

# H.Stars Screw Type Chiller/ Heat Pump Unit



H.Stars (Guangzhou) Refrigerating Equipment Group Ltd.

# Design Features and Performance

H.Stars Screw Type Chiller/Heat Pump Unit

H.Stars 40STD Screw Type Chiller unit has 4 series:  
Screw Type Water-cooled Chiller, Screw type Water

## Energy-Efficient

With the self-produce major components and independent intellectual property rights, the system is perfectly matched to enable COP up to 6.0.

Optional H.Stars patented heat recovery unit , 30% to 100% of heat capacity can be recovered while chiller applicable for air-conditioning system. The highest temperature of hot water can up to 70°C .

Heat recovery unit does not consume any energy, and the unit efficiency can be increased by 5%

## Intelligent Control

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

The control screen directly displays the fault content to facilitate users troubleshooting.

Source Heat Pump Unit, Screw Type Air-cooled Chiller, Screw Type Air Source Heat Pump.

## 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.

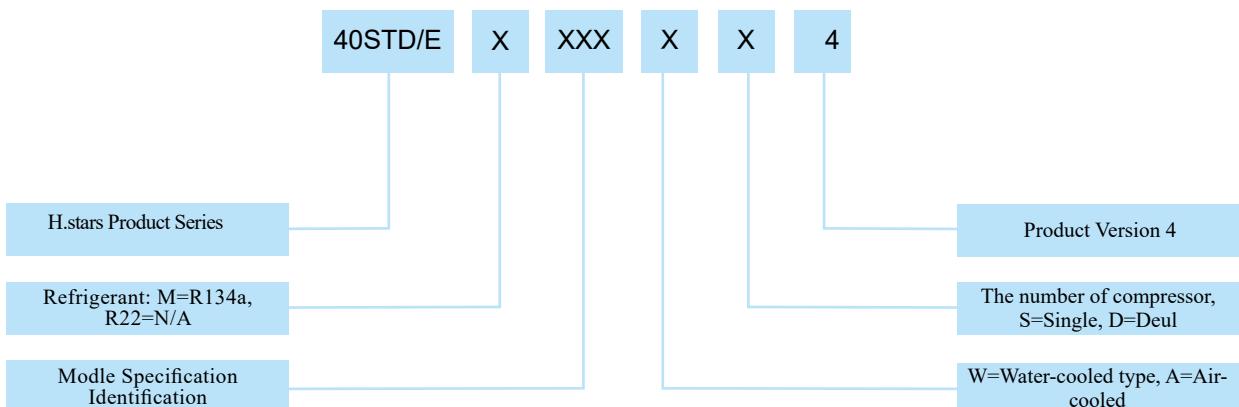
All chiller will be 100% tested before shipping to ensure the quality of each equipment qualified.

## 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.



## Model Nomenclature



## Water-cooled Chiller

Standard Configuration	
Compressor	Semi-hermetic twin screw compressors
Evaporator	Self-produced high efficiency evaporator
Condenser	Self-produced high efficiency condenser
Controller	Microcomputer controller
Throttling device	Thermostatic/electronic expansion valve
Starting mode	Delta Starter
Power Supply	380V-3N-50/60Hz
Insulation Material	Anti-corrosive waterproof mesh insulation
Packaging	Reinforced Shrink-wrap Covering ,industrial-grade
Oil Paint	High strength matte paint
Water Pipe Connection	Flange



Water-cooled screw type chiller adopts high efficient twin screw compressors system, assembled with self-made high efficient condenser and evaporator , equipped with famous brand expansion valve. Application: all kinds of large and medium-sized industrial and commercial application. Cooling capacity: 70KW-5000KW.

A variety of refrigerant selection, R407c, R134a and other refrigerant are available. Outlet temperature range of chilled water is from 5 to 20°C . 380V-3N-50/60Hz, 480V-3N-60Hz and other power supply systems available. Chillers modular control is also available.

## Water Source Heat Pump Unit

Standard Configuration	
Compressor	Special Heat Pump Compressor
Evaporator	Self-produced high efficiency evaporator
Condenser	Self-produced high efficiency condenser
Controller	Microcomputer controller
Throttling device	Thermostatic/electronic expansion valve
Starting mode	Delta Starter
Power Supply	380V-3N-50/60Hz
Insulation Material	Anti-corrosive waterproof mesh insulation
Packaging	Reinforced Shrink-wrap Covering ,industrial-grade
Oil Paint	High strength matte paint
Water Pipe Connection	Flange



Water source screw type heat pump unit adopts twin screw compressors, it can be used for cooling and heating, or one unit with both functions: one system replaces the original boiler and air conditioning system to save a lot of energy while reducing the initial investment in equipment. Heating

without boiler room system and cooling without cooling tower to achieve zero pollution and emission. Cooling capacity range: 70kw-5000kw; Heating capacity range: 80kw-6000kw.

## Air-cooled Chiller

Standard Configuration	
Compressor	Specialized air cooled compressor
Evaporator	Self-produced high efficiency evaporator
Condenser	Self-produced high efficiency fin coil condenser
Controller	Microcomputer controller
Fan	Axial fan
Throttling device	Thermostatic/electronic expansion valve
Starting mode	Delta Starter
Power Supply	380V-3N-50/60Hz
Insulation Material	Anti-corrosive waterproof mesh insulation
Packaging	Reinforced Shrink-wrap Covering ,industrial-grade
Oil Paint	High strength matte paint
Water Pipe Connection	Flange

Air-cooled screw type chiller adopt specialized air cooled compressor, independently developed and manufactured efficient evaporator and condenser, COP is above 3.2 and optional heat recovery system. Application: hotels, shopping malls, office buildings and other commercial industries. Cooling capacity: 75kw ~ 1000kw.

A variety of refrigerant selection, R407c, R134a and other

## Air Source Heat Pump Unit

Standard Configuration	
Compressor	Specialized Air-source compressor
Evaporator	Self-produced high efficiency evaporator
Condenser	Self-produced high efficiency fin coil condenser
Controller	Microcomputer controller
Fan	Axial fan
Throttling device	Thermostatic/electronic expansion valve
Starting mode	Delta Starter
Power Supply	380V-3N-50/60Hz
Insulation Material	Anti-corrosive waterproof mesh insulation
Packaging	Reinforced Shrink-wrap Covering ,industrial-grade
Oil Paint	High strength matte paint
Water Pipe Connection	Flange

Air source screw type heat pump unit adopts twin screw compressors, which matches self-produce high efficient condenser, evaporator and branded expansion valve. Application: hotels, shopping malls, office buildings and other commercial industries. Cooling capacity: 75kw ~ 1000kw; Heat capacity range: 80kw ~ 1100kw.



refrigerant are available. Outlet temperature range of chilled water from 5 to 20°C . 380V-3N-50/60Hz,480-3N-60Hz and other power supply is available. According to different countries and regions, in addition, customize sea water source and other anti-corrosive products are available according to customer requirements.



The outlet chilled water temperature range is 5~20 °C , and outlet hot water temperature is 50°C .

In addition to the standard specifications, non-standard units can also be customized according to user needs .

## Screw Type Compressor

Compressor adopt cast iron shell and forged steel rotor. It ensures a small space between two screws but without surface contact. The rotor support ensure accurate positioning while the rotor at various pressure ratios, reduce wear, prevent leakage, and extend life time.

The compressor is designed with full wear resistance bearing, reduce energy consumption and improve reliability.

Compressor motor adopts silicon steel core, motor cooling by-pass, refrigerant diversion design, which ensures the motor works at high efficiency and stable in the long term under bad working conditions.



## Shell and Tube Evaporator

The evaporator copper tube adopts 1.1mm thickness copper tube, which ensures that all products are high efficiency, energy saving, safety, and durability.

The evaporator adopts flooded type or falling film type design, where refrigerant through the shell and water pass through the tube. The heat exchange process is always between the liquid refrigerant and the liquid water. The refrigerant gas is directly sucked into the compressor from the evaporator, and the heat exchange area is effectively utilized, thereby improving the chiller heat exchange efficiency..



## Shell and Tube Type Condenser

Shell and tube condenser is higher standard than normal heat exchanger. Different materials of heat exchange tubes are available for customer's selection base on varies operating conditions and water quality factors to ensure the chiller operating with high efficiency, energy saving and long service life.

The exhaust gas from compressor is reflected by the tube sheet to prevent the gas directly impacting the tube bundle at a high speed, and the flow rate of the refrigerant gas can be reasonably distributed to maximize the heat exchange efficiency. The subcooler is located at the bottom of the condenser, effectively supercooling the liquid refrigerant and improving cycle efficiency.



## Fin Coil Type Condenser

Copper tube aluminum fin type design, even wind speed.

Reasonable copper tube arrangement, "V" shape installation to improve heat transfer efficiency and reduce fan voice level.

The copper tube and the aluminum fin are tightly mechanically expanded, and the performance is high and the heat exchange is stable. The fin is made of hydrophilic corrugated aluminum to improve heat transfer efficiency.

Adopting axial fan, low voice level, high air flow, high efficiency, sufficient dynamic pressure, IP54 protection grade, fully meet the outdoor operation conditions.



## 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.

## Control center

Plastic steel shell with standard rail mounting

Integrated design, combine with electronic expansion valve control module into one system

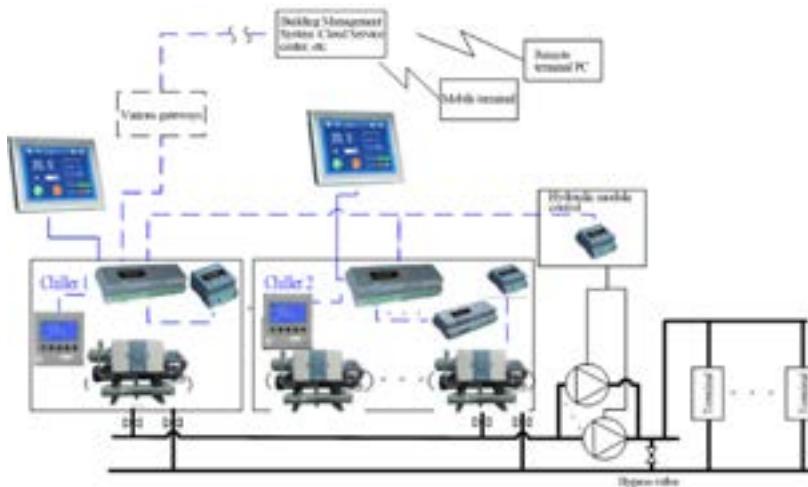
Three-phase voltage and real-time current display integrated totally into one control system.

The mainboards can switch freely between networked, group controlled and single controlled switch freely.



Integrated controller

## Network of multiple chillers



Phase reverse protection is included, which gives better protection to the chiller without adjustment; No extra cost for external phase reverse protector and high integration; high reliability and after-sales cost-saving.

The analog quantity accurately detects the compressor running current and voltage, to protect the compressor in time, improves the life of the compressor, reduces the after-sales service cost .

Standard MODBUS interface, easy to connect to the building management system, innovative LAN interface, easy to connect local devices into a local network to optimize equipment operation, save energy, and increase equipment life.

Integrated expert-class electronic expansion valve drive, control is more stable; less space; saves installation labor cost.

Analog operation pressure detection, precise pressure protection.

Direct display chiller operation, fault , and built-in operating instructions. Convenient for commissioning, maintenance, and easy to use.

The controller makes different operation strategies

according to the collected information, and completed protection function ensure the smooth operation of the chiller under bad working conditions. In the harsh conditions such as low temperature and high temperature, the chiller can still guarantee stable operation.

Digital power supply and motor protection device and digital display of three-phase voltage and motor current.

