

Project Name:Project

Selection:MHS-TVC140-ZN8TL-B

Unit Information	
Chiller Model	MHS-TVC140-ZN8TL-B
Chiller Series	Aqua thermal Super 60Hz
Net Weight	2270.76 lb
Length	7.51312 ft
Running Weight	2314.85 lb
Width	5.15092 ft
Refrigerant Type	R32
Height	8.2021 ft
Refrigerant Charge	24.2508 24.2508 lb
Sound	71.2 dB(A)
Controller	MicroComputer Controller
Frequency	60 Hz
Voltage	460 V
Operating Range	T3
Capacity Control	Variable Frequency
Starter Type	VFD Starter

***Due to additional options and manufacturing deviation, the weight data and 3D dimension in this report is for reference only, and the actual weight and 3D dimension of the unit is subject to the actual product.**

Barometric Information

Altitude	900 m	Barometric Pressure	91.0 kPa
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Performance Information

Cooling Condition

Ambient Temperature(DB)	95.0 °F	Cooling Capacity	37.63 RT
Leaving Fluid Temperature	44.00 °F	Input Power	47.93 kW
Entering Fluid Temperature	54.00 °F	COP.R	2.760 kW/kW
Fluid Flow Rate	90.39 gpm	IPLV.IP	5.792 kW/kW
Water Pressure Drop	4.39 psi		

Compressor Information

Type	Variable-frequency	Oil Model	FW68HT
Model	Scroll	Oil Charge	2.3 2.3 L
Brand	HITACHI	Number of Compressors	1 1

Water Side Information

Heat Exchanger Type	Plate	Heat Exchanger Code	/
Connection Size	2-1/2 NPT	Connection Type	Threaded
Fluid Type	Fresh Water	Concentration	0 %
Fouling Factor	0.000100 h*ft ² *°F/Btu	Water Volume	0.01298 m ³

Air Side Data

Heat Exchanger Type	Fin-Coil	Air Flow	23530 m ³ /h
Number of Fans	2	FLA of Fan (Each)	3.0 A
Fan Type	BLDC Fan	Power Input of Fan(Each)	2.300 kW

Electrical Information

Voltage	460 V	Starting Amps	≤36.1 ≤36.1 A
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Air-cooled Unit Info



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Cooling Full Load Amps ----- 72.2 A Maximum Operating Amps ----- 50.9|52.1 A
Maximum Operating Power --- 34.01|34.01 kW MCA ----- 103 A
MOP ----- 125 A

Final selection of supply wire gauge and branch circuit protection shall be governed by the equipment’ s MCA and MOP ratings in accordance with applicable electrical codes.
When Hydraulic Module Option is selected, the related current and operating power do not include the parameters of water pump of the hydraulic module, please consult the factory for details.

Option Information

Anticorrosive Selection----- Standard Spring Isolator ----- No
Three-phase protector -----No

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591(SI). Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Air-cooled Unit Info

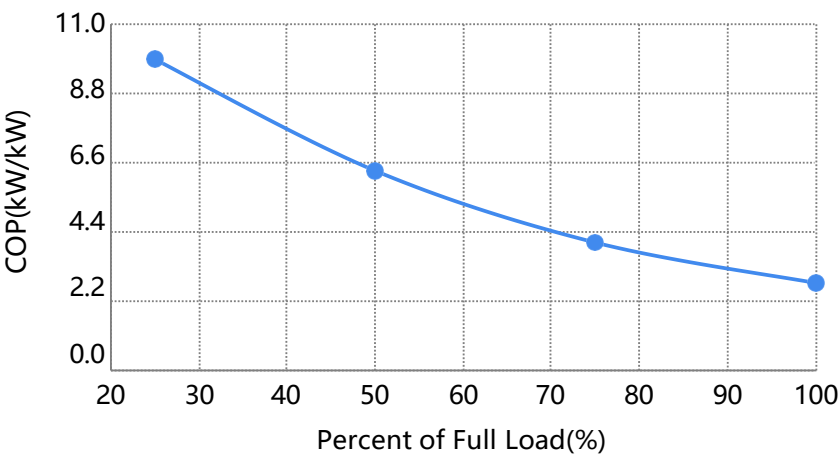


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Calculation:IPLV(IP)

