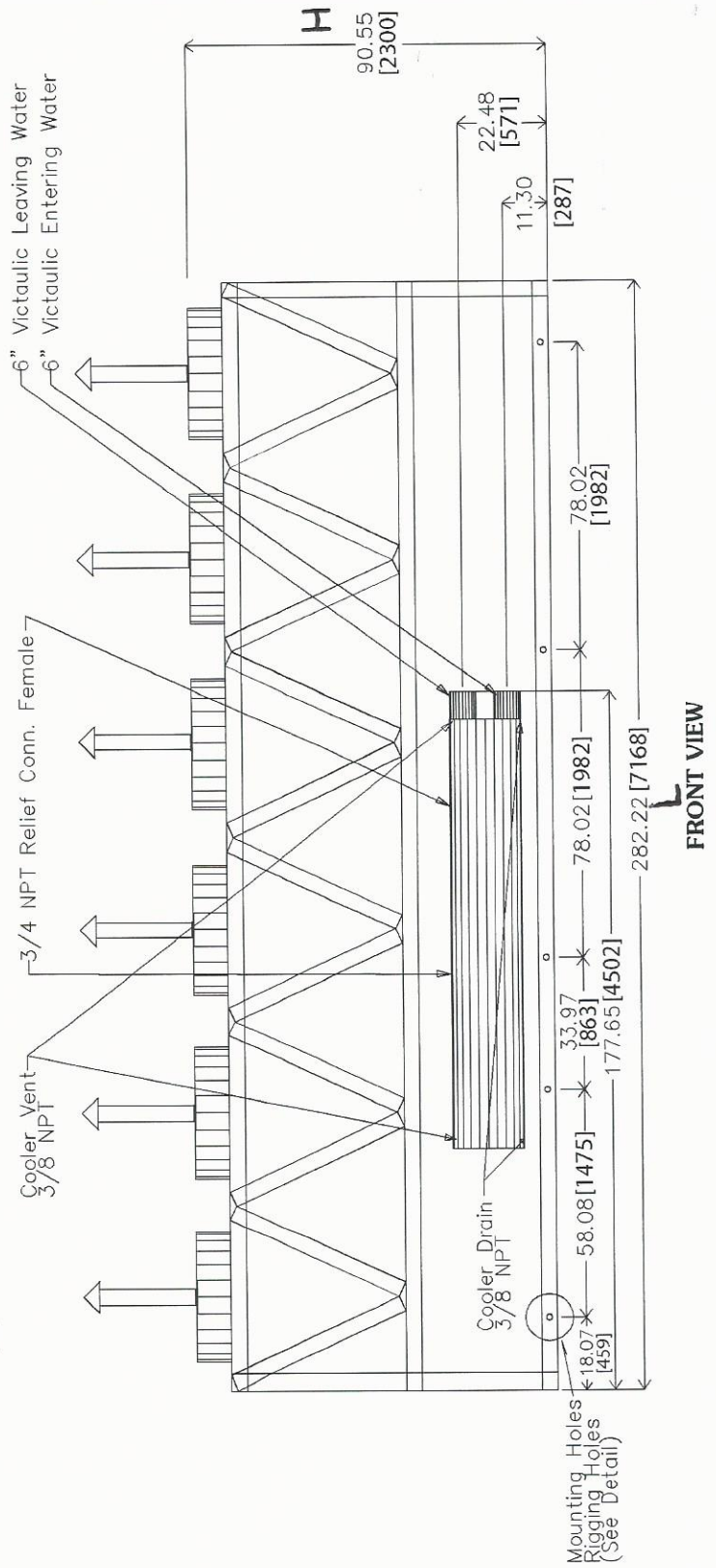
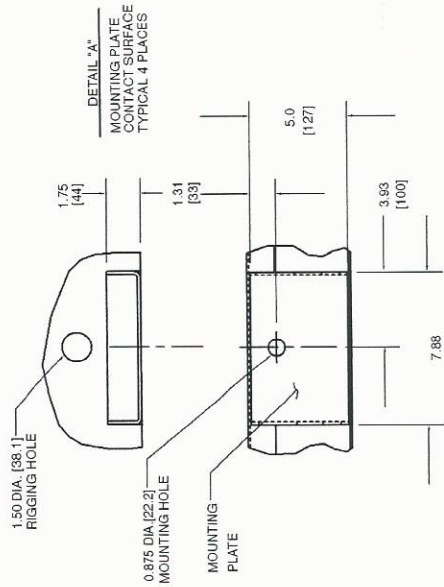
**Packaging/Security/High SCCR Options**

