



Product Catalog

Trane Rental Services

Temporary Water-Cooled Chillers





Introduction

Read this manual thoroughly before operating or servicing this unit.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

NOTICE

Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING

Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury. All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in NEC and your local/state/national electrical codes.

⚠ WARNING**Personal Protective Equipment (PPE) Required!**

Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, **MUST** follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians **MUST** put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). **ALWAYS** refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labeling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians **MUST** put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit. **NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

⚠ WARNING**Follow EHS Policies!**

Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

Copyright

This document and the information in it are the property of Trane, and may not be used or reproduced in whole or in part without written permission. Trane reserves the right to revise this publication at any time, and to make changes to its content without obligation to notify any person of such revision or change.

Trademarks

All trademarks referenced in this document are the trademarks of their respective owners.



Table of Contents

Applications Considerations – Water-Cooled	5
Ambient Limitations	5
Installation	5
Electrical Connections	5
Water Flow Limits	5
Leaving Water Temperature Limits	5
Clearance Requirements	6
Pump Control	6
CentraVac Chillers - Inspection Checklist	6
Refrigerant Charge	6
Freeze Protection	6
Controls	7
225 to 1000 Tons CVHF	8
225 Ton Water-Cooled	8
350 Ton Water-Cooled	17
500 Ton Water-Cooled	29
750 Ton Water-Cooled	50
1000 Ton Water-Cooled	53
430 Tons RTHD	83
430 Ton Water-Cooled	83



Applications Considerations – Water-Cooled

Ambient Limitations

Model	Ambient Temperature Range
CVHF/CVHE	34°F to 104°F
RTHD	32°F to 104°F

Note: For a rental application with ambient temperatures above or below this range, contact Trane Rental Services (TRS) for more information on this topic.

Installation

It is recommended that when performing installation of a water-cooled chiller hard pipe (PVC) be used between the outlet side of the cooling tower and the suction side of the pump. Rental services flexible hose should not be used to avoid collapsing due to any negative internal pressure. All water-cooled chillers must be level within 1/16-inch from end to end.

Electrical Connections

Water-cooled style chillers are configured for single point power. Each chiller comes with a unit mounted Wye-Delta starter. In addition to connecting main power through this panel there are also 115V shore power receptacles. All F0 and F1 series CenTraVac chillers include two shore power receptacles. One receptacle is dedicated to the purge and the other provides power to unit controls and oil heater. All F2 series CenTraVac chillers include one 115V shore power receptacle to power purge, unit controls, and oil heaters. All RTHD chillers include one 115V shore power receptacle to power unit controls and oil sump heaters. These connections are required only when 460V 3 phase power is not available. The purpose is to energize oil sump heater which is required to boil refrigerant out of the oil 24 hours prior to start-up regardless of ambient temperature.

Water Flow Limits

The minimum and maximum water flow rates are available chiller data tables. The flow rate through the evaporator is validated against the water pressure drop curves in this document. Evaporator flow rates below the minimum flow of the chiller will result in laminar flow causing freeze up problems, scaling, stratification, and poor control. Flow rates exceeding those listed may result in very high pressure drop across the evaporator and excessive tube erosion.

Leaving Water Temperature Limits

Model	Leaving Water Temperature Range
CVHF/CVHE	40°F to 60°F
RTHD	10°F to 65°F

Note: Under certain conditions, leaving water temperatures below 40°F are possible for CVHF/CVHE models. Please contact TRS Engineering for a performance selection for verification.

All TRS CenTraVac chillers are ordered at AHRI conditions:

	Temperature		Flow Rate
	Entering Water	Leaving Water	
Evaporator Side	54°F	44°F	2.4 gpm/ton
Condenser Side	85°F	95°F	3.0 gpm/ton

Actual tonnage delivered will vary when operated at other sets of conditions. It is highly recommended to contact rental services to verify performance for anything outside of AHRI conditions listed above.



Clearance Requirements

Adequate clearance around and above the chiller are required to allow sufficient access for service and maintenance operations. Per NEC Article 110: Unit Mounted starters from 0-600V require a 42 inch (106.68 cm) clearance.

Pump Control

Trane Rental Services CenTraVac units have integral evaporator and condenser water pump relay outputs and are capable of controlling both water loops. RTHD style chillers do not have pump control capability. For more information on how to establish wiring connections, see CenTraVac wiring diagrams.

Note: The chilled water pump must not be used to stop the chiller. CentraVac Chillers - Inspection Checklist

CentraVac Chillers - Inspection Checklist

- Verify against Bill of Lading the Nitrogen charge¹ from the **shipping from** location matches when it arrives at the site
- A refrigerant container will be shipped separately from the rest of the equipment².
- Weigh the refrigerant canister prior to charging unit.
- Charge the unit before running any water through the system.
- Some 750 and 1000 ton CenTraVac units are shipped with steel dropdown pipes for the condenser. When installed the water connections will be at a serviceable elevation.
- Flow switches, temperature, and pressure differential gauges are shipped with manifolds to be used for both evaporator and condenser loops.

Refrigerant Charge

Commissioning

Rental CentraVac chillers ship with a nitrogen holding charge. This charge should be between 4 to 7 psi. Remove the nitrogen holding charge from the chiller and place it into a vacuum. Once in a vacuum, charge the chiller with the appropriate amount of refrigerant.

Decommissioning

When decommissioning, all refrigerant must be recovered from the unit. A nitrogen holding charge between 4 to 7 psi must be added to the chiller before it ships back from the jobsite.

Freeze Protection

- For the evaporator, verify there is continuous flow and/or glycol and/or heat trace equipment.
- For the condenser, verify there is continuous flow, heat trace, basin heaters and tower loop controls (bypass).
- As a result of low chilled water setpoints at or below 36°F (2.2°F) for CentraVac, 39°F (3.9°C) for RTHD, glycol or other antifreeze solution must be used. Contact TRS Engineering for more information on glycol percentage recommendations.

¹ If pressure does not match against Bill of Lading it is a good indication there is a gas leak within the unit. Contact Trane Rental Services if this is the case.

² 2R-123 and R-514A at ambient conditions will be in liquid state. Logistically it's safer to ship a unit with refrigerant in gas form.

Controls

All TRS style chillers are provided with Trane's standard Tracer AdaptiView™ or CH530 display designed to be weatherproofed and made of durable plastic for use as an outdoor device. These interfaces allow the user to access any important information concerning setpoints, active temperatures, modes, electrical data, pressure and diagnostics.

CenTraVac style chillers also do have external limit setpoints as well as external chilled water setpoint inputs that accept either 4 to 20 mA or 2 to 10 Vdc signals. This allows for remote flexibility to meet job requirements while not having to learn a complicated control system. The Kestrelview™ service tool must be used to set the input signal type from the factory default from 2 to 10 Vdc to that of 4 to 20 mA current. This tool must also be used to enable or disable the feature if installed. RTHD style chillers have factory installed, programmable relays. Operator has ability to select four from list of eight possible relay outputs.

List of possible relays:

- Alarm latching
- Alarm auto reset
- General alarm
- Warning
- Chiller limit mode
- Compressor running
- Head pressure relief request
- Tracer® control

BACnet® and LonTalk® interface are also available with these chillers. Contact TRS to verify which interface is installed within the chiller.



225 to 1000 Tons CVHF

225 Ton Water-Cooled

CSCW0225F0AA

Table 1. General CSCW0225F0AA

Labels	Value
Nominal Tons	225
Refrigerant	R-123
Refrigerant Charge	550 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	57 Tons
Evaporator Min/Max Flow (GPM)	124/893
Condenser Min/Max Flow (GPM)	296/1,080
Evap Water Volume	55 Gal
Cond Water Volume	68 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 2. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	241 A
Maximum Overcurrent Protection (MOP)	400 A
Run Load Amps (RLA)	186 A
Starter Type	Star/Wye-Delta
LRAY	407 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 3. Dimensions and weights

Labels	Value
Length	19 ft 9 in.
Width	6 ft 3 in.
Height	9 ft 2 in.
Shipping Weight	14,600 lbs

Table 3. Dimensions and weights (continued)

Labels	Value
Operating Weight	16,724 lbs
Lifting Device	Crane

Table 4. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	34 in.
Either End	48 in.
Top	36 in.

Table 5. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
77	78	78	78

Table 6. Capacity table

Leaving Water Temp (Assumes 540 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 675 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	—	285	285	275	270	255
55°F	285	285	280	270	260	250
50°F	270	275	275	265	255	240
45°F	250	255	255	255	240	—
40°F	230	230	230	—	—	—

Figure 1. Evaporator PD Curve

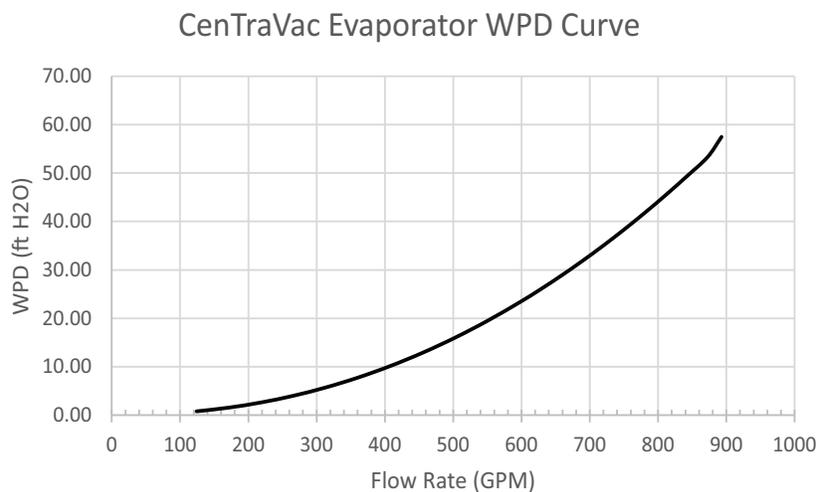
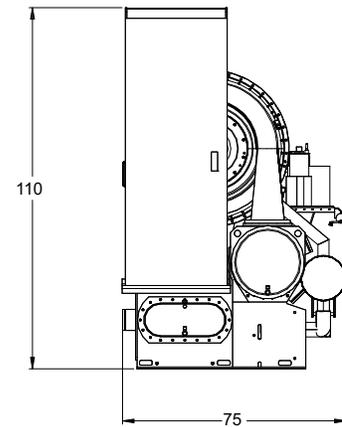
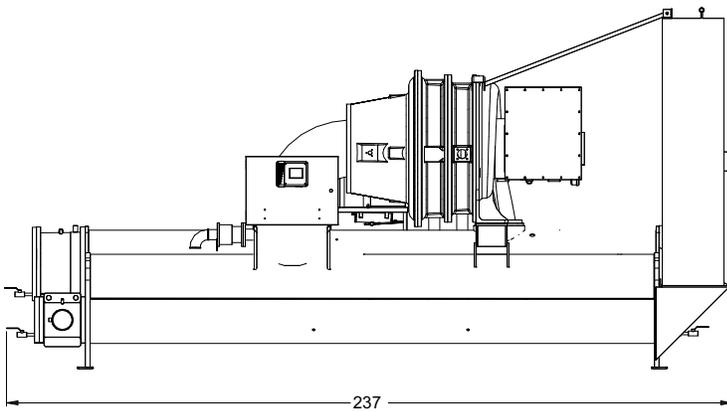
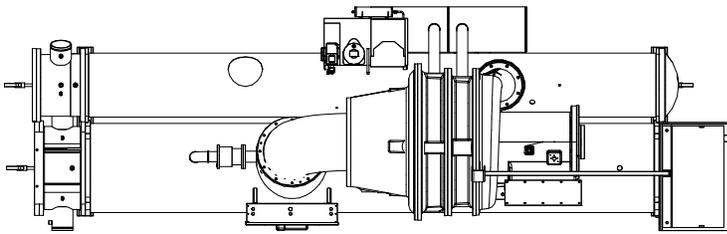
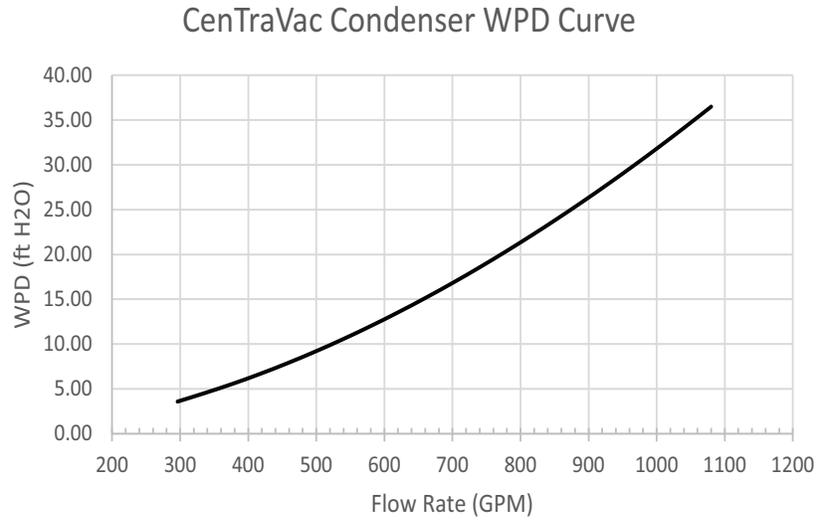


Figure 2. Condenser PD Curve


CSCW0225F0AD, F0AE

Table 7. General CSCW0225F0AD, CSCW0225F0AE

Labels	Value
Nominal Tons	250
Refrigerant	R-123
Refrigerant Charge	550 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	57 Tons
Evaporator Min/Max Flow (GPM)	124/893
Condenser Min/Max Flow (GPM)	296/1,080
Evap Water Volume	55 Gal
Cond Water Volume	68 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 8. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCML
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	266 A
Maximum Overcurrent Protection (MOP)	450 A
Run Load Amps (RLA)	205 A
Starter Type	Star/Wye-Delta
LRAY	407 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 9. Dimensions and weights

Labels	Value
Length	20 ft.
Width	6 ft. 3 in.
Height	9 ft. 4 in.
Shipping Weight	14,600 lbs
Operating Weight	16,724 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 10. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	34 in.
Either End	48 in.
Top	36 in.

Table 11. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
77	78	78	78

Table 12. Capacity table

Leaving Water Temp (Assumes 540 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 675 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	—	285	285	285	279	267
55°F	285	285	285	281	271	257
50°F	275	277	277	275	259	241
45°F	253	253	255	255	231	—
40°F	233	233	233	—	—	—

Figure 3. Evaporator PD Curve

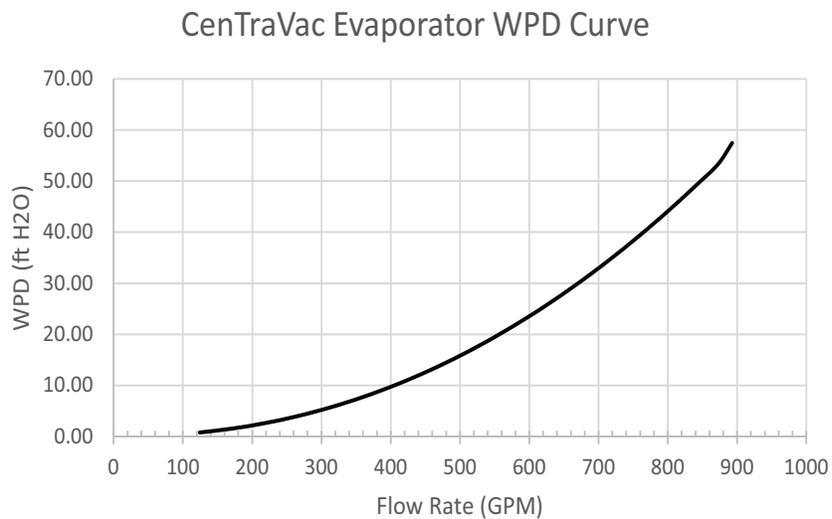
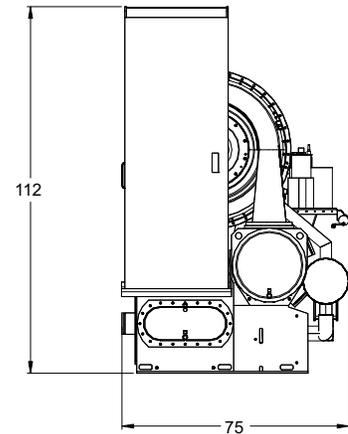
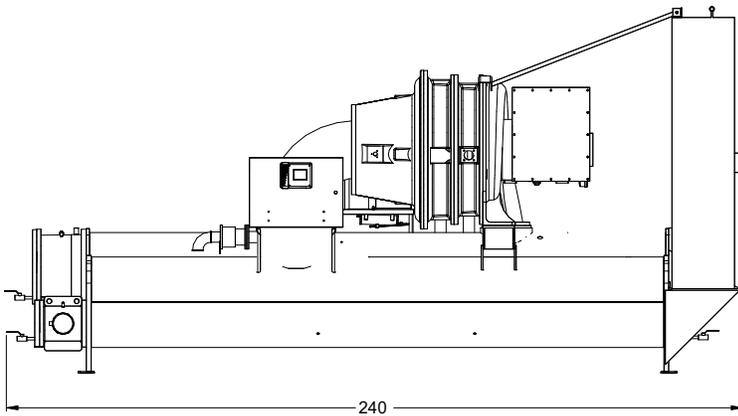
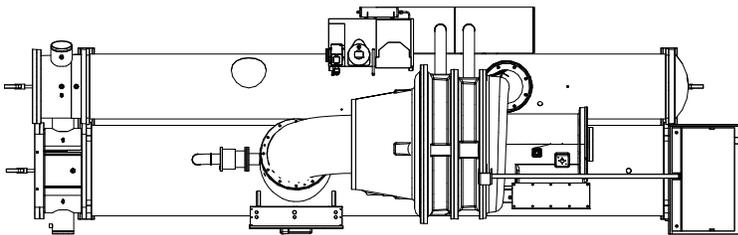
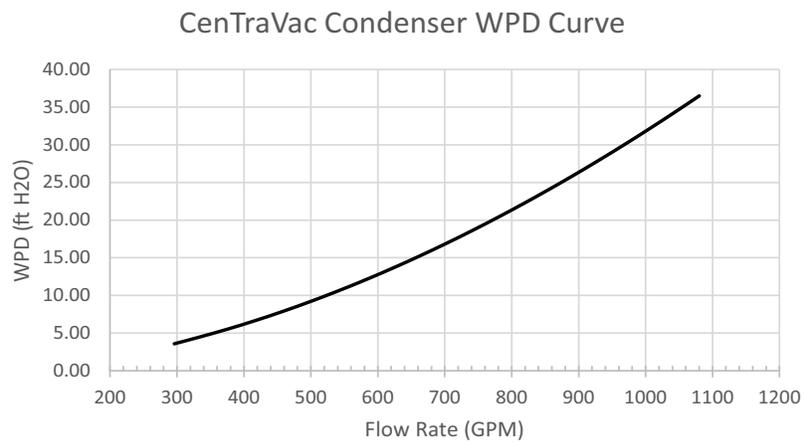


Figure 4. Condenser PD Curve





225 to 1000 Tons CVHF

CSCW0225F0AF

Table 13. General CSCW0225F0AF

Labels	Value
Nominal Tons	250
Refrigerant	R-123
Refrigerant Charge	500 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	57 Tons
Evaporator Min/Max Flow (GPM)	124/893
Condenser Min/Max Flow (GPM)	296/1,080
Evap Water Volume	56 Gal
Cond Water Volume	68 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 14. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	261 A
Maximum Overcurrent Protection (MOP)	450 A
Run Load Amps (RLA)	201 A
Starter Type	Star/Wye-Delta
LRAY	407 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 15. Dimensions and weights

Labels	Value
Length	20 ft.
Width	6 ft. 10 in.
Height	9 ft 8 in.
Shipping Weight	15,000 lbs
Operating Weight	16,621 lbs
Lifting Device	Crane

Table 16. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	34 in.
Either End	48 in.
Top	36 in.

