



Commercial Air Conditioners

## Air Cooled Chillers

COOLING & HEATING SOLUTIONS



>> [www.sendoac.com](http://www.sendoac.com)

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Please specifications, designs and information in this brochure are subject to change without notice.

## Mini Type Air Cooled Chiller

Colors can be ordered in either white or dark grey.  
Capacity range is from 8kW to 50kW. Refrigerant R410a.  
Hydronic module is built in the unit (8-40kW).



## Features

### High reliability

- Panels and frame are made from galvanized steel protected with polyester powder painting to ensure durability and protect against corrosive agents.
- Hermetic scroll type compressor, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration isolators.
- External rotor type axial fans, equipped with direct drive motors, low noise, protection level IP54, provided with a protective outlet grille.
- Blue hydrophilic fins and inner-threaded copper pipes optimize heat exchange efficiency.
- Plate heat exchanger uses metal plates to transfer heat between refrigerant and water. The fluids are exposed to a much larger surface area because the fluids spread out over the plates, so both heat transfer efficiency and heat exchanger speed are greatly improved.
- Multi protections including voltage protection, current protection, anti-freezing protection and water flow protection ensure system safety running.

### Easy control

- Standard wiring controller.
- User-friendly electronic controller is built in the unit as optional solution.
- Emergency switch and pressure gauge are equipped with to ensure safety.



### Easy installation

Compact structure design saves installation space.  
Hydronic module is built-in the unit (8-40kW), which is including water pump, expansion tank and water flow switch etc.  
The water pump used is compliance with Erp directive, which is A degrade efficiency standard.



## Specifications



Model		SMCK-ST1H08A	SMCK-ST1H10A	SMCK-ST1H12A	SMCK-ST1H14A	SMCK-ST1H16A	
Cooling	Capacity	kW	8	10	12	14	16
	Power Input	kW	3.05	3.61	4.28	5.13	5.74
	Running Current	A	14.22	17.03	8.35	9.52	11.23
Heating	Capacity	kW	8.6	10.8	12.8	15.1	17.1
	Power Input	kW	2.90	3.50	4.19	5.03	5.63
	Running Current	A	13.90	16.69	8.20	9.33	11.00
Power Supply		220-240V/1Ph/50Hz			380-415V/3Ph/50Hz		
Refrigerant	Type	R410a					
Compressor	Type	/					
	Quantity	Nos.	1	1	1	1	1
Air Side Heat Exchanger	Type	/					
	Fan	Type	Copper Pipe + Anticorrosion Aluminium Fin				
	Airflow	m <sup>3</sup> /h	4500	4500	2x4500	2x4500	2x4500
Water Side Heat Exchanger	Type	/					
	Water Flow	m <sup>3</sup> /h	1.4	1.7	2.1	2.4	2.8
	Pressure Drop	kPa	33	33	33	36	36
Water Pump	Connect Pipe	mm	DN25	DN25	DN25	DN25	DN25
	Pump Head	m	10	10	12	12	12
Sound Pressure Level	Power Input	kW	0.35	0.35	0.45	0.45	0.45
		dB(A)	58	58	60	64	64
Dimension	Length	mm	1200	1200	1000	1000	1100
	Width	mm	560	560	560	560	620
	Height	mm	858	858	1316	1316	1316
Net Weight		Kg	145	150	170	180	190

1. Cooling: Chilled water inlet/outlet temperature: 12/7°C, outdoor ambient temperature 35°C DB.
2. Heating: Warm water inlet/outlet temperature: 40/45°C, outdoor ambient temperature 7°C DB/6°C WB.
3. Sound pressure measured at a distance of 1m and a height of 1.5m above the ground in a clear field.



