



AIRSYS

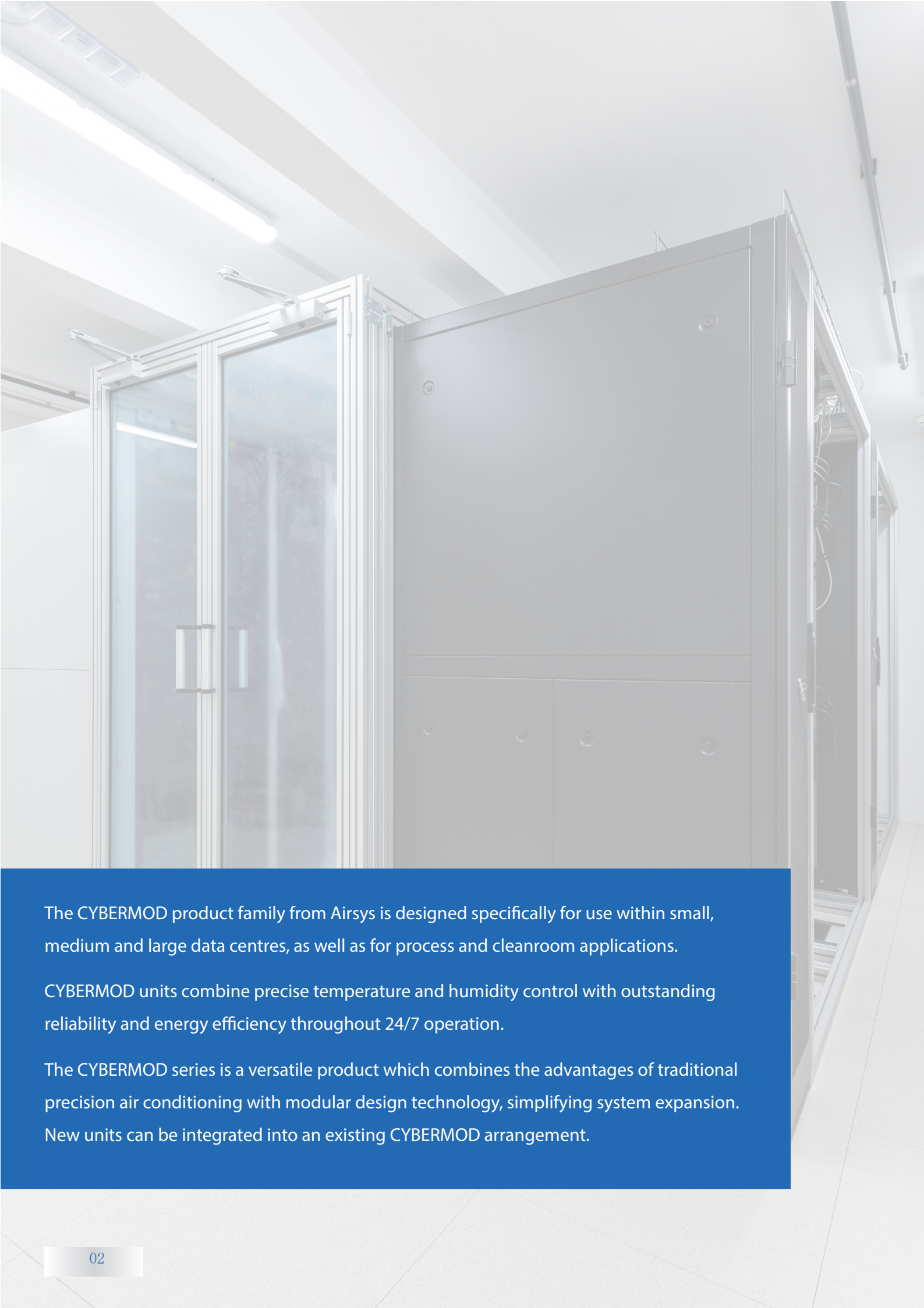


CYBERMOD.CW

Precision Cooling Technology for
Critical Applications

Cooling Capacity: 44kW-215kW

www.air-sys.uk



The CYBERMOD product family from Airsys is designed specifically for use within small, medium and large data centres, as well as for process and cleanroom applications.

