



# YORK® IWE System



The power behind **your mission**





# Intelligent Water Eco-system




**I**ntelligent: AIOT control logic for HVAC system



**W**ater: Water will be new, safe, efficiency delivery



**E**co-system: Natural IAQ, safety and sustainability

User			Operator			Designer		
								
Safety	Health	Natural	Facility Management	Lifespan OPEX	Reliability Redundancy	Module Compatible	Energy Efficiency	Innovation Flexibility

# IWE System

All HVAC functions in ONE SYSTEM

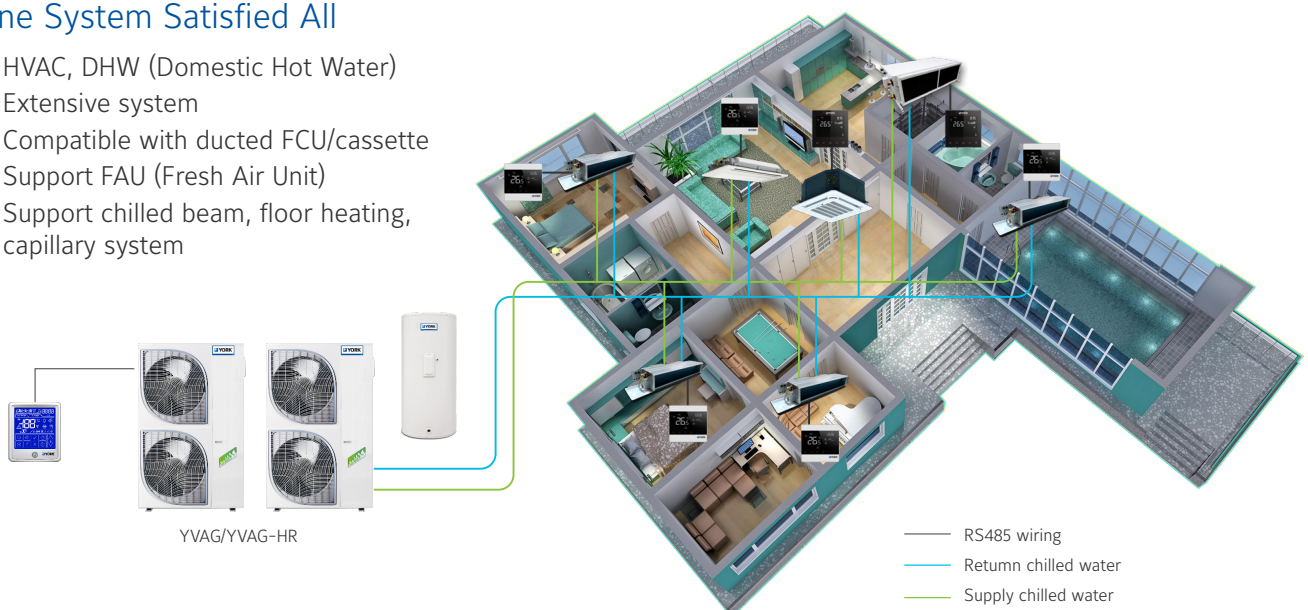


Note: DOAS is dedicated outdoor air system for fresh air

## One system to satisfy all your needs

### One System Satisfied All

- HVAC, DHW (Domestic Hot Water)
- Extensive system
- Compatible with ducted FCU/cassette
- Support FAU (Fresh Air Unit)
- Support chilled beam, floor heating, capillary system



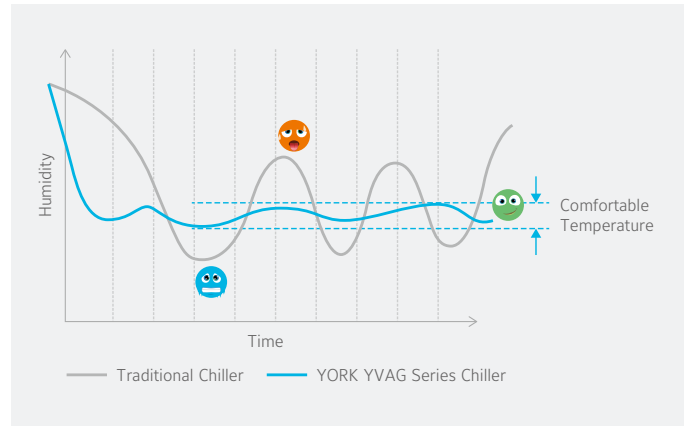
# IWE SMART control

## Sensitive

IWE system can collect the real-time status of the whole system, including the room temperature, setting point and operation status from IWE thermostat, the temperature in each room, the chilled water temperature, the chiller loading percentage, the ambient temperature, etc.