- 0 - Coil Face Shipping Protection (CFSP), Skid
- 1 - CFSP, Skid, Top Crate, Bag
- 3 - CFSP, Coil Trim Panels
- 4 - CFSP, Skid, Coil Trim Panels
- 5 - CFSP, Skid, Top Crate, Bag, Coil Trim Panels
- 7 - CFSP, Coil Trim Panels, Upper and Lower Grilles
- 8 - CFSP, Skid, Coil Trim Panels, Upper and Lower Grilles
- 9 - CFSP, Skid, Top Crate, Bag, Coil Trim Panels, Upper and Lower Grilles
- C - CFSP, Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards
- D - CFSP, Skid, Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards
- F - CFSP, Skid, Top Crate, Bag, Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards
- H - CFSP, Skid, High SCCR
- J - CFSP, Skid, Top Crate, Bag, High SCCR
- K - CFSP, High SCCR
- L - CFSP
- M - CFSP, Coil Trim Panels, High SCCR
- N - CFSP, Skid, Coil Trim Panels, High SCCR
- P - CFSP, Skid, Top Crate, Bag, Coil Trim Panels, High SCCR
- R - CFSP, Coil Trim Panels, Upper and Lower Grilles, High SCCR
- S - CFSP, Skid, Coil Trim Panels, Upper and Lower Grilles, High SCCR
- T - CFSP, Skid, Top Crate, Bag, Coil Trim Panels, Upper and Lower Grilles, High SCCR
- W - CFSP, Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards, High SCCR
- X - CFSP, Skid, Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards, High SCCR
- Y - CFSP, Skid, Top Crate, Bag, Coil Trim Panels, Upper and Lower Grilles, Upper Hail Guards, High SCCR

**Controls/Communication Options**

- Navigator™ Display
- 0 - Navigator Display, EMM
- 1 - Navigator Display, Service Option
- 2 - Navigator Display, EMM, Service Option
- 3 - Touch Pilot™ Display
- 4 - Touch Pilot Display, EMM
- 5 - Touch Pilot Display, Service Option
- 6 - Touch Pilot Display, EMM, Service Option
- 7 - Navigator Display, BACnet/Modbus Translator
- 8 - Navigator Display, BACnet/Modbus Translator, EMM
- 9 - Navigator Display, BACnet/Modbus Translator, Service Option
- B - Navigator Display, BACnet/Modbus Translator, EMM, Service Option
- C - Touch Pilot Display, BACnet/Modbus Translator
- D - Touch Pilot Display, BACnet/Modbus Translator, EMM
- F - Touch Pilot Display, BACnet/Modbus Translator, Service Option
- G - Touch Pilot Display, BACnet/Modbus Translator, EMM, Service Option
- H - Navigator Display, LON Translator
- J - Navigator Display, LON Translator, EMM
- K - Navigator Display, LON Translator, Service Option
- L - Navigator Display, LON Translator, EMM, Service Option
- M - Touch Pilot Display, LON Translator
- N - Touch Pilot Display, LON Translator, EMM
- P - Touch Pilot Display, LON Translator, Service Option
- Q - Touch Pilot Display, LON Translator, EMM, Service Option
- R - Navigator Display, BACnet Communication
- S - Navigator Display, BACnet Communication, EMM
- T - Navigator Display, BACnet Communication, Service Option
- V - Navigator Display, BACnet Communication, EMM, Service Option
- W - Touch Pilot Display, BACnet Communication
- X - Touch Pilot Display, BACnet Communication, EMM
- Y - Touch Pilot Display, BACnet Communication, Service Option
- Z - Touch Pilot Display, BACnet Communication, EMM, Service Option