CYBERMOD units combine precise temperature and humidity control with outstanding reliability and energy efficiency throughout 24/7 operation.

The CYBERMOD series is a versatile product which combines the advantages of traditional precision air conditioning with modular design technology, simplifying system expansion. New units can be integrated into an existing CYBERMOD arrangement.

Unit Identification

01	02	03	04	05	06	07	08	09	10	11
CYBER-MOD	.	O	.	CW	25	X0	.	380/3/50	.	XXX

01	CYBERMOD	Product series name: CYBERMOD: Precision air conditioner
02	.	Separator Character ""
03	O/U	O: Upflow U: Downflow
04	.	Separator Character ""
05	CW	Heat Rejection: CW - Chilled water cooling coil
06	25	Nominal cooling capacity: 25 - 210 kW
07	X0	Cabinet size code: "X" cabinet with sizes X0-X3.
08	.	Separator Character ""
09	380/3/50	Power source: Voltage/Phase/Frequency Default= 380/3/50
10	.	Separator Character ""
11	XXX	Code for custom design

Engineered features

1 Flexible arrangement

Unit modules are easily added and integrated, allowing the cooling system to respond quickly to the expanding cooling needs of a Data Centre.

2 High Efficiency

The CYBERMOD product family incorporates numerous energy saving technologies, with typical EER figures in excess of 20.

3 EC Fan

The CYBERMOD product family is fitted with EC variable speed fans as standard.

4 Air Filter

A washable, easily maintainable and durable G4 class air filter is a standard configuration for the CYBERMOD range. With optional air pressure switch, a clogged filter alarm can be triggered when the filter is dirty.

5 Forced dehumidification system

The dehumidification process occurs through reducing the air flow across the coil. This enables faster dehumidification, increased energy savings, and precise humidity control.

6 Electrode Humidifier (optional)

An electrode humidifier, controlled by a microprocessor, monitors and adjusts the humidifying capacity precisely. The water quality is monitored and periodic cleaning cycles extend the maintenance interval, prolonging the working life of the unit.

7 Electric Heater (optional)

The construction of the electric heater element (stainless steel pipe with wrapped fins) allows for a reduced operating temperature, eliminating ionisation, and thus preventing unpleasant odors.

8 Self-diagnosis

The microprocessor controls continuously monitor the operation and status of the connected components. In the event of a malfunction, the component is shut down and the fault is shown on the display.

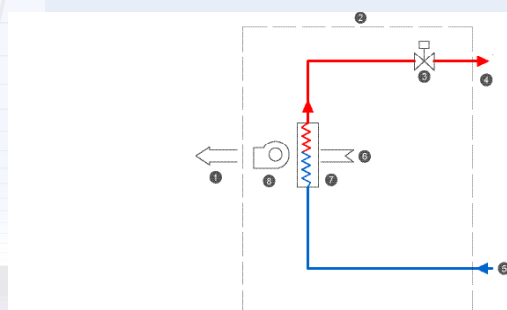
Working Flow Schematic Diagram

Chilled water system (CW)

The chilled water cooling coil transfers heat from the indoor air directly into a circulating chilled water circuit. The user can connect to a new or existing chilled water source. Alternatively the user can connect to an adiabatic dry cooler system when operating at elevated temperatures, thereby reducing the need for mechanical cooling.

Indoor unit: CYBERMOD.CW

Outdoor unit: User supplied chilled water source.



- | | |
|--------------------|------------------------|
| 1 - Supply air | 5 - Water inlet |
| 2 - Indoor | 6 - Return air |
| 3 - Electric valve | 7 - Chilled water coil |
| 4 - Water outlet | 8 - Supply fan |

