TOPAIRE

R134a

TOPAIRE WATER COOLED FLOODED SCREW CHILLER

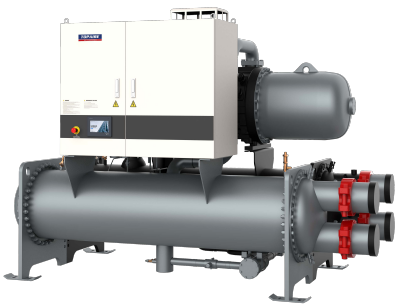
Cooling Capacity: 90 to 550 TR (317 to 1934kW)

50Hz

Chiller Model:
TWXC_GEV3
TWXC_GE3

Innovation Beyond Comfort

Product lineup



Capacity(RT) \ Series	Inverter,flooded(TWXC***GEV3)	Flooded(TWXC***GE3)
90	√	√
100	√	√
110		√
120	√	√
130		√
140		
150	√	√
160		
170		√
180	√	
190		
200	√	√
210		
220	√	√
230		
240	√	√
250		√
260	√	
270		√
280	√	
300	√	√
320		√
330	√	
350	√	√
380	√	
400	√	√
430	√	
450	√	√
470		√
480	√	
500	√	√
550	√	√

FEATURES

AHRI certified

All products in the series are AHRI certified.

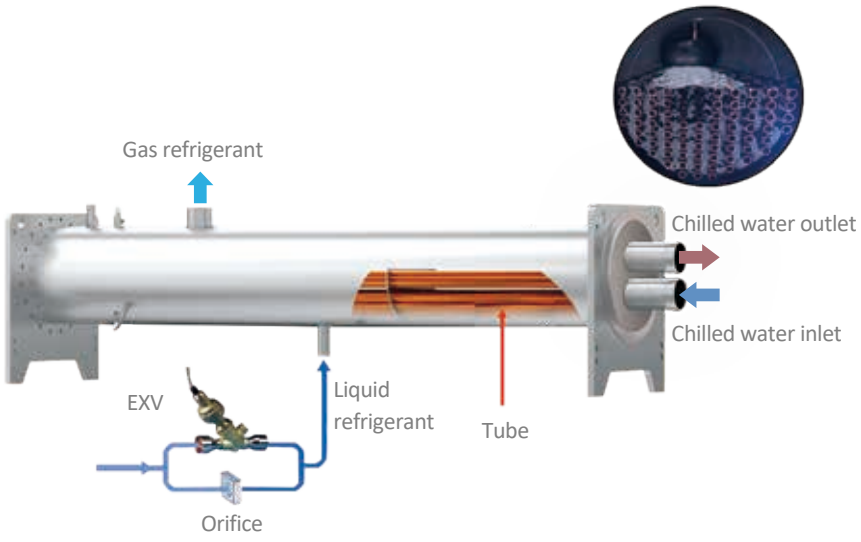
Certified in accordance with the AHRI Water-Cooled Water-Chilling and Heat Pump Water-Heating Packages Using Vapor Compression Cycle Certification Program, which is based on AHRI Standard 500/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in AHRI Directory at www.ahridirectory.org

Enclosed motor design

- The motor is positoned at the compressor gas inlet and is cooled by refrigerant. A specially designed gas inlet flow path enhances this cooling effect. Since the motor does not release heat into the surrounding room, there is no need for additional ventilation.
- The compressor motor is designed for high capacity and features a direct-drive rotor to maximize efficiency.

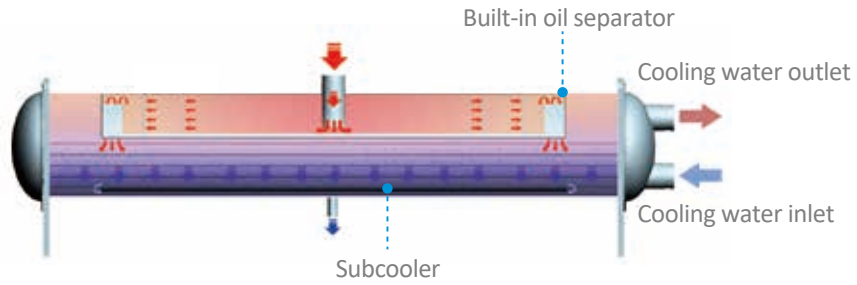
Flooded evaporator

- High-efficiency flooded evaporator delivers high heat-exchange efficiency.
- Water boxes at both ends can be disassembled to facilitate maintenance.
- Liquid distributor plate design to ensure uniform liquid distribution, improving the temperature field and evaporation temperature, thereby increasing the unit's efficiency.
- Innovative baffle plate prevents the suction of liquid into the system, enhancing the unit's reliability.



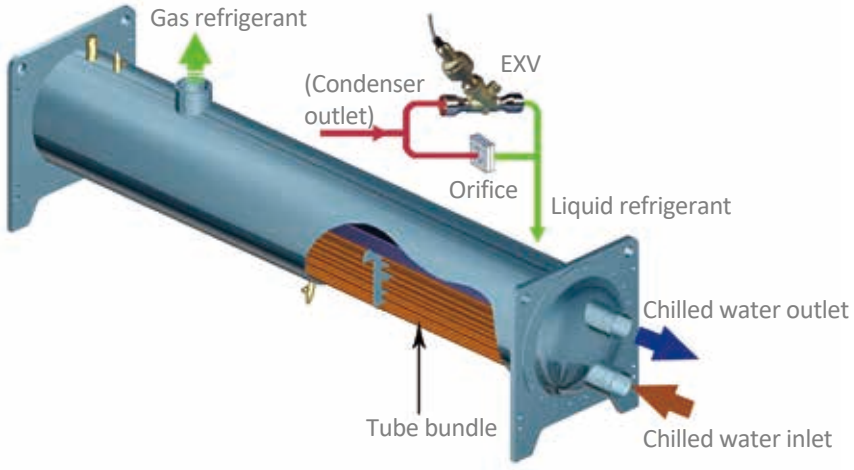
Improved condenser design

- A bundle tube configuration in the condenser is further optimized by a double-sided reinforced condenser tube.
- A specially-designed built in oil seperator effectively seperates lubricating oil from the refrigerant, ensuring peak performance with higher efficiency and reduced maintenance.
- An optimized subcooler design enhances supercooling temperature while reducing refrigerant pressure loss, leading to more efficient heat exchange performance.
- The condenser can implement uniform gas transmission without any heat transmission blind spots.



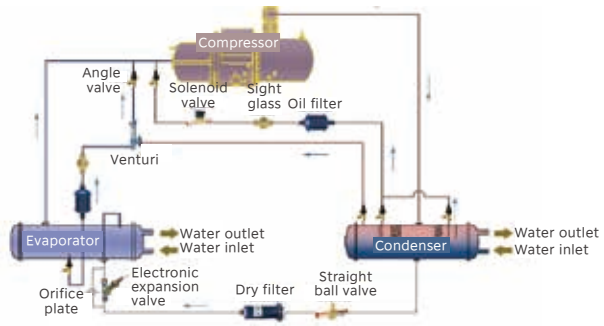
Precise cooling capacity control

- An electronic expansion valve and orifice plate work together to enable accurate control of both the evaporator refrigerant and water temperature.
- The electronic expansion valve is designed for quick response, fast regulation, and a wide capacity adjustment range.



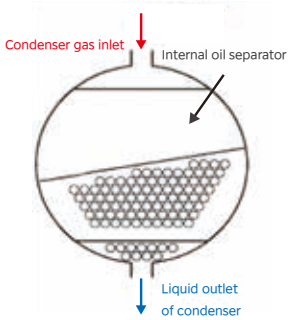
Reliable oil system

Topaire water cooled screw chiller has an oil circuit control system that adopts leading technology, which ensures stable operation of the unit.



Advanced oil control system

Built-in three-stage oil separator for the compressor



Built-in oil separator for the condenser

Oil supply

A differential pressure-type oil supply keeps all moving parts in the compressor well lubricated and without the need for an external oil pump.

Multiple oil separation technologies

- The compressor is equipped with a three-stage oil separator, ensuring low oil content.
- The condenser includes a built-in high efficiency oil separator. This ensures normal oil return under both partial and full loads and realizes reliable and stable operation and an extended operating range.
- A double oil return system achieves oil return through oil separation and a Venturi tube injection of high-pressure gas which efficiently keeps oil from coating the evaporator. An oil heater preheats the lubricating oil ensuring it maintains optimal viscosity according to the unit's status. The external oil filter is designed for easy replacement.

Multiple safeguards

Intelligent monitoring technology

The system continuously monitors unit parameters and changing trends and proactively adjusts operating status to ensure safe operation.

Built-in safety features

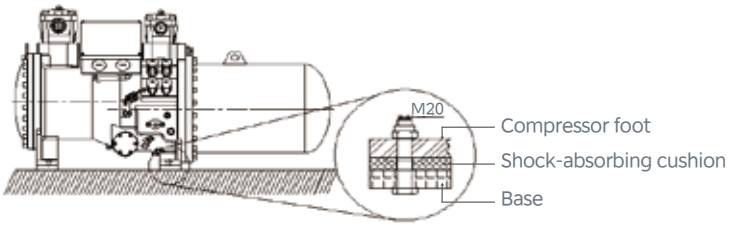
The unit is equipped with multiple protection measures designed to ensure safe and reliable operation.

