



Turn to the experts

Product Data

AquaForce® Variable Speed Chillers

140 to 500 Nominal Tons
(490 to 1760 Nominal kW)



AQUAFORCE greenspeed



30XV140-500
Variable Speed Air-Cooled Liquid Chillers
with Greenspeed® Intelligence

Features/Benefits



AquaForce 30XV chillers with Greenspeed® intelligence provide best full load and part load performance in a single chassis from 140 to 500 tons¹

AquaForce chillers were designed from the ground up to meet the efficiency demands of today and the future by providing premium air-cooled chiller packages for contractors, consulting engineers, and building owners.

Tiered performance facilitates the optimal chiller selection

To best meet customer needs, Carrier provides a tiered approach for 30XV chillers. These tiers allow for selections ranging from units that provide the smallest footprint for a given capacity while providing competitive efficiency which can fully meet ASHRAE 90.1-2016 requirements, through larger units providing best-in-class efficiency. All units are provided with high-efficiency, variable-speed rotary screw compressors with Greenspeed intelligence, allowing the chillers to precisely match actual load conditions.

Part load efficiency is a major consideration for many applications. Most units are provided with variable speed condenser fans. The major advantage of using variable speed condenser fans is the resulting increase in efficiency in part load operation.

Another major advantage of using variable-speed condenser fans is the low-ambient (and high-ambient) temperature and low-sound capability associated with these devices. More details of these benefits are provided in the Application Data section as well as other locations throughout this publication.

The AquaForce® chillers with GreenSpeed® intelligence deliver superior

efficiency through the entire operating range to keep costs and demand charges down. This exceptional performance has a significant impact on energy savings and cost of ownership.

Between full and part load efficiency, footprint, unit sound, and ambient temperature considerations, the Carrier tiered approach offers a chiller to meet customer needs.

AquaForce chillers' quiet operation makes them ideal for sound-sensitive applications

Great performance is delivered in a low sound unit that will be quiet enough for any application including hospitals, schools and other sites located in residential neighborhoods. The AquaForce chiller's AeroAcoustic™ fan is almost twice as quiet per cfm as the competition. In part load operation, such as cooler weather or nighttime duty, the fans on most units operate at lower speed. This results in even quieter operation. Sound data may be obtained from the chiller selection program, and this information has a tolerance of plus or minus 3 dB.

30XV chillers with Greenspeed intelligence feature high-efficiency, variable-speed screw compressors on all units along with high-efficiency, variable-speed condenser fans on most units. The combination of these features, along with fine-tuned Carrier Controller microprocessor controls, provides premium part load efficiency to facilitate reduced utility costs over the lifespan of the chiller. Additionally, the use of variable-speed technology results in lower sound levels at part load operating conditions, and this can be very beneficial for sensitive acoustic applications.

Sound optimization

To best meet customer sound and capacity requirements, chillers may be selected with a customized software feature called sound optimization.

Built in reliability

AquaForce chillers were developed under one of the most exacting qualification programs ever used for commercial chiller products. The compressors are virtually maintenance-free and protected by an auto-adaptive control that minimizes compressor wear. The use of variable-speed condenser fans allows chillers to operate year-round from -20°F (-29°C) to 125.6°F (52°C), with a combination of options and control methods. The following features are also provided to help ensure reliable performance:

Capacity Recovery™ feature reduces capacity recovery time. With the rise in data centers and critical cooling applications, focus has increased on capacity recovery times for chiller products. Capacity recovery is defined as the time it takes to reach 100% capacity after power is restored to the chiller, given that the full cooling load is present. Capacity recovery times are the critical factor to consider in data centers due to the consistently high loads in the space and the need to maintain the temperatures.



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¹ As of the date of publication.

Carrier now offers the Capacity Recovery™ feature, a standard capacity control feature that can reduce the capacity recovery time to less than 4 minutes for the 30XV chiller with Greenspeed® intelligence (uninterruptible power supply [UPS] option required). Other manufacturers often discuss restart time without providing the details of how long it takes to reach full capacity, but the achievement of full capacity is critical to the end user. Capacity recovery is described in greater detail in the Application data section on page 129.

Standard DC link reactor is included in all drives for the fans and main compressor motors. The use of this component mitigates customer concern over electrical system harmonics, and therefore AC line reactors should not be required for applications employing 30XV chillers with Greenspeed intelligence.

Multiple independent circuits provide redundancy and greater reliability.

Electronic expansion valve (EXV) allows for precise control through all operating ranges.

Highly efficient, reliable chilled water circuit

AquaForce chillers provide a comprehensive chilled water circuit utilizing a high-efficiency shell-in-tube flooded evaporator. Units are equipped with a drainable evaporator.

Electronic thermal-dispersion flow switch is included with the evaporator. The switch is factory installed and tested and contains no moving parts for high reliability.

Environmentally balanced

Puron refrigerant (R-134a) is an HFC refrigerant that does not contain chlorine that is damaging to the ozone layer. This refrigerant is a safe, efficient, and environmentally balanced refrigerant.

Easy installation

A single chassis design provides a one-piece unit from 140 to 500 tons. The base rail is industrial-quality cold-rolled steel for maximum structural integrity. The base rail is 7 ga with RTPF (round tube, plate fin) coils or MCHX (micro-channel) coils. The zinc-dipped galvanized frame (with Magni coated screws) provides the best protection on the market for corrosion resistance. With such a structurally sound base, no perimeter base rail is needed.

Remote evaporator

A flooded, remote evaporator is available for up to 50-ft refrigerant line length by contacting application engineering. This distance can be increased per the remote evaporator recommendations by coil type.

Carrier Controller microprocessor controls for ease of use

The Carrier Controller microprocessor communicates in easy to understand English, making it as easy as possible to monitor and control each AquaForce chiller with Greenspeed intelligence while accurately maintaining fluid temperatures. Carrier Controller microprocessor controls are also available with Spanish as a standard configuration option. Carrier's 30 Series chillers' Carrier Controller microprocessor controls provide features such as chilled water temperature reset, demand limiting, compressor wear minimization and protection, temperature and pressure displays and diagnostic functions. These controls result in higher chiller reliability, simplified training and more productive service calls with correspondingly lower operational and maintenance costs.

The user interface comes with a standard 7-in. Carrier Controller microprocessor display with chiller pictorial. The Carrier Controller microprocessor display is an easy-to-use touch screen that provides simple navigation for configuration and control of AquaForce units.

The display can be used by the touch of a finger or by employing a factory-provided stylus. The Carrier Controller microprocessor display helps technicians quickly diagnose chiller issues and help prevent problems from occurring.

All AquaForce units are ready for use with Carrier Comfort Network® (CCN) devices and BACnet IP (may require additional field programming).

A BACnet¹/Modbus² Translator control as well as a LON (local operating network) Translator control is available as either a factory-installed option or a field-installed accessory. These devices, when provided with appropriate field programming, allow interface between the network and the 30XV chiller with Greenspeed intelligence.

Novation® heat exchanger technology

The Novation heat exchanger design with microchannel (MCHX) condenser coil is a robust, cost effective alternative to traditional coil design. These coils are offered coated or uncoated to match coil protection to site conditions. The e-coated version of this coil can withstand an 8,000-hour salt spray test in accordance with ASTM (American Society for Testing and Materials) B-117 Standard. The Carrier Electronic Catalog (E-CAT) can be used to determine whether corrosion protection is recommended for particular applications in coastal/marine environments. Following the input of the requested data, the E-CAT program output will advise the appropriate coil to be used.

Other factors described in "Selection Guide: Environmental Corrosion Protection" catalog number 04-581061-01 must also be considered to determine if corrosion protection is required.

Microchannel coils are sturdier than other coil types, making them easier to clean without causing damage to the coil.

Due to the compact all-aluminum design, microchannel coils will reduce overall unit operating weight by 6 to 7%. The streamlined MCHX coil design reduces refrigerant charge by up to 30%.

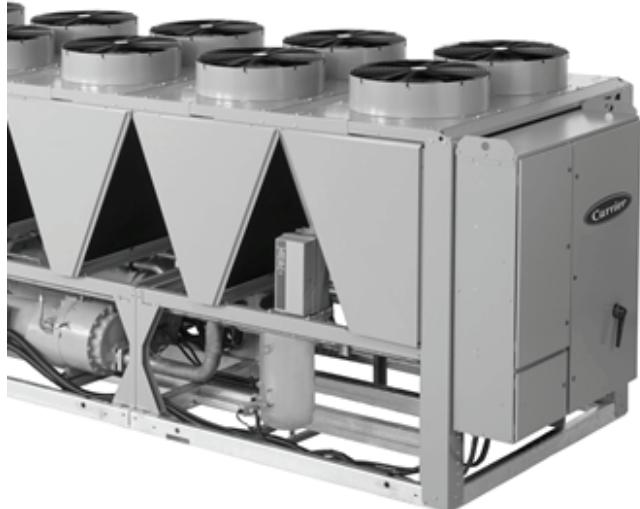
The coil is designed with rubber isolation around the powder painted coil frame to eliminate galvanic couples, which can cause corrosion due to dissimilar metals.

1. BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).
2. Modbus is a registered trademark of Schneider Electric.

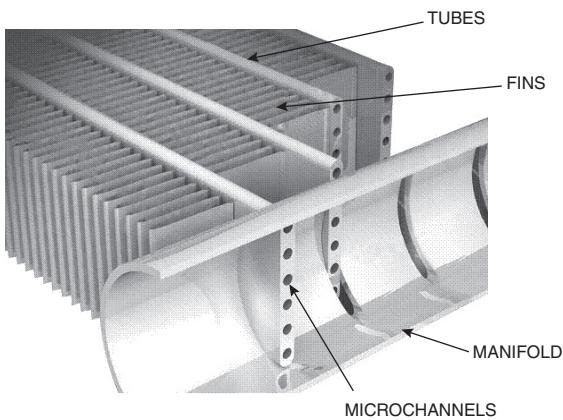
Features/Benefits (cont)



CARRIER CONTROLLER DISPLAY



VARIABLE FREQUENCY DRIVE (VFD) STANDARD ON ALL COMPRESSORS AND MOST FANS

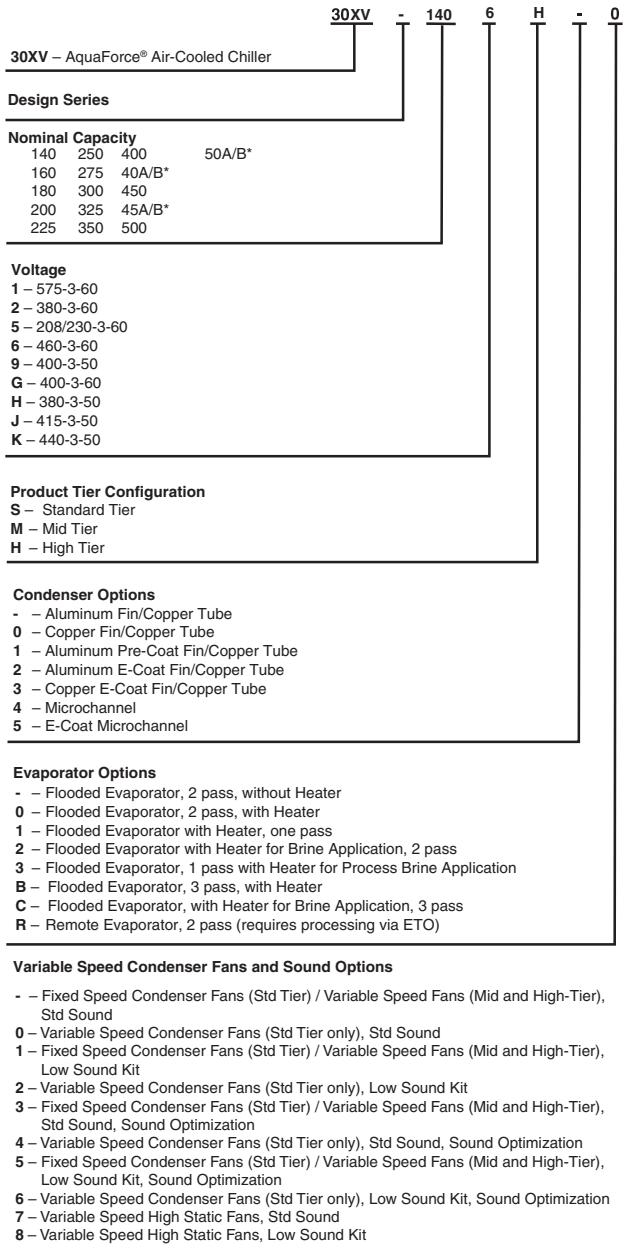


**NOVATION® HEAT EXCHANGER TECHNOLOGY
WITH MICROCHANNEL CONDENSER COILS**



LOW-NOISE AEROACOUSTIC™ FAN

Model number nomenclature



30XV	-	140	6	H	-	0	-	-	-	3
Packaging Options										
L – Coil Face Shipping Protection (CFSP)										
0 – CFSP, Coil Trim Panels										
1 – CFSP, Coil Trim Panels, Security Grilles										
2 – CFSP, Coil Trim Panels, Security Grilles, Hail Guards (End)										
3 – Full Hail Guard										
9 – CFSP, Coil Trim Panels, Skid + Bag										
B – CFSP, Coil Trim Panels, Security Grilles, Skid + Bag										
C – CFSP, Coil Trim Panels, Security Grilles, Hail Guards (End), Skid + Bag										
D – Full Hail Guard, Skid, Bag										

30XV	-	140	6	H	-	0	-	-	-	3
Controls Options										
- – 7-in. Carrier Controller Display										
0 – 7-in. Carrier Controller Display, EMM, GFI										
1 – 7-in. Carrier Controller Display, BACnet [†] (MS/TP) Translator										
2 – 7-in. Carrier Controller Display, EMM, GFI, BACnet (MS/TP) Translator										
3 – 7-in. Carrier Controller Display, LON Translator										
4 – 7-in. Carrier Controller Display, EMM, GFI, LON Translator										

30XV	-	140	6	H	-	0	-	-	-	3
Electrical Options										
- – Single Point Power, No Control Transformer, Std SCCR										
0 – Single Point Power with Disconnect, No Control Transformer, Std SCCR										
1 – Dual Point Power, No Control Transformer, Std SCCR										
2 – Dual Point Power with Disconnect, No Control Transformer, Std SCCR										
3 – Single Point Power, Control Transformer, Std SCCR										
4 – Single Point Power with Disconnect, Control Transformer, Std SCCR										
5 – Dual Point Power, Control Transformer, Std SCCR										
6 – Dual Point Power with Disconnect, Control Transformer, Std SCCR										
7 – Single Point Power, No Control Transformer, High SCCR										
8 – Single Point Power with Disconnect, No Control Transformer, High SCCR										
9 – Dual Point Power, No Control Transformer, High SCCR										
B – Dual Point Power with Disconnect, No Control Transformer, High SCCR										
C – Single Point Power, Control Transformer, High SCCR										
D – Single Point Power with Disconnect, Control Transformer, High SCCR										
G – Dual Point Power with Disconnect, Control Transformer, High SCCR										

30XV	-	140	6	H	-	0	-	-	-	3
Valve & Insulation Options										
- – No Suction Service Valve, Actuated Discharge Valves, No Suction Line Insulation										
0 – Suction Service Valve, Actuated Discharge Valves, No Suction Line Insulation										
1 – No Suction Service Valve, Manual Discharge Valves (Middle East only), No Suction Line Insulation										
2 – Suction Service Valve, Manual Discharge Valves (Middle East only), No Suction Line Insulation										
5 – No Suction Service Valve, Actuated Discharge Valves, Suction Line Insulation										
6 – Suction Service Valve, Actuated Discharge Valves, Suction Line Insulation										
7 – No Suction Service Valve, Manual Discharge Valves (Middle East only), Suction Line Insulation										
8 – Suction Service Valve, Manual Discharge Valves (Middle East only), Suction Line Insulation										

LEGEND

- CFSP** — Coil Face Shipping Protection
- EMM** — Energy Management Module
- GFI** — Ground Fault Interrupter
- LON** — Local Operating Network
- SCCR** — Short Circuit Current Rating

*40A, 45A, and 50A are split units that are shipped in two pieces (40A and 40B, 45A and 45B, 50A and 50B). When they arrive at the job-site, they are combined to form the equivalent of 400, 450, or 500 size units.

[†]BACnet is a registered trademark of ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

Quality Assurance

ISO 9001:2015-certified processes

Physical data



30XV 140T-180T, FLOODED EVAPORATOR — ENGLISH

UNIT 30XV WITH FLOODED EVAPORATOR	140			160			180		
TIER (MODEL NO. POS. 10)	S	M	H	S	M	H	S	M	H
CHASSIS DIMENSIONS (in.) (Note 1)									
Length	205.7	205.7	252.7	205.7	252.7	299.8	205.7	252.7	299.8
Width					88.0				
Height					98.9				
OPERATING WEIGHT (lb) (Note 2)									
Al-Cu Condenser Coil	—	11,680	12,718	11,694	12,930	13,949	11,896	12,982	14,090
Cu-Cu Condenser Coil	—	12,805	14,124	12,819	14,336	15,636	13,021	14,418	15,717
MCHX Condenser Coil	11,110	11,175	12,058	11,175	12,245	13,112	11,362	12,317	13,184
SHIPPING WEIGHT (lb) (Note 3)									
Al-Cu Condenser Coil	—	11,492	12,530	11,506	12,720	13,739	11,686	12,755	13,864
Cu-Cu Condenser Coil	—	12,617	13,936	12,631	14,126	15,425	12,811	14,191	15,490
MCHX Condenser Coil	10,937	10,987	11,870	10,987	12,035	12,902	11,152	12,090	12,957
REFRIGERANT TYPE (Standard Evaporator)	R-134a EXV Controlled System								
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	—	160/165	180/185	162/177	190/200	208/218	172/182	195/205	213/223
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	100/105	110/115	115/120	110/125	125/135	130/140	120/130	130/140	135/145
REFRIGERANT TYPE (Brine Evaporator)	R-134a EXV Controlled System								
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	—	177/182	195/200	187/197	205/215	223/233	192/202	210/220	228/238
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	115/120	125/130	130/135	135/145	140/150	145/155	140/150	145/155	150/160
REFRIGERANT TYPE (Process Brine Evaporator)									
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	—	—	—	—	295/305	—	—	—	—
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	—	—	—	—	220/230	—	—	—	—
COMPRESSOR	Semi-Hermetic Twin Rotary Screw								
Quantity	2	2	2	2	2	2	2	2	2
Full Load Capacity Split Ckt A / Ckt B (Note 4)	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
Minimum Capacity (%) (Note 5)	<15	<15	<15	<15	<15	<15	<15	<15	<15
EVAPORATOR									
Net Fluid Volume (gal.)	21	23	23	23	25	25	25	27	27
Maximum Refrigerant Pressure (psig)	220	220	220	220	220	220	220	220	220
Maximum Water-Side Pressure (psig)	300	300	300	300	300	300	300	300	300
WATER CONNECTIONS (Note 6)									
Drain (NPT, in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Standard (2-Pass), Inlet and Outlet, Victaulic (in.)	5	5	5	5	5	5	5	5	5
1 Pass, Inlet and Outlet, Victaulic (in.)	5	5	5	5	5	5	5	5	5
3 Pass, Inlet and Outlet, Victaulic (in.)	4	4	4	4	5	5	5	5	5
CONDENSER FANS (Note 7)	Shrouded Axial Type, Vertical Discharge								
Maximum Fan Speed (rpm)	1140	1140	1140	1140	1140	1140	1140	1140	1140
No. Fans (Ckt A/ Ckt B)	4/4	4/4	5/5	4/4	5/5	6/6	4/4	5/5	6/6
CONDENSER COILS									
No. Coils (Ckt A/ Ckt B)	4/4	4/4	5/5	4/4	5/5	6/6	4/4	5/5	6/6

LEGEND

Cu	— Copper
AI	— Aluminum
EXV	— Electronic Expansion Valve
MCHX	— Microchannel Heat Exchanger
RTPF	— Round Tube/Plate Fin

NOTES:

- More precise dimensions are available on the certified prints.
- Unit operating weight includes the base unit plus coil trim panels, but no other options or accessories are included. Selected options and accessories will slightly alter the unit weight. See pages 16-25 for the mounting weight detail. The weight shown is consistent with units employing the standard (2-pass) evaporator.

- Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The shipping weight is equal to the operating weight (indicated above) minus the weight of the water in the evaporator. The weight shown is consistent with units employing the standard (2-pass) evaporator.
- The capacity split is indicative of both compressors operating at a full load condition. The actual capacity split at most operating conditions will not match these values.
- The minimum capacity is less than 15% for units sized at full capacity. Please use the chiller selection program to determine actual minimum capacity values.
- Water connection sizes reflect the standard design, not evaporator for brine application or evaporator for process brine application. For those sizes, see the certified prints.
- Standard-tier models without the variable speed condenser fan option have a maximum speed of 840 rpm.

30XV 200T-250T, FLOODED EVAPORATOR — ENGLISH

UNIT 30XV WITH FLOODED EVAPORATOR	200			225			250		
TIER (MODEL NO. POS. 10)	S	M	H	S	M	H	S	M	H
CHASSIS DIMENSIONS (in.) (Note 1)									
Length	252.7	299.8	346.8	252.7	299.8	346.8	299.8	346.8	393.8
Width					88.0				
Height					98.9				
OPERATING WEIGHT (lb) (Note 2)									
Al-Cu Condenser Coil	13,012	14,260	15,200	13,910	14,965	16,013	16,191	17,514	18,712
Cu-Cu Condenser Coil	14,433	15,947	17,167	15,316	16,681	18,179	17,878	19,482	20,961
MCHX Condenser Coil	12,317	13,413	14,202	13,185	14,108	14,975	15,415	16,566	17,614
SHIPPING WEIGHT (lb) (Note 3)									
Al-Cu Condenser Coil	12,785	14,004	14,943	13,627	14,667	15,715	15,893	17,117	18,316
Cu-Cu Condenser Coil	14,207	15,690	16,911	15,033	16,383	17,881	17,580	19,085	20,565
MCHX Condenser Coil	12,090	13,157	13,946	12,902	13,810	14,677	15,117	16,170	17,217
REFRIGERANT TYPE (Standard Evaporator)	R-134a EXV Controlled System								
Refrigerant Charge (lb) Ckt A / Ckt B (RTPF)	195/205	213/223	231/241	253/187	276/210	294/228	238/248	266/276	284/294
Refrigerant Charge (lb) Ckt A / Ckt B (MCHX)	130/140	135/145	140/150	175/135	185/145	190/150	160/170	175/185	180/190
REFRIGERANT TYPE (Brine Evaporator)	R-134a EXV Controlled System								
Refrigerant Charge (lb) Ckt A / Ckt B (RTPF)	215/225	233/243	251/261	273/207	296/230	314/248	258/268	276/286	294/304
Refrigerant Charge (lb) Ckt A / Ckt B (MCHX)	150/160	155/165	160/170	195/155	205/165	210/170	180/190	185/195	190/200
REFRIGERANT TYPE (Process Brine Evaporator)									
Refrigerant Charge (lb) Ckt A / Ckt B (RTPF)	—	315/325	—	—	—	—	—	355/365	—
Refrigerant Charge (lb) Ckt A / Ckt B (MCHX)	—	225/235	—	—	—	—	—	250/260	—
COMPRESSOR	Semi-Hermetic Twin Rotary Screw								
Quantity	2	2	2	2	2	2	2	2	2
Full Load Capacity Split Ckt A / Ckt B (Note 4)	50/50	50/50	50/50	60/40	60/40	60/40	50/50	50/50	50/50
Minimum Capacity (%) (Note 5)	<15	<15	<15	<15	<15	<15	<15	<15	<15
EVAPORATOR									
Net Fluid Volume (gal.)	27	31	31	34	36	36	36	48	48
Maximum Refrigerant Pressure (psig)	220	220	220	220	220	220	220	220	220
Maximum Water-Side Pressure (psig)	300	300	300	300	300	300	300	300	300
WATER CONNECTIONS (Note 6)									
Drain (NPT, in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Standard (2-Pass), Inlet and Outlet, Victaulic (in.)	5	6	6	6	6	6	6	8	8
1 Pass, Inlet and Outlet, Victaulic (in.)	5	8	8	8	8	8	8	8	8
3 Pass, Inlet and Outlet, Victaulic (in.)	5	5	5	6	6	6	6	8	8
CONDENSER FANS (Note 7)	Shrouded Axial Type, Vertical Discharge								
Maximum Fan Speed (rpm)	1140	1140	1140	1140	1140	1140	1140	1140	1140
No. Fans (Ckt A / Ckt B)	5/5	6/6	7/7	6/4	7/5	8/6	6/6	7/7	8/8
CONDENSER COILS									
No. Coils (Ckt A / Ckt B)	5/5	6/6	7/7	6/4	7/5	8/6	6/6	7/7	8/8

LEGEND

Cu	— Copper
AI	— Aluminum
EXV	— Electronic Expansion Valve
MCHX	— Microchannel Heat Exchanger
RTPF	— Round Tube/Plate Fin

NOTES:

- More precise dimensions are available on the certified prints.
- Unit operating weight includes the base unit plus coil trim panels, but no other options or accessories are included. Selected options and accessories will slightly alter the unit weight. See pages 16-25 for the mounting weight detail. The weight shown is consistent with units employing the standard (2-pass) evaporator.

- Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The shipping weight is equal to the operating weight (indicated above) minus the weight of the water in the evaporator. The weight shown is consistent with units employing the standard (2-pass) evaporator.
- The capacity split is indicative of both compressors operating at a full load condition. The actual capacity split at most operating conditions will not match these values.
- The minimum capacity is less than 15% for units sized at full capacity. Please use the chiller selection program to determine actual minimum capacity values.
- Water connection sizes reflect the standard design, not evaporator for brine application or evaporator for process brine application. For those sizes, see the certified prints.
- Standard-tier models without the variable speed condenser fan option have a maximum speed of 840 rpm.

Physical data (cont)



30XV 275T-325T FLOODED EVAPORATOR — ENGLISH

UNIT 30XV WITH FLOODED EVAPORATOR	275			300			325		
TIER (MODEL NO. POS. 10)	S	M	H	S	M	H	S	M	H
CHASSIS DIMENSIONS (in.) (Note 1)									
Length	299.8	346.8	393.8	346.8	393.8	440.8	393.8	440.8	487.8
Width					88.0				
Height					98.9				
OPERATING WEIGHT (lb) (Note 2)									
Al-Cu Condenser Coil	16,660	17,582	18,600	17,582	18,679	19,670	18,679	19,757	20,832
Cu-Cu Condenser Coil	18,347	19,550	20,849	19,550	20,928	22,201	20,928	22,288	23,644
MCHX Condenser Coil	15,864	16,624	17,492	16,624	17,560	18,401	17,560	18,478	19,407
SHIPPING WEIGHT (lb) (Note 3)									
Al-Cu Condenser Coil	16,263	17,164	18,183	17,164	18,237	19,228	18,237	19,287	20,362
Cu-Cu Condenser Coil	17,950	19,132	20,432	19,132	20,486	21,759	20,486	21,818	23,174
MCHX Condenser Coil	15,467	16,207	17,074	16,207	17,118	17,959	17,118	18,008	18,937
REFRIGERANT TYPE (Standard Evaporator)					R-134a EXV Controlled System				
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	248/258	271/281	289/299	271/281	294/304	312/322	294/304	317/327	335/340
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	170/180	180/190	185/195	180/190	190/200	195/205	190/200	200/210	205/210
REFRIGERANT TYPE (Brine Evaporator)					R-134a EXV Controlled System				
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	258/268	281/291	299/309	291/301	314/324	332/342	314/324	337/347	355/360
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	180/190	190/200	195/205	200/210	210/220	215/225	210/220	220/230	225/230
REFRIGERANT TYPE (Process Brine Evaporator)									
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	—	—	—	—	375/385	—	—	—	—
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	—	—	—	—	255/265	—	—	—	—
COMPRESSOR					Semi-Hermetic Twin Rotary Screw				
Quantity	2	2	2	2	2	2	2	2	2
Full Load Capacity Split Ckt A / Ckt B (Note 4)	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
Minimum Capacity (%) (Note 5)	<15	<15	<15	<15	<15	<15	<15	<15	<15
EVAPORATOR									
Net Fluid Volume (gal.)	48	50	50	50	53	53	53	56	56
Maximum Refrigerant Pressure (psig)	220	220	220	220	220	220	220	220	220
Maximum Water-Side Pressure (psig)	300	300	300	300	300	300	300	300	300
WATER CONNECTIONS (Note 6)									
Drain (NPT, in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Standard (2-Pass), Inlet and Outlet, Victaulic (in.)	8	8	8	8	8	8	8	8	8
1 Pass, Inlet and Outlet, Victaulic (in.)	8	8	8	8	8	8	8	8	8
3 Pass, Inlet and Outlet, Victaulic (in.)	8	8	8	6	6	6	6	8	8
CONDENSER FANS (Note 7)					Shrouded Axial Type, Vertical Discharge				
Maximum Fan Speed (rpm)	1140	1140	1140	1140	1140	1140	1140	1140	1140
No. Fans (Ckt A/ Ckt B)	6/6	7/7	8/8	7/7	8/8	9/9	8/8	9/9	10/10
CONDENSER COILS									
No. Coils (Ckt A/ Ckt B)	6/6	7/7	8/8	7/7	8/8	9/9	8/8	9/9	10/10

LEGEND

Cu — Copper
AI — Aluminum
EXV — Electronic Expansion Valve
MCHX — Microchannel Heat Exchanger
RTPF — Round Tube/Plate Fin

NOTES:

- More precise dimensions are available on the certified prints.
- Unit operating weight includes the base unit plus coil trim panels, but no other options or accessories are included. Selected options and accessories will slightly alter the unit weight. See pages 16-25 for the mounting weight detail. The weight shown is consistent with units employing the standard (2-pass) evaporator.

- Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The shipping weight is equal to the operating weight (indicated above) minus the weight of the water in the evaporator. The weight shown is consistent with units employing the standard (2-pass) evaporator.
- The capacity split is indicative of both compressors operating at a full load condition. The actual capacity split at most operating conditions will not match these values.
- The minimum capacity is less than 15% for units sized at full capacity. Please use the chiller selection program to determine actual minimum capacity values.
- Water connection sizes reflect the standard design, not evaporator for brine application or evaporator for process brine application. For those sizes, see the certified prints.
- Standard-tier models without the variable speed condenser fan option have a maximum speed of 840 rpm.

30XV 350T-500T FLOODED EVAPORATOR — ENGLISH

UNIT 30XV WITH FLOODED EVAPORATOR	350			400			450			500	
TIER (MODEL NO. POS. 10)	S	M	H	S	M	H	S	M	H	S	M
CHASSIS DIMENSIONS (in.) (Note 1)											
Length	405.7	452.7	499.7	452.7	499.7	546.7	499.7	546.7	593.7	546.7	593.7
Width						88.0					
Height						98.9					
OPERATING WEIGHT (lb) (Note 2)											
Al-Cu Condenser Coil	21,746	23,580	24,510	25,010	26,140	27,069	26,140	27,938	29,012	27,938	29,247
Cu-Cu Condenser Coil	23,995	26,111	27,321	27,540	28,951	30,162	28,951	31,030	—	31,030	—
MCHX Condenser Coil	20,672	22,326	23,104	23,760	24,729	25,507	24,729	26,356	27,221	26,356	27,337
SHIPPING WEIGHT (lb) (Note 3)											
Al-Cu Condenser Coil	21,232	23,034	23,963	24,463	25,567	26,496	25,567	27,241	28,315	27,241	28,510
Cu-Cu Condenser Coil	23,481	25,564	26,774	26,993	28,379	29,589	28,379	30,334	—	30,334	—
MCHX Condenser Coil	20,158	21,779	22,557	23,213	24,156	24,935	24,156	25,660	26,525	25,660	26,600
REFRIGERANT TYPE (Standard Evaporator)	R-134a EXV Controlled System										
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	367/286	405/329	423/347	382/382	405/405	423/423	405/405	438/438	456/456	438/438	481/481
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	250/195	275/225	280/230	265/265	275/275	280/280	275/275	295/295	300/300	295/295	325/325
REFRIGERANT TYPE (Brine Evaporator)	R-134a EXV Controlled System										
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	387/326	405/344	423/362	392/392	410/410	428/428	425/425	443/443	461/461	458/458	476/476
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	270/235	275/240	280/245	275/275	280/280	285/285	295/295	300/300	305/305	315/315	320/320
REFRIGERANT TYPE (Process Brine Evaporator)											
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	—	—	—	—	455/520	—	—	—	—	—	524/595
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	—	—	—	—	305/370	—	—	—	—	—	344/415
COMPRESSOR	Semi-Hermetic Twin Rotary Screw										
Quantity	2	2	2	2	2	2	2	2	2	2	2
Full Load Capacity Split Ckt A / Ckt B (Note 4)	60/40	60/40	60/40	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
Minimum Capacity (%) (Note 5)	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15
EVAPORATOR											
Net Fluid Volume (gal.)	62	66	66	66	69	69	69	83	83	83	88
Maximum Refrigerant Pressure (psig)	220	220	220	220	220	220	220	220	220	220	220
Maximum Water-Side Pressure (psig)	300	300	300	300	300	300	300	300	300	300	300
WATER CONNECTIONS (Note 6)											
Drain (NPT, in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Standard (2-pass), Inlet and Outlet, Victaulic (in.)	8	8	8	8	8	8	8	8	8	8	8
1 Pass, Inlet and Outlet, Victaulic (in.)	8	8	8	8	8	8	8	8	8	8	8
3 Pass, Inlet and Outlet, Victaulic (in.)	8	6	6	6	6	6	6	6	6	6	6
CONDENSER FANS (Note 7)	Shrouded Axial Type, Vertical Discharge										
Maximum Fan Speed (rpm)	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
No. Fans (Ckt A/ Ckt B)	9/7	10/8	11/9	9/9	10/10	11/11	10/10	11/11	12/12	11/11	12/12
CONDENSER COILS											
No. Coils (Ckt A/ Ckt B)	9/7	10/8	11/9	9/9	10/10	11/11	10/10	11/11	12/12	11/11	12/12

LEGEND

Cu	— Copper
Al	— Aluminum
EXV	— Electronic Expansion Valve
MCHX	— Microchannel Heat Exchanger
RTPF	— Round Tube/Plate Fin

NOTES:

- More precise dimensions are available on the certified prints.
- Unit operating weight includes the base unit plus coil trim panels, but no other options or accessories are included. Selected options and accessories will slightly alter the unit weight. See pages 16-25 for the mounting weight detail. The weight shown is consistent with units employing the standard (2-pass) evaporator.

- Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The shipping weight is equal to the operating weight (indicated above) minus the weight of the water in the evaporator. The weight shown is consistent with units employing the standard (2-pass) evaporator.
- The capacity split is indicative of both compressors operating at a full load condition. The actual capacity split at most operating conditions will not match these values.
- The minimum capacity is less than 15% for units sized at full capacity. Please use the chiller selection program to determine actual minimum capacity values.
- Water connection sizes reflect the standard design, not evaporator for brine application or evaporator for process brine application. For those sizes, see the certified prints.
- Standard-tier models without the variable speed condenser fan option have a maximum speed of 840 rpm.

Physical data (cont)



30XV 140T-180T, FLOODED EVAPORATOR — SI

UNIT 30XV WITH FLOODED EVAPORATOR	140			160			180		
TIER (MODEL NO. POS. 10)	S	M	H	S	M	H	S	M	H
CHASSIS DIMENSIONS (mm) (Note 1)									
Length	5226	5226	6420	5226	6420	7614	5226	6420	7614
Width			2236						
Height			2513						
OPERATING WEIGHT (kg) (Note 2)									
Al-Cu Condenser Coil	—	5298	5769	5304	5865	6327	5396	5889	6391
Cu-Cu Condenser Coil	—	5808	6406	5814	6503	7092	5906	6540	7129
MCHX Condenser Coil	5039	5069	5469	5069	5554	5948	5154	5587	5980
SHIPPING WEIGHT (kg) (Note 3)									
Al-Cu Condenser Coil	—	5213	5684	5219	5770	6232	5301	5786	6288
Cu-Cu Condenser Coil	—	5723	6321	5729	6407	6997	5811	6437	7026
MCHX Condenser Coil	4961	4984	5384	4984	5459	5852	5058	5484	5877
REFRIGERANT TYPE (Standard Evaporator)	R-134a EXV Controlled System								
Refrigerant Charge (kg) Ckt A / Ckt B (RTPF)	—	73/75	82/84	74/80	86/91	95/99	78/83	88/93	97/101
Refrigerant Charge (kg) Ckt A / Ckt B (MCHX)	45/48	50/52	52/55	50/57	57/61	59/64	55/59	59/64	61/66
REFRIGERANT TYPE (Brine Evaporator)	R-134a EXV Controlled System								
Refrigerant Charge (kg) Ckt A / Ckt B (RTPF)	—	80/83	88/91	85/90	93/98	101/106	87/92	95/100	104/108
Refrigerant Charge (kg) Ckt A / Ckt B (MCHX)	52/54	57/59	59/61	61/66	64/68	66/70	64/68	66/70	68/73
REFRIGERANT TYPE (Process Brine Evaporator)									
Refrigerant Charge (kg) Ckt A / Ckt B (RTPF)	—	—	—	—	133/138	—	—	—	—
Refrigerant Charge (kg) Ckt A / Ckt B (MCHX)	—	—	—	—	99/104	—	—	—	—
COMPRESSOR	Semi-Hermetic Twin Rotary Screw								
Quantity	2	2	2	2	2	2	2	2	2
Full Load Capacity Split Ckt A / Ckt B (Note 4)	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
Minimum Capacity (%) (Note 5)	<15	<15	<15	<15	<15	<15	<15	<15	<15
EVAPORATOR									
Net Fluid Volume (L)	78	85	85	85	95	95	95	103	103
Maximum Refrigerant Pressure (kPa)	1517	1517	1517	1517	1517	1517	1517	1517	1517
Maximum Water-Side Pressure (kPa)	2068	2068	2068	2068	2068	2068	2068	2068	2068
WATER CONNECTIONS (Note 6)									
Drain (NPT, in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Standard (2-pass), Inlet and Outlet, Victaulic (in.)	5	5	5	5	5	5	5	5	5
1 Pass, Inlet and Outlet, Victaulic (in.)	5	5	5	5	5	5	5	5	5
3 Pass, Inlet and Outlet, Victaulic (in.)	4	4	4	4	5	5	5	5	5
CONDENSER FANS (Note 7)	Shrouded Axial Type, Vertical Discharge								
Maximum Fan Speed (r/s)	19	19	19	19	19	19	19	19	19
No. Fans (Ckt A / Ckt B)	4/4	4/4	5/5	4/4	5/5	6/6	4/4	5/5	6/6
CONDENSER COILS									
No. Coils (Ckt A / Ckt B)	4/4	4/4	5/5	4/4	5/5	6/6	4/4	5/5	6/6

LEGEND

Cu — Copper
AI — Aluminum
EXV — Electronic Expansion Valve
MCHX — Microchannel Heat Exchanger
RTPF — Round Tube/Plate Fin

NOTES:

- More precise dimensions are available on the certified prints.
- Unit operating weight includes the base unit plus coil trim panels, but no other options or accessories are included. Selected options and accessories will slightly alter the unit weight. See pages 16-25 for the mounting weight detail. The weight shown is consistent with units employing the standard (2-pass) evaporator.

- Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The shipping weight is equal to the operating weight (indicated above) minus the weight of the water in the evaporator. The weight shown is consistent with units employing the standard (2-pass) evaporator.
- The capacity split is indicative of both compressors operating at a full load condition. The actual capacity split at most operating conditions will not match these values.
- The minimum capacity is less than 15% for units sized at full capacity. Please use the chiller selection program to determine actual minimum capacity values.
- Water connection sizes reflect the standard design, not evaporator for brine application or evaporator for process brine application. For those sizes, see the certified prints.
- Standard-tier models without the variable speed condenser fan option have a maximum speed of 14 r/s.

30XV 200T-250T, FLOODED EVAPORATOR — SI

UNIT 30XV WITH FLOODED EVAPORATOR	200			225			250		
TIER (MODEL NO. POS. 10)	S	M	H	S	M	H	S	M	H
CHASSIS DIMENSIONS (mm) (Note 1)									
Length	6420	7614	8808	6420	7614	8808	7614	8808	10 002
Width					2236				
Height					2513				
OPERATING WEIGHT (kg) (Note 2)									
Al-Cu Condenser Coil	5902	6468	6894	6310	6788	7263	7344	7944	8488
Cu-Cu Condenser Coil	6547	7233	7787	6947	7566	8246	8109	8837	9508
MCHX Condenser Coil	5587	6084	6442	5981	6399	6793	6992	7514	7989
SHIPPING WEIGHT (kg) (Note 3)									
Al-Cu Condenser Coil	5799	6352	6778	6181	6653	7128	7209	7764	8308
Cu-Cu Condenser Coil	6444	7117	7671	6819	7431	8110	7974	8657	9328
MCHX Condenser Coil	5484	5968	6326	5852	6264	6657	6857	7334	7810
REFRIGERANT TYPE (Standard Evaporator)							R-134a EXV Controlled System		
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	89/93	97/101	105/110	115/85	125/95	134/103	108/113	121/125	129/134
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	59/64	61/66	64/68	80/61	84/66	86/68	73/77	80/84	82/86
REFRIGERANT TYPE (Brine Evaporator)							R-134a EXV Controlled System		
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	98/102	106/110	114/119	124/94	134/105	143/113	117/122	125/130	134/138
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	68/73	70/75	73/77	89/70	93/75	95/77	82/86	84/89	86/91
REFRIGERANT TYPE (Process Brine Evaporator)									
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	—	142/147	—	—	—	—	—	161/165	—
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	—	102/106	—	—	—	—	—	113/117	—
COMPRESSOR							Semi-Hermetic Twin Rotary Screw		
Quantity	2	2	2	2	2	2	2	2	2
Full Load Capacity Split Ckt A / Ckt B (Note 4)	50/50	50/50	50/50	60/40	60/40	60/40	50/50	50/50	50/50
Minimum Capacity (%) (Note 5)	<15	<15	<15	<15	<15	<15	<15	<15	<15
EVAPORATOR									
Net Fluid Volume (L)	103	116	116	128	135	135	135	180	180
Maximum Refrigerant Pressure (kPa)	1517	1517	1517	1517	1517	1517	1517	1517	1517
Maximum Water-Side Pressure (kPa)	2068	2068	2068	2068	2068	2068	2068	2068	2068
WATER CONNECTIONS (Note 6)									
Drain (NPT, in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Standard (2-pass), Inlet and Outlet, Victaulic (in.)	5	6	6	6	6	6	6	8	8
1 Pass, Inlet and Outlet, Victaulic (in.)	5	8	8	8	8	8	8	8	8
3 Pass, Inlet and Outlet, Victaulic (in.)	5	5	5	6	6	6	6	8	8
CONDENSER FANS (Note 7)							Shrouded Axial Type, Vertical Discharge		
Maximum Fan Speed (r/s)	19	19	19	19	19	19	19	19	19
No. Fans (Ckt A/ Ckt B)	5/5	6/6	7/7	6/4	7/5	8/6	6/6	7/7	8/8
CONDENSER COILS									
No. Coils (Ckt A/ Ckt B)	5/5	6/6	7/7	6/4	7/5	8/6	6/6	7/7	8/8

LEGEND

Cu — Copper
AI — Aluminum
EXV — Electronic Expansion Valve
MCHX — Microchannel Heat Exchanger
RTPF — Round Tube/Plate Fin

NOTES:

- More precise dimensions are available on the certified prints.
- Unit operating weight includes the base unit plus coil trim panels, but no other options or accessories are included. Selected options and accessories will slightly alter the unit weight. See pages 16-25 for the mounting weight detail. The weight shown is consistent with units employing the standard (2-pass) evaporator.

- Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The shipping weight is equal to the operating weight (indicated above) minus the weight of the water in the evaporator. The weight shown is consistent with units employing the standard (2-pass) evaporator.
- The capacity split is indicative of both compressors operating at a full load condition. The actual capacity split at most operating conditions will not match these values.
- The minimum capacity is less than 15% for units sized at full capacity. Please use the chiller selection program to determine actual minimum capacity values.
- Water connection sizes reflect the standard design, not evaporator for brine application or evaporator for process brine application. For those sizes, see the certified prints.
- Standard-tier models without the variable speed condenser fan option have a maximum speed of 14 r/s.

Physical data (cont)



30XV 275T-325T FLOODED EVAPORATOR — SI

UNIT 30XV WITH FLOODED EVAPORATOR	275			300			325		
TIER (MODEL NO. POS. 10)	S	M	H	S	M	H	S	M	H
CHASSIS DIMENSIONS (mm) (Note 1)									
Length	7614	8808	10002	8808	10002	11196	10002	11196	12390
Width					2236				
Height					2513				
OPERATING WEIGHT (kg) (Note 2)									
Al-Cu Condenser Coil	7557	7975	8437	7975	8473	8922	8473	8962	9449
Cu-Cu Condenser Coil	8322	8868	9457	8868	9493	10 070	9493	10 109	10 725
MCHX Condenser Coil	7196	7541	7934	7541	7965	8346	7965	8381	8803
SHIPPING WEIGHT (kg) (Note 3)									
Al-Cu Condenser Coil	7377	7786	8248	7786	8272	8722	8272	8749	9236
Cu-Cu Condenser Coil	8142	8678	9268	8678	9292	9870	9292	9896	10 511
MCHX Condenser Coil	7016	7351	7745	7351	7765	8146	7765	8168	8590
REFRIGERANT TYPE (Standard Evaporator)	R-134a EXV Controlled System								
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	113/117 77/82	123/128 82/86	131/136 84/89	123/128 82/86	134/138 86/91	142/146 89/93	134/138 86/91	144/149 91/95	152/155 93/95
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)									
REFRIGERANT TYPE (Brine Evaporator)	R-134a EXV Controlled System								
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	117/122 82/86	128/132 86/91	136/140 89/93	132/137 91/95	143/147 95/100	151/155 98/102	143/147 95/100	153/158 100/105	161/164 102/105
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)									
REFRIGERANT TYPE (Process Brine Evaporator)									
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	—	—	—	—	170/174	—	—	—	—
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	—	—	—	—	115/120	—	—	—	—
COMPRESSOR	Semi-Hermetic Twin Rotary Screw								
Quantity	2	2	2	2	2	2	2	2	2
Full Load Capacity Split Ckt A / Ckt B (Note 4)	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
Minimum Capacity (%) (Note 5)	<15	<15	<15	<15	<15	<15	<15	<15	<15
EVAPORATOR									
Net Fluid Volume (L)	180	189	189	189	201	201	201	213	213
Maximum Refrigerant Pressure (kPa)	1517	1517	1517	1517	1517	1517	1517	1517	1517
Maximum Water-Side Pressure (kPa)	2068	2068	2068	2068	2068	2068	2068	2068	2068
WATER CONNECTIONS (Note 6)									
Drain (NPT, in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Standard (2-pass), Inlet and Outlet, Victaulic (in.)	8	8	8	8	8	8	8	8	8
1 Pass, Inlet and Outlet, Victaulic (in.)	8	8	8	8	8	8	8	8	8
3 Pass, Inlet and Outlet, Victaulic (in.)	8	8	8	6	6	6	6	8	8
CONDENSER FANS (Note 7)	Shrouded Axial Type, Vertical Discharge								
Maximum Fan Speed (r/s)	19	19	19	19	19	19	19	19	19
No. Fans (Ckt A/ Ckt B)	6/6	7/7	8/8	7/7	8/8	9/9	8/8	9/9	10/10
CONDENSER COILS									
No. Coils (Ckt A/ Ckt B)	6/6	7/7	8/8	7/7	8/8	9/9	8/8	9/9	10/10

LEGEND

Cu — Copper
AI — Aluminum
EXV — Electronic Expansion Valve
MCHX — Microchannel Heat Exchanger
RTPF — Round Tube/Plate Fin

NOTES:

- More precise dimensions are available on the certified prints.
- Unit operating weight includes the base unit plus coil trim panels, but no other options or accessories are included. Selected options and accessories will slightly alter the unit weight. See pages 16-25 for the mounting weight detail. The weight shown is consistent with units employing the standard (2-pass) evaporator.

- Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The shipping weight is equal to the operating weight (indicated above) minus the weight of the water in the evaporator. The weight shown is consistent with units employing the standard (2-pass) evaporator.
- The capacity split is indicative of both compressors operating at a full load condition. The actual capacity split at most operating conditions will not match these values.
- The minimum capacity is less than 15% for units sized at full capacity. Please use the chiller selection program to determine actual minimum capacity values.
- Water connection sizes reflect the standard design, not evaporator for brine application or evaporator for process brine application. For those sizes, see the certified prints.
- Standard-tier models without the variable speed condenser fan option have a maximum speed of 14 r/s.

30XV 350T-500T FLOODED EVAPORATOR — SI

UNIT 30XV WITH FLOODED EVAPORATOR	350			400			450			500	
TIER (MODEL NO. POS. 10)	S	M	H	S	M	H	S	M	H	S	M
CHASSIS DIMENSIONS (mm) (Note 1)											
Length	10304	11498	12692	11498	12692	13886 2236 2513	12692	13886	15080	13886	15080
Width											
Height											
OPERATING WEIGHT (kg) (Note 2)											
Al-Cu Condenser Coil	9864	10 696	11 117	11 344	11 857	12 278	11 857	12 672	13 159	12 672	13 266
Cu-Cu Condenser Coil	10 884	11 844	12 393	12 492	13 132	13 681	13 132	14 075	—	14 075	—
MCHX Condenser Coil	9377	10 127	10 480	10 777	11 217	11 570	11 217	11 955	12 347	11 955	12 400
SHIPPING WEIGHT (kg) (Note 3)											
Al-Cu Condenser Coil	9631	10 448	10 869	11 096	11 597	12 019	11 597	12 357	12 844	12 357	12 932
Cu-Cu Condenser Coil	10 651	11 596	12 145	12 244	12 872	13 421	12 872	13 759	—	13 759	—
MCHX Condenser Coil	9144	9879	10 232	10 529	10 957	11 310	10 957	11 639	12 032	11 639	12 066
REFRIGERANT TYPE (Standard Evaporator)											
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	167/130	184/150	192/158	174/174	184/184	192/192	184/184	199/199	207/207	199/199	219/219
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	114/89	125/102	127/105	120/120	125/125	127/127	125/125	134/134	136/136	134/134	148/148
REFRIGERANT TYPE (Brine Evaporator)											
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	176/148	184/156	192/165	178/178	186/186	195/195	193/193	201/201	210/210	208/208	216/216
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	123/107	125/109	127/111	125/125	127/127	130/130	134/134	136/136	139/139	143/143	145/145
REFRIGERANT TYPE (Process Brine Evaporator)											
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	—	—	—	—	206/235	—	—	—	—	—	237/269
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	—	—	—	—	138/167	—	—	—	—	—	156/188
COMPRESSOR											
Quantity	2	2	2	2	2	2	2	2	2	2	2
Full Load Capacity Split Ckt A/ Ckt B (Note 4)	60/40	60/40	60/40	50/50	50/50	50/50	50/50	50/50	50/50	50/50	50/50
Minimum Capacity (%) (Note 5)	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15	<15
EVAPORATOR											
Net Fluid Volume (L)	233	248	248	248	260	260	260	316	316	316	334
Maximum Refrigerant Pressure (kPa)	1517	1517	1517	1517	1517	1517	1517	1517	1517	1517	1517
Maximum Water-Side Pressure (kPa)	2068	2068	2068	2068	2068	2068	2068	2068	2068	2068	2068
WATER CONNECTIONS (Note 6)											
Drain (NPT, in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Standard (2-pass), Inlet and Outlet, Victaulic (in.)	8	8	8	8	8	8	8	8	8	8	8
1 Pass, Inlet and Outlet, Victaulic (in.)	8	8	8	8	8	8	8	8	8	8	8
3 Pass, Inlet and Outlet, Victaulic (in.)	8	6	6	6	6	6	6	6	6	6	6
CONDENSER FANS (Note 7)											
Maximum Fan Speed (r/s)	19	19	19	19	19	19	19	19	19	19	19
No. Fans (Ckt A/ Ckt B)	9/7	10/8	11/9	9/9	10/10	11/11	10/10	11/11	12/12	11/11	12/12
CONDENSER COILS											
No. Coils (Ckt A/ Ckt B)	9/7	10/8	11/9	9/9	10/10	11/11	10/10	11/11	12/12	11/11	12/12

LEGEND

Cu — Copper
AI — Aluminum
EXV — Electronic Expansion Valve
MCHX — Microchannel Heat Exchanger
RTPF — Round Tube/Plate Fin

NOTES:

- More precise dimensions are available on the certified prints.
- Unit operating weight includes the base unit plus coil trim panels, but no other options or accessories are included. Selected options and accessories will slightly alter the unit weight. See pages 16-25 for the mounting weight detail. The weight shown is consistent with units employing the standard (2-pass) evaporator.

- Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The shipping weight is equal to the operating weight (indicated above) minus the weight of the water in the evaporator. The weight shown is consistent with units employing the standard (2-pass) evaporator.
- The capacity split is indicative of both compressors operating at a full load condition. The actual capacity split at most operating conditions will not match these values.
- The minimum capacity is less than 15% for units sized at full capacity. Please use the chiller selection program to determine actual minimum capacity values.
- Water connection sizes reflect the standard design, not evaporator for brine application or evaporator for process brine application. For those sizes, see the certified prints.
- Standard-tier models without the variable speed condenser fan option have a maximum speed of 14 r/s.

Physical data (cont)



30XV 2-PIECE SHIPMENT MODULES*, STANDARD EVAPORATOR — ENGLISH

UNIT 30XV MODEL SIZE	40A		45A				50A			
MODULE	A	B	A		B		A		B	
TIER (MODEL NO. POS. 10)	H	H	M	H	M	H	S	M	S	M
UNIT SIZE INDICATED ON MODULE NAMEPLATE	40A	40B	45A	45A	45B	45B	50A	50A	50B	50B
SHIPPING WEIGHT (lb) (See Note)										
Al-Cu Condenser Coil	24,433	2,064	25,178	25,266	2,064	3,049	25,178	25,461	2,064	3,049
Cu-Cu Condenser Coil	27,185	2,404	27,930	28,270	2,404	3,559	27,930	28,465	2,404	3,559
MCHX Condenser Coil	23132	1,803	23,857	23,897	1,803	2,628	23,857	23,972	1,803	2,628
REFRIGERANT CHARGE)	,									
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	423/343	—/80	438/358	456/336	—/80	—/120	438/358	481/361	—/80	—/120
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	280/267	—/13	295/382	300/280	—/13	—/20	295/282	325/305	—/13	—/20

30XV 2-PIECE SHIPMENT MODULES*, BRINE EVAPORATOR — ENGLISH

UNIT 30XV MODEL SIZE	40A		45A				50A			
MODULE	A	B	A		B		A		B	
TIER (MODEL NO. POS. 10)	H	H	M	H	M	H	S	M	S	M
UNIT SIZE INDICATED ON MODULE NAMEPLATE	40A	40B	45A	45A	45B	45B	50A	50A	50B	50B
SHIPPING WEIGHT (lb) (See Note)										
Al-Cu Condenser Coil	24,433	2,064	25,178	25,266	2,064	3,049	2,5178	25,461	2,064	3,049
Cu-Cu Condenser Coil	27,185	2,404	27,930	28,270	2,404	3,559	2,7930	28,465	2,404	3,559
MCHX Condenser Coil	23,132	1,803	23,857	23,897	1,803	2,628	2,3857	23,972	1,803	2,628
REFRIGERANT CHARGE)										
Refrigerant Charge (lb) Ckt A/ Ckt B (RTPF)	428/348	—/80	443/363	461/341	—/80	—/120	458/378	476/356	—/80	—/120
Refrigerant Charge (lb) Ckt A/ Ckt B (MCHX)	285/272	—/13	300/287	305/285	—/13	—/20	315/302	320/300	—/13	—/20

LEGEND

Cu — Copper
AI — Aluminum
MCHX — Microchannel Heat Exchanger
RTPF — Round Tube/Plate Fin

NOTE: Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The weight shown is consistent with units employing the standard (2-pass) evaporator.

*Two-piece shipment modules are combined at the job site. The resulting unit is roughly equivalent to standard size units. That is, 40A units combine the A and B modules to become a 30XV-400 unit. 45A units combine the two modules to become a 30XV-450 unit, and 50A units combine the two modules to become a 30XV-500 unit. Consult the appropriate Physical Data tables for remaining physical data for the combined units.



