

AMRTA

Product Catalog

Fresh Air Ventilator

Jet Flow Air Handling Unit

Ceiling Type Air Handling Unit



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Product Introduction

Amrta air patented air handling unit uses our newly developed patented structure; mainly constructed with air filter, heat exchanger, fan motor, fan blower and other main components; it can meet with different external pressure requirements; tight unit structure, light unit weight and good cooling/heating performance. Direct paneling assembly structure and the frame is made of patented alloy aluminum constructed structure, joined together as a cabinet frame system. Not only ensure the cabinet is air tight, but also eliminate thermal bridge and enhance the rigidity and strength of the unit.

The products are of small size, low noise hence it is widely applied in the comfortable air conditioning system such as the hostel, commercial building, office and underground railway application .

Nomenclature

A C U 0 1 0 A F 2 5 L 4
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Digit 1,2,3 - Unit Model

ACU=Air Handler Unit Ceiling Type

Digit 4,5,6 - Air Flow Volume

010>(*100 m³/h)

Digit 7 - Design Sequence

A=First Design

B=Second Design

Digit 8 - Function Type

Omitted=Return Air

F=Fresh Air

D=Dry Type

J=Jet Flow

Digit 9,10 - External Pressure (x10, Pa)

25=250Pa

Digit 11 - Connection Piper Position

L=Left Side

R=Right Side

Digit 12 - Quantity of Coil Rows

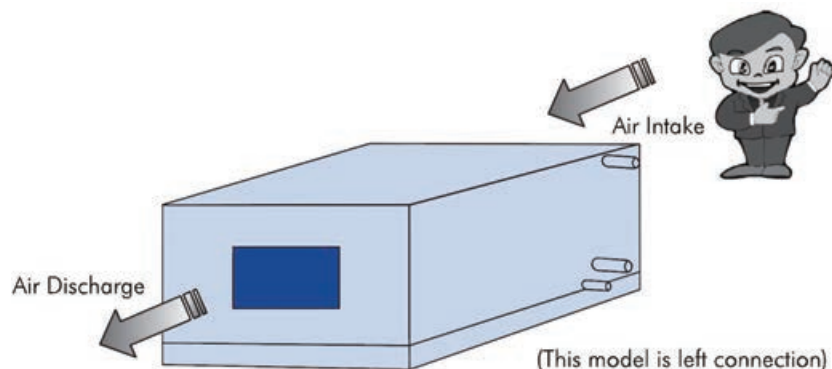
4=4Rows

6=6Rows

8=8Rows

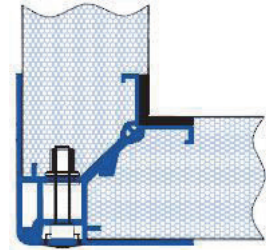
Left/Right Model Determination

Face the air intake opening, if the pipe connection and service panel are on the left side, the unit will be considered as left connection, and vice versa.



Product Features

- Air handing unit applies colorful steel and galvanized panel as its interior and exterior panel. Inner stuff is the high density polyurethane foam, double pillar and tenon structure that ensures the strength of the unit and low air leakage.



- High efficiency and low resistance nylon filter that reduce the power consumption obviously. Easy cleaning and simple operation; at the same time, higher level panel filter is optional too.



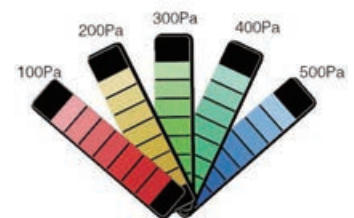
- Coil applies pure and seamless copper tube and hydrophilic aluminum fin. Copper tube is under 12MPa water pressure expanding that can adapt to all kind of high pressure and no leakage, as well as ensure the lowest contact thermal resistance and highest heat transfer efficiency.



- All fans in the unit are selected by professional software to ensure the best condition. Minimize the air volume and air pressure loose after meeting with the customer's requirements. Also ensure the good airflow and reduce the air duct noise.



- ESP is stepless control and there are 3 standards ESP for option. At the same time, varies air outlet directions and coil rows are for option.



Cooling Capacity Performance Table--4R (Return Air)

| Model ACU | Air Volume m ³ /h | Nominal Cooling Capacity kW | Nominal Heating Capacity kW | Water flow rate m ³ /h | Water resistance | External pressure | | | Motor power | | | Unit weight |
|--------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------------|------------------|-------------------|-----|-----|-------------|------|------|-------------|
| | | | | | ACU | I | II | III | I | II | III | ACU |
| | | | | | kPa | Pa | Pa | Pa | kW | kW | kW | kg |
| 010 | 1000 | 5.9 | 9.9 | 1.01 | 12.2 | 120 | 180 | 250 | 0.37 | 0.37 | 0.37 | 73 |
| 015 | 1500 | 8.6 | 13.6 | 1.48 | 20.6 | 120 | 180 | 250 | 0.37 | 0.37 | 0.37 | 80 |
| 020 | 2000 | 13.3 | 22.1 | 2.29 | 24.9 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 95 |
| 025 | 2500 | 15.9 | 23.7 | 2.73 | 42.0 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 100 |
| 030 | 3000 | 16.6 | 28.1 | 2.85 | 52.7 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 115 |
| 040 | 4000 | 22.4 | 37.5 | 3.85 | 9.9 | 150 | 200 | 300 | 0.75 | 0.75 | 1.1 | 125 |
| 050 | 5000 | 30.0 | 47.9 | 5.16 | 18.3 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 155 |
| 060 | 6000 | 35.5 | 58.1 | 6.10 | 30.3 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 167 |
| 070 | 7000 | 42.0 | 67.6 | 7.22 | 34.5 | 180 | 250 | 350 | 1.5 | 1.5 | 2.2 | 191 |
| 080 | 8000 | 48.7 | 76.9 | 8.37 | 38.6 | 180 | 250 | 350 | 1.5 | 2.2 | 2.2 | 260 |
| 090 | 9000 | 49.3 | 89.4 | 8.48 | 41.9 | 200 | 300 | 400 | 1.5 | 2.2 | 2.2 | 295 |
| 105 | 10500 | 59.3 | 104 | 10.20 | 65.3 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 315 |
| 120 | 12000 | 69.3 | 122.5 | 11.92 | 78.6 | 200 | 300 | 400 | 3 | 3 | 3 | 325 |
| 135 | 13500 | 82.7 | 144.9 | 14.22 | 52.9 | 300 | 400 | 500 | 3 | 3 | 4 | 383 |
| 150 | 15000 | 89.7 | 161.7 | 15.43 | 51.6 | 300 | 400 | 500 | 3 | 4 | 4 | 387 |
| 180 | 18000 | 115.5 | 202.6 | 19.86 | 30.7 | 300 | 400 | 500 | 4 | 4 | 5.5 | 446 |

Note:

- 1)For cooling cycle, water inlet/outlet temperature is 7 /12°C, air intake temperature is 27°C DB/19.5°C WB.
- 2)For heating cycle, water inlet temperature is 60°C, air intake temperature is 21°C.
- 3)Unit external pressure and motor power based on standard model. If any changes, please contact us.
- 4)Above data is just for reference. If the air intake condition or water inlet /outlet parameter is changed that led to different cooling/heating capacity, please contact us for further information.
- 5)Specifications in this catalog are subject to change without notice.

Cooling Capacity Performance Table

Cooling Capacity Performance Table--6R (Return Air)

| Model ACU | Air Volume | Nominal Cooling Capacity | Nominal Heating Capacity | Water flow rate | Water resistance | External pressure | | | Motor power | | | Unit weight |
|--------------|---------------|--------------------------------|--------------------------------|-----------------------|---------------------|-------------------|-----|-----|-------------|------|------|----------------|
| | | | | | ACU | I | II | III | I | II | III | ACU |
| | | | | | kPa | Pa | Pa | Pa | kW | kW | kW | kg |
| 010 | 1000 | 8.2 | 12.4 | 1.41 | 27.3 | 120 | 180 | 250 | 0.37 | 0.37 | 0.37 | 80 |
| 015 | 1500 | 10.5 | 16.0 | 1.81 | 49.6 | 120 | 180 | 250 | 0.37 | 0.37 | 0.55 | 86 |
| 020 | 2000 | 15.1 | 23.0 | 2.60 | 57.5 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 105 |
| 025 | 2500 | 18.1 | 29.8 | 3.11 | 79 | 120 | 180 | 250 | 0.55 | 0.55 | 0.75 | 110 |
| 030 | 3000 | 21.6 | 34.7 | 3.71 | 15.5 | 120 | 180 | 250 | 0.55 | 0.55 | 0.75 | 146 |
| 040 | 4000 | 28.7 | 46.5 | 4.94 | 24.9 | 150 | 200 | 300 | 0.75 | 0.75 | 1.1 | 155 |
| 050 | 5000 | 35.9 | 56.6 | 6.17 | 44.6 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 185 |
| 060 | 6000 | 42.8 | 65.9 | 7.36 | 72.5 | 150 | 200 | 300 | 1.1 | 1.5 | 1.5 | 208 |
| 070 | 7000 | 49.4 | 77.2 | 8.50 | 82.5 | 180 | 250 | 350 | 1.5 | 1.5 | 2.2 | 251 |
| 080 | 8000 | 57.9 | 87.5 | 9.96 | 27.6 | 180 | 250 | 350 | 2.2 | 2.2 | 2.2 | 300 |
| 090 | 9000 | 64.6 | 101.7 | 11.11 | 29.9 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 330 |
| 105 | 10500 | 78.3 | 124.7 | 13.47 | 46.2 | 200 | 300 | 400 | 2.2 | 3 | 3 | 345 |
| 120 | 12000 | 88.5 | 141.1 | 15.22 | 55.3 | 200 | 300 | 400 | 3 | 3 | 4 | 351 |
| 135 | 13500 | 98.5 | 160.9 | 16.94 | 37.53 | 300 | 400 | 500 | 3 | 4 | 4 | 413 |
| 150 | 15000 | 107.7 | 176.7 | 18.52 | 36.58 | 300 | 400 | 500 | 4 | 4 | 5.5 | 429 |
| 180 | 18000 | 126.4 | 207.5 | 21.74 | 73.1 | 300 | 400 | 500 | 4 | 5.5 | 7.5 | 499 |

Note:

- 1)For cooling cycle, water inlet/outlet temperature is 7/12°C, air intake temperature is 27°C DB/19.5°C WB.
- 2)For heating cycle, water inlet temperature is 60°C, air intake temperature is 21°C.
- 3)Unit external pressure and motor power based on standard model. If any changes, please contact us.
- 4)Above data is just for reference. If the air intake condition or water inlet /outlet parameter is changed that led to different cooling/heating capacity, please contact us for further information.
- 5)Specifications in this catalog are subject to change without notice.