Table 17. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
77	78	78	78

Table 18. Capacity table

Leaving Water Temp (Assumes 540 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 675 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	—	285	285	285	279	267
55°F	285	285	285	283	273	—
50°F	279	281	283	277	263	—
45°F	259	257	261	261	—	—
40°F	237	237	239	—	—	—

Figure 5. Evaporator PD Curve

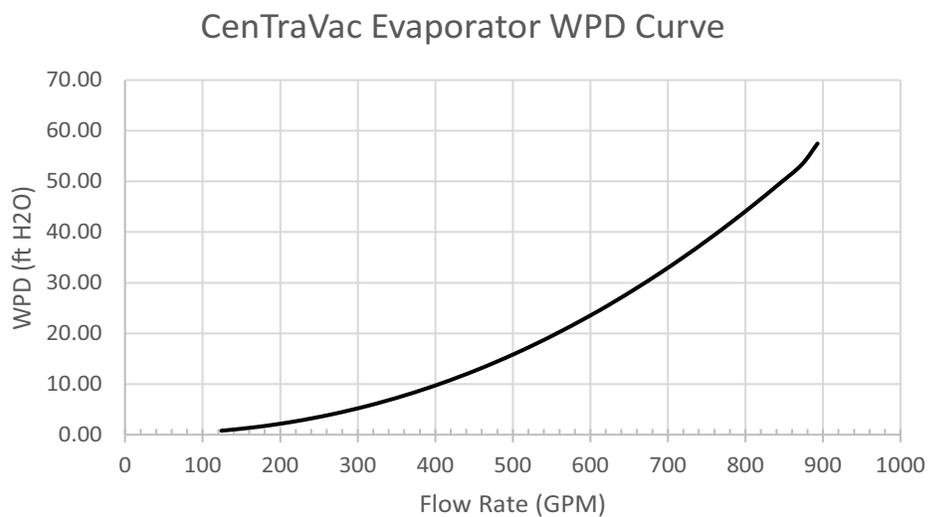
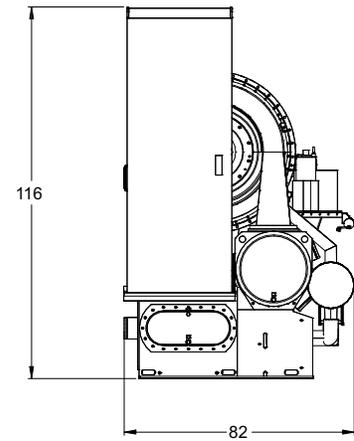
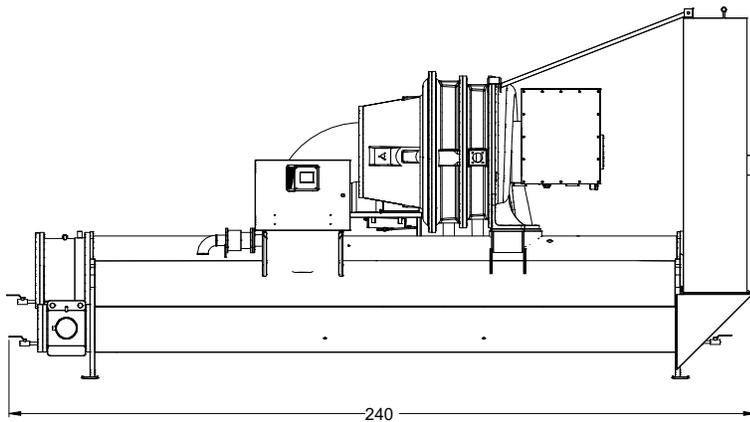
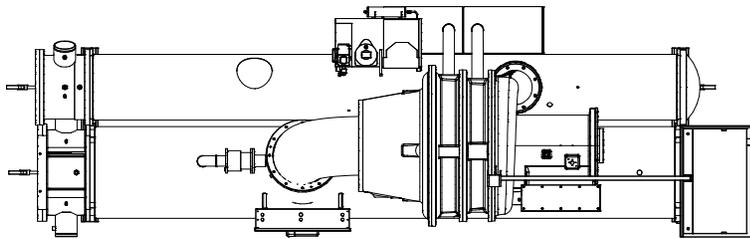
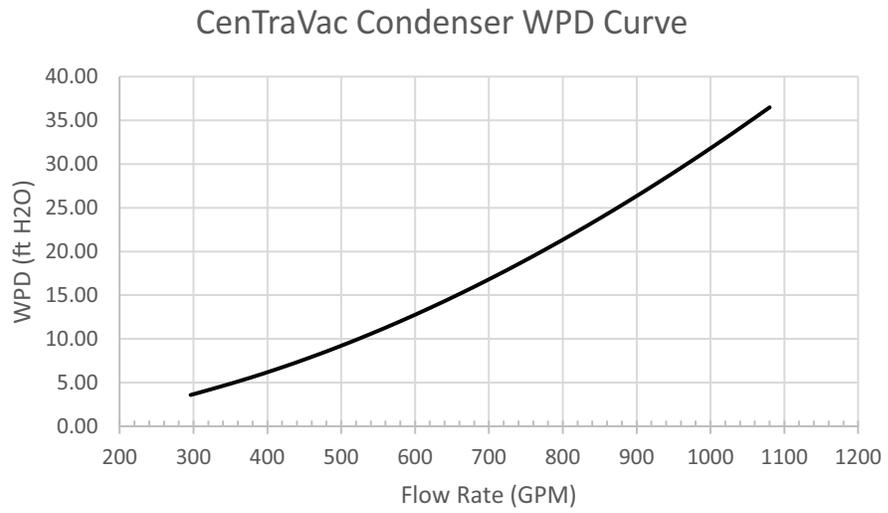


Figure 6. Condenser PD Curve


350 Ton Water-Cooled

CSCW0350F0AB

Table 19. General CSCW0350F0AB

Labels	Value
Nominal Tons	380
Refrigerant	R-123
Refrigerant Charge	750 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	88 Tons
Evaporator Min/Max Flow (GPM)	182/1,334
Condenser Min/Max Flow (GPM)	474/1,735
Evap Water Volume	88 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 20. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	423 A
Maximum Overcurrent Protection (MOP)	700 A
Run Load Amps (RLA)	330 A
Starter Type	Star/Wye-Delta
LRAV	624 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 21. Dimensions and weights

Labels	Value
Length	20 ft.
Width	7 ft. 6 in.
Height	9 ft. 6 in.
Shipping Weight	19,000 lbs
Operating Weight	21,513 lbs

225 to 1000 Tons CVHF

Table 21. Dimensions and weights (continued)

Labels	Value
Lifting Device	Crane

Table 22. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 23. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
79	78	79	81

Table 24. Capacity table

Leaving Water Temp (Assumes 840 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,050 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	506	506	506	484	458	432
55°F	472	472	474	468	440	410
50°F	434	436	438	438	414	384
45°F	400	402	402	398	362	—
40°F	368	368	364	330	—	—

Figure 7. Evaporator PD Curve

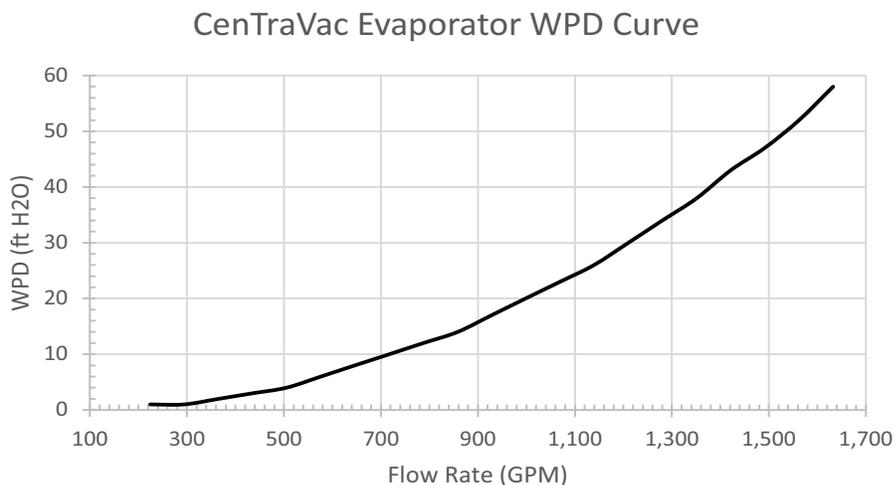
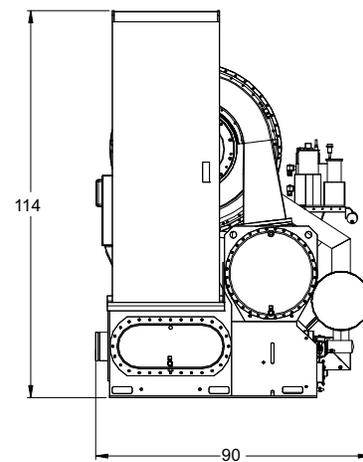
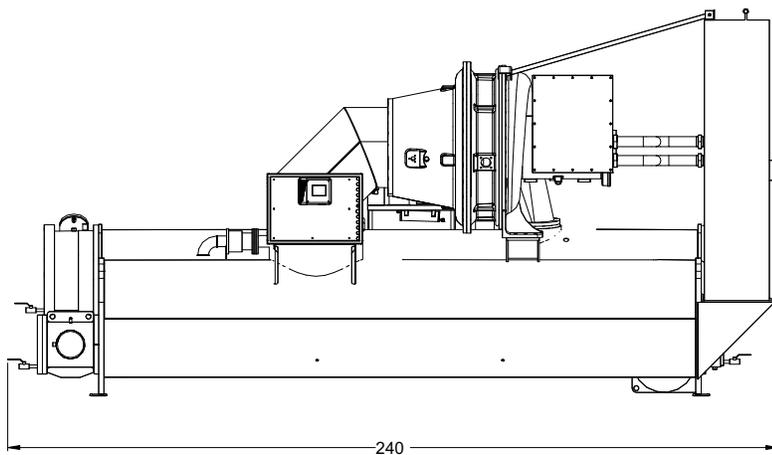
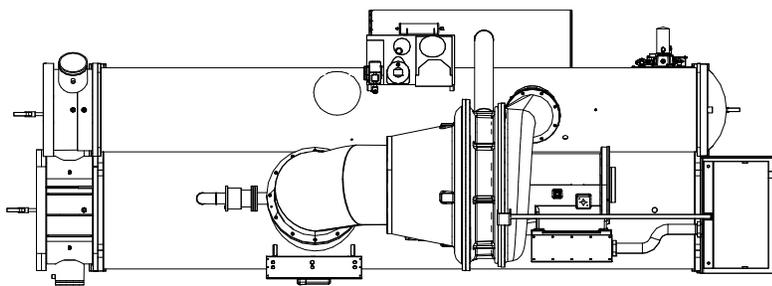
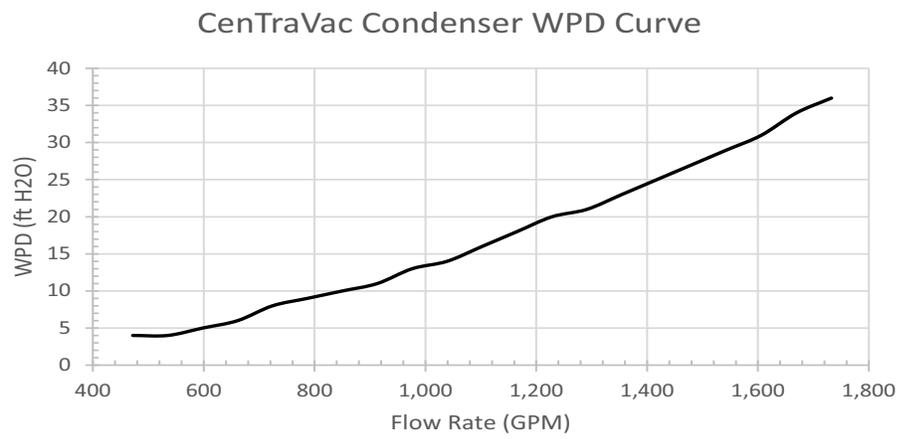


Figure 8. Condenser PD Curve





225 to 1000 Tons CVHF

CSCW0350F0AD

Table 25. General CSCW0350F0AD

Labels	Value
Nominal Tons	385
Refrigerant	R-123
Refrigerant Charge	800 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	88 Tons
Evaporator Min/Max Flow (GPM)	220/1,614
Condenser Min/Max Flow (GPM)	473/1,735
Evap Water Volume	101 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 26. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	412 A
Maximum Overcurrent Protection (MOP)	700 A
Run Load Amps (RLA)	322 A
Starter Type	Star/Wye-Delta
LRAY	624 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 27. Dimensions and weights

Labels	Value
Length	20 ft.
Width	7 ft. 6 in.
Height	9 ft. 6 in.
Shipping Weight	18,827 lbs
Operating Weight	21,496 lbs
Lifting Device	Crane

Table 28. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 29. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
79	78	79	81

Table 30. Capacity table

Leaving Water Temp (Assumes 840 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,050 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	514	516	518	514	486	458
55°F	476	476	578	480	460	420
50°F	438	440	442	442	426	—
45°F	404	404	406	402	—	—
40°F	370	372	368	—	—	—

Figure 9. Evaporator PD Curve

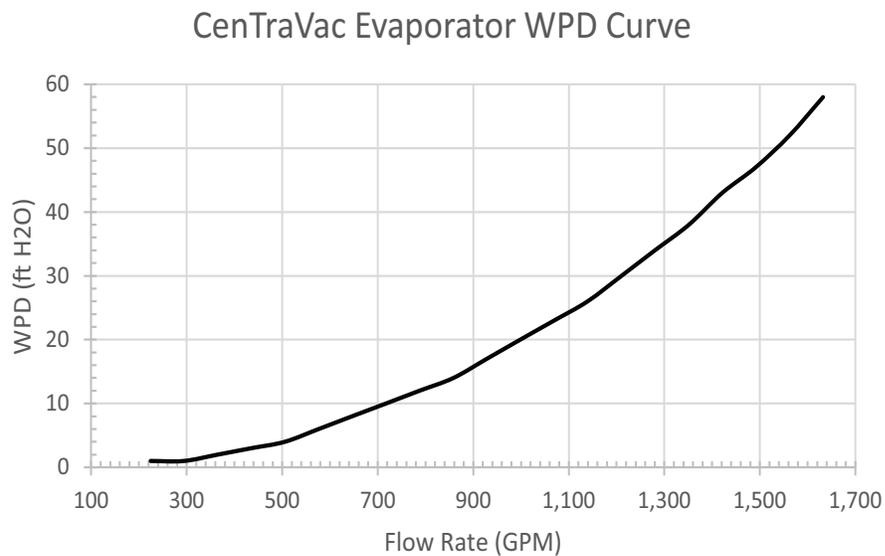
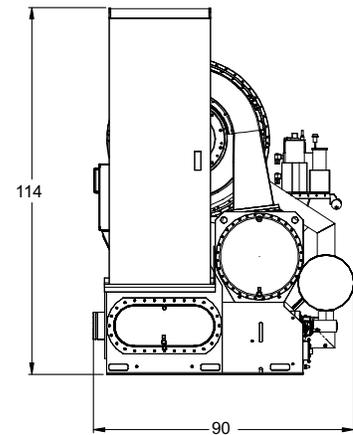
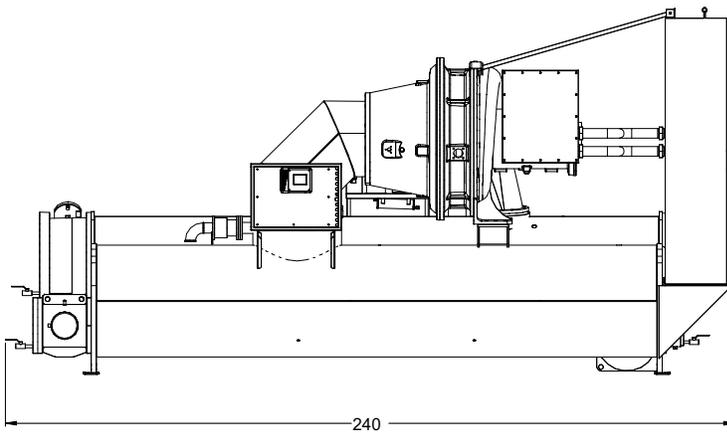
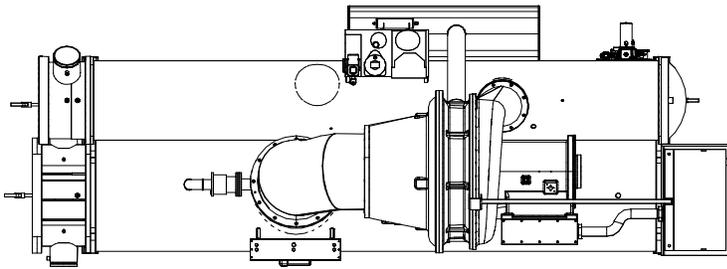
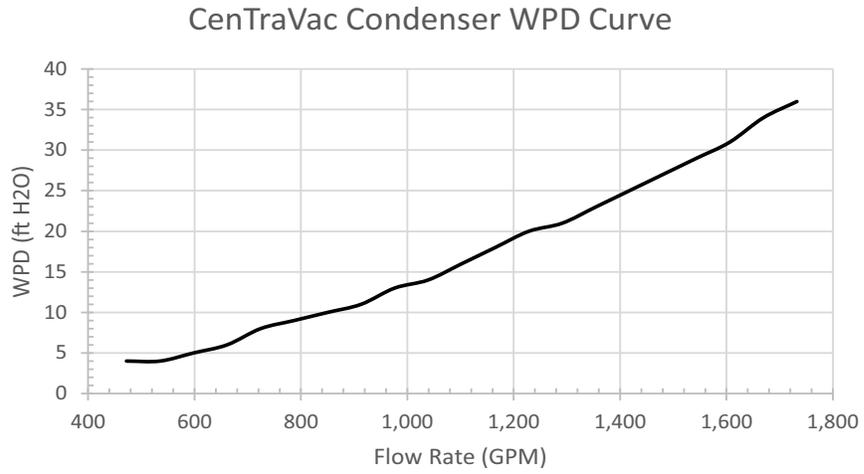


Figure 10. Condenser PD Curve


CSCW0350F0AE

Table 31. General CSCW0350F0AE

Labels	Value
Nominal Tons	385
Refrigerant	R-123
Refrigerant Charge	800 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	88 Tons
Evaporator Min/Max Flow (GPM)	224/1,632
Condenser Min/Max Flow (GPM)	472/1,732
Evap Water Volume	102 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 32. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	409 A
Maximum Overcurrent Protection (MOP)	700 A
Run Load Amps (RLA)	320 A
Starter Type	Star/Wye-Delta
LRAY	624 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 33. Dimensions and weights

Labels	Value
Length	20 ft.
Width	7 ft. 10 in.
Height	9 ft. 7 in.
Shipping Weight	18,855 lbs
Operating Weight	21,529 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 34. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 35. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
79	78	79	81

Table 36. Capacity table

Leaving Water Temp (Assumes 840 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,050 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	522	524	526	522	496	466
55°F	482	484	484	486	466	428
50°F	442	444	446	448	428	—
45°F	406	408	410	394	—	—
40°F	372	374	360	—	—	—

Figure 11. Evaporator PD Curve

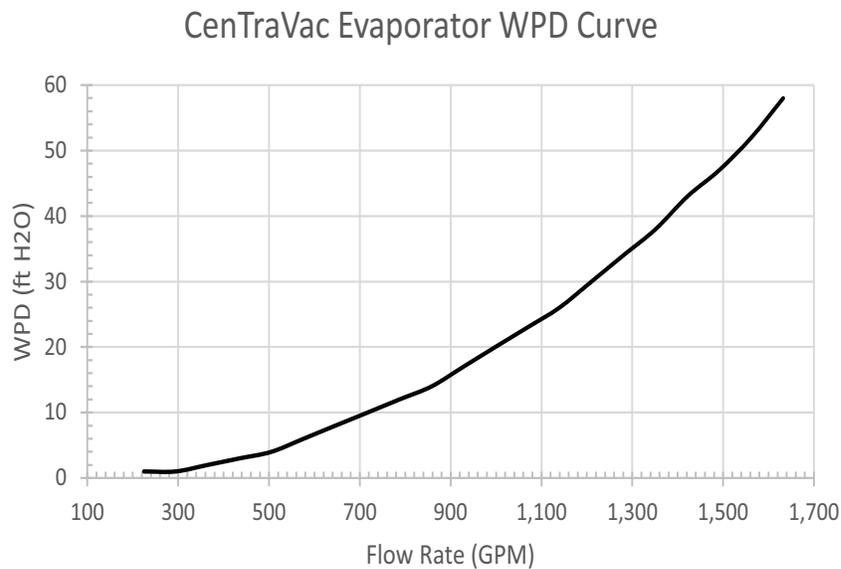
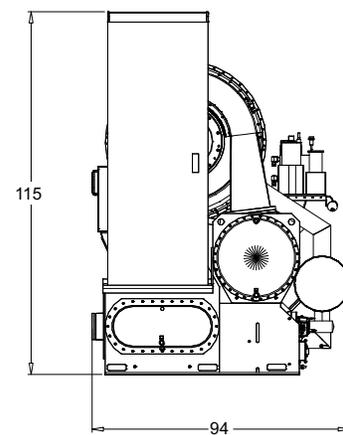
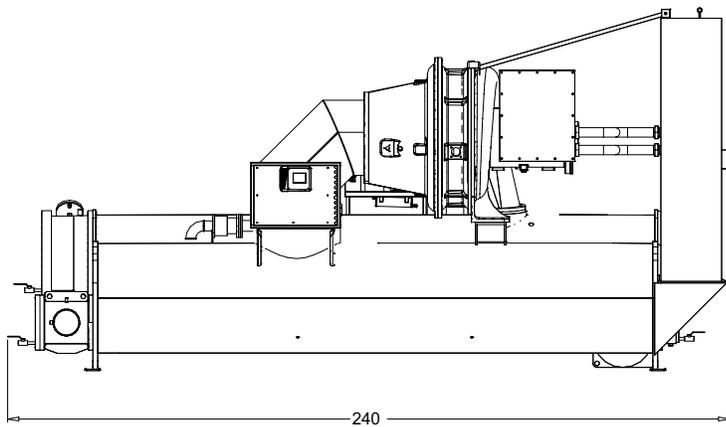
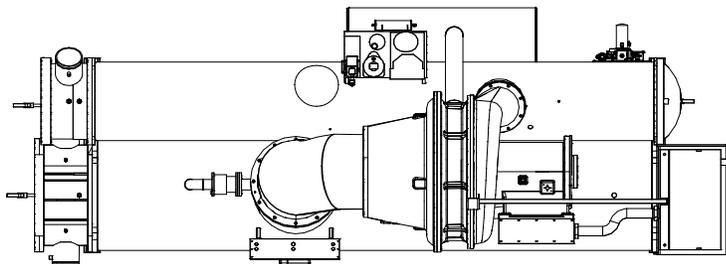
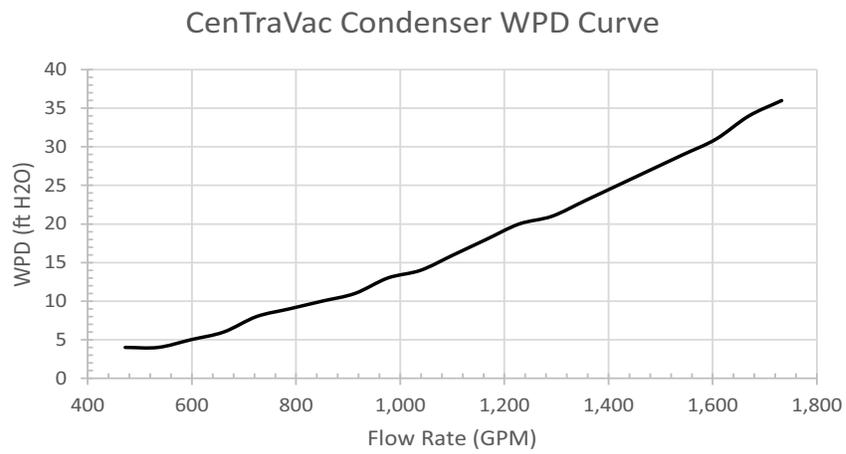


