

Project Name:Project

Selection:SCAF275HV

Unit Information

Chiller Model	SCAF275HV	Chiller Series	SCAF-HV
Net Weight	16755.1 lb	Length	30.3806 ft
Running Weight	17504.7 lb	Width	7.54593 ft
Refrigerant Type	R134a	Height	8.07087 ft
Refrigerant Charge	617.294 lb	Sound	80.35 dB(A)
Controller	MicroComputer Controller	Frequency	60 Hz
Voltage	460 V	Operating Range	T1
Capacity Control	Variable Frequency	Starter Type	VFD Starter
Transport Length	30.7087 ft	Transport Width	7.54593 ft
Transport Height	8.07087 ft	Type Code	MV100AH

***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	268.6 RT
Leaving Fluid Temperature	44.00 °F	Input Power	286.0 kW
Entering Fluid Temperature	54.00 °F	COP.R	3.302 kW/kW
Fluid Flow Rate	645.0 gpm	IPLV.IP	4.984 kW/kW
Water Pressure Drop	8.47 psi		

Compressor Information

Type	Variable-frequency	Oil Model	MCO-FH
Model	MV100AH	Oil Charge	40 L
Brand	Midea	Number of Compressors	1

Water Side Information

Heat Exchanger Type	Shell-and-Tube	Heat Exchanger Code	Flooded
Connection Size	DN200	Connection Type	Victaulic
Fluid Type	Fresh Water	Concentration	0 %
Fouling Factor	0.000100 h*ft ² *°F/Btu	Water Volume	0.21 m ³

Air Side Data

Heat Exchanger Type	Fin-Coil	Air Flow	20000 m ³ /h
Number of Fans	16	FLA of Fan (Each)	3.7 A
Fan Type	Fixed-frequency	Power Input of Fan(Each)	2.000 kW



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Electrical Information

Voltage ----- 460 V

Starting Amps ----- ≤410.2 A

Cooling Full Load Amps----- 410.2 A

Maximum Operating Amps ----- 548.7 A

Maximum Operating Power ----- 386.2 kW

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

Communication Protocol -----Modbus

Anticorrosive Selection ----- Standard

Flow Switch ----- No

Insulation Thickness ----- 20mm

Spring Isolator ----- Yes

Screen ----- Yes

Min. Oper. Ambient T. ----- 41.00 °F

WaterBox Pressure ----- 1.0MPa

Heat Recovery ----- No

Hydraulic Module ----- No

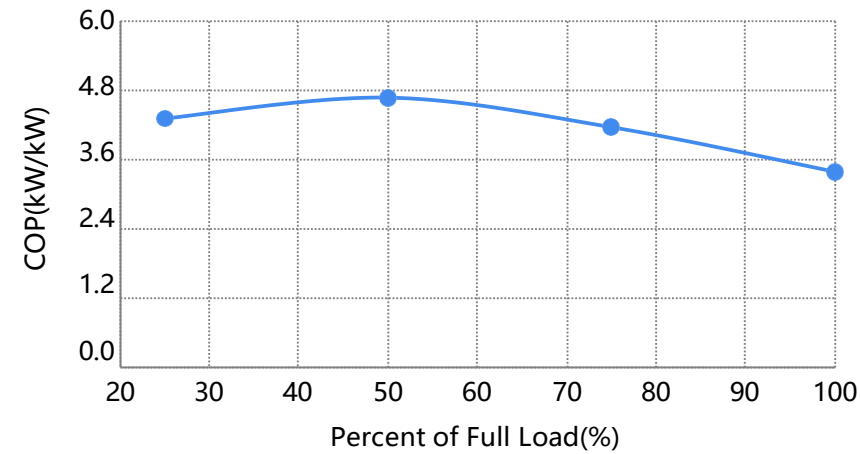
Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591(SI). Certified units may be found in the AHRI Directory at www.ahridirectory.org.