Cooling Capacity Performance Table--8R (Return Air)

| Model ACU | Air Volume | Nominal Cooling Capacity | Nominal Heating Capacity | Water flow rate | Water resistance | External pressure | | | Motor power | | | unit weight |
|--------------|-------------------|--------------------------------|--------------------------------|-----------------------|---------------------|-------------------|-----|-----|-------------|------|------|----------------|
| | | | | | ACU | I | II | III | I | II | III | ACU |
| | m ³ /h | kW | kW | m ³ /h | kPa | Pa | Pa | Pa | kW | kW | kW | kg |
| 030 | 3000 | 25.6 | 38.7 | 4.40 | 26.0 | 120 | 180 | 250 | 0.55 | 0.75 | 0.75 | 175 |
| 040 | 4000 | 33.9 | 51.4 | 5.83 | 41.0 | 150 | 200 | 300 | 0.75 | 1.1 | 1.1 | 185 |
| 050 | 5000 | 41.4 | 62.1 | 7.12 | 30.0 | 150 | 200 | 300 | 1.1 | 1.5 | 1.5 | 225 |
| 060 | 6000 | 49.4 | 76.3 | 8.50 | 35.9 | 150 | 200 | 300 | 1.5 | 1.5 | 2.2 | 237 |
| 070 | 7000 | 57.7 | 87.4 | 9.92 | 40.7 | 180 | 250 | 350 | 1.5 | 2.2 | 2.2 | 293 |
| 080 | 8000 | 65.4 | 101.0 | 11.25 | 45.3 | 180 | 250 | 350 | 2.2 | 2.2 | 3 | 335 |
| 090 | 9000 | 73.9 | 121.4 | 12.71 | 62.0 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 365 |
| 105 | 10500 | 86.6 | 142.2 | 14.89 | 41.4 | 200 | 300 | 400 | 2.2 | 3 | 3 | 375 |
| 120 | 12000 | 99 | 162.5 | 17.02 | 38.7 | 200 | 300 | 400 | 3 | 3 | 4 | 393 |
| 135 | 13500 | 112.8 | 183.6 | 19.40 | 61.37 | 300 | 400 | 500 | 4 | 4 | 5.5 | 425 |
| 150 | 15000 | 123.6 | 201.2 | 21.26 | 59.50 | 300 | 400 | 500 | 4 | 4 | 5.5 | 441 |
| 180 | 18000 | 146.1 | 237.5 | 25.12 | 35.9 | 300 | 400 | 500 | 4 | 5.5 | 7.5 | 511 |

Note:

- 1)For cooling cycle, water inlet/outlet temperature is 7/12°C, air intake temperature is 27°C DB/19.5°C WB.
- 2)For heating cycle, water inlet temperature is 60°C, air intake temperature is 21°C.
- 3)Unit external pressure and motor power based on standard model. If any changes, please contact us.
- 4)Above data is just for reference. If the air intake condition or water inlet /outlet parameter is changed that led to different cooling/heating capacity, please contact us for further information.
- 5)Specifications in this catalog are subject to change without notice.

Cooling Capacity Performance Table

Cooling Capacity Performance Table--4R (Fresh Air)

| Model ACU | Air Volume | Nominal Cooling Capacity | Nominal Heating Capacity | Water flow rate | Water resistance | External pressure | | | Motor power | | | unit weight |
|--------------|-------------------|--------------------------------|--------------------------------|-----------------------|---------------------|-------------------|-----|-----|-------------|------|------|----------------|
| | | | | | ACU | I | II | III | I | II | III | ACU |
| | m ³ /h | kW | kW | m ³ /h | kPa | Pa | Pa | Pa | kW | kW | kW | kg |
| 010 | 1000 | 16.4 | 18.9 | 2.82 | 41.6 | 120 | 180 | 250 | 0.37 | 0.37 | 0.37 | 73 |
| 015 | 1500 | 21.9 | 26.1 | 3.77 | 66.7 | 120 | 180 | 250 | 0.37 | 0.37 | 0.37 | 80 |
| 020 | 2000 | 28.8 | 31.6 | 4.95 | 10.8 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 95 |
| 025 | 2500 | 34.9 | 41.5 | 6.00 | 15.1 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 100 |
| 030 | 3000 | 41 | 49.2 | 7.05 | 22.8 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 115 |
| 040 | 4000 | 48.9 | 61.5 | 8.41 | 38.7 | 150 | 200 | 300 | 0.75 | 0.75 | 1.1 | 125 |
| 050 | 5000 | 64.5 | 76.7 | 11.09 | 22.8 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 155 |
| 060 | 6000 | 76.4 | 92.6 | 13.14 | 27 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 167 |
| 070 | 7000 | 90.1 | 106.9 | 15.49 | 26.2 | 180 | 250 | 350 | 1.5 | 1.5 | 2.2 | 191 |
| 080 | 8000 | 104.1 | 121.4 | 17.9 | 37.2 | 180 | 250 | 350 | 1.5 | 2.2 | 2.2 | 260 |
| 090 | 9000 | 116.9 | 140.2 | 20.10 | 50.6 | 200 | 300 | 400 | 1.5 | 2.2 | 2.2 | 295 |
| 105 | 10500 | 141.7 | 172 | 24.37 | 36.7 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 315 |
| 120 | 12000 | 158.4 | 199.7 | 27.24 | 39 | 200 | 300 | 400 | 3 | 3 | 3 | 325 |
| 135 | 13500 | 175.1 | 225.3 | 30.11 | 22.32 | 300 | 400 | 500 | 3 | 3 | 4 | 383 |
| 150 | 15000 | 185.8 | 239.1 | 31.95 | 22.97 | 300 | 400 | 500 | 3 | 4 | 4 | 387 |
| 180 | 18000 | 210.8 | 262.3 | 36.25 | 26.2 | 300 | 400 | 500 | 4 | 5.5 | 5.5 | 446 |

Note:

- 1)For cooling cycle, water inlet/outlet temperature is 7/12°C, air intake temperature is 35°C DB/28°C WB.
- 2)For heating cycle, water inlet temperature is 60°C, air intake temperature is 7°C.
- 3)Unit external pressure and motor power based on standard model. If any changes, please contact us.
- 4)Above data is just for reference. If the air intake condition or water inlet /outlet parameter is changed that led to different cooling/heating capacity, please contact us for further information.
- 5)Specifications in this catalog are subject to change without notice.

Cooling Capacity Performance Table--6R (Fresh Air)

| Model ACU | Air Volume | Nominal Cooling Capacity | Nominal Heating Capacity | Water flow rate | Water resistance | External pressure | | | Motor power | | | unit weight |
|--------------|---------------|--------------------------------|--------------------------------|-----------------------|---------------------|-------------------|-----|-----|-------------|------|------|----------------|
| | | | | | ACU | I | II | III | I | II | III | ACU |
| | | | | | kPa | Pa | Pa | Pa | kW | kW | kW | kg |
| 010 | 1000 | 19.1 | 22.3 | 3.28 | 9.8 | 120 | 180 | 250 | 0.37 | 0.37 | 0.37 | 80 |
| 015 | 1500 | 27.1 | 31.4 | 4.66 | 21.0 | 120 | 180 | 250 | 0.37 | 0.37 | 0.55 | 86 |
| 020 | 2000 | 35.7 | 41.6 | 6.14 | 23.4 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 105 |
| 025 | 2500 | 43.4 | 50.8 | 7.46 | 33.9 | 120 | 180 | 250 | 0.55 | 0.55 | 0.75 | 110 |
| 030 | 3000 | 50.2 | 58.9 | 8.63 | 51.3 | 120 | 180 | 250 | 0.55 | 0.55 | 0.75 | 146 |
| 040 | 4000 | 64.6 | 76.3 | 11.11 | 28.4 | 150 | 200 | 300 | 0.75 | 0.75 | 1.1 | 155 |
| 050 | 5000 | 79.9 | 92.0 | 13.74 | 55.9 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 185 |
| 060 | 6000 | 95.6 | 110.8 | 16.44 | 61.6 | 150 | 200 | 300 | 1.1 | 1.5 | 1.5 | 208 |
| 070 | 7000 | 110.8 | 129.8 | 19.05 | 59.3 | 180 | 250 | 350 | 1.5 | 1.5 | 2.2 | 251 |
| 080 | 8000 | 126.1 | 146.3 | 21.69 | 65.3 | 180 | 250 | 350 | 2.2 | 2.2 | 2.2 | 300 |
| 090 | 9000 | 134.8 | 168.5 | 23.18 | 82.3 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 330 |
| 105 | 10500 | 164.1 | 204.9 | 28.22 | 85.6 | 200 | 300 | 400 | 2.2 | 3 | 3 | 345 |
| 120 | 12000 | 186.3 | 232.8 | 32.04 | 92.7 | 200 | 300 | 400 | 3 | 3 | 4 | 351 |
| 135 | 13500 | 208.6 | 266.1 | 35.87 | 53.98 | 300 | 400 | 500 | 3 | 4 | 4 | 413 |
| 150 | 15000 | 225.3 | 287.3 | 38.74 | 56.01 | 300 | 400 | 500 | 4 | 4 | 5.5 | 429 |
| 180 | 18000 | 269.1 | 336.7 | 46.28 | 52.0 | 300 | 400 | 500 | 5.5 | 5.5 | 7.5 | 499 |

Note:

- 1)For cooling cycle, water inlet/outlet temperature is 7/12°C, air intake temperature is 35°C DB/28°C WB.
- 2)For heating cycle, water inlet temperature is 60°C, air intake temperature is 7°C.
- 3)Unit external pressure and motor power based on standard model. If any changes, please contact us.
- 4)Above data is just for reference. If the air intake condition or water inlet /outlet parameter is changed that led to different cooling/heating capacity, please contact us for further information.
- 5)Specifications in this catalog are subject to change without notice.