Advanced electronic expansion valve control system, the refrigerant system is more stable.

Intelligent defrost contactor status, to avoid damage to the compressor by contactor. Integrated electronic expansion valve drive and control algorithm without scaling.

Integrated MODBUS communication protocol for easy expansion and easy connection to cloud servers.

Intelligent pre-protection, detecting various data of the unit and reaching the critical value intelligent unloading.

Different level alarm; according to the fault level, intelligently makes protection actions such as shut down the chiller, only alarming etc., and comprehensively protecting the safe operation of the chiller.

# Standard Unit Performance Parameter Table

H.Stars Screw Type Chiller/Heat Pump Unit

## HMI Display

10 inch / 8 inch true color touch screen to display more delicate and clear.

Support USB flash disk to upgrade the system.

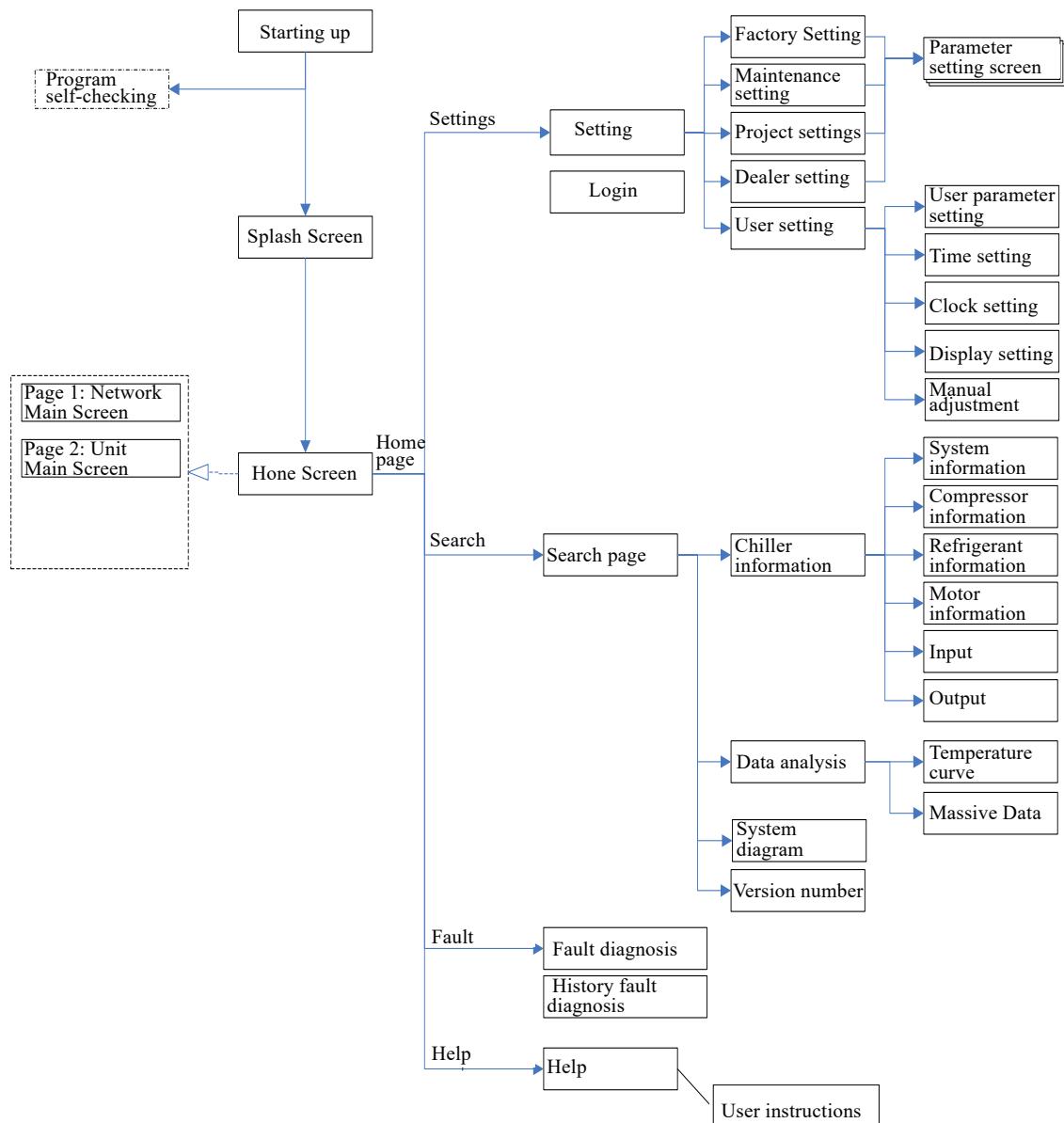
Easy to operate and visually display dynamic operation information

Multi language switches freely.

True color display of control center greatly improves efficiency to monitor the chiller, record chiller data with security protection and convenient operation.



## Interface structure diagram



## Heat Recovery

The condensing heat of the chiller (usually discharged into the atmosphere by the cooling tower) is recovered and used effectively. For example, a hotel needs to provide both heat (for hot water) and air conditioning during the summer. With the heat recovery, the heat absorbed during cooling can be transferred to the building where hot water is needed by heat recovery. In the cooling season, hot water above 50 °C can be provided free by adopting the heat recovery unit. Heat recovery of up to cooling capacity 30% to 100%.

H.Stars heat recovery patent No.: ZL03223588.7.



Heat Recovery Patent

## Two types of heat recovery

One is sensible heat recovery, also called partial heat recovery: it is a low proportion heat recovery, low recovery temperature and relatively stable (Ensure the efficiency of chiller operation); it has a promoting effect on unit performance (COP). Compared to standard chiller, the cost increase is small.

The other is full heat recovery: it is a high proportion of heat recovery, and the recovery temperature can be selected according to demand; if the hot water temperature requirement is too high, it has a negative impact on the performance of the unit (COP), and it depends on the hot water temperature. However, considering the overall performance of the system (using the heat recovery + cooling capacity), there is a good energy saving advantage.

H.Stars screw chiller can meet the needs of heat recovery system application. For the system design and technical parameters of the specific project please contact us for more.



Air Cooled Chiller with Heat Recovery



China machinery industry science and technology award



Water Cooled Chiller with Heat Recovery

## Heat Exchanger Tube

### Condenser Heat Exchange Tube



Condenser heat exchange tube specification

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

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.

## 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

### VFD (Variable Frequency Driver) technology

VFD is to change the power supply frequency, thus adjusting the load, to reduce power consumption, reduce losses, and extend the life of the equipment. The core of VFD technology is the Variable-frequency Driver. Automatic adjustment of motor operating speed rate by conversion of power supply frequency to make the fixed grid of 50 Hz change to the frequency of 30-130 Hz. At the same time, the power supply voltage adapts to the range of 142-270V, which solves the problem that the electrical equipment voltage is unstable due to the instability of the grid voltage. The technology for realizing AC power control by changing the AC frequency is called VFD technology.

VFD chiller is a more efficient chiller. It not only inherits the high efficiency of the original fixed frequency, but also incorporates advanced VFD technology. Adopting international brand Danfoss/ABB VFD to 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 medium and high-end construction fields to improve the quality of the environment and precision of the ambient temperature.

### Main Features of VFD Chiller

#### Energy efficient

Adopt 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 install

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

#### VFD advantages

VFD screw chiller with 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.

#### Precise temperature control

The outlet water temperature can be controlled precisely within  $\pm 0.3$  degrees to meet high precision temperature control requirement.



Danfoss brand VFD

#### Environmental friendly and energy efficient

VFD screw chiller with R134a refrigerant, according to requirements, has no destructive effect on the ozone and meets the requirements of the Montreal Protocol; VFD energy saving, evaporator flooded type energy saving, and application energy saving advantages.

#### 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 High efficient Air Cooled Chiller

## Screw Type Water-cooled Chiller Technical Parameters

Refrigerant: R22

Power supply:380V-3N-50Hz

Model	Nominal cooling capacity		Compressor Input Power kW	Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating noise dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT				Inlet pipe diameter in	Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop kPa	Inlet pipe diameter in	Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop kPa			
40STD-F100WS4	103	29	22	0 66 100	23	2"	21	1	41	2"	18	1	68	73	1020	1130
40STD-F140WS4	143	41	29		32	2-1/2"	30	1	47	2-1/2"	25	1	70	74	1060	1170
40STD-F190WS4	188	53	37		41	3"	39	1	45	3"	32	1	69	75	1250	1410
40STD-F260WS4	250	71	48		54	3"	51	1	53	3"	43	1	70	75	1400	1580
40STD-F280WS4	270	77	53		60	3"	56	1	52	3"	46	1	72	76	1580	1730
40STD-F440WS4	438	125	83		92	5"	90	1	53	4"	75	1	68	76	2840	3060
40STD-F530WS4	532	151	100		109	5"	109	1	56	5"	91	1	70	77	3100	3380
40STD-F610WS4	615	175	115		126	5"	126	1	54	5"	106	1	69	77	4100	4410
40STD-F690WS4	691	196	128		140	5"	141	1	56	5"	119	1	70	77	4520	4890
40STD-F800WS4	805	229	146		163	5"	164	1	58	5"	138	1	72	78	4740	5190
40STD-F880WS4	866	246	158	0 50 75 100	179	6"	176	1	58	6"	149	1	73	78	5130	5620
40STD-F940WS4	943	268	172		191	6"	192	1	73	6"	162	1	88	79	5810	6340
40STD-F1060WS4	1064	303	195		216	6"	217	1	76	6"	183	1	91	79	6230	6760
40STD-F1290WS4	1199	341	219		264	8"	244	1	79	8"	206	1	94	80	6750	7460
40STD-F1520WS4	1536	437	272		310	8"	311	1	80	8"	264	1	95	81	7890	8600
40STD-F1740WS4	1782	507	313		357	8"	360	1	81	8"	306	1	96	82	8989	10370
40STD-F1110WD4	1111	316	204		228	6"	226	1	56	6"	191	1	70	82	4820	5450
40STD-F1220WD4	1230	350	230		252	8"	251	1	56	8"	212	1	70	82	5620	6170
40STD-F1380WD4	1382	393	256		281	8"	282	1	58	8"	238	1	72	83	5810	6260
40STD-F1600WD4	1610	458	292		326	8"	327	1	58	8"	277	1	73	83	5980	6440
40STD-F1880WD4	1886	536	344	0 25 37.5 50 62.5 75 87.5 100	383	8"	383	1	73	8"	324	1	88	84	9970	11190
40STD-F2120WD4	2128	605	390		432	10"	433	1	76	10"	366	1	91	84	10350	11770
40STD-F2580WD4	2398	682	438		527	10"	488	1	79	10"	412	1	94	85	12820	14450
40STD-F3040WD4	3072	873	544		621	12"	622	1	80	10"	528	1	95	86	15890	17910
40STD-F3480WD4	3564	1013	626		714	14"	721	1	81	12"	613	1	96	87	16720	18960
40STD-F5220WT4	5346	1520	939		1071	18"	1081	1	85	16"	919	1	96	88	20000	22000

Note:

1. Nominal cooling capacity reference: evaporator inlet and outlet water temperature 17°C /12°C , condenser inlet and outlet water temperature 30°C / 35°C ; fouling factor 0.088m<sup>2</sup>.°C / KW;

