

DISCOVER
easyCOMFORT

Midea Group
Midea Building Technologies Division

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Midea reserves the right to change the specifications of the product, and to withdraw or replace products without prior notification or public announcement. Midea is constantly developing and improving its products.



Water Cooled Centrifugal Chiller

230 RT to 3000 RT



MBT

Midea Building Technologies (MBT) is a key division of the Midea Group, a leading provider of comprehensive, intelligent-building solutions including energy sources, elevators, control systems and heating, ventilation and air conditioning.

Built on a foundation of innovation, Midea has emerged as a global leader in the HVAC and building management industry. Our unwavering dedication to research and development coupled with an extensive network of global partners has given birth to cutting-edge technologies that provide innovative solutions to our customers around the world.

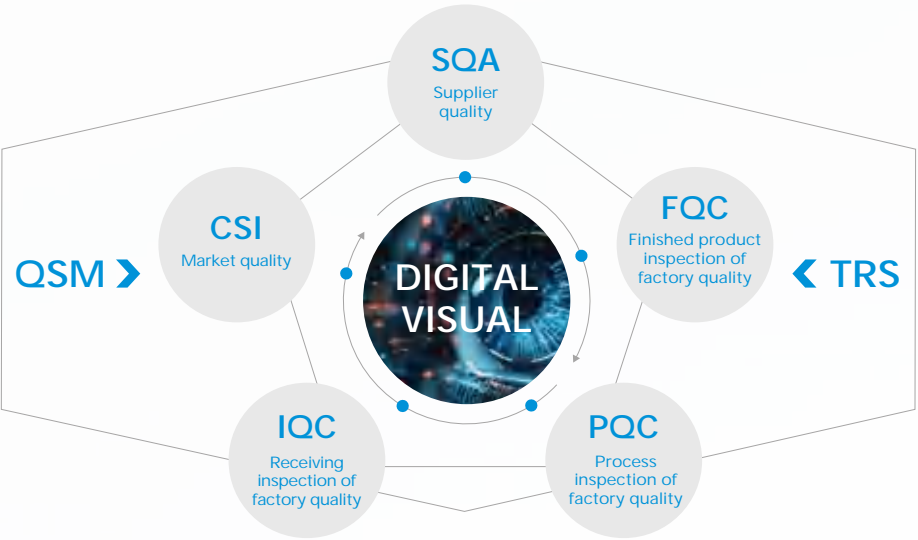
Committed to providing users with intelligent, digital, low carbon overall building solution



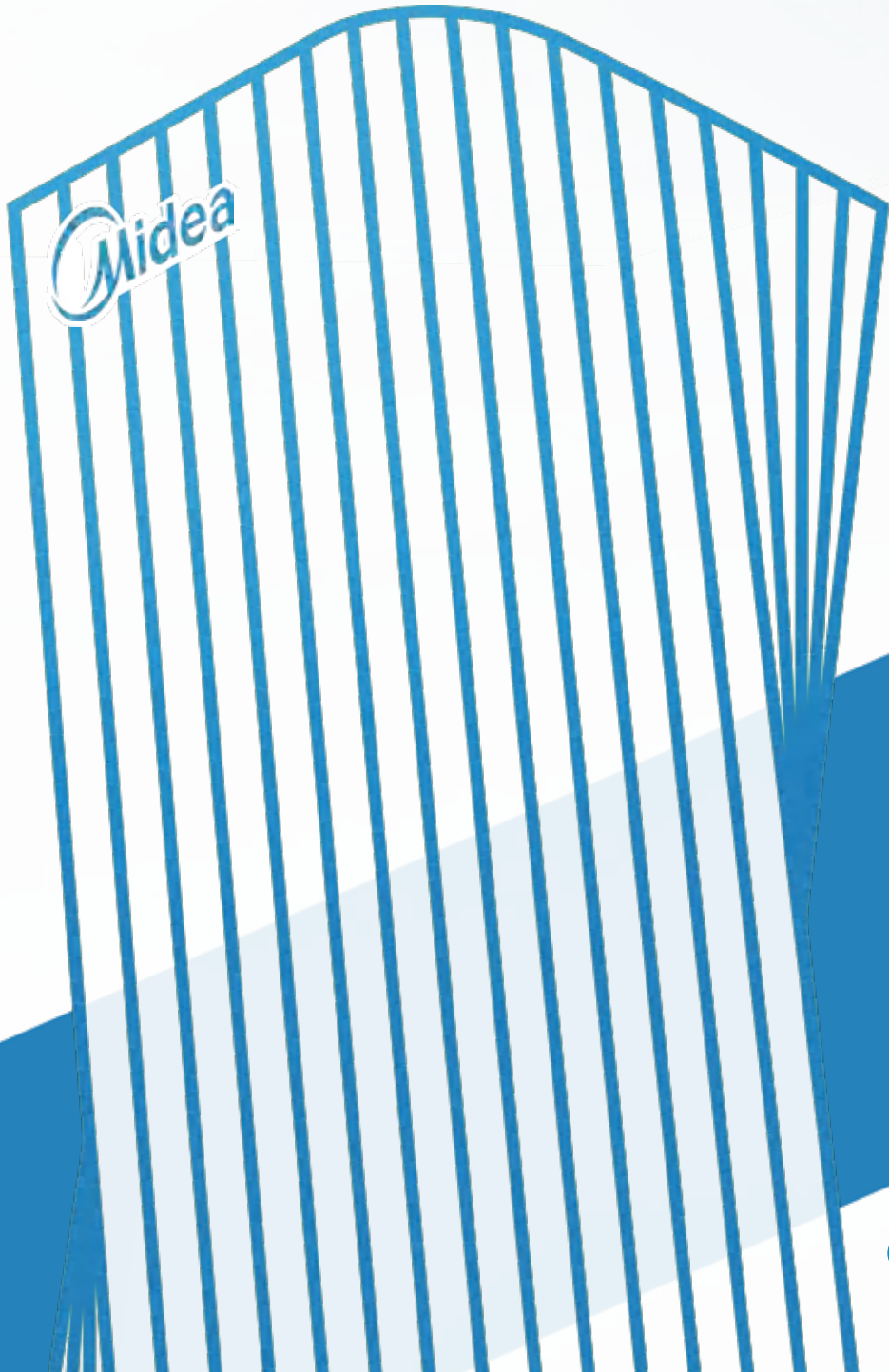
Over 100 testing labs cover a wide range of real application scenarios.



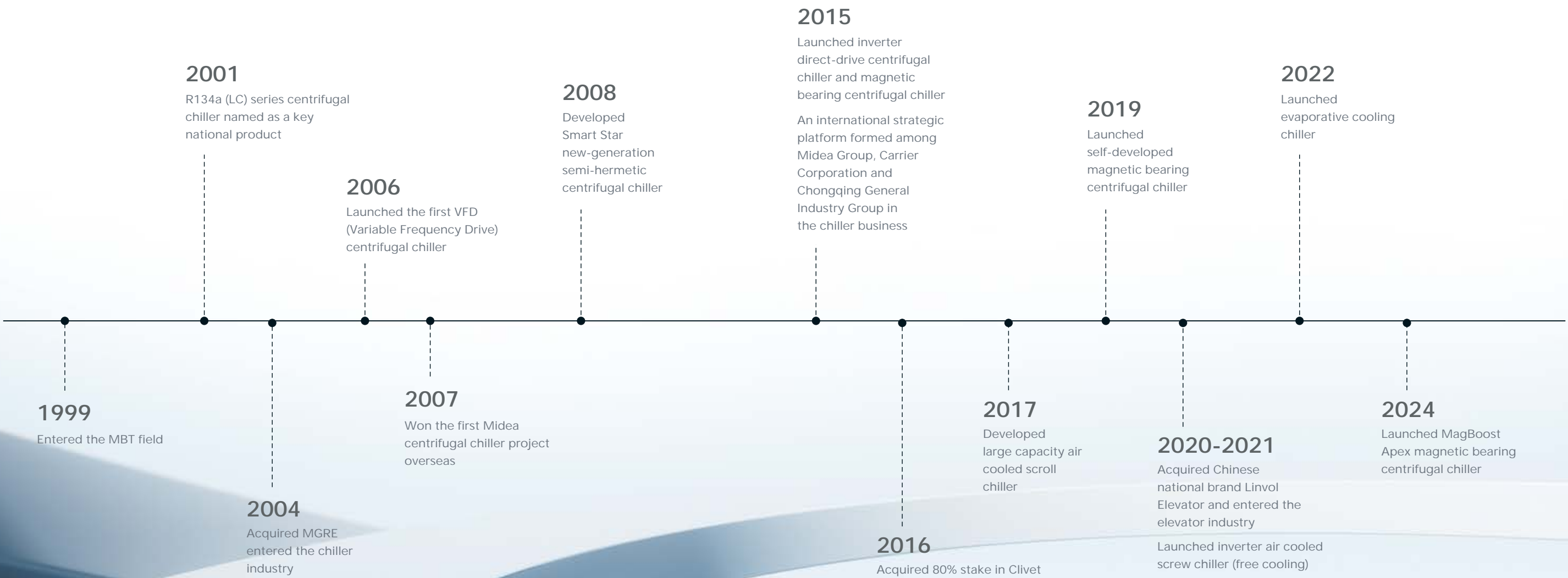
All products can be visualized and digitalized throughout entire process.



4 global manufacturing locations assure timely delivery with less sensitivity to supply chain interruption.



MIDEA LARGE TONNAGE CHILLER HISTORY



INTERNATIONAL SERVICE MANAGEMENT

Our International Service Management (ICS) system provides customers with professional technical support. Through ICS, you can download product information/documentation, get help with technical questions and troubleshooting, submit complaints and order parts using our self-service interface.

Q > <https://ics.midea.com>  



My order

Inquire about spare parts from an exploded view and place orders for spare parts directly in ICS.

Document inquiry and download

View or download product technical documentation online, such as catalogs, images, training PPTs and other assets.

Technical inquiry & FAQ

Ask technical questions online and receive a prompt response from our technicians or browse the FAQ for answers to commonly asked questions.

Troubleshooting

Query the error code and solution by SN, model name, error code or product type.

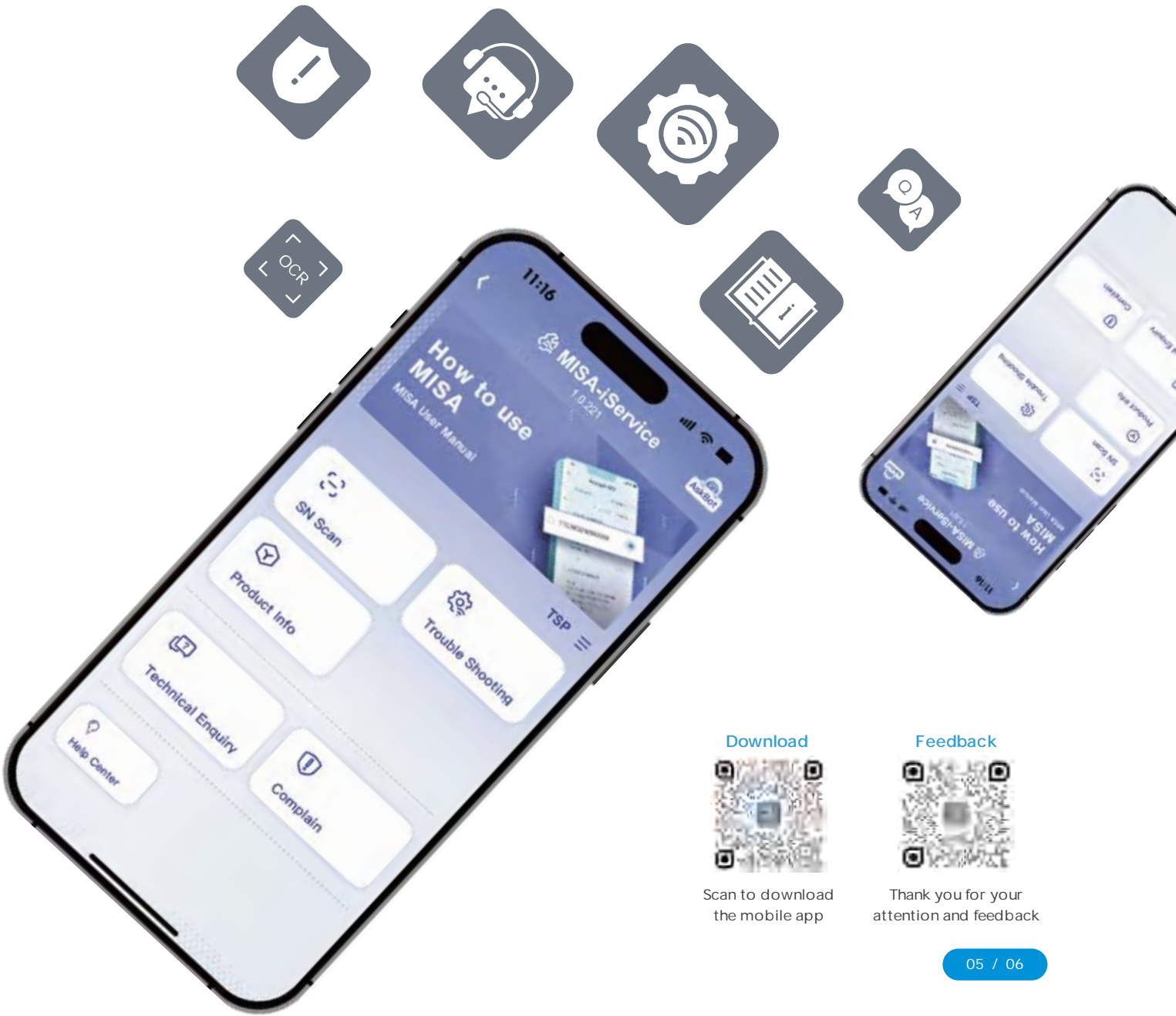
Complain

Submit product quality complaints online, and our after-sales engineers will respond promptly.

MOBILE INTELLIGENCE SERVICE APP

The Mobile Intelligence Service App (MISA) is the mobile version of ICS and features the same functionality. MISA often makes getting technical support timelier and more convenient.

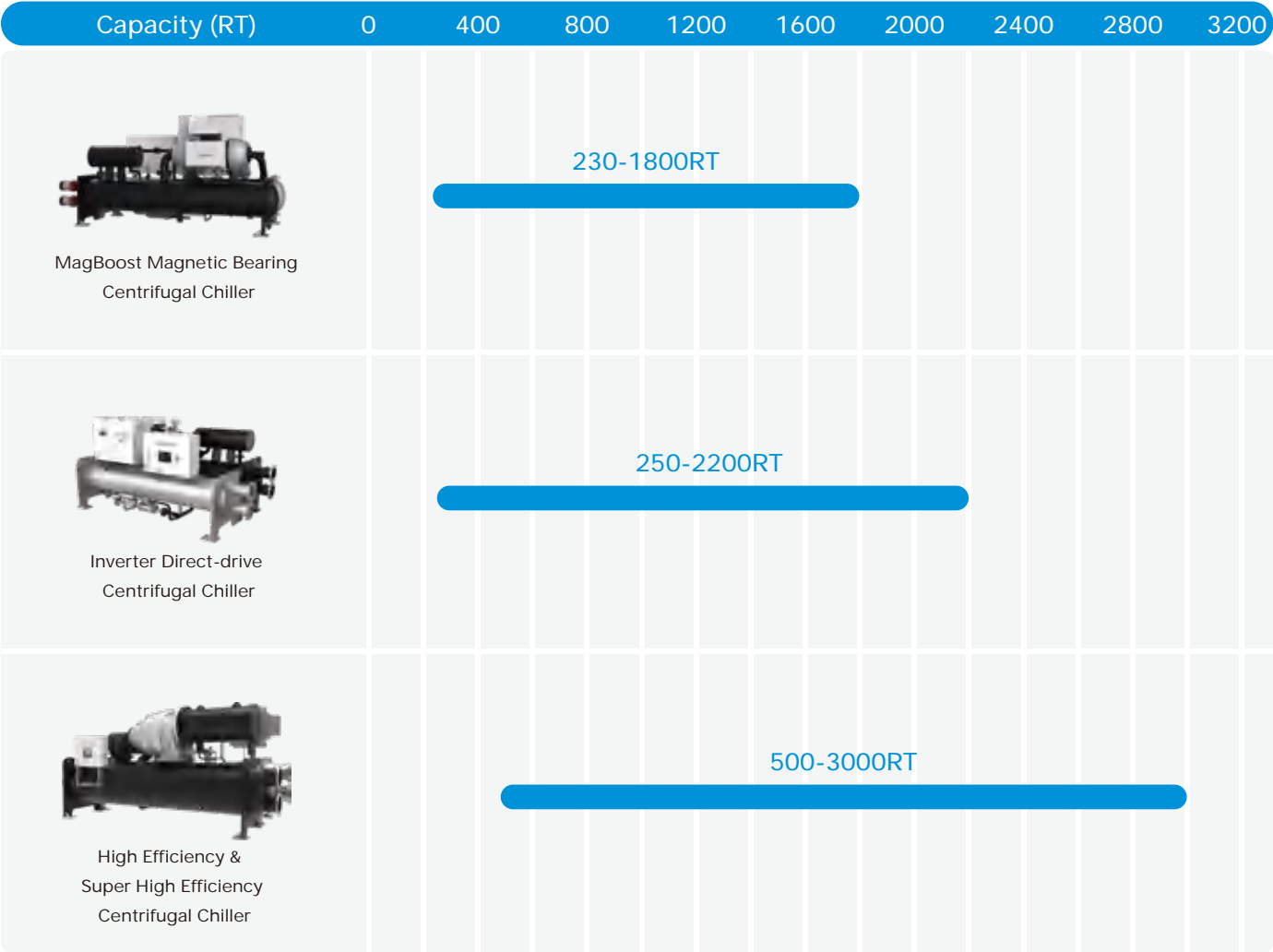
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GLOBAL BULK WAREHOUSE LAYOUT OVERVIEW

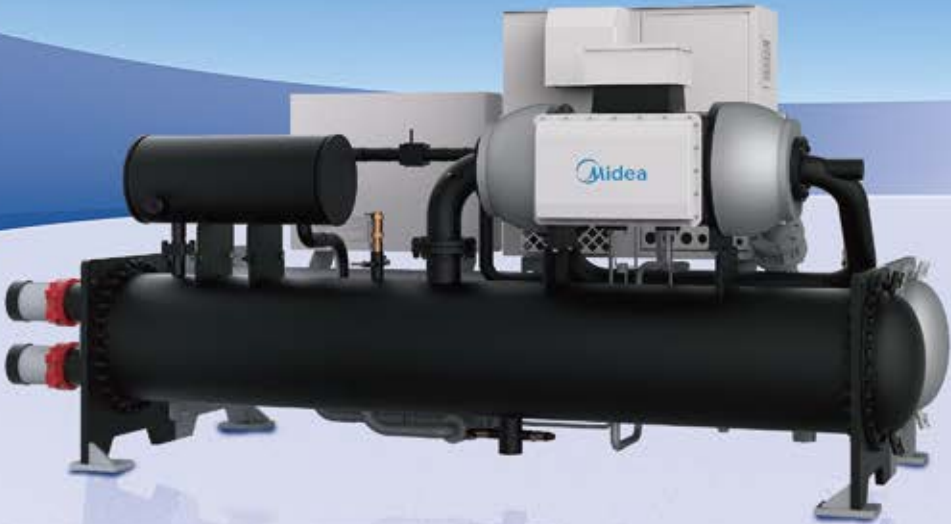


Product Lineup

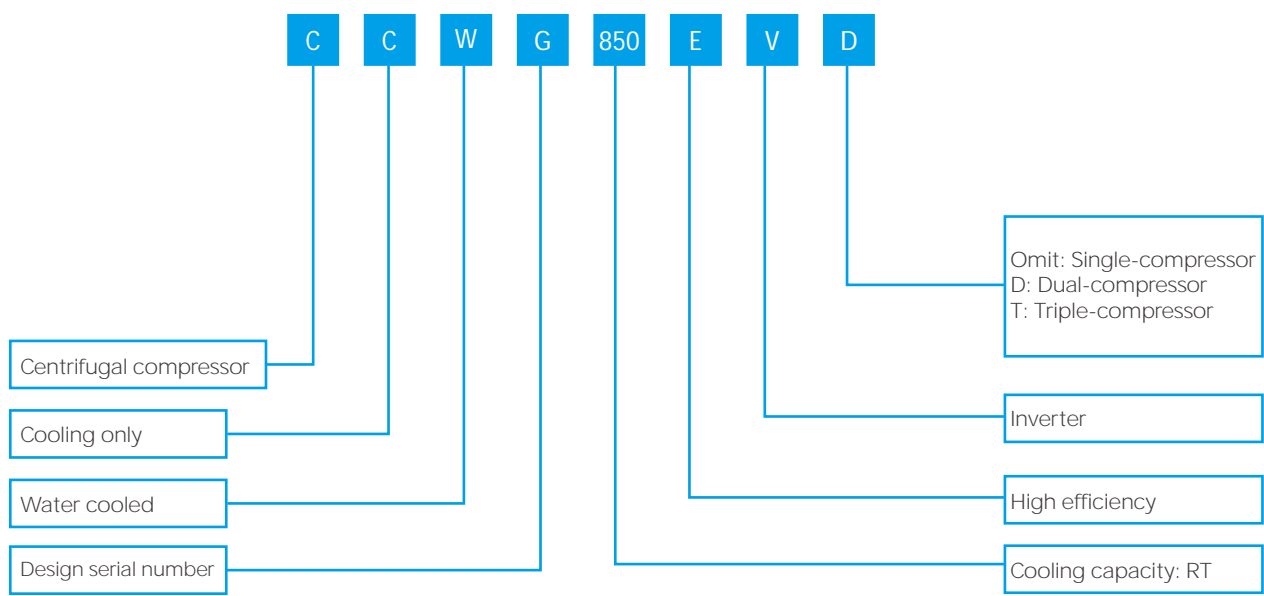


MagBoost Magnetic Bearing Centrifugal Chiller

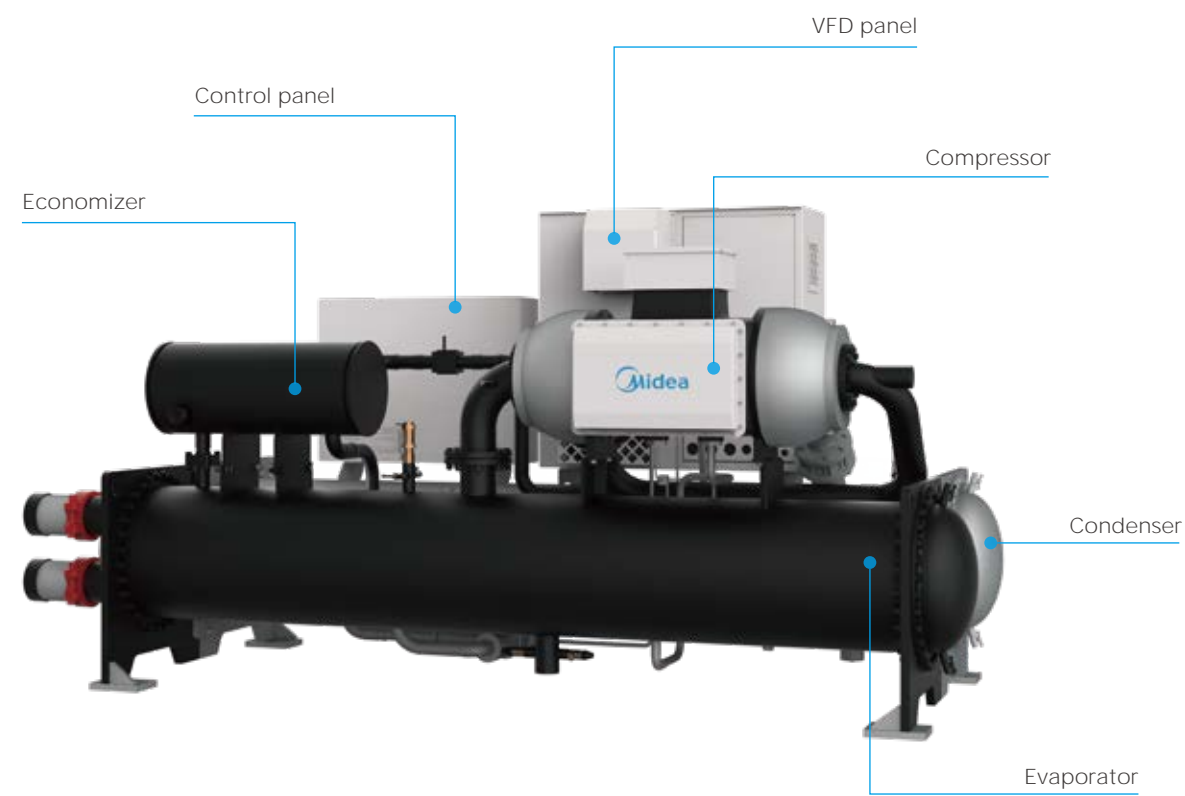
MagBoost is Midea's oil-free centrifugal chiller developed independently by Midea. In addition to being highly efficient, stable and reliable, MagBoost features a wide operating range and quiet operation. The system incorporates an array of Midea core technologies including aerodynamic technology, magnetic bearing control, micro-channel refrigerant-cooled VFD and high-efficiency permanent-magnet synchronous motors. The system is highly flexible and adaptable making it ideal for a variety of applications including airports, rail transit, hotels and new or renovated buildings, providing customers with an efficient and energy-saving green building solution.



Nomenclature

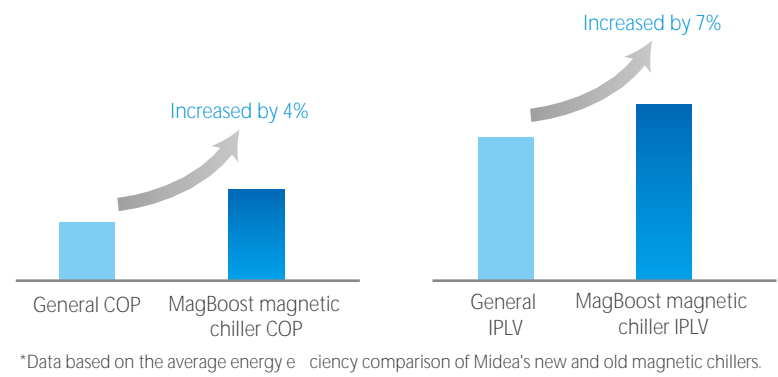


Key components



OIL-FREE AND HIGH EFFICIENCY

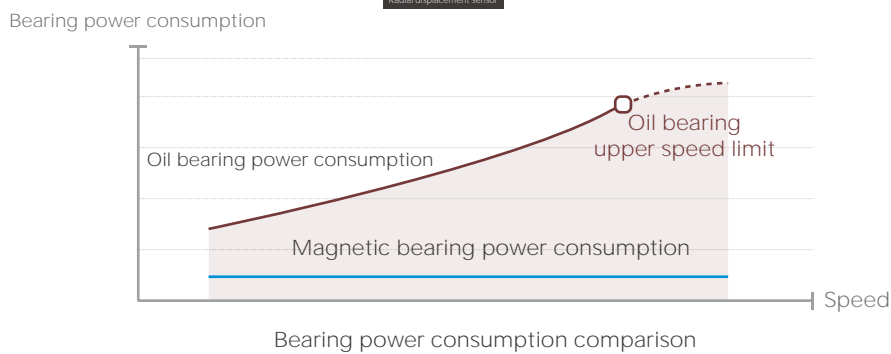
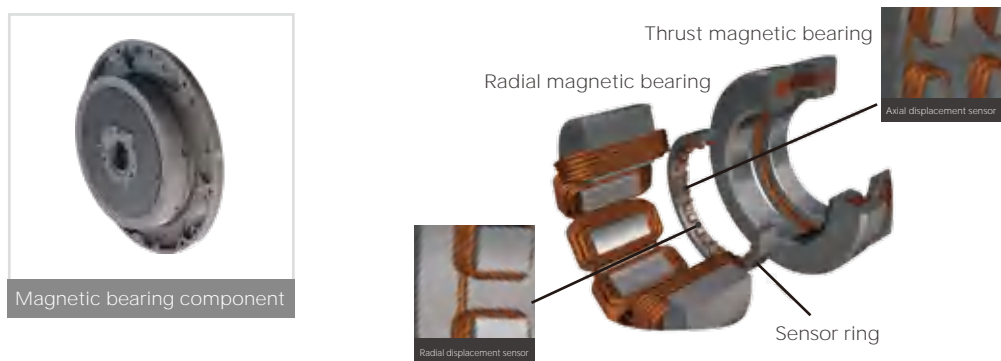
The MagBoost magnetic bearing centrifugal chiller boasts magnetic bearing and aerodynamic technology, a permanent magnet synchronous motor, and full falling film evaporation. It combines Midea's unique back-to-back two-stage compression structure with higher energy efficiency compared to traditional magnetic bearing centrifugal chillers, improving full-load energy efficiency by 4%* and part-load energy efficiency by 7%*.



Magnetic bearing technology

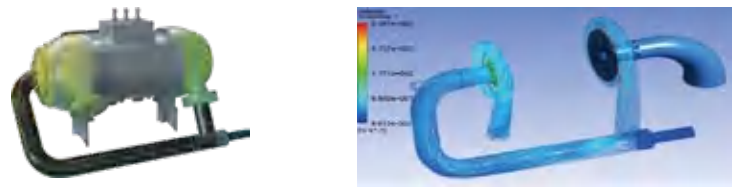
Our industrial-grade magnetic bearing assembly is designed with radial and thrust magnetic bearings, along with position sensors. It features low power consumption, high bearing capacity, and exceptional reliability.