30XA180,200 (cont)

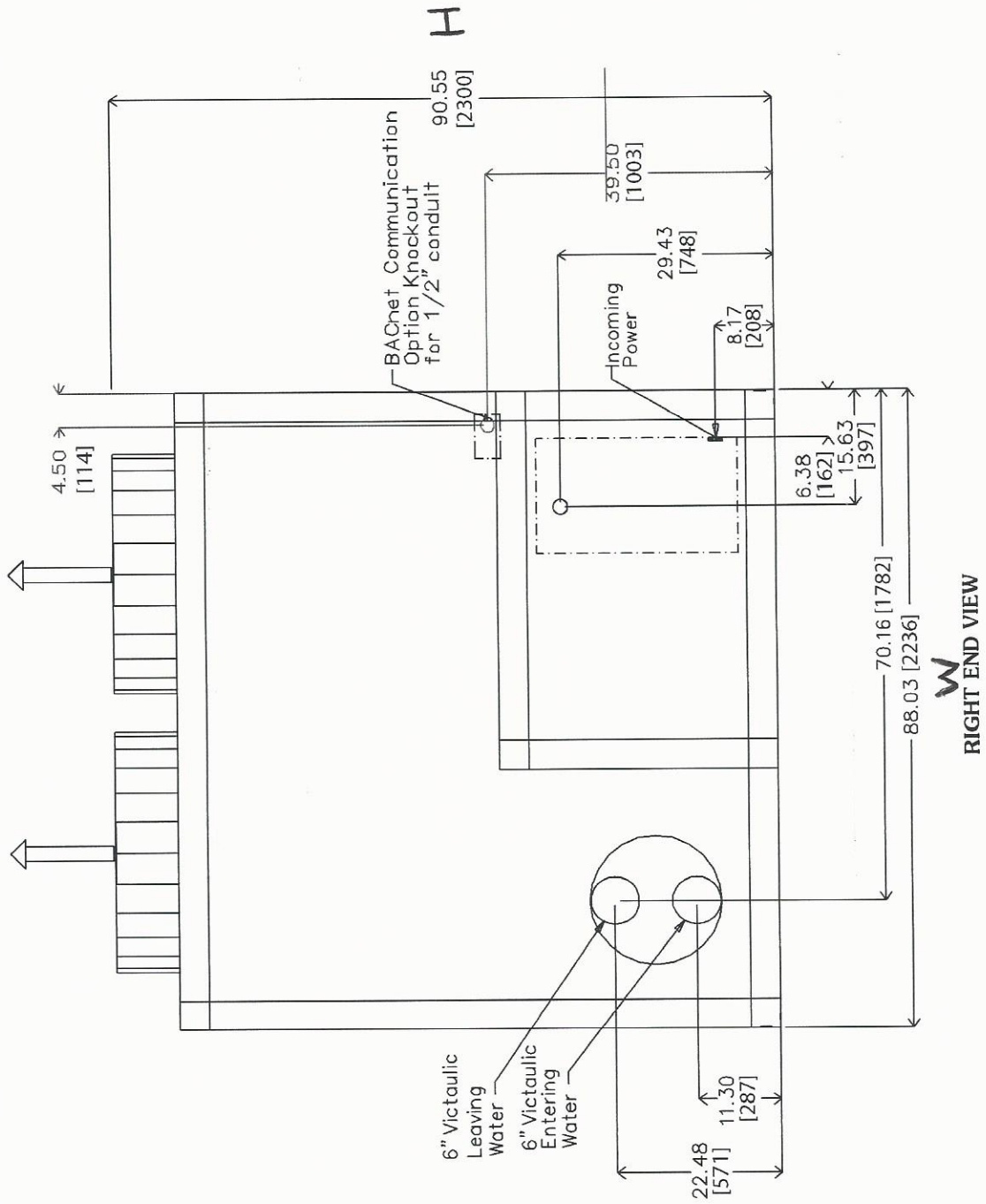




# Dimensions (cont)



30XA180,200 (cont)