30XV 2-PIECE SHIPMENT MODULES*, STANDARD EVAPORATOR — SI

UNIT 30XV MODEL SIZE	40A		45A				50A			
MODULE	A	B	A		B		A		B	
TIER (MODEL NO. POS. 10)	H	H	M	H	M	H	S	M	S	M
UNIT SIZE INDICATED ON MODULE NAMEPLATE	40A	40B	45A	45A	45B	45B	50A	50A	50B	50B
SHIPPING WEIGHT (kg) (See Note)										
Al-Cu Condenser Coil	11083	936	11421	11461	936	1383	11421	11549	936	1383
Cu-Cu Condenser Coil	12331	1090	12669	12823	1090	1614	12669	12912	1090	1614
MCHX Condenser Coil	10493	818	10821	10840	818	1192	10821	10874	818	1192
REFRIGERANT CHARGE)										
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	192/156	—/36	199/163	207/153	—/36	—/55	199/163	219/164	—/36	—/55
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	127/121	—/6	134/128	136/127	—/6	—/9	134/128	148/139	—/6	—/9

30XV 2-PIECE SHIPMENT MODULES*, BRINE EVAPORATOR — SI

UNIT 30XV MODEL SIZE	40A		45A				50A			
MODULE	A	B	A		B		A		B	
TIER (MODEL NO. POS. 10)	H	H	M	H	M	H	S	M	S	M
UNIT SIZE INDICATED ON MODULE NAMEPLATE	40A	40B	45A	45A	45B	45B	50A	50A	50B	50B
SHIPPING WEIGHT (kg) (See Note)										
Al-Cu Condenser Coil	11083	936	11421	11461	936	1383	11421	11549	936	1383
Cu-Cu Condenser Coil	12331	1090	12669	12823	1090	1614	12669	12912	1090	1614
MCHX Condenser Coil	10493	818	10821	10840	818	1192	10821	10874	818	1192
REFRIGERANT CHARGE)										
Refrigerant Charge (kg) Ckt A/ Ckt B (RTPF)	195/158	—/36	201/165	210/155	—/36	—/55	208/172	216/162	—/36	—/55
Refrigerant Charge (kg) Ckt A/ Ckt B (MCHX)	130/124	—/6	136/130	139/130	—/6	—/9	143/137	145/136	—/6	—/9

LEGEND

Cu — Copper
Al — Aluminum
MCHX — Microchannel Heat Exchanger
RTPF — Round Tube/Plate Fin

*Two-piece shipment modules are combined at the job site. The resulting unit is roughly equivalent to standard size units. That is, 40A units combine the A and B modules to become a 30XV-400 unit. 45A units combine the two modules to become a 30XV-450 unit, and 50A units

combine the two modules to become a 30XV-500 unit. Consult the appropriate Physical Data tables for remaining physical data for the combined units.

NOTE: Unit shipping weight includes the base unit plus coil trim panels, but no other options or accessories are included. The weight shown is consistent with units employing the standard (2-pass) evaporator.

Physical data (cont)



UNIT MOUNTING WEIGHTS

UNITS WITH MCHX CONDENSER COILS — ENGLISH

30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) MCHX CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	Total								
140	S	1610	1130	2945	2871	1128	1425	—	—	—	—	11,110								
	M	1610	1130	2961	2887	1144	1442	—	—	—	—	11,175								
	H	1610	1130	2961	2887	1354	1651	232	232	—	—	12,058								
160	S	1610	1130	2961	2887	1144	1442	—	—	—	—	11,175								
	M	1610	1130	3008	2934	1400	1698	232	232	—	—	12,245								
	H	1610	1130	3008	2934	1191	1488	416	416	459	459	13,112								
180	S	1610	1130	3008	2934	1191	1488	—	—	—	—	11,362								
	M	1610	1130	3026	2952	1418	1716	232	232	—	—	12,317								
	H	1610	1130	3026	2952	1209	1506	416	416	459	459	13,184								
200	S	1610	1130	3026	2952	1418	1716	232	232	—	—	12,317								
	M	1610	1130	3083	3010	1266	1564	416	416	459	459	13,413								
	H	1610	1130	3083	3010	1266	1564	613	613	657	657	14,202								
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) MCHX CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	K	L	Total						
	S	1316	1007	707	541	3014	2767	1996	1835	—	—	—	—	13,185						
225	M	1316	1007	707	541	3024	2777	2216	2055	232	232	—	—	14,108						
	H	1316	1007	707	541	3024	2777	2006	1845	416	416	459	459	14,975						
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) MCHX CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	K	L	Total						
	S	1356	1039	752	576	2739	2750	2843	2811	296	254	—	—	—	—	15,415				
250	M	1356	1039	752	576	2806	2817	2910	2878	505	463	232	232	—	—	16,566				
	H	1356	1039	752	576	2851	2862	2955	2923	296	254	416	416	459	459	17,614				
275	S	1356	1039	752	576	2851	2862	2955	2923	296	254	—	—	—	—	15,864				
	M	1356	1039	752	576	2820	2831	2925	2893	505	463	232	232	—	—	16,624				
	H	1356	1039	752	576	2820	2831	2925	2893	296	254	416	416	459	459	17,492				
300	S	1356	1039	752	576	2820	2831	2925	2893	505	463	232	232	—	—	16,624				
	M	1356	1039	752	576	2838	2848	2942	2910	296	254	416	416	459	459	17,560				
	H	1356	1039	752	576	2838	2848	2942	2910	296	254	626	626	670	670	18,401				
325	S	1356	1039	752	576	2838	2848	2942	2910	296	254	416	416	459	459	17,560				
	M	1356	1039	752	576	2857	2868	2961	2929	296	254	626	626	670	670	18,478				
	H	1356	1039	752	576	2857	2868	2961	2929	296	254	572	572	572	615	19,407				
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) MCHX CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Total		
	S	3959	2356	2273	1353	719	596	2442	2827	1616	2128	186	217	—	—	—	20,672			
350	M	3959	2356	2273	1353	773	651	2704	3089	1679	2191	398	429	235	235	—	22,326			
	H	3959	2356	2273	1353	773	651	2704	3089	1679	2191	186	217	397	397	440	440	23,104		
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) MCHX CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Total
	S	3934	2357	2222	1331	892	772	2724	3500	1318	2041	786	784	550	549	—	—	—	23,760	
400	M	3934	2357	2222	1331	896	775	2747	3524	1328	2051	786	784	763	761	235	235	—	24,729	
	H	3934	2357	2222	1331	896	775	2747	3524	1328	2051	786	784	550	549	397	397	440	440	25,507
450	S	3934	2357	2222	1331	896	775	2747	3524	1328	2051	786	784	763	761	235	235	—	24,729	
	M	3934	2357	2222	1331	950	830	3032	3808	1413	2136	786	784	550	549	397	397	440	440	26,356
	H	3934	2357	2222	1331	950	830	3032	3808	1413	2136	786	784	550	549	613	613	657	657	27,221
500	S	3934	2357	2222	1331	950	830	3032	3808	1413	2136	786	784	550	549	397	397	440	440	26,356
	M	3934	2357	2222	1331	956	835	3068	3845	1429	2152	786	784	550	549	613	613	657	657	27,337

LEGEND

MCHX — Microchannel Heat Exchanger

NOTE: See pages 22-25 for mounting weight reference points.

UNIT MOUNTING WEIGHTS (cont)
UNITS WITH MCHX CONDENSER COILS — SI

30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) MCHX CONDENSER COILS										
		A	B	C	D	E	F	G	H	I	J	Total
140	S	730	513	1336	1302	512	647	—	—	—	—	5039
	M	730	513	1343	1310	519	654	—	—	—	—	5069
	H	730	513	1343	1310	614	749	105	105	—	—	5469
160	S	730	513	1343	1310	519	654	—	—	—	—	5069
	M	730	513	1364	1331	635	770	105	105	—	—	5554
	H	730	513	1364	1331	540	675	189	189	208	208	5948
180	S	730	513	1364	1331	540	675	—	—	—	—	5154
	M	730	513	1372	1339	643	778	105	105	—	—	5587
	H	730	513	1372	1339	548	683	189	189	208	208	5980
200	S	730	513	1372	1339	643	778	105	105	—	—	5587
	M	730	513	1398	1365	574	709	189	189	208	208	6084
	H	730	513	1398	1365	574	709	278	278	298	298	6442
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) MCHX CONDENSER COILS										
		A	B	C	D	E	F	G	H	I	J	Total
225	S	597	457	321	245	1367	1255	906	832	—	—	—
	M	597	457	321	245	1372	1260	1005	932	105	105	—
	H	597	457	321	245	1372	1260	910	837	189	189	208
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) MCHX CONDENSER COILS										
		A	B	C	D	E	F	G	H	I	J	K
250	S	615	471	341	261	1242	1247	1290	1275	134	115	—
	M	615	471	341	261	1273	1278	1320	1306	229	210	105
	H	615	471	341	261	1293	1298	1340	1326	134	115	189
275	S	615	471	341	261	1293	1298	1340	1326	134	115	—
	M	615	471	341	261	1279	1284	1327	1312	229	210	105
	H	615	471	341	261	1279	1284	1327	1312	134	115	189
300	S	615	471	341	261	1279	1284	1327	1312	229	210	105
	M	615	471	341	261	1287	1292	1334	1320	134	115	189
	H	615	471	341	261	1287	1292	1334	1320	134	115	284
325	S	615	471	341	261	1287	1292	1334	1320	134	115	189
	M	615	471	341	261	1296	1301	1343	1329	134	115	284
	H	615	471	341	261	1296	1301	1343	1329	134	115	260
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) MCHX CONDENSER COILS										
		A	B	C	D	E	F	G	H	I	J	Total
350	S	1796	1069	1031	614	326	271	1108	1282	733	965	84
	M	1796	1069	1031	614	351	295	1227	1401	761	994	181
	H	1796	1069	1031	614	351	295	1227	1401	761	994	84
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) MCHX CONDENSER COILS										
		A	B	C	D	E	F	G	H	I	J	Total
400	S	1785	1069	1008	604	405	350	1236	1588	598	926	357
	M	1785	1069	1008	604	406	352	1246	1598	602	930	357
	H	1785	1069	1008	604	406	352	1246	1598	602	930	357
450	S	1785	1069	1008	604	406	352	1246	1598	602	930	357
	M	1785	1069	1008	604	431	376	1375	1727	641	969	357
	H	1785	1069	1008	604	431	376	1375	1727	641	969	357
500	S	1785	1069	1008	604	431	376	1375	1727	641	969	357
	M	1785	1069	1008	604	434	379	1392	1744	648	976	357

LEGEND

MCHX — Microchannel Heat Exchanger

NOTE: See pages 22-25 for mounting weight reference points.

Physical data (cont)



UNIT MOUNTING WEIGHTS (cont) UNITS WITH Al/Cu CONDENSER COILS — ENGLISH

30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Al/Cu CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	Total								
140	S	—	—	—	—	—	—	—	—	—	—	—								
	M	1694	1215	3045	2972	1228	1526	—	—	—	—	11,680								
	H	1697	1218	3048	2975	1470	1767	271	271	—	—	12,718								
160	S	1697	1217	3048	2974	1231	1528	—	—	—	—	11,694								
	M	1701	1221	3098	3025	1520	1817	275	275	—	—	12,930								
	H	1701	1222	3099	3026	1282	1580	488	488	531	531	13,949								
180	S	1699	1219	3097	3023	1280	1577	—	—	—	—	11,896								
	M	1702	1222	3117	3044	1539	1836	261	261	—	—	12,982								
	H	1702	1223	3118	3045	1301	1599	504	504	547	547	14,090								
200	S	1702	1222	3117	3044	1539	1836	276	276	—	—	13,012								
	M	1702	1223	3175	3102	1359	1656	489	489	532	532	14,260								
	H	1706	1226	3179	3105	1362	1660	718	718	762	762	15,200								
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Al/Cu CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	K	L	Total						
	S	1392	1083	783	617	3119	2872	2102	1940	—	—	—	—	13,910						
225	M	1393	1084	784	618	3130	2883	2322	2189	280	280	—	—	14,965						
	H	1393	1084	784	618	3130	2883	2112	1951	493	493	536	536	16,013						
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Al/Cu CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Total		
	S	1422	1105	818	642	2834	2845	2967	2935	333	291	—	—	—	—	—	—	16,191		
250	M	1425	1108	821	646	2904	2915	3037	3005	574	532	273	273	—	—	—	—	17,514		
	H	1426	1109	822	647	2950	2961	3083	3051	337	295	486	486	530	530	—	—	18,712		
275	S	1424	1107	820	644	2948	2959	3081	3049	335	293	—	—	—	—	—	—	16,660		
	M	1426	1109	822	646	2919	2930	3052	3020	575	533	274	274	—	—	—	—	17,582		
	H	1427	1110	823	647	2920	2931	3053	3021	338	296	487	487	530	530	—	—	18,600		
300	S	1426	1109	822	646	2919	2930	3052	3020	575	533	274	274	—	—	—	—	17,582		
	M	1427	1111	824	648	2938	2949	3071	3039	339	297	487	487	531	531	—	—	18,679		
	H	1430	1113	826	651	2941	2951	3074	3042	341	299	729	729	773	773	—	—	19,670		
325	S	1427	1111	824	648	2938	2949	3071	3039	339	297	487	487	531	531	—	—	18,679		
	M	1431	1114	827	651	2960	2971	3094	3062	342	300	729	729	774	774	—	—	19,757		
	H	1431	1114	827	651	2960	2971	3093	3061	342	300	666	666	666	666	709	709	20,832		
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Al/Cu CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Total		
	S	4058	2455	2372	1452	808	686	2532	2916	1734	2246	227	258	—	—	—	—	21,746		
350	M	4061	2458	2375	1455	866	743	2797	3181	1800	2312	471	502	280	280	—	—	23,580		
	H	4061	2459	2376	1455	866	743	2797	3181	1800	2312	230	261	470	470	514	514	24,510		
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Al/Cu CONDENSER COILS																		
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Total
	S	4036	2458	2324	1433	965	844	2854	3631	1390	2114	859	857	623	621	—	—	—	—	25,010
400	M	4037	2459	2325	1434	989	868	2840	3617	1421	2144	860	858	865	864	280	280	—	—	26,140
	H	4037	2459	2325	1434	989	868	2840	3617	1421	2144	860	858	624	623	471	471	514	514	27,069
450	S	4037	2459	2325	1434	989	868	2840	3617	1421	2144	860	858	865	864	280	280	—	—	26,140
	M	4038	2461	2326	1435	1045	924	3126	3902	1507	2231	861	859	625	624	472	472	515	515	27,938
	H	4040	2463	2328	1437	1047	926	3128	3904	1509	2233	863	861	656	655	718	718	763	763	29,012
500	S	4038	2461	2326	1435	1045	924	3126	3902	1507	2231	861	859	625	624	472	472	515	515	27,938
	M	4047	2469	2334	1444	1059	938	3171	3948	1532	2255	870	868	663	661	725	725	769	769	29,247

LEGEND

Al/Cu — Aluminum/Copper

NOTE: See pages 22-25 for mounting weight reference points.

UNIT MOUNTING WEIGHTS (cont)
UNITS WITH Al/Cu CONDENSER COILS — SI

30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Al/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	Total							
140	S	—	—	—	—	—	—	—	—	—	—	—							
	M	769	551	1381	1348	557	692	—	—	—	—	5298							
	H	770	552	1383	1349	667	802	123	123	—	—	5769							
160	S	770	552	1382	1349	558	693	—	—	—	—	5304							
	M	771	554	1405	1372	689	824	125	125	—	—	5865							
	H	772	554	1406	1372	582	717	221	221	241	241	6327							
180	S	771	553	1405	1371	581	716	—	—	—	—	5396							
	M	772	554	1414	1381	698	833	118	118	—	—	5889							
	H	772	555	1414	1381	590	725	229	229	248	248	6391							
200	S	772	554	1414	1381	698	833	125	125	—	—	5902							
	M	772	555	1440	1407	616	751	222	222	241	241	6468							
	H	774	556	1442	1409	618	753	326	326	346	346	6894							
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Al/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	K	L	Total					
225	S	632	491	355	280	1415	1303	953	880	—	—	—	—	6310					
	M	632	492	356	280	1420	1308	1053	993	127	127	—	—	6788					
	H	632	492	356	280	1420	1308	958	885	223	223	243	243	7263					
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Al/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	K	L	Total					
250	S	645	501	371	291	1285	1290	1346	1331	151	132	—	—	7344					
	M	646	503	373	293	1317	1322	1378	1363	261	242	124	124	7944					
	H	647	503	373	293	1338	1343	1398	1384	153	134	220	220	8488					
275	S	646	502	372	292	1337	1342	1397	1383	152	133	—	—	7557					
	M	647	503	373	293	1324	1329	1385	1370	261	242	124	124	7975					
	H	647	503	373	294	1325	1329	1385	1370	153	134	221	221	8437					
300	S	647	503	373	293	1324	1329	1385	1370	261	242	124	124	7975					
	M	647	504	374	294	1333	1338	1393	1378	154	135	221	221	8473					
	H	649	505	375	295	1334	1339	1394	1380	155	136	330	330	8922					
325	S	647	504	374	294	1333	1338	1393	1378	154	135	221	221	8473					
	M	649	505	375	295	1343	1348	1403	1389	155	136	331	331	8962					
	H	649	505	375	295	1343	1348	1403	1389	155	136	302	302	9449					
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Al/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	K	L	Total					
350	S	1841	1114	1076	659	367	311	1148	1323	787	1019	103	117	9 864					
	M	1842	1115	1077	660	393	337	1269	1443	816	1049	214	228	127	127	10 696			
	H	1842	1115	1078	660	393	337	1269	1443	816	1049	105	119	213	233	11 117			
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Al/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	K	L	Total					
400	S	1831	1115	1054	650	438	383	1295	1647	631	959	390	389	283	282	—	—	—	11 344
	M	1831	1116	1054	650	449	394	1288	1640	644	973	390	389	393	392	127	127	—	11 857
	H	1831	1116	1054	650	449	394	1288	1641	644	973	390	389	283	282	213	213	233	12 278
450	S	1831	1116	1054	650	449	394	1288	1640	644	973	390	389	393	392	127	127	—	11 857
	M	1832	1116	1055	651	474	419	1418	1770	684	1012	391	390	284	283	214	214	234	12 672
	H	1833	1117	1056	652	475	420	1419	1771	685	1013	392	390	298	297	326	326	346	13 159
500	S	1832	1116	1055	651	474	419	1418	1770	684	1012	391	390	284	283	214	214	234	12 672
	M	1836	1120	1059	655	480	426	1438	1791	695	1023	395	394	301	300	329	329	349	13 266

LEGEND

Al/Cu — Aluminum/Copper

NOTE: See pages 22-25 for mounting weight reference points.

Physical data (cont)



UNIT MOUNTING WEIGHTS (cont)

UNITS WITH Cu/Cu CONDENSER COILS — ENGLISH

30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Cu/Cu CONDENSER COILS												
		A	B	C	D	E	F	G	H	I	J	Total		
140	S	—	—	—	—	—	—	—	—	—	—	—		
	M	1882	1402	3233	3159	1416	1713	—	—	—	—	12,805		
	H	1885	1405	3236	3162	1727	2025	342	342	—	—	14,124		
160	S	1884	1404	3235	3161	1418	1716	—	—	—	—	12,819		
	M	1888	1408	3286	3212	1777	2075	345	345	—	—	14,336		
	H	1889	1409	3287	3213	1470	1767	628	628	672	672	15,636		
180	S	1887	1407	3284	3211	1468	1765	—	—	—	—	13,021		
	M	1889	1410	3305	3231	1797	2094	346	346	—	—	14,418		
	H	1890	1410	3306	3232	1489	1786	629	629	673	673	15,717		
200	S	1889	1410	3305	3231	1797	2094	362	346	—	—	14,433		
	M	1890	1410	3363	3289	1546	1843	629	629	673	673	15,947		
	H	1893	1414	3366	3293	1550	1847	929	929	973	973	17,167		
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Cu/Cu CONDENSER COILS												
		A	B	C	D	E	F	G	H	I	J	K	L	Total
225	S	1533	1224	924	758	3330	3083	2312	2151	—	—	—	—	15,316
	M	1534	1225	925	759	3341	3094	2632	2470	351	351	—	—	16,681
	H	1533	1225	925	759	3341	3094	2422	2261	633	633	677	677	18,179
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Cu/Cu CONDENSER COILS												
		A	B	C	D	E	F	G	H	I	J	K	L	Total
250	S	1562	1246	959	783	3045	3055	3248	3216	403	361	—	—	—
	M	1566	1249	962	786	3115	3126	3318	3286	715	673	343	343	—
	H	1567	1250	963	787	3161	3172	3364	3332	408	365	627	627	670
275	S	1564	1248	961	785	3159	3170	3362	3330	405	363	—	—	—
	M	1567	1250	963	787	3130	3141	3334	3302	716	674	344	344	—
	H	1567	1250	964	788	3131	3142	3334	3302	408	366	627	627	671
300	S	1567	1250	963	787	3130	3141	3334	3302	716	674	344	344	—
	M	1568	1251	964	789	3149	3160	3352	3320	409	367	628	628	672
	H	1571	1254	967	791	3151	3162	3355	3323	412	369	939	939	984
325	S	1568	1251	964	789	3149	3160	3352	3320	409	367	628	628	672
	M	1571	1254	968	792	3171	3182	3375	3343	412	370	940	940	984
	H	1571	1254	967	792	3171	3182	3374	3342	412	370	854	854	854
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Cu/Cu CONDENSER COILS												
		A	B	C	D	E	F	G	H	I	J	K	L	Total
350	S	4269	2666	2583	1663	996	873	2719	3103	1992	2504	298	328	—
	M	4271	2669	2586	1666	1053	931	2984	3368	2057	2569	612	643	350
	H	4272	2670	2586	1666	1053	931	2985	3369	2058	2570	301	332	611
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (lb) Cu/Cu CONDENSER COILS												
		A	B	C	D	E	F	G	H	I	J	K	L	Total
400	S	4247	2669	2534	1643	1106	985	3135	3912	1531	2254	1000	997	764
	M	4248	2670	2535	1644	1176	1056	3028	3804	1608	2332	1001	998	1076
	H	4248	2670	2536	1645	1177	1056	3028	3804	1608	2332	1001	998	765
450	S	4248	2670	2535	1644	1176	1056	3028	3804	1608	2332	1001	998	1076
	M	4249	2671	2537	1646	1232	1111	3313	4090	1695	2418	1002	999	766
	H	—	—	—	—	—	—	—	—	—	—	—	—	—
500	S	4249	2671	2537	1646	1232	1111	3313	4090	1695	2418	1002	999	766
	M	—	—	—	—	—	—	—	—	—	—	—	—	—

LEGEND

Cu — Copper

NOTE: See pages 22-25 for mounting weight reference points.

UNIT MOUNTING WEIGHTS (cont)
UNITS WITH Cu/Cu CONDENSER COILS — SI

30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Cu/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	Total							
140	S	—	—	—	—	—	—	—	—	—	—	—							
	M	854	636	1466	1433	642	777	—	—	—	—	5808							
	H	855	637	1468	1434	784	918	155	155	—	—	6406							
160	S	855	637	1467	1434	643	778	—	—	—	—	5814							
	M	856	639	1490	1457	806	941	156	156	—	—	6503							
	H	857	639	1491	1457	667	802	285	285	305	305	7092							
180	S	856	638	1490	1456	666	801	—	—	—	—	5906							
	M	857	639	1499	1466	815	950	157	157	—	—	6540							
	H	857	640	1499	1466	675	810	286	286	305	305	7129							
200	S	857	639	1499	1466	815	950	164	157	—	—	6547							
	M	857	640	1525	1492	701	836	286	286	305	305	7233							
	H	859	641	1527	1494	703	838	421	421	441	441	7787							
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Cu/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	K	L	Total					
	S	695	555	419	344	1511	1399	1049	976	—	—	—	—	6947					
225	M	696	556	419	344	1516	1403	1194	1121	159	159	—	—	7566					
	H	696	555	419	344	1515	1403	1099	1026	287	287	307	307	8246					
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Cu/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	K	L	Total					
	S	709	565	435	355	1381	1386	1473	1459	183	164	—	—	—	8 109				
250	M	710	566	436	357	1413	1418	1505	1491	324	305	156	156	—	8 837				
	H	711	567	437	357	1434	1439	1526	1511	185	166	284	284	304	9 508				
275	S	710	566	436	356	1433	1438	1525	1510	184	165	—	—	—	8 322				
	M	711	567	437	357	1420	1425	1512	1498	325	306	156	156	—	8 868				
	H	711	567	437	357	1420	1425	1512	1498	185	166	285	285	304	9 457				
300	S	711	567	437	357	1420	1425	1512	1498	325	306	156	156	—	8 868				
	M	711	568	437	358	1428	1433	1521	1506	186	166	285	285	305	9 493				
	H	712	569	439	359	1429	1434	1522	1507	187	168	426	426	446	10 070				
325	S	711	568	437	358	1428	1433	1521	1506	186	166	285	285	305	9 493				
	M	713	569	439	359	1438	1443	1531	1516	187	168	387	387	387	10 109				
	H	713	569	439	359	1438	1443	1531	1516	187	168	387	387	387	10 725				
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Cu/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	K	L	Total					
	S	1936	1209	1172	754	452	396	1233	1408	903	1136	135	149	—	—	10 884			
350	M	1937	1211	1173	756	478	422	1354	1528	933	1165	278	292	159	159	—	11 844		
	H	1938	1211	1173	756	478	422	1354	1528	933	1166	136	150	277	277	297	12 393		
30XV UNIT SIZE	TIER (MODEL NO. POS. 10)	MOUNTING WEIGHT (kg) Cu/Cu CONDENSER COILS																	
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Total	
	S	1926	1211	1150	745	502	447	1422	1774	694	1023	453	452	346	346	—	—	12 492	
400	M	1927	1211	1150	746	534	479	1373	1725	729	1058	454	453	488	487	159	159	—	13 132
	H	1927	1211	1150	746	534	479	1373	1726	730	1058	454	453	347	346	277	277	297	13 681
450	S	1927	1211	1150	746	534	479	1373	1725	729	1058	454	453	488	487	159	159	—	13 132
	M	1927	1212	1151	746	559	504	1503	1855	769	1097	454	453	347	347	278	278	297	14 075
	H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
500	S	1927	1212	1151	746	559	504	1503	1855	769	1097	454	453	347	347	278	278	297	14 075
	M	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

LEGEND

Cu — Copper

NOTE: See pages 22-25 for mounting weight reference points.

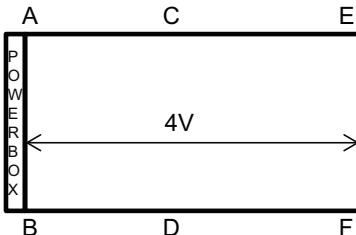
Physical data (cont)



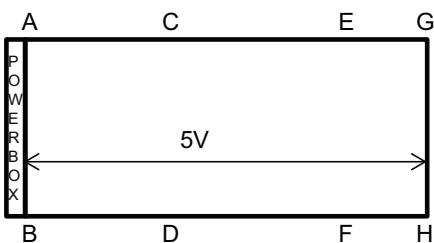
UNIT MOUNTING WEIGHT REFERENCE POINTS

30XV140-200

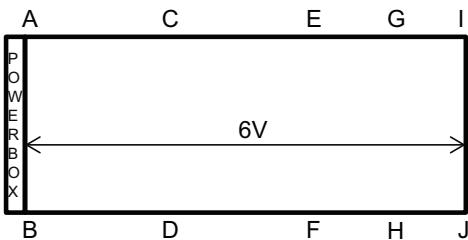
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
140	X	X	
160	X		
180	X		



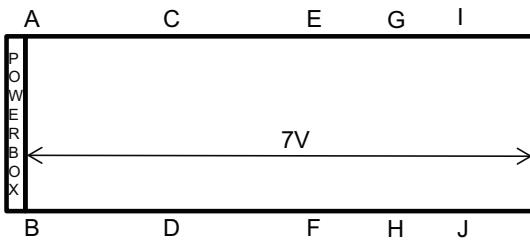
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
140			X
160		X	
180		X	
200	X		



UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
160			X
180			X
200		X	



UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
200			X

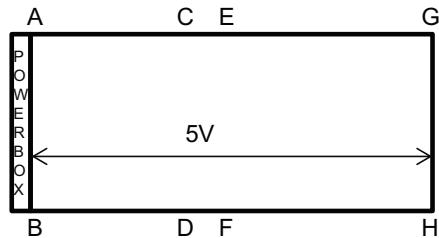


Letters indicate the general location of the mounting weight locations on the base of the unit.

