

# H.Stars Water Cooled / Air Cooled Industrial Chiller



H.Stars (Guangzhou) Refrigerating Equipment Group Ltd.

H.Stars industrial chiller is a high-efficiency series product which developed by H.Stars Group for industrial applications. It is divided into two series: screw water cooled industrial chiller and screw air cooled industrial chiller. There are 41 standard specifications for water-cooled series, and 14 standard specifications for air-

cooled series. The chilled water temperature range is 5°C-20°C. Available refrigerant type R22, R407c, R134a, R410a etc. Beside the standard specifications, various non-standard chillers can also be customized according to client's requirements.

## Operation Reliable

The chiller has designed with 7 safety protection to ensure the chiller running normally. Available in single and dual circuit designs to meet different customer requirement. In case one of the compressors in dual compressor system fails, the other compressor can still be running, to minimize the risk of the whole system shutdown.

## Intelligent Control

Adopts microcomputer control to highly integrate through a centralized management system. Optional equipped with a remote management program to send back the system operation information to achieve remote control service.

## High Efficiency and Energy-saving

Ability of producing the major components, own independent intellectual property rights, to make the system perfectly matched.

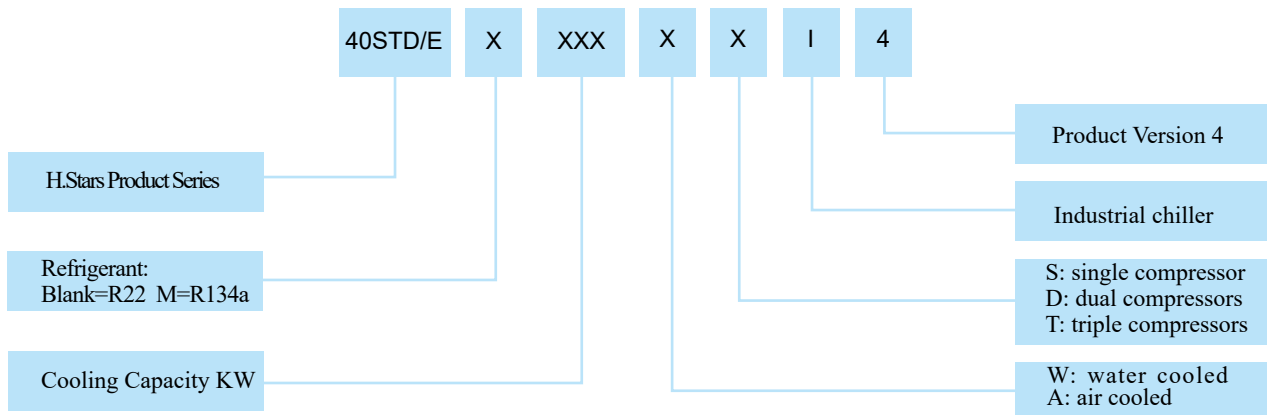
## Easy to Install and Maintain

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

Designed for industrial production, the energy efficiency of the machine can reach 6.0.



## Model Nomenclature



## Water Cooled Chiller

### Standard Configuration

Compressor	Semi-hermetic twin screw compressor
Evaporator	Self-made high efficiency evaporator
Condenser	Self-made high efficiency condenser
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

The screw water-cooled industrial chiller adopts a twin-screw compressor system to match with the self-made high-efficiency condenser, evaporator and brand expansion valve. The scope of application: chemical, pharmaceutical, industrial processing equipment, food processing and other industries. Cooling capacity range: 120KW-6351KW, chilled water outlet temperature 5-20°C, cooling water temperature range 15°C-40°C. In additionom to the



standard specifications, screw water cooled industrial integrated all-in-one chiller unit and various high-pressure non-standard chiller units such as anti-corrosion and salt water chiller unit are available with different power supply. Applicable for high temperature cooling with designed water temperature 10 °C -20 °C.

## Air Cooled Chiller

### Standard Configuration

Compressor	Semi-hermetic twin screw compressor
Evaporator	Self-made high efficiency evaporator
Condenser	Self-made high efficiency condenser
Controller	Microcomputer
Fan	Axial fan
Throttle device	Thermal / Electronic expansion valve
Startup mode	Star delta starting
Power Supply	380V-50HZ-3Phase/460V-60HZ-3Phase
Insulation Material	Anti-corrosion, waterproof, mesh insulation
Packaging	Reinforced Shrink-wrap Covering Industrial-grade
Oil Paint	High-strength matt paint
Water pipe Connection	Flange

Screw type air cooled industrial chiller adopts a reinforced motor twin screw compressors to match the self-made high-efficiency fin type condenser and self-made evaporator with brand axial fan. Cooling capacity range: 148 KW-1051KW. Chilled water can be adjusted from 5-20 °C and chiller can work under ambient temperature of -25°C - 43 °C. All kinds of non-standard chiller can be customized according to client requirements.



The air cooled chiller does not need cooling towers and water pump. Compact structure, easy to install, clean and maintain. It is especially suitable for industrial processing, greenhouse planting, artificial breeding, anti-corrosion industry, plateau and water shortage areas.

## Compressor

Adopts twin screw compressors with high-efficiency of 5:6 asymmetric screw rotor design, which is 20% ~ 30% higher efficiency than the general compressor.

Unique oil and energy adjustment of solenoid valve with optional step and stepless control adjustment according to each project requirement.

The evaporating temperature ranges from  $-40^{\circ}\text{C}$  to  $15^{\circ}\text{C}$  and the condensing temperature can be up to  $65^{\circ}\text{C}$ .

Built-in motor protection module with overload, reverse, phase loss protections and fault indicator light to indicate the type of fault.

The special motor cooling piping design ensures reliable cooling of the motor while keeping the compressor at high efficiency, so that the compressor can operate within a wide range to be more adaptable.

The compressor has obtained two international certifications of 1809001 and 1809002 as well as multi-national patents in Europe and America.



Compressor

## Fin Type Condenser

Adopting hydrophilic aluminum foil to reduce the adhesion of water on the aluminum foil and greatly improves the heat exchange efficiency. The copper tube sleeve is designed with aluminum fins and the wind speed is even. Intelligent copper tube array with "V" shape mounting, improves heat transfer efficiency and reduce fan sound level. Copper tube and aluminum fins are tightly mechanically expanded, high performance and stable heat transfer. Independent self-design and self-manufacturing with strictly quality control. Customized design is available for all industries to ensure the heat transfer coefficient.



Fin type condenser

## Shell and Tube Evaporator/Condenser

The condenser and evaporator are the most important components of the chiller. Quality of manufacturing process determines the heat exchange efficiency and lifespan of the unit. It also represents manufacturer has core technology and intellectual property and creativity. With both R&D and manufacturing with design qualification and pressure vessel production qualification, H.Stars Group equipment are in strict accordance with international standards to ensure product safety and reliability.

Guangzhou United A/C & R Co., LTD, as one of the subsidiary of H.Stars Group, with more than 20 years of professional experience in manufacturing heat exchangers, with strong patented technology and independent intellectual property rights, has provided excellent heat exchange and excellent services for many famous brands in the industry.



Shell and tube evaporator



Shell and tube condenser



## Control Center

### Product Features and Functions

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

The HMI directly displays the fault content, and cooperates with the simple operation interface to feedback various maintenance information to users with real-time display of three-phase voltage and current data.

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

The control center can be networked, group controlled and single controlled switch freely

Optional Modbus interface to enable users monitor the chiller live operation status.

### Standard Controller

Full color touch screen with size 10" or 8" makes the display more delicate and clear.

Support USB flash drive upgrade program and download history data and fault content.

Easy operation and intuitive dynamic operation information and parameter display.

Multiple language display available

Support time switch

Support MODBUS RTU communication protocol.

Support Internet service, web and mobile APP control .

### PLC Controller

Available Siemens programmable logic controllers.

The HMI adopts SMART LINE, with 10" or 7" full color touch screen to support both horizontal and vertical installation.

Support OPC, MODBUS RTU protocol.

Support USB flash drive/ Micro SD upgrade and USB flash drive download history data and fault content.

