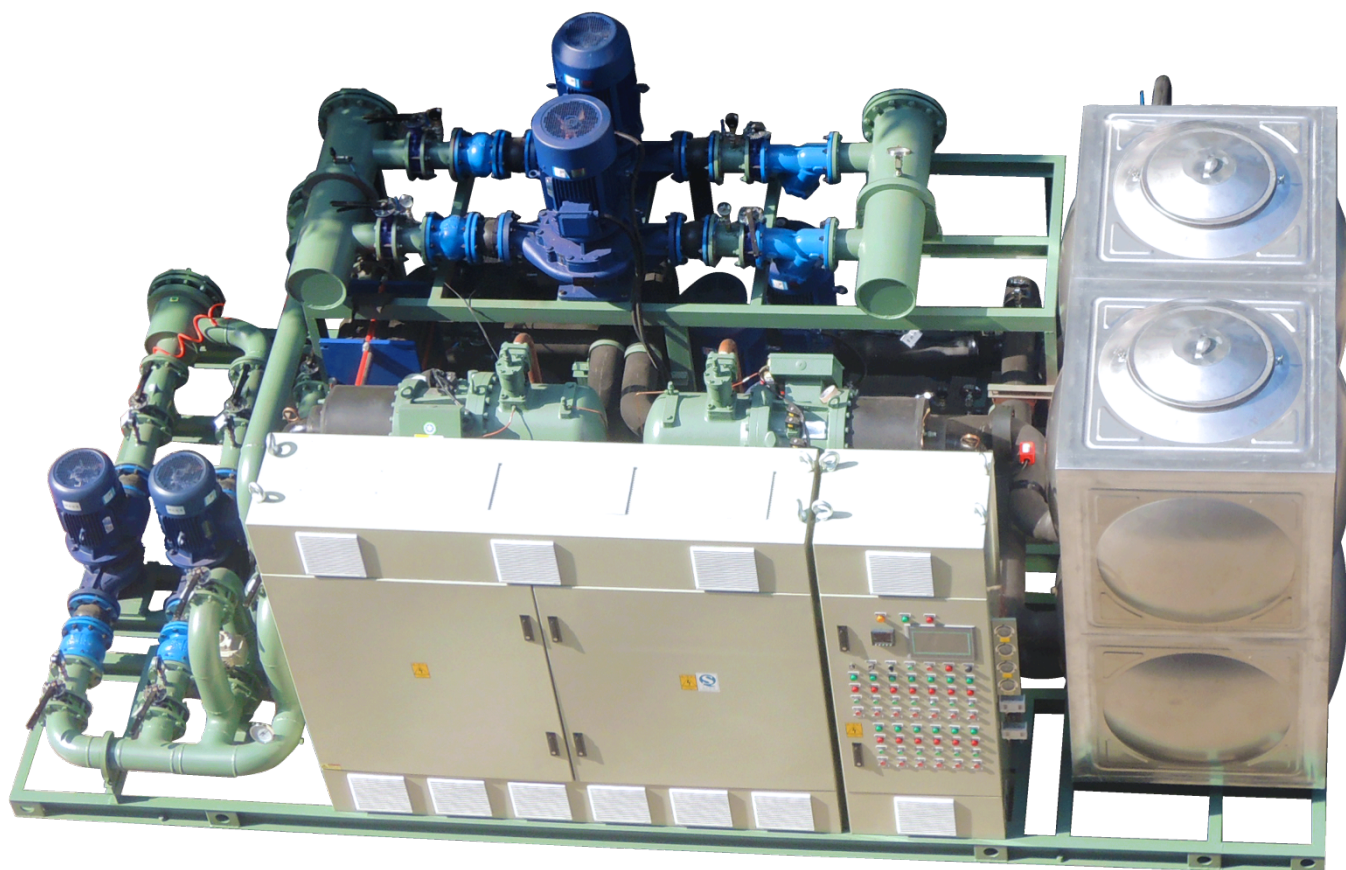


H.Stars Industrial Integrated All In One Chiller



H.Stars (Guangzhou) Refrigerating Equipment Group Ltd.

The industrial all in one chiller unit is an integrated equipment designed for the industrial application. Integrated with the main components of chiller, chilled water tank, chilled water circulating water pump,

process water pump, water piping system , all kinds of valves, and engineering control cabinets. Combine the project parts during the production line to save engineering labor cost.

Customization

H.Stars customizes the chiller unit based on various industries and projects and tailor-make integrated all in one industrial chiller to different clients.

Heat Recovery Unit (optional)

The chiller can be equipped with our own patented heat recovery unit and the heating recovery capacity is above 30% of the cooling capacity, full heat recovery also available . The hot water temperature can be up to 70°C.

No energy consumes during heat recovery, and the chiller efficiency increases by 5%.

Intelligent Control

Adopts microcomputer to control integrated unit through a centralized management system. Optional install with a remote management program to monitor feedback of system operation information to achieve remote control service.

Safe and Reliable

The chiller has been designed with 7 safety protection to ensure the unit operation. Available in single and double circuit designs to meet different customer requests. In case one of the compressors fails, the other compressor can still be running, minimize the risk of whole system shutdown from losses.Each equipment will be 100% tested by national testing laboratory before shipping to ensure the chiller performance in accordance with national standards.

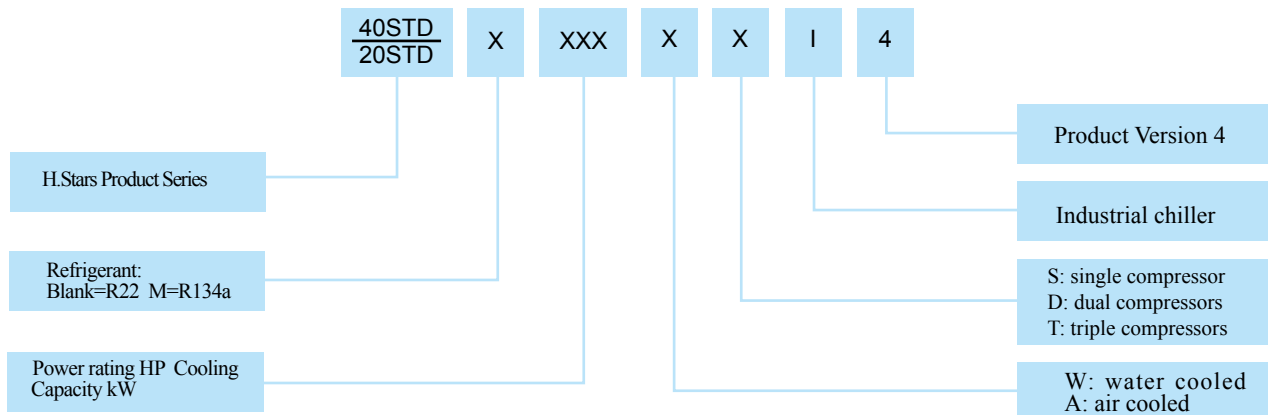
Easy to Install and Maintain

The chiller is already filled with refrigerant and compressor oil during production, then the customer only needs to connect the inlet & outlet pipes and the power supply to operate the unit.

The control interface directly show the fault content, convenient to identify the fault and fix timely.



Model Nomenclature



Water-cooled Screw Type Integrated Chiller

Standard Configuration

Compressor	Semi-hermetic dual screw compressor
Evaporator	Self-made high efficiency evaporator
Condenser	Self-made high efficiency condenser
Water pump	Well-known brand water pump
Water tank	Insulated water tank
Controller	Microcomputer
Throttle device	Thermal / electronic expansion valve
Startup mode	Star delta starting
Power Supply	380V-3N-50Hz/460V-3N-60Hz
Insulation Material	Anti-corrosion, waterproof, mesh insulation
Packaging	Reinforced Shrink-wrap Covering ,industrial-grade
Oil Paint	High-strength matt paint
Water pipe Connection	Flange



Adopts shell and tube condenser and evaporator , applicable for chemical, pharmaceutical, industrial processing equipment, food processing and other industries.

Cooling capacity range from 75KW to 580KW with chilled water outlet temperature range from 5°C to 20 °C.

Air Cooled Screw Type Integrated Chiller

Standard Configuration

Compressor	Semi-hermetic dual screw compressor
Evaporator	Self-made high efficiency evaporator
Condenser	Self-made high efficiency condenser
Water pump	Well-known brand water pump
Water tank	Insulated water tank
Controller	Microcomputer
Throttle device	Thermal / electronic expansion valve
Startup mode	Star delta starting
Power Supply	380V-3N-50Hz/460V-3N-60Hz
Insulation Material	Anti-corrosion, waterproof, mesh insulation
Packaging	Reinforced Shrink-wrap Covering ,industrial-grade
Oil Paint	High-strength matt paint
Water pipe Connection	Flange



Adopts fin type condenser and shell and tube evaporator, application for industrial use in chemical, pharmaceutical, industrial processing equipment and food processing etc. The cooling capacity range from 92KW to 417KW with chilled water outlet temperature from 5°C to 20 °C.

Water-cooled Scroll Type Integrated Chiller

Standard Configuration

Compressor	Industrial scroll compressor
Evaporator	Self-produced high efficiency evaporator
Condenser	Self-produced high efficiency condenser
Water pump	Well-known brand water pump
Water tank	Insulated water tank
Controller	Microcomputer
Throttle device	Thermostatic expansion valve
Startup mode	Star delta starting
Power Supply	380V-3N-50Hz/460V-3N-60Hz
Insulation Material	Anti-corrosion, waterproof, mesh insulation
Packaging	Industrial-grade, reinforced Shrink-wrap Covering
Oil Paint	High-strength matt paint
Water pipe Connection	Flange



Adopts water-cooled shell and tube condenser and evaporator, applicable for chemical, pharmaceutical, industrial processing equipment, food processing and other industries. The cooling capacity range from 30kW to 160kW with chilled water outlet temperature from 5 °C to 20 °C.