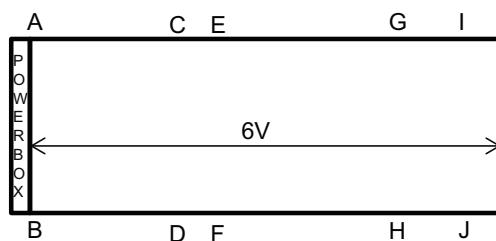
NOTE: See pages 16-21 for mounting weight at reference points.

UNIT MOUNTING WEIGHT REFERENCE POINTS (cont)
30XV225

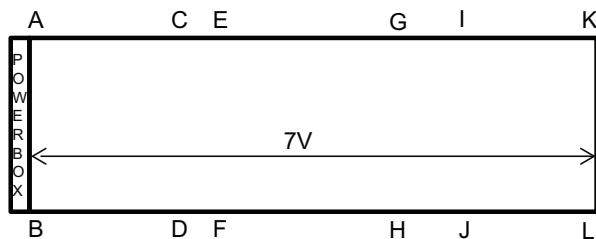
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
225	X		



UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
225		X	



UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
225			X



Letters indicate the general location of the mounting weight locations on the base of the unit.

NOTE: See pages 16-21 for mounting weight at reference points.

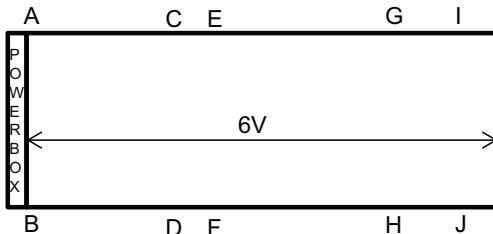
Physical data (cont)



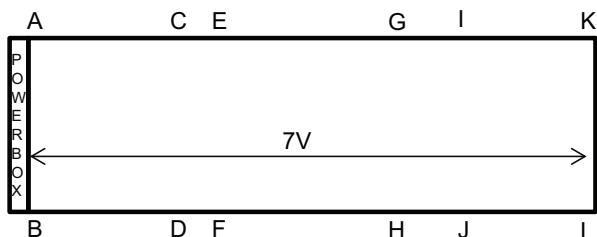
UNIT MOUNTING WEIGHT REFERENCE POINTS (cont)

30XV250-325

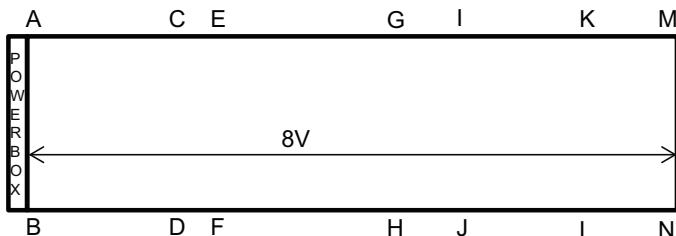
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
250	X		
275	X		



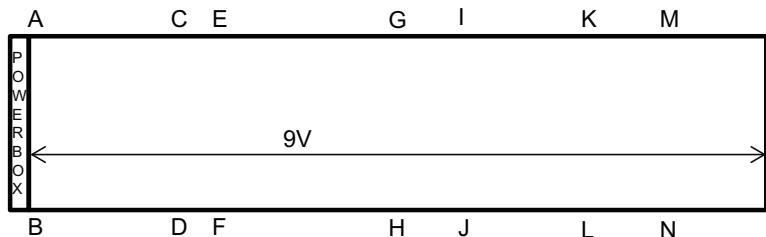
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
250		X	
275		X	
300	X		



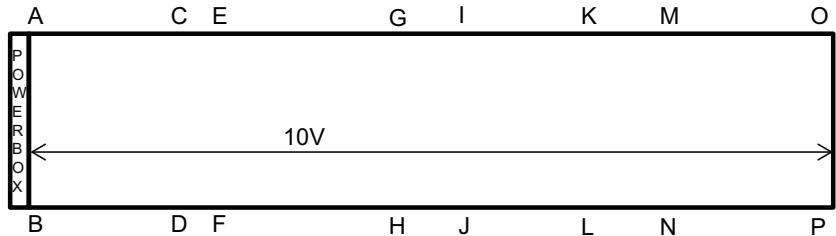
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
250			X
275			X
300		X	
325	X		



UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
300			X
325		X	



UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
325			X

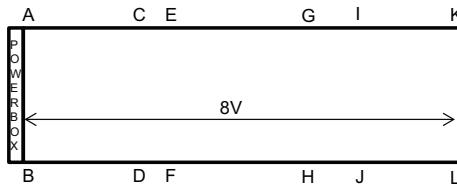


Letters indicate the general location of the mounting weight locations on the base of the unit.

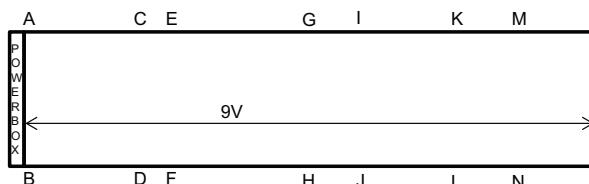
NOTE: See pages 16-21 for mounting weight at reference points.

UNIT MOUNTING WEIGHT REFERENCE POINTS (cont)
30XV350-500

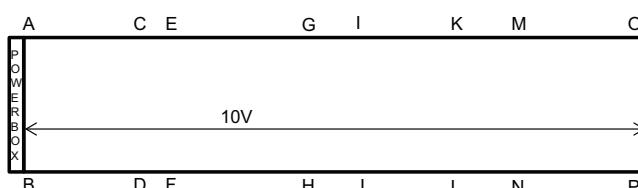
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
350	X		



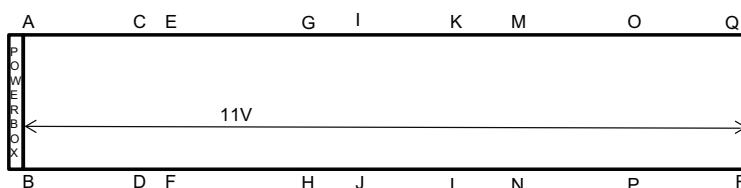
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
350		X	
400	X		



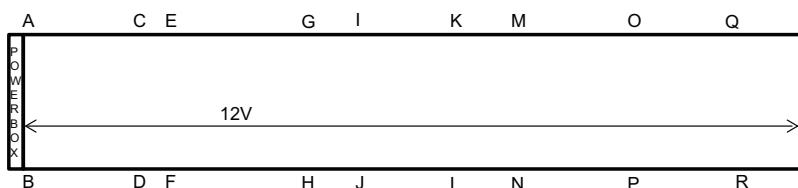
UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
350			X
400		X	
450	X		



UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
400, 40A			X
450, 45A		X	
500, 50A	X		



UNIT 30XV SIZE	TIER (MODEL NO. POS. 10)		
	S	M	H
450, 45A			X
500, 50A		X	



Letters indicate the general location of the mounting weight locations on the base of the unit.

NOTE: See pages 16-21 for mounting weight at reference points.

Options and accessories



ITEM	FACTORY-INSTALLED OPTION	FIELD-INSTALLED ACCESSORY
Condenser Coil and Fan Options		
MCHX, E-Coat	X	
Aluminum Fins/Copper Tube	X	
Aluminum Fins/Copper Tube, Pre-Coated	X	
Aluminum Fins/Copper Tube, E-Coat	X	
Copper Fins/Copper Tube, E-Coat	X	
Copper Fins/Copper Tube Condenser Coils	X	
Low Sound Kit	X	
Sound Optimization	X	
Controls/Communication Options		
BACnet/Modbus Translator Control	X	X
Energy Management Module (includes GFI)	X	X
LonWorks Translator	X	X
Dual Chiller Accessory Kit		X
Variable Speed Condenser Fans (standard tier only)	X	
High-Static Fans (units with variable speed condenser fans only)	X	
Evaporator Options		
One-Pass Evaporator (flooded type)	X	
Three-Pass Evaporator	X	
Evaporator for Brine Application (flooded type, 2-pass only)	X	
Evaporator for Process Brine Application (1-pass only)	X	
Remote Evaporator	X	
Remote Evaporator Assembly Kit		X
Electrical Options		
Unit-Mounted Main Disconnect, Non-Fused	X	
Control Transformer (automatically included for 50 Hz)	X	
Convenience Outlet (not available at 380 v)		X
High SCCR (Short Circuit Current Rating) (limited availability on 208/230 V units - see option description)	X	
Refrigeration Circuit Options		
Isolation Valve	X	
Suction Line Insulation	X	
Security/Packaging Option		
Two-Piece Shipment (unit sizes 400H, 450M, 450H, 500S and 500M only)	X	
Security Grilles	X	X
Security Grilles (Sides) and Hail Guard (Ends)	X	
Full Hail Guard	X	X
Condenser Coil Trim Panels	X	X

Factory-installed options

Condenser coil options are available to match coil construction to the site conditions for the best durability. Refer to the Condenser Coil Corrosion Protection Options table on page 28 or the appropriate selection guide for more information.

One-pass evaporator provides a lower pressure drop through the evaporator for applications with low delta T (temperature) or high flow or where the evaporators are piped in a series arrangement.

Three-pass evaporator provides the ability for the chiller to operate at lower evaporator water flow values than evaporators with other pass options. This is particularly beneficial in variable-flow applications.

Evaporator for brine application provides the preferred evaporator for applications employing ethylene glycol or propylene glycol in the chilled-fluid loop which have leaving-fluid temperatures down to 20°F (-6.7°C).

Evaporator for process brine application provides the preferred evaporator for applications employing ethylene glycol or propylene glycol in the chilled-fluid loop which have leaving-fluid temperatures down to 10°F (-12.2°C).

Remote evaporator provides an evaporator for applications in which the evaporator will not be an integral part of the chiller package. When this option is chosen, the chiller will be shipped from the factory minus the evaporator and without refrigerant, but with a remote evaporator assembly kit. The evaporator itself will be shipped separately with a nitrogen charge. The refrigerant will need to be acquired and charged locally. The piping from the chiller to the evaporator is not part of the factory supply and is the responsibility of the installing contractor. All coil types are available when a remote evaporator is employed, but see the remote evaporator assembly kit for more detail as well as general installation guidelines.

Energy management module provides energy management capabilities to minimize chiller energy consumption. Several features are provided with this module including leaving fluid temperature reset, cooling set point or demand limit control from a 4 to 20 mA signal, space temperature reset (requires field-installed space temperature sensor), 2-step demand limit control (from 0 to 100%) activated by a remote contact closure, and discrete input for "Ice Done" indication for ice storage system interface. When this option is selected, a GFI convenience outlet is also included.

High SCCR (short circuit current rating) devices allow the chiller to tolerate a 65 kA (all voltages except 575-v) or a 35 kA (575-v units) short circuit current for a brief period of time while protecting downstream components. The high SCCR provides a higher level of protection than standard chiller components. At 208/230-v, this option is only available with the combination of dual point power and unit sizes 140-200. The standard SCCR rating is dependent on both voltage and unit size as shown in the SCCR Voltage Table.

SCCR VOLTAGE TABLE

DESCRIPTION	30XV140-325		30XV350-500	
VOLTAGE	208-460V*	575V	380-460V	575V
STANDARD SCCR				
SINGLE POINT POWER	25 kAIC	10 kAIC	35 kAIC	18 kAIC
SINGLE POINT POWER WITH DISCONNECT	25 kAIC	18 kAIC	35 kAIC	18 kAIC
DUAL POINT POWER	25 kAIC	18 kAIC	25 kAIC	10 kAIC
DUAL POINT POWER WITH DISCONNECT	25 kAIC	18 kAIC	—	—
HIGH SCCR				
SINGLE POINT POWER	65 kAIC	35 kAIC	65 kAIC	35 kAIC
SINGLE POINT POWER WITH DISCONNECT	65 kAIC	35 kAIC	65 kAIC	35 kAIC
DUAL POINT POWER	65 kAIC	35 kAIC	—	—
DUAL POINT POWER WITH DISCONNECT	65 kAIC	35 kAIC	—	—

LEGEND

KAIC — Kilo-Amperes Interrupting Capacity

*208/230V Single Point Power with Disconnect is not available.

Isolation valve provides a means of isolating the compressors from the evaporator vessel, which is beneficial in servicing the chiller. The isolation option comes in various configurations depending on the installation region (Middle Eastern or elsewhere). On all units which are not installed in the Middle East region, liquid line service valves and motorized discharge service valves are always provided per refrigerant circuit. For Middle Eastern regions only, in addition to the liquid line service valves, manual discharge valves are standard and motorized discharge service valves are optional. The selection of the isolation valve option results in chillers which are equipped with a liquid line service valve, a discharge service valve (motorized or manual type), and a series of valves on or near the evaporator. The net effect is to provide isolation capability in the condenser area, the evaporator area, and the compressor area.

Unit-mounted non-fused disconnect option provides non-fused disconnect for unit power located at the unit. This option is not available with dual point power in sizes 350-500.

Suction line insulation is tubular closed-cell insulation. This option is recommended for areas of high dewpoints where condensation may be a concern.

¹LonWorks is a registered trademark of the Echelon Corporation.

BACnet/Modbus translator control provides an interface between the chiller and a BACnet Local Area Network (LAN, i.e., MS/TP EIA-485). The BACnet/Modbus translator control is also available as a field-installed accessory. Field programming is required.

LonWorks Translator provides an interface between the chiller and a Local Operating Network (LON, i.e., LonWorks¹ FT-10A ANSI/EIA-709.1). The LON translator control is also available as a field-installed accessory. Field programming is required.

Condenser coil trim panels provide an aesthetic, finished appearance for the condenser coil ends of the compressor side of the unit. Condenser coil trim panels are also available as a field-installed accessory.

Control transformer is sized to supply the needs of the control circuit from the main power supply. This feature is automatically provided on 50 Hz chillers.

Variable speed condenser fans control the speed of all fans for improvement in part load efficiency and sound levels. Additionally, variable speed condenser fans maintain head pressure control down to -20°F (-29°C) ambient temperature with the use of glycol and wind baffles. Varying the speed of all fans on a circuit to a prescribed speed provides accurate head pressure control to the most efficient point while achieving optimum usage of the coils to accomplish excellent part-load efficiency. Variable speed condenser fans also allow the chiller to operate at ambient temperatures as high as 125.6°F (52°C). This option is only available on standard-tier units because both the medium-tier and high-tier units incorporate this as a standard feature. Variable speed condenser fans are not available for unit sizes 225-500 at 208/230 v or for unit size 140 standard tier at any voltage.

High-static fans are condenser fans which provide up to 100 Pa ESP (external static pressure), as opposed to the standard fans which provide up to 50 Pa ESP. The high-static fan option is only available on applications employing variable speed condenser fans.

Two-piece shipment is a factory-installed option which provides 2-section shipment of the largest 30XV models such that both resulting sections can fit within 40-foot containers. This option is only available on unit sizes 400H, 450M, 450H, 500S and 500M.

Security grilles are coated grilles that protect the condenser, evaporator, and compressors. These are also available as an accessory.

Security grilles (sides) and hail guard (ends) consist of louvered panels on the ends of the machine and security grilles on the sides of the machine. These coverings firmly fasten to the machine frame and provide complete coverage from the top to the bottom of the unit. A hail guard accessory is also available, but it is a full hail guard and therefore it is a different design than this factory option.

Full hail guard consists of louvered panels on the sides and ends of the machine. These hail guards firmly fasten to the machine, and they provide coverage from the top to the bottom of the unit. Coil trim panels are not available with the full hail guard because this hail guard covers

Options and accessories (cont)



all coil tubing. This factory option is also available as an accessory.

Low sound kit provides the compressors with sheet metal enclosures with sound absorbing panels and also provides an external muffler between each compressor and its associated oil separator. (Note: The muffler for 350 circuit A and 400-500 ton units is internal to the oil separator and is provided regardless of sound option.)

Sound optimization provides a chiller which has been selected with customized software to best meet customer sound and capacity requirements.

Field-installed accessories

Energy management module provides energy management capabilities to minimize chiller energy consumption. Several features are provided with this module including leaving fluid temperature reset, cooling set point, space temperature reset (requires field-installed space temperature sensor) or demand limit control from a 4 to 20 mA signal, 2-step demand limit control (from 0 to 100%) activated by a remote contact closure (one-step demand limit does not require the energy management module), and discrete input for "Ice Done" indication for ice storage system interface.

Remote evaporator assembly kit provides the installation guidelines for applications in which the evaporator is not an integral part of the chiller. For such applications, the refrigerant will need to be acquired and charged locally. The piping from the chiller to the evaporator is the responsibility of the installing contractor. This assembly kit, which includes some hardware as well as assembly instructions, is automatically included when the remote evaporator option is selected.

Convenience outlet includes 4-amp GFI (ground fault interrupt) receptacle. Convenience outlet is 115-v female receptacle. Not available with 380-v units. This item is included when a factory-installed energy management module is selected.

BACnet/Modbus translator control provides an interface between the chiller and a BACnet Local Area Network (LAN, i.e., MS/TP EIA-485). The BACnet/Modbus translator control is also available as a factory-installed option. Field programming is required.

LonWorks translator provides an interface between the chiller and a Local Operating Network (LON, i.e., LonWorks FT-10A ANSI/EIA-709.1). The LON translator control is also available as a factory-installed option. Field programming is required.

Condenser coil trim panels provide an aesthetic, finished appearance for the condenser coil ends of the compressor side of the unit. Condenser coil trim panels are also available as a factory-installed option.

Full hail guard consists of louvered panels on the sides and ends of the machine. These hail guards firmly fasten to the machine, and they provide coverage from the top to the bottom of the unit. Coil trim panels are not required with the full hail guard because this hail guard covers all coil tubing. This field-installed accessory is also available as a factory option.

Security grilles are coated grilles that protect the condenser, evaporator, and compressors. These are also available as a factory-installed option.

Dual chiller accessory kit provides the additional hardware (thermistors, wells, connectors) required for applications with 2 chillers running in parallel.

CONDENSER COIL CORROSION PROTECTION OPTIONS

ENVIRO-SHIELD™ OPTION*	ENVIRONMENT				
	Standard	Mild Coastal	Severe Coastal	Industrial	Combined Industrial/Coastal
Novation® Heat Exchanger (Standard)	See NACO Packaged Chiller Builder*				
Novation Heat Exchanger, E-coat	See NACO Packaged Chiller Builder*				
AL Fins	X				
CU Fins		X			
AL Fins, E-coat			X	X	X
CU Fins, E-coat			X		
AL Fins, Pre-coated		X			

LEGEND

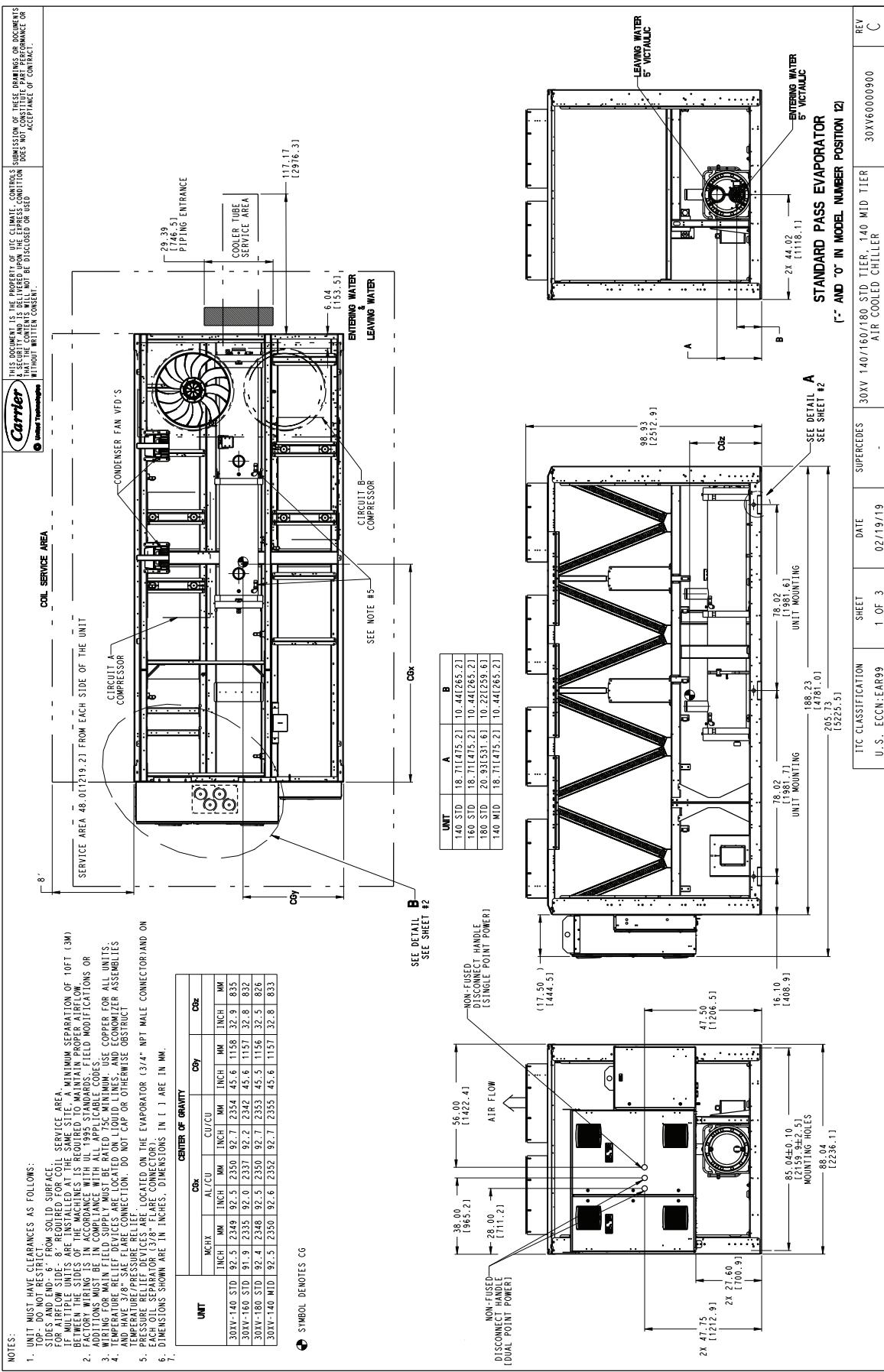
- AL — Aluminum
- CU — Copper
- NACO — North American Commercial Operations

* See NACO Packaged Chiller Builder for details. Additional corrosion protection is available. For Novation or round tube/plate fin (RTPF) heat exchangers, see selection guide "Environmental Corrosion Protection" (Publication 04-581061-01).

Dimensions

Carrier

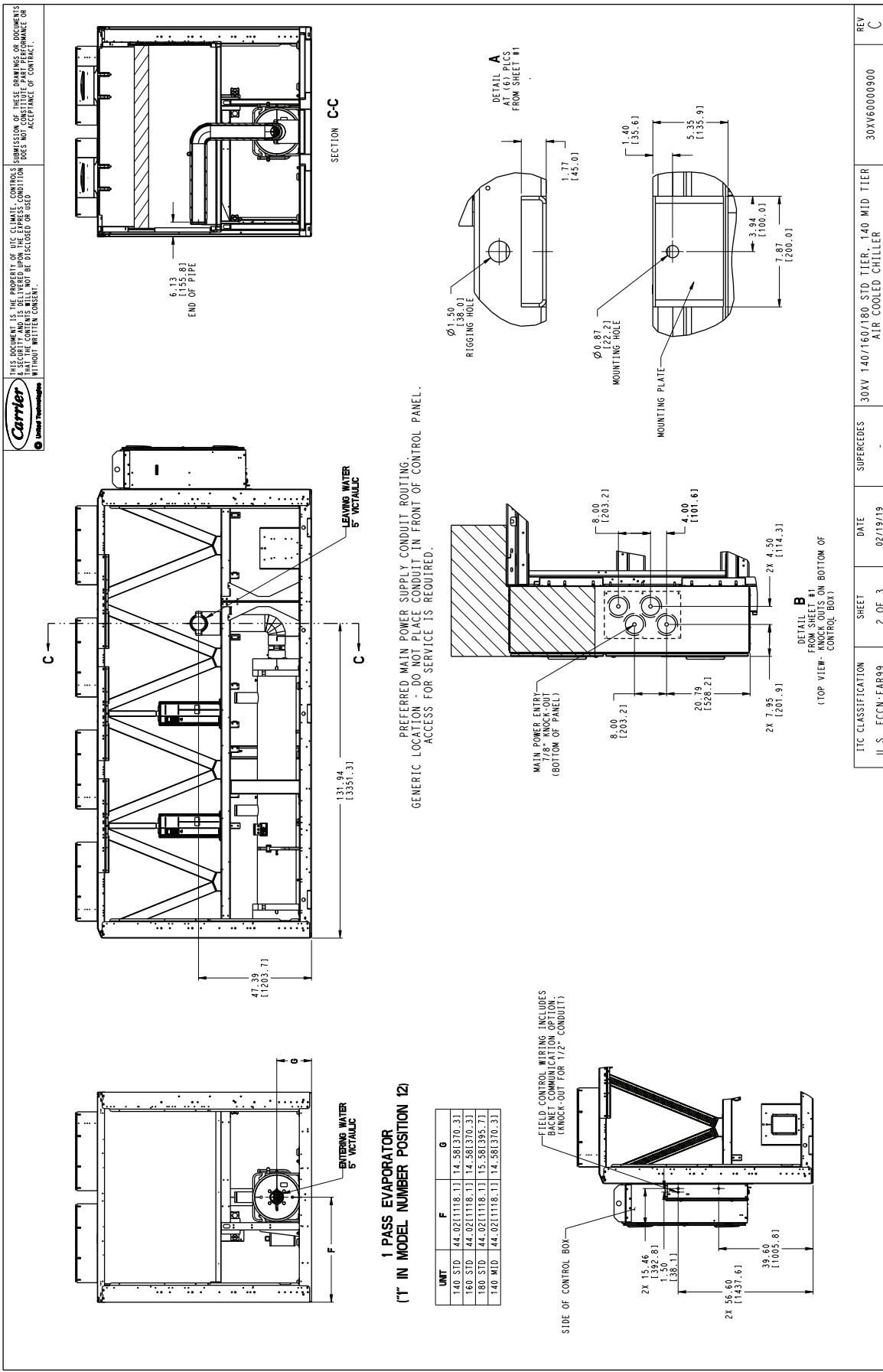
30XV 140,160,180 STD TIER; 140 MID TIER AIR-COOLED CHILLER



