



Commercial Solutions

Submittal Data

English Language

IP/Metric Units

WeDoGeo Software Submittal Version 1.0

Quote Number:466469

Clinton Foundation Board

12-04-2024 - Pending



Line Item #: 1 (Tag)

TruClimate 700 Variable Speed Single Screw Chiller (T7) 140
(T7HS140WN14AACHNN8GCNNNSSS) (Tag)

Voltage: 460/60/3

Contractor: PO:
Engineer:
Project Name: Clinton Foundation Board



Product List and Accessories

Chiller Type	(Line Item #) Part #	Description	Qty
TruClimate 700 Variable Speed Single Screw Chiller (T7)	(#1) 466469-1	TruClimate 700 Variable Speed Single Screw Chiller (T7) 140 (T7HS140WN14AACHNN8GCNNNSSS) (Tag)	1
	(#2) CTS-CHARGE	CHECK-TEST-STARTUP @ SITE CMML	1

Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board



Variable Speed Modular Screw Chiller Schedule Application Rating

General									
Line Item / Tag	Manuf	Model	Nom. Tons	# Modules	Ref Type	Evap	%	Cond	%
# 1 (Tag)	WF	WCHSM	140	1	R-513A	Water	0	Water	0

Chilled Water Condition										
Line Item / Tag	Evap In	Evap Out	Flow	PD	Tons	EER	Source In	Source Out	Flow	PD
# 1	54°F	44.2°F	303.5 GPM	9.2 FT/HD	123.4 Tons	15.5	85°F	94.7°F	372.0 GPM	12.5 FT/HD

Hot Water Condition										
Line Item / Tag	Cond In	Cond Out	Flow	PD	MBH	COP	Source In	Source Out	Flow	PD
# 1	125°F	139.5°F	234.1 GPM	5.6 FT/HD	1700.0 MBH	3.3	54°F	44.5°F	247.6 GPM	5.2 FT/HD

Simultaneous Water Condition												
Line Item / Tag	Evap In	Evap Out	Flow	PD	Tons	EER	Cond In	Cond Out	MBH	COP	Flow	PD
# 1	54°F	44.5°F	247.6 GPM	5.2 FT/HD	98.20 Tons	19.1	125°F	139.5°F	1700.0 MBH	5.6	234.1 GPM	5.6 FT/HD

Electrical Per Module				
Line Item / Tag	Voltage	FLA	MCA	Max Fuse
# 1	460/60/3	240.0	300.0	500

Contractor: PO:
Engineer:
Project Name: Clinton Foundation Board



General Product Scope

Line Item # 1 / T7HS140WN14AACHNN8GCNNSSS / Tag

WaterFurnace Commercial Chiller Product to include module chiller package with the description and components and options detailed in the sections below.

Chiller: TruClimate 700 Variable Speed Single Screw Chiller (T7) 140 (T7HS140WN14AACHNN8GCNNSSS) (Tag) -Heat Recovery Chiller

Description: Modular Screw Chillers configured as follows:

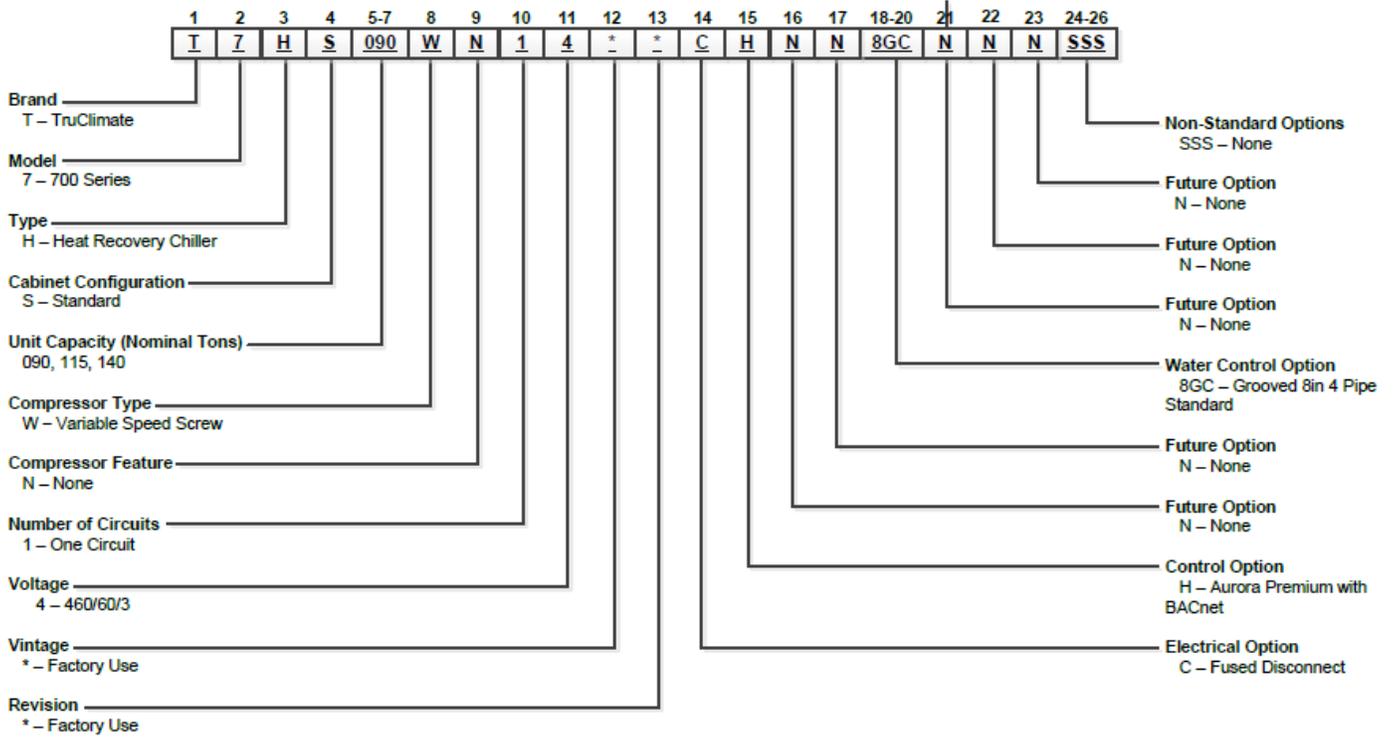
- Standard Features
 - Single Screw Compressors using R-513A refrigerant
 - 316 Stainless Steel Brazed Plate Heat Exchanger
 - Sound Attenuation Kits
 - Nominal Tonnage Per Module: 140- tons
- Configuration
 - Electrical: 460/60/3- Voltage and Thru-Door Disconnects
 - Unit Control - Standard Hydrolink with touchscreen interface and BacNet connectivity
 - Refrigeration: EEV - Electronic expansion valve metering device
- Warranty
 - 5-Year All Component Parts Warranty
- Additional Project Details
 - Strainers required on inlet of each water line, installed by others
 - Factory Startup is required
 - Pipe connections can be connected on either side
 - Master Control Panel is wall mount

Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board



Model Nomenclature - TruClimate 700 Modular Screw Chiller

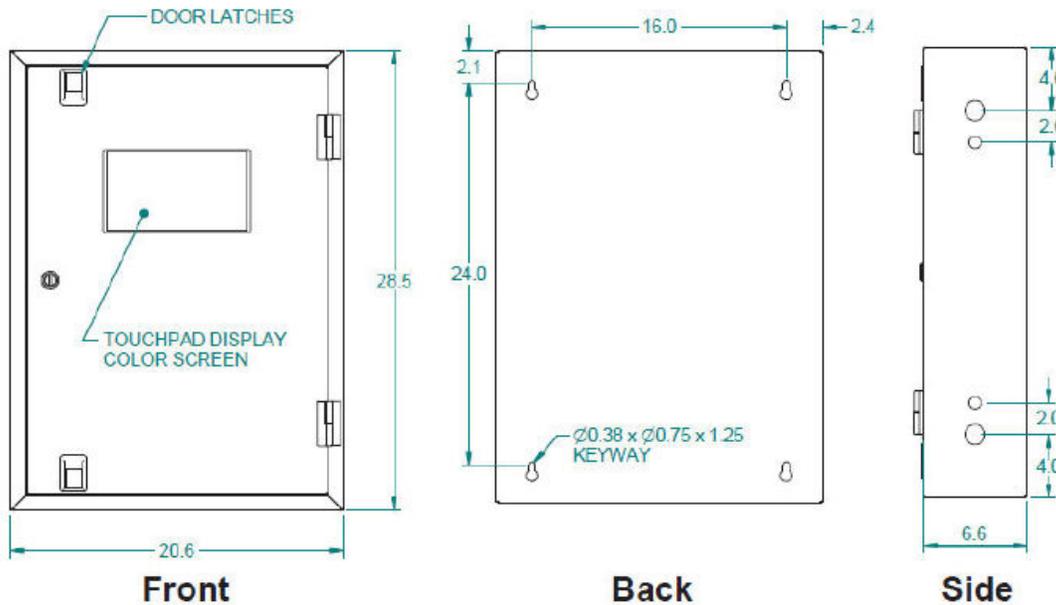
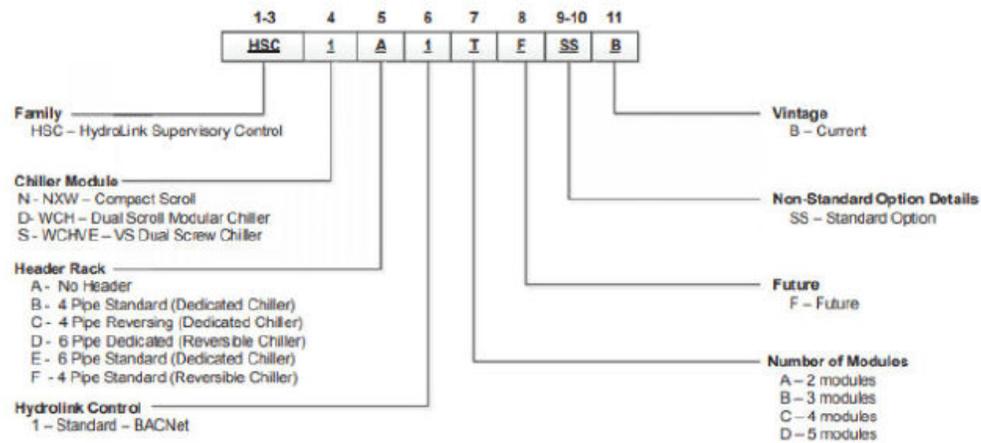
Line Item # 1 / T7HS140WN14AACHNN8GCNNNSSS / Tag



Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board

Nomenclature - HydroLink Supervisory Control

Line Item # 1 / 466469-1 / Tag



Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board



Chiller Mode - Variable Speed Modular Screw Chiller Performance Application Rating