Air-cooled Scroll Type Integrated Chiller

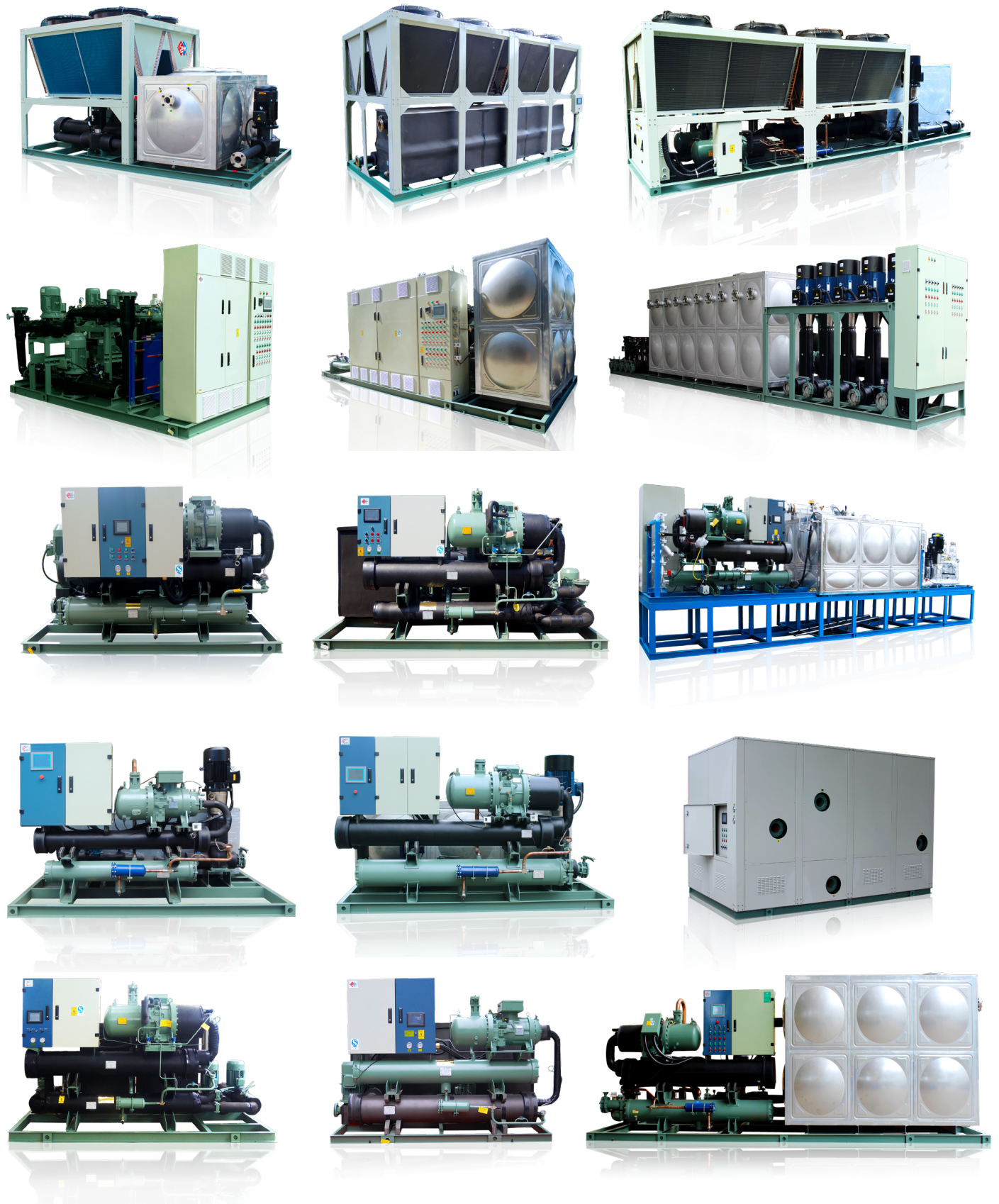
Standard Configuration

Compressor	Industrial scroll compressor
Evaporator	Self-produced high efficiency evaporator
Condenser	Self-produced high efficiency condenser
Water pump	Well-known brand water pump
Water tank	Insulated water tank
Controller	Microcomputer
Throttle device	Thermostatic expansion valve
Startup mode	Star delta starting
Power Supply	380V-3N-50Hz/460V-3N-60Hz
Insulation Material	Anti-corrosion, waterproof, mesh insulation
Packaging	Industrial-grade, reinforced Shrink-wrap Covering
Oil Paint	High-strength matt paint
Water pipe Connection	Flange



Adopts water-cooled shell and tube condenser and evaporator, applicable for chemical, pharmaceutical, industrial processing equipment, food processing and other industries. The cooling capacity range from 30kW to 150kW with chilled water outlet temperature from 5°C to 20°C.

Chiller Images



Compressor

Cast iron shell and steel rotor to ensure a space between two rotors are close but without contact the support guarantee accurate positioning of the rotor at various pressure ratios, reduce wear, prevent leakage, and extend life time.



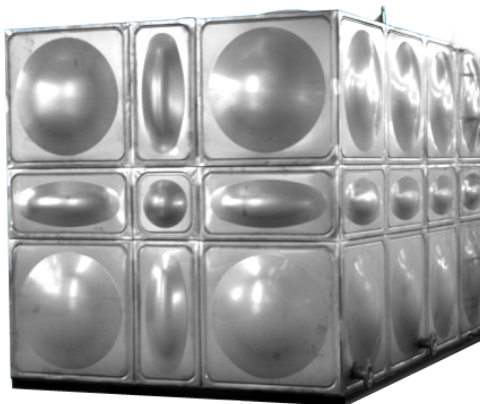
Electrical control cabinet

Integrated control of chiller, water pump, valve and other components into all in one unit to achieve fully automatic engineering control.



Insulated water tank

Stainless steel insulated water tank, anti-corrosion, heat preservation, durable and neat.



Water pump

Adopts famous brand water pump, stable and efficient.



Characteristics and functions

Adopts advanced and highly integrated controller system to greatly improve the anti-interference ability of the system.

Optional 8 inches/ 10 inches full color HMI display.

The HMI shows the fault content, and cooperates with the simple operation interface to feedback various maintenance information to users.

Real-time display of three-phase voltage and current.

Integrated control system with protection, real-time monitor and alarm combined together to fully protect the operation safety of the chiller.

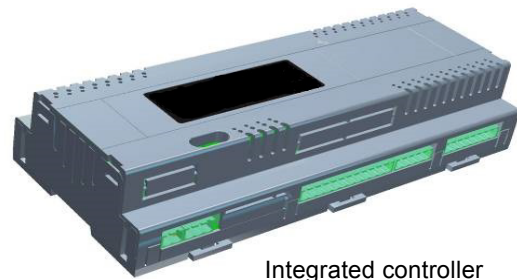
Module control is available, module controlled and single controlled can switch freely.

Connect with Modbus to enable users monitor live operation status of the unit.

Access to cloud service system.



Full color display screen



Integrated controller

Function display

Parameters	Default	Setting range	Remarks
Setting mode	Cooling	Cooling, heating, water source cooling, automatic	With "*" for uncommon used parameters. Parameters with default value of "/" need to be set to display the corresponding function. Please refer to the actual situation of the device
Cooling setting temp	12.0°C	lowest limit of cooling ~ 30.0	
Heating setting temp	40.0°C	10.0 ~ upper limit of heating	
Hot water setting temp	/	10.0 ~ 60.0	
* Loading deviation of cooling temperature	2.0°C	0.5 ~ 10.0	
* Cooling temperature unloading deviation	2.0°C	0.5 ~ 10.0	
* Loading deviation of heating temperature	2.0°C	0.5 ~ 10.0	
* Heating temperature unloading deviation	2.0°C	0.5 ~ 10.0	
* Hot water temperature deviation	/	0.5 ~ 10.0	
* Power-on self-start Settings	Disable	Disable, Power on automatically, Power on holding	
* 1#Compressor operate setting	Enable	Disable, enable	
* 2#Compressor operate setting	Enable	Disable, enable	
* 3#Compressor operate setting	Enable	Disable, enable	
* 4#Compressor operate setting	Enable	Disable, enable	
Timer setting	Disable	Disable, enable	
External circulation temperature of cooling	/	-30 ~ 100	
External circulation temperature of heating	/	-30 ~ 100	
* External circulation temperature difference control	/	0.5 ~ 10.0	
Remote control of cooling and heating setting	/	Disable, enable	
Priority selection	/	Heating priority, Cooling priority	
Cold water setting temperature	/	0.0 ~ 40.0	
* Cold water temperature deviation	/	0.5 ~ 10.0	

Technical Parameters for Water-cooled Industrial all-in-one Chiller(R22)

Refrigerant: R22 Power supply: 380V-3N-50Hz

Model	Rated Heating Capacity KW	Compressor Input Power KW	Capacity control% 0 66 100	Charge of refrigerant kg	Condenser				Evaporator				Water pump									Water tank size m ³	Operating sound dB(A)	Net weight kg	Running weight kg
					Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Circulation pump			Process pump			Cooling pump						
													Flow m ³ /h	Head m	Power kW	Flow m ³ /h	Head m	Power kW	Water flow m ³ /h	Head m	Power kW				
40STD-120WY14	112	23	0 66 100	17	2.5"	23	1	41	2"	19	1	22	20	20	2.2	16	54	5.5	25	30	4	2	73	880	970
40STD-160WY14	155	31		24	2.5"	32	1	47	2.5"	27	1	28	30	20	3	20	51	5.5	35	30	5.5		74	910	1010
40STD-220WY14	204	39		30	3"	42	1	45	3"	35	1	32	40	22	4	28	53	7.5	50	34	7.5		75	1080	1220
40STD-290WY14	272	51	0 50 75 100	40	3"	55	1	53	3"	47	1	35	50	23	5.5	36	52	11	60	34	11	3	75	1220	1380
40STD-310WY14	293	56		44	3"	60	1	52	3"	50	1	45	55	22	5.5	40	51	11	65	32	11		75	1390	1530
40STD-370WY14	345	63		52	4"	70	1	52	3"	59	1	55	65	20	5.5	50	53	11	75	30	11		75	1510	1670
40STD-430WY14	406	73		59	4"	82	1	50	4"	70	1	61	80	22	7.5	55	54	15	90	35	15	4	75	1620	1780
40STD-460WY14	437	79		65	4"	89	1	50	4"	75	1	66	85	21	7.5	60	50	15	95	34	15		75	1730	1870
40STD-510WY14	475	87		71	5"	97	1	50	4"	82	1	63	90	20	7.5	65	53	15	105	32	15		75	1830	2020
40STD-610WY14	580	105		86	5"	118	1	51	4"	100	1	43	110	25	11	80	55	18.5	130	32	18.5		75	2140	2400

Note:

1. Rated cooling capacity standard: evaporator water inlet/outlet temperature 17°C/12°C, condenser water inlet/outlet temperature 30/35°C, flouing factor 0.088m²·°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Cooling water temperature range: 15°C ~ 40°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed .

Technical Parameters for Water-cooled Industrial all-in-one Chiller(R134a)

Refrigerant: R134a Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity KM	Compressor Input Power KW	Capacity control% 0 66 100	Charge of refrigerant kg	Condenser				Evaporator				Water pump									Water tank size m ³	Operating sound dB(A)	Net weight kg	Running weight kg
					Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Circulation pump			Process pump			Cooling pump						
													Flow m ³ /h	Head m	Power kW	Flow m ³ /h	Head m	Power kW	Water flow m ³ /h	Head m	Power kW				
40STD-M120WY14	75	15	0 66 100	17	2.5"	15	1	41	2"	13	1	22	13	20	1.5	10	50	4	15	30	3	2	73	880	970
40STD-M160WY14	105	19		24	2.5"	21	1	47	2.5"	18	1	28	20	20	2.2	16	54	5.5	25	30	4		74	910	1010
40STD-M220WY14	138	24		30	3"	28	1	45	3"	24	1	32	25	18	2.2	20	51	5.5	30	35	5.5		75	1080	1220
40STD-M290WY14	192	34	0 50 75 100	40	3"	39	1	53	3"	33	1	35	30	20	3	20	51	5.5	40	30	5.5	3	75	1220	1380
40STD-M310WY14	198	35		44	3"	40	1	52	3"	34	1	45	30	20	3	28	53	7.5	40	30	5.5		75	1390	1530
40STD-M370WY14	234	40		52	4"	47	1	52	3"	40	1	55	40	22	4	28	53	7.5	50	29	7.5		75	1510	1670
40STD-M430WY14	270	46		59	4"	54	1	50	4"	46	1	61	50	23	5.5	36	52	11	50	29	7.5	4	75	1620	1780
40STD-M460WY14	300	50		65	4"	60	1	50	4"	52	1	66	50	23	5.5	40	51	11	70	32	11		75	1730	1870
40STD-M510WY14	327	56		71	5"	66	1	50	4"	56	1	63	55	22	5.5	40	51	11	70	32	11		75	1830	2020
40STD-M610WY14	373	63		86	5"	75	1	51	4"	64	1	43	65	20	5.5	50	53	11	75	30	11		75	2140	2400

Note:

1. Rated cooling capacity standard: evaporator water inlet/outlet temperature 17°C/12°C, condenser water inlet/outlet temperature 30/35°C, flouing factor 0.088m²·°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Cooling water temperature range: 15°C ~ 40°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed .

Technical Parameters for Air-cooled Industrial all-in-one Chiller(R22)

Refrigerant: R22 Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity kW	Compressor Input Power kW	Capacity control %	Charge of refrigerant kg	Axial fan		Evaporator				Water pump						Water tank size m ³	Operating sound dB(A)	Net weight kg	Running weight kg
					Airflow ×1000 m ³ /h	Power kW×Set	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop kPa	Circulation pump			Process pump						
											Flow m ³ /h	Head m	Power kW	Flow m ³ /h	Head m	Power kW				
40STE-140AY14	136	37	0 66 100	30	40	2.0×2	2.5"	23	1	28	25	18	2.2	16	54	5.5	2	68	1740	1905
40STE-200AY14	192	51	0 50 75 100	42	58	1.2×4	3"	33	1	33	30	20	3	20	51	5.5		68	2595	2880
40STE-270AY14	257	67		56	80	2.0×4	3"	44	1	48	40	22	4	28	53	7.5		68	3885	4215
40STE-320AY14	303	76		68	86	1.2×6	3"	52	1	55	50	23	5.5	36	52	11	3	68	4005	4350
40STE-370AY14	356	88		78	121	2.0×6	4"	61	1	61	65	20	5.5	50	53	11		72	4125	4530
40STE-400AY14	384	96		84	121	2.0×6	4"	66	1	64	65	20	5.5	50	53	11		72	4395	4860
40STE-450AY14	417	106		93	161	2.0×8	4"	72	1	66	80	22	7.5	55	54	15		72	4740	5175

Note:

1. Rated cooling capacity standard: Air Dry / Wet Bulb Temperature 35°C/24°C, chilled water inlet/outlet temperature 17°C/12°C, flooring factor 0.088m².°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Ambient temperature range: 5°C ~ 43°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed.

Technical Parameters for Air-cooled Industrial all-in-one Chiller(R134a)

Refrigerant: R134a Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity kW	Compressor Input Power kW	Capacity control %	Charge of refrigerant kg	Axial fan		Evaporator				Water pump						Water tank size m ³	Operating sound dB(A)	Net weight kg	Running weight kg
					Airflow ×1000 m ³ /h	Power kW×Set	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop kPa	Circulation pump			Process pump						
											Flow m ³ /h	Head m	Power kW	Flow m ³ /h	Head m	Power kW				
40STE-M140AY14	92	23	0 66 100	30	29	1.2×2	2.5"	16	1	28	20	20	2.2	16	54	5.5	2	68	1740	1905
40STE-M200AY14	131	33	0 50 75 100	42	40	2.0×2	3"	22	1	33	25	18	2.2	16	54	5.5		68	2595	2880
40STE-M270AY14	174	43		56	58	1.2×4	3"	30	1	48	30	20	3	28	53	7.5		68	3885	4215
40STE-M320AY14	206	50		68	80	2.0×4	3"	35	1	55	40	22	4	28	53	7.5	3	68	4005	4350
40STE-M370AY14	238	57		78	86	1.2×6	4"	41	1	61	40	22	4	36	52	11		72	4125	4530
40STE-M400AY14	265	61		84	121	2.0×6	4"	46	1	64	50	23	5.5	36	52	11		72	4395	4860
40STE-M450AY14	288	69		93	121	2.0×6	4"	50	1	66	50	23	5.5	40	51	11		72	4740	5175

Note:

1. Rated cooling capacity standard: Air Dry / Wet Bulb Temperature 35°C/24°C, chilled water inlet/outlet temperature 17°C/12°C, flooring factor 0.088m².°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Ambient temperature range: -5°C ~ 43°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed.

Parameters for Water-cooled Scroll Industrial all-in-one Chiller(R22)

Refrigerant: R22 Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity KW	Compressor Input Power KW	Capacity control %	Charge of refrigerant kg	Condenser				Evaporator				Chilled water pump				Water tank size L	Operating sound dB(A)	Net weight kg	Running weight kg
					Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Model	Flow m ³ /h	Head m	Power kW				
20STB-10WC14	36	7	0	4	1-1/2"	7	1	29	1-1/2"	6	1	23	HD40-15	8	22	1.1	180	63	440	450
20STB-12.5WC14	42	8		4.5	2"	9	1	33	2"	7	1	25	HD50-17	10	18	1.5	180	65	480	495
20STB-15WC14	54	10		5	2"	11	1	40	2"	9	1	28	HD50-17	10	18	1.5	180	67	520	540
20STB-20WC14	72	14	0	8	2"	15	1	46	2"	12	1	30	HD50-17	15	16	1.5	270	68	680	705
20STB-25WC14	84	16		9	2"	17	1	49	2"	14	1	31	HD50-17	15	16	1.5	270	69	740	770
20STB-30WC14	108	20		10	2-1/2"	22	1	52	2-1/2"	19	1	34	HD65-19	20	17	2.2	270	69	840	875
20STB-40WC14	126	24	0	14	2-1/2"	26	1	55	2-1/2"	22	1	35	HD65-19	20	17	2.2	270	71	980	1020
20STB-45WC14	162	30	33	15	2-1/2"	33	1	58	2-1/2"	28	1	36	HD65-19	20	17	2.2	270	71	1120	1170

Note:

1. Rated cooling capacity standard: evaporator water inlet/outlet temperature 17°C/12°C, condenser water inlet/outlet temperature 30/35°C, flouing factor 0.088m².°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Cooling water temperature range: 15°C ~ 40°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed .

Parameters for Water-cooled Scroll Industrial all-in-one Chiller(R407c)

Refrigerant: R407c Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity KW	Compressor Input Power KW	Capacity control %	Charge of refrigerant kg	Condenser				Evaporator				Chilled water pump				Water tank size L	Operating sound dB(A)	Net weight kg	Running weight kg
					Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Model	Flow m ³ /h	Head m	Power kW				
20STB-N10WC14	35	8	0	4	1-1/2"	7	1	29	1-1/2"	6	1	23	HD40-15	8	22	1.1	180	63	440	450
20STB-N12.5WC14	42	9		4.5	2"	9	1	33	2"	7	1	25	HD50-17	10	18	1.5	180	65	480	495
20STB-N15WC14	53	11		5	2"	11	1	40	2"	9	1	28	HD50-17	10	18	1.5	180	67	520	540
20STB-N20WC14	70	16	0	8	2"	15	1	46	2"	12	1	30	HD50-17	15	16	1.5	270	68	680	705
20STB-N25WC14	84	18		9	2"	18	1	49	2"	14	1	31	HD50-17	15	16	1.5	270	69	740	770
20STB-N30WC14	106	22		10	2-1/2"	22	1	52	2-1/2"	18	1	34	HD65-19	20	17	2.2	270	69	840	875
20STB-N40WC14	126	27	0	14	2-1/2"	26	1	55	2-1/2"	22	1	35	HD65-19	20	17	2.2	270	71	980	1020
20STB-N45WC14	159	33	33	15	2-1/2"	33	1	58	2-1/2"	27	1	36	HD65-19	20	17	2.2	270	71	1120	1170

Note:

1. Rated cooling capacity standard: evaporator water inlet/outlet temperature 17°C/12°C, condenser water inlet/outlet temperature 30/35°C, flouing factor 0.088m².°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Cooling water temperature range: 15°C ~ 40°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed .

Parameters for Air-cooled Scroll Industrial all-in-one Chiller(R22)

Refrigerant: R22 Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity KW	Compressor Input Power KW	Capacity control %	Charge of refrigerant kg	Motor power kW	Evaporator				Chilled water pump			Water tank size L	Operating sound dB(A)	Net weight kg	Running weight kg	
						Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Model	Flow m ³ /h	Head m					Power kW
20STB-10A14	33	8	0 100	6	1.2	2.5"	6	1	23	HD40-15	8	22	1.1	180	65	480	500
20STB-12.5A14	39	9		7	1.2	3"	7	1	25	HD50-17	10	18	1.5	180	67	510	535
20STB-15A14	49	13		8	2	3"	8	1	28	HD50-17	10	18	1.5	180	69	560	590
20STB-20A14	66	16	0 50 100	12	2.4	3"	11	1	30	HD50-17	15	16	1.5	270	70	840	875
20STB-25A14	78	18		13	2.4	4"	13	1	31	HD50-17	15	16	1.5	270	71	880	920
20STB-30A14	98	26		16	4	4"	17	1	34	HD65-19	20	17	2.2	270	71	980	1025
20STB-40A14	117	27	0 33 66 100	20	3.6	4"	20	1	35	HD65-19	20	17	2.2	270	73	1130	1180
20STB-45A14	147	39		23	6	4"	25	1	36	HD65-19	20	17	2.2	270	75	1280	1335

Note:

- 1.Rated cooling capacity standard: Air Dry / Wet Bulb Temperature 35°C/24°C, chilled water inlet/outlet temperature 17°C/12°C, flouing factor 0.088m².°C/ KW;
- 2.Chiller water temperature range:5°C ~ 20°C;
- 3.Ambient temperature range:-5°C ~ 43°C;
- 4.Piping configuration will be adjusted according to different project. Please confirm before order;
- 5.Specification and dimension improvement change may not be noticed .

Parameters for Water-cooled Scroll Industrial all-in-one Chiller(R407c)

Refrigerant: R407c Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity KW	Compressor Input Power KW	Capacity control %	Charge of refrigerant kg	Motor power kW	Evaporator				Chilled water pump			Water tank size L	Operating sound dB(A)	Net weight kg	Running weight kg	
						Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Model	Flow m ³ /h	Head m					Power kW
20STB-N10A14	31	8	0 100	6	1.2	2.5"	5	1	23	HD40-15	8	22	1.1	180	65	480	500
20STB-N12.5A14	38	10		7	1.2	3"	7	1	25	HD50-17	10	18	1.5	180	67	510	535
20STB-N15A14	47	13		8	2	3"	8	1	28	HD50-17	10	18	1.5	180	69	560	590
20STB-N20A14	62	16	0 50 100	12	2.4	3"	11	1	30	HD50-17	15	16	1.5	270	70	840	875
20STB-N25A14	76	20		13	2.4	4"	13	1	31	HD50-17	15	16	1.5	270	71	880	920
20STB-N30A14	94	26		16	4	4"	16	1	34	HD65-19	20	17	2.2	270	71	980	1025
20STB-N40A14	114	30	0 33 66 100	20	3.6	4"	20	1	35	HD65-19	20	17	2.2	270	73	1130	1180
20STB-N45A14	141	39		23	6	4"	24	1	36	HD65-19	20	17	2.2	270	75	1280	1335

Note:

- 1.Rated cooling capacity standard: Air Dry / Wet Bulb Temperature 35°C/24°C, chilled water inlet/outlet temperature 17°C/12°C, flouing factor 0.088m².°C/ KW;
- 2.Chiller water temperature range:5°C ~ 20°C;
- 3.Ambient temperature range:-5°C ~ 43°C;
- 4.Piping configuration will be adjusted according to different project. Please confirm before order;
- 5.Specification and dimension improvement change may not be noticed .

Technical Parameters for Water-cooled Industrial all-in-one Chiller(R22)

Refrigerant: R22 Power supply: 460V-3N-60Hz

Model	Rated Heating Capacity KW	Compressor Input Power KW	Capacity control%	Condenser				Evaporator				Water pump						Water tank size m ³	Operating sound dB(A)	Net weight kg	Running weight kg				
				Charge of refrigerant kg	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Circulation pump			Process pump						Cooling pump			
													Flow m ³ /h	Head m	Power kW	Flow m ³ /h	Head m					Power kW	Water flow m ³ /h	Head m	Power kW
40STD-120WY14	135	28	0	17	2.5"	28	1	41	2"	23	1	22	24	20	3	19	54	7	30	30	5	2	73	968	1067
40STD-160WY14	186	37		24	2.5"	38	1	47	2.5"	32	1	28	36	20	4	24	51	7	42	30	7		74	1001	1111
40STD-220WY14	244	46		30	3"	50	1	45	3"	42	1	32	48	22	5	34	53	9	60	34	9		75	1188	1342
40STD-290WY14	326	61	0	40	3"	67	1	53	3"	56	1	35	60	23	7	43	52	13	72	34	13	3	75	1342	1518
40STD-310WY14	351	67		44	3"	72	1	52	3"	60	1	45	66	22	7	48	51	13	78	32	13		75	1529	1683
40STD-370WY14	414	76		52	4"	84	1	52	3"	71	1	55	78	20	7	60	53	13	90	30	13		75	1661	1837
40STD-430WY14	487	88		59	4"	99	1	50	4"	84	1	61	96	22	9	66	54	18	108	35	18		75	1782	1958
40STD-460WY14	524	95		65	4"	106	1	50	4"	90	1	66	102	21	9	72	50	18	114	34	18		75	1903	2057
40STD-510WY14	570	104		71	5"	116	1	50	4"	98	1	63	108	20	9	78	53	18	126	32	18		75	2013	2222
40STD-610WY14	696	126	86	5"	141	1	51	4"	120	1	43	132	25	13	96	55	22	156	32	22	75	2354	2640		

Note:

- Rated cooling capacity standard: evaporator water inlet/outlet temperature 17°C/12°C, condenser water inlet/outlet temperature 30/35°C, flouing factor 0.088m².°C/ KW;
- Chiller water temperature range:5°C ~ 20°C;
- Cooling water temperature range:15°C ~ 40°C;
- Piping configuration will be adjusted according to different project. Please confirm before order;
- Specification and dimension improvement change may not be noticed .

Technical Parameters for Water-cooled Industrial all-in-one Chiller(R134a)

Refrigerant: R134a Power supply: 460V-3N-60Hz

Model	Nominal cooling capacity KM	Compressor Input Power KW	Capacity control%	Condenser				Evaporator				Water pump						Water tank size m ³	Operating sound dB(A)	Net weight kg	Running weight kg				
				Charge of refrigerant kg	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Circulation pump			Process pump						Cooling pump			
													Flow m ³ /h	Head m	Power kW	Flow m ³ /h	Head m					Power kW	Water flow m ³ /h	Head m	Power kW
40STD-M120WY14	90	17	0	17	2.5"	18	1	41	2"	15	1	22	16	20	2	12	50	5	18	30	4	2	73	968	1067
40STD-M160WY14	125	23		24	2.5"	25	1	47	2.5"	22	1	28	24	20	3	19	54	7	30	30	5		74	1001	1111
40STD-M220WY14	166	28		30	3"	33	1	45	3"	28	1	32	30	18	3	24	51	7	36	35	7		75	1188	1342
40STD-M290WY14	231	41	0	40	3"	47	1	53	3"	40	1	35	36	20	4	24	51	7	48	30	7	3	75	1342	1518
40STD-M310WY14	237	42		44	3"	48	1	52	3"	41	1	45	36	20	4	34	53	9	48	30	7		75	1529	1683
40STD-M370WY14	281	48		52	4"	57	1	52	3"	48	1	55	48	22	5	34	53	9	60	29	9		75	1661	1837
40STD-M430WY14	324	55		59	4"	65	1	50	4"	56	1	61	60	23	7	43	52	13	60	29	9		75	1782	1958
40STD-M460WY14	360	60		65	4"	72	1	50	4"	62	1	66	60	23	7	48	51	13	84	32	13		75	1903	2057
40STD-M510WY14	392	67		71	5"	79	1	50	4"	67	1	63	66	22	7	48	51	13	84	32	13		75	2013	2222
40STD-M610WY14	448	76	86	5"	90	1	51	4"	77	1	43	78	20	7	60	53	13	90	30	13	75	2354	2640		

Note:

- Rated cooling capacity standard: evaporator water inlet/outlet temperature 17°C/12°C, condenser water inlet/outlet temperature 30/35°C, flouing factor 0.088m².°C/ KW;
- Chiller water temperature range:5°C ~ 20°C;
- Cooling water temperature range:15°C ~ 40°C;
- Piping configuration will be adjusted according to different project. Please confirm before order;
- Specification and dimension improvement change may not be noticed .

Technical Parameters for Air-cooled Industrial all-in-one Chiller(R22)

Refrigerant: R22 Power supply: 460V-3N-60Hz

Model	Nominal cooling capacity kW	Compressor Input Power kW	Capacity control %	Charge of refrigerant kg	Axial fan		Evaporator				Water pump						Water tank size m ³	Operating sound dB(A)	Net weight kg	Running weight kg
					Airflow ×1000 m ³ /h	Power kW×Set	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop kPa	Circulation pump			Process pump						
											Flow m ³ /h	Head m	Power kW	Flow m ³ /h	Head m	Power kW				
40STE-140AY14	163	45	0.66/100	30	48	2.5×2	2.5"	28	1	28	30	18	3	19	54	7	2	68	1914	2096
40STE-200AY14	230	62	0.50/75/100	42	69	1.5×4	3"	40	1	33	36	20	4	24	51	7		68	2855	3168
40STE-270AY14	308	81		56	96	2.5×4	3"	53	1	48	48	22	5	34	53	9		68	4274	4637
40STE-320AY14	363	91		68	104	1.5×6	3"	62	1	55	60	23	7	43	52	13	3	68	4406	4785
40STE-370AY14	428	106		78	145	2.5×6	4"	74	1	61	78	20	7	60	53	13		72	4538	4983
40STE-400AY14	460	115		84	145	2.5×6	4"	79	1	64	78	20	7	60	53	13		72	4835	5346
40STE-450AY14	501	127		93	193	2.5×8	4"	86	1	66	96	22	9	66	54	18		72	5214	5693

Note:

1. Rated cooling capacity standard: Air Dry / Wet Bulb Temperature 35°C/24°C, chilled water inlet/outlet temperature 17°C/12°C, flouing factor 0.088m².°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Ambient temperature range: 5°C ~ 43°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed .

Technical Parameters for Air-cooled Industrial all-in-one Chiller(R134a)

Refrigerant: R134a Power supply: 460V-3N-60Hz

Model	Nominal cooling capacity kW	Compressor Input Power kW	Capacity control %	Charge of refrigerant kg	Axial fan		Evaporator				Water pump						Water tank size m ³	Operating sound dB(A)	Net weight kg	Running weight kg
					Airflow ×1000 m ³ /h	Power kW×Set	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop kPa	Circulation pump			Process pump						
											Flow m ³ /h	Head m	Power kW	Flow m ³ /h	Head m	Power kW				
40STE-M140AY14	111	28	0.66/100	30	35	1.5×2	2.5"	19	1	28	24	20	3	19	54	7	2	68	1914	2096
40STE-M200AY14	157	39	0.50/75/100	42	48	2.5×2	3"	27	1	33	30	18	3	19	54	7		68	2855	3168
40STE-M270AY14	209	52		56	69	1.5×4	3"	36	1	48	36	20	4	34	53	9		68	4274	4637
40STE-M320AY14	247	59		68	96	2.5×4	3"	43	1	55	48	22	5	34	53	9	3	68	4406	4785
40STE-M370AY14	286	68		78	104	1.5×6	4"	49	1	61	48	22	5	43	52	13		72	4538	4983
40STE-M400AY14	318	74		84	145	2.5×6	4"	55	1	64	60	23	7	43	52	13		72	4835	5346
40STE-M450AY14	346	82		93	145	2.5×6	4"	60	1	66	60	23	7	48	51	13		72	5214	5693

Note:

1. Rated cooling capacity standard: Air Dry / Wet Bulb Temperature 35°C/24°C, chilled water inlet/outlet temperature 17°C/12°C, flouing factor 0.088m².°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Ambient temperature range: -5°C ~ 43°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed .

Parameters for Water-cooled Scroll Industrial all-in-one Chiller(R22)

Refrigerant: R22 Power supply: 460V-3N-60Hz

Model	Nominal cooling capacity KW	Compressor Input Power KW	Capacity control %	Charge of refrigerant kg	Condenser				Evaporator				Chilled water pump				Water tank size L	Operating sound dB(A)	Net weight kg	Running weight kg
					Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Model	Flow m ³ /h	Head m	Power kW				
20STB-10WC14	43	8	0 100	4	1-1/2"	9	1	29	1-1/2"	7	1	23	HD40-15	10	22	1.3	180	63	484	495
20STB-12.5WC14	50	10		4.5	2"	10	1	33	2"	9	1	25	HD50-17	12	18	1.8	180	65	528	545
20STB-15WC14	65	12		5	2"	13	1	40	2"	11	1	28	HD50-17	12	18	1.8	180	67	572	594
20STB-20WC14	86	17	0 50 100	8	2"	18	1	46	2"	15	1	30	HD50-17	18	16	1.8	270	68	748	776
20STB-25WC14	101	19		9	2"	21	1	49	2"	17	1	31	HD50-17	18	16	1.8	270	69	814	847
20STB-30WC14	130	24		10	2-1/2"	26	1	52	2-1/2"	22	1	34	HD65-19	24	17	2.6	270	69	924	963
20STB-40WC14	151	29	0 33 66 100	14	2-1/2"	31	1	55	2-1/2"	26	1	35	HD65-19	24	17	2.6	270	71	1078	1122
20STB-45WC14	194	36		15	2-1/2"	40	1	58	2-1/2"	33	1	36	HD65-19	24	17	2.6	270	71	1232	1287

Note:

1. Rated cooling capacity standard: evaporator water inlet/outlet temperature 17°C/12°C, condenser water inlet/outlet temperature 30/35°C, flouing factor 0.088m².°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Cooling water temperature range: 15°C ~ 40°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed .

Parameters for Water-cooled Scroll Industrial all-in-one Chiller(R407c)

Refrigerant: R407c Power supply: 460V-3N-60Hz

Model	Nominal cooling capacity KW	Compressor Input Power KW	Capacity control %	Charge of refrigerant kg	Condenser				Evaporator				Chilled water pump				Water tank size L	Operating sound dB(A)	Net weight kg	Running weight kg
					Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Model	Flow m ³ /h	Head m	Power kW				
20STB-N10WC14	42	10	0 100	4	1-1/2"	9	1	29	1-1/2"	7	1	23	HD40-15	10	22	1.1	180	63	484	495
20STB-N12.5WC14	50	11		4.5	2"	11	1	33	2"	9	1	25	HD50-17	12	18	1.5	180	65	528	545
20STB-N15WC14	64	13		5	2"	13	1	40	2"	11	1	28	HD50-17	12	18	1.5	180	67	572	594
20STB-N20WC14	84	19	0 50 100	8	2"	18	1	46	2"	14	1	30	HD50-17	18	16	1.5	270	68	748	776
20STB-N25WC14	101	22		9	2"	21	1	49	2"	17	1	31	HD50-17	18	16	1.5	270	69	814	847
20STB-N30WC14	127	26		10	2-1/2"	26	1	52	2-1/2"	22	1	34	HD65-19	24	17	2.2	270	69	924	963
20STB-N40WC14	151	32	0 33 66 100	14	2-1/2"	32	1	55	2-1/2"	26	1	35	HD65-19	24	17	2.2	270	71	1078	1122
20STB-N45WC14	191	40		15	2-1/2"	40	1	58	2-1/2"	33	1	36	HD65-19	24	17	2.2	270	71	1232	1287

Note:

1. Rated cooling capacity standard: evaporator water inlet/outlet temperature 17°C/12°C, condenser water inlet/outlet temperature 30/35°C, flouing factor 0.088m².°C/ KW;
2. Chiller water temperature range: 5°C ~ 20°C;
3. Cooling water temperature range: 15°C ~ 40°C;
4. Piping configuration will be adjusted according to different project. Please confirm before order;
5. Specification and dimension improvement change may not be noticed .

Parameters for Air-cooled Scroll Industrial all-in-one Chiller(R22)

Refrigerant: R22 Power supply: 460V-3N-60Hz

Model	Nominal cooling capacity KW	Compressor Input Power KW	Capacity control %	Charge of refrigerant kg	Motor power kW	Evaporator				Chilled water pump				Water tank size L	Operating sound dB(A)	Net weight kg	Running weight kg
						Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Model	Flow m ³ /h	Head m	Power kW				
20STB-10A14	40	10	0 100	6	1.5	2.5"	7	1	23	HD40-15	10	22	1.3	180	65	528	550
20STB-12.5A14	47	11		7	1.5	3"	8	1	25	HD50-17	12	18	1.8	180	67	561	589
20STB-15A14	59	16		8	2.5	3"	10	1	28	HD50-17	12	18	1.8	180	69	616	649
20STB-20A14	79	19	0 50 100	12	3	3"	14	1	30	HD50-17	18	16	1.8	270	70	924	963
20STB-25A14	94	22		13	3	4"	16	1	31	HD50-17	18	16	1.8	270	71	968	1012
20STB-30A14	118	31		16	5	4"	20	1	34	HD65-19	24	17	2.6	270	71	1078	1128
20STB-40A14	140	32	0 33 66 100	20	4.5	4"	24	1	35	HD65-19	24	17	2.6	270	73	1243	1298
20STB-45A14	176	47		23	7	4"	30	1	36	HD65-19	24	17	2.6	270	75	1408	1469

Note:

- Rated cooling capacity standard: Air Dry / Wet Bulb Temperature 35°C/24°C, chilled water inlet/outlet temperature 17°C/12°C, flouing factor 0.088m².°C/ KW;
- Chiller water temperature range: 5°C ~ 20°C;
- Ambient temperature range: -5°C ~ 43°C;
- Piping configuration will be adjusted according to different project. Please confirm before order;
- Specification and dimension improvement change may not be noticed .

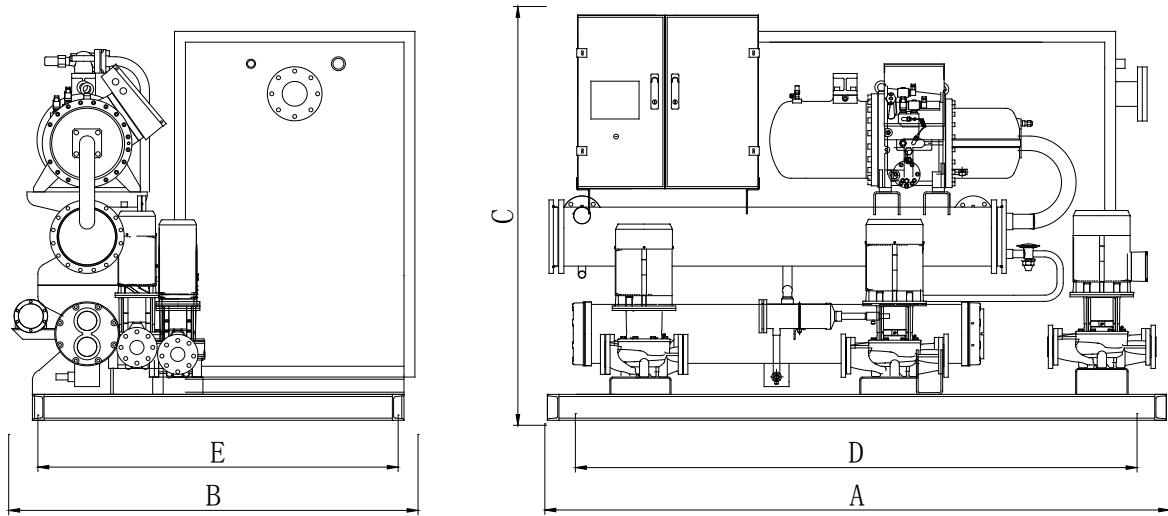
Parameters for Water-cooled Scroll Industrial all-in-one Chiller(R407c)