- Power consumption less than 0.2kW, only 2%-10% of that of conventional oil bearings.
- Breaks through the upper speed limits of conventional oil bearings, significantly reducing power consumption of the bearing at high speed: Unlike oil bearings, magnetic bearings become more efficient as speed increases.



Aerodynamic technology

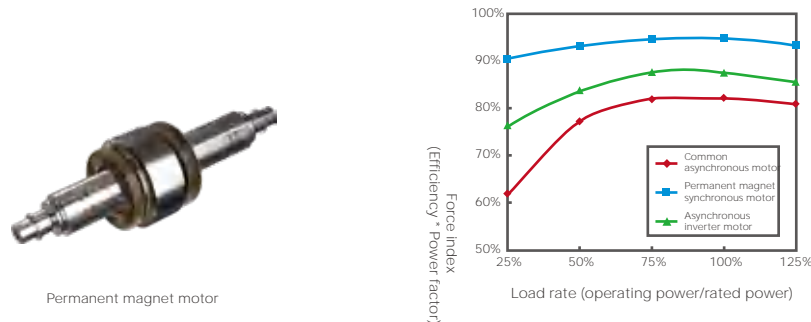
- Aerodynamic design optimizes the overall flow field efficiency and improves the compressor's isentropic efficiency.
- Back-to-back two-stage compression structure balances the thrust forces for longer life span and improves efficiency.
- Enclosed impeller design, reduced leakage and improved efficiency.
- 6% higher efficiency than single-stage compression.



Back-to-back two-stage compression flow field analysis

Permanent magnet synchronous motor technology

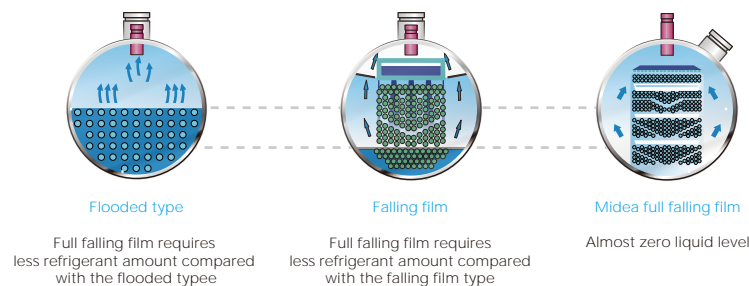
- Motor efficiency exceeds 96% in the full operating range, with highest efficiency of up to 97%.
- Space Vector Pulse Width Modulation (SVPWM) technology precisely controls the chiller's motor speed, adjusting it according to the cooling demand. This technology ensures a small startup current and low operating current, which minimizes stress on the electrical system and conserves energy, leading to reduced long-term operational costs.
- The real-time monitoring system for stator temperature and rotor shaft elongation guarantees precise and highly reliable motor cooling, ensuring optimal performance and longevity.



Permanent magnet motor

Full falling film evaporation technology

- Midea pioneered full falling film evaporation technology, which achieves film evaporation on the surface of heat exchange tubes. This innovation significantly increases heat transfer efficiency while reducing the required refrigerant amount.
- A patented refrigerant distributor ensures uniform liquid distribution, preventing local drying and enabling the heat exchanger to operate at peak performance, thereby increasing unit efficiency.



- MagBoost features a self-generating mode after power failure and a long-life spare bearing, which can achieve accurate and safe control of the magnetic bearing and ensure the safety of the magnetic bearing.
- Micro-channel refrigerant-cooled VFD technology substantially improves VFD reliability and adaptability.



How do we ensure accurate positioning of the magnetic bearing?

High-frequency position monitoring at 20 kHz, combined with real-time correction at the micrometer level, ensures the shaft remains in the correct levitation position.

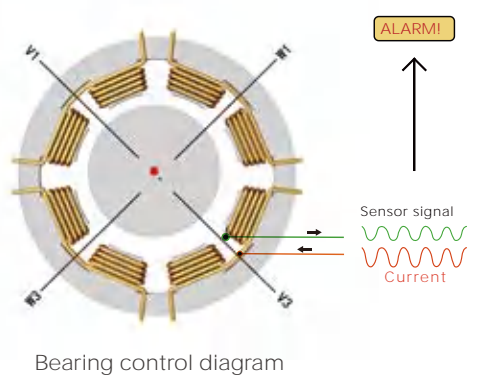
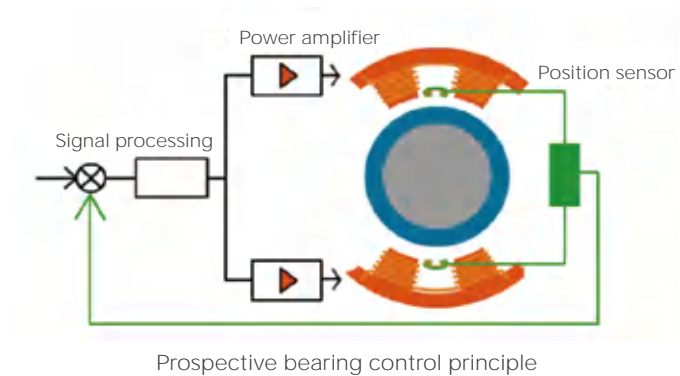


How does Midea protect the bearing during a power failure without the use of lubricating oil?

The long-life spare bearing and self-generating mode provide dual protections, achieving a safe landing rate at maximum speed that is 300 times greater. When the compressor speed drops below 10%, a normal landing is ensured.

Bearing control technology

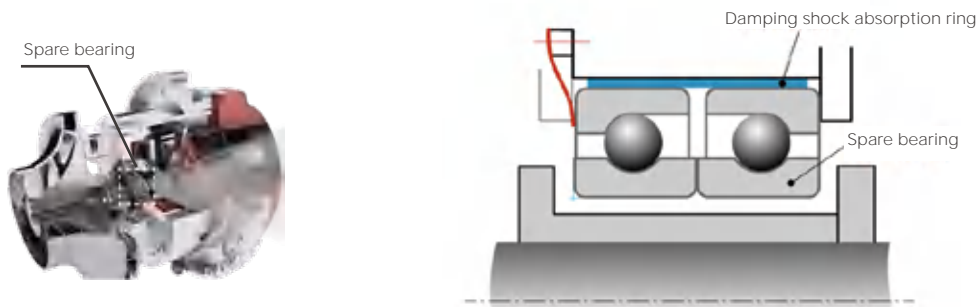
- An innovative bearing control system uses prospective-vibration compensation technology to detect and control bearing position at high frequencies. This effectively reduces the impact of vibrations caused by imbalances on the rotating shaft.
- 20 kHz dynamic position scanning and adjustment and position control precision at the μm level ensure the accuracy of the shaft levitation position.



STABLE AND RELIABLE

Long-life spare bearing

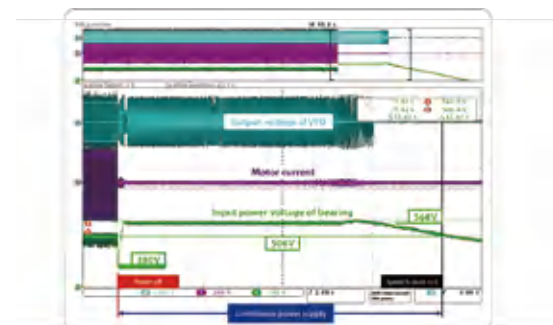
The spare bearing system includes high-strength rolling bearings and a damping shock absorption ring. In case of a magnetic bearing controller failure, these components effectively stop the rotor shaft during high-speed operation. This prevents wear between the magnetic bearing, sensor, and rotor which in turn protects the compressor.



Self-generation control technology

In the event of a power failure, Midea's proprietary VFD control and permanent-magnet motor technology will automatically switch the motor to generator mode, maintaining the stability of the bus voltage and ensuring continuous operation across a wide voltage range of 400-750 volts. This guarantees safe power supply of magnetic bearing.

The self-generation mode also guarantees a continuous power supply above 10 Hz to the unit's magnetic bearings, ensuring that levitation continues.



Micro-channel refrigerant-cooled VFD technology

Midea's independently developed high-power VFD uses micro-channel refrigerant-cooled technology to address various challenges, including high heat flux density, poor heat dissipation, Condensation from liquid-cooled heat dissipation, High network-side harmonic current, unreliable power grids, high stray inductance that can easily damage IGBT, reduced capacity at high temperatures, heavy air-cooled VFD and excessive noise. Micro-channel refrigerant-cooled technology not only improves the VFD's reliability and adaptability but also enhances overall system efficiency and significantly reduces noise.

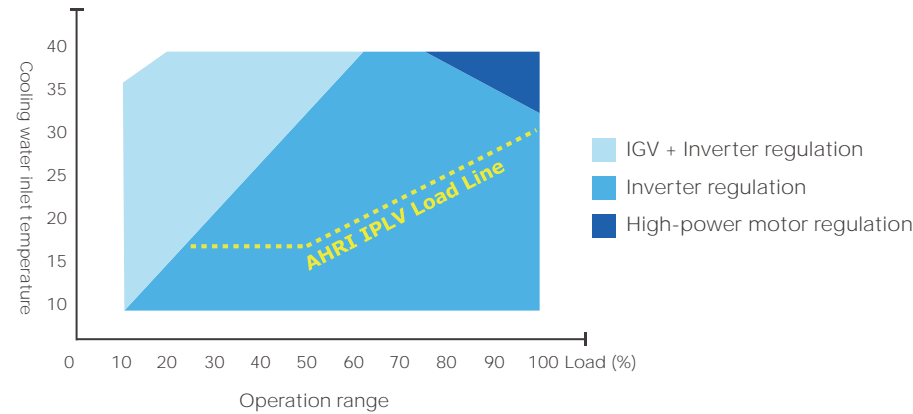
Real-time monitoring boosts motor reliability

Using flow field analysis, we've optimized the design of the motor cooling channel. This allows us to monitor the stator temperature and rotor elongation in real-time, ensuring maximum motor reliability.



WIDE OPERATING RANGE

Bearing-joint adjustment technology expands the chiller's operating range while maintaining peak efficiency. The cooling load of a single compressor can be as low as 10% and the unit can operate normally when the cooling water drops to 12°C.



Joint regulation of multiple technologies

- MagBoost magnetic bearing centrifugal chiller utilizes an inverter and Inlet Guide Vane (IGV) to jointly regulate cooling capacity. In extreme operating conditions, the guide vane opening gradually narrows when the load reaches 50%.
- When the load exceeds 15% under normal operating conditions, the load is regulated solely by adjusting the speed, thus avoiding the additional flow loss caused by a reduced IGV opening.



Inlet guide vane (IGV)

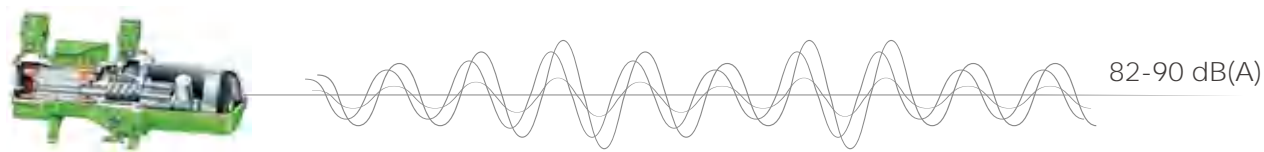
Low ambient temperature operation control technology

Low-ambient temperature control operation technology ensures efficient, stable operation at low cooling water temperatures and can provide a minimum cooling water temperature of 12°C.

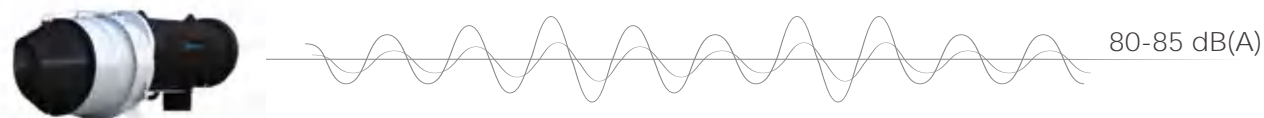


Quiet operation

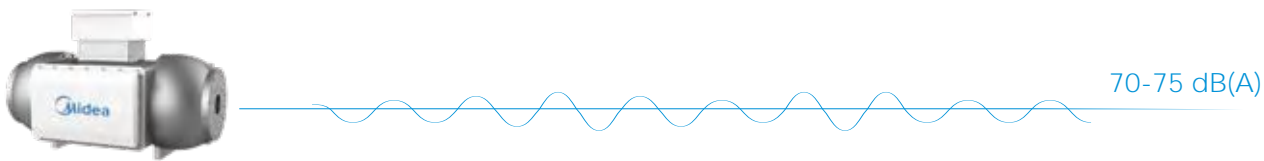
- IN compliance with AHRI standard 575, sound pressure ratings are as low as 70 dB(A)
- No physical contact between moving metal parts. Extremely quiet with low vibration levels.
 - The compressor is designed with a back-to-back impeller and an external pipe-type reflux device, which minimizes pneumatic noise from refrigerant flow.
 - Specially-designed compressor body uses a solid-gas-solid interface to effectively dissipate high-frequency noise, improving sound insulation and reducing overall noise levels.



Traditional screw chiller



Traditional two-stage centrifugal chiller



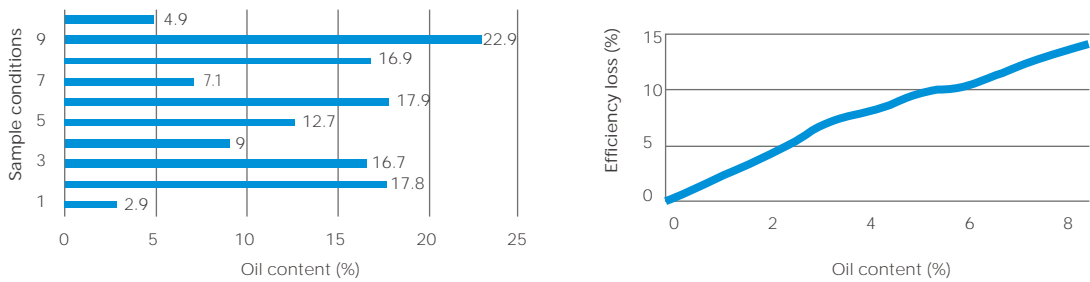
MagBoost magnetic bearing centrifugal chiller

LEED

R134a refrigerant has zero ozone depletion potential and doesn't require an elimination cycle. The chiller uses full falling film technology to reduce the amount of refrigerant needed. This contributes to high Energy and Environmental Design (LEED) points for Enhanced Refrigerant Management. Additionally, the high efficiency of MagBoost can earn extra credits for Optimized Energy Performance (EAc1).



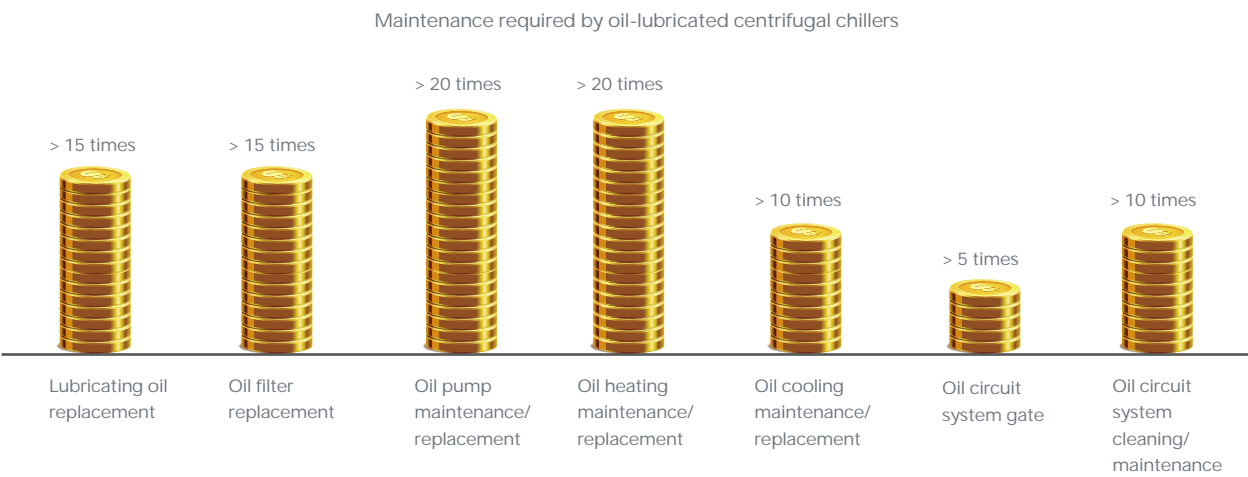
No friction between moving metal parts means no oil system to maintain leading to lower maintenance costs.



"The ASHRAE research report indicates that the oil content of most operating water chillers exceeds the standard", ASHRAE Research Report 601

Studies have shown that when the oil content of a unit heat exchanger is 3.5%*, the energy efficiency of the entire unit will be reduced by 8%*

* Data from the ASHRAE Research Report 601.



Savings example (based on three 250RT centrifugal chillers):
Maintenance: Over a 20-year service life, a magnetic centrifugal chiller can save approximately 1 million RMB compared to the maintenance costs of a conventional fixed-speed centrifugal chiller that uses oil.
Operating costs: Based on a 12 hour per day, 6 months per year operating schedule, a magnetic chiller can save approximately 8 million RMB in operating costs over the course of its life cycle.

Note: The above data are for reference purposes only and actual data may vary depending on the individual application and system management. Magnetic centrifugal chillers also require maintenance. The above example highlights only some of the differences when compared to units equipped with an oil system. Refer to the installation, operation and maintenance manuals for specific maintenance requirements.

Specifications

Model		CCWG	230EV	250EV	270EV	300EV	350EV	380EV
Cooling capacity		RT	230	250	270	300	350	380
		kW	808.7	879.0	949.3	1055	1231	1336
		10*kcal/h	69.55	75.60	81.65	90.72	105.8	114.9
Power input		kW	122.3	134.3	143.7	161.0	189.8	203.4
COP		W/W	6.610	6.547	6.606	6.551	6.485	6.568
IPLV		W/W	11.11	11.36	11.79	10.70	11.24	11.29
Motor configuration power		kW	150.0	150.0	150.0	280.0	280.0	280.0
Rated current		A	199.0	219.3	234.8	263.0	310.0	332.3
Max. operating current		A	218.9	241.2	258.3	289.3	341.0	365.5
Evaporator	Water flow	m³/h	124.9	135.8	146.7	163.0	190.1	206.4
	Pressure drop	kPa	46.6	54.0	47.0	59.7	66.9	70.9
	Water pipe connection	mm	DN150	DN150	DN150	DN200	DN200	DN200
Condenser	Water flow	m³/h	155.0	168.8	182.6	202.3	236.8	256.7
	Pressure drop	kPa	38.0	44.3	38.6	50.6	58.1	64.1
	Water pipe connection	mm	DN150	DN150	DN150	DN200	DN200	DN200
Unit dimensions	Length	mm	3500	3500	3500	4150	4150	4150
	Width	mm	1400	1400	1400	1650	1650	1650
	Height	mm	1800	1800	1800	1900	1900	1900
Shipping weight		kg	2965	2965	3070	4317	4383	4420
Running weight		kg	3735	3735	3940	5117	5223	5280

Model		CCWG	400EV	420EV	450EV	500EV	550EV	600EV
Cooling capacity		RT	400	420	450	500	550	600
		kW	1406	1477	1582	1758	1934	2110
		10*kcal/h	121.0	127.0	136.1	151.3	166.3	181.4
Power input		kW	216.2	227.9	233.6	260.3	287.2	318.7
COP		W/W	6.506	6.481	6.774	6.753	6.733	6.620
IPLV		W/W	11.43	11.47	11.35	11.66	11.99	12.01
Motor configuration power		kW	280.0	280.0	400.0	400.0	400.0	400.0
Rated current		A	353.2	372.2	381.6	425.3	469.2	520.6
Max. operating current		A	388.5	409.4	419.8	467.8	516.1	572.7
Evaporator	Water flow	m³/h	217.3	228.2	244.4	271.6	298.8	325.9
	Pressure drop	kPa	73.2	71.0	57.1	60.6	61.7	64.7
	Water pipe connection	mm	DN200	DN200	DN250	DN250	DN250	DN250
Condenser	Water flow	m³/h	270.4	284.1	302.7	336.7	370.6	405.8
	Pressure drop	kPa	62.5	59.9	52.8	54.1	56.6	60.0
	Water pipe connection	mm	DN200	DN200	DN250	DN250	DN250	DN250
Unit dimensions	Length	mm	4150	4150	4250	4250	4250	4250
	Width	mm	1850	1850	2000	2000	2000	2000
	Height	mm	2000	2000	2150	2150	2150	2150
Shipping weight		kg	4720	4750	6350	6445	6540	6620
Running weight		kg	6120	6170	7670	7812	7954	8073

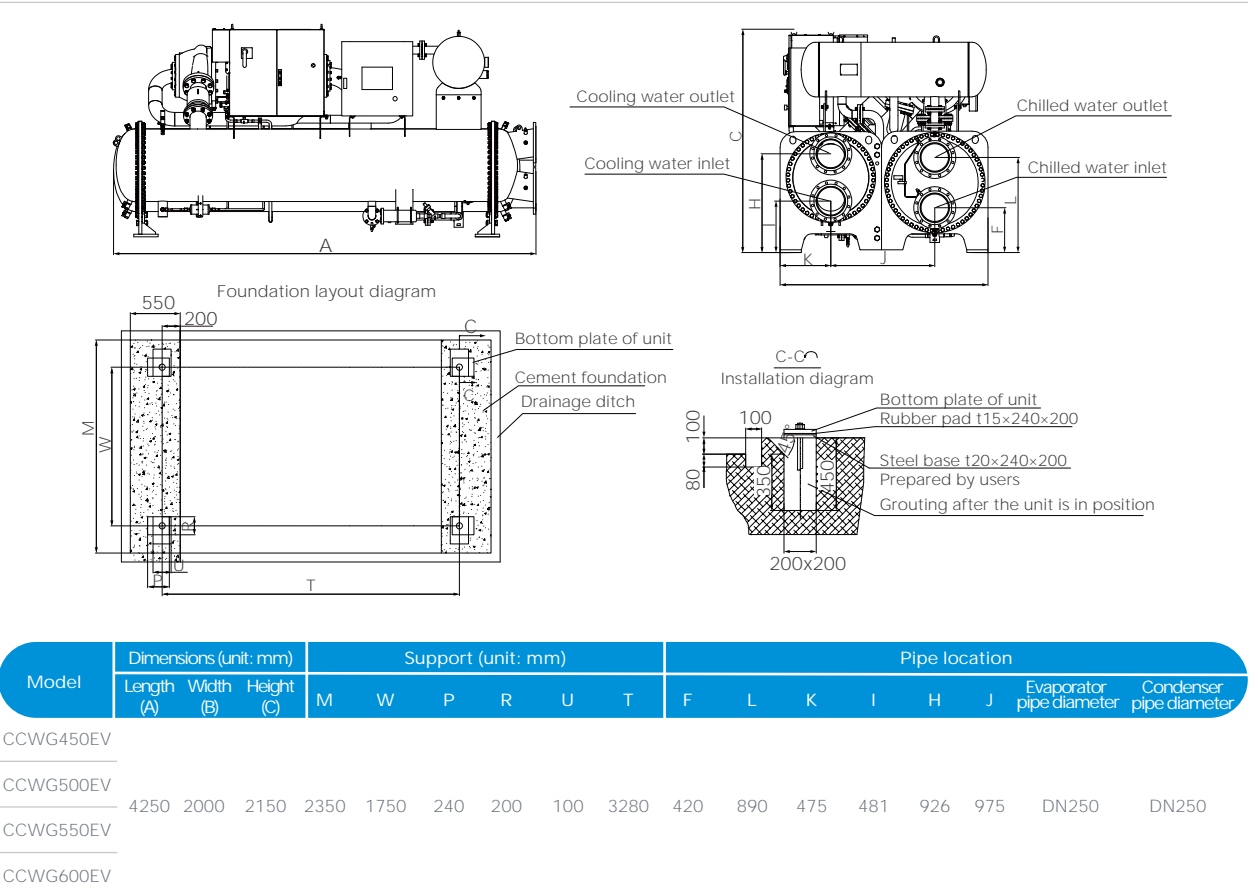
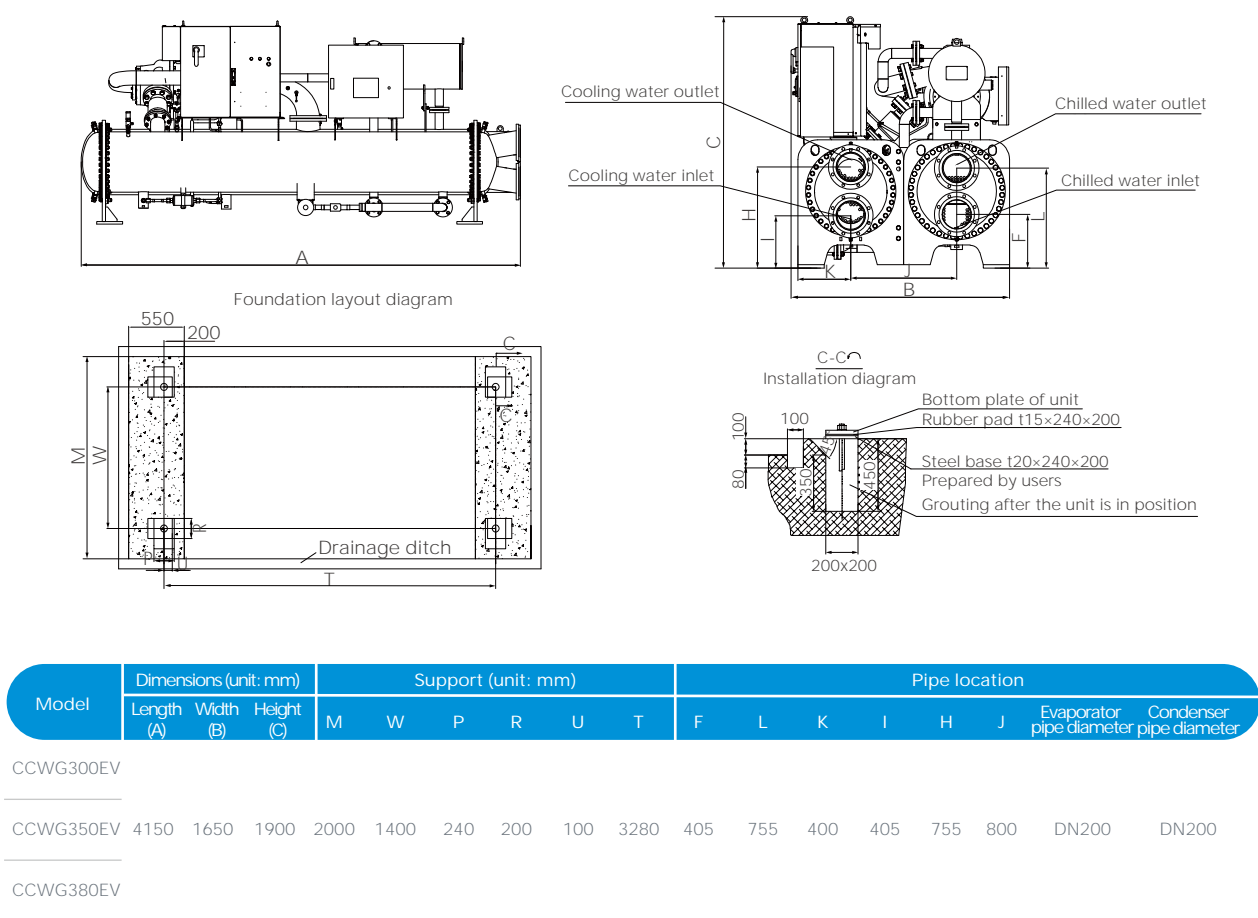
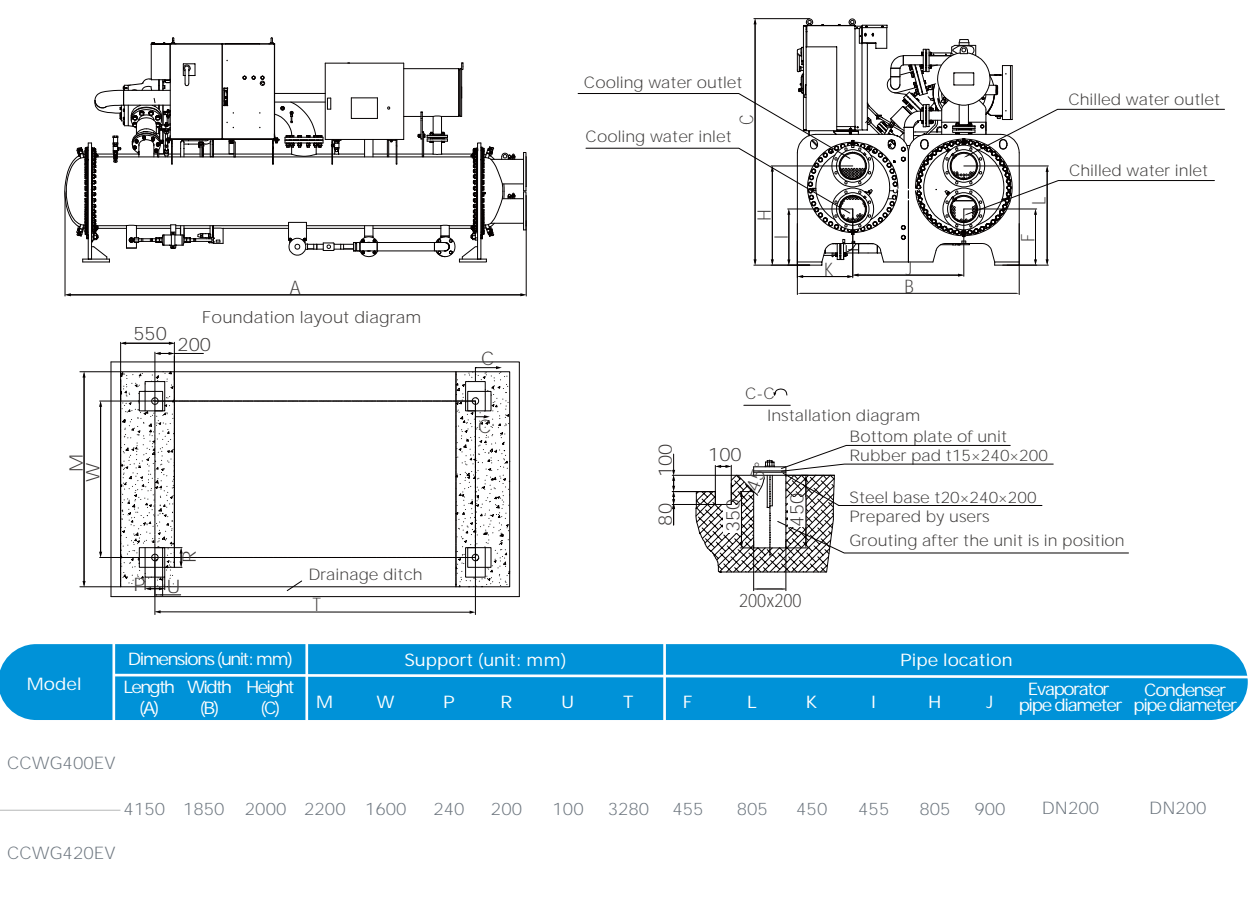
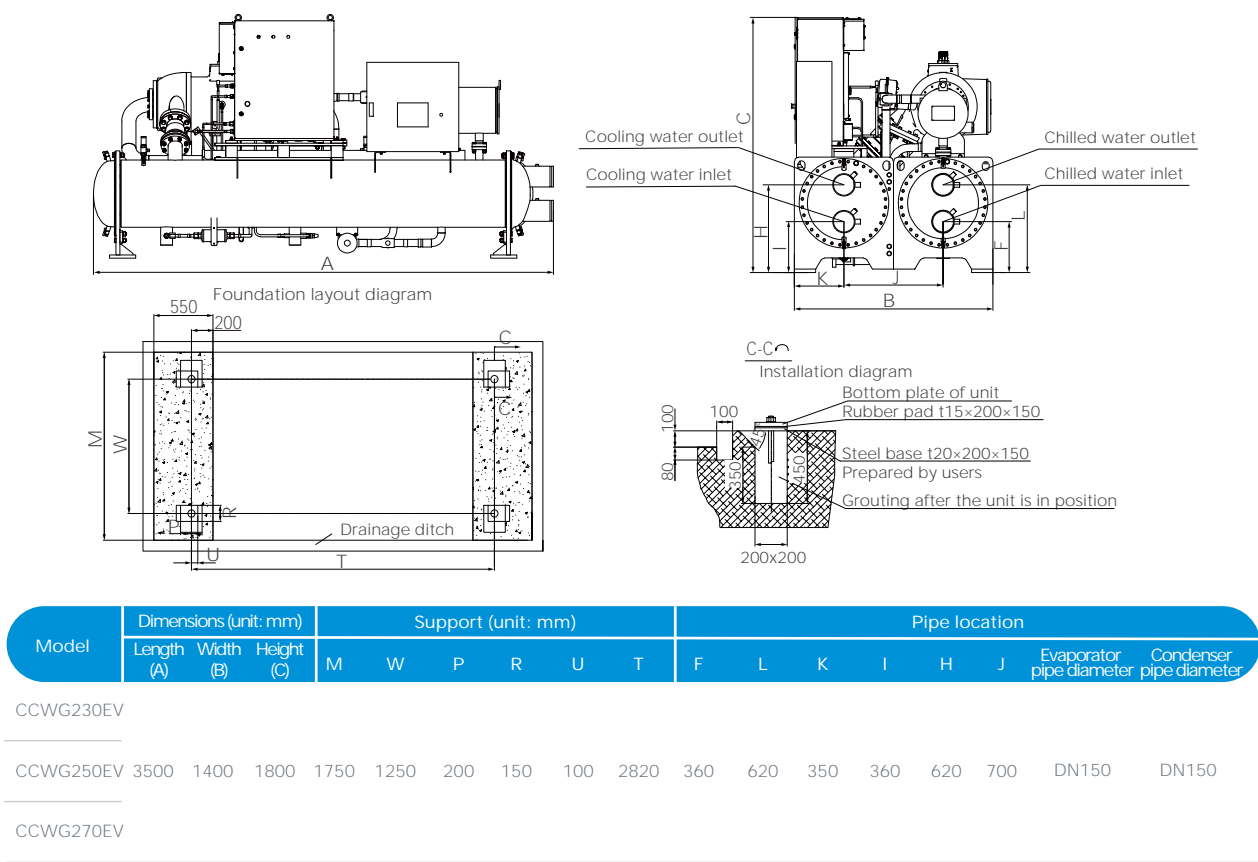
Notes:
1. Performance and efficiency are based on AHRI 550/590.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h-ft²-°F/Btu (0.0176m². °C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h-ft²-°F/Btu (0.0440m². °C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. 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.