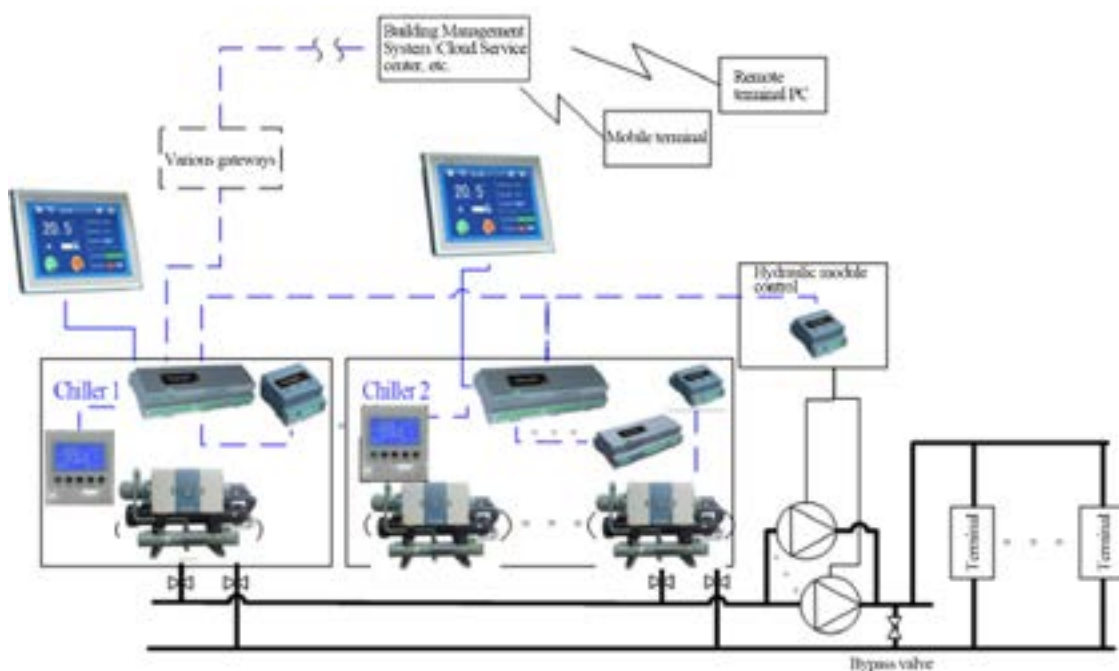
Easy operation and intuitive dynamic operation information display.

Multiple language display available.



Integrated controller

## Network of multiple chiller units



## Standard controller

### Function

Parameter	Water cooled & Air cooled	Authority	Setting range
Mode	Cooling	User	Cooling
Cooling temperature	12.0°C	User	Lowest limit ~ 30.0
* Cooling temperature loading deviation	2.0°C	User	0.5 ~ 10.0
* Cooling temperature unloading deviation	2.0°C	User	0.5 ~ 10.0
* 1#Compressor setting	Enable	User	Disable、 Enable
* 2#Compressor setting	Enable	User	Disable、 Enable
Timer switch setting	Disable	User	Disable、 Enable

### Fault

Parameter	Water cooled & Air cooled	Authority	Setting range
External alarm	Power-on detection	Unit shutdown	Check “external alarm” signal
Chilled water pump/cooling water pump/fan/compressor overload	Power -on detection	Unit shutdown	Check corresponding overload signal
Insufficient water flow of chilled water / cooling water	Pump is power on, and the water flow is established	Unit shutdown	Corresponding water flow switch signal testing
System power failure	Power -on detection	Unit shutdown	Check corresponding system power failure
Temperature,pressure sensor fault	Power -on detection	Unit shutdown	Check corresponding probe
System outlet water temperature or pressure too high / low	Power -on detection	Unit shutdown	Check corresponding sensor reading

## PLC

### Function

Parameter	Water cooled & Air cooled	Authority	Setting range
Mode	Cooling	User	Cooling
Cooling temperature	12.0°C	User	Lowest limit ~ 30.0
Control point of the chilled/return water	Outlet water	User	Outlet water/Inlet water
* 1#Compressor setting	Enable	User	Disable、 Enable
* 2#Compressor setting	Enable	User	Disable、 Enable
Timer switch setting	Disable	User	Disable、 Enable
External Circulation Temperature	10°C	User	-30 ~ 100
IP address setting *(1)	/	User	Random IP
MODBUS Parameter setting*(2)	/	User	/
Compressor load limit	/	User	50%,75%,100%;66%,100%

### Fault

Parameter	Water cooled & Air cooled	Authority	Setting range
External alarm	Power-on-detection	Unit shutdown	Check “external alarm” signal
Overload Chilled water, Cooling water, Fan, Compressor overload	Power-on-detection	Unit shutdown	Check corresponding overload signal
Insufficient water flow of chilled and cooling water	Pump is power on, and the water flow is established	Unit shutdown	Corresponding water flow switch signal testing
Phase protection	Power-on-detection	Unit shutdown	Check (Phase protection) signal
Overloading of external recycle and heat recovery pump	Power-on-detection	Corresponding water pump shutdown	Check corresponding circulation pump overload signal
Insufficient water flow of external circulation and heat recovery	Pump turned on, water flow installed	Only shutdown the water pump	Check Corresponding water flow signal
Oil level、 Anti-freeze、 Expansion valve and compressor protection	Unit operation detection	Shutdown unit	Check Corresponding value
pressure temperature too high/low	Power-on-detection	Shutdown unit	Check Corresponding sensor
Pressure or temperature sensor failure	Power-on-detection	Shutdown unit	Check Corresponding sensor

## Heat Recovery Unit

The heat recovery technology is to recover part or all of the amount of heat energy from the chiller while it is cooling, to provide customers with a large amount of free hot water of 45~55 °C, suitable for electronics, chemical, pharmaceutical, food processing industries. Environmental protection and energy saving.



Heat Recovery Unit

## China machinery industry science and technology award

H.Stars Group is the first company obtaining the heat recovery technology with patent number ZL03223588.7, granted with high-tech awards by National Mechanical Industrial Science and Technology Department



China machinery industry science and technology award

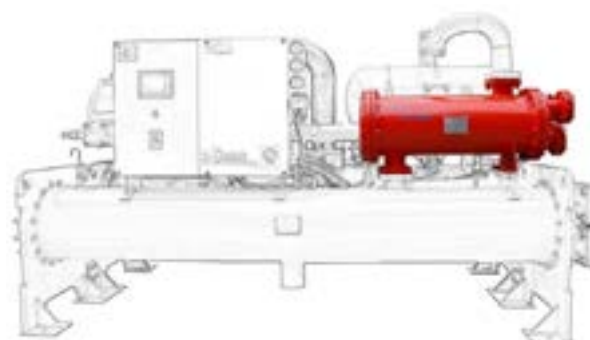
## Heat Recovery Unit

While cooling, 60°C, hot water supplied

Efficiency increased by 10%

COP upto 8.0

Heat recovery unit can be installed on various models.



Heat recovery unit diagram

## Heat recovery capacity

Model No.	30% Heat recovery		100% Heat recovery		Model No.	30% Heat recovery		100% Heat recovery	
	Heat recovery model	Heat recovery capacity (kW)	Heat recovery model	Heat recovery capacity (kW)		Heat recovery model	Heat recovery capacity (kW)	Heat recovery model	Heat recovery capacity (kW)
40STE-140ASIB4	UHR010A	40	UHR030A	110	40STD-120WSIB4	UHR009A	30	UHR028A	90
40STE-200ASIB4	UHR012A	55	UHR042A	150	40STD-160WSIB4	UHR012A	45	UHR038A	120
40STE-270ASIB4	UHR017A	75	UHR058A	200	40STD-220WSIB4	UHR015A	60	UHR050A	160
40STE-320ASIB4	UHR020A	90	UHR070A	240	40STD-290WSIB4	UHR020A	80	UHR066A	215
40STE-370ASIB4	UHR023A	105	UHR078A	280	40STD-370WSIB4	UHR026A	100	UHR086A	270
40STE-400ASIB4	UHR024A	115	UHR090A	300	40STD-430WSIB4	UHR030A	120	UHR100A	320
40STE-450ASIB4	UHR026A	125	UHR092A	330	40STD-510WSIB4	UHR036A	140	UHR120A	380
40STE-500ADIB4	UHR030B	140	UHR105B	380	40STD-610WSIB4	UHR043A	170	UHR143A	460
40STE-540ADIB4	UHR034B	150	UHR114B	410	40STD-700WSIB4	UHR050A	200	UHR165A	530
40STE-640ADIB4	UHR040B	180	UHR130B	480	40STD-790WSIB4	UHR055A	220	UHR182A	600
40STE-680ADIB4	UHR042B	190	UHR130B	540	40STD-920WSIB4	UHR065A	260	UHR215A	700
40STE-740ADIB4	UHR046B	210	UHR160B	570	40STD-1010WSIB4	UHR069A	280	UHR230A	750
40STE-800ADIB4	UHR048B	230	UHR180B	610	40STD-1210WSIB4	UHR084A	340	UHR280A	920
40STE-900ADIB4	UHR052B	250	UHR184B	660	40STD-1490WSIB4	UHR102A	390	UHR340A	1000

## Application of VFD Technology

VFD is a device to control frequency of the power, thus adjusting the load, to reduce power consumption, and energy losses, and extend the service life of the equipment. The core of VFD technology is the Variable-Frequency Driver. Automatic adjustment of motor rate on speed by Changing power supply frequency; from the fixed grid of 50Hz change to 30-130 Hz. At the same time, the power supply voltage modify the range of 142-270V, which solves the problem of the instability of the supply voltage.

VFD chiller is more efficient than standard chiller. It not only inherits the high efficiency of the standard chiller, but also incorporates advanced VFD technology. Adopting VFD greatly improve the chiller partial load and enhance H.Stars screw chiller with a higher value at both full load Coefficient Of Performance (COP) and Integrated Part Load Value (IPLV).The outlet water temperature can be controlled precisely within  $\pm 0.3^{\circ}\text{C}$ , widely used for high-end industrial to improve the quality of the product and precision of the water temperature requirement.



## The Characteristics of VFD chiller

### High efficiency and energy-saving

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

### Reliability

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

### Simple installation

VFD screw chiller integrates with VFD starter cabinet into one unit, easy site wiring. Refrigerant and lubricating oil fully charged before shipping, saving user's installation and commissioning costs.