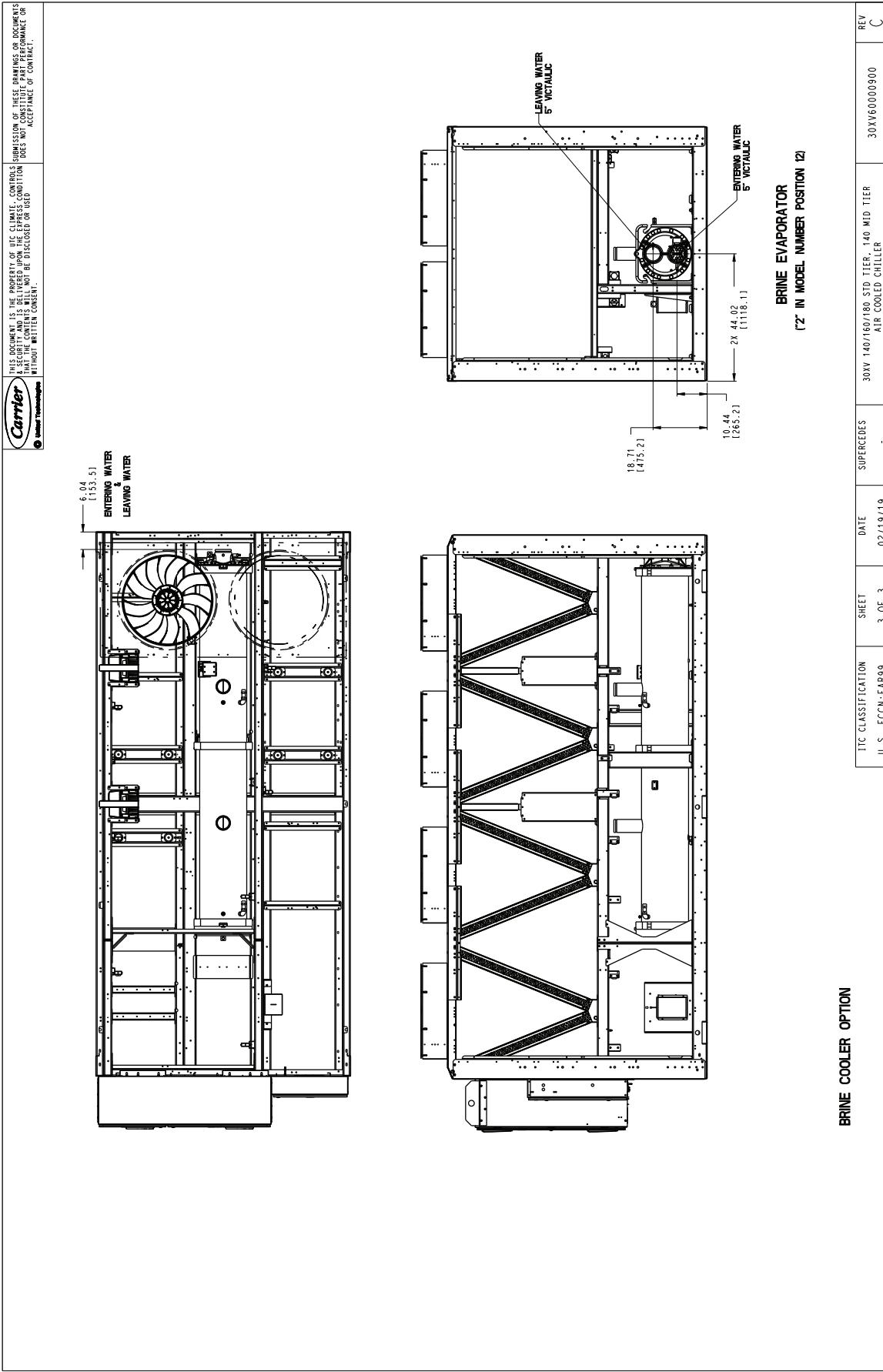
Dimensions (cont)

30XV 140,160,180 STD TIER; 140 MID TIER AIR-COOLED CHILLER (cont)

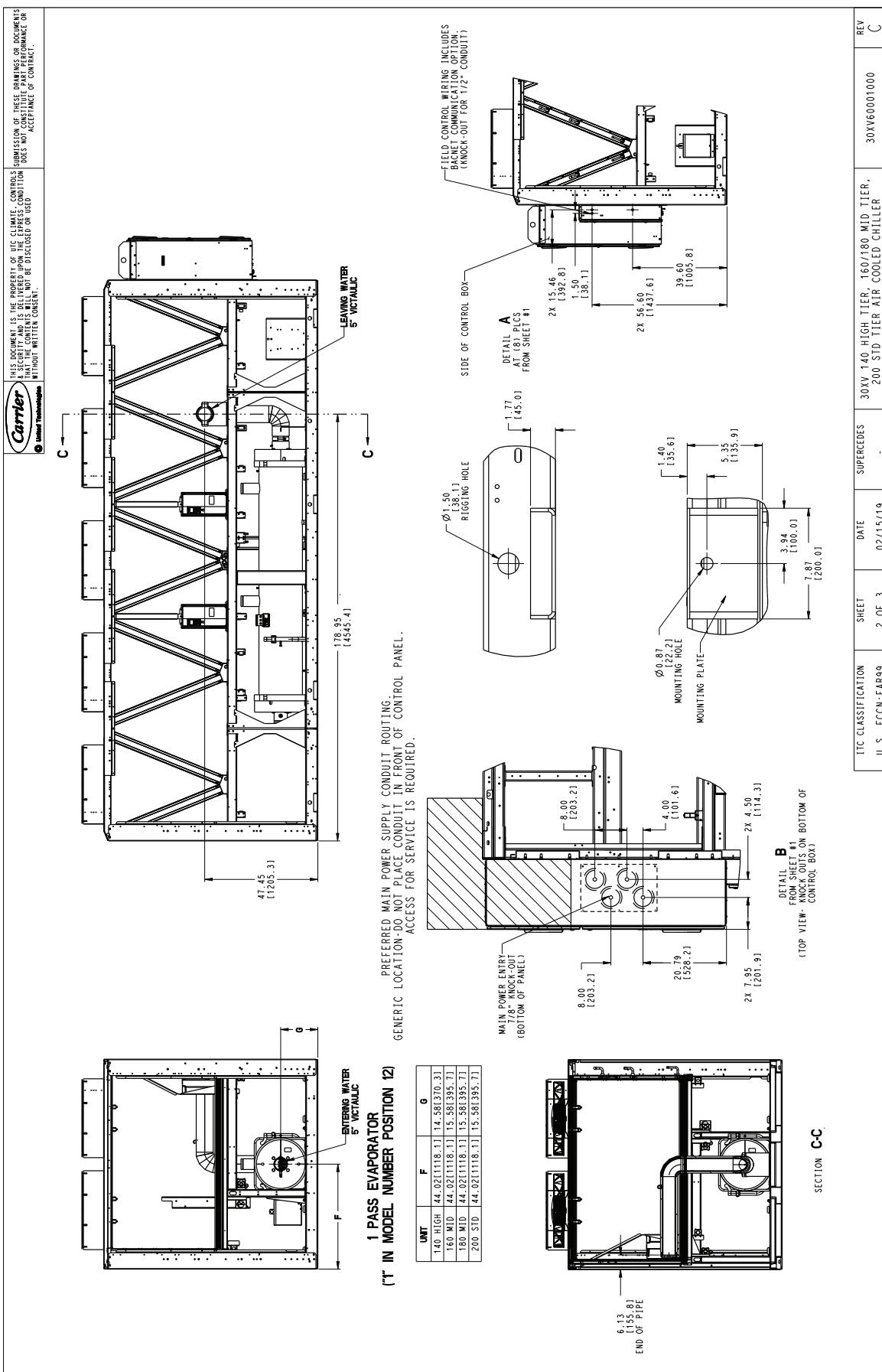
Carrier



30XV 140,160,180 STD TIER; 140 MID TIER AIR-COOLED CHILLER (cont)



30XV 140 HIGH TIER, 160,180 MID TIER, 200 STD TIER AIR-COOLED CHILLER (cont)

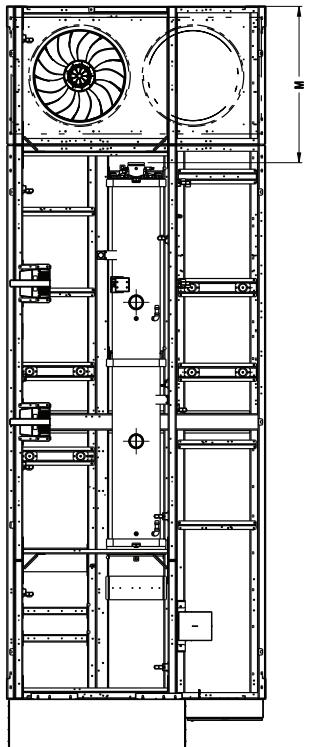


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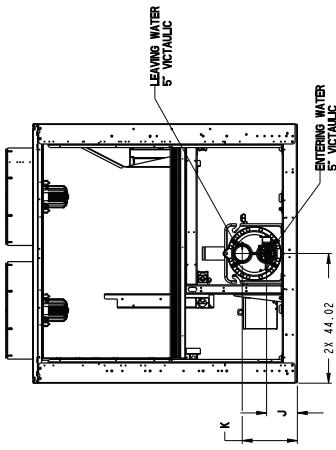
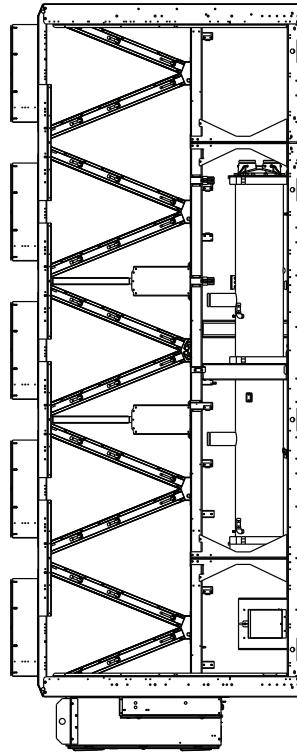


30XV 140 HIGH TIER, 160,180 MID TIER, 200 STD TIER AIR-COOLED CHILLER (cont)

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UNIT	K	J	M
140 HIGH	18.7[1475.2]	10.44[265.2]	53.05[1347.5]
160 MID	18.7[1475.2]	10.44[265.2]	53.05[1347.5]
180 MID	18.7[1475.2]	10.44[265.2]	53.05[1347.5]
200 STD	20.90[1530.9]	10.19[258.9]	49.90[1267.5]



BRINE EVAPORATOR
(2" IN MODEL NUMBER POSITION 12)

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	30XV 140 HIGH TIER 160/180 MID TIER, 200 STD	30XV80001000	REV
U.S. ECCN: EAR99	3 OF 3	02/15/19	-	TIER 4 AIR COOLED CHILLER		C

BRINE COOLER OPTION

30XV 160,180 HIGH TIER, 200 MID TIER AIR-COOLED CHILLER

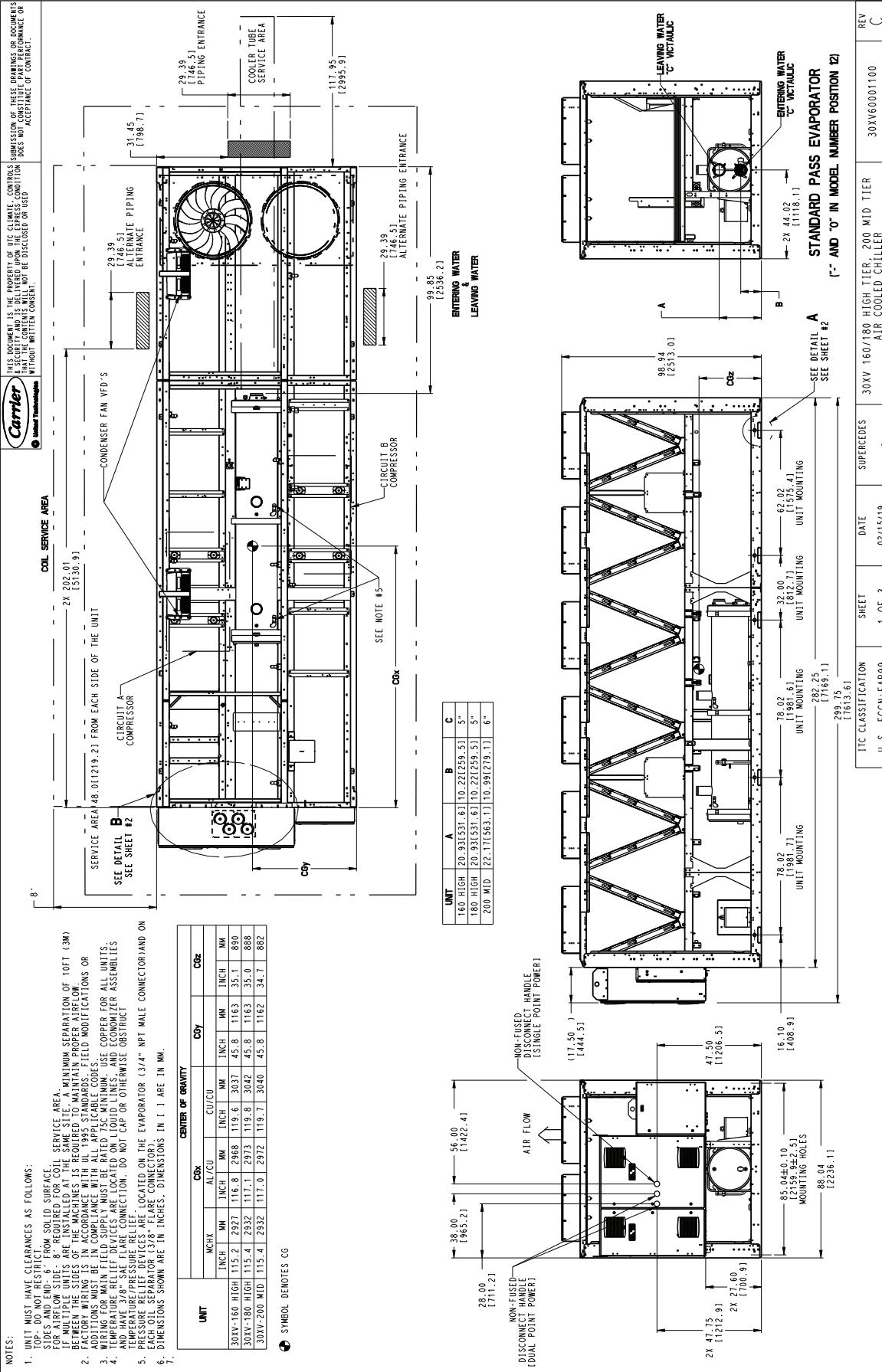
NOTES:

- NOTES:

 1. UNIT MUST HAVE CLEARANCES AS FOLLOWS:
 - a. DO NOT RESTRICT
TOP, BOTTOM, SIDE, OR SOLID SURFACE
DIMENSIONS.
 - b. MINIMUM SEPARATION
BETWEEN UNITS IS REQUIRED AT THE SAME SITE.
IF THE UNITS ARE INSTALLED AT THE SAME SITE, A MINIMUM
SEPARATION OF 12 INCHES IS REQUIRED TO MAINTAIN PROPER
OPERATION OF THE MACHINES. IT IS RECOMMENDED THAT
THE UNITS BE INSTALLED IN ACCORDANCE WITH UL 1995 STANDARDS. FIELD NO
2000.
 2. FACTORY WIRING IS IN ACCORDANCE WITH ALL APPLICABLE CODES.
 3. ADJUSTMENTS MUST BE MADE IN FIELD SUPPLY LINE, IF NECESSARY,
TO RATED 75 MINIMUM USE COPPS.
DO NOT USE COPPS ON OUTLET LINE AND CLOWN
TYPE CONNECTIONS.
 4. AMBIENT TEMPERATURE 31.8°F (0°C) IS THE
MINIMUM PRESSURE RELIEF DEVICE SETTING.
DO NOT OPERATE UNITS ON ANOTHERWISE.
EACH OIL FLARE CONNECTOR 318°F (0°C) NPT
DIMENSIONS SHOWN ARE IN INCHES. DIMENSIONS IN MM
7.
 5. PRESSURE RELIEF DEVICES ARE LOCATED ON THE EVAPORATOR (34°/4° NPT
DIMENSIONS SHOWN ARE IN INCHES. DIMENSIONS IN MM
7.

UNIT	CENTER OF GRAVITY			COG			CGZ		
	MCHY	ALL CUL.	CUL/CUL	INCH	MM	INCH	MM	INCH	MM
30XV-160 HIGH	15.2	2927	116.8	2968	119.6	3037	45.3	116.3	35.1
30XV-180 MID	15.4	2932	117.0	2973	119.8	3042	45.3	116.3	35.0
30XV-200 MID	15.4	2932	117.0	2972	119.7	3042	45.6	116.2	34.7

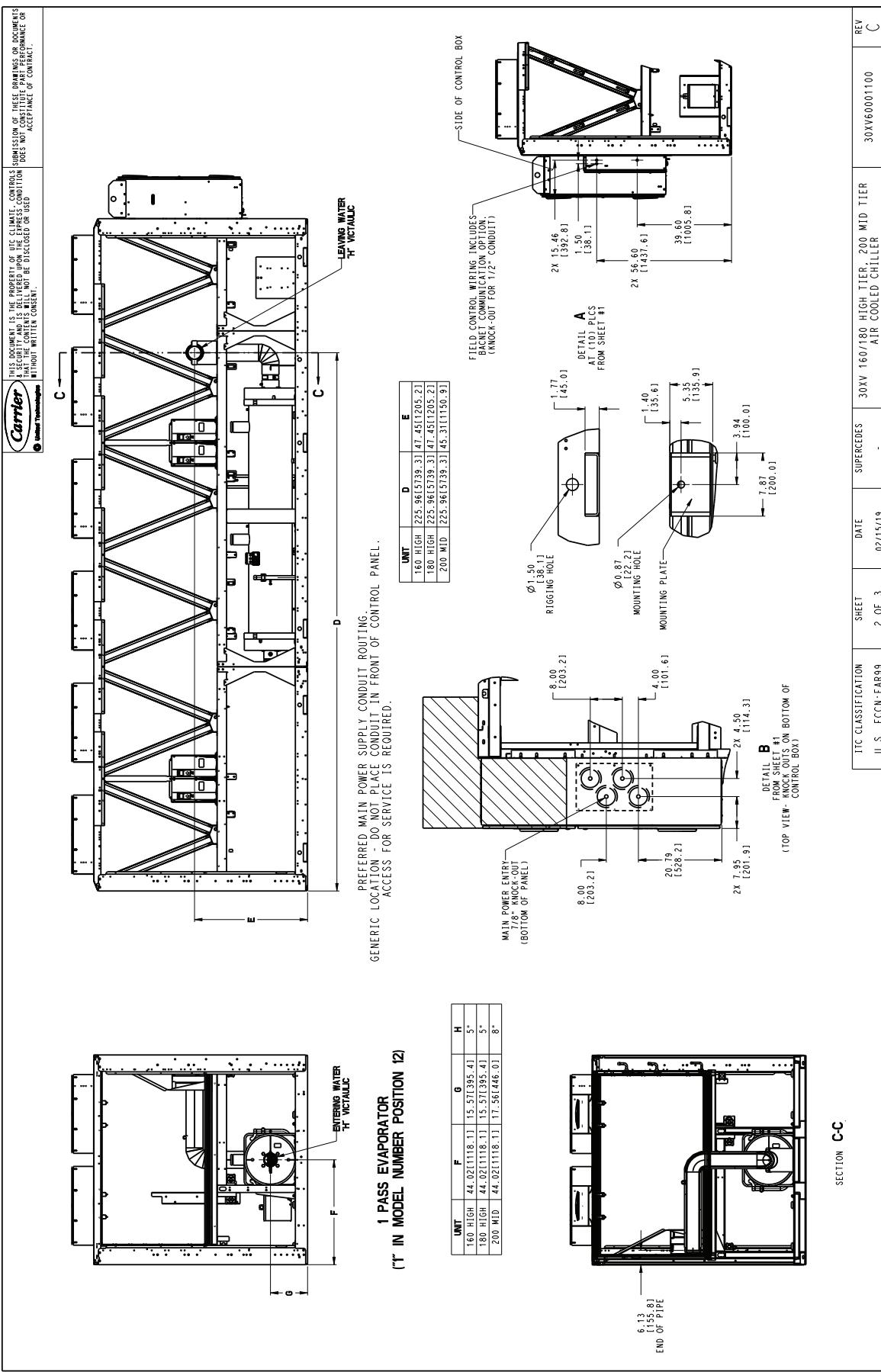
SYMBOL DENOTES CG



Dimensions (cont)

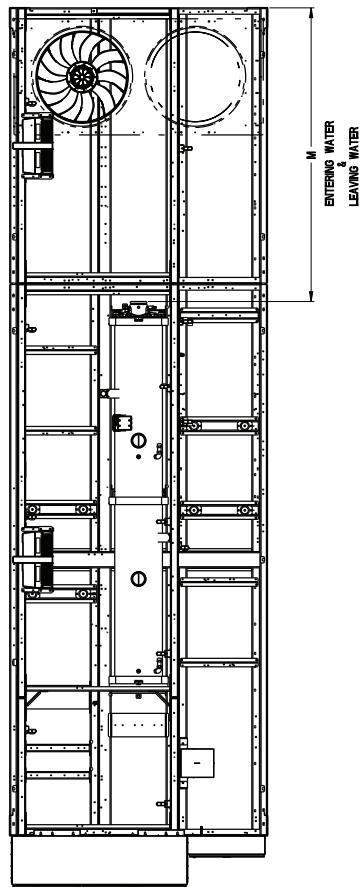
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30XV 160,180 HIGH TIER, 200 MID TIER AIR-COOLED CHILLER (cont)

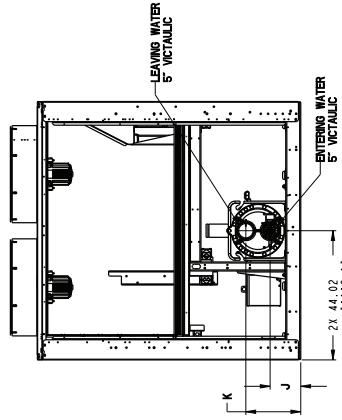
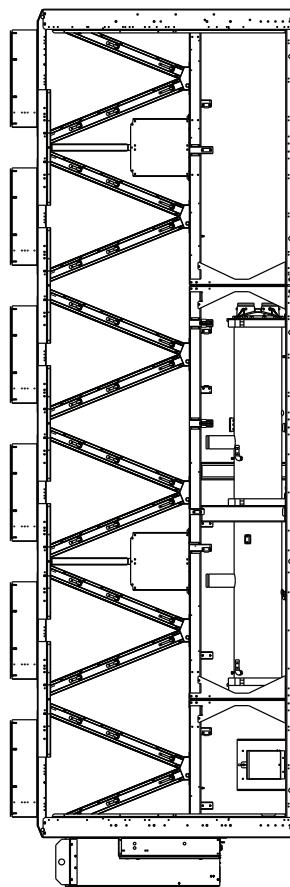


30XV 160,180 HIGH TIER, 200 MID TIER AIR-COOLED CHILLER (cont)

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UNIT	K	J	M
160 HIGH	18.71(415.3)	10.44(265.3)	100.06(2541.6)
180 HIGH	18.71(415.3)	10.44(265.3)	100.06(2541.6)
200 MID	20.30(530.9)	10.19(258.9)	96.91(2461.5)



BRINE EVAPORATOR
(2 IN MODEL NUMBER POSITION 12)

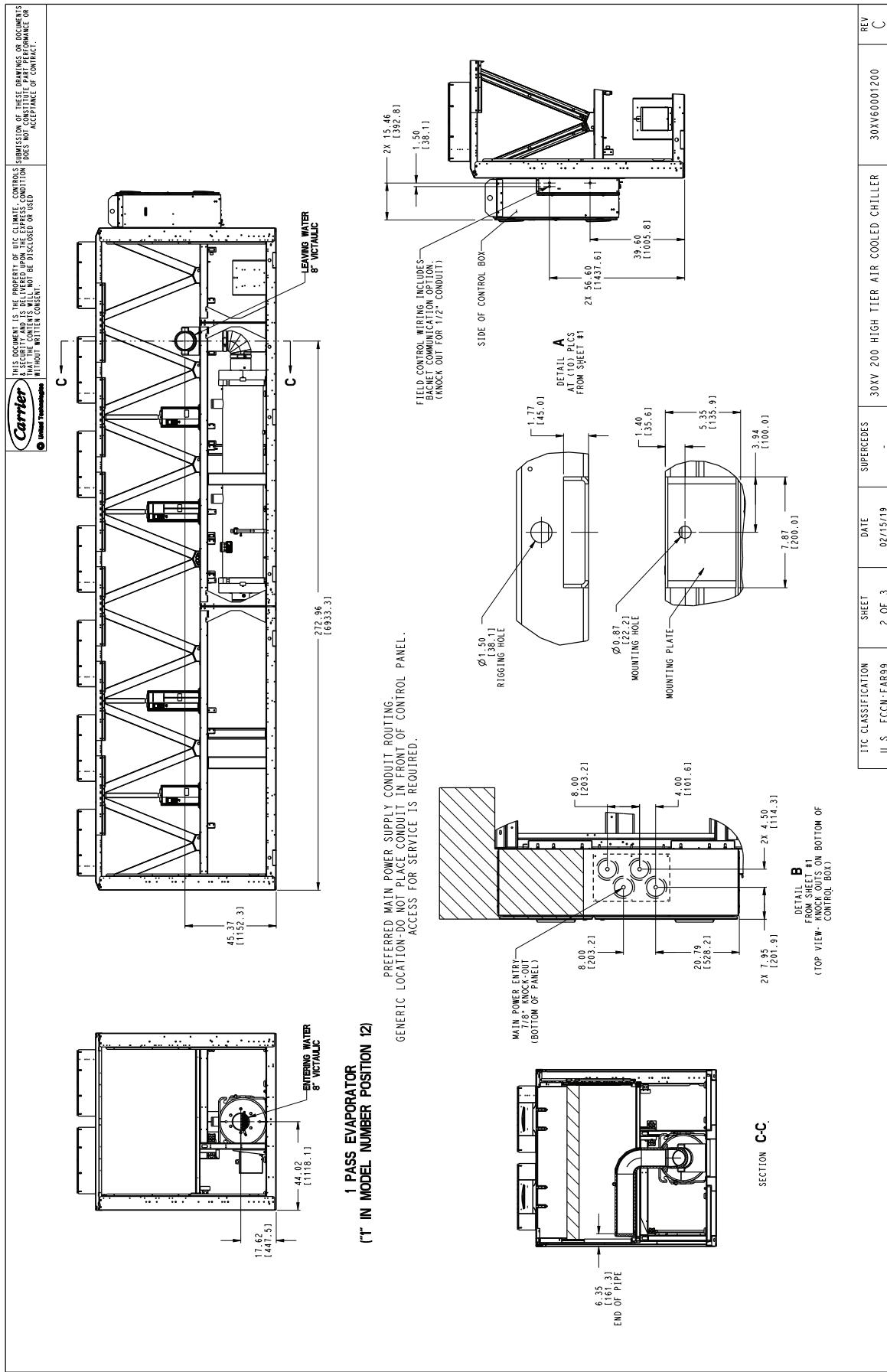
BRINE COOLER OPTION

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	REV
U. S. - ECRN-EAR99	3 OF 3	02/15/19	-	C

30XV60001100

C

30XV 200 HIGH TIER AIR-COOLED CHILLER (cont)

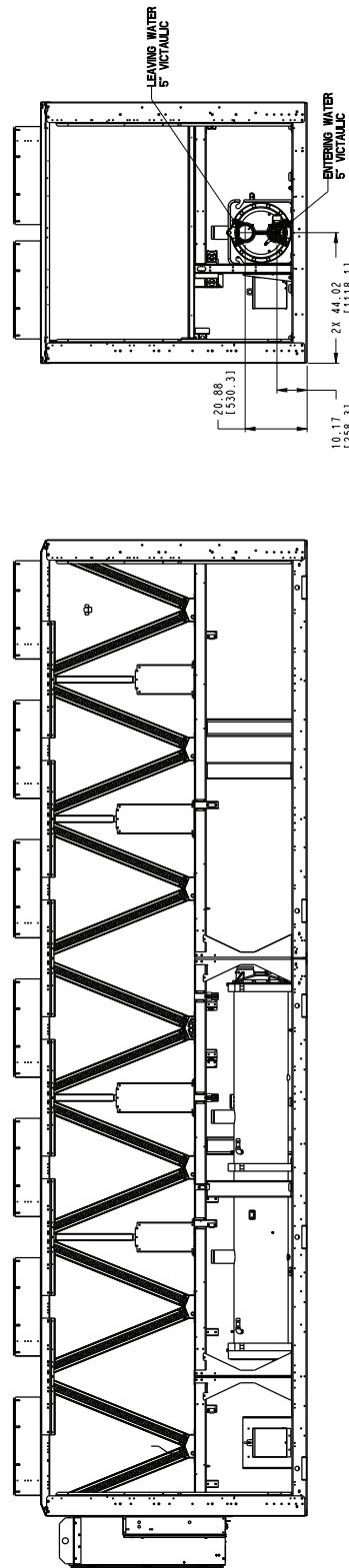
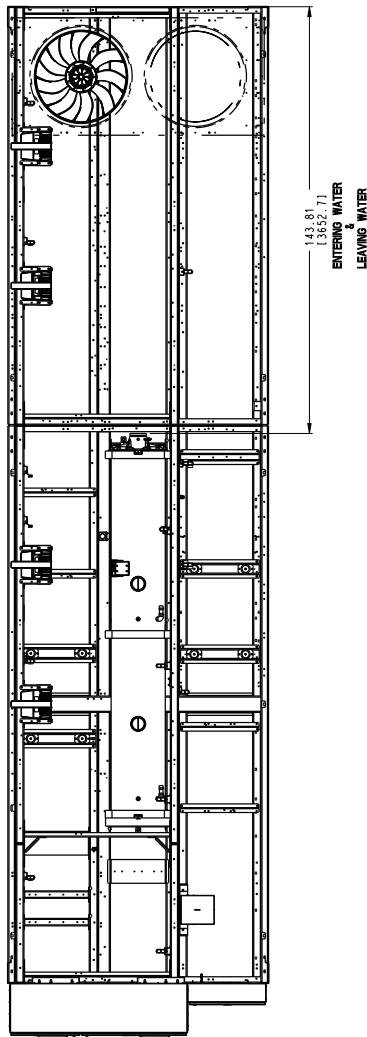