Figure 12. Condenser PD Curve





225 to 1000 Tons CVHF

CSCW0350F0AG

Table 37. General CSCW0350F0AG

Labels	Value
Nominal Tons	385
Refrigerant	R-123
Refrigerant Charge	800 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	88 Tons
Evaporator Min/Max Flow (GPM)	224/1,632
Condenser Min/Max Flow (GPM)	472/1,732
Evap Water Volume	102 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 38. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	409 A
Maximum Overcurrent Protection (MOP)	700 A
Run Load Amps (RLA)	320 A
Starter Type	Star/Wye-Delta
LRAY	624 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 39. Dimensions and weights

Labels	Value
Length	20 ft.
Width	7 ft. 4 in.
Height	9 ft. 8 in.
Shipping Weight	18,810 lbs
Operating Weight	21,484 lbs
Lifting Device	Crane

Table 40. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 41. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
79	78	79	81

Table 42. Capacity table

Leaving Water Temp (Assumes 840 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,050 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	522	524	526	522	496	466
55°F	482	484	484	486	466	426
50°F	442	444	446	448	424	—
45°F	406	408	410	394	—	—
40°F	372	374	360	—	—	—

Figure 13. Evaporator PD Curve

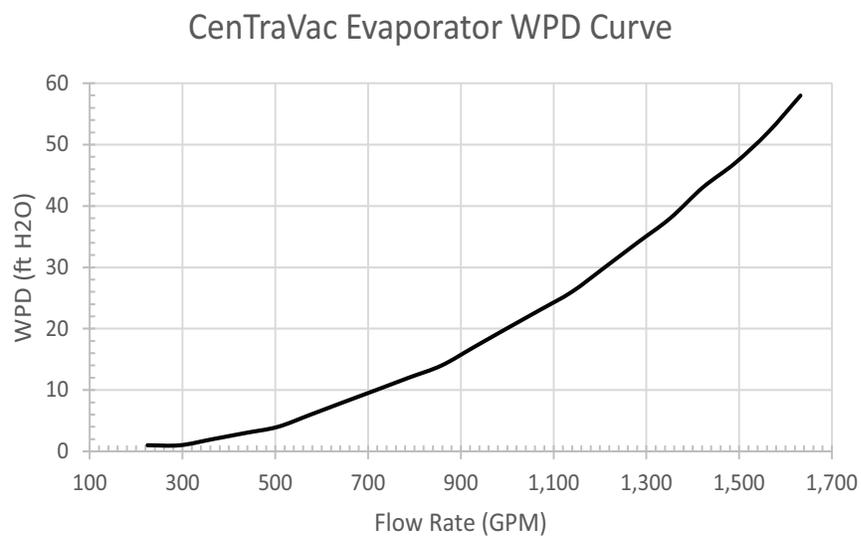
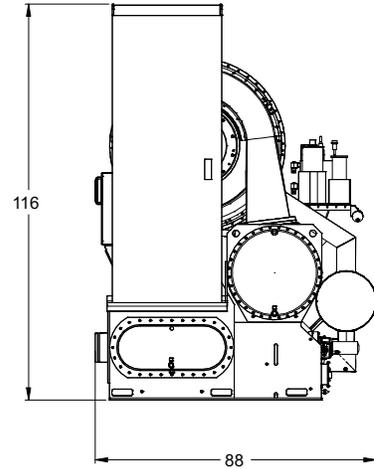
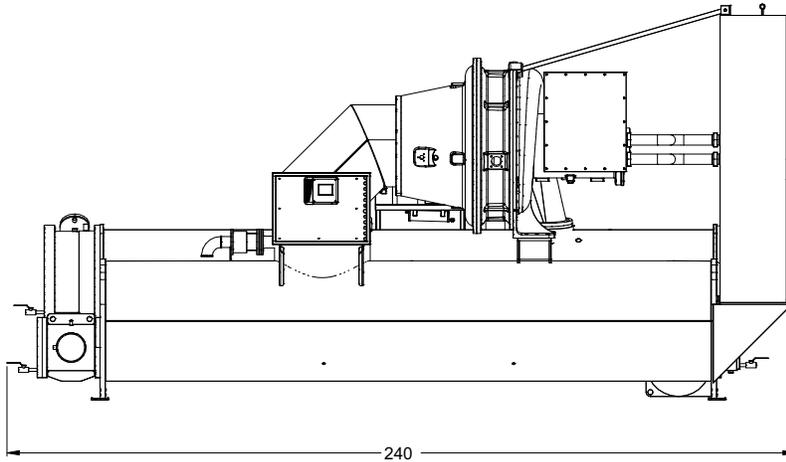
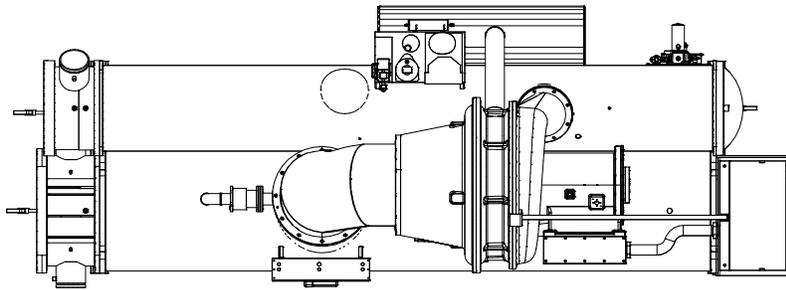
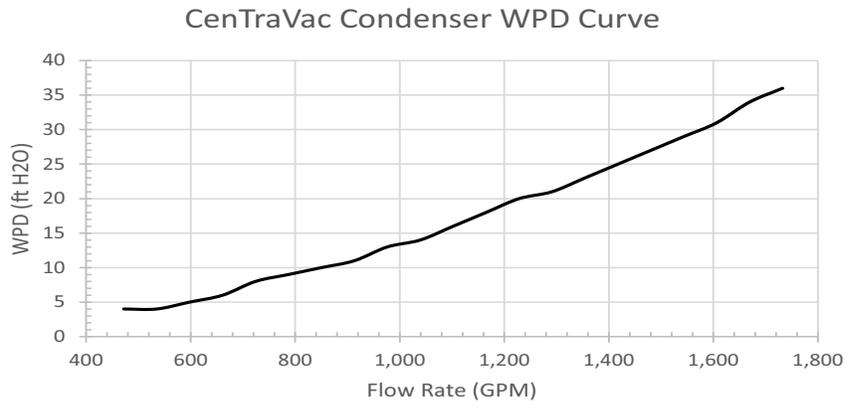


Figure 14. Condenser PD Curve



500 Ton Water-Cooled

CSCA0500F0AC

Table 43. General CSCA0500F0AC

Labels	Value
Nominal Tons	560
Refrigerant	R-123
Refrigerant Charge	990 lbs
Oil Charge	9 lbs
Water Connection Size	6 in. Victaulic
Min Load ^(a)	125 Tons
Evaporator Min/Max Flow (GPM)	199/1,453
Condenser Min/Max Flow (GPM)	475/1,739
Evap Water Volume	101 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 44. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	618 A
Maximum Overcurrent Protection (MOP)	1,000 A
Run Load Amps (RLA)	487 A
Starter Type	Star/Wye-Delta
LRA	833 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 45. Dimensions and weights

Labels	Value
Length	19 ft. 10 in.
Width	7 ft. 8 in.
Height	8 ft. 7 in.
Shipping Weight	21,000 lbs
Operating Weight	23,808 lbs

225 to 1000 Tons CVHF

Table 45. Dimensions and weights (continued)

Labels	Value
Lifting Device	Crane

Table 46. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 47. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
80	79	80	83

Table 48. Capacity table

Leaving Water Temp (Assumes 1200 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,500 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	530	550	565	585	600	620
55°F	525	545	560	580	595	610
50°F	520	540	555	575	590	570
45°F	515	535	545	565	530	—
40°F	510	495	525	485	—	—

Figure 15. Evaporator PD Curve

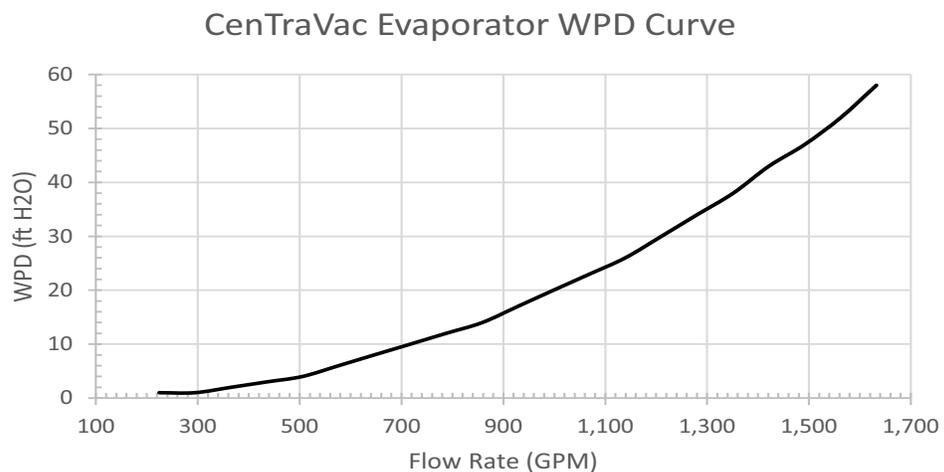
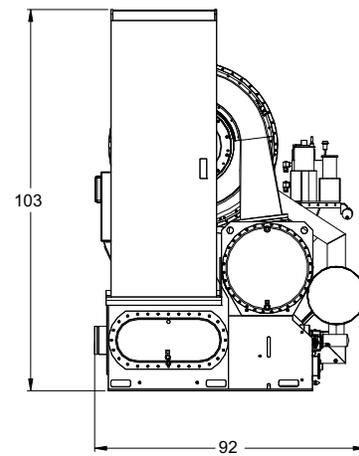
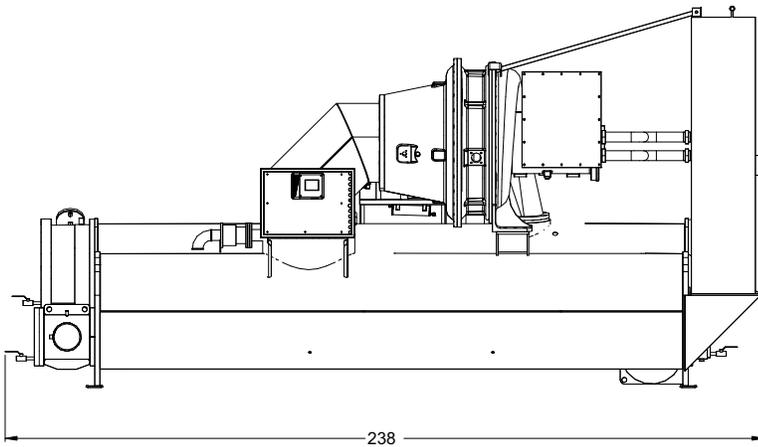
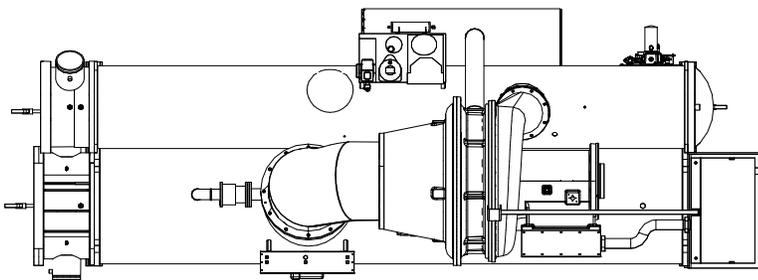
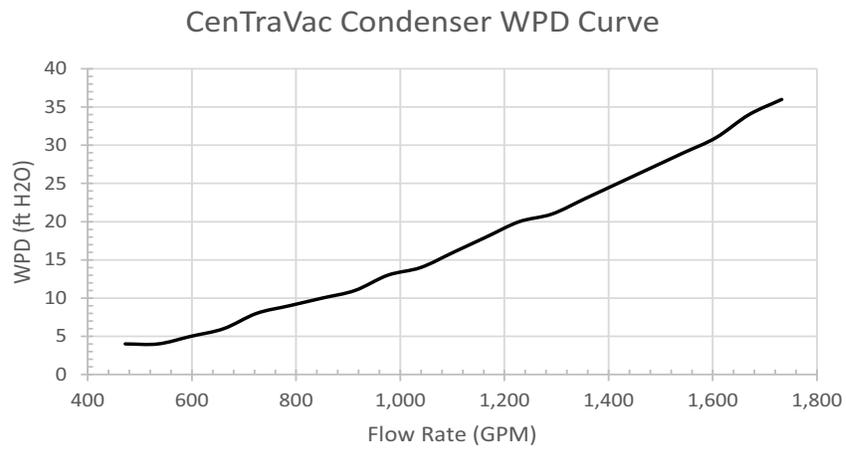


Figure 16. Condenser PD Curve





225 to 1000 Tons CVHF

CSCW0500F0AD, F0AE

Table 49. General CSCW0500F0AD, CSCW0500F0AE

Labels	Value
Nominal Tons	500
Refrigerant	R-123
Refrigerant Charge	1,000 lbs
Oil Charge	9 lbs
Water Connection Size	6 in. Victaulic
Min Load ^(a)	125 Tons
Evaporator Min/Max Flow (GPM)	199/1,453
Condenser Min/Max Flow (GPM)	474/1,735
Evap Water Volume	101 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 50. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	546 A
Maximum Overcurrent Protection (MOP)	800 A
Run Load Amps (RLA)	429 A
Starter Type	Star/Wye-Delta
LRAY	690 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 51. Dimensions and weights

Labels	Value
Length	19 ft. 8 in.
Width	7 ft.
Height	9 ft. 9 in.
Shipping Weight	22,500 lbs
Operating Weight	25,167 lbs
Lifting Device	Crane

Table 52. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 53. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
80	79	80	83

Table 54. Capacity table

Leaving Water Temp (Assumes 1200 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,500 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	520	540	560	575	595	565
55°F	520	535	555	570	580	535
50°F	515	530	550	565	550	505
45°F	510	525	545	555	520	455
40°F	505	505	510	515	—	—

Figure 17. Evaporator PD Curve

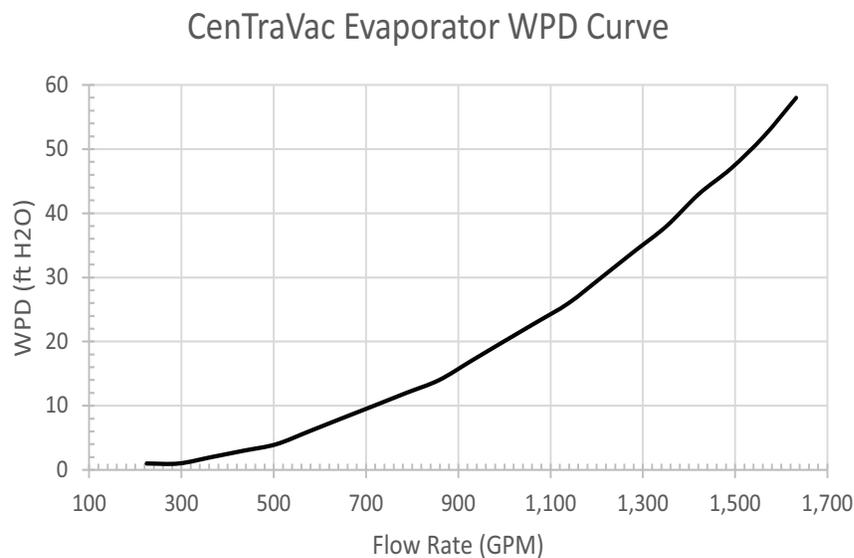
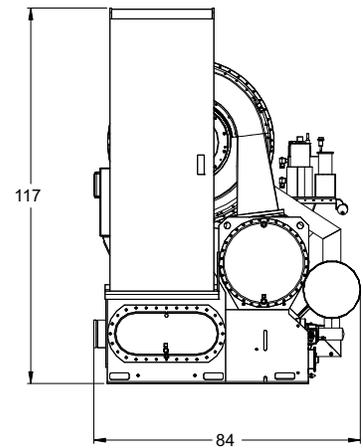
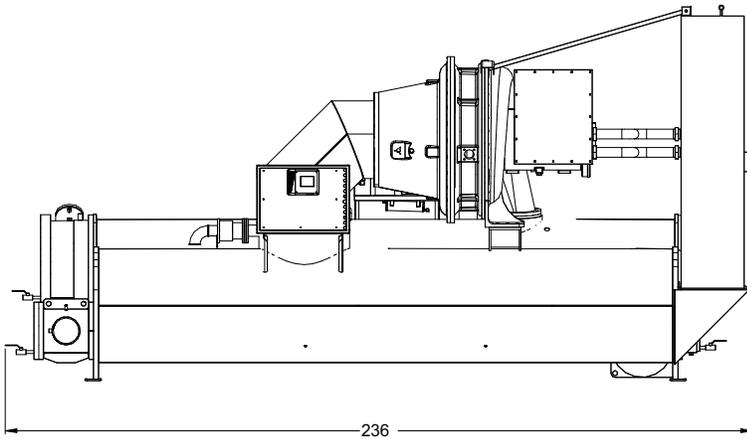
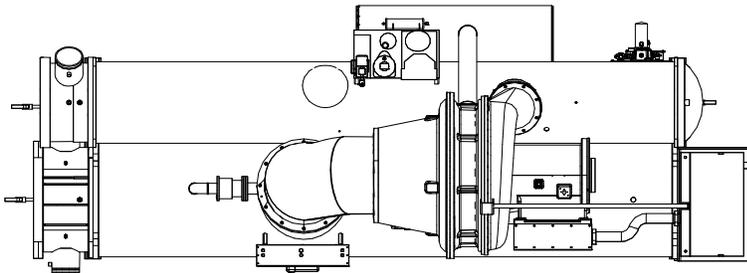
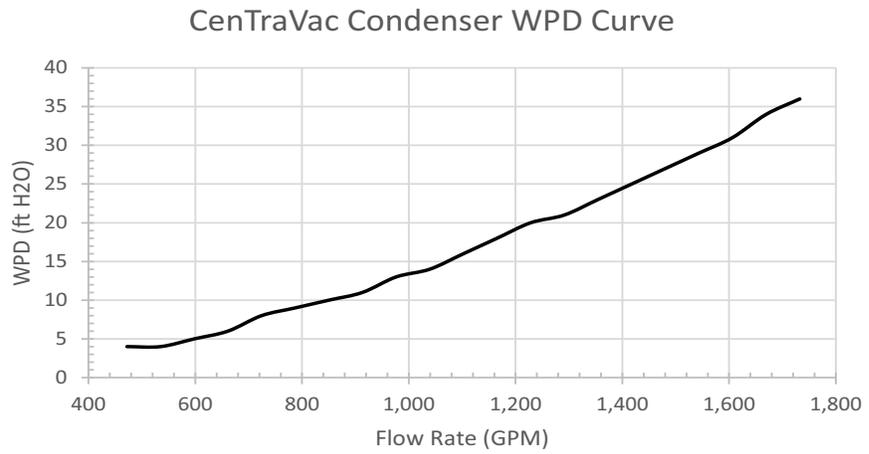


Figure 18. Condenser PD Curve


CSCW0500F0AH, F0AJ
Table 55. General CSCW0500F0AH, CSCW0500F0AJ

Labels	Value
Nominal Tons	500
Refrigerant	R-123
Refrigerant Charge	750 lbs
Oil Charge	9 lbs
Water Connection Size	6 in. Victaulic
Min Load ^(a)	125 Tons
Evaporator Min/Max Flow (GPM)	212/1,549
Condenser Min/Max Flow (GPM)	474/1,735
Evap Water Volume	101 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 56. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	510 A
Maximum Overcurrent Protection (MOP)	800 A
Run Load Amps (RLA)	401 A
Starter Type	Star/Wye-Delta
LRAY	687 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 57. Dimensions and weights

Labels	Value
Length	19 ft. 10 in.
Width	7 ft. 8 in.
Height	9 ft. 9 in.
Shipping Weight	22,500 lbs
Operating Weight	25,068 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 58. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 59. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
80	79	80	83

Table 60. Capacity table

Leaving Water Temp (Assumes 1200 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,500 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	520	540	560	575	585	560
55°F	515	535	555	570	575	515
50°F	510	530	550	560	535	—
45°F	510	515	515	520	—	—
40°F	470	470	475	—	—	—

