Air-cooled Unit Info

Project Name:Project Selection:SCAF200HVD

Unit Information

Chiller Model	SCAF200HVD	Chiller Series	SCAF-HV
Net Weight	7170 kg	Length	6.245 m
Running Weight	7470 kg	Width	2.3 m
Refrigerant Type	R134a	Height	2.46 m
Refrigerant Charge	110|110 kg	Sound	79.73 dB(A)
Controller	MicroComputer Controller	Frequency	60 Hz
Voltage	460 V	Operating Range	T1
Capacity Control	Variable Frequency	Starter Type	VFD Starter
Transport Length	6.345 m	Transport Width	2.3 m
Transport Height	2.46 m	Type Code	2*MV50AH

***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

Performance Information

Cooling Condition

Ambient Temperature(DB)	95.0 °F	Cooling Capacity	197.8 RT
Leaving Fluid Temperature	44.00 °F	Input Power	209.1 kW
Entering Fluid Temperature	54.00 °F	COP.R	3.326 kW/kW
Fluid Flow Rate	475.1 gpm	IPLV.IP	5.037 kW/kW
Water Pressure Drop	9.63 psi		

Compressor Information

Type	Variable-frequency	Oil Model	MCO-FH
Model	2*MV50AH	Oil Charge	16|16 L
Brand	Midea	Number of Compressors	1|1

Water Side Information

Heat Exchanger Type	Shell-and-Tube	Heat Exchanger Code	Flooded
Connection Size	DN150	Connection Type	Victaulic
Fluid Type	Fresh Water	Concentration	0 %
Fouling Factor	0.000100 h*ft²*°F/Btu	Water Volume	0.14 m³

Air Side Data

Heat Exchanger Type	Fin-Coil	Air Flow	27000 m³/h
Number of Fans	10	FLA of Fan (Each)	6.3 A
Fan Type	Fixed-frequency	Power Input of Fan(Each)	2.800 kW

Project Name:Project Selection:SCAF200HVD

Electrical Information

Voltage ---------- 460 V Starting Amps ---------- ≤183.1|≤183.1 A

Cooling Full Load Amps---------- 366.2 A Maximum Operating Amps ---------- 509.8 A

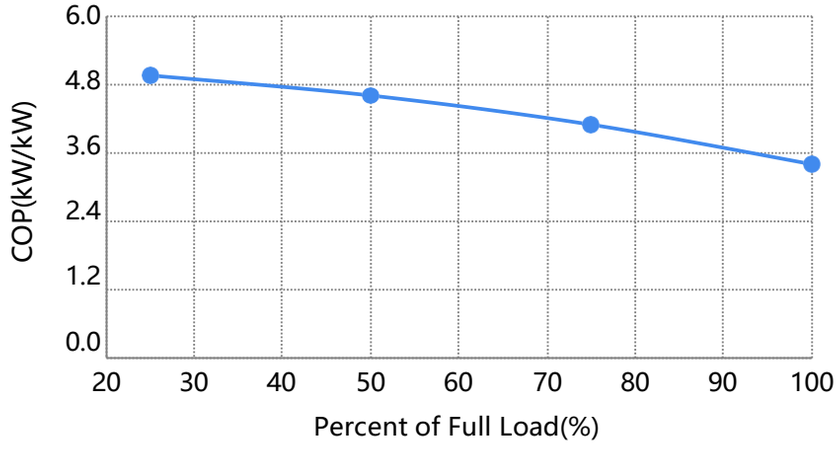
Maximum Operating Power ---------- 294.8 kW

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.

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.

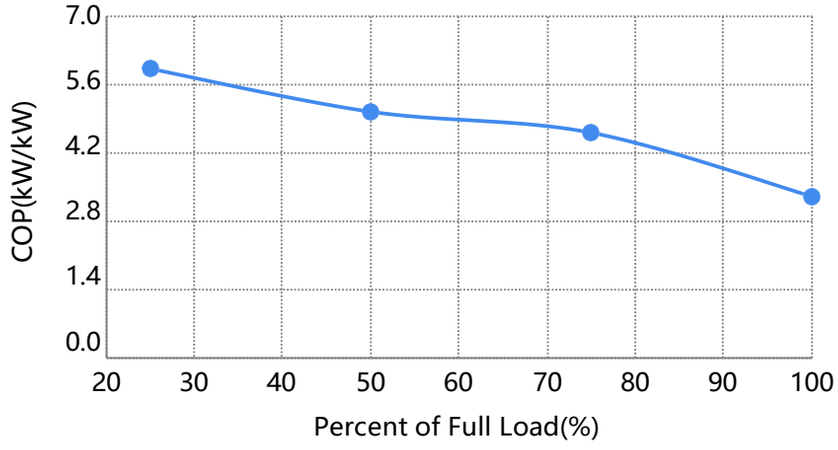
Calculation:IPLV(GB)

