



Qingdao Bingyan Refrigeration Equipment Co., Ltd

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Product Manual of Heat Exchanger



Qingdao Bingyan Refrigeration

Equipment Co., Ltd





EC series commercial double-side air cooler

Refrigerant (R404A, R22) air cooler
Commercial (φ12 pipe diameter)
Nominal cooling capacity: 3.2-16.1KW;
φ350 fan, 1-4 units, standard speed and low speed design; fin pitch 4.0, 6.0mm;



EH series commercial high-efficiency

Refrigerant (R404A, R22) air cooler
Commercial (φ12 pipe diameter)
Nominal cooling capacity:
2.7-52.0KW;
Fan specifications: φ350/φ400/φ500,
Quantity of fans: 1-4 units,
designed with high air tube, fin pitch 4.0/6.0/9.0mm



EL series industrial ceiling-type air cooler

Refrigerant (R404A, R22) air cooler
Industrial (φ15 pipe diameter)
Nominal cooling capacity: 2.2-81.9KW;
Fan specifications: φ350/φ400/φ630, 1-4 φ500, 1-5 units, designed with high air tube, fin pitch 4.0/6.0/9.0/12.0mm



EF series floor type quick-freezing air cooler

Refrigerant (R404A, R22) air cooler
Industrial (φ15 pipe diameter)
Nominal cooling capacity: 26.6-121.7KW, fan specification: medium 630, high power, high airflow blowers, quantity of fans: 2-4-6-8 units, designed with high air tube, fin pitch 6.0/9.0/12.0mm

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EA series commercial angle-type air cooler

Refrigerant (R404A, R22) air cooler
Commercial (φ12 pipe diameter)
Nominal cooling capacity:
1.6-8.1KW;
φ300 fan, 1-4 units;
Fin pitch: 4.0, 6.0mm;



EE series commercial double-side blow air

Refrigerant (R404A, R22) air cooler
Commercial (φ12 pipe diameter)
For high-temperature machining workshops at 10-20°C with insulated water plate and wind deflector,
Nominal cooling capacity: 8.1-48.3KW;
Fan specifications: φ450/φ500,
Quantity of fans: 1-4 units, fin pitch 4.0mm



ED series industrial double-side blow air cooler

Refrigerant (R404A, R22) air cooler
Industrial (φ15 pipe diameter)
Nominal cooling capacity: 6.3-35.7KW;
Fan specifications: φ450/φ500,
Quantity of fans: 1-4 units, fin pitch 4.0/6.0/9.0mm



EN series large ceiling-type air cooler

Refrigerant (R404A, R22) air cooler
Industrial (φ15 pipe diameter)
Large-size fans with diameter of φ710/φ800/φ910, quantity of fans: 1-3 units, nominal cooling capacity: 20.4-156.8KW, fin pitch 4.0/6.0/9.0/12.0mm



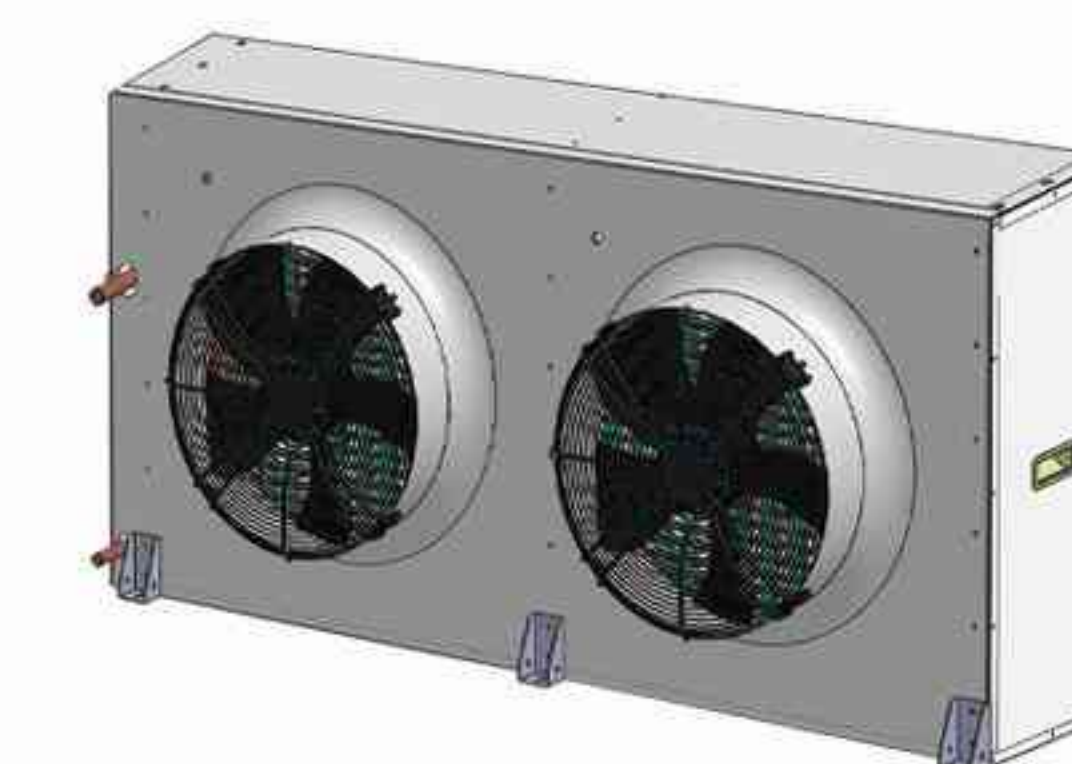
ECG series dual discharge cooler with ethylene glycol

Refrigerant (ethylene glycol) air cooler
Commercial (φ12 pipe diameter)
Nominal cooling capacity: 3.5-17.5KW;
Fan specifications: φ350 fan, 1-4 units, standard speed and low speed design, fin pitch 4.0, 6.0mm;



ECG series industrial dual discharge air cooler with ethylene glycol

Refrigerant (ethylene glycol) air cooler
Industrial (φ15 pipe diameter)
Nominal cooling capacity: 7.4-42.0KW;
Fan specifications: φ450/φ500, quantity of fans: 1-4 units, fin pitch 4.0/6.0/9.0mm



CL series vertical side-mounted condenser

With φ9.5 female thread copper pipe,
Heat exchange area: 20.8~615.7m²,
Nominal heat exchange: 11.2~332.4KW;
φ400/φ500φ630 fans, 4-pole motors, 1-3 fans in one row, 4-8 fans in double rows.



CV series V-type condenser

With φ9.5 female thread copper pipe,
φ630 fan: 4-pole and 6-pole motors, quantity: 1-6 units;
Heat exchange area: 62~748m², nominal heat exchange: 31~305KW;
φ800 fan: 6-pole motor, 1-8 fans in one row, 4-16 fans in double rows;
Heat exchange area: 115~2832m²,
Nominal heat exchange: 71~1190KW;



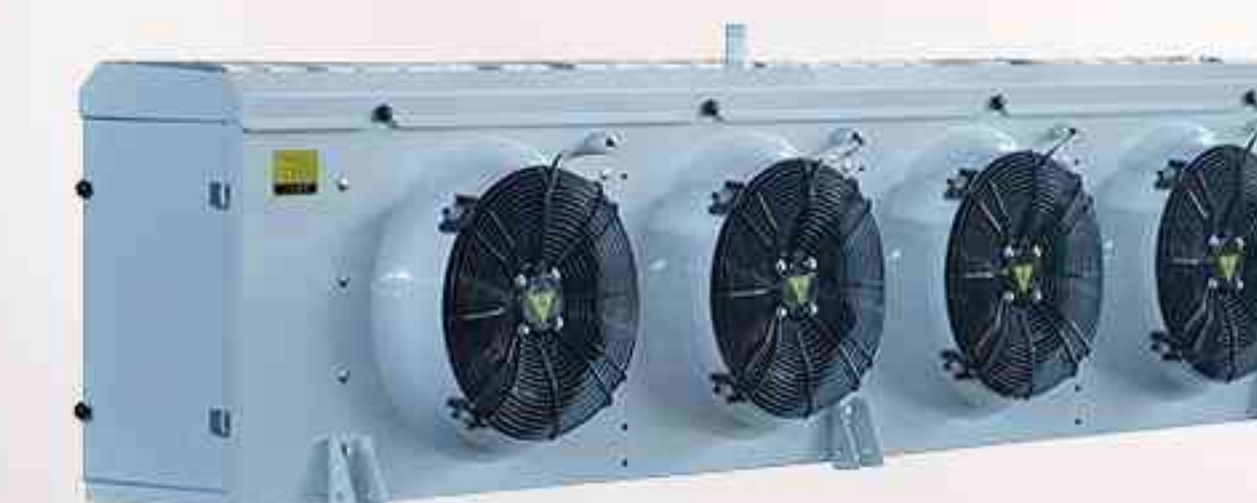
EW series water defrosting ceiling-type air cooler

Refrigerant (R404A, R22) air cooler
Industrial (φ15 pipe diameter)
Water defrosting method, nominal cooling capacity: 9.8-81.9KW,
Fan specifications: φ500, 1-5 units, φ630, 1-4 units, designed with high air tube, fin pitch: 4.0/6.0/9.0mm



EHG series commercial ceiling-type air cooler with ethylene glycol

Refrigerant (ethylene glycol) air cooler
Commercial (φ12 pipe diameter)
Nominal cooling capacity: 2.8-59.0KW;
Fan specifications: φ350/φ400/φ500,
Quantity of fans: 1-4 units, designed with high fan tube, fin pitch 4.0/6.0mm



ELG series industrial ceiling-type air cooler with ethylene glycol

Refrigerant (ethylene glycol) air cooler
Industrial (φ15 pipe diameter)
Nominal cooling capacity: 5.5-120KW;
Fan specifications: φ400, 1-4 units, φ630, 1-4 units, fin pitch: 4.0/6.0/9.0mm



CP series horizontal plate-type condenser

With φ9.5 female thread copper pipe,
Heat exchange area: 24.6~769.6m²,
Nominal heat exchange: 16.0~415.5KW;
φ500 and φ630 fans, 4-pole and 6-pole motors, 1-5 fans in one row, 4-10 fans in double rows.

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EA series commercial angle-type air cooler



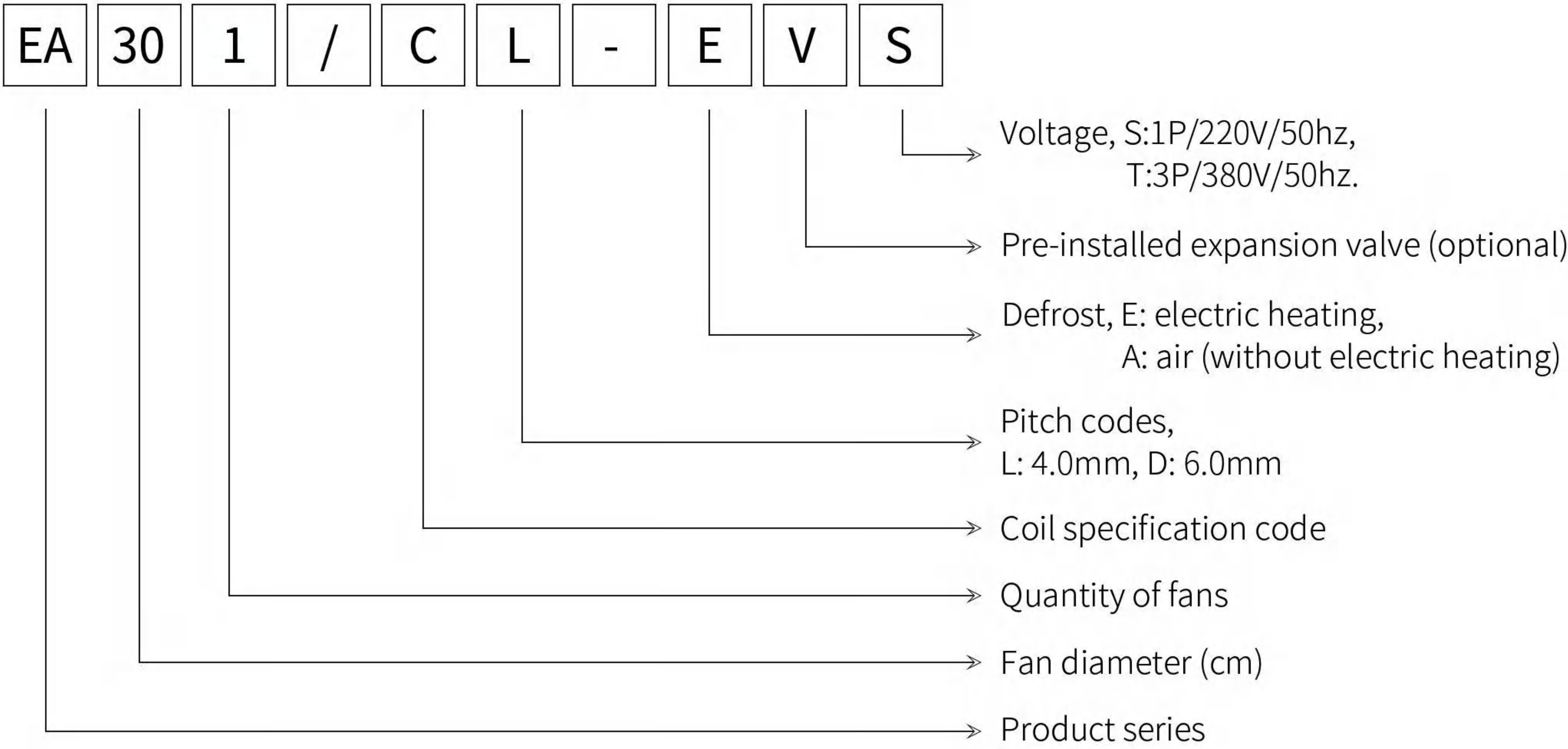
I. Product Overview:

EA series commercial angle-type air cooler is designed with compact structure, blowing fan, of which the fans are installed on the beveled surface; it is compact to make better use of the space in cold storage, which is mainly used for those small-sized cold storage with small storage spaces.

- This series of products has the following characteristics:
- 1. Casing: Made of aluminum magnesium plate sprayed with powder coating (silver gray RAL9006), lightweight;
 - 2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
 - 3. Double water plate design: The outer water plate is designed with hinge structure, which is convenient for operation; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
 - 4. Coil: Tube spacing 38.1×33 in triangle arrangement, with high heat exchange efficiency;
 - 5. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm and 6.0mm to meet the requirements of different cold storage;
 - 6. Fan: External rotor fan with blowing air, operating temperature: -30~60 °C, fan specification: φ300, and quantity of fans: 1-4 units;
 - 7. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and the inner water plate, which can bring about desirable defrosting effect;
 - 8. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
 - 9. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
 - 10. It is subjected to strict factory pressure test at the pressure of 23bar;
 - 11. The expansion valves and other parts can be pre-installed according to customer's needs;
 - 12. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



II. Model Explanation:



III. Standard Configuration and Options:

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum-magnesium plate	●	Defrost	Air defrost	○
	Powder coated steel plate	○		Electric heating pipe	●
	Powder coated galvanized sheet	○		Hot gas defrost (coil & tray)	○
	Stainless steel plate	○	Expansion valve		○
Motor	Weiguang external rotor motor	●	Drain heater		○
	EBM external rotor motor	○	Fan tube heater		×
	Air tube fan	×			
Aluminum foil	Normal aluminium foil	○			
	Hydrophilic aluminum foil (blue foil)	●			

Note: ●: Standard component; ○: Optional component; ×: Not available.

EA series commercial angle-type air cooler



IV. Performance Datasheet:

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface m ²	Tube volume dm ³	Airflow m ³ /h	Air throw m	Connection pipe (mm)			Weight kg
	T _c =0℃ ΔT=8K	T _c =10℃ ΔT=10K					Liquid inlet	Gas outlet	Drain	
EA301/CL-ES	1.6	2.3	6.6	1.3	1400	5	φ12	φ 12	G1"	18.5
EA301/DL-ES	2.0	2.9	8.8	1.7	1200	5	φ12	φ 12	G1"	19.4
EA302/CL-ES	3.3	4.8	13.1	2.4	2800	7	φ12	φ 19	G1"	31.2
EA302/DL-ES	4.0	5.9	17.5	3.2	2400	7	φ12	φ 19	G1"	33.0
EA303/CL-ES	4.9	7.2	19.7	3.5	4200	8	φ12	φ22	G1"	43.3
EA303/DL-ES	6.0	8.8	26.3	4.6	3600	8	φ12	φ22	G1"	46.0
EA304/CL-ES	6.6	9.7	26.3	4.6	5600	9	φ 12	φ 22	G1"	55.0
EA304/DL-ES	8.1	11.9	35.0	6.1	4800	9	φ 12	φ 22	G1"	58.5

T_c in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

◆ Fin pitch 6.0mm

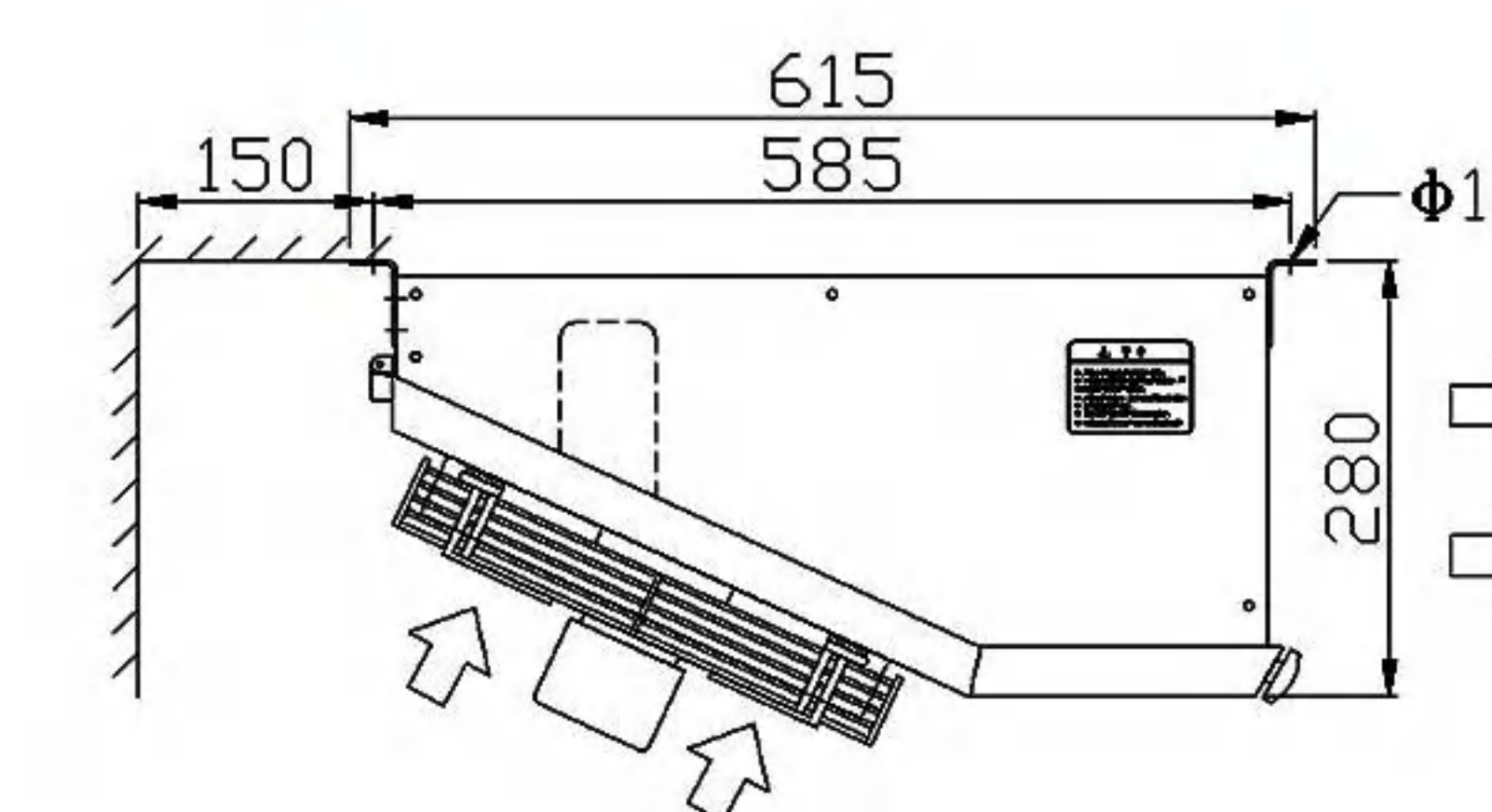
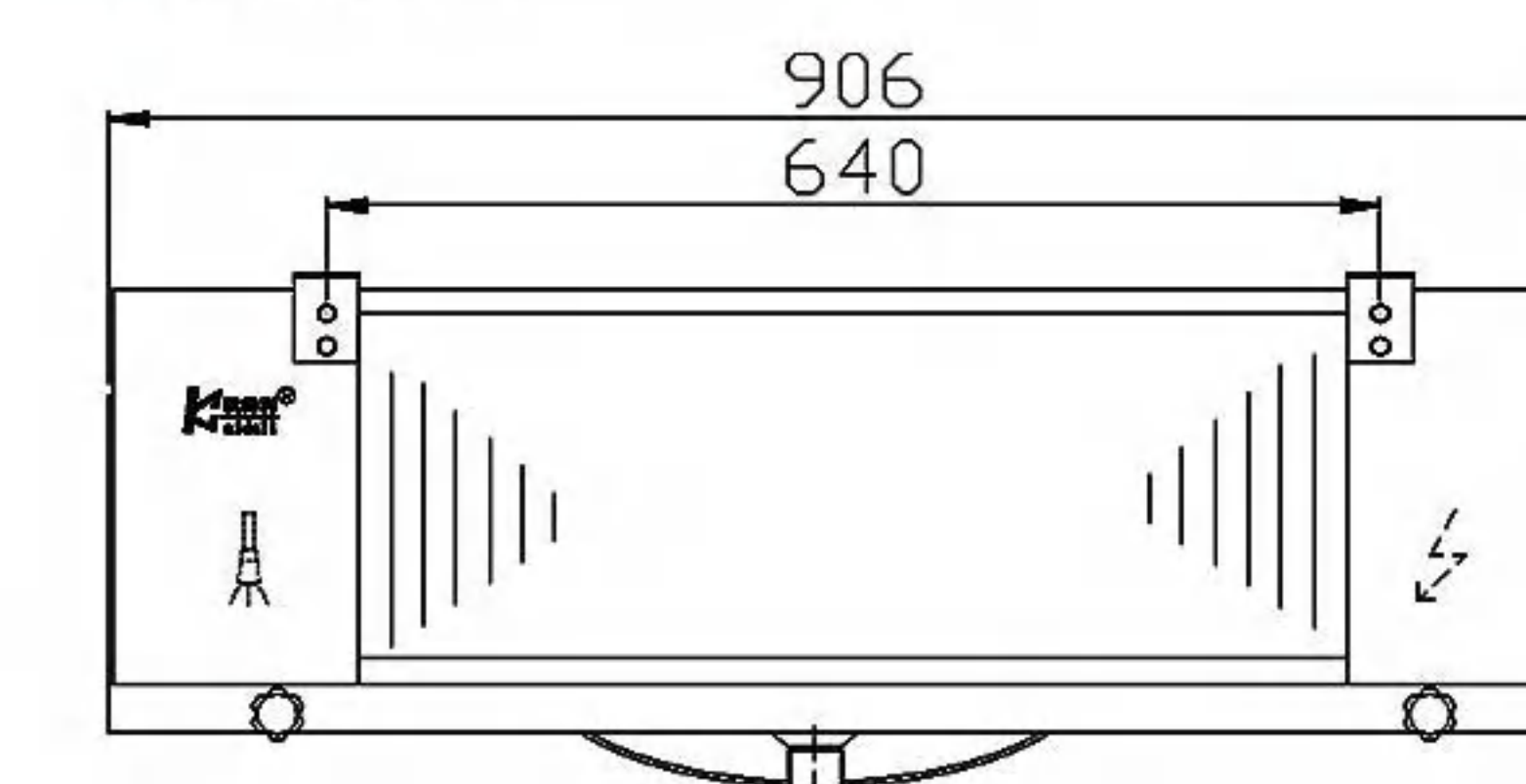
Model	Cooling capacity/R404A(KW)		Surface m ²	Tube volume dm ³	Airflow m ³ /h	Air throw m	Connection pipe (mm)			Weight kg
	T _c =0℃ ΔT=8K	T _c =-18℃ ΔT=7K					Liquid inlet	Gas outlet	Drain	
EA301/CD-ES	1.4	1.1	4.5	1.3	1500	5	φ12	φ 12	G1"	18.0
EA301/DD-ES	1.8	1.4	6.0	1.7	1300	5	φ12	φ 12	G1"	19.0
EA302/CD-ES	2.9	2.3	9.0	2.4	3000	7	φ12	φ 19	G1"	30.6
EA302/DD-ES	3.6	2.9	12.0	3.2	2600	7	φ12	φ 19	G1"	32.0
EA303/CD-ES	4.3	3.4	13.5	3.5	4500	8	φ12	φ22	G1"	42.4
EA303/DD-ES	5.4	4.3	18.1	4.6	3900	8	φ12	φ22	G1"	45.0
EA304/CD-ES	5.8	4.6	18.1	4.6	6000	9	φ 12	φ 22	G1"	53.7
EA304/DD-ES	7.2	5.7	24.1	6.1	5200	9	φ 12	φ 22	G1"	57.0

V. Electrical Parameters:

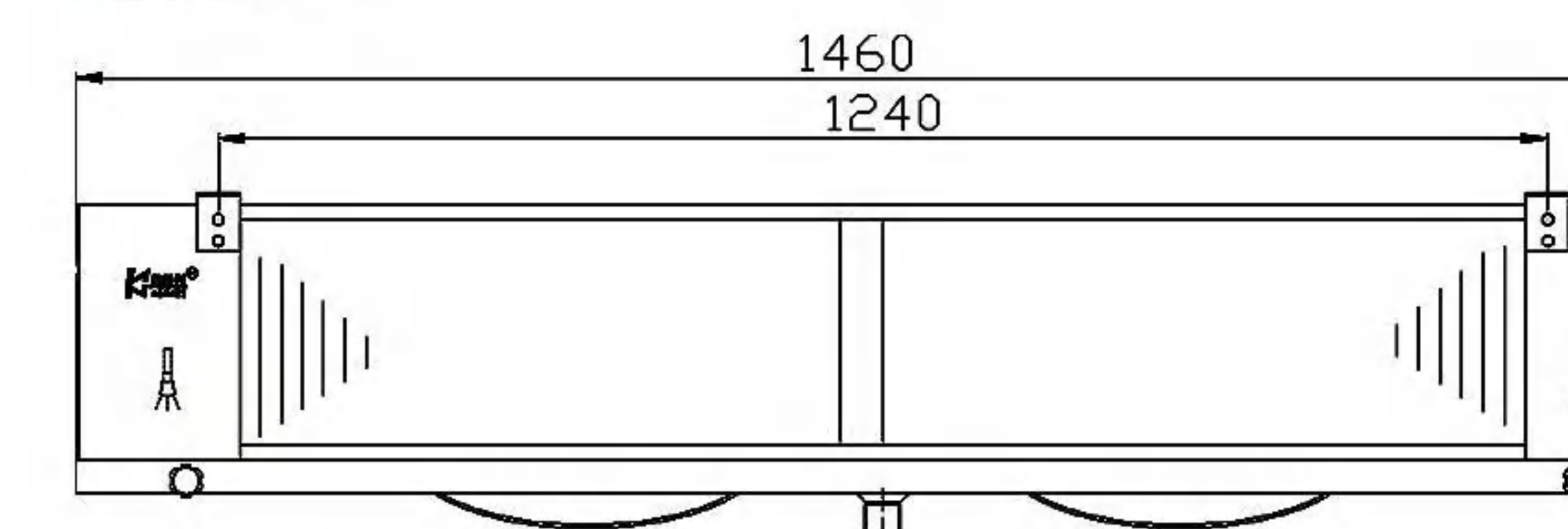
Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EA301*	220-1	85	0.42	1380	1×0.6	1×0.6	1.2
EA302*	220-1	170	0.84	1380	1×1.1	1×1.1	2.2
EA303*	220-1	255	1.26	1380	1×1.6	1×1.6	3.2
EA304*	220-1	340	1.68	1380	1×2.0	1×2.0	4.0

VI. Outline and Installation Dimension:

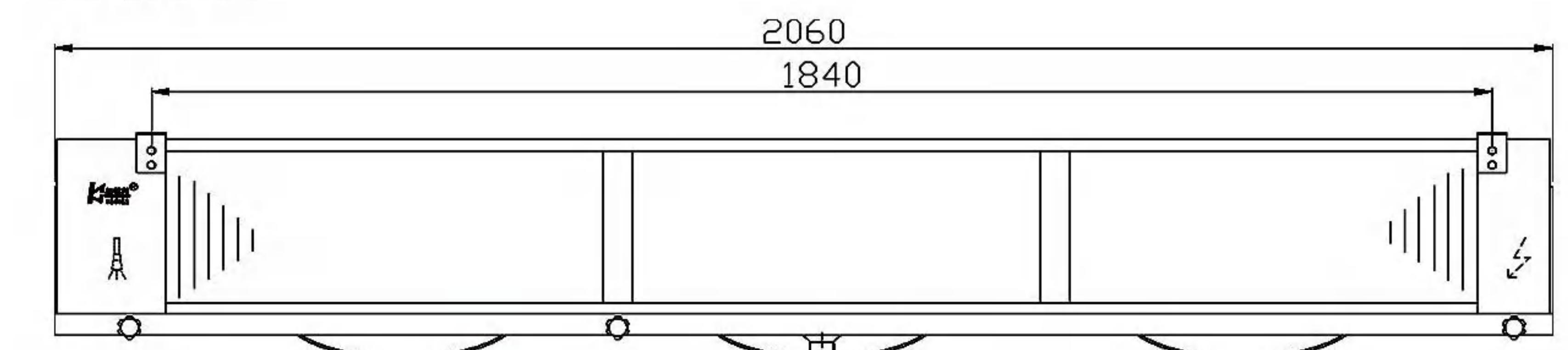
EA301:



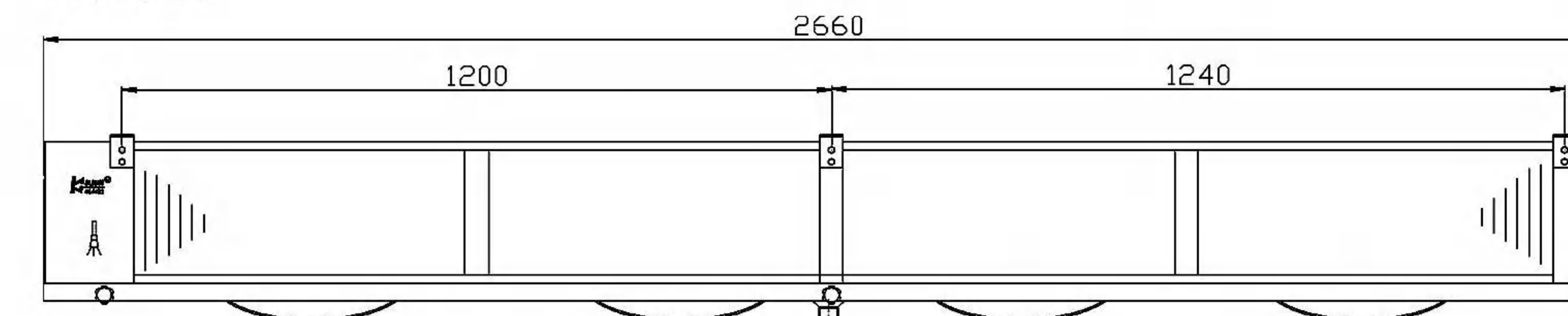
EA302:



EA303:



EA304:



EC series commercial double-side air cooler



I. Product Overview:

EC series commercial dual discharge air cooler is designed with ultra-thin structure, with air outlet on both sides of the air inlet below; it needs small installation space, which is mainly used in processing rooms with operators inside or warehouses with small heights.

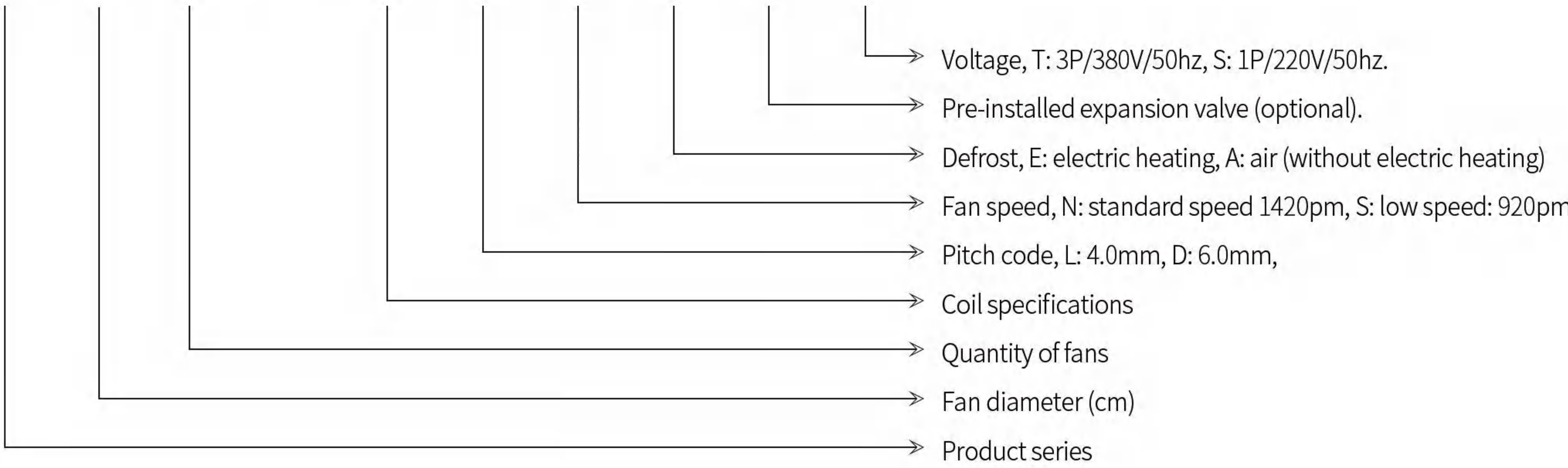
This series of products has the following characteristics:

1. Casing: Made of aluminum magnesium plate sprayed with powder coating (silver gray RAL9006), lightweight;
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Double water plate design: The outer water plate is designed with overall hinge structure, which is convenient for operation; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate via the specially designed water trough;
4. Coil: Tube spacing 38.1×33 in triangle arrangement, with high heat exchange efficiency;
5. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm and 6.0mm to meet the requirements of different cold storage;
6. Fan: Specifications: φ350, high-speed and low-speed design in line with requirements of different noises, operating temperature: -30~60 °C, quantity of fans: 1-4;
7. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and the inner water plate, which can bring about desirable defrosting effect;
8. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
9. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
10. It is subjected to strict factory pressure test at the pressure of 23bar;
11. The expansion valves and other parts can be pre-installed according to customer's needs;
12. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



II. Model Explanation:

EC 35 1 / C L N- E V T



III. Standard Configuration and Options:

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum-magnesium plate	●	Defrost	Air defrost	○
	Powder coated steel plate	○		Electric heating pipe	●
	Powder coated galvanized sheet	○		Hot gas defrost (coil & tray)	○
	Stainless steel plate	○	Expansion valve		○
Motor	Weiguang external rotor motor	●	Drain heater		○
	EBM external rotor motor	○	Fan tube heater		×
	Air tube fan	×			
Aluminum foil	Normal aluminium foil	○			
	Hydrophilic aluminum foil (blue foil)	●			

Note: ●: Standard component; ○: Optional component; ×: Not available.