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

3. Cooling water temperature range: 15-40°C

4. Specifications and dimensions will be subject to improvement change without notice.

## Screw Type Water-cooled Chiller Technical Parameters

Refrigerant: R134a

Power supply:380V-3N -50Hz

Model	Nominal cooling capacity		Compressor Input Power KW	Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating noise dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT				Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa	Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-FM100WS4	68	19	14	0 66 100	17	2"	14	1	41	2"	12	1	65	73	1020	1130
40STD-FM140WS4	95	27	18		24	2-1/2"	19	1	47	2-1/2"	16	1	68	74	1060	1170
40STD-FM190WS4	126	36	23		31	3"	26	1	45	3"	22	1	65	75	1250	1410
40STD-FM260WS4	175	50	33		41	3"	36	1	53	3"	30	1	68	75	1400	1580
40STD-FM280WS4	180	51	34		45	3"	37	1	52	3"	31	1	70	76	1580	1730
40STD-FM440WS4	298	85	53		68	5"	60	1	50	4"	51	1	65	76	2700	2930
40STD-FM530WS4	340	97	60		75	5"	69	1	52	5"	58	1	68	77	2880	3150
40STD-FM610WS4	400	114	70		81	5"	81	1	52	5"	69	1	65	77	3600	3960
40STD-FM690WS4	449	128	78		98	5"	91	1	54	5"	77	1	68	77	4100	4370
40STD-FM800WS4	516	147	90		119	5"	104	1	56	5"	89	1	70	78	4410	4910
40STD-FM880WS4	572	163	98	0 50 75 100	136	6"	115	1	50	6"	98	1	70	78	4730	5180
40STD-FM940WS4	615	175	106		149	6"	124	1	55	6"	106	1	70	79	5360	5590
40STD-FM1060WS4	719	204	121		162	6"	144	1	58	6"	124	1	75	79	5670	6190
40STD-FM1290WS4	823	234	140		183	8"	166	1	60	8"	142	1	78	80	6170	7070
40STD-FM1520WS4	1047	298	174		225	8"	210	1	75	8"	180	1	82	81	7250	8060
40STD-FM1740WS4	1171	333	192		306	8"	234	1	76	8"	201	1	72	82	8550	9180
40STD-FM1110WD4	731	208	130		204	6"	148	1	52	6"	126	1	64	82	4370	4950
40STD-FM1220WD4	800	227	140		213	8"	162	1	52	8"	138	1	64	82	5200	5470
40STD-FM1380WD4	898	255	156		238	8"	181	1	53	8"	154	1	65	83	5450	5740
40STD-FM1600WD4	1032	293	180		272	8"	208	1	55	8"	177	1	68	83	5630	6180
40STD-FM1880WD4	1230	350	212		340	8"	248	1	64	8"	212	1	80	84	9450	10400
40STD-FM2120WD4	1438	409	242		383	10"	289	1	64	10"	247	1	82	84	9610	11600
40STD-FM2580WD4	1646	468	280		476	10"	331	1	65	10"	283	1	83	85	12190	13300
40STD-FM3040WD4	2094	595	348		621	12"	420	1	80	10"	360	1	95	86	15890	17910
40STD-FM3480WD4	2342	666	384		714	14"	469	1	81	12"	403	1	96	87	16720	18960
40STD-FM5220WT4	3513	999	576		1071	18"	703	1	85	16"	604	1	96	88	20000	22000

Note:

1. Nominal cooling capacity reference: evaporator inlet and outlet water temperature 17°C /12°C , condenser inlet and outlet water temperature 30°C / 35°C ; fouling factor 0.088m² °C / KW;

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

3. Cooling water temperature range: 15-40°C

4. Specifications and dimensions will be subject to improvement change without notice.

### Screw Type Water Source Heat Pump Unit Technical Parameters(R22)

Refrigerant: R22

Power supply:380V-3N-50Hz

Model	Nominal cooling capacity		Nominal heating capacity		Capacity control %	Refrigerant charge kg	Condenser			Evaporator			Operating noise dB(A)	Shipping weight kg	Operating weight kg		
	kW	USRT	kW	USRT			Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa	Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-100WHS4	101	20	119	28	0 66 100	17	2"	25	1	37	2"	20	1	20	73	880	970
40STD-130WHS4	139	27	127	37		24	2-1/2"	28	1	43	2-1/2"	22	1	25	74	910	1010
40STD-180WHS4	183	34	166	46		30	3"	36	1	41	3"	29	1	29	75	1080	1220
40STD-260WHS4	262	49	239	66	0 50 75 100	44	3"	52	1	48	3"	41	1	41	75	1390	1530
40STD-350WHS4	364	64	331	87		59	3"	72	1	45	3"	57	1	55	76	1620	1780
40STD-F440WHS4	466	75	500	101		92	5"	103	1	53	4"	86	1	68	76	2840	3060
40STD-F530WHS4	566	89	606	121		109	5"	125	1	56	5"	104	1	70	77	3100	3380
40STD-F610WHS4	655	103	700	139		126	5"	144	1	54	5"	120	1	69	77	4100	4410
40STD-F690WHS4	736	115	786	155		140	5"	162	1	56	5"	135	1	70	77	4520	4890
40STD-F800WHS4	857	131	912	177		163	5"	187	1	58	5"	157	1	72	78	4740	5180
40STD-F880WHS4	923	141	982	191		179	6"	202	1	58	6"	169	1	73	78	5130	5620
40STD-F940WHS4	1004	154	1070	209		191	6"	220	1	73	6"	184	1	88	79	5810	6340
40STD-F1060WHS4	1133	175	1207	236		216	6"	248	1	76	6"	208	1	91	79	6230	6760
40STD-F1290WHS4	1278	196	1360	265		264	8"	279	1	79	8"	234	1	94	80	6750	7460
40STD-F1520WHS4	1636	243	1732	329		310	8"	354	1	80	8"	298	1	95	81	7880	8600
40STD-F1740WHS4	1898	281	2007	379	0 25 37.5 50 62.5 75 87.5 100	357	8"	410	1	81	8"	345	1	96	82	8980	1037
40STD-F1110WHD4	1184	183	1262	247		228	6"	260	1	56	6"	217	1	70	82	4820	5450
40STD-F1220WHD4	1310	206	1400	278		252	8"	289	1	56	8"	241	1	70	82	5620	6170
40STD-F1380WHD4	1472	230	1572	310		281	8"	324	1	58	8"	270	1	72	83	5810	6260
40STD-F1600WHD4	1714	262	1824	354		326	8"	375	1	58	8"	314	1	73	83	5980	6440
40STD-F1880WHD4	2008	308	2140	418		383	8"	440	1	73	8"	368	1	88	84	9970	11190
40STD-F2120WHD4	2266	350	2414	472		432	10"	496	1	76	10"	415	1	91	84	10350	11770
40STD-F2580WHD4	2556	392	2720	530		527	10"	559	1	79	10"	468	1	94	85	12820	14450
40STD-F3040WHD4	3272	486	3464	658		620	12"	709	1	80	10"	596	1	95	86	15890	17910
40STD-F3480WHD4	3796	562	4014	758		714	14"	821	1	81	12"	690	1	96	87	16720	18960
40STD-F5220WHT4	5694	843	6021	1137		1071	18"	340	1	85	16"	145	1	96	88	20000	22000

Note:

1. Nominal cooling capacity reference: underground inlet and outlet water temperature 18°C /29°C , cooling water inlet and outlet water temperature 12°C /7°C ; fouling factor 0.088m².°C / KW;
2. Cooling working condition, the lowest chilled water temperature is 5°C .
3. Nominal heating capacity reference: underground inlet water temperature 15°C , hot water temperature 40°C ;the outlet water temperature is determined by the nominal refrigeration condition;
4. Heating working condition, the highest hot water temperature is 50°C
5. Specifications and dimensions will be subject to improvement change without notice.

## Screw Type Water Source Heat Pump Unit Technical Parameters(R134a)

Refrigerant: R134a

Power supply:380V-3N-50Hz

Model	Nominal cooling capacity		Nominal Heating Capacity		Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating noise dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT	kW	USRT			Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa	Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-M100WHS4	66	13	79	18	0 66 100	17	2"	17	1	37	2"	14	1	20	73	880	970
40STD-M130WHS4	92	17	108	23		24	2-1/2"	23	1	43	2-1/2"	19	1	25	74	910	1010
40STD-M180WHS4	121	21	141	29		30	3"	29	1	41	3"	24	1	29	75	1080	1220
40STD-M260WHS4	174	31	204	43	0 50 75 100	44	3"	42	1	48	3"	35	1	41	75	1390	1530
40STD-M350WHS4	238	41	277	57		59	3"	57	1	45	3"	48	1	55	76	1620	1780
40STD-FM440WHS4	317	48	339	65		92	5"	69	1	53	4"	58	1	68	76	2840	3060
40STD-FM530WHS4	361	54	386	74		109	5"	79	1	56	5"	66	1	70	77	3100	3380
40STD-FM610WHS4	426	63	454	86		126	5"	93	1	54	5"	78	1	69	77	4100	4410
40STD-FM690WHS4	478	70	509	96		140	5"	104	1	56	5"	88	1	70	77	4520	4890
40STD-FM800WHS4	548	81	584	110		163	5"	119	1	58	5"	100	1	72	78	4740	5180
40STD-FM880WHS4	608	88	646	120		179	6"	132	1	58	6"	111	1	73	78	5130	5620
40STD-FM940WHS4	654	96	696	130		191	6"	142	1	73	6"	120	1	88	79	5810	6340
40STD-FM1060WHS4	765	109	810	149		216	6"	165	1	76	6"	139	1	91	79	6230	6760
40STD-FM1290WHS4	876	126	930	172		264	8"	190	1	79	8"	160	1	94	80	6750	7460
40STD-FM1520WHS4	1113	156	1176	214		310	8"	239	1	80	8"	202	1	95	81	7880	8600
40STD-FM1740WHS4	1245	173	1313	236	0 25 37.5 50 62.5 75 87.5 100	357	8"	266	1	81	8"	226	1	96	82	8980	1037
40STD-FM1110WHD4	777	117	832	159		228	6"	170	1	56	6"	143	1	70	82	4820	5450
40STD-FM1220WHD4	852	126	908	172		252	8"	186	1	56	8"	156	1	70	82	5620	6170
40STD-FM1380WHD4	956	140	1018	192		281	8"	208	1	58	8"	175	1	72	83	5810	6260
40STD-FM1600WHD4	1096	162	1168	220		326	8"	239	1	58	8"	201	1	73	83	5980	6440
40STD-FM1880WHD4	1308	192	1392	260		383	8"	284	1	73	8"	239	1	88	84	9970	11190
40STD-FM2120WHD4	1530	218	1620	298		432	10"	330	1	76	10"	279	1	91	84	10350	11770
40STD-FM2580WHD4	1752	252	1860	344		527	10"	379	1	79	10"	320	1	94	85	12820	14450
40STD-FM3040WHD4	2226	312	2352	428		620	12"	478	1	80	10"	404	1	95	86	15890	17910
40STD-FM3480WHD4	2490	346	2626	472		714	14"	533	1	81	12"	452	1	96	87	16720	18960
40STD-FM5220WHT4	3735	519	3939	708		1071	18"	211	1	85	16"	89	1	96	88	20000	22000

Note:

1. Nominal cooling capacity reference: underground inlet and outlet water temperature 18°C /29°C , cooling water inlet and outlet water temperature 12°C /7°C ; fouling factor 0.088m².°C / KW;
2. Cooling working condition, the lowest chilled water temperature is 5°C .
3. Nominal heating capacity reference: underground inlet water temperature 15 °C , hot water temperature 40 °C ;the outlet water temperature is determined by the nominal refrigeration condition;
4. Heating working condition, the highest hot water temperature is 50°C
5. Specifications and dimensions will be subject to improvement change without notice.