General Information - Line Item # 1 / T7HS140WN14AACHNN8GCNNSSS / Tag		
Model	T7HS140WN14AA	 <p>Outside the scope of AHRI Water-Cooled Water-Chilling and Heat Pump Water-Heating Packages Certification Program or not optionally certified, but is rated in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).</p>
Quantity	1	
Nominal Tonnage	140	
IPLV	0.4960	
SCCR	65 kA	

Compressor Information		Electrical / Physical Data	
Compressor Type	DC Inverted Compact Screw Compressor	Voltage	460/60/3
# of Compressors	1	FLA	240.0
# of Refrigeration Circuits	1	MCA	300.0
Refrigerant Type	R-513A	Max Fuse	500
Refrigeration Charge	170 lbs	Single Module Dimensions	77 H x 34 W x 105 D - Inches
		Shipping Weight	4933 lbs

Chiller Mode									
Evaporator	100%	75%	50%	25%	Condenser	100%	75%	50%	25%
EER	15.5	16.2	19.6	13.7					
Cooling Tons	123.4 Tons	90.4 Tons	57.6 Tons	28.8 Tons	MBTU	1811.0 MBH	1317.1 MBH	813.1 MBH	432.7 MBH
EWT	54°F	54°F	54°F	54°F	EWT	85°F	85°F	85°F	85°F
LWT	44.2°F	44.5°F	44.9°F	44.9°F	LWT	94.7°F	94.6°F	94.3°F	94.3°F
Flow	303.5 GPM	227.7 GPM	151.8 GPM	75.9 GPM	Flow	372.0 GPM	273.5 GPM	175.7 GPM	93.0 GPM
PD	9.2 FT/HD	5.2 FT/HD	3.6 FT/HD	1.1 FT/HD	PD	12.5 FT/HD	7.6 FT/HD	3.8 FT/HD	1.2 FT/HD
Fluid Type	Water				Fluid Type	Water			
Fluid Concentration	0				Fluid Concentration	0			
Heat Exchanger Type	Brazed Plate				Heat Exchanger Type	Brazed Plate			
Fouling Factor	0.000 H-ft ² -F/Btu				Fouling Factor	0.000 H-ft ² -F/Btu			

Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board



Hot Water / Heat Recovery Mode - Variable Speed Modular Screw Chiller Performance Application Rating

General Information - Line Item # 1 / T7HS140WN14AACHNN8GCNNSSS / Tag		
Model	T7HS140WN14AA	 <p>Outside the scope of AHRI Water-Cooled Water-Chilling and Heat Pump Water-Heating Packages Certification Program or not optionally certified, but is rated in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).</p>
Quantity	1	
Nominal Tonnage	140	
IPLV	0.4960	
SCCR	65 kA	

Compressor Information		Electrical / Physical Data	
Compressor Type	DC Inverted Compact Screw Compressor	Voltage	460/60/3
# of Compressors	1	FLA	240.0
# of Refrigeration Circuits	1	MCA	300.0
Refrigerant Type	R-513A	Max Fuse	500
Refrigeration Charge	170 lbs	Single Module Dimensions	77 H x 34 W x 105 D - Inches
		Shipping Weight	4933 lbs

Hot Water / Heat Recovery Mode

Evaporator	100%	75%	50%	25%	Condenser	100%	75%	50%	25%
					COP	3.3	3.5	4.1	3.2
Cooling Tons	98.2 Tons	71.1 Tons	47.4 Tons	23.7 Tons	MBTU	1700.2 MBH	1207.3 MBH	753.9 MBH	416.5 MBH
EWT	54°F	54°F	54°F	54°F	EWT	125°F	125°F	125°F	125°F
LWT	44.5°F	44.8°F	44.8°F	44.8°F	LWT	139.5°F	139.2°F	139.1°F	139.2°F
Flow	247.6 GPM	185.7 GPM	123.8 GPM	61.9 GPM	Flow	234.1 GPM	170.0 GPM	106.7 GPM	58.5 GPM
PD	5.2 FT/HD	3.6 FT/HD	2.2 FT/HD	0.7 FT/HD	PD	5.6 FT/HD	3.8 FT/HD	2.4 FT/HD	0.7 FT/HD
Fluid Type	Water				Fluid Type	Water			
Fluid Concentration	0				Fluid Concentration	0			
Heat Exchanger Type	Brazed Plate				Heat Exchanger Type	Brazed Plate			
Fouling Factor	0.000 H-ft ² -F/Btu				Fouling Factor	0.000 H-ft ² -F/Btu			

Bank of 1 Schedule Hot Water Condition

Cond In	Cond Out	Flow	PD	MBH	COP	Source In	Source Out	Flow	PD
125°F	139.5°F	234.1 GPM	5.6 FT/HD	1700.0 MBH	3.3	54°F	44.5°F	247.6 GPM	5.2 FT/HD

Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board



Simultaneous Chiller / Hot Water / Heat Recovery Mode - Variable Speed Modular Screw Chiller Performance Application