Dimensions (cont)



30XV 200 HIGH TIER AIR-COOLED CHILLER (cont)

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BRINE COOLER OPTION

BRINE EVAPORATOR

(Z IN MODEL NUMBER POSITION 12)

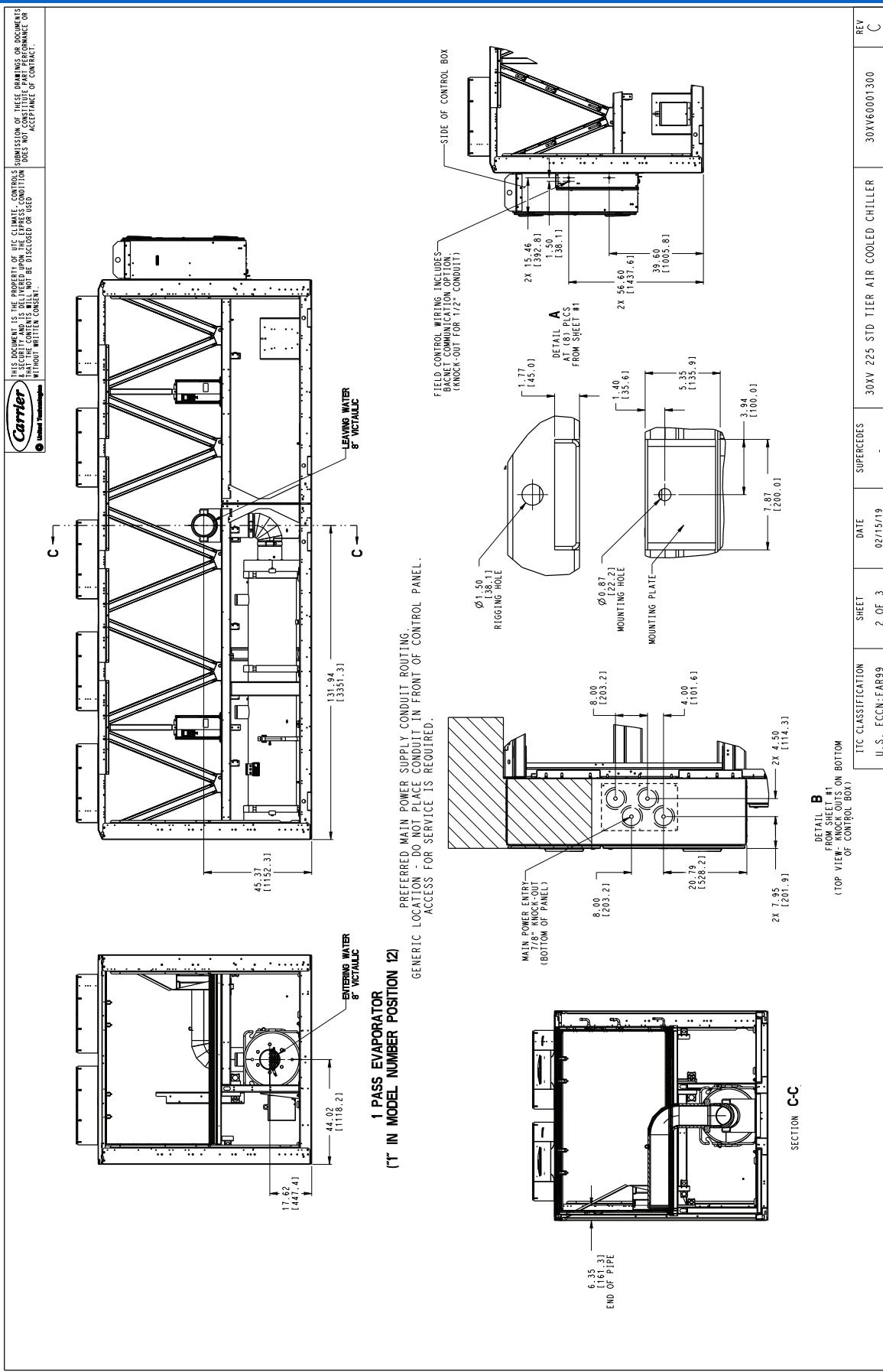
REV
C
30XV60001200

ITC CLASSIFICATION U.S. ECCN: EAR99	SHEET 3 OF 3	DATE 02/15/19	SUPERCEDES -	30XV 200 HIGH TIER AIR COOLED CHILLER	30XV60001200
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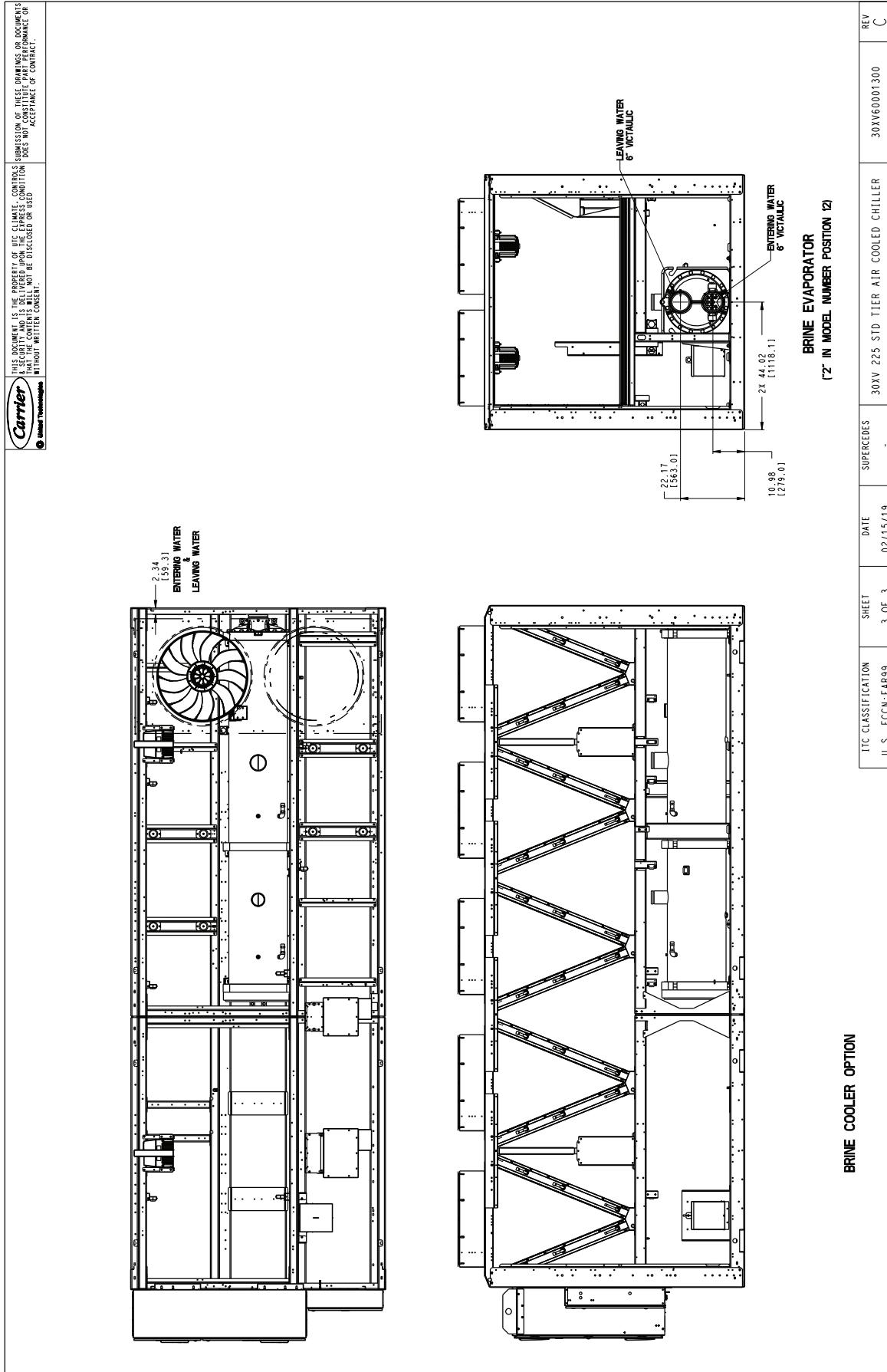
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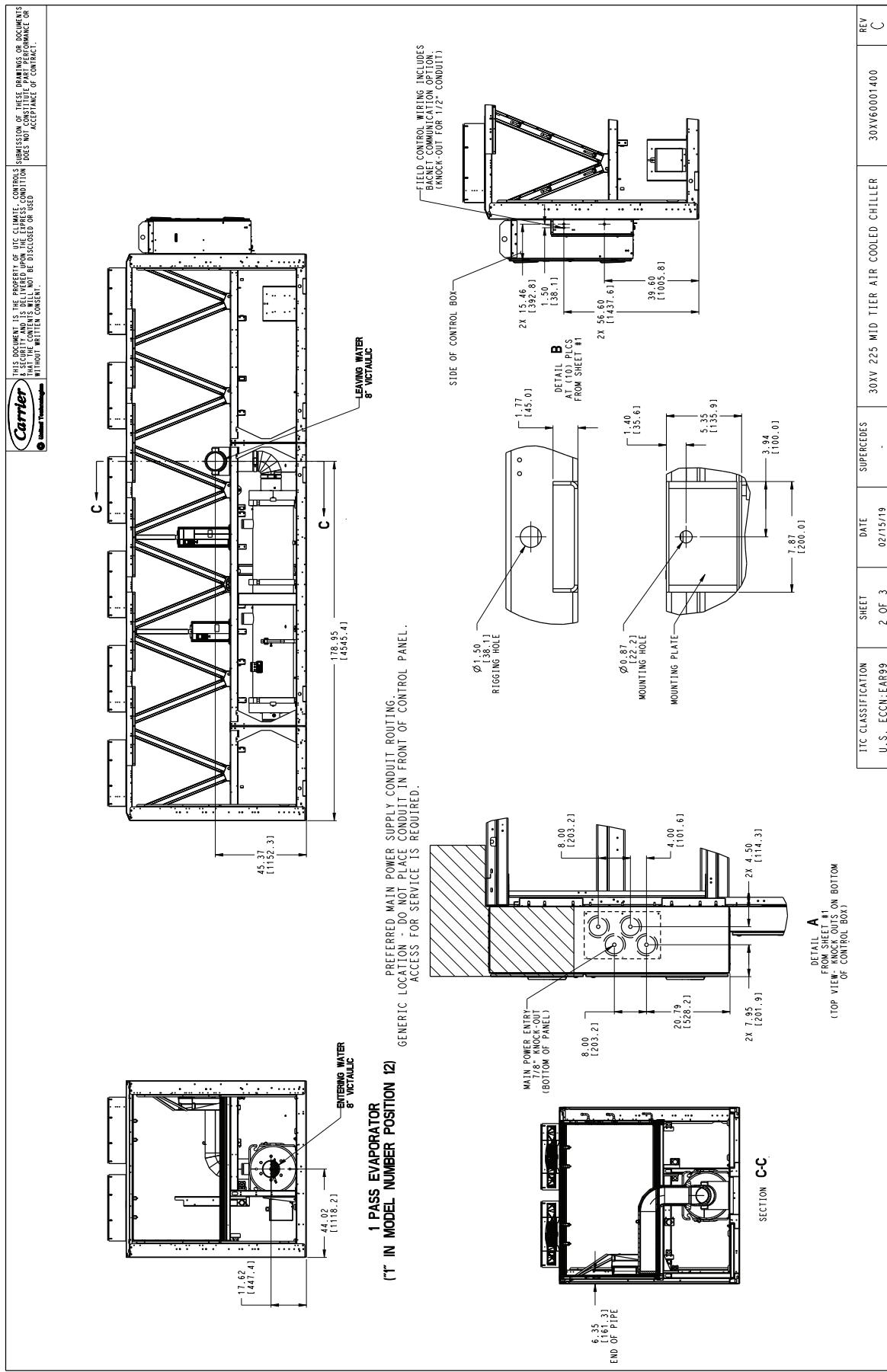
30XV 225 STD TIER AIR-COOLED CHILLER (cont)



30XV 225 STD TIER AIR-COOLED CHILLER (cont)



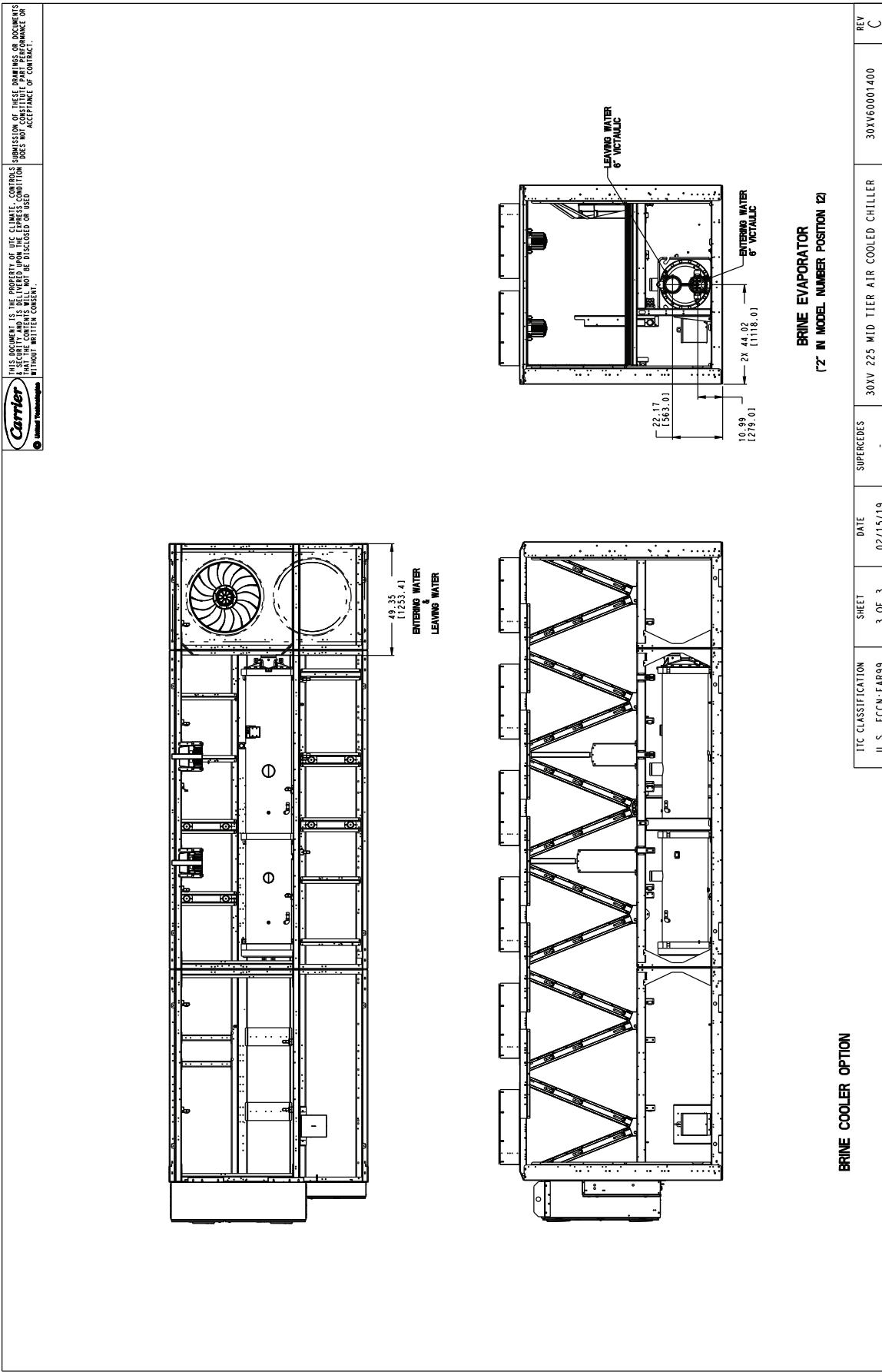
30XV 225 MID TIER AIR-COOLED CHILLER (cont)



Dimensions (cont)



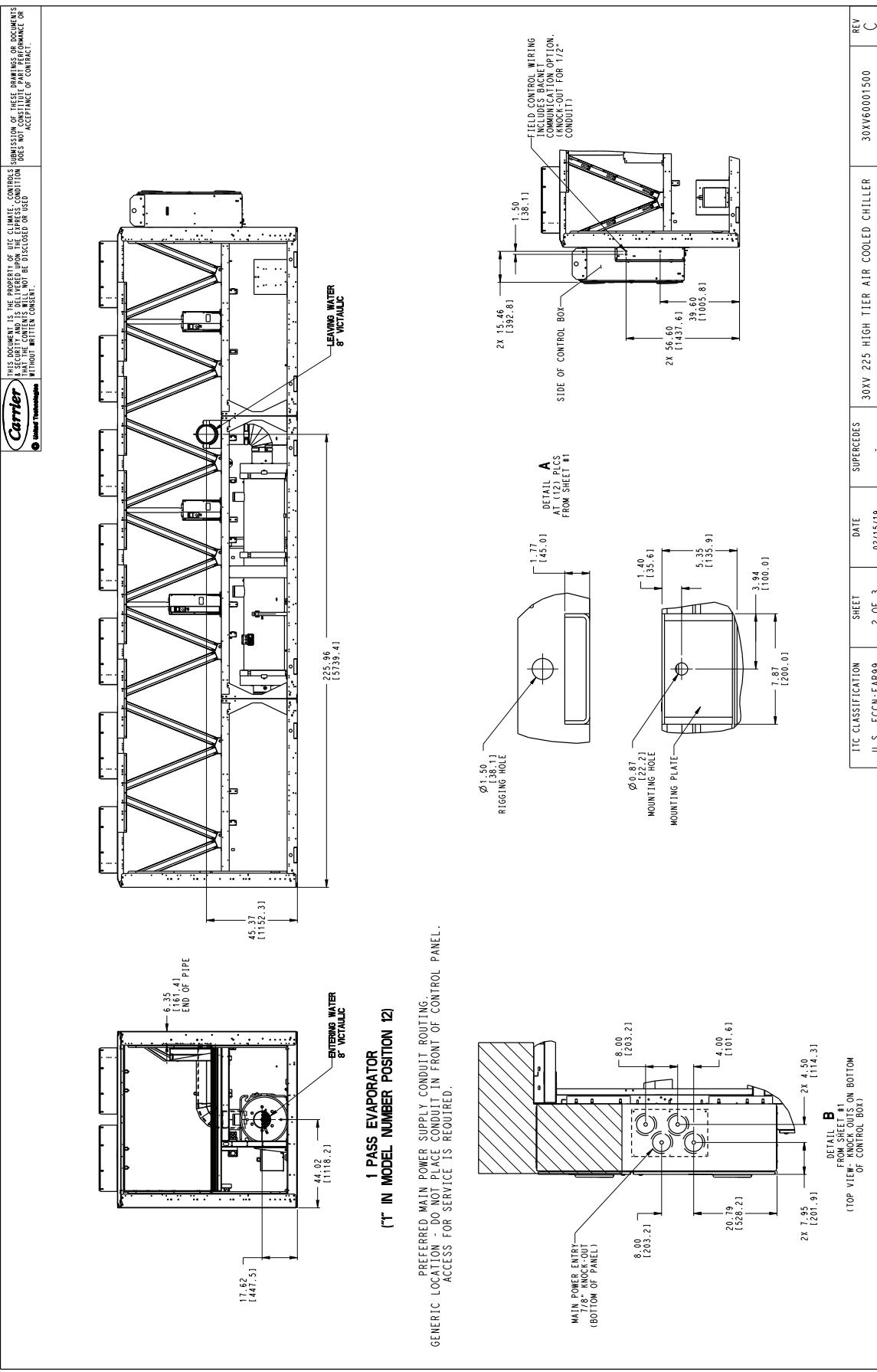
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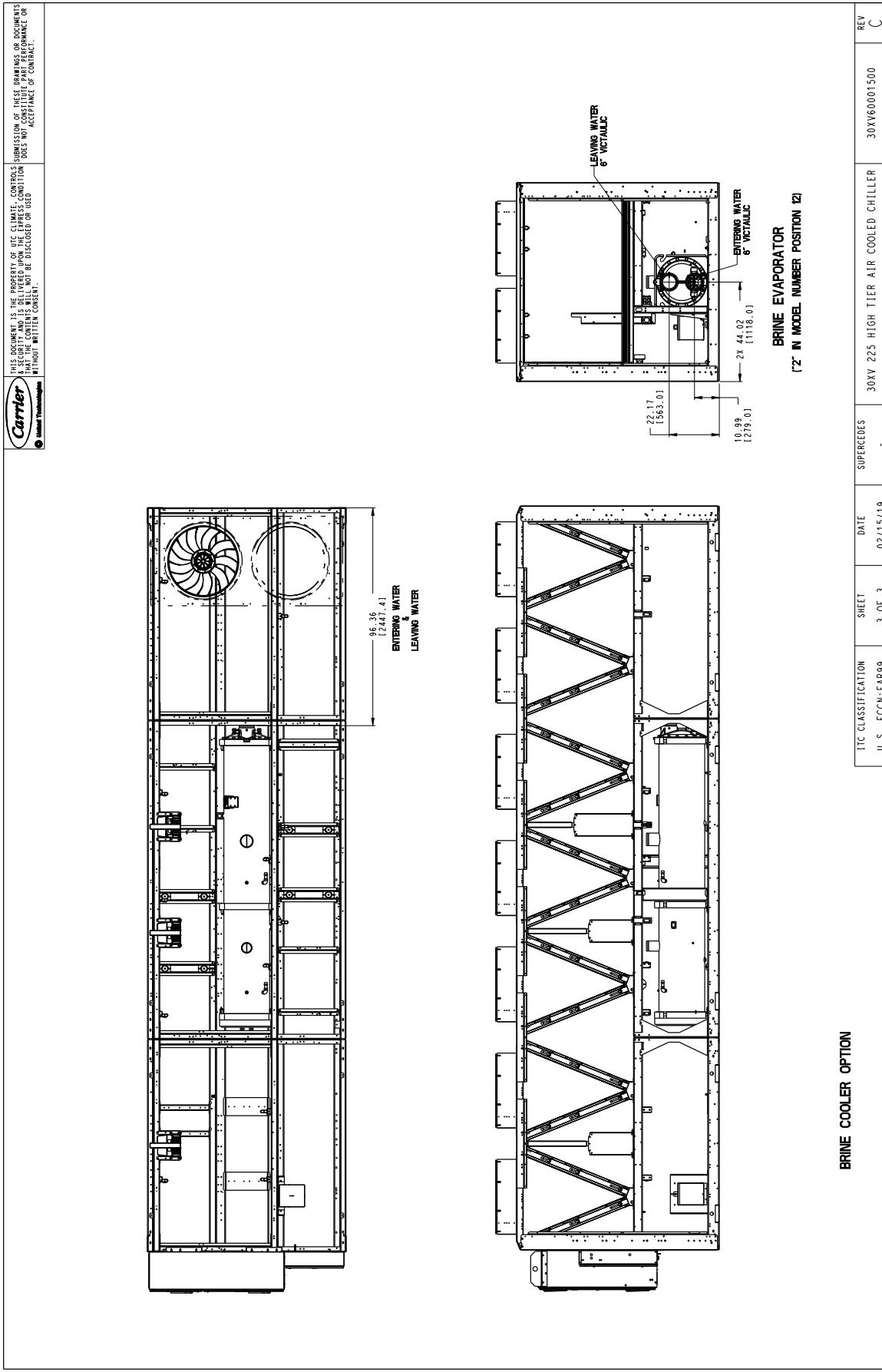
Dimensions (cont)

Carrier

30XV 225 HIGH TIER AIR-COOLED CHILLER (cont)

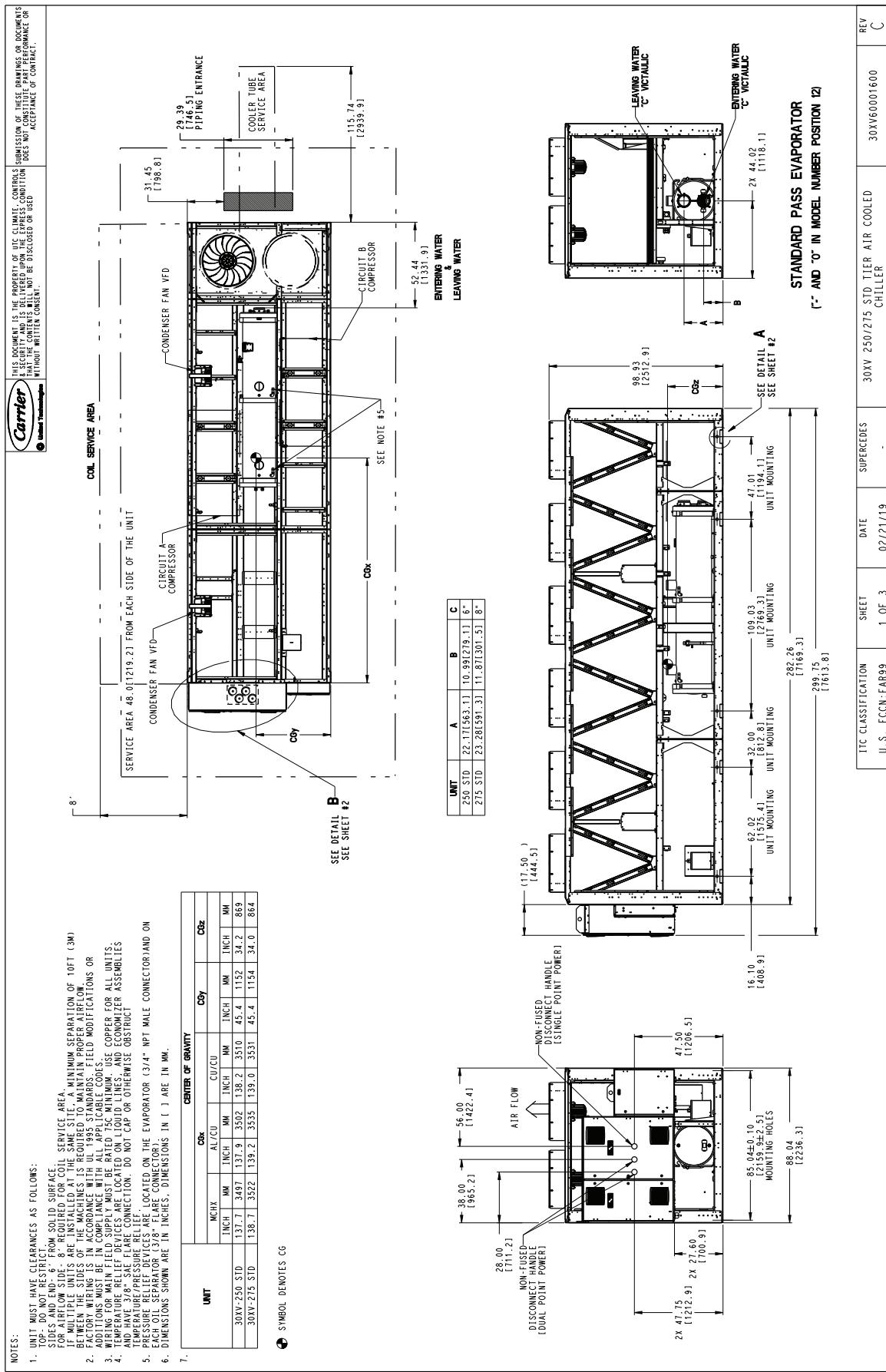


30XV 225 HIGH TIER AIR-COOLED CHILLER (cont)