## Screw Type Water-cooled Chiller Technical Parameters

Refrigerant: R22

Power supply: 460V-3N-60Hz

Model	Nominal cooling capacity		Compressor Input Power kW	Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating noise dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT				Inlet pipe diameter in	Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa	Inlet pipe diameter in	Water flow m <sup>3</sup> /h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-F100WS4	124	35	26	0 66 100	23	2"	21	1	41	2"	18	1	68	73	1100	1200
40STD-F140WS4	172	49	34		32	2-1/2"	30	1	47	2-1/2"	25	1	70	74	1200	1300
40STD-F190WS4	226	64	44		41	3"	39	1	45	3"	32	1	69	75	1400	1600
40STD-F260WS4	300	85	58		54	3"	51	1	53	3"	43	1	70	75	1500	1700
40STD-F280WS4	324	92	64		60	3"	56	1	52	3"	46	1	72	76	1700	1900
40STD-F440WS4	526	149	100		92	5"	90	1	53	4"	75	1	68	76	3100	3400
40STD-F530WS4	638	182	120		109	5"	109	1	56	5"	91	1	70	77	3400	3700
40STD-F610WS4	738	210	138		126	5"	126	1	54	5"	106	1	69	77	4500	4900
40STD-F690WS4	829	236	154		140	5"	141	1	56	5"	119	1	70	77	5000	5400
40STD-F800WS4	966	275	175		163	5"	164	1	58	5"	138	1	72	78	5200	5700
40STD-F880WS4	1039	295	190	0 50 75 100	179	6"	176	1	58	6"	149	1	73	78	5600	6200
40STD-F940WS4	1132	322	206		191	6"	192	1	73	6"	162	1	88	79	6400	7000
40STD-F1060WS4	1277	363	234		216	6"	217	1	76	6"	183	1	91	79	6900	7400
40STD-F1290WS4	1439	409	263		264	8"	244	1	79	8"	206	1	94	80	7400	8200
40STD-F1520WS4	1843	524	326		310	8"	311	1	80	8"	264	1	95	81	8700	9500
40STD-F1740WS4	2138	608	376		357	8"	360	1	81	8"	306	1	96	82	9900	11400
40STD-F1110WD4	1333	379	245		228	6"	226	1	56	6"	191	1	70	82	5300	6000
40STD-F1220WD4	1476	420	276		252	8"	251	1	56	8"	212	1	70	82	6200	6800
40STD-F1380WD4	1658	472	307		281	8"	282	1	58	8"	238	1	72	83	6400	6900
40STD-F1600WD4	1932	549	350		326	8"	327	1	58	8"	277	1	73	83	6600	7100
40STD-F1880WD4	2263	644	413	0 25 37.5 50 62.5 75 87.5 100	383	8"	383	1	73	8"	324	1	88	84	11000	12300
40STD-F2120WD4	2554	726	468		432	10"	433	1	76	10"	366	1	91	84	11400	12900
40STD-F2580WD4	2878	818	526		527	10"	488	1	79	10"	412	1	94	85	14100	15900
40STD-F3040WD4	3686	1048	653		621	12"	622	1	80	10"	528	1	95	86	17500	19700
40STD-F3480WD4	4277	1216	751		714	14"	721	1	81	12"	613	1	96	87	18400	20900
40STD-F5220WT4	6415	1824	1127		1071	18"	1081	1	85	16"	919	1	96	88	22000	24200

Note:

1. Nominal cooling capacity reference: evaporator inlet and outlet water temperature 17°C /12°C , condenser inlet and outlet water temperature 30°C / 35°C ; fouling factor 0.088m<sup>2</sup>.°C / KW;

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

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

4. Specifications and dimensions will be subject to improvement change without notice.

### Screw Type Water-cooled Chiller Technical Parameters

Refrigerant: R134a

Power supply:460V-3N-60Hz

Model	Nominal cooling capacity		Compressor Input Power KW	Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating noise dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT				Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa	Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-FM100WS4	82	23	17	0 66 100	17	2"	14	1	41	2"	12	1	65	73	1000	1100
40STD-FM140WS4	114	32	22		24	2-1/2"	19	1	47	2-1/2"	16	1	68	74	1000	1100
40STD-FM190WS4	151	43	28		31	3"	26	1	45	3"	22	1	65	75	1200	1300
40STD-FM260WS4	210	60	40		41	3"	36	1	53	3"	30	1	68	75	1500	1700
40STD-FM280WS4	216	61	41		45	3"	37	1	52	3"	31	1	70	76	1800	2000
40STD-FM440WS4	358	102	64		68	5"	60	1	50	4"	51	1	65	76	3100	3400
40STD-FM530WS4	408	116	72		75	5"	69	1	52	5"	58	1	68	77	3400	3700
40STD-FM610WS4	480	136	84		81	5"	81	1	52	5"	69	1	65	77	4500	4900
40STD-FM690WS4	539	153	94		98	5"	91	1	54	5"	77	1	68	77	5000	5400
40STD-FM800WS4	619	176	108		119	5"	104	1	56	5"	89	1	70	78	5200	5700
40STD-FM880WS4	686	195	118	0 50 75 100	136	6"	115	1	50	6"	98	1	70	78	5600	6200
40STD-FM940WS4	738	210	127		149	6"	124	1	55	6"	106	1	70	79	6400	7000
40STD-FM1060WS4	863	245	145		162	6"	144	1	58	6"	124	1	75	79	6900	7400
40STD-FM1290WS4	988	281	168		183	8"	166	1	60	8"	142	1	78	80	7400	8200
40STD-FM1520WS4	1256	357	209		225	8"	210	1	75	8"	180	1	82	81	8700	9500
40STD-FM1740WS4	1405	400	230		306	8"	234	1	76	8"	201	1	72	82	9900	1100
40STD-FM1110WD4	877	249	156		204	6"	148	1	52	6"	126	1	64	82	5300	6000
40STD-FM1220WD4	960	273	168		213	8"	162	1	52	8"	138	1	64	82	6200	6800
40STD-FM1380WD4	1078	306	187		238	8"	181	1	53	8"	154	1	65	83	6400	6900
40STD-FM1600WD4	1238	352	216		272	8"	208	1	55	8"	177	1	68	83	6600	7100
40STD-FM1880WD4	1476	420	254	0 25 37.5 50 62.5 75 87.5 100	340	8"	248	1	64	8"	212	1	80	84	11000	12300
40STD-FM2120WD4	1726	491	290		383	10"	289	1	64	10"	247	1	82	84	11400	12900
40STD-FM2580WD4	1975	562	336		476	10"	331	1	65	10"	283	1	83	85	14100	15900
40STD-FM3040WD4	2513	714	418		621	12"	420	1	80	10"	360	1	95	86	17500	19700
40STD-FM3480WD4	2810	799	461		714	14"	469	1	81	12"	403	1	96	87	18400	20900
40STD-FM5220WT4	4216	1199	691		1071	18"	703	1	85	16"	604	1	96	88	22000	24200

Note:

1. Nominal cooling capacity reference: evaporator inlet and outlet water temperature 17°C /12°C , condenser inlet and outlet water temperature 30°C / 35°C ; fouling factor 0.088m².°C / KW;

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

3. Cooling water temperature range: 15-40°C

4. Specifications and dimensions will be subject to improvement change without notice.

### Screw Type Water Source Heat Pump Unit Technical Parameters(R22)

Refrigerant: R22

Power supply:460V-3N-60Hz

Model	Nominal cooling capacity		Nominal Heating Capacity		Capacity control %	Refrigerant charge kg	Condenser			Evaporator			Operating noise dB(A)	Shipping weight kg	Operating weight kg		
	kW	USRT	kW	USRT			Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa	Inlet pipe diameter in	Water flow m³/h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-100WHS4	121	24	143	34	0 66 100	17	2"	25	1	37	2"	20	1	20	73	1200	1300
40STD-130WHS4	167	32	196	44		24	2-1/2"	41	1	43	2-1/2"	34	1	25	74	1500	1700
40STD-180WHS4	220	41	254	55		30	3"	53	1	41	3"	44	1	29	75	1800	2000
40STD-260WHS4	314	59	340	79		44	3"	72	1	48	3"	58	1	41	75	3100	3400
40STD-350WHS4	437	77	503	104		59	3"	104	1	45	3"	86	1	55	76	3400	3700
40STD-F440WHS4	559	90	600	121		92	5"	103	1	53	4"	86	1	68	76	4500	4900
40STD-F530WHS4	679	107	727	145		109	5"	125	1	56	5"	104	1	70	77	5000	5400
40STD-F610WHS4	786	124	840	167		126	5"	144	1	54	5"	120	1	69	77	5200	5700
40STD-F690WHS4	883	138	943	186		140	5"	162	1	56	5"	135	1	70	77	5600	6200
40STD-F800WHS4	1028	157	1094	212		163	5"	187	1	58	5"	157	1	72	78	6400	7000
40STD-F880WHS4	1108	169	1178	229	0 50 75 100	179	6"	202	1	58	6"	169	1	73	78	6900	7400
40STD-F940WHS4	1205	185	1284	251		191	6"	220	1	73	6"	184	1	88	79	7400	8200
40STD-F1060WHS4	1360	210	1448	283		216	6"	248	1	76	6"	208	1	91	79	8700	9500
40STD-F1290WHS4	1534	235	1632	318		264	8"	279	1	79	8"	234	1	94	80	9900	1100
40STD-F1520WHS4	1963	292	2078	395		310	8"	354	1	80	8"	298	1	95	81	5300	6000
40STD-F1740WHS4	2278	337	2408	455		357	8"	410	1	81	8"	345	1	96	82	6200	6800
40STD-F1110WHD4	1421	220	1514	296		228	6"	260	1	56	6"	217	1	70	82	6400	6900
40STD-F1220WHD4	1572	247	1680	334		252	8"	289	1	56	8"	241	1	70	82	6600	7100
40STD-F1380WHD4	1766	276	1886	372		281	8"	324	1	58	8"	270	1	72	83	11000	12300
40STD-F1600WHD4	2057	314	2189	425		326	8"	375	1	58	8"	314	1	73	83	11400	12900
40STD-F1880WHD4	2410	370	2568	502		383	8"	440	1	73	8"	368	1	88	84	14100	15900
40STD-F2120WHD4	2719	420	2897	566		432	10"	496	1	76	10"	415	1	91	84	17500	19700
40STD-F2580WHD4	3067	470	3264	636		527	10"	559	1	79	10"	468	1	94	85	18400	20900
40STD-F3040WHD4	3926	583	4157	790		620	12"	709	1	80	10"	596	1	95	86	22000	24200
40STD-F3480WHD4	4555	674	4817	910		714	14"	821	1	81	12"	690	1	96	87	18400	20900
40STD-F5220WHT4	6833	1012	7225	1364		1071	18"	340	1	85	16"	145	1	96	88	22000	24200

Note:

1. Nominal cooling capacity reference: underground inlet and outlet water temperature 18°C /29°C , cooling water inlet and outlet water temperature 12°C /7°C ; fouling factor 0.088m² °C / KW;

2.Cooling working condition, the lowest chilled water temperature is 5°C .