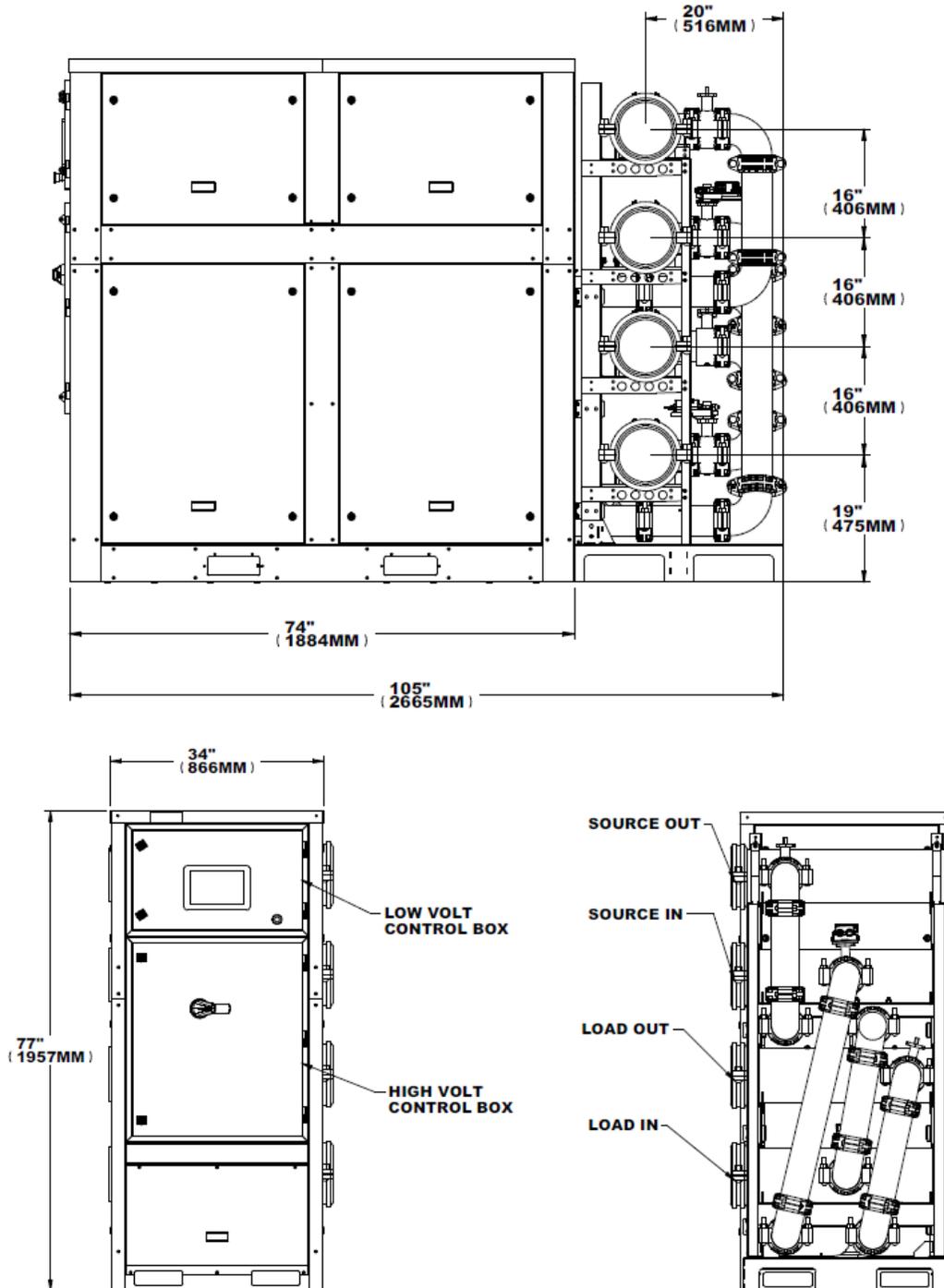
Rating

General Information - Line Item # 1 / T7HS140WN14AACHNN8GCNNNSSS / Tag			
Model	T7HS140WN14AA		Outside the scope of AHRI Water-Cooled Water-Chilling and Heat Pump Water-Heating Packages Certification Program or not optionally certified, but is rated in accordance with AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI).
Quantity	1		
Nominal Tonnage	140		
IPLV	0.4960		
SCCR	65 kA		
Compressor Information		Electrical / Physical Data	
Compressor Type	DC Inverted Compact Screw Compressor	Voltage	460/60/3
# of Compressors	1	FLA	240.0
# of Refrigeration Circuits	1	MCA	300.0
Refrigerant Type	R-513A	Max Fuse	500
Refrigeration Charge	170 lbs	Single Module Dimensions	77 H x 34 W x 105 D - Inches
		Shipping Weight	4933 lbs

Simultaneous Chiller / Hot Water / Heat Recovery Mode									
Evaporator	100%	75%	50%	25%	Condenser	100%	75%	50%	25%
EER	19.1	20.2	24.8	18.4	COP	5.6	5.9	7.3	5.4
Cooling Tons	98.2 Tons	71.1 Tons	47.4 Tons	23.7 Tons	MBTU	1700.2 MBH	1207.3 MBH	753.9 MBH	416.5 MBH
EWT	54°F	54°F	54°F	54°F	EWT	125°F	125°F	125°F	125°F
LWT	44.5°F	44.8°F	44.8°F	44.8°F	LWT	139.5°F	139.2°F	139.1°F	139.2°F
Flow	247.6 GPM	185.7 GPM	123.8 GPM	61.9 GPM	Flow	234.1 GPM	170.0 GPM	106.7 GPM	58.5 GPM
PD	5.2 FT/HD	3.6 FT/HD	2.2 FT/HD	0.7 FT/HD	PD	5.6 FT/HD	3.8 FT/HD	2.4 FT/HD	0.7 FT/HD
Fluid Type	Water				Fluid Type	Water			
Fluid Concentration	0				Fluid Concentration	0			
Heat Exchanger Type	Braze Plate				Heat Exchanger Type	Braze Plate			
Fouling Factor	0.000 H-ft ² -F/Btu				Fouling Factor	0.000 H-ft ² -F/Btu			

