#### 10C202311

## **AirBoost Air Cooled Screw Chiller** T1/T3/LA/FC

#### Midea Building Technologies Division Midea Group

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www.midea-group.com tsp.midea.com

rves the right to change the specifications of the product, and to withdraw or replace products without prior notification or public announcement. Midea is constantly developing and improving its products.



Screw



Midea





## ZUZ4 MAKE A BEAUTIFUL TOMORROW

## Midea MBT

Midea MBT(Midea Building Technologies) is a key division of the Midea Group, a leading provider of comprehensive solutions of intelligent building, involving energy sources, elevators, control systems, and heating, ventilation & air conditioning. Midea MBT has continued with the tradition of innovation upon which it was founded and emerged as a global leader in the HVAC and building management industry. A strong drive for advancement has resulted in an extensive R&D department that has placed Midea MBT at the forefront of a competitive -edge. Through these independent projects and joint-cooperation with other global enterprises, Midea has supplied thousands of innovative solutions to customers worldwide.



2001 The R134a (LC) series centrifugal chiller was named as a key national product

> 2004 Acquired MGRE

entered the chiller industry

#### 2008

Developed the Smart Star new-generation semi-hermetic centrifugal chiller Several production bases are situated on Shunde, Chongqing, Hefei, and Italy. MBT Shunde: 38 product lines focusing on VRF, Split Products, Heat Pump Water Heaters and AHU/FCU. MBT Chongging: 14 product lines focusing on Water Cooled Centrifugal/Screw/Scroll Chillers, Air Cooled Screw/Scroll Chillers and AHU/FCU.

MBT Hefei: 11 product lines focusing on VRF, Chillers and Heat Pump Water Heaters. Clivet S.p.A: 50,000m2 workshop in Feltre and Verona, covering products such as ELFO system, hydronic, WHLP, packaged, split and close control and so on.

#### 2015

 Launched the inverter direct-drive centrifugal chiller and magnetic bearing centrifugal chiller An international strategic platform has brought Midea Group, Carrier **Corporation and Chongqing General** Industry Group together in the chiller business

1999 **Entered the MBT field**  2007

Won the first Midea centrifugal chiller project overseas

#### 2006

Launched the first VFD (Variable Frequency Drive) centrifugal chiller

#### 2017

Developed the large capacity air cooled scroll chiller

#### 2016 Acquired 80% stake in Clivet

2022

Launched the evaporative cooling scroll chiller

#### 2019 Launched the Midea

self-developed magnetic bearing centrifugal chiller

#### 2020-2021

 Acquired the Chinese national brand Linvol Elevator and entered the elevator industry Launched the inverter air cooled screw chiller (free cooling)

#### **MBT Learning Academy**



#### Objective

MBT Learning Academy aims to provide training to the sales personnel as well as technical personnel in order to increase the utilization for your MBT equipment. Once you have purchased equipment from MBT, taking care of the equipment is topmost priority. MBT Learning Academy offers training courses to learn firsthand from the manufacturer what it takes to get the best out of your MBT product. The goal of MBT Learning Academy is to provide product specific training, safe work procedures and expertise in carrying out the installation and maintenance of MBT products as well as teaching the main selling points in order to help the sales people sell the MBT products with ease.

#### Training Centers

Our world class training centers provide knowledge and skills necessary to efficiently deploy MBT technologies. The training centers include dedicated laboratories to provide hands-on experiences with various systems, components and controls to refresh and enhance the skills of your sales, design and installation and service teams. Right now we operate our trainings from the below two locations:

#### 1. MBT Training Center

Address: MBT Training Center, 2nd Floor, Building 6, Midea Global Innovation Center, Beijiao, Shunde, Foshan, China Pin-528311

The Midea MBT Training Center is situated 70 kilometers from Baiyun Guangzhou International Airport. Products: VRF, M thermal

#### 2. Chongqing Midea Training Center

Address: No. 15, Qiangwei Road, Nan'an District, Chongqing, China Chongqing Midea Training Center is 35 kilometers from Chongqing International Airport. Products: Centrifugal Chiller, Screw/Scroll Chiller and Terminals



VRF training

M thermal training

Chiller training

#### Global Technical Trainings

The training courses by MBT Learning Academy are divided into the following two categories with different targeted audiences for each.

**Design and Application Trainings:** The design and application trainings for various products are basically for the sales personnel selling MBT products in order to give them basic understanding about the main features. The trainings are conducted on a global level inviting sales engineers, technical engineers, consultants and project designers from different parts of the world.

After Sales- Service Trainings: These trainings are dedicated for the After Sales/ Service personnel in order for them to better carry out the installation, commissioning and maintenance of MBT products. Technical person and engineers from different parts of the world are invited to take part in these trainings.

Online Trainings: The trainings to the Global customers can also be done online with the help of Team and Midea Meeting software. This way, the customers do not need to be physically present for the training. Amid the COVID-19 pandemic, MBT Learning Academy has conducted a lot of online trainings. The training videos are available on the TSP system and can be downloaded by using QR codes.

#### Products: VRF, M thermal, Chillers and Terminals

Highly Skilled Trainers: The trainers for various courses by MBT Learning Academy are expert people with vast experiences in their field. Most of them have a deep insight about the global HVAC market and help the attendees to better understand the MBT products.

#### Training Certificates:

The attendees for Global trainings are provided a training certificate highlighting the courses discussed in the training, signed by Mr. Henry Cheng, General Manager of MBT Overseas Sales Company.

#### **Registration:**

You can contact your respective Midea contact point to provide you with the complete schedule about the global technical trainings as well as how to register for these trainings.

For further enquiries about the Global Trainings conducted by MBT Learning Academy, please send email at the following email address: peeyush@midea.com





Courses



Chiller Introduction Courses

#### Midea Global Spare Parts Center

Mexico

Brazil

The global spare parts center provides high quality and fast spare parts supply. Midea online system (https://tsp.midea.com) can query and purchase spare parts with one click, further shortening the supply time of spare parts.

The " $^2$  (HQ Spare parts center) + 10 (Regional Spare parts center) + N (Country) Spare parts inventory)" Spare Parts Layout can ensure the timely supply of global after-sales spare parts.



O HQ Spare parts center **Q** Regional Spare parts center

05

China

Vietnam

#### **Technical Support Platform (TSP)**

TSP is a platform for customers to provide professional technical support. Through TSP, you can inquire product information, documentation, spare parts and troubleshooting, initiate technical questions and quality complaint process, and also support self-service spare parts order.

#### Website address: https://tsp.midea.com/



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#### My order

Inquire spare parts from exploded view and place spare parts order directly in TSP.

#### **Document inquiry and download**

View or download product technical documentation online, such as catalogs, images, training PPTs, etc.

#### Technical inquiry & FAQ

Initiate technical questions online, and our technicians answer them online in time. Find a quick solution in the FAQ.

#### Troubleshooting

Query the error code and solution by SN, model name, error code or product type.

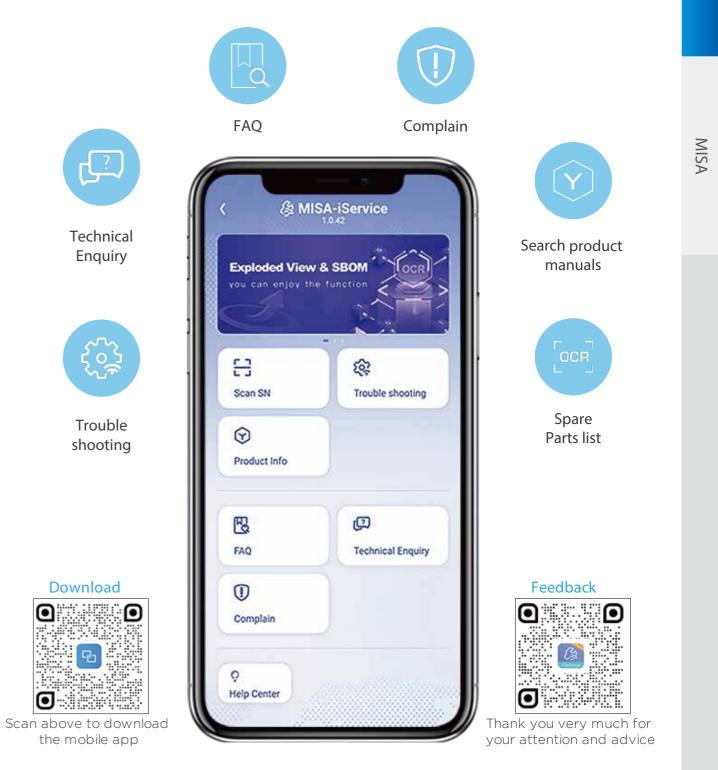
#### Complain

Initiate the product quality complaint process online, and our after-sales engineers handle related complaints in time.

#### Mobile Intelligence Service App (MISA)

MISA is the mobile terminal of TSP, with the same functions as TSP. The mobile service makes technical support more timely and convenient.

#### https://link.midea.com

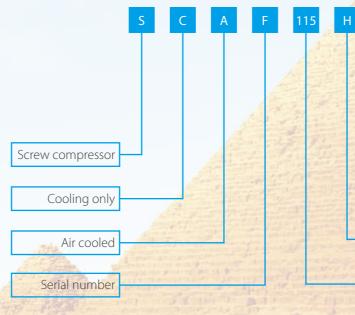


### Overview

AirBoost air cooled screw chiller is designed to realize peak efficiency under all operating conditions, all year round cooling, free cooling, quick start and low noise operation.

It can be widely used in large and medium-sized commercial, civil or industrial buildings and is ideal for data centers, cold storages, temperature sensitive operations such as pharmaceutical labs, hospitals, and manufacturing facilities require constant cooling for equipment and processes, places where the chillers will probably be installed near noise sensitive places such as guest room and meeting room, etc.