### Energy-saving and Green to the environment

VFD chillers with R134a refrigerant , the world's mainstream environmental friendly refrigerant with a good comprehensive performance, the Ozone Depletion Potential (ODP) is 0. VFD ,flooded evaporator and industrial application energy -saving advantages.

### Precise temperature control

The water outlet temperature control accuracy is within  $\pm 0.3^{\circ}\text{C}$  to meet the requirements of high precision temperature control:

### Advanced Control

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.

### VFD Advantages

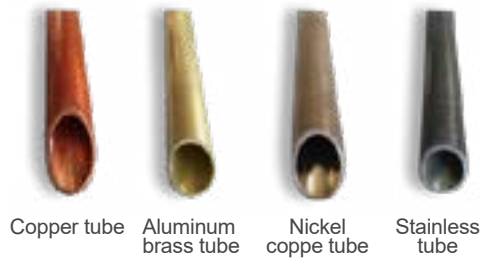
VFD chiller soft starter, reducing the impact of starting current; The VFD has its own DC reactor to minimize harmonic interference; Optional low-harmonic filter. VFD input power meets the IEEE-519 specification for harmonic distortion with harmonic filter over-temperature protection and capacitance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





## Heat Exchanger Tube

### Condenser Heat Exchange Tube



Copper tube Aluminum brass tube Nickel copper tube Stainless 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



Copper tube Aluminum brass tube Nickel copper tube Stainless 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, whose 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.

## Cloud service (remote monitoring)

Central A/C cloud service system



#### Cloud service value:

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

## Evaporative Chiller Unit (1)



Evaporative chiller indoor unit

40STD series of evaporative industrial chiller is a high efficiency energy-saving product further developed by H.Stars Group. The combination of high-efficiency flooded type evaporator and evaporative condenser are improved the energy efficiency of the chiller. The evaporative condenser is low water consumption, which is particularly suitable for areas where water is scarce or dry.

This unit has obtained the national energy-saving certification, and it is widely used in commercial buildings, industrial manufacturing, refrigeration and other areas to save water and electricity. Customized chiller with high-voltage, explosion-proof, anti-corrosion and other special requirement.



Evaporative chiller outdoor unit

The evaporative chiller outdoor unit is designed with the optimized heat transfer principle, and uses the water film evaporation of the outer surface of the tube to cool and condense the medium in the tube through mass heat transfer, the average flow rate compared with the water condenser ,increases by 15%-18%.

The overall performance is increased by 25% and the equipment size is more compact and input power will be less to reduce the energy consumption and operating costs of the chiller.

The product has eight remarkable features: excellent heat exchange performance, easy to clean inclined pool, convenient transportation and installation, low failure rate, convenient maintenance, low operating cost, energy saving and environmental protection, non-stop maintenance, small size of install site and low investment.

## Industrial integrated unit (2)

For the chiller installation, it is required to build a machine room in a short period of time with pump system and electric system. H.Stars Group has developed, designed and manufactured a series of integrated chiller with professional experience in chiller system and engineering technology installation. At the same time, according to the needs of different engineering installations, the integrated chiller can be designed with different configurations and different dimensions . The chiller integrates with water pump, water tank , various valves , control devices and pipeline into an integrated system , which is very easy to install and control, not only to reduce the engineering labor cost by combining engineering parts ,but also control all of the unit to avoid multiple electric cabinet to improve chiller control system stability and make the whole unit more compact in size.



## Optional Parts (Others)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Circuit breaker                   | <input type="checkbox"/> Optional refrigerant      | <input type="checkbox"/> PLC control               |
| <input type="checkbox"/> Emergency stop switch             | <input type="checkbox"/> Cryogenic coolant         | <input type="checkbox"/> Non-standard power supply |
| <input type="checkbox"/> Water flow switch                 | <input type="checkbox"/> Chiller case              | <input type="checkbox"/> Electrical components     |
| <input type="checkbox"/> Remote monitoring (cloud service) | <input type="checkbox"/> Optional compressor brand |  |

## Water cooled industrial chiller technical parameter

Refrigerant: R22

Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity		Compressor Input Power kW	Unit operating current A	Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating Sound Level dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT					Condenser inlet/outlet pipe diameter in	Chilled Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa	condenser inlet/outlet pipe diameter in	Chilled water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-120WSI4	112	32	23	40	0 66 100	17	2"	23	1	41	2"	19	1	22	73	880	970
40STD-160WSI4	155	44	31	53		24	2-1/2"	32	1	43	2-1/2"	27	1	24	73	910	1010
40STD-220WSI4	204	58	39	68		30	3"	42	1	45	3"	35	1	26	73	1080	1220
40STD-290WSI4	272	77	51	87	0 50 75 100	40	3"	55	1	47	3"	47	1	28	73	1220	1380
40STD-310WSI4	293	83	56	95		44	3"	60	1	47	3"	50	1	29	74	1390	1530
40STD-370WSI4	345	98	63	109		52	3"	70	1	49	3"	59	1	33	74	1510	1670
40STD-430WSI4	406	115	73	128		59	4"	82	1	51	4"	70	1	35	75	1620	1780
40STD-460WSI4	437	124	79	138		65	4"	89	1	52	4"	75	1	38	75	1730	1870
40STD-510WSI4	475	135	87	154		71	4"	97	1	54	4"	82	1	41	75	1830	2020
40STD-610WSI4	577	164	105	179		86	5"	117	1	55	4"	99	1	43	75	2140	2400
40STD-700WSI4	667	190	121	206		97	5"	135	1	58	5"	115	1	47	75	2270	2520
40STD-760WSI4	722	205	129	219		105	5"	146	1	60	5"	124	1	50	75	2460	2720
40STD-790WSI4	750	213	135	232		109	5"	152	1	60	5"	129	1	53	75	2540	2920
40STD-920WSI4	873	248	154	267		127	5"	177	1	65	5"	150	1	57	75	2680	3060
40STD-1010WSI4	940	267	166	279		141	5"	190	1	65	5"	162	1	59	75	2900	3380
40STD-1080WSI4	1023	291	181	317		150	5"	207	1	68	5"	176	1	61	75	3060	3600
40STD-1210WSI4	1154	328	205	357		168	6"	234	1	70	5"	199	1	64	75	3310	3830
40STD-1490WSI4	1302	370	230	400		207	6"	263	1	74	8"	224	1	68	76	3740	4260
40STD-1750WSI4	1667	474	285	487		243	8"	336	1	77	8"	287	1	71	76	3980	4520
40STD-2000WSI4	1934	550	329	567		277	8"	389	1	80	8"	333	1	75	76	4300	4840
40STD-240WDI4	225	64	47	80	0 33 50 66.5 83 100	34	3"	47	1	45	3"	39	1	25	75	1410	1790
40STD-320WDI4	310	88	61	107	48	3"	64	1	46	3"	53	1	28	75	1630	2210	
40STD-440WDI4	407	116	77	136	61	4"	83	1	46	4"	70	1	30	75	1940	2590	
40STD-580WDI4	543	155	102	175	0 25 37.5 50 62.5 75 87.5 100	80	4"	111	1	49	5"	93	1	33	75	2260	2970
40STD-620WDI4	585	166	111	189		88	5"	120	1	50	5"	101	1	35	75	2540	3330
40STD-740WDI4	690	196	126	219		105	5"	140	1	51	5"	119	1	37	75	2750	3650
40STD-860WDI4	811	231	146	255		118	5"	165	1	53	5"	140	1	39	76	2930	3920
40STD-1020WDI4	950	270	175	308		143	5"	193	1	58	5"	163	1	43	76	3200	4200
40STD-1220WDI4	1154	328	209	358		171	4"*2	234	1	58	6"	198	1	45	76	3470	4550
40STD-1280WDI4	1206	343	214	370		179	4"*2	244	1	60	6"	207	1	47	76	3740	4830
40STD-1400WDI4	1334	379	241	412		194	5"*2	271	1	61	6"	229	1	51	76	3950	5140
40STD-1520WDI4	1444	411	258	438		209	5"*2	293	1	63	8"	248	1	53	76	4320	5540
40STD-1580WDI4	1500	426	270	464		218	5"*2	304	1	63	8"	258	1	56	76	4810	5750
40STD-1840WDI4	1747	497	307	534		255	5"*2	353	1	67	8"	300	1	60	76	5270	5970
40STD-2020WDI4	1880	535	332	557		281	5"*2	380	1	67	8"	323	1	63	76	5680	6190
40STD-2160WDI4	2046	582	362	634		300	5"*2	414	1	71	8"	352	1	65	76	5890	6500
40STD-2420WDI4	2309	656	409	714		336	6"*2	467	1	73	8"	397	1	67	76	6110	6810
40STD-2980WDI4	2603	740	459	800		414	6"*2	527	1	78	8"	448	1	71	76	7380	8420
40STD-3500WDI4	3334	948	570	974		486	8"*2	671	1	82	10"	573	1	75	77	8010	9180
40STD-4000WDI4	3867	1100	659	1133		555	8"*2	778	1	85	10"	665	1	77	77	8550	9720
40STD-6000WTI4	5801	1649	988	1700	15-100	830	8"*3	1167	1	87	12"	998	1	80	78	11100	11300

Note:

- Nominal working conditions: evaporator inlet and outlet water temperature 17 °C / 12 °C, condenser inlet and outlet water temperature 30 °C / 35 °C; fouling Factor 0.088 m<sup>2</sup> • °C / kW;
- Chilled water temperature range: 5 °C ~ 20 °C
- Cold water temperature range: 15 °C ~ 40 °C
- Specifications and dimensions are subject to improvement without notice.