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Calculation:IPLV(GB)

Percentage of full load	Cooling Capacity	Input Power	Power Input per Capacity	COP	Water Side Data				Air Side Data	Weighting Factor	IPLV(GB)	
					EEFT	ELFT	Flow	Water Pressure Drop	CEFT			
					°F	°F	gpm	psi	°F		kW/Ton	kW/kW
100%	274.5	283.7	1.033	3.402	53.57	44.60	730.8	10.5	95.0	0.023	0.7980	4.406
75%	205.8	173.4	0.8426	4.173	51.32	44.60	730.8	10.5	88.7	0.415		
50%	137.2	103.0	0.7506	4.684	49.08	44.60	730.8	10.5	82.4	0.461		
25%	68.62	55.82	0.8134	4.322	46.84	44.60	730.8	10.5	76.1	0.101		

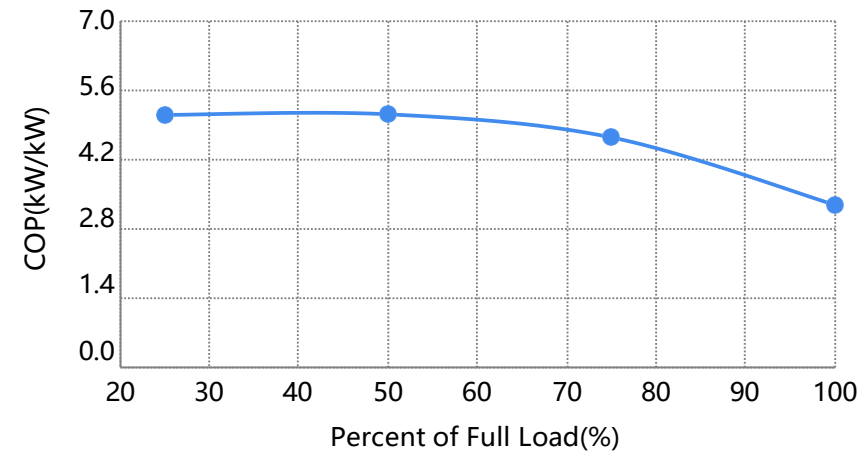


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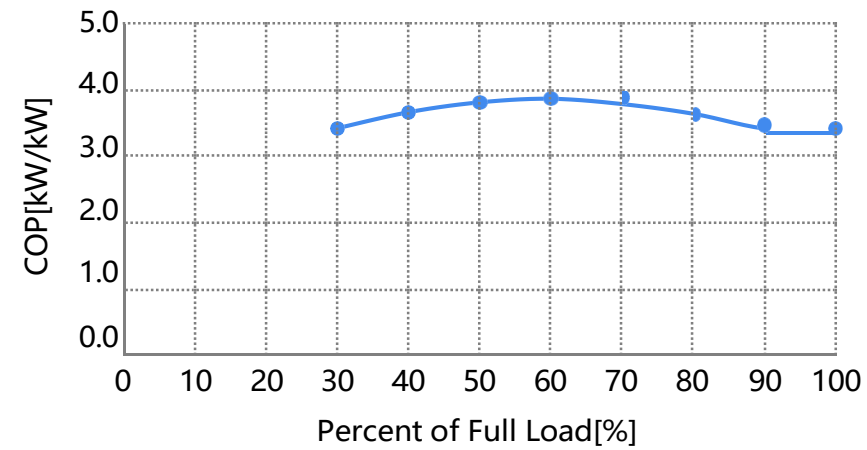
Calculation:NPLV(IP)

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%	268.6	286.0	1.065	3.302	54.00	44.00	645.2	8.47	95.0	0.01	0.7157	4.913
75%	201.4	151.9	0.7540	4.663	51.50	44.00	645.2	8.47	80.0	0.42		
50%	134.3	92.08	0.6857	5.128	49.00	44.00	645.2	8.47	65.0	0.45		
25%	67.14	46.15	0.6873	5.115	46.50	44.00	645.2	8.47	55.0	0.12		