Comprehensive factory testing

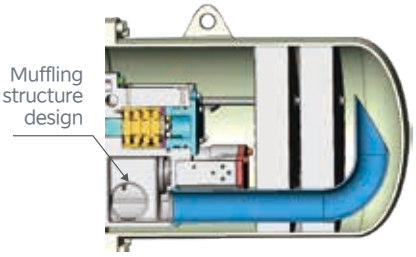
All units undergo strict testing before delivery. Only the water and power supplies need connecting during installation.

Quiet operation

- Noise levels as low as 65 dB(A) under partial loads.
- A shock-absorbing cushion between the compressor foot and the metal support provides effective damping.
- A built-in discharge muffler inhibits compressor noise.

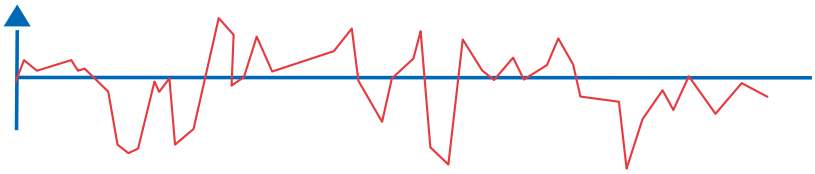


Shock-absorbing cushion installation diagram



Built-in discharge muffler design for compressor

Intelligent control



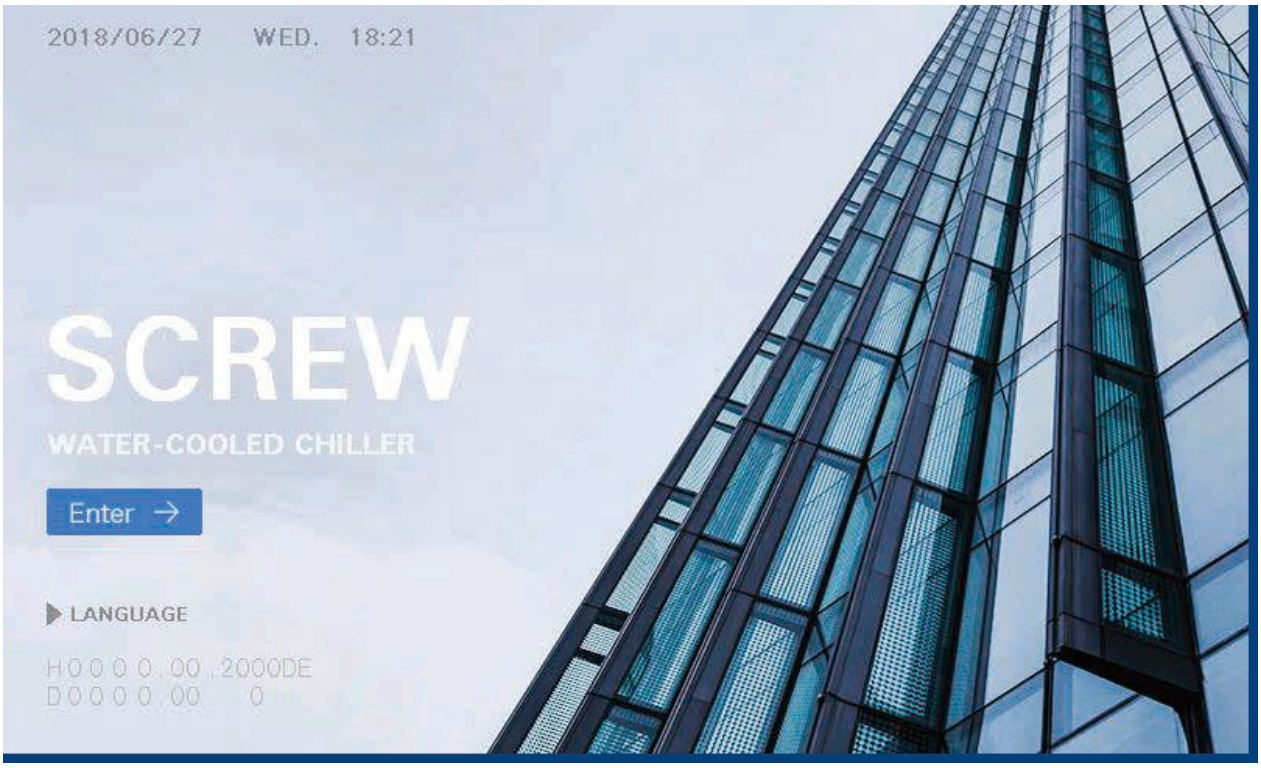
Temperature change of conventional control

Temperature change in prospective control

- Intelligent load control:: By predicting real-time load changes using historical data, the system automatically adjusts the load, helping to prevent frequent fluctuations in the unit's water temperature.
- Intelligent safety monitoring: The system monitors unit parameters, detects trends and automatically adjusts operating status to ensure safe operation.
- Intelligent failure response: Unit failure automatically triggers protective measures and records fault data to aid manual inspection and troubleshooting.

Interface display

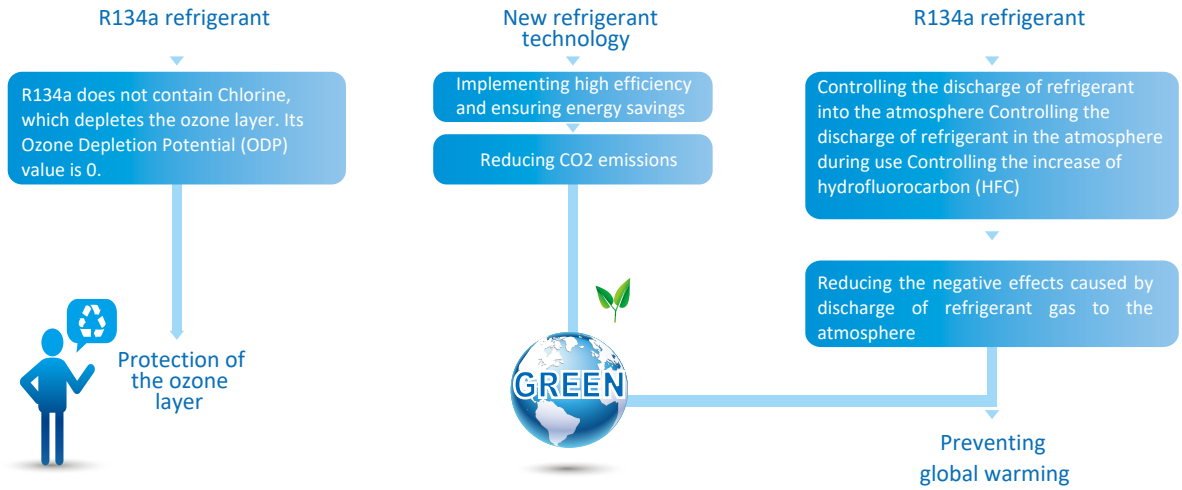
Controller	MIC
Interface display	7-inch touch screen
Communication interface	RS485
Communication protocol	Modbus-RTU
Protection measures	More than 20 protection measures safeguarding the power supply, compressor, pressure and temperature.

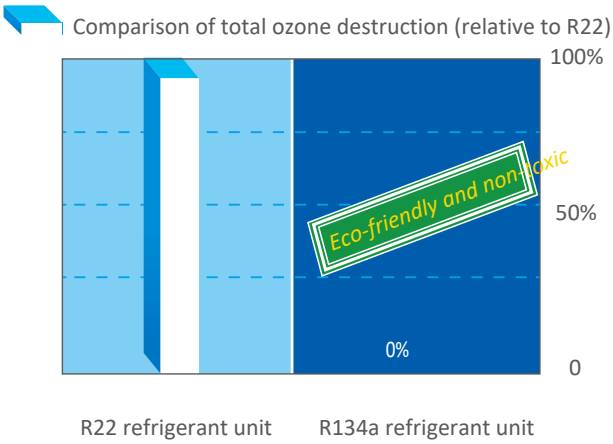


Note: The interface and display content vary with each model. Please refer to the actual product.

Eco-friendly refrigerant

R134a eco-friendly refrigerant achieves high cooling efficiency, without depleting the ozone layer. This refrigerant complies with the Montreal Protocol.