# Physical data



## 30XA080-122 — ENGLISH

UNIT 30XA	080	082	090	092	100	102	110	112	120	122
<b>OPERATING WEIGHT (lb)*</b>	7,674	7,831	9,959	10,083	10,186	10,310	10,326	10,563	10,471	10,681
Al-Cu Condenser Coils	8,398	8,555	10,924	11,048	11,151	11,275	11,291	11,528	11,436	11,646
Cu-Cu Condenser Coils	7,234	7,391	9,382	9,506	9,603	9,727	9,738	9,975	9,877	10,087
MCHX Condenser Coils										
<b>REFRIGERANT TYPE</b>	R-134a, EXV Controlled System									
Refrigerant Charge (lb) Ckt A/Ckt B/Ckt C	110/110/—	83/83/—	110/110/—	83/83/—	120/120/—	93/93/—	135/120/—	108/93/—	135/135/—	108/108/—
Refrigerant Charge (lb) Ckt A/Ckt B/Ckt C (MCHX)	93.5/93.5/—	61.6/1/—	88/88/—	61.6/1/—	90/90/—	63/63/—	94/90/—	65/63/—	94/94/—	65/65/—
<b>COMPRESSORS</b>	Semi-Hermetic Twin Rotary Screws									
Quantity	2	2	2	2	2	2	2	2	2	2
Speed (rpm)	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500
(Qty) Compressor Model Number Ckt A	(1) 06TS-137†	06TS-137†	(1) 06TS-137	(1) 06TS-137	(1) 06TS-155	(1) 06TS-155	(1) 06TS-155	(1) 06TS-186	(1) 06TS-186	(1) 06TS-186
(Qty) Compressor Model Number Ckt B	(1) 06TS-137†	06TS-137†	(1) 06TS-137	(1) 06TS-137	(1) 06TS-155	(1) 06TS-155	(1) 06TS-155	(1) 06TS-186	(1) 06TS-186	(1) 06TS-186
(Qty) Compressor Model Number Ckt C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oil Charge (gal), Ckt A/Ckt B/Ckt C	5.5/5.5/—	5.5/5.5/—	5.5/5.5/—	5.5/5.5/—	5.5/5.5/—	5.5/5.5/—	5.5/5.5/—	5.5/5.5/—	5.5/5.5/—	5.5/5.5/—
Minimum Capacity Step (%)	15	15	15	15	15	15	14	14	15	15
Standard	9	9	9	9	9	9	8	8	10	10
Optional										
<b>COOLER</b>	Flooded, Shell and Tube Type	Direct Expansion Cooler	Flooded, Shell and Tube Type	Direct Expansion Cooler	Flooded, Shell and Tube Type	Direct Expansion Cooler	Flooded, Shell and Tube Type	Direct Expansion Cooler	Flooded, Shell and Tube Type	Direct Expansion Cooler
Net Fluid Volume (gal.)	16.5	31.3	18.5	31.3	18.5	31.3	20.0	48.6	23.0	48.6
Maximum Refrigerant Pressure (psig)	220	220	220	220	220	220	220	220	220	220
Maximum Water-Side Pressure without Pumps (psig)	300	300	300	300	300	300	300	300	300	300
Maximum Water-Side Pressure with Pumps (psig)	—	—	150	150	150	150	150	150	150	150
<b>WATER CONNECTIONS</b>	Shrouded Axial Type, Vertical Discharge									
Drain (NPT, in.)	3/8	3/4	3/8	3/4	3/8	3/4	3/8	3/4	3/8	3/4
Standard, Inlet and Outlet, Victaulic (in.)	5	4	5	4	5	4	5	6	5	6
Number of Passes	2	—	2	—	2	—	2	—	2	—
Minus 1 Pass, Inlet and Outlet, Victaulic (in.)	5	—	5	—	5	—	5	—	5	—
Number of Passes	1	—	1	—	1	—	1	—	1	—
Plus 1 Pass, Inlet and Outlet, Victaulic (in.)	4	—	4	—	4	—	4	—	4	—
Number of Passes	3	—	3	—	3	—	3	—	3	—
<b>CONDENSER FANS</b>	Shrouded Axial Type, Vertical Discharge									
Fan Speed (rpm) Standard/High Ambient**	850/—	850/—	850/—	850/—	850/—	850/—	850/—	850/—	850/—	850/—
No. Blades...Diameter (in.)	9...30	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)	3/3/—	3/3/—	4/4/—	4/4/—	4/4/—	4/4/—	4/4/—	4/4/—	4/4/—	4/4/—
Total Airflow (cfm) 850 rpm	55,800	55,800	74,400	74,400	74,400	74,400	74,400	74,400	74,400	74,400
Total Airflow (cfm) 1140 rpm	—	—	—	—	—	—	—	—	—	—
<b>CONDENSER COILS</b>	Shrouded Axial Type, Vertical Discharge									
No. Coils (Ckt A/Ckt B/Ckt C)	3/3/—	3/3/—	4/4/—	4/4/—	4/4/—	4/4/—	4/4/—	4/4/—	4/4/—	4/4/—
Total Face Area (sq ft)	141	141	188	188	188	188	188	188	188	188
<b>HYDRONIC MODULE (Optional)</b>	N/A	N/A	Pump(s) with pressure/temperature taps and combination valve. Single or Dual, 3600 rpm							
<b>CHASSIS DIMENSIONS (ft.-in.)</b>	11-10		11-10		7-4 <sup>3</sup> / <sub>16</sub>		15-9		7-6 <sup>7</sup> / <sub>16</sub>	