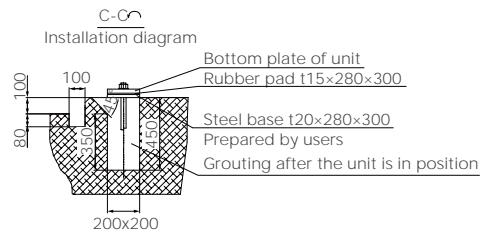
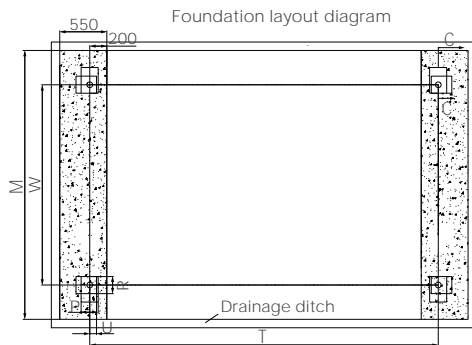
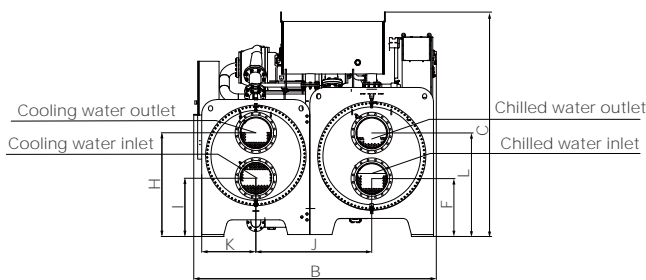
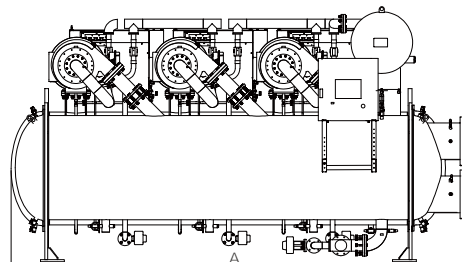
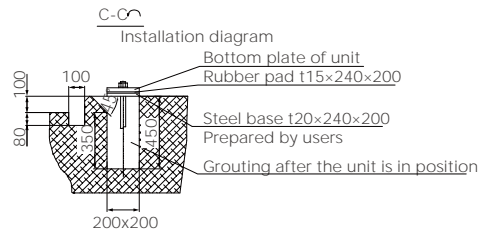
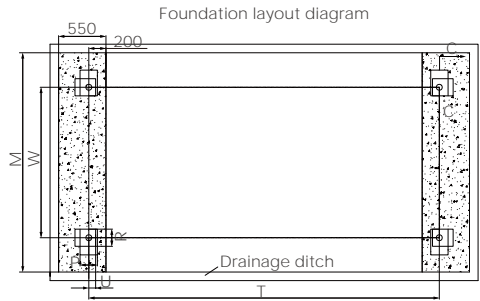
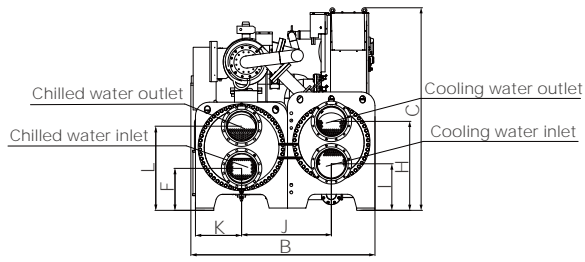
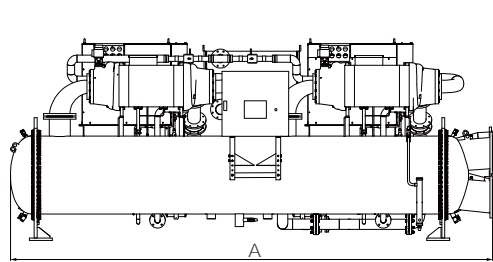
Model		CCWG	650EVD	700EVD	750EVD	800EVD	850EVD	900EVD	950EVD	1000EVD
Cooling capacity		RT	650	700	750	800	850	900	950	1000
		kW	2285	2461	2637	2813	2989	3164	3340	3516
		10*kcal/h	196.6	211.7	226.8	241.9	257.0	272.3	287.4	302.4
Power input		kW	339.3	370.2	390.4	421.3	461.6	460.7	487.5	515.7
COP		W/W	6.736	6.649	6.754	6.676	6.475	6.868	6.851	6.818
IPLV		W/W	11.46	11.68	11.78	11.93	11.91	11.81	11.84	11.95
Motor configuration power		kW	560.0	560.0	560.0	560.0	560.0	800.0	800.0	800.0
Rated current		A	554.3	604.7	637.9	688.3	754.1	752.7	796.5	842.5
Max. operating current		A	609.7	665.2	701.7	757.1	829.5	828.0	876.2	926.8
Evaporator	Water flow	m³/h	353.1	380.3	407.4	434.6	461.7	488.9	516.1	543.2
	Pressure drop	kPa	67.3	67.6	67.5	66.5	66.7	56.1	55.2	54.5
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Condenser	Water flow	m³/h	438.9	473.0	506.7	540.3	575.2	605.8	639.6	673.7
	Pressure drop	kPa	65.4	66.0	66.1	66.0	67.5	72.2	72.2	72.3
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Unit dimensions	Length	mm	5050	5050	5050	5050	5050	4750	4750	4750
	Width	mm	2000	2000	2000	2000	2000	2890	2890	2890
	Height	mm	2200	2200	2200	2200	2200	2540	2540	2540
Shipping weight		kg	10070	11300	11420	11570	11680	11090	11240	11400
Running weight		kg	12030	13330	13520	13752	13925	13720	13950	14180

Model		CCWG	1100EVD	1200EVD	1300EVT	1400EVT	1500EVT	1600EVT	1700EVT	1800EVT
Cooling capacity		RT	1100	1200	1300	1400	1500	1600	1700	1800
		kW	3868	4219	4571	4922	5274	5626	5977	6329
		10*kcal/h	332.6	362.9	393.1	423.4	453.9	483.8	514.1	544.3
Power input		kW	578.2	636.6	706.2	713.0	770.0	832.3	899.9	945.9
COP		W/W	6.689	6.628	6.914	6.904	6.849	6.759	6.642	6.628
IPLV		W/W	12.11	12.08	12.08	12.10	12.09	12.03	12.00	12.05
Motor configuration power		kW	800.0	800.0	1200.0	1200.0	1200.0	1200.0	1200.0	1200.0
Rated current		A	944.6	1040	1080	1164.8	1258	1359.8	1470.2	1560
Max. operating current		A	1039.1	1144.0	1188.0	1281.3	1383.8	1495.8	1617.2	1716.0
Evaporator	Water flow	m³/h	597.5	651.9	706.2	760.5	814.8	869.1	923.5	977.8
	Pressure drop	kPa	55.3	55.3	64.4	64.4	65.2	65.2	64.4	65.1
	Water pipe connection	mm	DN300	DN300	DN400	DN400	DN400	DN400	DN400	DN400
Condenser	Water flow	m³/h	741.5	812.7	877.0	943.1	1012.0	1079.0	1149.0	1223.0
	Pressure drop	kPa	72.6	72.7	63.2	63.3	64.1	64.3	64.6	64.5
	Water pipe connection	mm	DN300	DN300	DN400	DN400	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	4750	4750	5290	5290	5290	5290	5290	5290
	Width	mm	2890	2890	3300	3300	3300	3300	3300	3300
	Height	mm	2540	2540	2890	2890	2890	2890	2890	2890
Shipping weight		kg	11690	11990	17820	18140	18560	18980	19190	19510
Running weight		kg	14610	15040	24660	25120	25730	26350	26660	27120

Notes:
1. Performance and efficiency are based on AHRI 550/590.
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 design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. 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





Model	Dimensions (unit: mm)			Support (unit: mm)						Pipe location							
	Length (A)	Width (B)	Height (C)	M	W	P	R	U	T	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter

CCWG650EVD

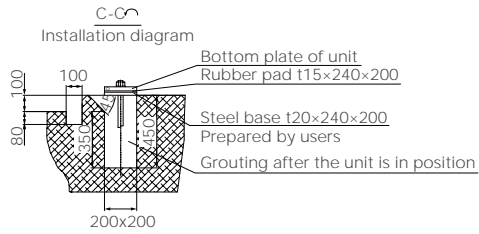
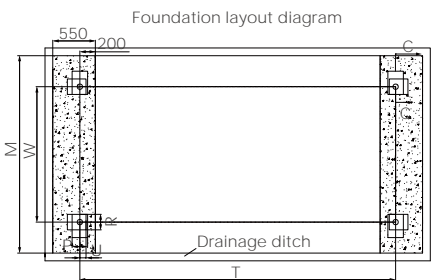
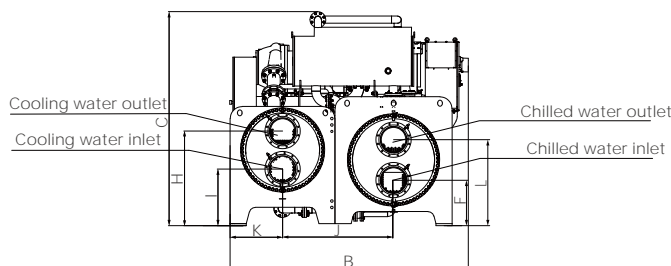
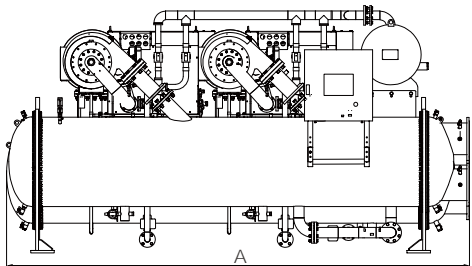
CCWG700EVD

CCWG750EVD

CCWG800EVD

CCWG850EVD

CCWG650EVD																	
CCWG700EVD	5050	2000	2200	2550	1750	240	200	100	4080	455	915	500	507	967	975	DN300	DN300
CCWG750EVD																	
CCWG800EVD																	
CCWG850EVD																	



Model	Dimensions (unit: mm)			Support (unit: mm)						Pipe location							
	Length (A)	Width (B)	Height (C)	M	W	P	R	U	T	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter

CCWG900EVD

CCWG950EVD

CCWG1000EVD 4750 2890 2540 3150 2550 240 200 100 3780 563 1063 650 700 1170 1375 DN300 DN300

CCWG1100EVD

CCWG1200EVD

CCWG900EVD																	
CCWG950EVD																	
CCWG1000EVD	4750	2890	2540	3150	2550	240	200	100	3780	563	1063	650	700	1170	1375	DN300	DN300
CCWG1100EVD																	
CCWG1200EVD																	

Model	Dimensions (unit: mm)			Support (unit: mm)						Pipe location							
	Length (A)	Width (B)	Height (C)	M	W	P	R	U	T	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter

CCWG1300EVT

CCWG1400EVT

CCWG1500EVT

CCWG1600EVT

CCWG1700EVT

CCWG1800EVT

CCWG1300EVT																	
CCWG1400EVT																	
CCWG1500EVT	5290	3300	2980	3450	2850	240	200	100	4040	786	1406	735	790	1410	1575	DN400	DN400
CCWG1600EVT																	
CCWG1700EVT																	
CCWG1800EVT																	

Space layout



Model	Maintenance space (mm)			
	T	Y	S	Z

CCWG230EV-CCWG270EV	1000	1200	1200	3200
CCWG300EV-CCWG420EV	1000	1200	1200	3700
CCWG450-CCWG600EV	1000	1200	1200	3700
CCWG650-CCWG850EVD	1000	1200	1200	4500
CCWG900-CCWG1200EVD	1000	1200	1200	4200
CCWG1300-CCWG1800EVT	1000	1200	1200	4500

Note: Z is the tube removal space and both ends can be selected; 230 - 270 RT utilize a victaulic connection and 300-1800 RT utilize a flange connection.

Options

Items	Standard	Optional
Power supply	380V-3Ph-50Hz	380-460V, 50/60Hz
High-pressure water box	1.0MPa	1.6MPa, 2.0MPa
Anti-vibration	Rubber pad	Spring isolator
Insulation	20mm	40mm
Refrigerant isolation valve	×	✓
Flow switch	Differential pressure	✓
Knockdown shipment	×	✓
Marine water box	×	✓
Vessel code	GB	ASME, PED
Pressure vessel pass	2	1 or 3
Heat recovery	×	✓
Witness performance testing	×	✓
Automatic tube-cleaning system	×	✓
Midea Intelligent Chiller Plant Management (ICPM)	×	✓
Midea Smart Cloud platform	×	✓
QuickView	×	✓
Low total-harmonic current distortion rate (THDI)	≤35% (full load)	≤5% (full load)
Centrifugal heat pump	×	Hot water temperature up to 50°C

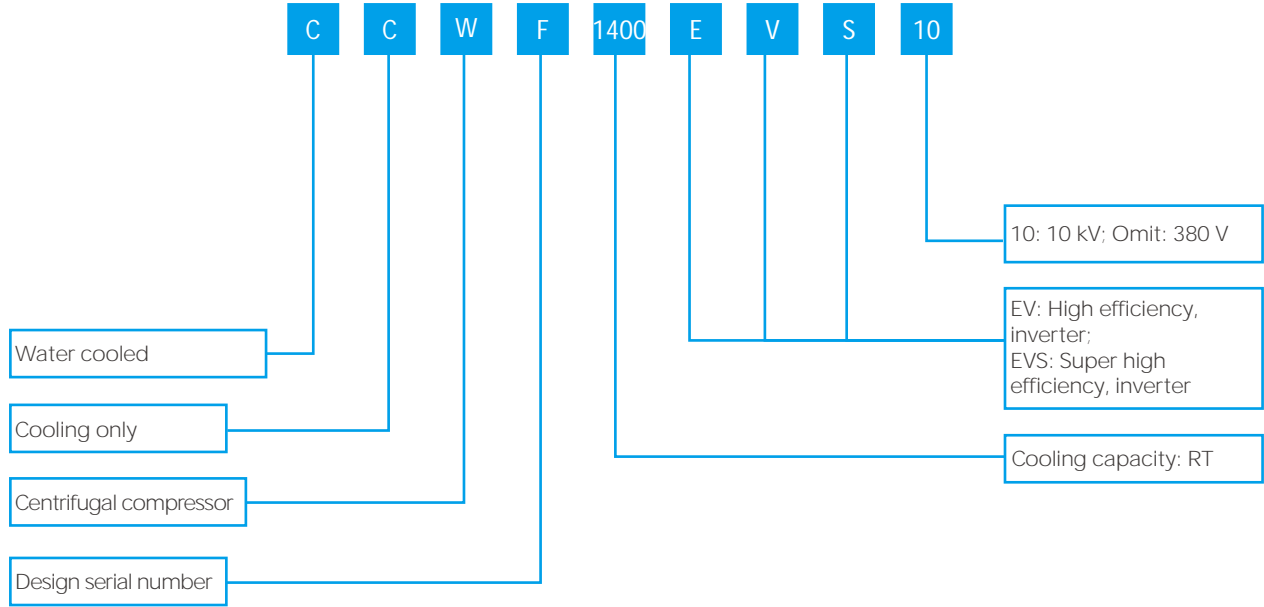
Note: For other options, please contact a Midea engineer.

Inverter Direct-drive Centrifugal Chiller

Midea has made breakthroughs in multiple industry technological bottlenecks and developed inverter direct-drive centrifugal chiller units with internationally leading core technologies such as back-to-back two-stage compression, single-shaft direct drive and full falling film evaporation. By breaking through the bottleneck of small cooling capacityand expanding the applicationof large cooling capacity, it has improved project selectivity and become a more efficient and energy-saving choice for urban cooling.



Nomenclature



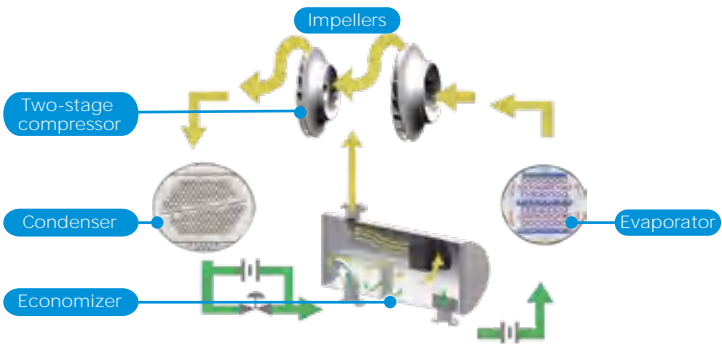
Key components



ENERGY SAVING

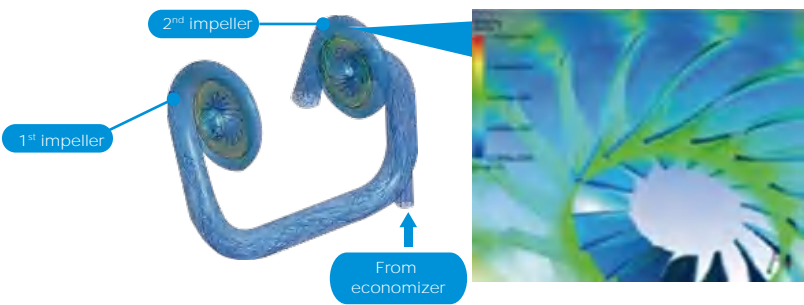
Two-stage compression

- 6% higher efficiency than single-stage compression.
- Lower speed and higher reliability.
- Unique three-stage separation economizer, reliable and effective.



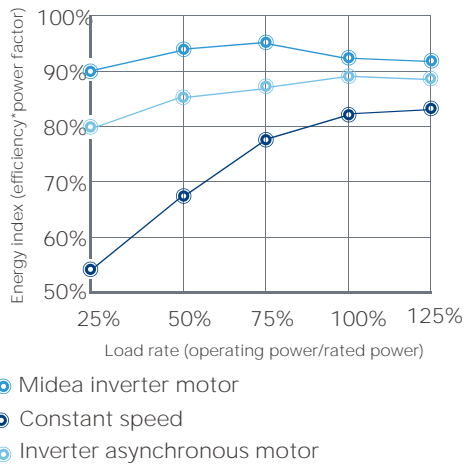
Aerodynamic compressor design

- 3D-closed, strong backward-bladed impeller design boosts efficiency to over 97%.
- Unique pipeline crossover with a large backflow radius reduces flow loss and noise.
- Two-stage compression technology with economizer enhances aerodynamics and increases system efficiency.



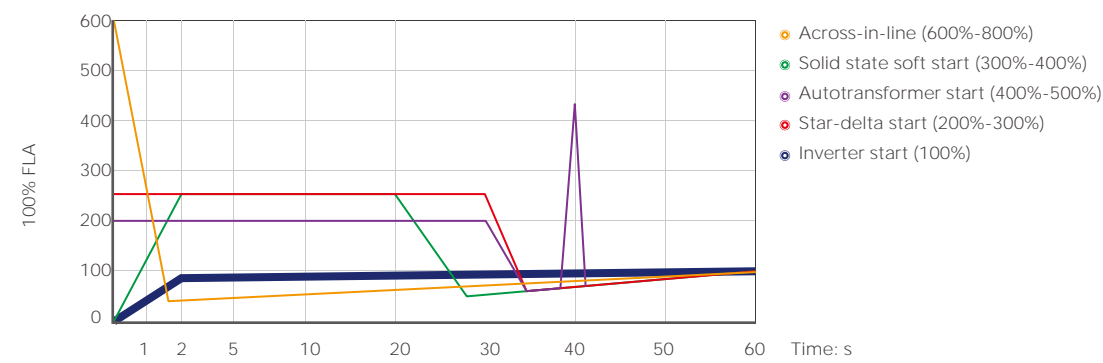
High-speed inverter motor

- Wide regulation range. Variable frequency range of 110 Hz to 300 Hz for low voltage motor and 50 Hz to 120 Hz for high voltage motor.
- 360° motor-cooling technology.
- Motor efficiency as high as 96.5%, energy index (efficiency*power factor) over 2% higher than inverter asynchronous motor.
- Unit-mounted refrigerant-cooled low voltage VFD and free-standing air-cooled high voltage VFD ensures stability and reliability.
- Zero in-rush current.



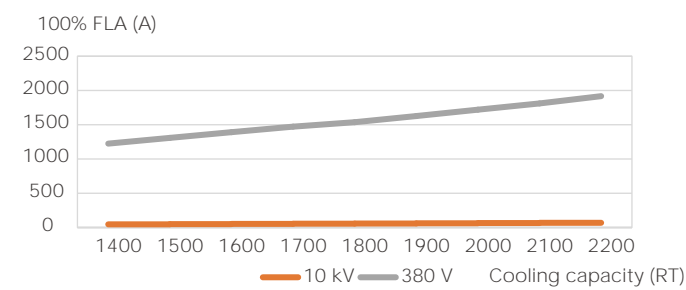
Zero in-rush current

An inverter start mode produces zero in-rush current during start up, ensuring stable operation while reducing mechanical stress on components.



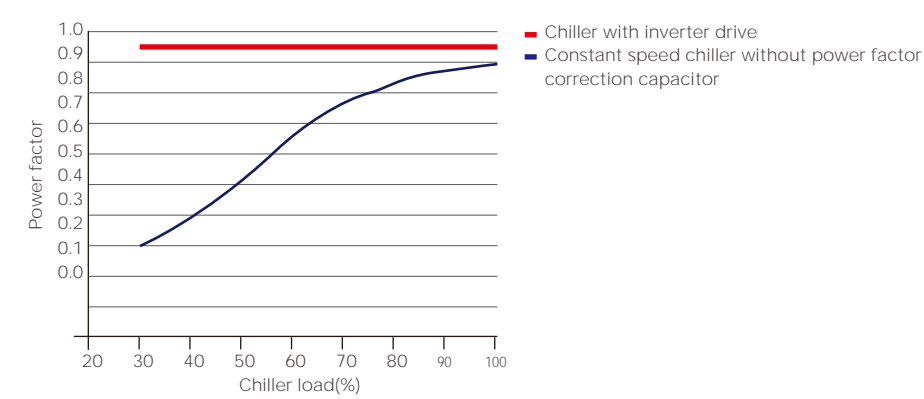
Lower operating current

High-voltage VFD start capability significantly reduces the startup current, ensuring no impact on the power grid. The operating current is only 1/26 of that of a 380V unit, resulting in reduced stress on the motor, cables, and circuit breaker equipment. This lower current generates less heat, decreasing the thermal impact on switching contacts and reducing the likelihood of equipment failure.



High power factor

A high power factor eliminates the need for a power factor connection capacitors.



Back-to-back two-stage compression technology



Midea back-to-back impeller

- Midea developed and patented the industry's first back-to-back compression technology with a crossover pipe structure.
- Balanced thrust forces minimize system wear, increase lifespan. Improved efficiency by reducing seal leakage and eliminating the need for gears.

Traditional serial impeller

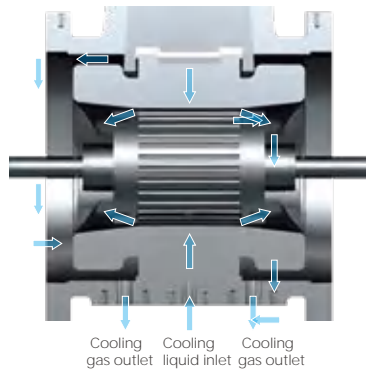
- Traditional two-stage centrifugal impellers are arranged in series and oriented in the same direction, causing the axial forces on both impellers to align and overlap.
- This configuration places additional stress on the thrust bearing, leading to increased mechanical wear and reduced bearing reliability.