WATER COOLED INVERTER SCREW FLOODED CHILLER (TWXC_GEV3)

Nomenclature

TWXC	100	GEV	3

- TWXC — Topaire Water Cooled Screw Chiller
- 100 — Cooling Capacity Tons
- GEV — G - Series; E - High efficiency; V - Inverter
- 3 — Refrigerant : R134A

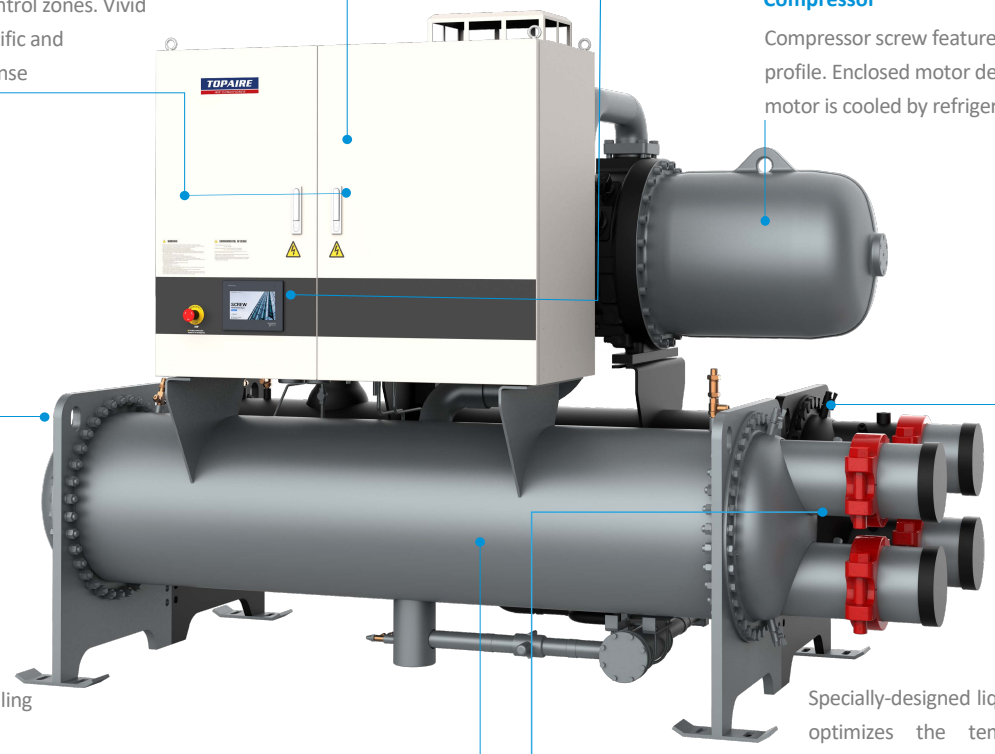
Key components

Microcomputer control system
Provides auto diagnosis, safeguard protection, remote control and other control and adjustment functions

7-inch color touch screen
Easily read unit status at a glance; convenient to operate and maintain

Upgraded electric control panel
Clear electric control zones. Vivid and full of scientific and technological sense

Compressor
Compressor screw features improved profile. Enclosed motor design and the motor is cooled by refrigerant



Hoisting hole
For convenient lifting and handling

Evaporator
Specially-designed liquid equalization plate optimizes the temperature field for optimal heat exchange efficiency

Condenser
Double-sided reinforced high-efficiency condenser tube further improves heat exchange efficiency

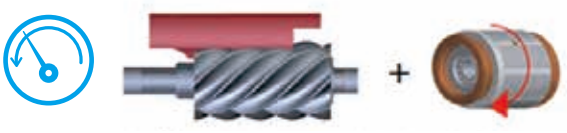
Water inlet and outlet located on the same side
Easy installation, cleaning and maintenance

Vi optimizing inverter technology

Volume-ratio optimization technology integrates the characteristic curves of the compressor, inverter and motor, maximizing performance and reliability. The isentropic efficiency of the compressor is up to 76%, which is much higher than other adjustment methods.

Start During low-speed motor start up, the slide valve rapidly rises to the middle position and the unit does not operate at the low slide valve position.

Loading As the motor speed increased, the slide valve searches for the optimal Vi position. A built-in algorithm analyzes operating parameters, adjusting the slide valve position and the motor speed to their optimal positions, lifting the slide valve first. This allows the system to precisely match the motor speed to the load.

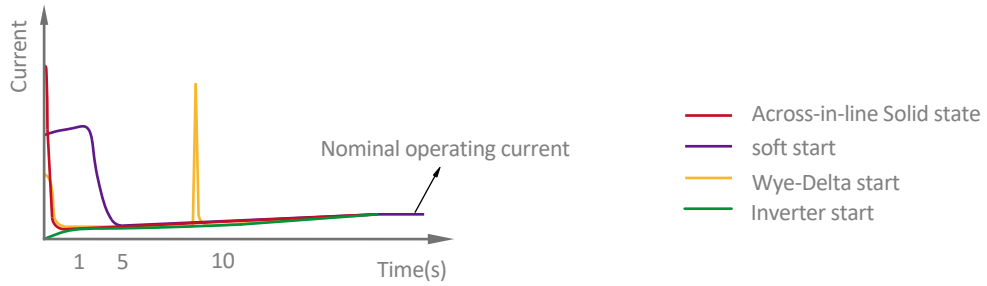


Load reduction The motor slows as the slide valve searches for the optimal Vi position. A built-in algorithm then analyzes the operating parameters online, adjusting the slide valve position and motor speed to their optimal positions, lowering the slide valve first. This enables the slide valve to assist in energy regulation.

Stop The motor slows and the slide valve drops to the lowest position. The motor stops after its speed reaches the lowest setting.

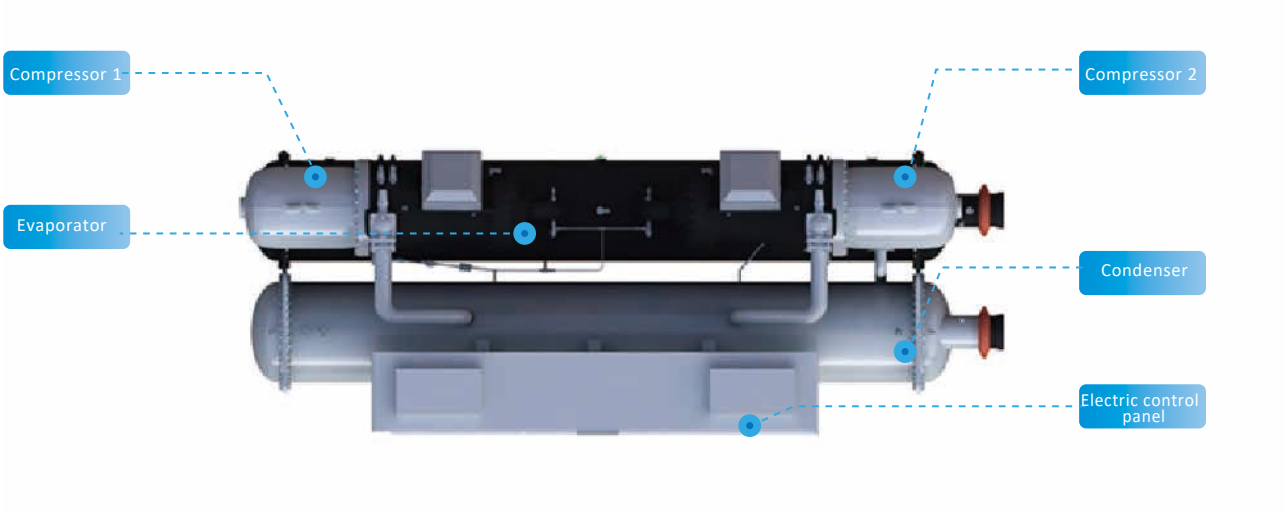
No impact of the power grid

Inverter start-up with a smooth starting current of less than the Wye-Delta starting method. Without current impact and prolonging the motor's service life.



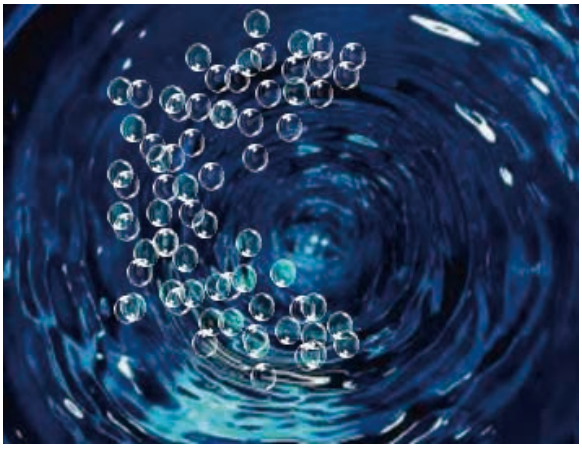
Parallel dual-compressor design

The chiller system features a unique design where two compressors operate in parallel. When only one compressor is running, it can utilize the entire heat exchanger, significantly enhancing operational efficiency. (Non parallel system can be customized, providing flexibility for specific configuration needs)



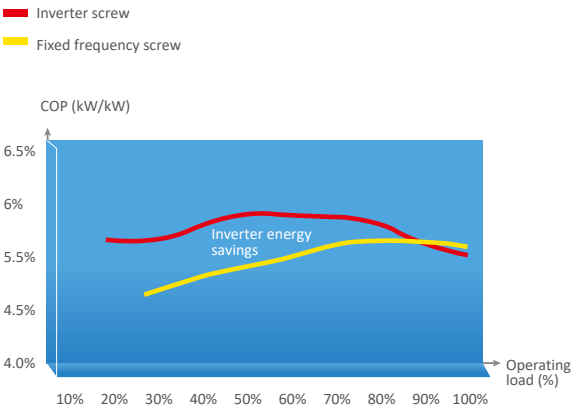
Innovative swirl orifice Plate throttling Technology

- A unique orifice plate increases flow resistance when refrigerant gas content is high, minimizing cooling capacity loss due to hot gas bypass under partial loads.
- When the condensing pressure is low and the refrigerant is liquid, the orifice plate accelerates flow rate, enhancing liquid supply and improving efficiency.