Cooling Capacity Performance Table

Cooling Capacity Performance Table--8R (Fresh Air)

| Model ACU | Air Volume | Nominal Cooling Capacity | Nominal Heating Capacity | Water flow rate | Water resistance | External pressure | | | Motor power | | | Unit weight |
|--------------|---------------|--------------------------------|--------------------------------|-----------------------|---------------------|-------------------|-----|-----|-------------|------|------|----------------|
| | | | | | ACU | I | II | III | I | II | III | ACU |
| | | | | | kPa | Pa | Pa | Pa | kW | kW | kW | kg |
| 030 | 3000 | 55.1 | 63.9 | 9.48 | 26.0 | 120 | 180 | 250 | 0.55 | 0.75 | 0.75 | 175 |
| 040 | 4000 | 70.5 | 82.6 | 12.12 | 48.7 | 150 | 200 | 300 | 0.75 | 1.1 | 1.1 | 185 |
| 050 | 5000 | 86.1 | 100.2 | 14.81 | 40.5 | 150 | 200 | 300 | 1.1 | 1.5 | 1.5 | 225 |
| 060 | 6000 | 107.4 | 127.7 | 18.47 | 45.3 | 180 | 250 | 350 | 1.5 | 1.5 | 2.2 | 237 |
| 070 | 7000 | 120.5 | 139.5 | 20.72 | 43.5 | 180 | 250 | 350 | 1.5 | 2.2 | 2.2 | 293 |
| 080 | 8000 | 136.7 | 159.3 | 23.51 | 60.9 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 335 |
| 090 | 9000 | 153.6 | 191.8 | 26.41 | 69.5 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 365 |
| 105 | 10500 | 180.9 | 226.1 | 31.11 | 80.2 | 200 | 300 | 400 | 2.2 | 3 | 3 | 375 |
| 120 | 12000 | 205.2 | 256.5 | 35.29 | 85.4 | 200 | 300 | 400 | 3 | 3 | 4 | 393 |
| 135 | 13500 | 236.3 | 301.4 | 40.64 | 35.4 | 300 | 400 | 500 | 4 | 4 | 5.5 | 425 |
| 150 | 15000 | 249.3 | 318.0 | 42.87 | 36.8 | 300 | 400 | 500 | 4 | 4 | 5.5 | 441 |
| 180 | 18000 | 298.4 | 374.0 | 51.32 | 38.5 | 300 | 400 | 500 | 5.5 | 5.5 | 7.5 | 511 |

Note:

- 1)For cooling cycle, water inlet/outlet temperature is 7/12°C, air intake temperature is 35°C DB/28°C WB.
- 2)For heating cycle, water inlet temperature is 60°C, air intake temperature is 7°C.
- 3)Unit external pressure and motor power based on standard model. If any changes, please contact us.
- 4)Above data is just for reference. If the air intake condition or water inlet /outlet parameter is changed that led to different cooling/heating capacity, please contact us for further information.
- 5)Specifications in this catalog are subject to change without notice.

Heating & Humidifying Performance Table

| Model ACU | Air Volume | Return air condition | | | | | | Fresh air condition | | | | | | Humidifying capacity | | | | | |
|--------------|------------|----------------------|------|------|---------------------|-------|------|---------------------|------|------|---------------------|-------|------|------------------------------|------|------|------|-------|-------|
| | | 1 Row hating coil | | | 2 Rows heating coil | | | 1 Row hating coil | | | 2 Rows heating coil | | | Humidify type:wet-membranous | | | | | |
| | | NHC | WFR | WR | NHC | WFR | WR | NHC | WFR | WR | NHC | WFR | WR | NHC | WFR | WR | 50mm | 100mm | 150mm |
| | | kw | m³/h | K pa | kw | m³/h | Kpa | kw | m³/h | Kpa | kw | m³/h | Kpa | kw | m³/h | Kpa | kg/h | kg/h | kg/h |
| 10 | 1000 | 4 | 0.34 | 0.3 | 6.3 | 0.54 | 0.3 | 5.6 | 0.48 | 1.2 | 8 | 0.69 | 0.6 | 2.7 | 5.5 | 6.9 | | | |
| 15 | 1500 | 5.8 | 0.5 | 0.5 | 10.7 | 0.92 | 0.6 | 8.7 | 0.75 | 2 | 13.6 | 1.17 | 1.4 | 3.7 | 7.3 | 9.1 | | | |
| 20 | 2000 | 8.7 | 0.75 | 0.8 | 14.6 | 1.26 | 0.9 | 11.6 | 1 | 3.2 | 19.4 | 1.67 | 2.3 | 5.5 | 11.1 | 13.8 | | | |
| 25 | 2500 | 9.7 | 0.83 | 1 | 17.5 | 1.5 | 1.2 | 13.6 | 1.17 | 4.3 | 21.3 | 1.83 | 2.7 | 5.5 | 11.1 | 13.8 | | | |
| 30 | 3000 | 12.7 | 1.09 | 1.8 | 22.5 | 1.93 | 2.9 | 16.7 | 1.44 | 7.1 | 27.4 | 2.36 | 4.9 | 6.5 | 13 | 16.3 | | | |
| 40 | 4000 | 16.7 | 1.44 | 3.2 | 27.4 | 2.36 | 3.1 | 21.6 | 1.86 | 10.7 | 35.3 | 3.04 | 8 | 8.7 | 17.4 | 21.7 | | | |
| 50 | 5000 | 21.6 | 1.86 | 6.3 | 35.3 | 3.04 | 4.7 | 28.4 | 2.44 | 20.6 | 45.1 | 3.88 | 12.7 | 10.6 | 21.3 | 26.6 | | | |
| 60 | 6000 | 25.5 | 2.19 | 7.1 | 43.1 | 3.71 | 7.4 | 33.3 | 2.86 | 20.9 | 52.9 | 4.55 | 10.4 | 12.6 | 25.2 | 31.5 | | | |
| 70 | 7000 | 29.4 | 2.53 | 8.3 | 51 | 4.39 | 8.7 | 38.2 | 3.28 | 21.5 | 62.7 | 5.39 | 14.9 | 14.7 | 29.5 | 36.8 | | | |
| 80 | 8000 | 33.3 | 2.86 | 8.7 | 56.8 | 4.88 | 9.2 | 44.1 | 3.79 | 31.6 | 70.6 | 6.07 | 19.4 | 16.8 | 33.5 | 41.9 | | | |
| 90 | 9000 | 38.2 | 3.28 | 14.2 | 65.7 | 5.65 | 16.3 | 50 | 4.3 | 43.9 | 79.4 | 6.83 | 24.7 | 18.8 | 37.6 | 46.9 | | | |
| 105 | 10500 | 46.1 | 3.96 | 21.1 | 75.5 | 6.49 | 17.8 | 56.8 | 4.88 | 16.3 | 95.1 | 8.18 | 37.5 | 22 | 44 | 55 | | | |
| 120 | 12000 | 51.9 | 4.46 | 22.7 | 86.2 | 7.41 | 18.9 | 65.7 | 5.65 | 52.2 | 107.8 | 9.27 | 42.8 | 25.6 | 51.2 | 64.1 | | | |
| 135 | 13500 | 51.9 | 4.46 | 18 | 97 | 8.34 | 13.9 | 74.7 | 6.42 | 35 | 123.2 | 10.59 | 36.9 | 28.7 | 57.3 | 71.6 | | | |
| 150 | 15000 | 64 | 5.5 | 23.7 | 106.7 | 9.17 | 21.5 | 77.6 | 6.67 | 35 | 128 | 11.01 | 28.7 | 31 | 62.1 | 77.6 | | | |
| 180 | 18000 | 76.6 | 6.59 | 32.4 | 124.2 | 10.68 | 20.7 | 93.1 | 8.01 | 43.9 | 154.2 | 13.26 | 38.2 | 37.7 | 75.4 | 94.3 | | | |

Note:

- 1) Heating operation: inlet/outlet water temperature 60/50°C, fresh air inlet temperature 7°C, return air inlet temperature 21°C.
- 2) The above data is just for reference. If the air intake condition, water inlet/outlet parameter changes led to different capacity, please contact us for further information.
- 3) The applied coil for wet-film humidifier: 4 rows: 150mm and below; 6 rows: 100mm and below; 8 rows: 50mm.
- 4) The largest model for ACU is ACU180.
- 5) NHC: Nominal heating capacity; WFR: Water flow rate; WR: Water resistance.