## Adaptive

IWE system can adaptively adjust the chilled water temperature, the compressor loading and the pump operation status according to real-time indoor and outdoor conditions. The system can offer users with comfortable temperature and humidity, can reduce operating power consumption and saves up to 8~18% of operating costs.

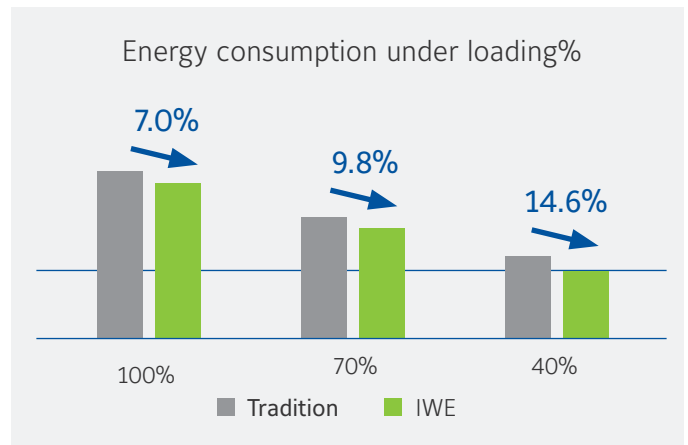


## Reliable

The system's new debug algorithms enable it to self-vent to improve its reliability; Additional operating data is used supports self-diagnosis, while the implementation of hierarchical fault management increases system redundancy. The full VSD system also leads to fewer chiller starts and stops, resulting in stable system operation.

## Manageable

IWE system can control the chiller, the airside and floor heating system at the same time, realizing the air-conditioning system to be controlled by one click; IWE system can also be controlled through the BAS system or smart home system.



## Transformative

Support to mix combine among IWE modular chillers to achieve flexible system configuration, especially can combine with heat recovery model to provide domestic hot water and saving hot water energy.

	Function	IWE system	Traditional chiller
1	Integrated on/off control	●	○
2	Thermostat can change operation mode of chiller	●	○
3	When chiller turned off Thermostats auto turn off	●	○
4	Chiller can turn on the floor heating	●	○
5	Variable chiller water temperature	●	○
6	Auto-stop the pump when no cooling load.	●	○

# IWE Home: YVAG / YVAG-HR

Flexible Combination up to 4 units per System  
 "Free" Heat Recovery for Domestic Hot Water



**YHT**  
 Hot water tank  
 100-500L  
 VSD pump  
 Built-in Electric heater as backup

## Features:

- Cooling with Heat recovery
- "Free" Hot water up to 60°C
- Built-in pump for 50Hz only
- Optimized low sound
- Plug & play
- Up to 4 units in one system



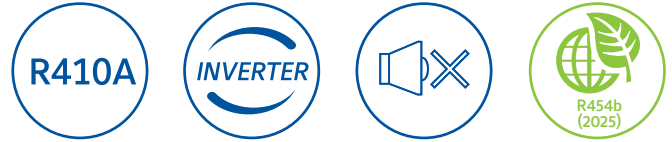
## IWE home

Area: 60m<sup>2</sup>~800m<sup>2</sup>  
 Hot water: 100L~2000L  
 Fresh Air system

Model	YVAG012-018	YVAG012-016HSE	YVAG020-040	YVAG020-033HSE
Cooling Capacity kW	11 ~ 18	11 ~16	20 ~40	20 ~31
COP kW/ikW	3.12	3.29	3.63	3.23
IPLV GB kW/ikW	4.68	4.60	5.00	4.71
DHW capacity kW	N/A	9.8	N/A	14
Est DHW (40°C )	N/A	750L/h	N/A	1000L/h
Compressor	DC inverter rotary		EVI DC inverter scroll	
Built-in pump kit	Yes <sup>(50Hz)</sup>			