Energy-efficient Inverter control

The inverter screw unit regulates cooling capacity by reducing the motor frequency, which improves the COP under partial loads compared to fixed frequency units, greatly enhancing energy efficiency.



Note: The above data uses 7/32°C operating conditions as an example.

Specifications

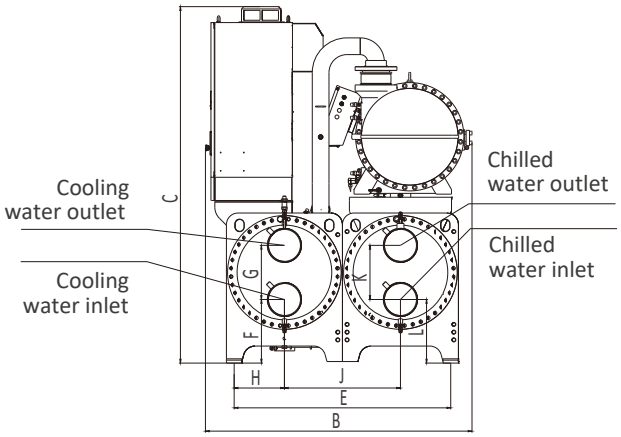
Model		TWXC_GEV3	90	100	120	150	180	200	220	240	260	280
Cooling capacity		RT	90.0	100.0	119.6	150.0	180.0	200.0	220.0	235.2	260.0	280.0
		kW	316.4	351.6	420.6	527.4	632.9	703.2	773.5	826.9	914.2	984.5
Power input		kW	54.97	61.47	73.62	89.89	106.7	117.4	128.4	137.6	151.8	162.3
COP		W/W	5.75	5.72	5.71	5.86	5.93	5.98	6.02	6.00	6.02	6.06
IPLV		W/W	8.49	8.74	8.98	8.71	9.01	8.82	9.17	9.25	9.34	9.10
Compressor		Qty	1	1	1	1	1	1	1	1	1	1
		Type	Semi-hermetic screw compressor									
		Starting method	Inverter									
Capacity adjustment range			Single compressor 30%-100%, dual compressor 15%-100%									
Refrigerant	Type	/	R134a									
	Charge amount	kg	150	150	150	150	195	205	275	275	285	285
Power supply			380V-3N-50Hz									
Rated current		A	89.8	100.4	120.3	146.9	174.3	191.8	209.8	224.9	248.0	265.1
Starting current		A	< 89.8	< 100.4	< 120.3	< 146.9	< 174.3	< 191.8	< 209.8	< 224.9	< 248.0	< 265.1
Max. operating current		A	136.7	133.6	160.4	224.2	237.5	286.0	294.5	315.0	345.9	370.1
Evaporator	Water flow	m^3/h	48.89	54.32	64.98	81.48	97.78	108.6	119.5	127.8	141.2	152.1
	Pressure drop	kPa	58.9	63.1	48.5	55.5	53.8	53.5	53.3	54.7	56.2	64.2
	Water pipe connection	mm	DN125	DN125	DN150	DN150	DN150	DN150	DN200	DN200	DN200	DN200
Condenser	Water flow	m^3/h	61.47	68.36	81.79	102.2	122.4	135.9	149.3	159.7	176.5	189.9
	Pressure drop	kPa	52.5	50.7	49.3	54.9	57.6	61.3	58.1	60.3	60.7	64.4
	Water pipe connection	mm	DN125	DN125	DN150	DN150	DN150	DN150	DN200	DN200	DN200	DN200
Unit dimensions	Length	mm	3513	3513	3513	3513	3538	3538	3601	3601	3601	3601
	Width	mm	1370	1424	1424	1370	1591	1540	1645	1645	1723	1753
	Height	mm	1966	1966	1966	1966	2066	2066	2281	2281	2281	2281
Running weight		kg	2767	2567	2664	3382	3555	3927	4700	4744	4838	5019
Shipping weight		kg	2597	2397	2454	3152	3245	3597	4330	4354	4428	4599

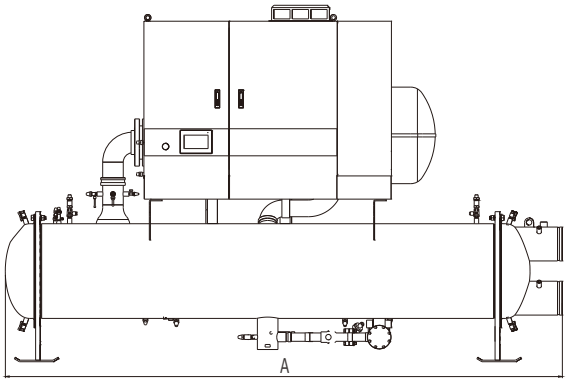
Model		TWXC_GEV3	300	330	350	380	400	430	450	480	500	550
Cooling capacity		RT	300.1	329.4	350.1	380.0	399.9	430.0	449.9	479.8	500.0	544.9
		kW	1055	1158	1231	1336	1406	1512	1582	1687	1758	1916
Power input		kW	171.9	192.2	205.2	229.0	233.8	255.4	258.7	275.4	288.6	303.2
COP		W/W	6.13	6.02	5.99	5.83	6.01	5.91	6.11	6.12	6.09	6.32
IPLV		W/W	9.23	9.33	9.35	9.25	9.28	9.36	9.70	9.70	9.71	9.90
Compressor		Qty	1	1	2	2	2	2	2	2	2	2
		Type	Semi-hermetic screw compressor									
		Starting method	Inverter									
Capacity adjustment range			Single compressor 30%-100%, dual compressor 15%-100%									
Refrigerant	Type	/	R134a									
	Charge amount	kg	325	325	375	380	380	380	390	395	465	540
Power supply			380V-3N-50Hz									
Rated current		A	280.8	313.9	1#145.8 2#189.5	1#162.6 2#211.4	1#191.0 2#191.0	1#208.6 2#208.6	1#211.3 2#211.3	1#225.0 2#225.0	1#235.8 2#235.8	1#247.6 2#247.6
Starting current		A	< 280.8	< 313.9	1# < 145.8 2# < 189.5	1# < 162.6 2# < 211.4	1# < 191.0 2# < 191.0	1# < 208.6 2# < 208.6	1# < 211.3 2# < 211.3	1# < 225.0 2# < 225.0	1# < 235.8 2# < 235.8	1# < 247.6 2# < 247.6
Max. operating current		A	392.8	438.3	1#236.0 2#282.0	1#236.0 2#282.0	1#282.0 2#282.0	1#282.0 2#282.0	1#296.9 2#296.9	1#316.0 2#316.0	1#331.1 2#331.1	1#351.5 2#351.5
Evaporator	Water flow	m^3/h	163.0	178.9	190.2	206.4	217.2	233.6	244.4	260.6	271.6	296.0
	Pressure drop	kPa	55.5	55.3	73.4	80.8	88.5	86.0	78.5	77.1	73.4	86.6
	Water pipe connection	mm	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN250	DN250
Condenser	Water flow	m^3/h	203.2	223.6	237.8	259.1	271.5	292.6	304.8	325.0	338.9	367.6
	Pressure drop	kPa	58.6	59.9	78.9	91.9	92.9	95.0	93.3	92.5	94.0	99.4
	Water pipe connection	mm	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN250	DN250
Unit dimensions	Length	mm	3613	3613	4518	4518	4518	4518	4720	4720	4720	4784
	Width	mm	1828	1828	1727	1727	1727	1727	1797	1797	1947	1962
	Height	mm	2346	2346	2196	2196	2196	2196	2441	2441	2491	2491
Running weight		kg	5444	5530	6587	6601	6727	6815	7185	7303	7759	8464
Shipping weight		kg	4944	5010	6027	6041	6157	6215	6555	6643	7029	7614

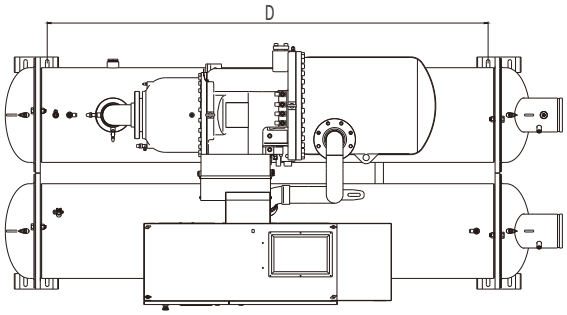
Notes:
1. Performance and efficiency are based on AHRI 550/590-2018.
   Evaporator conditions: water inlet=54°F(12.22℃), water outlet=44°F(6.67℃), fouling factor=0.00010h-ft² -°F/Btu(0.0176m². ℃/kW);
   Condenser conditions: water inlet=85°F (29.44℃), water outlet=94.3°F (34.61℃), fouling factor=0.00025h-ft²-°F/Btu (0.0440m². ℃/kW).
2. The max working pressure for both the evaporator and condenser are 1.0MPa, can be customized for higher pressure if required.
3. As a result of the continuous improvement of the product, the above parameters may be changed. Please refer to the software selection and the actual product.