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			
	RT	kW	kW/Ton	kW/kW	°F	°F	gpm	psi	°F		kW/Ton	kW/kW
100%	202.2	208.2	1.030	3.415	53.57	44.60	538.5	12.1	95.0	0.023	0.7964	4.415
75%	151.7	129.8	0.8560	4.108	51.32	44.60	538.5	12.1	88.7	0.415		
50%	101.1	76.97	0.7612	4.619	49.08	44.60	538.5	12.1	82.4	0.461		
25%	50.56	35.77	0.7074	4.970	46.84	44.60	538.5	12.1	76.1	0.101		


6.0
4.8
3.6
2.4
1.2
0.0
COP(kW/kW)
20
30
40
50
60
70
80
90
100
Percent of Full Load(%)

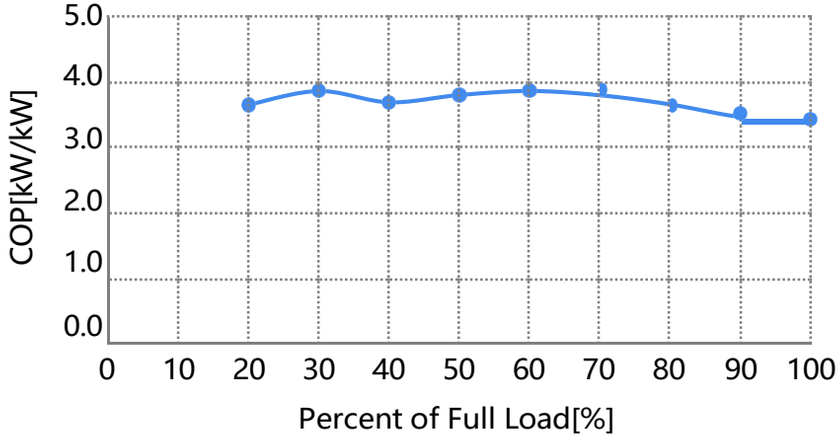
Calculation:NPLV(IP)

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			
	RT	kW	kW/Ton	kW/kW	°F	°F	gpm	psi	°F		kW/Ton	kW/kW
100%	197.8	209.1	1.057	3.326	54.00	44.00	475.1	9.63	95.0	0.01	0.7082	4.965
75%	148.3	112.7	0.7600	4.626	51.50	44.00	475.1	9.63	80.0	0.42		
50%	98.89	68.75	0.6952	5.058	49.00	44.00	475.1	9.63	65.0	0.45		
25%	49.44	29.28	0.5923	5.937	46.50	44.00	475.1	9.63	55.0	0.12		


7.0
5.6
4.2
2.8
1.4
0.0
COP(kW/kW)
20
30
40
50
60
70
80
90
100
Percent of Full Load(%)