Figure 19. Evaporator PD Curve

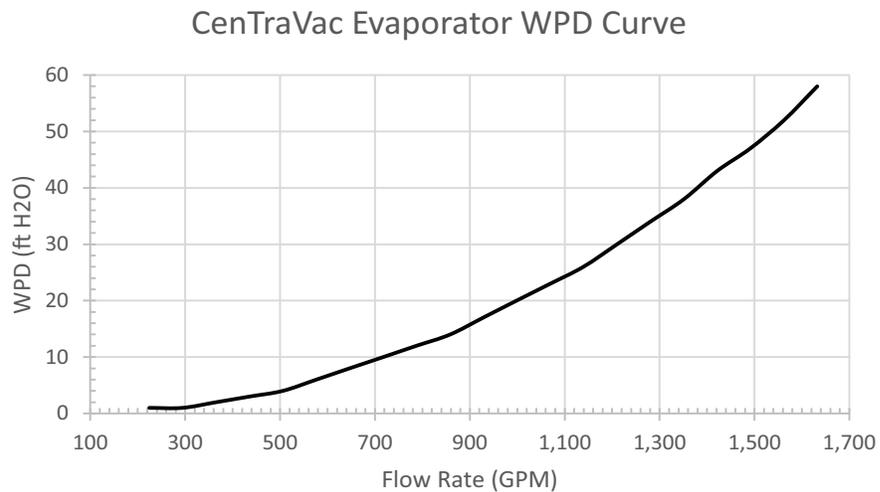
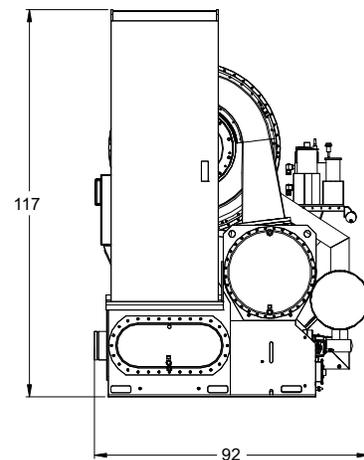
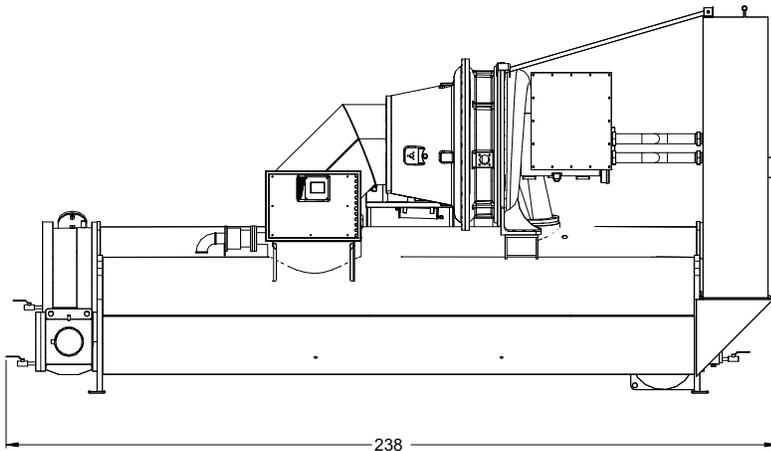
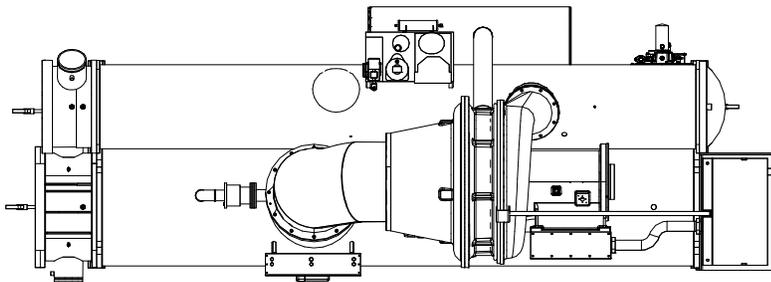
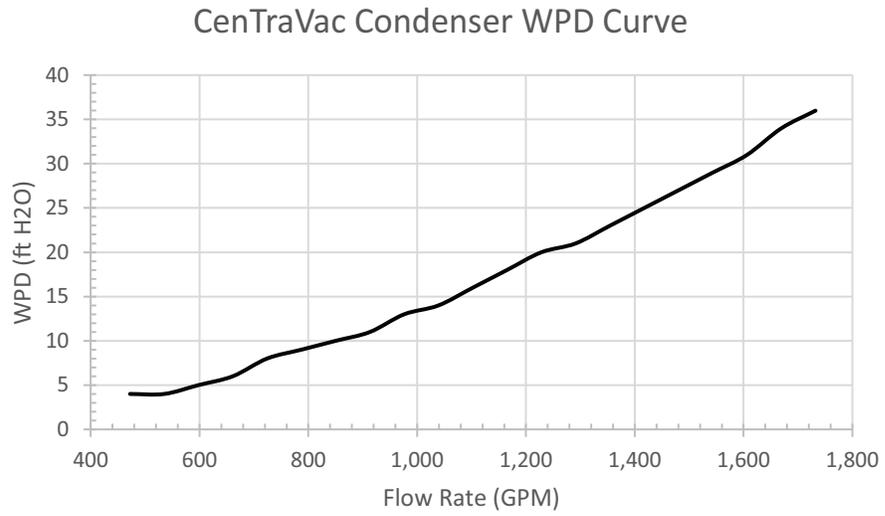


Figure 20. Condenser PD Curve





225 to 1000 Tons CVHF

CSCW0500F0AK, F0AL, F0AM, F0AN

Table 61. General CSCW0500F0AK, CSCW0500F0AL, CSCS0500F0AM, CSCW0500F0AN

Labels	Value
Nominal Tons	500
Refrigerant	R-123
Refrigerant Charge	800 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	125 Tons
Evaporator Min/Max Flow (GPM)	221/1,614
Condenser Min/Max Flow (GPM)	474/1,735
Evap Water Volume	101 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 62. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	535 A
Maximum Overcurrent Protection (MOP)	800 A
Run Load Amps (RLA)	419 A
Starter Type	Star/Wye-Delta
LRAY	809 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 63. Dimensions and weights

Labels	Value
Length	20 ft.
Width	7 ft. 6 in.
Height	9 ft. 7 in.
Shipping Weight	19,500 lbs
Operating Weight	22,023 lbs
Lifting Device	Crane

Table 64. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 65. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
80	79	80	83

Table 66. Capacity table

Leaving Water Temp (Assumes 1200 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,500 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	520	540	560	580	595	555
55°F	520	535	555	575	570	510
50°F	515	530	550	565	530	—
45°F	510	515	515	520	—	—
40°F	470	475	475	—	—	—

Figure 21. Evaporator PD Curve

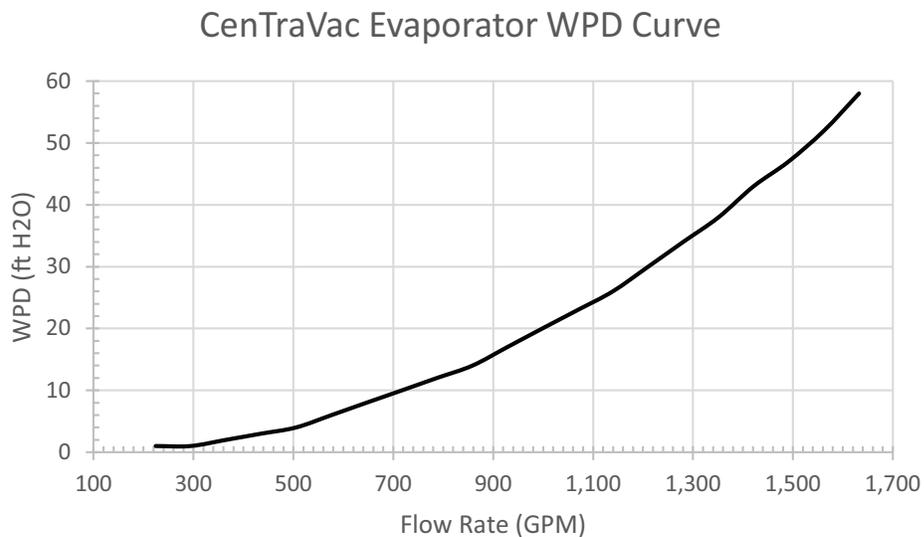
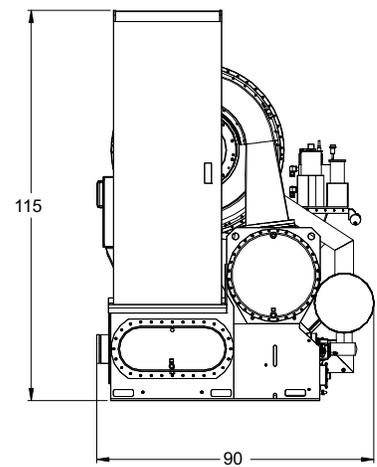
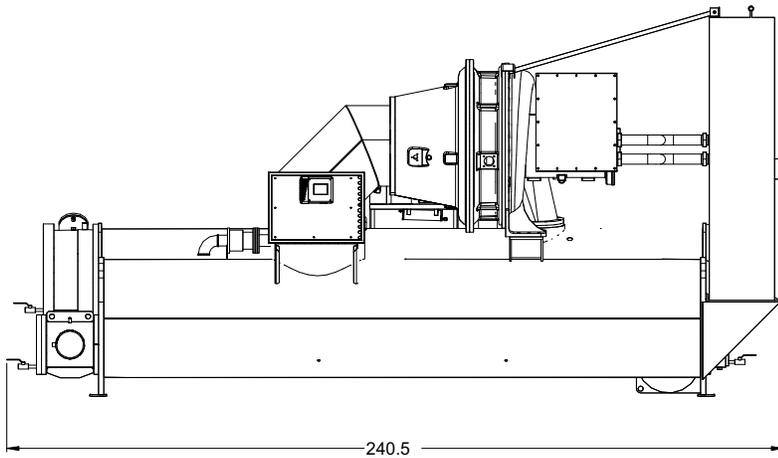
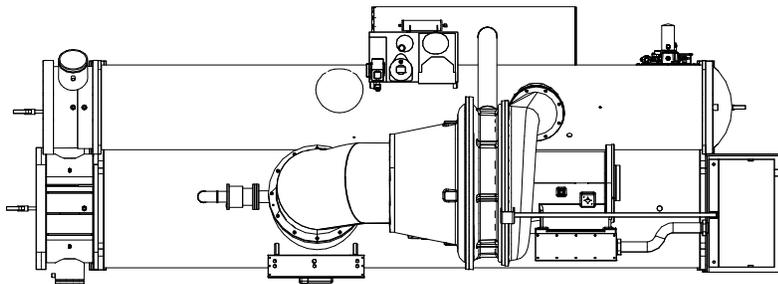
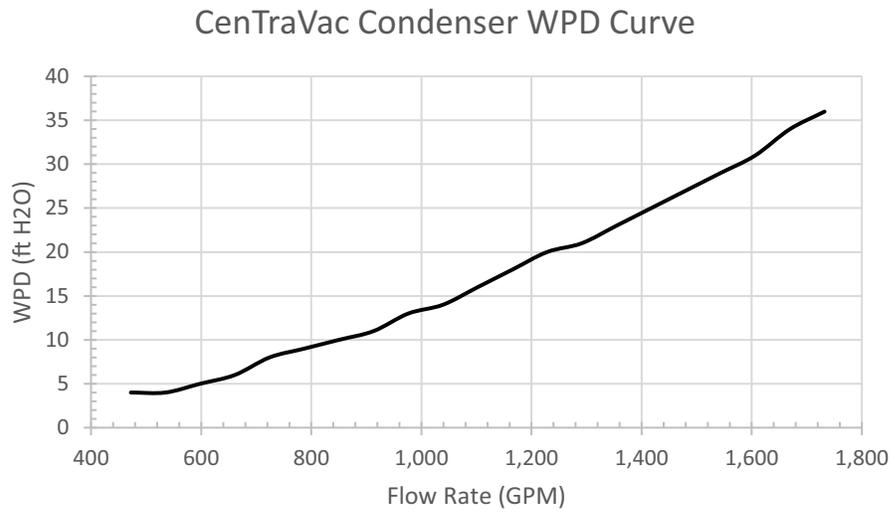


Figure 22. Condenser PD Curve



CSCW0500F0AO, F0AP, F0AQ, F0AR

Table 67. General CSCW0500F0AO, CSCW0500F0AP, CSCW0500F0AQ, CSCW0500F0AR

Labels	Value
Nominal Tons	500
Refrigerant	R-123
Refrigerant Charge	800 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	125 Tons
Evaporator Min/Max Flow (GPM)	220/1,614
Condenser Min/Max Flow (GPM)	473/1,735
Evap Water Volume	101 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRJ conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 68. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Two Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	535 A
Maximum Overcurrent Protection (MOP)	800 A
Run Load Amps (RLA)	420 A
Starter Type	Star/Wye-Delta
LRAY	809 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 69. Dimensions and weights

Labels	Value
Length	19 ft. 5 in.
Width	7 ft.
Height	9' 2 in.
Shipping Weight	19,462 lbs
Operating Weight	22,131 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 70. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 71. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
80	79	80	83

Table 72. Capacity table

Leaving Water Temp (Assumes 1200 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,500 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	520	540	560	580	595	555
55°F	520	535	555	575	570	510
50°F	515	530	550	565	530	—
45°F	510	515	515	520	—	—
40°F	470	475	475	—	—	—

Figure 23. Evaporator PD Curve

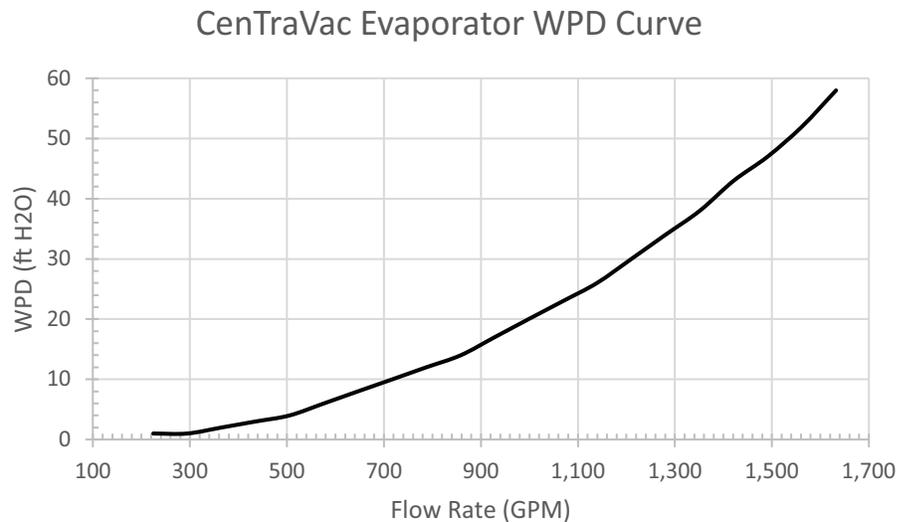
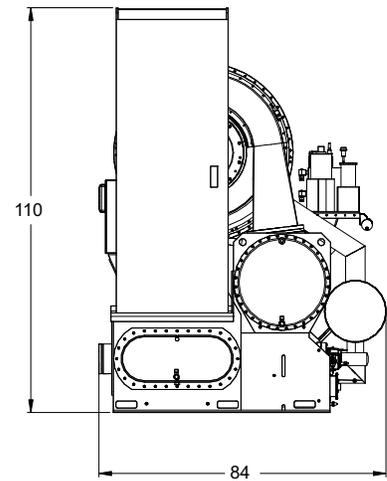
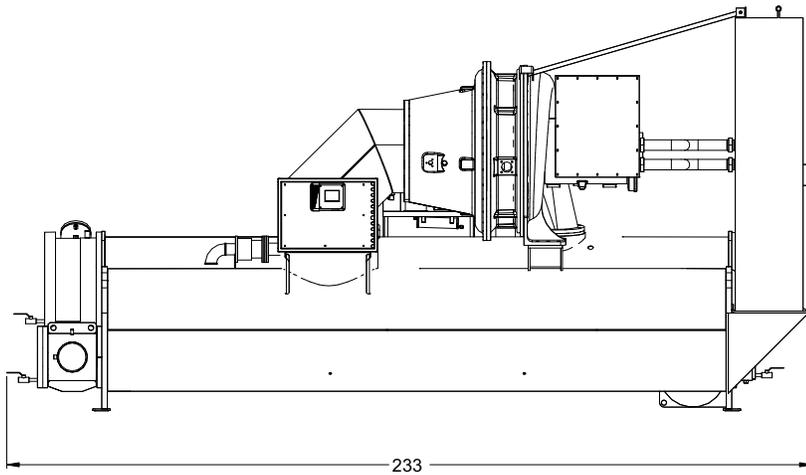
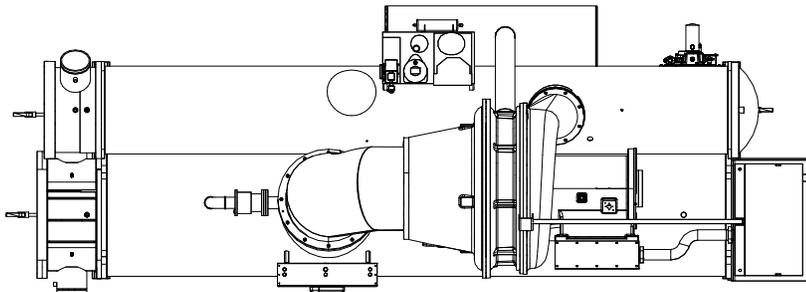
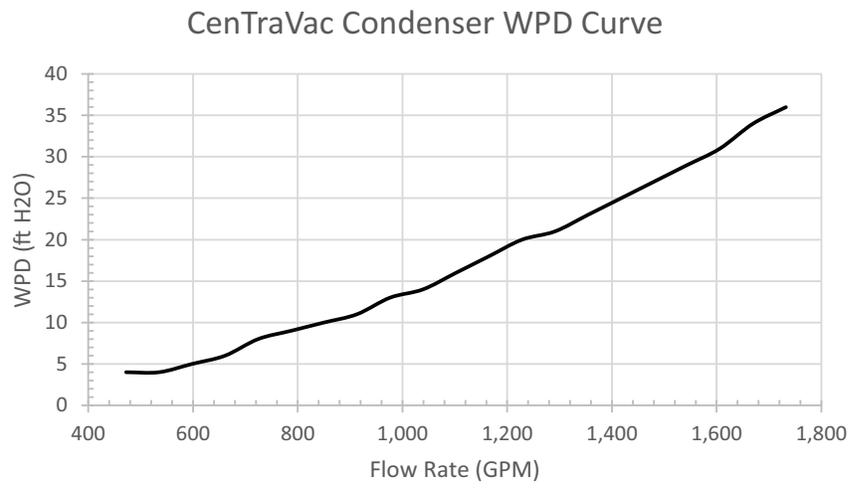


Figure 24. Condenser PD Curve





225 to 1000 Tons CVHF

CSCW0500F0AS

Table 73. General CSCW0500F0AS

Labels	Value
Nominal Tons	500
Refrigerant	R-123
Refrigerant Charge	800 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	125 Tons
Evaporator Min/Max Flow (GPM)	220/1,632
Condenser Min/Max Flow (GPM)	472/1,732
Evap Water Volume	102 Gal
Cond Water Volume	107 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 74. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	525 A
Maximum Overcurrent Protection (MOP)	800 A
Run Load Amps (RLA)	413 A
Starter Type	Star/Wye-Delta
LRAY	774 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 75. Dimensions and weights

Labels	Value
Length	20 ft.
Width	7 ft. 10 in.
Height	9 ft. 7 in.
Shipping Weight	19,410 lbs
Operating Weight	22,084 lbs
Lifting Device	Crane

Table 76. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 77. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
80	79	80	83

Table 78. Capacity table

Leaving Water Temp (Assumes 1200 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,500 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	525	545	560	580	600	605
55°F	520	540	560	575	595	595
50°F	515	535	550	555	560	—
45°F	505	505	510	510	—	—
40°F	460	465	465	—	—	—