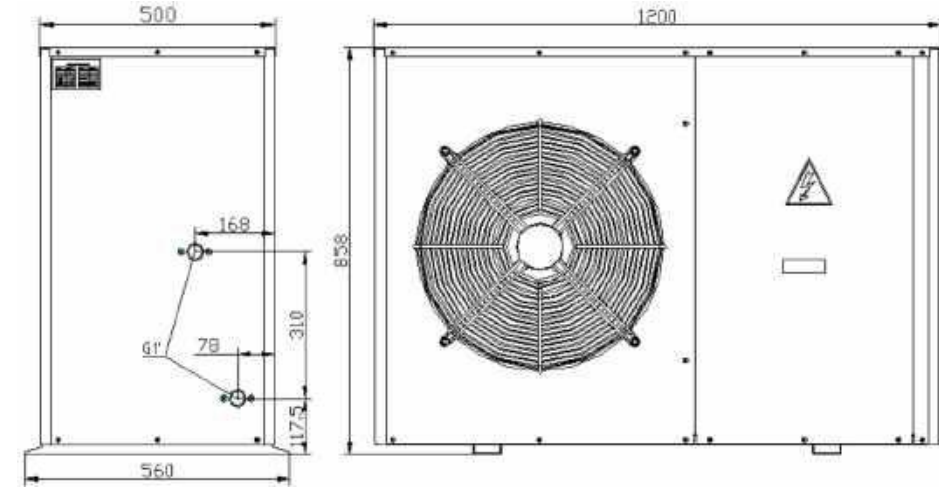
Model			SMCK-ST1H20A	SMCK-ST1H25A	SMCK-ST1H30A	SMCK-ST1H35A	SMCK-ST1H40A	SMCK-ST1H50A
Cooling	Capacity	kW	20	25	30	35	40	50
	Power Input	kW	7.09	8.57	10.05	13.08	13.66	17.58
	Current	A	14.47	17.45	18.89	27.46	27.12	33.74
Heating	Capacity	kW	21.6	27	29.4	42.5	47.5	58.0
	Power Input	kW	6.95	8.4	9.85	12.80	13.70	17.30
	Current	A	14.20	17.10	18.50	26.90	26.60	33.00
Power Supply			380-415V/3Ph/50Hz					
Refrigerant	Type		R410a					
Compressor	Type	/	Scroll					
	Quantity	Nos.	2	2	2	2	2	2
Air Side	Type	/	Copper Pipe + Anticorrosion Aluminium Fin					
Heat Exchanger	Fan	Type	Axial / Direct					
	Airflow	m <sup>3</sup> /h	2x4600	2x5700	2x7800	2x7800	2x7800	2x10000
Water Side Heat Exchanger	Type	/	Plate Heat Exchanger					
	Water Flow	m <sup>3</sup> /h	3.4	4.3	5.2	6.0	6.9	8.6
Water Pump	Pressure Drop	kPa	36	38	42	50	52	52
	Connect Pipe	mm	DN40	DN40	DN40	DN40	DN40	DN40
Sound Pressure Level	Pump Head	m	16	16	16	18	20	Optional
	Power Input	kW	0.75	0.75	0.75	0.92	1.2	Optional
Dimension	Length	mm	1401	1401	1756	1756	1756	1756
	Width	mm	810	810	960	960	960	960
	Height	mm	1027	1027	1115	1115	1115	1115
Net Weight	Kg	270	290	310	360	380	400	

1. Cooling: Chilled water inlet/outlet temperature: 12/7°C, outdoor ambient temperature 35°C DB.
2. Heating: Warm water inlet/outlet temperature: 40/45°C, outdoor ambient temperature 7°C DB/6°C WB.
3. Sound pressure measured at a distance of 1m and a height of 1.5m above the ground in a clear field.