Refrigerant: R407c Power supply: 460V-3N-60Hz

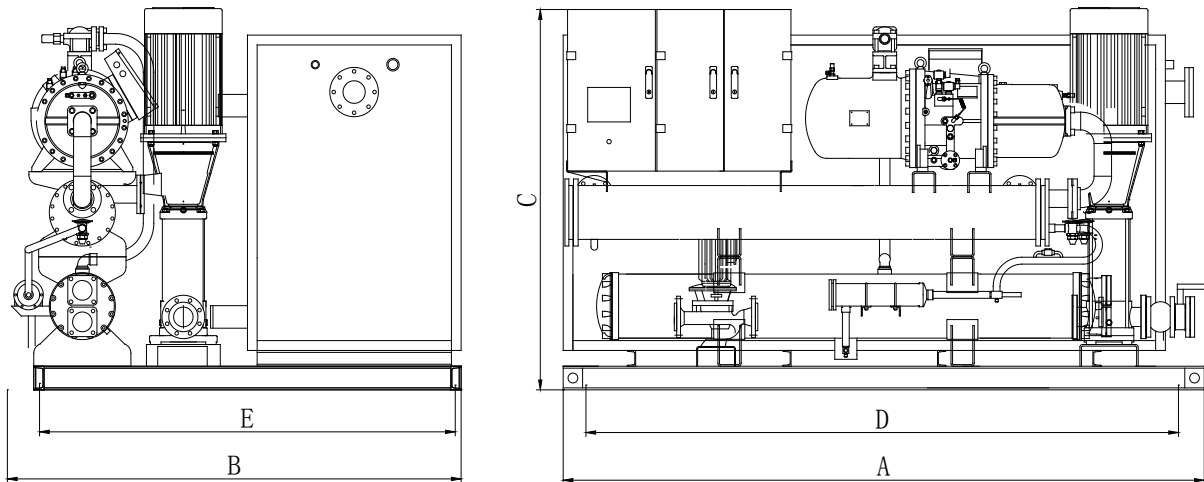
Model	Nominal cooling capacity KW	Compressor Input Power KW	Capacity control %	Charge of refrigerant kg	Motor power kW	Evaporator				Chilled water pump				Water tank size L	Operating sound dB(A)	Net weight kg	Running weight kg
						Dimension of inlet and outlet water pipe in	Water flow m ³ /h	Highest pressure on water side Mpa	Water drop KPa	Model	Flow m ³ /h	Head m	Power kW				
20STB-N10A14	37	10	0 100	6	1.5	2.5"	6	1	23	HD40-15	10	22	1	180	65	528	550
20STB-N12.5A14	46	12		7	1.5	3"	8	1	25	HD50-17	12	18	2	180	67	561	589
20STB-N15A14	56	16		8	2.5	3"	10	1	28	HD50-17	12	18	2	180	69	616	649
20STB-N20A14	74	19	0 50 100	12	3	3"	13	1	30	HD50-17	18	16	2	270	70	924	963
20STB-N25A14	91	24		13	3	4"	16	1	31	HD50-17	18	16	2	270	71	968	1012
20STB-N30A14	113	31		16	5	4"	19	1	34	HD65-19	24	17	3	270	71	1078	1128
20STB-N40A14	137	36	0 33 66 100	20	4.5	4"	24	1	35	HD65-19	24	17	3	270	73	1243	1298
20STB-N45A14	169	47		23	7	4"	29	1	36	HD65-19	24	17	3	270	75	1408	1469

Note:

- Rated cooling capacity standard: Air Dry / Wet Bulb Temperature 35°C/24°C, chilled water inlet/outlet temperature 17°C/12°C, flouing factor 0.088m².°C/ KW;
- Chiller water temperature range: 5°C ~ 20°C;
- Ambient temperature range: -5°C ~ 43°C;
- Piping configuration will be adjusted according to different project. Please confirm before order;
- Specification and dimension improvement change may not be noticed .

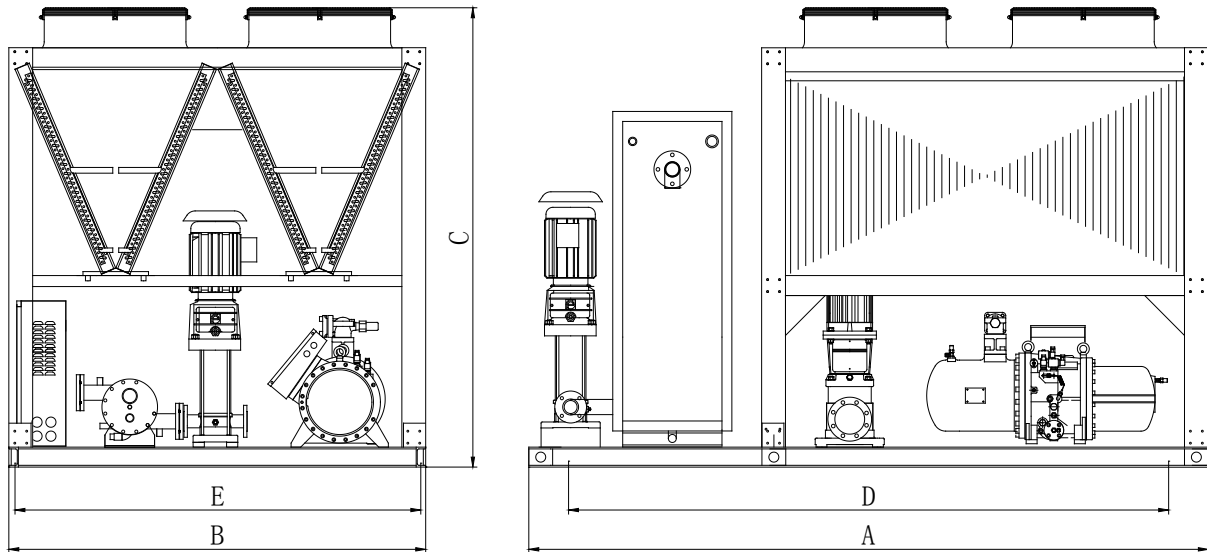


Model	A	B	C	D	E
40STD-(M)120WY14	2900	1650	1800	2600	1400
40STD-(M)160WY14	3100	1650	1900	2600	1400
40STD-(M)220WY14	3300	1650	2000	2600	1400
40STD-(M)290WY14	3500	1800	2000	3000	1600
40STD-(M)310WY14	3500	1800	2000	3000	1600
40STD-(M)370WY14	3800	2000	2100	3000	1800
40STD-(M)430WY14	3800	2000	2100	3000	1800

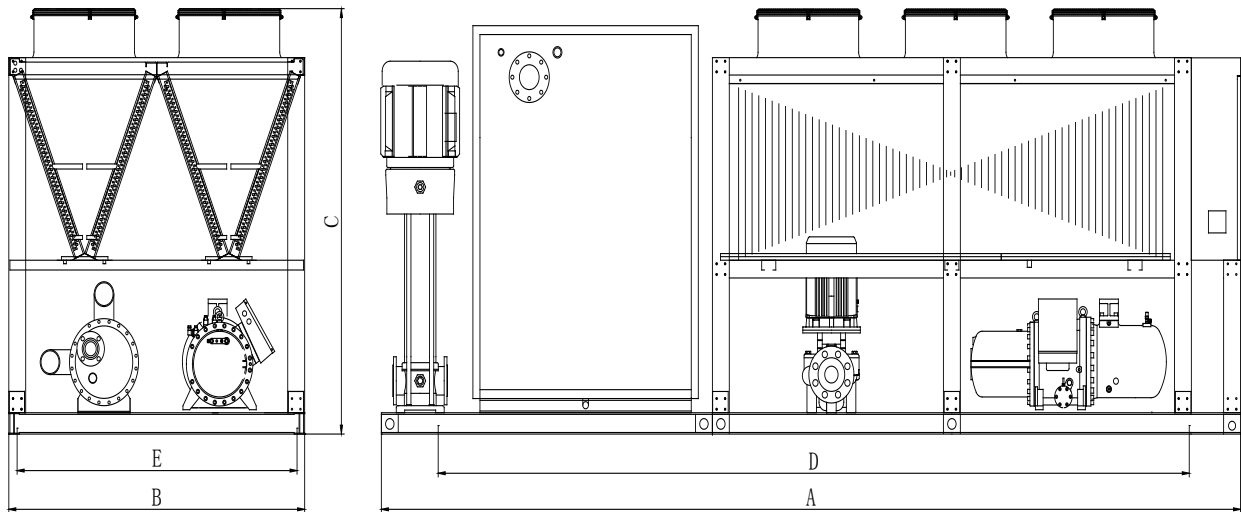


Model	A	B	C	D	E
40STD-(M)460WY14	4200	2200	2200	3500	2000
40STD-(M)510WY14	4200	2200	2200	3500	2000
40STD-(M)610WY14	4500	2200	2200	3500	2000

Note: 1. The dimensions will be adjusted according to different project. Please confirm before order.
 2. Unit: mm