Figure 25. Evaporator PD Curve

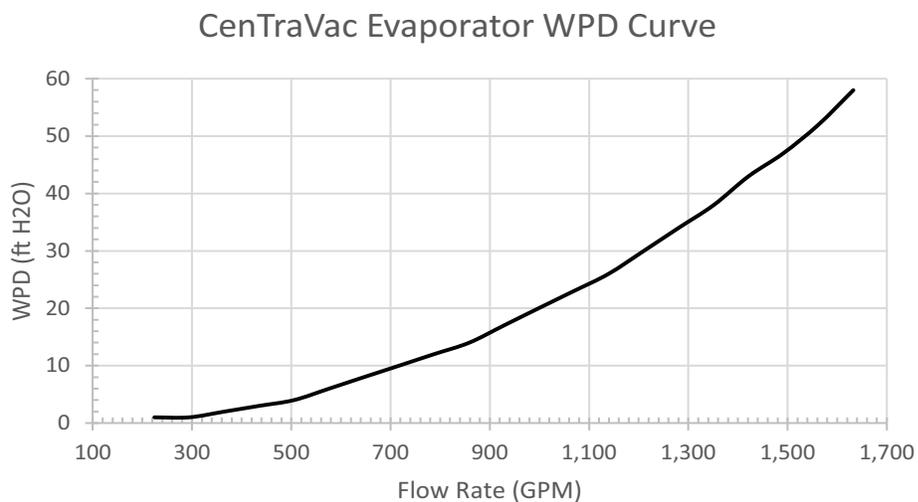
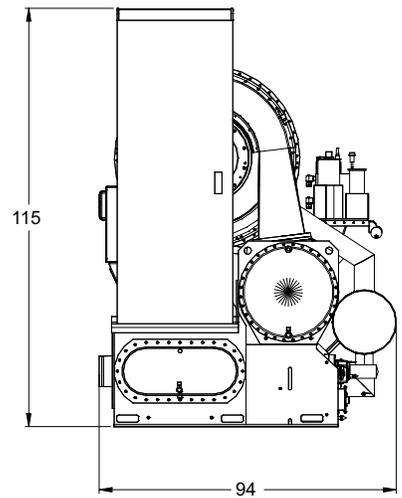
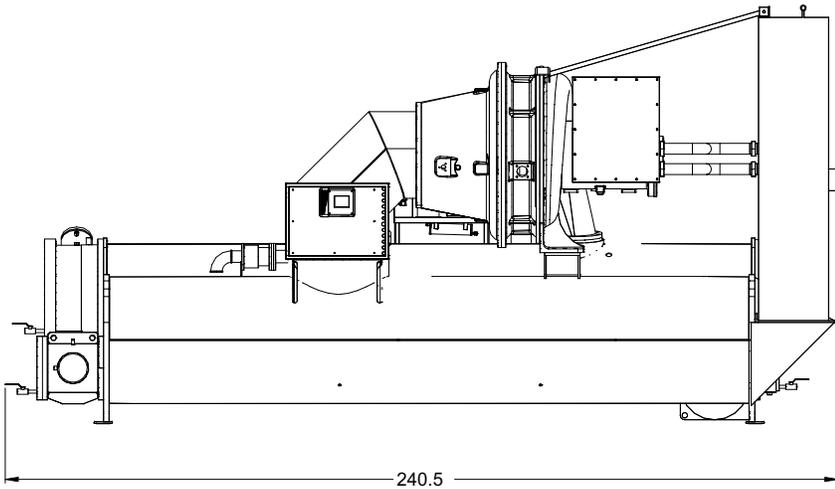
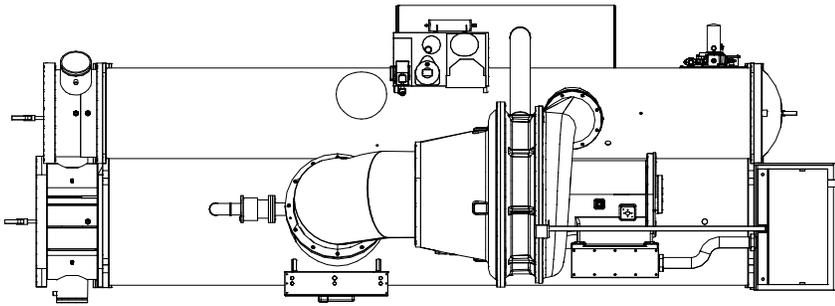
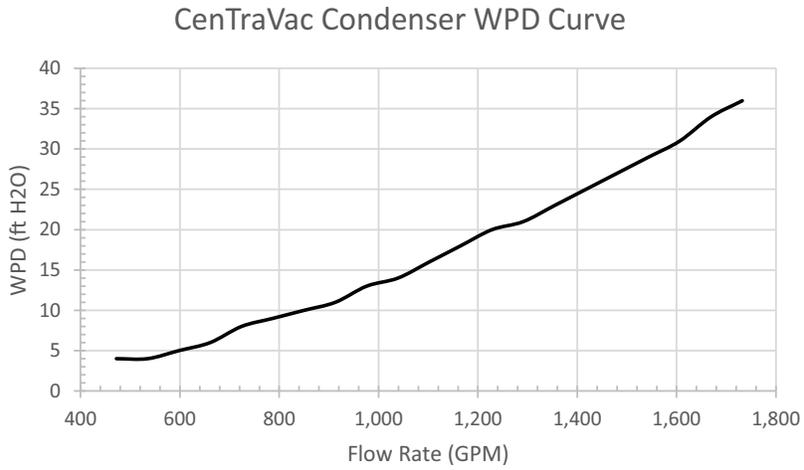


Figure 26. Condenser PD Curve



CSCW0500F2AT
Table 79. General CSCW0500F2AT

Labels	Value
Nominal Tons	500
Refrigerant	R-123
Refrigerant Charge	800 lbs
Oil Charge	9 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	125 Tons
Evaporator Min/Max Flow (GPM)	224/1,614
Condenser Min/Max Flow (GPM)	472/1,735
Evap Water Volume	83 Gal
Cond Water Volume	89 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 80. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	526 A
Maximum Overcurrent Protection (MOP)	800 A
Run Load Amps (RLA)	413 A
Starter Type	Star/Wye-Delta
LRAY	774 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 81. Dimensions and weights

Labels	Value
Length	22 ft. 8 in.
Width	7 ft. 6 in.
Height	9 ft. 1 in.
Shipping Weight	26,000 lbs
Operating Weight	28,368 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 82. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	40 in.
Either End	48 in.
Top	36 in.

Table 83. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
80	79	80	83

Table 84. Capacity table

Leaving Water Temp (Assumes 1200 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 1,500 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	525	545	560	580	600	605
55°F	520	540	560	575	595	595
50°F	515	535	550	555	560	—
45°F	505	505	510	510	—	—
40°F	460	465	465	—	—	—

Figure 27. Evaporator PD Curve

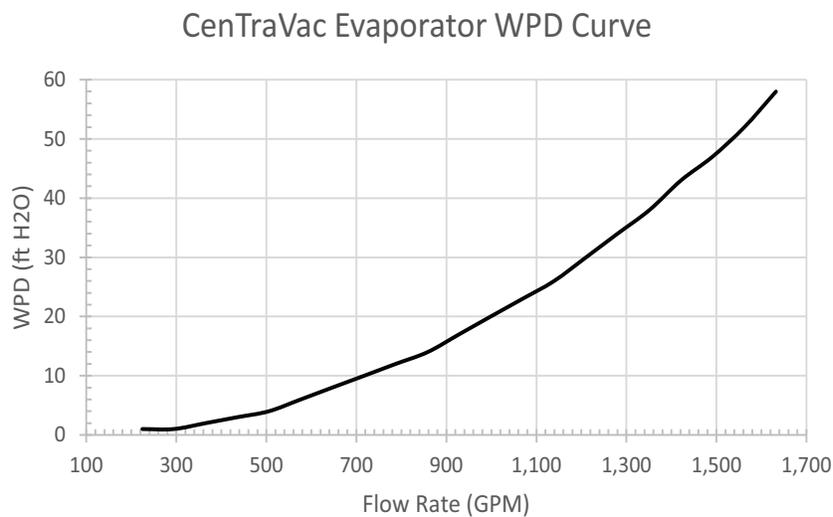
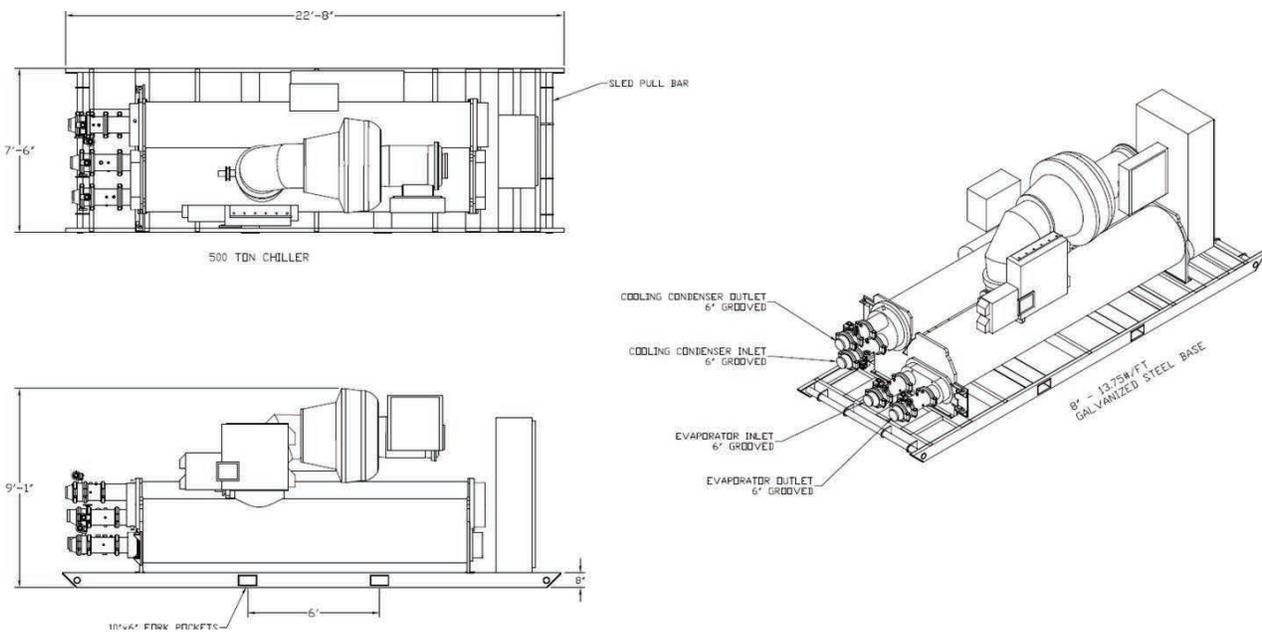
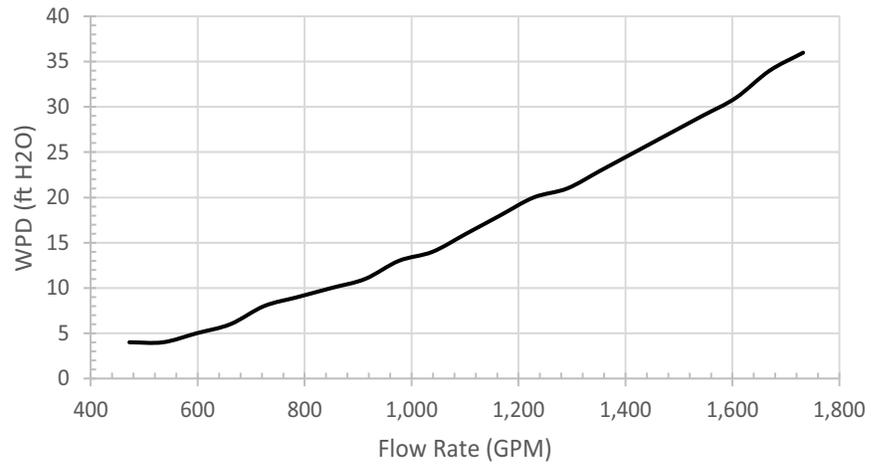


Figure 28. Condenser PD Curve

CenTraVac Condenser WPD Curve





225 to 1000 Tons CVHF

750 Ton Water-Cooled
CSCW0750F0AE

Table 85. General CSCW0750F0AE

Labels	Value
Nominal Tons	770
Refrigerant	R-123
Refrigerant Charge	1,100 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	188 Tons
Evaporator Min/Max Flow (GPM)	576/2,109
Condenser Min/Max Flow (GPM)	288/2,739
Evap Water Volume	134 Gal
Cond Water Volume	198 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 86. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Three Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	964 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	764 A
Starter Type	Star/Wye-Delta
LRAY	1,732 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 87. Dimensions and weights

Labels	Value
Length	20 ft. 5 in
Width	8 ft. 3 in.
Height	9 ft. 4 in.
Shipping Weight	29,133 lbs
Operating Weight	33,457 lbs

Table 87. Dimensions and weights (continued)

Labels	Value
Lifting Device	Crane

Table 88. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	36 in.
Either End	48 in.
Top	36 in.

Table 89. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
81	79	80	83

Table 90. Capacity table

Leaving Water Temp (Assumes 1800 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 2,250 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	860	860	860	860	860	860
55°F	860	860	860	860	860	860
50°F	840	845	845	850	855	860
45°F	775	780	780	785	790	795
40°F	715	715	720	725	730	—

Figure 29. Evaporator PD Curve

CenTraVac Evaporator WPD Curve

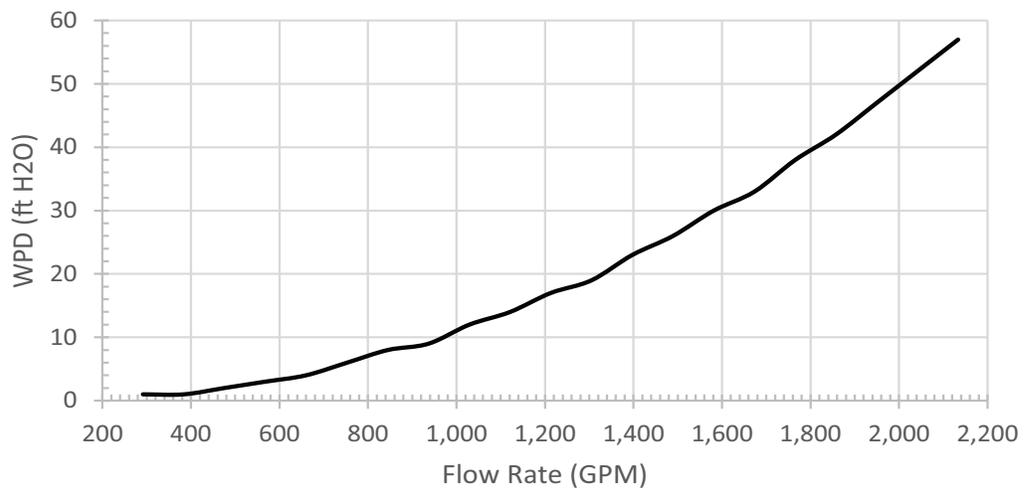
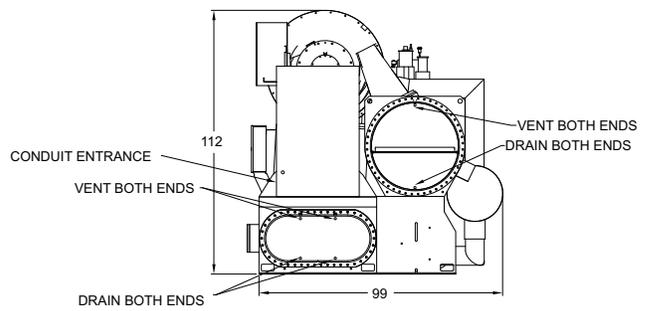
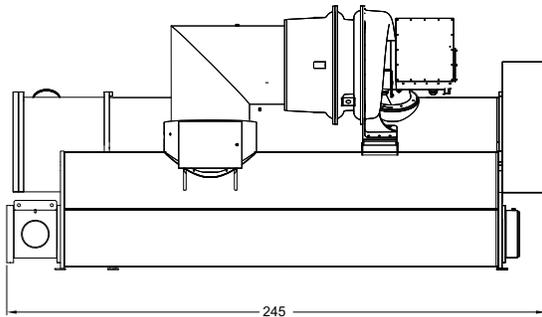
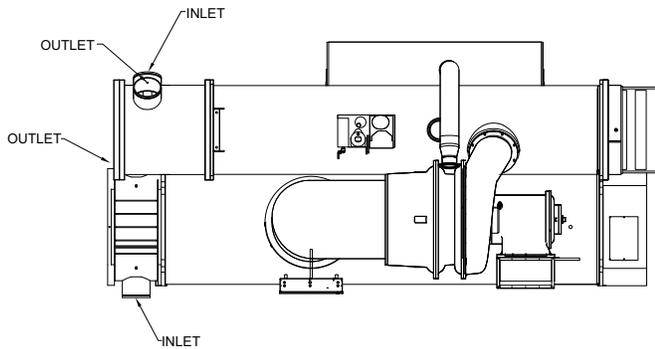
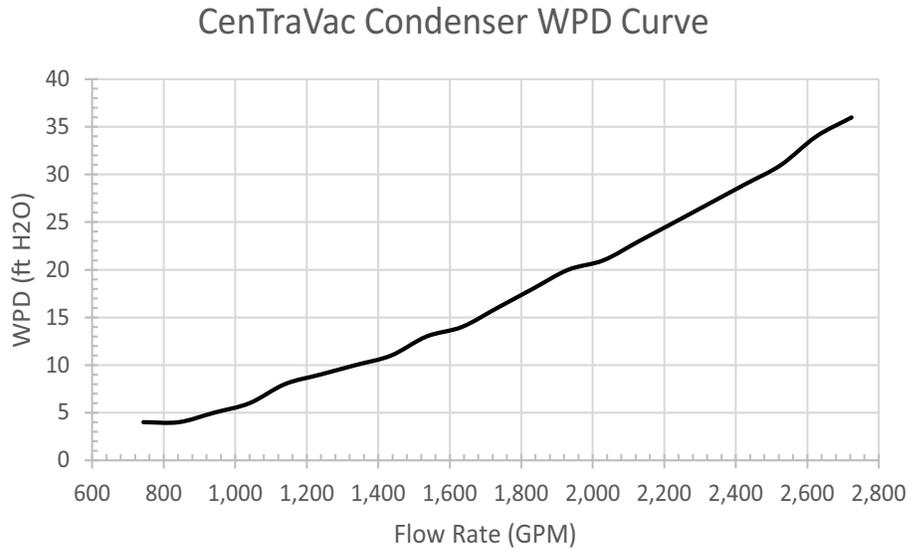


Figure 30. Condenser PD Curve



1000 Ton Water-Cooled

CSCW1000F0AC

Table 91. General CSCW1000F0AC

Labels	Value
Nominal Tons	1,100
Refrigerant	R-123
Refrigerant Charge	2,000 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	1,041/3,815
Condenser Min/Max Flow (GPM)	1,362/4,993
Evap Water Volume	265 Gal
Cond Water Volume	386 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 92. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Three Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	1,170 A
Maximum Overcurrent Protection (MOP)	2,000 A
Run Load Amps (RLA)	929 A
Starter Type	Star/Wye-Delta
LRA	1,710 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 93. Dimensions and weights

Labels	Value
Length	20 ft. 10 in.
Width	8 ft. 6 in.
Height	9 ft. 9 in.
Shipping Weight	38,900 lbs
Operating Weight	46,855 lbs

225 to 1000 Tons CVHF

Table 93. Dimensions and weights (continued)

Labels	Value
Lifting Device	Crane

Table 94. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	47 in.
Either End	48 in.
Top	36 in.

Table 95. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 96. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,440	1,414	1,375	1,339	1,294	1,222
55°F	1,300	1,351	1,321	1,285	1,231	1,168
50°F	1,235	1,246	1,249	1,213	1,177	1,114
45°F	1,145	1,148	1,050	1,141	1,096	1,042
40°F	1,050	1,043	1,033	1,006	979	925

Figure 31. Evaporator PD Curve

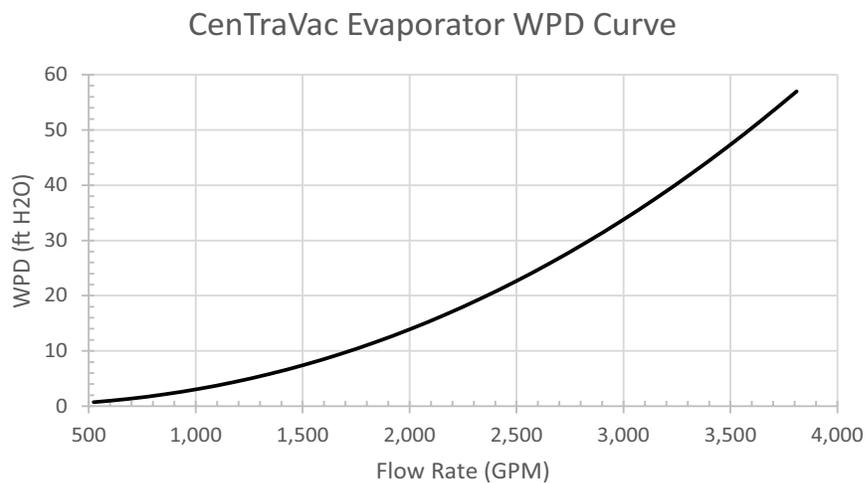
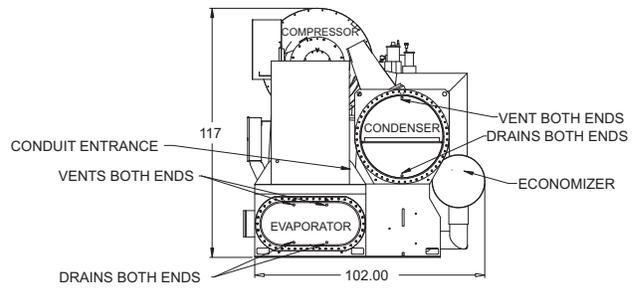
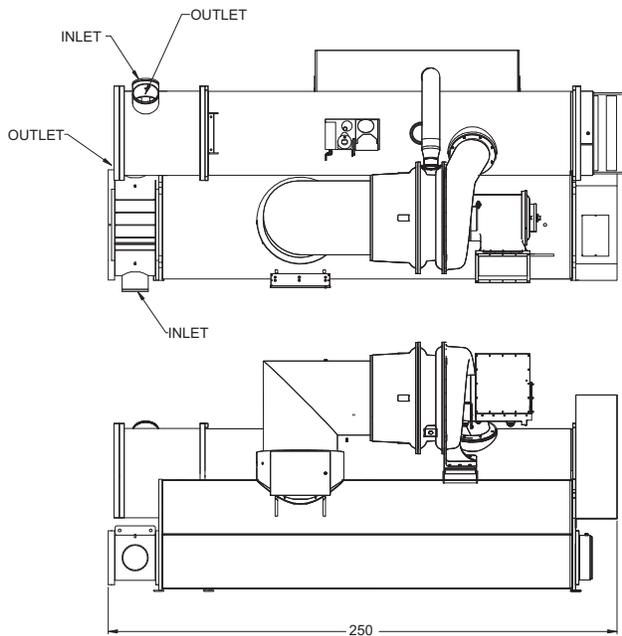
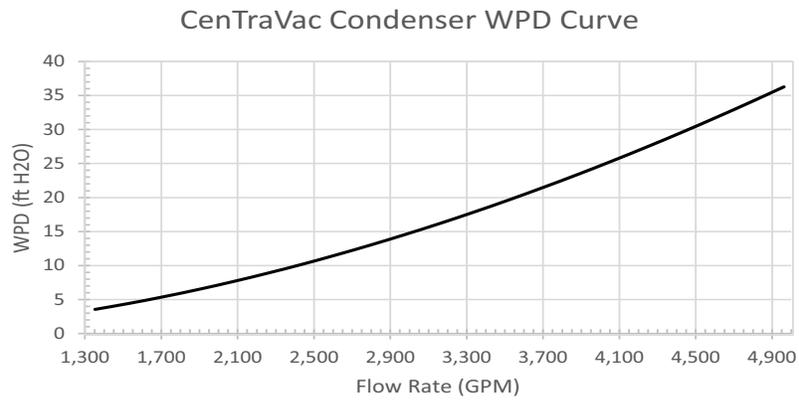


Figure 32. Condenser PD Curve





225 to 1000 Tons CVHF

CSCW1000F0AD

Table 97. General CSCW1000F0AD

Labels	Value
Nominal Tons	1,100
Refrigerant	R-123
Refrigerant Charge	2,000 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	521/3,815
Condenser Min/Max Flow (GPM)	1,362/4,993
Evap Water Volume	265 Gal
Cond Water Volume	386 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 98. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Three Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	1,170 A
Maximum Overcurrent Protection (MOP)	2,000 A
Run Load Amps (RLA)	929 A
Starter Type	Star/Wye-Delta
LRAY	1,803 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 99. Dimensions and weights

Labels	Value
Length	20 ft. 10 in.
Width	8 ft. 6 in.
Height	9 ft. 9 in.
Shipping Weight	38,900 lbs
Operating Weight	46,855 lbs
Lifting Device	Crane

Table 100. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	47 in.
Either End	48 in.
Top	36 in.