# IWE Commercial: YMAE-X

Flexible Combination Max 32 Module per System



## Features:

- Cooling or Heating
- Option with 045/065 Built-in pump
- Compatible with heat recovery module
- Optimized low sound
- Plug & play
- Up to 32 units in one system, Max 4320kW



## IWE Commercial










Area: 200m<sup>2</sup>~10,000m<sup>2</sup>

10- 200 guestroom

Fresh Air system

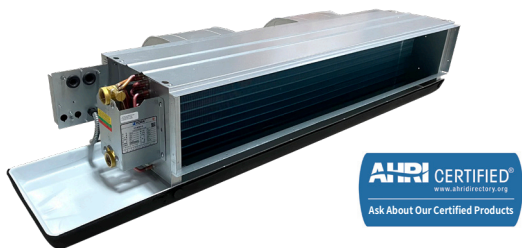
Model	YMAE045X	YMAE065X	YMAE140X
Max combine unit		16/32	
C/H Capacity kW	45/46	65/66	135/145
COP kW/ikW	2.74	3.05	3.21
IPLV GB kW/ikW	4.5	4.80	4.80
Compressor	EVI DC inverter scroll		
Ambient (cooling) °C	-15 ~ 48		
CHWT °C	-10(EG) ~ 25	-10(EG) ~ 25	-10(EG) ~ 20
Ambient (heating) °C	-25 ~ 43		
HW °C	30 ~ 58		
Built-in pump kit	Option	Option	N/A

# IWE Airside

	Standard External Static Pressure	High External Static Pressure
AC Motor Fan	 <p>Ceiling Concealed Optional Back/Bottom Return Plenum YBFC 12/30/50 Pa</p>	 <p>Ceiling Concealed with Back Return Plenum YDFC-ME-B Up to 150Pa ESP</p>
EC Motor Fan	    <p>4-way cassette Compact 4-way cassette 1-way cassette Wall mounted Ceiling &amp; floor YxGW</p>	   <p>YEDFC 1000-4000 cmh up to 150Pa ESP YECAH-B 1000-4000 cmh Up to 350 Pa ESP YBAH-F 1000-6000 cmh Up to 350Pa ESP</p>

Note:  
 1-way cassette, 4-way cassette, wall mounted, ceiling and floor is optional for "0-10V input control"  
 Wall mounted default with built-in 3-way valve. 4-way cassette, 1-way cassette and ceiling & floor has the option for 3-way valve.  
 YDFC needs to configure option "driver module" to be controlled by IWE thermostat

## YBFC02-12 Fan Coil Unit



### Features:

- High Efficiency
- AHRI 440 Certified
- Quite operations
- Low maintenance
- Easy installation

### 2-pipe 3 row technical features

Model	03	04	05	06	07	08	10	
Rated Air Flow m <sup>3</sup> /h	U/High	520	680	850	1020	1190	1360	1710
Cooling capacity kW	U/High	3.4	4.22	5.2	6.3	6.68	8.15	9.07
Input Power W	AC motor U/High	57	74	85	105	129	153	180
Fan	Type	Forward Curved Centrifugal Fan						
Number of motors		1	1	1	1	1	2	2
Sound pressure dB(A)	AC motor U/High	38.5	41	41.5	42.5	43.5	44	45
Motor	Protection class	IP20						
	Insulation class	B						
Coil	Fin information	Corrugated-Louver Aluminum Fin With Hydrophilic Coating						

Note1: U is 30Pa ESP, High is high speed  
 Note2: above performance is based on catalogue conditions

## YBAH-F Fresh air unit



### Features:

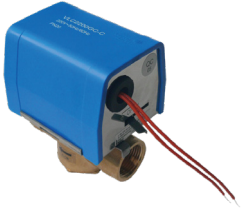
- EC Fan
- 2/4-pipe system
- PM2.5 plate filter (~ F8)
- High ESP up to 350Pa

Model	01	1.5	02	2.5	03	04	05	06
Rated Air Flow m <sup>3</sup> /h	1000	1500	2000	2500	3000	4000	5000	6000
Rated motor power W	375	375	500	750	750	750*2	750*2	750*2
Fan	High efficiency, double air inlets forward curved							
Number of motors	1	1	1	1	1	2	2	2
Motor Type	EC direct drive							
Coil	Copper tube with Louver Hydrophilic Aluminum							