Technical Parameters

CYBERMOD.CW

Unit model		40X1	60X1	80X2	100X2	120X2	140X2	160X2	180X3	210X3
Supply air scheme(1)		O/U								
Cooling capacity										
Total (2)	kW	47.0	62.8	81.5	101.1	122.3	140.9	163.5	185.1	210.1
Sensible (2)	kW	44.0	55.9	75.8	94.0	113.7	131.0	152.1	172.1	185.0
Total (3)	kW	47.9	64.1	83.1	103.1	124.7	143.7	166.8	188.8	215.6
Sensible (3)	kW	47.5	63.4	82.3	102.1	123.5	142.3	165.1	186.9	213.5
Cooling coil										
Water flow (2)	m³/h	8.4	11.2	14.5	18.0	21.8	25.1	29.2	33.0	37.5
Water pressure drop (coil+valve) (2)	kPa	65.0	71.0	71.0	55.8	71.7	79.9	60.7	72.3	82.0
Water flow (3)	m³/h	8.5	11.4	14.8	18.4	22.3	25.6	29.8	33.7	38.5
Water pressure drop (coil+valve) (3)	kPa	68.3	74.6	74.6	58.6	75.3	83.9	63.7	75.9	85.0
Supply fan (4)										
Type		Caseless backward EC centrifugal fan								
Qty. of fan	n.	1	1	2	2	2	2	3	3	3
Air volume	m³/h	11700	15000	20000	25000	31000	33000	37500	40000	46000
Electric heater (5)										
Type		Stainless steel								
Heating capacity	kW	4.5	4.5	9	9	9	9	13.5	13.5	13.5
Humidifier (5)										
Type		Electrode								
Capacity	kg/h	3	3	8	8	8	8	8	8	8
Power supply										
Power supply		380V/3Ph/50Hz								
Unit maximum operating power input	kW	9.5	10.3	20.4	22.0	22.0	22.0	30.0	30.0	30.0
Unit maximum operating current	A	11.0	15.6	31.2	33.6	33.6	33.6	45.8	45.8	45.8
Unit piping connection (6)										
Humidifier water supply	in						1/2			
Condensing water drainage	in						3/4			
Chilled water inlet / outlet	in	1 1/2	1 1/2	2	2	2	2	2 1/2	2 1/2	2 1/2
Unit external dimensions and weight										
Width	mm	965	965	1880	1880	1880	1880	2795	2795	2795
Depth	mm	1085	1085	1085	1085	1085	1085	1085	1085	1085
Height	mm	2160	2160	2160	2160	2160	2160	2160	2160	2160
Weight	kg	405	425	670	705	885	925	1090	1100	1340

(1) O:Up flow; U:Down flow;

(2) Return air dry bulb temperature 24°C, RH50%, inlet/outlet chilled water temperature 7°C/12°C;

(3) Return air dry bulb temperature 28°C, RH50%, inlet/outlet chilled water temperature 10°C/15°C;

(4) When delivered, the fan on a downflow unit is recessed into the unit casing and needs to be lowered into the floorvoid before use;

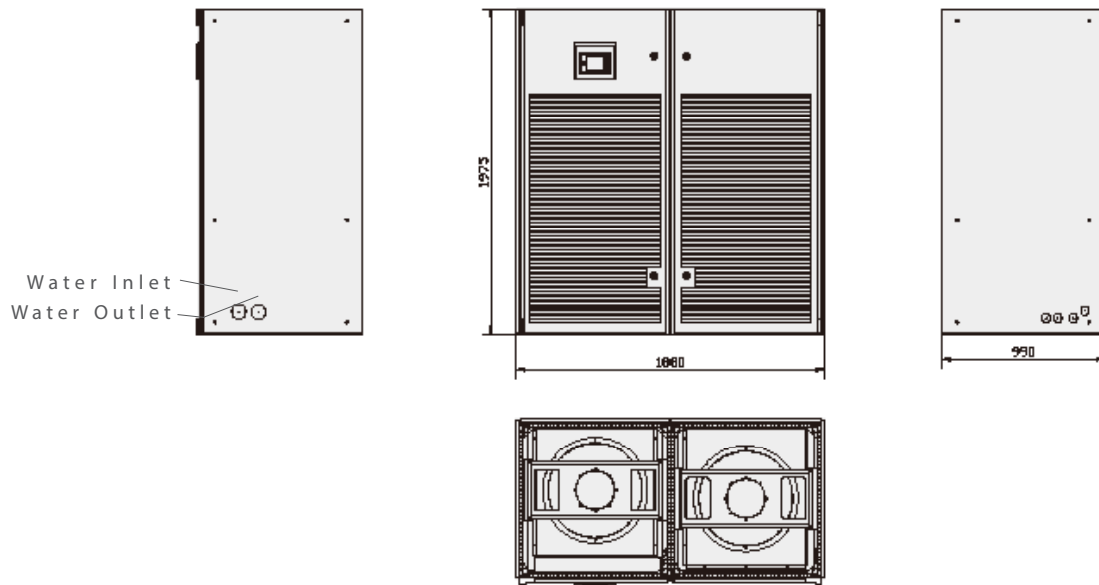
(5) The default capacity, please refer to "electric heater / humidifier selection sheet" for other capacity;