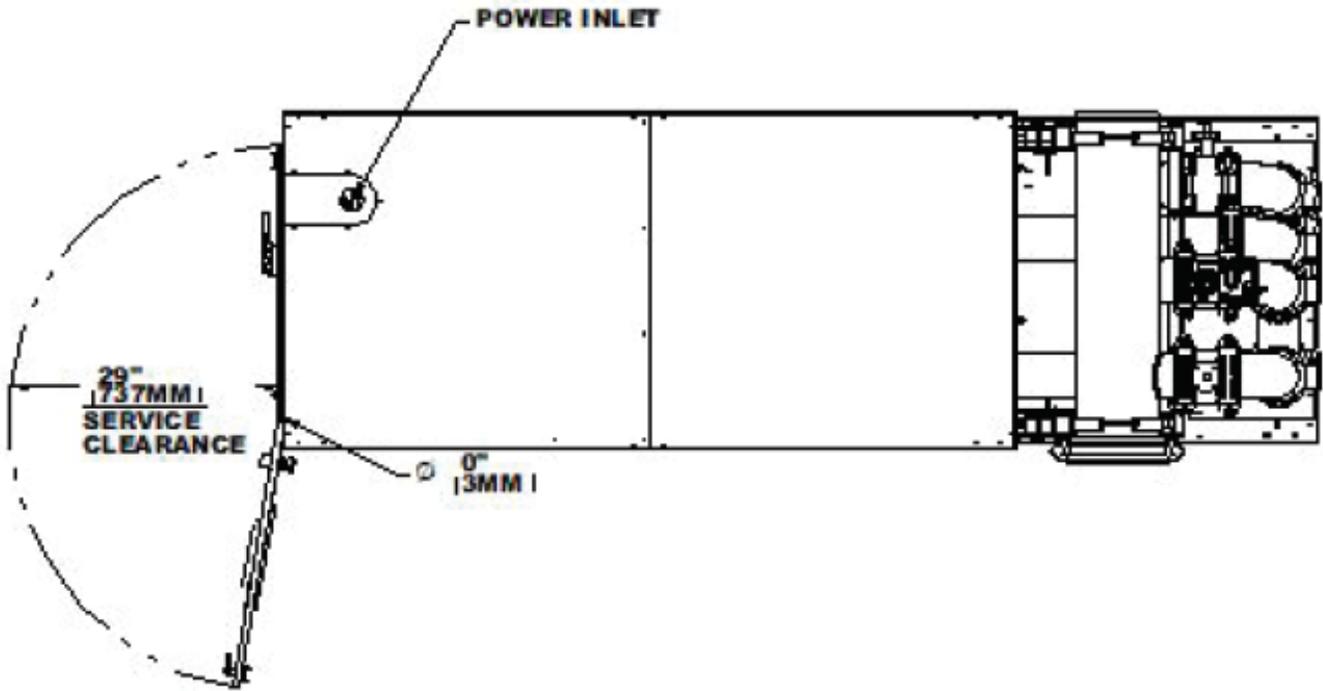
Contractor: PO:
Engineer:
Project Name: Clinton Foundation Board

Dimensional Data: Variable Speed Modular Screw Chiller Units
Line Item # 1 / T7HS140WN14AACHNN8GCNNSSS / Tag



Contractor: PO:
Engineer:
Project Name: Clinton Foundation Board

Service Clearance



Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board



Electrical Data

Model	Rated Voltage	Voltage Min/Max	Compressor			Total Unit FLA	Min Circ Amp	Max Fuse/HACR
			MOA	RLA	LRA1			
090	460/60/3	414/506	190.0	156.0	20.0	156.0	195.0	350
115	460/60/3	414/506	225.0	185.0	20.0	185.0	231.3	400
140	460/60/3	414/506	290.0	240.0	20.0	240.0	300.0	500

HACR circuit breaker in USA only

4/20/23

1 - LRA is compressor motor starting current

NOTE: Torque to manufacturer specification on component label

Operating Limits

Fluid Limit	Condenser		Evaporator	
	°F	°C	°F	°C
Min Entering Water	40	4.4	45	7.2
Min Entering Brine	50	10.0	25	-3.9
Min Leaving Brine	68	20.0	15	-9.4
Min Leaving Water	68	20.0	40	4.4
Max Entering Water/Brine	133	56.1	80	26.7
Max Leaving Water/Brine	145	60.0	60	15.6
Min Differential Temperature	7	3.9	5	2.8
Max Differential Temperature	30	16.7	20	11.1
Flow Rate Limit	gpm/ton	L/min-kW	gpm/ton	L/s-kW
Minimum flow rate	1	3.8	1	3.8
Maximum flow rate	4.5	17.0	4.5	17.0
Ambient Temperature	°F		°C	
Minimum Ambient	55		12.8	
Maximum Ambient	95		35.0	

2/19/17

Note: DP transducers must be installed at the bank level to monitor water flow through the bank.

Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board



Physical Data

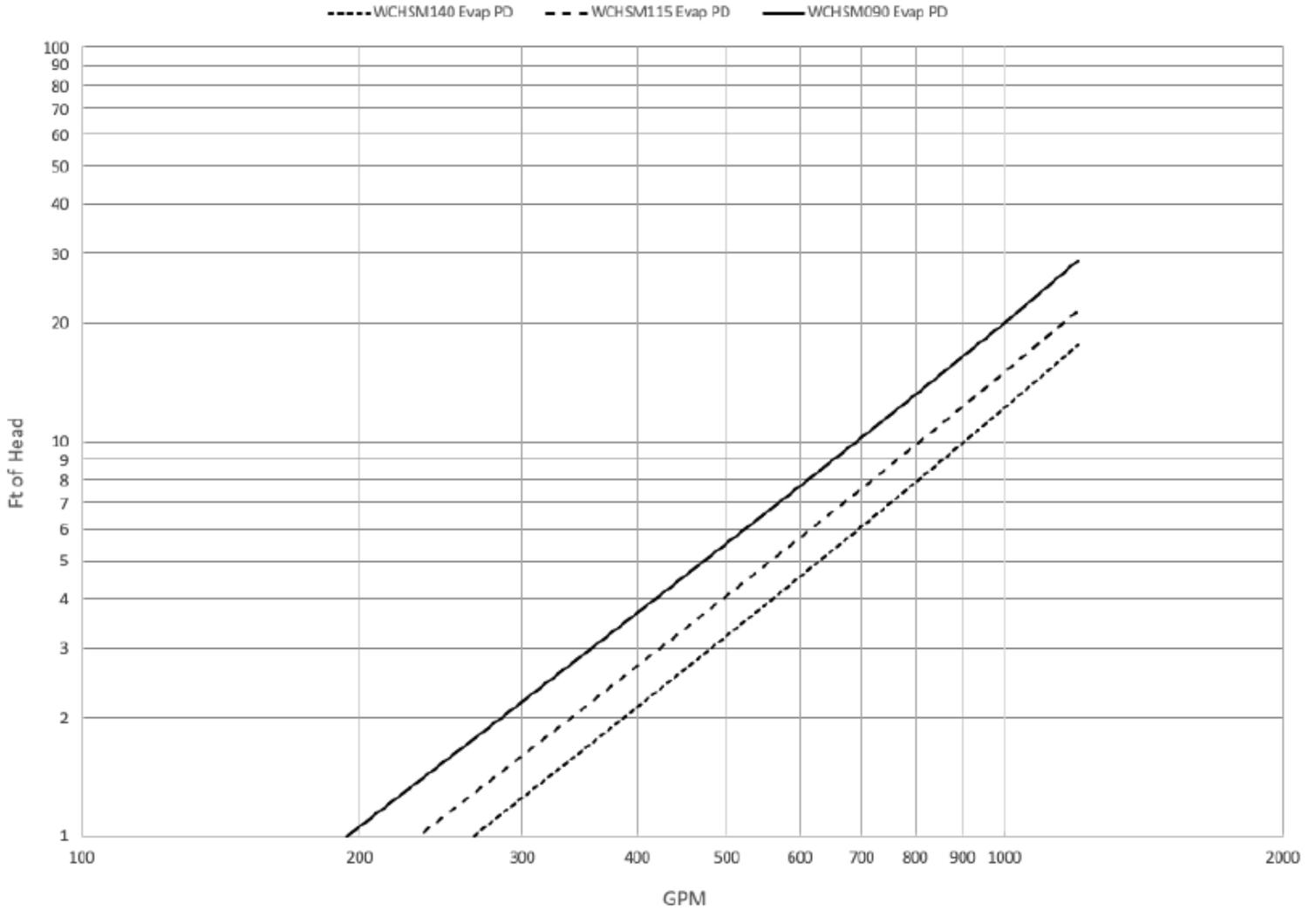
Model	Single Variable Speed Screw		
	090	115	140
Refrigerant	R-513A		
Number of Circuits	1	1	1
Factory Charge, lbs [kg]	109 [49]	140 [648]	170 [77]
Compressor	Variable Speed Screw		
Compressor Quantity [tons]	1 [87]	1 [112]	1 [137]
Compressor Weight, lbs [kg]	1621 [735]	1632 [740]	1648 [747]
Oil Charge, fl oz [L]	634 [18.75]	634 [18.75]	634 [18.75]
Evaporator	Brazen Plate		
Quantity	1	1	1
Weight, lbs [kg]	562 [255]	703 [319]	844 [382]
Water Volume, gal [L]	51.1 [193.3]	60.2 [227.8]	69.2 [261.8]
Circuit Configuration	Stainless Steel Single Circuit		
Condenser	Brazen Plate		
Quantity	1	1	1
Weight, lbs [kg]	423 [192]	529 [240]	635 [288]
Water Volume, gal [L]	44.9 [170.0]	52.6 [198.9]	60.2 [227.8]
Circuit Configuration	Stainless Steel Single Circuit		
Chiller			
Shipping Weight, lbs [kg]	3892 [1765]	4407 [1999]	4,933 [2238]