Patented IGV correcting algorithm

- Automatic load regulation for stability, energy savings and enhanced comfort.
- High precision and high compatibility.
- Utilizes a Midea-developed proprietary load-regulation method.
Guide vane opening correction model: $B=a*sd1(t)^2+b*sd1(t)+c$
B: 2nd guide vane opening
sd1(t): 1st guide vane opening
a: quadratic coefficient
b: monomial coefficient
c: constant

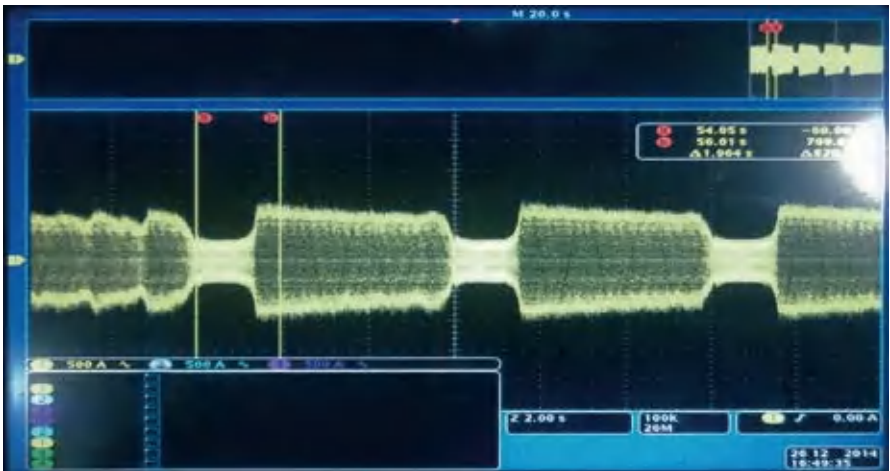
360° motor cooling technology

- The motor is cooled by the refrigerant, with the liquid supply and gas return positioned at the bottom, ensuring higher efficiency.
- Cooling method eliminates the potential for shaft-seal leakage and refrigerant or oil loss.
- Motor adopts F-level insulation design, with three PTC temperature switches preset in the winding to ensure continuous safety.



Anti-surge technology

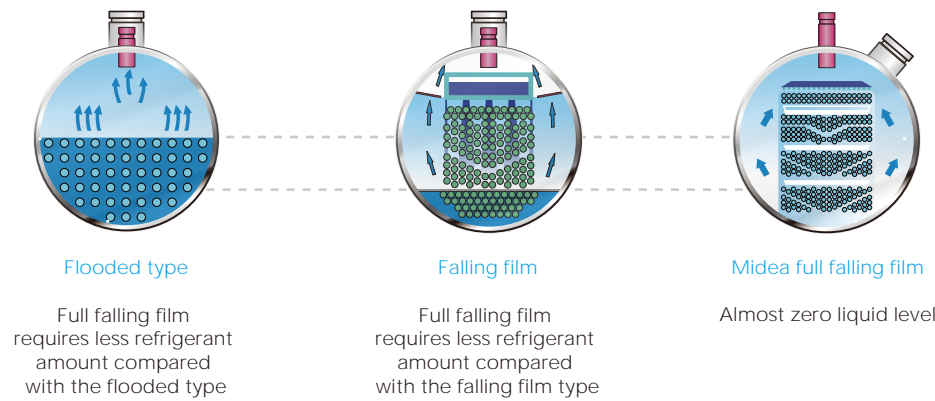
- Extends the surge curve providing: real-time adjustment of the motor speed in a variety operating conditions.
- Real-time precise monitoring of running current with continuous comparison to the current database in the controller.



Typical current waveform in surging condition

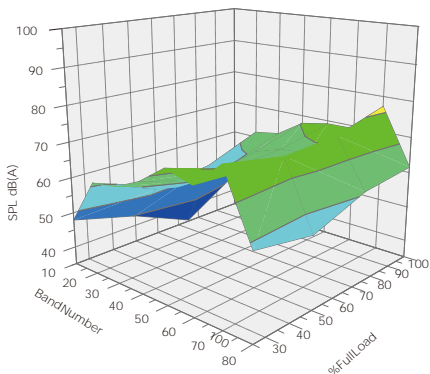
Full falling film evaporation technology

- Midea pioneered full falling film evaporation technology, which achieves film evaporation on the surface of heat exchange tubes. This innovation significantly increases heat transfer efficiency while reducing the required refrigerant amount.
- A patented refrigerant distributor ensures uniform liquid distribution, preventing local drying and enabling the heat exchanger to operate at peak performance, thereby increasing unit efficiency.



Quieter operation

Midea inverter direct-drive centrifugal chillers are the quietest in their size range with sound pressure ratings as low as 78 dB(A) as per AHRI Standard 575. This makes them ideal for sound sensitive environments such as schools, performance halls, museums, condominiums and libraries.

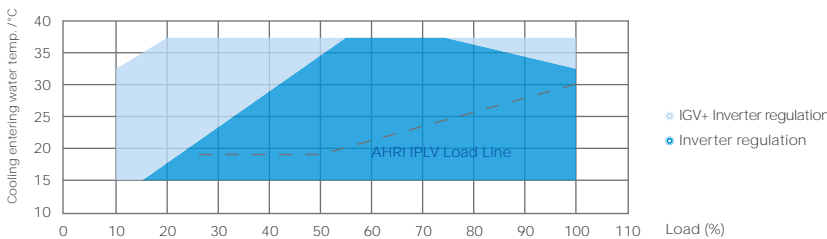


LEED

R134a refrigerant has zero ozone depletion potential and doesn't require an elimination cycle. The chiller uses full falling-film technology to reduce the amount of refrigerant needed. This contributes to high Energy and Environmental Design (LEED) points for Enhanced Refrigerant Management. Additionally, the chiller's high efficiency can earn extra credits for Optimized Energy Performance (EAc1).

Wide operating range

- Efficient, energy-saving performance achieved through use of inverter regulation under AHRI standardized conditions.
- Capacity load from 10%~100% and cooling EWT up to 37°C satisfies requirements under a variety of operating conditions. (Note: loads from 10%-20% require hot gas bypass)



Compact size

Space-saving, compact footprint makes it ideal for retrofits and other jobs with limited space, saving costs associated with construction, installation, maintenance and building modification.

Specifications

Model		CCWF	250EV	300EV	350EV	400EV	450EV	500EV	550EV
Cooling capacity	RT		250.0	300.0	350.0	400.0	450.0	500.0	550.0
	kW		879.0	1055	1231	1406	1582	1758	1934
	10 ⁴ kcal/h		75.59	90.71	105.8	121.0	136.1	151.2	166.3
Power input	kW		139.5	163.2	190.2	221.0	244.4	273.2	306.1
COP	W/W		6.301	6.464	6.471	6.364	6.474	6.434	6.318
IPLV	W/W		9.789	10.07	10.05	10.57	10.72	10.62	10.66
Motor configuration power	kW		200.0	200.0	240.0	280.0	280.0	315.0	350.0
Rated current	A		227.6	266.3	310.4	360.6	398.7	445.9	498.9
Max. operating current	A		250.4	292.9	341.4	396.7	438.6	490.5	548.8
Locked-rotor current	A		1523	1523	1883	2603	2603	2985	3338
Evaporator	Water flow	m³/h	135.8	163.0	190.1	217.3	244.4	271.6	298.8
	Pressure drop	kPa	43.3	43.2	43.6	42.9	43.2	42.4	44.0
	Water pipe connection	mm	DN200	DN200	DN200	DN250	DN250	DN250	DN250
Condenser	Water flow	m³/h	169.4	202.5	236.3	270.6	303.7	337.7	372.3
	Pressure drop	kPa	50.3	49.5	49.1	51.3	52.1	53.0	53.0
	Water pipe connection	mm	DN200	DN200	DN200	DN250	DN250	DN250	DN250
Unit dimensions	Length	mm	3650	3650	3650	3650	3650	3650	3650
	Width	mm	1940	1940	1940	2000	2000	2000	2000
	Height	mm	2150	2150	2150	2150	2150	2150	2150
Shipping weight	kg		5030	5180	5330	6150	6300	6450	6600
Running weight	kg		5580	5780	5980	6730	6930	7130	7330

Notes:
1. Performance and efficiency are based on AHRI 550/590.
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 design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. 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.

Model		CCWF	600EV	650EV	700EV	750EV	800EV	850EV	900EV	950EV	1000EV	1100EV	1200EV	1300EV
Cooling capacity	RT		600.0	650.0	700.0	750.0	800.0	850.0	900.0	950.0	1000	1100	1200	1300
	kW		2110	2285	2461	2637	2813	2989	3164	3340	3516	3868	4219	4571
	10 ⁴ kcal/h		181.4	196.6	211.7	226.8	241.9	257.0	272.2	287.3	302.4	332.6	362.9	393.1
Power input	kW		331.3	357.2	378.0	407.5	442.1	460.6	482.2	513.3	538.9	591.8	641.7	697.9
COP	W/W		6.367	6.397	6.511	6.471	6.362	6.488	6.563	6.507	6.525	6.535	6.575	6.549
IPLV	W/W		9.313	9.628	9.992	10.17	10.20	10.16	10.37	10.40	10.56	10.36	10.57	10.69
Motor configuration power	kW		400	400	450	450	500	560	560	560	630	700	700	800
Rated current	A		541.3	583.6	617.6	665.7	722.3	752.6	787.7	838.6	880.3	966.9	1048	1140
Max. operating current	A		613.1	658.9	696.0	745.8	801.6	850.4	888.6	945.5	991.7	1089	1181	1282
Locked-rotor current	A		3281	3281	3905	3905	4864	6495	6495	6495	6246	6638	6638	6955
Evaporator	Water flow	m³/h	325.9	353.1	380.3	407.4	434.6	461.7	488.9	516.1	543.2	597.5	651.9	706.2
	Pressure drop	kPa	53.8	52.2	58.6	56.1	60.1	56.2	62.4	54.5	58.4	57.0	57.0	56.0
	Water pipe connection mm		DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Condenser	Water flow	m³/h	404.3	437.9	470.6	504.7	539.7	572.2	605.2	639.8	673.3	740.7	807.5	875.1
	Pressure drop	kPa	51.4	54.5	51.0	55.1	54.7	55.2	58.9	53.4	55.6	52.6	53.4	58.0
	Water pipe connection mm		DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Unit dimensions	Length	mm	4700	4700	4700	4700	4700	4750	4750	4750	4750	4800	4800	4800
	Width	mm	2050	2050	2050	2050	2050	2200	2200	2200	2200	2300	2300	2300
	Height	mm	2750	2750	2750	2750	2750	2900	2900	2900	2900	3050	3050	3050
Shipping weight	kg		9060	9120	9330	9410	9490	10665	10690	11050	11050	13320	13520	13650
Running weight	kg		10650	10740	11030	11210	11330	12785	12815	13350	13350	16080	16395	16610

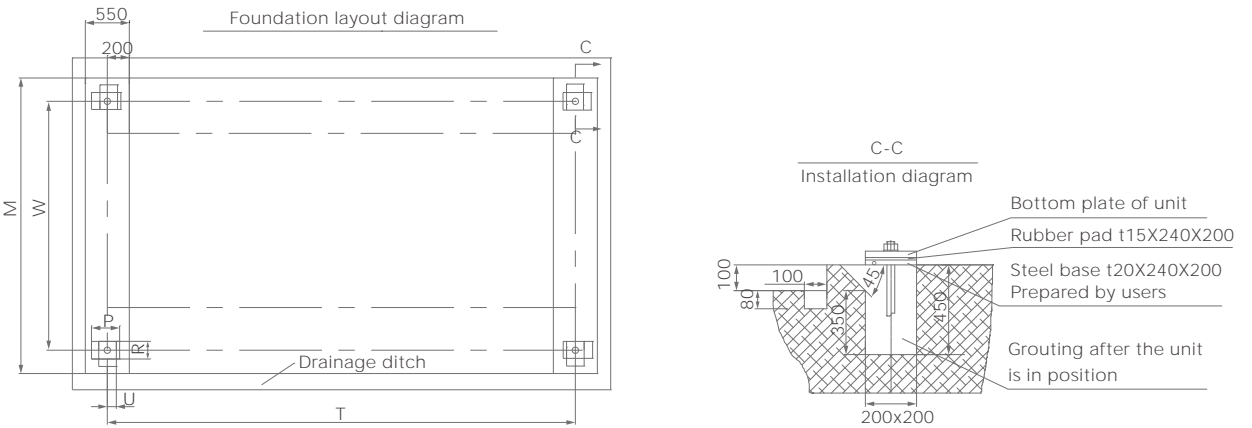
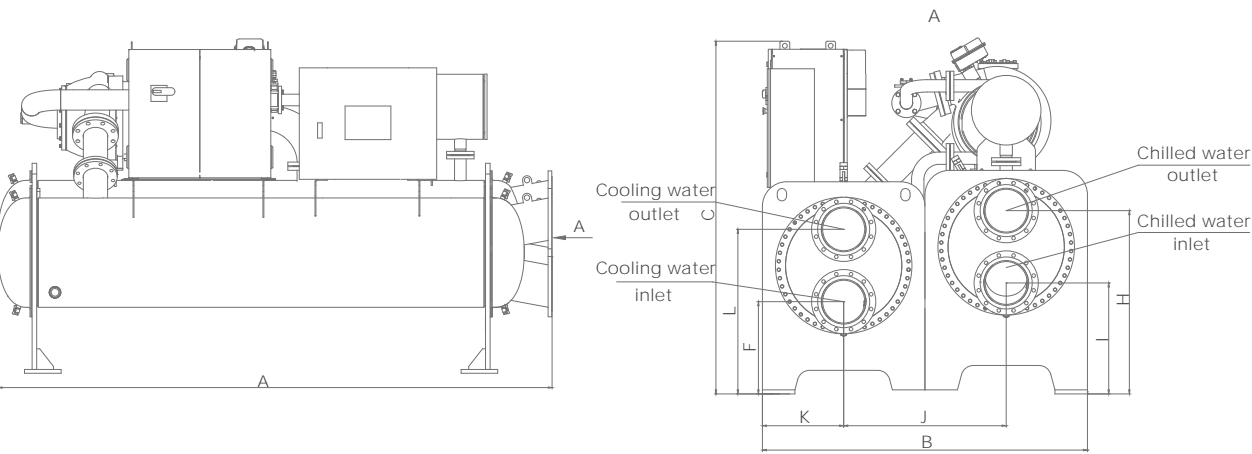
Notes:
1. Performance and efficiency are based on AHRI 550/590.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h·ft²·°F/Btu (0.0176m²· °C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h·ft²·°F/Btu (0.0440m²· °C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. 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

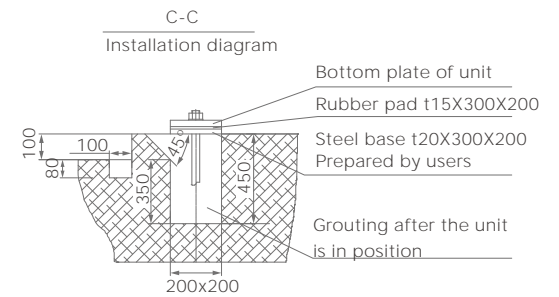
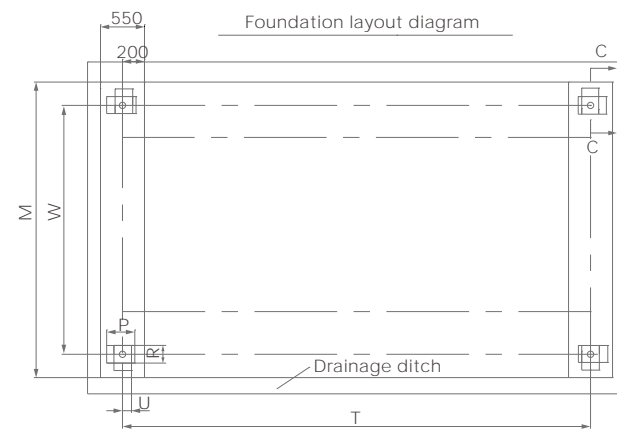
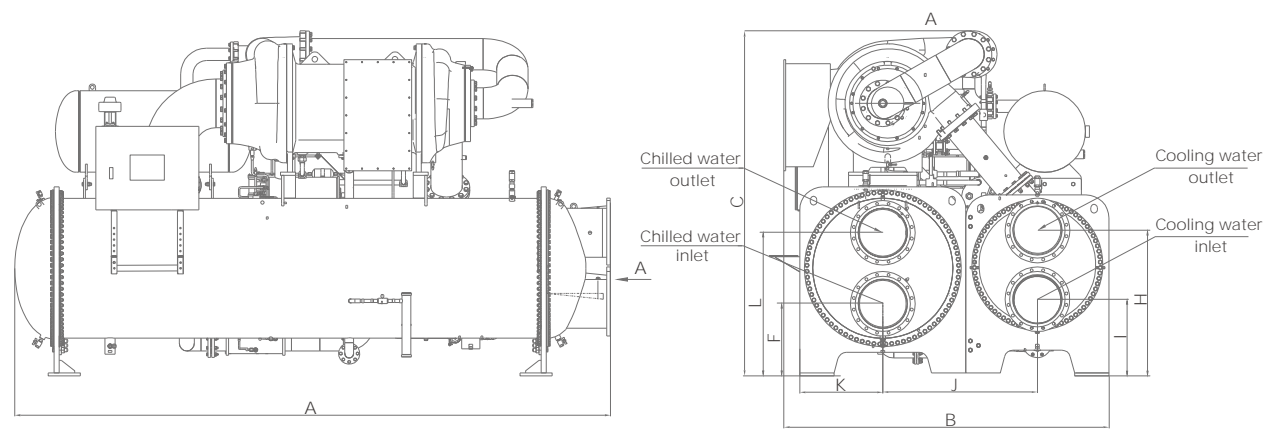
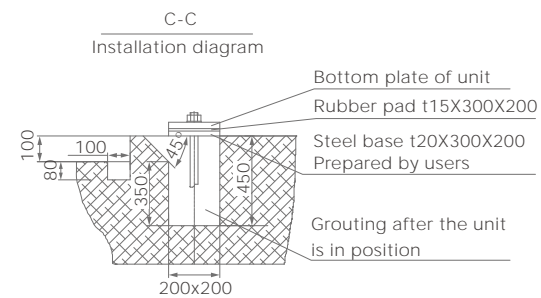
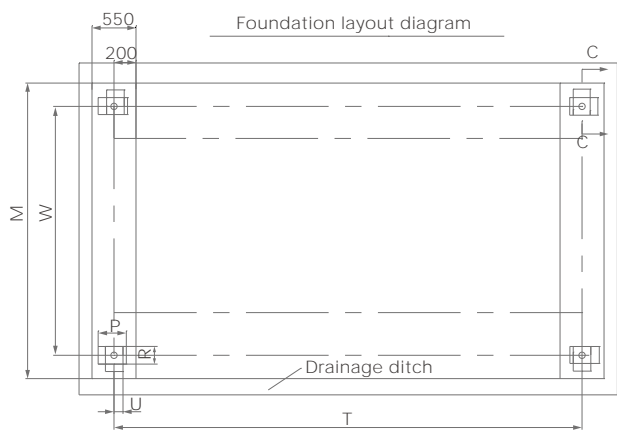
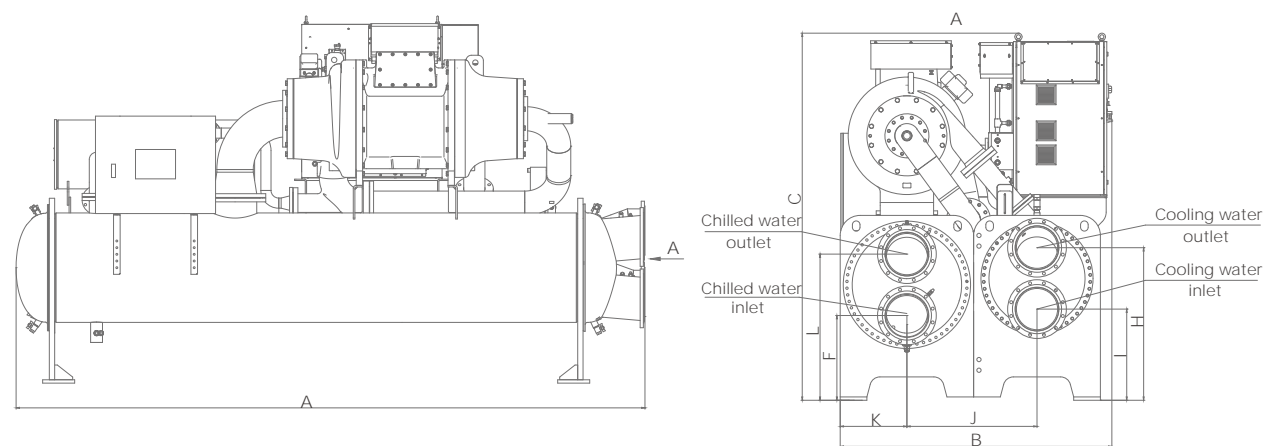
Model		CCWF1400 EVS10	CCWF1500 EVS10	CCWF1600 EVS10	CCWF1700 EVS10	CCWF1800 EVS10	CCWF1900 EVS10	CCWF2000 EVS10	CCWF2100 EVS10	CCWF2200 EVS10
Cooling capacity	RT	1400	1500	1600	1700	1800	1900	2000	2100	2200
	KW	4922	5274	5626	5977	6329	6680	7032	7384	7735
	10 ⁴ kcal/h	423.4	453.6	483.8	514.1	544.3	574.6	604.8	635.0	665.3
Power input	KW	694.0	745.5	796.5	861.4	882.9	938.2	989.8	1050	1124
COP	W/W	7.093	7.075	7.062	6.939	7.169	7.120	7.105	7.032	6.881
IPLV	W/W	11.50	11.73	11.95	12.11	11.66	11.83	11.93	12.02	12.08
Motor configuration power	KW	930.0	990.0	1100	1100	1200	1200	1320	1320	1450
Rated current	A	42.2	45.3	48.4	52.4	53.7	57.0	60.2	63.8	68.3
Max. operating current	A	46.4	49.8	53.2	57.6	59.1	62.7	66.2	70.2	75.1
Locked-rotor current	A	250	287	316	316	360	360	440	440	482
Evaporator	Water flow	m ³ /h	760.5	814.8	869.1	923.5	977.8	1032	1086	1141
	Pressure drop	kPa	78.0	78.4	79.4	81.1	76.3	76.8	77.3	79.2
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400	DN400	DN400	DN400
Condenser	Water flow	m ³ /h	933.43	1000	1067	1136	1198	1266	1332	1400
	Pressure drop	kPa	84.1	85.0	85.9	87.1	74.5	74.9	76.0	76.9
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5210	5210	5210	5210	5280	5280	5280	5280
	width	mm	2890	2890	2890	2890	3150	3150	3150	3150
	Height	mm	3020	3020	3020	3020	3020	3020	3020	3020
Shipping weight	kg	18516	18771	19015	19250	23293	23567	23821	24085	24310
Running weight	kg	22476	22861	23215	23570	28943	29357	29731	30125	30460

Notes:
1. Performance and efficiency are based on AHRI 550/590.
Evaporator conditions: water inlet=54 °F (12.22 °C), water outlet=44 °F (6.67 °C), fouling factor=0.00010 h·ft²·°F/Btu (0.0176 m²·°C/kW);
Condenser conditions: water inlet=85 °F (29.44 °C), water outlet=94.3 °F (34.61 °C), fouling factor=0.00025 h·ft²·°F/Btu (0.0440 m²·°C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0 MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. 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



Model	Dimensions (unit: mm)			Support (unit: mm)						Pipe location					
	Length (A)	Width (B)	Height (C)	M	W	P	R	U	T	F	L	K	I	H	J
CCWF250EV															
CCWF300EV	3650	1940	2150	2240	1740	240	200	100	2780	515	865	485	630	980	970
CCWF350EV															
CCWF400EV															
CCWF450EV															
CCWF500EV	3650	2000	2150	2300	1800	240	200	100	2780	567	1013	500	682	1128	1000
CCWF550EV															



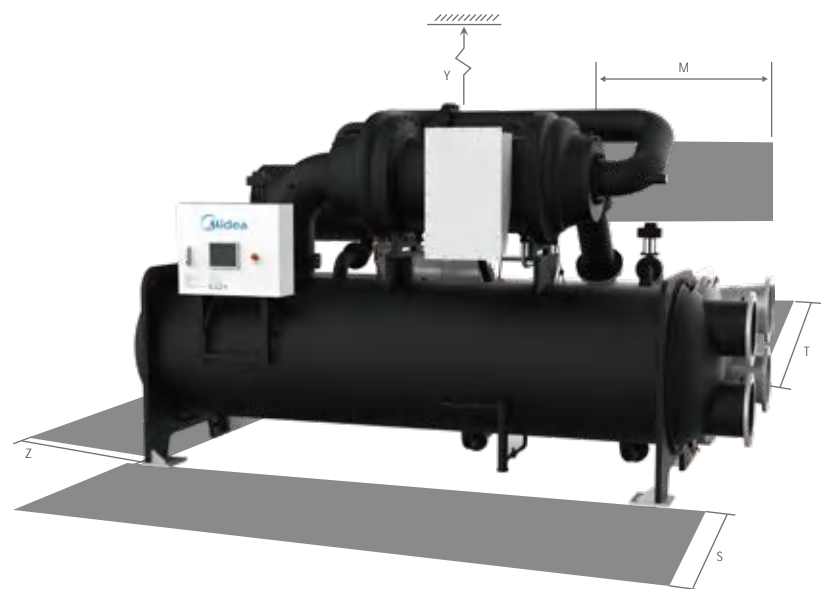
Model	Dimensions (unit: mm)			Support (unit: mm)						Pipe location					
	Length (A)	Width (B)	Height (C)	M	W	P	R	U	T	F	L	K	I	H	J
CCWF600EV															
CCWF650EV															
CCWF700EV	4700	2050	2750	2550	1750	240	200	100	3780	635	1095	500	683	1143	975
CCWF750EV															
CCWF800EV															
CCWF850EV															
CCWF900EV	4750	2200	2900	2750	1950	240	200	100	3780	675	1145	550	730	1190	1075
CCWF950EV															
CCWF1000EV															
CCWF1100EV															
CCWF1200EV	4800	2300	3050	2860	2060	240	200	100	3780	720	1220	593	785	1255	1130
CCWF1300EV															

Model	Dimensions (unit: mm)			Support (unit: mm)						Pipe location					
	Length (A)	Width (B)	Height (C)	M	W	P	R	U	T	F	L	K	I	H	J
CCWF1400EVS10															
CCWF1500EVS10	5210	2890	3020	3200	2400	280	300	100	4040	630	1250	725	670	1270	1350
CCWF1600EVS10															
CCWF1700EVS10															
CCWF1800EVS10															
CCWF1900EVS10															
CCWF2000EVS10	5280	3150	3320	3650	2850	280	300	100	4040	740	1440	840	790	1410	1575
CCWF2100EVS10															
CCWF2200EVS10															

Space layout



Model	Maintenance space (mm)			
	T	Y	S	Z
CCWF250EV-CCWF550EV	1000	1200	1200	3200
CCWF600EV-CCWF1300EV	1000	1200	1200	4500



Model	Maintenance space (mm)				
	M	T	Y	S	Z
CCWF1400EVS-CCWF2200EVS	1500	1000	1300	1300	4500

Note: Z is the tube removal space and both ends can be selected.

Options

Items	Standard	Optional
Power supply (250 RT to 1300 RT)	380V-3Ph-50Hz	380-460V, 50/60Hz
Power supply (1400 RT to 2200 RT)	10kV-3Ph-50Hz	3kV/ 3.3kV/ 4.16kV/ 6kV/ 6.6kV/ 10kV/ 11kV, 50/60Hz
Water inlet/outlet connection type	Flange	×
High pressure water box	1.0MPa	1.6MPa, 2.0MPa
Marine water box	×	✓
Anti-vibration	Rubber pad	Spring isolator
Vessel code	GB	ASME, PED
Heat recovery	×	✓
Chilled water Delta T	5°C	6°C-11°C
Centrifugal heat pump	×	Hot water temperature up to 60°C
Water storage	×	✓
Communication protocol	Modbus-RTU (RS485)	BACnet IP, BACnet MS/TP (RJ-45 port)
Hot gas bypass	×	✓
Flow switch	Differential pressure	×
Knockdown shipment	×	✓
Witness performance testing	×	✓
Midea Intelligent Chiller Plant Management (iCPM)	×	✓
Midea Smart Cloud platform	×	✓
QuickView	×	✓
Automatic tube-cleaning system	×	✓
Low total-harmonic current distortion rate (THDI)	≤35% (low voltage, full load) ≤5% (high voltage, full load)	≤5% (low voltage, full load)

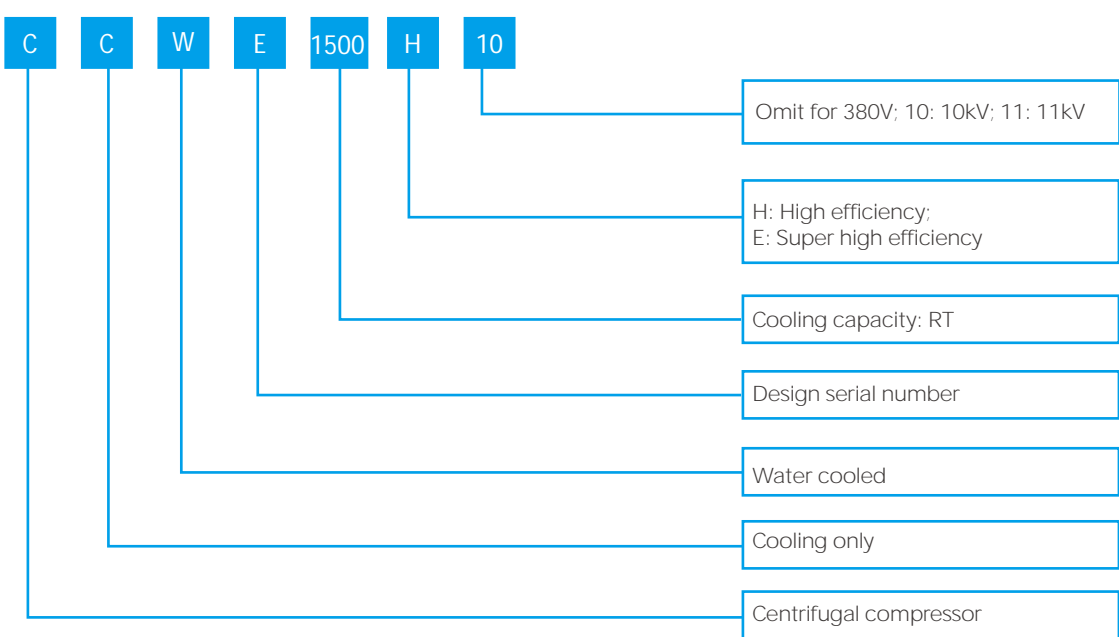
Note: For other options, please contact a Midea engineer.