Table 101. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 102. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1411	1,382	1,349	1,316	1,261	1,195
55°F	1,321	1,338	1,294	1,250	1,195	1,140
50°F	1,231	1,239	1,228	1,195	1,151	1,085
45°F	1,141	1,140	1,140	1,118	1,074	1,030
40°F	1,042	1,030	1,019	997	964	909

Figure 33. Evaporator PD Curve

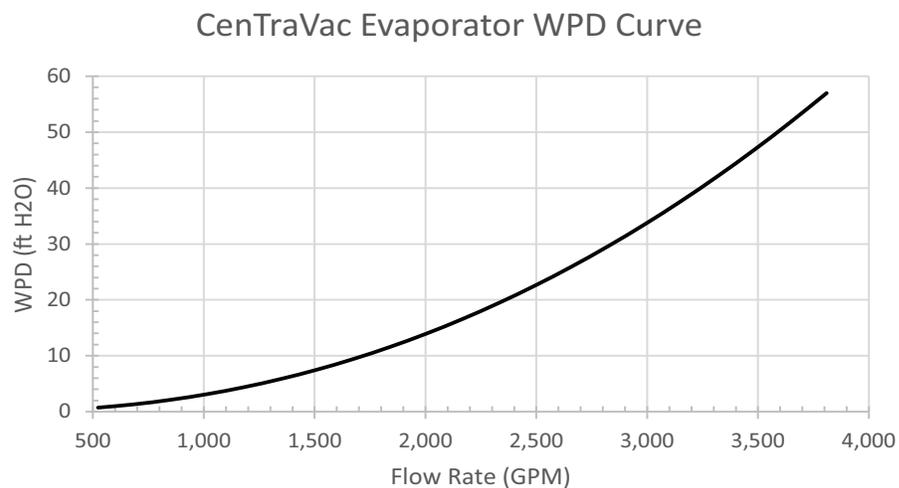
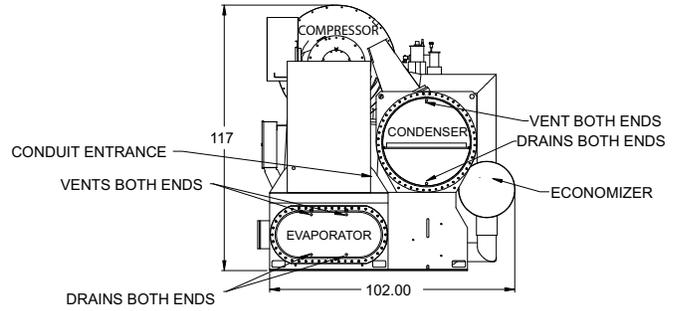
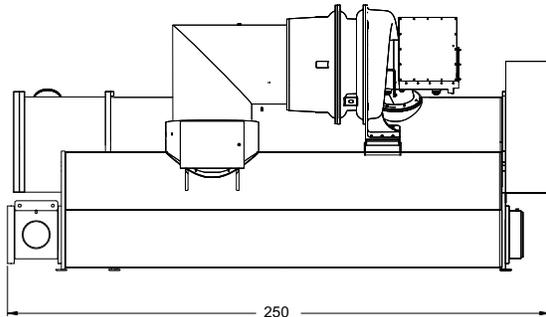
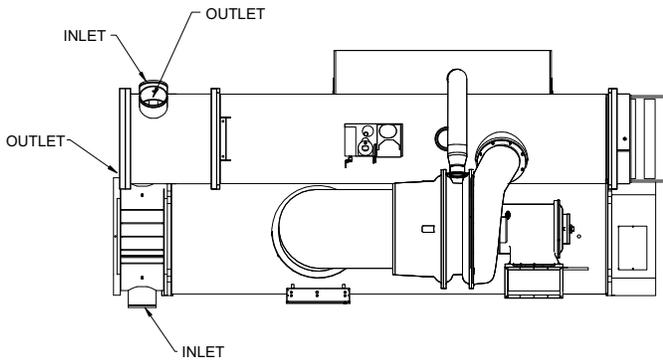
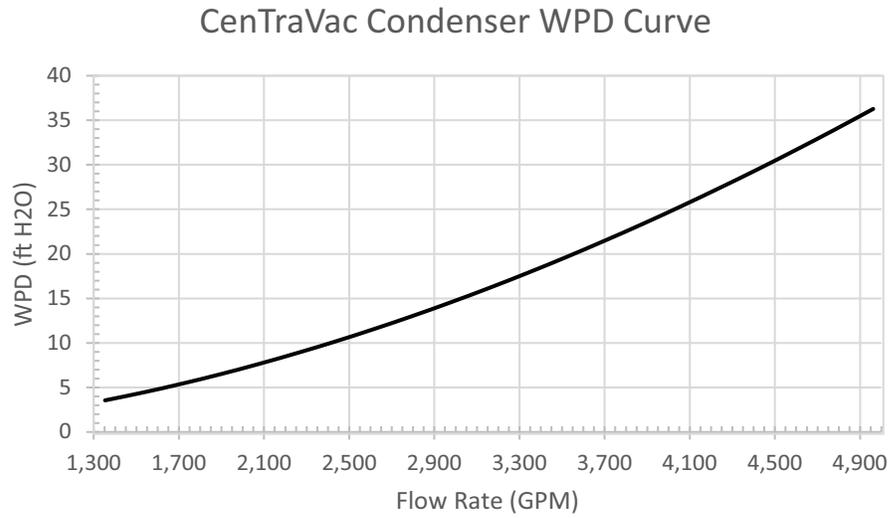


Figure 34. Condenser PD Curve



CSCW1000F0AE
Table 103. General CSCW1000F0AE

Labels	Value
Nominal Tons	1,000
Refrigerant	R-123
Refrigerant Charge	2,000 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	521/3,815
Condenser Min/Max Flow (GPM)	1,359/4,982
Evap Water Volume	265 Gal
Cond Water Volume	386 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 104. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Three Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	1,017 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	807 A
Starter Type	Star/Wye-Delta
LRAY	1,803 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 105. Dimensions and weights

Labels	Value
Length	20 ft. 7 in.
Width	9 ft. 11 in.
Height	10 ft. 4 in.
Shipping Weight	39,000 lbs
Operating Weight	46,995 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 106. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	47 in.
Either End	48 in.
Top	36 in.

Table 107. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 108. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,317	1,328	1,328	1,328	1,284	1,229
55°F	1,218	1,229	1,229	1,229	1,229	1,174
50°F	1,130	1,130	1,130	1,141	1,141	1,119
45°F	1,031	1,042	1,042	1,053	1,053	1,053
40°F	954	954	965	965	965	921

Figure 35. Evaporator PD Curve

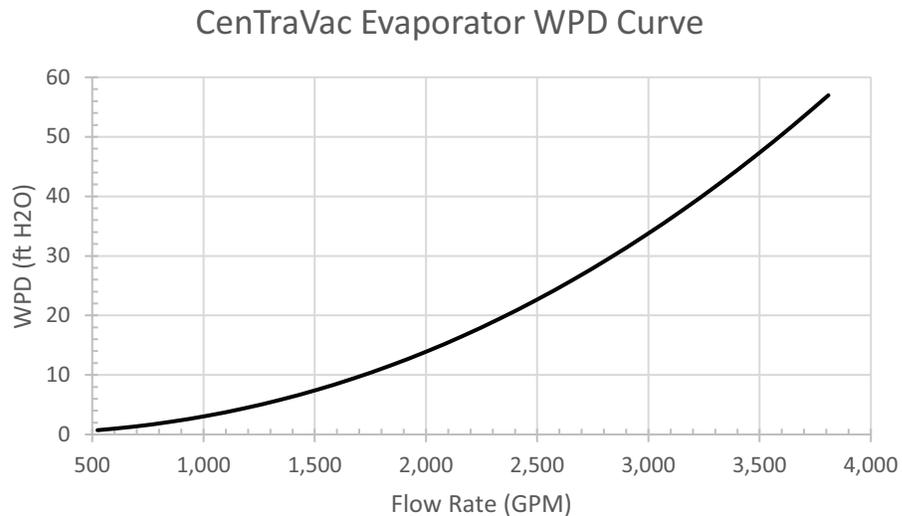
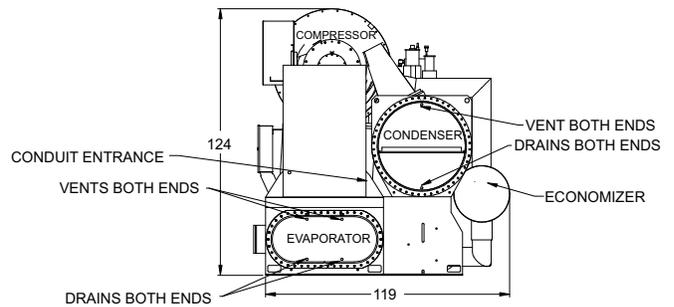
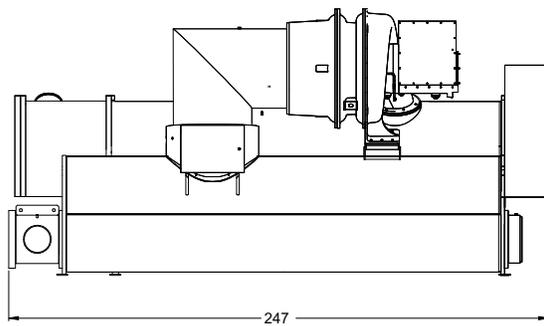
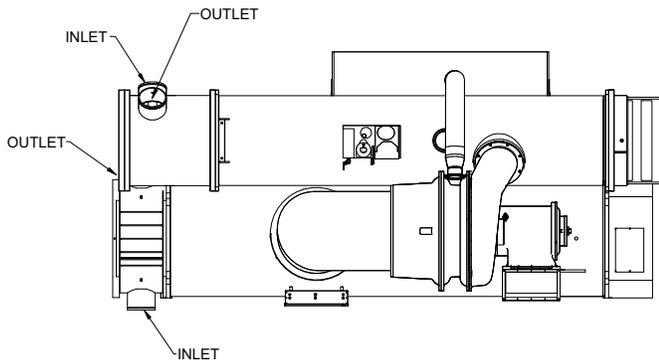
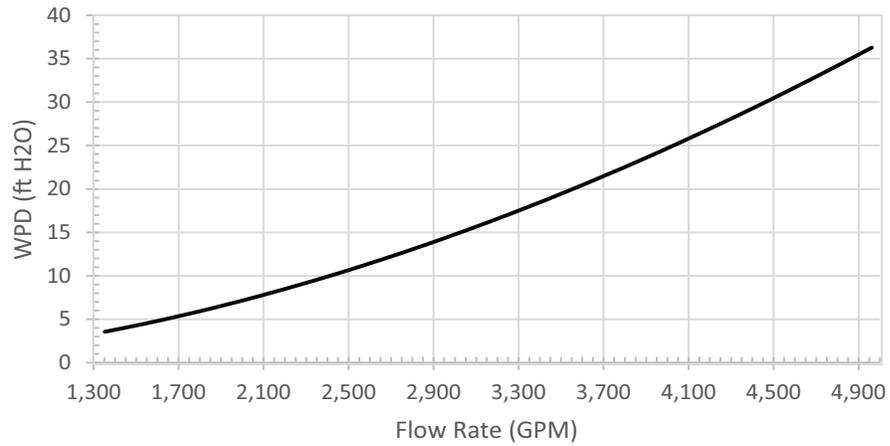


Figure 36. Condenser PD Curve

CenTraVac Condenser WPD Curve





225 to 1000 Tons CVHF

CSCW1000F0AH, F0AJ

Table 109. General CSCW1000F0AH, CSCW1000F0AJ

Labels	Value
Nominal Tons	1,000
Refrigerant	R-123
Refrigerant Charge	1,700 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	555/4067
Condenser Min/Max Flow (GPM)	1,359/4,982
Evap Water Volume	265 Gal
Cond Water Volume	386 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 110. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Three Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	961 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	762 A
Starter Type	Star/Wye-Delta
LRAY	1,473 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 111. Dimensions and weights

Labels	Value
Length	21 ft. 3 in.
Width	9 ft. 8 in.
Height	11 ft.
Shipping Weight	39,000 lbs
Operating Weight	46,655 lbs
Lifting Device	Crane

Table 112. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	47 in.
Either End	48 in.
Top	36 in.

Table 113. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 114. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,283	1,283	1,284	1,295	1,262	1,195
55°F	1,184	1,195	1,196	1,196	1,196	1,129
50°F	1,096	1,096	1,108	1,108	1,108	1,052
45°F	1,008	1,008	1,020	1,020	976	—
40°F	931	931	932	877	—	—

Figure 37. Evaporator PD Curve

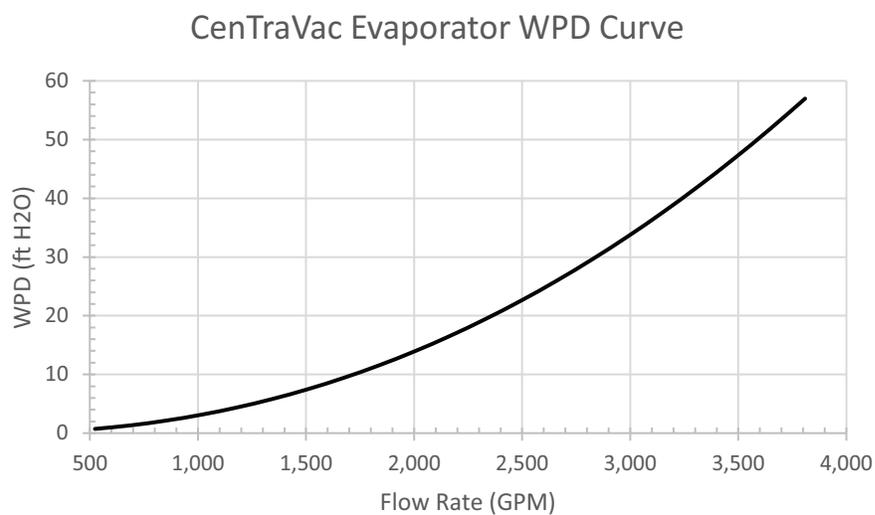
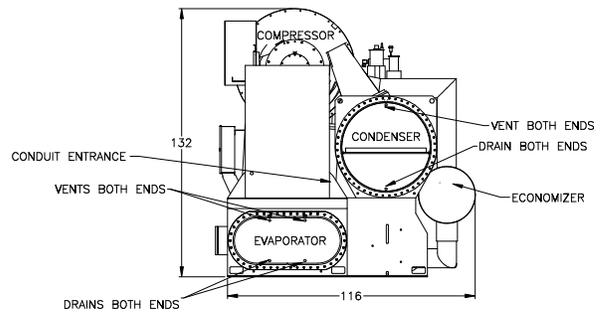
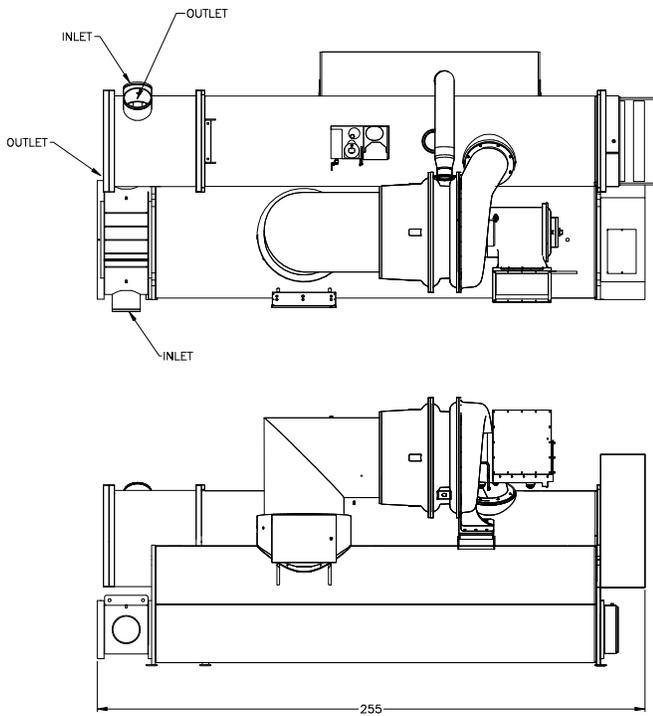
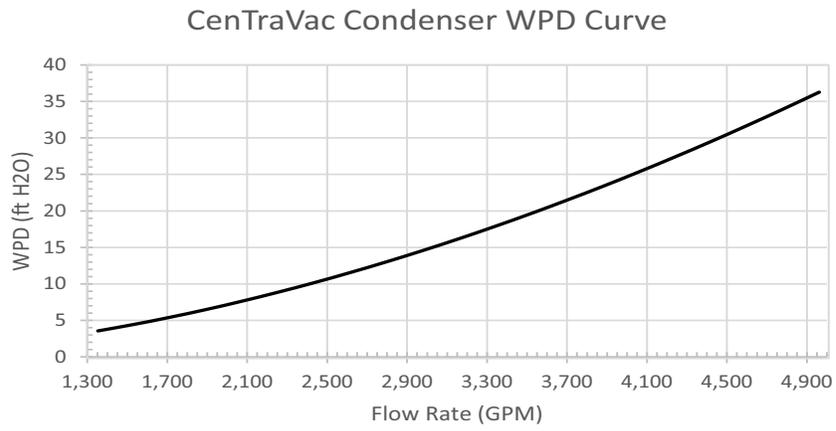


Figure 38. Condenser PD Curve



CSCW1000F0AK, F0AL
Table 115. General CSCW1000F0AK, CSCW1000F0AL

Labels	Value
Nominal Tons	1,000
Refrigerant	R-123
Refrigerant Charge	1,700 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	555/4067
Condenser Min/Max Flow (GPM)	1,359/4,982
Evap Water Volume	265 Gal
Cond Water Volume	386 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 116. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Three Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	1,028 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	814 A
Starter Type	Star/Wye-Delta
LRAY	1,732 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 117. Dimensions and weights

Labels	Value
Length	21 ft. 1 in.
Width	10 ft. 3 in.
Height	9 ft. 11 in.
Shipping Weight	38,000 lbs
Operating Weight	45,721 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 118. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	47 in.
Either End	48 in.
Top	36 in.