Percentage of full load	Cooling Capacity	Input Power	Power Input per Capacity	COP	Water Side Data				Air Side Data	Weighting Factor	IPLV(IP)	
					EEFT	ELFT	Flow	Water Pressure Drop	CEFT			
					°F	°F	gpm	psi	°F		kW/Ton	kW/kW
100%	37.87	47.55	1.256	2.800	54.00	44.00	90.39	4.39	95.0	0.01	0.6070	5.792
75%	28.40	24.47	0.8616	4.081	51.50	44.00	90.39	4.39	80.0	0.42		
50%	18.93	10.47	0.5528	6.360	49.00	44.00	90.39	4.39	65.0	0.45		
25%	9.467	3.362	0.3551	9.901	46.50	44.00	90.39	4.39	55.0	0.12		

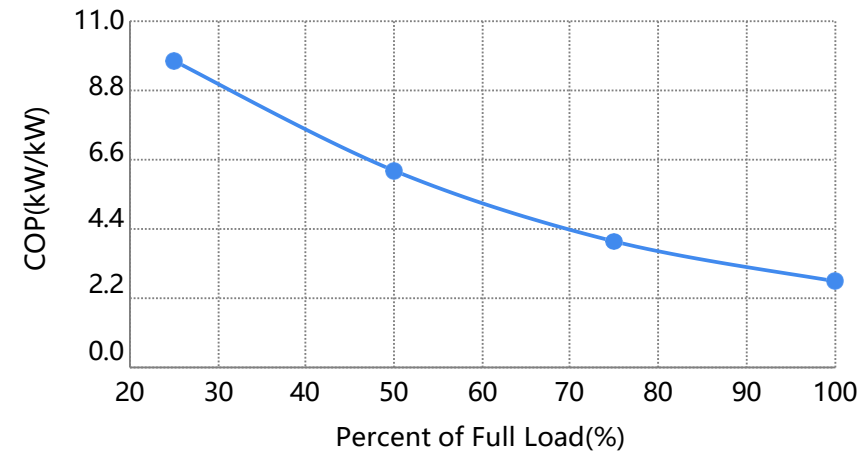


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Calculation:NPLV(IP)

Percentage of full load	Cooling Capacity	Input Power	Power Input per Capacity	COP	Water Side Data				Air Side Data	Weighting Factor	NPLV(IP)	
					EEFT	ELFT	Flow	Water Pressure Drop	CEFT			
					°F	°F	gpm	psi	°F		kW/Ton	kW/kW
100%	37.63	47.93	1.274	2.760	54.00	44.00	90.39	4.39	95.0	0.01	0.6158	5.709
75%	28.22	24.67	0.8741	4.022	51.50	44.00	90.39	4.39	80.0	0.42		
50%	18.81	10.55	0.5608	6.269	49.00	44.00	90.39	4.39	65.0	0.45		
25%	9.407	3.389	0.3602	9.760	46.50	44.00	90.39	4.39	55.0	0.12		