High Efficiency & Super High Efficiency Centrifugal Chiller

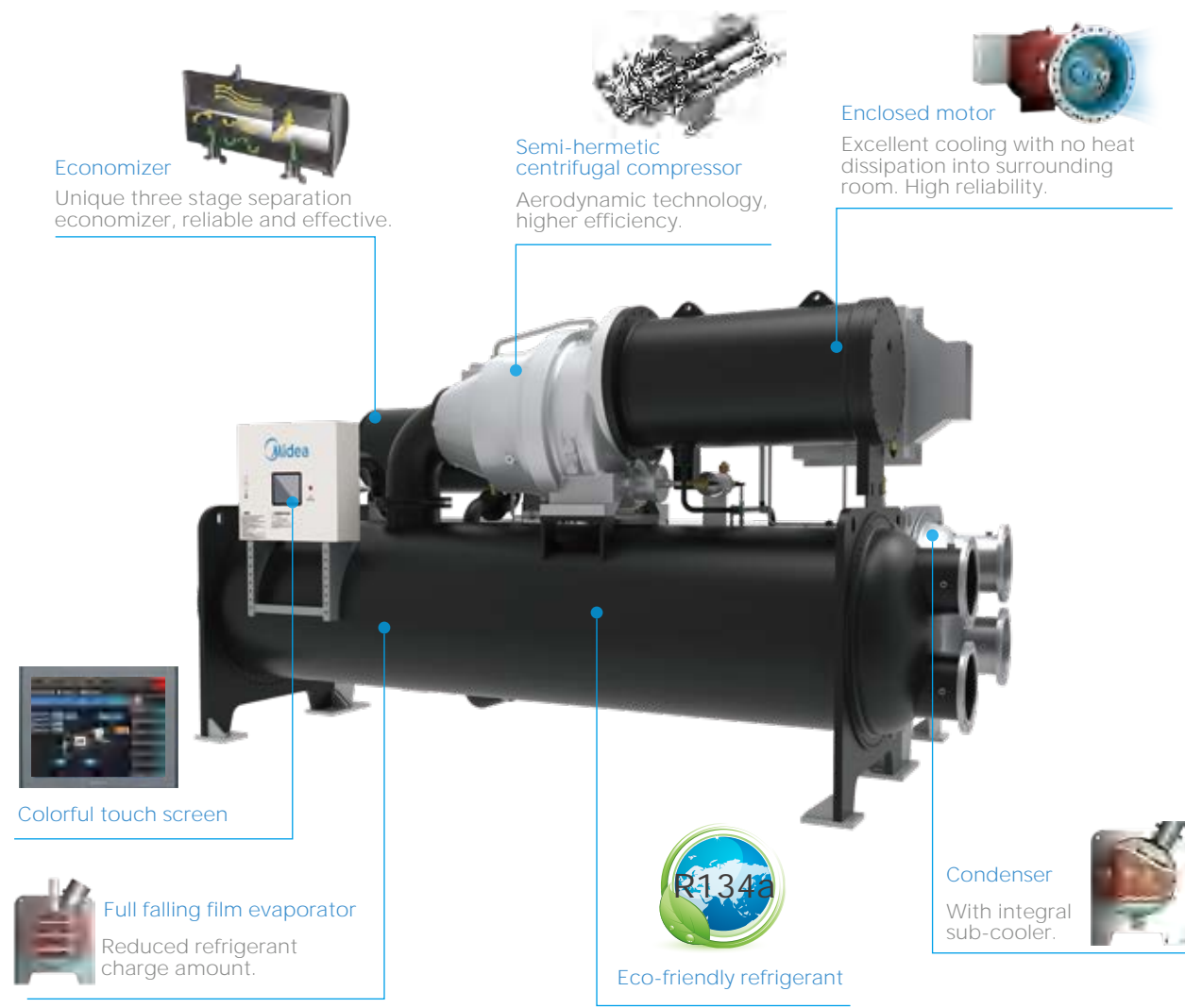
Midea offers a comprehensive lineup of chiller products designed to meet a wide range of customer requirements. Key milestones include the 2013 launch of the full falling film two-stage compression centrifugal chiller and the 2019 introduction of the 2300 RT to 3000 RT water-cooled centrifugal chiller, specially designed for district cooling applications. These units are ideal for applications with large temperature differences and are suitable for large-scale public buildings such as factories, airports, exhibition halls and theaters.

The 2300 RT to 3000 RT units consist of a single two-stage compressor centrifugal chiller, while the 4600 RT to 6000 RT units feature two two-stage compressor units arranged in a series counterflow configuration. Our patented heat exchange technology reduces refrigerant amount requirements, significantly lowering CO₂ emissions and protecting the environment.

Nomenclature



Key components

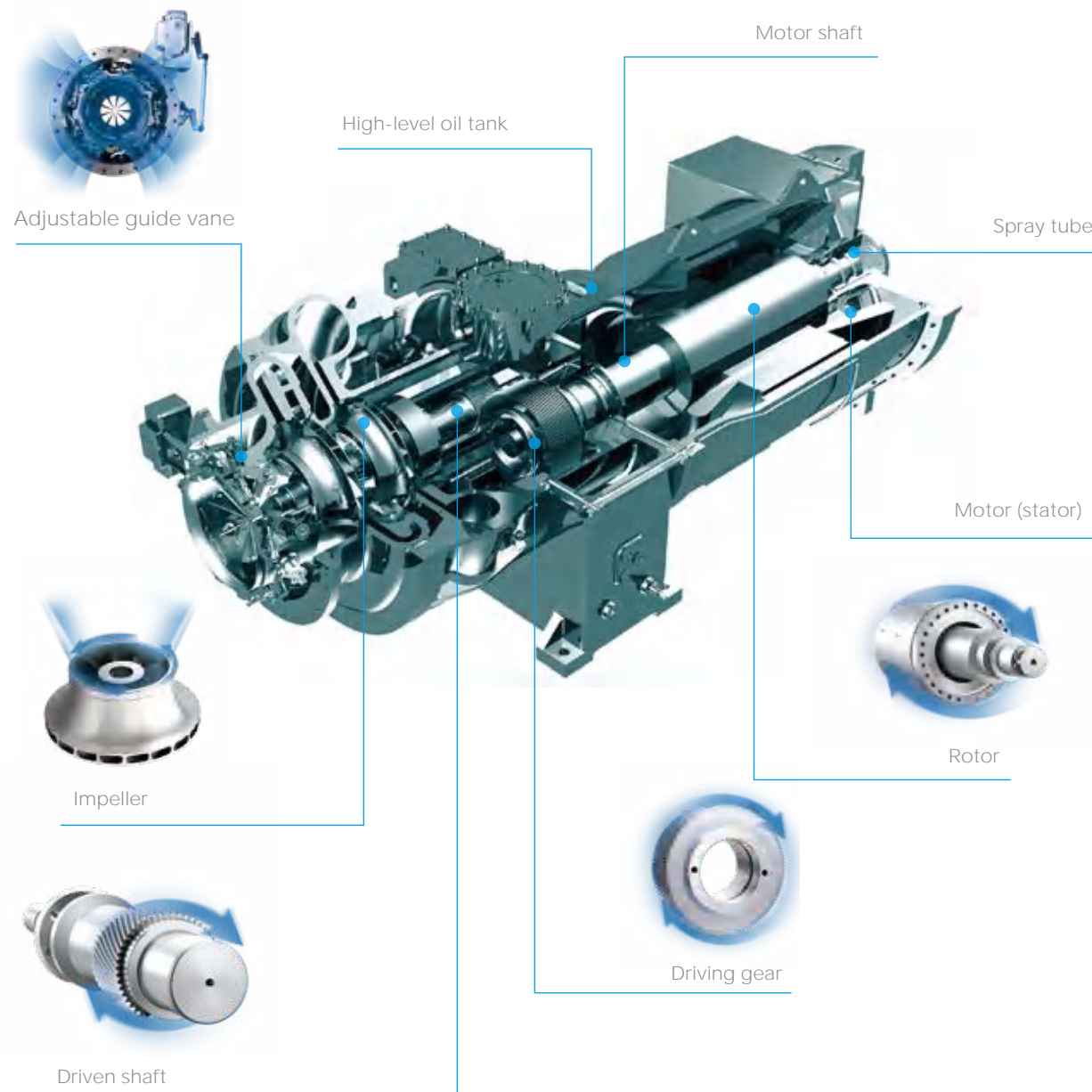


FEATURES

Advanced Aerodynamic Technology

Full Flow Pass Optimization increases efficiency.

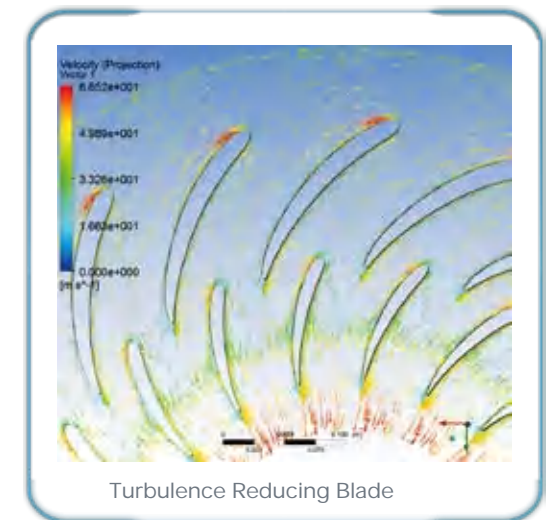
A newly-designed 3D flow impeller, coupled with an optimized volute, ensures consistent flow velocity and maximizes efficiency.



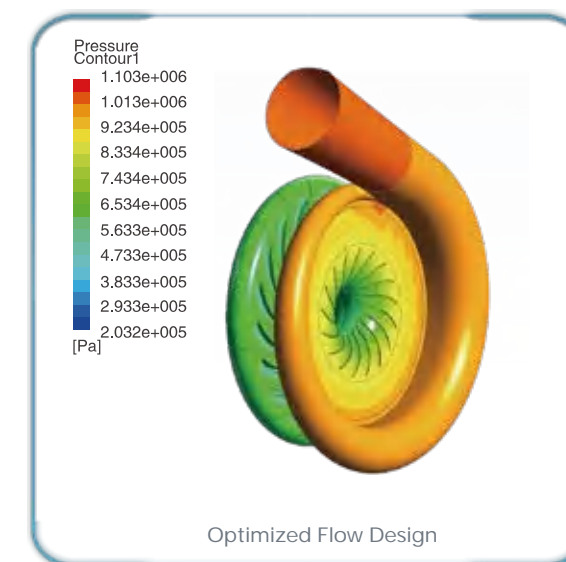
High-Efficiency 3D Flow Impeller



The newly-designed, high-efficiency 3D flow alloy impeller is milled on a high-precision German GMD 5-axis machine which enables 30% reduced impeller thickness, reducing axial force and separation loss.



Aerodynamic balanced design reduces the aerodynamic noise.



Gas glow is precisely aligned with internal flow channels, minimizing impact losses.

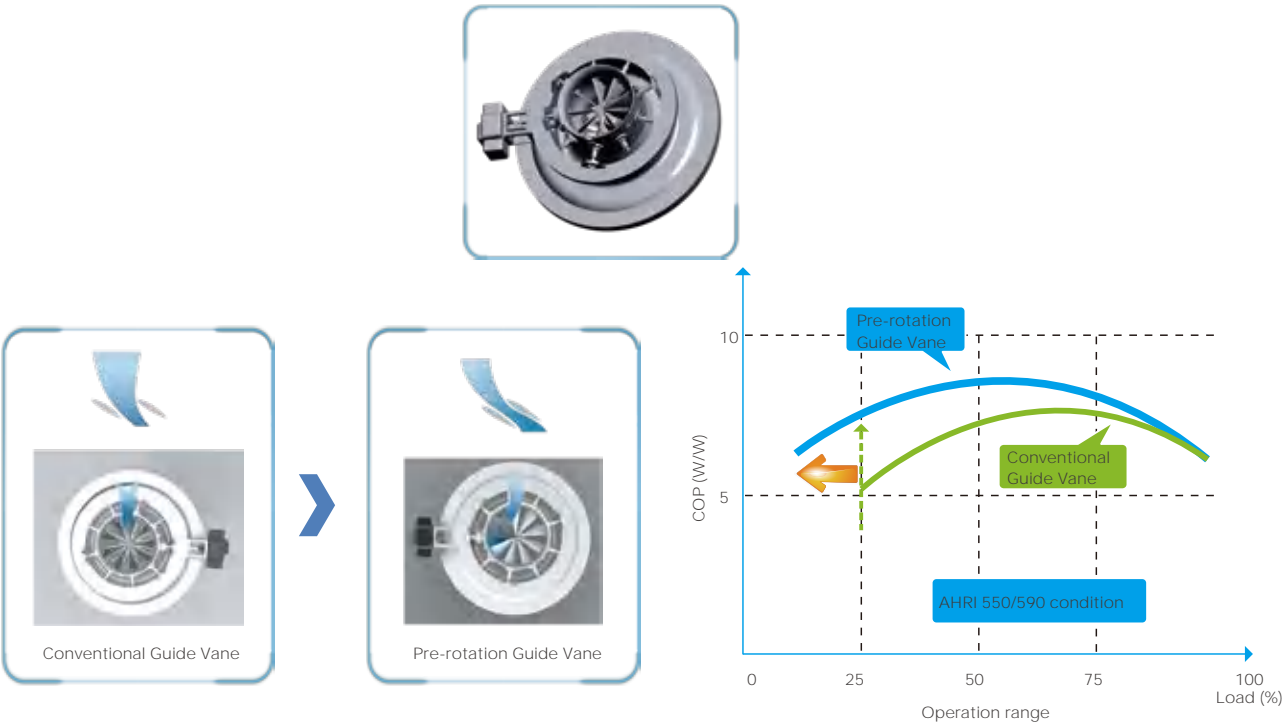


Volute

The volute's design is perfectly coordinated with the impeller, ensuring uniform distribution of flow velocity for optimal efficiency and performance.

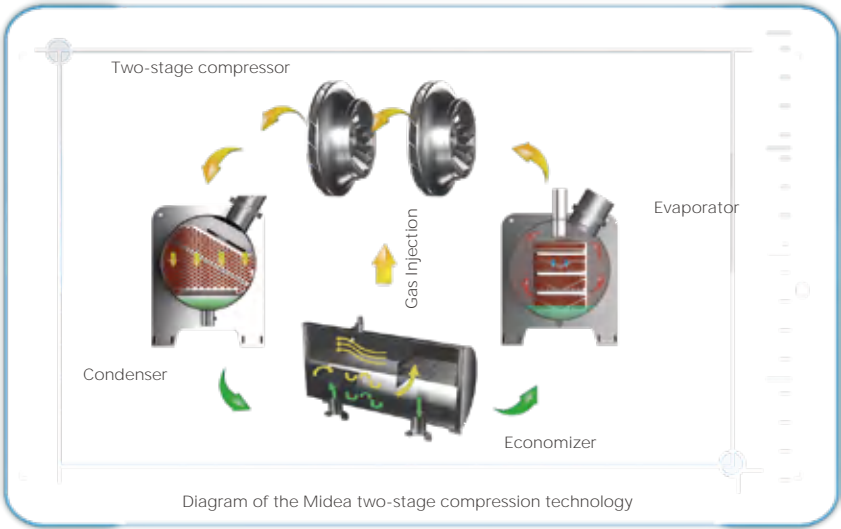
Pre-rotation Guide Vane Technology

The compressor is equipped with an airfoil shaped pre-rotation guide vane, which generates rotation under variety of load conditions. This extends the operating range and ensures efficiency, even under partial loads.



Two-stage Compression Technology

Achieves 6% higher efficiency than single-stage and can operate at lower speeds with high reliability. Unique three stage separation economizer, reliable and effective.

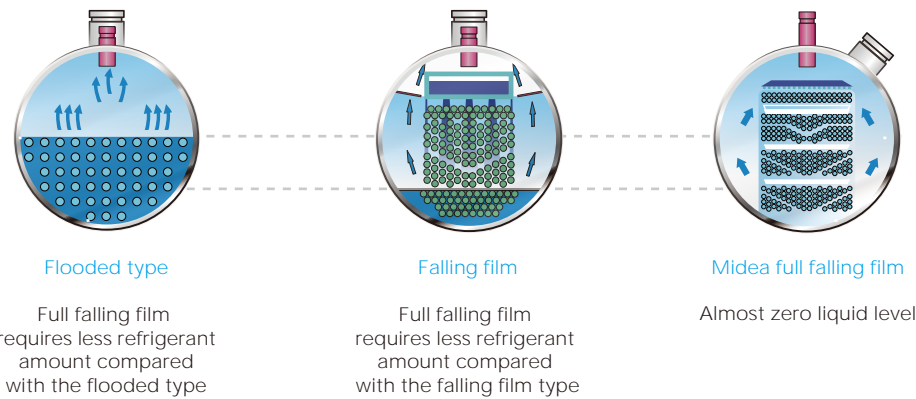


Unique Heat-exchanging Technology

Full falling film evaporator

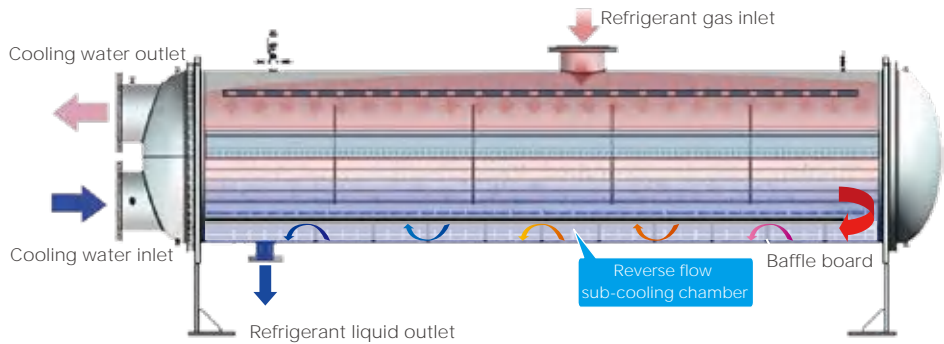
Midea pioneered full falling film evaporation technology, which achieves film evaporation on the surface of heat exchange tubes. This innovation significantly increases heat transfer efficiency while reducing the required refrigerant amount.

A patented refrigerant distributor ensures uniform liquid distribution, preventing local drying and enabling the heat exchanger to operate at peak performance, thereby increasing unit efficiency.



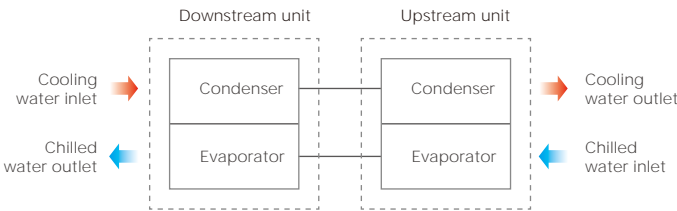
Condenser

Our highly-efficient heat-exchanger features an optimized structure that enhances heat exchange performance. A specially-designed reverse flow sub-cooling chamber with multiple turbulence increases the sub-cooling level and improves performance.



Series Counterflow

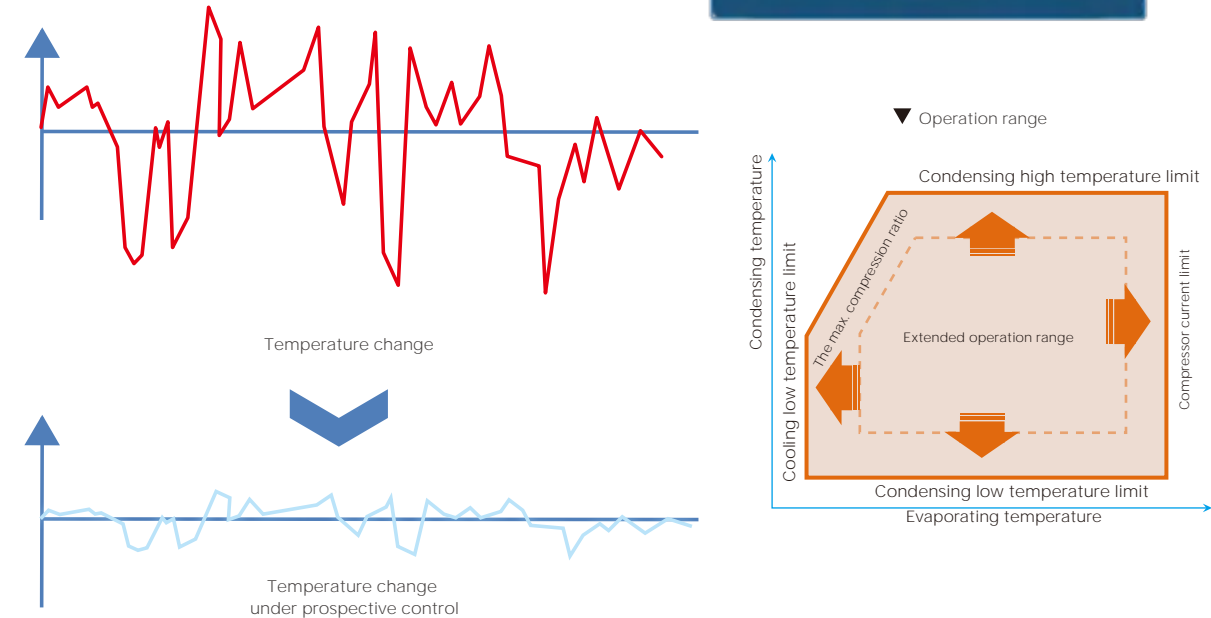
A series counterflow configuration offers the benefit of a compact size, eliminating the need for additional components such as piping, valves, and pumps. This results in lower installation costs and a smaller installation footprint.



FEATURES

Prospective Control Logic

A microcomputer control system predicts trends and offers self-diagnosis, self-adjustment, and safety protection. It can forecast real load changes based on target values and historical data, adjust the operating load accordingly, and prevent energy waste.



Eco-friendly

Low noise and vibration

The unit is the quietest chiller in its size range with sound pressure ratings as low as 85 dB(A) as per AHRI Standard 575. Measured vibrations are so low that a coin can be balanced on the edge of the motor assembly during operation.



LEED

R134a refrigerant has zero ozone depletion potential and doesn't require an elimination cycle. The chiller uses full falling film technology to reduce the amount of refrigerant needed. This contributes to high Energy and Environmental Design (LEED) points for Enhanced Refrigerant Management. Additionally, the chiller's high efficiency can earn extra credits for Optimized Energy Performance (EAc1).



Reliable Quality

Extensive factory testing, significant R&D investment, and strict quality control standards ensure the highest product reliability.

4000RT water cooled chiller performance testing lab

The 4000RT water cooled chiller performance testing lab is one of the most advanced in the world, capable of simulating any chiller operating condition, including Chinese National standard test conditions (7°C/12°C, 30°C/35°C), typical Chinese industry test conditions (7°C/12°C, 32°C/37°C), and AHRI test conditions (6.67°C/12.22°C, 29.44°C/34.61°C). The lab can also replicate extreme environmental conditions found in the Middle East, with chilled water temperatures ranging from 3°C to 50°C and cooling water temperatures from 10°C to 60°C—far beyond the actual operating conditions in the region (13.33°C/4.44°C, 35°C/41.5°C). This facility generates precise testing data for IPLV and NPLV calculations and can simulate all types of power supplies worldwide. Every chiller we produce undergoes rigorous testing before shipping. The establishment of this lab further solidifying Midea's leadership in the industry.



Centrifugal compressor production workshop

The new centrifugal compressor production workshop was officially put into operation in November 2023, specializing in the production of centrifugal compressors, including gear-drive compressors, inverter direct-drive compressors, and magnetic bearing compressors. The workshop is divided into workshop exhibition hall, large and small parts warehouse area, casting processing area, compressor sub-assembly, compressor final assembly, testing area, etc., covering an area of 5800 square meters. The production workshop has achieved self-production of core precision components.



Wide-Range Operation Flexibility

Midea centrifugal chillers are designed with a wide-range compression ratio, enabling efficient operation in various conditions, including environments with large temperature differences, low water-flow rate systems, variable primary flow systems, standard or groundwater sources, and ice storage systems. This versatility helps reduce overall investment costs and minimizes the floor space typically needed for large-capacity chillers.

Long Lifespan

The patented keyless impeller coupling reduces mechanical stress, while high-quality parts from reputable manufacturers ensure stable operation and enhanced reliability throughout the unit's service life.

KEY COMPONENTS & TECHNOLOGIES

Advanced design and manufacturing techniques enhance the performance of key components, including the impeller, volute, and other chiller parts, boosting isotopic compressor efficiency to over 88.2%, leading to greater overall efficiency and stability.

Compressor

The centrifugal compressor features high-strength, fully shrouded aluminum alloy impellers and a movable inlet guide vane. The enclosed impeller is designed for balanced thrust, dynamically balanced, and overspeed tested to ensure smooth, vibration-free operation. The airfoil-shaped inlet guide vane minimizes flow disruption, optimizing part-load performance. The vane's movement is controlled by a mounted electric actuator that adjusts according to the evaporator's refrigeration load. The rotor assembly includes a heat-treated, high-strength alloy steel drive shaft, ensuring durability and reliability.



Motor

The Midea centrifugal chiller is equipped with a semi-hermetic two-pole motor that is cooled by circulating refrigerant. Winding-embedded sensors offer positive thermal protection, while the asynchronous squirrel-cage motor ensures high operating performance and a long lifespan. The refrigerant-cooled motor prevents heat from entering the mechanical room, minimizes vibration, and requires less shaft seal maintenance compared to open motor systems. Additionally, refrigerant-cooled motors have lower inrush currents and operate more quietly than air-cooled open motors, eliminating the need for supplemental ventilation. The motor is securely bolted to the compressor gear housing, with a shaft labyrinth seal preventing refrigerant leakage into the gearbox. The motor is available in both low-voltage and high-voltage options. The low-voltage motor provides six terminals, reducing the required starting voltage (using wye-delta or auto transformer start). The high-voltage motor offers three terminals for full voltage (across the line) connection. Motor terminal pads are supplied, and the terminal board is protected by a steel terminal box.



Impeller and Inlet Guide Vane

Our high-strength aluminum-alloy compressor impellers are designed with reverse-curved vanes for maximum efficiency. The airfoil-shaped inlet guide vanes minimize flow disruption, optimizing performance at partial loads. Precisely positioned and tightly fitted, these vanes enable the compressor to smoothly adjust from 10% to 100% load, ensuring reliable operation under real conditions. The movement of the vanes is controlled by a mounted electrical actuator that responds to the refrigeration load on the evaporator. The impellers, made from high-strength aluminum alloy, are rigorously tested at 125% of their designed operating speed.



Keyless Impeller Coupling

The impeller and main shaft are connected using a keyless coupling, eliminating stress concentration on the power transmission surface and significantly extending service life. Without friction, this design achieves higher overall efficiency compared to traditional keyed couplings. This innovative mechanical design was awarded a patent by the State Intellectual Property Office of P.R. China (Patent No. ZL 01 2 56825.2).



Precise Gearing

The specially engineered, single helical gear with crowned teeth keep multiple teeth in a specially-engineered, single helical gear with crowned teeth ensures continuous contact across multiple points, evenly distributing the compressor load for quiet operation. The gear teeth are case hardened and precision ground to achieve class 5 quality. The gears are integrally assembled within the compressor rotor support and are oil lubricated. Each gear is mounted on its own journal and thrust bearings, isolating it from impeller and motor forces. The double-layer soundproof compressor design effectively prevents gear noise from escaping.



Bearings

The motor design incorporates journal bearings to manage radial and axial loads, as well as the drive speed. The slide bearing base features an embedded babbitt alloy, which is softer than the main shaft, providing protection in the event of a fault. A sophisticated oil film lubrication system ensures minimal contact between the bearing and shaft, effectively eliminating friction.



Lower Sound Levels and Vibration

The specially engineered gearing, double soundproof gearbox structure, and optimized impeller and tunnel design ensure our chillers operate at lower sound levels. Despite gear-driven compressors running at higher impeller speeds, they generally produce less vibration than larger, heavier direct-drive units.

Condenser Baffle

Our condenser baffle prevents high-velocity compressor gas from directly impacting the condenser tubes, reducing vibration and wear. It also ensures even distribution of refrigerant flow across the length of the condenser, thereby increasing efficiency.