Cooling Capacity Performance Chart in Dry Cooling Condition

Cooling Capacity Performance Chart in Dry Cooling Condition 4R (Return Air)

This range of unit is different from factory standard unit in following aspects:

- 1.For AHU in dry cooling condition, surface temperature of cooling coil is higher than dew point temperature of the air. In temperature and humidity independent system, terminal units in dry cooling condition take the indoor main sensible heat load.
- 2.Cooling coil has optimal design on rows and layout of pipe thus enhancing heat exchanging efficiency.
- 3.No condensed water is formed in dry cooling condition so as to avoid bacterium and secondary pollution. Therefore it boasts some superiority in cleaning system of electronic and pharmaceutical factory which requires small cooling capacity and large air volume.

| Model ACU | Air Volume | Nominal Cooling Capacity | Water flow rate | Water resistance | Extenal pressure | | | Motor power | | | Unit weight |
|-----------|------------|--------------------------|-----------------|------------------|------------------|-----|-----|-------------|------|------|-------------|
| | | | | ACU | I | II | III | I | II | III | ACU |
| | | | | Kpa | Pa | Pa | Pa | kW | kW | kW | kg |
| 10 | 1000 | 2.06 | 0.18 | 4.96 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 73 |
| 15 | 1500 | 3.11 | 0.27 | 13.12 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 80 |
| 20 | 2000 | 3.97 | 0.34 | 17.02 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 95 |
| 25 | 2500 | 4.93 | 0.42 | 23.25 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 100 |
| 30 | 3000 | 5.67 | 0.49 | 29.99 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 115 |
| 40 | 4000 | 7.75 | 0.67 | 22.31 | 150 | 200 | 300 | 0.75 | 0.75 | 1.1 | 125 |
| 50 | 5000 | 10.12 | 0.87 | 45.24 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 155 |
| 60 | 6000 | 11.93 | 1.03 | 50.32 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 167 |
| 70 | 7000 | 14.01 | 1.2 | 48.23 | 180 | 250 | 350 | 1.5 | 1.5 | 2.2 | 191 |
| 80 | 8000 | 16.02 | 1.38 | 66.55 | 180 | 250 | 350 | 1.5 | 2.2 | 2.2 | 260 |
| 90 | 9000 | 17.1 | 1.47 | 11.99 | 200 | 300 | 400 | 1.5 | 2.2 | 2.2 | 295 |
| 105 | 10500 | 20.64 | 1.77 | 19.87 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 315 |

Note:

- 1)The above chart cooling capacity based on condition of: inlet/outlet water 18/21°C, intake air temperature 27°C DB, 19.5 °C WB.
- 2)If real working condition is different from the standard condition, please refer to the modified coefficient on Page13 to correct. Correction formula: Real cooling capacity= Nominal cooling capacity* working condition modified coefficient.
- 3)External pressure and motor power both have respective standard unit, please contact us If there is any change.

Cooling Capacity Performance Chart in Dry Cooling Condition

Cooling Capacity Performance Chart in Dry Cooling Condition 6R (Return Air)

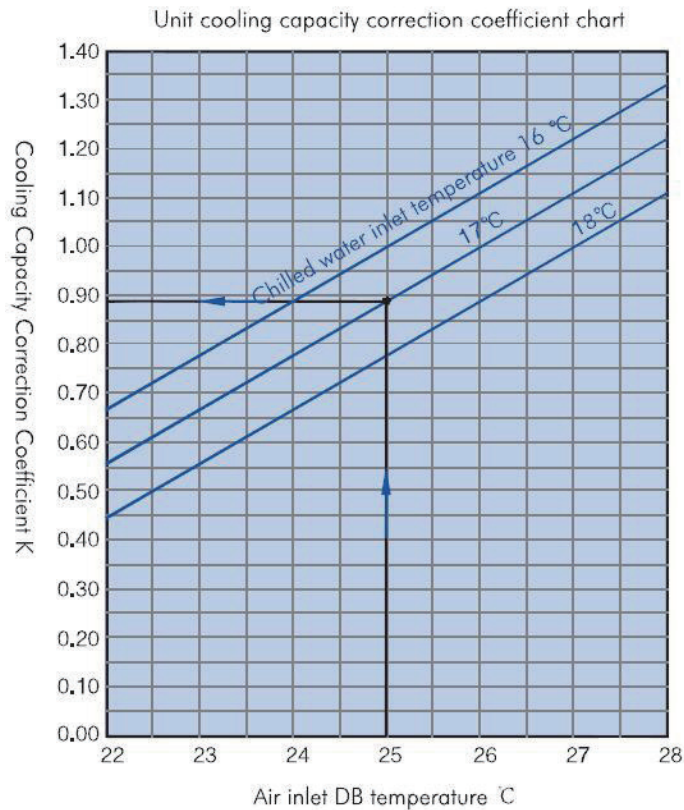
| Model ACU | Air Volume | Nominal Cooling Capacity | Water flow rate | Water resistance | External pressure | | | Motor power | | | Unit weight |
|--------------|---------------|--------------------------------|-----------------------|---------------------|-------------------|-----|-----|-------------|------|------|----------------|
| | | | | ACU | I | II | III | I | II | III | ACU |
| | | | | Kpa | Pa | Pa | Pa | kW | kW | kW | kg |
| 010 | 1000 | 2.39 | 0.21 | 3.53 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 80 |
| 015 | 1500 | 3.61 | 0.31 | 10.01 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 86 |
| 020 | 2000 | 4.78 | 0.41 | 10.58 | 120 | 180 | 250 | 0.55 | 0.55 | 0.55 | 105 |
| 025 | 2500 | 5.78 | 0.50 | 14.90 | 120 | 180 | 250 | 0.55 | 0.55 | 0.75 | 110 |
| 030 | 3000 | 6.91 | 0.59 | 22.13 | 120 | 180 | 250 | 0.55 | 0.55 | 0.75 | 146 |
| 040 | 4000 | 9.39 | 0.81 | 47.28 | 150 | 200 | 300 | 0.75 | 0.75 | 1.1 | 155 |
| 050 | 5000 | 11.56 | 0.99 | 12.43 | 150 | 200 | 300 | 1.1 | 1.1 | 1.5 | 185 |
| 060 | 6000 | 13.69 | 1.18 | 13.94 | 150 | 200 | 300 | 1.1 | 1.5 | 1.5 | 208 |
| 070 | 7000 | 16.05 | 1.38 | 13.39 | 180 | 250 | 350 | 1.5 | 1.5 | 2.2 | 251 |
| 080 | 8000 | 18.40 | 1.58 | 18.53 | 180 | 250 | 350 | 2.2 | 2.2 | 2.2 | 300 |
| 090 | 9000 | 20.90 | 1.80 | 25.68 | 200 | 300 | 400 | 2.2 | 2.2 | 3 | 330 |
| 105 | 10500 | 24.90 | 2.14 | 41.67 | 200 | 300 | 400 | 2.2 | 3 | 3 | 345 |

Note:

- 1)The above chart cooling capacity based on condition of: inlet/outlet water 18/21°C, intake air temperature 27°C DB, 19.5°C WB.
- 2)If real working condition is different from the standard condition, please refer to the modified coefficient on Page13 to correct. Correction formula: Real cooling capacity= Nominal cooling capacity* working condition modified coefficient.
- 3)External pressure and motor power both have respective standard unit, please contact us If there is any change.

Cooling Capacity Correction in Dry Cooling Condition

Unit standard cooling capacity based on inlet air condition: 27°C DW/19.5°C WB, chilled water 18°C. For air conditioner system, designed chilled water temperature is related to indoor air dew-point temperature. When indoor parameter or chilled water inlet temperature changes, unit cooling capacity changes accordingly. The following figure shows unit cooling capacity correction of inlet chilled water at 16°C, 17°C, 18°C when air inlet DB temperature changes.



Selection Example of Unit Cooling Capacity:

E. g.: Electronic plant, total air volume-4000m³/h, indoor return air DB temperature 25°C, chilled water supply/return water temperature 17/20°C, model ACU040-4 Rows dry type AHU real cooling capacity is:

1. Unit rating capacity

According to the parameter chart on Page11 when chilled water supply/return water temperature is 18/21°C rated cooling capacity of ACU040-4R:

$$Q_0 = 7.75 \text{ KW}$$

2. Correction coefficient

Find 25°C at the horizontal axis of cooling capacity correction coefficient chart and then find the 17°C curve along the arrow, go straight to the left along the arrow and get the correction coefficient.

$$K = 0.885$$

3. Unit real cooling capacity

$$Q = Q_0 * k = 7.75 * 0.885 = 6.86 \text{ KW}$$

Jet Flow Air Handling Unit

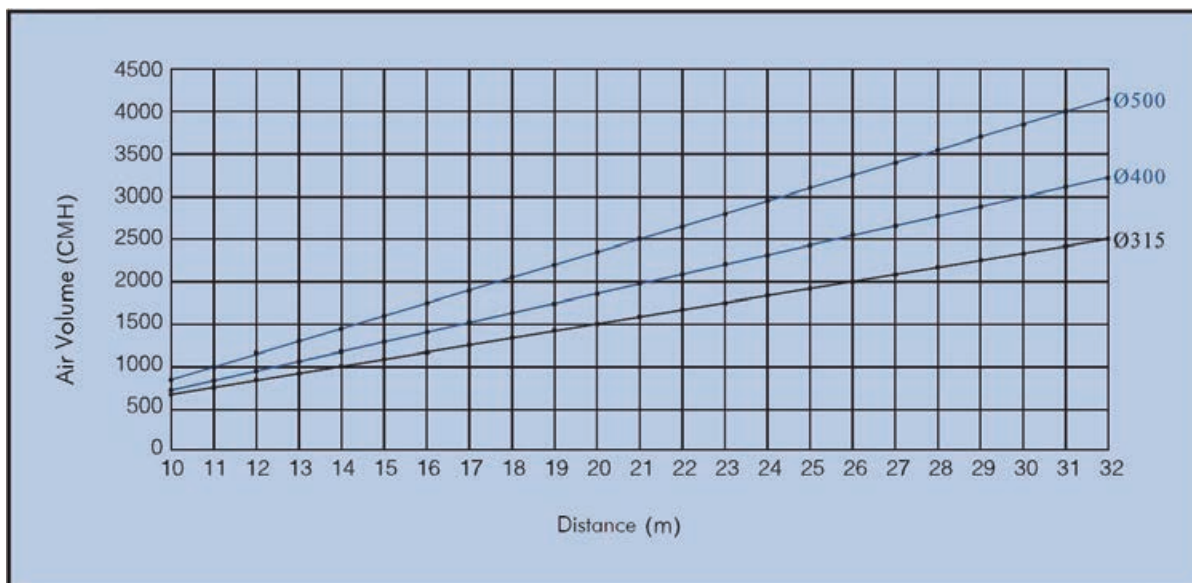
High performance ball-shaped spout is applied without need for air pipe, thus saving much space, mainly for large space direct air supply system. Heating operation performance parameters are the same with AHU (See details on Pages 2-8). Jet flow unit ball-shaped spout has an adjustable inside bail with long jet distance and large coverage area, widely used in places with large space such as theater, stadium, airport, supermarket, workshop, large commercial building and exhibition hall.