Note1: the cooling capacity and sound level of YBAH-F, please refer to performance report

# IWE valve

## 2/3-way on/off motorized valve



### Features

- Precision Control
- Maintains Room temperature
- Saves energy by precision control
- Spring return function

## 2-way thermal valve



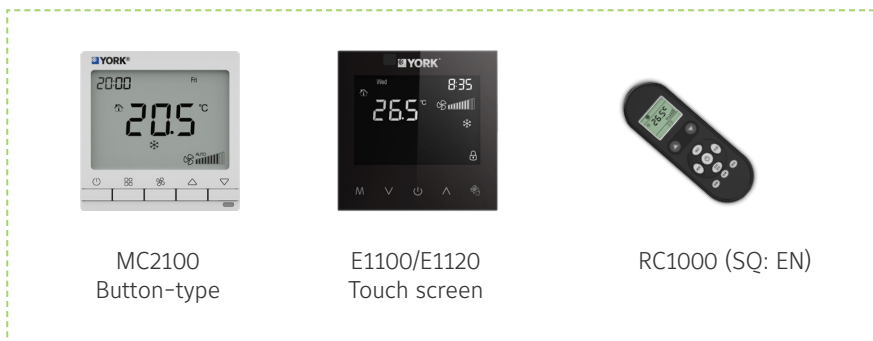
### Features

- Available for wide range of power requirements
- Easy installation
- Compact design
- Ip 54 rated
- Feedback control

Description	DIN size	Kv (Cv)	Type	Operation time	Weight(g)
APC-VLV2251V1 elect.	DN25	6.9(8.0)	2-way	Open 10-15 sec, close 4-5sec	1000
APC-VLV2201V1 elect.	DN20	3.0(3.5)	2-way		850
APC-VLV3201V1 elect.	DN20	3.4(4.0)	3-way		900
APC-VLV2151V1 elect.	DN15	2.2(2.5)	2-way		700
APC-VLV3151V1 elect.	DN15	2.6(3.0)	3-way		750
IWE THERMAL VALVE TLV225V1	DN25	3.3(3.9)	2-way	Open 2-5min, close <3min	900
IWE THERMAL VALVE TLV220V1	DN20	2.5(2.9)	2-way		750

# IWE thermostat

	2-pipe application		4-pipe application
	3 speed AC fan	0-10V BLDC fan	3 speed AC fan
High Tier	E1100 (T8620)	E1120	N/A
Budget Tier	MC2100	N/A	MC2100