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%	268.6	286.0	1.065	3.302	54.00	44.00	645.2	8.47	95.0	0	0.000
90%	241.7	253.0	1.047	3.359	53.00	44.00	645.2	8.47	95.0	0	
80%	214.9	210.9	0.9815	3.582	52.00	44.00	645.2	8.47	95.0	0	
70%	188.0	177.3	0.9432	3.728	51.00	44.00	645.2	8.47	95.0	0	
60%	161.1	148.8	0.9235	3.807	50.00	44.00	645.2	8.47	95.0	0	
50%	134.3	125.8	0.9365	3.754	49.00	44.00	645.2	8.47	95.0	0	
40%	107.4	104.8	0.9751	3.606	48.00	44.00	645.2	8.47	95.0	0	
30%	80.57	84.19	1.045	3.365	47.00	44.00	645.2	8.47	95.0	0	
20%	53.71	NaN	NaN	NaN	NaN	44.00	645.2	NaN	95.0	0	
10%	26.86	NaN	NaN	NaN	NaN	44.00	645.2	NaN	95.0	0	

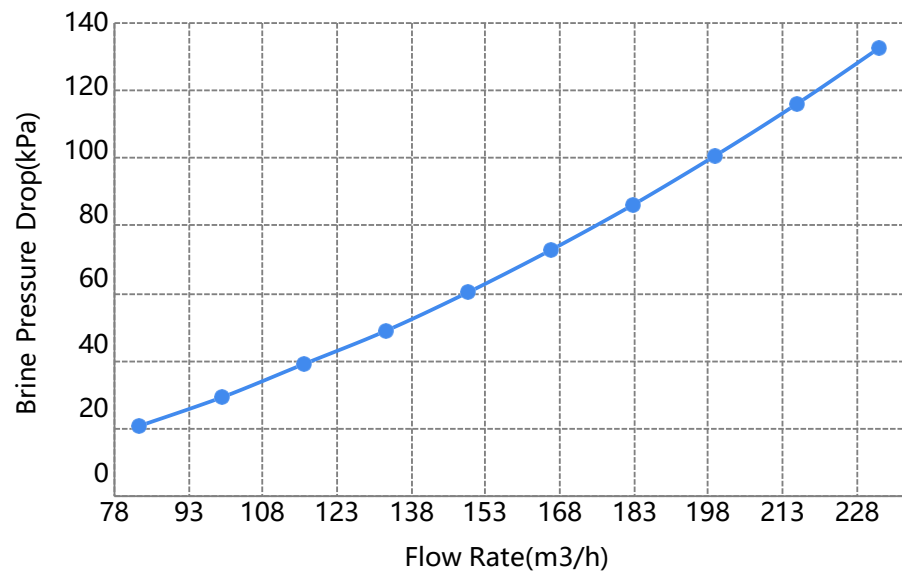


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Fluid Pressure Drop Map

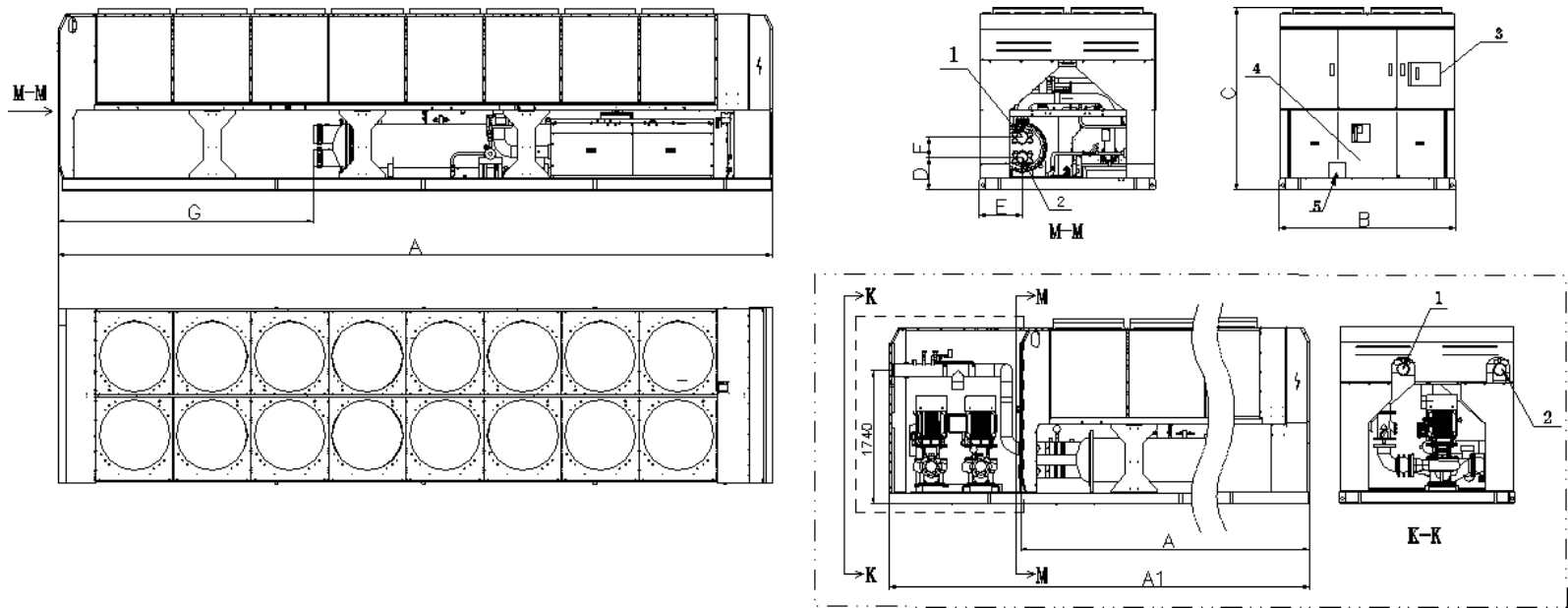
Standard Fluid Pressure Drop Map