IV. Performance Datasheet:

Standard fan speed (1420rpm)

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=10℃ ΔT=10K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
EC351/CLN-ET	3.2	4.7	13.1	2.5	2200	6	φ12	φ 22	G1"	31
EC351/DLN-ET	4.0	5.8	17.5	3.4	2000	6	φ12	φ 22	G1"	33
EC352/CLN-ET	6.5	9.5	26.3	4.7	4400	8	φ12	φ 22	G1"	51
EC352/DLN-ET	8.0	11.7	35.0	6.3	4000	8	φ12	φ 22	G1"	55
EC353/CLN-ET	9.8	14.4	39.4	6.9	6600	9	φ16	φ28	G1"	73
EC353/DLN-ET	12.0	17.6	52.5	9.2	6000	9	φ 16	φ 28	G1"	79
EC354/CLN-ET	13.1	19.2	52.5	9.1	8800	10	φ 16	φ 28	G1"	93
EC354/DLN-ET	16.1	23.6	70.0	12.2	8000	10	φ 16	φ 35	G1"	100

Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

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EC series commercial double-side air coolert



◆ Fin pitch 6.0mm

Model	Cooling capacity/R404A(KW)		Surface m ²	Tube volume dm ³	Airflow m ³ /h	Air throw m	Connection pipe (mm)			Weight kg
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K					Liquid inlet	Gas outlet	Drain	
EC351/CDN-ET	2.5	2.0	9.0	2.5	2350	6	φ12	φ 22	G1″	30
EC351/DDN-ET	3.1	2.4	12.0	3.4	2200	6	φ12	φ 22	G1″	32
EC352/CDN-ET	5.1	4.1	18.1	4.7	4700	8	φ12	φ 22	G1″	50
EC352/DDN-ET	6.3	5.0	24.1	6.3	4400	8	φ12	φ 22	G1″	53
EC353/CDN-ET	7.6	6.0	27.1	6.9	7050	9	φ16	φ28	G1″	71
EC353/DDN-ET	9.4	7.5	36.1	9.2	6600	9	φ 16	φ 28	G1″	76
EC354/CDN-ET	10.1	8.0	36.1	9.1	9400	10	φ 16	φ 28	G1″	91
EC354/DDN-ET	12.5	10.0	48.2	12.2	8800	10	φ 16	φ 35	G1″	97

Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

Low fan speed (920rpm)

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface m ²	Tube volume dm ³	Airflow m ³ /h	Air throw m	Connection pipe (mm)			Weight kg
	Tc=0℃ ΔT=8K	Tc=10℃ ΔT=10K					Liquid inlet	Gas outlet	Drain	
EC351/CLS-ET	2.4	3.2	13.1	2.5	1150	5	φ12	φ 22	G1″	31
EC351/DLS-ET	2.8	3.8	17.5	3.4	1300	5	φ12	φ 22	G1″	33
EC352/CLS-ET	4.7	6.6	26.3	4.7	2300	7	φ12	φ 22	G1″	51
EC352/DLS-ET	5.6	7.7	35.0	6.3	2600	7	φ12	φ 22	G1″	55
EC353/CLS-ET	7.1	9.8	39.4	6.9	3450	8	φ16	φ28	G1″	73
EC353/DLS-ET	8.4	11.6	52.5	9.2	3900	8	φ 16	φ 28	G1″	79
EC354/CLS-ET	9.5	13.0	52.5	9.1	4600	9	φ 16	φ 28	G1″	93
EC354/DLS-ET	11.2	15.4	70.0	12.2	5200	9	φ 16	φ 35	G1″	100

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

◆ 4.2.2 Fin pitch 6.0mm

Model	Cooling capacity/R404A(KW)		Surface m ²	Tube volume dm ³	Airflow m ³ /h	Air throw m	Connection pipe (mm)			Weight kg
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K					Liquid inlet	Gas outlet	Drain	
EC351/CDS-ET	2.0	1.6	9.0	2.5	1300	5	φ12	φ 22	G1″	30
EC351/DDS-ET	2.4	1.9	12.0	3.4	1450	5	φ12	φ 22	G1″	32
EC352/CDS-ET	4.2	3.3	18.1	4.7	2600	7	φ12	φ 22	G1″	50
EC352/DDS-ET	5.1	4.0	24.1	6.3	2900	7	φ12	φ 22	G1″	53
EC353/CDS-ET	6.2	5.0	27.1	6.9	3900	8	φ16	φ28	G1″	71
EC353/DDS-ET	7.6	6.0	36.1	9.2	4350	8	φ 16	φ 28	G1″	76
EC354/CDS-ET	8.3	6.6	36.1	9.1	5200	9	φ 16	φ 28	G1″	91
EC354/DDS-ET	10.1	8.0	48.2	12.2	5800	9	φ 16	φ 35	G1″	97

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

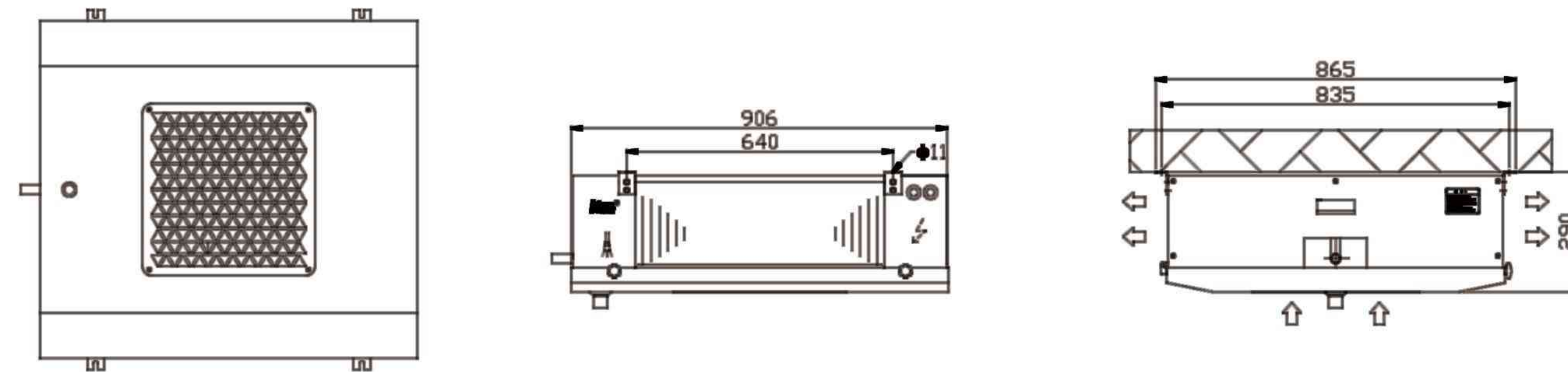
V. Electrical Parameters:

Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EC351/**N-ET	380-3	165	0.43	1420	2×0.6	2×0.6	2.4
EC352/**N-ET	380-3	330	0.86	1420	2×1.1	2×1.1	4.4
EC353/**N-ET	380-3	495	1.29	1420	2×1.6	2×1.6	6.4
EC354/**N-ET	380-3	660	1.72	1420	2×2.0	2×2.0	8.0
EC351/**S-ET	380-3	80	0.32	920	2×0.6	2×0.6	2.4
EC352/**S-ET	380-3	160	0.64	920	2×1.1	2×1.1	4.4
EC353/**S-ET	380-3	240	0.96	920	2×1.6	2×1.6	6.4
EC354/**S-ET	380-3	320	1.28	920	2×2.0	2×2.0	8.0

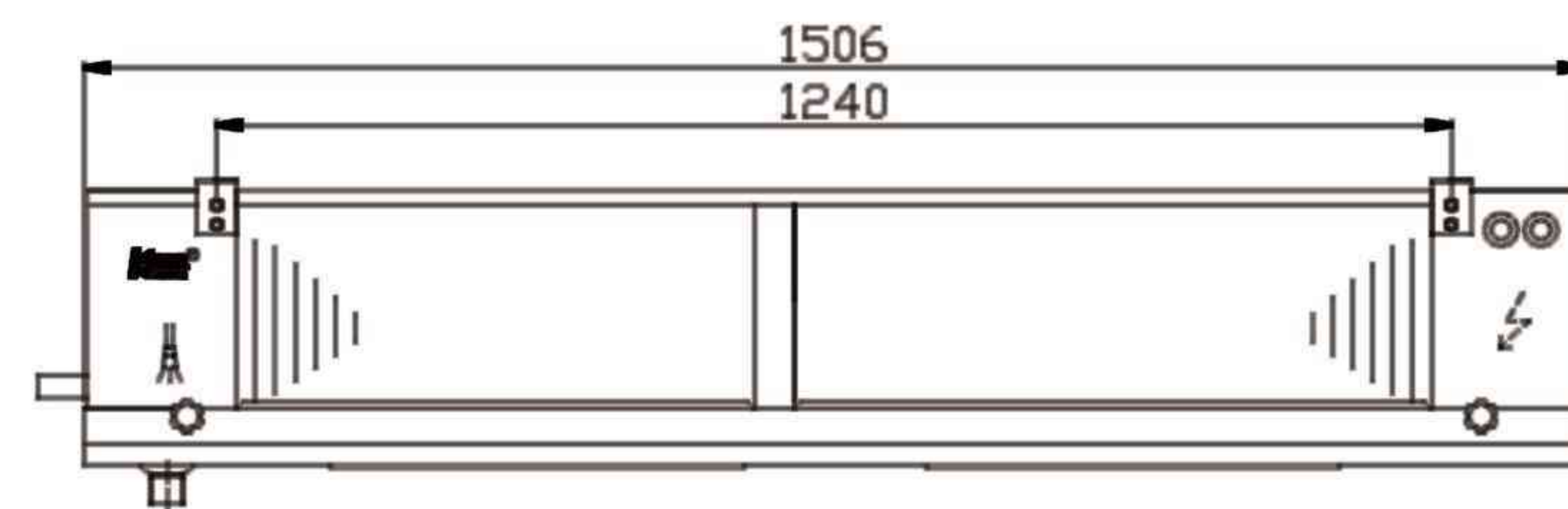
EC series commercial double-side air cooler

VI. Outline and Installation Dimension:

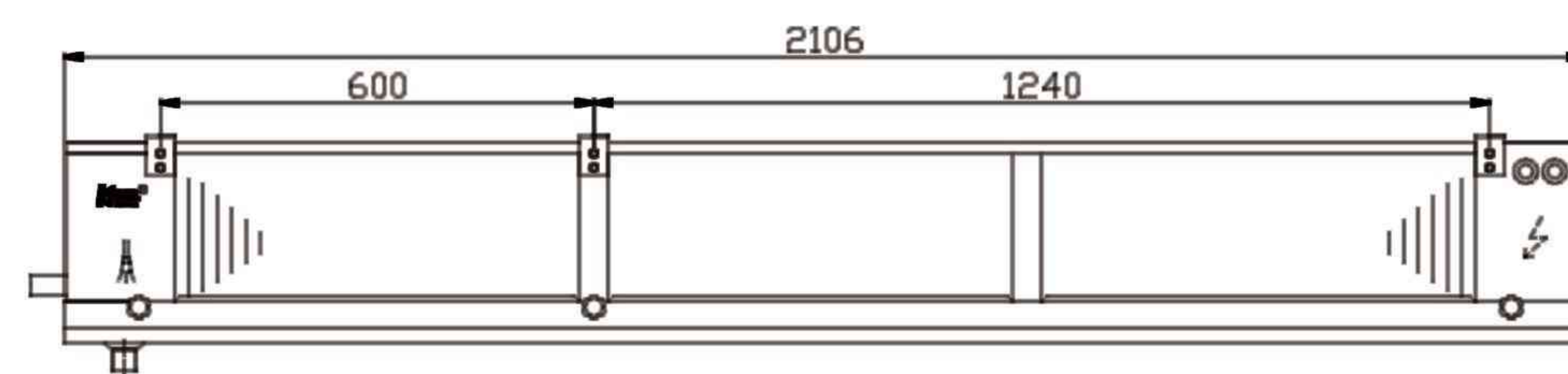
EC351



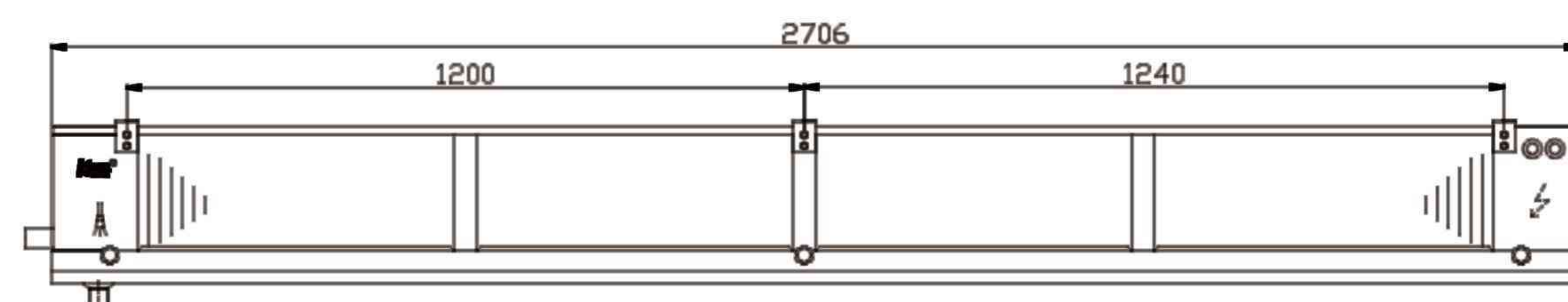
EC352



EC353:



EC354:



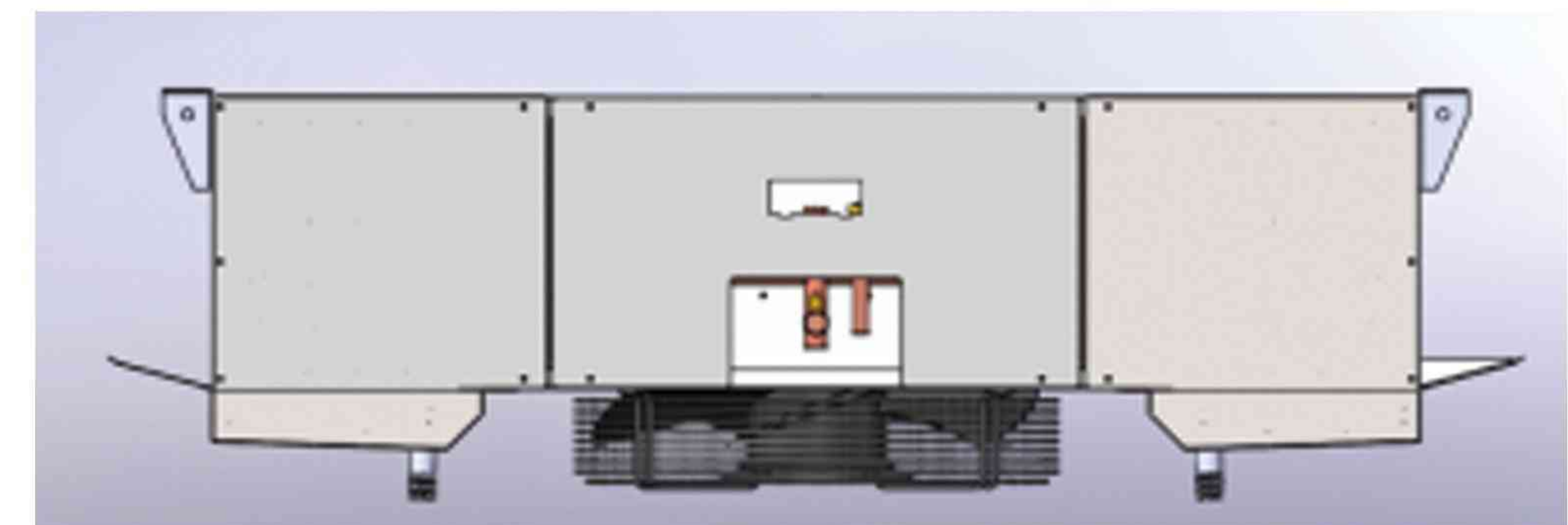
EE series commercial double-side blow air cooler

I. Product Overview:

EE series of high-temperature dual discharge air cooler is mainly developed for the application of high-temperature cold storage of 10-20 °C, with the structure of air inlet at bottom and air outlet on both sides; it is mainly used for those large production cold storage with operators inside who are not suitable for direct air flow.

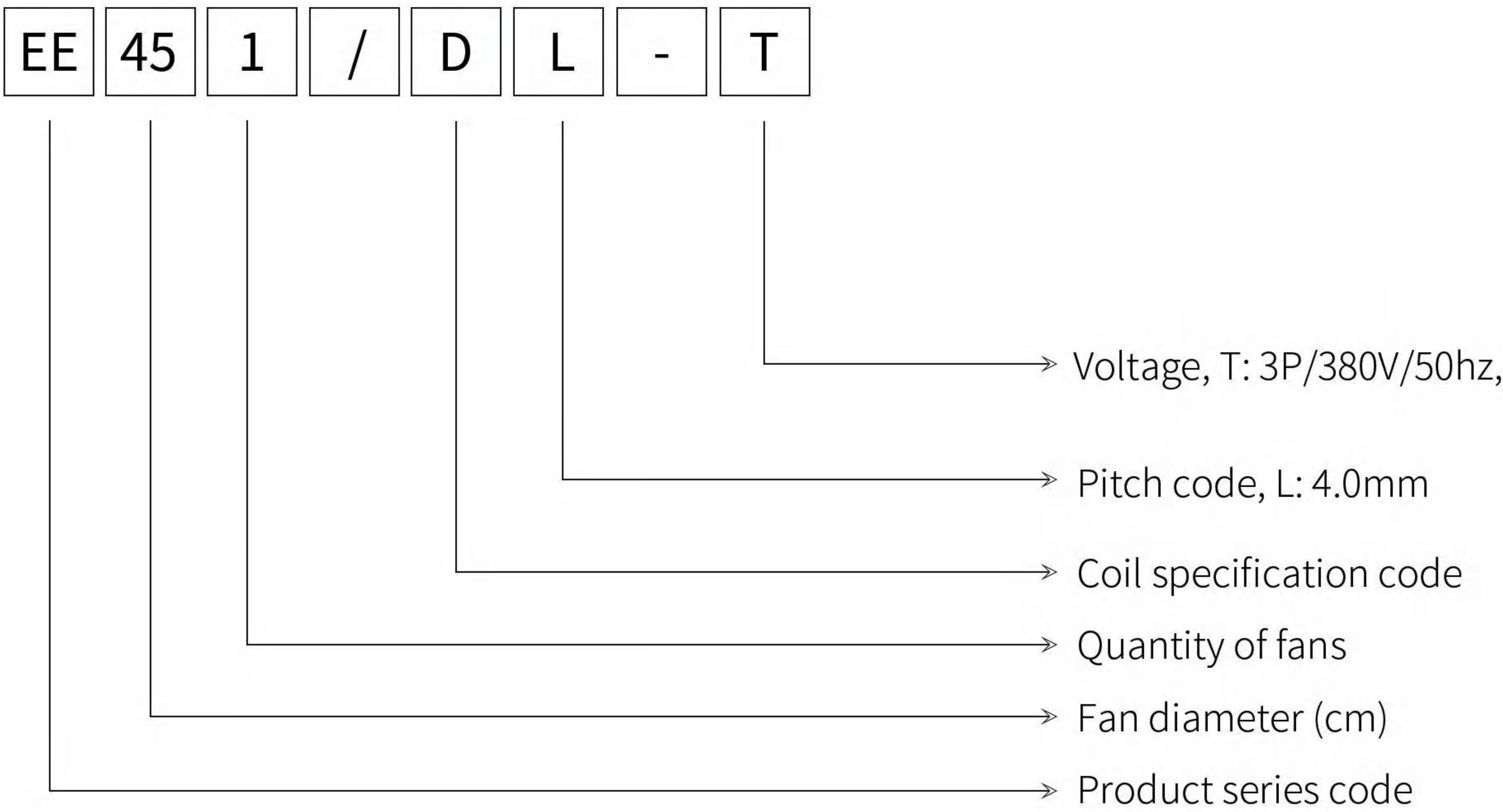
This series of products has the following characteristics:

1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; the outer water plate is designed with hinged structure, which is convenient to operate;
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Thermal insulation water plate design: The outer water plate is designed with a double-layer structure with thermal insulation to prevent condensation and dripping of water in the water plate in the humidifying conditions;
4. It is equipped with air outlet deflector to avoid direct blowing of wind;
5. Coil: Tube spacing 38.1×33 in triangle arrangement, with higher heat transfer efficiency;
6. Corrugated aluminum sheet made of hydrophilic aluminum foil is adopted, with the sheet spacing of 4.0mm;
7. Fan: External rotor fan with blowing air; fan specifications: $\phi 450$ and $\phi 500$, product series of different specifications, giving users more choices;
8. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing, which can lead to high reliability;
9. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
10. It is subjected to strict factory pressure test at the pressure of 23bar;
11. The expansion valves and other parts can be pre-installed according to customer's needs;
12. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



EE series commercial double-side blow air cooler

II. Model Explanation:



III. Standard Configuration and Options:

Component		Configuration
Casing	Powder coated aluminum plate	×
	Powder coated steel plate	○
	Powder coated galvanized sheet	●
	Stainless steel plate	○
Motor	Weiguang external rotor motor	●
	EBM external rotor motor	○
	Air tube fan	×
Aluminum foil	Normal aluminium foil	○
	Hydrophilic aluminum foil (blue foil)	●

Note: ●: Standard component; ○: Optional component; ×: Not available.

IV. Performance Datasheet:

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=15℃ ΔT=10K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
EE451/FL-T	8.1	11.9	35.0	6.6	3400	2×6	φ12	φ 22	2×G1″	73
EE452/FL-T	16.1	23.6	70.0	12.5	6800	2×8	φ16	φ 22	2×G1″	114
EE453/FL-T	24.2	35.5	105.0	18.3	10200	2×10	φ 22	φ 28	2×G1.5″	155
EE454/FL-T	32.2	47.3	140.0	24.2	13600	2×12	φ 22	φ 35	2×G1.5″	196
EE501/FL-T	12.1	17.7	52.5	9.6	5000	2×7	φ12	φ22	2×G1″	89
EE502/FL-T	24.2	35.5	105.0	18.3	10000	2×9	φ16	φ28	2×G1.5″	145
EE503/FL-T	36.2	53.2	157.5	27.0	15000	2×11	φ 22	φ 42	2×G1.5″	201
EE504/FL-T	48.3	71.0	210.0	35.8	20000	2×13	φ 22	φ 42	2×G1.5″	257

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

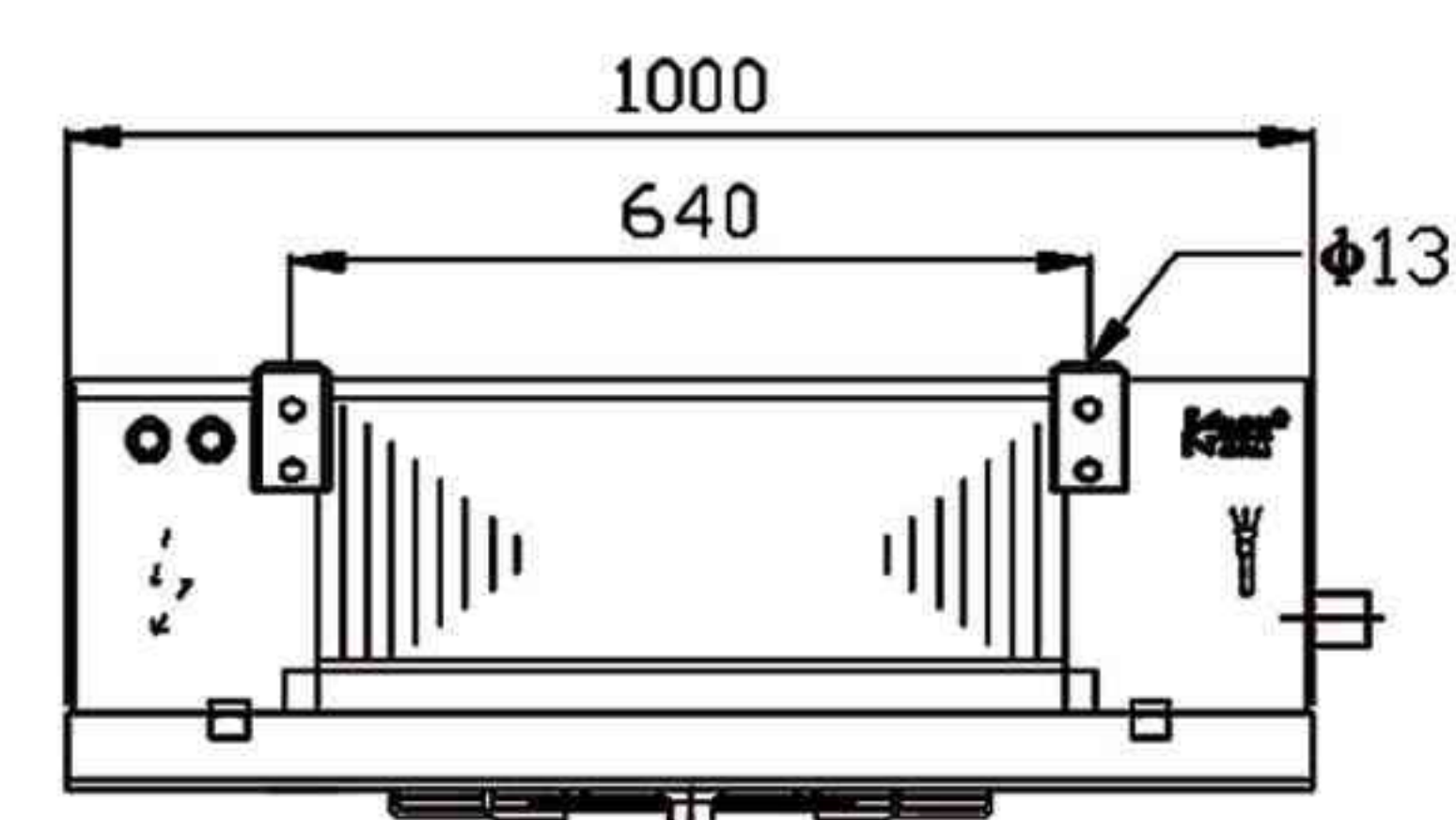
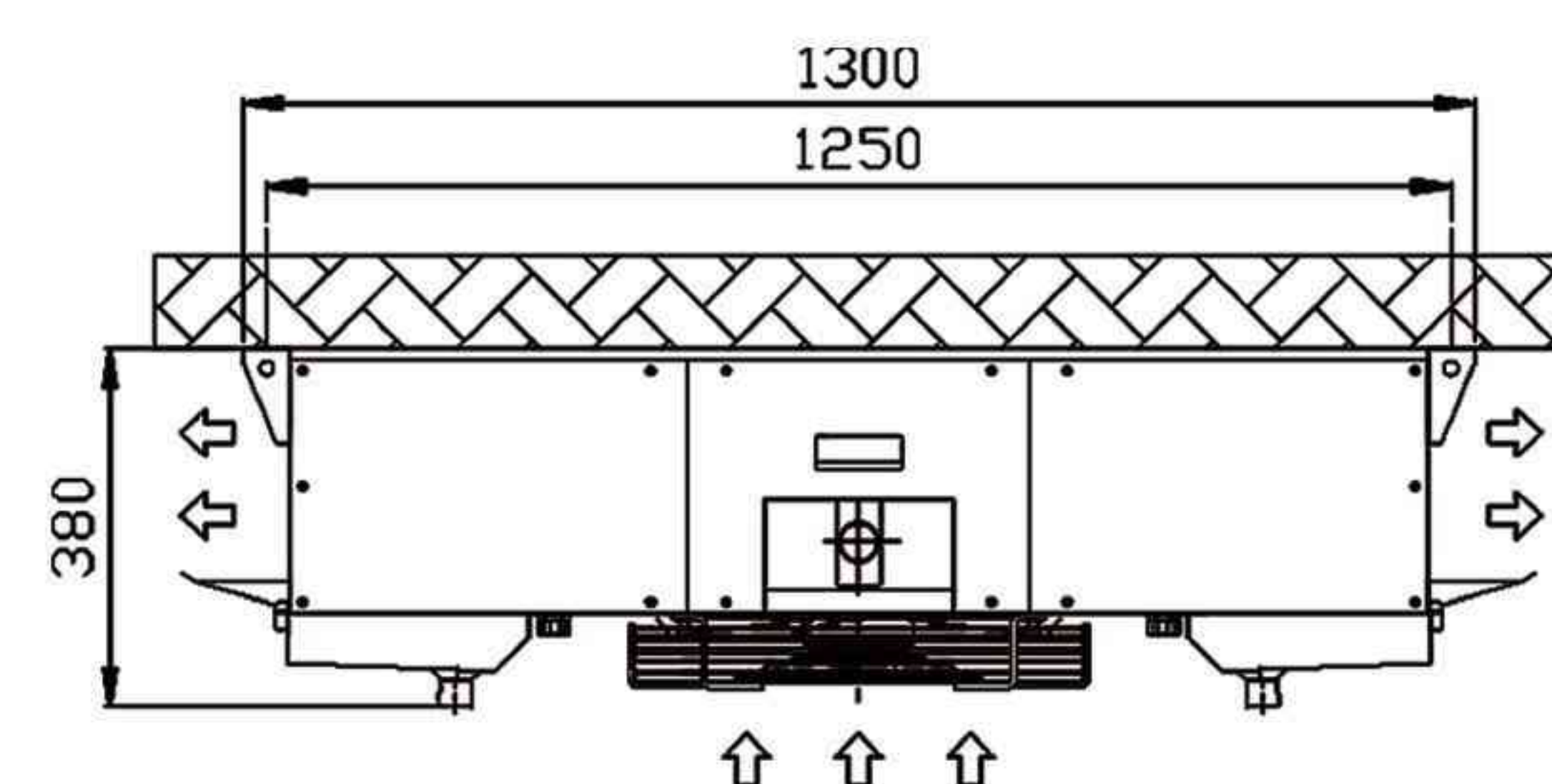
V. Electrical Parameters:

Model	Fan motor			
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)
EE451/FL-T	380-3	250	0.55	1350
EE452/FL-T	380-3	500	1.10	1350
EE453/FL-T	380-3	750	1.65	1350
EE454/FL-T	380-3	1000	2.20	1350
EE501/FL-T	380-3	414	0.85	1300
EE502/FL-T	380-3	828	1.70	1300
EE503/FL-T	380-3	1242	2.55	1300
EE504/FL-T	380-3	1656	3.40	1300

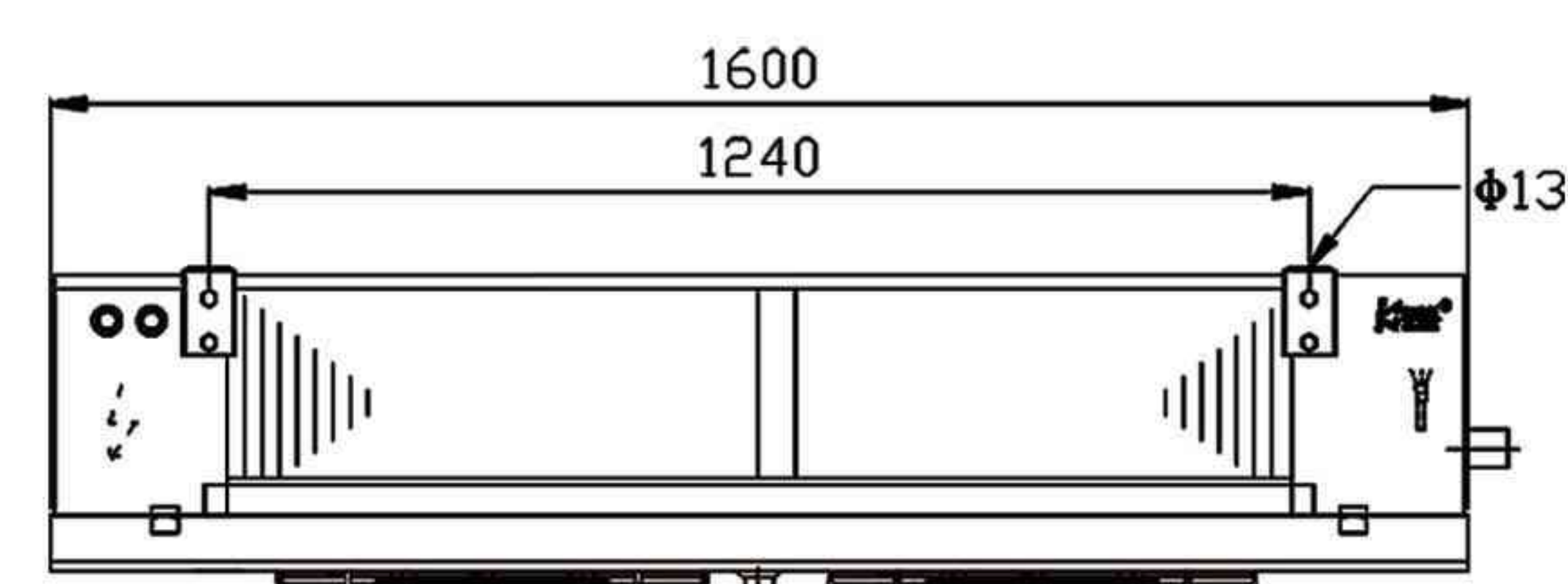
EE series commercial double-side blow air cooler

VI. Outline and Installation Dimension:

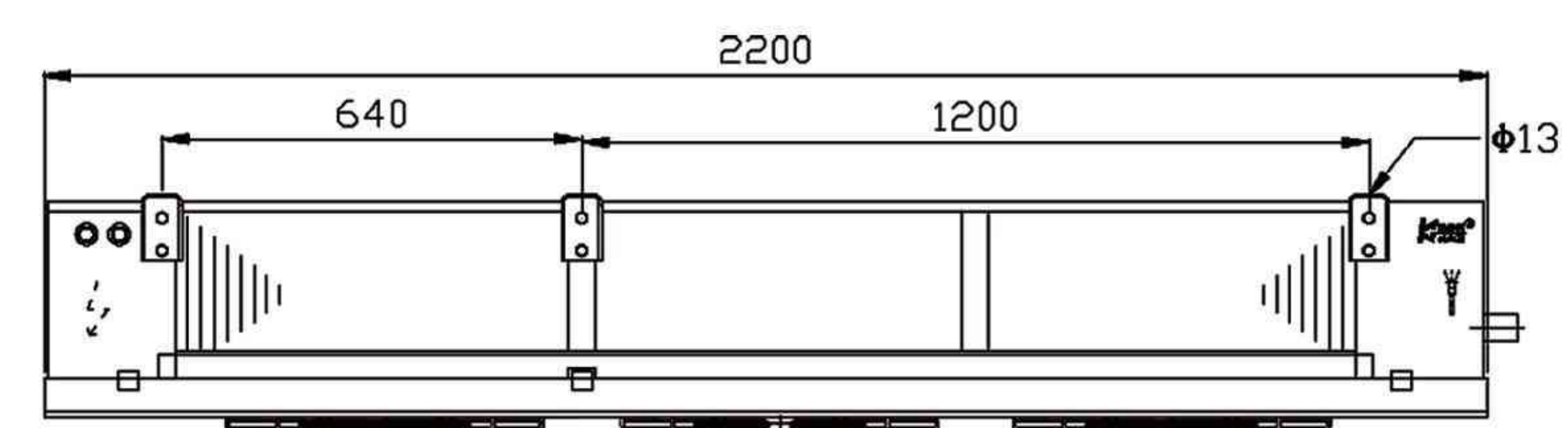
◆ EE45 series



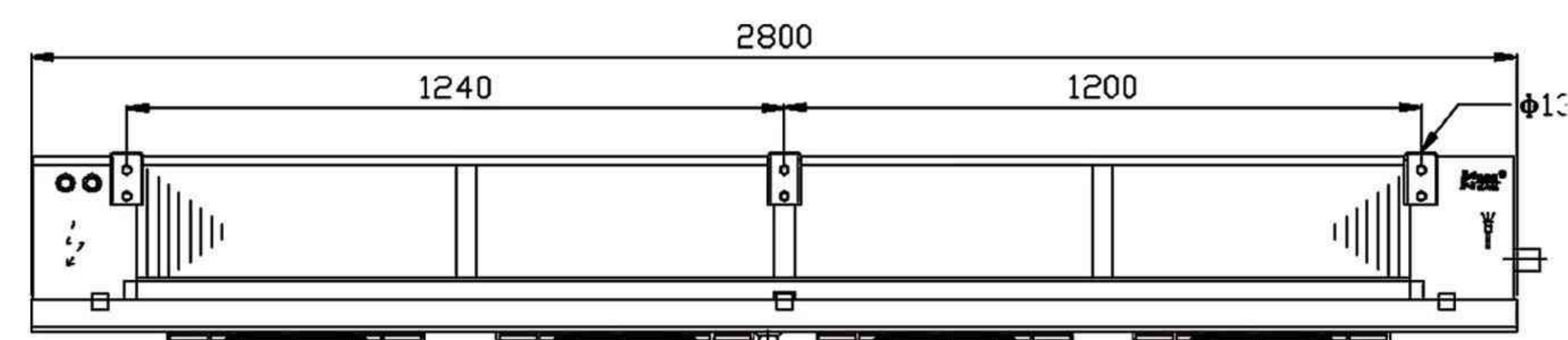
EE451



EE452

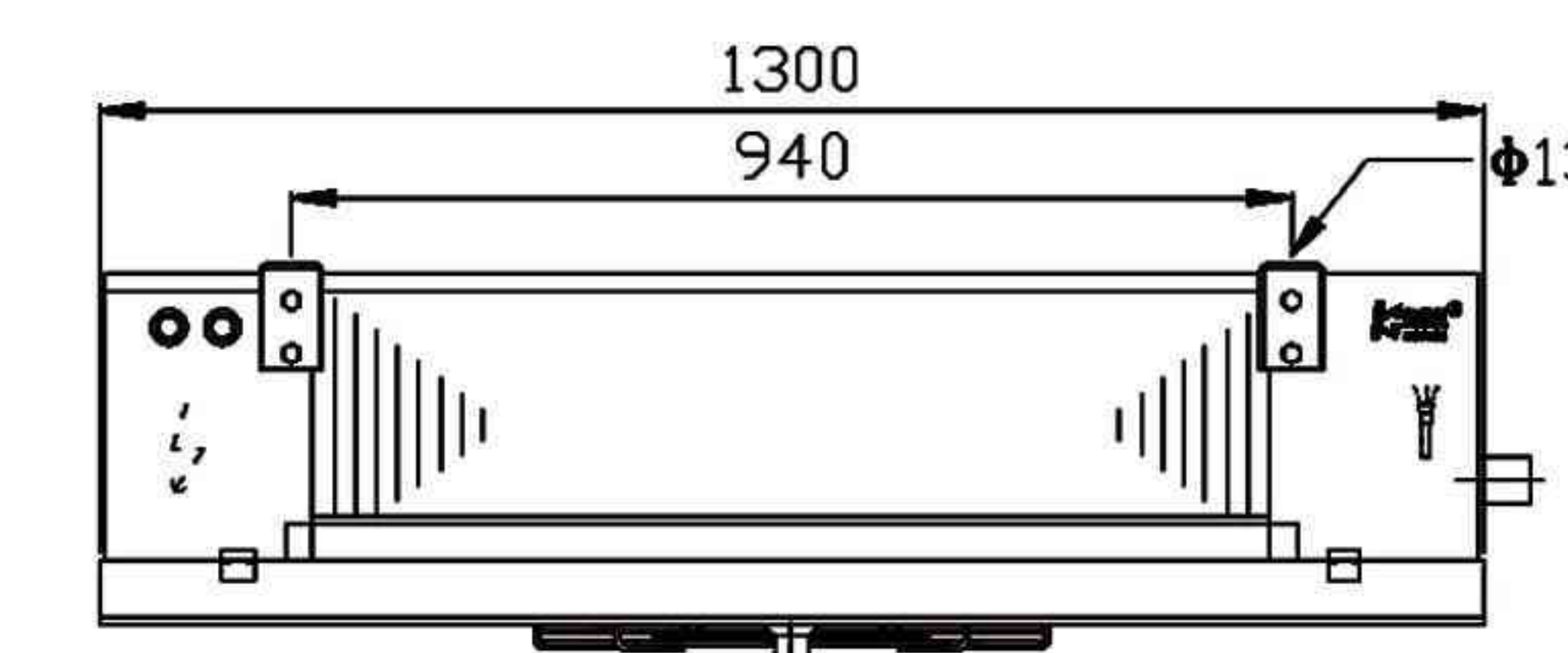
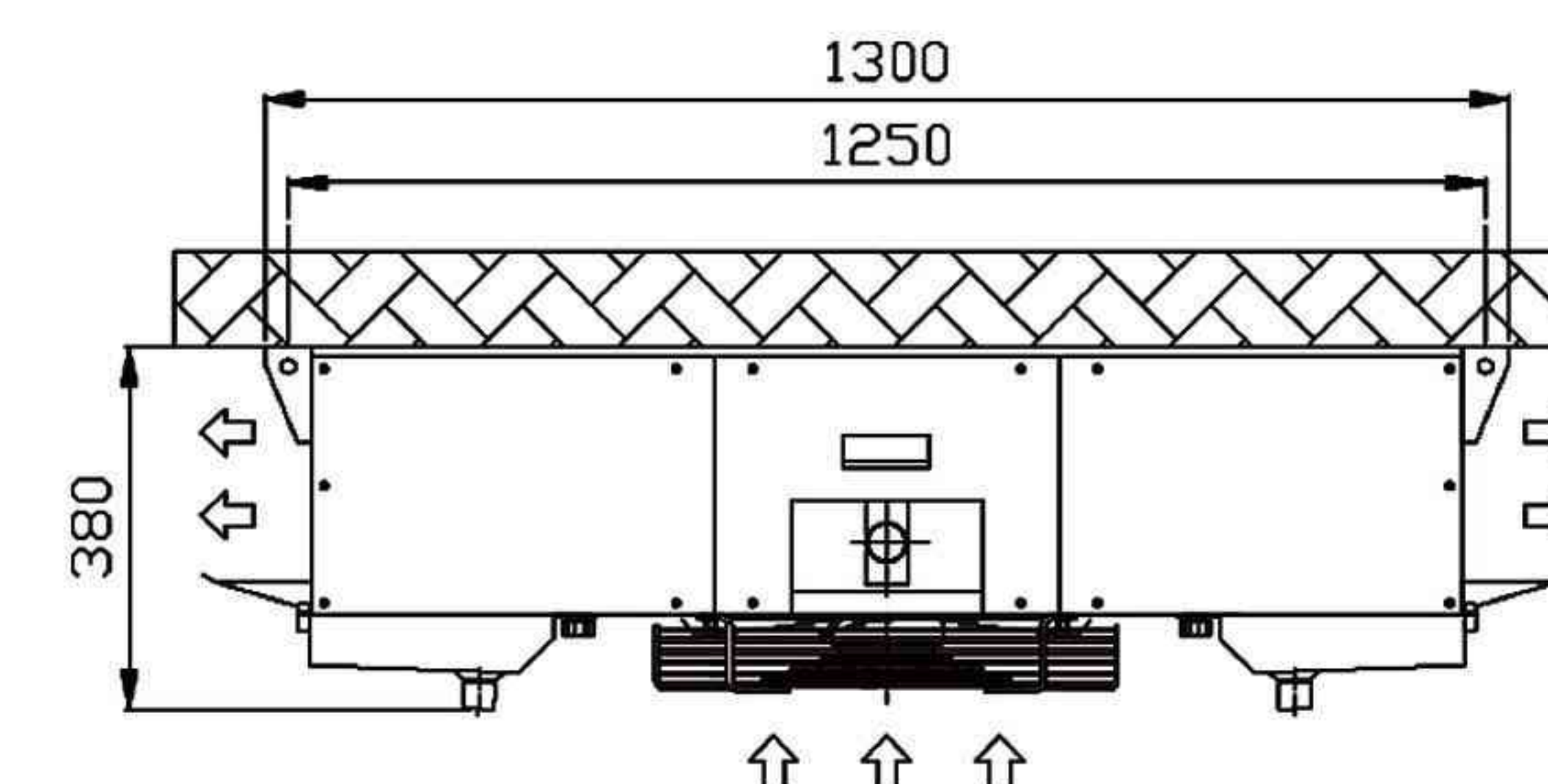