## Water cooled industrial chiller technical parameter

Refrigerant: R134a

Power supply: 380V-3N-50Hz

Model	Nominal cooling capacity		Compressor Input Power kW	Unit operating current A	Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating Sound dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT					Condenser inlet/outlet pipe diameter in	Chilled Water flowm <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa	condenser inlet/outlet pipe diameter in	Chilled water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-120WSI4	75	21	15	28	0 66 100	17	2"	15	1	41	2"	13	1	22	73	880	970
40STD-160WSI4	105	30	19	37		24	2-1/2"	21	1	43	2-1/2"	18	1	24	73	910	1010
40STD-220WSI4	138	39	24	48		30	3"	28	1	45	3"	24	1	26	73	1080	1220
40STD-290WSI4	192	55	34	62	0 50 75 100	40	3"	39	1	47	3"	33	1	28	73	1220	1380
40STD-310WSI4	198	56	35	64		44	3"	40	1	47	3"	34	1	29	74	1390	1530
40STD-370WSI4	234	66	40	72		52	3"	47	1	49	3"	40	1	33	74	1510	1670
40STD-430WSI4	271	77	46	82		59	4"	54	1	51	4"	47	1	35	75	1620	1780
40STD-460WSI4	300	85	50	88		65	4"	60	1	52	4"	52	1	38	75	1730	1870
40STD-510WSI4	327	93	56	106		71	4"	66	1	54	4"	56	1	41	75	1830	2020
40STD-610WSI4	373	106	63	112		86	5"	75	1	55	4"	64	1	43	75	2140	2400
40STD-700WSI4	440	125	74	132		97	5"	88	1	58	5"	76	1	47	75	2270	2520
40STD-760WSI4	469	133	76	135		105	5"	94	1	60	5"	81	1	50	75	2460	2720
40STD-790WSI4	494	140	82	143		109	5"	99	1	60	5"	85	1	53	75	2540	2920
40STD-920WSI4	566	161	94	168		127	5"	114	1	65	5"	97	1	57	75	2680	3060
40STD-1010WSI4	628	179	103	179		141	5"	126	1	65	5"	108	1	59	75	2900	3380
40STD-1080WSI4	675	192	112	205		150	5"	135	1	68	5"	116	1	61	75	3060	3600
40STD-1210WSI4	790	225	127	231		168	6"	158	1	70	5"	136	1	64	75	3310	3830
40STD-1490WSI4	904	257	147	274		207	6"	181	1	74	8"	155	1	68	76	3740	4260
40STD-1750WSI4	1149	327	183	332		243	8"	229	1	77	8"	198	1	71	76	3980	4520
40STD-2000WSI4	1286	366	202	370		277	8"	256	1	80	8"	221	1	75	76	4300	4840
40STD-240WDI4	150	43	29	56	0 33 50 66.5 83 100	34	3"	31	1	45	3"	26	1	25	75	1410	1790
40STD-320WDI4	209	59	38	74		48	3"	42	1	46	3"	36	1	28	75	1630	2210
40STD-440WDI4	276	78	47	96		61	4"	56	1	46	4"	47	1	30	75	1940	2590
40STD-580WDI4	384	109	69	124		80	4"	78	1	49	5"	66	1	33	75	2260	2970
40STD-620WDI4	396	113	70	127		88	5"	80	1	50	5"	68	1	35	75	2540	3330
40STD-740WDI4	468	133	81	144		105	5"	94	1	51	5"	80	1	37	75	2750	3650
40STD-860WDI4	541	154	93	164		118	5"	109	1	53	5"	93	1	39	76	2930	3920
40STD-1020WDI4	654	186	112	211		143	5"	132	1	58	5"	113	1	43	76	3200	4200
40STD-1220WDI4	746	212	126	224		171	4"*2	150	1	58	6"	128	1	45	76	3470	4550
40STD-1280WDI4	803	228	136	246		179	4"*2	161	1	60	6"	138	1	47	76	3740	4830
40STD-1400WDI4	879	250	147	263		194	5"*2	176	1	61	6"	151	1	51	76	3950	5140
40STD-1520WDI4	937	266	152	270		209	5"*2	187	1	63	8"	161	1	53	76	4320	5540
40STD-1580WDI4	987	281	164	287		218	5"*2	198	1	63	8"	170	1	56	76	4810	5750
40STD-1840WDI4	1132	322	188	335		255	5"*2	227	1	67	8"	195	1	60	76	5270	5970
40STD-2020WDI4	1256	357	205	359		281	5"*2	251	1	67	8"	216	1	63	76	5680	6190
40STD-2160WDI4	1350	384	223	410		300	5"*2	271	1	71	8"	232	1	65	76	5890	6500
40STD-2420WDI4	1580	449	254	462		336	6"*2	315	1	73	8"	272	1	67	76	6110	6810
40STD-2980WDI4	1808	514	294	548		414	6"*2	362	1	78	8"	311	1	71	76	7380	8420
40STD-3500WDI4	2299	654	365	664		486	8"*2	458	1	82	10"	395	1	75	77	8010	9180
40STD-4000WDI4	2572	731	404	740		555	8"*2	512	1	85	10"	442	1	77	77	8550	9720
40STD-6000WTI4	3857	1097	605	1110	830	8"*3	767	1	87	12"	663	1	80	78	11100	11300	

Note:

- Nominal working conditions: evaporator inlet and outlet water temperature 17 °C / 12 °C, condenser inlet and outlet water temperature 30 °C / 35 °C; fouling Factor 0.088 m<sup>2</sup> • °C / kW;
- Chilled water temperature range: 5 °C ~ 20 °C
- Cold water temperature range: 15 °C ~ 40 °C
- Specifications and dimensions are subject to improvement without notice.



## Air-cooled industrial unit technical parameter

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

Model	Nominal cooling capacity		Compressor Input Power kW	Capacity control %	Refrigerant charge kg	Condenser	Evaporator				Axial Fan		Operating Sound dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT					condenser inlet/outlet pipe diameter in	Chilled Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure dropKPa	Air flow×1000 m <sup>3</sup> /h	Power kW × number			
40STE-140ASI4	136	39	37	0, 66, 100	30	Copper tube with corrugated aluminum fins	2-1/2"	23	1	28	40	2.0×2	68	1160	1270
40STE-200ASI4	192	55	51	0 50 75 100	42		3"	33	1	33	58	1.2×4	68	1730	1920
40STE-270ASI4	257	73	67		56		3"	44	1	48	80	2.0×4	68	2590	2810
40STE-320ASI4	303	86	76		68		3"	52	1	55	86	1.2×6	68	2670	2900
40STE-370ASI4	356	101	88		78		4"	61	1	61	121	2.0×6	72	2750	3020
40STE-400ASI4	384	109	96		84		4"	66	1	64	121	2.0×6	72	2930	3240
40STE-450ASI4	417	119	106		93		4"	72	1	66	161	2.0×8	72	3160	3450
40STE-500ADI4	477	136	123	104	4"		82	1	42	161	2.0×8	72	4430	4750	
40STE-540ADI4	514	146	134	112	4"		88	1	54	161	2.0×8	72	4550	4970	
40STE-640ADI4	606	172	152	136	4"		104	1	44	241	2.0×12	72	5340	5800	
40STE-680ADI4	640	182	162	142	4"		110	1	52	241	2.0×12	72	5420	5950	
40STE-740ADI4	713	203	177	156	4"		123	1	54	241	2.0×12	75	5500	6040	
40STE-800ADI4	767	218	192	168	4"		132	1	55	241	2.0×12	75	5860	6480	
40STE-900ADI4	834	237	211	186	4"*2		143	1	65	322	2.0×16	75	6320	6900	

Note:

- Nominal working conditions: Air dry / wet bulb temperature 35° C/24° C, chilled water inlet and outlet water temperature 30 °C / 35 °C; fouling factor 0.088 m<sup>2</sup> · °C / kW;
- Chilled water temperature range: 5 °C ~ 20 °C
- Cold water temperature range: -5° C ~ 43° C
- Specifications and dimensions are subject to improvement without notice.