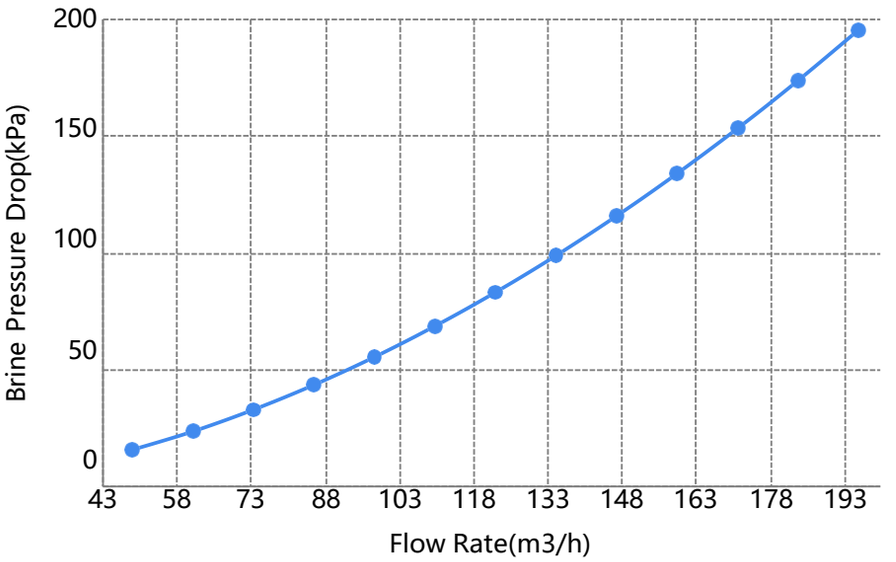
Calculation:Loadline

Percentage of full load	Cooling Capacity	Input Power	Power Input per Capacity	COP	Water Side Data				Air Side Data	Weighting Factor	IPLV/NPLV/CPLV
					EEFT	ELFT	Flow	Water Pressure Drop	CEFT		
	RT	kW	kW/Ton	kW/kW	°F	°F	gpm	psi	°F		kW/kW
100%	197.8	209.1	1.057	3.326	54.00	44.00	475.1	9.63	95.0	0	0.000
90%	178.0	183.6	1.032	3.408	53.00	44.00	475.1	9.63	95.0	0	
80%	158.2	154.4	0.9760	3.602	52.00	44.00	475.1	9.63	95.0	0	
70%	138.4	130.1	0.9401	3.740	51.00	44.00	475.1	9.63	95.0	0	
60%	118.7	109.7	0.9242	3.804	50.00	44.00	475.1	9.63	95.0	0	
50%	98.89	92.88	0.9392	3.744	49.00	44.00	475.1	9.63	95.0	0	
40%	79.11	76.57	0.9678	3.633	48.00	44.00	475.1	9.63	95.0	0	
30%	59.33	54.83	0.9242	3.804	47.00	44.00	475.1	9.63	95.0	0	
20%	39.56	38.70	0.9785	3.593	46.00	44.00	475.1	9.63	95.0	0	
10%	19.78	NaN	NaN	NaN	NaN	44.00	475.1	NaN	95.0	0	

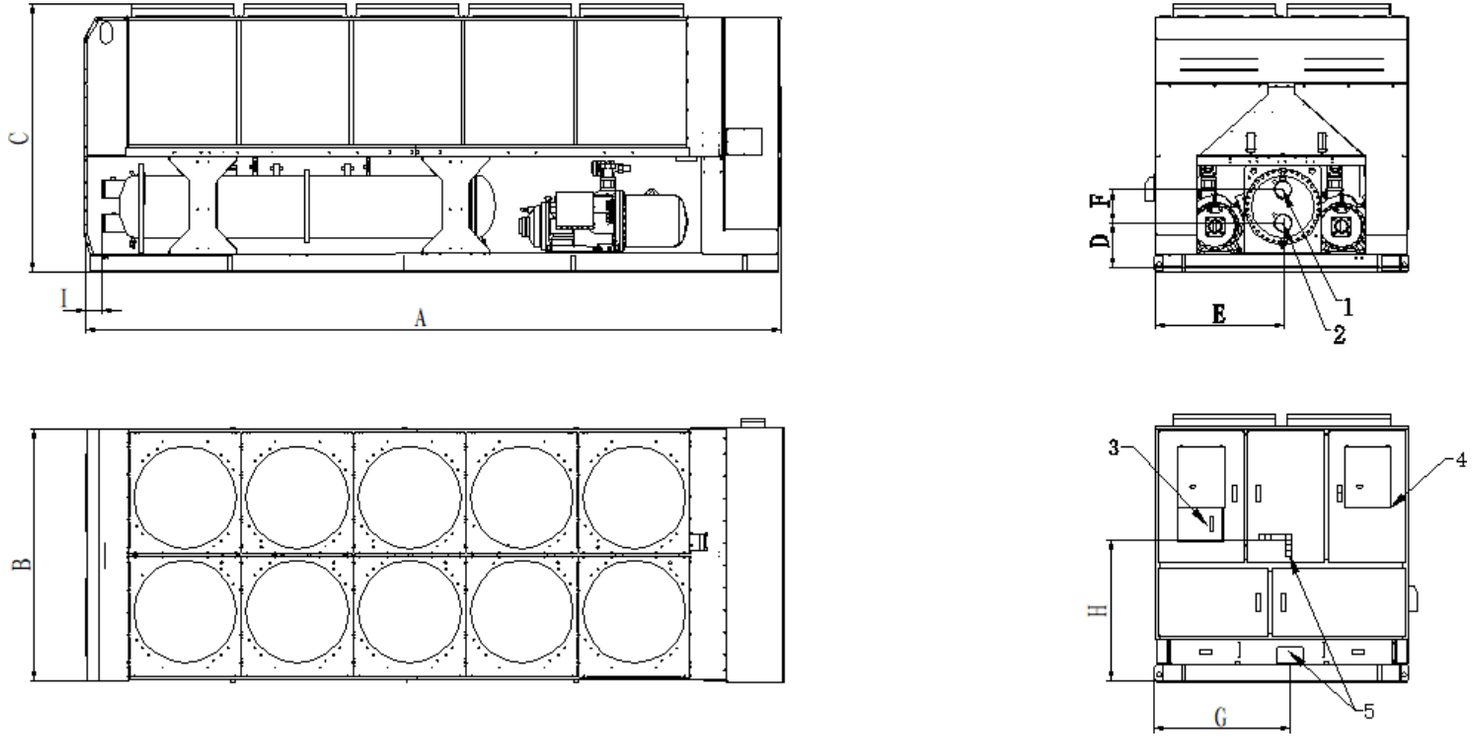

5.0
4.0
3.0
2.0
1.0
0.0
COP[kW/kW]
0
10
20
30
40
50
60
70
80
90
100
Percent of Full Load[%]