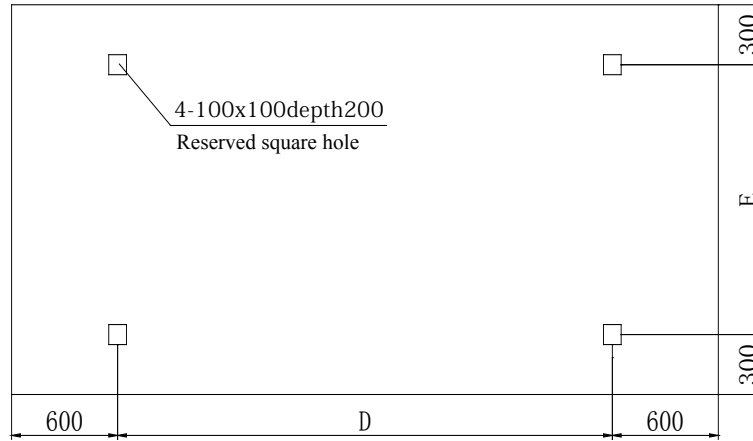
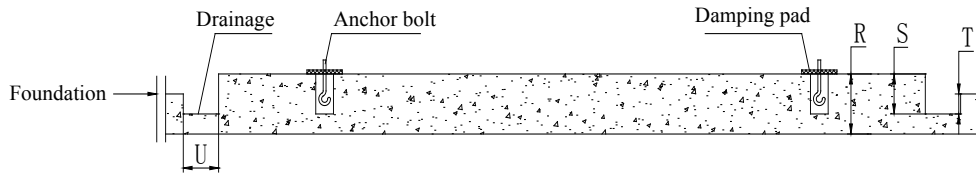


Model	A	B	C	D	E
40STE-(M)140AY14	2900	1650	1800	2600	1400
40STE-(M)200AY14	3100	1650	1900	2600	1400
40STE-(M)270AY14	3300	1650	2000	2600	1400



Model	A	B	C	D	E
40STE-(M)320AY14	3500	1800	2000	3000	1600
40STE-(M)370AY14	3500	1800	2000	3000	1600
40STE-(M)400AY14	3800	2000	2100	3000	1800
40STE-(M)450AY14	3800	2000	2100	3000	1800

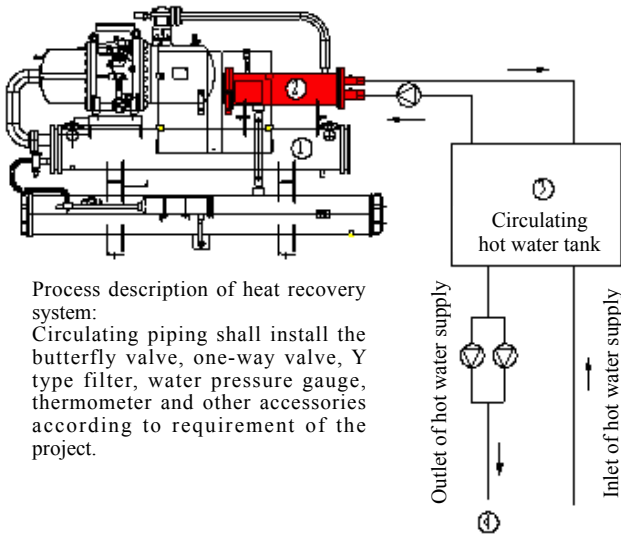
Note: 1. The dimensions will be adjusted according to different project. Please confirm before order.
2. Unit:mm



Model	D	E	R	S	T	U
40STD-(M)120WY14	2600	1400	300	200	100	200
40STD-(M)160WY14	2600	1400	300	200	100	200
40STD-(M)220WY14	2600	1400	300	200	100	200
40STD-(M)290WY14	3000	1600	300	200	100	200
40STD-(M)310WY14	3000	1600	300	200	100	200
40STD-(M)370WY14	3000	1800	300	200	100	200
40STD-(M)430WY14	3000	1800	300	200	100	200
40STD-(M)460WY14	3500	2000	300	200	100	200
40STD-(M)510WY14	3500	2000	300	200	100	200
40STD-(M)610WY14	3500	2000	300	200	100	200
40STE-(M)140AY14	2600	1400	300	200	100	200
40STE-(M)200AY14	2600	1400	300	200	100	200
40STE-(M)270AY14	2600	1400	300	200	100	200
40STE-(M)320AY14	3000	1600	300	200	100	200
40STE-(M)370AY14	3000	1600	300	200	100	200
40STE-(M)400AY14	3000	1800	300	200	100	200
40STE-(M)450AY14	3000	1800	300	200	100	200

Note: 1. The dimensions will be adjusted according to different project. Please confirm before order.
2. Unit: mm

Heating Recovery Unit



Process description of heat recovery system:
Circulating piping shall install the butterfly valve, one-way valve, Y type filter, water pressure gauge, thermometer and other accessories according to requirement of the project.

Heat recovery system flow chart

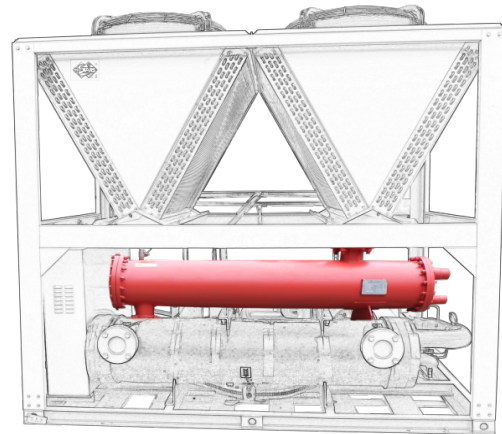
Model of chiller	30% Heating recovery		100% Heating recovery	
	Model of heat recovery device	Heating recovery capacity (kW)	Model of heat recovery device	Heating recovery capacity (kW)
40STD-120WY14	UHR006A	20	UHR020A	70
40STD-160WY14	UHR010A	35	UHR035A	120
40STD-220WY14	UHR012A	45	UHR040A	140
40STD-290WY14	UHR015A	55	UHR050A	180
40STD-310WY14	UHR017A	60	UHR058A	200
40STD-370WY14	UHR020A	70	UHR068A	240
40STD-430WY14	UHR023A	80	UHR078A	280
40STD-460WY14	UHR025A	90	UHR084A	300
40STD-510WY14	UHR028A	100	UHR094A	330
40STD-610WY14	UHR033A	120	UHR110A	390

Heat recovery table

Progress Description

1. Industrial chiller ① provide chilled water to the production line to keep required temperature for the processing line.
2. Industrial chiller ① while providing chilled water, through heat recovery with ② recover the heat from the compressor to produce hot water and preserve in the circulating water tank ③ then supply to the users ④ free all year around.

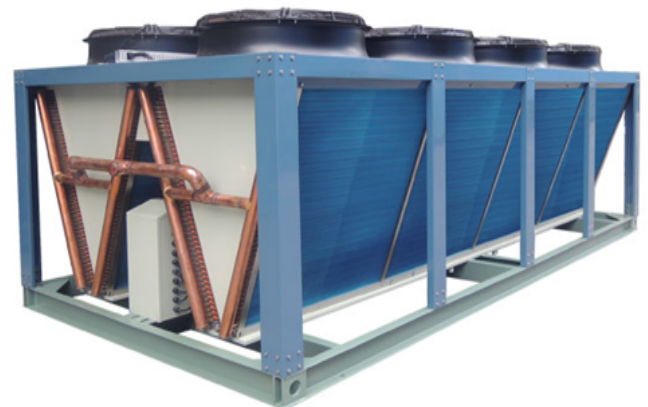
Note: This system provides free hot water to users, but hot water supply will depend on the chiller usage and the production line status, when the user uses this system, another hot water auxiliary system should be installed for back up.



Winter Economizer(Dry cooler)

In the transitional season and winter, the outdoor ambient temperature is lower than the process water temperature. Using outside cold air to cool down process water temperature without a turned-on compressor to achieve the most energy saving during transitional season and winter .

While ambient temperature below the process water, the process water is drawn into the heat exchange tubes and flowing inside the winter economizer. The equipped fan controls the flow of outside cold air to cool the process water to ensure the process water at its set temperature, which fulfills the cooling request and also saves 90% energy.



VFD (Variable Frequency Driver) technology

VFD control function

VFD industrial integrates all-in-one Chiller is superior efficient industrial grade VFD chiller unit, which not only inherits its high quality of original fixed frequency, but also adopts modern advanced VFD technology, greatly improve the energy efficiency of the unit at partial load. The unit is high-end industrial unit with higher value at both full load coefficient of performance (COP) and integrated part load value (IPLV). With the processing of VFD technology, the chilled outlet water temperature can be controlled precisely within $\pm 0.3^{\circ}\text{C}$, and widely used in the field of precise chilled water temperature control industry to meet clients demand of high standard precision water temperature control.

High Efficient and Energy-Saving

Adopts international brand variable frequency drive technology to improve integrated part load value (IPLV) up to 10.

Stable and Reliable

The VFD integrated industrial chiller with simple compressor structure, adopts the motor speed to control the output load to achieve true stepless control to improve compressor reliability. Refrigerant suction cooling motor at low temperature, more stable.

Easy to Commissioning

VFD industrial chiller integrates with VFD starter cabinet into one combined unit, simplifying the user site wiring. The VFD and its parameters have been debugged in production before shipping, saving user's installation and commissioning costs.

Precise Temperature Control

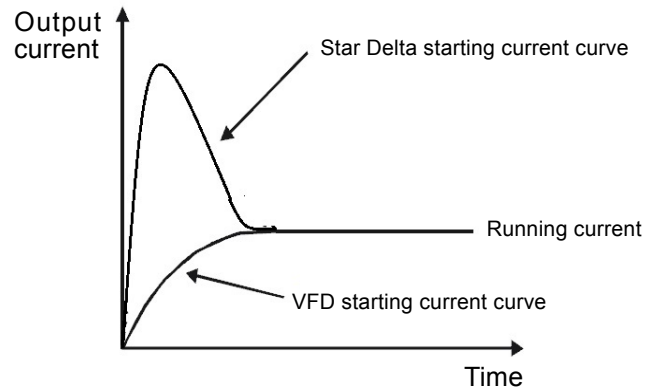
The water temperature control within $\pm 0.3^{\circ}\text{C}$ to maintain a high-precision temperature control standard.