## 30XA140-220 — ENGLISH

UNIT 30XA	140	142	160	162	180	182	200	202	220	
<b>OPERATING WEIGHT (lb)*</b>	12,760	13,217	13,003	13,429	13,590	13,935	13,712	14,014	14,727	
Al-Cu Condenser Coils	13,966	14,423	14,209	14,835	15,037	15,382	15,159	15,461	16,295	
Cu-Cu Condenser Coils	12,023	12,480	12,255	12,681	12,699	13,044	12,810	13,112	13,748	
MCHX Condenser Coils										
<b>REFRIGERANT TYPE</b>	R-134a, EXV Controlled System									
Refrigerant Charge (lb) Ckt A/Ckt B/Ckt C	202/121/—	177/103/—	225/159/—	201/126/—	205/205/—	181/181/—	225/225/—	201/201/—	270/225/—	
Refrigerant Charge (lb) Ckt A/Ckt B/Ckt C (MCHX)	128/90/—	101/69/—	126/94/—	102/61/—	132/132/—	113/113/—	152/152/—	123/123/—	159.5/152/—	
<b>COMPRESSORS</b>	Semi-Hermetic Twin Rotary Screws									
Quantity	2	2	2	2	2	2	2	2	2	
Speed (rpm)	3500	3500	3500	3500	3500	3500	3500	3500	3500	
(Qty) Compressor Model Number Ckt A	(1) 06TT-266	(1) 06TT-266	(1) 06TT-301	(1) 06TT-301	(1) 06TT-266	(1) 06TT-266	(1) 06TT-301	(1) 06TT-301	(1) 06TT-356	
(Qty) Compressor Model Number Ckt B	(1) 06TS-155	(1) 06TS-155	(1) 06TS-186	(1) 06TS-186	(1) 06TT-266	(1) 06TT-266	(1) 06TT-301	(1) 06TT-301	(1) 06TT-301	
(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 (gal), Ckt A/Ckt B/Ckt C	6.25/5.5/—	6.25/5.5/—	6.25/5.5/—	6.25/5.5/—	6.25/6.25/—	6.25/6.25/—	6.25/6.25/—	6.25/6.25/—	6.75/6.25/—	
Minimum Capacity Step (%)	11	11	11	11	15	15	15	15	14	
Standard	7	7	8	8	10	10	10	10	10	
Optional										
<b>COOLER</b>	Flooded, Shell and Tube Type	Direct Expansion Cooler	Flooded, Shell and Tube Type	Direct Expansion Cooler	Flooded, Shell and Tube Type	Direct Expansion Cooler	Flooded, Shell and Tube Type	Direct Expansion Cooler	Flooded, Shell and Tube Type	
Net Fluid Volume (gal.)	25.5	63.5	27.5	63.5	31.5	73.5	34.0	73.5	37.0	
Maximum Refrigerant Pressure (psig)	220	220	220	220	220	220	220	220	220	
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	—	—	—	—	—	