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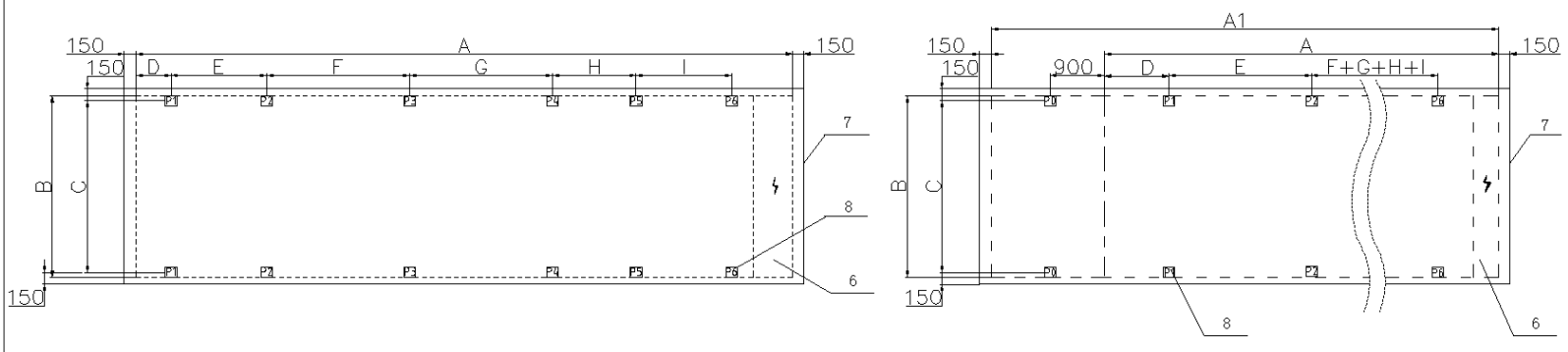
Chiller Outline Drawing



Location points of outline drawing (unit mm)								
Chiller Model	A1	A	B	C	D	E	F	G
SCAF275HV	11060	9260	2300	2460	420	550	300	3310

Explanation				
Chiller Model	1	2	3	4
SCAF275HV	Chilled water outlet	Chilled water inlet	Control panel	VFD

Chiller Foundation Drawing



Location point of foundation map (unit mm)										
Chiller Model	A1	A	B	C	D	E	F	G	H	I
SCAF275HV	11060	9260	2300	2180	845	1800	1800	1800	1050	1200

Load bearing position point of spring isolator							
Chiller Model	P0	P1	P2	P3	P4	P5	P6
SCAF275HV	MHD-B-850	MHD-B-850	MHD-B-850	MHD-B-850	MHD-B-850	MHD-B-850	MHD-B-850

Explanation			
Chiller Model	6	7	8
SCAF275HV	Electric control box	Installation foundation	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.**