Fluid Pressure Drop Map

Standard Fluid Pressure Drop Map



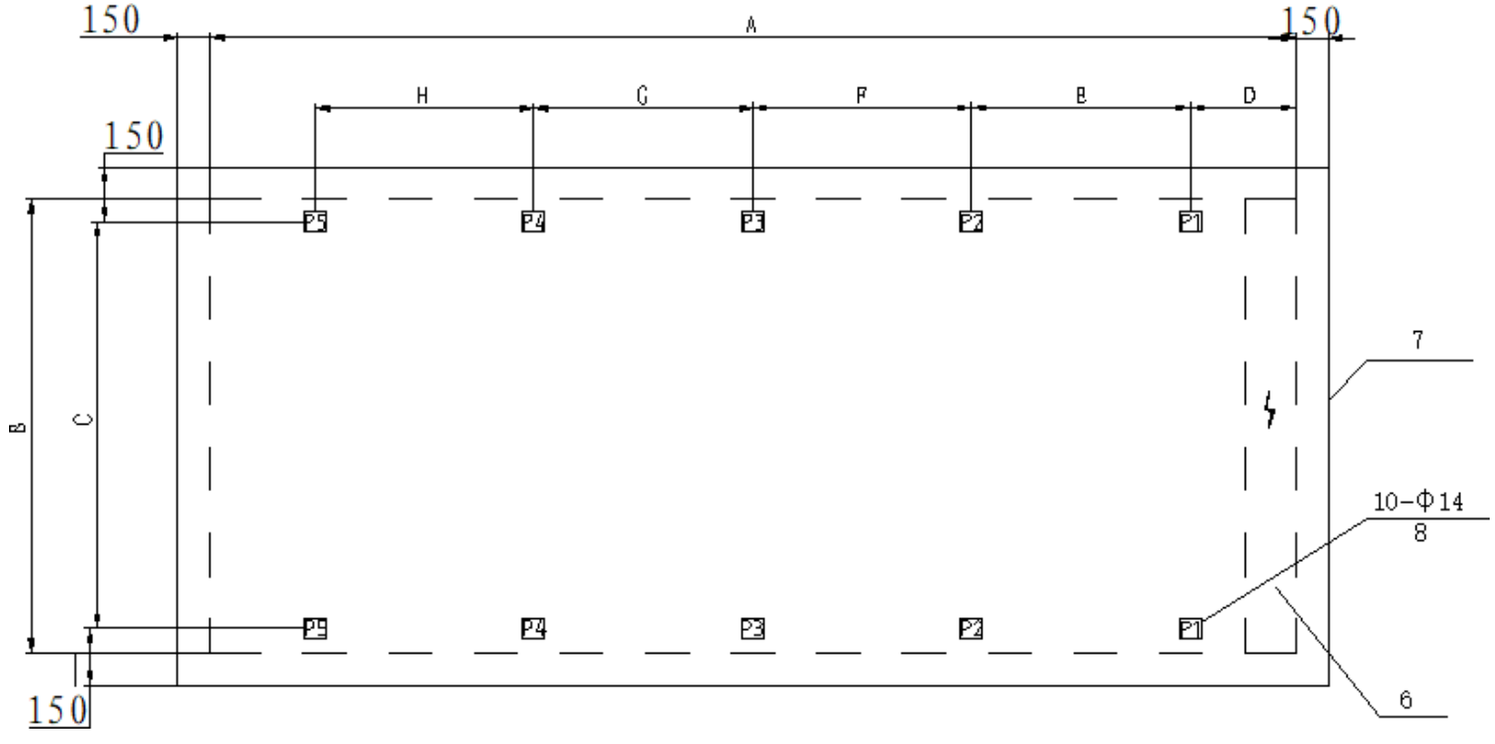
Chiller Outline Drawing



Location points of outline drawing (unit mm)									
Chiller Model	A	B	C	D	E	F	G	H	I
SCAF200HVD	6245	2300	2460	435	1150	300	1195	1400	140

Explaination					
Chiller Model	1	2	3	4	5
SCAF200HVD	Chilled water outlet	Chilled water inlet	Control panel	VFD	Power incoming line

Chiller Foundation Drawing



Location point of foundation map (unit mm)								
Chiller Model	A	B	C	D	E	F	G	H
SCAF200HVD	6245	2300	2180	420	1180	1200	1200	1650

Load bearing position point of spring isolator					
Chiller Model	P1	P2	P3	P4	P5
SCAF200HVD	MHD-B-1050	MHD-B-1050	MHD-B-1050	MHD-B-1050	MHD-B-1050

Explaination			
Chiller Model	6	7	8
SCAF200HVD	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.**