3.Nominal heating capacity reference: underground inlet water temperature 15°C , hot water temperature 40°C ;the outlet water temperature is determined by the nominal refrigeration condition;

4. Heating working condition, the highest hot water temperature is 50°C

5. Specifications and dimensions will be subject to improvement change without notice.

# Standard Unit Parameter List / 60Hz (continued)

H.Stars Screw Type Chiller/Heat Pump Unit

## Screw Type Water Source Heat Pump Unit Technical Parameters(R134a)

Refrigerant: R134a

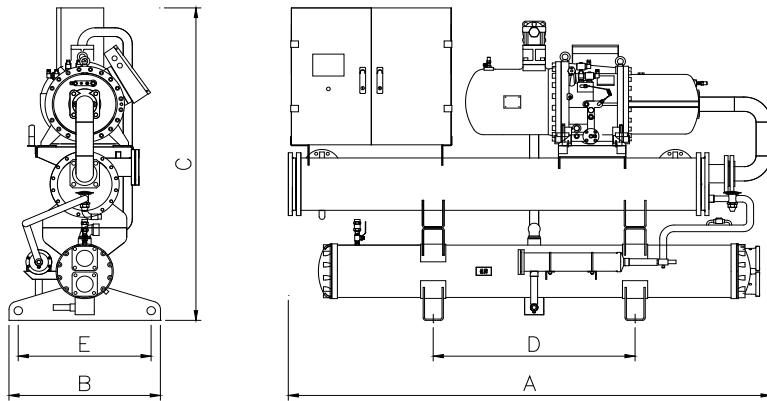
Power supply:460V-3N-60Hz

Model	Nominal cooling capacity		Nominal Heating Capacity		Capacity control %	Refrigerant charge kg	Condenser				Evaporator				Operating noise dB(A)	Shipping weight kg	Operating weight kg
	kW	USRT	kW	USRT			Inlet pipe diameter in	Water flow m3/h	Water Side Max. Pressure Mpa	Water pressure drop KPa	Inlet pipe diameter in	Water flow m3/h	Water Side Max. Pressure Mpa	Water pressure drop KPa			
40STD-M100WHS4	79	16	95	22	0 66 100	17	2"	17	1	37	2"	14	1	20	73	1000	1100
40STD-M130WHS4	110	20	130	28		24	2-1/2"	23	1	43	2-1/2"	19	1	25	74	1000	1100
40STD-M180WHS4	145	25	169	35		30	3"	29	1	41	3"	24	1	29	75	1200	1300
40STD-M260WHS4	209	37	245	52		44	3"	42	1	48	3"	35	1	41	75	1500	1700
40STD-M350WHS4	286	49	332	68		59	3"	57	1	45	3"	48	1	55	76	1800	2000
40STD-FM440WHS4	380	58	407	78		92	5"	69	1	53	4"	58	1	68	76	3100	3400
40STD-FM530WHS4	433	65	463	89		109	5"	79	1	56	5"	66	1	70	77	3400	3700
40STD-FM610WHS4	511	76	545	103		126	5"	93	1	54	5"	78	1	69	77	4500	4900
40STD-FM690WHS4	574	84	611	115		140	5"	104	1	56	5"	88	1	70	77	5000	5400
40STD-FM800WHS4	658	97	701	132		163	5"	119	1	58	5"	100	1	72	78	5200	5700
40STD-FM880WHS4	730	106	775	144		179	6"	132	1	58	6"	111	1	73	78	5600	6200
40STD-FM940WHS4	785	115	835	156		191	6"	142	1	73	6"	120	1	88	79	6400	7000
40STD-FM1060WHS4	918	131	972	179		216	6"	165	1	76	6"	139	1	91	79	6900	7400
40STD-FM1290WHS4	1051	151	1116	206		264	8"	190	1	79	8"	160	1	94	80	7400	8200
40STD-FM1520WHS4	1336	187	1411	257		310	8"	239	1	80	8"	202	1	95	81	8700	9500
40STD-FM1740WHS4	1494	208	1576	283	0 25 37.5 50 62.5 75 87.5 100	357	8"	266	1	81	8"	226	1	96	82	9900	1100
40STD-FM1110WHD4	932	140	998	191		228	6"	170	1	56	6"	143	1	70	82	5300	6000
40STD-FM1220WHD4	1022	151	1090	206		252	8"	186	1	56	8"	156	1	70	82	6200	6800
40STD-FM1380WHD4	1147	168	1222	230		281	8"	208	1	58	8"	175	1	72	83	6400	6900
40STD-FM1600WHD4	1315	194	1402	264		326	8"	239	1	58	8"	201	1	73	83	6600	7100
40STD-FM1880WHD4	1570	230	1670	312		383	8"	284	1	73	8"	239	1	88	84	11000	12300
40STD-FM2120WHD4	1836	262	1944	358		432	10"	330	1	76	10"	279	1	91	84	11400	12900
40STD-FM2580WHD4	2102	302	2232	413		527	10"	379	1	79	10"	320	1	94	85	14100	15900
40STD-FM3040WHD4	2671	374	2822	514		620	12"	478	1	80	10"	404	1	95	86	17500	19700
40STD-FM3480WHD4	2988	415	3151	566		714	14"	533	1	81	12"	452	1	96	87	18400	20900
40STD-FM5220WHT4	4482	623	4727	850		1071	18"	211	1	85	16"	89	1	96	88	22000	24200

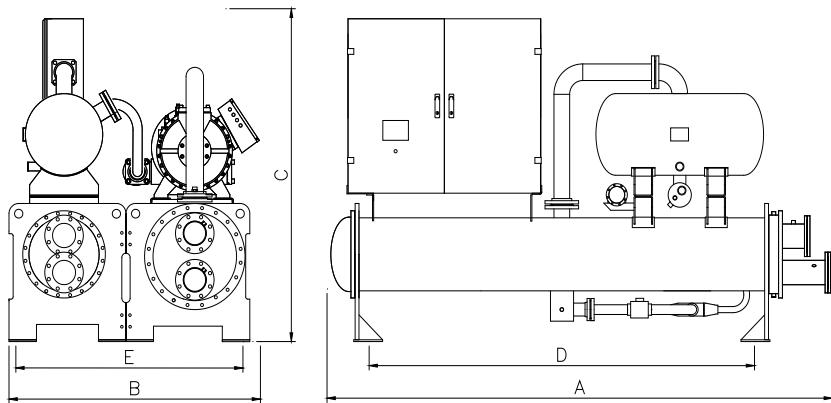
Note:

1. Nominal cooling capacity reference: underground inlet and outlet water temperature 18°C /29°C , cooling water inlet and outlet water temperature 12°C /7°C ; fouling factor 0.088m2.°C / KW;
2. Cooling working condition, the lowest chilled water temperature is 5°C .
3. Nominal heating capacity reference: underground inlet water temperature 15°C , hot water temperature 40°C ;the outlet water temperature is determined by the nominal refrigeration condition;
4. Heating working condition, the highest hot water temperature is 50°C
5. Specifications and dimensions will be subject to improvement change without notice.

**Water Cooled Chiller Dimensions**

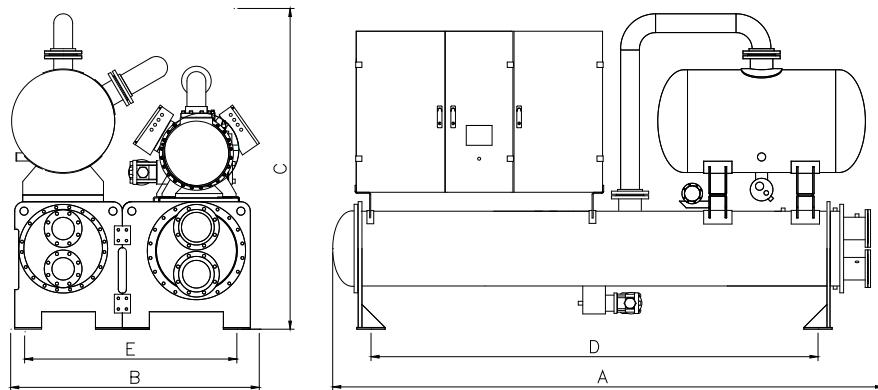


Model	A	B	C	D	E
40STD-100WHS4	2400	1000	1500	1550	800
40STD-130WHS4	2400	1000	1500	1550	800
40STD-180WHS4	2400	1000	1500	1550	800
40STD-260WHS4	3000	1150	1650	2200	900
40STD-350WHS4	3000	1150	1650	2200	900

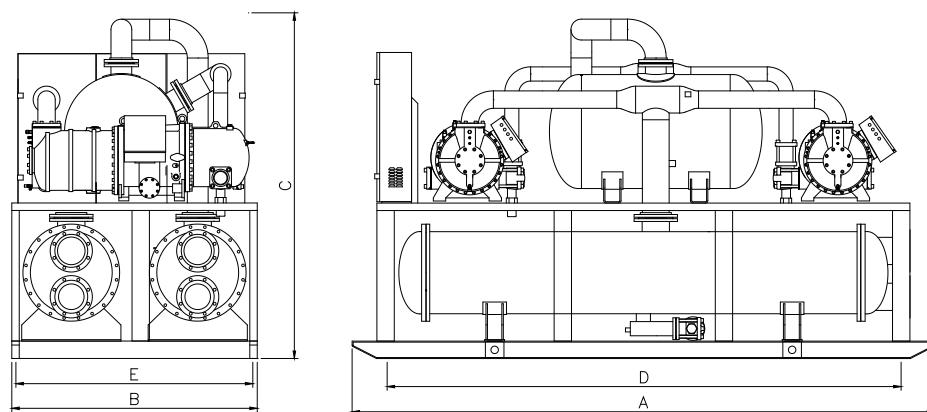


Model	A	B	C	D	E
40STD-F(M)100WS4	2400	1000	1500	1550	800
40STD-F(M)140WS4	2400	1000	1500	1550	800
40STD-F(M)190WS4	2400	1000	1500	1550	800
40STD-F(M)260WS4	3000	1150	1650	2200	900
40STD-F(M)280WS4	3000	1150	1650	2200	900
40STD-F(M)440W(H)S4	3500	1600	1750	2800	1400
40STD-F(M)530W(H)S4	3600	1700	1850	2800	1400
40STD-F(M)610W(H)S4	3600	1700	1950	2800	1400
40STD-F(M)690W(H)S4	3600	1800	1950	2800	1500
40STD-F(M)800W(H)S4	3800	1800	2150	2800	1600
40STD-F(M)880W(H)S4	3800	1800	2250	2800	1650

**Water Cooled Chiller Dimensions**

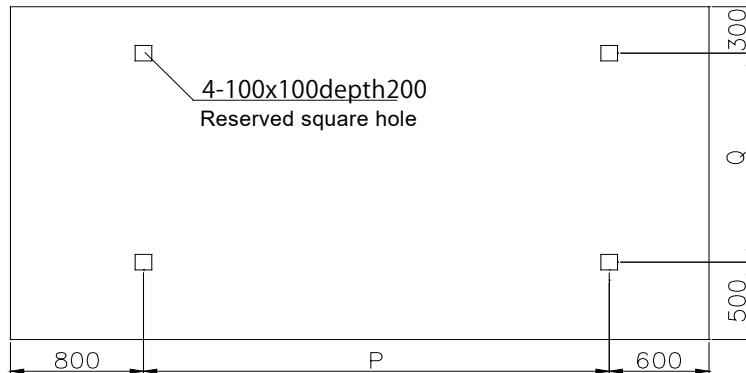
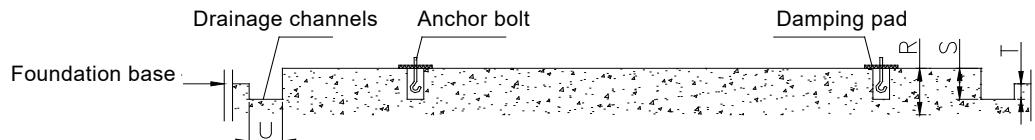


Model	A	B	C	D	E
40STD-F(M)940W(H)S4	4000	1800	2300	2800	1650
40STD-F(M)1060W(H)S4	3800	1900	2300	2800	1700
40STD-F(M)1290W(H)S4	4100	2100	2300	3200	1800
40STD-F(M)1520W(H)S4	4300	2200	2350	3200	1900
40STD-F(M)1740W(H)S4	4500	2200	2450	3200	1900
40STD-F(M)1110W(H)D4	4100	2100	2350	2800	1600
40STD-F(M)1220W(H)D4	4100	2100	2350	2800	1650
40STD-F(M)1380W(H)D4	4100	2100	2400	3300	1650
40STD-F(M)1600W(H)D4	4500	2200	2500	3300	1650
40STD-F(M)1880W(H)D4	4500	2200	2500	3300	1850
40STD-F(M)2120W(H)D4	4700	2200	2500	3400	1850