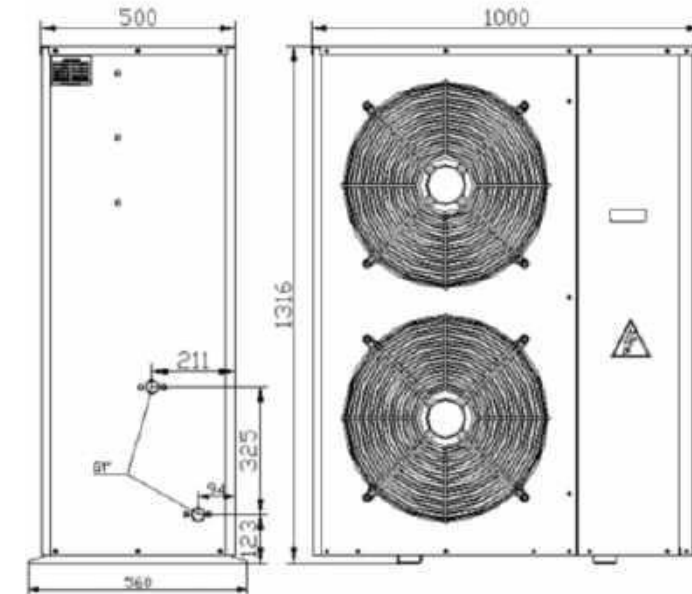


## Dimension

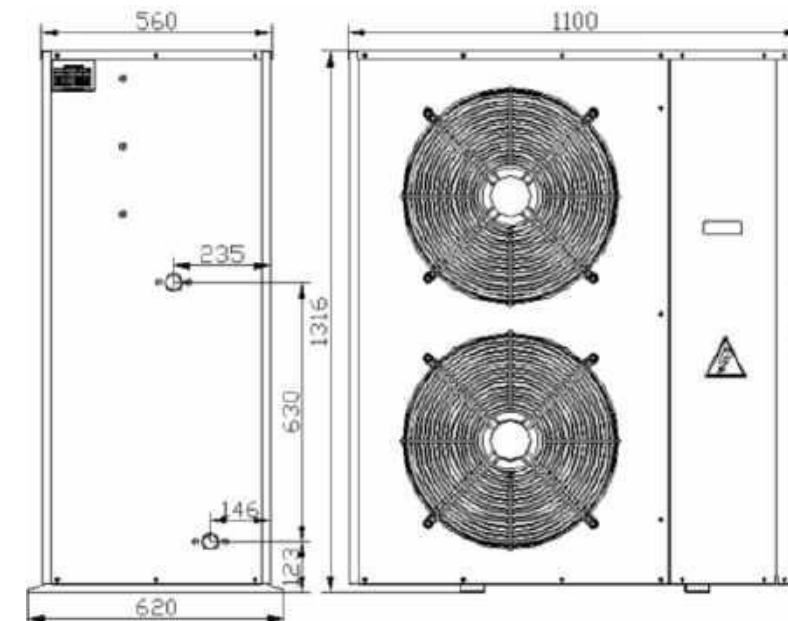
SMCK-ST1H08A, SMCK-ST1H10A



SMCK-ST1H12A, SMCK-ST1H14A



SMCK-ST1H16A





## Conventional Modular Type Air Cooled Chiller

Modular type chillers adopt V shape air side heat exchanger and single unit's capacity from 66kW to 135kW. Colors can be ordered in either white or dark grey.

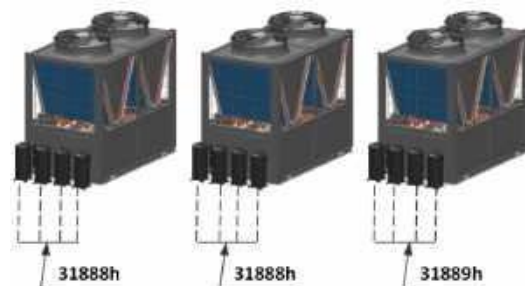


SMCT-ST1H65A

SMCT-ST1H90A, SMCT-ST1H100A, SMCT-ST1H130A

## Features

- Intelligent Air Volume Regulation
- Intelligent Energy Regulation Technology
- Intelligent Defrosting Technology
- The master module can work independently or together with up to 16 slave modules, capacity from 66 to 2160kW.
- Back-up functions, In a combination system, if one module failed, other modules can be back-up instead of the failed one for continuing operation.
- In one combination module, all slave units operate as alternative in cycle duty to keep equal running time, realize higher stability, better reliability and longer lifespan.



- Panels and frame are made from galvanized steel protected with polyester powder painting to ensure durability and protect against corrosive agents.
- Hermetic scroll type compressor, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration isolators.
- External rotor type axial fans, equipped with direct drive motors, low noise, protection level IP54, provided with a protective outlet grille. Saw-shaped impellers provide large air volume, high durability and high air supply efficiency with low noise.
- The condenser built with seamless copper tubes mechanically expanded into blue hydrophilic aluminum fins.
- Evaporator built with high efficiency shell & tube type heat exchanger, factory insulated with flexible close cell material.
- Electric panel consists of breakers and contactors for compressors & condenser fan motors, phase sequence protector and other necessary protection devices for the main components. All electric parts are Schneider Electric brand.