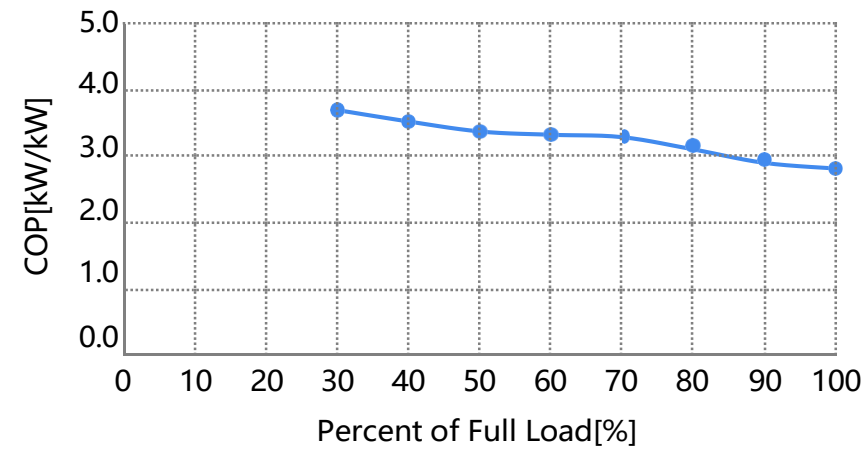


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Calculation:Loadline

Percentage of full load	Cooling Capacity	Input Power	Power Input per Capacity	COP	Water Side Data				Air Side Data	Weighting Factor	PLV/NPLV/CPLV
					EEFT	ELFT	Flow	Water Pressure Drop	CEFT		
	RT	kW	kW/Ton	kW/kW	°F	°F	gpm	psi	°F		kW/kW
100%	37.63	47.93	1.274	2.760	54.00	44.00	90.39	4.39	95.0	0	0.000
90%	33.86	41.86	1.236	2.844	53.00	44.00	90.39	4.39	95.0	0	
80%	30.10	34.72	1.154	3.048	52.00	44.00	90.39	4.39	95.0	0	
70%	26.34	28.66	1.088	3.232	51.00	44.00	90.39	4.39	95.0	0	
60%	22.58	24.30	1.076	3.266	50.00	44.00	90.39	4.39	95.0	0	
50%	18.81	19.95	1.060	3.316	49.00	44.00	90.39	4.39	95.0	0	
40%	15.05	15.27	1.015	3.465	48.00	44.00	90.39	4.39	95.0	0	
30%	11.29	10.91	0.9666	3.637	47.00	44.00	90.39	4.39	95.0	0	
20%	7.525	NaN	NaN	NaN	NaN	44.00	90.39	NaN	95.0	0	
10%	3.763	NaN	NaN	NaN	NaN	44.00	90.39	NaN	95.0	0	