#### Nomenclature



#### Unit member

Double oil separation Compressor filter + centrifugal oil separation, oil rate of heat exchanger is below 0.03%

VFD

Precise EXV



Specifically designed compressor Variable frequency drive (from 25Hz to 70Hz), high part load energy efficiency

09

## Content

10 Overview

- **11** Features
- **15** Specifications
- **40** Dimensions and base diagrams
- 41 Installation and maintenance
- 42 Options
- 43 Intelligent management
- 45 Reference projects

#### Omit: normal condition (T1) T3: tropical condition LA: all year round cooling FCD: direct free cooling FCI: indirect free cooling

Inverter

High efficiency

#### Nominal cooling capacity: 115RT

Flooded evaporator

Low noise fan

Fin-coil condenser

Control panel

Built-in touch screen

Noise reduction box for compressor

#### **Features** High efficiency screw compressor



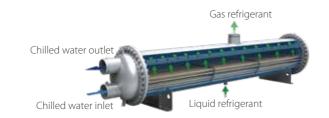
- The screw rotor adopts the optimized compression process profile design, not only ensures excellent volume efficiency, but also reduces the leakage of the compressor. The twin screw rotor adopts five teeth to six teeth asymmetrical design, the machining accuracy is as high as micron level, stable and reliable.
- Refrigerant cooled large capacity inverter motor design, high motor efficiency. The screw rotor is driven by motor directly, less moving parts and wearing parts, high mechanical efficiency.
- The compressor is specifically designed to run with the newest variable frequency technology. Running freely from 25Hz to 70Hz, high part load energy efficiency.

#### High efficiency air side heat exchanger

- High efficiency and low noise axial flow fan. The fan impeller design is optimized by professional flow field software to ensure that the impeller has good aerodynamic performance, which ensures that the fan operates with low noise and at the same time obtains larger air volume and improves the heat transfer effect of the air side.
- Inverted M-type air-side heat exchanger, the airflow is evenly distributed to achieve high efficiency heat exchange.
- \* High efficiency inner-threaded pipes and high quality arc-shaped window aluminum fins are closely combined by mechanical expansion pipe to improve heat transfer efficiency, reduce pressure loss and wind noise.
- Professional temperature field simulation, optimized design.

#### High efficiency flooded evaporator

- \* The refrigerant distributor can distribute refrigerant evenly, optimize the temperature field and improve the evaporation temperature, so as to improve the operating efficiency.
- \* Specially designed baffle plate to avoid the compressor suction with liquid, improving the reliability of the unit.
- The water box at both ends can be disassembled to facilitate maintenance.



#### High precision EXV

- Internationally renowned brands, stable and reliable guality.
- Responsive, no hysteresis, improve unit energy efficiency.
- \* PID high-precision adjustment to ensure that the whole situation is stable and efficient operation.



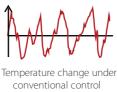


High precision FXV

Traditional thermal expansion valve

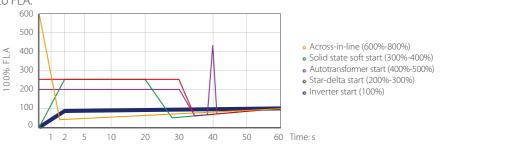
#### 0.1Hz inverter technology

temperature control, trend prediction, self-diagnosis, advance regulation, avoid frequent temperature fluctuations and even shutdown, improve user comfort and reduce energy consumption.



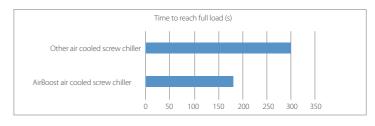
#### 7ero in-rush current

\* The unit adopts inverter starting mode, which produces zero in-rush current during the starting process and enables a stable operation from 0A to FLA.



#### **Ouick start**

- ★ It takes only 180s to return to 100% capacity while other comparable chillers need at least 300s to reach full load. Ideal for
  - restart quickly after a power failure.



#### Reliable and easy installation

- Modular design, maximum 8 units can be combined.
- Lach unit adopts 1 or 2 compressors and each compressor is equipped with an independent refrigeration circuit.
- The compressors of the 2-circuit unit can be used as backup for each other. The running time of each compressor of a 2-circuit unit and each unit in a whole system can both be balanced and the service life of the whole system is extended.
- No need for a dedicated equipment room or purchase cooling tower and other accessories.

#### Quiet operation

- Optimized system design, eliminate abnormal noise caused by flow.
- ✤ 5~10dBA noise reduction (standard with sound insulation box and low noise fan).



The inner wall of the box is made of highly effective silencing materials





11

International leading inverter regulation technology can achieve 0.1Hz frequency regulation, so as to achieve high-precision water



Temperature change under prospective control

temperature sensitive applications such as data centers, manufacturing processes and hospitals where need the unit to

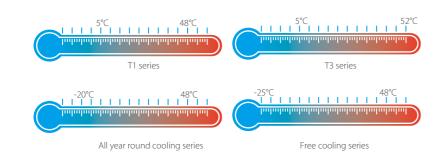


#### **Eco-friendly**

R134a refrigerant has zero ozone depletion potential and has no elimination cycle for now. The refrigerant complies with the Montreal Protocol.

#### Wide ambient temperature range

The unit can operate stably under extreme conditions, ranging from -25°C to 52°C.



#### Intelligent control

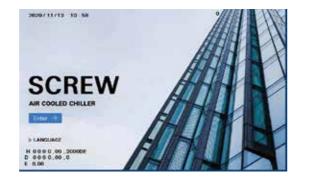
- ✤ 7-inch colorful touch screen.
- Real-time operating parameters (temperature, pressure etc.) display.
- Three-level password setting to prevent misoperation.
- Detailed fault information record.
- Power-off memory function.
- Timed ON/OFF.
- Master & Slave, Back-up, Duty cycling.
- Compatible with QuickView, M-Cloud, Midea Chiller Plant Control and M-BMS.

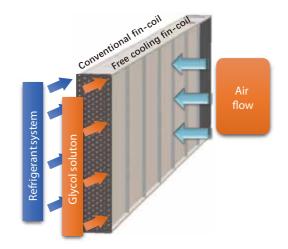
#### Free cooling solutions

For industrial or civil applications where cooling capacity required is stable in any outdoor condition and it is not effected by outdoor temperature, using solutions that exploit low outdoor temperatures for supplying cooling capacity for free is strongly suggested.

When the outdoor temperature is lower than the temperature of the system's return water, the free cooling system recovers cold from the external environment and reduces the operation of the compressors until they stop completely.

Midea solution is: Built-in free cooling heat exchanger, less space; Free cooling and compressor refrigeration sharing a set of fans, energy saving and easy maintenance.





#### Two configurations

#### Direct free cooling

- Circulating water in the project system is with glycol.
- Free cooling fin + electric three-way valve, achieve free cooling at low ambient temperature.
- Direct heat exchange, high heat exchange efficiency.
- Overall project circulating water is anti-freeze liquid, strong anti-freezing ability.
- Client requires consideration of glycol system design.

#### Indirect free cooling

- Circulating water in the project system is conventional water. Free cooling fin, plate heat exchanger and glycol circulating pump to form a closed system.
- Equipped with plate heat exchanger, transfer free cooling energy to the whole project.
- The terminal system and the water pump do not need to consider the performance attenuation and water resistance
- increase caused by antifreeze liquid.
- Two-stage heat exchange can reduce heat exchange
- requirements of the compressor.
- No need for special water system design.

#### Three operating modes



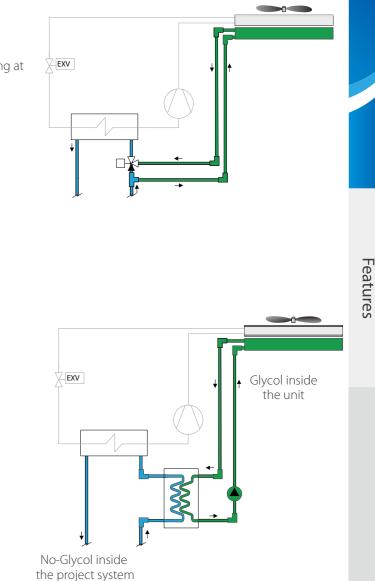
Free cooling is off.

Compression cycle is on.

#### Middle season



Free cooling is on. Compression cycle is on.





Winter



Free cooling is on. Compression cycle is off.

## Specifications

11, 15, LA								
T1 series		Model	SCAF115HV	SCAF140HV	SCAF175HV	SCAF205HV	SCAF240HV	
T3 series		Model	SCAF115HV(T3)	SCAF140HV(T3)	SCAF175HV(T3)	SCAF205HV(T3)	SCAF240HV(T3	
All year round cooling series		Model	SCAF115HV(LA)	SCAF140HV(LA)	SCAF175HV(LA)	SCAF205HV(LA)	SCAF240HV(LA	
	Cooling capacity	kW (Ton)	397.0 (112.9)	493.0 (140.2)	618.2 (175.8)	723.9 (205.9)	844.6 (240.2)	
	Power input	kW	116.5	143.6	181.3	212.3	247.5	
Nominal parameter	Cooling COP	kW/kW (kW/Ton)	3.41 (1.03)	3.43 (1.02)	3.41 (1.03)	3.41 (1.03)	3.41 (1.03)	
	IPLV	kW/kW (kW/Ton)	5.015 (0.7011)	5.072 (0.6958)	5.037 (0.6981)	5.037 (0.6981)	5.009 (0.7019	
-	Туре	/		Semi-hermetic tw	in-rotor screw comp	pressor, inverter		
Compressor	Quantity	/	1	1	1	1	1	
Energy regulation mode		/	/ Stepless control (Single compressor 10%-100%, Dual compressor 5%-100%)				00%)	
Туре		/	R134a					
Refrigerant	Charge amount	kg (lb)	126 (277.8)	148 (326.3)	168 (370.4)	192 (423.3)	225 (496)	
Power supply		/	380V-3Ph-50Hz					
	Туре	/	Fin-coil					
Air side heat exchanger	No. of fan	/	6	8	10	12	14	
	Moter power input	kW			2.0			
	Туре	/			Shell and tube			
	Water flow	m³/h (US gpm)	68.04 (299.6)	84.49 (372.0)	105.9 (466.4)	124.0 (546.2)	144.7 (637.2)	
Water side heat exchanger	Water side pressure drop	kPa (ftH <sub>2</sub> O)	42.0 (14.0)	43.5 (14.5)	72.6 (24.3)	68.5 (22.9)	79.6 (26.6)	
	Water pipe connection	mm (in)	150 (5.9)	150 (5.9)	150 (5.9)	150 (5.9)	150 (5.9)	
	Max. working pressure	MPa		1	1.0			
	Length	mm (in)	4440 (174.8)	5240 (206.3)	6245 (245.87)	7250 (285.43)	8255 (325)	
Unit dimensions	Width	mm (in)	2300 (90.55)	2300 (90.55)	2300 (90.55)	2300 (90.55)	2300 (90.55)	
	Height	mm (in)	2460 (96.85)	2460 (96.85)	2460 (96.85)	2460 (96.85)	2460 (96.85)	
Unit weight		kg (lb)	4240 (9347.6)	4950 (10912.88)	5500 (12125.42)	6170 (13602.52)	7050 (15542.5	
Operating weight		kg (lb)	4440 (9788.52)	5150 (11353.81)	5720 (12610.44)	6410 (14131.63)	7330 (16159.88	