Model	A	B	C	D	E
40STD-F(M)2580W(H)D4	4800	2300	2600	3500	1900
40STD-F(M)3040W(H)D4	5000	2300	2600	3500	1900
40STD-F(M)3480W(H)D4	5000	2300	2700	3500	1900
40STD-F(M)5220W(H)T4	6000	2600	2800	4000	2500

## Foundation Base Dimensions



Model	P	Q	R	S	T	U
40STD-F(M)100WS4/40STD-100WHS4	1550	800	300	200	100	200
40STD-F(M)140WS4/40STD-130WHS4	1550	800	300	200	100	200
40STD-F(M)190WS4/40STD-180WHS4	1550	800	300	200	100	200
40STD-F(M)260WS4/40STD-260WHS4	2200	900	300	200	100	200
40STD-F(M)280WS4/40STD-350WHS4	2200	900	300	200	100	200
40STD-F(M)440W(H)S4	2800	1400	300	200	100	200
40STD-F(M)530W(H)S4	2800	1400	300	200	100	200
40STD-F(M)610W(H)S4	2800	1400	300	200	100	200
40STD-F(M)690W(H)S4	2800	1500	300	200	100	200
40STD-F(M)800W(H)S4	2800	1600	300	200	100	200
40STD-F(M)880W(H)S4	2800	1650	300	200	100	200
40STD-F(M)940W(H)S4	2800	1650	300	200	100	200
40STD-F(M)1060W(H)S4	2800	1700	300	200	100	200
40STD-F(M)1290W(H)S4	3200	1800	300	200	100	200
40STD-F(M)1520W(H)S4	3200	1900	300	200	100	200
40STD-F(M)1740W(H)S4	3200	1900	300	200	100	200
40STD-F(M)1110W(H)D4	2800	1600	300	200	100	200
40STD-F(M)1220W(H)D4	2800	1650	300	200	100	200
40STD-F(M)1380W(H)D4	3300	1650	300	200	100	200
40STD-F(M)1600W(H)D4	3300	1650	300	200	100	200
40STD-F(M)1880W(H)D4	3300	1850	300	200	100	200
40STD-F(M)2120W(H)D4	3400	1850	300	200	100	200
40STD-F(M)2580W(H)D4	3500	1900	300	200	100	200
40STD-F(M)3040W(H)D4	3500	1900	300	200	100	200
40STD-F(M)3480W(H)D4	3500	1900	300	200	100	200
40STD-F(M)5220W(H)T4	4000	2500	300	200	100	200

# Standard Unit Performance Parameter Table / 50Hz

H.Stars Screw Type Chiller/Heat Pump Unit

## Screw Type Air-cooled Chiller Technical Parameters (R22)

Refrigerant: R22

Power supply:380V-3N-50Hz

Model	Nominal cooling capacity kW	Input power kW	Energy control %	Refrigerant charge kg	Condenser/Fan			Evaporator			Operating noise dB(A)	Machine weight kg	Operating weight kg	
					Structure type	Air volume ×1000 m3/h	Power kW × Unit	Inlet pipe diameter in	Water flow m3/h	Maximum pressure on the water side Mpa				
40STE-110AS4	113	36	0 66 100	30	Copper tube with corrugated aluminum fins	40	2.0×2	2-1/2"	19	1	28	68	1160	1270
40STE-160AS4	160	50	0 50 75 100	42		57	1.2×4	3"	28	1	33	68	1730	1920
40STE-210AS4	214	65		56		80	2.0×4	3"	37	1	48	68	2590	2810
40STE-240AS4	252	74		68		85	1.2×6	3"	43	1	55	68	2670	2900
40STE-280AS4	297	86		78		121	2.0×6	4"	51	1	61	72	2750	3020
40STE-310AS4	319	93		84		121	2.0×6	4"	55	1	64	72	2930	3240
40STE-340AS4	347	103		93		161	2.0×8	4"	60	1	66	72	3160	3450
40STE-380AD4	397	120	0 25 37.5 50 62.5 75 87.5 100	104		161	2.0×8	5"	68	1	68	73	4430	4750
40STE-420AD4	428	130		112		161	2.0×8	5"	74	1	68	73	4550	4970
40STE-480AD4	504	148		136		170	1.2×12	5"	87	1	70	73	5340	5800
40STE-560AD4	594	172		142		241	2.0×12	4"**2	102	1	70	75	5500	6040
40STE-620AD4	638	186		156		241	2.0×12	4"**2	110	1	72	75	5860	6480
40STE-1000AS4	1087	300		206		322	2.0×16	8"	187	1	75	78	7950	8840

Note:

1.Nominal cooling capacity reference: DB/WB ambient temperature 35°C / 24°C , chilled water inlet and outlet temperature 12°C / 7°C ; fouling factor 0.088m².°C / KW

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

3. Ambient temperature Range: 15°C -43°C

4.Specifications and dimensions will be subject to improvement change without notice.

## Screw Type Air-cooled Chiller Technical Parameters (R134a)

Refrigerant: R134a

Power supply:380V-3N-50 Hz

Model	Nominal cooling capacity kW	Input power kW	Energy control %	Refrigerant charge kg	Condenser/Fan			Evaporator			Operating noise dB(A)	Machine weight kg	Operating weight kg	
					Structure type	Air volume ×1000 m3/h	Power kW × Unit	Inlet pipe diameter in	Water flow m3/h	Maximum pressure on the water side Mpa				
40STE-M110AS4	75	23	0 66 100	30	Copper tube with corrugated aluminum fins	28	2.0×2	2-1/2"	13	1	28	68	1160	1270
40STE-M160AS4	107	32	0 50 75 100	42		40	2.0×2	3"	18	1	33	68	1730	1920
40STE-M210AS4	143	43		56		80	2.0×4	3"	25	1	48	68	2590	2810
40STE-M240AS4	169	49		68		80	2.0×4	3"	29	1	55	68	2670	2900
40STE-M280AS4	195	56		78		80	2.0×4	4"	34	1	61	72	2750	3020
40STE-M310AS4	217	60		84		85	1.2×6	4"	37	1	64	72	2930	3240
40STE-M340AS4	236	68		93		121	2.0×6	4"	41	1	66	72	3160	3450
40STE-M380AD4	277	83	0 25 37.5 50 62.5 75 87.5 100	104		121	2.0×6	5"	48	1	68	73	4430	4750
40STE-M420AD4	286	86		112		114	1.2×8	5"	49	1	68	73	4550	4970
40STE-M480AD4	338	98		136		161	2.0×8	5"	58	1	70	73	5340	5800
40STE-M560AD4	390	112		142		161	2.0×8	4"**2	67	1	70	75	5500	6040
40STE-M620AD4	434	120		156		170	1.2×12	4"**2	75	1	72	75	5860	6480
40STE-M1000AS4	718	194		206		322	2.0×16	8"	123	1	75	78	7950	8840

Note:

1. Nominal cooling capacity reference: DB/WB ambient temperature 35°C / 24°C , chilled water inlet and outlet temperature 12°C / 7°C ; fouling factor 0.088m².°C / KW

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

3. Ambient temperature Range: 15°C -43°C

4.Specifications and dimensions will be subject to improvement change without notice.

## Standard unit performance parameter table / 50Hz (continued)

H.Stars Screw Type Chiller/Heat Pump Unit

### Screw Type Air-cooled Heat Pump Technical Parameters (R22)

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

Model	Nominal cooling capacity		Nominal heating capacity		Energy control %	Refrigerant charge kg	Condenser/Fan		Evaporator				Operating noise dB(A)	Machine weight kg	Operating weight kg		
	kW	USRT	kW	USRT			Structure type	Air volume ×1000 m³/h	Power kW × Unit	Inlet pipe diameterin	Water flow m³/h	Maximum pressure on the water side Mpa	Water pressure drop KPa				
40STE-110AHS4	113	36	121	35	0 50 75 100	66 100	33	Copper tube with corrugated aluminum fins	40	2.0×2	2-1/2"	21	1	28	68	1550	1660
40STE-160AHS4	160	50	169	48			45		57	1.2×4	3"	29	1	33	68	1960	2140
40STE-210AHS4	214	65	225	63			51		80	2.0×4	3"	39	1	48	68	2940	3160
40STE-240AHS4	252	74	263	71			73		85	1.2×6	3"	45	1	55	68	3120	3340
40STE-280AHS4	297	86	308	82			82		121	2.0×6	4"	53	1	61	72	3300	3550
40STE-310AHS4	319	93	333	89			89		121	2.0×6	4"	57	1	64	72	3480	3730
40STE-340AHS4	347	103	363	98			98		161	2.0×8	4"	62	1	66	72	3660	3980
40STE-380AHD4	397	120	417	115			114		161	2.0×8	5"	72	1	68	73	5620	6040
40STE-420AHD4	428	130	450	126			122		161	2.0×8	5"	77	1	68	73	5800	6280
40STE-480AHD4	504	148	526	142			146		170	1.2×12	5"	90	1	70	73	6240	6680
40STE-560AHD4	594	172	616	164			164		241	2.0×12	4"*	106	1	70	75	6600	7100
40STE-620AHD4	638	186	666	178			178		241	2.0×12	4"*	115	1	72	75	6960	7540
40STE-1000AHS4	1087	300	1116	287			206		322	2.0×16	8"	192	1	75	78	7950	8840

Note:

1. Nominal cooling capacity reference: DB/WB ambient temperature 35°C / 24°C , chilled water inlet and outlet temperature 12°C /7°C ; fouling factor 0.088m².°C / KW
2. Chilled water temperature range: 5-20°C
3. Nominal heating capacity reference: DB/WB ambient temperature 7°C / 6°C , heating water inlet and outlet temperature 40°C /45°C ;
4. Hot water temperature range: 35°C ~50°C
5. Cooling Ambient temperature range: 15~43°C ; heating ambient temperature range: -10~43°C ;
6. Specifications and dimensions will be subject to improvement change without notice.

### Screw Type Air-cooled Heat Pump Technical Parameters (R134a)

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

Model	Nominal cooling capacity		Nominal heating capacity		Energy control %	Refrigerant charge kg	Condenser/Fan		Evaporator				Operating noise dB(A)	Machine weight kg	Operating weight kg		
	kW	USRT	kW	USRT			Structure type	Air volume ×1000 m³/h	Power kW × Unit	Inlet pipe diameterin	Water flow m³/h	Maximum pressure on the water side Mpa	Water pressure drop KPa				
40STE-M110AHS4	75	23	78	22	0 50 75 100	66 100	33	Copper tube with corrugated aluminum fins	28	2.0×2	2-1/2"	13	1	28	68	1550	1660
40STE-M160AHS4	107	32	111	31			45		40	2.0×2	3"	19	1	33	68	1960	2140
40STE-M210AHS4	143	43	147	41			51		80	2.0×4	3"	25	1	48	68	2940	3160
40STE-M240AHS4	169	49	173	47			73		80	2.0×4	3"	30	1	55	68	3120	3340
40STE-M280AHS4	195	56	199	54			82		80	2.0×4	4"	34	1	61	72	3300	3550
40STE-M310AHS4	217	60	220	59			89		85	1.2×6	4"	38	1	64	72	3480	3730
40STE-M340AHS4	236	68	241	66			98		121	2.0×6	4"	41	1	66	72	3660	3980
40STE-M380AHD4	277	83	286	80			114		121	2.0×6	5"	49	1	68	73	5620	6040
40STE-M420AHD4	286	86	294	82			122		114	1.2×8	5"	51	1	68	73	5800	6280
40STE-M480AHD4	338	98	346	94			146		161	2.0×8	5"	60	1	70	73	6240	6680
40STE-M560AHD4	390	112	398	108			164		161	2.0×8	4"*	68	1	70	75	6600	7100
40STE-M620AHD4	434	120	440	118			178		170	1.2×12	4"*	76	1	72	75	6960	7540
40STE-M1000AHS4	718	194	722	188			206		241	2.0×12	8"	124	1	75	78	7950	8840

Note:

1. Nominal cooling capacity reference: DB/WB ambient temperature 35°C / 24°C , chilled water inlet and outlet temperature 12°C /7°C ; fouling factor 0.088m².°C / KW
2. Chilled water temperature range: 5-20°C
3. Nominal heating capacity reference: DB/WB ambient temperature 7°C / 6°C , heating water inlet and outlet temperature 40°C /45°C ;
4. Hot water temperature range: 35°C ~50°C
5. Cooling Ambient temperature range: 15~43°C ; heating ambient temperature range: -10~43°C ;
6. Specifications and dimensions will be subject to improvement change without notice.