EE453

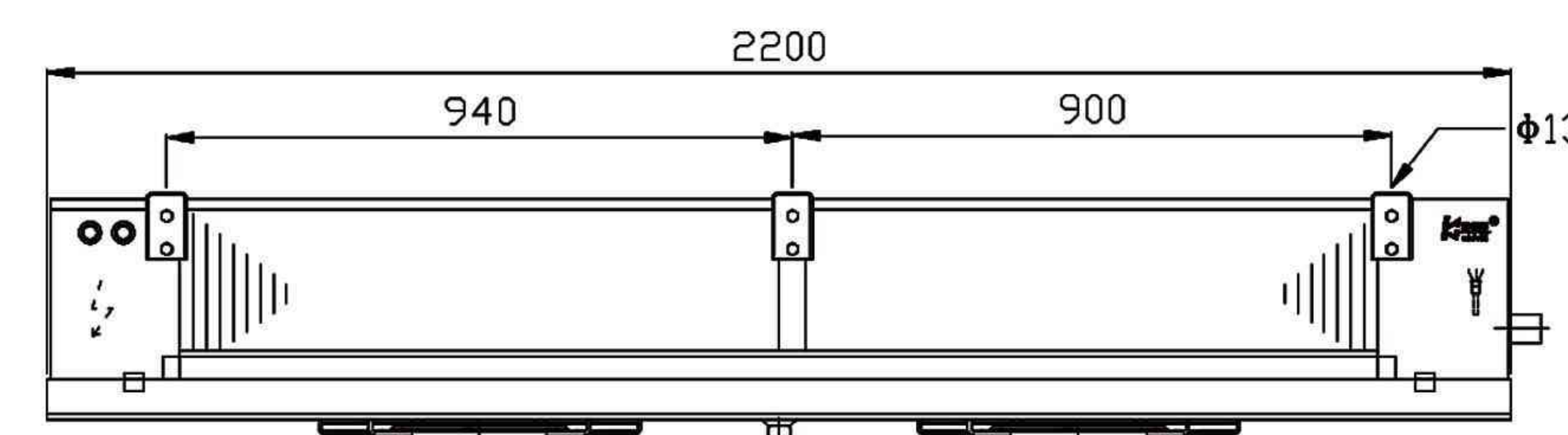


EE454

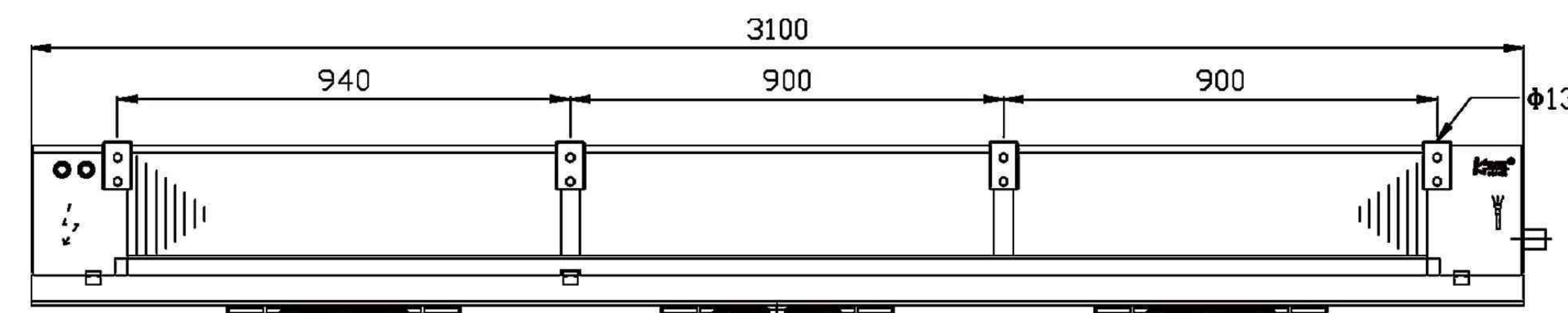
◆ EE50 series



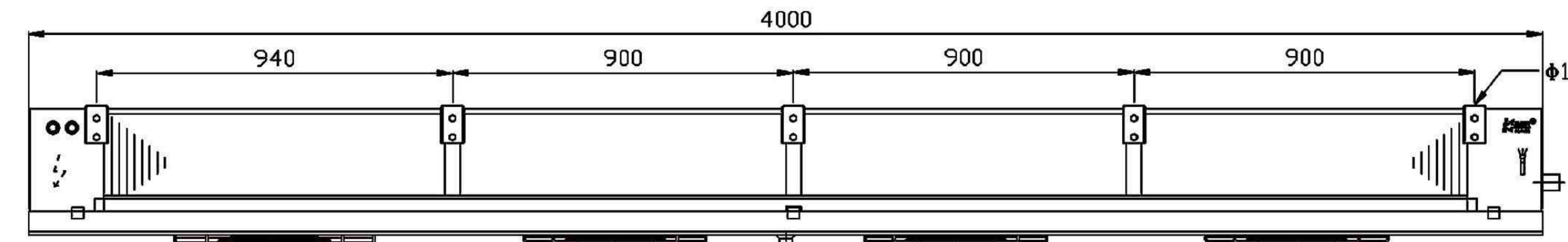
EE501



EE502



EE503



EE504

EH series commercial high-efficiency ceiling-type air cooler

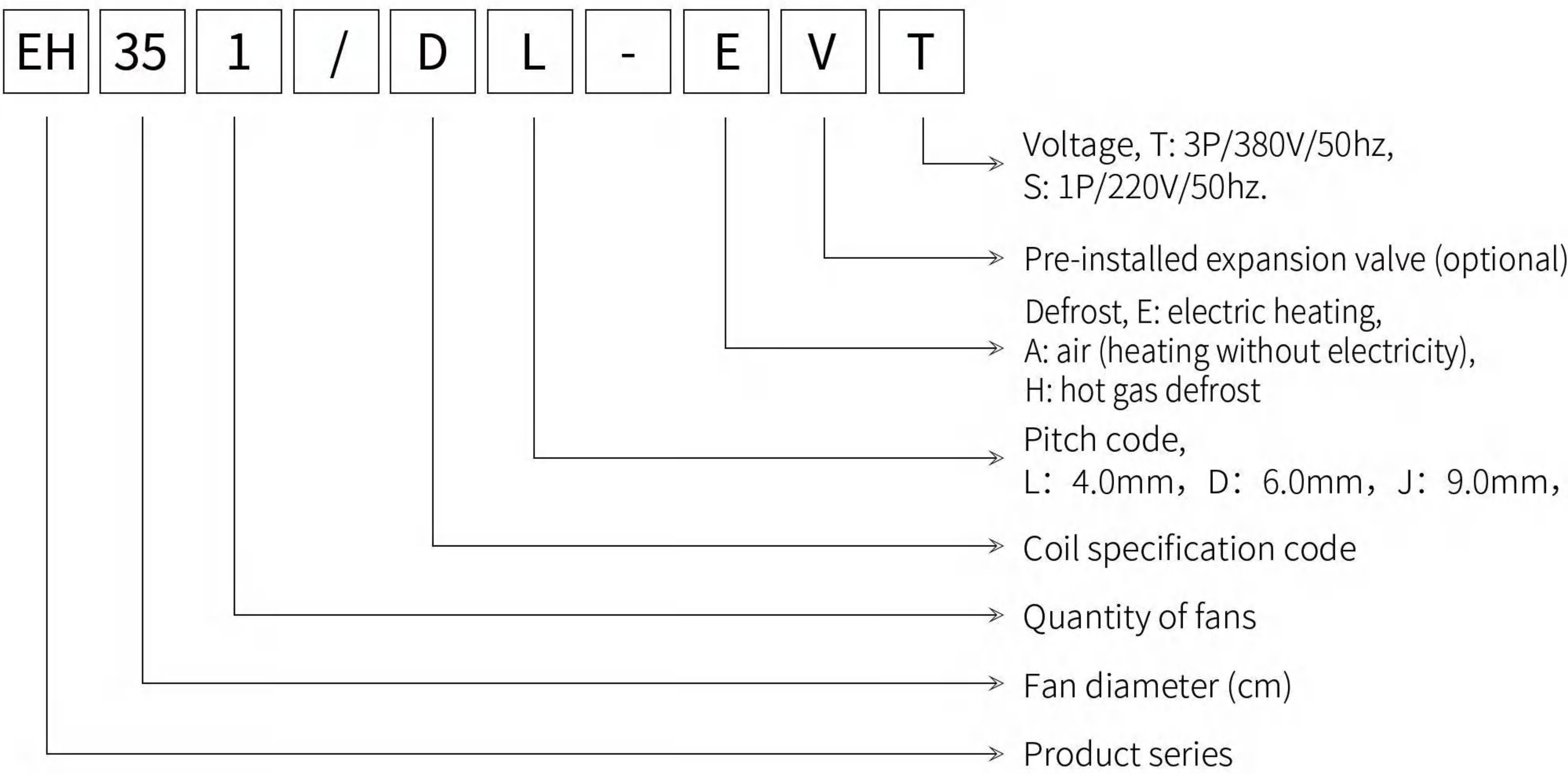


I. Product Overview:

1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; both the side plates and the outer water plate are designed with hinged structure, which is convenient to operate;
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Double drain trays design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
4. Designed with overall stretching large arc high air tube, it has the characteristics of excellent air guiding effect.
5. For fans with a diameter of 500, there are floor supports for easy installation;
6. Coil: Tube spacing 38.1×33 in triangle arrangement, with high heat transfer efficiency;
7. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm, 6.0mm and 9.0mm to meet the requirements of different temperatures and humidity;
8. Fan: High-power external rotor fan, operating temperature: -30 °C ~ 60 °C; fan specifications: ϕ350, ϕ400, ϕ500, product series of different specifications, giving users more choices;
9. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins, which can bring about desirable defrosting effect; the steam defrosting can be adopted as required by the customer.
10. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
11. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
12. It is subjected to strict pressure test at the pressure of 23bar;
13. The expansion valves, heating band of fan tube and other parts can be pre-installed according to customer's needs;
14. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



II. Model Explanation:



III. Standard Configuration and Options:

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Defrost	Air defrost	○
	Powder coated steel plate	○		Electric heating pipe	●
	Powder coated galvanized sheet	●		Hot gas defrost (coil & tray)	○
	Stainless steel plate*	○	Expansion valve		○
Motor	Weiguang external rotor motor	●	Drain heater		○
	EBM external rotor motor*	○	Fan tube heater		○
	Air tube fan	○			
Aluminum foil	Normal aluminium foil	○			
	Hydrophilic aluminum foil (blue foil)	●			

Note: ●: Standard component; ○: Optional component; ×: Not available. * Regular fan tube

EH series commercial high-efficiency ceiling-type air cooler



IV. Performance Datasheet:

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=10℃ ΔT=10K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
350 fan series										
EH351/CL-ET	2.7	4.0	10.9	2.2	2050	7	φ12	φ 22	G1"	36
EH351/DL-ET	3.4	5.0	14.6	2.9	1850	7	φ12	φ 22	G1"	37
EH352/CL-ET	5.5	8.1	21.9	4.0	4100	9	φ12	φ 22	G1"	56
EH352/DL-ET	6.7	9.8	29.2	5.3	3700	9	φ12	φ22	G1"	59
EH353/CL-ET	8.2	12.1	32.8	5.8	6150	10	φ12	φ22	G1"	77
EH353/DL-ET	10.1	14.8	43.8	7.8	5550	10	φ12	φ22	G1"	81
EH354/CL-ET	11.0	16.2	43.8	7.7	8200	11	φ12	φ22	G1"	98
EH354/DL-ET	13.4	19.6	58.4	10.2	7400	11	φ16	φ28	G1"	104
400 fan series										
EH401/DL-ET	5.6	8.2	23.3	4.5	3600	11	φ12	φ 22	G1"	47
EH401/FL-ET	7.4	10.9	35.0	6.7	2950	11	φ12	φ 22	G1"	52
EH402/DL-ET	11.2	16.5	46.7	8.4	7200	12	φ16	φ 28	G1.5"	77
EH402/FL-ET	14.7	21.6	70.0	12.6	5900	12	φ16	φ 28	G1.5"	86
EH403/DL-ET	16.8	24.7	70.0	12.3	10800	13	φ 22	φ 35	G1.5"	106
EH403/FL-ET	22.1	32.5	105.0	18.4	8850	13	φ 22	φ 35	G1.5"	120
EH404/DL-ET	22.4	32.9	93.4	16.2	14400	14	φ 22	φ 35	G1.5"	132
EH404/FL-ET	29.4	43.2	140.1	24.3	11800	14	φ 22	φ 42	G1.5"	151
500 fan series										
EH501/DL-ET	10.6	15.6	39.4	7.2	6500	17	φ16	φ28	G1.5"	78
EH501/FL-ET	13.0	19.1	59.1	10.8	5400	16	φ16	φ28	G1.5"	86
EH502/DL-ET	21.3	31.3	78.8	13.8	13000	19	φ22	φ 35	G1.5"	124
EH502/FL-ET	26.0	38.2	118.2	20.7	10800	18	φ22	φ 35	G1.5"	139
EH503/DL-ET	31.9	46.8	118.2	20.4	19500	21	φ22	φ 42	G2"	171
EH503/FL-ET	39.0	57.3	177.3	30.7	16200	20	φ28	φ 50	G2"	194
EH504/DL-ET	42.6	62.6	157.6	27.0	26000	22	φ28	φ 50	G2"	219
EH504/FL-ET	52.0	76.4	236.4	40.6	21600	21	φ28	φ50	G2"	251

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

◆ Fin pitch 6.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
350 fan series										
EH351/CD-ET	2.1	1.6	7.5	2.2	2100	8	φ12	φ 22	G1"	35
EH351/DD-ET	2.6	2.1	10.0	2.9	1900	8	φ12	φ 22	G1"	37
EH352/CD-ET	4.2	3.3	15.0	4.0	4200	10	φ12	φ 22	G1"	55
EH352/DD-ET	5.2	4.2	20.0	5.3	3800	10	φ12	φ22	G1"	58
EH353/CD-ET	6.3	5.0	22.6	5.8	6300	11	φ12	φ22	G1"	75
EH353/DD-ET	7.8	6.2	30.0	7.8	5700	11	φ12	φ22	G1"	79
EH354/CD-ET	8.4	6.7	30.0	7.7	8400	12	φ12	φ22	G1"	97
EH354/DD-ET	10.4	8.3	40.1	10.2	7600	12	φ16	φ28	G1"	102
400 fan series										
EH401/DD-ET	4.2	3.4	16.1	4.5	3700	12	φ12	φ 22	G1"	47
EH401/FD-ET	5.5	4.4	24.1	6.7	3200	12	φ12	φ 22	G1"	51
EH402/DD-ET	8.3	6.6	32.1	8.4	7400	13	φ16	φ 28	G1.5"	75
EH402/FD-ET	11.1	8.9	48.2	12.6	6400	13	φ16	φ 28	G1.5"	83
EH403/DD-ET	12.5	10.0	48.2	12.3	11100	14	φ 22	φ 35	G1.5"	104
EH403/FD-ET	16.6	13.3	72.2	18.4	9600	14	φ 22	φ 35	G1.5"	116
EH404/DD-ET	16.7	13.4	64.2	16.2	14800	15	φ 22	φ 35	G1.5"	129
EH404/FD-ET	22.1	17.7	96.3	24.3	12800	15	φ 22	φ 42	G1.5"	145
500 fan series										
EH501/DD-ET	8.7	7.0	27.1	7.2	6800	18	φ16	φ28	G1.5"	77
EH501/FD-ET	10.6	8.5	40.6	10.8	5800	17	φ16	φ28	G1.5"	84
EH502/DD-ET	17.3	13.8	54.2	13.8	13600	20	φ22	φ 35	G1.5"	120
EH502/FD-ET	21.1	16.9	81.3	20.7	11600	19	φ22	φ 35	G1.5"	134
EH503/DD-ET	26.0	20.8	81.3	20.4	20400	22	φ22	φ 42	G2"	165
EH503/FD-ET	31.7	25.4	121.9	30.7	17400	21	φ28	φ 50	G2"	187
EH504/DD-ET	34.7	27.8	108.3	27.0	27200	23	φ28	φ 50	G2"	212
EH504/FD-ET	42.3	33.8	162.5	40.6	23200	22	φ28	φ50	G2"	240

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

EH series commercial high-efficiency ceiling-type air cooler



◆ Fin pitch 9.0mm

Model	Cooling capacity/R404A(KW)			Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	Tc=-25℃ ΔT=6K	m²	dm³	m³/h	m	Liquid inlet	Gas outlet	Drain	kg
350 fan series											
EH351/CJ-ET	1.7	1.3	1.1	5.2	2.2	2150	9	φ12	φ 22	G1″	35
EH351/DJ-ET	2.1	1.7	1.4	7.0	2.9	1950	9	φ12	φ 22	G1″	36
EH352/CJ-ET	3.4	2.7	2.2	10.5	4.0	4300	11	φ12	φ 22	G1″	55
EH352/DJ-ET	4.2	3.4	2.8	14.0	5.3	3900	11	φ12	φ22	G1″	57
EH353/CJ-ET	5.0	4.0	3.3	15.7	5.8	6450	12	φ12	φ22	G1″	74
EH353/DJ-ET	6.3	5.0	4.2	21.0	7.8	5850	12	φ12	φ22	G1″	78
EH354/CJ-ET	6.7	5.4	4.4	21.0	7.7	8600	13	φ12	φ22	G1″	96
EH354/DJ-ET	8.4	6.7	5.5	27.9	10.2	7800	13	φ16	φ28	G1″	100
400 fan series											
EH401/DJ-ET	3.2	2.6	2.1	11.2	4.5	3800	13	φ12	φ 22	G1″	46
EH401/FJ-ET	4.4	3.5	2.9	16.8	6.7	3450	13	φ12	φ 22	G1″	50
EH402/DJ-ET	6.5	5.2	4.3	22.3	8.4	7600	14	φ16	φ 28	G1.5″	73
EH402/FJ-ET	8.7	7.0	5.7	33.5	12.6	6900	14	φ16	φ 28	G1.5″	81
EH403/DJ-ET	9.7	7.8	6.4	33.5	12.3	11400	15	φ 22	φ 35	G1.5″	101
EH403/FJ-ET	13.1	10.5	8.6	50.3	18.4	10350	15	φ 22	φ 35	G1.5″	113
EH404/DJ-ET	13.0	10.4	8.6	44.7	16.2	15200	16	φ 22	φ 35	G1.5″	125
EH404/FJ-ET	17.4	13.9	11.5	67.0	24.3	13800	16	φ 22	φ 42	G1.5″	141
500 fan series											
EH501/DJ-ET	7.2	5.8	4.8	18.9	7.2	7000	19	φ16	φ28	G1.5″	75
EH501/FJ-ET	9.3	7.4	6.1	28.3	10.8	6200	18	φ16	φ28	G1.5″	82
EH502/DJ-ET	14.3	11.4	9.4	37.7	13.8	14000	21	φ22	φ 35	G1.5″	119
EH502/FJ-ET	18.7	15.0	12.3	56.6	20.7	12400	20	φ22	φ 35	G1.5″	131
EH503/DJ-ET	21.5	17.2	14.2	56.6	20.4	21000	23	φ22	φ 42	G2″	161
EH503/FJ-ET	28.0	22.4	18.5	84.9	30.7	18600	22	φ28	φ 50	G2″	181
EH504/DJ-ET	28.7	23.0	18.9	75.4	27.0	28000	24	φ28	φ 50	G2″	207
EH504/FJ-ET	37.3	29.8	24.6	113.1	40.6	24800	23	φ28	φ50	G2″	233

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

V. Electrical Parameters:

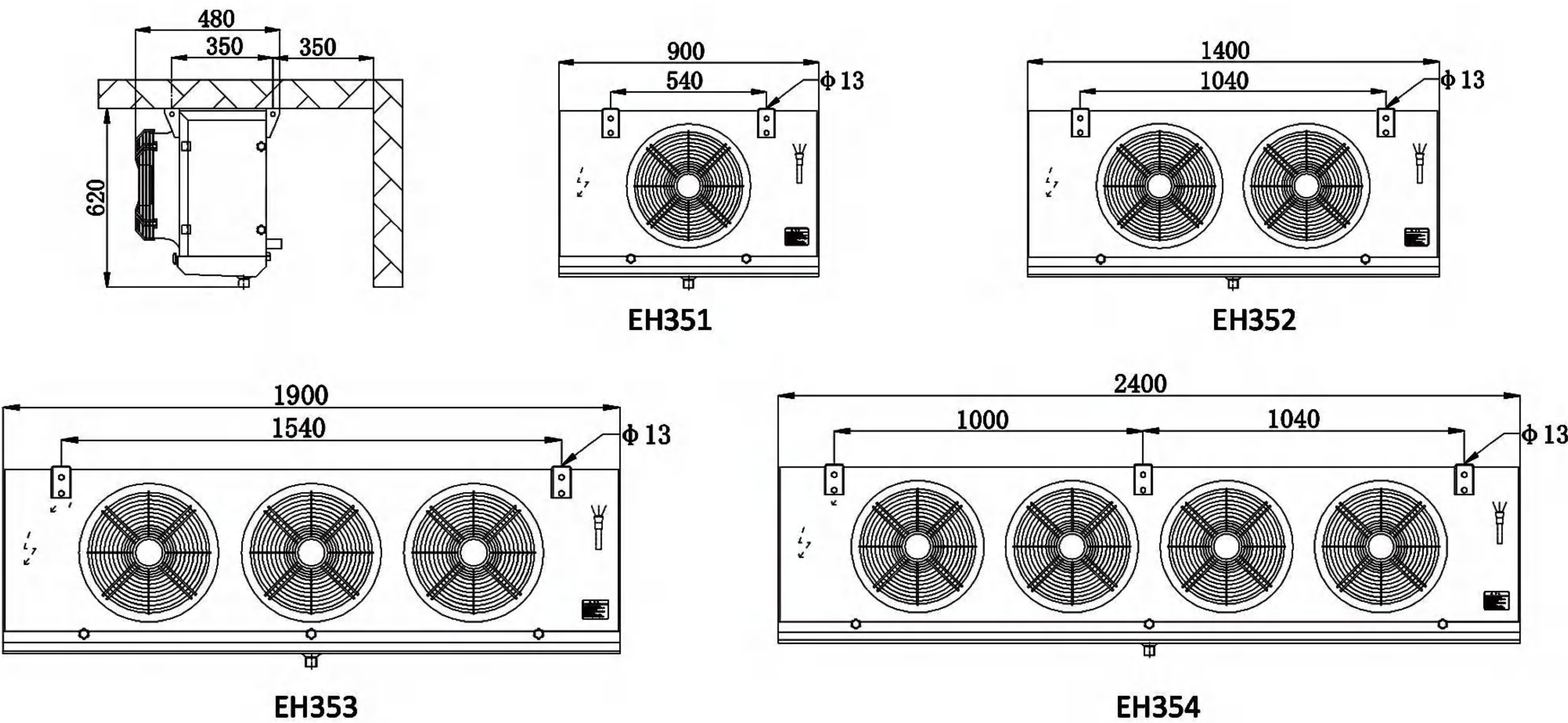
Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EH351*	380-3	129	0.4	1400	2×0.5	1×0.5	1.5
EH352*	380-3	258	0.8	1400	2×0.9	1×0.9	2.7
EH353*	380-3	387	1.2	1400	2×1.3	1×1.3	3.9
EH354*	380-3	516	1.6	1400	2×1.7	1×1.7	5.1
EH401/D*	380-3	205	0.51	1380	3×0.6	1×0.6	2.4
EH401/F*	380-3	205	0.51	1380	5×0.6	1×0.6	3.6
EH402/D*	380-3	410	1.02	1380	3×1.1	1×1.1	4.4
EH402/F*	380-3	410	1.02	1380	5×1.1	1×1.1	6.6
EH403/D*	380-3	615	1.53	1380	3×1.6	1×1.6	6.4
EH403/F*	380-3	615	1.53	1380	5×1.6	1×1.6	9.6
EH404/D*	380-3	820	2.04	1380	3×2.0	1×2.0	8.0
EH404/F*	380-3	820	2.04	1380	5×2.0	1×2.0	12.0
EH501/D*	380-3	500	0.95	1380	3×0.8	2×0.8	4.0
EH501/F*	380-3	500	0.95	1380	5×0.8	2×0.8	5.6
EH502/D*	380-3	1000	1.9	1380	3×1.6	2×1.6	8.0
EH502/F*	380-3	1000	1.9	1380	5×1.6	2×1.6	11.2
EH503/D*	380-3	1500	2.85	1380	3×2.3	2×2.3	11.5
EH503/F*	380-3	1500	2.85	1380	5×2.3	2×2.3	16.1
EH504/D*	380-3	2000	3.8	1380	3×3.0	2×3.0	15.0
EH504/F*	380-3	2000	3.8	1380	5×3.0	2×3.0	21.0

EH series commercial high-efficiency ceiling-type air cooler

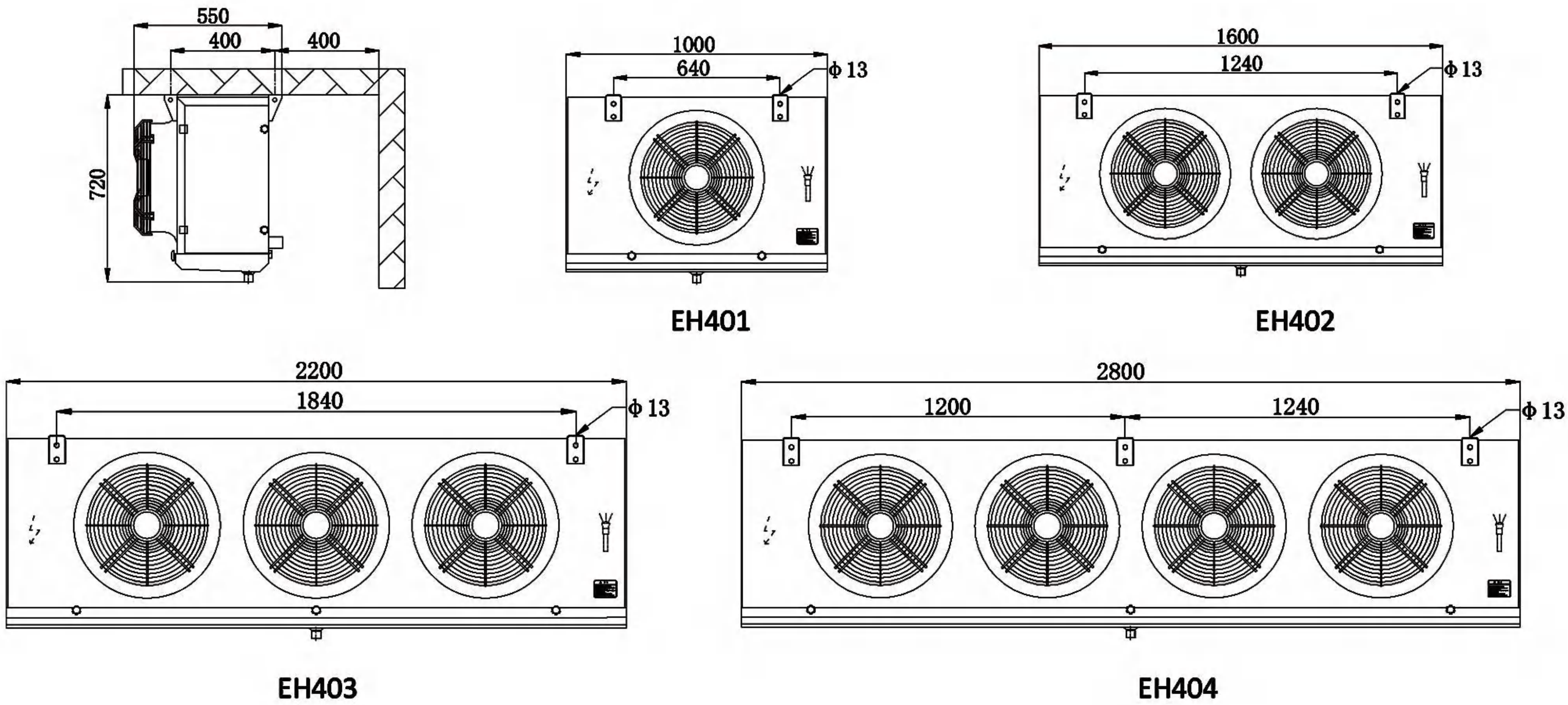


VI. Outline and Installation Dimension:

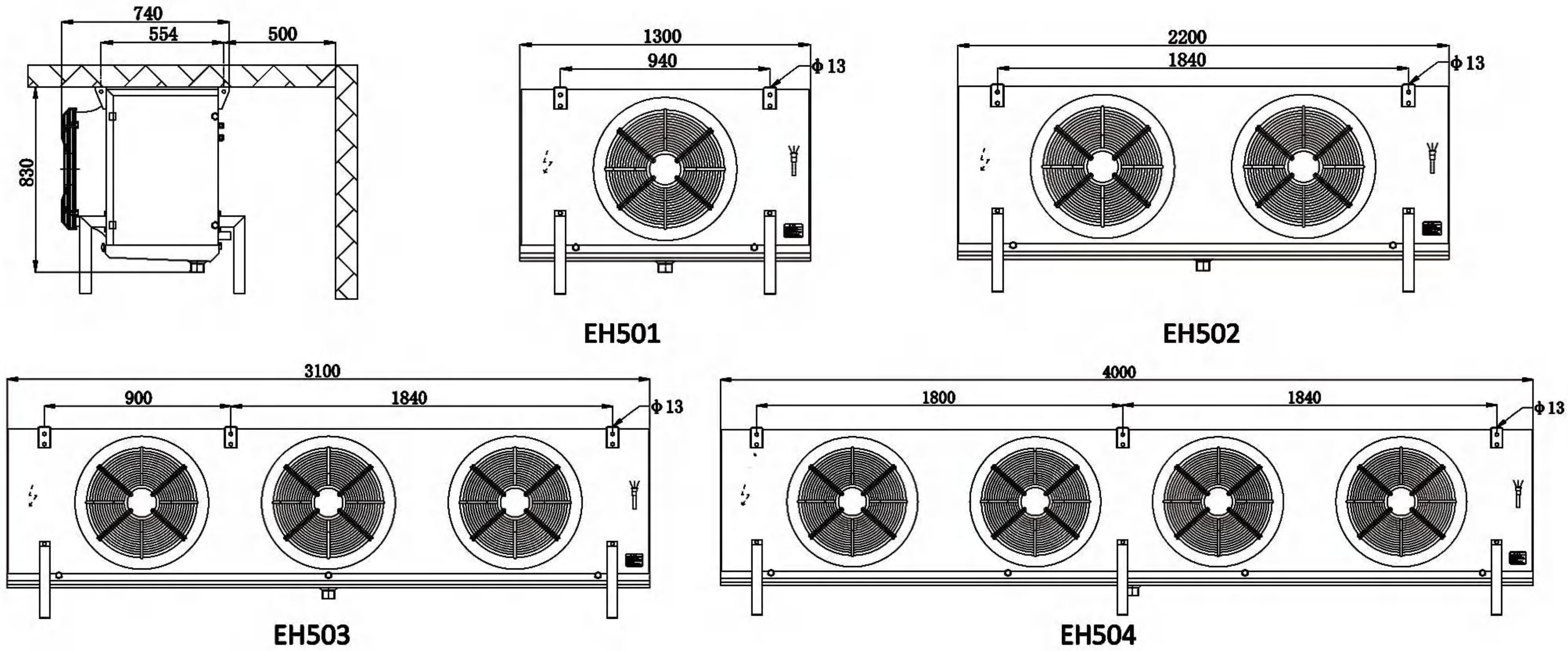
EH35 series



EH40 series



EH50 series



ED series industrial double-side blow air cooler



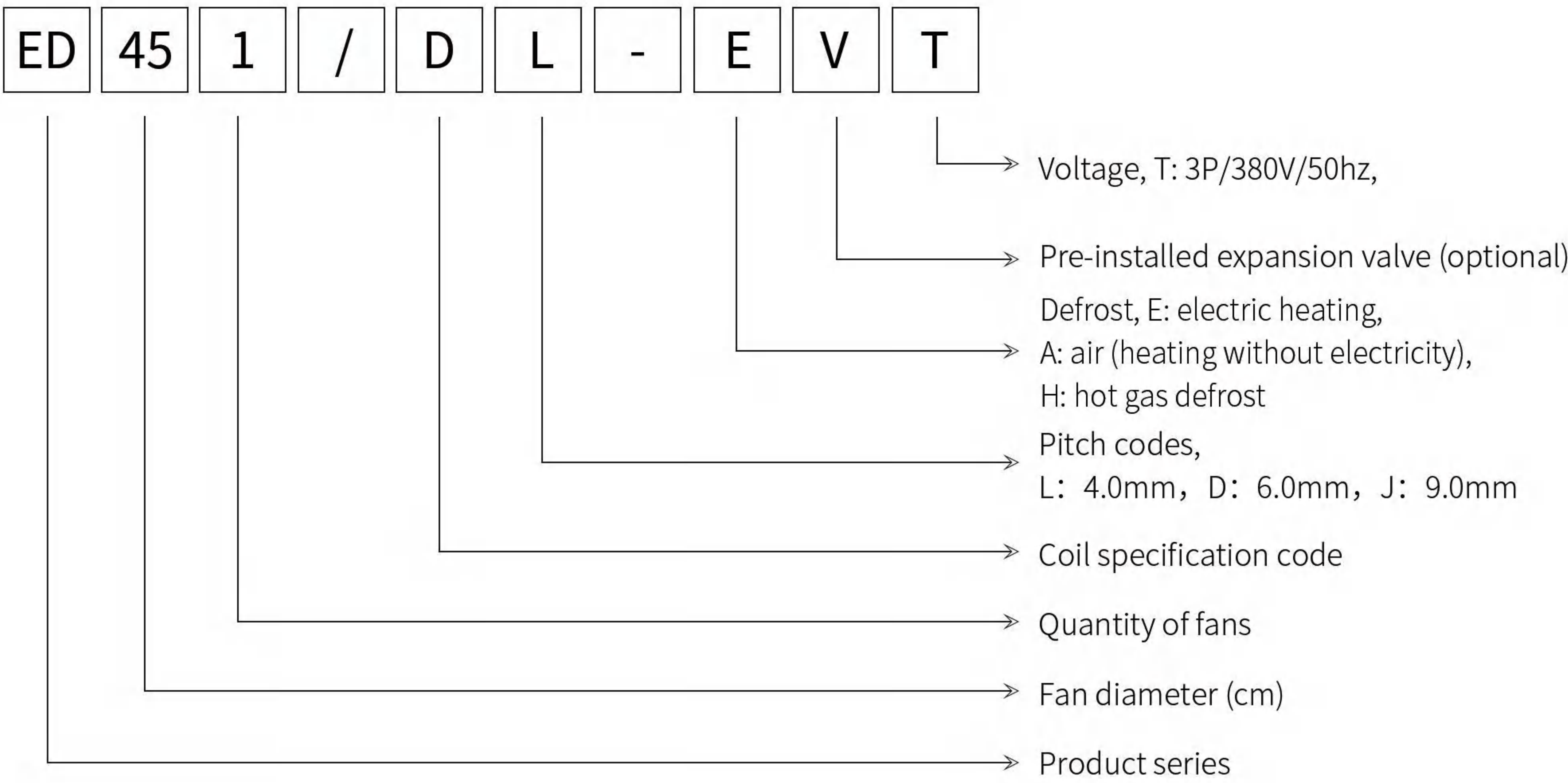
I. Product Overview:

ED series industrial air cooler is designed with the structure of air inlet below and air outlet on both sides, which is mainly used for cold storage with low height and size of the warehouse or production cold storage that is not suitable for direct blowing.

- 1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; the outer water plate is designed with hinged structure, which is convenient to operate;
- 2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
- 3. Double water plate design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
- 4. Coil: The aligned tube pattern 50 X 50 mm features large heat transfer area, low heat transfer temperature difference, and slow frosting speed of fins;
- 5. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm, 6.0mm and 9.0mm to meet the requirements of different cold stores;
- 6. Fan: External rotor fan with blowing air, operating temperature: -30 °C ~ 60 °C; fan specifications: φ450 and φ500, product series of different specifications, giving users more choices;
- 7. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and inner water plates, which can bring about desirable defrosting effect; the steam defrosting can be adopted.
- 8. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
- 9. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
- 10. It is subjected to strict factory pressure test at the pressure of 23bar;
- 11. The expansion valves and other parts can be pre-installed according to customer's needs;
- 12. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



II. Model Explanation:



III. Standard Configuration and Options:

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Defrost	Air defrost	○
	Powder coated steel plate	○		Electric heating pipe	●
	Powder coated galvanized sheet	●		Hot gas defrost (coil & tray)	○
	Stainless steel plate	○	Expansion valve		○
Motor	Weiguang external rotor motor	●	Drain heater		○
	EBM external rotor motor	○	Fan tube heater		×
	Air tube fan	×			
Aluminum foil	Normal aluminium foil	○			
	Hydrophilic aluminum foil (blue foil)	●			

Note: ●: Standard component; ○: Optional component; ×: Not available.