## Specifications

Model		SMCT-ST1H65A	SMCT-ST1H90A	SMCT-ST1H100A	SMCT-ST1H130A	
Cooling	Capacity	kW	66	88	105	135
	Power Input	kW	21.70	26.62	38.85	43.4
	Running Current	A	42.52	53.70	76.20	84.04
Heating	Capacity	kW	70	95	110	140
	Power Input	kW	21.85	26.10	38.10	42.60
	Running Current	A	41.90	52.60	74.50	82.40
Power Supply	380-415V/3Ph/50Hz					
Refrigerant	Type	R410a				
Compressor	Type	/ Scroll				
	Quantity	Nos.	2	4	4	4
Air Side Heat Exchanger	Type	/ Copper Pipe + Anticorrosion Aluminium Fin				
	Fan	Type	Axial / Direct			
		Qty	2	2	2	2
Air Side Heat Exchanger	Airflow	m <sup>3</sup> /h	28000	30400	34000	44000
	Type	/ High Efficient Shell & Tube Heat Exchanger				
Water Side Heat Exchanger	Water Flow	m <sup>3</sup> /h	11.4	15.1	18.1	23.2
	Pressure Drop	kPa	43	42	41	48
	Connect Pipe	mm	DN50	DN65	DN65	DN65
Sound Level		dB(A)	70	72	72	75
Dimension	Length	mm	2000	2240	2240	2240
	Width	mm	1060	1360	1360	1360
	Height	mm	1915	1985	1985	1985
Net Weight		Kg	650	850	900	1180

1. Cooling: Chilled water inlet/outlet temperature: 12/7°C, outdoor ambient temperature 35°C DB.
2. Heating: Warm water inlet/outlet temperature: 40/45°C, outdoor ambient temperature 7°C DB/6°C WB.
3. 1m away in open field.





## Large Size Air Cooled Scroll Chiller

Single unit's capacity from 165kW to 502kW.

Colors can be ordered in either white or dark grey.



### Features

- Panels and frame are made from galvanized steel protected with polyester powder painting to ensure durability and protect against corrosive agents.
- Hermetic scroll type compressor, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration isolators.
- External rotor type axial fans, equipped with direct drive motors, low noise, protection level IP54, provided with a protective outlet grille. Saw-shaped impellers provide large air volume, high durability and high air supply efficiency with low noise.
- The condenser built with seamless copper tubes mechanically expanded into blue hydrophilic aluminum fins.
- Evaporator built with high efficiency shell & tube type heat exchanger, factory insulated with flexible close cell material.
- Electric panel consists of breakers and contactors for compressors & condenser fan motors, phase sequence protector and other necessary protection devices for the main components. All electric parts are Schneider Electric brand.



No need cooling tower

- Convenient installation and Lowest total cost of ownership  
No need equipment rooms and cooling tower, low initial investment.  
The chiller has been equipped with the water flow switch, and has been filled with refrigerant before delivery. Each unit was extensively tested to verify its operational reliability, the unit can be placed in service after being connected with power supply and water supply during field installation.

### Specifications

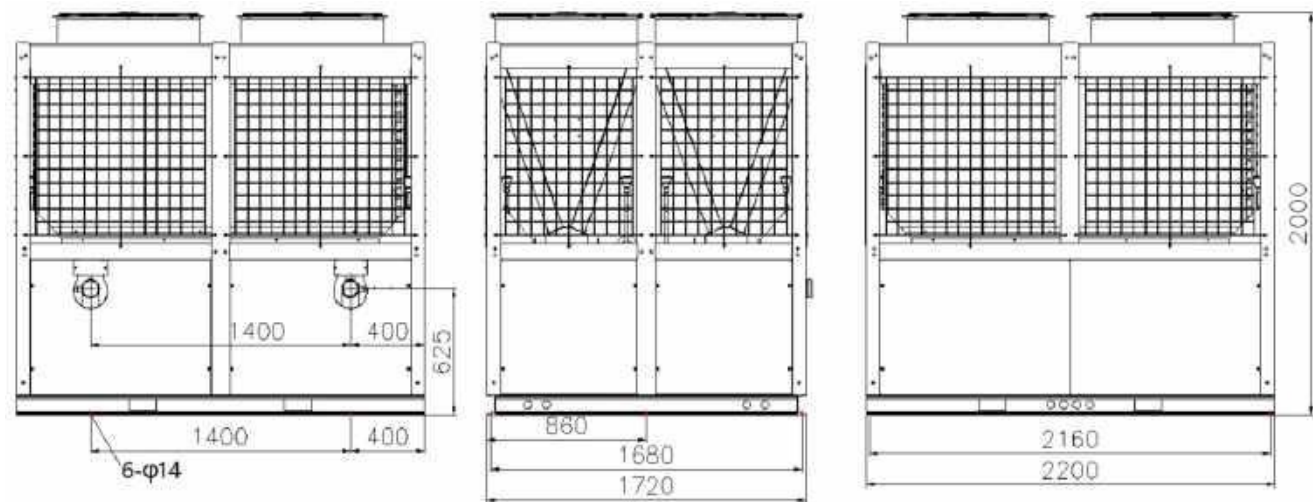
Model		SMCT-ST1H165A	SMCT-ST1H260A	SMCT-ST1H330A	SMCT-ST1H440A	SMCT-ST1H500A	
Cooling	Capacity	kW	165	260	301	440	502
	Power Input	kW	53.2	83.8	105.3	141.9	175.5
Heating	Capacity	kW	180	280	345	475	575
	Power Input	kW	56.20	87.40	104.1	148.4	173.5
Power Supply		380-415V/3Ph/50Hz					
Refrigerant		Type	R410a				
Compressor	Type	/	Scroll				
	Quantity	Nos.	4	4	3	4	5
Air Side Heat Exchanger	Type	/	Copper Pipe + Anticorrosion Aluminium Fin				
	Fan	Type	Axial / Direct				
		Qty	4	4	6	8	10
	Airflow	m <sup>3</sup> /h	60000	112000	126000	172000	210000
Water Side Heat Exchanger	Type	/	High Efficient Shell & Tube Heat Exchanger				
	Water Flow	m <sup>3</sup> /h	28.4	44.7	51.8	75.7	86.3
	Pressure Drop	kPa	45	45	47	52	50
	Connect Pipe	mm	DN80	DN100	DN125		
Dimension	Length	mm	2200	2400	3610	4440	5970
	Width	mm	1720	2200	2260	2260	2260
	Height	mm	2000	2235	2515	2460	2515
Net Weight		Kg	1420	2025	2900	3700	4500