Note: 1. Performance and efficiency are based on AHRI 551/591. Cooling: chilled water inlet/outlet=12°C(53.6°F)/7°C(44.6°F); fouling factor=0.018 m<sup>2</sup>.°C/kW(0.000102h-ft<sup>2</sup>-°F/Btu), outdoor ambient temperature 35°C(95°F) DB. 2. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the product nameplate and in-kind. 3. T1, T3 and FC series are AHRI certified.

#### T1, T3, LA

11, 13, LA								
T1 series		Model	SCAF275HV SCAF330HV SCAF385HV SCAF4					
T3 series		Model	SCAF275HV(T3)	SCAF330HV(T3)	SCAF385HV(T3)	SCAF410HV(T3)		
All year round cooling series		Model	SCAF275HV(LA)	SCAF330HV(LA)	SCAF385HV(LA)	SCAF410HV(LA)		
	Cooling capacity	kW (Ton)	965.1 (274.5)	1161 (330.4)	1368 (389.1)	1448 (412.0)		
	Power input	kW	283.7	340.3	401.2	425.0		
Nominal parameter	Cooling COP	kW/kW (kW/Ton)	3.40 (1.03)	3.41 (1.03)	3.41 (1.03)	3.41 (1.03)		
	IPLV	kW/kW (kW/Ton)	5.008 (0.7021)	4.996 (0.7036)	4.988 (0.7049)	5.080 (0.6921)		
-	Туре	/	Semi	i-hermetic twin-rotor sc	rew compressor, inver	ter		
Compressor	Quantity	/	1	2	2	2		
Energy regulation mode		/	Stepless control (Single compressor 10%-100%, Dual compressor 5%-100%)					
	Туре	/	R134a					
Refrigerant	Charge amount	kg (lb)	280 (617.3)	2×168 (2×370.4)	2×200 (2×440.9)	2×200 (2×440.9)		
Power supply	/		380V-3	Ph-50Hz	1			
	Туре	/	Fin-coil					
Air side heat exchanger	No. of fan	/	16	18	20	20		
	Moter power input	kW		2	.0	3		
	Туре	/		Shell a	nd tube			
	Water flow	m³/h (US gpm)	165.4 (728.2)	199.1 (876.5)	234.4 (1032)	248.2 (1092)		
Water side heat exchanger	Water side pressure drop	kPa (ftH <sub>2</sub> O)	72.3 (24.2)	75.1 (25.1)	73.5 (24.6)	74.8 (25.0)		
	Water pipe connection	mm (in)	200 (7.9)	200 (7.9)	200 (7.9)	200 (7.9)		
	Max. working pressure	MPa		1.	.0			
	Length	mm (in)	9260 (364.57)	10265 (404.13)	11270 (443.7)	11270 (443.7)		
Unit dimensions	Width	mm (in)	2300 (90.55)	2300 (90.55)	2300 (90.55)	2300 (90.55)		
	Height	mm (in)	2460 (96.85)	2460 (96.85)	2460 (96.85)	2460 (96.85)		
Unit weight		kg (lb)	7600 (16755.13)	9800 (21605.3)	10980 (24206.76)	10980 (24206.76)		
Operating weight		kg (lb)	7940 (17504.7)	10160 (22398.97)	11380 (25088.61)	11380 (25088.61		

15

Note: 1. Performance and efficiency are based on AHRI 551/591. Cooling: chilled water inlet/outlet=12°C(53.6°F)/7°C(44.6°F); fouling factor=0.018 m<sup>2</sup>.°C/kW(0.000102h-ft<sup>2</sup>.°F/Btu), outdoor ambient temperature 35°C(95°F) DB. 2. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the product nameplate and in-kind. 3. T1, T3 and FC series are AHRI certified.

Specifications

Direct free cooling series		Model	SCAF110HV(FCD)	SCAF130HV(FCD)	SCAF165HV(FCD)	SCAF195HV(FCD)
	Cooling capacity	kW (Ton)	378.9 (107.8)	448.3 (127.5)	571.1 (162.4)	671.6 (191.0)
	Power input	kW	124.4	144.2	186.6	220.6
Nominal parameter	Cooling COP	kW/kW (kW/Ton)	3.05 (1.15)	3.11 (1.13)	3.06 (1.15)	3.04 (1.16)
	IPLV	kW/kW (kW/Ton)	4.725 (0.7441)	4.699 (0.7482)	4.699 (0.7483)	4.703 (0.7477)
	Cooling capacity	kW (Ton)	378.9 (107.8)	448.3 (127.5)	571.1 (162.4)	671.6 (191.0)
Free cooling only parameter	Power input	kW	20.00	20.00	25.00	30.00
	COP	kW/kW	18.94 (0.19)	22.42 (0.16)	22.84 (0.15)	22.39 (0.16)
Ambient temperature of free cooling o	nly	°C	1.5	0.0	-0.2	0.0
Ambient temperature of free cooling o	n	°C	12.1	12.0	12.0	12.0
Comprossor	Туре	/	Semi-	hermetic twin-rotor	screw compressor, ir	iverter
Compressor	Quantity	1	1	1	1	1
Energy regulation mode		/	Stepless control (Single compressor 10%-100%, Dual compressor 5%-100			pressor 5%-100%)
lefrigerant	Туре	1		R1	34a	
reingerant	Charge amount	kg (lb)	126 (277.8)	148 (326.3)	168 (370.4)	192 (423.3)
Power supply		1	380V-3Ph-50Hz			
	Туре	/	Fin-coil			
Air side heat exchanger	No. of fan	/	8	8	10	12
	Motor power input	kW		2	2.5	
	Туре	/		Shell and tube		
	Water flow	m³/h (US gpm)	70.48 (310.3)	83.39 (367.2)	106.2 (467.8)	124.9 (550.1)
Water side heat exchanger	Water side pressure drop	kPa (ftH <sub>2</sub> O)	50.0 (16.7)	47.4 (15.9)	81.6 (27.3)	77.6 (26.0)
water side freat excitatiger	Pressure drop (free cooling is on)	kPa (ftH <sub>2</sub> O)	87.18 (29.17)	95.61 (31.99)	165.3 (55.30)	105.7 (35.36)
	Water pipe connection	mm (in)	150 (5.9)	150 (5.9)	150 (5.9)	150 (5.9)
	Max. working pressure	MPa		1	.0	1
	Length	mm (in)	5740 (225.98)	5540 (218.11)	6545 (257.68)	7650 (301.18)
Unit dimensions	Width	mm (in)	2300 (90.55)	2300 (90.55)	2300 (90.55)	2300 (90.55)
	Height	mm (in)	2460 (96.85)	2460 (96.85)	2460 (96.85)	2460 (96.85)
Unit weight		kg (lb)	5400 (11904.96)	6030 (13293.87)	6580 (14506.42)	7350 (16203.98)
Operating weight		kg (lb)	5900 (13007.27)	6570 (14484.37)	7180 (15829.19)	8050 (17747.21)

#### FCD

Direct free cooling series		Model	SCAF225HV(FCD)	SCAF260HV(FCD)	SCAF310HV(FCD)	SCAF370HV(FCD)	
	Cooling capacity	kW (Ton)	779.5 (221.7)	895.5 (254.7)	1068 (304.0)	1282 (364.9)	
	Power input	kW	255.1	293.5	347.9	420.9	
Nominal parameter	Cooling COP	kW/kW (kW/Ton)	3.06 (1.15)	3.05 (1.15)	3.072 (1.14)	3.05 (1.15)	
	IPLV	kW/kW (kW/Ton)	4.698 (0.7483)	4.697 (0.7486)	4.816 (0.7300)	4.819 (0.7296)	
	Cooling capacity	kW (Ton)	779.5 (221.7)	895.5 (254.7)	1068 (304.0)	1282 (364.9)	
Free cooling only parameter	Power input	kW	35.00	40.00	45.00	50.00	
	СОР	kW/kW	22.27 (0.16)	22.39 (0.16)	23.75 (0.15)	25.66 (0.14)	
Ambient temperature of free cooling or	ly	°C	0.1	0.1	-0.4	-1.2	
Ambient temperature of free cooling or	1	°C	12.0	12.0	12.0	11.9	
Compressor		/	Semi-	hermetic twin-rotor	screw compressor, in	verter	
Compressor	Quantity	/	1	1	2	2	
Energy regulation mode		/	Stepless control (Single compressor 10%-100%, Dual compressor 5%-100%)				
Definition	Туре	/	R134a				
Refrigerant	Charge amount	kg (lb)	225 (496.0)	280 (617.3)	2×168 (2×370.4)	2×200 (2×440.9)	
Power supply		/	380V-3Ph-50Hz				
	Туре	/	Fin-coil				
Air side heat exchanger	No. of fan	/	14	16	18	20	
	Motor power input	kW		2	.5		
	Туре	/		Shell ar	nd tube		
	Water flow	m³/h (US gpm)	145.0 (638.4)	166.6 (733.4)	198.8 (875.4)	238.6 (1050)	
Water side best systemator	Water side pressure drop	kPa (ftH <sub>2</sub> O)	89.6 (30.0)	81.9 (27.4)	83.8 (28.0)	78.2 (26.2)	
Water side heat exchanger	Pressure drop (free cooling is on)	kPa (ftH <sub>2</sub> O)	128.9 (43.13)	133.7 (44.73)	151.1 (50.55)	163.6 (54.73)	
	Water pipe connection	mm (in)	150 (5.9)	200 (7.9)	200 (7.9)	200 (7.9)	
	Max. working pressure	MPa		1	.0		
	Length	mm (in)	8655 (340.75)	9660 (380.31)	10665 (419.88)	11670 (459.45)	
Unit dimensions	Width	mm (in)	2300 (90.55)	2300 (90.55)	2300 (90.55)	2300 (90.55)	
	Height	mm (in)	2460 (96.85)	2460 (96.85)	2460 (96.85)	2460 (96.85)	
Unit weight		kg (lb)	8500 (18739.29)	8930 (19687.28)	11380 (25088.61)	12350 (27227.09)	
Operating weight		kg (lb)	9300 (20502.99)	9830 (21671.44)	12380 (27293.23)	13350 (29431.71)	