# Standard Unit Performance Parameter Table / 60Hz

H.Stars Screw Type Chiller/Heat Pump Unit

## Screw Type Air-cooled Chiller Technical Parameters (R22)

Refrigerant: R22

Power supply:3φ-460V-60Hz

Model	Nominal cooling capacity kW	Input power kW	Energy control %	Refrigerant charge kg	Condenser/Fan			Evaporator			Operating noise dB(A)	Machine weight kg	Operating weight kg	
					Structure type	Air volume ×1000 m3/h	Power kW × Unit	Inlet pipe diameter in	Water flow m3/h	Maximum pressure on the water side Mpa				
40STE-110AS4	136	43	0 66 100	30	Copper tube with corrugated aluminum fins	48	2.5×2	2-1/2"	19	1	28	68	1300	1400
40STE-160AS4	192	60	0 50	42		68	1.5×4	3"	28	1	33	68	1900	2100
40STE-210AS4	257	78		56		96	2.5×4	3"	37	1	48	68	2800	3100
40STE-240AS4	302	89	75 100	68		102	1.5×6	3"	43	1	55	68	2900	3200
40STE-280AS4	356	103		78		145	2.5×6	4"	51	1	61	72	3000	3300
40STE-310AS4	383	112	87.5	84		145	2.5×6	4"	55	1	64	72	3200	3600
40STE-340AS4	416	124		93		193	2.5×8	4"	60	1	66	72	3500	3800
40STE-380AD4	476	144	0 25	104		193	2.5×8	5"	68	1	68	73	4900	5200
40STE-420AD4	514	156		112		193	2.5×8	5"	74	1	68	73	5000	5500
40STE-480AD4	605	178	37.5 50	136		204	1.5×12	5"	87	1	70	73	5900	6400
40STE-560AD4	713	206		142		289	2.5×12	4"**2	102	1	70	75	6100	6600
40STE-620AD4	766	223	62.5 75	156		289	2.5×12	4"**2	110	1	72	75	6400	7100
40STE-1000AS4	1304	360		206		386	2.5×16	8"	187	1	75	78	8700	9700

Note:

1. Nominal cooling capacity reference: DB/WB ambient temperature 35°C / 24°C , chilled water inlet and outlet temperature 12°C / 7°C ; fouling factor 0.088m<sup>2</sup>.°C / KW

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

3. Ambient temperature Range: 15°C -43°C

4.Specifications and dimensions will be subject to improvement change without notice.

## Screw Type Air-cooled Chiller Technical Parameters (R134a)

Refrigerant: R134a

Power supply:460V-3N-60Hz

Model	Nominal cooling capacity kW	Input power kW	Energy control %	Refrigerant charge kg	Condenser/Fan			Evaporator			Operating noise dB(A)	Machine weight kg	Operating weight kg	
					Structure type	Air volume ×1000 m3/h	Power kW × Unit	Inlet pipe diameter in	Water flow m3/h	Maximum pressure on the water side Mpa				
40STE-M110AS4	90	28	0 66 100	30	Copper tube with corrugated aluminum fins	34	2.5×2	2-1/2"	13	1	28	68	1300	1400
40STE-M160AS4	128	38	0 50	42		48	2.5×2	3"	18	1	33	68	1900	2100
40STE-M210AS4	172	52		56		96	2.5×4	3"	25	1	48	68	2800	3100
40STE-M240AS4	203	59	75 100	68		96	2.5×4	3"	29	1	55	68	2900	3200
40STE-M280AS4	234	67		78		96	2.5×4	4"	34	1	61	72	3000	3300
40STE-M310AS4	260	72	87.5	84		102	1.5×6	4"	37	1	64	72	3200	3600
40STE-M340AS4	283	82		93		145	2.5×6	4"	41	1	66	72	3500	3800
40STE-M380AD4	332	100	0 25	104		145	2.5×6	5"	48	1	68	73	4900	5200
40STE-M420AD4	343	103		112		136	1.5×8	5"	49	1	68	73	5000	5500
40STE-M480AD4	406	118	37.5 50	136		193	2.5×8	5"	58	1	70	73	5900	6400
40STE-M560AD4	468	134		62.5 75		193	2.5×8	4"**2	67	1	70	75	6100	6600
40STE-M620AD4	521	144	87.5 100	142		204	1.5×12	4"**2	75	1	72	75	6400	7100
40STE-M1000AS4	862	233		156		386	2.5×16	8"	123	1	75	78	8700	9700

Note:

1. Nominal cooling capacity reference: DB/WB ambient temperature 35°C / 24°C , chilled water inlet and outlet temperature 12°C / 7°C ; fouling factor 0.088m<sup>2</sup>.°C / KW

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

3. Ambient temperature Range: 15°C -43°C

4. Specifications and dimensions will be subject to improvement change without notice.

# Standard unit performance parameter table / 60Hz (continued)

H.Stars Screw Type Chiller/Heat Pump Unit

## Screw Type Air-cooled Heat Pump Technical Parameters (R22)

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

Model	Nominal cooling capacity		Nominal heating capacity		Energy control %	Refrigerant charge kg	Condenser/Fan		Evaporator			Operating noise dB(A)	Machine weight kg	Operating weight kg		
	kW	USRT	kW	USRT			Structure type	Air volume ×1000 m³/h	Power kW × Unit	Inlet pipe diameterin	Water flow m³/h	Maximum pressure on the water side Mpa				
40STE-110AHS4	136	43	145	42	0 50 75 100	66 100 33 45 51 73 82 89 98 114 122 146 164 178 206	Copper tube with corrugated aluminum fins	48	2.5×2	2-1/2"	21	1	28	68	1700	1800
40STE-160AHS4	192	60	203	58				68	1.5×4	3"	29	1	33	68	2200	2400
40STE-210AHS4	257	78	270	76				96	2.5×4	3"	39	1	48	68	3200	3500
40STE-240AHS4	302	89	316	85				102	1.5×6	3"	45	1	55	68	3400	3700
40STE-280AHS4	356	103	370	98				145	2.5×6	4"	53	1	61	72	3600	3900
40STE-310AHS4	383	112	400	107				145	2.5×6	4"	57	1	64	72	3800	4100
40STE-340AHS4	416	124	436	118				193	2.5×8	4"	62	1	66	72	4000	4400
40STE-380AHD4	476	144	500	138				193	2.5×8	5"	72	1	68	73	6200	6600
40STE-420AHD4	514	156	540	151				193	2.5×8	5"	77	1	68	73	6400	6900
40STE-480AHD4	605	178	631	170				204	1.5×12	5"	90	1	70	73	6900	7300
40STE-560AHD4	713	206	739	197				289	2.5×12	4"**2	106	1	70	75	7300	7800
40STE-620AHD4	766	223	799	214				289	2.5×12	4"**2	115	1	72	75	7700	8300
40STE-1000AHS4	1304	360	1339	344				386	2.5×16	8"	192	1	75	78	8900	9900

Note:

1. Nominal cooling capacity reference: DB/WB ambient temperature 35°C / 24°C , chilled water inlet and outlet temperature 12°C /7°C ; fouling factor 0.088m².°C / KW
2. Chilled water temperature range: 5-20°C
3. Nominal heating capacity reference: DB/WB ambient temperature 7°C / 6°C , heating water inlet and outlet temperature 40°C /45°C ;
4. Hot water temperature range: 35°C ~50°C
5. Cooling Ambient temperature range: 15~43°C ; heating ambient temperature range: -10~43°C ;
6. Specifications and dimensions will be subject to improvement change without notice.

## Screw Type Air-cooled Heat Pump Technical Parameters (R134a)

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

Model	Nominal cooling capacity		Nominal heating capacity		Energy control %	Refrigerant charge kg	Condenser/Fan		Evaporator			Operating noise dB(A)	Machine weight kg	Operating weight kg		
	kW	USRT	kW	USRT			Structure type	Air volume ×1000 m³/h	Power kW × Unit	Inlet pipe diameterin	Water flow m³/h	Maximum pressure on the water side Mpa				
40STE-M110AHS4	90	28	94	26	0 50 75 100	66 100 33 45 51 73 82 89 98 114 122 146 164 178 206	Copper tube with corrugated aluminum fins	34	2.5×2	2-1/2"	13	1	28	68	1700	1800
40STE-M160AHS4	128	38	133	37				48	2.5×2	3"	19	1	33	68	2200	2400
40STE-M210AHS4	172	52	176	49				96	2.5×4	3"	25	1	48	68	3200	3500
40STE-M240AHS4	203	59	208	56				96	2.5×4	3"	30	1	55	68	3400	3700
40STE-M280AHS4	234	67	239	65				96	2.5×4	4"	34	1	61	72	3600	3900
40STE-M310AHS4	260	72	264	71				102	1.5×6	4"	38	1	64	72	3800	4100
40STE-M340AHS4	283	82	289	79				145	2.5×6	4"	41	1	66	72	4000	4400
40STE-M380AHD4	332	100	343	96				145	2.5×6	5"	49	1	68	73	6200	6600
40STE-M420AHD4	343	103	353	98				136	1.5×8	5"	51	1	68	73	6400	6900
40STE-M480AHD4	406	118	415	113				193	2.5×8	5"	60	1	70	73	6900	7300
40STE-M560AHD4	468	134	478	130				193	2.5×8	4"**2	68	1	70	75	7300	7800
40STE-M620AHD4	521	144	528	142				204	1.5×12	4"**2	76	1	72	75	7700	8300
40STE-M1000AHS4	862	233	866	226				289	2.5×12	8"	124	1	75	78	8900	9900

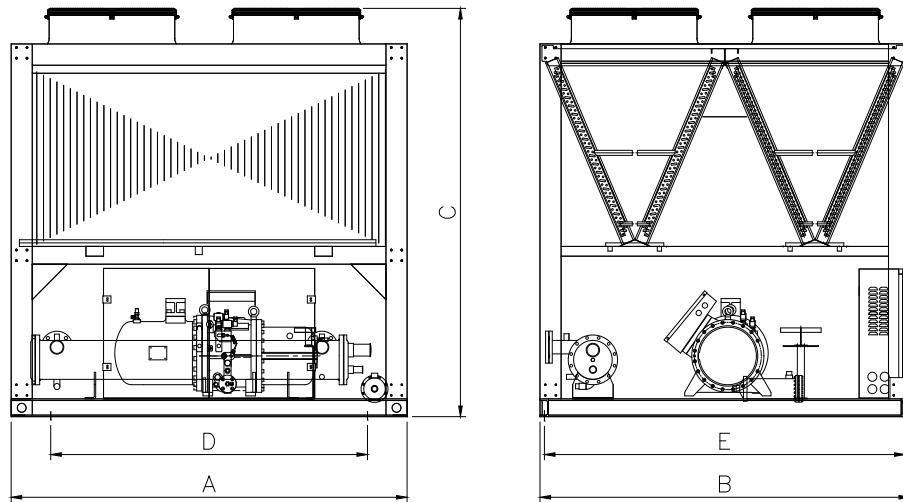
Note:

1. Nominal cooling capacity reference: DB/WB ambient temperature 35°C / 24°C , chilled water inlet and outlet temperature 12°C /7°C ; fouling factor 0.088m².°C / KW
2. Chilled water temperature range: 5-20°C
3. Nominal heating capacity reference: DB/WB ambient temperature 7°C / 6°C , heating water inlet and outlet temperature 40°C /45°C ;
4. Hot water temperature range: 35°C ~50°C
5. Cooling Ambient temperature range: 15~43°C ; heating ambient temperature range: -10~43°C ;
6. Specifications and dimensions will be subject to improvement change without notice.