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

Model	Nominal cooling capacity		Compressor Input Power kW	Capacity control %	Refrigerant charge kg	Condenser	Evaporator				Axial Fan		Operating noise dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT					condenser inlet/outlet pipe diameter in	Chilled Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure dropKPa	Air flow×1000 m <sup>3</sup> /h	Power kW × number			
40STE-M140ASI4	92	26	23	0, 66, 100	30	Copper tube with corrugated aluminum fins	2-1/2"	16	1	28	29	1.2×2	68	1160	1270
40STE-M200ASI4	131	37	33	0 50 75 100	42		3"	22	1	33	40	2.0×2	68	1730	1920
40STE-M270ASI4	174	50	43		56		3"	30	1	48	58	1.2×4	68	2590	2810
40STE-M320ASI4	206	59	50		68		3"	35	1	55	80	2.0×4	68	2670	2900
40STE-M370ASI4	238	68	57		78		4"	41	1	61	86	1.2×6	72	2750	3020
40STE-M400ASI4	265	75	61		84		4"	46	1	64	121	2.0×6	72	2930	3240
40STE-M450ASI4	288	82	69		93		4"	50	1	66	121	2.0×6	72	3160	3450
40STE-M500ADI4	339	96	84	104	4"		58	1	42	161	2.0×8	72	4430	4750	
40STE-M540ADI4	349	99	87	112	4"		60	1	54	161	2.0×8	72	4550	4970	
40STE-M640ADI4	412	117	99	136	4"		71	1	44	161	2.0×8	72	5340	5800	
40STE-M680ADI4	438	124	105	142	4"		75	1	52	241	2.0×12	72	5420	5950	
40STE-M740ADI4	477	136	114	156	5"		82	1	54	241	2.0×12	75	5500	6040	
40STE-M800ADI4	529	150	123	168	5"		91	1	55	241	2.0×12	75	5860	6480	
40STE-M900ADI4	577	164	137	186	6"		99	1	65	241	2.0×12	75	6320	6900	

Note:

- Nominal working conditions: Air dry / wet bulb temperature 35° C/24° C, chilled water inlet and outlet water temperature 30 °C / 35 °C; fouling factor 0.088 m<sup>2</sup> · °C / kW;
- Chilled water temperature range: 5 °C ~ 20 °C
- Cold water temperature range: -5° C ~ 43° C
- Specifications and dimensions are subject to improvement without notice.

## Water cooled industrial chiller technical parameter

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

Model	Nominal cooling capacity		Compressor Input Power kW	Unit operating current A	Capacity control %	Refrigerant charge kg	Condenser				Evaporator			Operating Sound Level dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT					Condenser inlet/outlet pipe diameter in	Chilled Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa	condenser inlet/outlet pipe diameter in	Chilled water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa			
40STD-120WSI4	135	38	28	39	0 66 100	17	2"	28	1	41	23	1	22	73	968	1067
40STD-160WSI4	186	53	37	52		24	2-1/2"	38	1	43	32	1	24	73	1001	1111
40STD-220WSI4	244	69	46	66		30	3"	50	1	45	42	1	26	73	1188	1342
40STD-290WSI4	326	93	61	86	0 50 75 100	40	3"	67	1	47	56	1	28	73	1342	1518
40STD-310WSI4	351	100	67	93		44	3"	72	1	47	60	1	29	74	1529	1683
40STD-370WSI4	414	118	76	107		52	3"	84	1	49	71	1	33	74	1661	1837
40STD-430WSI4	487	138	88	126		59	4"	99	1	51	84	1	35	75	1782	1958
40STD-460WSI4	524	149	95	136		65	4"	107	1	52	90	1	38	75	1903	2057
40STD-510WSI4	570	162	105	151		71	4"	116	1	54	98	1	41	75	2013	2222
40STD-610WSI4	692	197	126	176		86	5"	141	1	55	119	1	43	75	2354	2640
40STD-700WSI4	800	228	145	202		97	5"	162	1	58	138	1	47	75	2497	2772
40STD-760WSI4	867	246	155	216		105	5"	176	1	60	149	1	50	75	2706	2992
40STD-790WSI4	900	256	162	229		109	5"	183	1	60	155	1	53	75	2794	3212
40STD-920WSI4	1048	298	184	261		127	5"	212	1	65	180	1	57	75	2948	3366
40STD-1010WSI4	1128	321	199	276		141	5"	228	1	65	194	1	59	75	3190	3718
40STD-1080WSI4	1228	349	217	310		150	5"	249	1	68	211	1	61	75	3366	3960
40STD-1210WSI4	1385	394	246	355		168	6"	280	1	70	238	1	64	75	3641	4213
40STD-1490WSI4	1562	444	276	394		207	6"	316	1	74	269	1	68	76	4114	4686
40STD-1750WSI4	2001	569	342	479		243	8"	403	1	77	344	1	71	76	4378	4972
40STD-2000WSI4	2320	660	395	561		277	8"	467	1	80	399	1	75	76	4730	5324
40STD-240WDI4	270	77	56	78	0 33 50 66.5 83 100	34	3"	56	1	45	46	1	25	75	1551	1969
40STD-320WDI4	372	106	74	104		48	3"	77	1	46	64	1	28	75	1793	2431
40STD-440WDI4	489	139	93	131		61	4"	100	1	46	84	1	30	75	2134	2849
40STD-580WDI4	652	185	122	171		80	4"	133	1	49	112	1	33	75	2486	3267
40STD-620WDI4	702	200	133	187		88	5"	144	1	50	121	1	35	75	2794	3663
40STD-740WDI4	828	235	151	214		105	5"	168	1	51	142	1	37	75	3025	4015
40STD-860WDI4	974	277	175	252		118	5"	198	1	53	167	1	39	76	3223	4312
40STD-1020WDI4	1140	324	210	301		143	5"	232	1	58	196	1	43	76	3520	4620
40STD-1220WDI4	1385	394	251	353		171	4"*2	281	1	58	238	1	45	76	3817	5005
40STD-1280WDI4	1447	411	257	361		179	4"*2	293	1	60	249	1	47	76	4114	5313
40STD-1400WDI4	1601	455	289	404		194	5"*2	325	1	61	275	1	51	76	4345	5654
40STD-1520WDI4	1733	493	309	432		209	5"*2	351	1	63	298	1	53	76	4752	6094
40STD-1580WDI4	1800	512	324	459		218	5"*2	365	1	63	310	1	56	76	5291	6325
40STD-1840WDI4	2096	596	369	521		255	5"*2	424	1	67	360	1	60	76	5797	6567
40STD-2020WDI4	2256	641	398	551		281	5"*2	456	1	67	388	1	63	76	6248	6809
40STD-2160WDI4	2455	698	435	620		300	5"*2	497	1	71	422	1	65	76	6479	7150
40STD-2420WDI4	2771	788	491	709		336	6"*2	561	1	73	476	1	67	76	6721	7491
40STD-2980WDI4	3124	888	551	788	414	6"*2	632	1	78	537	1	71	76	8118	9262	
40STD-3500WDI4	4001	1138	684	957	486	8"*2	806	1	82	688	1	75	77	8811	10098	
40STD-4000WDI4	4641	1319	790	1122	555	8"*2	934	1	85	798	1	77	77	9405	10692	
40STD-6000WTI4	6961	1979	1185	1682	15-100	830	8"*3	1401	1	87	1197	1	80	78	12210	12430

Note:

- Nominal working conditions: evaporator inlet and outlet water temperature 17 °C / 12 °C, condenser inlet and outlet water temperature 30 °C / 35 °C; fouling Factor 0.088 m<sup>2</sup> • °C / kW;
- Chilled water temperature range: 5 °C ~ 20 °C
- Cold water temperature range: 15 °C ~ 40 °C
- Specifications and dimensions are subject to improvement without notice.