Selection mainly takes air volume, cooling capacity and air-flow organization into consideration. When supply air distance installation height, supply air temperature, indoor temperature and supply air volume has been determined for the building, chose proper jet flow AHU to make outlet cold and hot jet flow meet requirements as follows:

- 1.Cold and hot air should go to the targeted place.
- 2.Cold jet flow not go down in the middle way then lead to uncomfortable consequence.
- 3.Hot air can be sent to required distance and location.
- 4.Water temperature difference can meet the designed requirement.

Selection design need consider mutual influence and interaction among supply-air outlets. Jet flow expansion width is 40% of jet flow distance, and unit layout density is advised to be a little less than expansion width. For example, when unit clings to the ceiling, the related influence should be taken into consideration since jet distance of adherence air flow is 1.4 times of that of normal air flow.

Supply Air Outlet Opening Specification Selection



Note:

- 1.Air volume in above diagram refers to single outlet air volume; double outlets air volume is 50% of unit air volume.
- 2.Jet distance refers to the distance from the outlet at 0.5m/s axis air speed.
- 3.Choosing as large as possible outlet since small outlet has larger resistance thus in need for higher motor power.

Jet Flow Unit Horizontal Jet Distance Recommended Selection

Jet Flow Unit Horizontal Jet Distance Recommended Selection

| | | | | | | | | | | | | | |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Model ACU | 010 | 015 | 020 | 025 | 030 | 040 | 050 | 060 | 070 | 080 | 090 | 105 | 120 |
| Jet distance | ~12 | ~16 | -18 | ~20 | ~22 | ~24 | ~26 | ~26 | ~28 | -30 | ~30 | ~30 | ~31 |
| Applied distance | 18 | 22 | 24 | 26 | 28 | 30 | 32 | 32 | 34 | 36 | 36 | 36 | 37 |

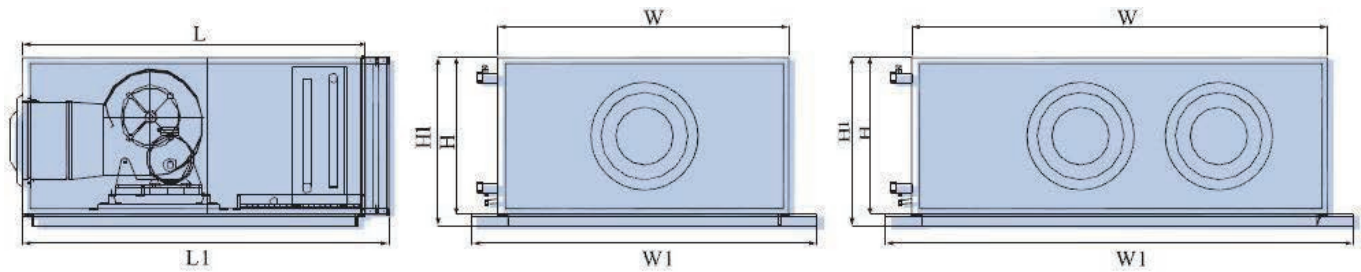
Jet Flow Unit Parameter

| Model ACU | Air volume CMH | Spout specification | No. of spout | Motor power kW | | | | | | | | | | | | | | |
|-----------|----------------|---------------------|--------------|------------------|------|------|------------------|------|------|------------------|------|-----|------------------|------|-----|------------------|------|-----|
| | | | | Jet distance 10m | | | Jet distance 15m | | | Jet distance 20m | | | Jet distance 25m | | | Jet distance 30m | | |
| | | | | 4R | 6R | 8R | 4R | 6R | 8R | 4R | 6R | 8R | 4R | 6R | 8R | 4R | 6R | 8R |
| 010 | 1000 | Φ315 | 1 | 0.25 | 0.25 | - | 0.25 | 0.18 | - | 0.25 | 0.25 | | | | | | | |
| 015 | 1500 | Φ315 | 1 | 0.25 | 0.25 | - | 0.25 | 0.32 | - | 0.32 | 0.37 | - | 0.37 | 0.37 | - | - | - | - |
| 020 | 2000 | Φ315 | 1 | 0.32 | 0.45 | - | 0.45 | 0.45 | - | 0.46 | 0.55 | - | 0.55 | 0.55 | - | - | - | - |
| 025 | 2500 | Φ400 | 1 | 0.32 | 0.32 | - | 0.32 | 0.55 | - | 0.55 | 0.55 | - | 0.55 | 0.45 | - | 0.45 | 0.45 | - |
| 030 | 3000 | Φ400 | 1 | 0.56 | 0.55 | 0.75 | 0.55 | 0.75 | 0.75 | 0.75 | 0.75 | 1.1 | 0.75 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 040 | 4000 | Φ400 | 1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 050 | 5000 | Φ400 | 2 | 1.1 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.2 | 1.5 | 2.2 | 2.2 |
| 060 | 6000 | Φ400 | 2 | 1.1 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.2 | 1.5 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 070 | 7000 | Φ400 | 2 | 1.5 | 1.5 | 2.2 | 1.5 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 3 |
| 080 | 8000 | Φ400 | 2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 090 | 9000 | Φ500 | 2 | 1.5 | 2.2 | 2.2 | 1.5 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 105 | 10500 | Φ500 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 120 | 12000 | Φ500 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

Note:

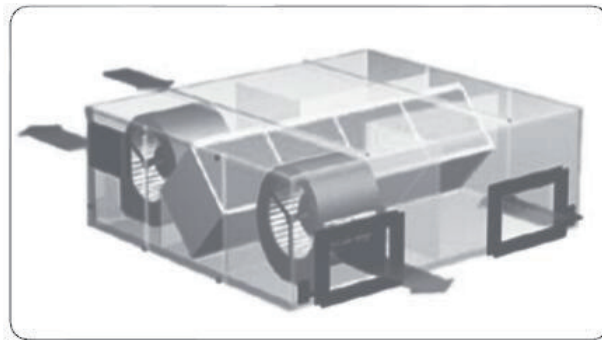
Above power is based on no external pressure. The air pipes are needed at the inlet, please indicate in the order. If air pipes are needed or jet distance surpass above specification, please contact engineering department of factory.

Jet Flow Unit Dimension



| Model ACU | L | W | H | L1 | W1 | H1 | Air supply outlet specification | Air supply outlet No. | Flange Air Inlet Length * Width * No. |
|-----------|------|------|-----|------|------|-----|---------------------------------|-----------------------|---------------------------------------|
| 010 | 1240 | 710 | 440 | 1290 | 870 | 490 | 0315 | 1 | 660 x 390x1 |
| 015 | 1240 | 860 | 440 | 1290 | 1020 | 490 | 0315 | 1 | 810 x 390x1 |
| 020 | 1240 | 940 | 520 | 1290 | 1100 | 570 | 0315 | 1 | 890 x 470x1 |
| 025 | 1240 | 940 | 520 | 1290 | 1100 | 570 | 0400 | 1 | 890 x 470x1 |
| 030 | 1400 | 1060 | 520 | 1450 | 1220 | 570 | 0400 | 1 | 1010x470x1 |
| 040 | 1400 | 1210 | 570 | 1450 | 1370 | 620 | 0400 | 1 | 1160 x 520x1 |
| 050 | 1400 | 1420 | 570 | 1460 | 1580 | 620 | 0400 | 2 | 1370x520x1 |
| 060 | 1400 | 1640 | 600 | 1460 | 1800 | 650 | 0400 | 2 | 1590 x 550x1 |
| 070 | 1400 | 1700 | 650 | 1460 | 1860 | 700 | 0400 | 2 | 1650 x 570x1 |
| 080 | 1400 | 1760 | 670 | 1450 | 1920 | 720 | 0400 | 2 | 1710x620x1 |
| 090 | 1400 | 1800 | 720 | 1450 | 1960 | 770 | 0500 | 2 | 1750 x 670x1 |
| 105 | 1550 | 2060 | 720 | 1600 | 2220 | 770 | 0500 | 2 | 2010 x 670x1 |
| 120 | 1550 | 2200 | 800 | 1600 | 2360 | 850 | 0500 | 2 | 2150 x 750x1 |

Fresh Air Ventilator



Operating Principle:

Energy recovery fresh air ventilator is an air-to-air sensible/total heat exchanger which applied plate heat recovery unit. It discharges indoor polluted air, and takes in outdoor fresh air; meanwhile discharged air and fresh air will have heat exchange and humidity exchange (energy transfer, discharged air heats fresh air in winter and cools fresh air in summer), so that indoor air is exchanged with outdoor air while quality improved, heat recovered and energy saved. Inner installed heat recovery unit handles turbulent air flow, which helps to conduct more complete heat exchange with higher efficient.