Note: 1. Performance and efficiency are based on AHRI 551/591. Cooling: chilled water inlet/outlet=12°C(53.6°F)/7°C(44.6°F); fouling factor=0.018 m<sup>2</sup>.°C/kW(0.000102h-ft<sup>2.</sup>°F/Btu), outdoor ambient temperature 35°C(95°F) DB. Ethylene glycol: 25%. 2. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the product nameplate and in-kind. 3. T1, T3 and FC series are AHRI certified.

FCD

Note: 1. Performance and efficiency are based on AHRI 551/591. Cooling: chilled water inlet/outlet=12°C(53.6°F)/7°C(44.6°F); fouling factor=0.018 m<sup>2</sup>.°C/kW(0.000102h-ft<sup>2</sup>.°F/Btu), outdoor ambient temperature 35°C(95°F) DB. Ethylene glycol: 25%. 2. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the product nameplate and in-kind. 3. T1, T3 and FC series are AHRI certified.

FCI

19

Indirect free cooling series		Model	SCAF110HV(FCI)	SCAF130HV(FCI)	SCAF165HV(FCI)	SCAF195HV(FCI)			
	Cooling capacity	kW (Ton)	386.8 (110.0)	457.7 (130.2)	583.1 (165.8)	685.7 (195.0)			
	Power input	kW	125.4	145.4	188.2	222.5			
Nominal parameter	Cooling COP	kW/kW (kW/Ton)	3.08 (1.14)	3.15 (1.12)	3.10 (1.14)	3.08 (1.14)			
	IPLV	kW/kW (kW/Ton)	4.725 (0.7441)	4.699 (0.7482)	4.699 (0.7441)	4.703 (0.7477)			
	Cooling capacity	kW (Ton)	386.8 (110.0)	457.7 (130.2)	583.1 (165.8)	685.7 (195.0)			
Free cooling only parameter	Power input	kW	25.10	25.70	31.60	37.60			
Free cooling only parameter	СОР	kW/kW (kW/Ton)	15.41 (0.23)	17.81 (0.20)	18.45 (0.19)	18.24 (0.19)			
Ambient temperature of free cool	ing only	°C	-1.2	-2.7	-2.9	-2.6			
Ambient temperature of free cool	ing on	°C	9.6	9.5	9.5	9.5			
Туре		/	Semi	-hermetic twin-rotor scre	w compressor, inver	ter			
Compressor	Quantity	/	1	1	1	1			
Energy regulation mode		/	/ Stepless control (Single compressor 10%-100%, Dual compress		ressor 5%-100%)				
a ()	Туре	/		R134a					
Refrigerant	Charge amount	kg (lb)	126 (277.8)	148 (326.3)	168 (370.4)	192 (423.3)			
Power supply		/		380V-3Ph-50Hz					
	Туре	/	Fin-coil						
Air side heat exchanger	No. of fan	/	8	8	10	12			
	Motor power input	kW	2.5						
	Туре	/	Shell and tube						
	Water flow	m³/h (US gpm)	66.28 (291.8)	78.43 (345.3)	99.91 (439.9)	117.5 (517.3)			
Water side heat exchanger	Water side pressure drop	kPa (ftH <sub>2</sub> O)	107 (35.9)	97.9 (32.8)	130 (43.8)	128 (43.1)			
	Water pipe connection	mm (in)	150 (5.9)	150 (5.9)	150 (5.9)	150 (5.9)			
	Max. working pressure	MPa		1.0					
	Length	mm (in)	6745 (265.55)	6545 (257.68)	6545 (257.68)	7650 (301.18)			
Unit dimensions	Width	mm (in)	2300 (90.55)	2300 (90.55)	2300 (90.55)	2300 (90.55)			
	Height	mm (in)	2460 (96.85)	2460 (96.85)	2460 (96.85)	2460 (96.85)			
Unit weight		kg (lb)	6420 (14153.68)	7130 (15718.96)	8320 (18342.46)	9200 (20282.53)			
Operating weight		kg (lb)	6920 (15255.99)	7670 (16909.46)	8920 (19665.23)	9900 (21825.76)			

Note:

1. Performance and efficiency are based on AHRI 551/591. Cooling: chilled water inlet/outlet=12°C(53.6°F)/7°C(44.6°F); fouling factor=0.018 m<sup>2</sup>°C/kW(0.000102h-ft<sup>2.°</sup>F/Btu), outdoor ambient temperature 35°C(95°F) DB. 2. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the product nameplate and in-kind. 3. T1, T3 and FC series are AHRI certified.

#### FCI

Indirect free cooling series		Model	SCAF225HV(FCI)	SCAF260HV(FCI)	SCAF310HV(FCI)	SCAF370HV(FCI)		
	Cooling capacity	kW (Ton)	795.8 (226.4)	914.3 (260.0)	1091 (310.4)	1309 (372.5)		
	Power input	kW	257.2	296.0	350.9	424.5		
Nominal parameter	Cooling COP	kW/kW (kW/Ton)	3.09 (1.14)	3.09 (1.14)	3.11 (1.13)	3.09 (1.14)		
	IPLV	kW/kW (kW/Ton)	4.698 (0.7483)	4.697 (0.7486)	4.816 (0.7300)	4.819 (0.7296)		
	Cooling capacity	kW (Ton)	795.8 (226.4)	914.3 (260.0)	1091 (310.4)	1309 (372.5)		
Free cooling only parameter	Power input	kW	44.00	51.60	62.00	72.00		
	COP	kW/kW (kW/Ton)	18.09 (0.19)	17.72 (0.20)	17.60 (0.20)	18.19 (0.19)		
Ambient temperature of free co	oling only	°C	-2.5	-2.5 -3.1 -4.0				
Ambient temperature of free co	oling on	°C	9.5	9.5	9.4	9.4		
Туре		/		Semi-hermetic twin-roto	or screw compressor,	inverter		
Compressor	Quantity	/	1	1	2	2		
Energy regulation mode		/	Stepless control (Single compressor 10%-100%, Dual compressor 5%-1					
lefrigerant	Туре	/		R1	34a			
Reingerant	Charge amount	kg (lb)	225 (496.0)	280 (617.3)	2×168 (2×370.4)	2×200 (2×440.9		
Power supply		/	380V-3Ph-50Hz					
	Туре	/	Fin-coil					
Air side heat exchanger	No. of fan	/	14	16	18	20		
	Motor power input	kW	2.5					
	Туре	/		Shell a	and tube			
	Water flow	m³/h (US gpm)	136.4 (600.4)	156.7 (689.8)	187.0 (823.3)	224.4 (988.2)		
Water side heat exchanger	Water side pressure drop	kPa (ftH <sub>2</sub> O)	137 (45.9)	131 (44.0)	128 (43.1)	128 (42.9)		
	Water pipe connection	mm (in)	150 (5.9)	200 (7.9)	200 (7.9)	200 (7.9)		
	Max. working pressure	MPa			1.0			
	Length	mm (in)	8655 (340.75)	9660 (380.31)	11670 (459.45)	11670 (459.45)		
Unit dimensions	Width	mm (in)	2300 (90.55)	2300 (90.55)	2300 (90.55)	2300 (90.55)		
	Height	mm (in)	2460 (96.85)	2460 (96.85)	2460 (96.85)	2460 (96.85)		
Unit weight		kg (lb)	10230 (22553.29)	10920 (24074.48)	14350 (31636.33)	15440 (34039.37		
Operating weight		kg (lb)	11030 (24316.99)	11820 (26058.64)	15350 (33840.96)	16440 (36244)		

Note: 1. Performance and efficiency are based on AHRI 551/591. Cooling: chilled water inlet/outlet=12°C(53.6°F)/7°C(44.6°F); fouling factor=0.018 m<sup>2</sup>.°C/kW(0.000102h-ft<sup>2</sup>.°F/Btu), outdoor ambient temperature 35°C(95°F) DB. 2. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the product nameplate and in-kind. 3. T1, T3 and FC series are AHRI certified.