ED series industrial double-side blow air cooler



IV. Performance Datasheet:

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=10℃ ΔT=10K	m²	dm³	m³/h	m	Liquid inlet	Gas outlet	Drain	kg
ED451/DL-ET	6.3	9.3	35.0	4.8	4500	2×6	φ12	φ 22	2×G1″	73
ED452/DL-ET	12.6	18.5	70.0	8.8	9000	2×8	φ16	φ 22	2×G1″	114
ED453/DL-ET	18.9	27.8	105.0	12.9	13500	2×10	φ16	φ 28	2×G1.5″	155
ED454/DL-ET	25.2	37.0	140.0	17.0	18000	2×12	φ16	φ 35	2×G1.5″	196
ED501/DL-ET	8.9	13.0	52.5	6.8	6000	2×7	φ12	φ22	2×G1″	89
ED502/DL-ET	17.8	26.1	105.0	12.9	12000	2×9	φ16	φ28	2×G1.5″	145
ED503/DL-ET	26.8	39.4	157.5	19.0	18000	2×11	φ 22	φ 42	2×G1.5″	201
ED504/DL-ET	35.7	52.5	210.0	25.0	24000	2×13	φ 22	φ 42	2×G1.5″	257

◆ Fin pitch 6.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m²	dm³	m³/h	m	Liquid inlet	Gas outlet	Drain	kg
ED451/DD-ET	4.9	3.9	23.7	4.8	5000	2×6	φ12	φ 22	2×G1″	71
ED452/DD-ET	9.7	7.7	47.5	8.8	10000	2×8	φ16	φ 22	2×G1″	110
ED453/DD-ET	14.6	11.6	71.2	12.9	15000	2×10	φ16	φ 28	2×G1.5″	149
ED454/DD-ET	19.5	15.6	94.9	17.0	20000	2×12	φ16	φ 35	2×G1.5″	188
ED501/DD-ET	6.8	5.4	35.6	6.8	6300	2×7	φ12	φ22	2×G1″	86
ED502/DD-ET	13.5	10.8	71.2	12.9	12600	2×9	φ16	φ28	2×G1.5″	139
ED503/DD-ET	20.3	16.2	106.8	19.0	18900	2×11	φ 22	φ 42	2×G1.5″	192
ED504/DD-ET	27.0	21.6	142.4	25.0	25200	2×13	φ 22	φ 42	2×G1.5″	246

◆ Fin pitch 9.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m²	dm³	m³/h	m	Liquid inlet	Gas outlet	Drain	kg
ED451/DJ-ET	3.8	3.0	16.2	4.8	5400	2×7	φ12	φ 22	2×G1″	71
ED452/DJ-ET	7.6	6.1	32.5	8.8	10800	2×9	φ16	φ 22	2×G1″	109
ED453/DJ-ET	11.4	9.1	48.7	12.9	16200	2×11	φ16	φ 28	2×G1.5″	148
ED454/DJ-ET	15.2	12.2	65.0	17.0	21600	2×13	φ16	φ 35	2×G1.5″	186
ED501/DJ-ET	5.7	4.6	24.6	6.8	6900	2×8	φ12	φ22	2×G1″	85
ED502/DJ-ET	11.2	9.0	48.7	12.9	13800	2×10	φ16	φ28	2×G1.5″	138
ED503/DJ-ET	16.8	13.4	73.1	19.0	20700	2×12	φ 22	φ 42	2×G1.5″	190
ED504/DJ-ET	22.4	17.9	97.5	25.0	27600	2×14	φ 22	φ 42	2×G1.5″	243

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

V. Electrical Parameters:

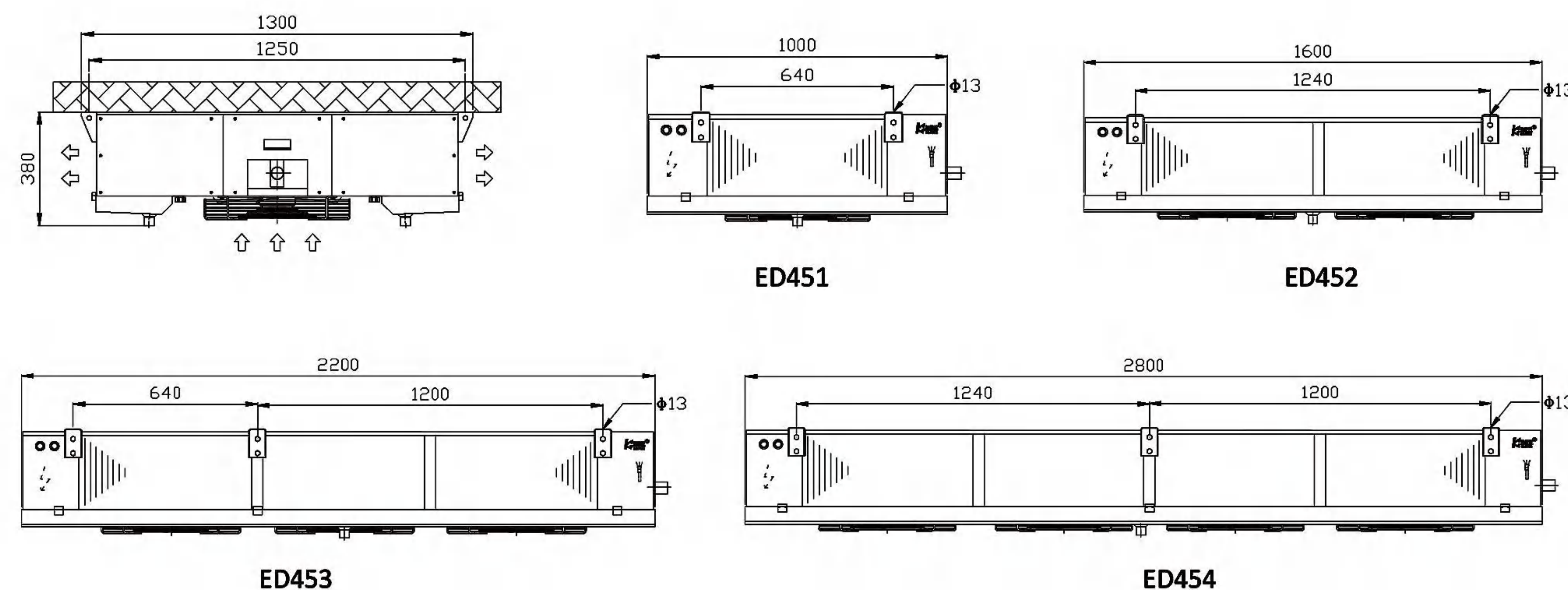
Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
ED451*	380-3	370	0.75	1380	4×0.6	2×0.6	3.6
ED452*	380-3	740	1.5	1380	4×1.1	2×1.1	6.6
ED453*	380-3	1110	2.25	1380	4×1.6	2×1.6	9.6
ED454*	380-3	1480	3.0	1380	4×2.0	2×2.0	12.0
ED501*	380-3	500	0.95	1380	4×0.8	2×0.8	4.8
ED502*	380-3	1000	1.9	1380	4×1.6	2×1.6	9.6
ED503*	380-3	1500	2.85	1380	4×2.3	2×2.3	13.8
ED504*	380-3	2000	3.8	1380	4×3.0	2×3.0	18.0

ED series industrial double-side blow air cooler

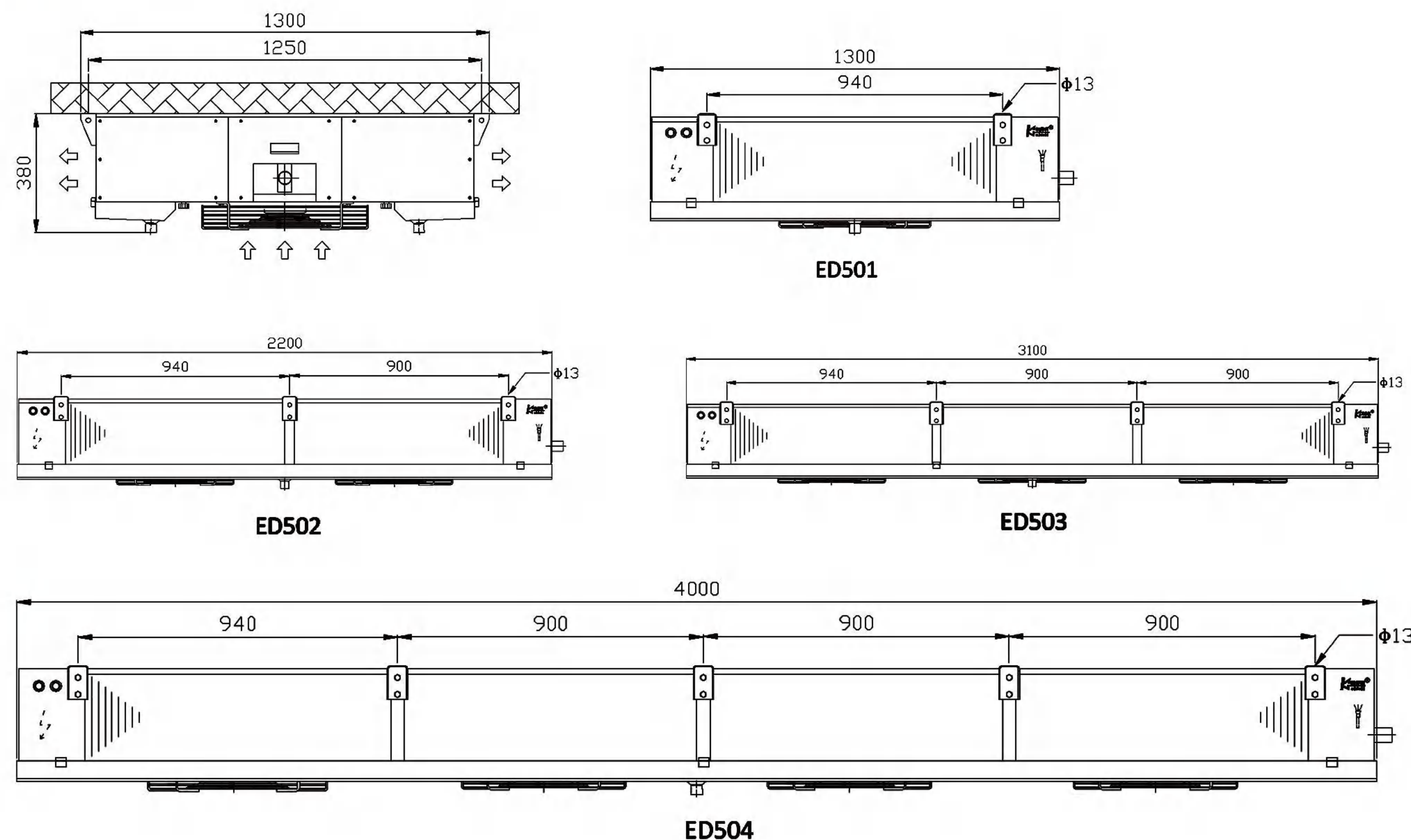
EL series industrial ceiling-type air cooler

VI. Outline and Installation Dimension:

◆ ED45 series



◆ ED50 series



I. Product Overview:

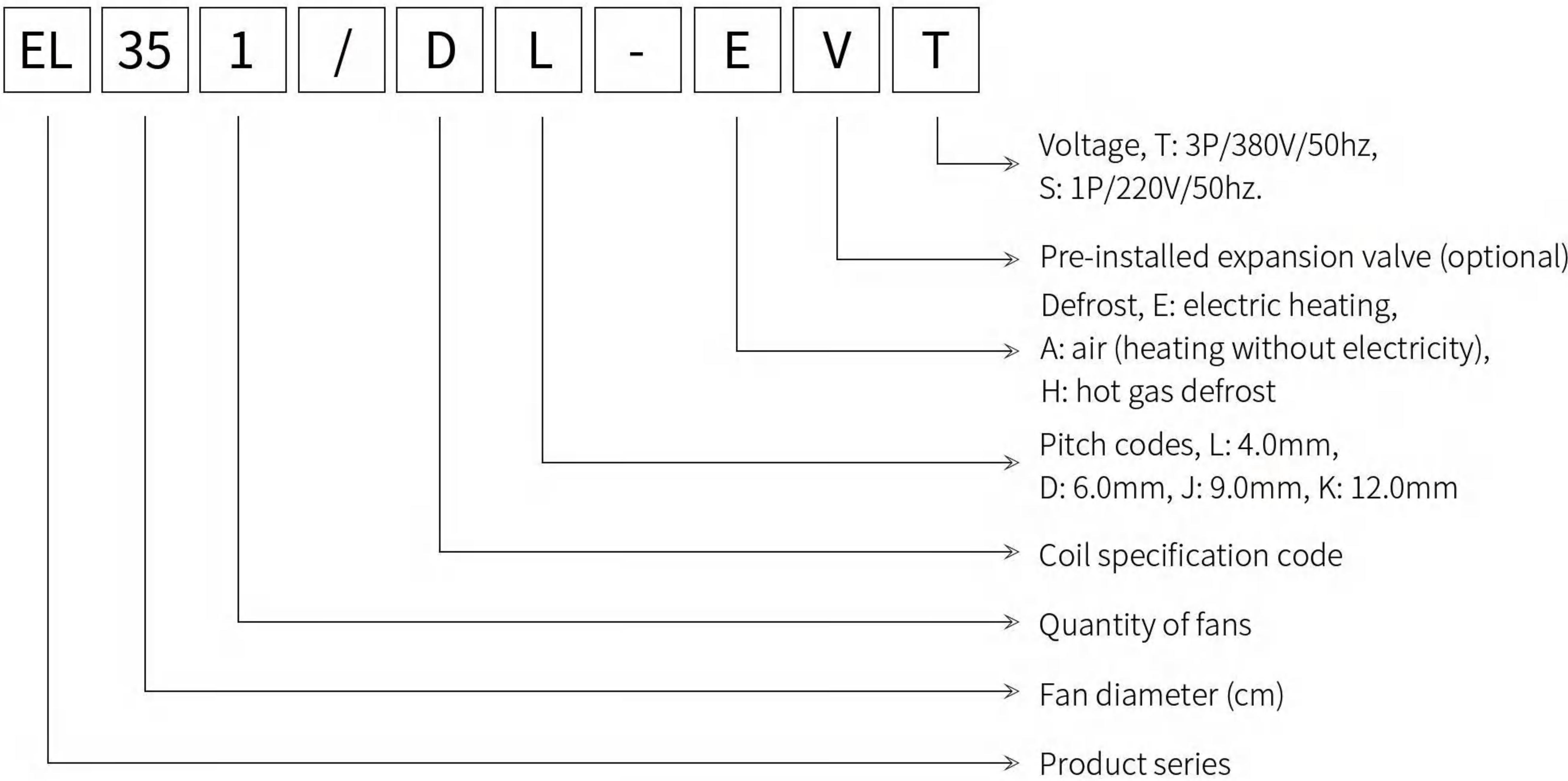
1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; both the side plates and the outer water plate are designed with hinged structure, which is convenient to operate;
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Double drain trays design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
4. Designed with overall stretching large arc high air tube, it has the characteristics of excellent air guiding effect.
5. For fans with a diameter of 500 and above, there are floor supports for easy installation;
6. Coil: The aligned tube pattern 50 X 50 mm features large heat transfer area, low heat transfer temperature difference, low dry food consumption and slow frosting speed of fins;
7. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm, 6.0mm, 9.0mm and 12.0mm to meet the requirements of different temperatures and humidity;
8. Fan: High-power external rotor fan, operating temperature: -40 °C ~ 60 °C; fan specifications: $\phi 350$, $\phi 400$, $\phi 500$ and $\phi 630$, product series of different specifications, giving users more choices;
9. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and inner water plates, which can bring about desirable defrosting effect; the steam defrosting can be adopted as required by the customer.
10. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
11. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
12. It is subjected to strict pressure test at the pressure of 23bar;
13. The expansion valves, heating band of fan tube and other parts can be pre-installed according to customer's needs;
14. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



EL series industrial ceiling-type air cooler



II. Model Explanation:



III. Standard Configuration and Options:

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Defrost	Air defrost	○
	Powder coated steel plate	○		Electric heating pipe	●
	Powder coated galvanized sheet	●		Hot gas defrost (coil & tray)	○
	Stainless steel plate*	○	Expansion valve		○
Motor	Weiguang external rotor motor	●	Drain heater		○
	EBM external rotor motor*	○	Fan tube heater		○
	Air tube fan	○			
Aluminum foil	Normal aluminium foil	○			
	Hydrophilic aluminum foil (blue foil)	●			

Note: ●: Standard component; ○: Optional component; ×: Not available. * Regular fan tube

IV. Performance Datasheet

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=10℃ ΔT=10K	m²	dm³	m³/h	m	Liquid inlet	Gas outlet	Drain	kg
350 fan series										
EL351/BL-ET	2.2	3.2	12.2	1.9	2100	8	φ12	φ 22	G1"	39
EL351/CL-ET	2.9	4.3	18.2	2.9	1900	8	φ12	φ 22	G1"	41
EL352/BL-ET	4.2	6.2	24.3	3.5	4200	10	φ12	φ 22	G1"	54
EL352/CL-ET	5.8	8.5	36.5	5.3	3800	10	φ12	φ22	G1"	58
EL353/BL-ET	6.6	9.7	36.5	5.1	6300	11	φ12	φ22	G1"	69
EL353/CL-ET	8.8	12.9	54.7	7.7	5700	11	φ12	φ22	G1"	75
EL354/BL-ET	8.8	12.9	48.6	6.8	8400	12	φ12	φ22	G1"	84
EL354/CL-ET	11.7	17.2	72.9	10.1	7600	12	φ16	φ28	G1"	92
400 fan series										
EL401/CL-ET	4.4	6.4	26.2	4.1	3700	12	φ12	φ 22	G1"	49
EL401/DL-ET	5.3	7.8	35.0	5.4	3200	12	φ12	φ 22	G1"	52
EL402/CL-ET	8.9	13.1	52.5	7.5	7400	13	φ12	φ 22	G1.5"	72
EL402/DL-ET	10.5	15.4	70.0	10.0	6400	13	φ16	φ 22	G1.5"	78
EL403/CL-ET	13.4	19.7	78.7	11.0	11100	14	φ16	φ 28	G1.5"	95
EL403/DL-ET	15.7	23.1	105.0	14.6	9600	14	φ16	φ 28	G1.5"	104
EL404/CL-ET	17.8	26.2	105.0	14.5	14800	15	φ16	φ 35	G1.5"	118
EL404/DL-ET	21.0	30.9	140.0	19.3	12800	15	φ16	φ 35	G1.5"	130
500 fan series										
EL501/DL-ET	9.8	14.4	61.2	9.0	6800	18	φ16	φ22	G1.5"	93
EL501/EL-ET	11.4	16.8	76.5	11.2	6350	17	φ16	φ28	G1.5"	99
EL501/FL-ET	12.9	19.0	91.9	13.5	5500	17	φ16	φ28	G1.5"	104
EL502/DL-ET	19.6	28.8	122.5	17.1	13600	20	φ22	φ 35	G1.5"	132
EL502/EL-ET	22.9	33.7	153.1	21.3	12700	19	φ22	φ 35	G1.5"	143
EL502/FL-ET	25.7	37.8	183.7	25.6	11000	19	φ22	φ42	G1.5"	153
EL503/DL-ET	29.3	43.0	183.7	25.2	20400	22	φ22	φ 42	G2"	180
EL503/EL-ET	34.4	50.6	229.6	31.5	19050	21	φ22	φ 42	G2"	196
EL503/FL-ET	38.5	56.6	275.6	37.8	16500	21	φ22	φ 42	G2"	212
EL504/DL-ET	39.2	57.6	244.9	33.3	27200	23	φ22	φ 42	G2"	228
EL504/EL-ET	43.3	63.6	288.7	39.2	25400	22	φ22	φ 42	G2"	249
EL504/FL-ET	51.4	75.6	367.4	49.9	22000	22	φ28	φ50	G2"	270

EL series industrial ceiling-type air cooler



Model	Cooling capacity/R404A(KW)		Surface m ²	Tube volume dm ³	Airflow m ³ /h	Air throw m	Connection pipe (mm)			Weight kg
	Tc=0℃ ΔT=8K	Tc=10℃ ΔT=10K					Liquid inlet	Gas outlet	Drain	
500 fan series										
EL505/DL-ET	49.0	72.0	306.2	41.4	34000	24	φ28	φ50	G2"	276
EL505/EL-ET	54.1	79.5	360.9	48.7	31750	23	φ28	φ50	G2"	302
EL505/FL-ET	64.3	94.5	459.3	62.0	27500	23	φ28	φ50	G2"	328
630 fan series										
EL631/DL-ET	15.8	23.2	105.0	15.0	10000	28	φ16	φ28	G1.5"	125
EL631/EL-ET	18.3	26.9	131.2	18.8	9600	27	φ16	φ28	G1.5"	134
EL631/FL-ET	20.4	30.0	157.5	22.5	9100	27	φ 22	φ 35	G1.5"	143
EL632/DL-ET	31.5	46.3	210.0	28.9	20000	31	φ 22	φ 42	G1.5"	206
EL632/EL-ET	36.7	53.5	262.4	36.1	19200	30	φ 22	φ 42	G1.5"	224
EL632/FL-ET	40.9	60.1	314.9	43.3	18200	30	φ 22	φ 42	G1.5"	242
EL633/DL-ET	47.2	69.4	314.9	42.8	30000	34	φ 22	φ 42	G2"	288
EL633/EL-ET	55.1	81.0	393.7	53.4	28800	33	φ 28	φ 50	G2"	314
EL633/FL-ET	61.4	90.3	472.4	64.1	27300	33	φ 28	φ 50	G2"	341
EL634/DL-ET	63.0	92.6	419.9	56.6	40000	36	φ 28	φ 50	G2"	369
EL634/EL-ET	73.5	108.0	524.9	70.8	38400	35	φ 28	φ 50	G2"	405
EL634/FL-ET	81.9	120.3	629.9	84.9	36400	35	φ 35	φ 50	G2"	440

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

Fin pitch 6.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
350 fan series										
EL351/BD-ET	1.8	1.4	8.2	1.9	2150	9	φ12	φ 22	G1″	38
EL351/CD-ET	2.4	1.9	12.4	2.9	1950	9	φ12	φ 22	G1″	40
EL352/BD-ET	3.6	2.9	16.5	3.5	4300	11	φ12	φ 22	G1″	52
EL352/CD-ET	4.7	3.7	24.7	5.3	3900	11	φ12	φ22	G1″	56
EL353/BD-ET	5.4	4.3	24.7	5.1	6450	12	φ12	φ22	G1″	67
EL353/CD-ET	7.0	5.6	37.1	7.7	5850	12	φ12	φ22	G1″	72
EL354/BD-ET	7.3	5.8	33.0	6.8	8600	13	φ12	φ22	G1″	81
EL354/CD-ET	9.4	7.5	49.4	10.1	7800	13	φ16	φ28	G1″	88

400 fan series										
EL401/CD-ET	3.3	2.6	17.8	4.1	3800	13	φ12	φ 22	G1"	47
EL401/DD-ET	4.0	3.2	23.7	5.4	3450	13	φ12	φ 22	G1"	50
EL402/CD-ET	6.7	5.3	35.6	7.5	7600	14	φ12	φ 22	G1.5"	69
EL402/DD-ET	8.1	6.5	47.5	10.0	6900	14	φ16	φ 22	G1.5"	74
EL403/CD-ET	10.1	8.0	53.4	11.0	11400	15	φ16	φ 28	G1.5"	90
EL403/DD-ET	12.2	9.7	71.2	14.6	10350	15	φ16	φ 28	G1.5"	98
EL404/CD-ET	13.5	10.8	71.2	14.5	15200	16	φ16	φ 35	G1.5"	112
EL404/DD-ET	16.1	12.9	94.9	19.3	13800	16	φ16	φ 35	G1.5"	122
500 fan series										
EL501/DD-ET	8.3	6.6	41.5	9.0	7000	19	φ16	φ22	G1.5"	90
EL501/ED-ET	9.8	7.8	51.9	11.2	6500	18	φ16	φ28	G1.5"	94
EL501/FD-ET	11.2	9.0	62.3	13.5	6100	18	φ16	φ28	G1.5"	99
EL502/DD-ET	16.6	13.3	83.1	17.1	14000	21	φ22	φ 35	G1.5"	126
EL502/ED-ET	19.7	15.8	103.8	21.3	13000	20	φ22	φ 35	G1.5"	134
EL502/FD-ET	22.4	17.9	124.6	25.6	12200	20	φ22	φ42	G1.5"	143
EL503/DD-ET	24.9	19.9	124.6	25.2	21000	23	φ22	φ 42	G2"	170
EL503/ED-ET	29.5	23.6	155.7	31.5	19500	22	φ22	φ 42	G2"	183
EL503/FD-ET	33.6	26.9	186.9	37.8	18300	22	φ22	φ 42	G2"	196
EL504/DD-ET	33.2	26.6	166.1	33.3	28000	24	φ22	φ 42	G2"	215
EL504/ED-ET	37.2	29.8	195.8	39.2	26000	23	φ22	φ 42	G2"	232
EL504/FD-ET	44.8	35.8	249.2	49.9	24400	23	φ28	φ50	G2"	250
EL505/DD-ET	41.5	33.2	207.6	41.4	35000	25	φ28	φ50	G2"	259
EL505/ED-ET	46.5	37.2	244.7	48.7	32500	24	φ28	φ50	G2"	281
EL505/FD-ET	56.1	44.9	311.5	62.0	30500	24	φ28	φ50	G2"	303
630 fan series										
EL631/DD-ET	13.5	10.8	71.2	15.0	10300	29	φ16	φ28	G1.5"	119
EL631/ED-ET	16.0	12.8	89.0	18.8	9800	28	φ16	φ28	G1.5"	126
EL631/FD-ET	18.2	14.5	106.8	22.5	9100	28	φ 22	φ 35	G1.5"	134
EL632/DD-ET	27.1	21.7	142.4	28.9	20600	32	φ 22	φ 42	G1.5"	194
EL632/ED-ET	32.0	25.6	178.0	36.1	19600	31	φ 22	φ 42	G1.5"	209
EL632/FD-ET	36.3	29.0	213.6	43.3	18200	31	φ 22	φ 42	G1.5"	224
EL633/DD-ET	40.5	32.4	213.6	42.8	30900	35	φ 22	φ 42	G2"	270
EL633/ED-ET	48.1	38.5	267.0	53.4	29400	34	φ 28	φ 50	G2"	292
EL633/FD-ET	54.5	43.6	320.4	64.1	27300	34	φ 28	φ 50	G2"	315
EL634/DD-ET	54.1	43.3	284.8	56.6	41200	37	φ 28	φ 50	G2"	346
EL634/ED-ET	64.1	51.3	356.0	70.8	39200	36	φ 28	φ 50	G2"	375
EL634/FD-ET	72.6	58.1	427.2	84.9	36400	36	φ 35	φ 50	G2"	405

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

EL series industrial ceiling-type air cooler



◆ Fin pitch 9.0mm

Model	Cooling capacity/R404A(KW)			Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	Tc=-25℃ ΔT=6K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
350 fan series											
EL351/BJ-ET	1.4	1.1	0.9	5.6	1.9	2250	10	φ12	φ 22	G1″	38
EL351/CJ-ET	2.0	1.6	1.3	8.5	2.9	2050	10	φ12	φ 22	G1″	40
EL352/BJ-ET	2.8	2.2	1.8	11.3	3.5	4500	12	φ12	φ 22	G1″	52
EL352/CJ-ET	3.9	3.1	2.6	16.9	5.3	4100	12	φ12	φ22	G1″	55
EL353/BJ-ET	4.2	3.4	2.8	16.9	5.1	6750	13	φ12	φ22	G1″	66
EL353/CJ-ET	5.8	4.6	3.8	25.4	7.7	6150	13	φ12	φ22	G1″	71
EL354/BJ-ET	5.7	4.6	3.7	22.6	6.8	9000	14	φ12	φ22	G1″	80
EL354/CJ-ET	7.8	6.2	5.1	33.8	10.1	8200	14	φ16	φ28	G1″	87
400 fan series											
EL401/CJ-ET	2.6	2.1	1.7	12.2	4.1	3900	14	φ12	φ 22	G1″	47
EL401/DJ-ET	3.2	2.5	2.1	16.2	5.4	3650	14	φ12	φ 22	G1″	50
EL402/CJ-ET	5.1	4.1	3.4	24.4	7.5	7800	15	φ12	φ 22	G1.5″	68
EL402/DJ-ET	6.5	5.2	4.3	32.5	10.0	7300	15	φ16	φ 22	G1.5″	73
EL403/CJ-ET	7.7	6.2	5.1	36.5	11.0	11700	16	φ16	φ 28	G1.5″	89
EL403/DJ-ET	9.7	7.8	6.4	48.7	14.6	10950	16	φ16	φ 28	G1.5″	97
EL404/CJ-ET	10.2	8.2	6.7	48.7	14.5	15600	17	φ16	φ 35	G1.5″	111
EL404/DJ-ET	13.0	10.4	8.6	65.0	19.3	14600	17	φ16	φ 35	G1.5″	120
500 fan series											
EL501/DJ-ET	7.1	5.7	4.7	28.4	9.0	7380	20	φ16	φ22	G1.5″	89
EL501/EJ-ET	8.5	6.8	5.6	35.5	11.2	6800	19	φ16	φ28	G1.5″	93
EL501/FJ-ET	9.8	7.8	6.5	42.6	13.5	6350	19	φ16	φ28	G1.5″	98
EL502/DJ-ET	14.2	11.3	9.4	56.9	17.1	14760	22	φ22	φ 35	G1.5″	124
EL502/EJ-ET	17.0	13.6	11.2	71.1	21.3	13600	21	φ22	φ 35	G1.5″	132
EL502/FJ-ET	19.6	15.7	12.9	85.3	25.6	12700	21	φ22	φ42	G1.5″	141
EL503/DJ-ET	21.3	17.0	14.0	85.3	25.2	22140	24	φ22	φ 42	G2″	168
EL503/EJ-ET	25.6	20.5	16.9	106.6	31.5	20400	23	φ22	φ 42	G2″	180
EL503/FJ-ET	29.4	23.5	19.4	127.9	37.8	19050	23	φ22	φ 42	G2″	193
EL504/DJ-ET	28.4	22.7	18.7	113.7	33.3	29520	25	φ22	φ 42	G2″	212
EL504/EJ-ET	32.2	25.7	21.2	134.0	39.2	27200	24	φ22	φ 42	G2″	228
EL504/FJ-ET	39.2	31.3	25.9	170.6	49.9	25400	24	φ28	φ50	G2″	245
EL505/DJ-ET	35.5	28.4	23.4	142.1	41.4	36900	26	φ28	φ50	G2″	256
EL505/EJ-ET	40.2	32.1	26.5	167.5	48.7	34000	25	φ28	φ50	G2″	276
EL505/FJ-ET	49.0	39.2	32.3	213.2	62.0	31750	25	φ28	φ50	G2″	297

630 fan series											
EL631/DJ-ET	11.2	9.0	7.4	48.7	15.0	10600	30	φ16	φ28	G1.5″	118
EL631/EJ-ET	13.1	10.5	8.6	60.9	18.8	10000	29	φ16	φ28	G1.5″	125
EL631/FJ-ET	14.6	11.7	9.6	73.1	22.5	9600	29	φ 22	φ 35	G1.5″	132
EL632/DJ-ET	22.4	17.9	14.8	97.5	28.9	21200	33	φ 22	φ 42	G1.5″	192
EL632/EJ-ET	26.2	21.0	17.3	121.8	36.1	20000	32	φ 22	φ 42	G1.5″	206
EL632/FJ-ET	29.2	23.3	19.3	146.2	43.3	19200	32	φ 22	φ 42	G1.5″	220
EL633/DJ-ET	33.6	26.9	22.2	146.2	42.8	31800	36	φ 22	φ 42	G2″	266
EL633/EJ-ET	39.3	31.4	25.9	182.7	53.4	30000	35	φ 28	φ 50	G2″	282
EL633/FJ-ET	43.8	35.0	28.9	219.3	64.1	28800	35	φ 28	φ 50	G2″	309
EL634/DJ-ET	44.8	35.8	29.5	194.9	56.6	42400	38	φ 28	φ 50	G2″	340
EL634/EJ-ET	52.3	41.8	34.5	243.6	70.8	40000	37	φ 28	φ 50	G2″	369
EL634/FJ-ET	58.5	46.8	38.6	292.4	84.9	38400	37	φ 35	φ 50	G2″	397

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

◆ Fin pitch 12.0mm

Model	Cooling capacity/R404A(KW)			Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-25℃ ΔT=6K	Tc=-35℃ ΔT=6K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
400 fan series											
EL401/DK-ET	2.9	1.9	1.9	12.5	5.4	3800	15	φ12	φ 22	G1″	50
EL402/DK-ET	5.8	3.8	3.8	25.0	10.0	7600	16	φ16	φ 22	G1.5″	74
EL403/DK-ET	8.6	5.7	5.6	37.5	14.6	11400	17	φ16	φ 28	G1.5″	97
EL404/DK-ET	11.5	7.6	7.5	50.0	19.3	15200	18	φ16	φ 35	G1.5″	121
500 fan series											
EL501/EK-ET	7.4	4.9	4.8	27.3	11.2	7000	20	φ16	φ28	G1.5″	94
EL501/FK-ET	8.5	5.6	5.5	32.8	13.5	6500	20	φ16	φ28	G1.5″	98
EL502/EK-ET	14.8	9.8	9.6	54.7	21.3	14000	22	φ22	φ 35	G1.5″	134
EL502/FK-ET	17.1	11.3	11.1	65.6	25.6	13000	22	φ22	φ42	G1.5″	142
EL503/EK-ET	22.1	14.6	14.3	82.0	31.5	21000	24	φ22	φ 42	G2″	182
EL503/FK-ET	25.5	16.8	16.5	98.4	37.8	19500	24	φ22	φ 42	G2″	195
EL504/EK-ET	27.8	18.3	18.0	103.1	39.2	28000	25	φ22	φ 42	G2″	231
EL504/FK-ET	34.1	22.5	22.1	131.2	49.9	26000	25	φ28	φ50	G2″	248
EL505/EK-ET	34.8	23.0	22.6	128.9	48.7	35000	26	φ28	φ50	G2″	279
EL505/FK-ET	42.6	28.1	27.7	164.1	62.0	32500	26	φ28	φ50	G2″	301
630 fan series											
EL631/EK-ET	10.8	7.1	7.0	46.9	18.8	10300	30	φ16	φ28	G1.5″	126
EL631/FK-ET	12.3	8.1	8.0	56.2	22.5	9800	30	φ 22	φ 35	G1.5″	133
EL632/EK-ET	21.6	14.3	14.0	93.7	36.1	20600	33	φ 22	φ 42	G1.5″	208
EL632/FK-ET	24.7	16.3	16.0	112.5	43.3	19600	33	φ 22	φ 42	G1.5″	223
EL633/EK-ET	32.3	21.3	21.0	140.6	53.4	30900	36	φ 28	φ 50	G2″	291
EL633/FK-ET	37.1	24.5	24.1	168.7	64.1	29400	36	φ 28	φ 50	G2″	313
EL634/EK-ET	43.1	28.4	28.0	187.5	70.8	41200	38	φ 28	φ 50	G2″	373
EL634/FK-ET	49.5	32.7	32.1	225.0	84.9	39200	38	φ 35	φ 50	G2″	402

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

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EL series industrial ceiling-type air cooler



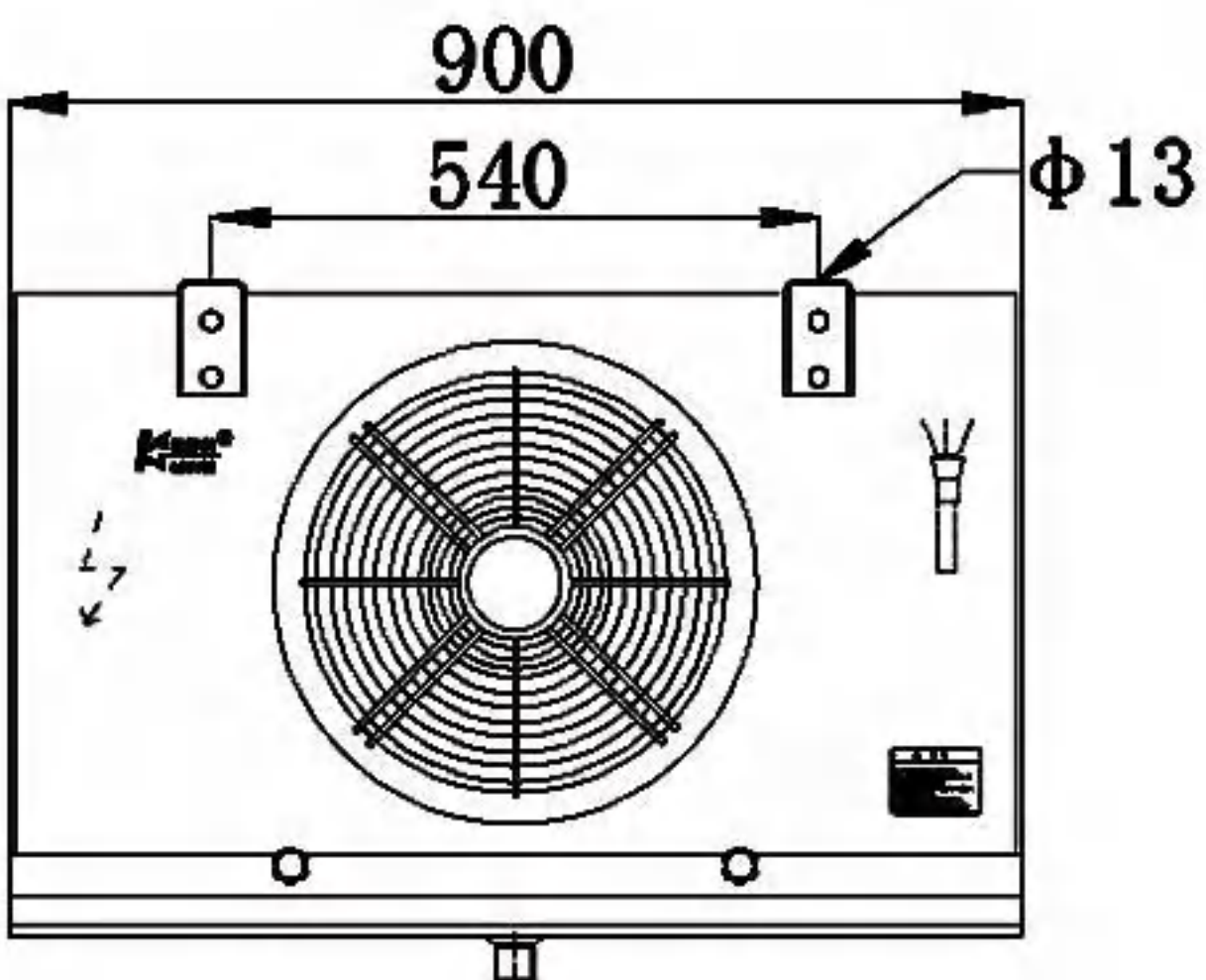
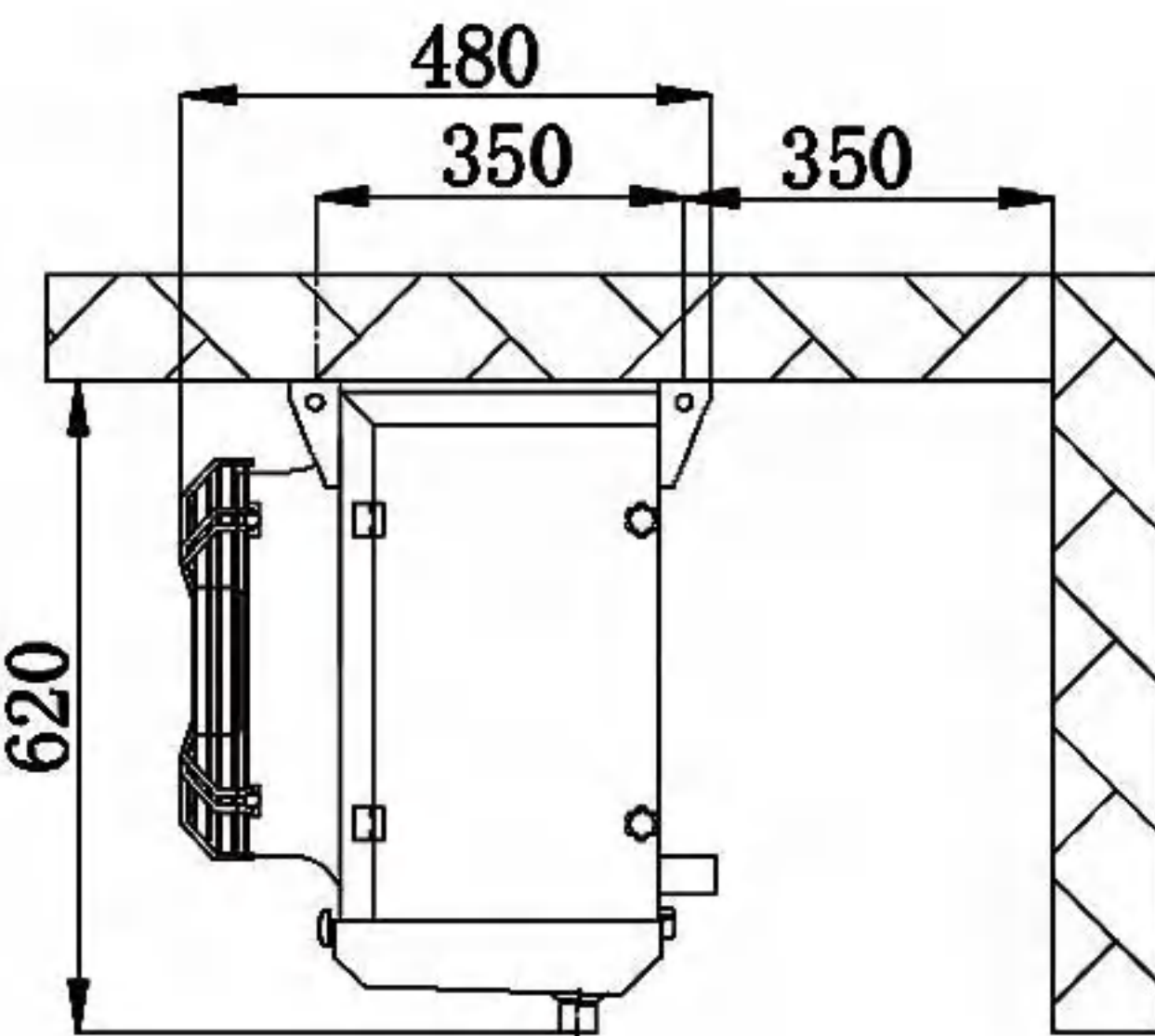
V. Electrical Parameters:

Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EL351*	380-3	129	0.4	1400	2×0.5	1×0.5	1.5
EL352*	380-3	258	0.8	1400	2×0.9	1×0.9	2.7
EL353*	380-3	387	1.2	1400	2×1.3	1×1.3	3.9
EL354*	380-3	516	1.6	1400	2×1.7	1×1.7	5.1
EL401/C*	380-3	205	0.51	1380	3×0.6	1×0.6	2.4
EL401/D*	380-3	205	0.51	1380	4×0.6	1×0.6	3.0
EL402/C*	380-3	410	1.02	1380	3×1.1	1×1.1	4.4
EL402/D*	380-3	410	1.02	1380	4×1.1	1×1.1	5.5
EL403/C*	380-3	615	1.53	1380	3×1.6	1×1.6	6.4
EL403/D*	380-3	615	1.53	1380	4×1.6	1×1.6	8.0
EL404/C*	380-3	820	2.04	1380	3×2.0	1×2.0	8.0
EL404/D*	380-3	820	2.04	1380	4×2.0	1×2.0	10.0
EL501/D*	380-3	500	0.95	1380	4×0.8	2×0.8	4.8
EL501/E*	380-3	500	0.95	1380	6×0.8	2×0.8	6.4
EL501/F*	380-3	500	0.95	1380	6×0.8	2×0.8	6.4
EL502/D*	380-3	1000	1.9	1380	4×1.6	2×1.6	9.6
EL502/E*	380-3	1000	1.9	1380	6×1.6	2×1.6	12.8
EL502/F*	380-3	1000	1.9	1380	6×1.6	2×1.6	12.8
EL503/D*	380-3	1500	2.85	1380	4×2.3	2×2.3	13.8
EL503/E*	380-3	1500	2.85	1380	6×2.3	2×2.3	18.4
EL503/F*	380-3	1500	2.85	1380	6×2.3	2×2.3	18.4
EL504/D*	380-3	2000	3.8	1380	4×3.0	2×3.0	18.0
EL504/E*	380-3	2000	3.8	1380	6×3.0	2×3.0	24.0
EL504/F*	380-3	2000	3.8	1380	6×3.0	2×3.0	24.0
EL505/D*	380-3	2500	4.75	1380	6×3.0	2×3.0	24.0
EL505/E*	380-3	2500	4.75	1380	8×3.0	2×3.0	30.0
EL505/F*	380-3	2500	4.75	1380	8×3.0	2×3.0	30.0
EL631/D*	380-3	800	1.6	1320	6×1.1	2×1.1	8.8
EL631/E*	380-3	800	1.6	1320	9×1.1	2×1.1	12.1
EL631/F*	380-3	800	1.6	1320	9×1.1	2×1.1	12.1