KEY COMPONENTS & TECHNOLOGIES

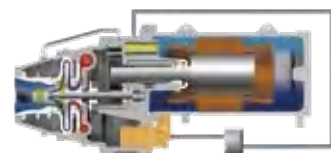
Advanced Capacity Adjustment

The inlet guide vanes utilize movable diffusers, resulting in a stepless capacity range of 10% to 100% while eliminating surges. The Inlet Guide Vane (IGV) is controlled by an actuator, which is directly controlled by the PLC. This innovative technology was awarded a patent by the State Intellectual Property Office of P.R.China. (Patent No.ZL01 2 56824.4).



Reliable Lubrication System

The sophisticated lubrication system includes an internal oil sump with oil heaters, a positive displacement oil pump, a brazed plate oil cooler, and an oil return line. The elevated oil sump ensures that gears remain lubricated, preventing wear in the event of a sudden power loss.



Side-mounted Oil Cooler

The system includes a factory-installed plate-type oil cooler, mounted on the side. This design simplifies maintenance, allowing oil or filter replacement to be performed easily after closing the isolation valve in the pipeline.



Oil Recovery

The Midea patented oil reclaim system enhances refrigerant purity by returning oil from the heat exchanger to the oil tank, which boosts thermal exchange efficiency and ensures the compressor receives sufficient oil.

Low Inrush Current

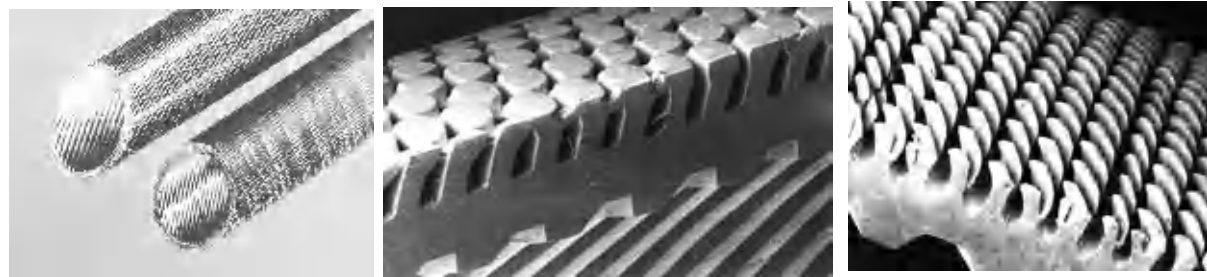
Midea uses a standard wye-delta starter for centrifugal chillers. Initially, the motor windings are connected in a "wye" configuration, reducing the inrush current to 33.3% of the locked rotor amps and producing 33.3% of the normal starting torque. After a brief transition delay, the electrical load is temporarily shifted to resistance while the motor windings switch to the "delta" configuration. This resistance helps minimize the second inrush current when the delta configuration activates. For other applications, a soft start and VFD are also available.

Rigorous Factory Testing

Midea subjects each unit to rigorous and comprehensive testing after assembly, during which we verify all performance metrics and confirm every unit starts smoothly and operates flawlessly.

Durable Heat Exchanger Tubes

Our high-efficiency heat exchanger tubes, enhanced both externally and internally, deliver top-tier performance. The 1" O.D. tubes in both the evaporator and condenser are made from a copper alloy with thick walls—up to twice the standard thickness. This design uses non-work-hardened copper at the support points, extending the heat exchanger's lifespan. Each tube is expanded into the tube sheet using rollers to ensure a leak-proof seal, and they can be individually replaced as needed. The standard material is 90/10 copper-nickel, with 304 stainless steel or titanium available as customization options.

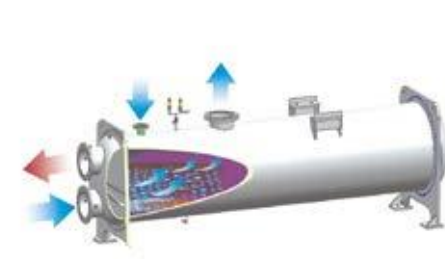


Evaporator

The evaporator is constructed as a shell and tube heat exchanger. A flow equalizer uniformly distributes refrigerant over the entire tube length to optimize heat transfer. The evaporator shell is configured with either a dual refrigerant relief valve arrangement set at 185 PSIG (1280 kPa) or a single-relief valve arrangement. Intermediate tube support sheets are positioned along the shell axis to prevent relative tube motion. The waterside is hydraulically tested at 1.25 times the maximum working pressure.

Condenser

The condenser features a shell and tube construction with a discharge gas baffle that prevents direct high-velocity gas impact on the tubes. The baffle also ensures proper refrigerant gas flow for optimal heat transfer. An integral sub-cooler is located at the bottom of the condenser shell, providing highly effective liquid refrigerant subcooling, which maximizes cycle efficiency. Two-stage compression using the economizer can improve efficiency by 5% to 8%. The condenser is equipped with a refrigerant relief valve set to 1.6 MPa. The standard maximum waterside working pressure is 1.0 MPa, and it is hydraulically tested at 1.25 times this pressure.



Evaporator



Condenser

KEY COMPONENTS & TECHNOLOGIES

Water Box

Removable water boxes are fabricated from steel and designed for a working pressure of 150 PSIG (1034 kPa), with testing conducted at 187.5 PSIG (1292.5 kPa). Integral steel water baffles are welded inside the water box to ensure the structural integrity needed to meet test conditions. Nozzle connections are suitable for flanges and are capped for shipping. Each water box is equipped with plugged 1" drain and vent connections.



Fixed Orifice

Midea high-efficiency series units use a fixed orifice as a refrigerant control device, offering greater reliability than other methods like electrical expansion valves and float systems, as it has no moving parts. The super high-efficiency series combines the fixed orifice with liquid level control technology, enhancing efficiency under partial loads. These features ensure stable chiller operation and significantly improve IPLV and NPLV.

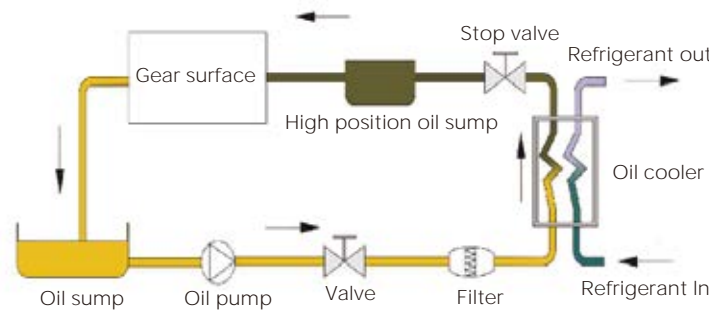
Control Panel

Midea utilizes a state-of-the-art microprocessor control system with a durable 10.4-inch LCD touch screen. The screen provides a graphical display of chiller parameters, making adjustments fast and easy. The control panel can also communicate with a user’ s PC, enabling remote start/stop operation. With over 30 protection features, the chiller operates securely and reliably. Additionally, the system records the latest 10 failure reports for easy reference.



Lubrication System

An independently-driven electric oil pump assembly supplies lubricant to the compressor at the correct temperature and pressure. The oil is then filtered, sent to the oil cooler, and adjusted before being transferred to the bearings. Specially-designed seals on the inner side of the motor bearings minimize lubricant leakage into the main motor, preventing contamination of the R134a in the evaporator. An electric heater inside the oil tank consistently maintains the oil temperature, even during compressor shutdowns, to prevent R134a gas from entering the oil and reducing lubrication efficiency. It is necessary to keep the oil heater running during extended shutdowns.



Specifications

High efficiency series

Model		CCWE	500H	550H	600H	650H	700H	750H	800H
		RT	500	550	600	650	700	750	800
Cooling capacity		kW	1758	1934	2110	2285	2461	2637	2813
		10*kcal/h	151.2	166.3	181.4	196.6	211.7	226.8	241.9
Power input		kW	286.2	314.8	343.6	372.0	401.8	430.0	458.7
COP		W/W	6.143	6.142	6.140	6.144	6.126	6.132	6.132
IPLV		W/W	6.718	6.698	6.706	6.739	6.813	7.153	7.092
Motor configuration power		kW	490.0	490.0	490.0	490.0	490.0	490.0	560.0
Rated current		A	496.9	546.7	596.6	645.9	697.6	746.7	796.4
Max. operating current		A	561.1	619.0	673.9	724.6	784.1	839.1	891.1
Locked-rotor current		A	4700	4700	4700	4700	4700	4700	5400
Evaporator	Water flow	m³/h	271.6	298.8	325.9	353.1	380.3	407.4	434.6
	Pressure drop	kPa	35.8	42.5	39.1	44.7	54.0	55.8	55.9
	Water pipe connection	mm	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Condenser	Water flow	m³/h	337.5	371.5	405.4	439.2	473.2	507.0	541.0
	Pressure drop	kPa	52.6	62.6	55.4	64.1	66.2	65.4	64.9
	Water pipe connection	mm	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Unit dimensions	Length	mm	4690	4690	4690	4690	4690	4690	4690
	Width	mm	1800	1800	1800	1800	1950	1950	1950
	Height	mm	2410	2410	2410	2410	2410	2410	2410
Shipping weight		kg	10080	10080	10240	10240	11140	11270	11355
Running weight		kg	12020	12020	12180	12180	13159	13350	13564

Model		CCWE	850H	900H	950H	1000H	1100H	1200H	1300H
		RT	850	900	950	1000	1100	1200	1300
Cooling capacity		kW	2989	3164	3340	3516	3868	4219	4571
		10*kcal/h	257.0	272.1	287.3	302.4	332.6	362.9	393.1
Power input		kW	486.3	512.3	542.8	570.7	624.4	678.4	731.3
COP		W/W	6.145	6.177	6.153	6.161	6.194	6.220	6.251
IPLV		W/W	7.294	7.271	6.978	6.949	6.807	7.015	7.121
Motor configuration power		kW	560.0	630.0	630.0	630.0	695.0	760.0	840.0
Rated current		A	844.5	889.5	942.5	990.9	1084	1178	1270
Max. operating current		A	953.6	993.9	1048.5	1103	1207	1313	1411
Locked-rotor current		A	5400	6100	6100	6100	6800	7400	9200
Evaporator	Water flow	m³/h	461.7	488.9	516.1	543.2	597.5	651.9	706.2
	Pressure drop	kPa	57.6	59.7	58.1	60.0	59.1	58.4	67.7
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Condenser	Water flow	m³/h	574.7	608.4	642.5	676.3	743.5	810.8	877.5
	Pressure drop	kPa	66.3	66.2	64.0	68.7	64.3	58.5	64.9
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Unit dimensions	Length	mm	4690	4690	4745	4745	4745	4745	4745
	Width	mm	1950	1950	2260	2260	2260	2260	2260
	Height	mm	2410	2410	2610	2610	2610	2610	2610
Shipping weight		kg	11425	11494	11920	12067	12235	12380	12480
Running weight		kg	13712	13839	14532	14773	15108	15376	15500

Notes:
1. Performance and efficiency are based on AHRI 550/590.
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 design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW***#. # is the production serial number and the actual product shall prevail.
4. 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

High efficiency series

Model		CCWE	1400H10	1500H10	1600H10	1700H10	1800H10
Cooling capacity		RT	1400	1500	1600	1700	1800
		kW	4922	5274	5626	5977	6329
		10*kcal/h	423.3	453.6	483.8	514.0	544.3
Power input		kW	779.4	826.5	879.0	941.6	978.7
COP		W/W	6.316	6.381	6.400	6.348	6.467
IPLV		W/W	6.829	6.926	7.079	7.206	7.014
Motor configuration power		kW	930.0	990.0	990.0	1100	1200
Rated current		A	51.7	54.8	58.3	62.5	64.9
Max. operating current		A	56.87	60.28	64.13	68.75	71.39
Locked-rotor current		A	380.0	405.0	405.0	450.0	490.0
Evaporator	Water flow	m³/h	760.5	814.8	869.1	923.5	977.8
	Pressure drop	kPa	69.5	72.2	70.2	71.7	70.1
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400
Condenser	Water flow	m³/h	944.3	1010	1078	1146	1211
	Pressure drop	kPa	84.4	82.7	80.5	90.5	77.5
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5190	5190	5190	5190	5290
	Width	mm	2700	2700	2700	2700	3150
	Height	mm	3010	3010	3010	3010	3180
Shipping weight		kg	19370	20150	20850	20879	23360
Running weight		kg	22840	23490	24210	24289	27040

Model		CCWE	1900H10	2000H10	2100H10	2200H10
Cooling capacity		RT	1900	2000	2100	2200
		kW	6680	7032	7384	7735
		10*kcal/h	574.5	604.8	635.0	665.2
Power input		kW	1031	1096	1180	1254
COP		W/W	6.481	6.416	6.260	6.169
IPLV		W/W	7.176	7.213	7.357	7.294
Motor configuration power		kW	1200	1320	1320	1450
Rated current		A	68.4	72.7	78.3	83.2
Max. operating current		A	75.24	79.97	86.13	91.52
Locked-rotor current		A	490.0	540.0	540.0	590.0
Evaporator	Water flow	m³/h	1032	1086	1141	1195
	Pressure drop	kPa	68.2	69.0	68.5	69.6
	Water pipe connection	mm	DN400	DN400	DN400	DN400
Condenser	Water flow	m³/h	1278	1347	1419	1490
	Pressure drop	kPa	76.8	79.5	79.5	79.7
	Water pipe connection	mm	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5290	5290	5290	5290
	Width	mm	3150	3150	3150	3150
	Height	mm	3180	3180	3180	3180
Shipping weight		kg	23590	23870	24120	24350
Running weight		kg	27490	27840	28076	28310

Notes:
1. Performance and efficiency are based on AHRI 550/590.
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 design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW***#. # is the production serial number and the actual product shall prevail.
4. 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.

Model		CCWE	2300H10	2400H10	2500H10	2600H10	2700H10	2800H10	2900H10	3000H10
Cooling capacity		RT	2300	2400	2500	2600	2700	2800	2900	3000
		kW	8087	8438	8790	9142	9493	9845	10196	10548
		10*kcal/h	695.5	725.8	756.0	786.2	816.5	846.7	877.0	907.2
Power input		kW	1243	1292	1340	1394	1446	1502	1558	1619
COP		W/W	6.508	6.533	6.558	6.558	6.564	6.553	6.547	6.513
IPLV		W/W	7.148	7.261	7.379	7.412	7.512	7.610	7.711	7.798
Motor configuration power		kW	1450	1600	1600	1600	1800	1800	1800	2000
Rated current		A	82.5	85.7	88.9	92.5	96.0	99.7	103.4	107.5
Max. operating current		A	90.75	94.27	97.79	101.2	105.6	109.7	113.74	118.25
Locked-rotor current		A	574.0	648.0	648.0	648.0	725.0	725.0	725.0	800.0
Evaporator	Water flow	m³/h	1249	1304	1358	1412	1467	1521	1575	1630
	Pressure drop	kPa	75.5	74.8	74.8	74.4	74.2	74.5	74.1	72.9
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Condenser	Water flow	m³/h	1547	1614	1680	1748	1815	1882	1949	2018
	Pressure drop	kPa	70.2	71.1	71.7	72.6	72.5	73.6	71.7	72.2
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Unit dimensions	Length	mm	5900	5900	5900	5900	5900	5900	5900	5900
	Width	mm	3360	3360	3360	3360	3360	3360	3360	3360
	Height	mm	3650	3650	3650	3650	3650	3650	3650	3650
Refrigerant charge		kg	2150	2200	2250	2300	2250	2400	2450	2500
Shipping weight (non-marine water box)		kg	27015	27215	27415	27605	27845	28035	28225	28500
Running weight (non-marine water box)		kg	34210	34580	34950	35310	35620	36080	36485	36930

Notes:
1. Performance and efficiency are based on AHRI 550/590.
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 design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW***#. # is the production serial number and the actual product shall prevail.
4. 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

High efficiency series

Model	CCWE	2300H11	2400H11	2500H11	2600H11	2700H11	2800H11	2900H11	3000H11
	RT	2300	2400	2500	2600	2700	2800	2900	3000
Cooling capacity									
	kW	8087	8438	8790	9142	9493	9845	10196	10548
	10*kcal/h	695.5	725.8	756.0	786.2	816.5	846.7	877.0	907.2
Power input	kW	1537	1602	1671	1744	1804	1870	1926	1998
COP	W/W	5.263	5.267	5.260	5.241	5.262	5.264	5.294	5.279
Motor configuration power	kW	1800	1800	1800	2000	2000	2000	2150	2150
Rated current	A	92.70	96.70	100.8	105.2	108.8	112.8	116.2	120.5
Max. operating current	A	97.34	101.5	105.8	110.5	114.2	118.4	122.0	126.5
Locked-rotor current	A	690.0	690.0	690.0	790.0	790.0	790.0	791.0	791.0
Evaporator	Water flow	m³/h	784.7	818.8	853.0	887.1	921.2	955.3	1024
	Pressure drop	kPa	32.5	32.2	32.2	32.0	31.9	31.9	31.3
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Condenser	Water flow	m³/h	1649	1720	1792	1865	1935	2007	2150
	Pressure drop	kPa	77.2	78.3	79.0	80.0	79.9	81.1	79.5
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Unit dimensions (non-marine water box)	Length	mm	5900	5900	5900	5900	5900	5900	5900
	Width	mm	3360	3360	3360	3360	3360	3360	3360
	Height	mm	3650	3650	3650	3650	3650	3650	3650
Shipping weight (non-marine water box)	kg	27015	27215	27415	27605	27845	28035	28225	28500
Running weight (non-marine water box)	kg	34210	34580	34950	35310	35720	36080	36485	36930

Notes:

1. The parameters in the above table are given according to the working conditions in the Middle East: chilled water inlet/outlet temperature 14.40/5.55°C, cooling water inlet/outlet temperature 34.40/39.40°C; the fouling factor on the chilled water side is 0.0176m²·°C/kW and the fouling factor on the cooling water side is 0.0440m²·°C/kW. Chilled water flow and cooling water flow are calculated based on operating conditions.

2. The design's max working pressure for both the evaporator and condenser are 1.0MPa but higher pressure can be customized if required.

3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.

4. 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.

Model (series counterflow)	CCWE	4600H11	4800H11	5000H11	5200H11
	RT	4600	4800	5000	5200
Total cooling capacity	/	Upstream unit	Downstream unit	Upstream unit	Downstream unit
Cooling capacity	RT	2415	2185	2520	2280
	kW	8491	7682	8860	8016
	10*kcal/h	730.3	660.7	762.0	689.4
Power input	kW	1571.9	1475.4	1636.3	1529.3
COP	W/W	5.308	5.331	5.328	5.349
Motor configuration power	kW	2000	2000	2000	2000
Rated current	A	94.80	89.00	98.70	92.30
Max. operating current	A	99.54	99.54	103.6	103.6
Locked-rotor current	A	790.0	790.0	790.0	790.0
Evaporator	Water flow	m³/h	1563	1563	1631
	Pressure drop	kPa	34.0	35.1	34.1
	Water pipe connection	mm	DN600	DN600	DN600
Condenser	Water flow	m³/h	2530	2530	2639
	Pressure drop	kPa	47.5	48.0	48.2
	Water pipe connection	mm	DN700	DN700	DN700
Unit dimensions (non-marine water box)	Length	mm	6100	6100	6100
	Width	mm	3360	3360	3360
	Height	mm	3650	3650	3650
Shipping weight (non-marine water box)	kg	27590	27590	27890	27990
Running weight (non-marine water box)	kg	35150	35150	35520	35890

Model (series counterflow)	CCWE	5400H11	5600H11	5800H11	6000H11
	RT	5400	5600	5800	6000
Total cooling capacity	/	Upstream unit	Downstream unit	Upstream unit	Downstream unit
Cooling capacity	RT	2835	2565	2940	2660
	kW	9968	9019	10337	9353
	10*kcal/h	857.3	775.6	889.0	804.4
Power input	kW	1827.3	1703.5	1901.2	1764.9
COP	W/W	5.377	5.371	5.363	5.343
Motor configuration power	kW	2150	2150	2150	2150
Rated current	A	110.2	102.8	114.7	106.5
Max. operating current	A	115.7	115.7	120.4	120.4
Locked-rotor current	A	791.0	791.0	791.0	791.0
Evaporator	Water flow	m³/h	1835	1835	1903
	Pressure drop	kPa	34.9	36.0	34.7
	Water pipe connection	mm	DN600	DN600	DN600
Condenser	Water flow	m³/h	2967	2967	3078
	Pressure drop	kPa	49.1	49.6	49.7
	Water pipe connection	mm	DN700	DN700	DN700
Unit dimensions (non-marine water box)	Length	mm	6100	6100	6100
	Width	mm	3360	3360	3360
	Height	mm	3650	3650	3650
Shipping weight (non-marine water box)	kg	28480	28480	28670	28860
Running weight (non-marine water box)	kg	36760	36760	37120	37530

Notes:

1. The parameters in the above table are given according to the working conditions in the Middle East: chilled water inlet/outlet temperature 13.30/4.44°C, cooling water inlet/outlet temperature 35/41.5°C; the fouling factor on the chilled water side is 0.0176m²·°C/kW and the fouling factor on the cooling water side is 0.0440m²·°C/kW. Chilled water flow and cooling water flow are calculated based on operating conditions.

2. The design's max working pressure for both the evaporator and condenser are 1.0MPa but higher pressure can be customized if required.

3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.

4. 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.

5. Cooling capacity lager than 3000RT is beyond the scope of AHRI certification.

Specifications

Super high efficiency series

Model		CCWE	500E	550E	600E	650E	700E	750E	800E
Cooling capacity	RT	500.0	550.0	600.0	650.0	700.0	750.0	800.0	
	kW	1758	1934	2110	2285	2461	2637	2813	
	10*kcal/h	151.2	166.3	181.4	196.5	211.7	226.8	241.9	
Power input	kW	284.6	311.7	336.0	363.4	392.6	418.6	443.9	
COP	W/W	6.178	6.205	6.279	6.288	6.269	6.300	6.337	
IPLV	W/W	6.833	6.834	6.890	6.918	6.954	7.233	7.250	
Motor configuration power	kW	490.0	490.0	490.0	490.0	490.0	490.0	560.0	
Rated current	A	494.1	541.2	583.4	631.1	681.7	726.8	770.8	
Max. operating current	A	557.2	611.0	656.9	706.8	764.1	816.0	862.2	
Locked-rotor current	A	4700	4700	4700	4700	4700	4700	5400	
Evaporator	Water flow	m³/h	271.6	298.8	325.9	353.1	380.3	407.4	434.6
	Pressure drop	kPa	70.0	72.1	73.0	76.8	46.7	49.0	48.9
	Water pipe connection	mm	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Condenser	Water flow	m³/h	337.3	371.0	404.2	437.9	471.8	505.2	538.8
	Pressure drop	kPa	67.4	70.5	69.6	70.5	59.0	59.1	58.6
	Water pipe connection	mm	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Unit dimensions	Length	mm	5020	5020	5020	5020	5020	5020	5020
	Width	mm	1800	1800	1800	1800	2100	2100	2100
	Height	mm	2410	2410	2410	2410	2510	2510	2510
Shipping weight	kg	10400	10550	10700	10820	12260	12460	12580	
Running weight	kg	12340	12490	12640	12760	14479	14740	14989	

Model		CCWE	850E	900E	950E	1000E	1100E	1200E	1300E
Cooling capacity	RT	850.0	900.0	950.0	1000	1100	1200	1300	
	kW	2989	3164	3340	3516	3868	4219	4571	
	10*kcal/h	257.0	272.1	287.3	302.4	332.6	362.9	393.1	
Power input	kW	470.9	501.0	522.8	552.0	608.3	661.1	715.1	
COP	W/W	6.346	6.316	6.389	6.369	6.358	6.382	6.392	
IPLV	W/W	7.293	7.361	7.148	7.165	7.110	7.182	7.181	
Motor configuration power	kW	560.0	630.0	630.0	630.0	695.0	760.0	840.0	
Rated current	A	817.7	870.0	907.9	958.5	1056	1148	1242	
Max. operating current	A	922.0	971.8	1010.4	1068	1176	1280	1381	
Locked-rotor current	A	5400	6100	6100	6100	6800	7400	9200	
Evaporator	Water flow	m³/h	461.7	488.9	516.1	543.2	597.5	651.9	706.2
	Pressure drop	kPa	51.2	52.6	50.4	52.1	52.3	52.1	60.1
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Condenser	Water flow	m³/h	572.3	606.7	639.5	673.4	741.1	808.1	875.0
	Pressure drop	kPa	55.7	61.9	57.4	61.5	57.3	55.0	63.5
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Unit dimensions	Length	mm	5020	5020	5045	5045	5045	5045	5045
	Width	mm	2100	2100	2260	2260	2260	2260	2260
	Height	mm	2510	2510	2610	2610	2610	2610	2610
Shipping weight	kg	12720	12850	13560	13730	13950	14250	14250	
Running weight	kg	15207	15395	16372	16636	17023	17446	17446	

Notes:
1. Performance and efficiency are based on AHRI 550/590.
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 design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. 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.

Model		CCWE	1400E10	1500E10	1600E10	1700E10	1800E10
Cooling capacity	RT	1400	1500	1600	1700	1800	
	kW	4922	5274	5626	5977	6329	
	10*kcal/h	423.3	453.6	483.8	514.0	544.3	
Power input	kW	764.2	809.8	859.0	923.3	946.5	
COP	W/W	6.441	6.513	6.549	6.474	6.686	
IPLV	W/W	6.883	7.115	7.257	7.346	7.263	
Motor configuration power	kW	930.0	990.0	990.0	1100	1100	
Rated current	A	50.7	53.7	57.0	61.3	62.8	
Max. operating current	A	55.70	59.07	62.70	67.43	69.08	
Locked-rotor current	A	380.0	405.0	405.0	450.0	450.0	
Evaporator	Water flow	m³/h	760.5	814.8	869.1	923.5	977.8
	Pressure drop	kPa	60.3	62.5	62.7	59.9	44.2
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400
Condenser	Water flow	m³/h	941.9	1008	1074	1143	1206
	Pressure drop	kPa	69.9	70.2	70.8	72.6	52.7
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5690	5690	5690	5690	5790
	Width	mm	2700	2700	2700	2700	3150
	Height	mm	3010	3010	3010	3010	3180
Shipping weight	kg	22324	22515	24030	24817	25312	
Running weight	kg	25944	26055	27640	28727	28992	

Model		CCWE	1900E10	2000E10	2100E10	2200E10
Cooling capacity	RT	1900	2000	2100	2200	
	kW	6680	7032	7384	7735	
	10*kcal/h	574.5	604.8	635.0	665.2	
Power input	kW	997.0	1060	1136	1222	
COP	W/W	6.701	6.633	6.498	6.332	
IPLV	W/W	7.405	7.482	7.613	7.656	
Motor configuration power	kW	1200	1320	1320	1450	
Rated current	A	66.2	70.4	75.4	81.1	
Max. operating current	A	72.82	77.44	82.94	89.21	
Locked-rotor current	A	490.0	540.0	540.0	590.0	
Evaporator	Water flow	m³/h	1032	1086	1141	1195
	Pressure drop	kPa	45.3	45.3	44.9	48.9
	Water pipe connection	mm	DN400	DN400	DN400	DN400
Condenser	Water flow	m³/h	1273	1342	1412	1485
	Pressure drop	kPa	53.8	53.3	54.4	59.6
	Water pipe connection	mm	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5790	5790	5790	5790
	Width	mm	3150	3150	3150	3150
	Height	mm	3180	3180	3180	3180
Shipping weight	kg	25543	25949	26250	26314	
Running weight	kg	29443	30019	30306	30374	

Notes:
1. Performance and efficiency are based on AHRI 550/590.
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 design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. 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