Table 119. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 120. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,274	1,288	1,288	1,288	1,246	1,190
55°F	1,190	1,190	1,190	1,190	1,190	1,120
50°F	1,092	1,092	1,106	1,106	1,106	1,050
45°F	1,008	1,008	1,008	1,022	966	—
40°F	924	924	938	882	—	—

Figure 39. Evaporator PD Curve

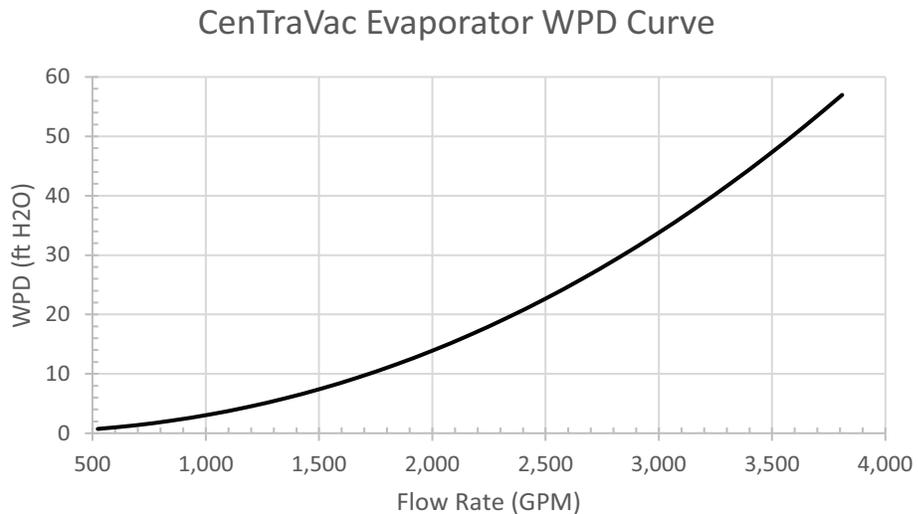
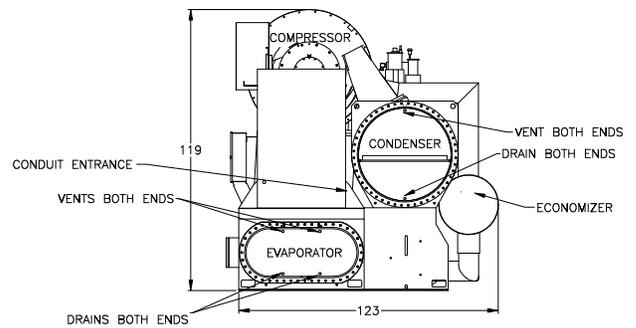
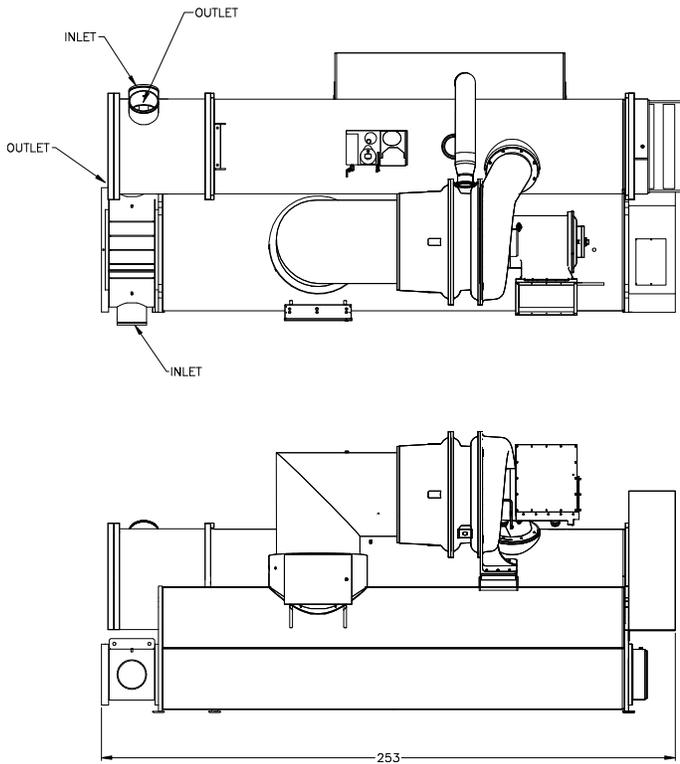
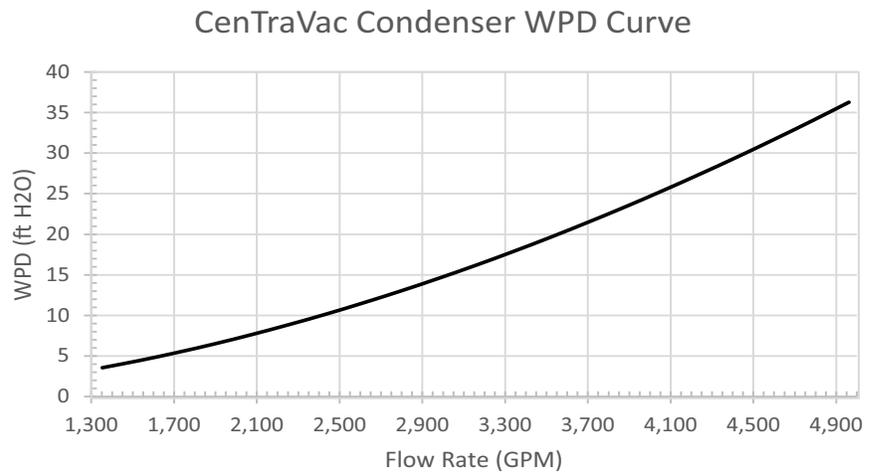


Figure 40. Condenser PD Curve





225 to 1000 Tons CVHF

CSCW1000F0AN, F0AO

Table 121. General CSCW1000F0AN, CSCW1000F0AO

Labels	Value
Nominal Tons	910
Refrigerant	R-123
Refrigerant Charge	1,700 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	555/4067
Condenser Min/Max Flow (GPM)	1,359/4,982
Evap Water Volume	265 Gal
Cond Water Volume	386 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 122. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Hard Wire - Three Lugs with range up to 500KCMIL
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	1,003 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	794 A
Starter Type	Star/Wye-Delta
LRAY	1,732 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 123. Dimensions and weights

Labels	Value
Length	20 ft. 5 in.
Width	9 ft. 11 in.
Height	10 ft. 2 in.
Shipping Weight	38,000 lbs
Operating Weight	45,721 lbs
Lifting Device	Crane

Table 124. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	47 in.
Either End	48 in.
Top	36 in.

Table 125. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 126. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,274	1,288	1,288	1,288	1,246	1,190
55°F	1,190	1,190	1,190	1,190	1,190	1,120
50°F	1,092	1,092	1,106	1,106	1,106	1,050
45°F	1,008	1,008	1,008	1,022	966	—
40°F	924	924	938	882	—	—

Figure 41. Evaporator PD Curve

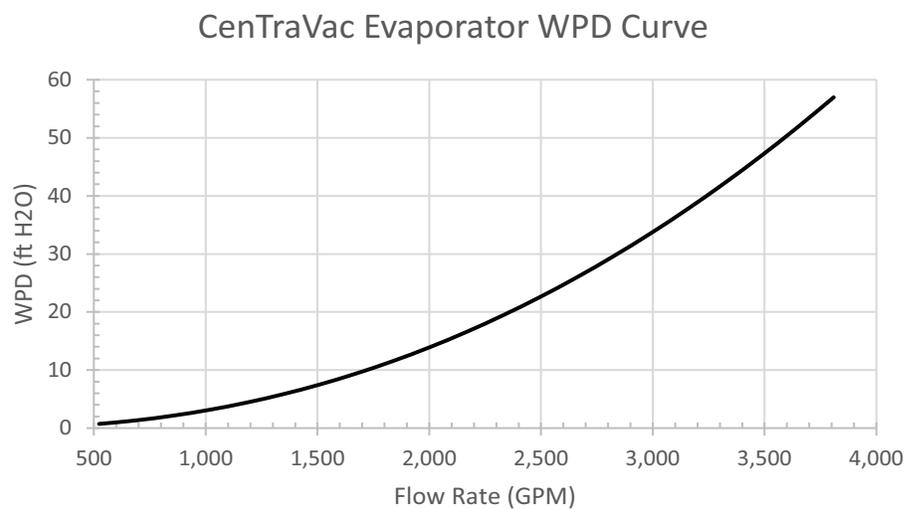
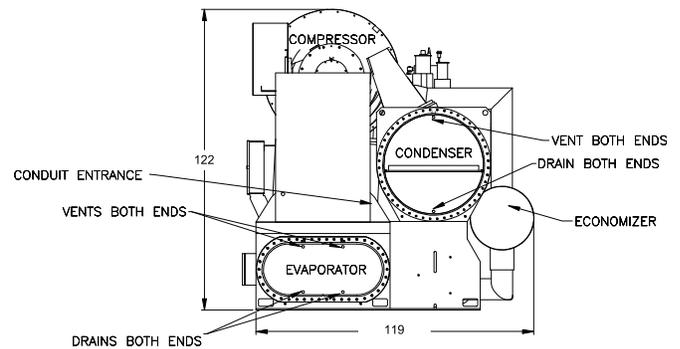
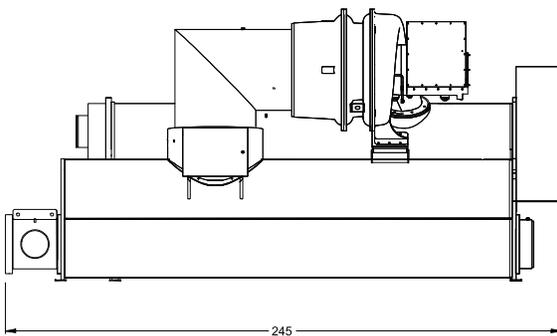
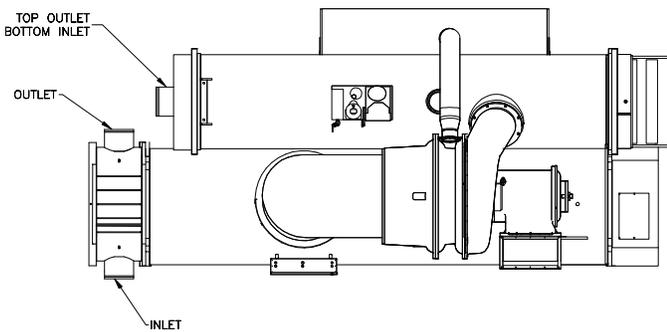
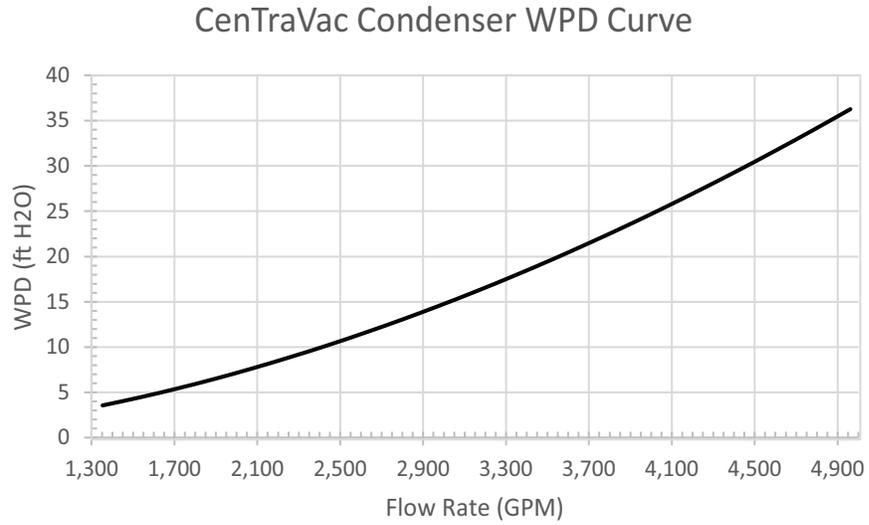


Figure 42. Condenser PD Curve



CSCW1000F0AQ
Table 127. General CSCW1000F0AQ

Labels	Value
Nominal Tons	1,000
Refrigerant	R-123
Refrigerant Charge	1,700 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	522/3,809
Condenser Min/Max Flow (GPM)	1,353/4,961
Evap Water Volume	270 Gal
Cond Water Volume	390 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Set Point Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 128. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	1,001 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	793 A
Starter Type	Star/Wye-Delta
LRAY	1,873 A

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 129. Dimensions and weights

Labels	Value
Length	21 ft.
Width	9 ft. 10 in.
Height	10 ft. 2 in.
Shipping Weight	39,313 lbs
Operating Weight	46,931 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 130. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	47 in.
Either End	48 in.
Top	36 in.

Table 131. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 132. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,296	1,310	1,310	1,324	1,282	1,226
55°F	1,212	1,212	1,212	1,226	1,226	1,156
50°F	1,114	1,128	1,128	1,128	1,128	1,044
45°F	1,030	1,030	1,030	1,030	946	—
40°F	946	946	932	862	—	—

Figure 43. Evaporator PD Curve

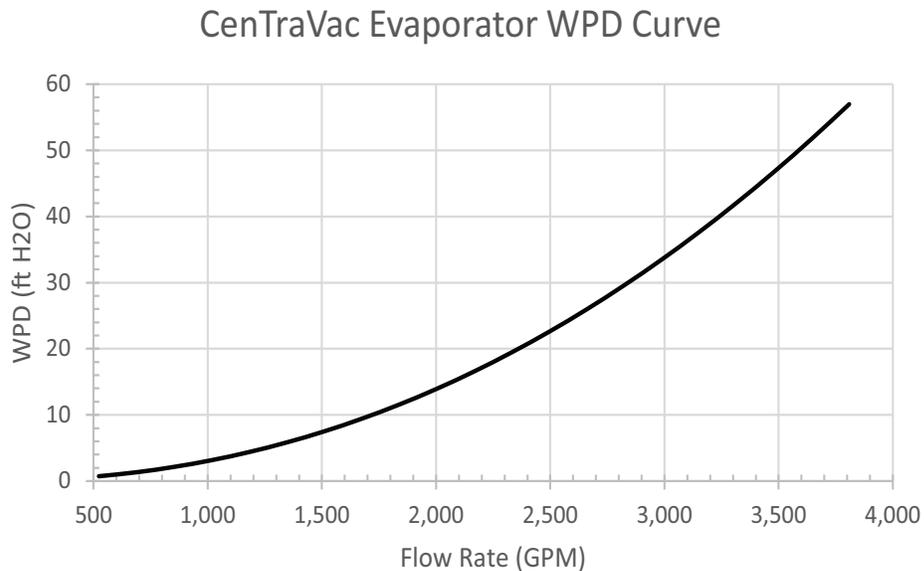
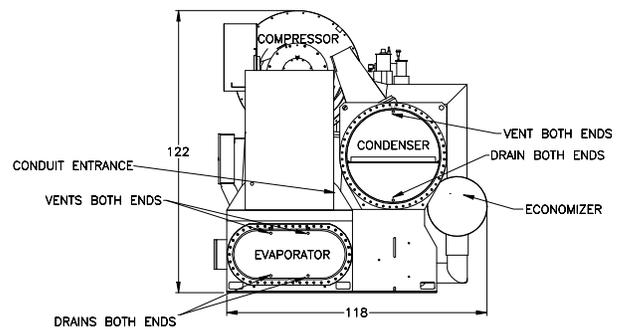
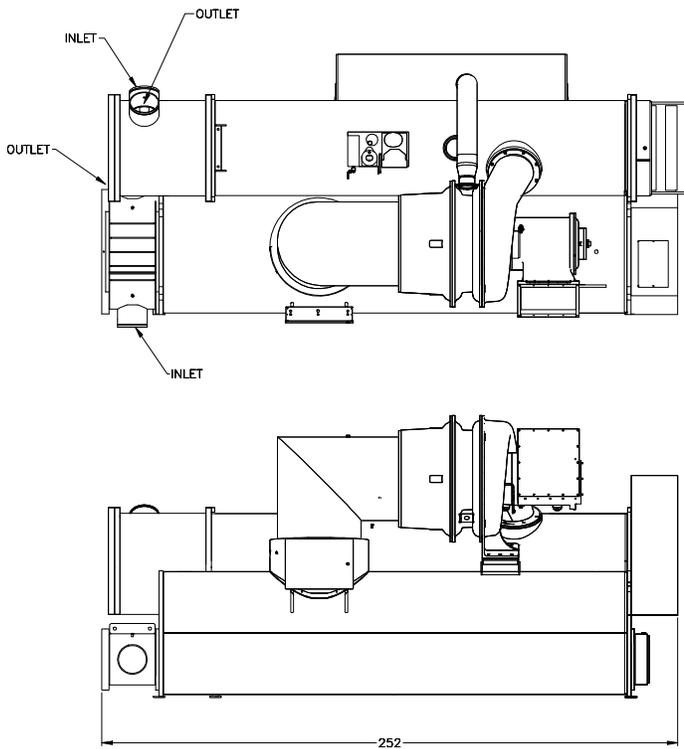
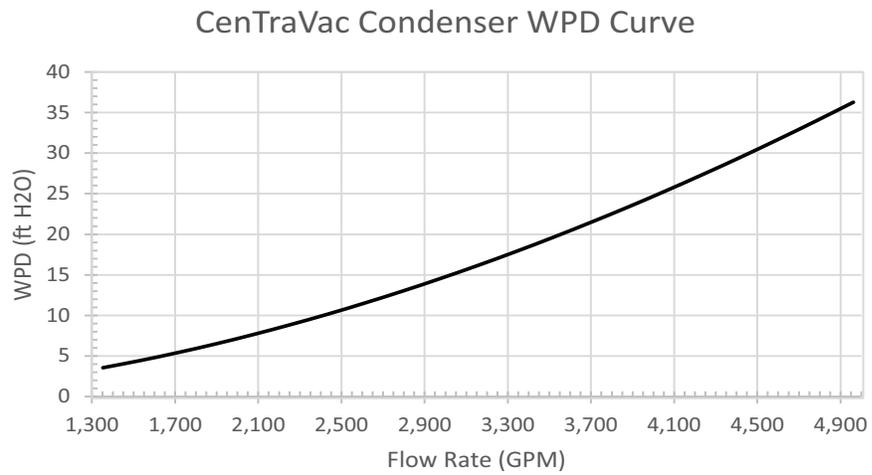


Figure 44. Condenser PD Curve





225 to 1000 Tons CVHF

RSCW1000F1AR

Table 133. General RSCW1000F1AR

Labels	Value
Nominal Tons	1,000
Refrigerant	R-514A
Refrigerant Charge	1,400 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	522/3,809
Condenser Min/Max Flow (GPM)	1,353/4,961
Evap Water Volume	198 Gal
Cond Water Volume	262 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 134. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	959 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	760 A
Starter Type	Star/Wye-Delta
LRAY	1,873 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 135. Dimensions and weights

Labels	Value
Length	19 ft. 7 in.
Width	10 ft.
Height	10 ft. 2 in.
Shipping Weight	41,253 lbs
Operating Weight	47,012 lbs
Lifting Device	Crane

Table 136. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	46 in.
Either End	48 in.
Top	36 in.

Table 137. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 138. Capacity table

Leaving Water Temp (Assumes 24,00 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,268	1,282	1,282	1,282	1,282	1,268
55°F	1,156	1,184	1,184	1,184	1,198	1,184
50°F	1,086	1,100	1,100	1,100	1,100	1,058
45°F	1,002	1,002	1,016	1,016	960	—
40°F	918	918	932	862	—	—

Figure 45. Evaporator PD Curve

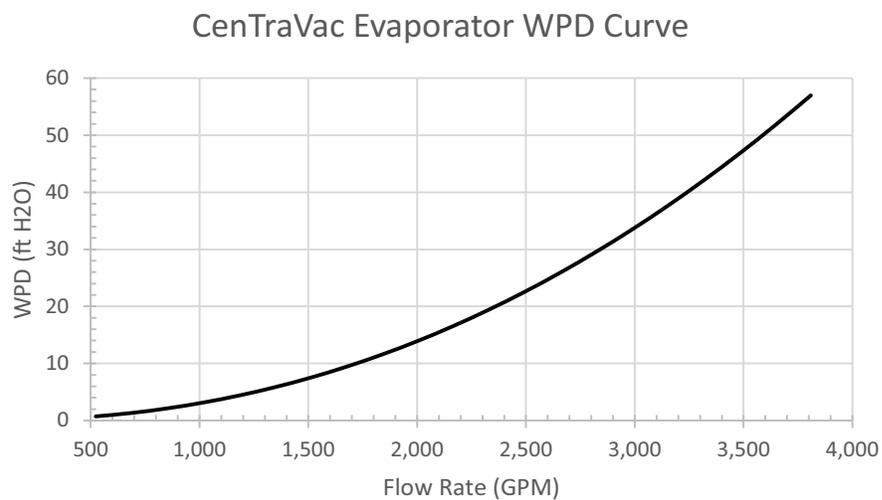
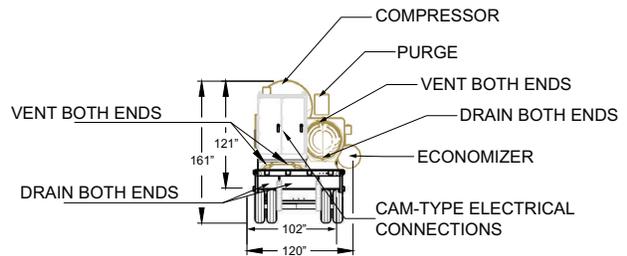
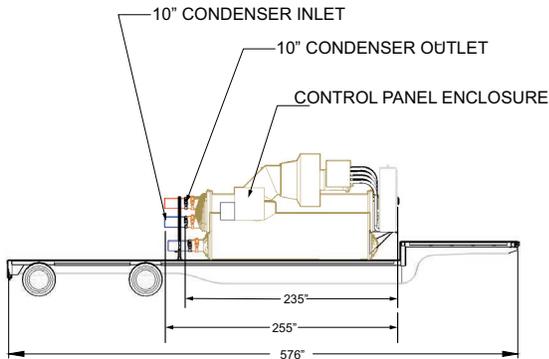
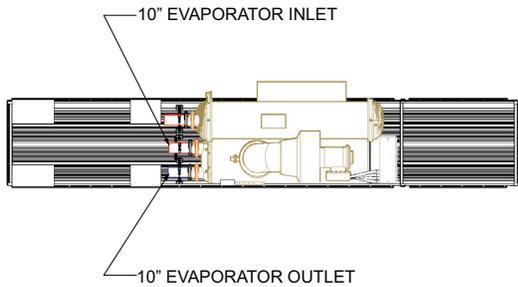
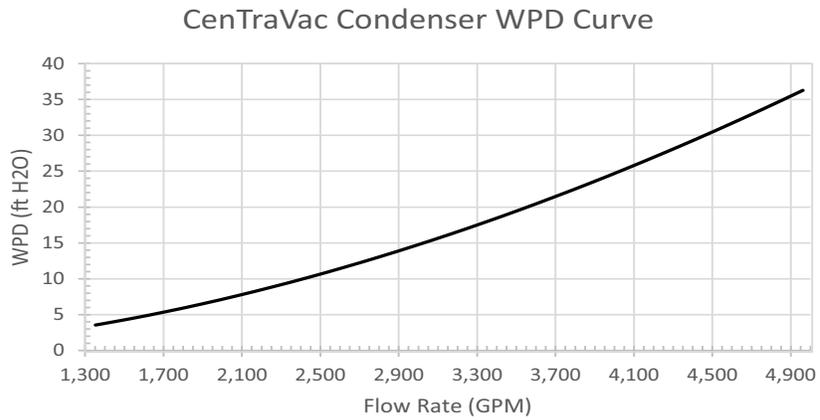


Figure 46. Condenser PD Curve



RSCW1000F1AS, F1AT, F1AU

Table 139. General RSCW1000F1AS, RSCW1000F1AT, RSCW1000F1AU

Labels	Value
Nominal Tons	1,000
Refrigerant	R-514A
Refrigerant Charge	1,450 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	523/3,808
Condenser Min/Max Flow (GPM)	1,353/4,961
Evap Water Volume	198 Gal
Cond Water Volume	262 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 140. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	959 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	760 A
Starter Type	Star/Wye-Delta
LRAY	1,873 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 141. Dimensions and weights

Labels	Value
Length	19 ft. 7 in.
Width	10 ft.
Height	10 ft. 2 in.
Shipping Weight	36,012 lbs
Operating Weight	41,771 lbs
Lifting Device	Crane

225 to 1000 Tons CVHF

Table 142. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	46 in.
Either End	48 in.
Top	36 in.