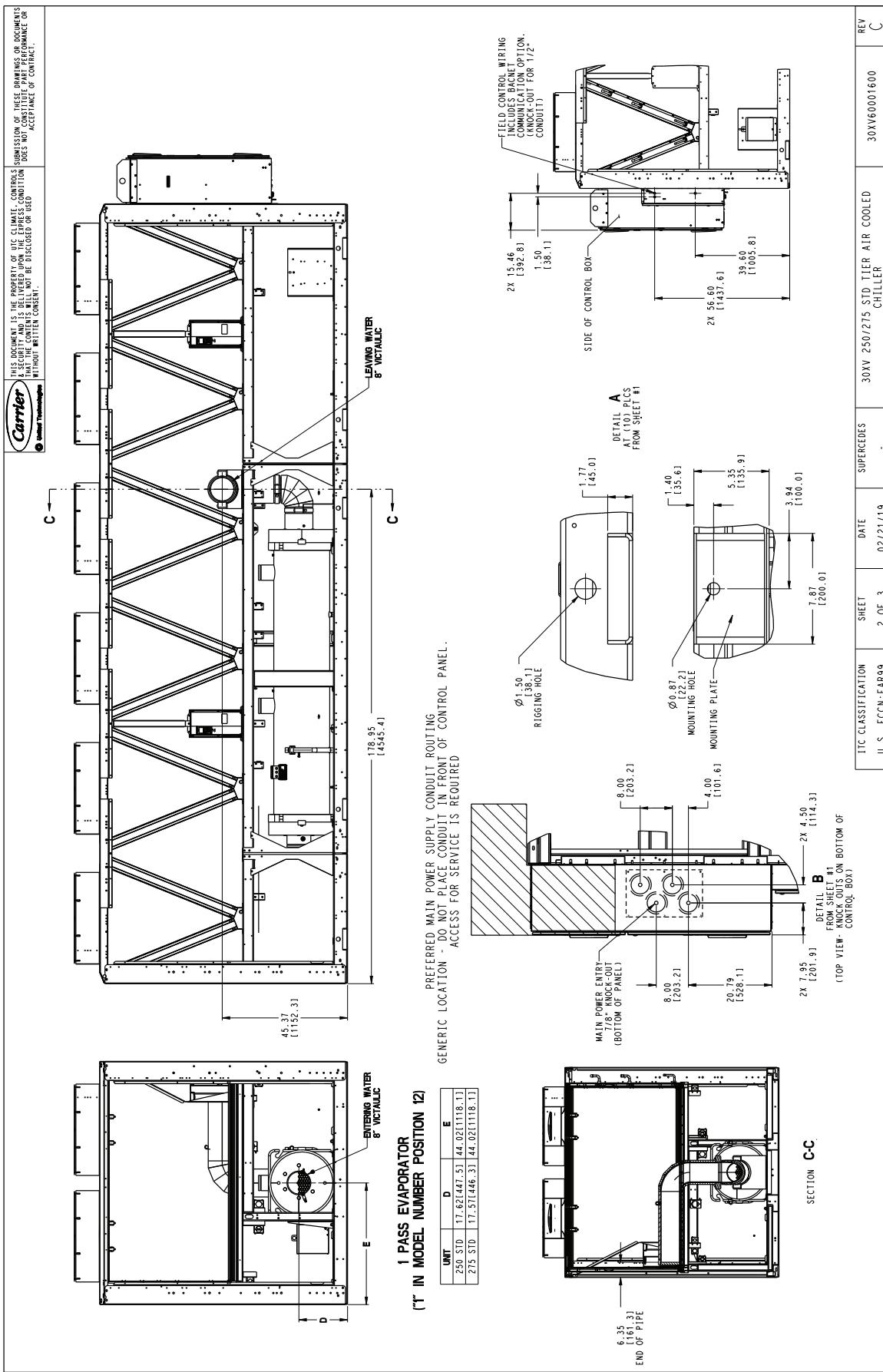


Dimensions (cont)

30XV 250,275 STD TIER AIR-COOLED CHILLER



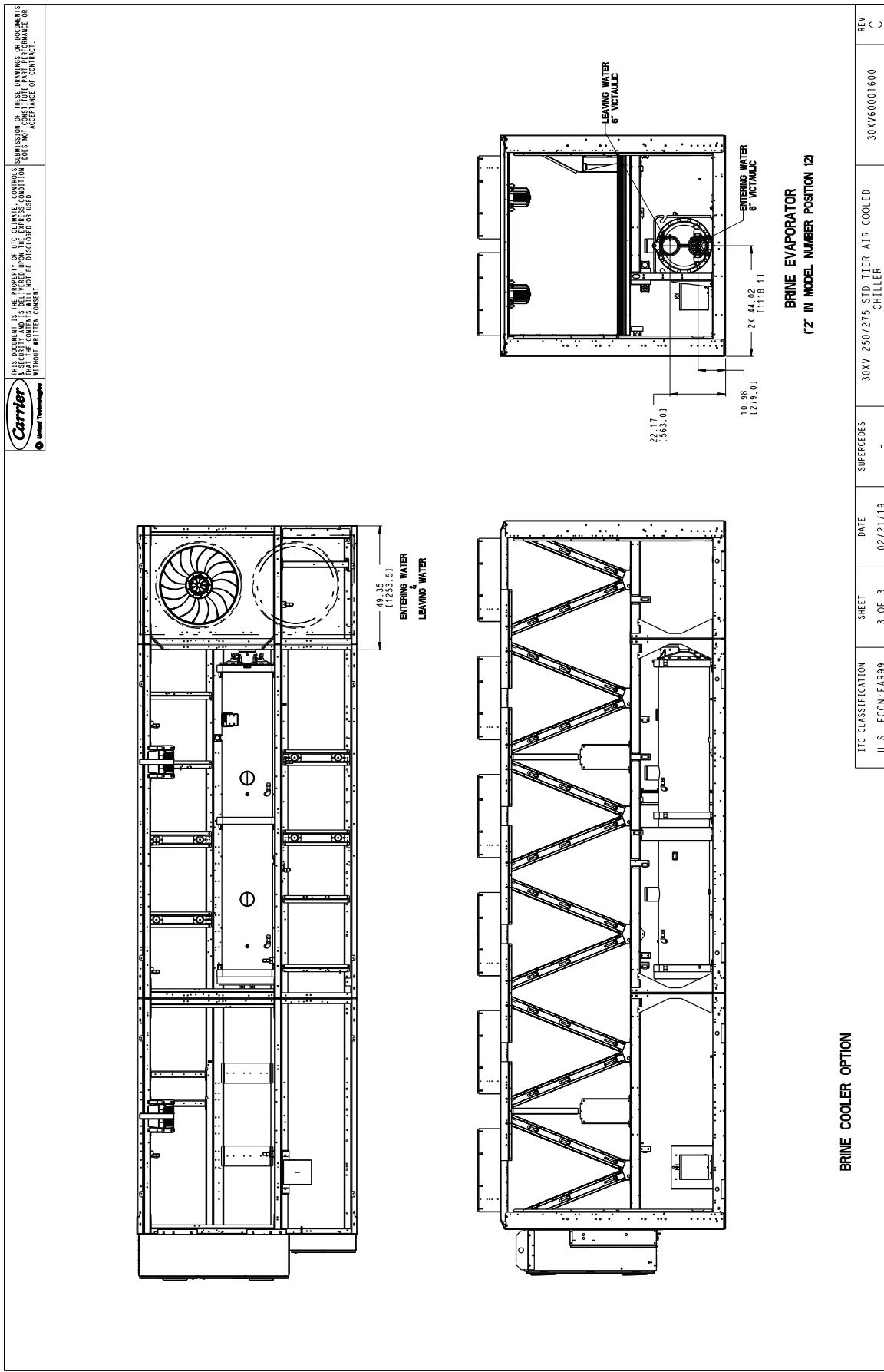
30XV 250,275 STD TIER AIR-COOLED CHILLER (cont)



Dimensions (cont)

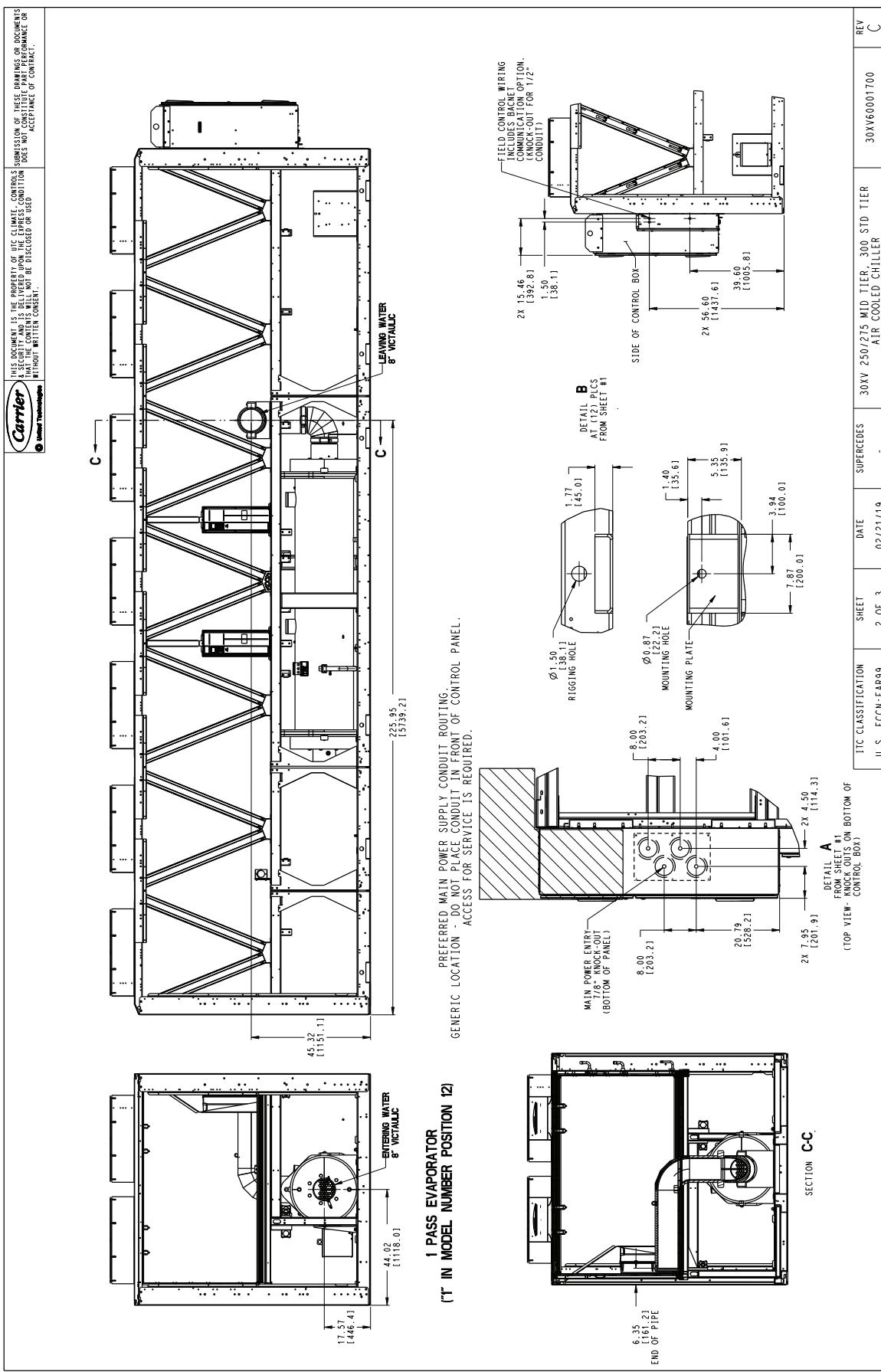


30XV 250,275 STD TIER AIR-COOLED CHILLER (cont)



Dimensions (cont)

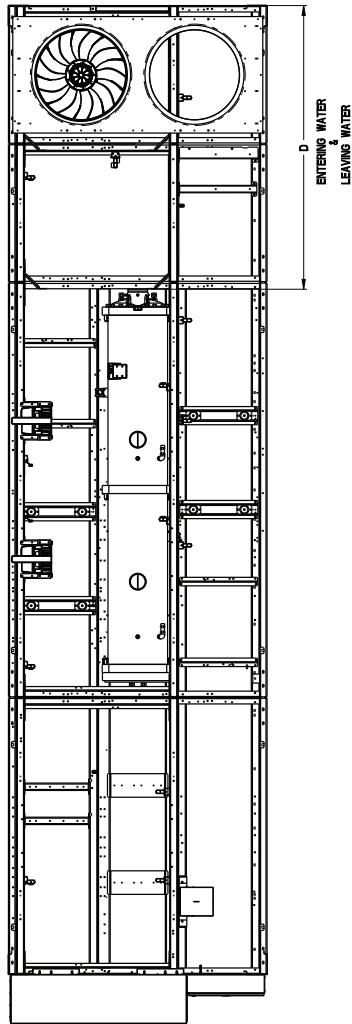
30XV 250,275 MID TIER, 300 STD TIER AIR-COOLED CHILLER (cont)



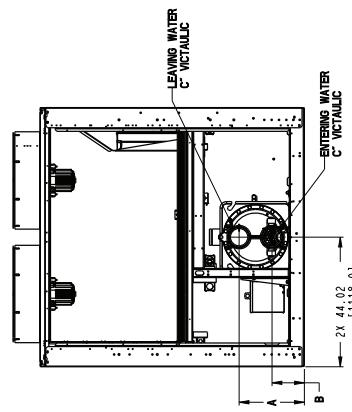
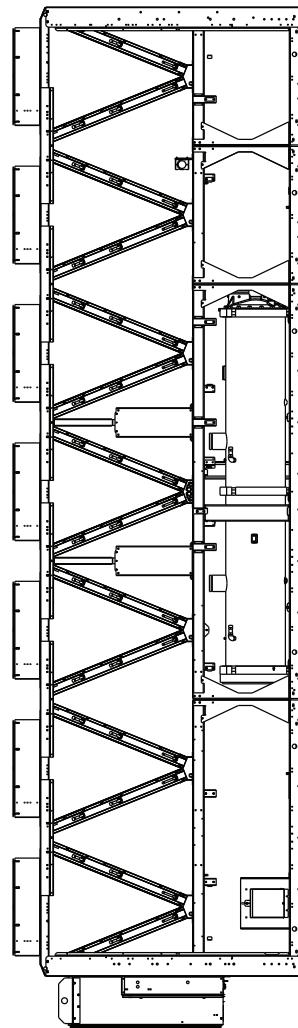
30XV 250,275 MID TIER, 300 STD TIER AIR-COOLED CHILLER (cont)

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UNIT	A	B	C	D
250 MID	32'-11 1/2"	10'-9 1/2"	7'	96'-35 1/2"
275 MID	32'-11 1/2"	10'-9 1/2"	7'	96'-35 1/2"
300 STD	23'-29 1/2"	11'-8 1/2"	5 1/2"	96'-01 1/2"



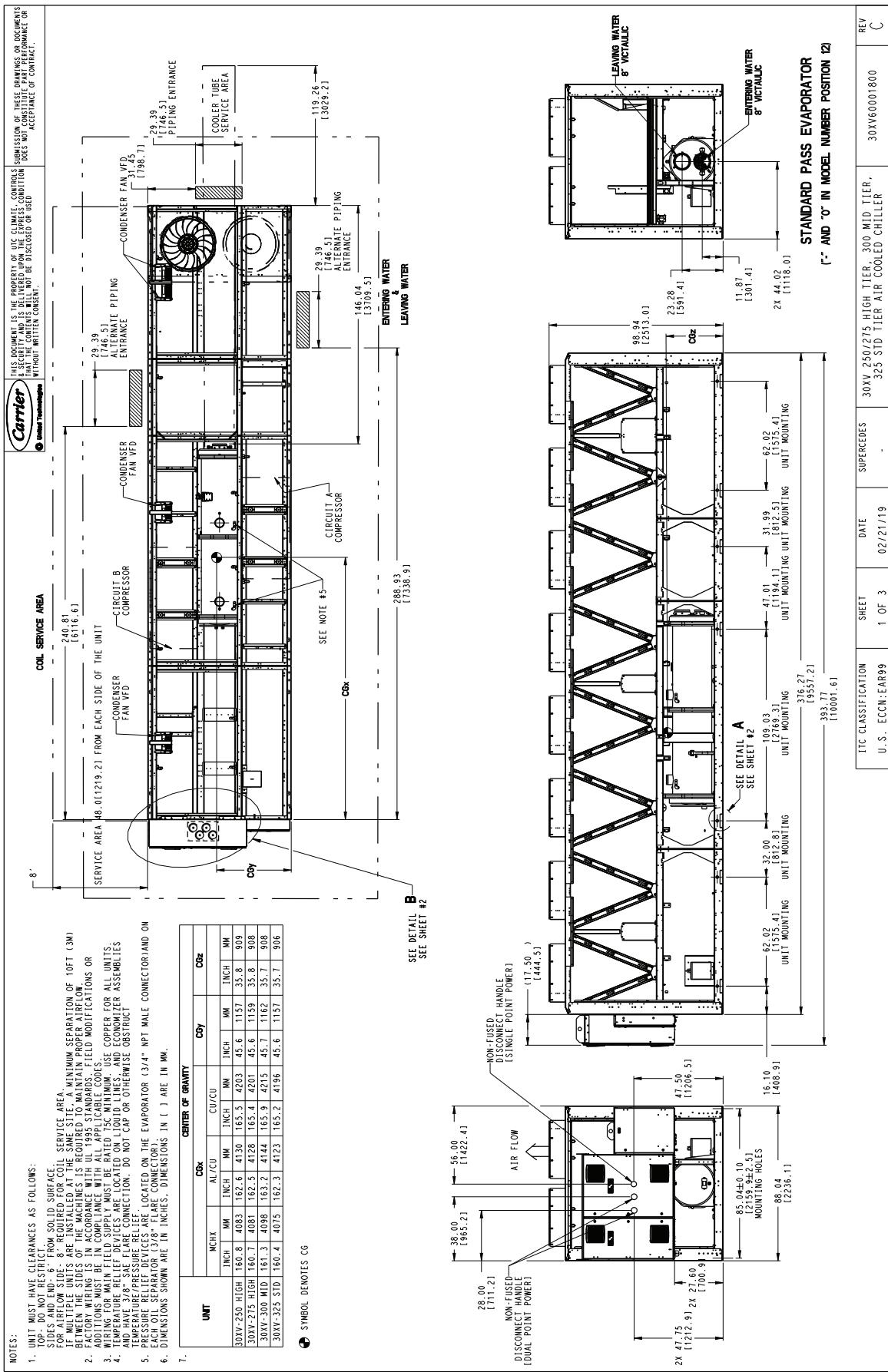
BRINE EVAPORATOR
(2" IN MODEL NUMBER POSITION 12)

BRINE COOLER OPTION

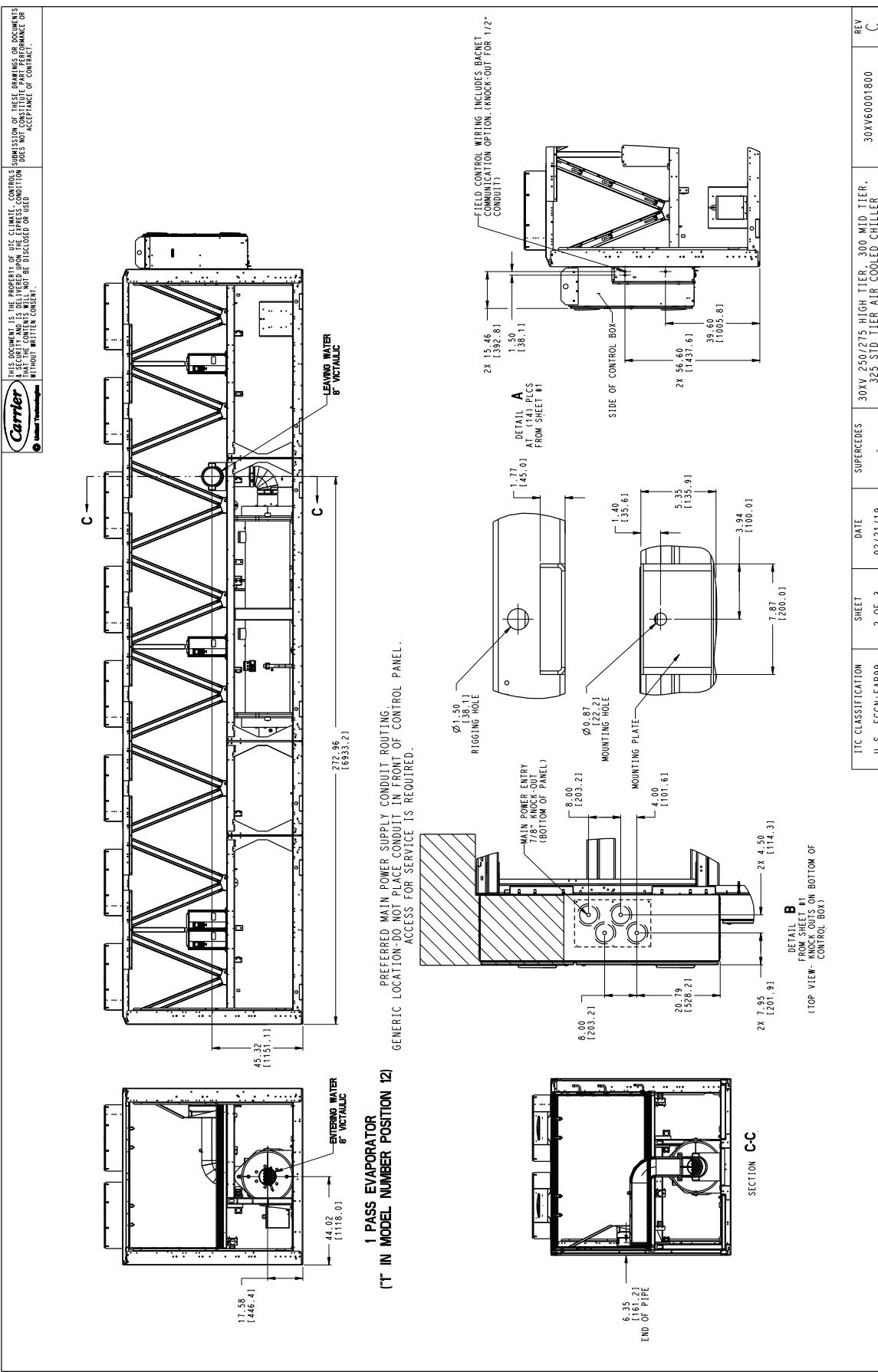
ITC CLASSIFICATION	SHEET	DATE	SUPERSEDES	REV
U.S. FCCN.EAR99	3 OF 3	02/17/19	-	C 30XV60001700

Dimensions (cont)

30XV 250,275 HIGH TIER, 300 MID TIER, 325 STD TIER AIR-COOLED CHILLER



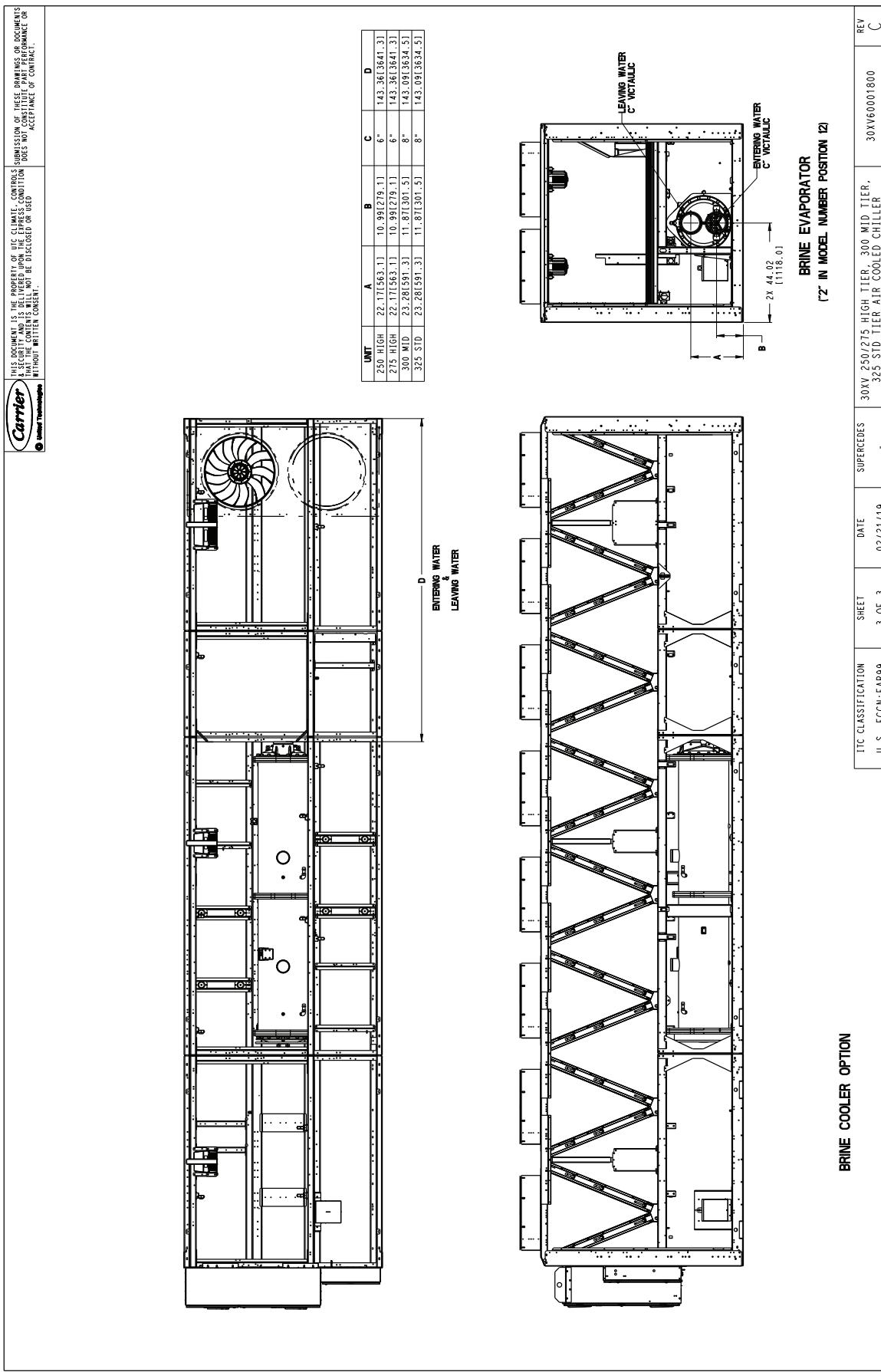
30XV 250,275 HIGH TIER, 300 MID TIER, 325 STD TIER AIR-COOLED CHILLER (cont)



Dimensions (cont)



30XV 250,275 HIGH TIER, 300 MID TIER, 325 STD TIER AIR-COOLED CHILLER (cont)



30XV 300 HIGH TIER, 325 MID TIER AIR-COOLED CHILLER

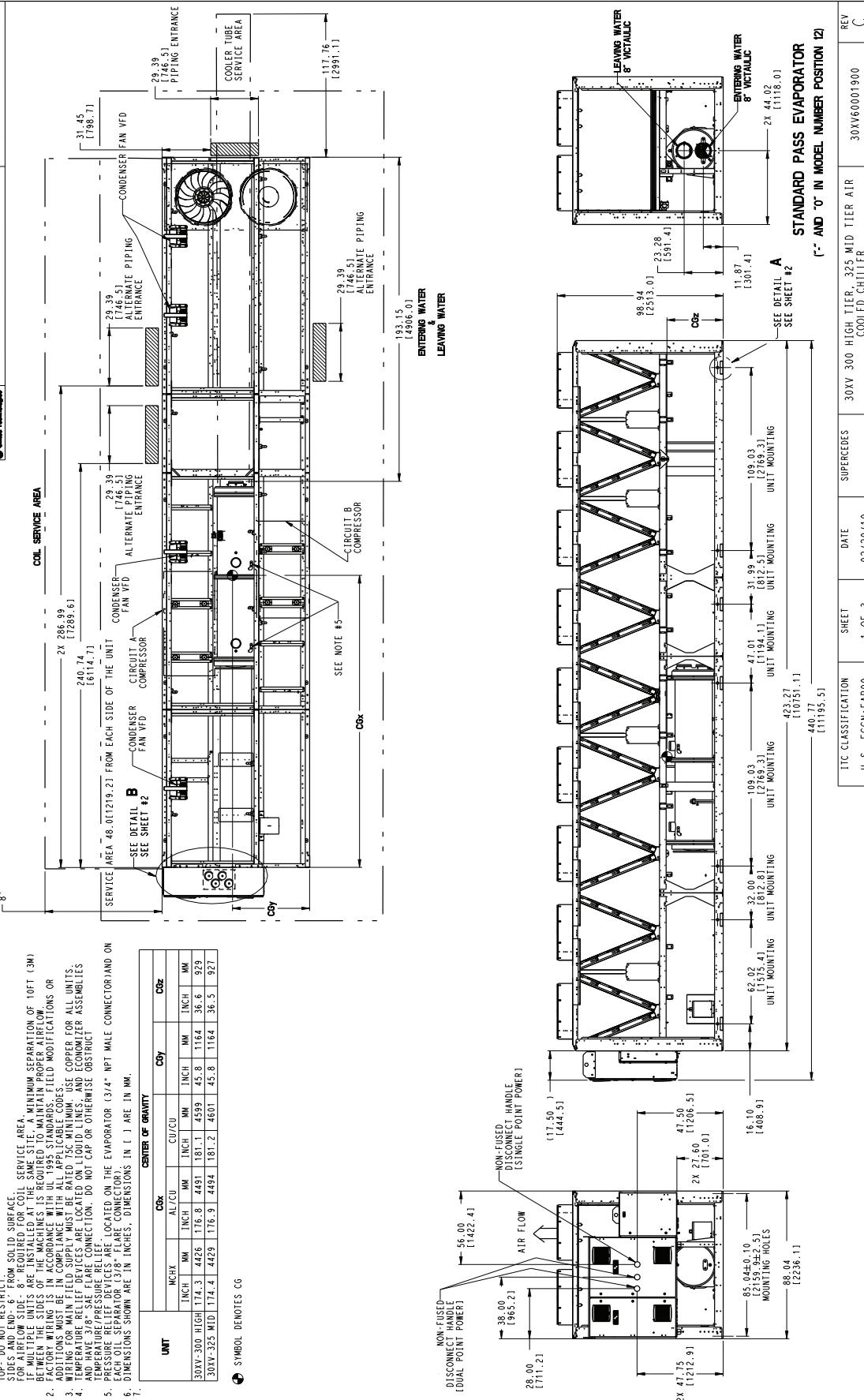
NOTES:

1. UNIT MUST HAVE CLEARANCES AS FOLLOWS:
TOP NO. 1000
SIDE NO. 1000
FRONT NO. 1000

UNIT	CENTER OF GRAVITY						COG	
	CIR		CU/CU		CDY			
MCHX	INCH	MM	INCH	MM	INCH	MM	INCH	MM
100-300	HIGH	714.3	4426	116.8	4491	181.1	4559	55.8
100-325	MID	714.4	4429	116.9	4494	181.2	4601	55.8
100-350	LOW	714.5	4432	117.0	4497	181.3	4643	56.0

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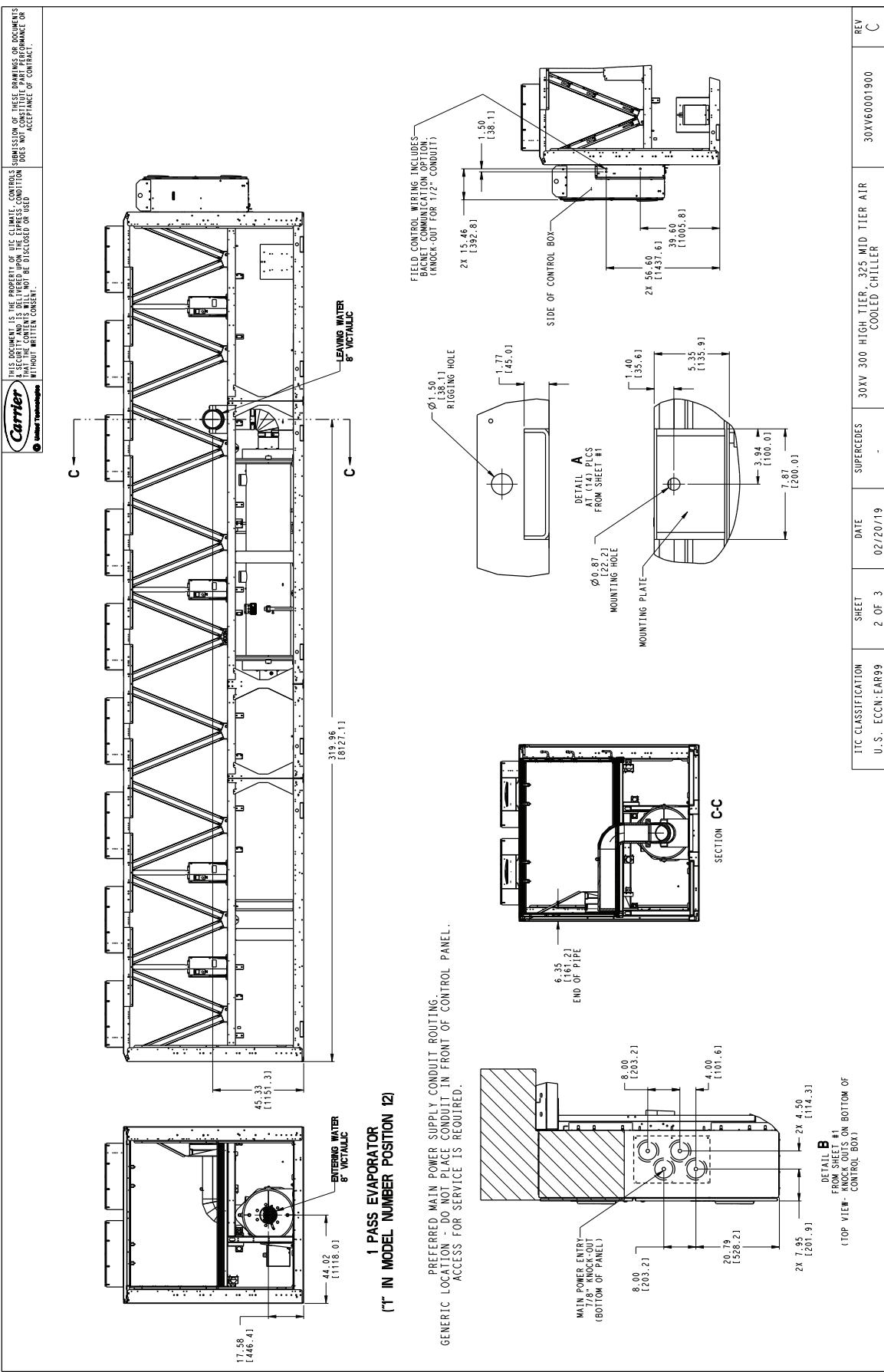
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Dimensions (cont)

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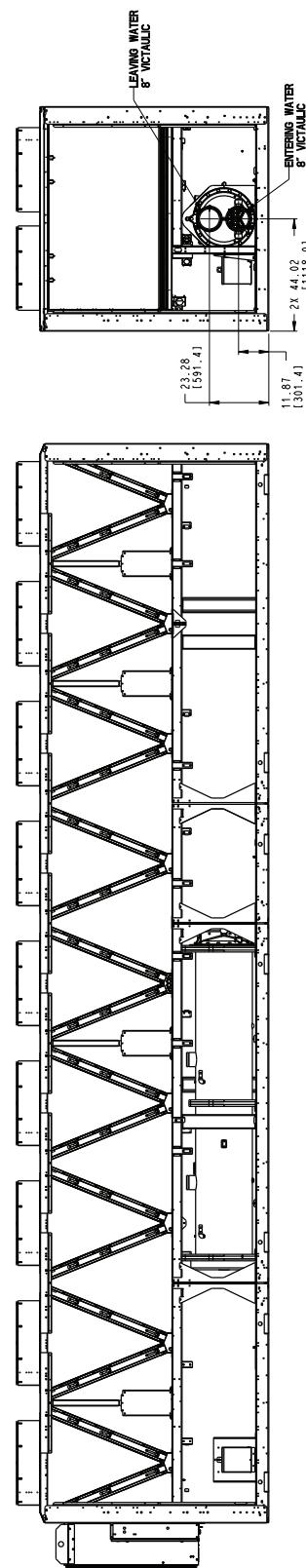
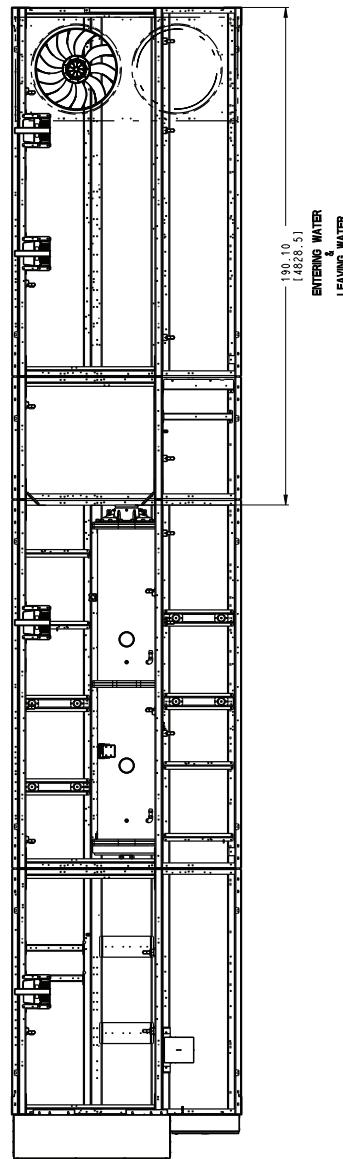
30XV 300 HIGH TIER, 325 MID TIER AIR-COOLED CHILLER (cont)



30XV 300 HIGH TIER, 325 MID TIER AIR-COOLED CHILLER (cont)

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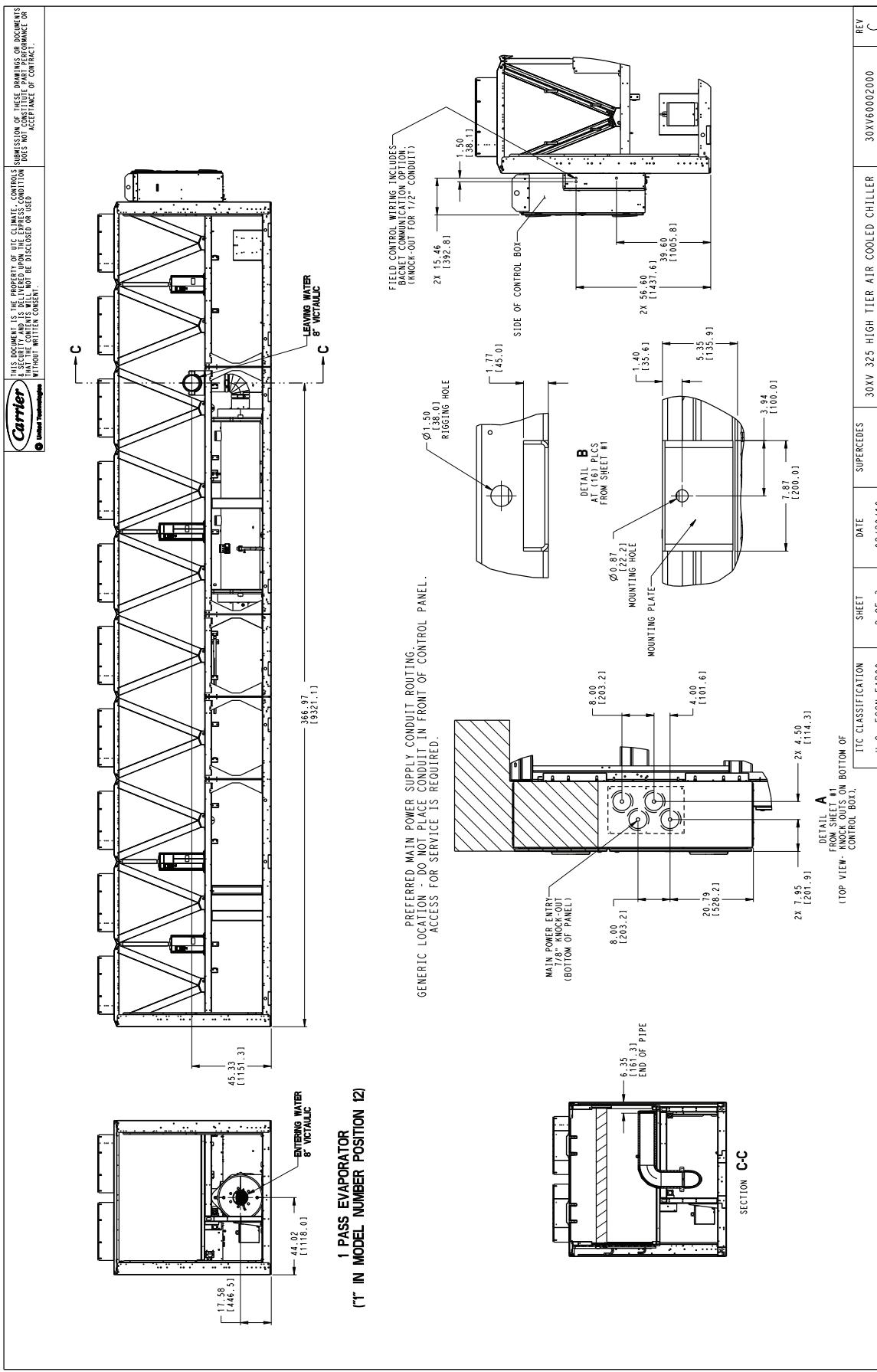


BRINE COOLER OPTION

ITC CLASSIFICATION U.S. EECI: EAR9	SHEET 3 OF 3	DATE 02/20/19	SUPERGENES	30XV 300 HIGH TIER, 325 MID TIER AIR COOLED CHILLER	30XV6001900	REV C
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BRINE EVAPORATOR
(2" IN MODEL NUMBER POSITION 12)

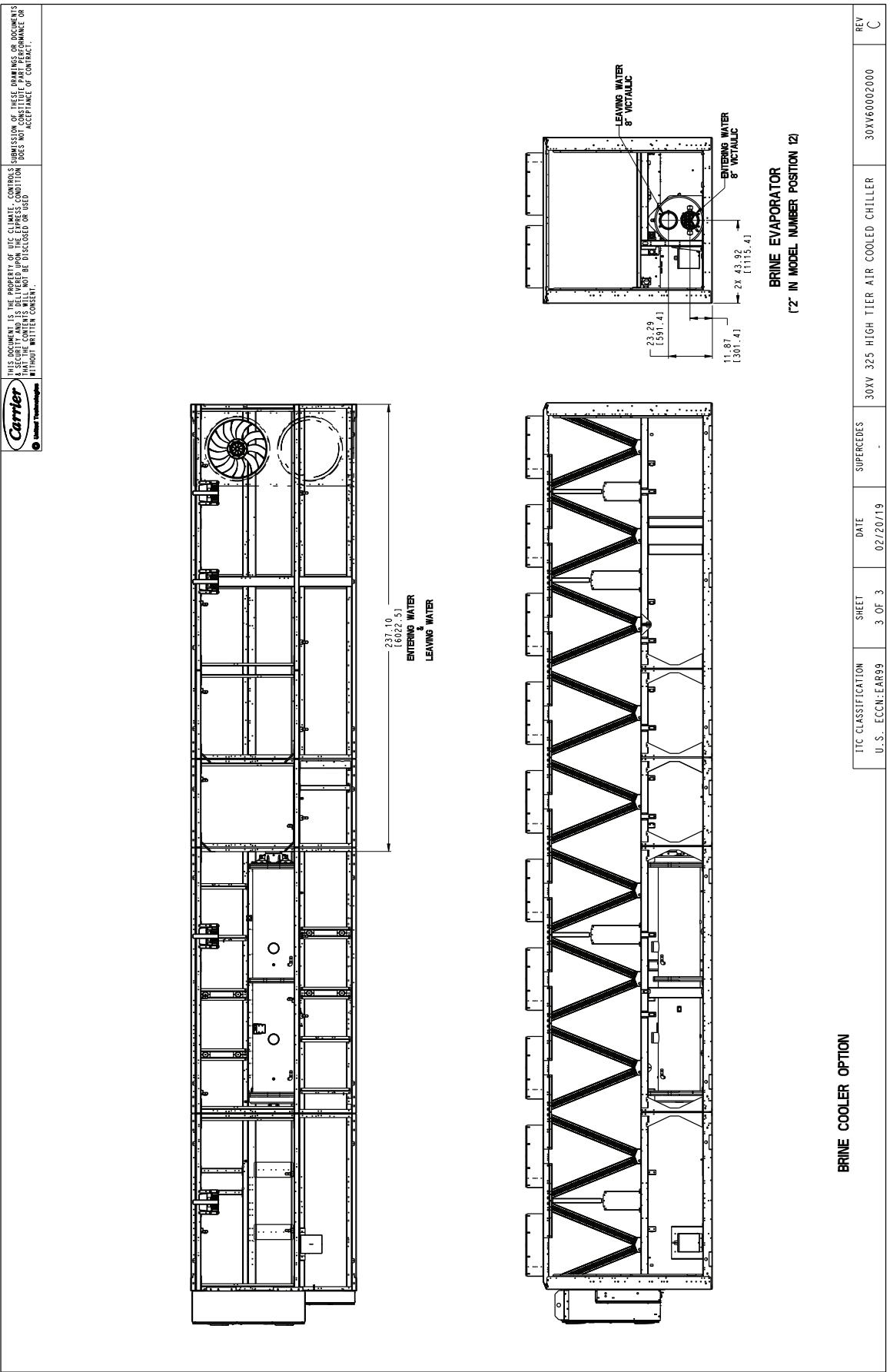
30XV 325 HIGH TIER AIR-COOLED CHILLER (cont)



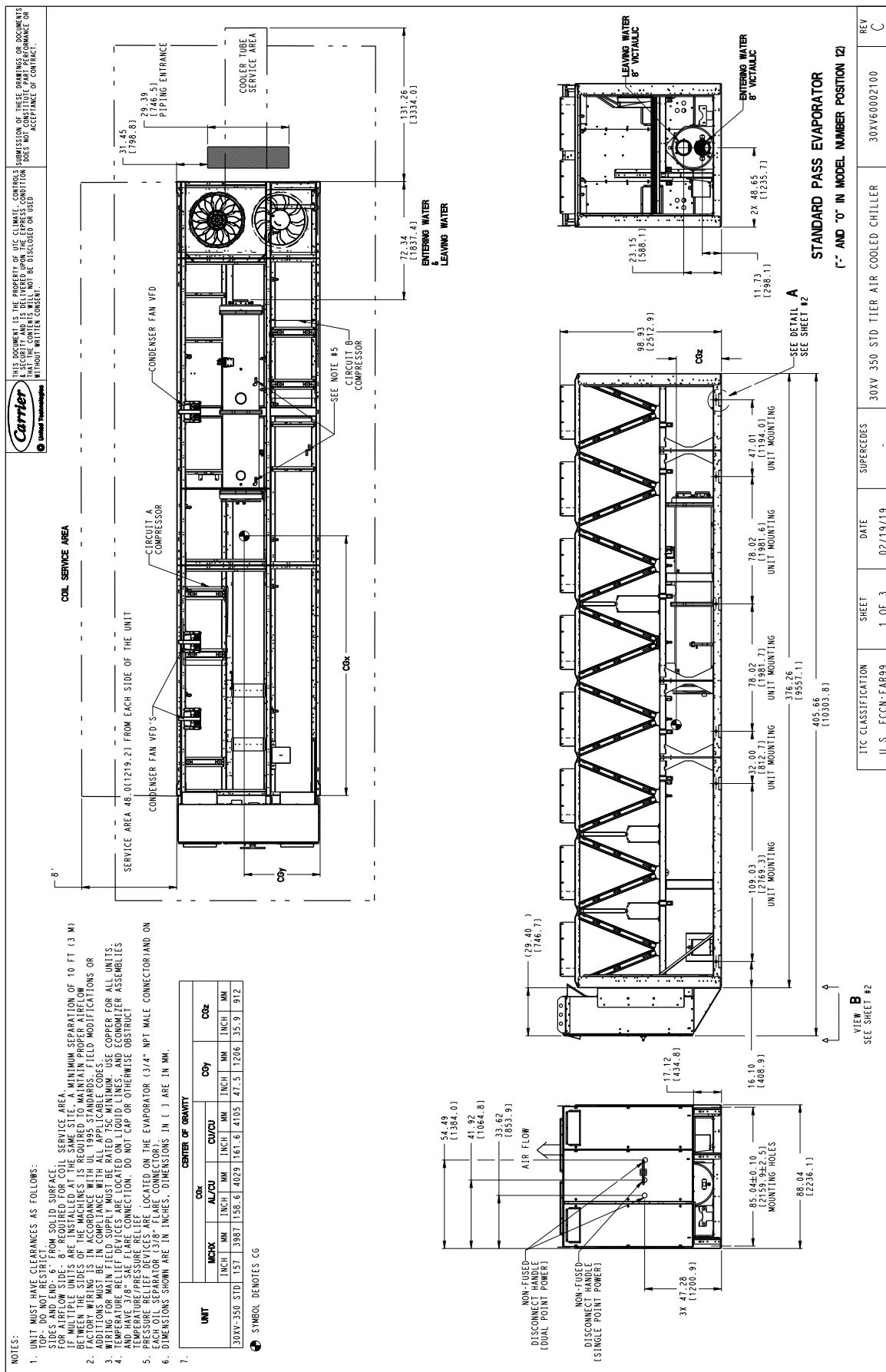
Dimensions (cont)



30XV 325 HIGH TIER AIR-COOLED CHILLER (cont)



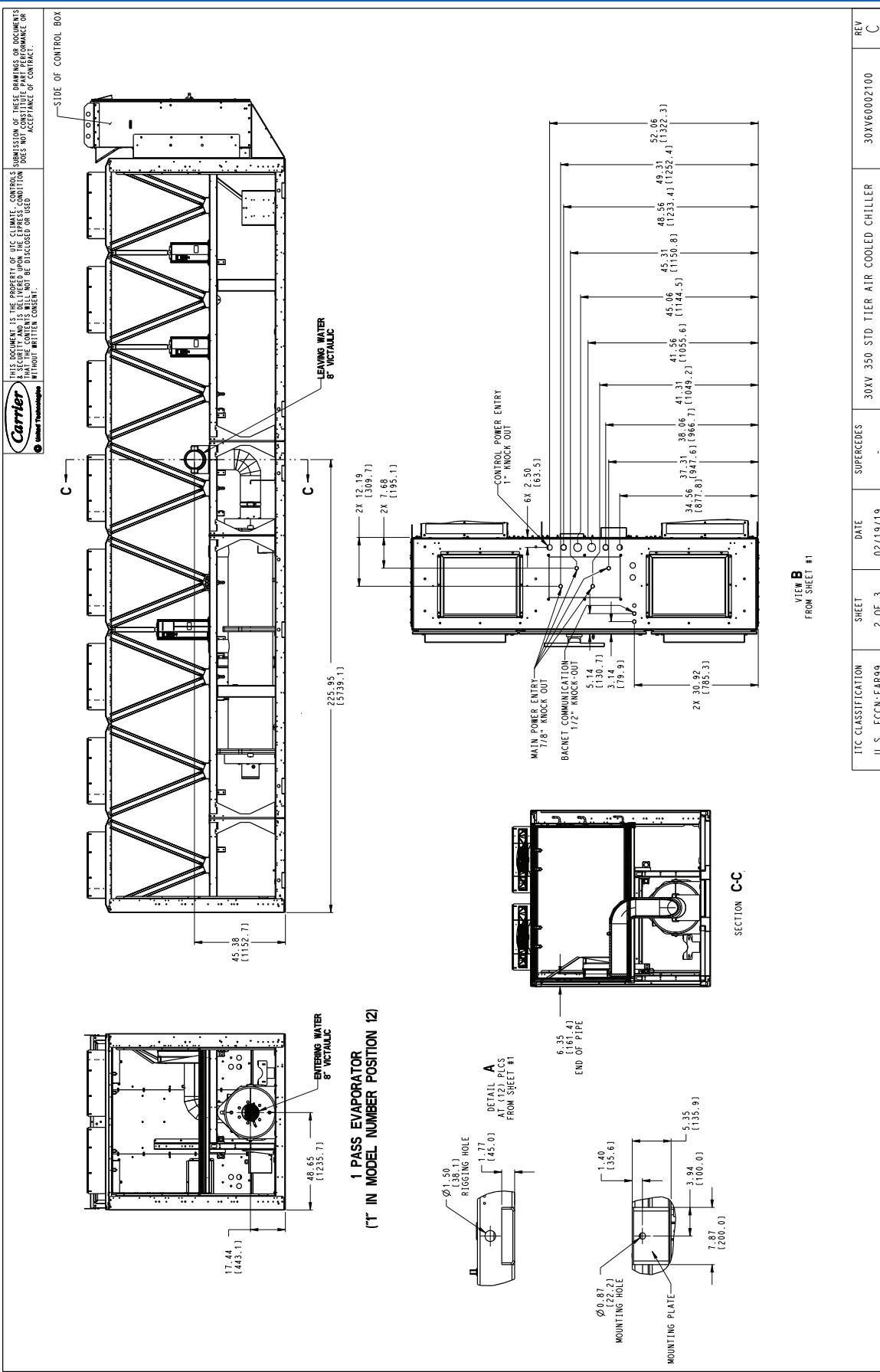
30XV 350 STANDARD TIER AIR-COOLED CHILLER



Dimensions (cont)



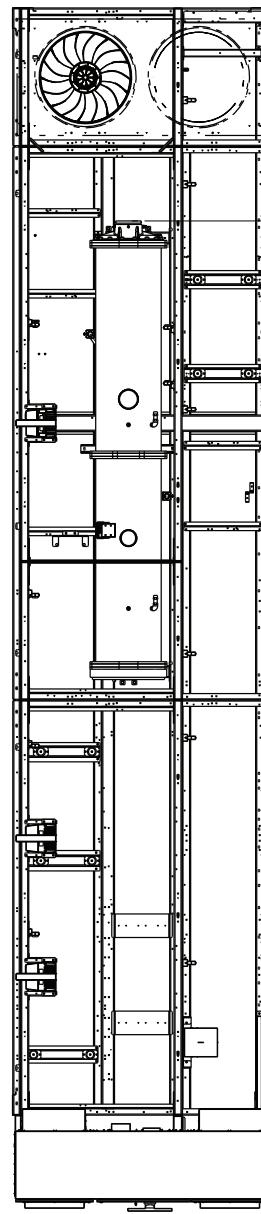
30XV 350 STANDARD TIER AIR-COOLED CHILLER (cont)



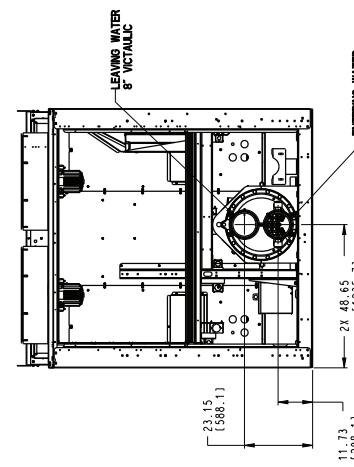
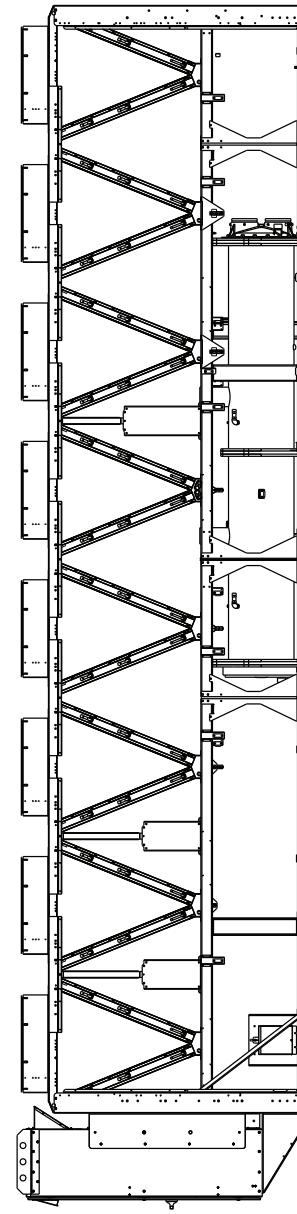
30XV 350 STANDARD TIER AIR-COOLED CHILLER (cont)



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172.34
(437.4)
ENTERING WATER & LEAVING WATER



BRINE EVAPORATOR
(2" IN MODEL NUMBER POSITION 12)

TTC CLASSIFICATION	SHEET	DATE	SUPERSEDES	30XV 350 STD TIER AIR COOLED CHILLER	REV
U.S. EECN-EAR99	3 OF 3	02/19/19	-	30XV60002100	C

BRINE COOLER OPTION

Dimensions (cont)