Advanced Control System

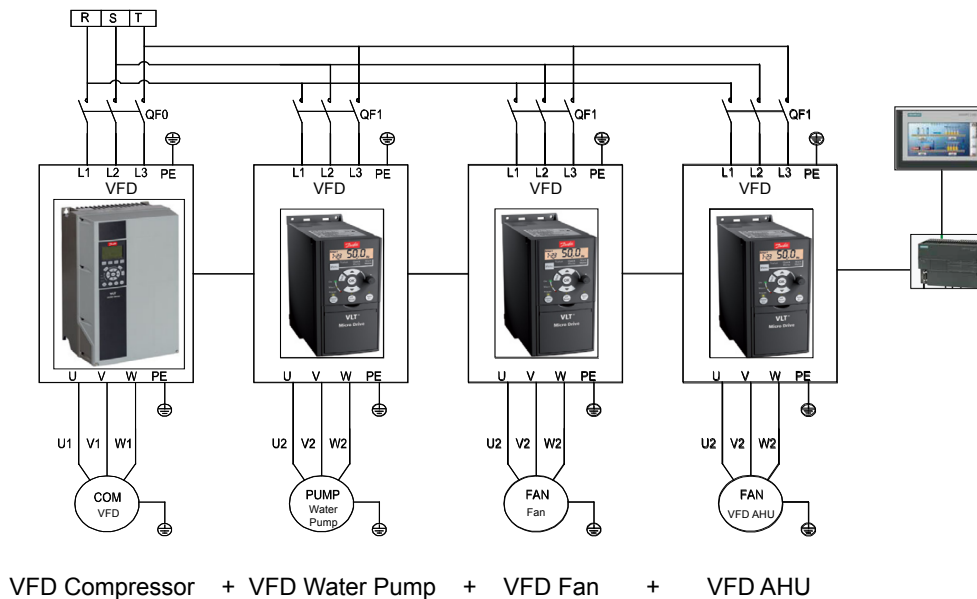
Adopts latest generation of Siemens PLC controller, precise control the chiller to ensure high efficiently operating chiller properly. With remote monitoring interface, dynamic full color touch screen, graphical operation to improve the user's operating experience.

Small Starting Current

Starting current 2A, reducing the impact of starting current; The VFD has its own DC reactor to minimize harmonic interference; Optional low-harmonic filter. VFD input power meets the IEEE-519 specification for harmonic distortion with harmonic filter over-temperature protection and capacitance switching.

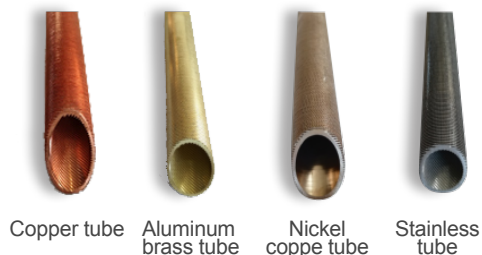


Comparison starting current curve between VFD and Star Delta



Heat Exchanger Tube

Condenser Heat Exchange Tube



Condenser heat exchange tube specification sheet

Heat exchange tube material	Copper Tube	Aluminum Brass Tube	Nickel Copper Tube	Stainless Tube
Tube thickness option 1 (mm)	1	1.2	1	1
Tube thickness option 2 (mm)	1.1	1.3	1.1	1.15
Tube thickness option 3 (mm)	1.2	1.4	1.2	1.2
Tube thickness option 4 (mm)	1.3	1.5	1.3	1.35
Suitable for water quality	Standard non-corrosive neutral water	seawater	Alkaline water	Acid water

Evaporator Heat Exchanger Tube



Evaporator heat exchange tube specification sheet

Heat exchange tube material	Copper Tube	Aluminum Brass Tube	Nickel Copper Tube	Stainless Tube
Tube thickness option 1 (mm)	1	1.2	1	1
Tube thickness option 2 (mm)	1.1	1.3	1.1	1.15
Tube thickness option 3 (mm)	1.2	1.4	1.2	1.2
Tube thickness option 4 (mm)	1.3	1.5	1.3	1.35
Suitable for water quality	Standard non-corrosive neutral water	seawater	Alkaline water	Acid water

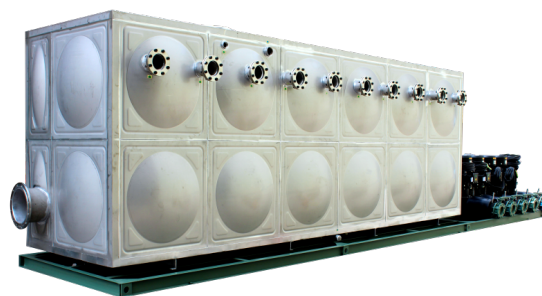
Important Notice:

Heat exchanger is the key components of the chiller unit, its manufacturing technology directly affects the quality of the product. Also, the heat exchange tube, which is the only component of the heat exchanger in contact with the ambient, closely affects the life of the

unit. The thickness and material of the heat exchange tube are very important. Customers can choose the suitable material and thickness of heat exchanger tube according to the air and water quality.

Water Pump Modular

Specially designed water tank to integrate with the water pump and connect with internal pipeline for project installation.



Cloud Service (Remote Monitor)

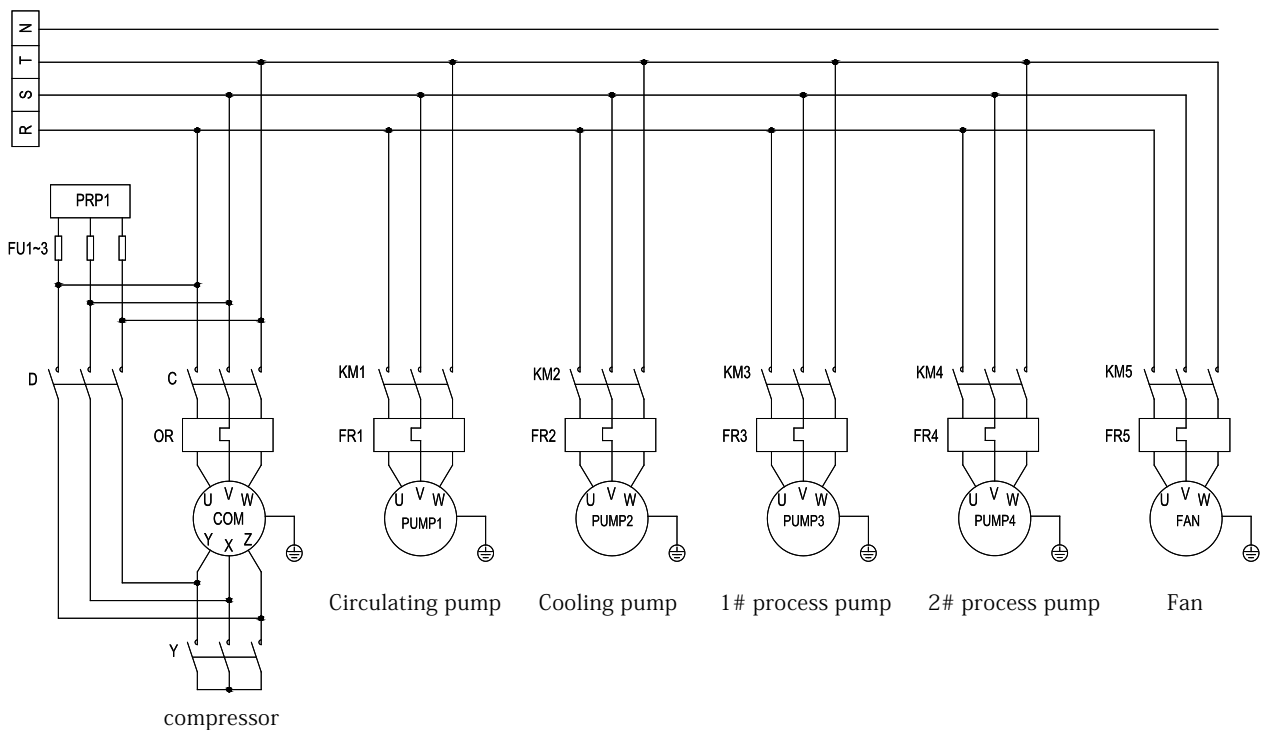
Central A/C cloud service system



Cloud service value:

- Remote control adjustment
- Remote monitor
- Remote upgrade
- Fault warning
- Remote diagnosis
- Product distribution management
- Historical data analysis

Wiring diagram





H.Stars Group

H.Stars (Guangzhou) Refrigerating Equipment Group Ltd., established in 1992, in Economic & Technological Development Zone of Guangzhou, China, composed of 8 subsidiaries to provide one-stop solution to HVAC customers, specializing in R&D, production, design and installation. As the company grows, H.Stars group expands its business globally and has sold to 53 different countries. H.Stars Group is awarded with "New and High Technology Enterprise in Guangzhou" and has become the training base of many universities both in China and abroad via technology cooperation.

H.Stars Group supplies an extensive line of Commercial and Industrial Energy Saving HVAC products including: Air Cooled Chiller, Water Cooled Chiller, Industrial Chiller, Centrifugal Chiller, Magnetic oil free centrifugal chiller, Multi-function Chiller, Hot Water Unit, Heat Recovery Unit, Heat Pump Unit, Condensing Unit, Glycol Chiller, Shell and Tube Heat Exchanger, Air Handling Unit, Fan Coil Unit, Cooling Tower, etc. all type of HVAC products.

H.Stars Group has been dedicated in quality and innovation and is technically strong in commercial and industrial application as a HVAC manufacturer. Apart from obtaining plenty of energy-saving product patents, H.Stars Group has achieved CE certifications for Pressure Vessel and standard chillers, BR1, ASME, ISO9001:2000, ISO14001:2004 and other certifications.

A good reputation of H.Stars Group has been built and delivers a full HVAC service to customers worldwide. Our products are widely applied in industries for cooling of Laser generators, Welding electrodes, Cutting machines, Electric spark machines, Extrusion process, Hydraulic System, Electroplating, Ultrasonic Cleaning, Ion Plating film, Electronic facility, Electrical appliance components, Compressed Gas Dehumidification, Dairy and Beverage Cooling processing, Pharmaceutical and Biological products, Medical equipment, Glass Coating, Tempered Glass and Cultivation Sea Food.

H.Stars Group will continue to develop energy saving and environmental friendly equipment to create "The Efficiency Planet" as our obligation. By focusing on customers' needs and wants in order to contribute more our potentials, from now on, H.Stars Group will hand in hand with you to be a shining star in the foreseeable future.



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