Table 143. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 144. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,268	1,282	1,282	1,282	1,282	1,268
55°F	1,156	1,184	1,184	1,184	1,198	1,184
50°F	1,086	1,100	1,100	1,100	1,100	1,058
45°F	1,002	1,002	1,016	1,016	960	—
40°F	918	918	932	862	—	—

Figure 47. Evaporator PD Curve

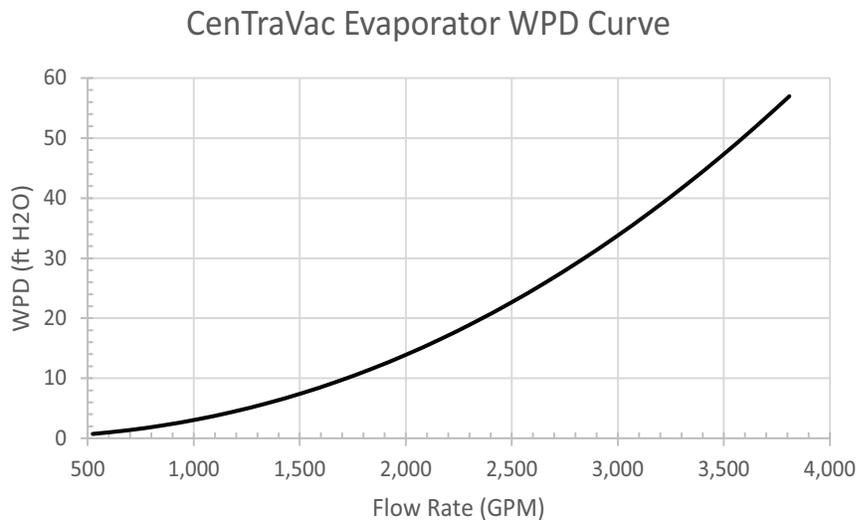
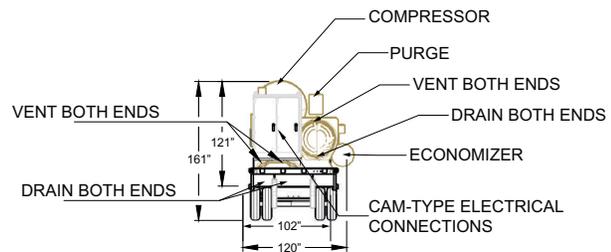
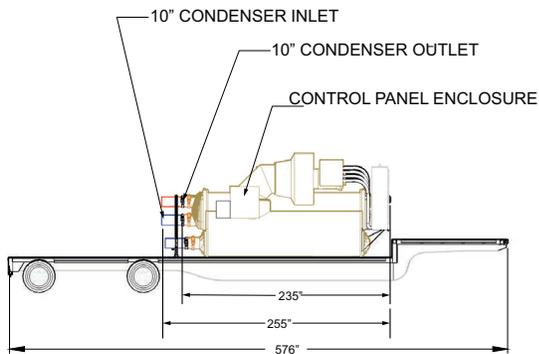
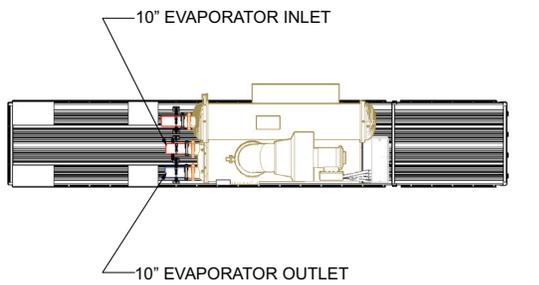
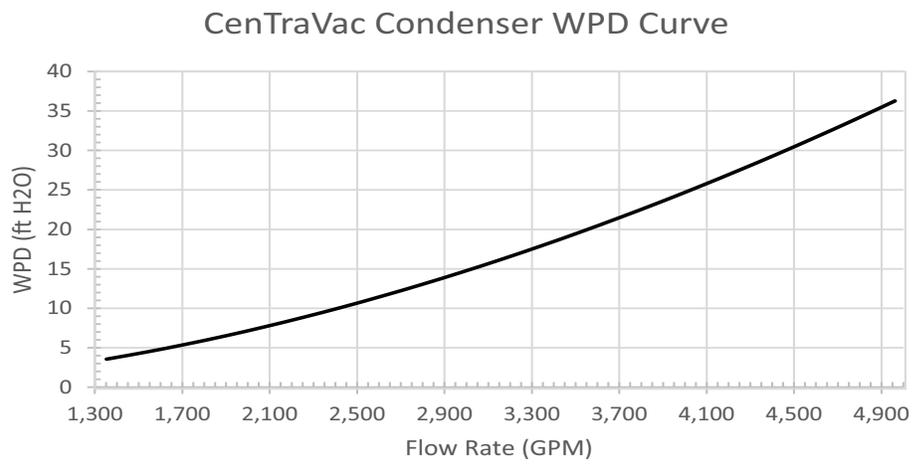


Figure 48. Condenser PD Curve





225 to 1000 Tons CVHF

RSCW1000F1AV – RSCW1000F1BX

Table 145. General RSCW1000F1AV – RSCW1000F1BJ

Labels	Value
Nominal Tons	1,000
Refrigerant	R-514A
Refrigerant Charge	1,450 lbs
Oil Charge	9 Gal
Water Connection Size	10 in. Victaulic
Min Load ^(a)	250 Tons
Evaporator Min/Max Flow (GPM)	522/3,809
Condenser Min/Max Flow (GPM)	1,353/4,961
Evap Water Volume	198 Gal
Cond Water Volume	262 Gal
Ambient Operating Conditions	34°F to 104°F
Chilled Water Setpoint Limits ^(b)	40°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 146. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	962 A
Maximum Overcurrent Protection (MOP)	1,600 A
Run Load Amps (RLA)	762 A
Starter Type	Star/Wye-Delta
LRA ^(a)	1,873 A

Note: All features and specifications are subject to change without notice or liability.

- (a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 147. Dimensions and weights

Labels	Value
Length	19 ft. 10 in.
Width	9 ft. 10 in.
Height	10 ft. 1 in.
Shipping Weight	42,146 lbs
Operating Weight	47,905 lbs
Lifting Device	Crane

Table 148. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	46 in.
Either End	48 in.
Top	36 in.

Table 149. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	82	83	84

Table 150. Capacity table

Leaving Water Temp (Assumes 2,400 GPM)	Capacity In Tons					
	Condenser Entering Water Temp (Assumes 3,000 GPM)					
	70°F	75°F	80°F	85°F	90°F	95°F
60°F	1,280	1,280	1,285	1,290	1,290	1,275
55°F	1,160	1,190	1,190	1,190	1,190	1,180
50°F	1,095	1,100	1,100	1,100	1,100	1,065
45°F	1,010	1,010	1,010	1,010	960	—
40°F	920	920	930	860	—	—

Figure 49. Evaporator PD Curve

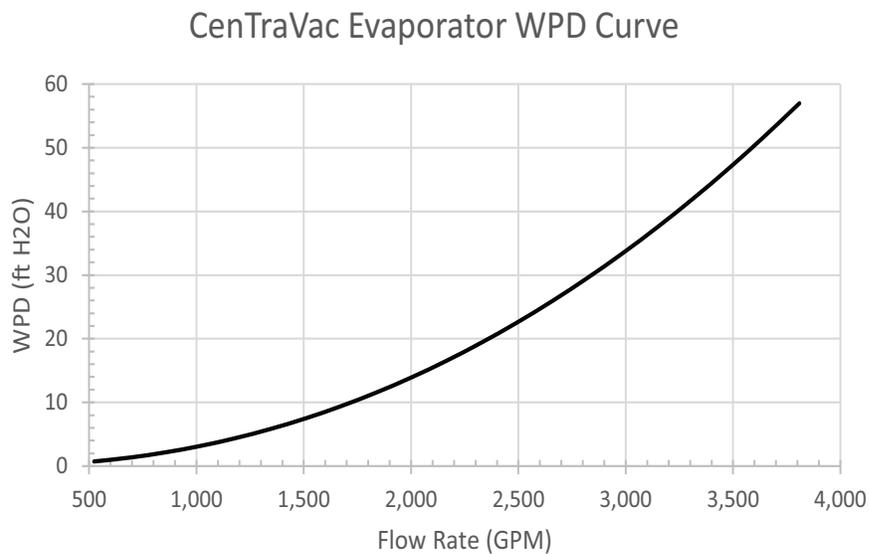
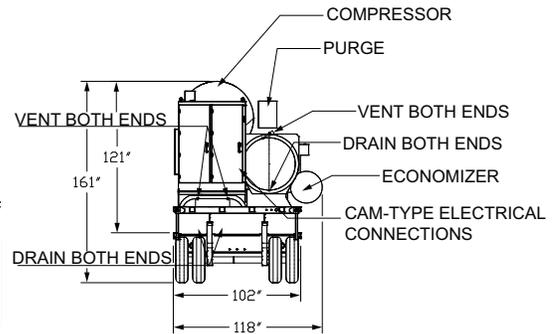
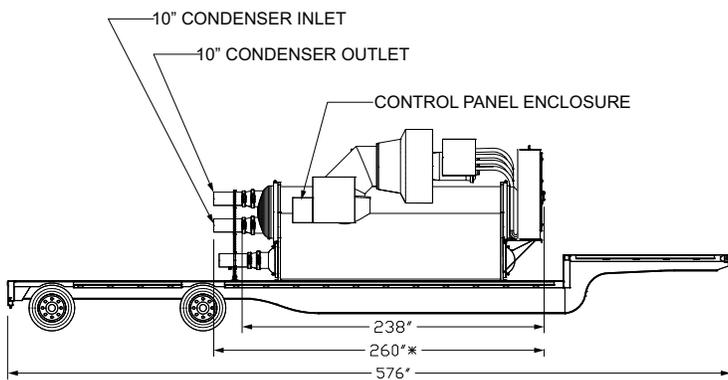
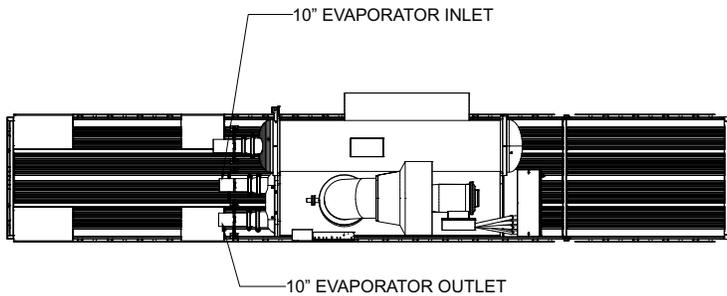
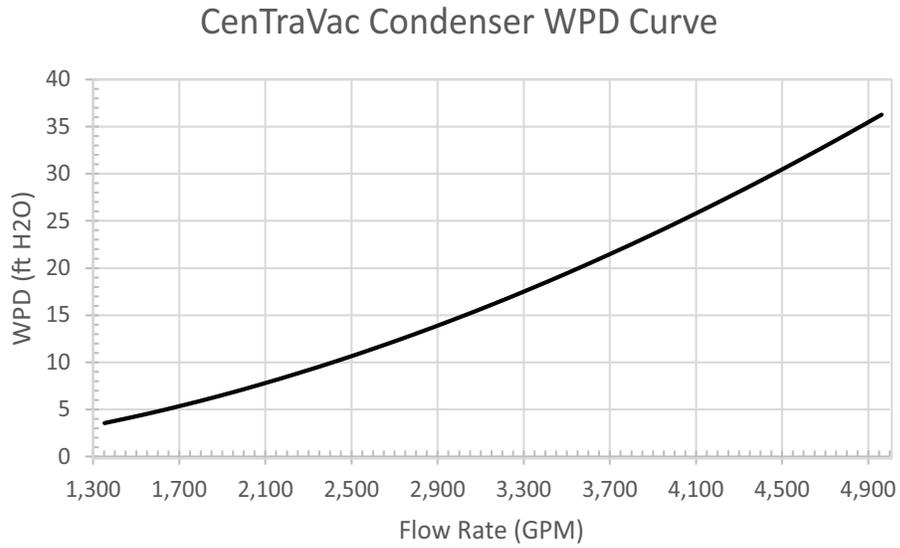


Figure 50. Condenser PD Curve



Note: Measurement can vary by 12 to 24 inches.



430 Tons RTHD

430 Ton Water-Cooled

RSCW0430F2

Table 151. General RSCW0430F2

Labels	Value
Nominal Tons	430
Refrigerant	R-134A
Refrigerant Charge	700 lbs
Oil Charge	12 Gal
Water Connection Size	6 in. Victaulic
Min Load ^(a)	107.5 Tons
Evaporator Min/Max Flow (GPM)	557/2,050
Condenser Min/Max Flow (GPM)	589/2,600
Evap Water Volume	159 Gal
Cond Water Volume	97 Gal
Ambient Operating Conditions	32°F to 104°F
32°F to 104°F Chilled Water Setpoint Limits ^(b)	10°F to 65°F
Number of Compressors	1
Max Operating Pressure Evaporator/Condenser	300 PSI

Note: All features and specifications are subject to change without notice or liability.

- (a) Must maintain minimum flow across evaporator and condenser to avoid damage/fouling. Minimum load based upon AHRI conditions, constant condenser temperatures.
- (b) Setpoints only to be used as a guide, selection is required for actual chiller performance. Under certain conditions, leaving water temperatures below 40°F are possible. Please contact TRS Engineering for a performance selection for verification.

Table 152. Electrical data

Labels	Value
Number of Electrical Circuits	1
Voltage	460V 3 Phase
Frequency	60 Hz
Wire Connection Type ^(a)	Series 16 Cam-Type Only
SCCR	5000 A
Minimum Circuit Ampacity (MCA)	431 A
Maximum Overcurrent Protection (MOP)	700 A
Run Load Amps (RLA)	344 A
Starter Type	Star/Wye-Delta
LRAY	730 A

(a) If using rental 4/0 wire, multiple conductors per phase required. For additional electrical information, contact Trane Rental Services.

Table 153. Dimensions and weights

Labels	Value
Length	16 ft 5 in.
Width	7 ft 10 in.
Height	7 ft 7 in.
Shipping Weight	19,500 lbs

430 Tons RTHD

Table 153. Dimensions and weights (continued)

Labels	Value
Operating Weight	21,635 lbs
Lifting Device	Forklift or Crane

Table 154. Installed/Operating clearances

Labels	Value
Front	48 in.
Back	36 in.
Either End	48 in.
Top	36 in.

Table 155. Sound data

Typical sound pressure (dBA)			
100% Load	75% Load	50% Load	25% Load
83	—	85	85.5

Table 156. Capacity table

Leaving Water Temp (Assumes 1,032 GPM)	(a) Propylene/Ethylene Glycol%	Capacity In Tons							
		Condenser Entering Water Temp (Assumes 1,290 GPM)							
		55°F	65°F	70°F	75°F	80°F	85°F	90°F	95°F
60°F	0	—	—	—	422	592	577	561	545
55°F	0	—	—	423	555	541	526	512	497
45°F	0	—	482	471	459	447	434	421	408
35°F	10	412	393	383	372	362	351	340	329
25°F	25	321	306	298	289	281	272	263	254
15°F	35	255	242	235	228	221	213	206	198

(a) Performance below 25°F LWT requires Ethylene Glycol

Figure 51. Evaporator PD Curve

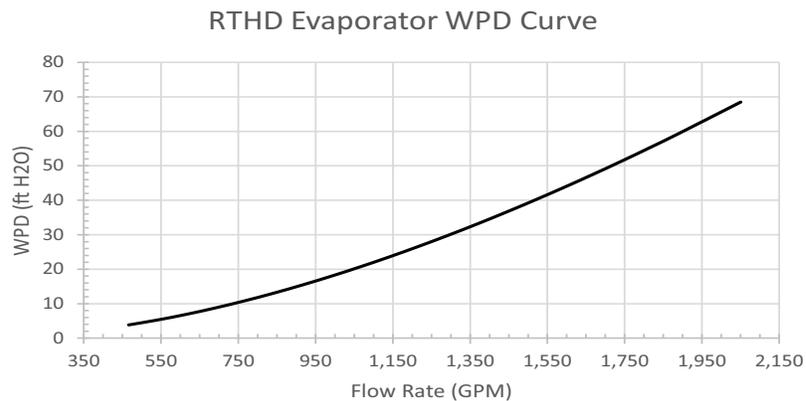
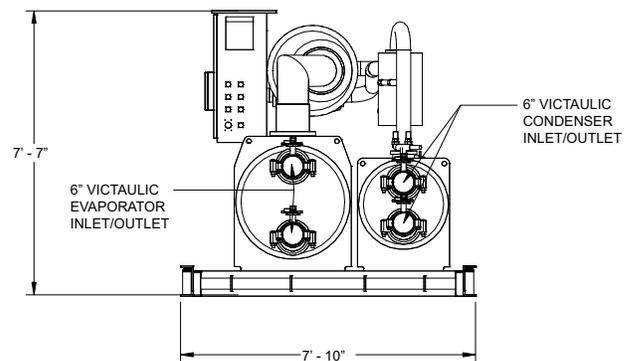
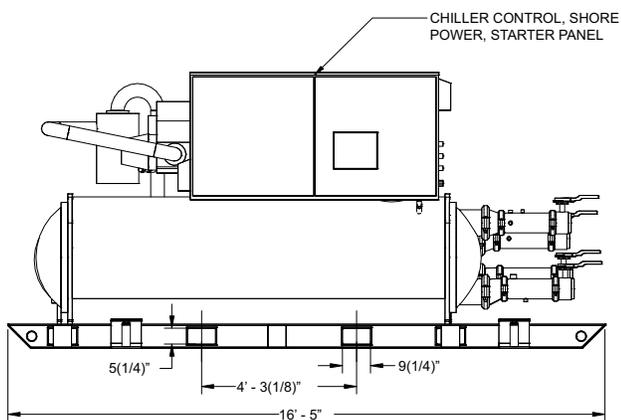
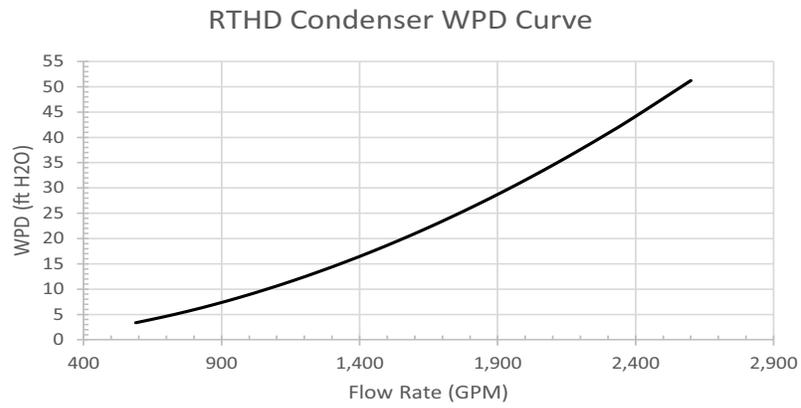


Figure 52. Condenser PD Curve





Notes

Trane - by Trane Technologies (NYSE: TT), a global climate innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.