## Water cooled industrial chiller technical parameter

Refrigerant: R134a

Power supply:460V-3N-60Hz

Model	Nominal cooling capacity		Compressor Input Power kW	Unit operating current A	Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating Sound dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT					Condenser inlet/outlet pipe diameter in	Chilled Water flowm <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa	condenser inlet/outlet pipe diameter in	Chilled water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-120WSI4	90	26	17	26	0 66 100	17	2"	18	1	41	2"	13	1	22	73	968	1067
40STD-160WSI4	125	36	23	35		24	2-1/2"	25	1	43	2-1/2"	18	1	24	73	1001	1111
40STD-220WSI4	166	47	28	45		30	3"	33	1	45	3"	24	1	26	73	1188	1342
40STD-290WSI4	231	66	41	60	0 50 75 100	40	3"	47	1	47	3"	33	1	28	73	1342	1518
40STD-310WSI4	237	68	42	61		44	3"	48	1	47	3"	34	1	29	74	1529	1683
40STD-370WSI4	281	80	48	70		52	3"	57	1	49	3"	40	1	33	74	1661	1837
40STD-430WSI4	325	92	56	81		59	4"	65	1	51	4"	47	1	35	75	1782	1958
40STD-460WSI4	360	102	60	87		65	4"	72	1	52	4"	52	1	38	75	1903	2057
40STD-510WSI4	393	112	67	101		71	4"	79	1	54	4"	56	1	41	75	2013	2222
40STD-610WSI4	447	127	76	110		86	5"	90	1	55	4"	64	1	43	75	2354	2640
40STD-700WSI4	528	150	88	128		97	5"	106	1	58	5"	76	1	47	75	2497	2772
40STD-760WSI4	562	160	91	132		105	5"	112	1	60	5"	81	1	50	75	2706	2992
40STD-790WSI4	592	168	98	141		109	5"	119	1	60	5"	85	1	53	75	2794	3212
40STD-920WSI4	679	193	113	165		127	5"	136	1	65	5"	97	1	57	75	2948	3366
40STD-1010WSI4	754	214	123	174		141	5"	151	1	65	5"	108	1	59	75	3190	3718
40STD-1080WSI4	810	230	134	199		150	5"	162	1	68	5"	116	1	61	75	3366	3960
40STD-1210WSI4	948	270	152	224		168	6"	189	1	70	5"	136	1	64	75	3641	4213
40STD-1490WSI4	1085	309	177	262		207	6"	217	1	74	8"	155	1	68	76	4114	4686
40STD-1750WSI4	1379	392	219	319		243	8"	275	1	77	8"	198	1	71	76	4378	4972
40STD-2000WSI4	1543	439	242	355		277	8"	307	1	80	8"	221	1	75	76	4730	5324
40STD-240WDI4	180	51	35	53	0 33 50 66.5 83 100	34	3"	37	1	45	3"	26	1	25	75	1551	1969
40STD-320WDI4	4869	1384	4871	69		48	3"	1675	1	46	3"	36	1	28	75	1793	2431
40STD-440WDI4	331	94	57	89		61	4"	67	1	46	4"	47	1	30	75	2134	2849
40STD-580WDI4	461	131	82	120		80	4"	93	1	49	5"	66	1	33	75	2486	3267
40STD-620WDI4	475	135	84	123		88	5"	96	1	50	5"	68	1	35	75	2794	3663
40STD-740WDI4	561	160	97	141		105	5"	113	1	51	5"	80	1	37	75	3025	4015
40STD-860WDI4	649	185	111	161		118	5"	131	1	53	5"	93	1	39	76	3223	4312
40STD-1020WDI4	785	223	134	203		143	5"	158	1	58	5"	113	1	43	76	3520	4620
40STD-1220WDI4	895	254	151	220		171	4"*2	180	1	58	6"	128	1	45	76	3817	5005
40STD-1280WDI4	963	274	163	240		179	4"*2	194	1	60	6"	138	1	47	76	4114	5313
40STD-1400WDI4	1055	300	176	256		194	5"*2	212	1	61	6"	151	1	51	76	4345	5654
40STD-1520WDI4	1125	320	182	264		209	5"*2	225	1	63	8"	161	1	53	76	4752	6094
40STD-1580WDI4	1184	337	197	280		218	5"*2	238	1	63	8"	170	1	56	76	5291	6325
40STD-1840WDI4	1359	386	225	330		255	5"*2	272	1	67	8"	195	1	60	76	5797	6567
40STD-2020WDI4	1507	429	246	348		281	5"*2	302	1	67	8"	216	1	63	76	6248	6809
40STD-2160WDI4	1620	461	268	399		300	5"*2	325	1	71	8"	232	1	65	76	6479	7150
40STD-2420WDI4	1896	539	305	448		336	6"*2	378	1	73	8"	272	1	67	76	6721	7491
40STD-2980WDI4	2170	617	353	525		414	6"*2	434	1	78	8"	311	1	71	76	8118	9262
40STD-3500WDI4	2758	784	438	638		486	8"*2	550	1	82	10"	395	1	75	77	8811	10098
40STD-4000WDI4	3086	877	484	711		555	8"*2	614	1	85	10"	442	1	77	77	9405	10692
40STD-6000WTI4	4629	1316	726	1066	15-100	830	8"*3	921	1	87	12"	663	1	80	78	12210	12430

Note:

1. Nominal working conditions: evaporator inlet and outlet water temperature 17 °C / 12 °C, condenser inlet and outlet water temperature 30 °C / 35 °C; fouling Factor 0.088 m<sup>2</sup> • °C / kW;

2. Chilled water temperature range: 5 °C ~ 20 °C

3. Cold water temperature range: 15 °C ~ 40 °C

4. Specifications and dimensions are subject to improvement without notice.

## Air-cooled industrial unit technical parameter

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

Model	Nominal cooling capacity		Compressor Input Power kW	Capacity control %	Refrigerant charge kg	Condenser	Evaporator				Axial Fan		Operating Sound dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT					condenser inlet/outlet pipe diameter in	Chilled Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop kPa	Air flow×1000 m <sup>3</sup> /h	Power kW × number			
40STE-140ASI4	163	46	45	0, 66, 100	30	Copper tube with corrugated aluminum fins	2-1/2"	28	1	28	48	2.5×2	68	1276	1397
40STE-200ASI4	230	66	62	0 50 75 100	42		3"	40	1	33	69	1.5×4	68	1903	2112
40STE-270ASI4	308	88	81		56		3"	53	1	48	96	2.5×4	68	2849	3091
40STE-320ASI4	363	103	91		68		3"	62	1	55	104	1.5×6	68	2937	3190
40STE-370ASI4	428	122	106		78		4"	74	1	61	145	2.5×6	72	3025	3322
40STE-400ASI4	460	131	115		84		4"	79	1	64	145	2.5×6	72	3223	3564
40STE-450ASI4	501	142	127		93		4"	86	1	66	193	2.5×8	72	3476	3795
40STE-500ADI4	573	163	148	104	4"		98	1	42	193	2.5×8	72	4873	5225	
40STE-540ADI4	617	175	161	112	4"		106	1	54	193	2.5×8	72	5005	5467	
40STE-640ADI4	727	207	183	136	4"		125	1	44	289	2.5×12	72	5874	6380	
40STE-680ADI4	768	218	194	142	4"		132	1	52	289	2.5×12	72	5962	6545	
40STE-740ADI4	855	243	212	156	4"		147	1	54	289	2.5×12	75	6050	6644	
40STE-800ADI4	921	262	230	168	4"		158	1	55	289	2.5×12	75	6446	7128	
40STE-900ADI4	1001	285	253	186	4"×2		172	1	65	386	2.5×16	75	6952	7590	

Note:

- Nominal working conditions: Air dry / wet bulb temperature 35° C/24° C, chilled water inlet and outlet water temperature 30 °C / 35 °C; fouling factor 0.088 m<sup>2</sup> · °C / kW;
- Chilled water temperature range: 5 °C ~ 20 °C
- Cold water temperature range: -5° C ~ 43° C
- Specifications and dimensions are subject to improvement without notice.

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

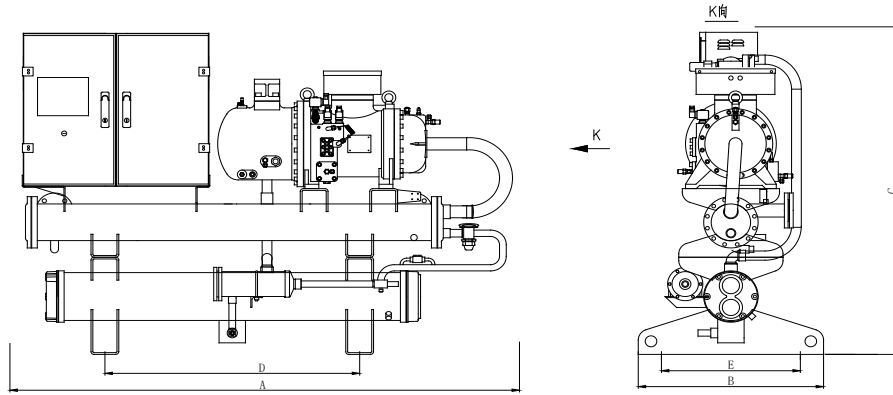
Model	Nominal cooling capacity		Compressor Input Power kW	Capacity control %	Refrigerant charge kg	Condenser	Evaporator				Axial Fan		Operating noise dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT					condenser inlet/outlet pipe diameter in	Chilled Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop kPa	Air flow×1000 m <sup>3</sup> /h	Power kW × number			
40STE-M140ASI4	111	31	28	0, 66, 100	30	Copper tube with corrugated aluminum fins	2-1/2"	16	1	28	35	1.5×2	68	1276	1397
40STE-M200ASI4	157	45	39	0 50 75 100	42		3"	22	1	33	48	2.5×2	68	1903	2112
40STE-M270ASI4	209	60	52		56		3"	30	1	48	69	1.5×4	68	2849	3091
40STE-M320ASI4	247	70	59		68		3"	35	1	55	96	2.5×4	68	2937	3190
40STE-M370ASI4	286	81	68		78		4"	41	1	61	104	1.5×6	72	3025	3322
40STE-M400ASI4	318	90	74		84		4"	46	1	64	145	2.5×6	72	3223	3564
40STE-M450ASI4	346	98	82		93		4"	50	1	66	145	2.5×6	72	3476	3795
40STE-M500ADI4	406	116	101	104	4"		58	1	42	193	2.5×8	72	4873	5225	
40STE-M540ADI4	419	119	104	112	4"		60	1	54	193	2.5×8	72	5005	5467	
40STE-M640ADI4	495	141	119	136	4"		71	1	44	193	2.5×8	72	5874	6380	
40STE-M680ADI4	525	149	126	142	4"		75	1	52	289	2.5×12	72	5962	6545	
40STE-M740ADI4	572	163	137	156	5"		82	1	54	289	2.5×12	75	6050	6644	
40STE-M800ADI4	635	181	147	168	5"		91	1	55	289	2.5×12	75	6446	7128	
40STE-M900ADI4	692	197	165	186	6"		99	1	65	289	2.5×12	75	6952	7590	

Note:

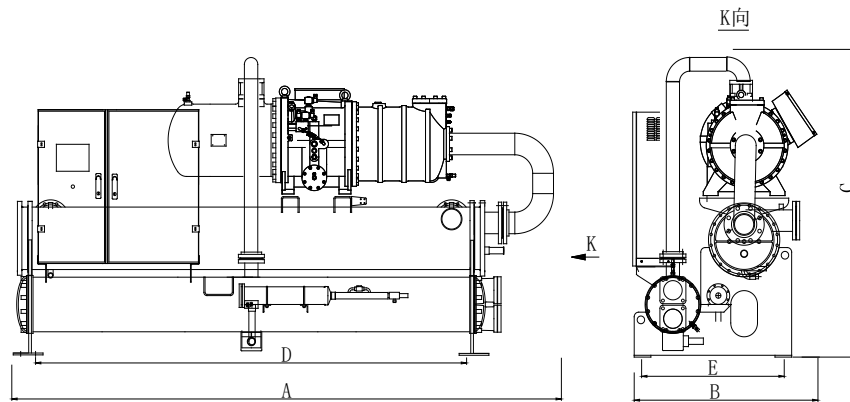
- Nominal working conditions: Air dry / wet bulb temperature 35° C/24° C, chilled water inlet and outlet water temperature 30 °C / 35 °C; fouling factor 0.088 m<sup>2</sup> · °C / kW;
- Chilled water temperature range: 5 °C ~ 20 °C
- Cold water temperature range: -5° C ~ 43° C
- Specifications and dimensions are subject to improvement without notice.