Plate Heat Recovery Type:

Sensible Heat Recovery: Hydrophilic aluminum fin against sea water corrosion is processed by special techniques, with high heat exchange rate, long useful lifespan and easy to maintain. It can be used in area with high indoor and outdoor temperature difference and low humidity.

Total Heat Recovery: Nonporous film paper (ER paper) is applied, which has low thickness, high moisture permeability, good air tightness, agreeing resistant and high heat exchange rate. It is mainly used in area with low indoor and outdoor temperature difference and high humidity.

Unit features

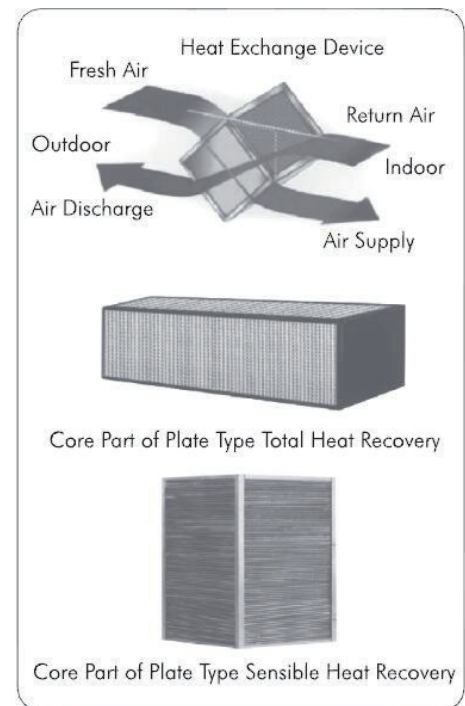
Double-way ventilation: Indoor & outdoor double-way; ventilation provides the room with 100% fresh air.

High Efficient, Energy Saving: Inner heat exchanger rate is higher than 65%, so that heating and cooling load will not be affected by fresh air volume, which saves as much as 30% energy, truly high efficient and energy saving.

Environmental Friendly: Indoor noxious air is discharged to outdoor and replaced by fresh air so as to clean indoor in an environment friendly way.

Easy Maintenance & Operation: Plate heat exchanger has no moving part thus costing little maintenance fee. With tight structure, small scale and inner heat recover device, it can be used only after connected to supply power and air duct, without need of heat/cooling source.

Low Noise: Low noise, external rotor fan is applied with inner arts gone through denouncing treatment. AHU case is insulated by high density PE foam, which keeps any disturbance out of the site.



Fresh Air Ventilator Parameters (Sensible Heat)

| Model | Air flow | Temperature efficiency % | | External pressure | | Motor power | | Weight | Power supply |
|----------|-------------------|--------------------------|--------|-------------------|----------------------|-----------------|--------------------|--------|--------------|
| | | | | Supply air system | Discharge air system | Supply Air Side | Discharge Air Side | | |
| | m ³ /h | Summer | Winter | Pa | Pa | kW | kW | kg | PH-V-Hz |
| ACU010AS | 1000 | 62 | 67 | 130 | 130 | 0.25 | 0.25 | 132 | 3-380-50 |
| ACU015AS | 1500 | 62 | 67 | 150 | 150 | 0.32 | 0.32 | 155 | 3-380-50 |
| ACU020AS | 2000 | 60 | 65 | 200 | 200 | 0.45 | 0.45 | 201 | 3-380-50 |
| ACU025AS | 2500 | 63 | 67 | 200 | 200 | 0.45 | 0.45 | 240 | 3-380-50 |
| ACU030AS | 3000 | 62 | 67 | 250 | 250 | 0.8 | 0.8 | 274 | 3-380-50 |
| ACU040AS | 4000 | 62 | 67 | 230 | 230 | 1.0 | 1.0 | 330 | 3-380-50 |
| ACU050AS | 5000 | 62 | 67 | 250 | 250 | 1.1 | 1.1 | 427 | 3-380-50 |
| AHU060AS | 6000 | 62 | 67 | 250 | 250 | 0.8*2 | 0.8*2 | 540 | 3-380-50 |
| AHU080AS | 8000 | 62 | 67 | 230 | 230 | 1.0*2 | 1.0*2 | 652 | 3-380-50 |
| AHU105AS | 10000 | 62 | 67 | 250 | 250 | 1.1*2 | 1.1*2 | 844 | 3-380-50 |

Fresh Air Ventilator Parameters (Total Heat)

| Model | Airflow | Temperature efficiency % | | External pressure | | Motor power | | Weight | Power supply |
|----------|-------------------|--------------------------|--------|-------------------|----------------------|-----------------|--------------------|--------|--------------|
| | | | | Supply air system | Discharge air system | Supply Air Side | Discharge Air Side | | |
| | m ³ /h | Summer | Winter | Pa | Pa | kW | kW | kg | PH-V-Hz |
| ACU010AT | 1000 | 60 | 65 | 130 | 130 | 0.25 | 0.25 | 132 | 3-380-50 |
| ACU015AT | 1500 | 60 | 65 | 150 | 150 | 0.32 | 0.32 | 155 | 3-380-50 |
| ACU020AT | 2000 | 59 | 63 | 200 | 200 | 0.45 | 0.45 | 201 | 3-380-50 |
| ACU025AT | 2500 | 60 | 65 | 200 | 200 | 0.45 | 0.45 | 240 | 3-380-50 |
| ACU030AT | 3000 | 60 | 65 | 250 | 250 | 0.8 | 0.8 | 274 | 3-380-50 |
| ACU040AT | 4000 | 60 | 65 | 230 | 230 | 1.0 | 1.0 | 330 | 3-380-50 |
| ACU050AT | 5000 | 60 | 65 | 250 | 250 | 1.1 | 1.1 | 427 | 3-380-50 |
| AHU060AT | 6000 | 60 | 65 | 250 | 250 | 0.8*2 | 0.8*2 | 540 | 3-380-50 |
| KWD080AT | 8000 | 60 | 65 | 230 | 230 | 1.0*2 | 1.0*2 | 652 | 3-380-50 |
| KWC105AT | 10000 | 60 | 65 | 250 | 250 | 1.1*2 | 1.1*2 | 844 | 3-380-50 |

Note:

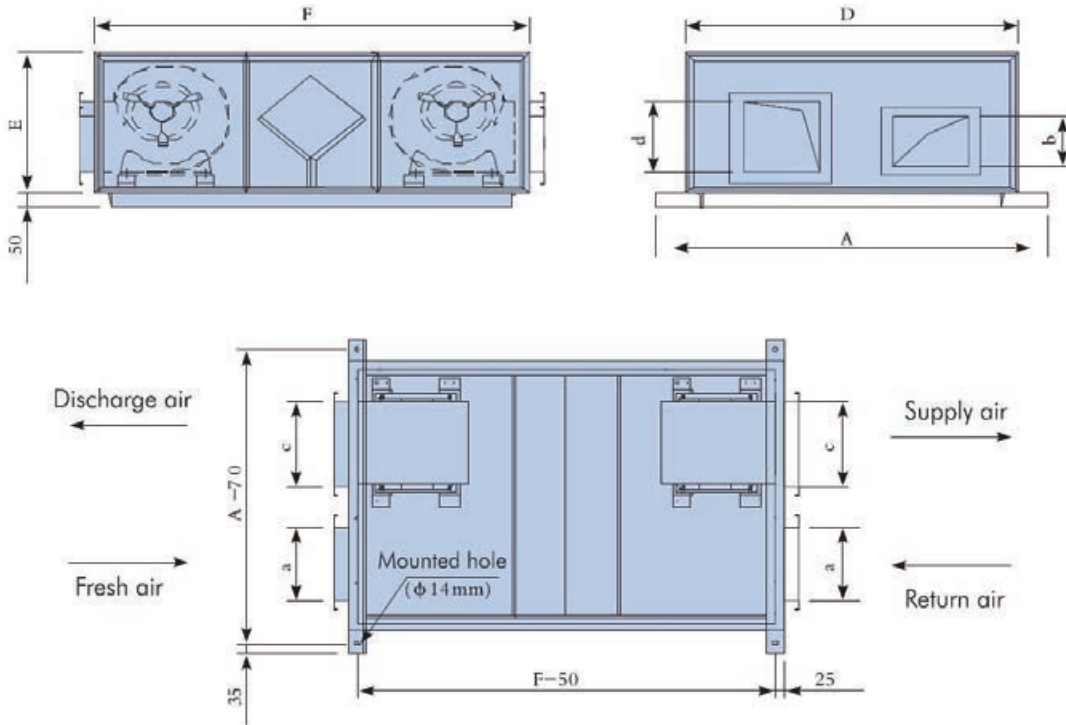
1)For cooling condition, fresh air temperature is 35°C DB/28°C WB; return air temperature is 27°C DB/19.5°C WB.

2)For heating condition, fresh air temperature is -7°C DB; return air temperature is 21°C DB.

3)Unit external static and motor power based on standard model. If any changes, please contact us. (Motor power is output power).

4)Specifications in this catalog are subject to change without notice.