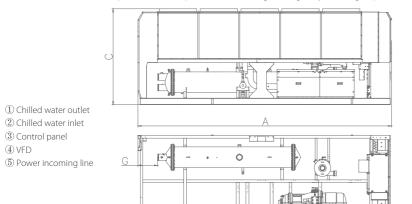
## Dimensions and base diagrams

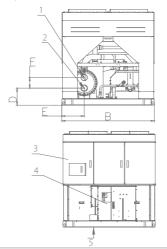
#### Dimensions (T1, T3, LA)

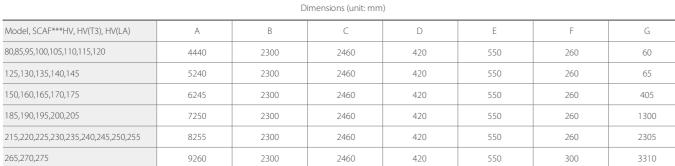
(2) Chilled water inlet

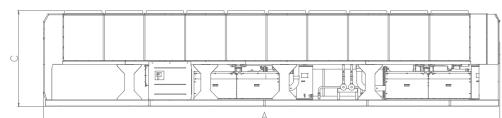
③ Control panel (4) VFD

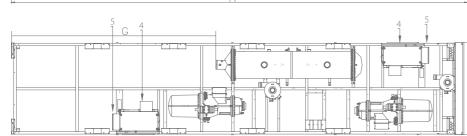
The drawings below contain all the models can be selected from the selection software. As a result of the continuous improvement of the product, the following drawings may be changed, please refer to the product in-kind.













#### ① Chilled water outlet

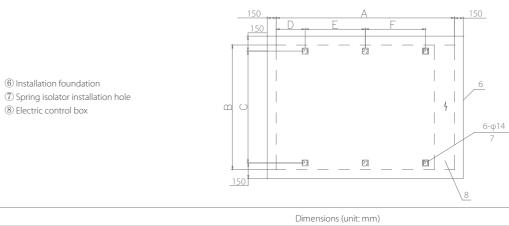
(2) Chilled water inlet

③ Control panel (4) VFD

⑤ Power incoming line

Dimensions (unit: mm)							
Model, SCAF***HV, HV(T3), HV(LA)	A	В	С	D	E	F	G
285,295	9260	2300	2460	410	550	350	2960
310,320,330,340	10265	2300	2460	410	550	350	3965
350,360,370,375,385,395,405,410	11270	2300	2460	410	550	350	4970
420,430,440,450, 470,490	11865	2300	2460	410	550	350	5640

#### Base diagrams (T1, T3, LA)



Dimensions (unit: mm)							
Model, SCAF***HV, HV(T3), HV(LA)	A	В	С	D	E	F	
80,85,95,100,105,110,115,120	4440	2300	2180	600	1670	1200	
125, 130, 135, 140, 145	5240	2300	2180	800	2000	1700	

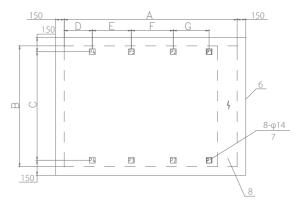
Spring isolator at all points								
Model, SCAF***HV, HV(T3), HV(LA)	P1	P2	Р3					
80,85,95,100,105,110,115,120	MHD-850	MHD-850	MHD-850					
125, 130, 135, 140, 145	MHD-1050	MHD-1050	MHD-1050					

Note

1. The spring isolator is optional.

2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

6 Installation foundation ⑦ Spring isolator installation hole (\$) Electric control box



		Di	imensions (unit: mm	)			
Model, SCAF***HV, HV(T3), HV(LA)	А	В	С	D	E	F	G
150,160,165,170,175	6245	2300	2180	1080	2000	1200	1200

	Spring isolator at all points		
P1	P2	P3	P4
MHD-850	MHD-850	MHD-850	MHD-850

Model, SCAF***HV, HV(T3), HV(LA)	P1	P2	P3	P4
150,160,165,170,175	MHD-850	MHD-850	MHD-850	MHD-850
Note:		•	•	

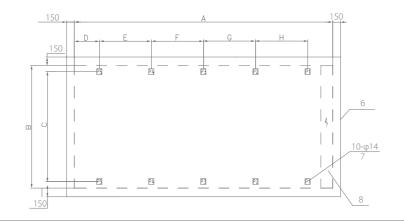
1. The spring isolator is optional.

2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

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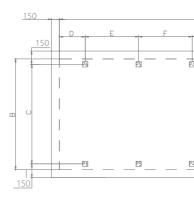
Dimensions (unit: mm)										
Model, SCAF***HV, HV(T3), HV(LA)	А	В	С	D	E	F	G	Н		
185,190,195,200,205	7250	2300	2180	635	1800	1800	1050	1200		
			*							
		(	Spring isolator at a	all noints						

Spring isolator at all points										
Model, SCAF***HV, HV(T3), HV(LA)	P1	P2	P3	P4	P5					
185,190,195,200,205	MHD-850	MHD-850	MHD-850	MHD-850	MHD-850					

Note:

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.





		Dimensions (unit: mm)							
Model, SCAF***HV, HV(T3), HV(LA)	A	В	С	D	E	F	G	Н	
265,270,275,285,295	9260	2300	2180	845	1800	1800	1800	1050	1200

	Spring isolator at all points								
Model, SCAF***HV, HV(T3), HV(LA)	P1	P2	P3	P4	P5	P6			
265,270,275,285,295	MHD-850	MHD-850	MHD-850	MHD-850	MHD-850	MHD-850			

Note:

1. The spring isolator is optional.

2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.



150	<del></del>		A			
150	- D - E	F	G			50
		 23	P4	 B	2 P1	
m O						6 4
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150	<u> </u>		<u> </u>	BB	1	

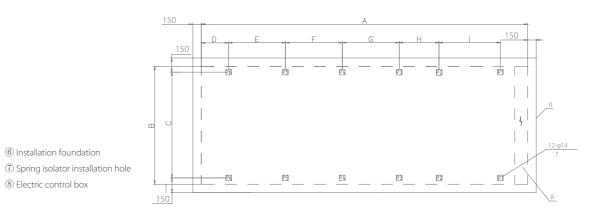
Dimensions (unit: mm)									
Model, SCAF***HV, HV(T3), HV(LA)	A	В	С	D	E	F	G	Н	I
215,220,225,230,235,240,245,250,255	8255	2300	2180	440	1200	1800	1800	1050	1200

Spring isolator at all points									
Model, SCAF***HV, HV(T3), HV(LA)	P1	P2	Р3	P4	P5	P6			
215,220,225,230,235,240,245,250,255	MHD-850	MHD-850	MHD-850	MHD-850	MHD-850	MHD-850			

Note:

1. The spring isolator is optional.

2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.



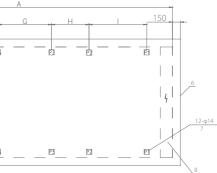
Dimensions (unit: mm)									
Model, SCAF***HV, HV(T3), HV(LA)	A	В	С	D	E	F	G	Н	I
310,320,330,340	10265	2300	2180	1100	2000	2000	2000	1200	1200

Model, SCAF***HV, HV(T3), HV(LA)	P1	P2	Р3	P4	P5	P6
310,320,330,340	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050

#### Note:

1. The spring isolator is optional.

2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.







Note:

1. The spring isolator is optional.

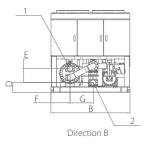
6 Installation foundation

 $^{(8)}$  Electric control box

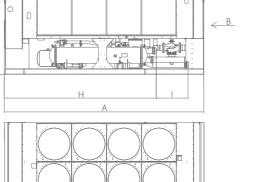
1 Spring isolator installation hole

2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

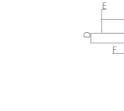
Dimensions (FCD)

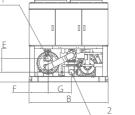


(1) Chilled water outlet (2) Chilled water inlet ③ Control panel 4 VFD 5 Power incoming line

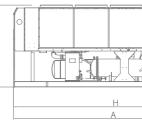




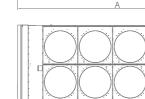




Direction B



(1) Chilled water outlet (2) Chilled water inlet 3 Control panel (4) VFD (5) Power incoming line



Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G	Н	I	
SCAF110HV(FCD)	5740	2300	2460	293	397	550	670	4378	917	

	Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G	Н	I		
SCAF165HV(FCD)	6545	2300	2460	283	397	550	670	5835	157		

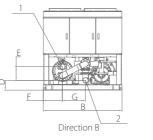
Dimensions (unit: mm)										
Model, SCAF***HV, HV(T3), HV(LA)	А	В	С	D	E	F	G	Н	1	J
350,360,370,375,385,395,405,410	11270	2300	2180	405	1700	2000	2000	2000	1200	1200
420,430,440,450,470,490	11865	2300	2180	990	1700	2000	2000	2000	1200	1200

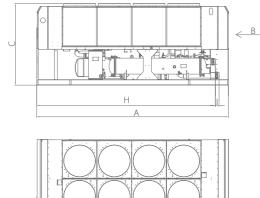
										-
del, SCAF***HV, HV(T3), HV(LA)	A	В	С	D	E	F	G	Н	I	J
0,360,370,375,385,395,405,410	11270	2300	2180	405	1700	2000	2000	2000	1200	1200
0,430,440,450,470,490	11865	2300	2180	990	1700	2000	2000	2000	1200	1200

Spring isolator at all points	
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spring isolator at all points										
Model, SCAF***HV, HV(T3), HV(LA)	P1	P2	P3	P4	P5	P6	P7			
350,360,370,375,385,395,405,410	MHD-1050									
420,430,440,450,470,490	MHD-1050									

P2





(1) Chilled water outlet 2 Chilled water inlet ③ Control panel (4) VFD  $(\ensuremath{\underline{5}})$  Power incoming line

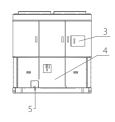


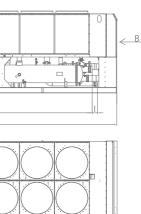
	Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G	Н	I		
SCAF130HV(FCD)	5540	2300	2460	283	397	550	670	5170	108		

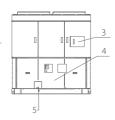
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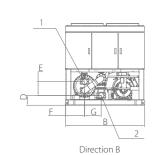








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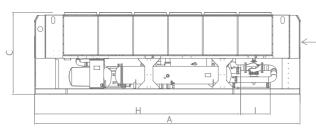
(1) Chilled water outlet ② Chilled water inlet ③ Control panel (4) VFD ⑤ Power incoming line