3/20/23

Contractor: PO:
Engineer:
Project Name: Clinton Foundation Board



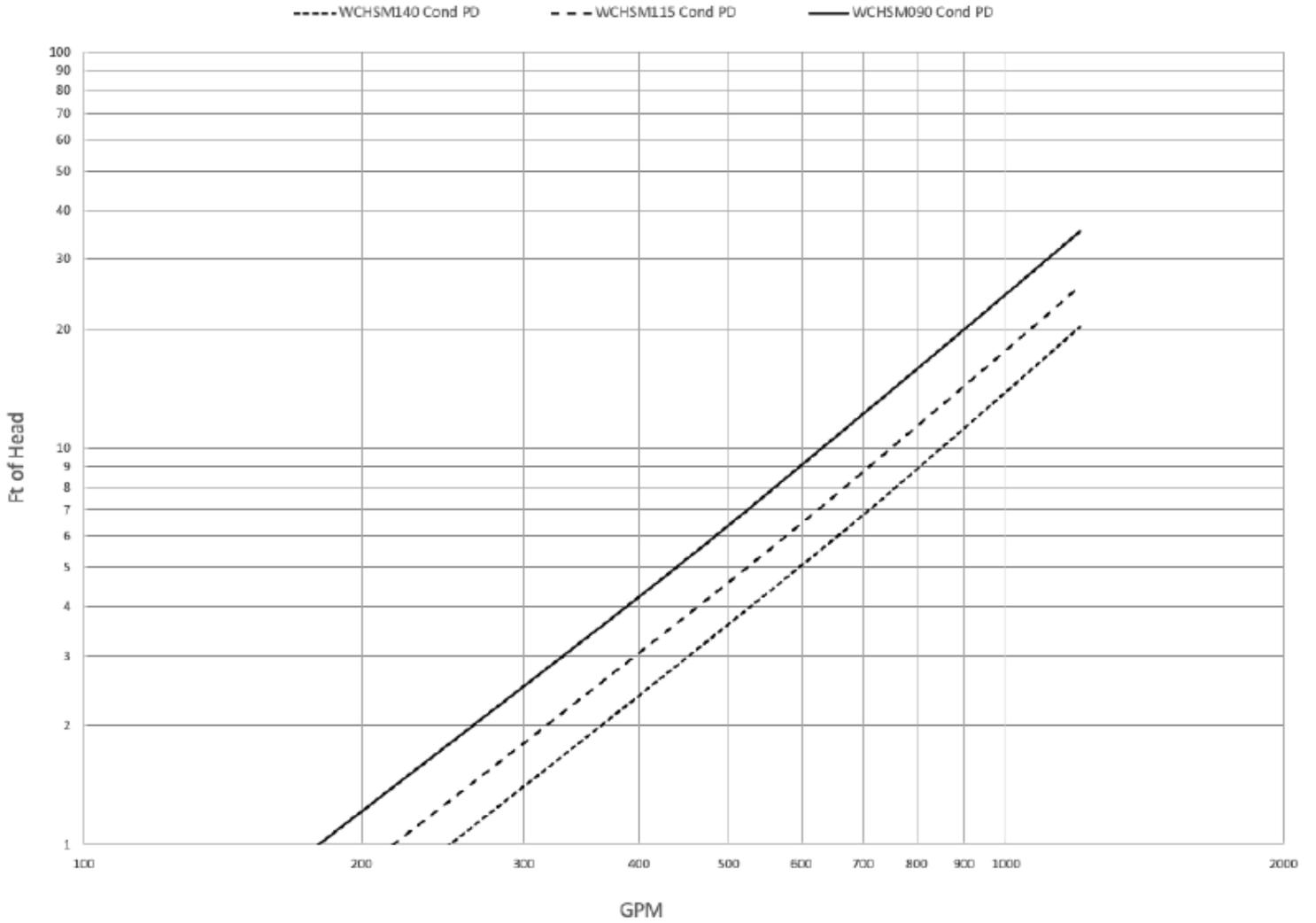
Evap PD for Variable Speed Modular Screw Chiller