Dimensions

Single compressor



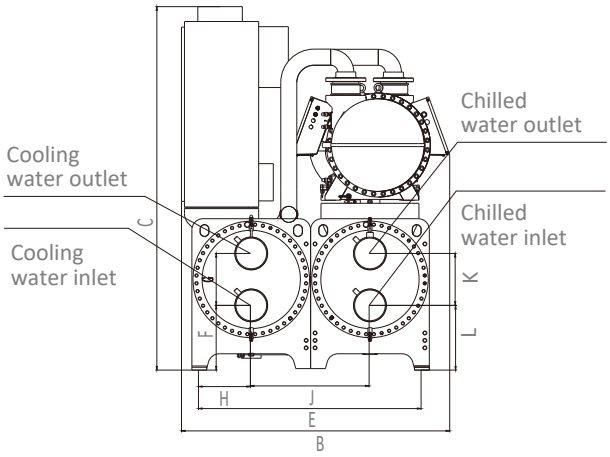


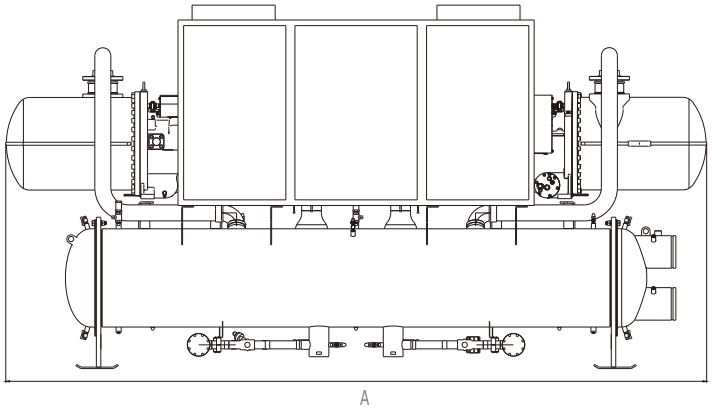


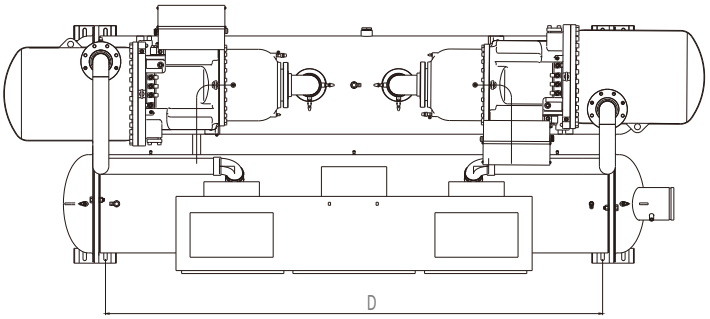
Model (TWXC_GEV3)	Dimensions			Support		Pipe location							
	Length (A)	Width (B)	Height (C)	D	E	F	G	H	J	K	L	Evaporator pipe diameter	Condenser pipe diameter
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
90	3513	1370	1966	2850	1100	381	260	250	600	260	381	DN125	DN125
100	3513	1424	1966	2850	1100	381	260	250	600	260	381	DN125	DN125
120	3513	1424	1966	2850	1100	381	260	250	600	260	381	DN150	DN150
150	3513	1370	1966	2850	1100	381	260	250	600	260	381	DN150	DN150
180	3538	1591	2066	2850	1300	411	300	300	700	300	411	DN150	DN150
200	3538	1540	2066	2850	1300	411	300	300	700	300	411	DN150	DN150
220	3601	1645	2281	2850	1400	411	350	325	750	350	411	DN200	DN200
240	3601	1645	2281	2850	1400	411	350	325	750	350	411	DN200	DN200
260	3601	1723	2281	2850	1400	411	350	325	750	350	411	DN200	DN200
280	3601	1753	2281	2850	1400	411	350	325	750	350	411	DN200	DN200
300	3613	1828	2346	2850	1500	436	350	350	800	350	436	DN200	DN200
330	3613	1828	2346	2850	1500	436	350	350	800	350	436	DN200	DN200

Dimensions

Dual compressor

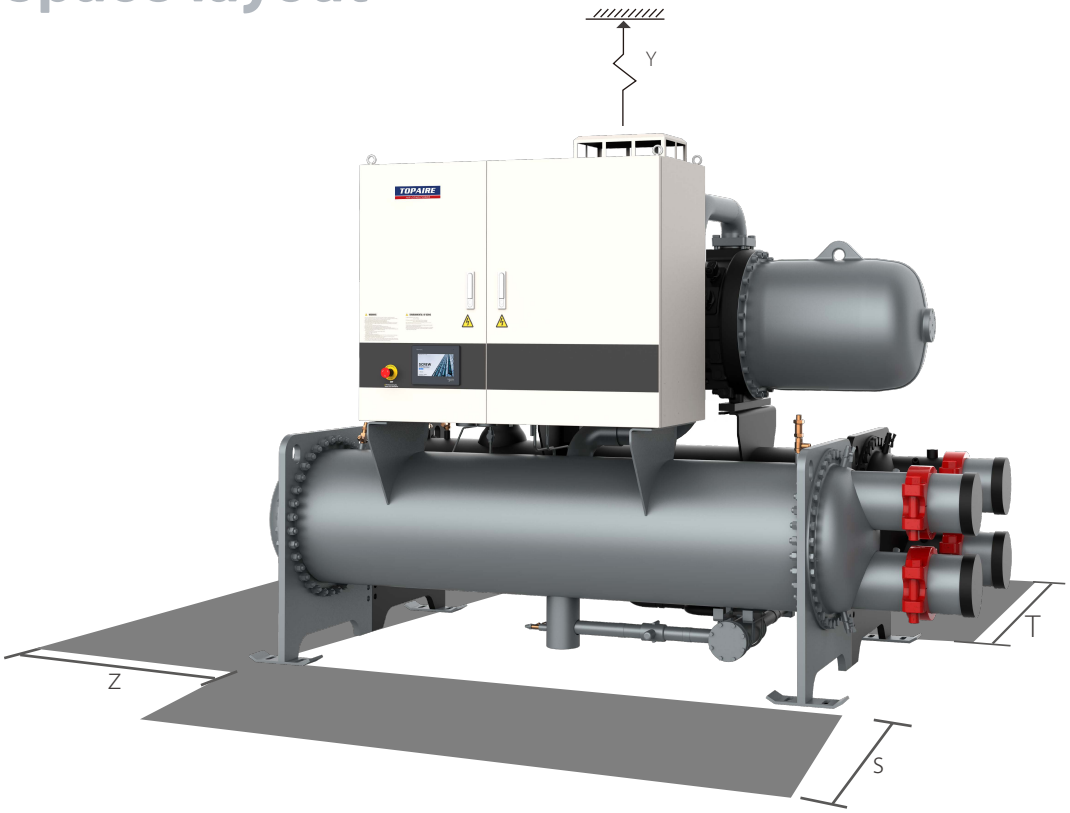






Model (TWXC_GEV3)	Dimensions			Support		Pipe location						Evaporator pipe diameter	Condenser pipe diameter
	Length (A)	Width (B)	Height (C)	D	E	F	G	H	J	K	L		
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
350	4518	1727	2196	3350	1500	436	350	350	800	350	436	DN200	DN200
380	4518	1727	2196	3350	1500	436	350	350	800	350	436	DN200	DN200
400	4518	1727	2196	3350	1500	436	350	350	800	350	436	DN200	DN200
430	4518	1727	2196	3350	1500	436	350	350	800	350	436	DN200	DN200
450	4720	1797	2441	3350	1500	436	350	350	800	350	436	DN200	DN200
480	4720	1797	2441	3350	1500	436	350	350	800	350	436	DN200	DN200
500	4720	1947	2491	3350	1700	389	445	400	900	445	389	DN250	DN250
550	4784	1962	2491	3850	1700	389	445	400	900	445	389	DN250	DN250