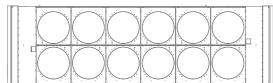
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Model

SCAF195HV(FCD)





Dimensions (Unit: mm) D

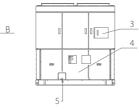
283

С

2460

В

2300

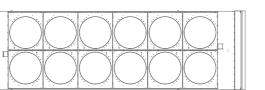


Н

5935

1

857

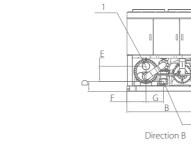


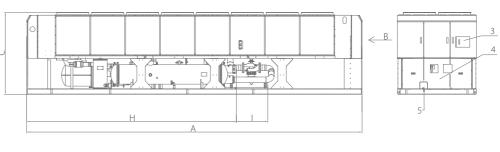
Е

397

F

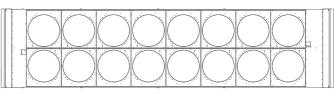
550



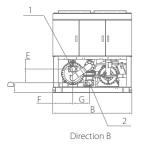


(1) Chilled water outlet (2) Chilled water inlet ③ Control panel (4) VFD  $(\!5\!)$  Power incoming line

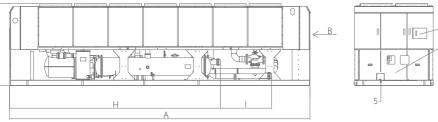
G

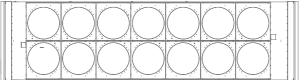


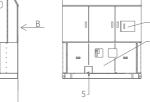
Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G	Н	I	
SCAF260HV(FCD)	9660	2300	2460	283	442	550	505	5942	905	



(1) Chilled water outlet ② Chilled water inlet ③ Control panel 4 VFD ⑤ Power incoming line





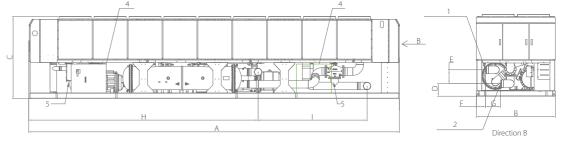


G

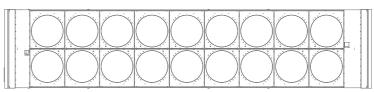
480

ns (Unit: mm)	

Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G	Н	I	
SCAF225HV(FCD)	8655	2300	2460	283	397	576	480	5973	1474	

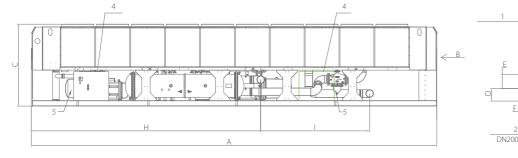


(1) Chilled water outlet ② Chilled water inlet ③ Control panel (4) VFD (5) Power incoming line



Dimensions (Unit: mm)										
Model	А	В	С	D	E	F	G	Н	I	
SCAF310HV(FCD)	10665	2300	2460	360	400	268	429	6508	3138	

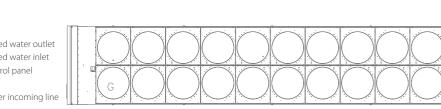






Model

SCAF370HV(FCD)



С

2460



Н

6608

1

3138

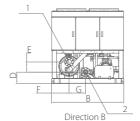
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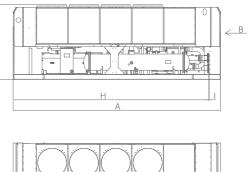
5

Н

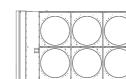
6380

Direction B



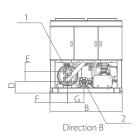


(1) Chilled water outlet 2 Chilled water inlet 3 Control panel (4) VFD ⑤ Power incoming line



Dimensions (Unit: mm)										
Model	А	В	С	D	E	F	G	Н	I	
SCAF130HV(FCI)	6545	2300	2460	357	320	550	522	6180	5	

#### Dimensions (FCI)



А

11670

В

2300

① Chilled water outlet (2) Chilled water inlet ③ Control panel  $\textcircled{4}\mathsf{VFD}$ ⑤ Power incoming line

А

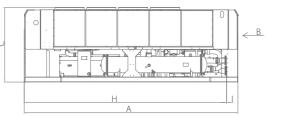
6745

В

2300

Model

SCAF110HV(FCI)



Dimensions (Unit: mm)

Е

400

F

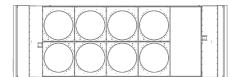
268

G

429

D

360



Dimensions (Unit: mm)

F

320

D

357

С

2460



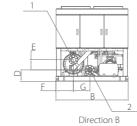
G

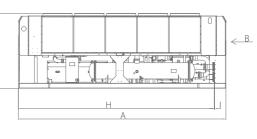
522



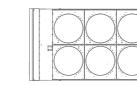
F

550

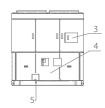


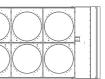


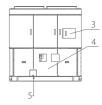
(1) Chilled water outlet <sup>2</sup> Chilled water inlet ③ Control panel (4) VFD (5) Power incoming line

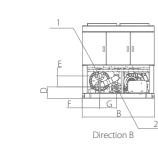


	Dimensions (Unit: mm)									
Model	A	В	С	D	E	F	G	Н		
SCAF165HV(FCI)	6545	2300	2460	357	320	550	522	6180	5	

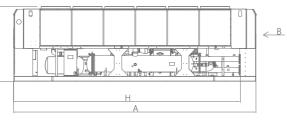


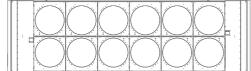


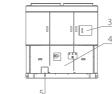


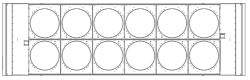


(1) Chilled water outlet (2) Chilled water inlet ③ Control panel  $\textcircled{4}\mathsf{VFD}$ 5 Power incoming line





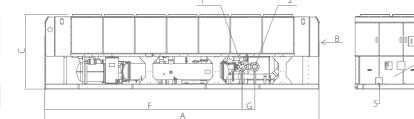


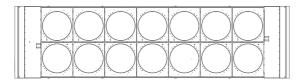


Dimensions (Unit: mm)									
Model	A	В	С	D	E	F	G	Н	
SCAF195HV(FCI)	7650	2300	2460	360	345	550	530	7158	

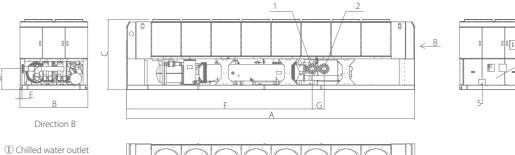


① Chilled water outlet (2) Chilled water inlet ③ Control panel (4) VFD ⑤ Power incoming line





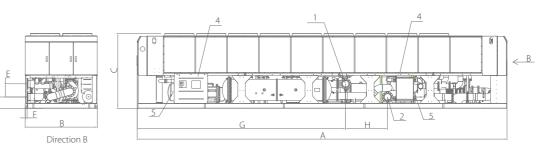
Dimensions (Unit: mm)									
Model	A	В	С	D	E	F	G		
SCAF225HV(FCI)	8655	2300	2460	705	72	6225	400		



(2) Chilled water inlet ③ Control panel (4) VFD (5) Power incoming line

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Dimensions (Unit: mm)									
Model	A	В	С	D	E	F	G		
SCAF260HV(FCI)	9660	2300	2460	705	72	6225	400		

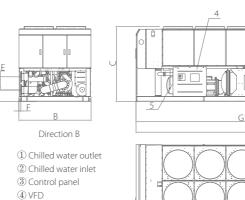


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0

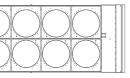
(1) Chilled water outlet (2) Chilled water inlet ③ Control panel (4) VFD (5) Power incoming line

Dimensions (Unit: mm)								
Model	A	В	С	D	E	F	G	Н
SCAF310HV(FCI)	11670	2300	2460	360	415	60	6578	1323

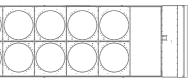


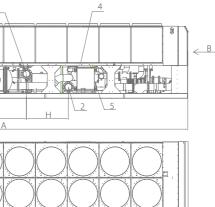
<ul> <li>② Control pa</li> <li>③ Control pa</li> <li>④ VFD</li> <li>⑤ Power incomposition</li> </ul>	nel						
			Dime	ensions (Unit: mm)			
Model	A	В	С	D	E	F	

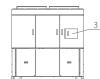
Dimensions (Unit: mm)									
Model	А	В	С	D	E	F	G	Н	
SCAF370HV(FCI)	11670	2300	2460	360	415	60	6578	1323	











32

Model

SCAF110HV(FCD)

Model

SCAF110HV(FCD)

А

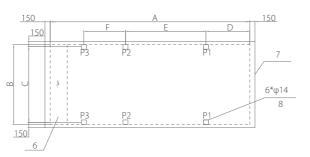
5740

2300

Note : 1. The spring isolator is optional. 2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

P1

MHD-1050



D

1263

P2

MHD-1050

2317

1200

P3

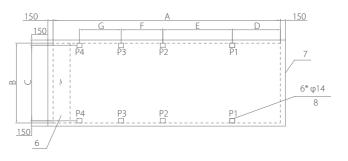
MHD-1050

Dimensions (Unit: mm)

Spring isolator at all points

2180

⑥ Electric control box 1 Installation foundation (8) Spring isolator installation hole



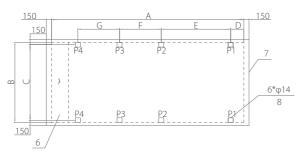
			Dimension	s (Unit: mm)			
Model	A	В	C	D	E	F	G
SCAF165HV(FCD)	6545	2300	2180	1385	2000	1200	1200

	Spring isolator at all points							
Model	P1	P2	P3	P4				
SCAF175HV(FCD)	MHD-1050	MHD-1050	MHD-1050	MHD-1050				

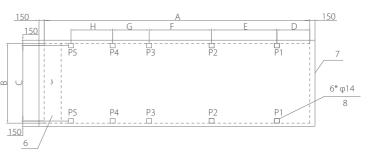
Note:

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

(6) Electric control box 1 Installation foundation



6 Electric control box 1 Installation foundation (8) Spring isolator installation hole



Dimensions (Unit: mm)									
Model	A	В	С	D	E	F	G	Н	
SCAF195HV(FCD)	7650	2300	2180	948	1880	1800	1050	1200	

Spring isolator at all points									
Model	P1	P2	P3	P4	P5				
SCAF195HV(FCD)	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050				
Note ·					·				

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

(\$) Spring isolator installation hole

	Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G				
SCAF130HV(FCD)	5540	2300	2180	380	2000	1200	1200				

			Spring isolator at all points		
Mod	el	P1	P2	Р3	P4
SCAF130H	V(FCD)	MHD-1050	MHD-1050	MHD-1050	MHD-1050

Note : 1. The spring isolator is optional. 2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

it:	mm)	

t	all	points





Model

SCAF225HV(FCD)

Model

SCAF225HV(FCD)

Note : 1. The spring isolator is optional.