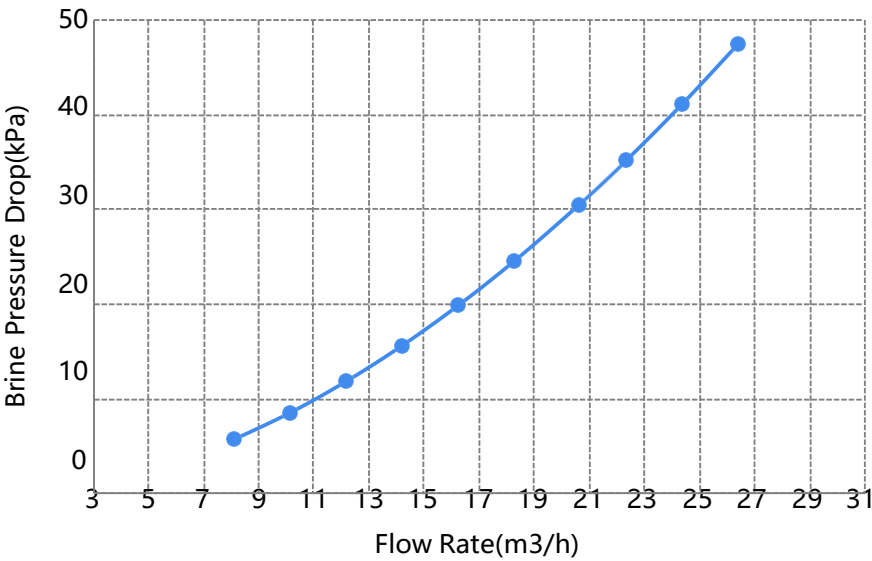


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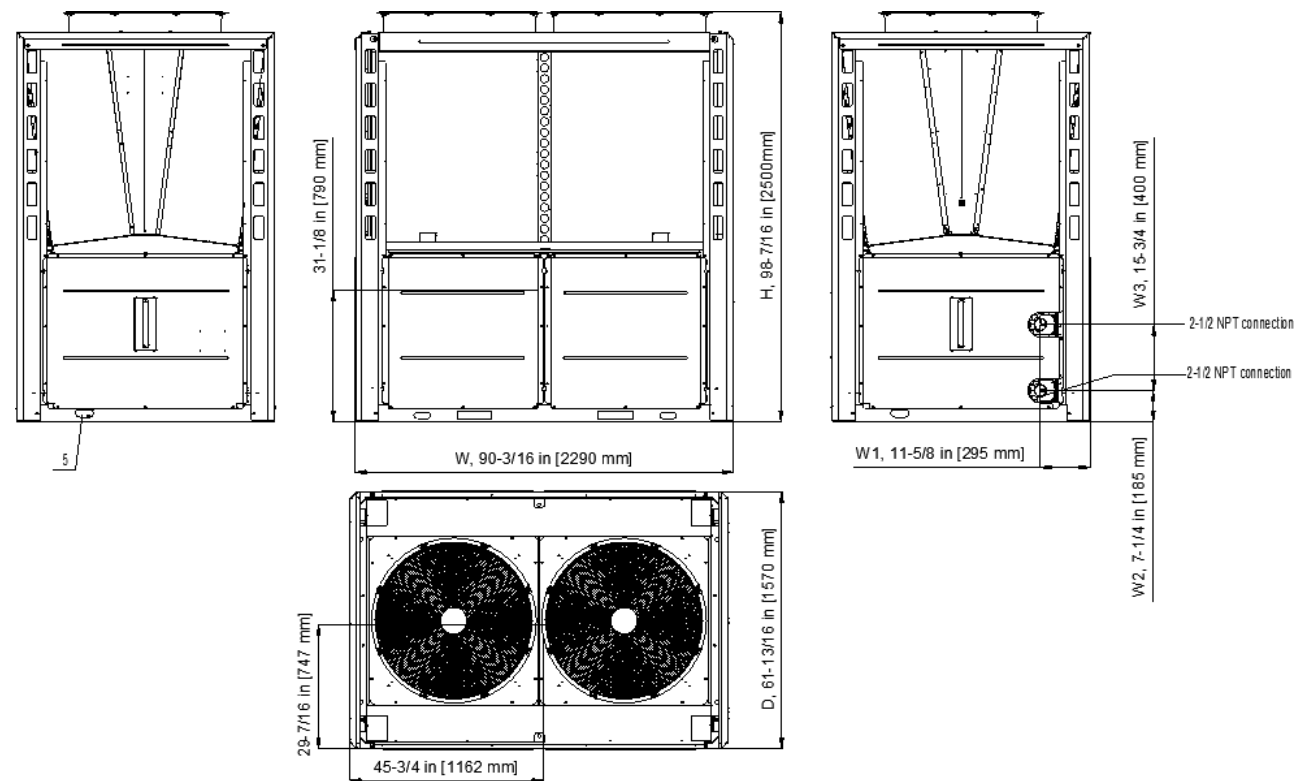
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Fluid Pressure Drop Map

Standard Fluid Pressure Drop Map



Chiller Outline Drawing



Location points of outline drawing (unit mm)						
Chiller Model	A	B	C	D	E	F
MHS-TVC140-ZN8TL-B	2290	1570	2500	295	185	400