Space layout



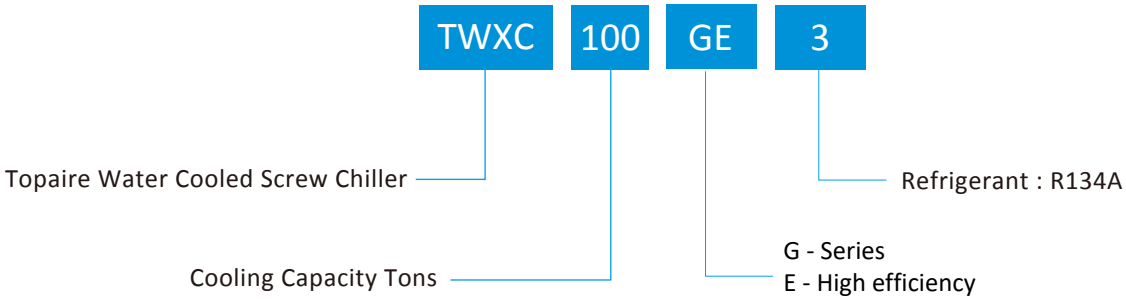
Unit: mm

Dimensions / Model	S	T	Z	Y
TWXC 90GEV3 - TWXC 330GEV3	600	600	3200	1000
TWXC 350GEEV - TWXC 550GEV3	600	600	4200	1000

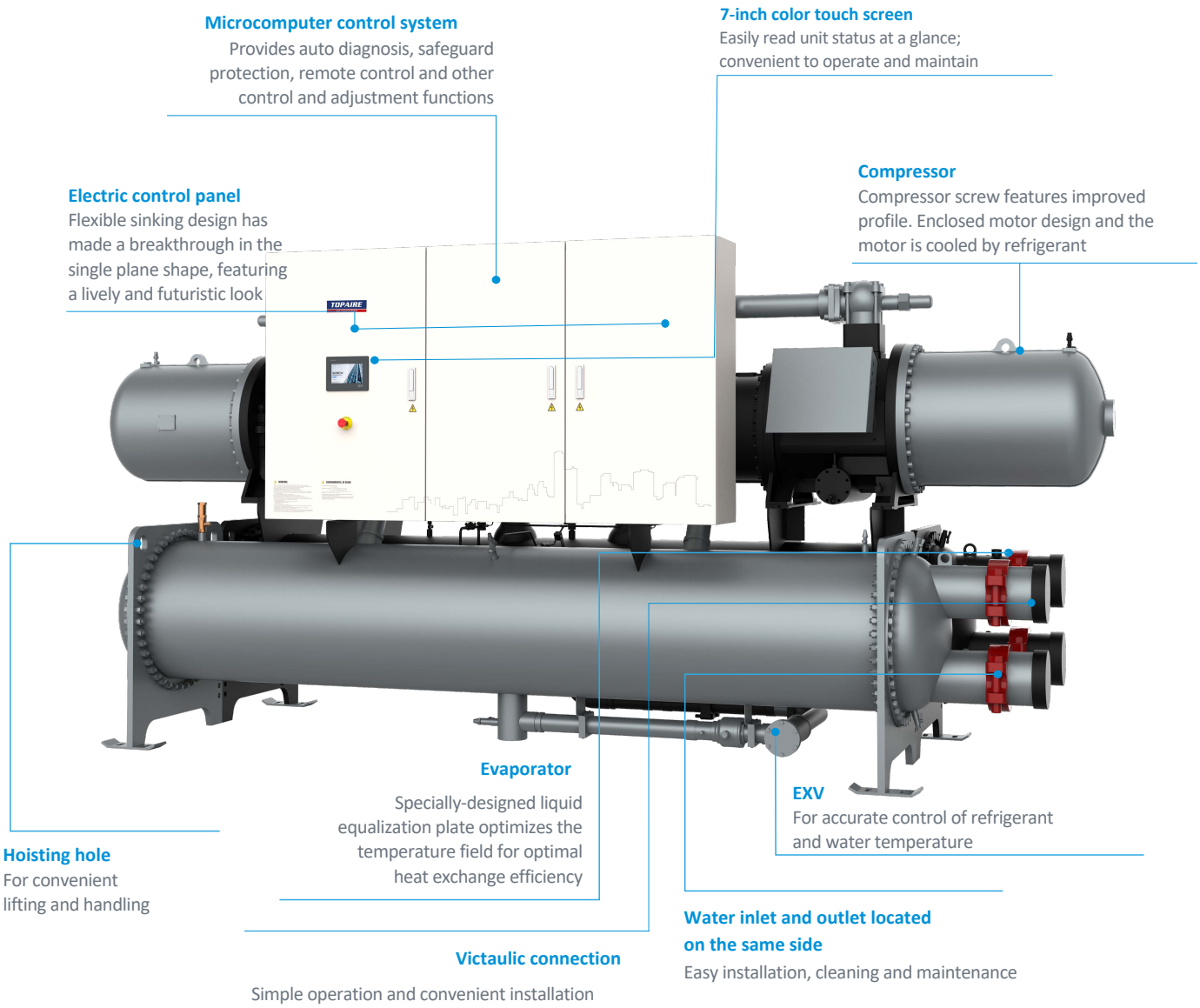
Z: Tube removal space for either end.

WATER COOLED SCREW FLOODED CHILLER (TWXC_GE3)

Nomenclature



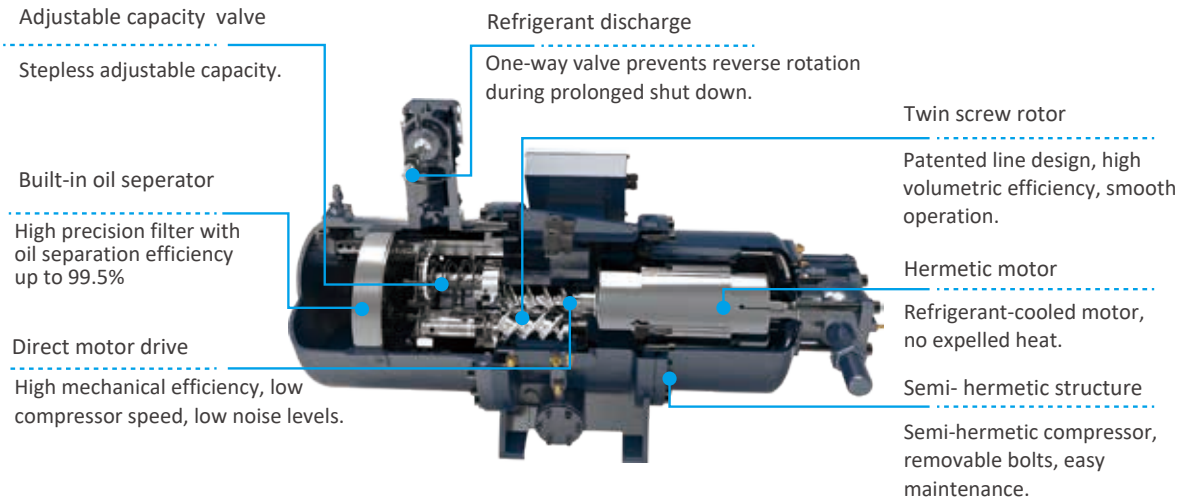
Key components



FEATURES

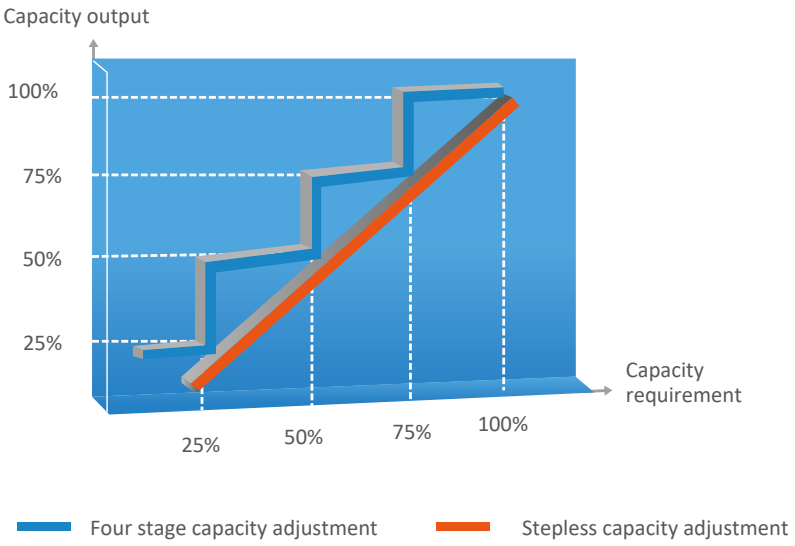
Advanced twin-rotor screw compressor

- The semi-hermetic twin-rotor screw compressor offers advantages such as reduced refrigerant leakage, higher transmission efficiency, and no heat dissipation in the equipment room, compared to open-structure compressors.
- Screw rotor features an innovative profile design which optimizes the compression process to ensure excellent volumetric efficiency and low leakage. The twin-screw rotor also utilizes a five-teeth to six-teeth asymmetric design with machining accuracy down to micron levels which helps ensure stable operation.
- Large capacity motor is designed for high efficiency with optimal gas passage and clearance inside the motor.
- Refrigerant is positioned around the motor perimeter to ensure complete cooling.
  The compressor includes bearings produced by renowned manufacturer SKF, ensuring a long service life and continuous run time up to 50000h.