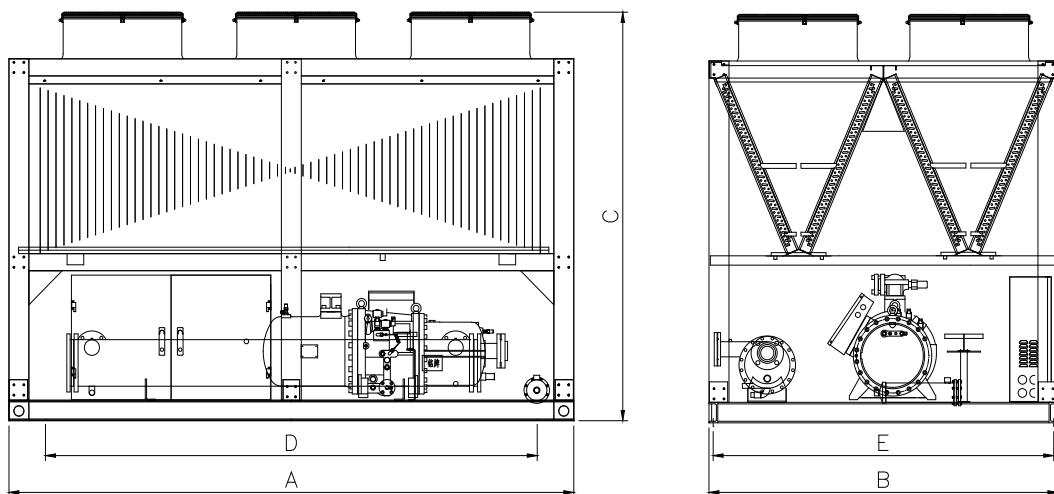
## Standard Unit Dimensions (continued)

H.Stars Screw Type Chiller/Heat Pump Unit

### Screw Type Air Cooled Chiller Dimension



Model	A	B	C	D	E
40STE-(M)110A(H)S4	2210	1300	2050	1600	1260
40STE-(M)160A(H)S4	2250	2100	2300	1800	2050
40STE-(M)210A(H)S4	2480	2100	2400	1880	2050
40STE-(M)240A(H)S4	3400	2100	2400	1400	2050

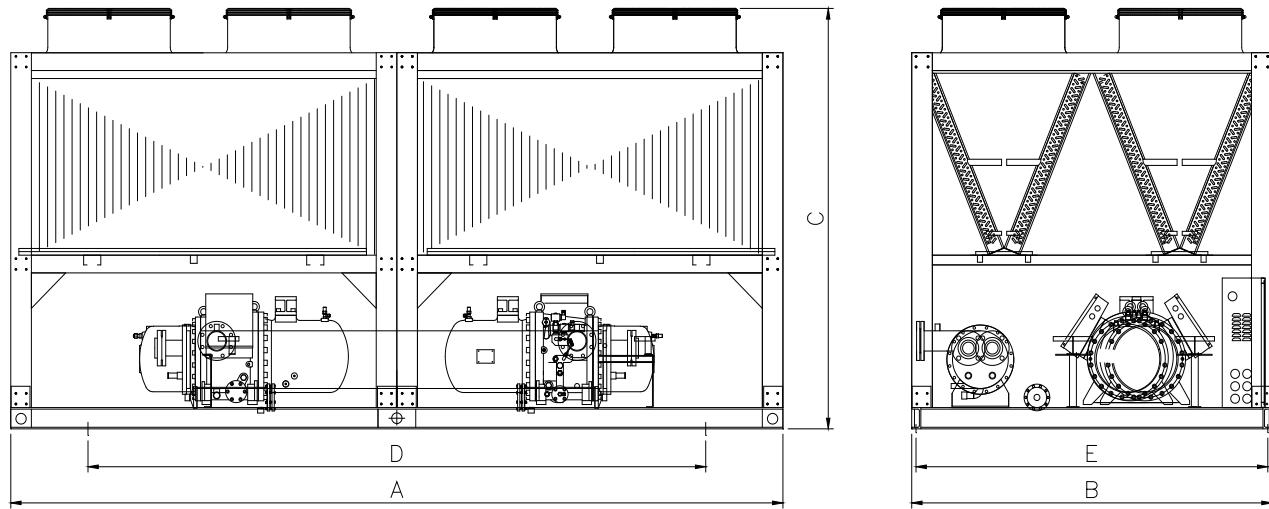


Model	A	B	C	D	E	U
40STE-(M)280A(H)S4	3400	2100	2400	1400	2050	200
40STE-(M)310A(H)S4	3400	2100	2400	1400	2050	200
40STE-(M)340A(H)S4	4500	2100	2400	3600	2050	200

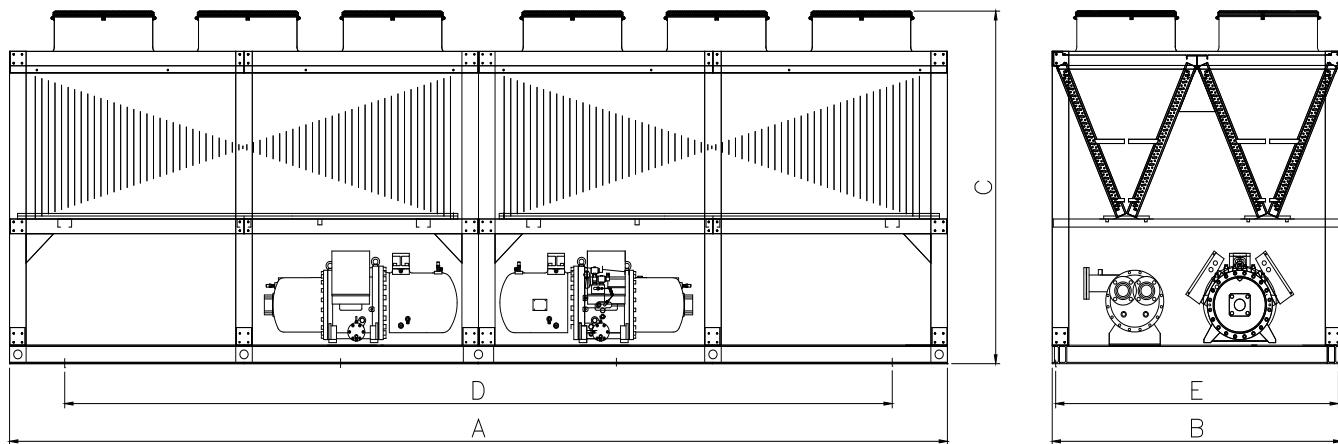
## Standard Unit Dimensions (continued)

H.Stars Screw Type Chiller/Heat Pump Unit

### Air cooled Unit Dimensions

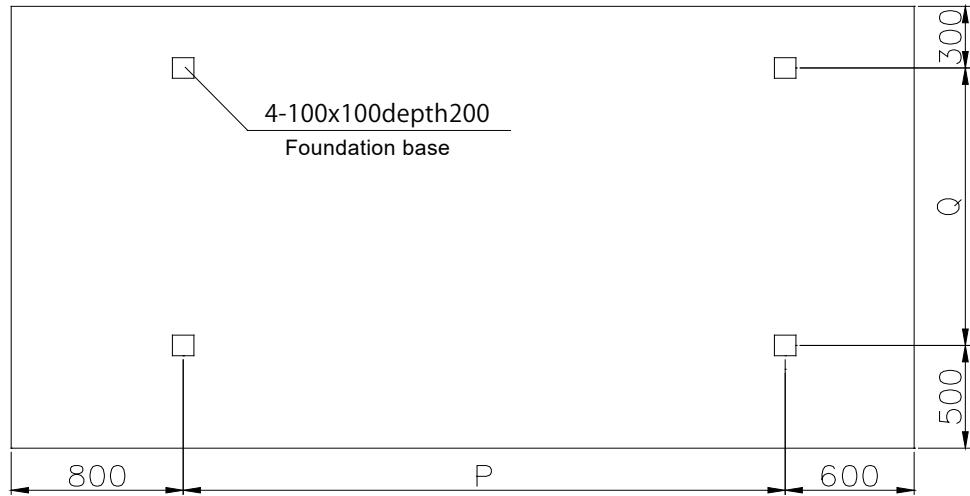
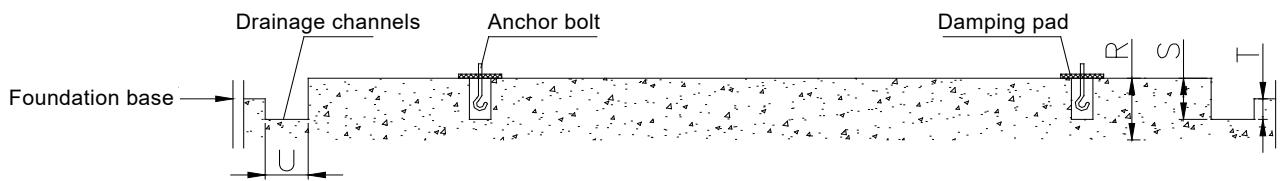


Model	A	B	C	D	E
40STE-(M)380A(H)D4	4500	2100	2400	3600	2050
40STE-(M)420A(H)D4	4960	2100	2400	4000	2050



Model	A	B	C	D	E
40STE-(M)480A(H)D4	6800	2100	2400	6000	2050
40STE-(M)520A(H)D4	6800	2100	2400	6000	2050
40STE-(M)560A(H)D4	6800	2100	2400	6000	2050
40STE-(M)620A(H)D4	6800	2100	2400	6000	2050
40STE-(M)1000A(H)S4	12000	2100	2400	10000	2050

## Foundation Base Dimensions



Model	P	Q	R	S	T	U
40STE-(M)110A(H)S4	1600	1260	300	200	100	200
40STE-(M)160A(H)S4	1800	2050	300	200	100	200
40STE-(M)210A(H)S4	1880	2050	300	200	100	200
40STE-(M)240A(H)S4	1400	2050	300	200	100	200
40STE-(M)280A(H)S4	1400	2050	300	200	100	200
40STE-(M)310A(H)S4	1400	2050	300	200	100	200
40STE-(M)340A(H)S4	3600	2050	300	200	100	200
40STE-(M)380A(H)D4	3600	2050	300	200	100	200
40STE-(M)420A(H)D4	4000	2050	300	200	100	200
40STE-(M)480A(H)D4	6000	2050	300	200	100	200
40STE-(M)520A(H)D4	6000	2050	300	200	100	200
40STE-(M)560A(H)D4	6000	2050	300	200	100	200
40STE-(M)620A(H)D4	6000	2050	300	200	100	200
40STE-(M)1000A(H)S4	10000	2050	300	200	100	200



**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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