MC2100  
Button-type



E1100/E1120  
Touch screen



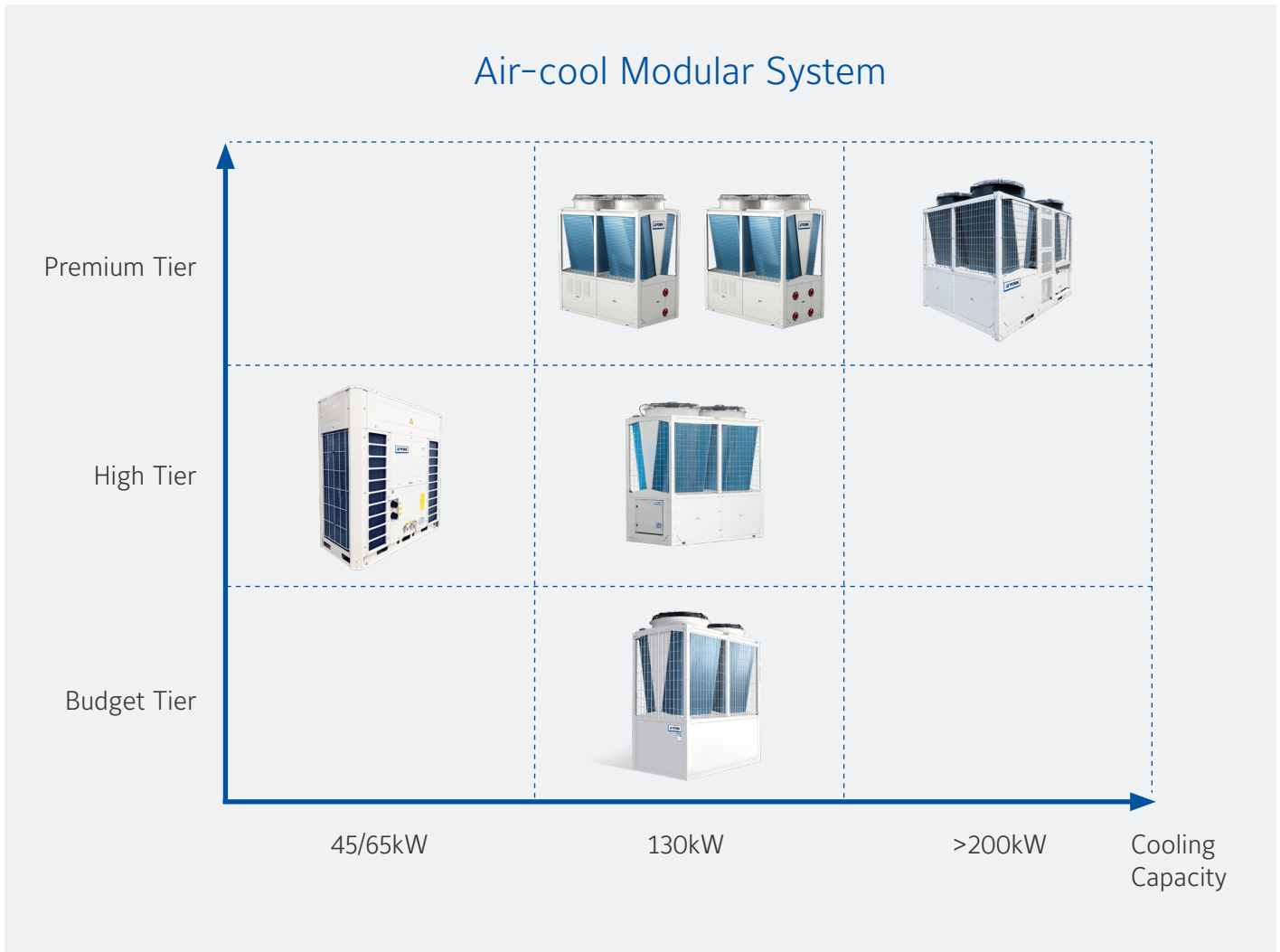
RC1000 (SQ: EN)



T8620  
Touch screen



# IWE modular chiller

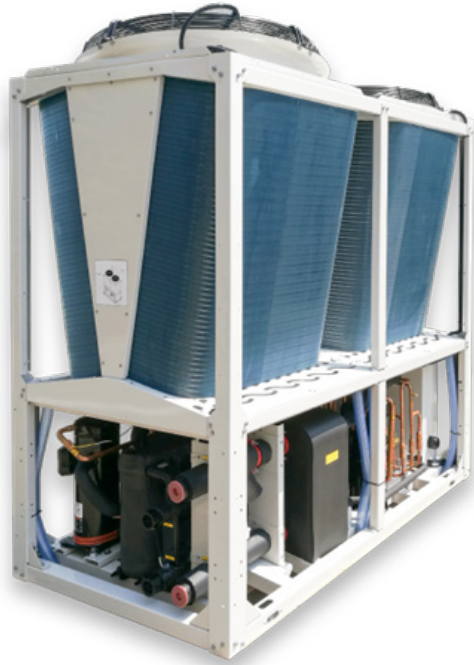


Position	Model	Capacity/unit	Features
Premium	YMAE-Q	130kW	4-pipe
	YMAE-X	45-135kW	Full DC inverter & R454b
Premium	YMPA	045-255kW	EC certified & R454b
High Tier	YCAE-XHR	065/130kW	Heat recovery
High Tier	YCAE-X	065/100/130kW	COP >3.3
Budget Tier	YCAE-130G	130kW	COP ~3.1

All are designed as modular concept.