Stepless capacity adjustment

Capacity adjustment system consists of capacity adjustment slide valve, solenoid valve and oil pressure piston.



Specifications

Model		TWXC_GE3	90	100	110	120	130	150	170	200	220	240
Cooling capacity		RT	87.26	94.45	107.2	119.3	129.6	146.9	169.4	195.6	214.2	236.2
		kW	306.8	332.1	376.8	419.3	455.8	516.5	595.6	687.8	753.2	830.6
Power input		kW	52.69	57.33	65.30	72.07	78.25	87.04	99.51	115.3	124.9	137.7
COP		W/W	5.82	5.79	5.77	5.81	5.82	5.93	5.98	5.96	6.03	6.03
IPLV		W/W	7.46	7.88	7.83	7.14	7.37	7.11	7.63	7.78	8.61	8.66
Compressor		Qty	1	1	1	1	1	1	1	1	1	1
		Type	Semi-hermetic screw compressor									
		Starting method	Wye-Delta									
Capacity adjustment range			Stepless, single compresser 30%-100%, dual compressor 15%-100%									
Refrigerant	Type	/	R134a									
	Charge amount	kg	150	150	150	150	150	150	195	205	275	275
Power supply			380V-3N-50Hz									
Rated current		A	91.00	99.00	112.7	1124.4	135.1	150.3	171.8	199.1	215.6	237.7
Max. operating current		A	136.6	154.6	176.9	169.0	208.0	205.6	260.0	301.0	335.0	369.0
Starting current		A	258.0	315.0	378.0	291.7	415.0	446.7	506.0	650.0	518.0	560.0
Evaporator	Water flow	m^3/h	47.39	51.31	58.21	64.78	70.42	79.80	92.02	106.3	116.4	128.3
	Pressure drop	kPa	55.7	57.0	47.4	48.2	55.9	53.4	54.5	51.5	50.8	55.1
	Water pipe connection	mm	DN125	DN125	DN125	DN150	DN150	DN150	DN150	DN150	DN200	DN200
Condenser	Water flow	m^3/h	59.50	64.45	73.17	81.33	88.40	99.92	115.1	133.0	145.4	160.3
	Pressure drop	kPa	49.6	45.6	48.6	48.8	48.0	52.8	58.9	59.0	55.3	60.7
	Water pipe connection	mm	DN125	DN125	DN125	DN150	DN150	DN150	DN150	DN150	DN200	DN200
Unit dimensions	Length	mm	3513	3513	3513	3513	3513	3513	3538	3538	3601	3601
	Width	mm	1200	1200	1200	1215	1200	1200	1400	1400	1560	1588
	Height	mm	1690	1690	1690	1829	1821	1953	1933	1933	2109	2109
Running weight		kg	2677	2707	2769	2664	3236	3017	3735	3862	4330	4414
Shipping weight		kg	2507	2537	2579	2454	3026	2787	3445	3532	3960	4024

Notes:
1. Performance and efficiency are based on AHRI 550/590-2018.
   Evaporator conditions: water inlet=54°F(12.22℃), water outlet=44°F(6.67℃), fouling factor=0.00010h-ft² -°F/Btu(0.0176m². ℃/kW);
   Condenser conditions: water inlet=85°F (29.44℃), water outlet=94.3°F (34.61℃), fouling factor=0.00025h-ft²-°F/Btu (0.0440m². ℃/kW).
2. The max working pressure for both the evaporator and condenser are 1.0MPa, can be customized for higher pressure if required.
3. As a result of the continuous improvement of the product, the above parameters may be changed. Please refer to the software selection and the actual product.

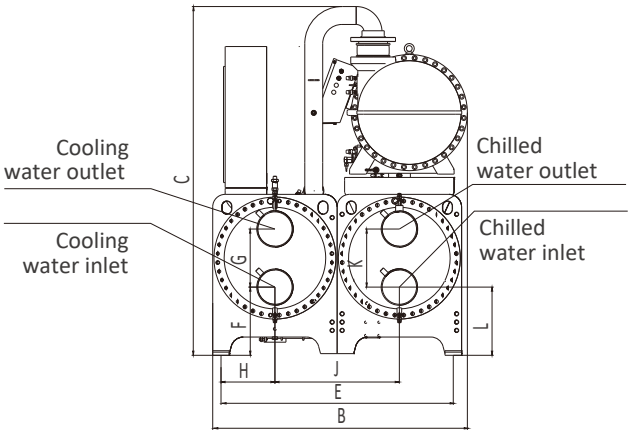
Specifications

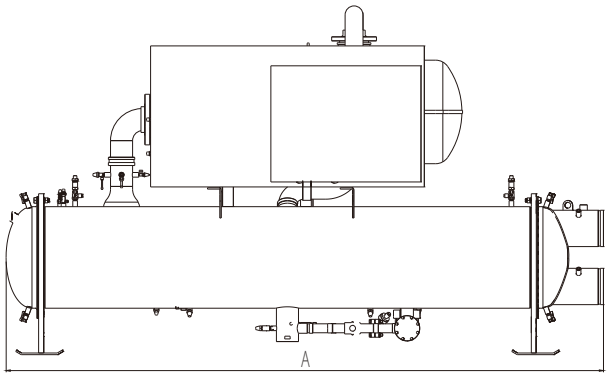
Model		TWXC_GE3	250	270	300	320	350	400	450	470	500	550
Cooling capacity		RT	245.9	270.7	292.0	319.3	348.5	391.3	440.5	467.3	493.9	548.6
		kW	864.5	951.7	1027	1123	1225	1376	1549	1643	1737	1929
Power input		kW	148.4	154.5	171.8	187.2	205.1	228.0	252.7	267.2	279.9	309.3
COP		W/W	5.82	6.16	5.97	5.99	5.97	6.03	6.13	6.14	6.20	6.23
IPLV		W/W	6.84	8.62	7.27	7.05	8.08	8.26	9.30	9.32	9.33	9.13
Compressor		Qty	1	1	1	1	2	2	2	2	2	2
		Type	Semi-hermetic screw compressor									
		Starting method	Wye-Delta									
Capacity adjustment range			Stepless, single compresser 30%-100%, dual compressor 15%-100%									
Refrigerant	Type	/	R134a									
	Charge amount	kg	280	280	325	325	375	380	390	395	465	540
Power supply			380V-3N-50Hz									
Rated current		A	256.3	266.7	296.6	323.2	1#154.0 2#200.2	1#196.8 2#196.8	1#218.1 2#218.1	1#220.2 2#241.2	1#241.6 2#241.6	1#267.0 2#267.0
Max. operating current		A	362.8	400.0	396.8	459.4	1#235.0 2#301.0	1#301.0 2#301.0	1#335.0 2#335.0	1#335.0 2#369.0	1#369.0 2#369.0	1#400.0 2#400.0
Starting current		A	663.3	583.3	785.0	785.0	1#479.0 2#650.0	1#650.0 2#650.0	1#518.0 2#518.0	1#518.0 2#560.0	1#560.0 2#560.0	1#583.3 2#583.3
Evaporator	Water flow	m^3/h	133.6	147.0	158.6	173.4	189.3	212.5	239.3	253.9	268.3	298.0
	Pressure drop	kPa	54.2	64.4	52.8	52.3	72.8	85.1	75.6	73.6	71.8	83.0
	Water pipe connection	mm	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN250	DN250
Condenser	Water flow	m^3/h	167.7	183.2	198.4	216.9	236.8	265.5	298.3	316.4	334.0	370.7
	Pressure drop	kPa	51.6	60.4	56.2	56.8	76.0	89.3	89.8	88.2	91.6	101.0
	Water pipe connection	mm	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN250	DN250
Unit dimensions	Length	mm	3601	3601	3613	3613	4518	4518	4720	4752	4784	4874
	Width	mm	1520	1618	1628	1628	1617	1617	1737	1737	1902	1921
	Height	mm	2178	2150	2291	2291	2291	2291	2291	2291	2341	2341
Running weight		kg	4403	2985	5404	5600	6484	6627	6985	7143	7619	8632
Shipping weight		kg	3993	2575	4904	5080	5924	6057	6355	6483	6889	7772

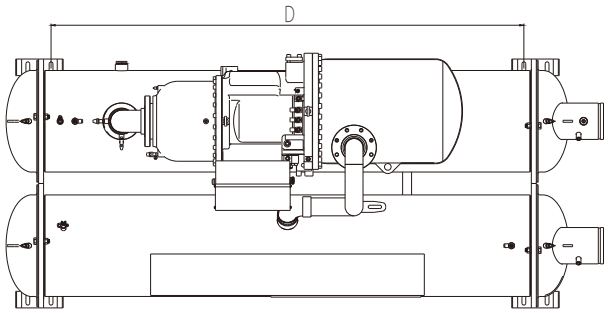
Notes:
1. Performance and efficiency are based on AHRI 550/590-2018.
   Evaporator conditions: water inlet=54°F(12.22°C), water outlet=44°F(6.67°C), fouling factor=0.00010h-ft² -°F/Btu(0.0176m². °C/kW);
   Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h-ft²-°F/Btu (0.0440m². °C/kW).
2. The max working pressure for both the evaporator and condenser are 1.0MPa, can be customized for higher pressure if required.
3. As a result of the continuous improvement of the product, the above parameters may be changed. Please refer to the software selection and the actual product.

