



Fluorine Pump

**Intelligent Dual Cycle Refrigerant system
Precision Air Conditioning**

CMF Series

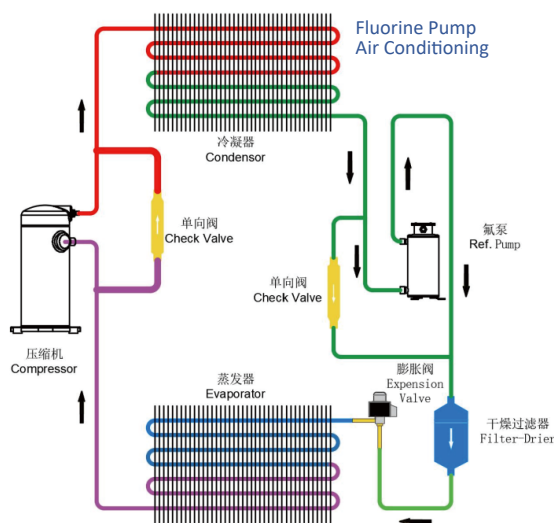
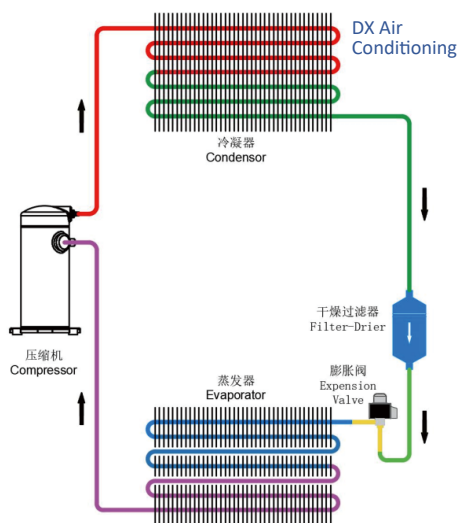
Room-level Fluorine Pump Precision Air Conditioning

Coolnet fluorine pump series dual-cycle refrigerant system is a high-efficiency and energy-saving precision air conditioner. It provides precise temperature and humidity control for large and medium-size data rooms. Dual cycle system makes full use of outdoor natural cold sources and uses a set of refrigeration systems to achieve three refrigeration modes. It adopts high efficiency compressor and EC centrifugal fan to meet the requirements of 24 X 7 all weather continuous operation.



Applications

- ▶ Power Room/Computer Room
- ▶ Data Center
- ▶ Communications Equipment Room
- ▶ Equipment Rooms That Require High Precision Control of Temperature and Humidity.

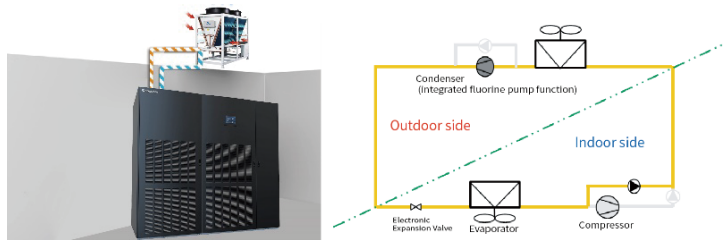


Energy-efficient cooling mode - utilizing natural cooling

Three Operating Modes, Automatic Adjustment, Suitable For Various Working Conditions and Environments

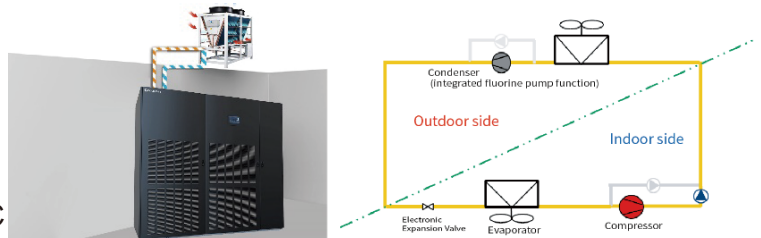
Natural Cooling Mode of Fluorine Pump

- Operating Mode Description : The fluorine pump component operates independently of the pump, The gaseous refrigerant completely condenses into liquid in the natural cooling coil, significantly reducing the energy consumption of the unit on of the unit is significantly reduced
- Outdoor Ambient Temperature : $\leq 5^{\circ}\text{C}$
- Applicable Season : Winter



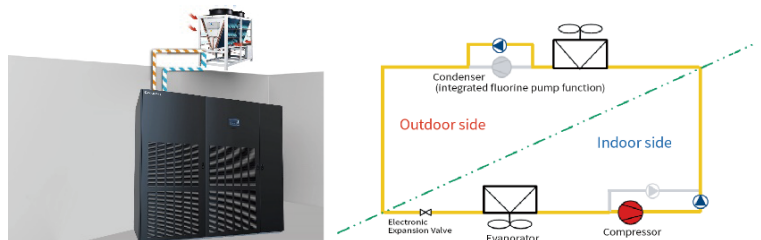
Mixed Refrigeration Mode

- Operating Mode Description : The fluorine pump component and compressor operate together, resulting in a significant improvement in overall energy efficiency
- Outdoor Ambient Temperature : $>5^{\circ}\text{C}$ 、 $\leq 15^{\circ}\text{C}$
- Applicable Season : Spring & Autumn