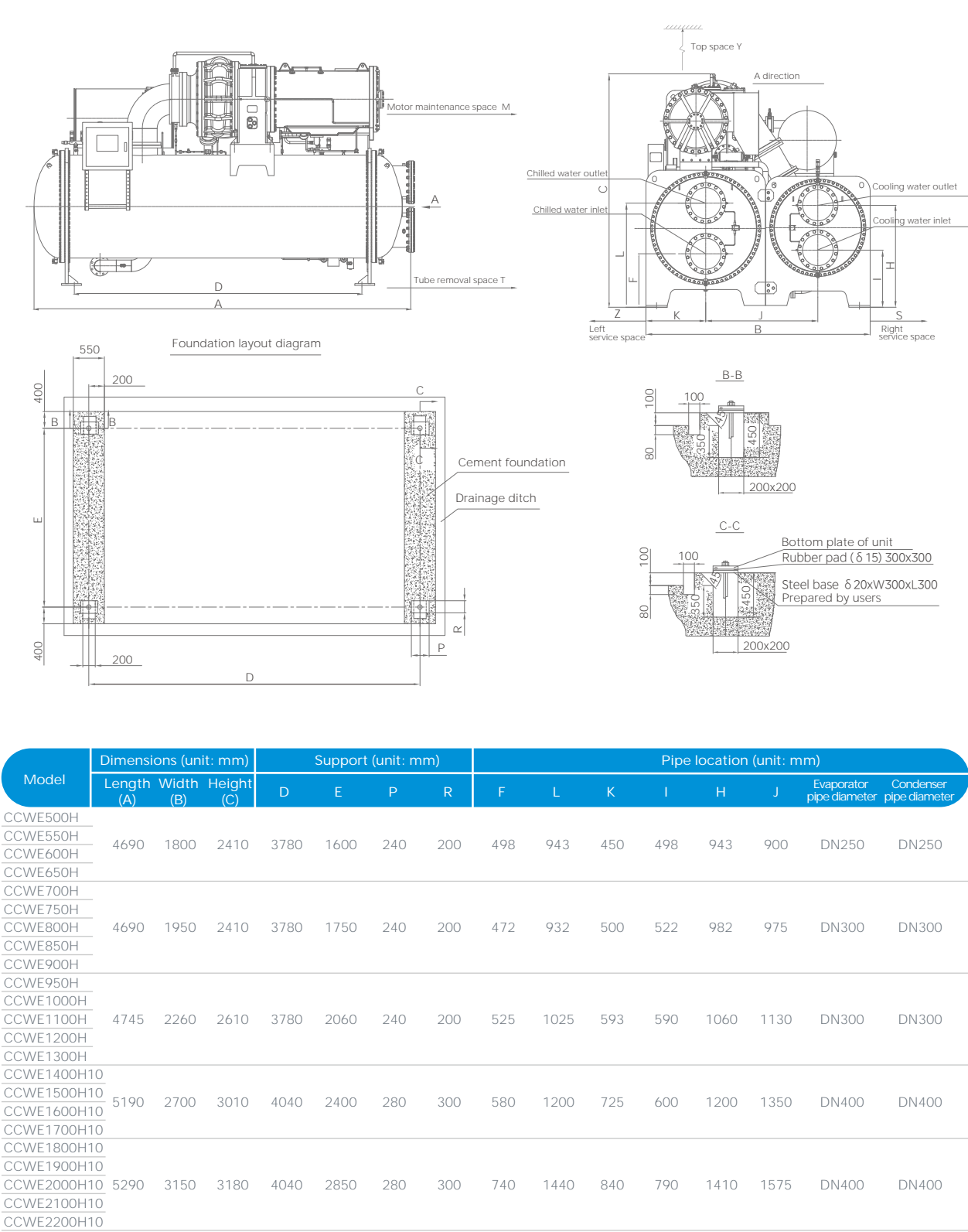
Super high efficiency series

Model		CCWE	2300E10	2400E10	2500E10	2600E10	2700E10	2800E10	2900E10	3000E10
Cooling capacity	RT		2300	2400	2500	2600	2700	2800	2900	3000
	kW		8087	8438	8790	9142	9493	9845	10196	10548
	10 ⁴ kcal/h		695.5	725.8	756.0	786.2	816.5	846.7	877.0	907.2
Power input	kW		1227	1275	1323	1375	1424	1481	1535	1597
COP	W/W		6.592	6.618	6.643	6.648	6.668	6.650	6.641	6.605
IPLV	W/W		7.208	7.321	7.439	7.479	7.660	7.678	7.775	7.863
Motor configuration power		kW	1450	1600	1600	1600	1800	1800	1800	2000
Rated current		A	81.4	84.6	87.8	91.3	94.5	98.3	101.9	106.0
Max. operating current		A	89.54	93.06	96.58	100.43	103.95	108.13	112.09	116.6
Locked-rotor current		A	574.0	648.0	648.0	648.0	725.0	725.0	725.0	800.0
Evaporator	Water flow	m ³ /h	1249	1304	1358	1412	1467	1521	1575	1630
	Pressure drop	kPa	59.8	60.1	60.8	61.0	60.3	60.8	60.1	60.6
Condenser	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500	DN500
	Water flow	m ³ /h	1544	1611	1677	1745	1811	1879	1946	2014
Unit dimensions	Pressure drop	kPa	58.0	58.4	59.7	58.5	59.3	56.1	56.3	57.3
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Shipping weight (non-marine water box)	Length	mm	5900	5900	5900	5900	5900	5900	5900	5900
	Width	mm	3360	3360	3360	3360	3360	3360	3360	3360
	Height	mm	3650	3650	3650	3650	3650	3650	3650	3650
Running weight (non-marine water box)		kg	27605	27845	28035	28225	28500	30600	30700	30900
Running weight (non-marine water box)		kg	35310	35620	36080	36485	36930	38760	38970	39340

Notes:
1. Performance and efficiency are based on AHRI 550/590.
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 design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. 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

High efficiency series



Model	Dimensions (unit: mm)			Support (unit: mm)				Pipe location (unit: mm)							
	Length (A)	Width (B)	Height (C)	D	E	P	R	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter
CCWE500H CCWE550H CCWE600H CCWE650H CCWE700H CCWE750H CCWE800H CCWE850H CCWE900H CCWE950H CCWE1000H CCWE1100H CCWE1200H CCWE1300H CCWE1400H10 CCWE1500H10 CCWE1600H10 CCWE1700H10 CCWE1800H10 CCWE1900H10 CCWE2000H10 CCWE2100H10 CCWE2200H10	4690 4690 4690 4690 4690 4690 4690 4690 4690 4690 4690 4745 4745 4745 4745 5190 5190 5190 5190 5190 5190 5190 5290 5290 5290 5290	1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 2260 2260 2260 2260 2700 2700 2700 2700 2700 2700 2700 3150 3150 3150 3150	2410 2410 2410 2410 2410 2410 2410 2410 2410 2410 2410 2610 2610 2610 2610 3010 3010 3010 3010 3010 3010 3010 3180 3180 3180 3180	3780 3780 3780 3780 3780 3780 3780 3780 3780 3780 3780 3780 3780 3780 4040 4040 4040 4040 4040 4040 4040 4040 4040 4040 4040 4040	1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 2060 2060 2060 2060 2400 2400 2400 2400 2400 2400 2400 2850 2850 2850 2850	240 240 240 240 240 240 240 240 240 240 240 240 240 240 280 280 280 280 280 280 280 280 280 280 280 280	200 200 200 200 200 200 200 200 200 200 200 200 200 200 300 300 300 300 300 300 300 300 300 300 300 300	498 498 498 498 498 498 498 498 498 498 498 525 525 525 525 580 580 580 580 580 580 580 740 740 740 740	943 943 943 943 943 943 943 943 943 943 943 1025 1025 1025 1025 1200 1200 1200 1200 1200 1200 1200 1440 1440 1440 1440	450 450 450 450 450 450 450 450 450 450 450 593 593 593 593 725 725 725 725 725 725 725 840 840 840 840	498 498 498 498 498 498 498 498 498 498 498 590 590 590 590 600 600 600 600 600 600 600 790 790 790 790	943 943 943 943 943 943 943 943 943 943 943 1060 1060 1060 1060 1200 1200 1200 1200 1200 1200 1200 1410 1410 1410 1410	900 900 900 900 900 900 900 900 900 900 900 1130 1130 1130 1130 1350 1350 1350 1350 1350 1350 1350 1575 1575 1575 1575	DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN300 DN300 DN300 DN300 DN400 DN400 DN400 DN400 DN400 DN400 DN400 DN400 DN400 DN400 DN400	DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN250 DN300 DN300 DN300 DN300 DN400 DN400 DN400 DN400 DN400 DN400 DN400 DN400 DN400 DN400 DN400

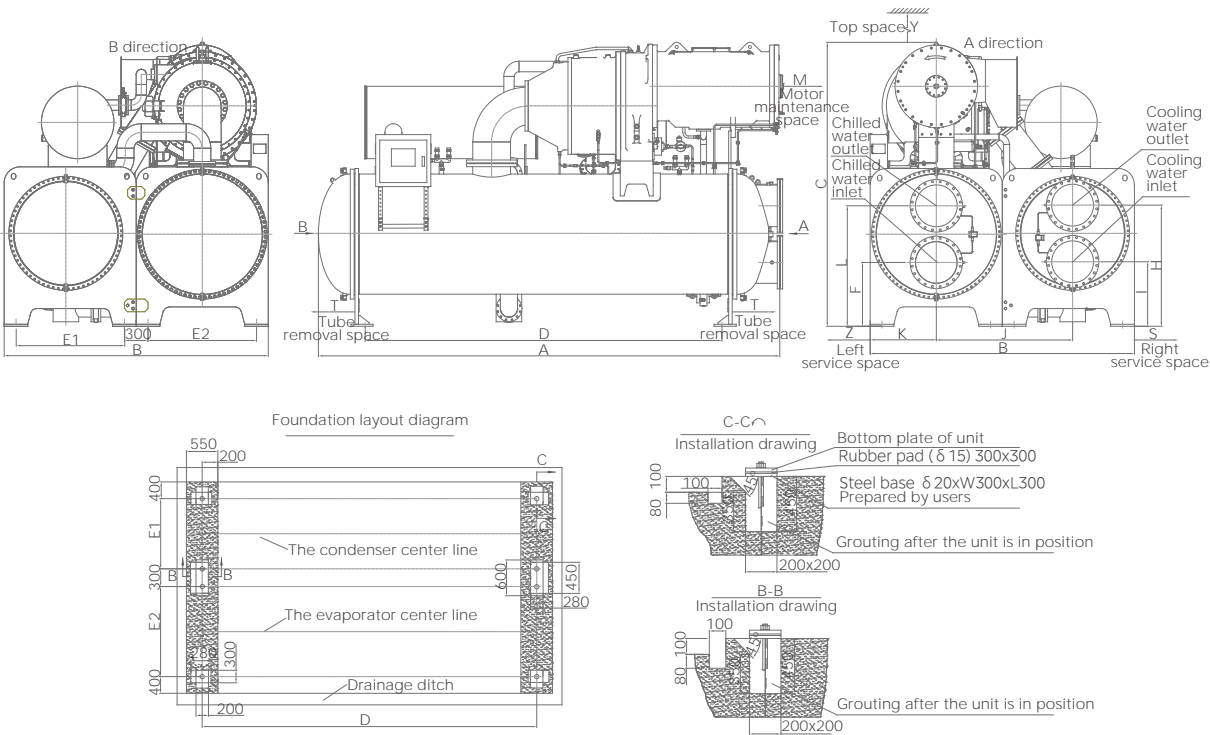
Model	Maintenance space (mm)				
	M	T	Y	Z	S
CCWE500H-CCWE1300H	1500	4200	1300	1300	1000
CCWE1400H10-CCWE2200H10	1600	4500	1300	1800	1000

T: Tube removal space for either end.

Dimensions

High efficiency series

CCWE2300H10~CCWE3000H10 (non-marine water box)
CCWE2300H11~CCWE3000H11 (non-marine water box)

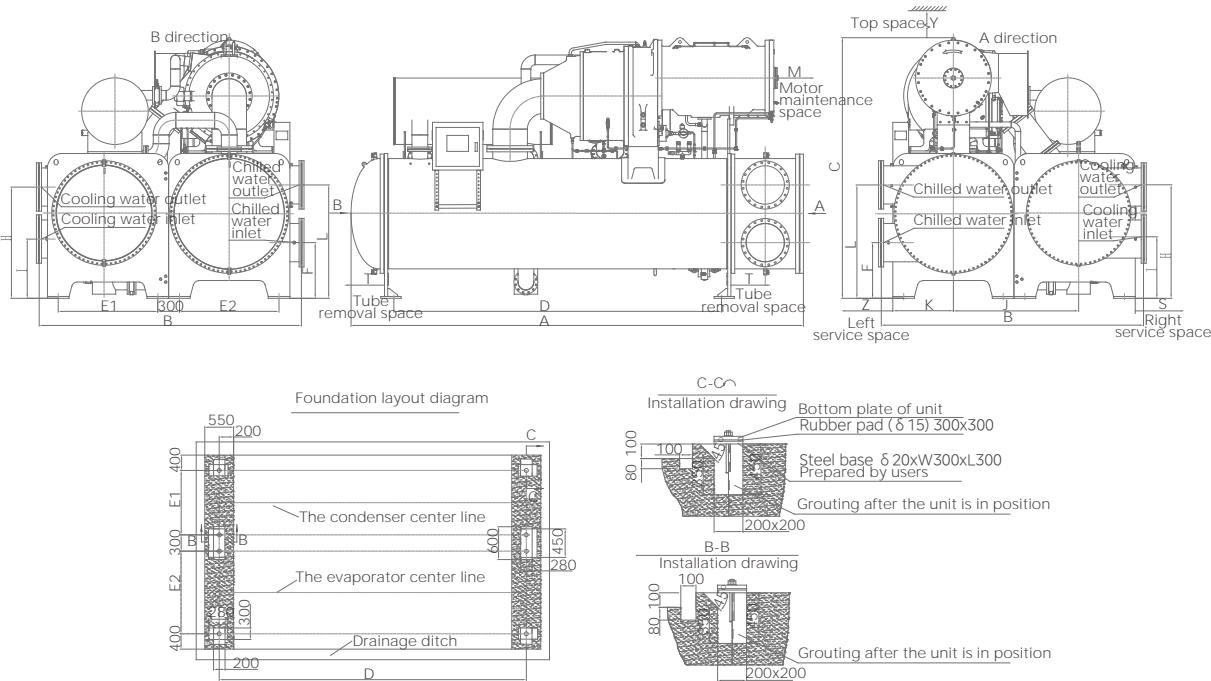


Model	Dimensions (unit: mm)			Support (unit: mm)			Pipe location (unit: mm)							
	Length (A)	Width (B)	Height (C)	D	E1	E2	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter
CCWE2300H10														
CCWE2300H11														
CCWE2400H10														
CCWE2400H11														
CCWE2500H10														
CCWE2500H11														
CCWE2600H10														
CCWE2600H11	5900	3360	3650	4540	1380	1380	820	1520	840	830	1530	1735	DN500	DN500
CCWE2700H10														
CCWE2700H11														
CCWE2800H10														
CCWE2800H11														
CCWE2900H10														
CCWE2900H11														
CCWE3000H10														
CCWE3000H11														

Model	Maintenance space (mm)				
	M	T	Y	Z	S
CCWE2300H10~CCWE3000H10					
CCWE2300H11~CCWE3000H11	2000	5000	1600	2000	1000

T: Tube removal space for either end.

CCWE2300H11~CCWE3000H11 (marine water box)



Model	Dimensions (unit: mm)			Support (unit: mm)			Pipe location (unit: mm)							
	Length (A)	Width (B)	Height (C)	D	E1	E2	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter
CCWE2300H11														
CCWE2400H11														
CCWE2500H11														
CCWE2600H11	6300	3650	3650	4540	1380	1380	810	1530	840	820	1540	1735	DN500	DN500
CCWE2700H11														
CCWE2800H11														
CCWE2900H11														
CCWE3000H11														

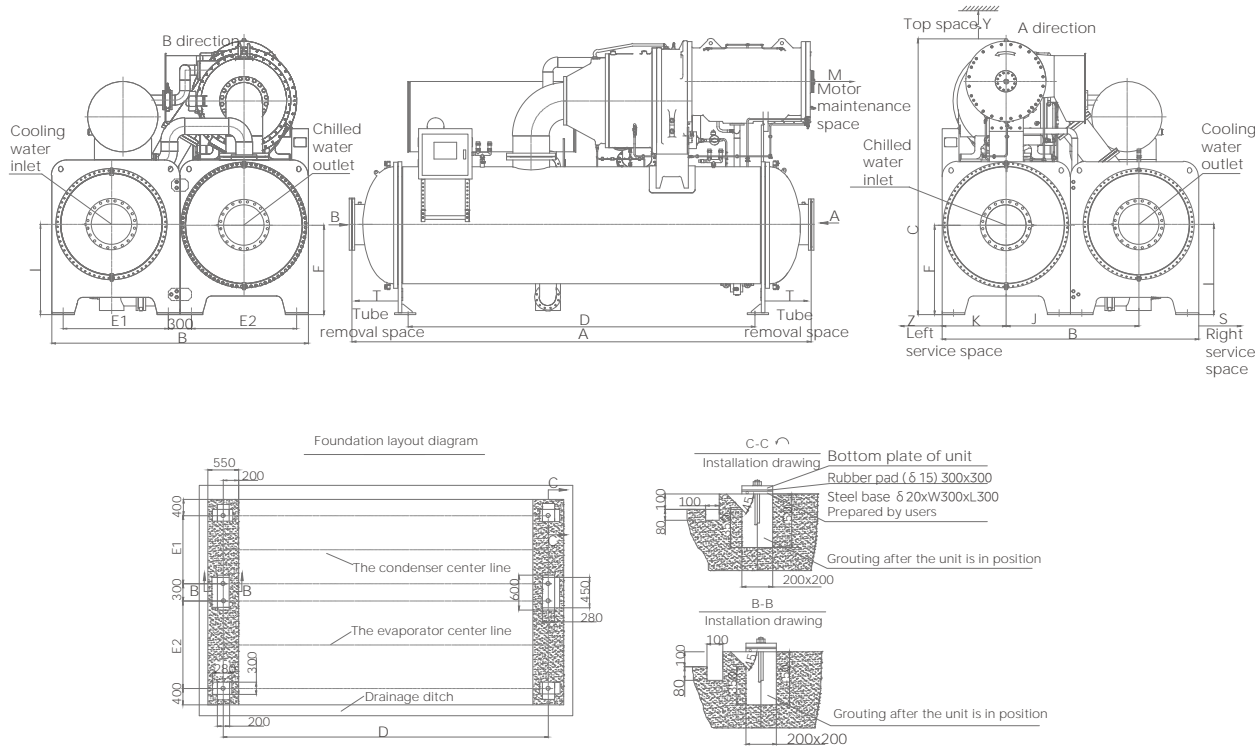
Model	Maintenance space (mm)				
	M	T	Y	Z	S
CCWE2300H11~CCWE3000H11	2000	5000	1600	2000	1000

T: Tube removal space for either end.

Dimensions

High efficiency series

Series counterflow (non-marine water box)

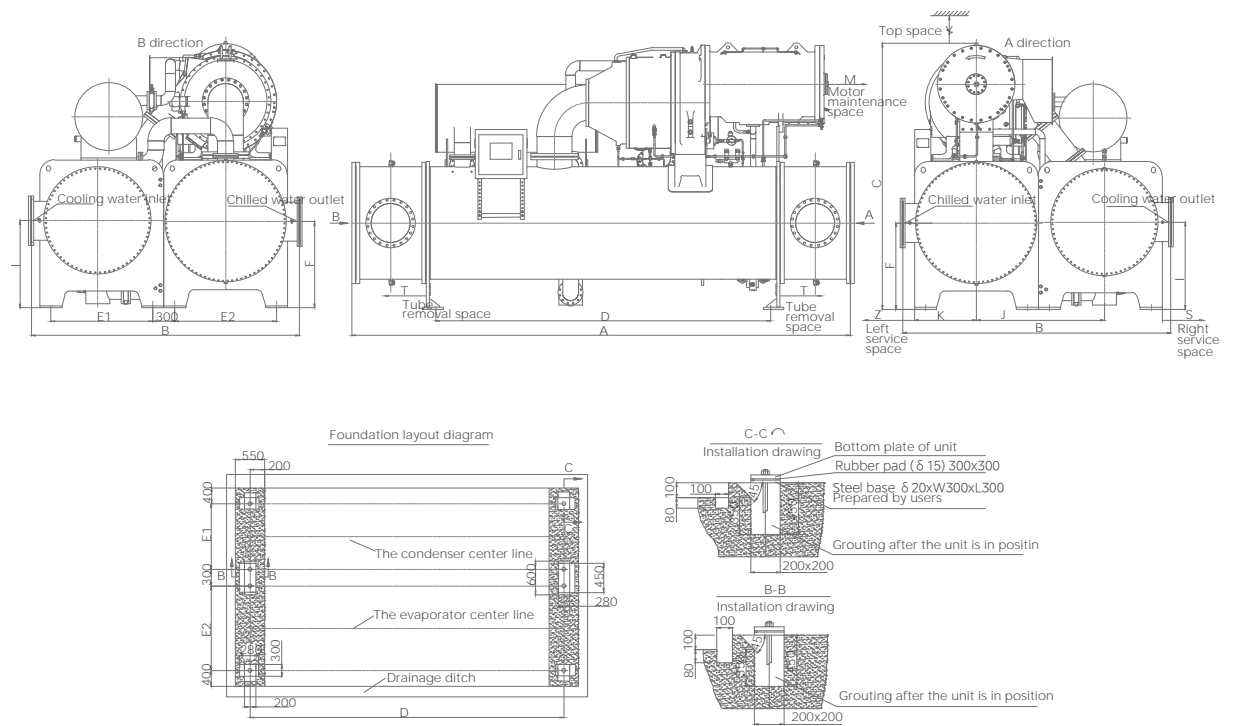


Model	Dimensions (unit: mm)			Support (unit: mm)			Pipe location (unit: mm)									
	Length (A)	Width (B)	Height (C)	D	E1	E2	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter		
CCWE2300H11 Upstream unit/ Downstream unit																
CCWE2400H11 Upstream unit/ Downstream unit																
CCWE2500H11 Upstream unit/ Downstream unit																
CCWE2600H11 Upstream unit/ Downstream unit																
CCWE2700H11 Upstream unit/ Downstream unit	6100	3360	3650	4540	1380	1380	1170	/	840	1180	/	1735	DN600	DN700		
CCWE2800H11 Upstream unit/ Downstream unit																
CCWE2900H11 Upstream unit/ Downstream unit																
CCWE3000H11 Upstream unit/ Downstream unit																

Model	Maintenance space (mm)				
	M	T	Y	Z	S
CCWE2300H11~CCWE3000H11 Upstream unit/ Downstream unit	2000	5000	1600	2000	1000

T: Tube removal space for either end.

Series counterflow (marine water box)



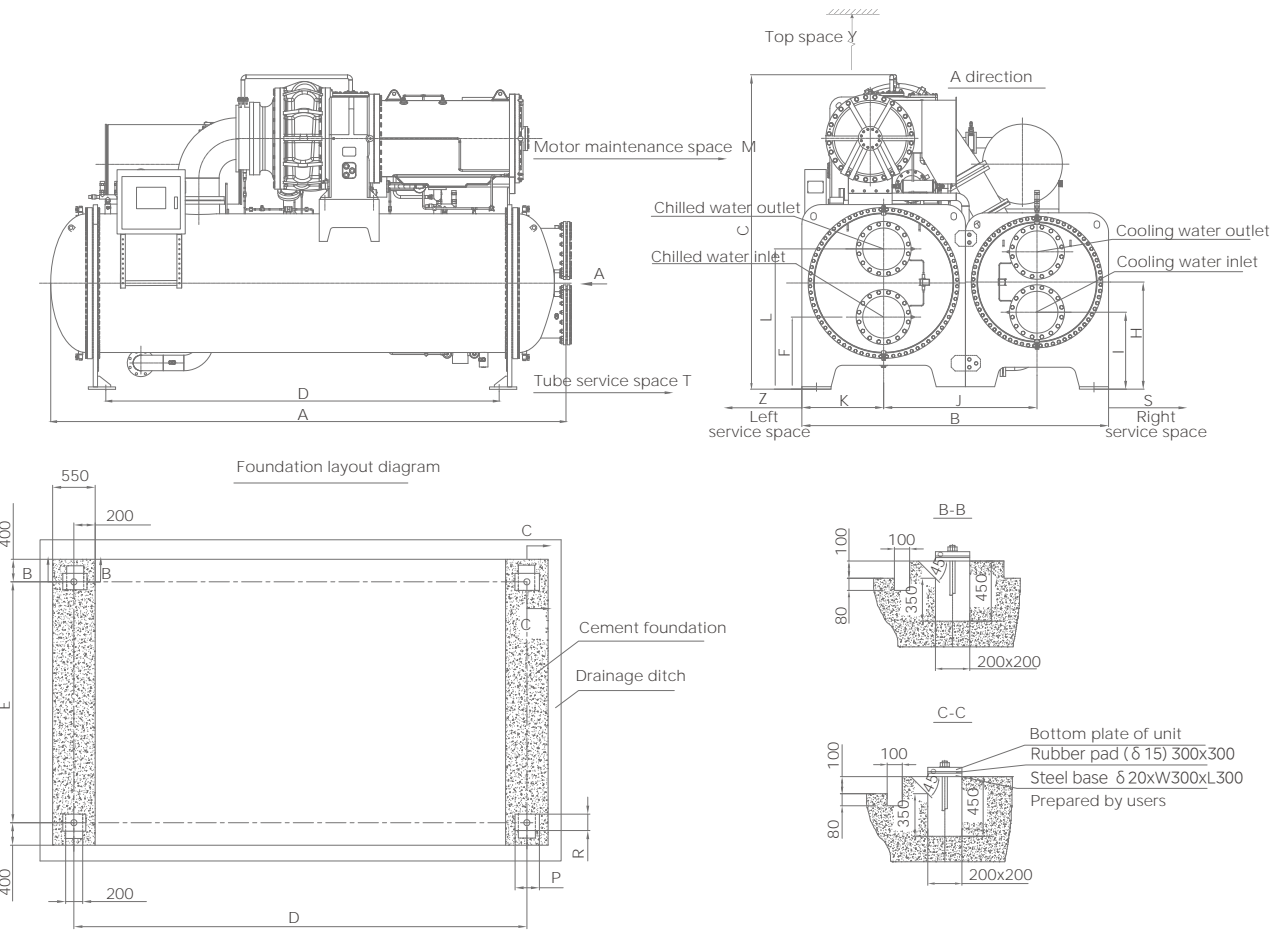
Model	Dimensions (unit: mm)			Support (unit: mm)			Pipe location (unit: mm)									
	Length (A)	Width (B)	Height (C)	D	E1	E2	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter		
CCWE2300H11 Upstream unit/ Downstream unit																
CCWE2400H11 Upstream unit/ Downstream unit																
CCWE2500H11 Upstream unit/ Downstream unit																
CCWE2600H11 Upstream unit/ Downstream unit																
CCWE2700H11 Upstream unit/ Downstream unit	7000	3650	3650	4540	1380	1380	1170	/	840	1180	/	1735	DN600	DN700		
CCWE2800H11 Upstream unit/ Downstream unit																
CCWE2900H11 Upstream unit/ Downstream unit																
CCWE3000H11 Upstream unit/ Downstream unit																

Model	Maintenance space (mm)				
	M	T	Y	Z	S
CCWE2300H11~CCWE3000H11 Upstream unit/ Downstream unit	2000	5000	1600	2000	1000

T: Tube removal space for either end.

Dimensions

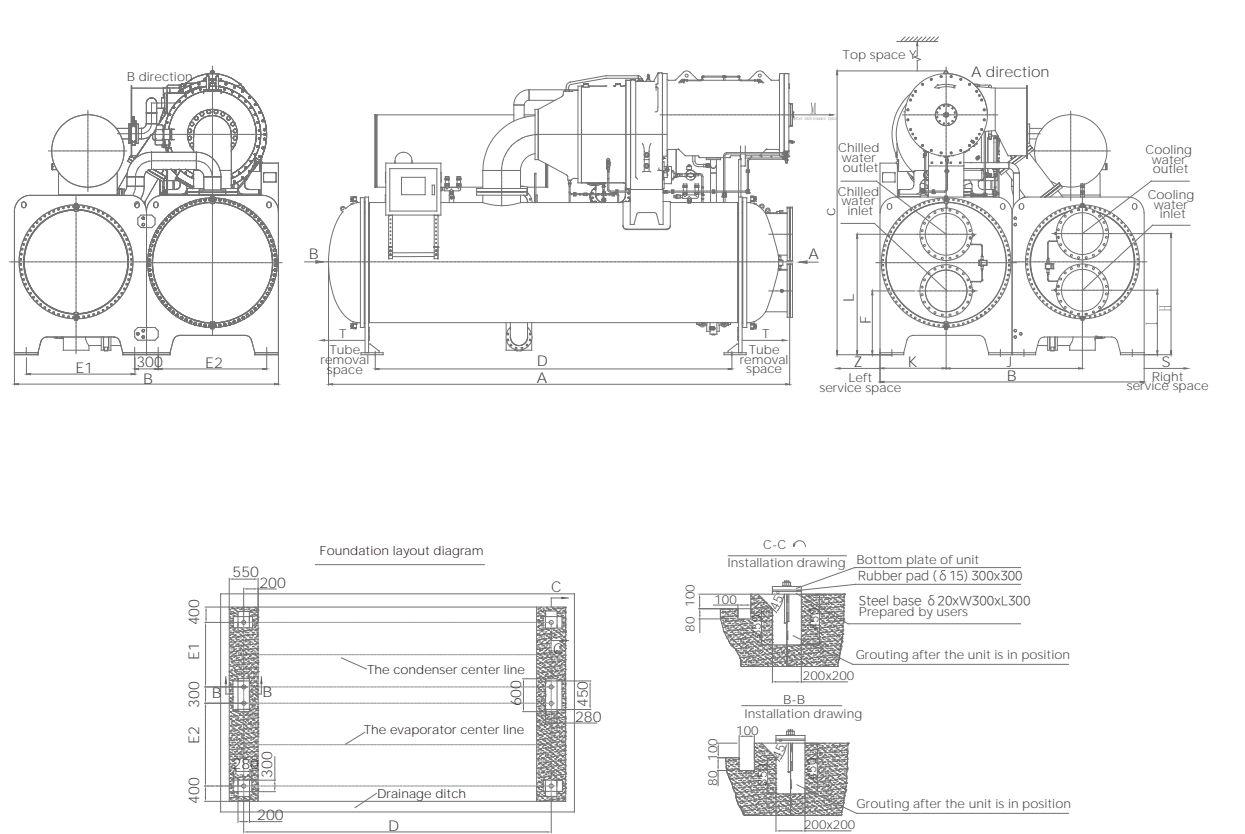
Super high efficiency series



Model	Dimensions (unit: mm)			Support (unit: mm)				Pipe locate position (unit: mm)							
	Length (A)	Width (B)	Height (C)	D	E	P	R	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter
CCWE500E	5020	1800	2410	4080	1600	240	200	518	963	450	518	963	900	DN250	DN250
CCWE550E															
CCWE600E															
CCWE650E															
CCWE700E															
CCWE750E	5020	2100	2510	4080	1900	240	200	550	1020	550	605	1065	1050	DN300	DN300
CCWE800E															
CCWE850E															
CCWE900E															
CCWE950E															
CCWE1000E	5045	2260	2610	4080	2060	240	200	565	1065	593	630	1100	1130	DN300	DN300
CCWE1100E															
CCWE1200E															
CCWE1300E															
CCWE1400E10															
CCWE1500E10	5690	2800	3010	4540	2400	280	300	580	1200	725	650	1250	1350	DN400	DN400
CCWE1600E10															
CCWE1700E10															
CCWE1800E10															
CCWE1900E10															
CCWE2000E10	5790	3150	3180	4540	2850	280	300	740	1440	840	790	1410	1575	DN400	DN400
CCWE2100E10															
CCWE2200E10															

Model	Maintenance space (mm)				
	M	T	Y	Z	S
CCWE500E~CCWE1300E	1500	4200	1300	1300	1000
CCWE1400E10~CCWE2200E10	1600	4500	1300	1800	1000

T: Tube removal space for either end.



