1. Introduction of the unit

Deeray CLA series interline precision air conditioners are specially designed for high heat density machine room and micro-module configuration, which can be cooled close to the heat source and reduce the return air Distance, improve the energy efficiency of air conditioning.

The dimensions of the Deeray CLA series air conditioners are consistent with the standard cabinet size, can be installed separately or in the cabinet row, the color is consistent with the cabinet color, and the installation is beautiful and generous. All models and parts are universal, and the sizes are 300mm and 600mm.

Deeray CLA series air-cooled inter-line air conditioner adopts the dual frequency conversion technology of inverter compressor plus inverter fan, which has higher energy efficiency and covers 12~6 0kW of air-cooled series 。

The selection is flexible and diverse, and can choose single cold type, single heating type, single humidification type, constant temperature and humidity type, etc.

It is mainly suitable for environments such as micro-module data centers and integrated cabinets with closed cold and hot aisles to solve the problem of high thermal density.

Product advantages:

- High return air temperature design, cooling capacity with load demand changes coupled output.
- Fully dry working conditions standard operation, improve the energy efficiency ratio of the refrigeration system, maximize energy saving, close to the heat source operation, accurate post air cooling.
- PID control technology is adopted, no competition operation, and higher control accuracy.
- The full frequency conversion design of inverter compressor and inverter fan is adopted, and the refrigerant flow is accurately adjusted with the electronic expansion valve to adapt to different load changes. It can achieve 30% to 100% variable capacity output, and the temperature control is more accurate.
- 7 inch color touch screen, man-machine interface friendly, can display a variety of operating information, easy to maintain.
- It can realize intelligent group control of 32 units, ensuring the stable operation of the entire module and saving energy efficiency.
- RS485 interface is standard, supports ModBUS protocol, and optional TCP/IP protocol.
- Standard water leakage alarm, power protection and other protection functions, safer operation.
- Various sizes are customized and can be flexibly embedded in the middle of each brand of cabinet.
- Size, color, pipe walking mode to provide customized services, more in line with the actual needs of the site.

Customizable service:

- According to the scene situation, a variety of air supply methods can be customized: front air supply, left and right side air supply, etc

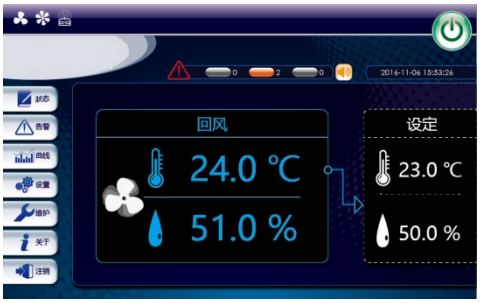
- According to the scene situation, a variety of return air methods can be customized: rear return wind, left and right side return air, etc.
- According to the color of the micro-module, we provide color customization services, and the appearance is beautiful and generous.
- Depending on the site situation, you can choose between upper and lower pipe walking tubes.
- Optional:
  - Strong drainage of condensate
  - SNMP and TCP/IP interfaces
  - Dual power inputs

Optional accessories

- Long tube assembly
- Low temperature components
- Belt-type leaky assembly
- Lightning protection components
- High-density outdoor unit

High-end configuration

- **Control system**
  - 7 inch color touch controller, friendly interface, easy to operate, easy to maintain. It can display the operating status of the unit, the operating status of each component in the unit, real-time alarm and historical alarm, temperature and humidity curve, etc.



  - The controller sets a multi-level password, which allows different operators to have different levels of operation and is convenient for management.

- RS485 interface is standard, supports ModBUS protocol, and optional TCP/IP protocol.
- Standard configuration group control function, the use of more stable CAN group control mode, can not be networked through the computer, can group control 32 sets of units, to achieve polling, backup, avoid competition and other functions. Adjust the operating state of the unit in the group, so that the unit is always in the best operating state, ensure the reliable operation of the unit, and reduce the operating cost.
- Expert-level fault self-diagnosis function, automatic start of diagnostic mode, automatic detection of all parts of the state.
- Advanced PID adjustment technology is adopted for more precise control.

- **Inverter compressors**
  - The standard adopts DC inverter compressor, and the refrigeration capacity can be adjusted 30%-100% steplessly according to the demand, which is more realistic and the temperature and humidity control accuracy is higher.
  - The use of frequency conversion technology reduces the frequency at low loads, and the air conditioner is more efficient and more energy-efficient.
  - The use of R410A environmentally friendly refrigerant, in line with the environmental protection needs of the times.
  - Supports dehumidification at the lowest load to eliminate the hidden danger of low load condensation.
  - Supports soft start, reduces start-up current, and reduces impact on the grid.
  - It can greatly reduce the number of compressor start-stop times and improve system reliability.

- **EC fans**
  - The use of backward tilting blades, light weight, high efficiency, low energy consumption.

  - EC fan adopts brushless DC motor, which can run at 0-100% stepless speed regulation, which is efficient and energy-saving, and reduces operating noise.
  - EC fans use soft start, reducing the impact of fan start-up on the grid.

- **evaporator**
  - The unit evaporator is made of internal threaded copper pipe and hydrophilic aluminum fins, compact structure, and the maximum heat exchange effect is obtained with the smallest space.

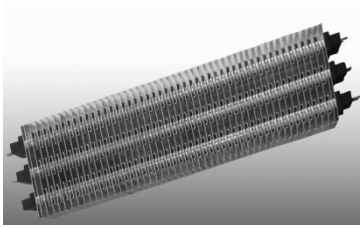
  - The evaporator is placed vertically, the surface airflow is uniform, and the wind resistance is small.