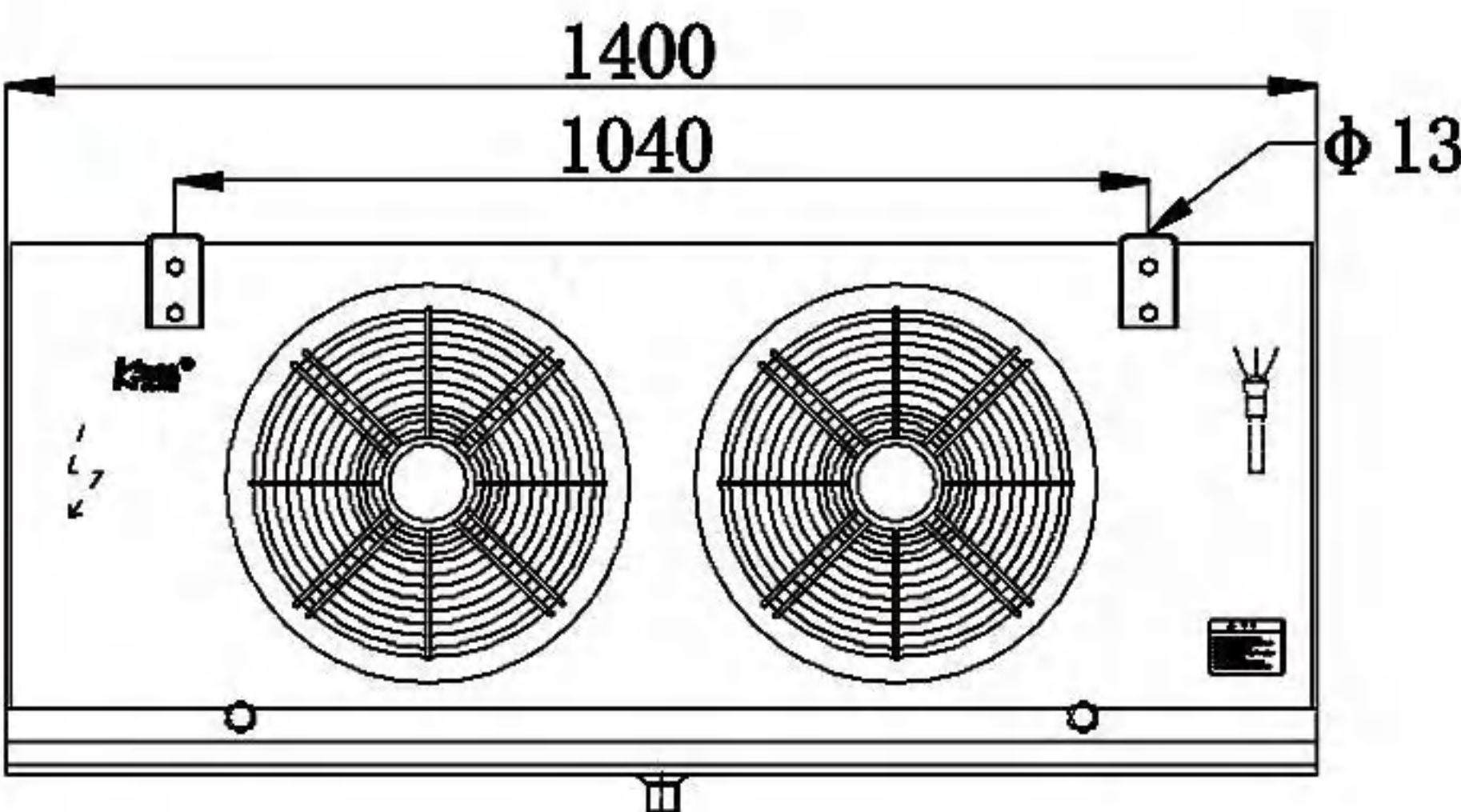
Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EL632/D*	380-3	1600	3.2	1320	6×2.0	2×2.0	16.0
EL632/E*	380-3	1600	3.2	1320	9×2.0	2×2.0	22.0
EL632/F*	380-3	1600	3.2	1320	9×2.0	2×2.0	22.0
EL633/D*	380-3	2400	4.8	1320	6×3.0	2×3.0	24.0
EL633/E*	380-3	2400	4.8	1320	9×3.0	2×3.0	33.0
EL633/F*	380-3	2400	4.8	1320	9×3.0	2×3.0	33.0
EL634/D*	380-3	3200	6.4	1320	8×3.0	2×3.0	30.0
EL634/E*	380-3	3200	6.4	1320	11×3.0	2×3.0	39.0

VI. Outline and Installation Dimension:

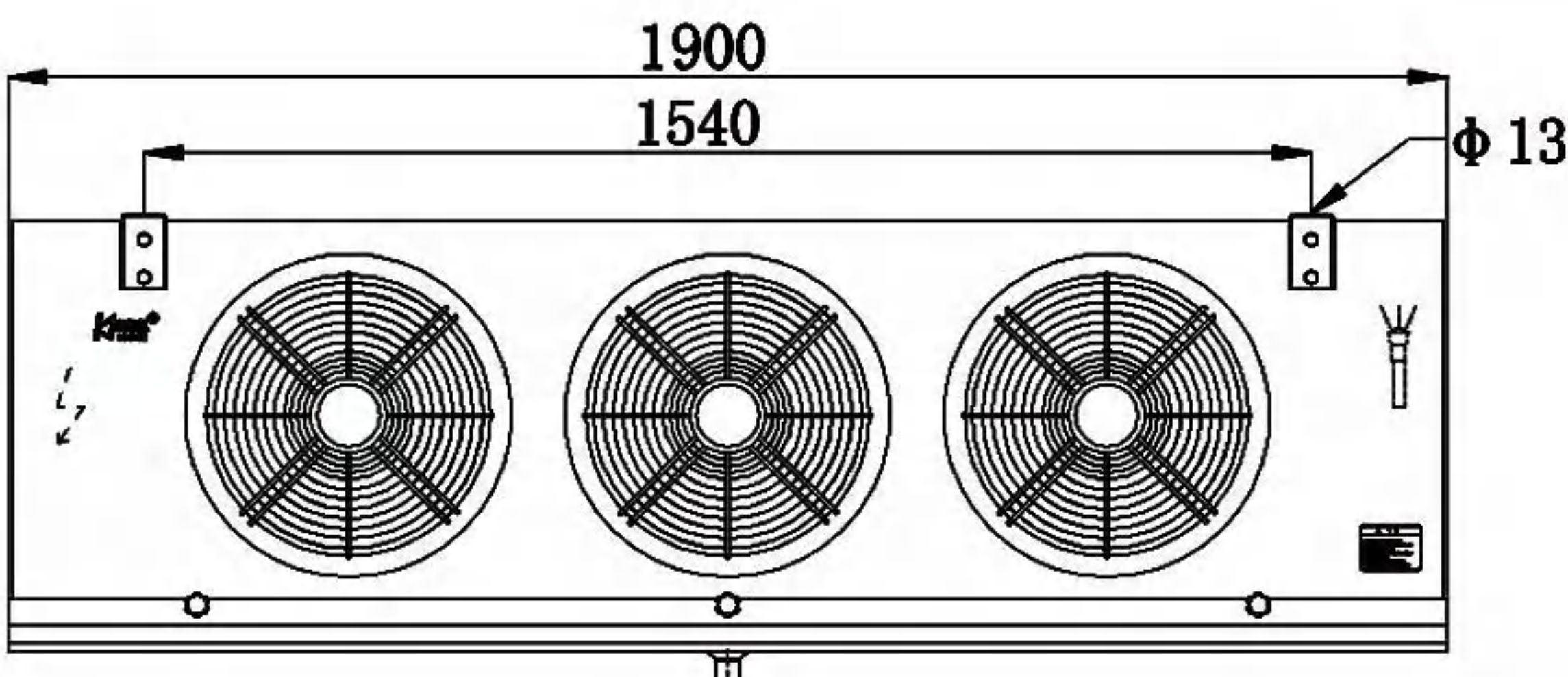
◆ EL35 series



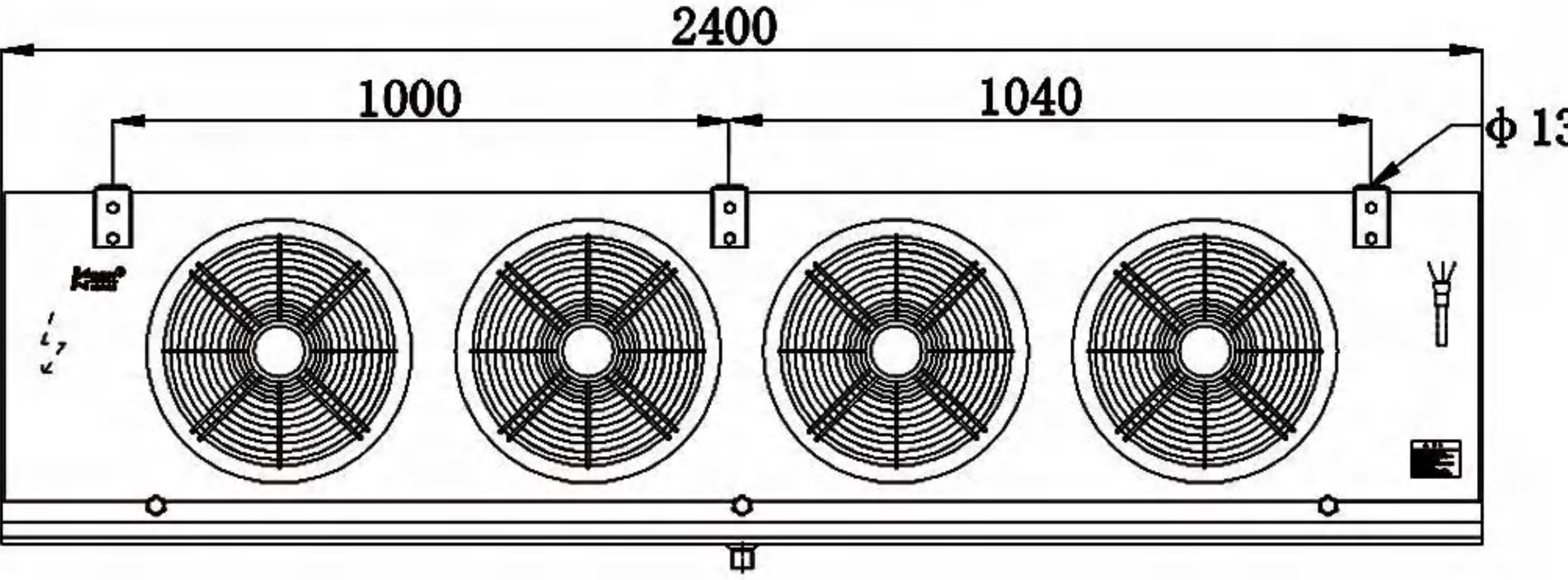
EL351



EL352



EL353

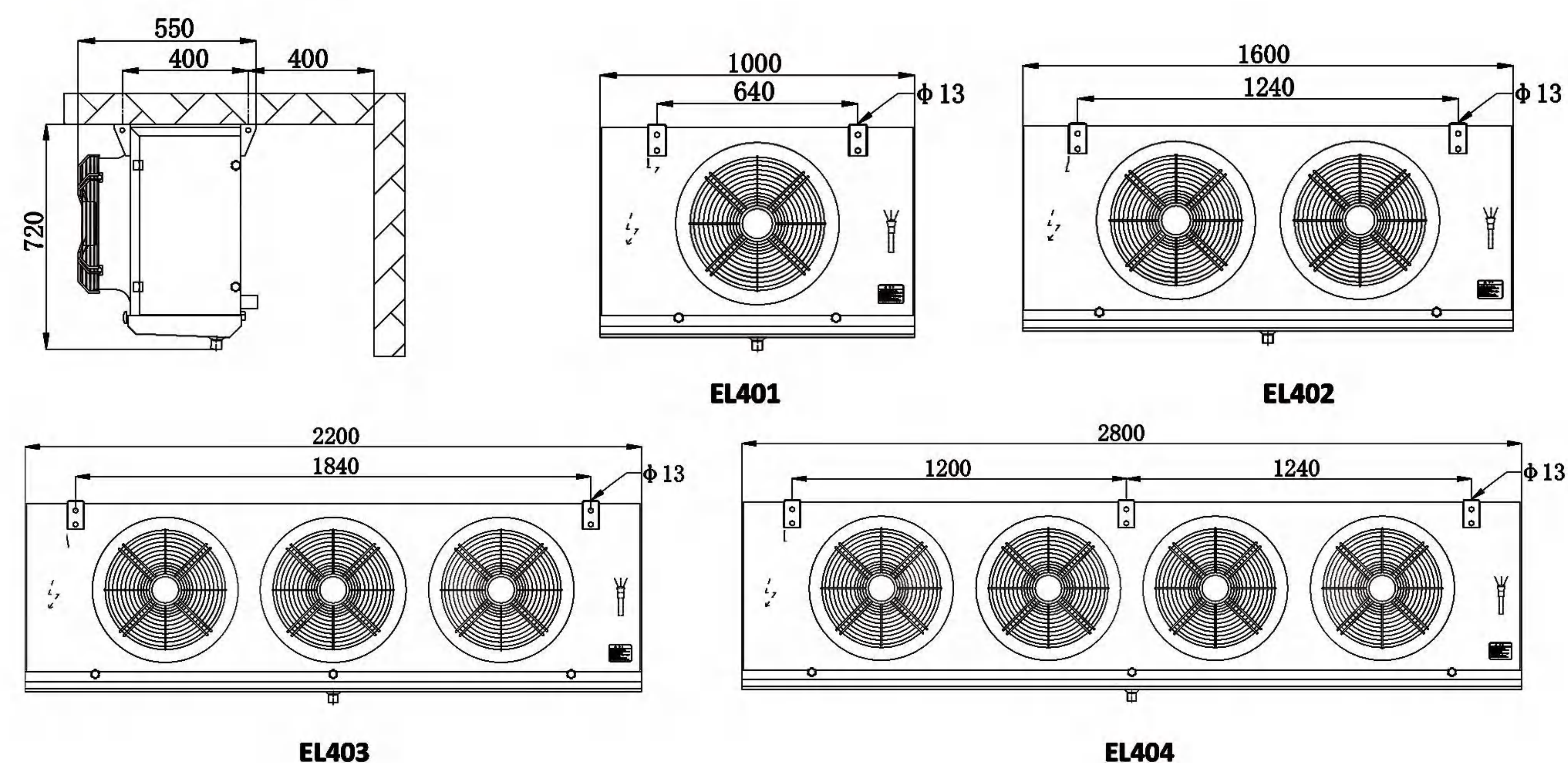


EL354

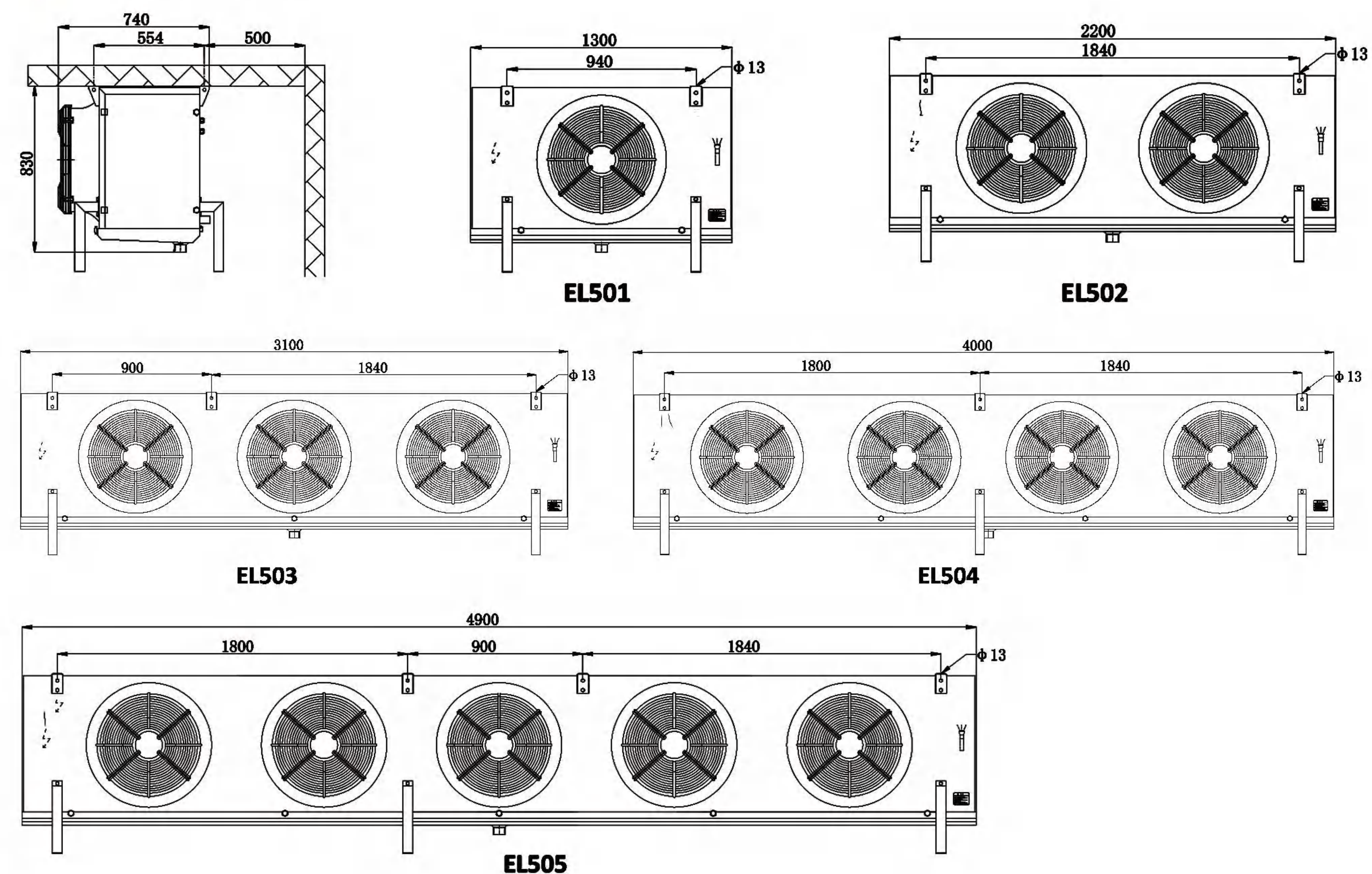
EL series industrial ceiling-type air cooler



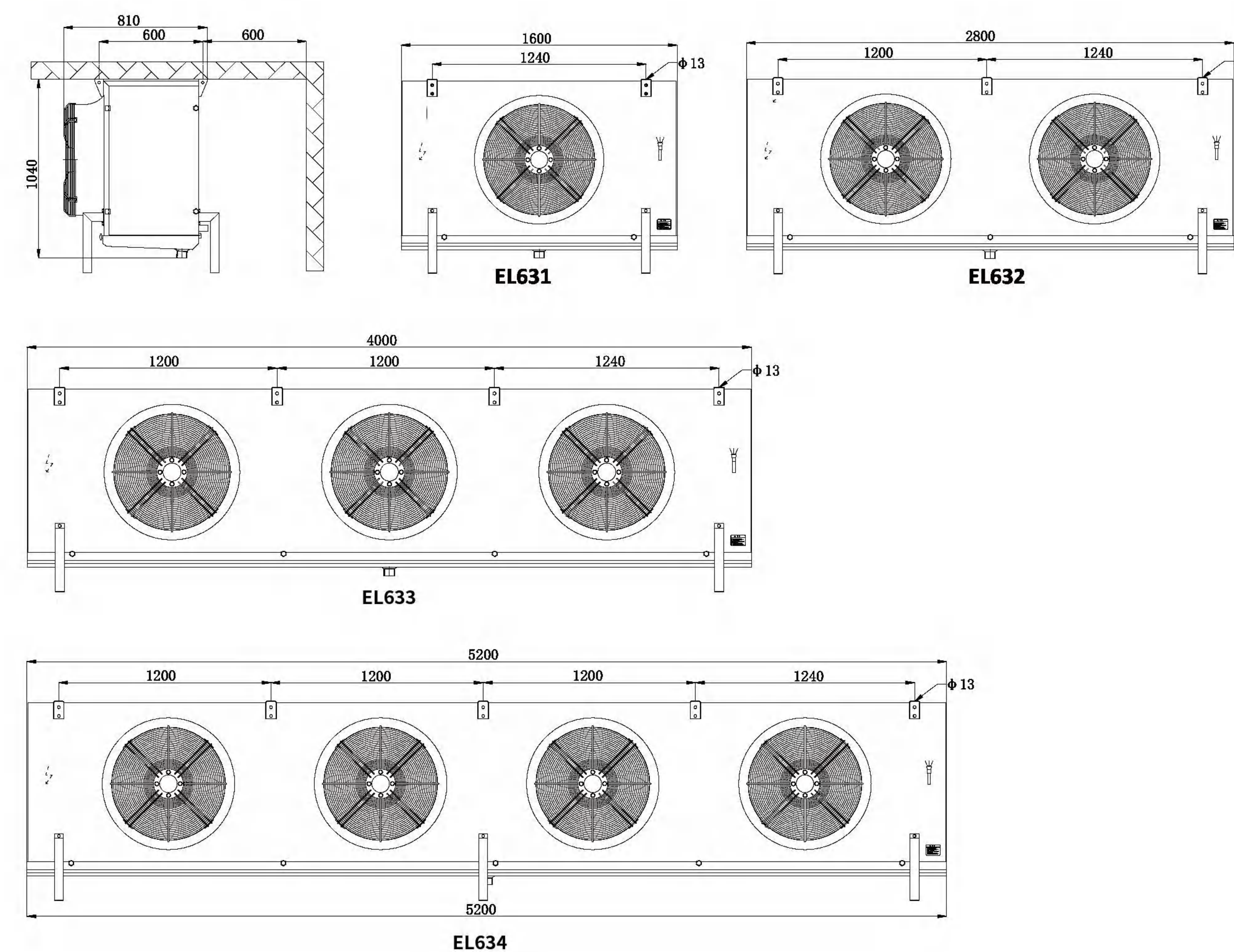
◆ EL40 series



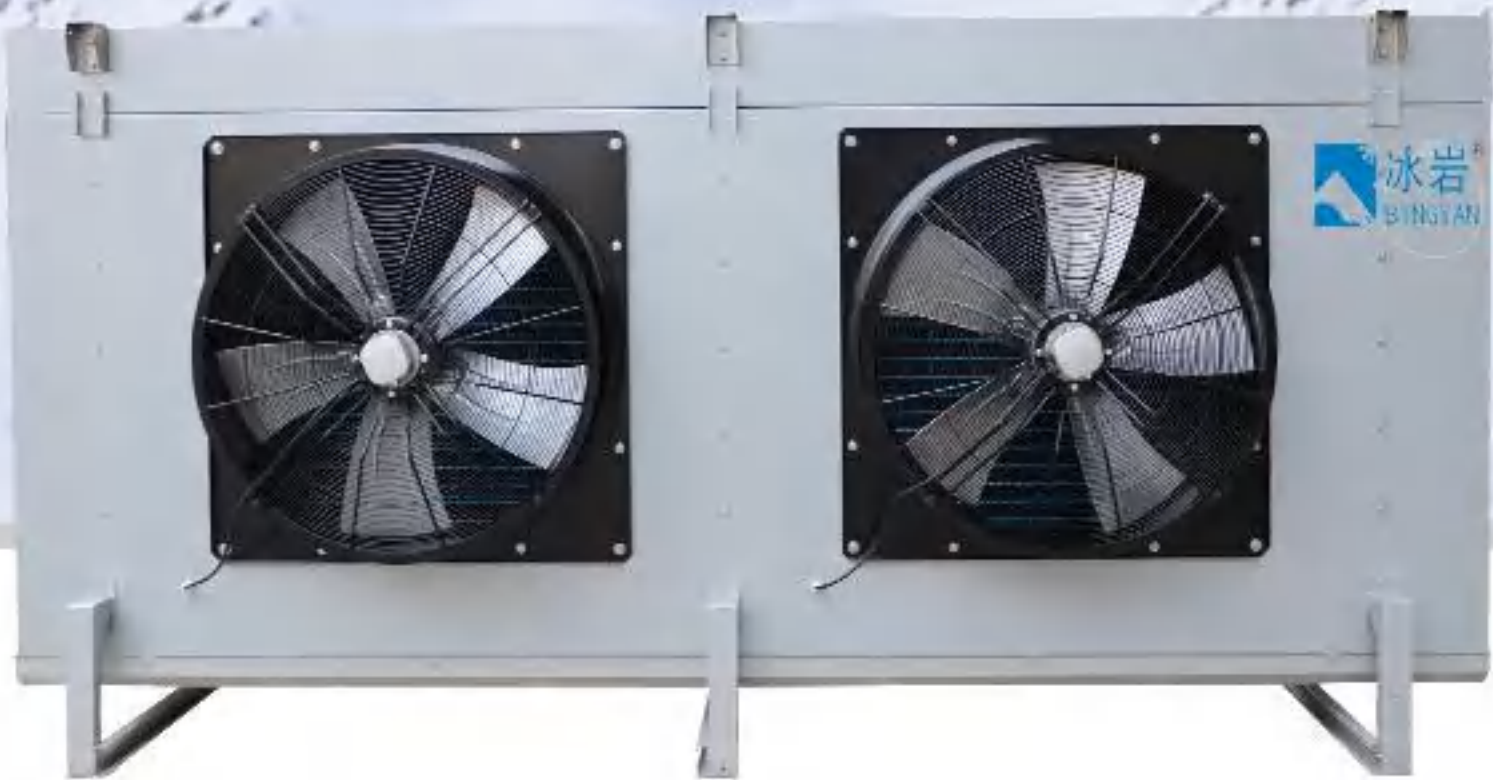
◆ EL50 series



◆ EL63 series



EN series large ceiling-type air cooler

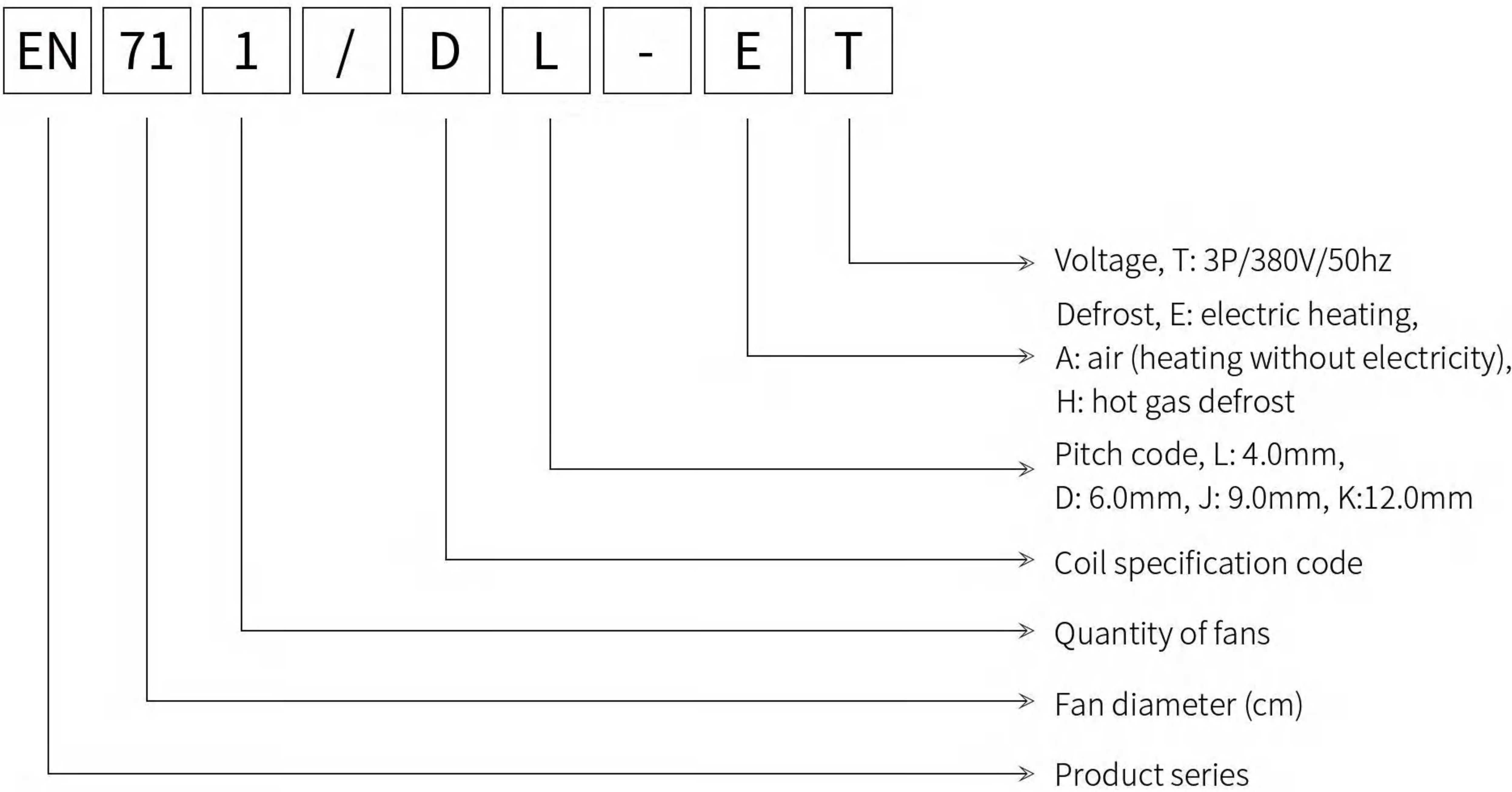


I. Product Overview:

- EN series large ceiling-type air cooler is mainly fitted with large-size fan motors with a diameter above 710mm to meet the requirements of high cooling capacity or large cold storage. This series of products has the following characteristics:
- 1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; both the side plates and the outer water plate are designed with hinged structure, which is convenient to operate;
 - 2. The side sheet of the heat exchanger is supported by aluminum plate to prevent the copper tube from contacting the steel plate and effectively protect the copper tube;
 - 3. Double drain trays design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
 - 4. There are floor supports for easy installation;
 - 5. Coil: The aligned tube pattern 50 X 50 mm features large heat transfer area, low heat transfer temperature difference, low dry food consumption and slow frosting speed of fins;
 - 6. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm, 6.0mm, 9.0mm and 12.0mm to meet the requirements of different temperatures and humidity;
 - 7. Fan: 6-pole external rotor fan with large diameter; fan specifications: φ710, φ800 and φ910, product series of different specifications, giving users more choices;
 - 8. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and inner water plates, which can bring about desirable defrosting effect; the steam defrosting can be adopted as required by the customer.
 - 9. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
 - 10. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
 - 11. It is subjected to strict pressure test at the pressure of 23bar;
 - 12. The expansion valves, heating band of fan tube and wind deflector can be pre-installed according to customer's needs;
 - 13. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



II. Model Explanation:

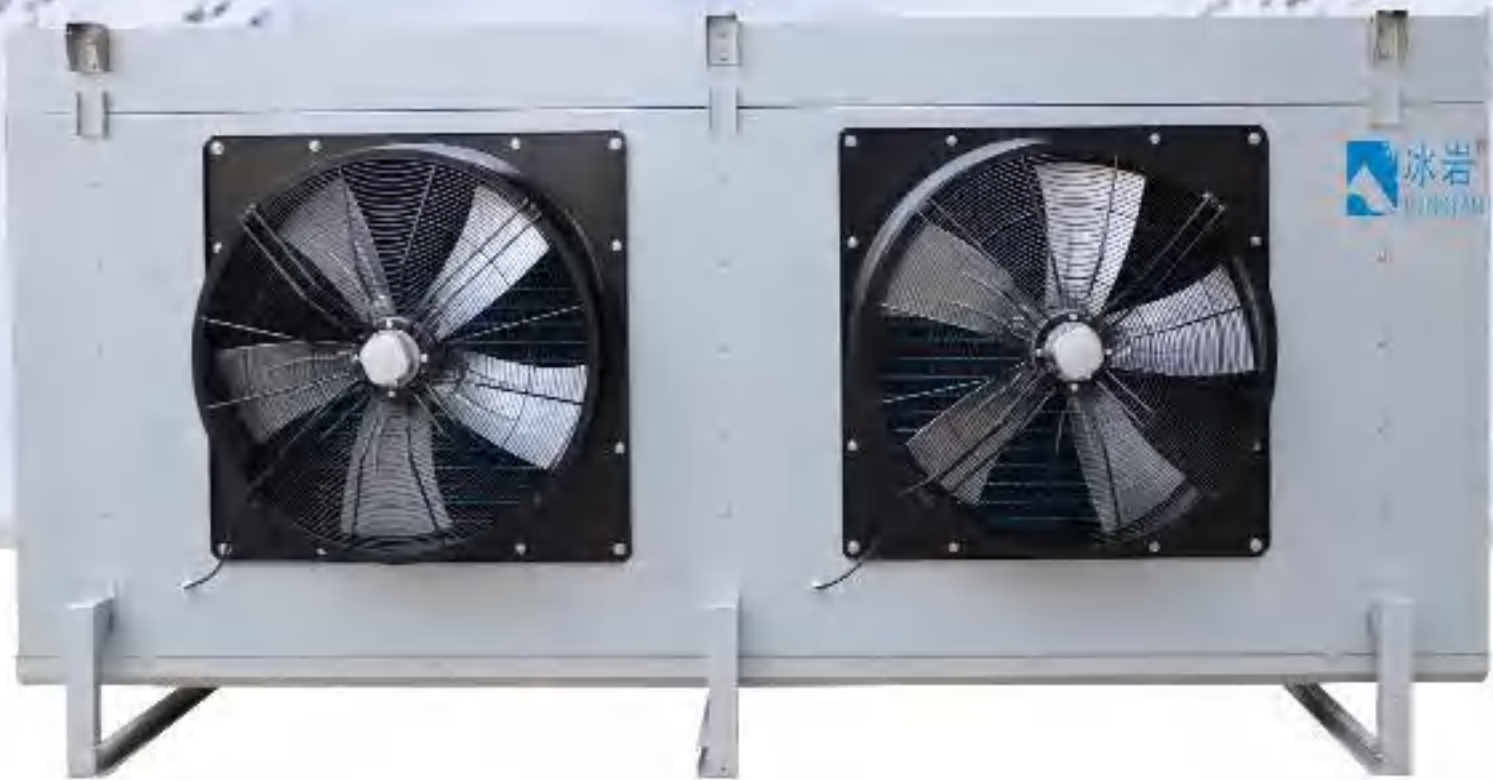


III. Standard Configuration and Options:

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Defrost	Air defrost	○
	Powder coated steel plate	○		Electric heating pipe	●
	Powder coated galvanized sheet	●		Hot gas defrost (coil & tray)	○
	Stainless steel plate	○	Expansion valve		○
Motor	EBM external rotor motor	●	Drain heater		○
	Weiguang external rotor motor	○	Fan tube heater		○
Aluminum foil	Normal aluminium foil	○	Lower air supply deflector		○
	Hydrophilic aluminum foil (blue foil)	●			

Note: ●: Standard component; ○: Optional component; ×: Not available.