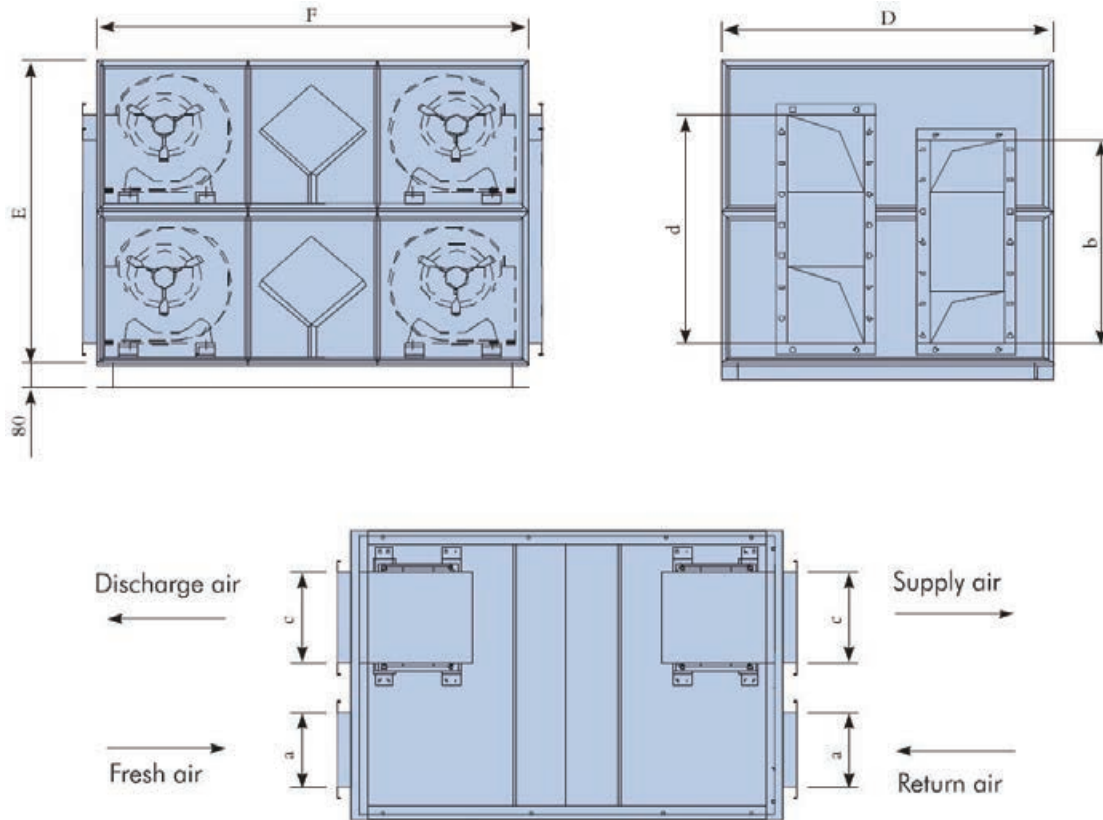
Fresh Air Ventilator Dimension –Ceiling Type (ACU AS(T))



| Model | Dimension (mm) | | | | | |
|-----------|----------------|------|-----|------|-----------|-----------|
| | A | D | E | F | A x b | C x d |
| ACU AS(T) | | | | | | |
| 010 | 900 | 740 | 443 | 1224 | 220x180 | 225 x 219 |
| 015 | 1240 | 1080 | 443 | 1224 | 340x180 | 300 x 230 |
| 020 | 1480 | 1320 | 443 | 1374 | 440x180 | 258 x 246 |
| 025 | 1480 | 1320 | 584 | 1562 | 460x220 | 300x272 |
| 030 | 1590 | 1430 | 584 | 1588 | 560x220 | 300 x 272 |
| 040 | 1590 | 1430 | 726 | 1755 | 560x280 | 356 x 305 |
| 050 | 1940 | 1780 | 726 | 2060 | 740 x 280 | 375 x 375 |

Fresh Air Ventilator Dimension --Horizontal Type (ACU AS(T))

Fresh Air Ventilator Dimension –Horizontal Type (ACU AS(T))

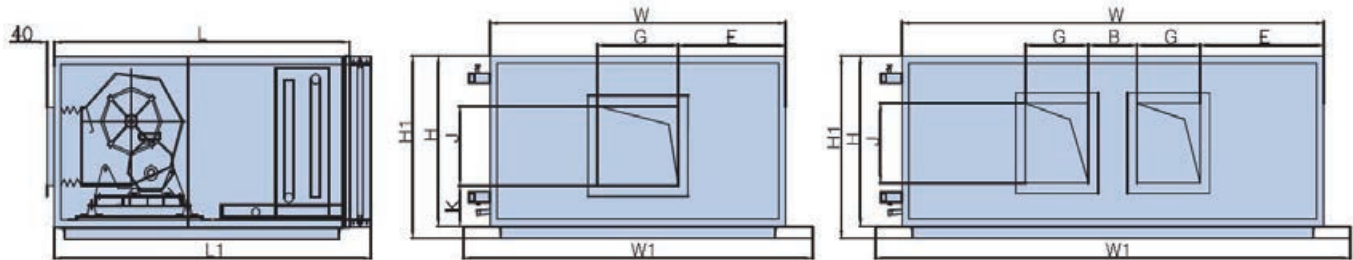


| Model | Dimension (mm) | | | | |
|-----------|----------------|------|------|----------|-----------|
| | D | E | F | A x b | C x d |
| ACU AS(T) | | | | | |
| 060 | 1430 | 1168 | 1588 | 560x805 | 300 x 855 |
| 080 | 1430 | 1452 | 1755 | 560x1005 | 356x1030 |
| 105 | 1780 | 1452 | 2060 | 740x1005 | 375x1100 |

ACU Standard Model Piping Dimension

| Model ACU | Return air | | | | | Fresh air | | | | | Dry return air | | Water pipe condensate |
|--------------|------------|----|----|--------|---------|-----------|----|----|--------|---------|----------------|----|--------------------------|
| | 4R | 6R | 8R | 1RHeat | 2R Heat | 4R | 6R | 8R | 1RHeat | 2R Heat | 4R | 6R | |
| | DN | DN | DN | DN | DN | DN | DN | DN | DN | DN | DN | DN | DN |
| 010 | 40 | 40 | - | 40 | 40 | 40 | 40 | - | 40 | 40 | 32 | 32 | 25 |
| 015 | 40 | 40 | - | 40 | 40 | 40 | 40 | - | 40 | 40 | 32 | 32 | 25 |
| 020 | 40 | 40 | - | 40 | 40 | 40 | 40 | - | 40 | 40 | 32 | 32 | 25 |
| 025 | 40 | 40 | - | 40 | 40 | 40 | 40 | - | 40 | 40 | 32 | 32 | 25 |
| 030 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 32 | 32 | 25 |
| 040 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 50 | 40 | 40 | 32 | 32 | 25 |
| 050 | 40 | 40 | 40 | 40 | 40 | 40 | 50 | 50 | 40 | 40 | 32 | 32 | 25 |
| 060 | 40 | 40 | 40 | 40 | 40 | 50 | 50 | 50 | 40 | 40 | 32 | 32 | 25 |
| 070 | 40 | 40 | 40 | 40 | 40 | 50 | 50 | 65 | 40 | 40 | 32 | 32 | 25 |
| 080 | 40 | 40 | 50 | 40 | 40 | 50 | 65 | 65 | 40 | 40 | 32 | 32 | 25 |
| 090 | 40 | 50 | 50 | 40 | 40 | 50 | 65 | 65 | 40 | 40 | 32 | 32 | 25 |
| 105 | 50 | 50 | 50 | 40 | 40 | 65 | 65 | 65 | 40 | 40 | 32 | 32 | 25 |
| 120 | 50 | 50 | 50 | 40 | 40 | 65 | 65 | 65 | 40 | 40 | - | - | 25 |
| 135 | 50 | 50 | 65 | 40 | 40 | 65 | 80 | 80 | 40 | 40 | - | - | 32 |
| 150 | 50 | 65 | 65 | 40 | 40 | 65 | 80 | 80 | 40 | 40 | - | - | 32 |
| 180 | 50 | 65 | 65 | 40 | 40 | 80 | 80 | 80 | 40 | 40 | - | - | 32 |