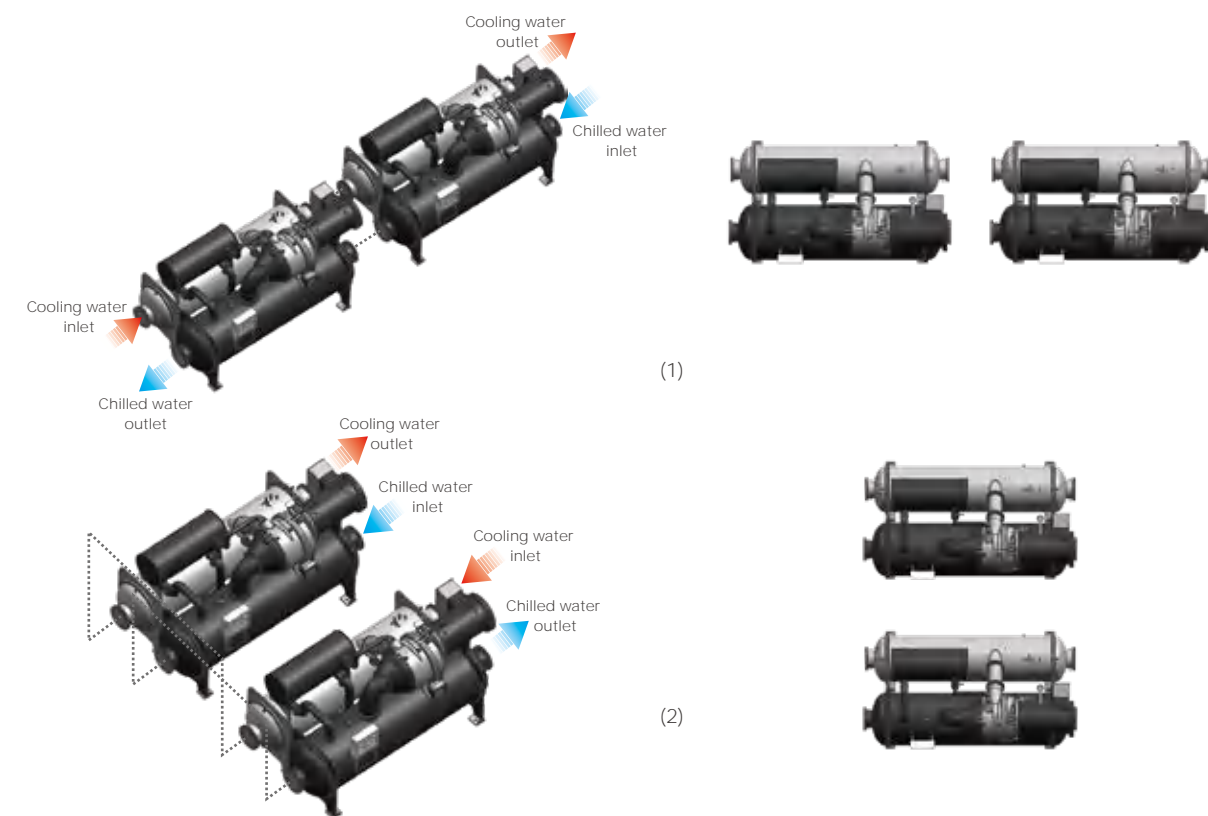
Model	Dimensions (unit: mm)			Support (unit: mm)			Pipe locate position (unit: mm)							
	Length (A)	Width (B)	Height (C)	D	E1	E2	F	L	K	I	H	J	Evaporator pipe diameter	Condenser pipe diameter
CCWE2300E10	5900	3360	3650	4540	1380	1380	820	1520	840	830	1530	1735	DN500	DN500
CCWE2400E10														
CCWE2500E10														
CCWE2600E10														
CCWE2700E10														
CCWE2800E10	5900	3360	3650	4540	1380	1380	820	1520	840	830	1530	1735	DN500	DN500
CCWE2900E10														
CCWE3000E10														

Model	Maintenance space (mm)				
	M	T	Y	Z	S
CCWE2300E10~CCWE3000E10	2000	5000	1600	2000	1000

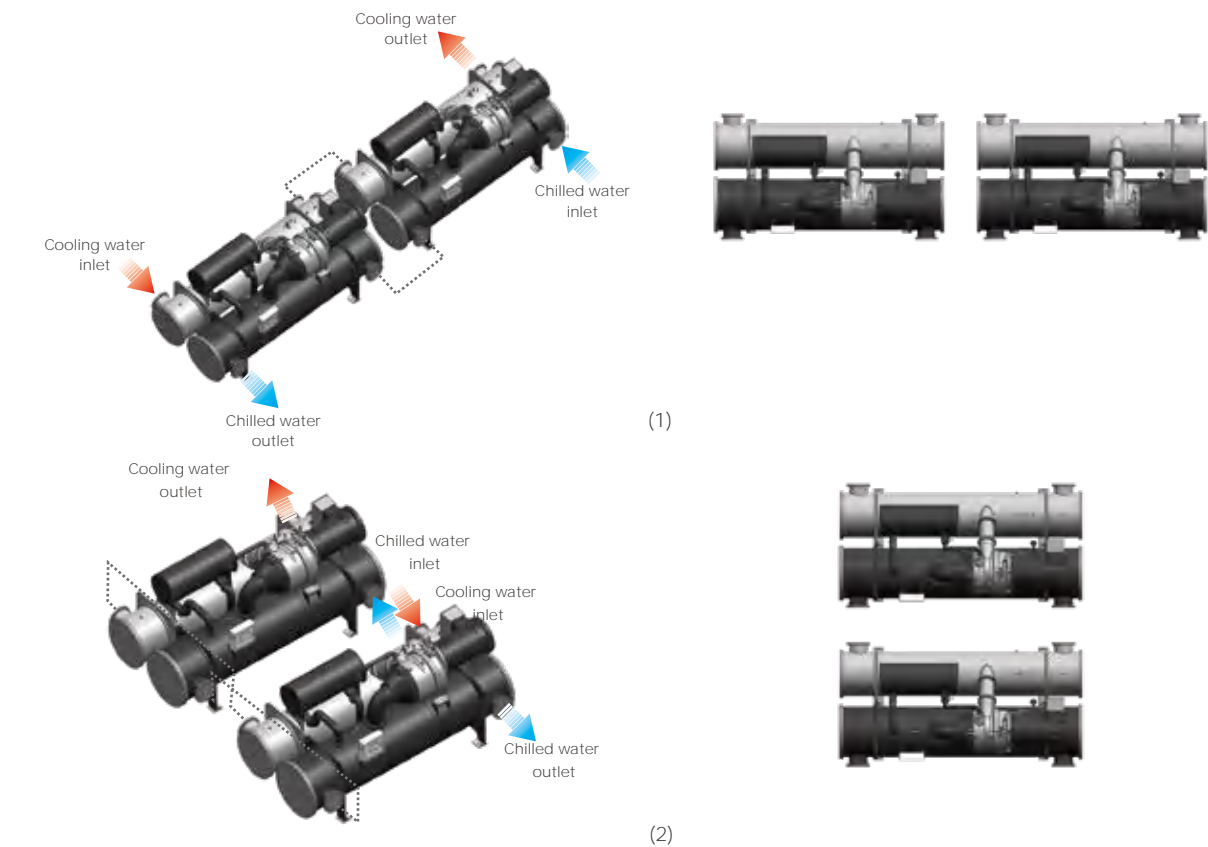
T: Tube removal space for either end.

Series Counterflow Layout Diagram

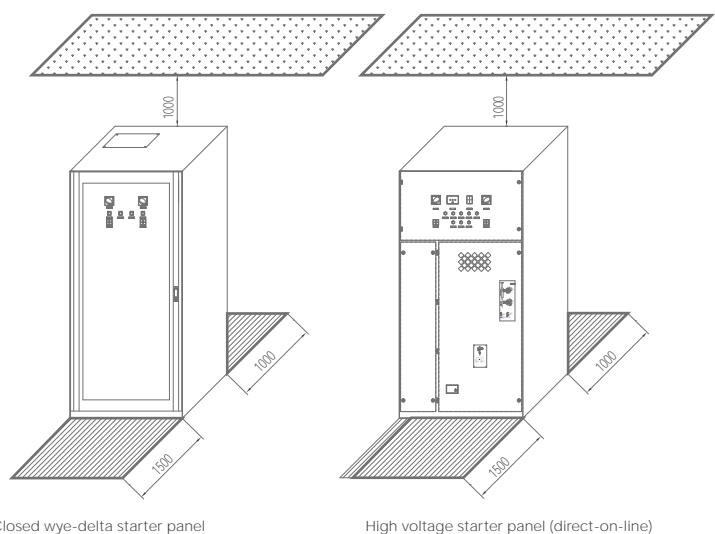
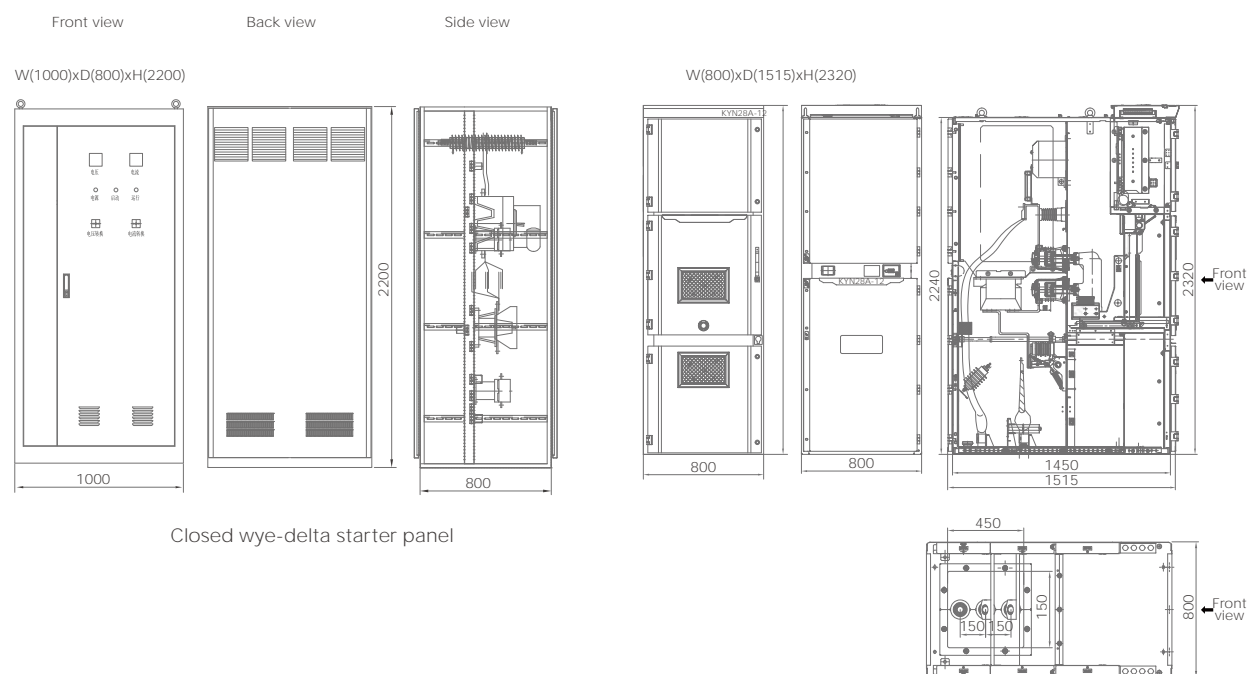
Non-marine water box



Marine water box



Starter Panel Dimensions



Starter panel space layout

Options

Items	Standard	Optional
Power supply (500RT-1300RT)	380V-3Ph-50Hz	50Hz: 400V, 415V, 440V, 460V, 3kV, 3.3kV, 4.16kV, 6kV, 6.6kV, 10kV, 11kV 60Hz: 380V, 400V, 415V, 440V, 460V, 3kV, 3.3kV, 4.16kV, 6kV, 6.6kV, 10kV, 11kV
Power supply (1400RT-2200RT)	10kV-3Ph-50Hz	50Hz: 3kV, 3.3kV, 4.16kV, 6kV, 6.6kV, 11kV
Power supply (2300RT-3000RT)	11kV-3Ph-50Hz	3kV, 3.3kV, 4.16kV, 6kV, 6.6kV, 10kV
Chiller starter (500RT-1300RT)	Wye-delta	VFD, Solid soft starter, Direct-on-line (DOL) for high voltage (3kV-11kV)
Chiller starter (1400RT-3000RT)	Direct-on-line (DOL)	VFD, soft starter, auto transformer
High pressure water box	1.0MPa	1.6MPa, 2.0MPa
Marine water box	×	Marine
Insulation	20mm	40mm
Anti-vibration	Rubber pad	Spring isolator
Refrigerant isolation valve	×	✓
Vessel code	GB	ASME, PED
Heat recovery	×	✓
Chilled water Delta T	5°C	6°C-11°C
Centrifugal heat pump	×	Hot water temperature up to 60°C
Water storage or ice storage	×	✓
Hot gas bypass	×	✓
Communication protocol	Modbus-RTU (RS485 port)	BACnet IP, BACnet MS/TP (RJ-45 port)
Flow switch	Differential pressure	×
Knockdown shipment	×	✓
Midea Smart Cloud platform	×	✓
QuickView	×	✓
Midea Intelligent Chiller Plant Management (ICPM)	×	✓
Tube automatic cleaning system	×	✓
Witness performance testing	×	✓

Note: For other options, please contact with our engineers.

Operating and Control System

Colorful touch screen

Our centrifugal chillers utilize a sophisticated operating and control system that includes multiple control and monitoring functions including intelligent operations, safety protection and interlocking control to ensure reliable starting, high-efficiency operations and internal control of the chiller.



Interface display

- 10-inch full-color graphic display interface
- Full touch screen operation
- Visual display of unit operating status
- Multi-level password protection
- Unit operation data display
- Pre-alarm/alarm display and recording
- Operation log display



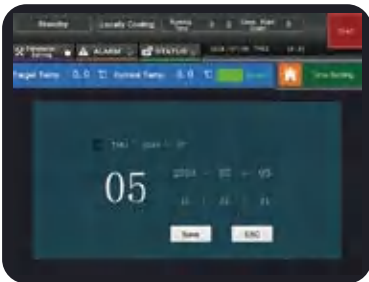
Operation control

- Freely select the inlet/outlet water control mode
- Target temperature settings
- Auto loading/unloading and soft loading
- Automatic optimization control function
- Quick start and startup after power restoration (optional)
- Independent start/stop function
- Remote and timed power-on/off functions
- Detailed unit status query



Interlocking control

- Frequency and guide vane control
- Water system bypass control
- Chilled water and cooling water pump interlocking control
- Cooling tower fan interlocking control
- Reserved upper computer interface control
- Reserved alarm interlocking control
- Pre-startup safety interlocking control



Safety protection

- Compressor current protection
- Anti-surge Protection
- Condensing pressure high/too high protection
- Evaporation pressure low/too low protection
- Water outage protection
- Operating anti-freeze protection
- VFD panel fault protection

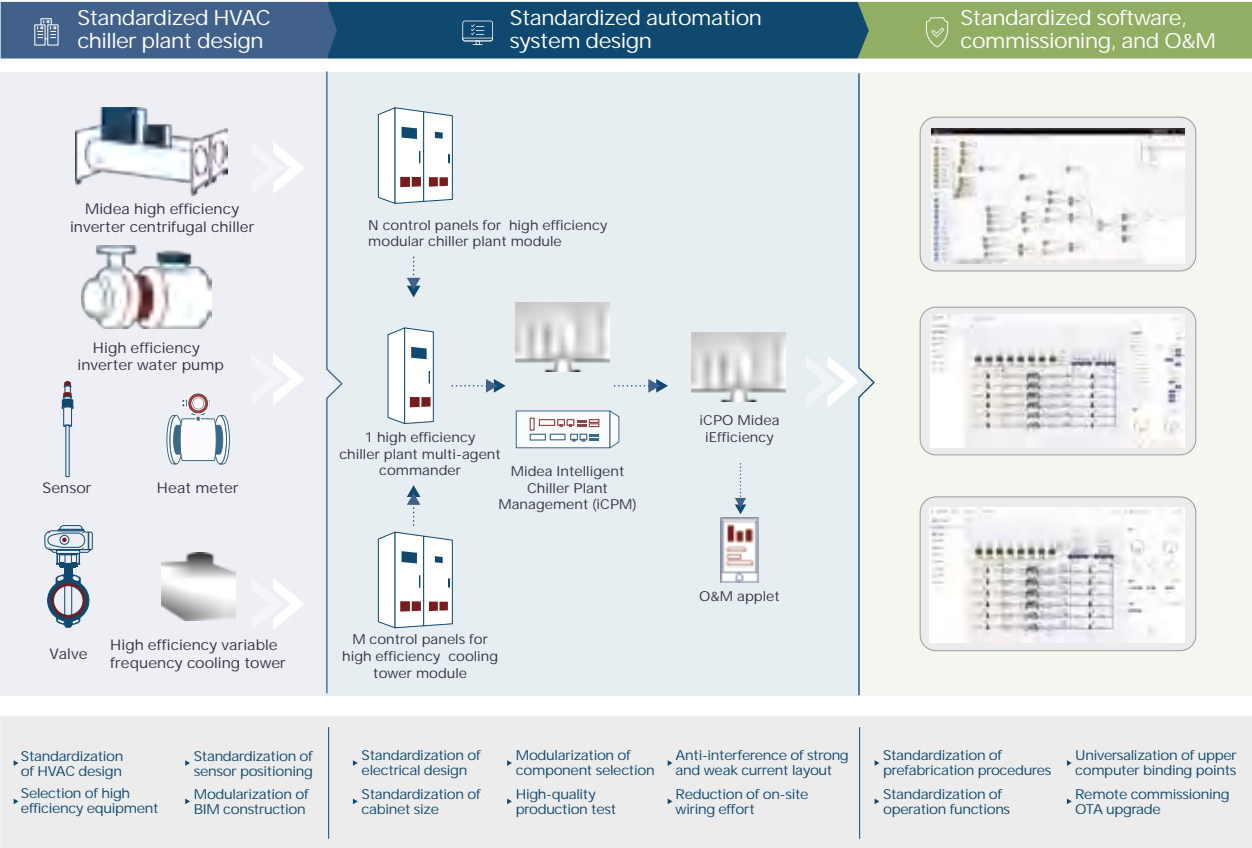
Note:

The control interface and display content varies with each model. Please refer to the actual product.

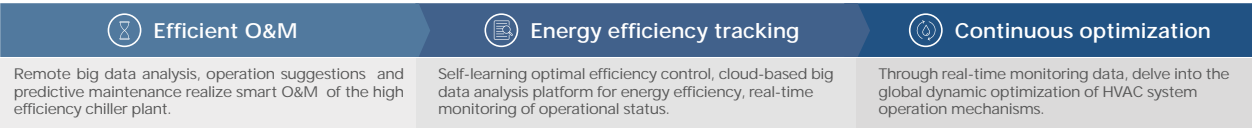
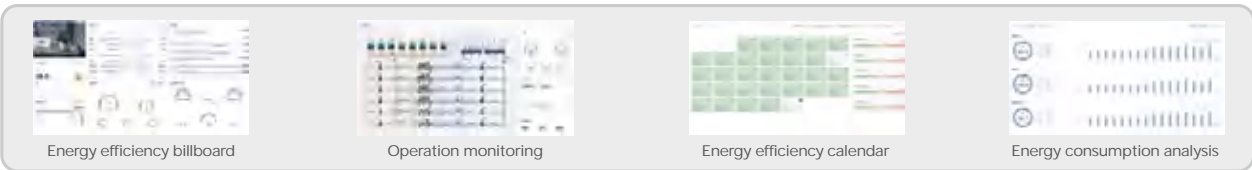
Intelligent management

Midea Intelligent Chiller Plant Management (iCPM)

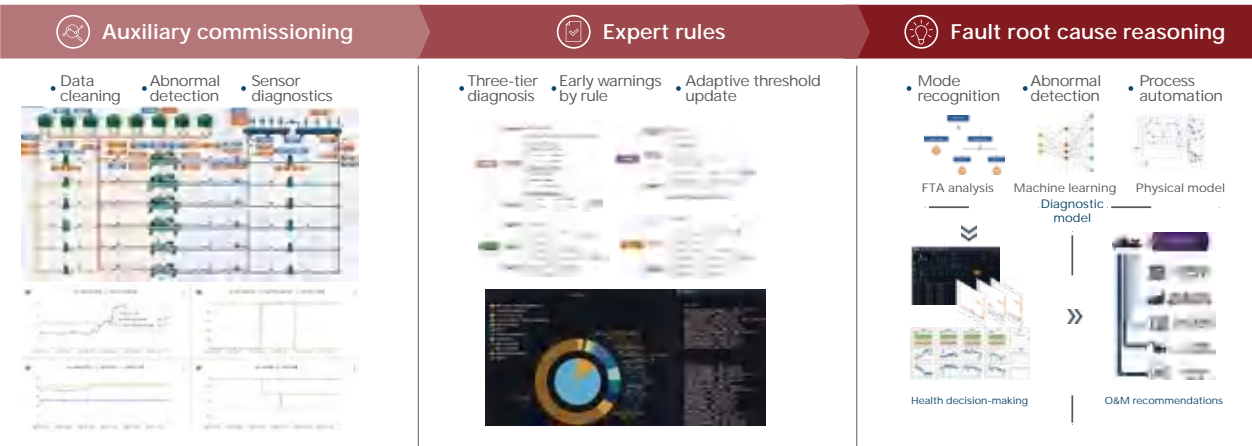
Through the integration of HVAC, automatic control, and software-hardware delivery, the virtual debugging platform optimizes the parameters of the intelligent chiller plant management. Midea's i-Efficiency platform ensures full-link energy efficiency with smart operations and maintenance, achieving efficient design, construction, and delivery with an end-to-end approach.



Full Life Cycle Scenario-based Smart Operation Application - Midea iEfficiency



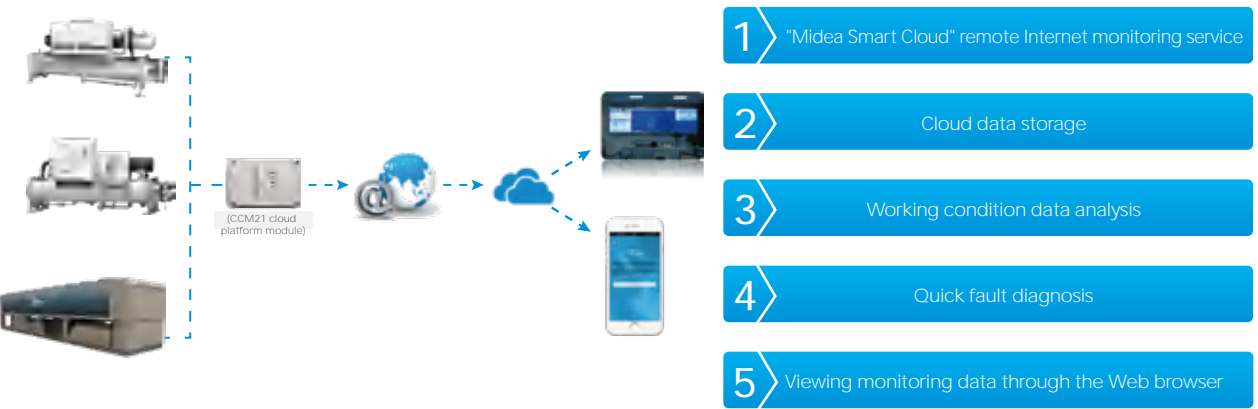
iCPO Smart O&M



Midea Smart Cloud platform

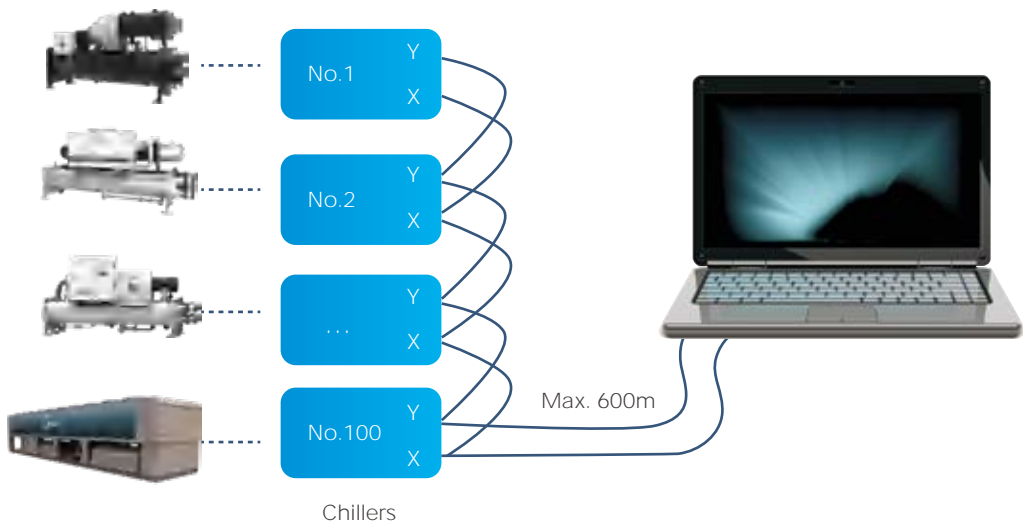


Midea's proprietary internet-based remote monitoring system offers customers a suite of cloud-based tools powered by advanced technology. By connecting their Midea air conditioning system via the IMU smart data acquisition terminal, customers receive professional support for remote fault diagnosis, analysis, and early failure warnings to ensure optimal equipment performance. Real-time monitoring data can be accessed through any web browser, providing customers with up-to-the-minute insights into their system's operation.



QuickView

Midea's proprietary QuickView smart software control system enhances real-time efficiency, stability, and reliability, while offering advanced visualization and scalability. It provides powerful features such as real-time monitoring of individual units, unit equipment management, remote control, curve display, data storage, alarm query, fault diagnosis, automatic cloud data upload, and external data analysis. This system significantly improves operational management efficiency while reducing the need for human input, as well as operations and maintenance costs.



Reference projects





Guangzhou Baiyun International Airport T2 Terminal

Country:	China
City:	Guangzhou
Outdoor Units:	Centrifugal chiller
Indoor Units:	FCU & AHU
Total Capacity:	35,680RT



Hartono Lifestyle Mall

Country:	Indonesia
City:	Yogyakarta
Outdoor Units:	Centrifugal chiller
Indoor Units:	FCU & AHU
Total Capacity:	5,000RT



Dalma Mall

Country:	UAE
City:	Abu Dhabi
Outdoor Units:	Centrifugal chiller
Total Capacity:	10,000RT
Completion Year:	2014



Federal Security Service

Country:	Russia
City:	Moscow
Outdoor Units:	Centrifugal chiller
Total Capacity:	5,000RT
Completion Year:	2015



Harran University

Country:	Turkey
City:	Sanliurfa
Outdoor Units:	Centrifugal chiller
Indoor Units:	FCU & AHU
Total Capacity:	3,000RT



Don Mueang International Airport

Country:	Thailand
City:	Bangkok
Outdoor Units:	Inverter direct-drive centrifugal chiller
Total Capacity:	4,000RT



Osmaniye Hospital

Country:	Turkey
City:	Osmaniye
Outdoor Units:	Inverter direct-drive centrifugal chiller
Total Capacity:	3,750RT



Boulevard Shopping Mall Bintulu

Country:	Malaysia
City:	Bintulu, Sarawak
Outdoor Units:	Inverter direct-drive centrifugal chiller
Total Capacity:	4,200RT



JA Solar

Country:	Vietnam
City:	Bac Giang
Outdoor Units:	Centrifugal chiller & Inverter direct-drive centrifugal chiller
Total Capacity:	12,000RT



Taipei City Government

Country:	China
City:	Taiwan
Outdoor Units:	Magnetic bearing centrifugal chiller
Total Capacity:	500RT
Completion Year:	2017



Manufacturing Plant of QDOS Flexcircuits Sdn Bhd

Country:	Philippines
Outdoor Units:	Magnetic bearing centrifugal chiller
Total Capacity:	2,900RT



MENARA KPJ Healthcare

Country:	Malaysia
City:	Kuala Lumpur
Outdoor Units:	Magnetic bearing centrifugal chiller
Total Capacity:	800RT
Completion Year:	2018