EN series large ceiling-type air cooler



IV. Performance Datasheet:

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=10℃ ΔT=10K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
710 fan series										
EN711/DL-ET	20.4	30.0	136	19.5	11800	30	22	35	G2"	210
EN711/EL-ET	22.9	33.2	170	24.4	11200	30	22	35	G2"	222
EN711/FL-ET	25.5	37.5	204	29.3	10800	29	28	35	G2"	234
EN711/HL-ET	28.5	41.9	272	39.0	10000	28	28	42	G2"	258
EN712/DL-ET	40.8	60.0	272	37.7	23600	33	35	42	G2"	358
EN712/EL-ET	45.9	67.5	340	47.2	22400	33	35	54	G2"	379
EN712/FL-ET	51.0	75.0	408	56.6	21600	32	35	54	G2"	406
EN712/HL-ET	57.1	83.9	544	75.5	20000	31	35	54	G2"	453
EN713/DL-ET	61.2	90.0	408	56.0	35400	35	35	54	G2"	506
EN713/EL-ET	66.2	97.3	490	67.2	33600	35	35	54	G2"	540
EN713/FL-ET	76.5	112.4	612	84.0	32400	34	35	67	G2"	577
EN713/HL-ET	85.7	126.0	817	112.0	30000	33	35	67	G2"	646
800 fan series										
EN801/DL-ET	28.1	41.3	187	26.5	17300	35	28	42	G2"	252
EN801/EL-ET	31.5	46.3	233	33.2	16500	35	28	42	G2"	268
EN801/FL-ET	35.0	51.4	280	39.8	15800	34	28	42	G2"	284
EN801/HL-ET	39.2	57.6	373	53.1	15100	33	35	54	G2"	317
EN802/DL-ET	56.0	82.3	373	51.6	34600	38	35	54	G2"	431
EN802/EL-ET	63.0	92.6	467	64.4	33000	38	35	54	G2"	464
EN802/FL-ET	70.0	102.9	560	77.4	31600	37	35	67	G2"	497
EN802/HL-ET	78.4	115.2	747	103.1	30200	36	35	67	G2"	562
EN803/DL-ET	84.0	123.5	560	76.6	51900	40	35	67	G2"	614
EN803/EL-ET	94.5	138.9	700	95.7	49500	40	2-35	2-54	G2"	664
EN803/FL-ET	105.0	154.4	840	114.8	47400	39	2-35	2-54	G2"	711
EN803/HL-ET	117.6	172.8	1120	153.1	45300	38	2-35	2-54	G2"	815

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=10℃ ΔT=10K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
	910 fan series									
EN911/DL-ET	37.4	55.0	249	35.4	23100	40	35	42	G2"	305
EN911/EL-ET	42.0	61.7	311	44.3	22100	40	35	54	G2"	327
EN911/FL-ET	46.6	68.5	373	53.1	20800	39	35	54	G2"	349
EN911/HL-ET	52.3	76.9	498	70.8	20000	38	35	54	G2"	392
EN912/DL-ET	74.7	109.8	498	68.7	46200	44	35	67	G2"	521
EN912/EL-ET	84.0	123.5	622	85.9	44200	44	35	67	G2"	565
EN912/FL-ET	93.4	137.3	747	103.1	41600	43	2-35	2-54	G2"	608
EN912/HL-ET	104.5	153.6	995	137.5	40000	42	2-35	2-54	G2"	694
EN913/DL-ET	112.1	164.8	747	102.1	69300	47	2-35	2-54	G2"	742
EN913/EL-ET	122.9	180.7	910	127.6	66300	47	2-35	2-67	G2"	808
EN913/FL-ET	140.0	205.8	1120	153.1	62400	46	2-35	2-67	G2"	873
EN913/HL-ET	156.8	230.5	1493	204.1	60000	45	2-35	2-67	G2"	1007

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

◆ Fin pitch 6.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
	710 fan series									
EN711/DD-ET	16.5	13.2	92	19.5	12800	30	22	35	G2"	200
EN711/ED-ET	19.5	15.6	115	24.4	12300	30	22	35	G2"	210
EN711/FD-ET	22.0	17.5	138	29.3	11800	29	28	35	G2"	220
EN711/HD-ET	26.8	21.4	185	39.0	11200	28	28	42	G2"	239
EN712/DD-ET	33.3	26.5	185	37.7	25600	33	35	42	G2"	337
EN712/ED-ET	39.2	31.3	231	47.2	24600	33	35	54	G2"	356
EN712/FD-ET	44.3	35.4	277	56.6	23600	32	35	54	G2"	378
EN712/HD-ET	53.5	42.8	369	75.5	22400	31	35	54	G2"	415
EN713/DD-ET	49.8	39.8	277	56.0	38400	35	35	54	G2"	477
EN713/ED-ET	56.4	45.0	332	67.2	36900	35	35	54	G2"	505
EN713/FD-ET	66.4	53.0	415	84.0	35400	34	35	67	G2"	534
EN713/HD-ET	80.3	64.2	554	112.0	33600	33	35	67	G2"	589

EN series large ceiling-type air cooler



Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
800 fan series										
EN801/DD-ET	22.9	18.3	127	26.5	18800	36	28	42	G2"	239
EN801/ED-ET	26.9	21.5	158	33.2	18000	36	28	42	G2"	252
EN801/FD-ET	30.4	24.3	190	39.8	17300	35	28	42	G2"	265
EN801/HD-ET	36.7	29.4	253	53.1	16500	34	35	54	G2"	291
EN802/DD-ET	45.5	36.4	253	51.6	37600	39	35	54	G2"	405
EN802/ED-ET	53.7	43.0	316	64.4	36000	39	35	54	G2"	432
EN802/FD-ET	60.8	48.6	380	77.4	34600	38	35	67	G2"	458
EN802/HD-ET	73.4	58.7	506	103.1	33000	37	35	67	G2"	510
EN803/DD-ET	68.4	54.7	380	76.6	56400	41	35	67	G2"	576
EN803/ED-ET	80.8	64.6	475	95.7	54000	41	2-35	2-54	G2"	615
EN803/FD-ET	91.2	73.0	570	114.8	51900	40	2-35	2-54	G2"	653
EN803/HD-ET	110.2	88.2	760	153.1	49500	39	2-35	2-54	G2"	737
910 fan series										
EN911/DD-ET	30.4	24.3	169	35.4	25000	41	35	42	G2"	288
EN911/ED-ET	35.9	28.7	211	44.3	24100	41	35	54	G2"	305
EN911/FD-ET	40.5	32.4	253	53.1	23100	40	35	54	G2"	323
EN911/HD-ET	49.0	39.2	338	70.8	22100	39	35	54	G2"	357
EN912/DD-ET	60.8	48.6	338	68.7	50000	45	35	67	G2"	486
EN912/ED-ET	71.7	57.4	422	85.9	48200	45	35	67	G2"	522
EN912/FD-ET	81.0	64.8	506	103.1	46200	44	2-35	2-54	G2"	556
EN912/HD-ET	97.9	78.3	675	137.5	44200	43	2-35	2-54	G2"	624
EN913/DD-ET	91.1	72.9	506	102.1	75000	48	2-35	2-54	G2"	690
EN913/ED-ET	104.9	83.9	617	127.6	72300	48	2-35	2-67	G2"	743
EN913/FD-ET	121.6	97.3	760	153.1	69300	47	2-35	2-67	G2"	795
EN913/HD-ET	146.9	117.5	1013	204.1	66300	46	2-35	2-67	G2"	903

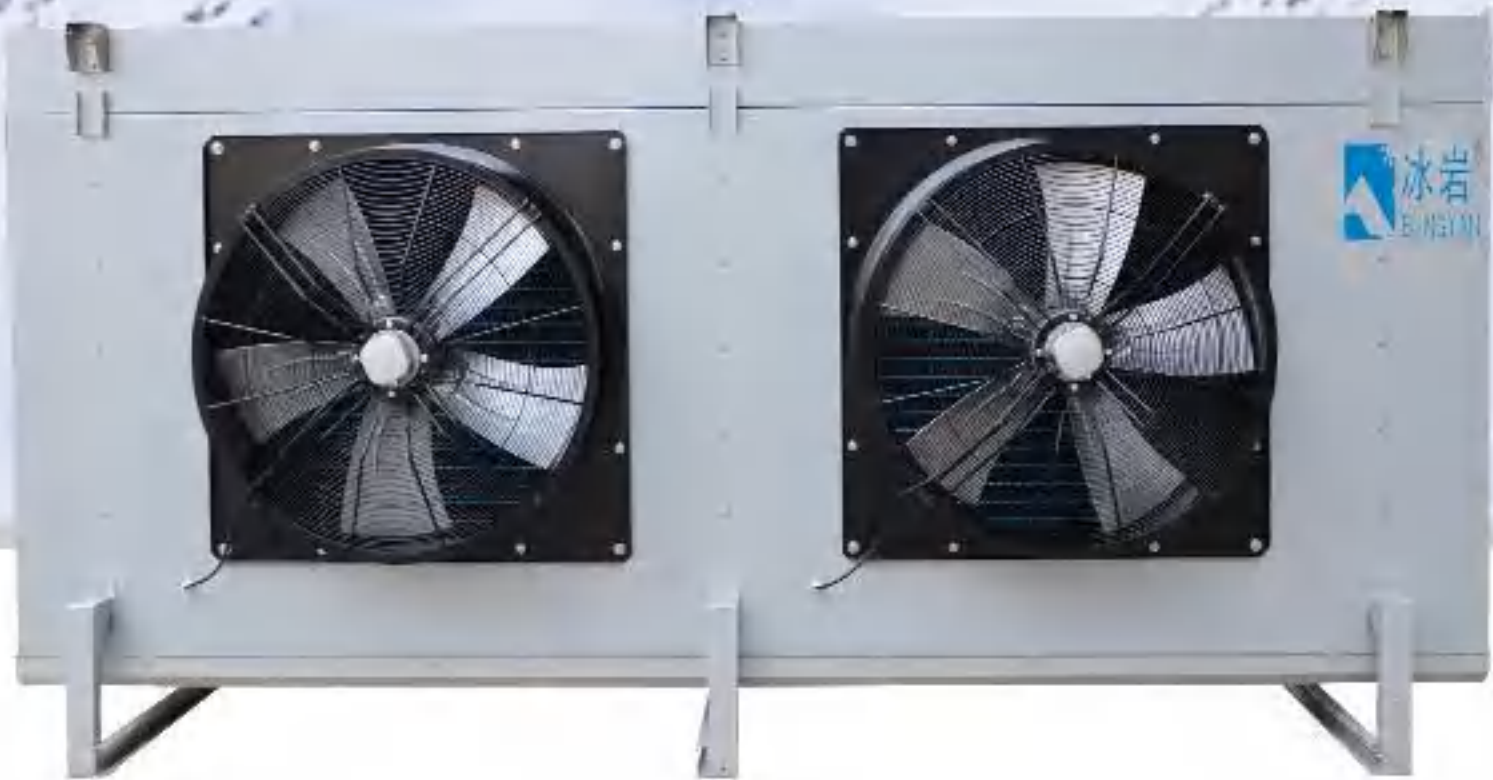
◆ Blade pitch 9.0mm

Model	Cooling capacity/R404A(KW)			Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18 ΔT=7K	Tc=-25 ΔT=6K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
710 fan series											
EN711/FJ-ET	19.0	15.2	12.5	95	29.3	12300	30	28	35	G2"	223
EN711/HJ-ET	22.6	18.0	14.9	126	39.0	11800	29	28	42	G2"	243
EN712/FJ-ET	39.0	31.2	25.7	190	56.6	24600	33	35	54	G2"	384
EN712/HJ-ET	45.5	36.4	30.0	253	75.5	23600	32	35	54	G2"	423
EN713/FJ-ET	56.8	45.4	37.5	284	84.0	36900	35	35	67	G2"	544
EN713/HJ-ET	68.2	54.5	45.0	379	112.0	35400	34	35	67	G2"	602
800 fan series											
EN801/FJ-ET	26.0	20.8	17.2	130	39.8	18000	36	28	42	G2"	269
EN801/HJ-ET	31.1	24.9	20.5	173	53.1	17300	35	35	54	G2"	297
EN802/FJ-ET	52.0	41.6	34.3	260	77.4	36000	39	35	67	G2"	466
EN802/HJ-ET	62.3	49.8	41.1	346	103.1	34600	38	35	67	G2"	522
EN803/FJ-ET	78.0	62.4	51.5	390	114.8	54000	41	2-35	2-54	G2"	666
EN803/HJ-ET	93.6	74.9	61.7	520	153.1	51900	40	2-35	2-54	G2"	755
910 fan series											
EN911/FJ-ET	34.6	27.7	22.8	173	53.1	24100	41	35	54	G2"	329
EN911/HJ-ET	41.6	33.3	27.4	231	70.8	23100	40	35	54	G2"	365
EN912/FJ-ET	69.2	55.4	45.6	346	103.1	48200	45	2-35	2-54	G2"	568
EN912/HJ-ET	83.2	66.6	54.9	462	137.5	46200	44	2-35	2-54	G2"	640
EN913/FJ-ET	104.0	83.2	68.6	520	153.1	72300	48	2-35	2-67	G2"	813
EN913/HJ-ET	124.7	99.8	82.3	693	204.1	69300	47	2-35	2-67	G2"	926

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

EN series large ceiling-type air cooler



◆ Fin pitch 9.0mm

Model	Cooling capacity/R404A(KW)			Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-25 ΔT=6K	Tc=-35℃ ΔT=6K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
710 fan series											
EN711/FK-ET	16.4	10.8	10.6	73	29.3	12800	30	28	35	G2"	215
EN711/HK-ET	19.8	13.0	12.8	97	39.0	12300	29	28	42	G2"	233
EN712/FK-ET	32.8	21.6	21.3	146	56.6	25600	33	35	54	G2"	368
EN712/HK-ET	39.7	26.2	25.8	194	75.5	24600	32	35	54	G2"	402
EN713/FK-ET	49.2	32.4	31.9	219	84.0	38400	35	35	67	G2"	520
EN713/HK-ET	59.8	39.4	38.8	292	112.0	36900	34	35	67	G2"	571
800 fan series											
EN801/FK-ET	22.5	14.9	14.6	100	39.8	18800	36	28	42	G2"	259
EN801/HK-ET	27.3	18.0	17.7	133	53.1	18000	35	35	54	G2"	282
EN802/FK-ET	45.0	29.7	29.3	200	77.4	37600	39	35	67	G2"	445
EN802/HK-ET	54.7	36.1	35.6	267	103.1	36000	38	35	67	G2"	493
EN803/FK-ET	67.5	44.6	43.9	300	114.8	56400	41	2-35	2-54	G2"	634
EN803/HK-ET	82.0	54.1	53.3	400	153.1	54000	40	2-35	2-54	G2"	711
910 fan series											
EN911/FK-ET	29.9	19.7	19.4	133	53.1	25000	41	35	54	G2"	315
EN911/HK-ET	36.5	24.1	23.7	178	70.8	24100	40	35	54	G2"	346
EN912/FK-ET	60.1	39.7	39.1	267	103.1	50000	45	2-35	2-54	G2"	539
EN912/HK-ET	73.0	48.2	47.5	356	137.5	48200	44	2-35	2-54	G2"	601
EN913/FK-ET	90.0	59.4	58.5	400	153.1	75000	48	2-35	2-67	G2"	769
EN913/HK-ET	109.3	72.1	71.0	533	204.1	72300	47	2-35	2-67	G2"	869

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature.

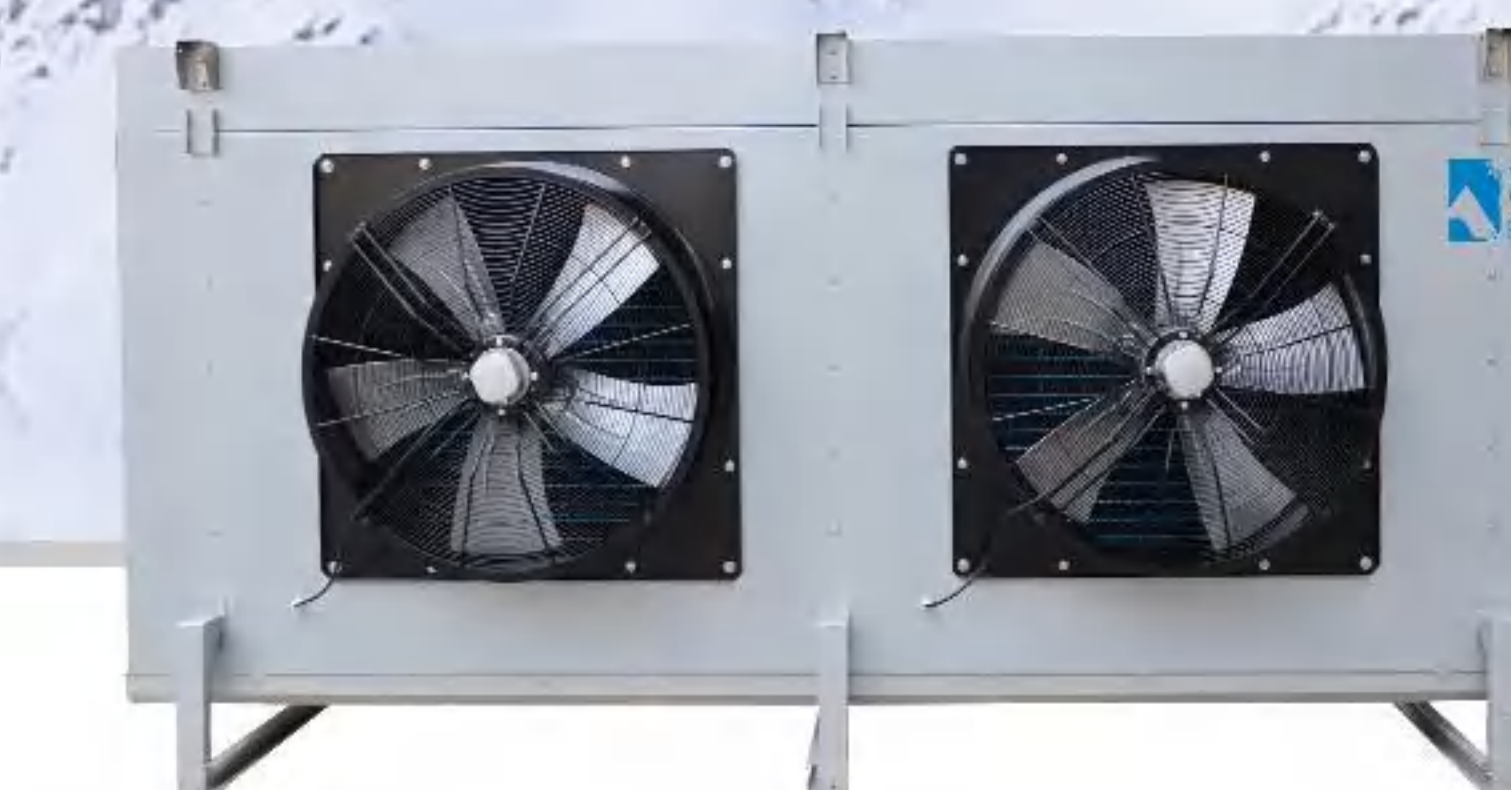
2) The air throw is 0.5m/s at ambient temperature.

3) For the cooling capacity in other working conditions, refer to the correction coefficient.

V. Electrical Parameters:

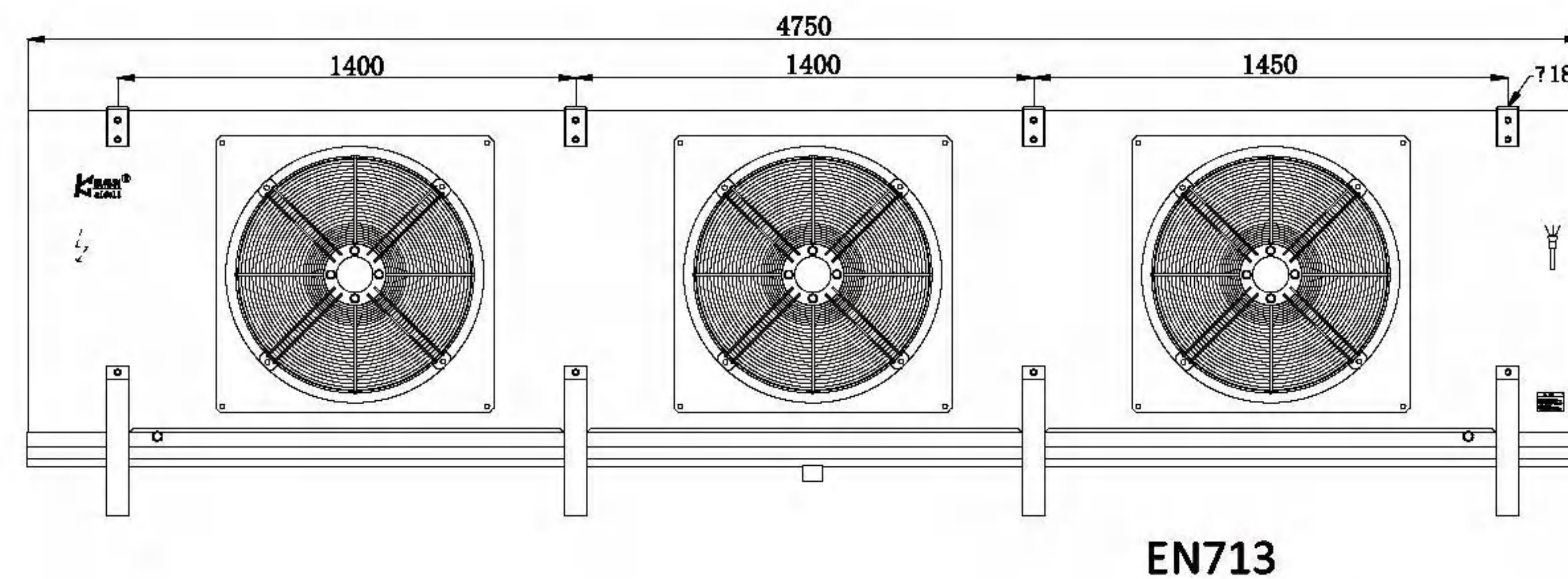
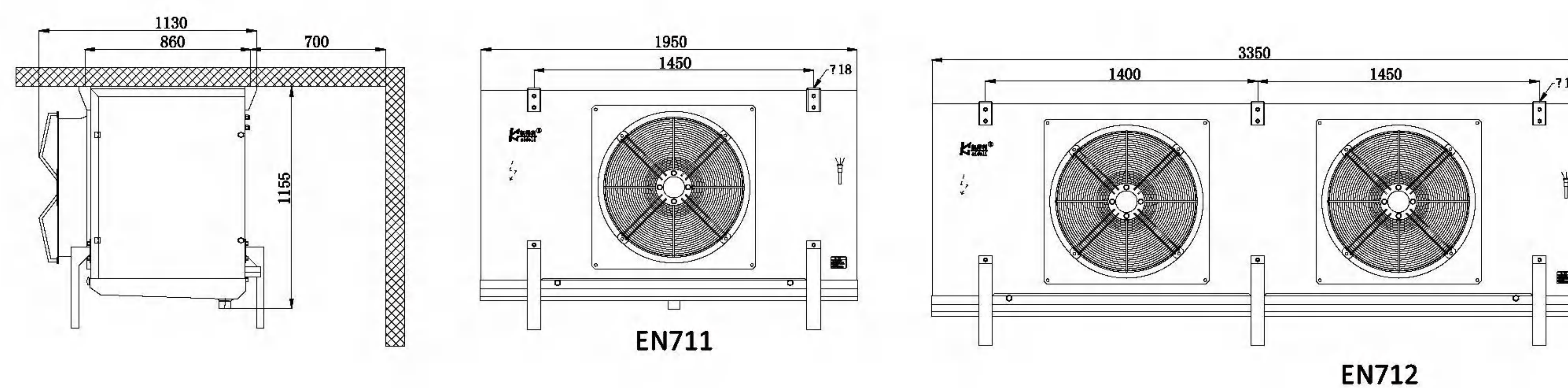
Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EN711/D*	380-3	1030	2.35	905	5×1.2	2×1.4	8.8
EN711/E*	380-3	1030	2.35	905	6×1.2	2×1.4	10.0
EN711/F*	380-3	1030	2.35	905	8×1.2	2×1.4	12.4
EN711/H*	380-3	1030	2.35	905	10×1.2	2×1.4	14.8
EN712/D*	380-3	2060	4.7	905	5×2.4	2×2.6	17.2
EN712/E*	380-3	2060	4.7	905	6×2.4	2×2.6	19.6
EN712/F*	380-3	2060	4.7	905	8×2.4	2×2.6	24.4
EN712/H*	380-3	2060	4.7	905	10×2.4	2×2.6	29.2
EN713/D*	380-3	3090	7.05	905	6×3.0	2×3.0	24.0
EN713/E*	380-3	3090	7.05	905	7×3.0	2×3.0	27.0
EN713/F*	380-3	3090	7.05	905	10×3.0	2×3.0	36.0
EN713/H*	380-3	3090	7.05	905	12×3.0	2×3.0	42.0
EN801/D*	380-3	1940	3.9	880	6×1.4	2×1.5	11.4
EN801/E*	380-3	1940	3.9	880	8×1.4	2×1.6	14.4
EN801/F*	380-3	1940	3.9	880	9×1.4	2×1.6	15.8
EN801/H*	380-3	1940	3.9	880	12×1.4	2×1.6	20.0
EN802/D*	380-3	3880	7.8	880	6×2.8	2×2.9	22.6
EN802/E*	380-3	3880	7.8	880	8×2.8	2×2.9	28.2
EN802/F*	380-3	3880	7.8	880	9×2.8	2×2.9	31.0
EN802/H*	380-3	3880	7.8	880	12×2.8	2×2.9	39.4
EN803/D*	380-3	5820	11.7	880	8×3.0	3×3.0	33.0
EN803/E*	380-3	5820	11.7	880	11×3.0	3×3.0	42.0
EN803/F*	380-3	5820	11.7	880	12×3.0	3×3.0	45.0
EN803/H*	380-3	5820	11.7	880	18×3.0	3×3.0	63.0
EN911/D*	380-3	2480	5.15	885	8×1.4	2×1.6	14.4
EN911/E*	380-3	2480	5.15	885	10×1.4	2×1.6	17.2
EN911/F*	380-3	2480	5.15	885	12×1.4	2×1.6	20.0
EN911/H*	380-3	2480	5.15	885	16×1.4	2×1.6	25.6
EN912/D*	380-3	4960	10.3	885	8×2.8	2×2.9	28.2
EN912/E*	380-3	4960	10.3	885	10×2.8	2×2.9	33.8
EN912/F*	380-3	4960	10.3	885	12×2.8	2×2.9	39.4
EN912/H*	380-3	4960	10.3	885	16×2.8	2×2.9	50.6
EN913/D*	380-3	7440	15.45	885	11×3.0	3×3.0	42.0
EN913/E*	380-3	7440	15.45	885	14×3.0	3×3.0	51.0
EN913/F*	380-3	7440	15.45	885	18×3.0	3×3.0	63.0
EN913/H*	380-3	7440	15.45	885	21×3.0	3×3.0	72.0

EN series large ceiling-type air cooler

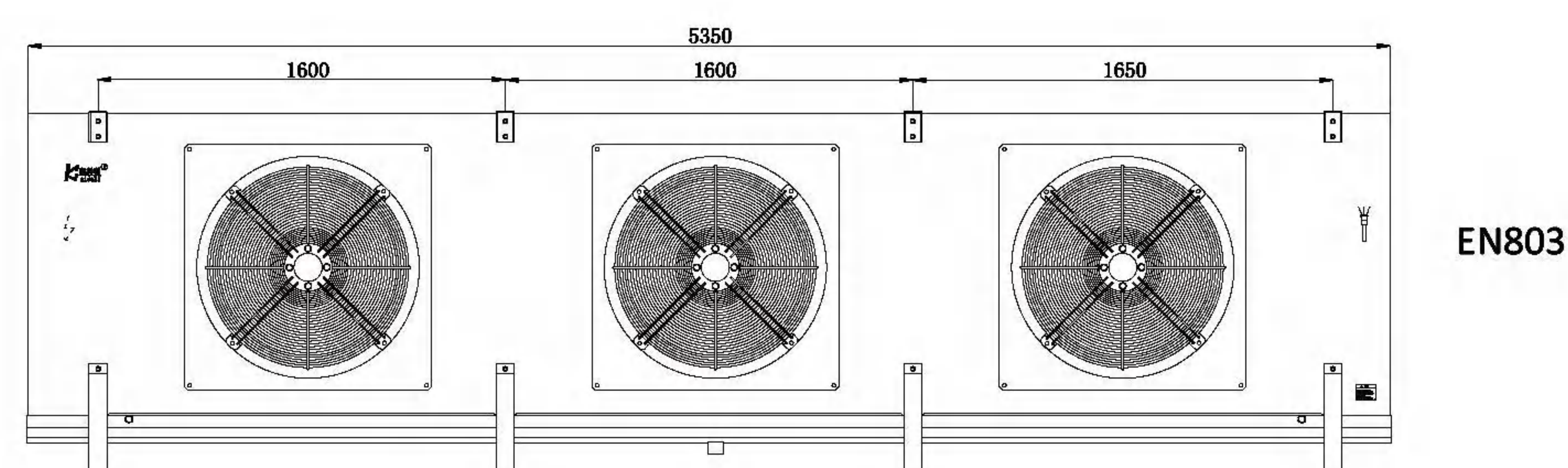
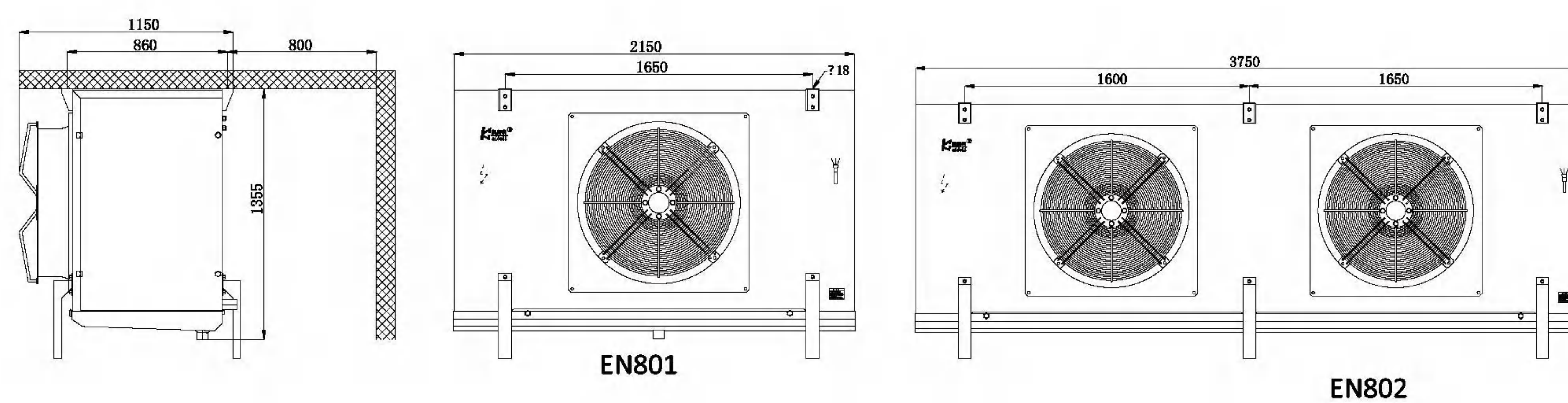


VI. Outline and Installation Dimension:

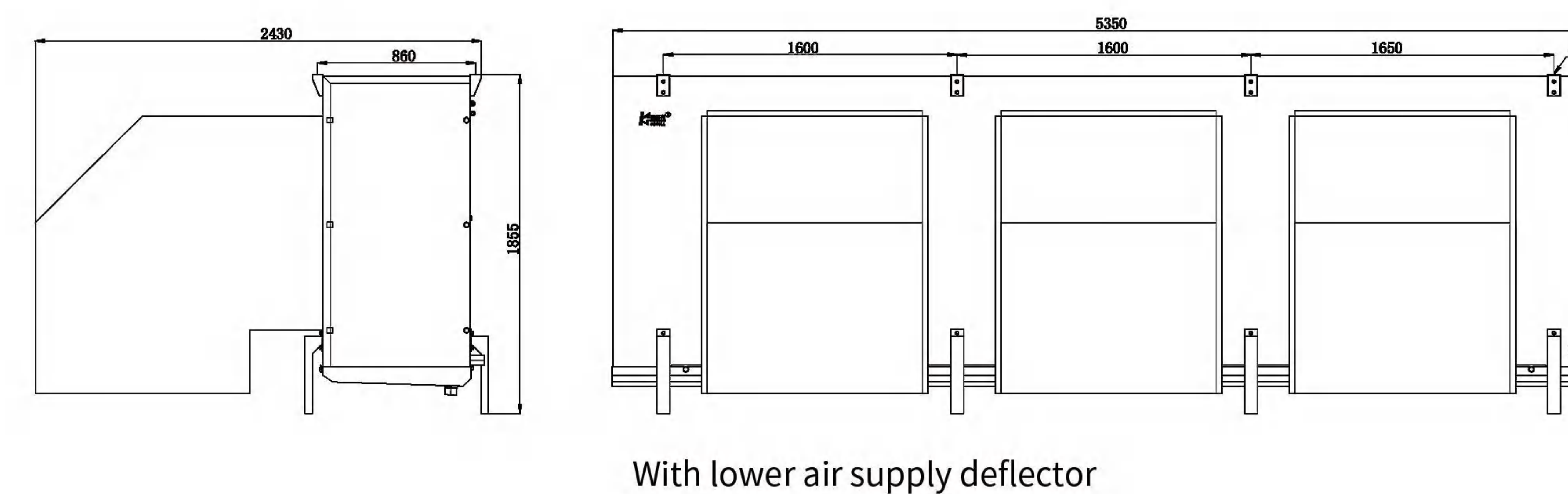
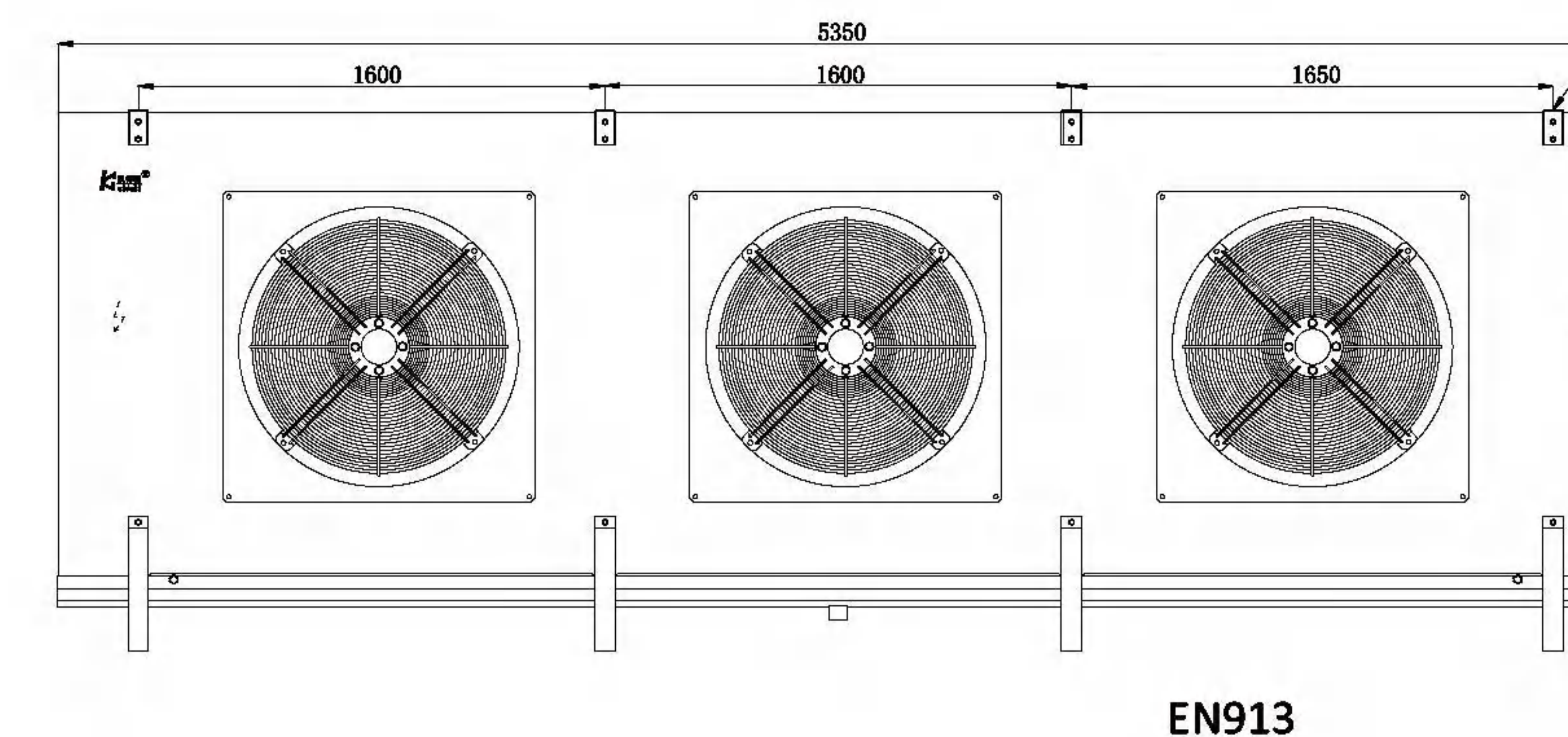
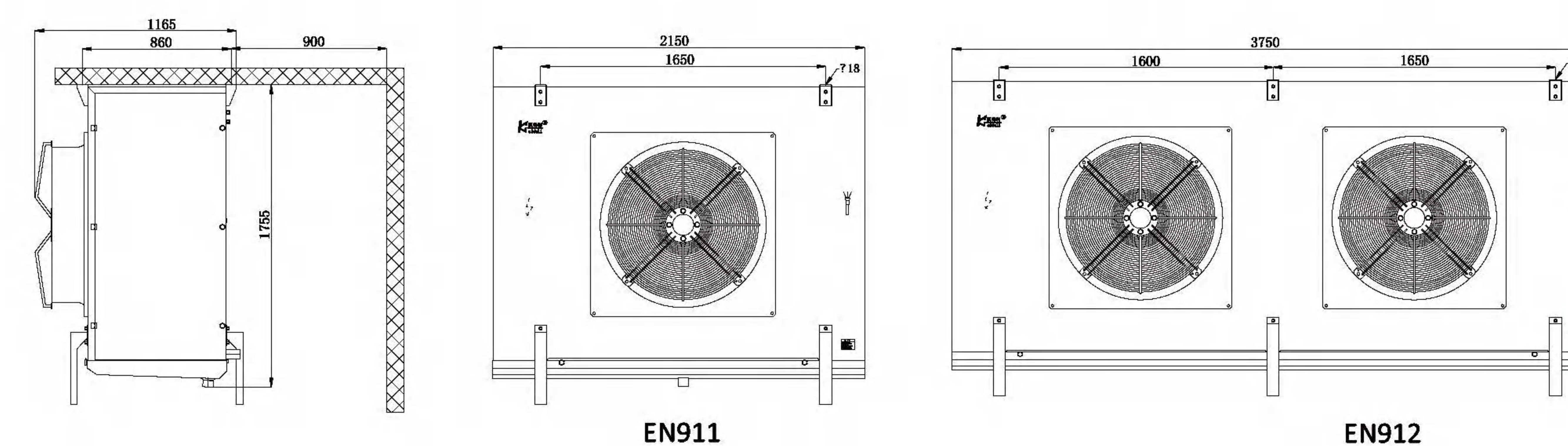
◆ EN71 series



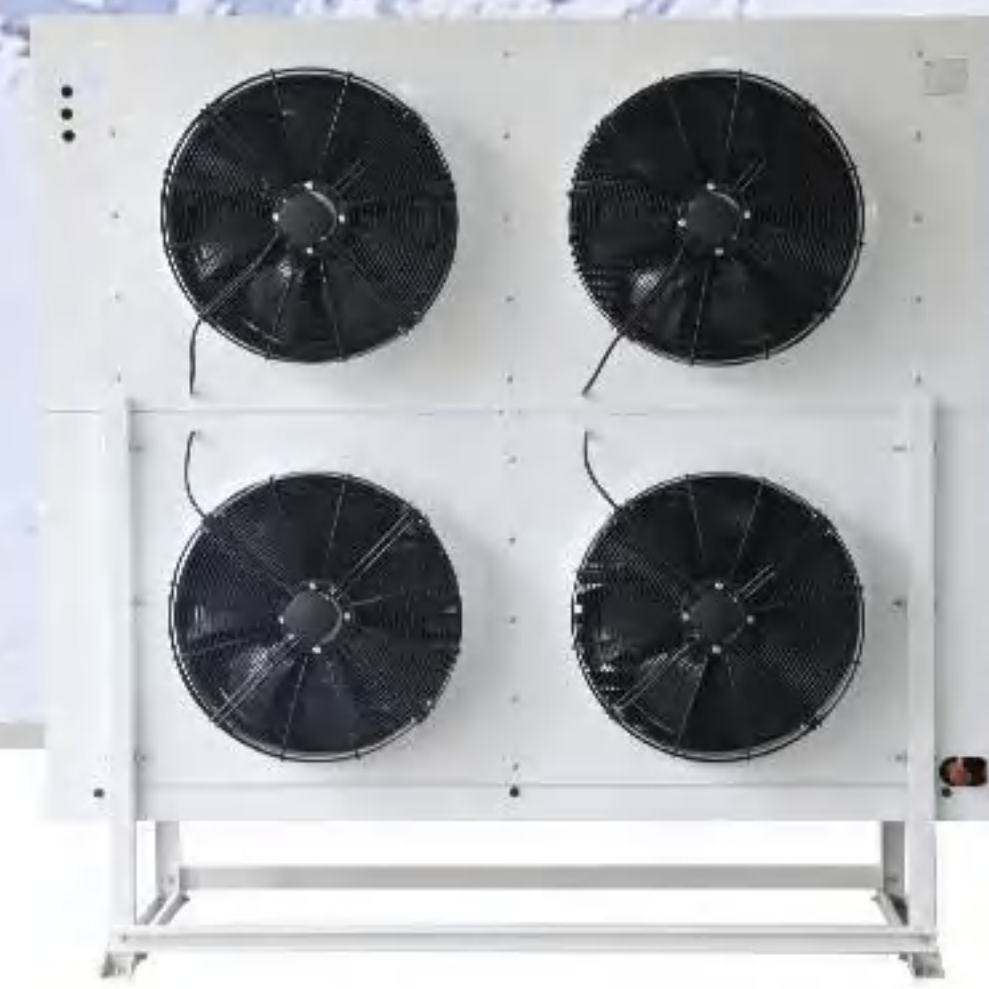
◆ EN80 series



◆ EN91 series



EF series floor type quick-freezing air cooler

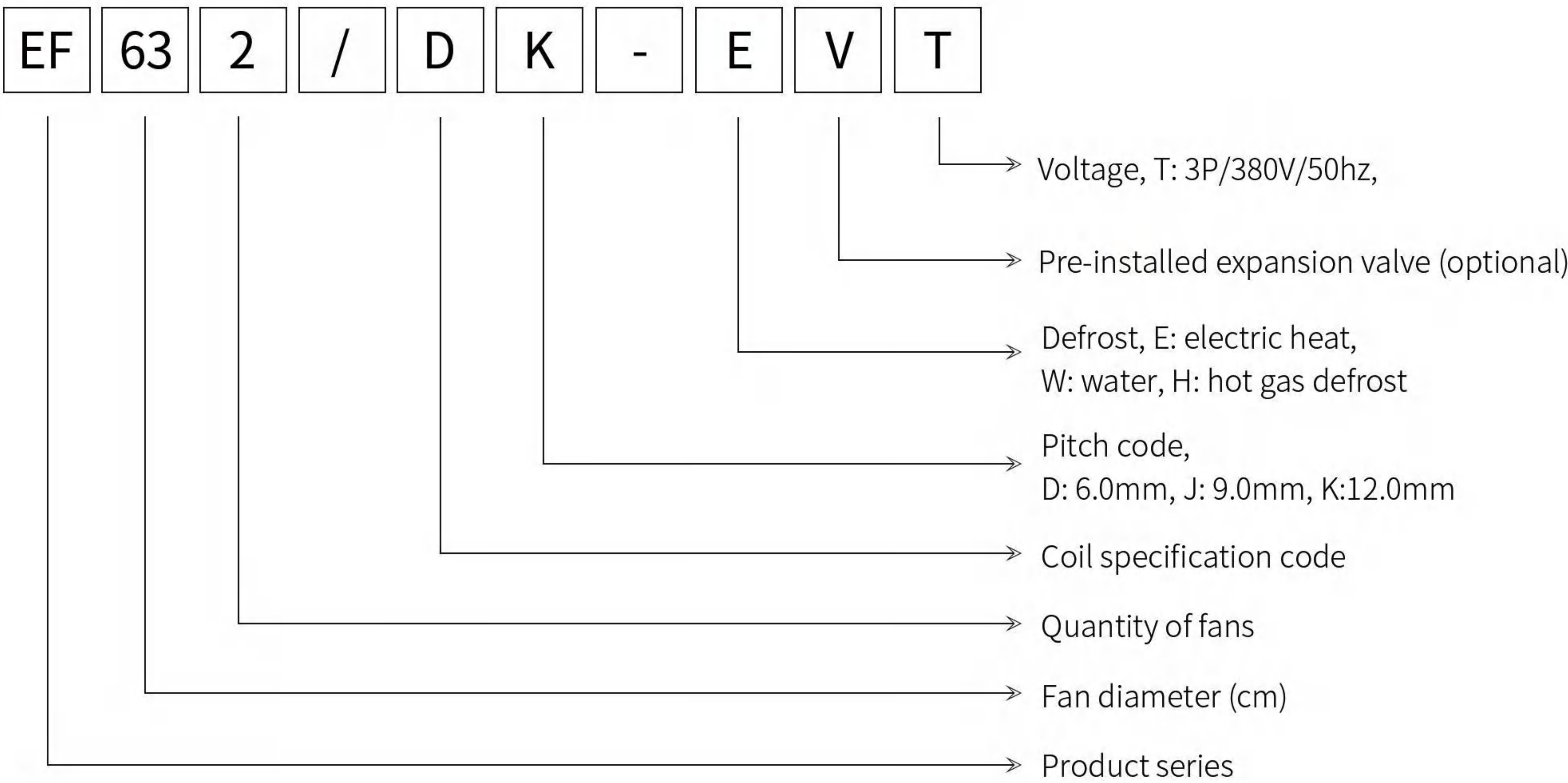


I. Product Overview:

- EF series air coolers are mainly used for quick-freezing or low-temperature quick-freezing cold storage
1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; plates on both sides are designed with hinged structure, which is convenient to operate;
 2. Double water plate design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
 3. Designed with overall stretching large arc high air tube, it has the characteristics of excellent air guiding effect.
 4. Coil: The aligned tube pattern 50 X 50 mm features large heat transfer area, low heat transfer temperature difference;
 5. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 6.0mm, 9.0mm and 12.0mm to meet different operation requirements;
 6. Fan: The fan with blowing air and operating temperature of -45 °C, which is equipped with a motor with higher power and higher wind pressure, to ensure the residual pressure outside the machine, reduce the wind speed on the surface of the food, lower dry consumption, and improve the quality of food freezing;
 7. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and the inner water plate, which can bring about desirable defrosting effect; the heating tube hole in the coil is equipped with an aluminum sleeve to improve the efficiency of defrosting effect;
 8. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
 9. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
 10. It is subjected to strict pressure test at the pressure of 23bar;
 11. The expansion valves, heating band of fan tube and other parts can be pre-installed according to customer's needs;
 12. It is compatible with R404A, R507A, R448A, R449A, R22 and other refrigerants.