- **Electronic expansion valve**
  - Fast response, reduced superheat, precise refrigeration, perfect fit with inverter compressors, to ensure accurate cooling.
  - In combination with EC fans, the amount of dehumidification is increased at low loads.

- **humidifier**
  - The wet film humidifier with low energy consumption is adopted, which has low humidification power and energy saving and high efficiency.

- The humidifier can be flushed on site, reducing maintenance costs.

- **PTC heaters**
  - Equipped with a semiconductor PTC ceramic electric heater, the heating is fast, and the temperature can be automatically adjusted and the heat is even.



  - The electric heater adopts multi-stage control, which is more suitable for the demand for high accuracy of the temperature in the machine room.
  - Equipped with over-temperature protection device, safe and reliable.

2. Technical data sheet

Model	**DY-CLA012**
Air supply mode	Front supply air/both sides air supply
Enter the power supply form	380Vac/3Ph/50Hz
Total cooling kW	12.5
Apparent cooling capacity kW	12.5
Compressor form	Inverter compressors
Refrigerant form	R410a
Fan form	DC EC centrifugal fan
Air volume m^3/h	3200
Electrically heated form	PTC electric heating
Electrically heated kW	2
Humidified form	Wet film humidifier
Maximum humidification kg /h	1.5
Throttling form	Electronic expansion valve
Air filter	G4 plate filter
Humidifier inlet pipe in	G1/2
Condensate drainage pipe Φmm	19
Refrigerant gas pipe Φmm	15.88
Refrigerant liquid pipe Φmm	9.52
Maximum current A	23.0
Power cord specifications mm^2	5*2.5
Size mm	300*1200*2000 300*1400*2000
Weight kg	190
Outdoor unit parameters	
Model	**DY-CY0 191-A1S**
quantity	1

Model	**DY-CLA025**
Air supply mode	Front supply air/both sides air supply
Enter the power supply form	380Vac/3Ph/50Hz
Total cooling kW	25
Apparent cooling capacity kW	25
Compressor form	Inverter compressors
Refrigerant form	R410a
Fan form	DC EC centrifugal fan
Air volume m^3/h	5000
Electrically heated form	PTC electric heating
Electrically heated kW	3
Humidified form	Wet film humidifier
Maximum humidification kg /h	1.5
Throttling form	Electronic expansion valve
Air filter	G4 plate filter
Humidifier inlet pipe in	G1/2
Condensate drainage pipe Φmm	19
Refrigerant gas pipe Φmm	19.05
Refrigerant liquid pipe Φmm	12.7
Maximum current A	44.0
Power cord specifications mm^2	5*6
Size mm	300*1200*2000
Weight kg	230
Outdoor unit parameters	
Model	**DY-CY045 1-A1S**
quantity	1

Model	**DY-CLA040**
Air supply mode	Front air supply
Enter the power supply form	380Vac/3Ph/50Hz
Total cooling kW	40
Apparent cooling capacity kW	40
Compressor form	Inverter compressors
Refrigerant form	R410a
Fan form	DC EC centrifugal fan
Air volume m^3/h	8800
Electrically heated form	PTC electric heating
Electrically heated kW	6
Humidified form	Wet film humidifier
Maximum humidification kg/h	3
Throttling form	Electronic expansion valve
Air filter	G4 plate filter
Humidifier inlet pipe in	G1/2
Condensate drainage pipe Φmm	19
Refrigerant gas pipe Φmm	19.05
Refrigerant liquid pipe Φmm	15.88
Maximum current A	51.0
Power cord specifications mm^2	5*10
Size mm	600*1200*2000
Weight kg	285
Outdoor unit parameters	
Model	**DY-CY0 742-A1S**
quantity	1

Model	**DY-CLA050**
Air supply mode	Front air supply
Enter the power supply form	380Vac/3Ph/50Hz
Total cooling kW	50
Apparent cooling capacity kW	50
Compressor form	Inverter compressors
Refrigerant form	R410a
Fan form	DC EC centrifugal fan
Air volume m^3/h	11000
Electrically heated form	PTC electric heating
Electrically heated kW	6
Humidified form	Wet film humidifier
Maximum humidification kg /h	3
Throttling form	Electronic expansion valve
Air filter	G4 plate filter
Humidifier inlet pipe in	G1/2
Condensate drainage pipe Φmm	19
Refrigerant gas pipe Φmm	22
Refrigerant liquid pipe Φmm	19.05
Maximum current A	57.0
Power cord specifications mm^2	5*10
Size mm	600*1200*2000
Weight kg	310
Outdoor unit parameters	
Model	**DY-CY0 893-A1S**
quantity	1

Model	**DY-CLA060**
Air supply mode	Front air supply
Enter the power supply form	380Vac/3Ph/50Hz
Total cooling kW	60
Apparent cooling capacity kW	60
Compressor form	Inverter compressors
Refrigerant form	R410a
Fan form	DC EC centrifugal fan
Air volume m^3/h	12500
Electrically heated form	PTC electric heating
Electrically heated kW	6
Humidified form	Wet film humidifier
Maximum humidification kg/h	3
Throttling form	Electronic expansion valve
Air filter	G4 plate filter
Humidifier inlet pipe in	G1/2
Condensate drainage pipe Φmm	19
Refrigerant gas pipe Φmm	22
Refrigerant liquid pipe Φmm	19.05
Maximum current A	60.0
Power cord specifications mm^2	5*10
Size mm	600*1200*2000
Weight kg	330
Outdoor unit parameters	
Model	**DY-CY0 893-A1S**
Quantity	1