# YMAE-Q

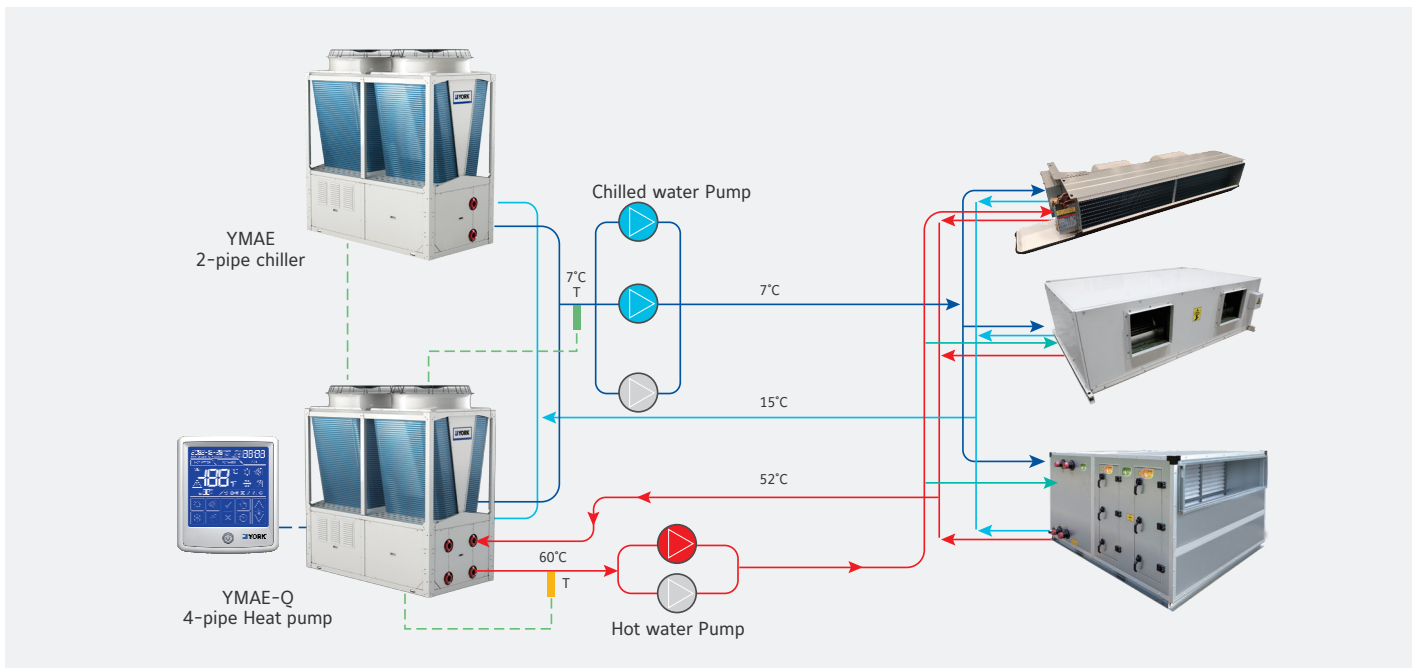
## 4-pipe simultaneous cooling and heating



### Features:

- Simultaneous Cooling and Heating
- Plug & play
- Up to 32 units in one system
- Mix combination with IWE chiller

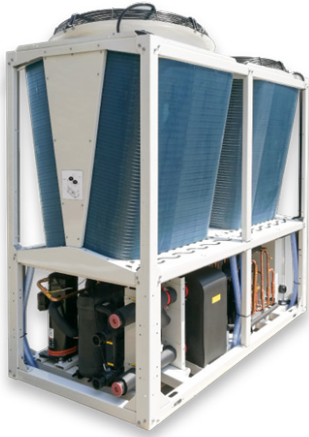
Model	YMAE130Q
Cooling at 4-pipe mode	126 (7°C )
Heating at 4-pipe mode	165 (45°C )
ICOP	7.39
Compressor	DC inverter EVI
Fan	BLDC
Ambient (cooling), °C	-15~ 48
LCHWT °C	-8 (EG) ~15
Ambient (heating), °C	-25 ~ 43
HW, °C	30 ~ 60