Water cooled industrial chiller dimensions

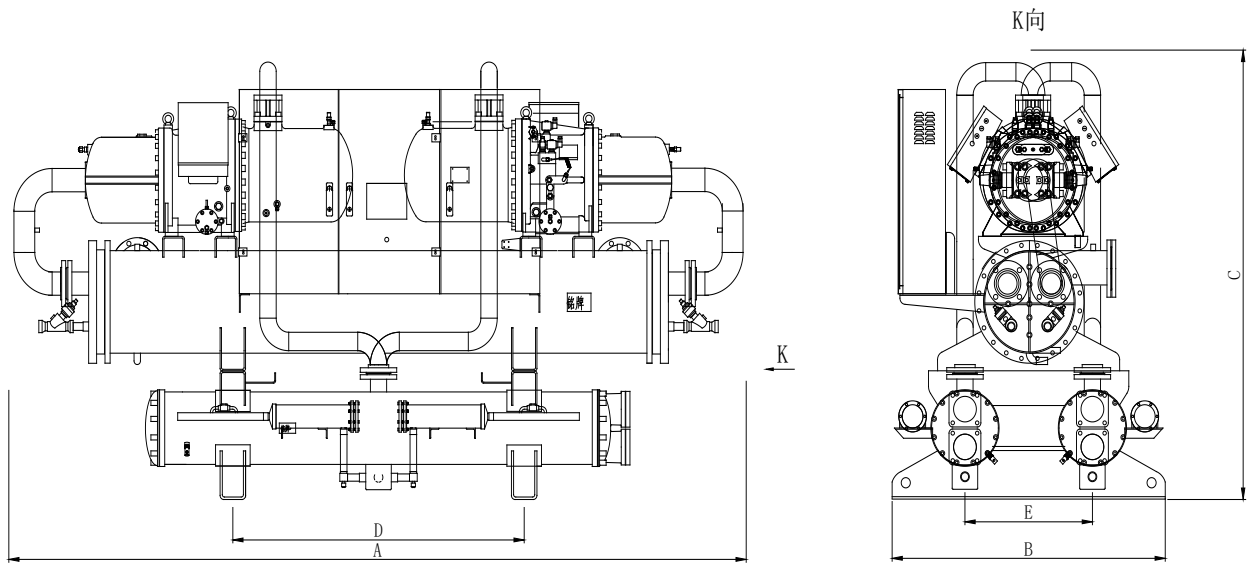


Model	A	B	C	D	E
40STD-120WSI4	2200	800	1500	1000	600
40STD-160WSI4	2200	800	1550	1100	600
40STD-220WSI4	2350	900	1600	1200	700
40STD-290WSI4	2650	900	1750	1200	700
40STD-310WSI4	2850	900	1750	1200	700
40STD-370WSI4	2900	900	1800	1200	700
40STD-430WSI4	2950	900	1900	1200	700
40STD-460WSI4	2950	900	1900	1200	700
40STD-510WSI4	2950	900	1950	1600	700



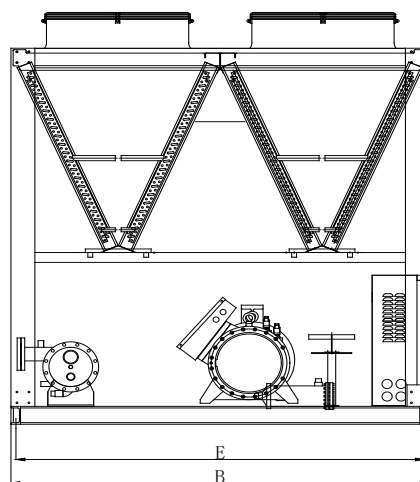
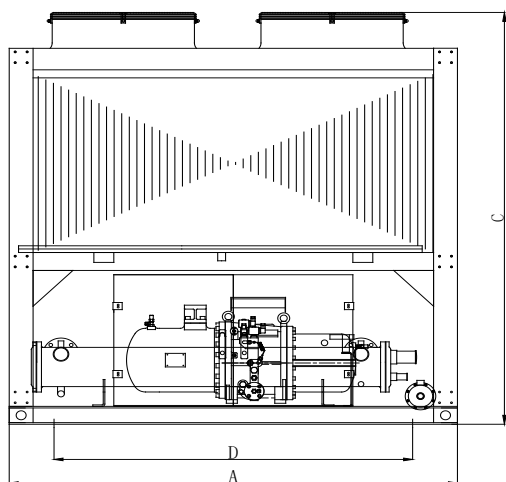
Model	A	B	C	D	E
40STD-610WSI4	3000	1200	1950	2200	920
40STD-700WSI4	3000	1250	2000	2200	950
40STD-760WSI4	3000	1300	2000	2200	950
40STD-790WSI4	3000	1300	2000	2200	950
40STD-920WSI4	3700	1300	2050	2800	950
40STD-1010WSI4	3700	1300	2150	2800	950
40STD-1090WSI4	3700	1300	2150	2800	950
40STD-1210WSI4	3800	1400	2200	2800	1000
40STD-1490WSI4	3800	1400	2200	2800	1000
40STD-1750WSI4	4000	1600	2300	3200	1200
40STD-2000WSI4	4000	1400	2200	2800	1000

Water-cooled industrial chiller Dimensions

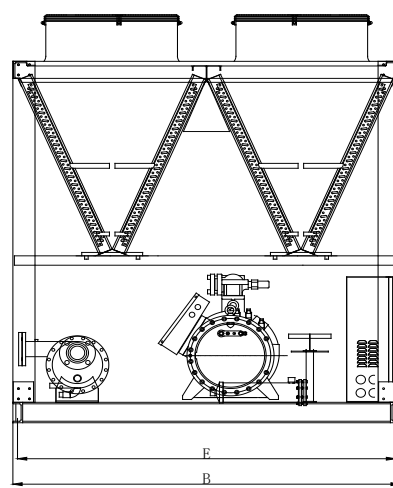
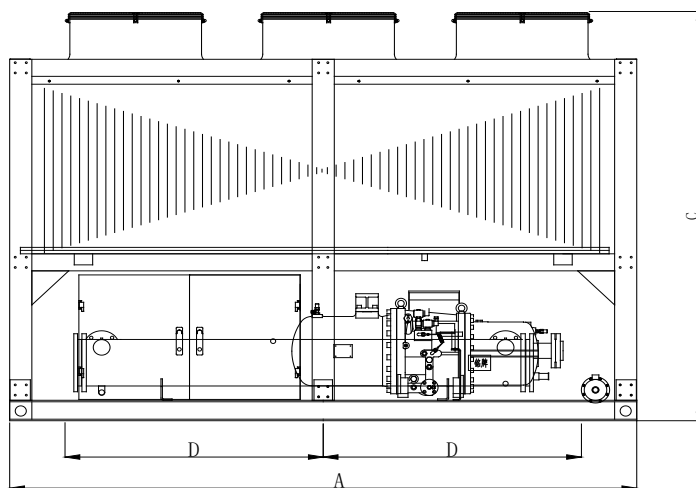


Model	A	B	C	D	E
40STD-240WDI4	2800	1050	1650	1200	700
40STD-320WDI4	3150	1050	1750	1300	700
40STD-440WDI4	3200	1050	1750	1300	700
40STD-580WDI4	3200	1050	1900	1300	700
40STD-620WDI4	3200	1050	2000	1300	700
40STD-740WDI4	3400	1050	2000	1300	700
40STD-860WDI4	3400	1050	2000	1300	700
40STD-1020WDI4	3750	1850	2100	2850	1470
40STD-1220WDI4	3750	1850	2100	2850	1470
40STD-1280WDI4	3750	1850	2100	2850	1470
40STD-1400WDI4	3750	1850	2150	2850	1600
40STD-1520WDI4	3750	1850	2150	2850	1600
40STD-1580WDI4	4200	2000	2350	3350	1680
40STD-1840WDI4	4300	2050	2400	3350	1705
40STD-2020WDI4	4450	2050	2350	3350	1785
40STD-2160WDI4	4450	2050	2350	3350	1785
40STD-2420WDI4	4550	2200	2550	3350	1840
40STD-2980WDI4	4800	2400	3000	3500	1500
40STD-3500WDI4	5000	2400	3000	3500	1500
40STD-4000WDI4	5000	2400	3000	3500	1500
40STD-6000WTI4	5500	2500	3000	3700	1600