ACU Standard Model Outline Dimension

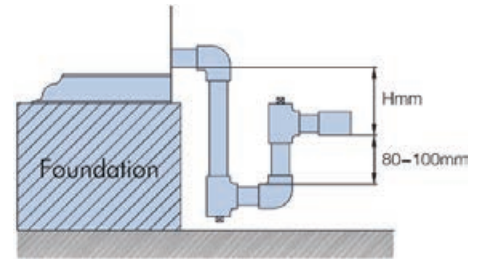


| Model ACU | L | W | H | L1 | W1 | H1 | G | J | B | K | E | Air inlet flanges (L x W x No.) | Air outlet flanges (L x W x No.) |
|-----------|------|------|------|------|------|------|-----|-----|-----|-----|-----|---------------------------------|----------------------------------|
| 010 | 940 | 860 | 490 | 990 | 1020 | 540 | 259 | 228 | - | 136 | 177 | 810X440X1 | 259X228X1 |
| 015 | 940 | 860 | 490 | 990 | 1020 | 540 | 259 | 228 | - | 136 | 177 | 810X440X1 | 259X228X1 |
| 020 | 940 | 940 | 520 | 990 | 1100 | 570 | 259 | 228 | - | 136 | 247 | 890X470X1 | 259X228X1 |
| 025 | 940 | 940 | 520 | 990 | 1100 | 570 | 259 | 228 | - | 136 | 247 | 890X470X1 | 259X228X1 |
| 030 | 940 | 1060 | 520 | 990 | 1220 | 570 | 298 | 262 | - | 91 | 300 | 1010X470X1 | 298X262X1 |
| 040 | 950 | 1210 | 570 | 1000 | 1370 | 620 | 331 | 289 | - | 93 | 392 | 1160X520X1 | 331X289X1 |
| 050 | 950 | 1420 | 570 | 1000 | 1580 | 620 | 232 | 262 | 184 | 101 | 290 | 1370X520X1 | 232X262X2 |
| 060 | 970 | 1640 | 600 | 1020 | 1800 | 650 | 298 | 262 | 244 | 111 | 250 | 1590X550X1 | 298X262X2 |
| 070 | 970 | 1700 | 620 | 1020 | 1860 | 670 | 331 | 289 | 264 | 111 | 250 | 1650X570X1 | 331X289X2 |
| 080 | 1000 | 1760 | 670 | 1050 | 1920 | 720 | 331 | 289 | 264 | 111 | 281 | 1710X620X1 | 331X289X2 |
| 090 | 1000 | 1800 | 720 | 1050 | 1960 | 770 | 309 | 341 | 244 | 111 | 360 | 1750X670X1 | 309X341X2 |
| 105 | 1030 | 2060 | 720 | 1080 | 2220 | 770 | 309 | 341 | 244 | 111 | 600 | 2010X670X1 | 309X341X2 |
| 120 | 1050 | 2200 | 800 | 1100 | 2360 | 850 | 395 | 341 | 324 | 111 | 400 | 2150X750X1 | 395X341X2 |
| 135 | 1320 | 1950 | 970 | 1370 | 2190 | 1050 | 373 | 404 | 294 | 169 | 430 | 1900X920X1 | 373X404X2 |
| 150 | 1320 | 1950 | 1050 | 1370 | 2190 | 1130 | 373 | 404 | 294 | 169 | 430 | 1900X1000X1 | 373X404X2 |
| 180 | 1470 | 2250 | 1150 | 1520 | 2490 | 1230 | 430 | 478 | 343 | 173 | 350 | 2200X1100X1 | 430X478X2 |

Note: Above dimension is just for reference.

Unit Installation

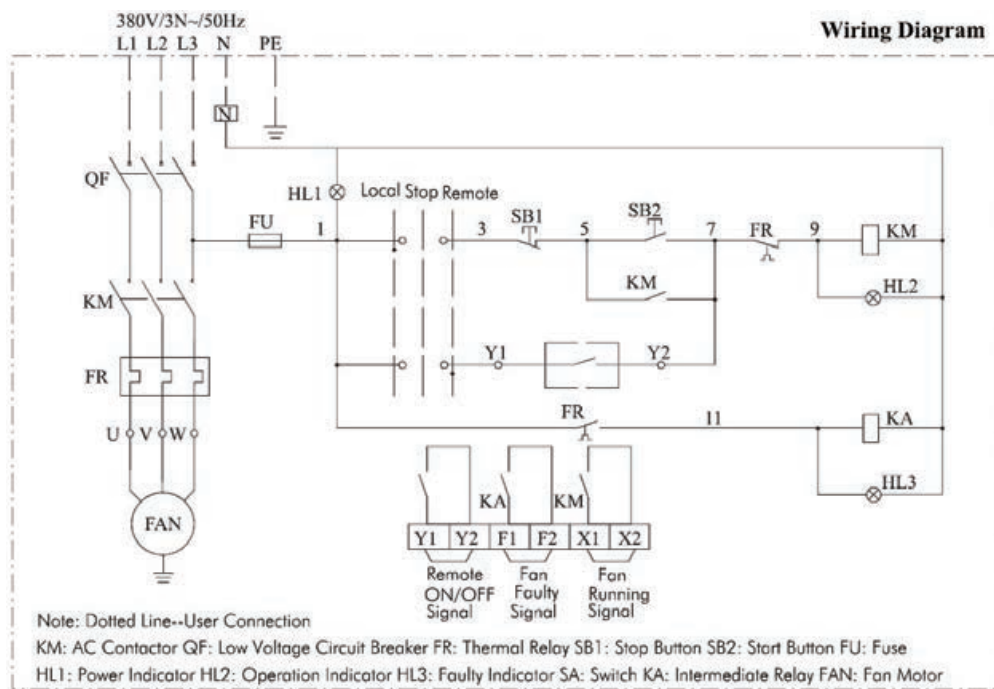
- Before installation, unit condition should be checked for dent or serious deformation, some clear marking on the surface panel or shell, and loosening fan motor and fan blower.
- It is advisable to equip the unit with vibration insulator for unit hanged on ceiling.
- Leave sufficient space around the unit especially for piping connection and service panel (Proposed not less than 0.6m), for daily maintenance application.
- Please connect the piping according to the factory operation guide label of the unit. During connection, apply even force and not exceed force to avoid damage done to the internal structure of the unit.
- Unit water inlet piping must be equipped with bail valve and water filter. Clean up the water piping before piping installation.
- It is suggested to install a static cabinet at the air intake and air discharge opening. Damper should be installed at the duct and fire retardant valve would be provided according to fire extinguishing standard.
- All the power supply voltage, frequency and phase should be checked and make sure it is align with the unit requirement. Supply current and voltage differential should not be more than nominal voltage 10%.
- Before starting the fan motor, manually rotate the blower wheel to ensure no metal friction contact and smooth rotation. If any abnormal condition occurred, checking and solving the abnormality have to be carried out.
- After turning on the fan motor, blower wheel rotating direction should be checked. Phase changing is necessary if the rotating direction of the blower wheel is in the opposite direction.
- The unit should be grounded properly.
- Flexible connector should be applied on the unit, external ducts and installment piping. It will avoid using the pipe to support the unit weight.
- Water seal need to be placed at condensing water outlet (shown in the right figure). Make its height $H \geq \Delta P / 10 * 1.25$, ΔP is the difference between atmospheric pressure and unit internal pressure.
- Minimum of H should be no less than 50mm; Keep some slope ($\geq 1\%$), when laying condensing water pipe and conduct drainage test after installation to keep the drainage unobstructed.



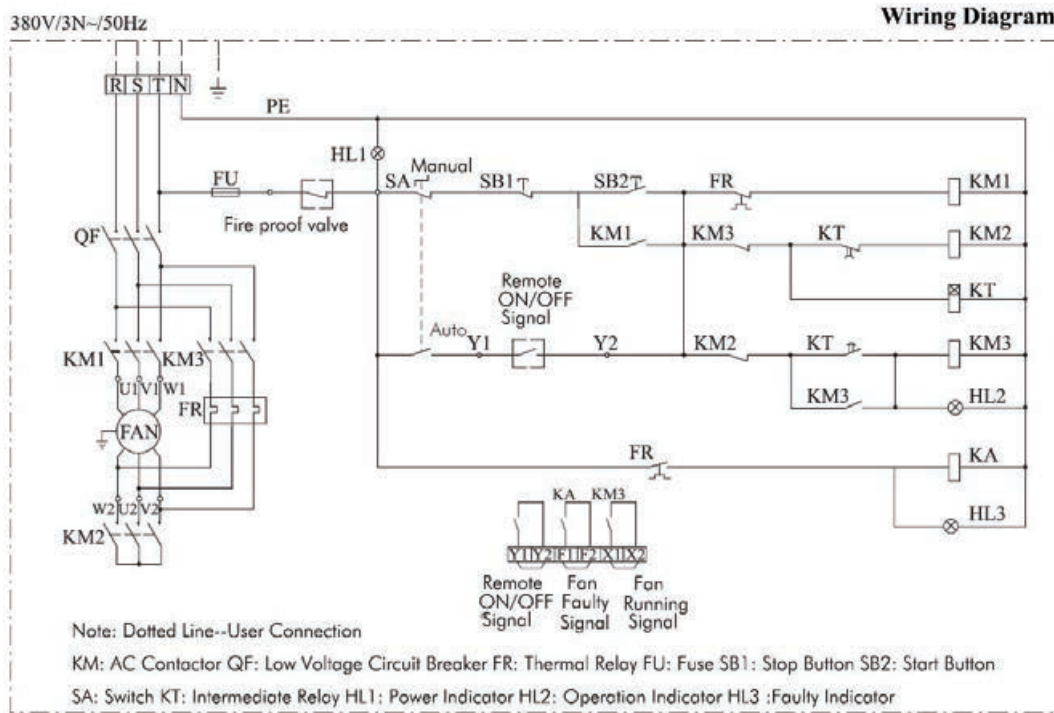
Water Seal Diagram

Wiring Diagram

Directly Start Up (Motor Power $\leq 11kw$)



Star Delta Starting (Motor Power $\geq 15\text{kw}$)



Note:

1. Motor Power $\leq 11\text{KW}$, unit can be started up with Direct On Line. Else for motor power $\geq 15\text{kw}$, unit provided with Star Delta terminal and user must provide protector against overload, overheat and short circuit.
2. Can provide Direct Start-up, Star Delta Start Up, Auto-induction Voltage-reduced Cabinet or Inverted Control Box to fulfill customer requirements.

Operation & Maintenance

- Before the unit operation, check the water pipe valves system and duct equipment. Make sure everything is under good condition.
- Check the fan motor and blower moving parts regularly for their connection, operation and rotating direction. Readjust it if necessary.
- Air filter cleaning should be carried out every month before and during operation.
- During winter, coil water should be drained out if not operating. If the unit needs to operate during winter time, make sure when the unit stops running, the coil water must circle the system and the fresh air damper must be closed to prevent coil freezing. If the unit stops operation for a long duration, coil water must be drained out.
- Clean soft water must be used for chilled water and hot water system. Every year, wafer chemical treatment must be performed to eliminate the contamination in the system and apply compressed air or wafer for cleansing the fin coil surface, drain pan and U-trap bend.
- Regular checking must be performed for the motor bearing lubrication condition and belt lightness.

For more details about installation, operation, maintenance and etc, please refer to the product manual!

AMRTA

<http://www.amrtahvac.com>

For more information, contact info@amrta.com.cn

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| Literature Order Number | TCA-PDC007-EN |
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| Date | May 2018 |
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AMRTA has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.