Α

8655

P1

MHD-850

В

2300

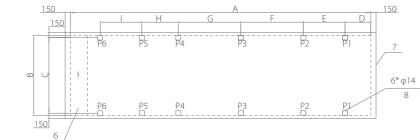
С

2180

P2

MHD-850

2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.



Dimensions (Unit: mm)

1200

F

1800

P4

MHD-850

G

1800

P5

MHD-850

Н

1050

1

1200

Pб

MHD-850

D

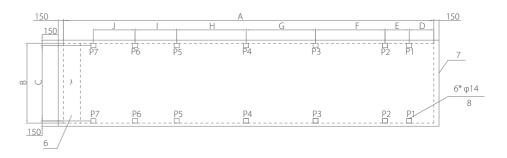
745

Spring isolator at all points

Р3

MHD-850

6 Electric control box 1 Installation foundation (8) Spring isolator installation hole



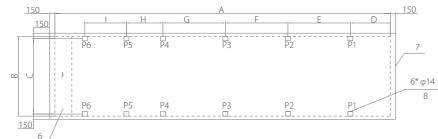
Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G	Н	I	J
SCAF310HV(FCD)	10665	2300	2180	710	695	2000	2000	2000	1200	1200

Spring isolator at all points							
Model	P1	P2	P3	P4	P5	P6	P7
SCAF165HV(FCD)	MHD-1050						

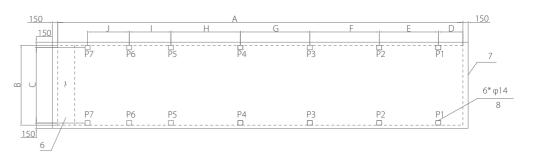
Note:

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

(6) Electric control box 1 Installation foundation (8) Spring isolator installation hole



(6) Electric control box 1 Installation foundation (8) Spring isolator installation hole



					Dimensions	(Unit: mm)					
	Model	А	В	С	D	E	F	G	Н	I	J
SC	CAF370HV(FCD)	11670	2300	2180	710	1700	2000	2000	2000	1200	1200

Model	P1	P2	P3	P4	P5	P6	P7
SCAF370HV(FCD)	MHD-1050						
Note:							

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

_6_/	

Dimensions (Unit: mm)									
Model	A	В	С	D	E	F	G	Н	
SCAF260HV(FCD)	9660	2300	2180	1150	1800	1800	1800	1050	1200

	Spring isolator at all points								
	Model	P1	P2	P3	P4	P5	P6		
	SCAF260HV(FCD)	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050		
Í	Note:								

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

#### Base diagrams (FCI)

6 Electric control box O Installation foundation  $\circledast$  Spring isolator installation hole

Model

SCAF110HV(FCI)

Model

SCAF110HV(FCI)

Note:

Δ

6745

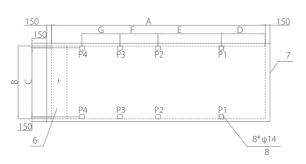
P1

MHD-1050

R

2300

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.



Dimensions (Unit: mm)

Spring isolator at all points

P2

MHD-1050

C

2180

D

1385

F

2000

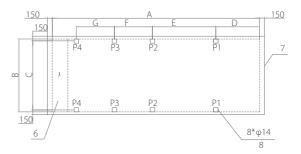
Р3

MHD-1050

F

1200

(6) Electric control box
1 Installation foundation
$^{(\!8\!)}$ Spring isolator installation hole



Dimensions (Unit: mm)										
A	В	C	D	E	F	G				
6545	2300	2180	1385	2000	1200	1200				
	A 6545	A B 6545 2300		A         B         C         D           6545         2300         2180         1385						

Spring isolator at all points								
Model	P1	P2	P3	P4				
SCAF165HV(FCI)	MHD-1350	MHD-1350	MHD-1350	MHD-1350				

Note:

G

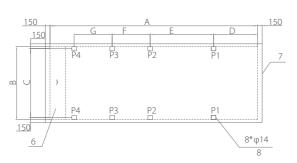
1200

P4

MHD-1050

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

6 Electric control box 1 Installation foundation (8) Spring isolator installation hole



	Dimensions (Unit: mm)											
Model	A	В	С	D	E	F	G					
SCAF130HV(FCI)	6545	2300	2180	1385	2000	1200	1200					

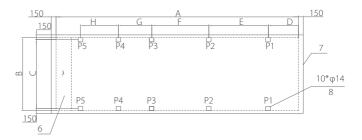
Spring isolator at all points										
Model	P1	P2	Р3	P4						
SCAF130HV(FCI)	MHD-1050	MHD-1050	MHD-1050	MHD-1050						

Note:

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

6 Electric control box 1 Installation foundation

(8) Spring isolator installation hole

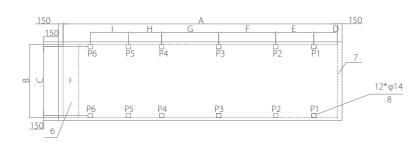


Dimensions (Unit: mm)										
Model	Model A B C D E F G H									
SCAF195HV(FCI)	7650	2300	2180	948	1880	1800	1050	1200		
			1	1	1	1	1			

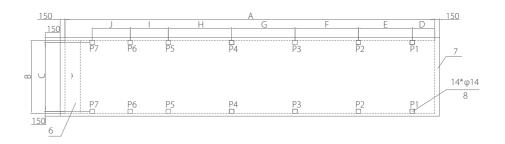
Spring isolator at all points										
Model         P1         P2         P3         P4         P5										
SCAF195HV(FCI)	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050					
lata										

Note : 1. The spring isolator is optional. 2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

⑥ Electric control box 1 Installation foundation (8) Spring isolator installation hole



6 Electric control box 1 Installation foundation (8) Spring isolator installation hole



Dimensions (Unit: mm)											
Model	A	В	C	D	E	F	G	Н	I		
SCAF225HV(FCI)	8655	2300	2180	745	1200	1800	1800	1050	1200		

	Spring isolator at all points											
Model         P1         P2         P3         P4         P5         P6												
SCAF225HV(FCI)	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050						

Note:

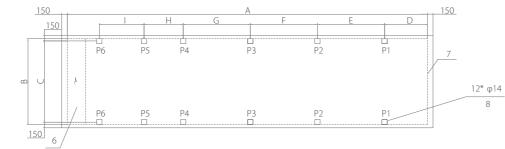
The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G	Н		J
SCAF310HV(FCI)	11670	2300	2180	710	1700	2000	2000	2000	1200	1200

Spring isolator at all points										
Model	P1	P2	P3	P4	P5	P6	P7			
SCAF310HV(FCI)	MHD-1350									
lata :										

Note : 1. The spring isolator is optional. 2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.



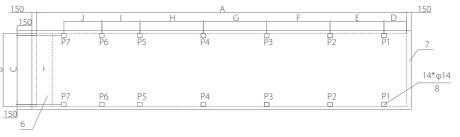


Dimensions (Unit: mm)											
Model	A	В	C	D	E	F	G	Н	1		
SCAF260HV(FCI)	9660	2300	2180	1150	1800	1800	1800	1050	1200		

Spring isolator at all points											
Model         P1         P2         P3         P4         P5         P6											
SCAF260HV(FCI)	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050	MHD-1050					

Note: 1. The spring isolator is optional. 2. The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

#### 6 Electric control box 1 Installation foundation (8) Spring isolator installation hole

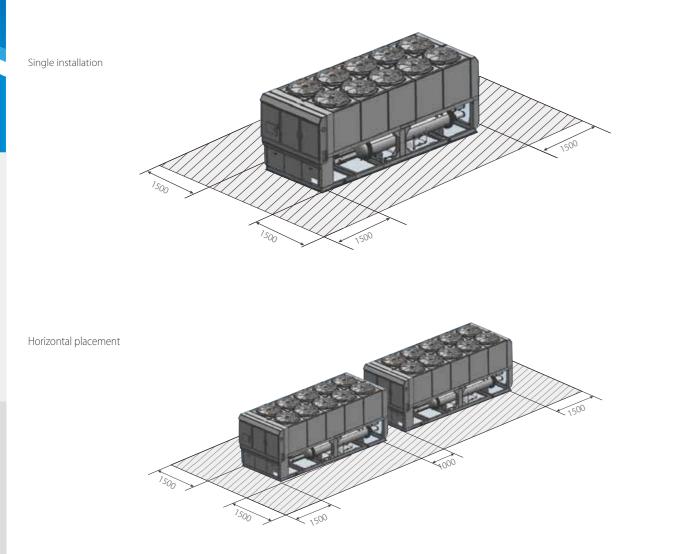


Dimensions (Unit: mm)										
Model	A	В	С	D	E	F	G	Н		J
SCAF370HV(FCI)	11670	2300	2180	710	1700	2000	2000	2000	1200	1200

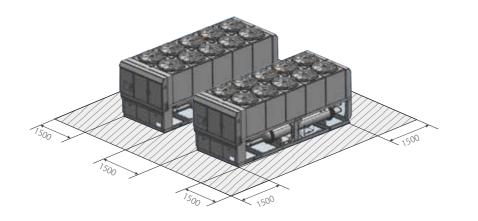
			Spri	ing isolator at all point	ts		
Model	P1	P2	P3	P4	P5	P6	P7
SCAF370HV(FCI)	MHD-1350	MHD-1350	MHD-1350	MHD-1350	MHD-1350	MHD-1350	MHD-1350
SCAF370HV(FCI)	MHD-1350	MHD-1350	MHD-1350	MHD-1350	MHD-1350	MHD-1350	N

The spring isolator is optional.
 The value in the spring isolator model indicates the bearable weight (unit: kg). For example, "1050" in "MHD-1050" indicates 1050kg.