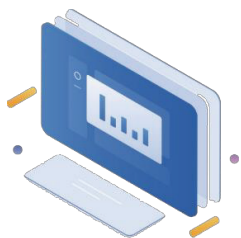
Compressor Refrigeration Mode

- Activate the compressor mode to meet the normal cooling requirements of the computer room.
- Outdoor Ambient Temperature : $> 15^{\circ}\text{C}$
- Applicable Season : Summer



Fuorine Pump Precision Air Conditioning

Features



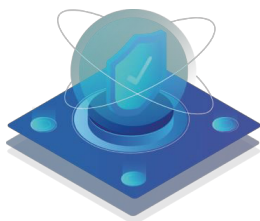
▼ Leading Technology

- Fluorine pump energy-saving dual-cycle air conditioning technology leads the world
- No fresh air circulation system required, it will not affect the air quality in data center , without damage of the building appearance.
- No Ethylene glycol , no worries about water pollution



▼ Energy Saving and Efficient

- Full use of natural cold sources, when ambient temperature less than 25°C, the operation of refrigerant pump can reduce the energy consumption of the unit and have significant energy-saving effects.
- AEER can reach 12



▼ Reliable Performance

- The indoor unit adopts high-performance EC fan
- The evaporator adopts V-shaped design, with uniform return air and low resistance.
- DC inverter compressor reduces energy consumption

Product Configurations

▼ Controller

- 7-inch color touch screen high-precision control, a variety of group control modes, to achieve 32 units group control, precise and reliable contro.

▼ EC Fan

- Energy-saving EC centrifugal fan, large air volume, high static pressure, smooth operation, low noise

▼ Humidify System

- Electrode humidification volume, high efficiency and with automatic flushing function.

▼ PTC Heater

- PTC electric heating, aluminum alloy fins heat up quickly, can realize automatic temperature adjustment and even heat generation.

▼ Scroll Compressor

- Stable design realizes high reliability and durability for easy repair and maintenance. Low noise, low vibration and high energy efficiency throughout the entire operating period.

▼ Refrigerant Pumps

- Using a special refrigerant pump, strong adaptive ability ,smoth gas and liquid transportation, with low NPSH and good sealing performance, ensuring reliable operation at low temperatures.

Technical Parameter — Room cooling

Model CYA	S30F	S35F	S40F	S45F	S50F	T62F	T72F	T82F	T92F	T102F
Total Capacity(KW)	30.6	36	41	45.8	50.4	61.6	71.8	81.6	91	100.8
Sensible Capacity(KW)	27.6	32.4	36.9	41.3	45.9	55.4	65.3	73.4	87.2	90.7
Fan Section	EC Fan									
Fan Quantity	1	1	1	1	1	2	2	2	2	2
Air Flow (m ³ /h)	9200	10500	11500	12800	13500	18400	21000	23000	25600	27000
Excess Pressure Outside Pa	Standard pressure is 20Pa, adjustable from 20~300Pa									
Air Filter	G4									
Compressor	Scroll Compressors									
Compressor Quantity	1	1	1	1	1	2	2	2	2	2
Refrigerant	R410A									
Electric Heating Type	PTC Electrical Heating									
Capacity(KW)	6	6	9	9	9	9	9	9	15	15
Rated Current(A)	10	10	14	14	14	14	14	14	23	23
Humidifier Section	Electrode Steam Humidification									
Capacity(kg/h)	5	5	8	8	8	13	13	13	13	13
Rated Current (A)	6	6	10	10	10	15	15	15	15	15
Power Supply	380v/50HZ 3N~									
Full Loaded Circuit	41	47.2	53.9	60	61.6	77.5	89.8	100.4	115.4	118.6
Humidifier Inlet Pipe(in)	G1/2"									
Condensate Drainage DN(mm)	18									
Gas Pipe (mm)	22									
Liquid Pipe (mm)	15.88	15.88	15.88	19.05	19.05	15.88	15.88	15.88	19.05	19.05
Installation Parameters for Indoor Units										
Dimension W*D*H (mm)	890*983*1975		1315*983*1975			1740*983*1975		2165*983*1975		
Weight(kg)	366	368	453	468	485	652	655	708	716	735
Condenser										
Model CY	0522	0582	0662	0742	0832	0522	0582	0662	0742	0832
Quantity	1	1	1	1	1	2	2	2	2	2
Pump Cabinet										
Model CN-LAF	1	1	1	1	1	2	2	2	2	2
Dimension	460*220*660									
Integrated Condenser with Pump										
Outdoor Temperature 35°C	CYP0441	CYP0551	CYP0551	CYP0661	CYP0771	CYP0882	CYP1102	CYP1102	CYP1322	CYP1542
Outdoor Temperature 45°C	CYP0551	CYP0661	CYP0661	CYP0771	CYP0881	CYP1102	CYP1322	CYP1322	CYP1542	CYP1762

① Design working condition:24°C, 50%RH.