Air-cooled industrial chiller dimensions

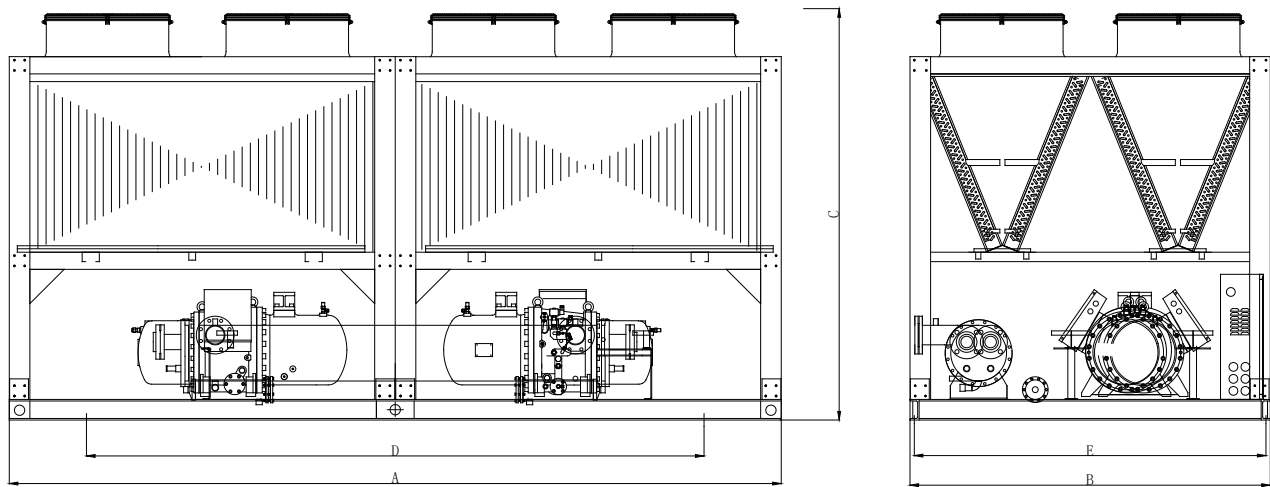


Model	A	B	C	D	E
40STE-140AS14	2210	1300	2050	1600	1260
40STE-200AS14	2250	2100	2300	1800	2050
40STE-270AS14	2480	2100	2400	1800	2050

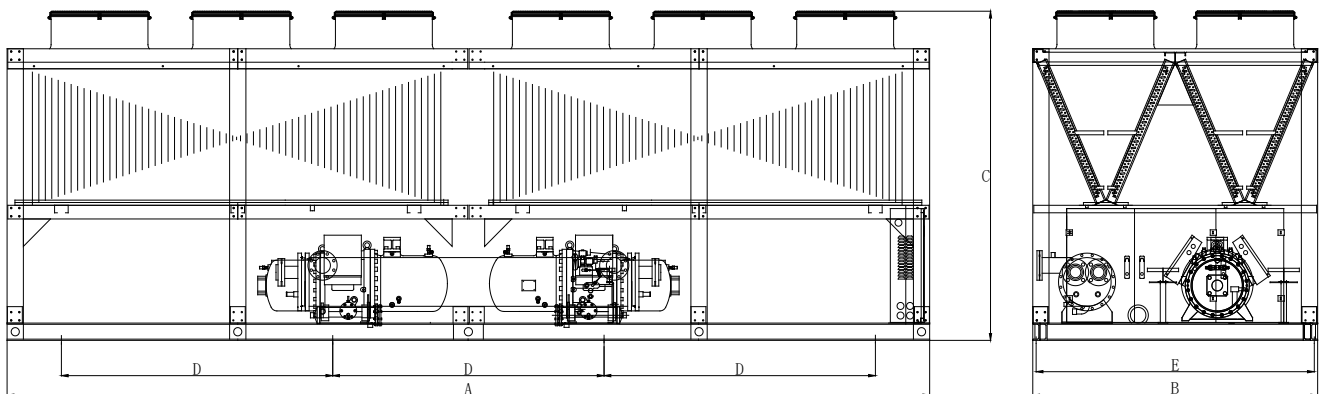


Model	A	B	C	D	E
40STE-320AS14	3400	2100	2400	1400	2050
40STE-370AS14	3400	2100	2400	1400	2050
40STE-400AS14	3400	2100	2400	1400	2050
40STE-450AS14	4500	2100	2400	1800	2050

Air-cooled industrial chiller dimensions

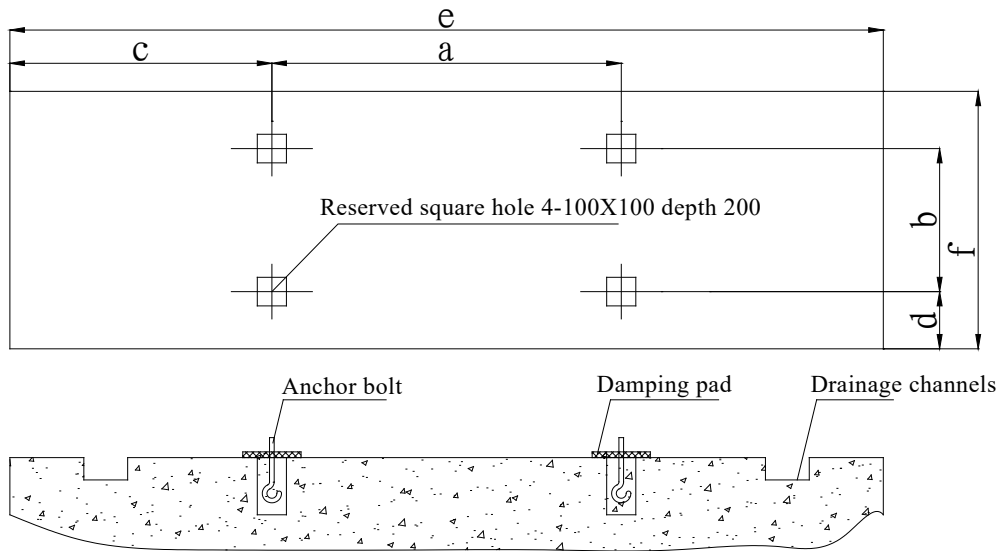


Model	A	B	C	D	E
40STE-500ADI4	4500	2100	2400	3600	2050
40STE-540ADI4	4960	2100	2400	4000	2050



Model	A	B	C	D	E
40STE-640ADI4	6800	2100	2400	2000	2050
40STE-680ADI4	6800	2100	2400	2000	2050
40STE-740ADI4	6800	2100	2400	2000	2050
40STE-800ADI4	6800	2100	2400	2000	2050
40STE-900ADI4	9000	2100	2400	2400	2050





Model	a	b	c	d	e	f
40STD-120/160WSI4	1100	600	700	200	2500	1000
40STD-220WSI4	1200	700	750	250	2700	1200
40STD-290WSI4	1200	700	800	250	2800	1200
40STD-310/370WSI4	1200	700	1000	250	3200	1200
40STD-430/460WSI4	1200	700	1000	250	3200	1200
40STD-510WSI4	1600	700	800	250	3200	1200
40STD-610WSI4	2250	840	600	250	3450	1340
40STD-700/760/790WSI4	2250	950	600	200	3450	1450
40STD-920/1010WSI4	2850	950	550	300	3950	1550
40STD-1080/1210WSI4	2850	1120	550	300	3950	1720
40STD-1490WSI4	3200	1800	550	250	4300	2300
40STD-1750WSI4	3200	1900	650	200	4500	2300
40STD-2000WSI4	3200	2000	750	250	4700	2500
40STD-240WDI4	1200	700	800	250	2800	1200
40STD-320/440WDI4	1300	700	1000	250	3300	1200
40STD-580/620WDI4	1300	700	1150	250	3600	1200
40STD-740WDI4	1300	700	1150	250	3600	1200
40STD-860WDI4	1200	1150	1050	200	4300	1550
40STD-1020WDI4	1600	1250	1350	200	4300	1650
40STD-1220/1280WDI4	1600	1250	1350	250	4300	1750
40STD-1400/1520WDI4	1600	1350	1350	250	4300	1850
40STD-1580WDI4	1600	1350	1400	250	4400	1850
40STD-1840WDI4	1600	1300	1550	300	4700	1900
40STD-2020/2160WDI4	2400	800	1150	600	4700	2000
40STD-2420WDI4	2400	800	1150	600	4700	2000
40STD-2980/3500WDI4	2600	1000	1200	750	5000	2500
40STD-4000WDI4	2600	1000	1300	750	5200	2500
40STD-6000WTI4	2600	1200	1500	750	5200	3000
40STD-3500/4000WDI4	3500	1500	900	250	5200	2500
40STD-6000WTI4	3700	1600	900	250	5200	2500



**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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