1. Cooling: Chilled water inlet/outlet temperature: 12/7°C, outdoor ambient temperature 35°C DB.
2. Heating: Warm water inlet/outlet temperature: 40/45°C, outdoor ambient temperature 7°C DB/6°C WB.
3. 1m away in open field.

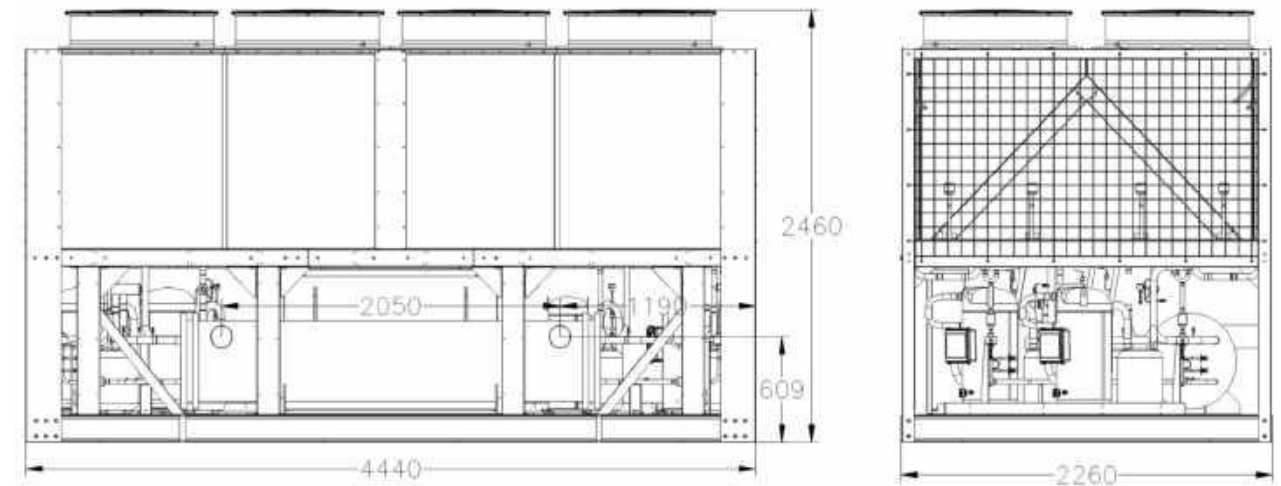


# Dimension

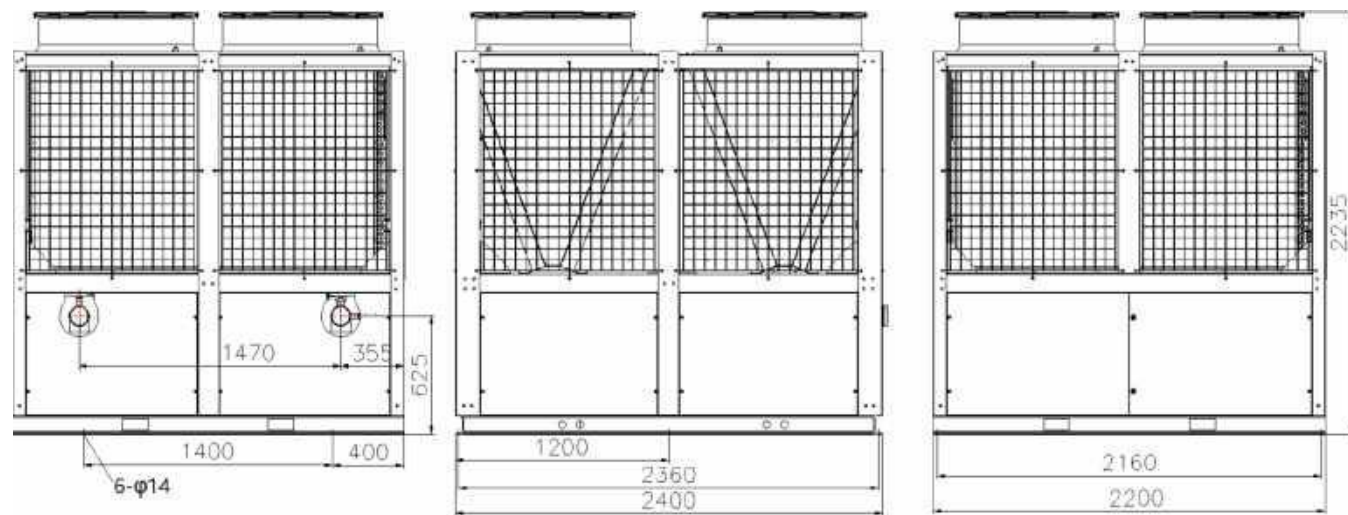
SMCT-ST1H165A



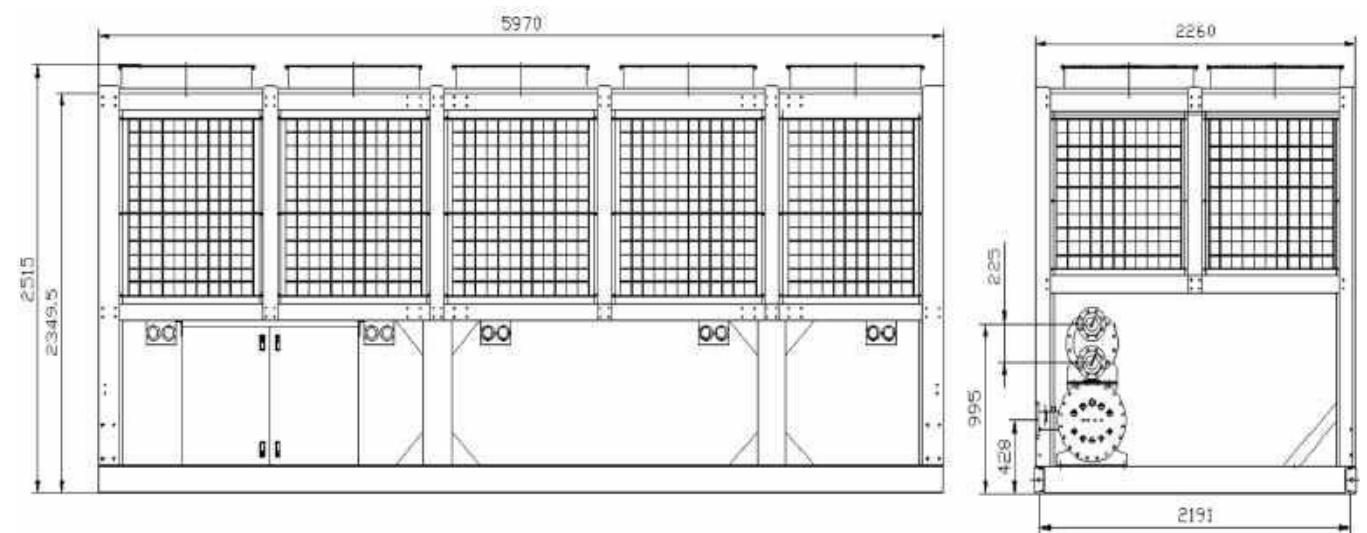
SMCT-ST1H440A



SMCT-ST1H260A



SMCT-ST1H500A



SMCT-ST1H330A