Dimensions

Single compressor



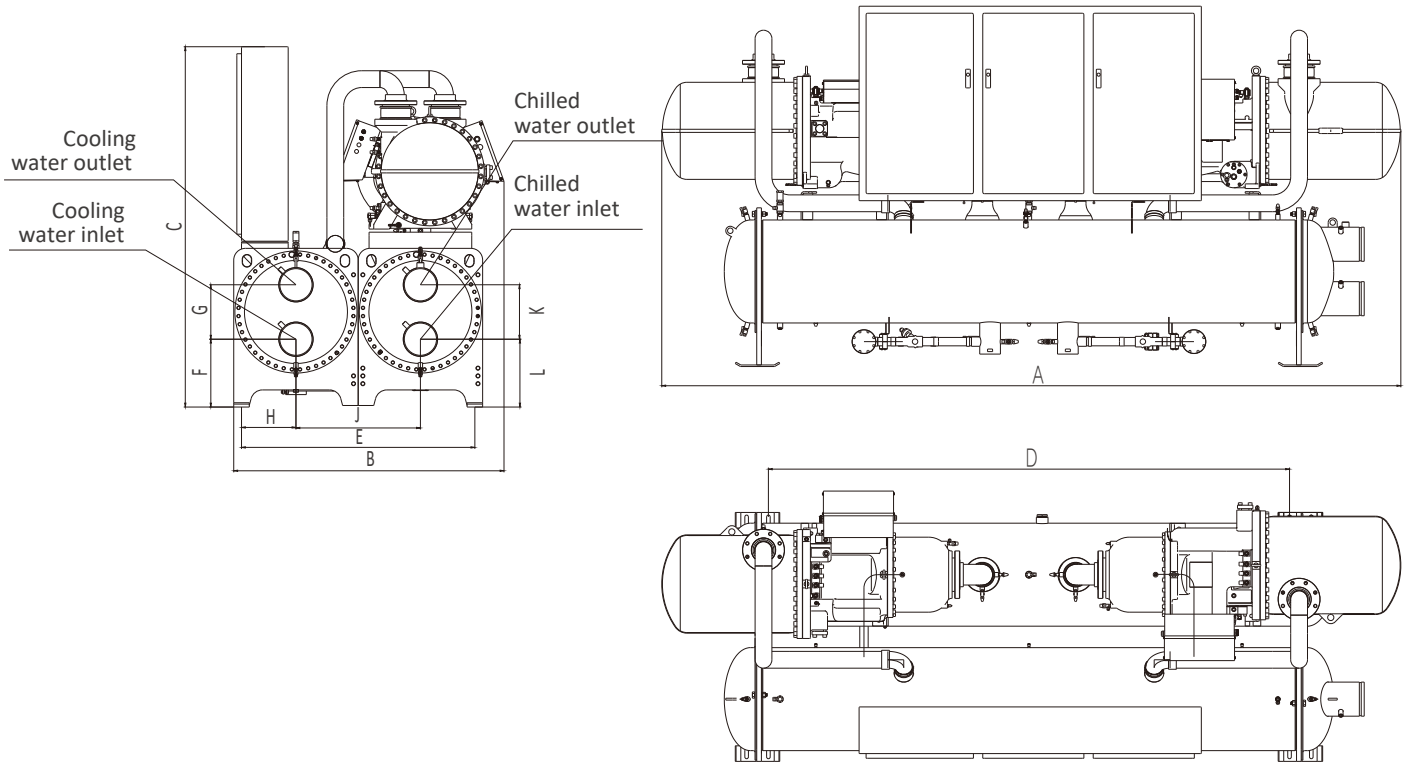




Model TWXC_GE3	Dimensions			Support		Pipe location						Evaporator pipe diameter	Condenser pipe diameter
	Length (A)	Width (B)	Height (C)	D	E	F	G	H	J	K	L		
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
90	3513	1200	1690	2850	1100	381	260	250	600	260	381	DN125	DN125
100	3513	1200	1690	2850	1100	381	260	250	600	260	381	DN125	DN125
110	3513	1200	1690	2850	1100	381	260	250	600	260	381	DN125	DN125
120	3513	1215	1829	2850	1100	381	260	250	600	260	381	DN150	DN150
130	3513	1200	1821	2850	1100	381	260	250	600	260	381	DN150	DN150
150	3513	1200	1953	2850	1100	381	260	250	600	260	381	DN150	DN150
170	3538	1400	1933	2850	1300	411	300	300	700	300	411	DN150	DN150
200	3538	1400	1933	2850	1300	411	300	300	700	300	411	DN150	DN150
220	3601	1560	2109	2850	1400	411	350	325	750	350	411	DN200	DN200
240	3601	1588	2109	2850	1400	411	350	325	750	350	411	DN200	DN200
250	3601	1520	2178	2850	1400	411	350	325	750	350	411	DN200	DN200
270	3601	1618	2150	2850	1400	411	350	325	750	350	411	DN200	DN200
300	3613	1628	2291	2850	1500	436	350	350	800	350	436	DN200	DN200
320	3613	1628	2291	2850	1500	436	350	350	800	350	436	DN200	DN200

Dimensions

Dual compressor



Model TWXC_GE3	Dimensions			Support		Pipe location							
	Length (A)	Width (B)	Height (C)	D	E	F	G	H	J	K	L	Evaporator pipe diameter	Condenser pipe diameter
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
350	4518	1617	2291	3350	1500	436	350	350	800	350	436	DN200	DN200
400	4518	1617	2291	3350	1500	436	350	350	800	350	436	DN200	DN200
450	4720	1737	2291	3350	1500	436	350	350	800	350	436	DN200	DN200
470	4752	1737	2291	3350	1500	436	350	350	800	350	436	DN200	DN200
500	4784	1902	2341	3350	1700	389	445	400	900	445	389	DN250	DN250
550	4874	1921	2341	3850	1700	389	445	400	900	445	389	DN250	DN250

Space Layout

Unit: mm

Model / Dimensions TWXC_GE3	S	T	Z	Y
90 - 320	600	600	3200	1000
350 - 550	600	600	4200	1000

Z: Tube removal space for either end.

Options

Items	Standard	Optional
Power supply	380V-3Ph-50Hz	400/415V-3Ph-50Hz, 380/440/460V-3Ph-60Hz
Water inlet/outlet connection	Victaulic (≥500RT, Flange)	Flange
High pressure water box	1.0MPa	1.6MPa, 2.0MPa
Anti-vibration	Rubber pad	Spring isolator
Communication protocol	Modbus-RTU (RS485)	BACnet IP, BACnet MS/TP (RJ-45 port)
Condenser high-leaving water temperature	45°C	Up to 55°C
Insulation	20mm	40mm
Witness performance testing	×	√
Remote control & monitor panel	×	√

Note: For other options, please contact Topaire engineers.

TOPAIRE

Head Office

TOPAIRE SALES & SERVICES SDN BHD
(274725-W)
No.A7-2-2, Block A, Megan Salak Park, Jalan 2/125E, Taman Desa Petaling, 57100 Kuala Lumpur.

Tel : 603-90563228 (Hunting line)
603-90562818 / 603-90562868.
Fax : 603-90562800.
Email : sales@topaire.com.my

CVC® EMS
Manufacturer
Is certified under the ISO 14001 International standard for environmental management.
Certificate No.15912E10020R0L

CVC® OHSMS
Manufacturer
Certificate of Occupational Health and Safety Management System
Certificate No. 15912S20006R0L-1.

TÜVRheinland® CERT ISO 9001
Manufacturer
Is certified under the ISO 9001 International standard for quality assurance.
NO.01 100 019209

Branches

Penang
No 4, Lengkok Kikik 2, Taman Inderawasih, 13600, Prai, Pulau Pinang.
Tel: 04-399 2050 Fax: 04-398 2050

Johor Bahru
No. 62, Jalan Permas Jaya 9/13, Bandar Baru Permas Jaya, 81750 Johor Bahru, Johor Darul Takzim.
Tel: 07-388 4600 Fax: 07-388 4602

Kota Bahru
Lot 1848, Jalan Hospital, Kg. Cherang, Taman Kenangan, 15200 Kota Bahru, Kelantan.
Tel: 09-748 9295 Fax: 09-748 9297

Sabah
Lot 2, (DBKK No.69) Lorong Inanam 5 3/4 Miles, Tuaran Road, 88450 Kota Kinabalu, Sabah.
P.O. Box 526, 88857, Inanam, Kota Kinabalu, Sabah
Tel: 088-388 339 Fax: 088-389 339

TSS/WSC/TWXC/GEV3/GE3/0625