II. Model Explanation:

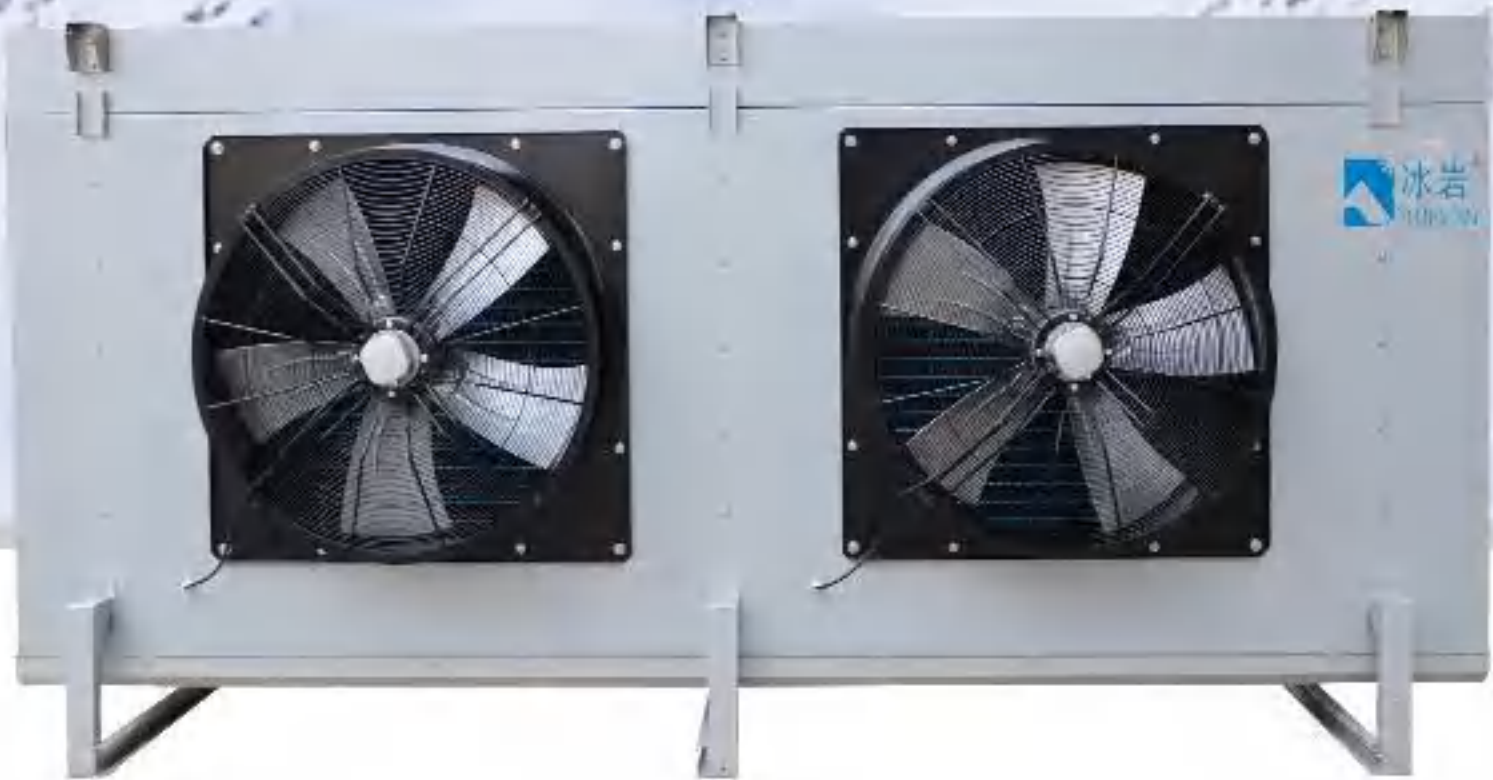


III. Standard Configuration and Options:

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Defrost	Air defrost	●
	Powder coated steel plate	○		Defrosting with water	○
	Powder coated galvanized sheet	●		Hot gas defrost (coil & tray)	○
	Stainless steel plate*	○	Expansion valve		○
Motor (blow type)	Weiguang external rotor motor	●	Drain heater		○
	EBM external rotor motor*	○	Fan tube heater		○
	Air tube fan	○			
Suction fan		○			
Aluminum foil	Normal aluminium foil	○			
	Hydrophilic aluminum foil (blue foil)	●			

Note: ●: Standard component; ○: Optional component; ×: Not available. * Regular fan tube

EN series large ceiling-type air cooler



◆ Fin pitch 9.0mm

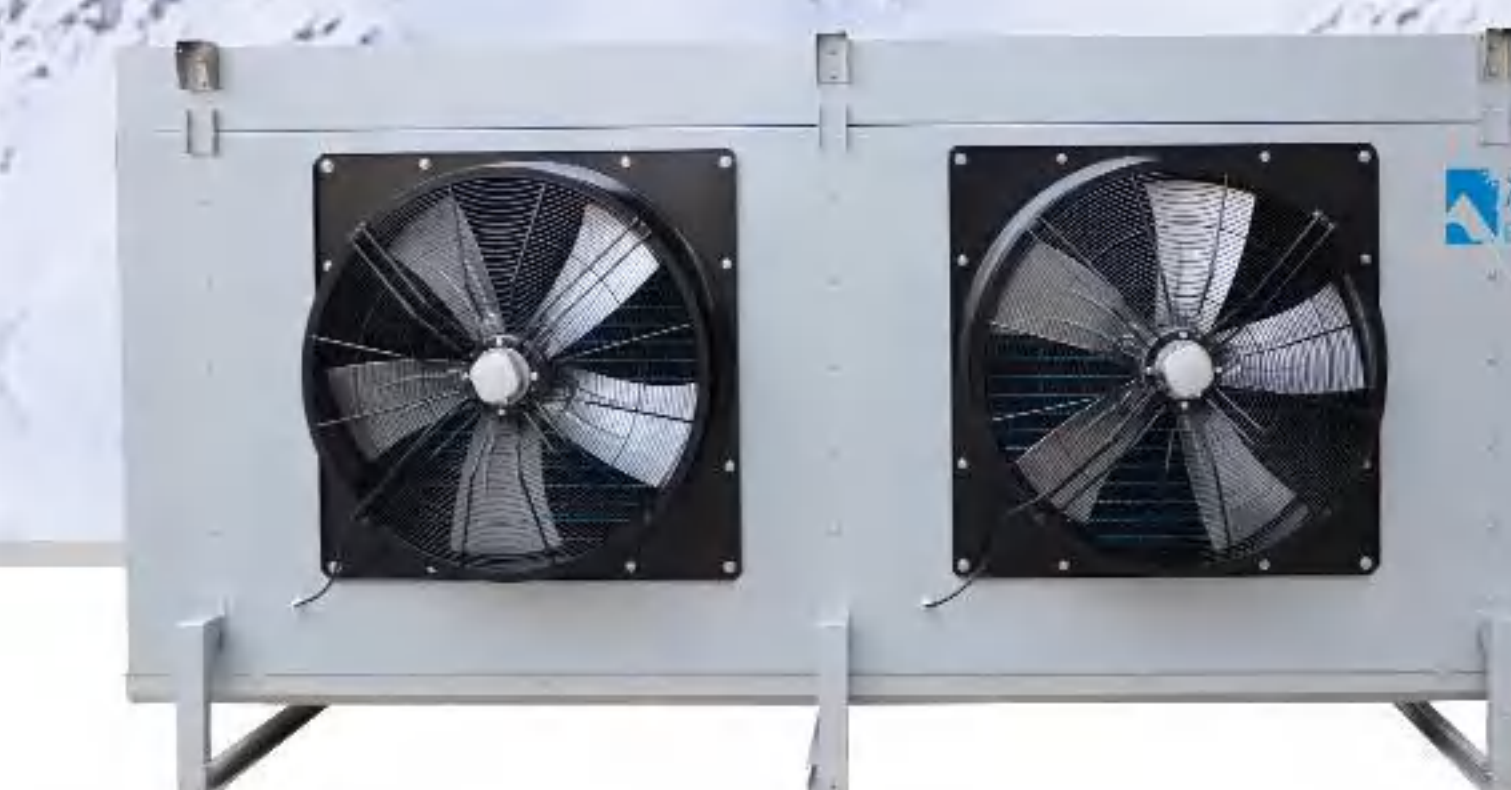
Model	Cooling capacity/R404A(KW)			Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-25 ΔT=6K	Tc=-35℃ ΔT=6K	m ²	dm ³	m ³ /h	m	Liquid inlet	Gas outlet	Drain	kg
710 fan series											
EN711/FK-ET	16.4	10.8	10.6	73	29.3	12800	30	28	35	G2"	215
EN711/HK-ET	19.8	13.0	12.8	97	39.0	12300	29	28	42	G2"	233
EN712/FK-ET	32.8	21.6	21.3	146	56.6	25600	33	35	54	G2"	368
EN712/HK-ET	39.7	26.2	25.8	194	75.5	24600	32	35	54	G2"	402
EN713/FK-ET	49.2	32.4	31.9	219	84.0	38400	35	35	67	G2"	520
EN713/HK-ET	59.8	39.4	38.8	292	112.0	36900	34	35	67	G2"	571
800 fan series											
EN801/FK-ET	22.5	14.9	14.6	100	39.8	18800	36	28	42	G2"	259
EN801/HK-ET	27.3	18.0	17.7	133	53.1	18000	35	35	54	G2"	282
EN802/FK-ET	45.0	29.7	29.3	200	77.4	37600	39	35	67	G2"	445
EN802/HK-ET	54.7	36.1	35.6	267	103.1	36000	38	35	67	G2"	493
EN803/FK-ET	67.5	44.6	43.9	300	114.8	56400	41	2-35	2-54	G2"	634
EN803/HK-ET	82.0	54.1	53.3	400	153.1	54000	40	2-35	2-54	G2"	711
910 fan series											
EN911/FK-ET	29.9	19.7	19.4	133	53.1	25000	41	35	54	G2"	315
EN911/HK-ET	36.5	24.1	23.7	178	70.8	24100	40	35	54	G2"	346
EN912/FK-ET	60.1	39.7	39.1	267	103.1	50000	45	2-35	2-54	G2"	539
EN912/HK-ET	73.0	48.2	47.5	356	137.5	48200	44	2-35	2-54	G2"	601
EN913/FK-ET	90.0	59.4	58.5	400	153.1	75000	48	2-35	2-67	G2"	769
EN913/HK-ET	109.3	72.1	71.0	533	204.1	72300	47	2-35	2-67	G2"	869

- 1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature.
- 2) The air throw is 0.5m/s at ambient temperature.
- 3) For the cooling capacity in other working conditions, refer to the correction coefficient.

V. Electrical Parameters:

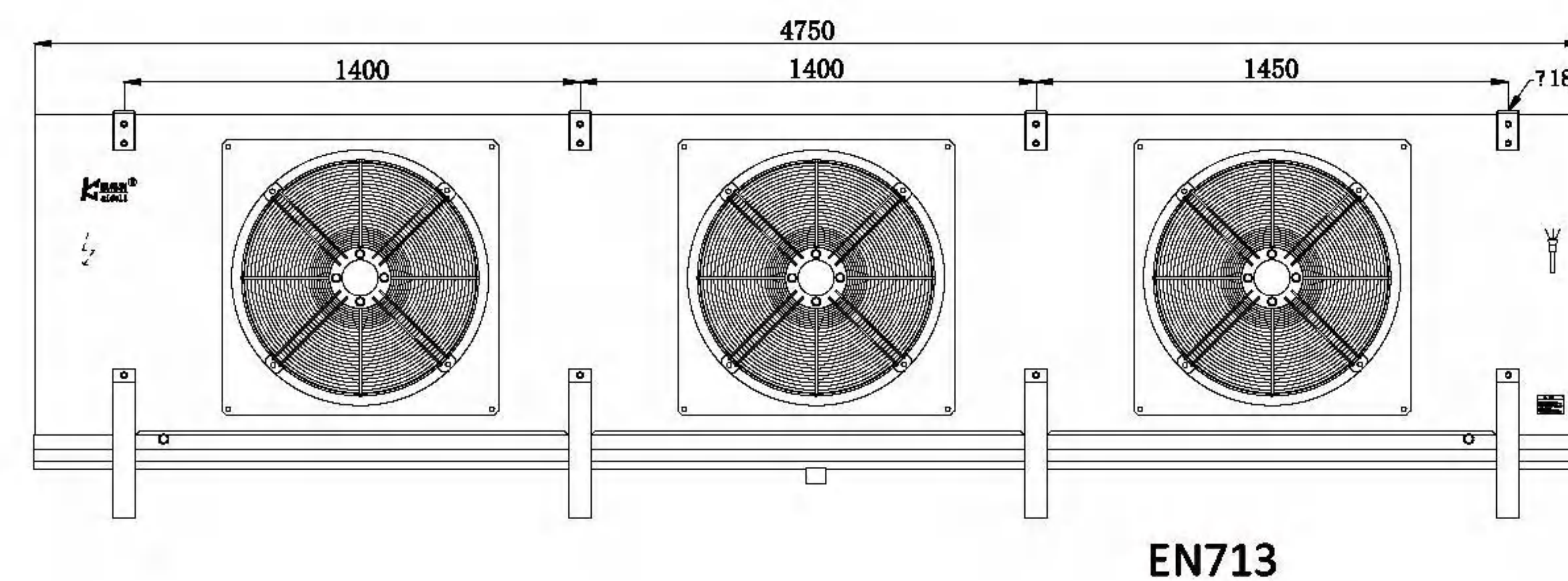
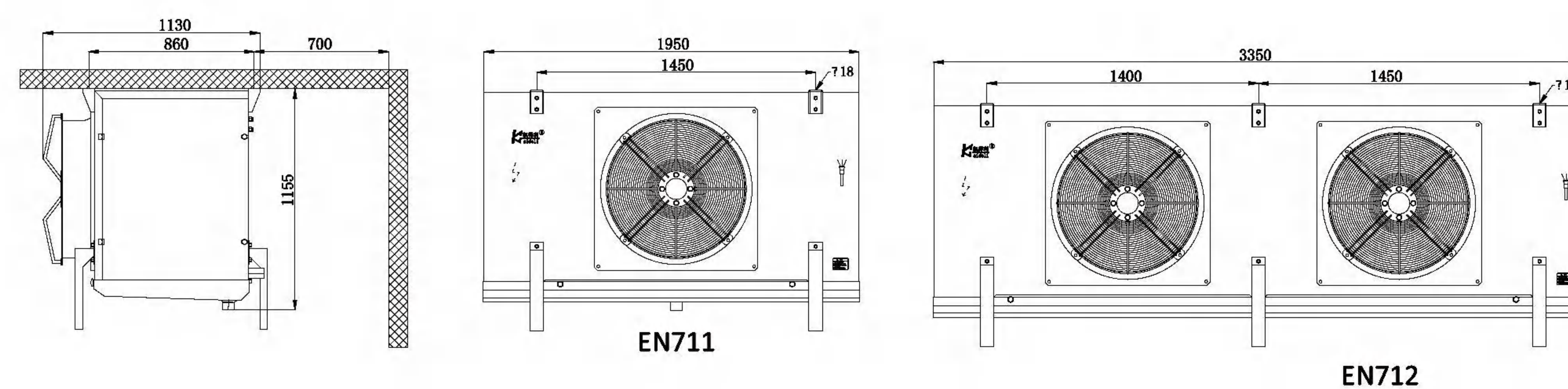
Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EN711/D*	380-3	1030	2.35	905	5×1.2	2×1.4	8.8
EN711/E*	380-3	1030	2.35	905	6×1.2	2×1.4	10.0
EN711/F*	380-3	1030	2.35	905	8×1.2	2×1.4	12.4
EN711/H*	380-3	1030	2.35	905	10×1.2	2×1.4	14.8
EN712/D*	380-3	2060	4.7	905	5×2.4	2×2.6	17.2
EN712/E*	380-3	2060	4.7	905	6×2.4	2×2.6	19.6
EN712/F*	380-3	2060	4.7	905	8×2.4	2×2.6	24.4
EN712/H*	380-3	2060	4.7	905	10×2.4	2×2.6	29.2
EN713/D*	380-3	3090	7.05	905	6×3.0	2×3.0	24.0
EN713/E*	380-3	3090	7.05	905	7×3.0	2×3.0	27.0
EN713/F*	380-3	3090	7.05	905	10×3.0	2×3.0	36.0
EN713/H*	380-3	3090	7.05	905	12×3.0	2×3.0	42.0
EN801/D*	380-3	1940	3.9	880	6×1.4	2×1.5	11.4
EN801/E*	380-3	1940	3.9	880	8×1.4	2×1.6	14.4
EN801/F*	380-3	1940	3.9	880	9×1.4	2×1.6	15.8
EN801/H*	380-3	1940	3.9	880	12×1.4	2×1.6	20.0
EN802/D*	380-3	3880	7.8	880	6×2.8	2×2.9	22.6
EN802/E*	380-3	3880	7.8	880	8×2.8	2×2.9	28.2
EN802/F*	380-3	3880	7.8	880	9×2.8	2×2.9	31.0
EN802/H*	380-3	3880	7.8	880	12×2.8	2×2.9	39.4
EN803/D*	380-3	5820	11.7	880	8×3.0	3×3.0	33.0
EN803/E*	380-3	5820	11.7	880	11×3.0	3×3.0	42.0
EN803/F*	380-3	5820	11.7	880	12×3.0	3×3.0	45.0
EN803/H*	380-3	5820	11.7	880	18×3.0	3×3.0	63.0
EN911/D*	380-3	2480	5.15	885	8×1.4	2×1.6	14.4
EN911/E*	380-3	2480	5.15	885	10×1.4	2×1.6	17.2
EN911/F*	380-3	2480	5.15	885	12×1.4	2×1.6	20.0
EN911/H*	380-3	2480	5.15	885	16×1.4	2×1.6	25.6
EN912/D*	380-3	4960	10.3	885	8×2.8	2×2.9	28.2
EN912/E*	380-3	4960	10.3	885	10×2.8	2×2.9	33.8
EN912/F*	380-3	4960	10.3	885	12×2.8	2×2.9	39.4
EN912/H*	380-3	4960	10.3	885	16×2.8	2×2.9	50.6
EN913/D*	380-3	7440	15.45	885	11×3.0	3×3.0	42.0
EN913/E*	380-3	7440	15.45	885	14×3.0	3×3.0	51.0
EN913/F*	380-3	7440	15.45	885	18×3.0	3×3.0	63.0
EN913/H*	380-3	7440	15.45	885	21×3.0	3×3.0	72.0

EN series large ceiling-type air cooler

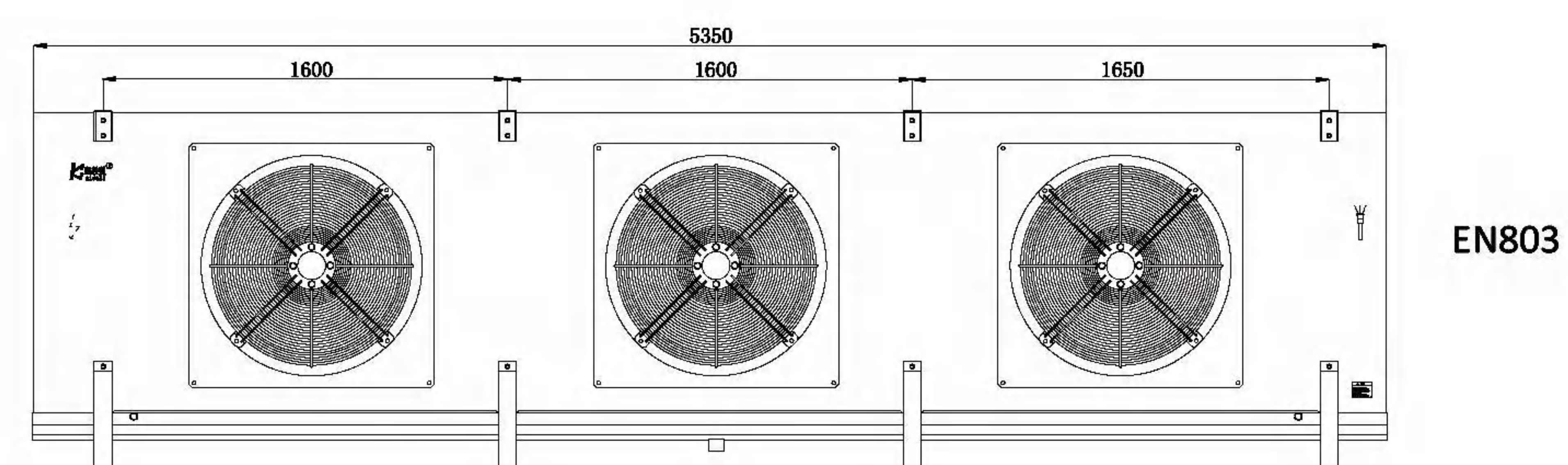
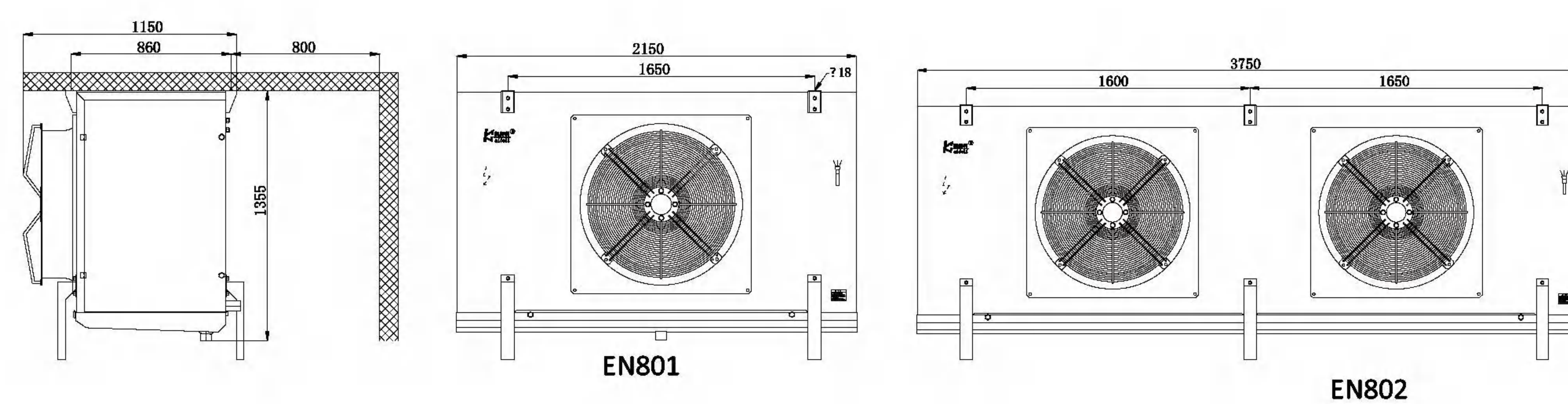


VI. Outline and Installation Dimension:

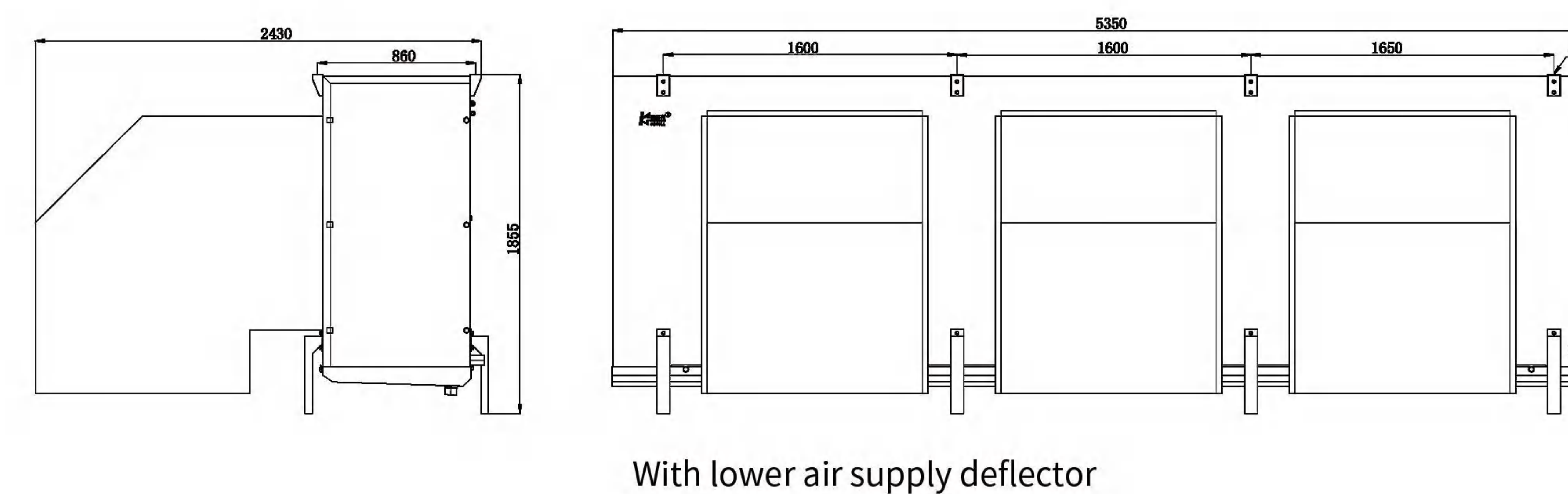
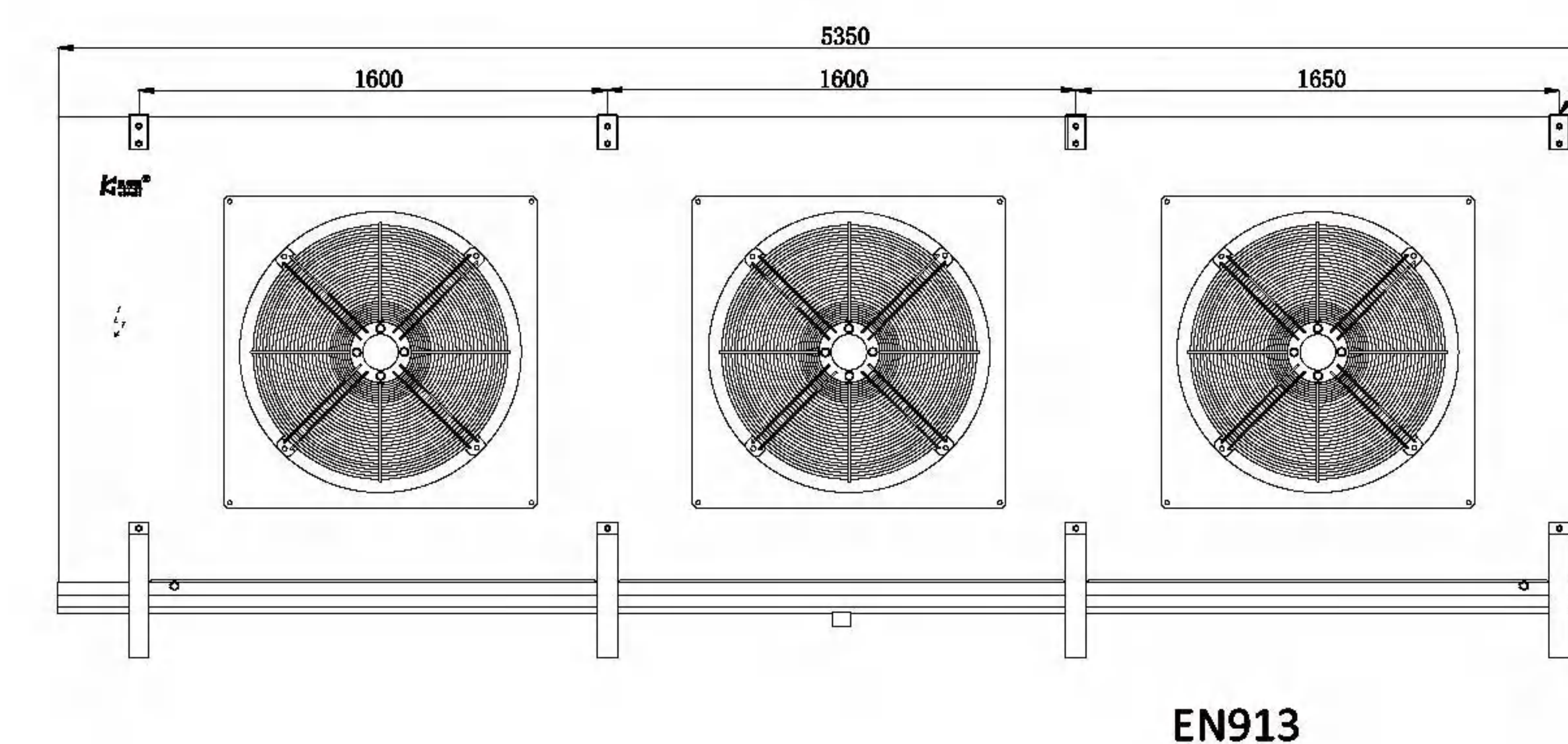
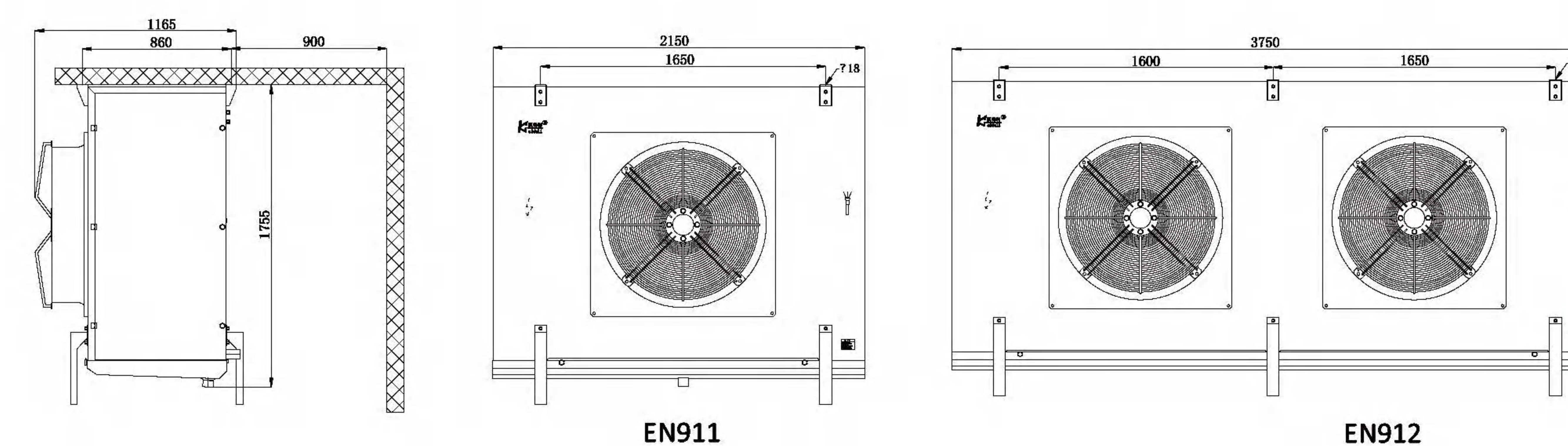
◆ EN71 series



◆ EN80 series



◆ EN91 series



EF series floor type quick-freezing air cooler



IV. Performance Datasheet:

◆ Fin pitch 6.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Air volume	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m ²	dm ³	m ³ /h	Liquid inlet	Gas outlet	Drain	kg
EF632/DD-ET	26.6	21.3	106.8	20.6	26000	φ 16	φ 35	G2"	243
EF632/ED-ET	28.2	22.6	133.5	25.7	25000	φ 22	φ 42	G2"	254
EF632/FD-ET	30.4	24.3	160.2	30.9	24000	φ 22	φ 42	G2"	266
EF634/DD-ET	53.3	42.7	213.6	39.1	52000	φ 22	φ 42	G2"	373
EF634/ED-ET	56.7	45.4	267.0	48.9	50000	φ 22	φ 42	G2"	396
EF634/FD-ET	60.8	48.6	320.4	58.7	48000	φ 28	φ 54	G2"	418
EF636/DD-ET	80.0	64.0	320.4	57.7	78000	φ 28	φ 54	G2"	522
EF636/ED-ET	85.1	68.1	400.5	72.1	75000	2- φ 22	2- φ 42	G2"	555
EF636/FD-ET	91.3	73.0	480.6	86.5	72000	2- φ 22	2- φ 42	G2"	589
EF638/DD-ET	106.7	85.4	427.2	76.2	104000	2- φ 22	2- φ 42	G2"	670
EF638/ED-ET	113.4	90.7	534.0	95.3	100000	2- φ 28	2- φ 50	G2"	715
EF638/FD-ET	121.7	97.4	640.7	114.3	96000	2- φ 28	2- φ 50	G2"	760

◆ Fin pitch 9.0mm

Model	Cooling capacity/R404A(KW)			Surface	Tube volume	Air volume	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	Tc=-25℃ ΔT=6K	m ²	dm ³	m ³ /h	Liquid inlet	Gas outlet	Drain	kg
EF632/DJ-ET	19.1	15.3	12.6	73.1	20.6	27000	φ 16	φ 35	G2"	241
EF632/EJ-ET	22.8	18.3	15.0	91.4	25.7	26000	φ 22	φ 42	G2"	252
EF632/FJ-ET	25.3	20.2	16.7	109.6	30.9	25000	φ 22	φ 42	G2"	263
EF634/DJ-ET	38.3	30.7	25.2	146.2	39.1	54000	φ 22	φ 42	G2"	369
EF634/EJ-ET	45.6	36.5	30.0	182.7	48.9	52000	φ 22	φ 42	G2"	391
EF634/FJ-ET	50.6	40.5	33.3	219.3	58.7	50000	φ 28	φ 54	G2"	412
EF636/DJ-ET	57.5	46.0	37.9	219.3	57.7	81000	φ 28	φ 54	G2"	516
EF636/EJ-ET	68.5	54.8	45.2	274.1	72.1	78000	2- φ 22	2- φ 42	G2"	548
EF636/FJ-ET	76.0	60.8	50.1	328.9	86.5	75000	2- φ 22	2- φ 42	G2"	580
EF638/DJ-ET	76.7	61.4	50.6	292.4	76.2	108000	2- φ 22	2- φ 42	G2"	663
EF638/EJ-ET	91.3	73.1	60.2	365.5	95.3	104000	2- φ 28	2- φ 50	G2"	705
EF638/FJ-ET	101.3	81.1	66.8	438.6	114.3	100000	2- φ 28	2- φ 50	G2"	748

◆ Fin pitch 12.0mm

Model	Cooling capacity/R404A(KW)			Surface	Tube volume	Air volume	Connection pipe (mm)			Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	Tc=-35℃ ΔT=6K	m ²	dm ³	m ³ /h	Liquid inlet	Gas outlet	Drain	kg
EF632/DK-ET	16.1	12.9	10.4	56.2	20.6	27500	φ 16	φ 35	G2"	242
EF632/EK-ET	19.2	15.4	12.5	70.3	25.7	26600	φ 22	φ 42	G2"	253
EF632/FK-ET	21.0	16.8	13.6	84.4	30.9	25600	φ 22	φ 42	G2"	265
EF634/DK-ET	32.2	25.8	20.9	112.5	39.1	55000	φ 22	φ 42	G2"	372
EF634/EK-ET	38.6	30.9	25.1	140.6	48.9	53200	φ 22	φ 42	G2"	394
EF634/FK-ET	42.1	33.7	27.4	168.7	58.7	51200	φ 28	φ 54	G2"	416
EF636/DK-ET	48.5	38.8	31.5	168.7	57.7	82500	φ 28	φ 54	G2"	520
EF636/EK-ET	57.8	46.3	37.5	210.9	72.1	79800	2- φ 22	2- φ 42	G2"	553
EF636/FK-ET	63.2	50.6	41.0	253.1	86.5	76800	2- φ 22	2- φ 42	G2"	586
EF638/DK-ET	64.6	51.7	42.0	225.0	76.2	110000	2- φ 22	2- φ 42	G2"	667
EF638/EK-ET	77.2	61.8	50.1	281.2	95.3	106400	2- φ 28	2- φ 50	G2"	711
EF638/FK-ET	84.4	67.5	54.8	337.5	114.3	102400	2- φ 28	2- φ 50	G2"	755

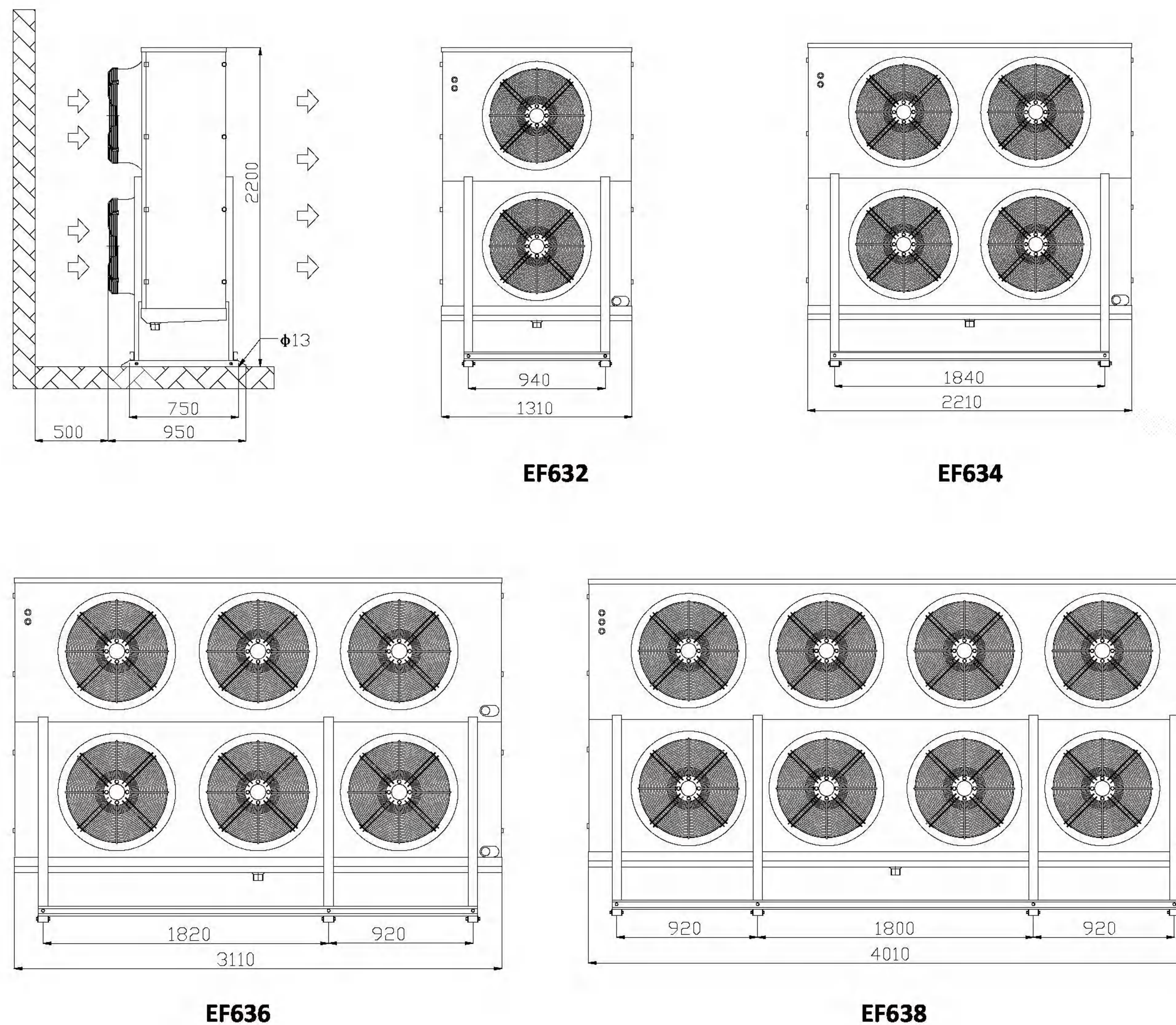
1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) For other working conditions, please refer to the correction coefficient.