② Standard residual pressure is 20pa, 20~300pa adjustable. Other residual pressure requirements consult our company.

③ Please contact us for any other customized requirements.

④The maximum current of the unit's standard configuration (including heater and humidifier)is for on-site power distribution reference.

Fuorine Pump Precision Air Conditioning

Technical Parameter — Row cooling

Model CRA	012F	025F	030F	040F	050F	060F
Functionality	Constant Coolinand Humidity					
Air Discharge	F/S	F/S	F	F	F	F
Power Supply	380Vac/3Ph/50Hz					
Performance Parameter						
Total Capacity(KW)	12.5	25	30	40	50	60
Sensible Capacity(KW)	12.5	25	30	40	50	60
Heating Capacity(KW)	2	3	6	6	6	6
Humidifying Capacity(KW)	2	1.5	3	3	3	3
Compressor Parameters						
Compressor	Inverter Compressor					
Refrigerant	R410A					
Fan Parameters						
Fan Section	DC EC Centrifugal Fan					
Air Flow (m ³ /h)	3200	5000	6600	8800	11100	12500
Electric Heating Parameters						
Electric Heating Type	PTC Electrical Heating					
Capacity(KW)	2	3	6	6	6	6
Humidifier Parameters						
Type of Humidification	Wet Film Humidifier					
Max. Humidifying Capacit(kg/h)	1.5	1.5	3	3	3	3
Type of Throttle	Electronic Expansion Valve					
Air Fiter	G4					
Unit Connection Tubes Pipe						
Humidifier Inlet Pipe(in)	G1/2"					
Water Inlet solenoid Valve Connection(in)	G3/4					
Condensate Drain Pipe φ(mm)	19					
Refrigerant Gas Pipe φ(mm)	15.88	19.05	19.05	19.05	22	22
Refrigerant Liquid Pipe φ(mm)	9.52	15.88	15.88	15.88	19.05	19.05
Electrical Parameters						
Max. Operating Current(A)	24.0	41.0	44.0	48.0	55.0	59.0
Power Cable Specifications(mm ²)	5*4	5*6	5*10	5*10	5*10	5*10
Structural Parameters of Indoor Unit						
Dimension W*D*H(mm)	300*1200*2000 300*1400*2000	300*1200*2000 300*1400*2000	600*1200*2000	600*1200*2000	600*1200*2000	600*1200*2000
Weight(kg)	190	280	280	285	310	330
Condenser						
Model-CY	0191	0451	0522	0622	0832	0893
Quantity	1					
Pump Cabine						
Model CN-LAF	1					
Dimension	460*220*660					
Integrated Condenser with Pump						
Outdoor Temperature 35°C	CYP0191	CYP0441	CYP0441	CYP0551	CYP0661	CYP0881
Outdoor Temperature 45°C	CYP0191	CYP0441	CYP0551	CYP0661	CYP0771	CYP0881

① F: Rear return air front air supply, S: Side return air side air supply

② Standard working conditions: indoor return air dry bulb temperature of 37°C, relative humidity of 24%, outdoor dry bulb temperature of 35°C. The above table is only part of the parameters.

Split Type Condenser

Model CY	0191	0351	0451	0522	0582	0622	0742	0832	0893	0963
Power Supply	220V/1P/50Hz									
Max. Current (A)	1.7	3	3	6	6	6	6	6	9	9
Weight(kg)	65	112	115	156	180	182	206	213	252	290
Dimension W*H*D(mm)	930*385*1260	1225*1165*545	1315*1165*545	2025*1015*520	2125*1165*545	2125*1065*545	2325*1165*545	2425*1165*545	2625*1165*545	3240*1165*545

Integrated Condenser with Pump

Model CYP	0441	0551	0661	0771	0881	0882	1102	1322	1542	1762	
Heat Exchange (KW)	44.00	55.00	66.00	77.00	88.00	88.00	110.00	132.00	154.00	176.00	
Refrigerant	R410a										
Condenser Fan	Type	Axial Fan									
	Qty	1	1	1	1	1	2	2	2	2	2
	Air Volume (m ³ /h)	13000	16000	19500	19500	23000	26000	32000	39000	39000	39000
Fan Speed Control	Stepless Regulation (Fan speed inverter + pressure sensor)										
Power Type	380Vac/3Ph/50Hz										
Pipe Connection (mm)	Gas	22	22	22	22	22	22	22	22	22	22
	Liquid	16	16	16	16	16	16	16	16	16	16
Installation	Vertical										
Dimension (mm)	W	1100	1100	1100	1300	1300	1100	1100	1100	1300	1300
	D	1100	1100	1100	1100	1100	2200	2200	2200	2200	2200
	H	2014	2001	2001	2001	1986	2014	2001	2001	2001	2002



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