Contractor: PO:
Engineer:
Project Name: Clinton Foundation Board

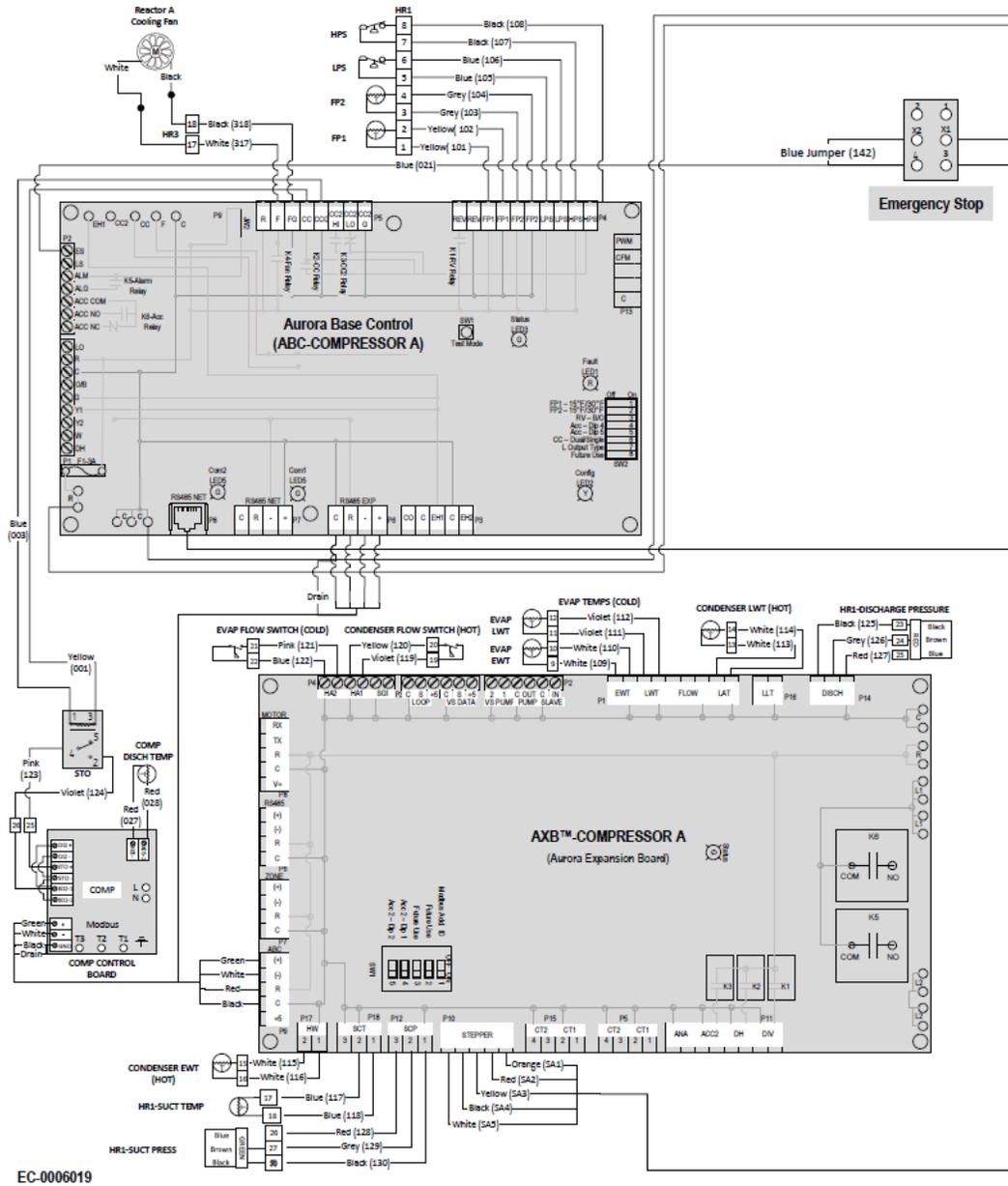


Cond PD for Variable Speed Modular Screw Chiller



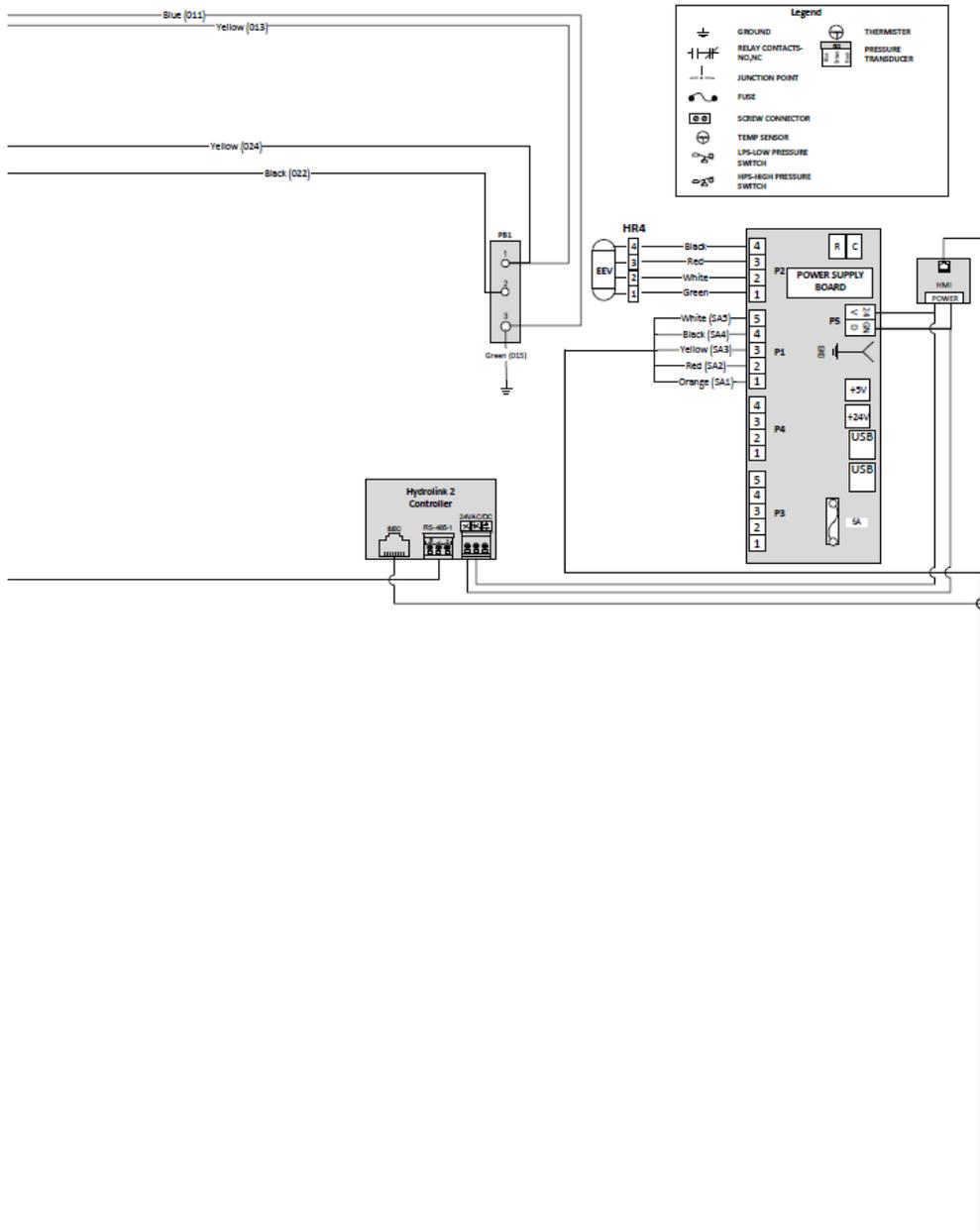
Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board

Wiring Schematics Variable Speed Modular Screw Chiller Units



Contractor: PO:
 Engineer:
 Project Name: Clinton Foundation Board

Wiring Schematics Variable Speed Modular Screw Chiller Units continued



Contractor: PO:
Engineer:
Project Name: Clinton Foundation Board



Installation, Operation & Maintenance Instructions

[Click here for the link to the IOM.....](#)