(6) Default pipe connection is at the bottom of the unit, welding pipe connection.

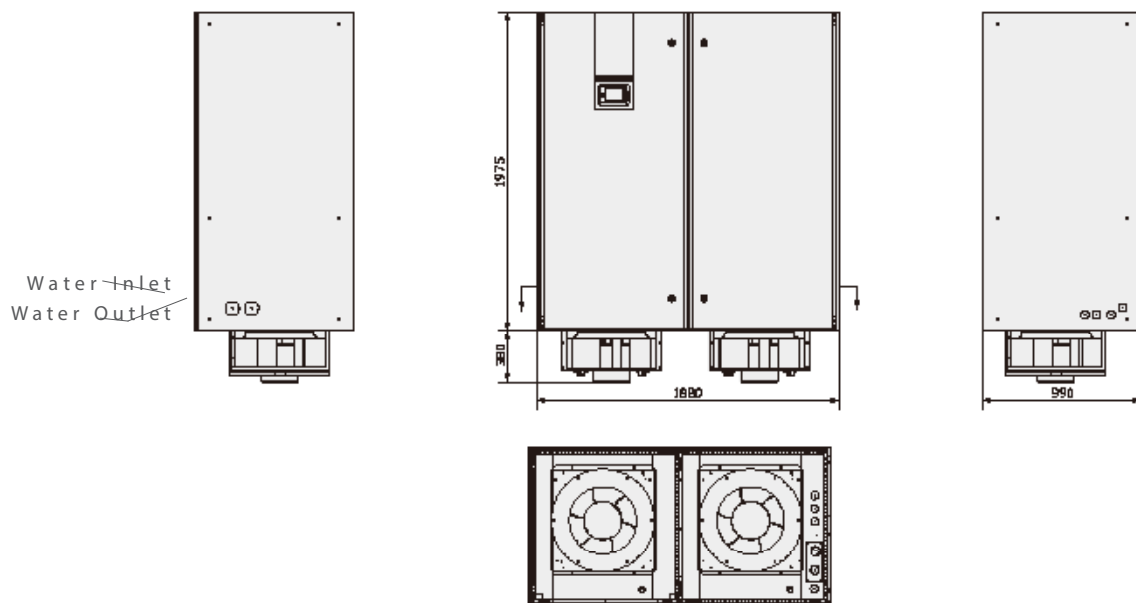
Technical drawing of the EKO 1500 refrigerator showing three views: front, top, and side. The front view (top left) shows a white refrigerator with a black handle and a black control panel. The top view (bottom left) shows the refrigerator's footprint with a central circular area. The side view (top right) shows the refrigerator's profile with a height dimension of 1975 mm and a width dimension of 965 mm. The bottom right view shows the refrigerator's footprint with a width dimension of 990 mm.