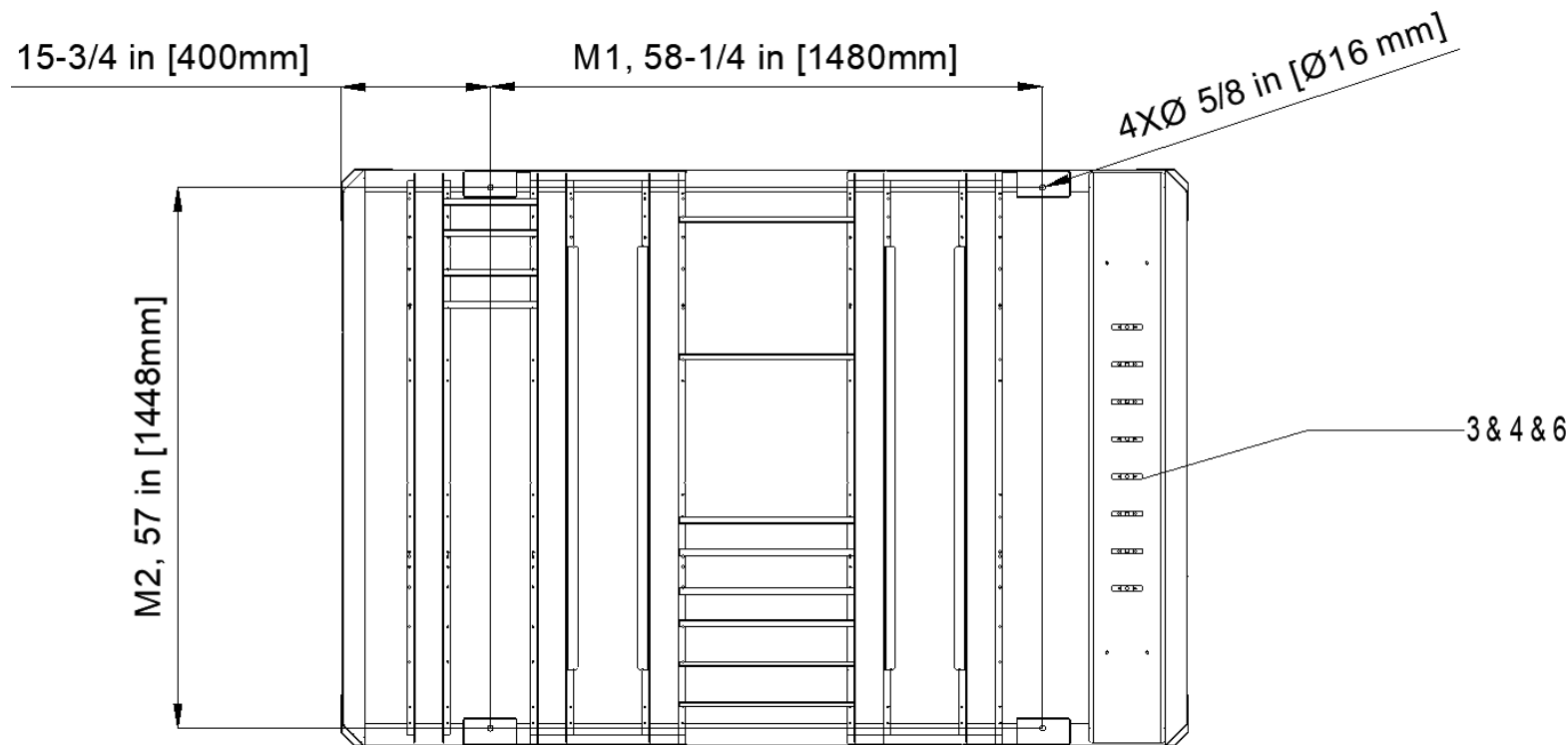


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Explanation				
Chiller Model	1	2	5	7
MHS-TVC140-ZN8TL-B	Chilled water outlet	Chilled water inlet	Power incoming line	Installation foundation

Chiller Foundation Drawing



Location point of foundation map (unit mm)		
Chiller Model	A	B
MHS-TVC140-ZN8TL-B	2290	1570

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Load bearing position point of spring isolator				
Chiller Model	P1	P2	P3	P4
MHS-TVC140-ZN8TL-B	MHD-B-320	MHD-B-320	MHD-B-320	MHD-B-320

Explanation				
Chiller Model	3	4	6	8
MHS-TVC140-ZN8TL-B	Control panel	VFD	Electric control box	Spring isolator installation hole

1. Spring isolator is optional. 2. The value in the spring isolator represents the allowable weight, unit kg. 3.If a custom hydraulic module option is selected, a set of spring dampers with the serial number P0 will be added. 4. If A1 is present in the above table, this dimension represents the length of the unit after customizing the hydraulic module. 5. The area within the frame in the drawing shows the unit diagram after customizing the hydraulic module, for reference only.

***In case of any changes to the product or algorithm upgrades resulting from software selection parameter changes, the output parameters of the latest software version shall take precedence. The manufacturer reserves the right to make the final interpretation.**