## Installation and maintenance



Vertical placement



## Options

ltems	Standard	Optional	
Power supply	380V-3Ph-50Hz	50Hz: 400V, 415V; 60Hz: 380V, 400V, 440V, 460V	
Water side pressure	1.0MPa	1.6MPa, 2.0MPa	
Heavy anti-corrosion treatment	×	$\checkmark$	
Communication	Modbus-RTU (RS485 port)	BACnet IP, BACnet MS/TP(RJ-45 port)	
Water pipe connection	Victaulic	Flange	
Spring isolator	×	√	
Water flow switch	×	√	
Insulation	20mm	40mm	
Hydraulic module	×	√ (external)	
High water outlet temperature (cooling)	5~15℃	15~20°C	
Large temperature difference	×	8~10°C	
Inverter fan	×	√	
Free cooling	×	√	
T3 series	×	$\checkmark$	
All year round cooling	×	√(-20°C)	
Vessel code	GB	ASME	
Remote control panel	×	√	
Midea Chiller Plant Control	×	1	
Midea smart cloud platform	×	1	
QuickView	×		

Note: for other options, please contact with our engineers.

#### Midea Chiller Plant Control

Midea Chiller Plant Control is a group control system for commercial air conditioning that includes air conditioners, water pumps, cooling towers, terminals and related ancillary equipment (including valves, sensors etc.) as the underlying control objects. Based on a powerful control logic program and communication network, it establishes a 3-layer control framework that integrates the equipment, control and management layers. Midea Chiller Plant Control contains a unique operation module from Midea that is designed to save energy, so in addition to automated stable operations for the various devices, this product also improves and optimizes user management capabilities, reduces labour costs, boosts operational efficiency and lowers the overall energy consumption for commercial air conditioning.

#### Web client M-BMS Server LAN/WAN BACnet IP Chiller aroup Terminal group control panel control panel Midea or 3rd-party chille Network fan coil thermostat 3rd-party equipme DDC controller for modular AHU 3rd-party instru 3rd-party instrument Control segment of the equipment room Terminal control segment

#### Midea Smart Cloud platform



Midea has built a flawless internet-based remote monitoring system, which MIDEA SmartCloud provides customers with outstanding cloud service via advanced cloud service technologies and the internet. Customers can connect Midea air conditioner to the global remote monitoring system through Midea's IMU smart data acquisition terminal, so that professionals can help the customer to implement remote fault diagnosis, analysis and receive early warning alarms for failures, ensuring the equipment's optimal operation. Customers authorized by Midea can use a Web browser to view the real-time monitoring data of the air conditioning system.



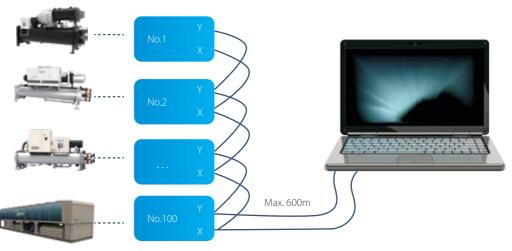
#### **OuickView**

Management lave

Control laver

Equipment laver

Midea's QuickView smart software control system is a type of smart software specially developed by Midea. It features high real-time efficiency, stability, reliability, a high degree of visualization and strong scalability. It can implement a wide variety of scenarios such as real-time data monitoring of units, unit equipment management, remote control, curve display, data storage, alarm query, fault diagnosis, uploading data to the cloud and external data analysis, greatly improving the unit's operation management efficiency and reducing the human input and operation and maintenance costs.



Chillers

## **Reference projects**

45







#### Mozambique Capital Airport

Country:	Mozambique	
City:	Maputo	
Total Capacity:	4,000 RT	
Outdoor Unit:	Air cooled screw chiller & DC Inverter VRF	
Indoor Unit:	FCU & AHU	
Completion Year:	2012	

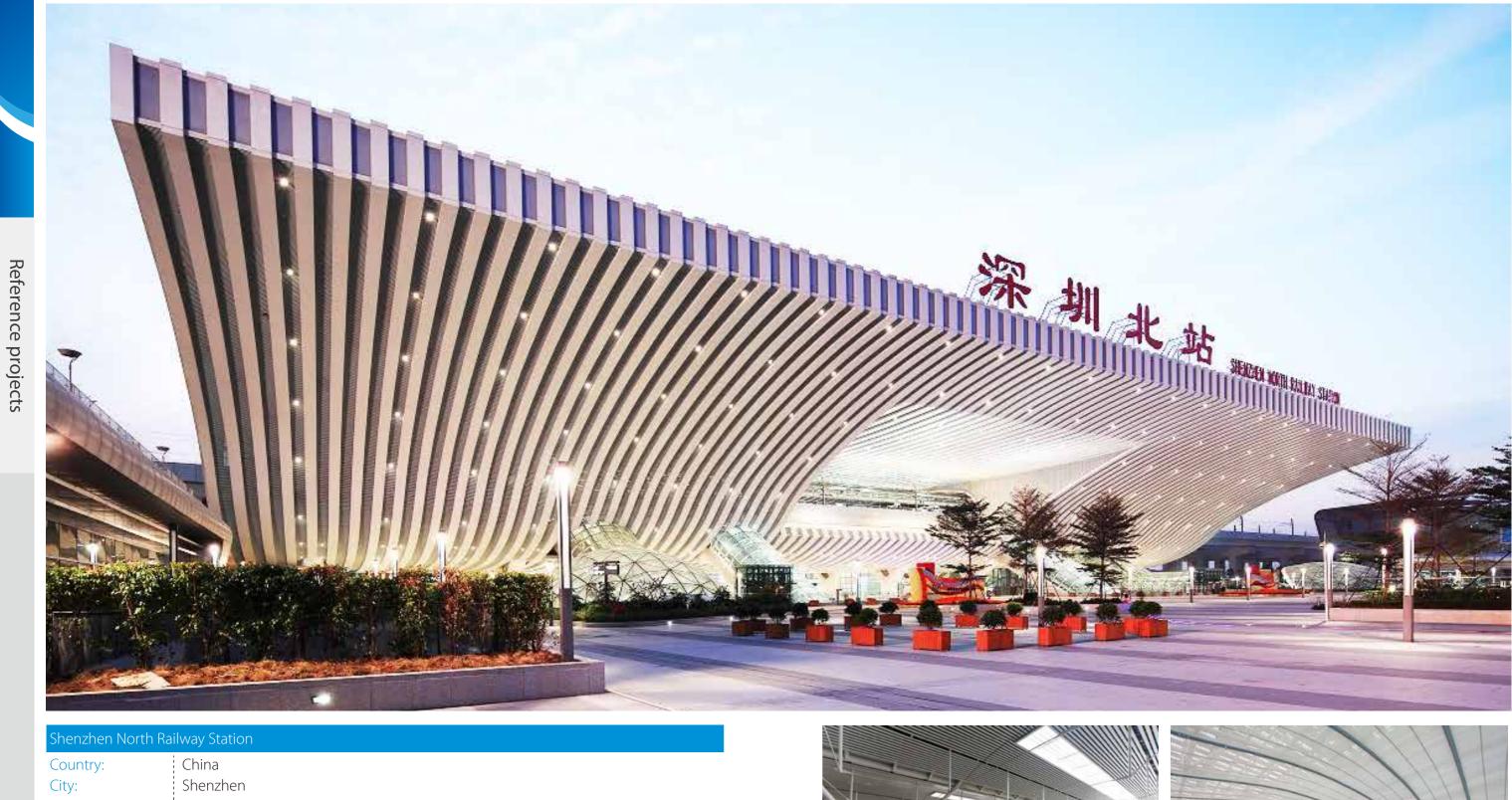












Country:	China
City:	Shenzhen
Total Capacity:	2,842 RT
Outdoor Unit:	Air cooled screw chiller & DC Inverter VRF
Indoor Unit:	MAHU & AHU & FCU
Completion Year:	2012



Reference projects









#### Sheraton Bandara Resort Hotel (Five Star)

Country:	Indonesia
City:	Jakarta
Total Capacity:	1,050 RT
Outdoor Unit:	Air cooled screw chiller
Indoor Unit:	FCU
Completion Year:	2011



#### Hub Power Station

Country: City: Outdoor Units: Total Capacity: Pakistan

- Balochistan
- Tropical air cooled screw chiller
- 1,024 RT



#### Renaissance Hotel (Five Star)

Country:ThailaCity:PattayTotal Capacity:512 ROutdoor Units:Air coIndoor Units:AHUCompletion Year:2017

Thailand Pattaya 512 RT Air cooled screw chiller AHU 2017





#### Sarab Community Market

Country: City: Outdoor Units: Indoor Units: Total Capacity: UAE Abu Dhabi Air cooled screw chiller AHU 1,137 RT



## Indoor Stadium HumarkCountry:ThailandCity:BangkokOutdoor Units:Air cooled screw chillerIndoor Units:AHUTotal Capacity:8,800 kW



#### AL WAQF SHOPPING DISTRICT

UAE

Country: Outdoor Units: Total Capacity:

AirBoost air cooled screw chiller 1,240 RT Reference projects