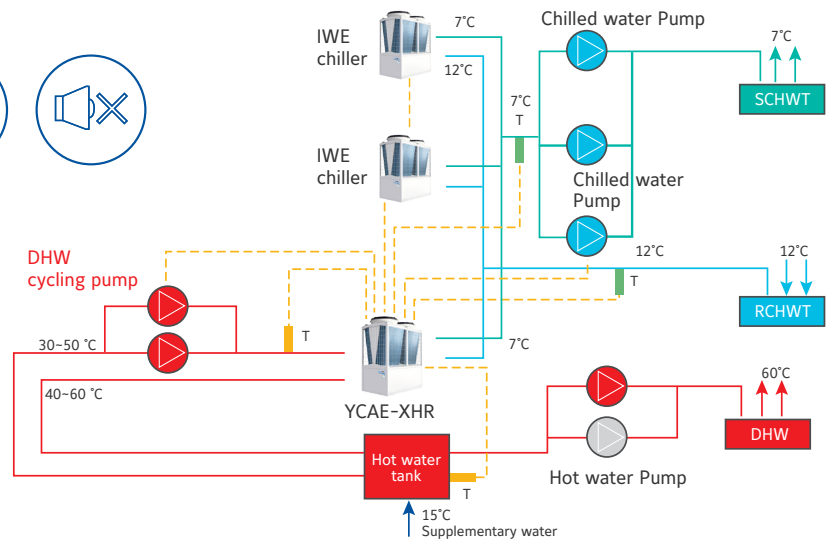
4-pipe system  
simultaneous cooling and heating

# YCAE-X/YCAE-XHR

## Standard modular chiller and heat recovery chiller



R410A

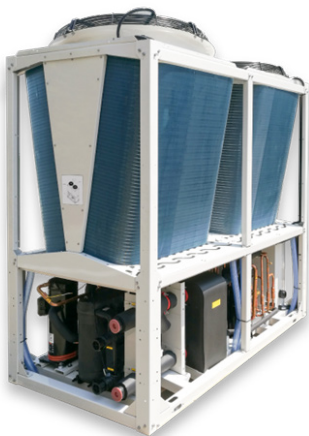


### Features:

- Cooling with Heat recovery
- Up to 60°C hot water
- Plug & play
- Up to 32 units in one system
- Mix combination with IWE chiller

Model	YCAE065XHR	YCAE130XHR
Cooling at HR mode (kW)	62	128
DHW at HR mode (kW)	80.5	80.5
ICOP at HR mode	7.66	5.28
Compressor	Fixed speed scroll	
Ambient (cooling), °C	5 ~ 48	
LCHWT °C	5 ~25	
DHW Temp °C	35 ~60	

Note: Above performance is based on heat recovery condition, chilled water 7°C /12°C , hot water 40°C /45°C and ambient 35°C



R410A



Model Range	YCAE065X	YCAE100X	YCAE130X	YCAE130G	YCAE160X
Unit Capacity (kW)	65	100	130	130	153
EER at 100% load	3.19	3.42	3.31	3.10	3.39
IPLV (China GB)	4.3	4.34	4.34	3.6	3.85
Compressor	Fixed Speed Scroll				
Ambient (°C), Cooling	10 ~ 48	5 ~ 48	5 ~ 48	10 ~46	10 ~48
CHWT, °C	5 ~ 15				

Note: Above performance is based on cooling condition, chilled water 7°C /12°C and ambient 35°C

### Features:

- Plug & play
- Up to 32 units in one system
- Mix combination with IWE chiller

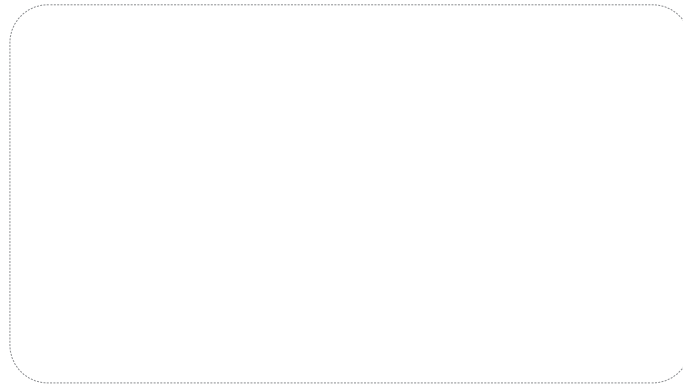


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