<b>WATER CONNECTIONS</b>	Shrouded Axial Type, Vertical Discharge									
Drain (NPT, in.)	3/8	3/4	3/8	3/4	3/8	3/4	3/8	3/4	3/8	
Standard, Inlet and Outlet, Victaulic (in.)	5	6	5	6	6	6	6	6	6	
Number of Passes	2	—	2	—	2	—	2	—	2	
Minus 1 Pass, Inlet and Outlet, Victaulic (in.)	5	—	5	—	8	—	8	—	8	
Number of Passes	1	—	1	—	1	—	1	—	1	
Plus 1 Pass, Inlet and Outlet, Victaulic (in.)	5	—	5	—	6	—	6	—	6	
Number of Passes	3	—	3	—	3	—	3	—	3	
<b>CONDENSER FANS</b>	Shrouded Axial Type, Vertical Discharge									
Fan Speed (rpm) Standard/High Ambient**	850/1140	850/1140	850/1140	850/1140	850/1140	850/1140	850/1140	850/1140	850/1140	
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)	6/4/—	6/4/—	6/4/—	6/4/—	6/6/—	6/6/—	6/6/—	6/6/—	7/6/—	
Total Airflow (cfm) 850 rpm	93,000	93,000	93,000	93,000	111,600	111,600	111,600	111,600	120,900	
Total Airflow (cfm) 1140 rpm	124,000	124,000	124,000	124,000	148,800	148,800	148,800	148,800	161,200	
<b>CONDENSER COILS</b>	Shrouded Axial Type, Vertical Discharge									
No. Coils (Ckt A/Ckt B/Ckt C)	6/4/—	6/4/—	6/4/—	6/4/—	6/6/—	6/6/—	6/6/—	6/6/—	7/6/—	
Total Face Area (sq ft)	234	234	234	234	281	281	281	281	305	
<b>HYDRONIC MODULE (Optional)</b>	Pump(s) with pressure/temperature taps and combination valve. Single or Dual, 3600 rpm						N/A			
<b>CHASSIS DIMENSIONS (ft.-in.)</b>	19-8			7-4 <sup>3</sup> / <sub>16</sub>			23-7		27-6	

### LEGEND

Cu	—	Copper
Al	—	Aluminum
EXV	—	Electronic Expansion Valve
MCHX	—	Microchannel Heat Exchanger
N/A	—	Not Applicable

\*Operating weight includes 2 pumps on models 30XA090-162. No pumps are available on 30XA080, 30XA082, or 30XA180-501. All weights include coil trim panels. See pages 11-25 for mounting weights for units without pumps and units with single pump packages.

†30XA080,082 units do not have an economizer.  
\*The standard ambient temperature option is not available on 30XA401, 451, 475, and 501 units. The high ambient temperature option is not available on 30XA080-122 units.