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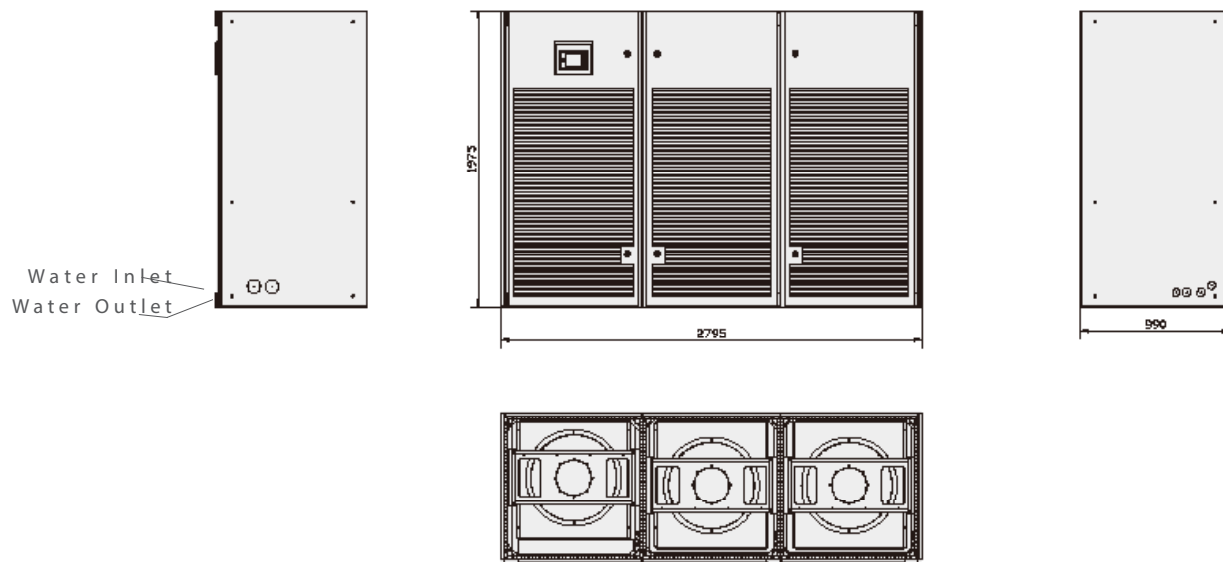
X2 Unit cabinet dimension drawing for upflow unit



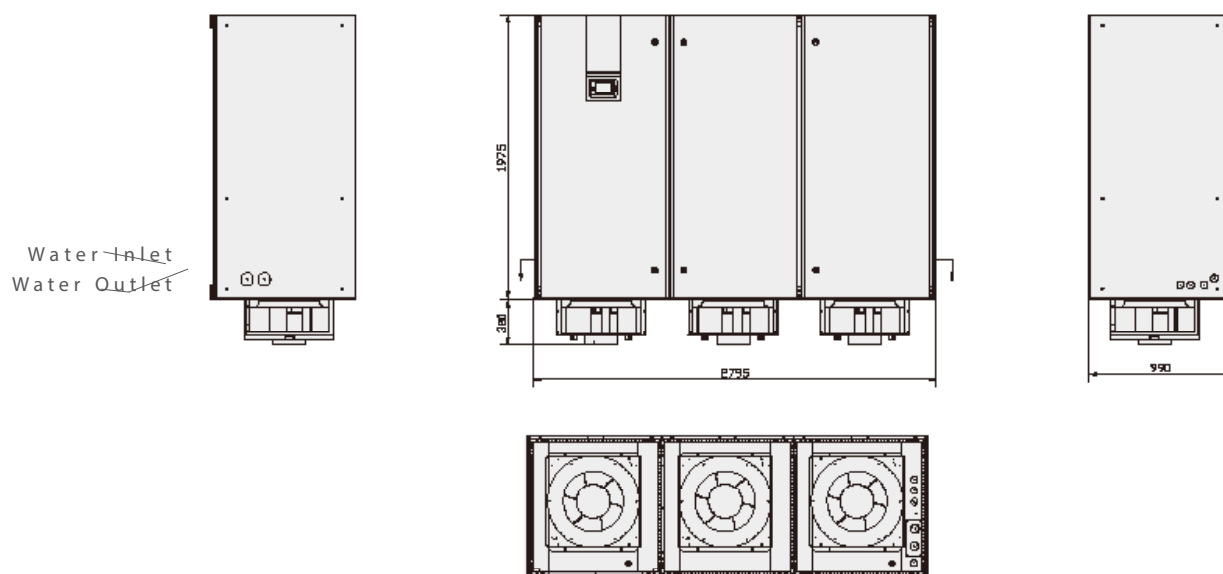
X2 Unit cabinet dimension drawing for downflow unit



X3 Unit cabinet dimension drawing for upflow unit



X3 Unit cabinet dimension drawing for downflow unit





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Product design and specification subject to change without prior notice.