V. Electrical Parameters:

Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EF632/D*	380-3	2900	5.8	1390	12×0.8	2×0.8	11.2
EF632/E*	380-3	2900	5.8	1390	16×0.8	2×0.8	14.4
EF632/F*	380-3	2900	5.8	1390	16×0.8	2×0.8	14.4
EF634/D*	380-3	5800	11.6	1390	12×1.6	2×1.6	22.4
EF634/E*	380-3	5800	11.6	1390	16×1.6	2×1.6	28.8
EF634/F*	380-3	5800	11.6	1390	16×1.6	2×1.6	28.8
EF636/D*	380-3	8700	17.4	1390	12×2.3	2×2.3	32.2
EF636/E*	380-3	8700	17.4	1390	16×2.3	2×2.3	41.4
EF636/F*	380-3	8700	17.4	1390	16×2.3	2×2.3	41.4
EF638/D*	380-3	11600	23.2	1390	12×3.0	2×3.0	42.0
EF638/E*	380-3	11600	23.2	1390	16×3.0	2×3.0	54.0
EF638/F*	380-3	11600	23.2	1390	16×3.0	2×3.0	54.0

EF series floor type quick-freezing air cooler

VI. Outline and Installation Dimension:



EW series water defrosting ceiling-type air cooler

I. Product Overview:

The EW series air cooler developed by our company is mainly designed with water defrosting method. Water defrosting is characterized with fast defrosting speed, excellent defrosting effect, low impact on cold room temperature, energy saving, etc., which is widely used in the market. EW series air coolers mainly meet the needs of fresh-keeping store at about 0 °C and cold storage at low temperature of about -18 °C.

This series of products has the following characteristics:

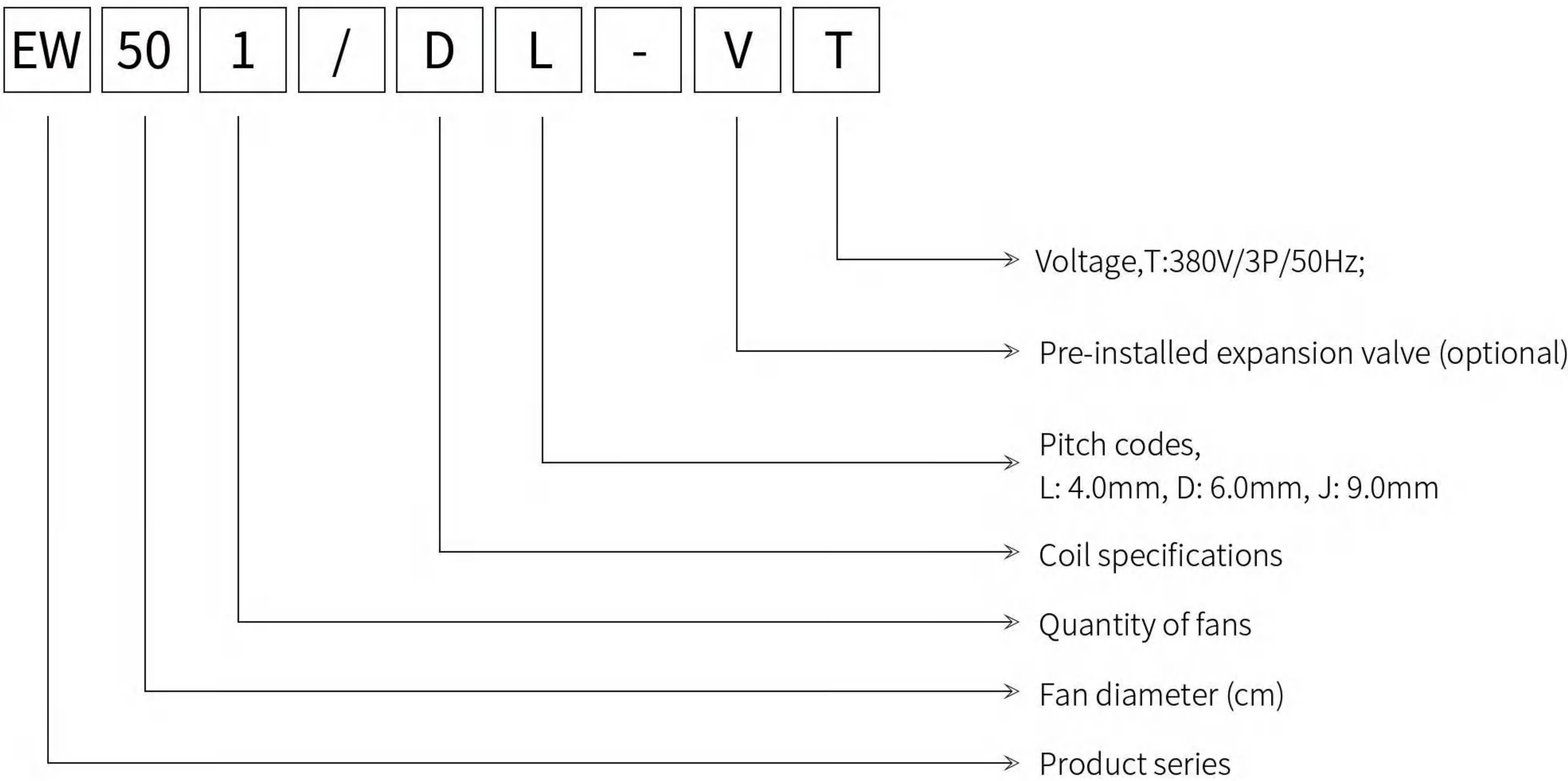
1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; cover plates on both sides are designed with hinged structure, which is convenient to operate;
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Double drain trays design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
4. Designed with overall stretching large arc high air tube, it has the characteristics of excellent air guiding effect.
5. The sealed water plate is adopted and the water baffle is fitted at the air inlet to prevent the splash of defrosting water.
6. There are floor supports for easy installation;
7. Coil: The aligned tube pattern 50 X 50 mm features large heat transfer area, low heat transfer temperature difference, low dry food consumption and slow frosting speed of fins;
8. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm, 6.0mm and 9.0mm to meet the requirements of different temperatures and humidity;
9. Fan: High-power external rotor fan, operating temperature: -30 °C ~ 60 °C; fan specifications: $\phi 500$ and $\phi 630$, product series of different specifications, giving users more choices;
10. The IP65 waterproof junction box are used in motor wiring, with better waterproofing, which can lead to high reliability;
11. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
12. It is subjected to strict pressure test at the pressure of 23bar;
13. The expansion valves, heating band of fan tube and other parts can be pre-installed according to customer's needs;
14. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



EW series water defrosting ceiling-type air cooler



II. Model Explanation:



III. Standard Configuration and Options

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Aluminum foil	Normal aluminium foil	○
	Powder coated steel plate	○		Hydrophilic aluminum foil (blue foil)	●
	Powder coated galvanized sheet	●	Defrost	Defrosting with water	●
	Stainless steel plate*	○		Electric heating	○
Motor	Weiguang external rotor motor	●	Expansion valve		○
	EBM external rotor motor*	○	Drain heater		○
	Air tube fan	○	Fan tube heater		

Note: ●: Standard component; ○: Optional component; ×: Not available.

* Regular fan tube

IV. Performance Datasheet

◆ Fin pitch 4.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Fan		Refrigerant (mm)		Water connection (mm)		Defrosting water	Weight
	Tc=0℃ ΔT=8K	Tc=-5℃ ΔT=7K	m ²	dm ³	m ³ /h	m	Power (W)	Current (A)	Inlet	Outlet	Inflow	Drain	m ³ /h	kg
500 fan series														
EW501/DL-T	9.8	8.3	61.2	9.0	6800	17	500	0.95	16	22	1.5"	2"	2.1	101
EW501/EL-T	11.4	9.7	76.5	11.2	6350	16	500	0.95	16	28	1.5"	2"	2.6	107
EW501/FL-T	12.9	11.0	91.9	13.5	5500	16	500	0.95	16	28	1.5"	2"	3.1	114
EW502/DL-T	19.6	16.7	122.5	17.1	13600	19	1000	1.9	22	35	1.5"	2"	4.2	159
EW502/EL-T	22.9	19.5	153.1	21.3	12700	18	1000	1.9	22	35	1.5"	2"	5.2	170
EW502/FL-T	25.7	21.8	183.7	25.6	11000	18	1000	1.9	22	42	1.5"	2"	6.2	181
EW503/DL-T	29.3	24.9	183.7	25.2	20400	21	1500	2.85	22	42	1.5"	2"	6.2	219
EW503/EL-T	34.4	29.2	229.6	31.5	19050	20	1500	2.85	22	42	1.5"	2"	7.8	237
EW503/FL-T	38.5	32.7	275.6	37.8	16500	20	1500	2.85	22	42	1.5"	2"	9.4	253
EW504/DL-T	39.2	33.3	244.9	33.3	27200	22	2000	3.8	22	42	2×1.5"	3"	8.3	276
EW504/EL-T	43.3	36.8	288.7	39.2	25400	21	2000	3.8	22	42	2×1.5"	3"	9.8	298
EW504/FL-T	51.4	43.7	367.4	49.9	22000	21	2000	3.8	28	50	2×1.5"	3"	12.5	319
EW505/DL-T	49.0	41.7	306.2	41.4	34000	23	2500	4.75	28	50	2×1.5"	3"	10.4	330
EW505/EL-T	54.1	46.0	360.9	48.7	31750	22	2500	4.75	28	50	2×1.5"	3"	12.3	357
EW505/FL-T	64.3	54.7	459.3	62.0	27500	22	2500	4.75	28	50	2×1.5"	3"	15.6	384
630 fan series														
EW631/DL-T	15.8	13.4	105.0	15.0	10000	27	800	1.6	16	28	1.5"	2"	3.6	143
EW631/EL-T	18.3	15.6	131.2	18.8	9600	26	800	1.6	16	28	1.5"	2"	4.5	152
EW631/FL-T	20.4	17.3	157.5	22.5	9100	26	800	1.6	22	35	1.5"	2"	5.4	161
EW632/DL-T	31.5	26.8	210.0	28.9	20000	30	1600	3.2	22	42	1.5"	2"	7.1	240
EW632/EL-T	36.7	31.2	262.4	36.1	19200	29	1600	3.2	22	42	1.5"	2"	8.9	258

EW series water defrosting ceiling-type air cooler



Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Fan		Refrigerant (mm)		Water connection (mm)		Defrosting water	Weight
	Tc=0℃ ΔT=8K	Tc=-5℃ ΔT=7K	m²	dm³	m³/h	m	Power (W)	Current (A)	Inlet	Outlet	Inflow	Drain	m³/h	kg
630 fan series														
EW632/FL-T	40.9	34.8	314.9	43.3	18200	29	1600	3.2	22	42	1.5"	2"	10.7	276
EW633/DL-T	47.2	40.1	314.9	42.8	30000	33	2400	4.8	22	42	1.5"	2"	10.7	327
EW633/EL-T	55.1	46.8	393.7	53.4	28800	32	2400	4.8	28	50	1.5"	2"	13.4	354
EW633/FL-T	61.4	52.2	472.4	64.1	27300	32	2400	4.8	28	50	1.5"	2"	16.0	381
EW634/DL-T	63.0	53.6	419.9	56.6	40000	35	3200	6.4	28	50	2×1.5"	3"	14.3	422
EW634/EL-T	73.5	62.5	524.9	70.8	38400	34	3200	6.4	28	50	2×1.5"	3"	17.8	458
EW634/FL-T	81.9	69.6	629.9	84.9	36400	34	3200	6.4	35	50	2×1.5"	3"	21.4	494

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) The calculation basis of the amount of defrosting water is that the thickness of the frost layer is 1mm, the temperature is 0 °C, the inlet water temperature is 15 °C, the outlet water temperature is 5 °C, and the defrosting time is 5 minutes.

◆ Fin pitch 6.0mm

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Fan		Refrigerant (mm)		Water connection (mm)		Defrosting water	Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m²	dm³	m³/h	m	Power (W)	Current (A)	Inlet	Outlet	Inflow	Drain	m³/h	kg
500 fan series														
EW501/DD-T	8.3	6.6	41.5	9.0	7000	18	500	0.95	16	22	1.5"	2"	1.5	98
EW501/ED-T	9.8	7.8	51.9	11.2	6500	17	500	0.95	16	28	1.5"	2"	1.9	103
EW501/FD-T	11.2	9.0	62.3	13.5	6100	17	500	0.95	16	28	1.5"	2"	2.3	109
EW502/DD-T	16.6	13.3	83.1	17.1	14000	20	1000	1.9	22	35	1.5"	2"	3.1	152
EW502/ED-T	19.7	15.8	103.8	21.3	13000	19	1000	1.9	22	35	1.5"	2"	3.8	162
EW502/FD-T	22.4	17.9	124.6	25.6	12200	19	1000	1.9	22	42	1.5"	2"	4.6	171
EW503/DD-T	24.9	19.9	124.6	25.2	21000	22	1500	2.85	22	42	1.5"	2"	4.6	209
EW503/ED-T	29.5	23.6	155.7	31.5	19500	21	1500	2.85	22	42	1.5"	2"	5.8	223
EW503/FD-T	33.6	26.9	186.9	37.8	18300	21	1500	2.85	22	42	1.5"	2"	6.9	238

Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Fan		Refrigerant (mm)		Water connection (mm)		Defrosting water	Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K	m²	dm³	m³/h	m	Power (W)	Current (A)	Inlet	Outlet	Inflow	Drain	m³/h	kg
500 fan series														
EW504/DD-T	33.2	26.6	166.1	33.3	28000	23	2000	3.8	22	42	2×1.5"	3"	6.1	262
EW504/ED-T	37.2	29.8	195.8	39.2	26000	22	2000	3.8	22	42	2×1.5"	3"	7.2	281
EW504/FD-T	44.8	35.8	249.2	49.9	24400	22	2000	3.8	28	50	2×1.5"	3"	10.3	299
EW505/DD-T	41.5	33.2	207.6	41.4	35000	24	2500	4.75	28	50	2×1.5"	3"	7.7	313
EW505/ED-T	46.5	37.2	244.7	48.7	32500	23	2500	4.75	28	50	2×1.5"	3"	9.1	335
EW505/FD-T	56.1	44.9	311.5	62.0	30500	23	2500	4.75	28	50	2×1.5"	3"	11.5	358
630 fan series														
EW631/DD-T	13.5	10.8	71.2	15.0	10300	28	800	1.6	16	28	1.5"	2"	2.6	137
EW631/ED-T	16.0	12.8	89.0	18.8	9800	27	800	1.6	16	28	1.5"	2"	3.3	145
EW631/FD-T	18.2	14.5	106.8	22.5	9100	27	800	1.6	22	35	1.5"	2"	4.0	152
EW632/DD-T	27.1	21.7	142.4	28.9	20600	31	1600	3.2	22	42	1.5"	2"	5.3	228
EW632/ED-T	32.0	25.6	178.0	36.1	19600	30	1600	3.2	22	42	1.5"	2"	6.6	243
EW632/FD-T	36.3	29.0	213.6	43.3	18200	30	1600	3.2	22	42	1.5"	2"	7.9	258
EW633/DD-T	40.5	32.4	213.6	42.8	30900	34	2400	4.8	22	42	1.5"	2"	7.9	310
EW633/ED-T	48.1	38.5	267.0	53.4	29400	33	2400	4.8	28	50	1.5"	2"	9.9	332
EW633/FD-T	54.5	43.6	320.4	64.1	27300	33	2400	4.8	28	50	1.5"	2"	11.9	355
EW634/DD-T	54.1	43.3	284.8	56.6	41200	36	3200	6.4	28	50	2×1.5"	3"	10.5	399
EW634/ED-T	64.1	51.3	356.0	70.8	39200	35	3200	6.4	28	50	2×1.5"	3"	13.2	429
EW634/FD-T	72.6	58.1	427.2	84.9	36400	35	3200	6.4	35	50	2×1.5"	3"	15.8	459

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) The calculation basis of the amount of defrosting water is that the thickness of the frost layer is 1mm, the temperature is 0 °C, the inlet water temperature is 15 °C, the outlet water temperature is 5 °C, and the defrosting time is 5 minutes.

EW series water defrosting ceiling-type air cooler



◆ Fin pitch 9.0mm

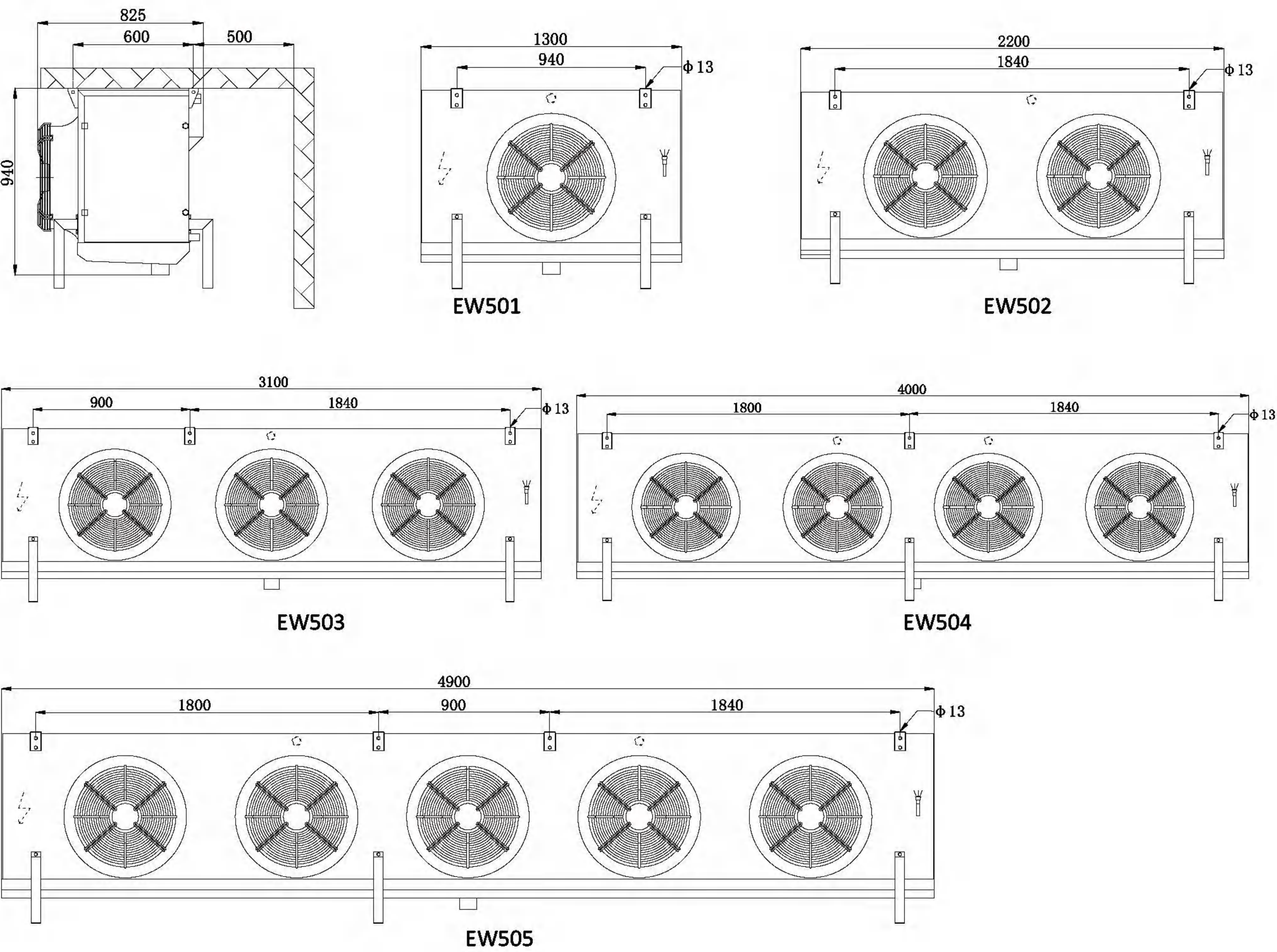
Model	Cooling capacity/R404A(KW)		Surface	Tube volume	Airflow	Air throw	Fan		Refrigerant (mm)		Water connection (mm)		Defrosting water	Weight
	Tc=0℃ ΔT=8K	Tc=-18℃ ΔT=7K					m ²	dm ³	m ³ /h	m	Power (W)	Current (A)		
500 fan series														
EW501/DJ-T	7.1	5.7	28.4	9.0	7380	19	500	0.95	16	22	1.5"	2"	1.1	97
EW501/EJ-T	8.5	6.8	35.5	11.2	6800	18	500	0.95	16	28	1.5"	2"	1.3	102
EW501/FJ-T	9.8	7.8	42.6	13.5	6350	18	500	0.95	16	28	1.5"	2"	1.6	107
EW502/DJ-T	14.2	11.3	56.9	17.1	14760	21	1000	1.9	22	35	1.5"	2"	2.1	151
EW502/EJ-T	17.0	13.6	71.1	21.3	13600	20	1000	1.9	22	35	1.5"	2"	2.6	160
EW502/FJ-T	19.6	15.7	85.3	25.6	12700	20	1000	1.9	22	42	1.5"	2"	3.2	168
EW503/DJ-T	21.3	17.0	85.3	25.2	22140	23	1500	2.85	22	42	1.5"	2"	3.2	206
EW503/EJ-T	25.6	20.5	106.6	31.5	20400	22	1500	2.85	22	42	1.5"	2"	4.0	219
EW503/FJ-T	29.4	23.5	127.9	37.8	19050	22	1500	2.85	22	42	1.5"	2"	4.8	234
EW504/DJ-T	28.4	22.7	113.7	33.3	29520	24	2000	3.8	22	42	2×1.5"	3"	4.2	259
EW504/EJ-T	32.2	25.7	134.0	39.2	27200	23	2000	3.8	22	42	2×1.5"	3"	5.0	276
EW504/FJ-T	39.2	31.3	170.6	49.9	25400	23	2000	3.8	28	50	2×1.5"	3"	6.3	294
EW505/DJ-T	35.5	28.4	142.1	41.4	36900	25	2500	4.75	28	50	2×1.5"	3"	5.3	309
EW505/EJ-T	40.2	32.1	167.5	48.7	34000	24	2500	4.75	28	50	2×1.5"	3"	6.2	331
EW505/FJ-T	49.0	39.2	213.2	62.0	31750	24	2500	4.75	28	50	2×1.5"	3"	7.9	352
630 fan series														
EW631/DJ-T	11.2	9.0	48.7	15.0	10600	29	800	1.6	16	28	1.5"	2"	1.8	136
EW631/EJ-T	13.1	10.5	60.9	18.8	10000	28	800	1.6	16	28	1.5"	2"	2.3	143
EW631/FJ-T	14.6	11.7	73.1	22.5	9600	28	800	1.6	22	35	1.5"	2"	2.7	150
EW632/DJ-T	22.4	17.9	97.5	28.9	21200	32	1600	3.2	22	42	1.5"	2"	3.6	226
EW632/EJ-T	26.2	21.0	121.8	36.1	20000	31	1600	3.2	22	42	1.5"	2"	4.5	240
EW632/FJ-T	29.2	23.3	146.2	43.3	19200	31	1600	3.2	22	42	1.5"	2"	5.4	254
EW633/DJ-T	33.6	26.9	146.2	42.8	31800	35	2400	4.8	22	42	1.5"	2"	5.4	306
EW633/EJ-T	39.3	31.4	182.7	53.4	30000	34	2400	4.8	28	50	1.5"	2"	6.8	327

EW633/FJ-T	43.8	35.0	219.3	64.1	28800	34	2400	4.8	28	50	1.5"	2"	8.1	349
EW634/DJ-T	44.8	35.8	194.9	56.6	42400	37	3200	6.4	28	50	2×1.5"	3"	7.2	394
EW634/EJ-T	52.3	41.8	243.6	70.8	40000	36	3200	6.4	28	50	2×1.5"	3"	9.0	422
EW634/FJ-T	58.5	46.8	292.4	84.9	38400	36	3200	6.4	35	50	2×1.5"	3"	10.8	451

1) Tc in the table is the cold room temperature; ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature. 2) The air throw is 0.5m/s at ambient temperature. 3) The calculation basis of the amount of defrosting water is that the thickness of the frost layer is 1mm, the temperature is 0 °C, the inlet water temperature is 15 °C, the outlet water temperature is 5 °C, and the defrosting time is 5 minutes.

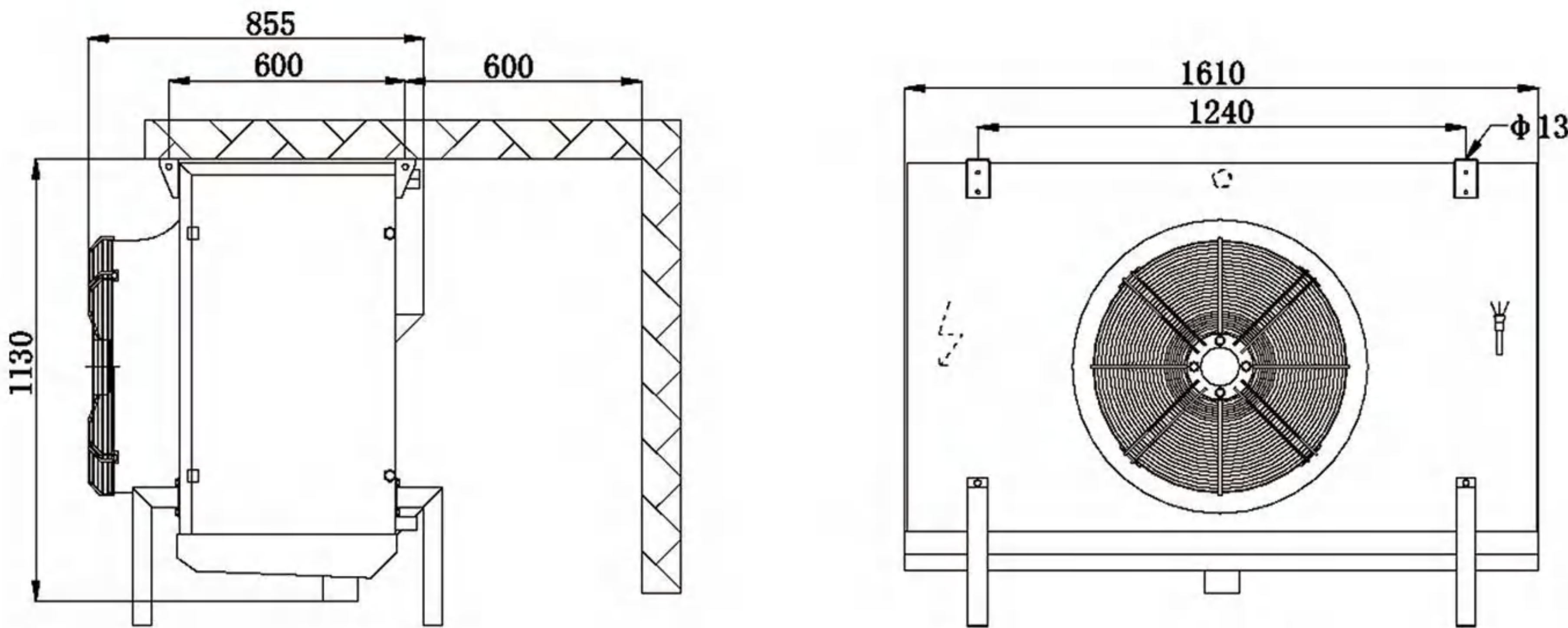
VI. Outline and Installation Dimension

◆ EW50 series

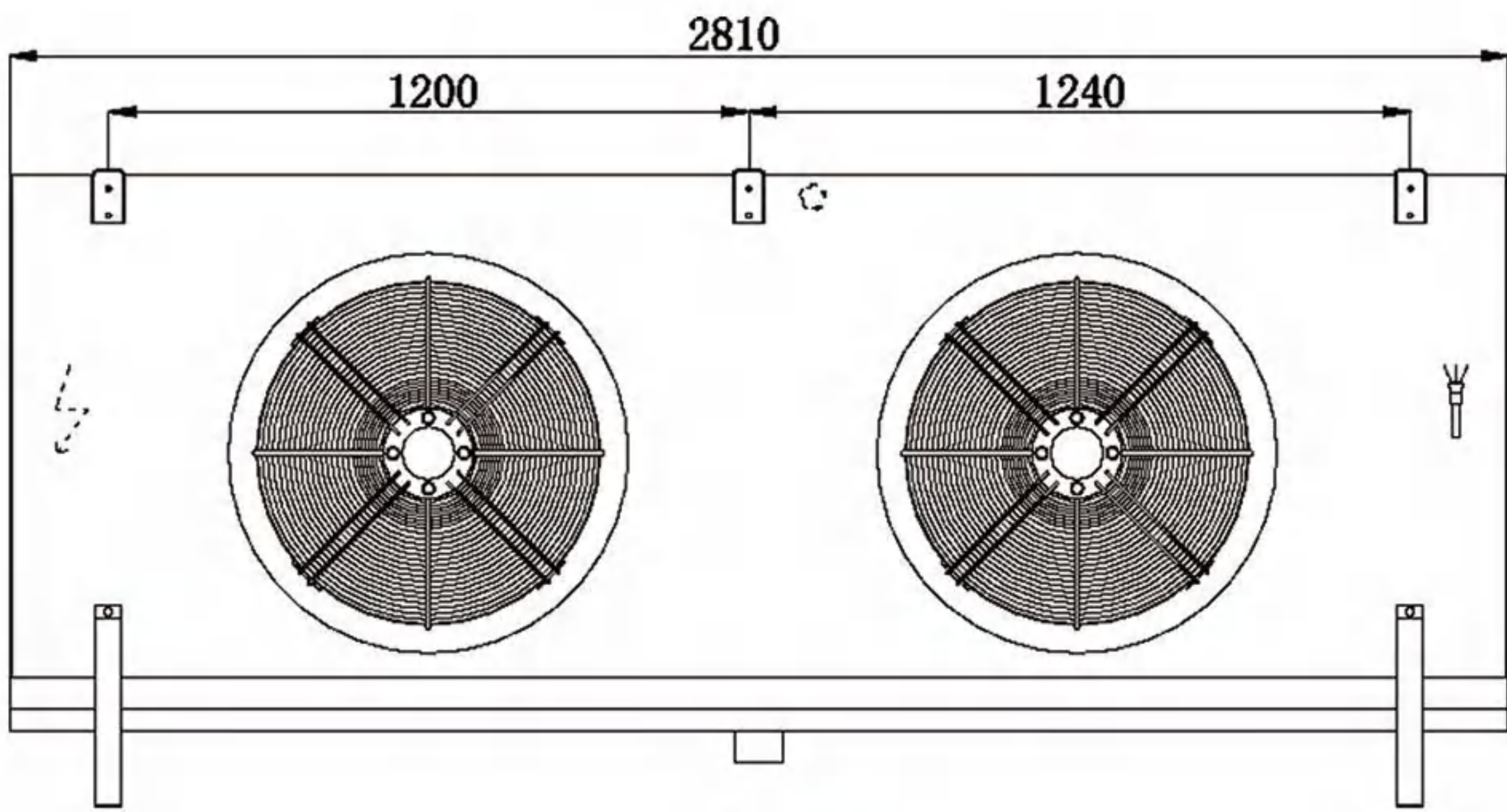


EW series water defrosting ceiling-type air cooler

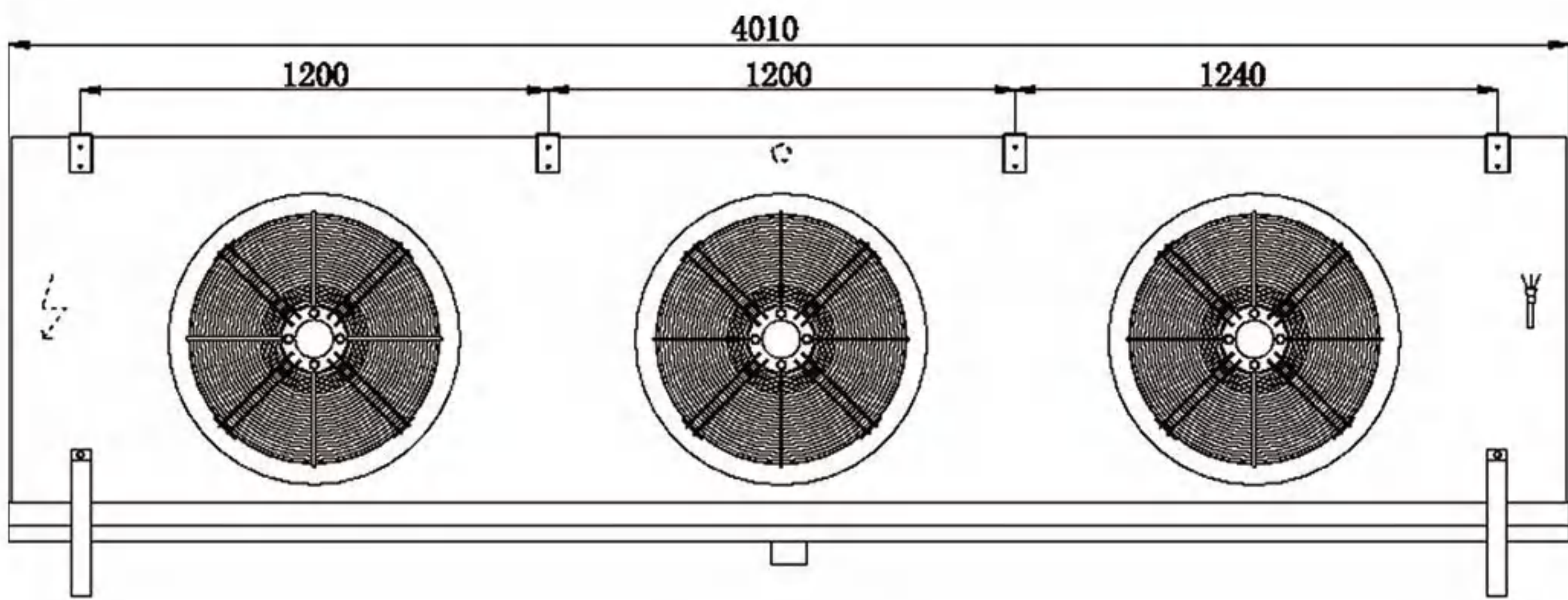
EW63 series



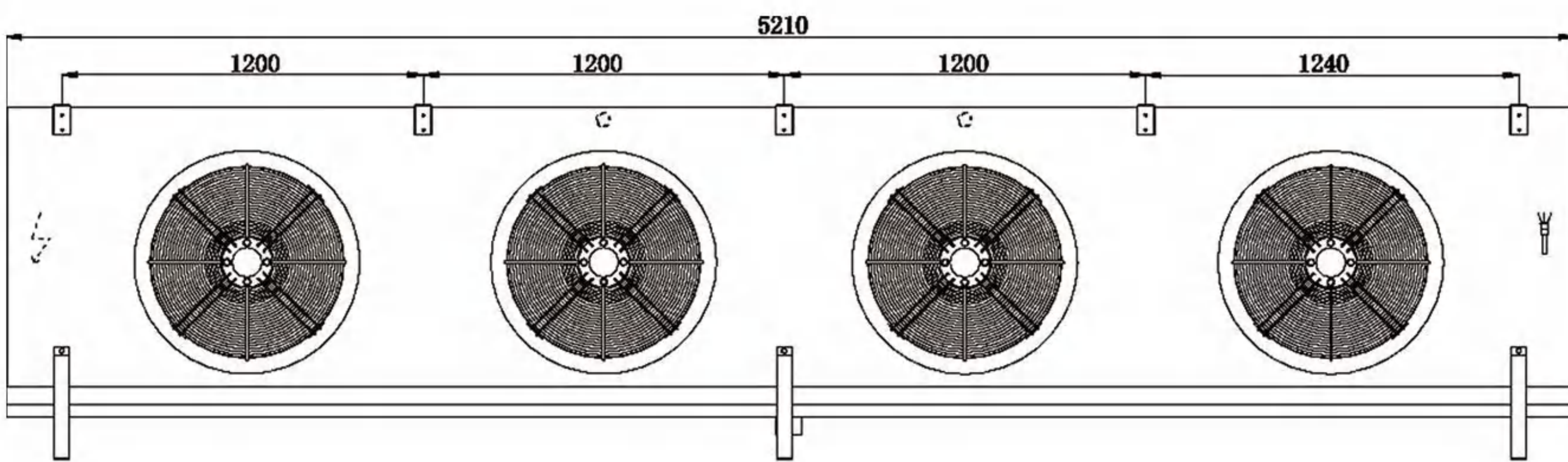
EW631



EW632



EW633



EW634

Cooling capacity correction coefficient and selection guide of air cooler with fluorine

Cooling capacity correction coefficient of air cooler with fluorine

1. Temperature difference correction coefficient:
K1 (based on nominal cooling capacity at the evaporation temperature of -8°C, cold room temperature of 0°C, and heat transfer temperature difference of 8K):

ΔT (K)	Cold room temperature(°C)															
	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4	5	8	10	15
4	0.44	0.44	0.44	0.45	0.46	0.48	0.49	0.5	0.52	0.54	0.55	0.57	0.59	0.59	0.59	0.59
5	0.54	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.65	0.67	0.69	0.71	0.73	0.73	0.73	0.73
6	0.65	0.65	0.66	0.68	0.70	0.71	0.73	0.75	0.78	0.80	0.83	0.85	0.88	0.88	0.88	0.88
7	0.76	0.76	0.77	0.79	0.81	0.83	0.85	0.87	0.90	0.94	0.97	1.0	1.03	1.03	1.03	1.03
8	0.87	0.87	0.88	0.90	0.93	0.95	0.98	1.00	1.04	1.07	1.10	1.14	1.17	1.17	1.17	1.17
9	0.98	0.98	0.99	1.02	1.04	1.07	1.10	1.13	1.16	1.20	1.24	1.28	1.32	1.32	1.32	1.32
10	1.09	1.09	1.10	1.13	1.16	1.19	1.22	1.25	1.29	1.34	1.38	1.42	1.47	1.47	1.47	1.47

ΔT is the heat transfer temperature difference, that is, the difference between the cold room temperature and the evaporation temperature.
The heat transfer temperature difference, cold room temperature, cooling capacity of the air cooler are different; according to this table, the nominal cooling capacity of the air cooler can be calculated under different working conditions.

2. Refrigerant correction coefficient K2:

Refrigerant	Cold room temperature(°C)															
	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4	5	8	10	15
R404A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R507A	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
R448A	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
R134a	-	-	-	-	0.86	0.88	0.89	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93
R22	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95

3. Fin material correction coefficient K3:

Fin material	Correction coefficient
Light aluminum foil	1.0
Coated aluminum foil	0.97

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Cooling capacity correction coefficient and selection guide of air cooler with fluorine

Selection guide of direct expansion air cooler with fluorine

The air cooler should be reasonably selected according to the required cooling capacity, cold room temperature, heat transfer temperature difference, refrigerant and application.

The key points of selection are listed below:

1. Based on the evaporation temperature designed for the refrigeration system, the heat transfer temperature difference (ΔT): $\Delta T = T_c - T_e$ can be determined (T_c : cold room temperature, T_e : evaporation temperature), and the heat transfer temperature difference is generally within the range of 5-10K.

The correspondence between cold room temperature, evaporation temperature and heat transfer temperature difference can be referred to in the table below:

Cold room temperature	10℃	0℃	-18℃	-25℃	-35℃
Recommended evaporation temperature	0℃	-8℃	-25℃	-31℃	-41℃
Heat transfer temperature difference	10K	8K	7K	6K	6K

For example, if the design evaporation temperature is -8℃ and the cold room temperature is required to be 2℃, then $\Delta T = 2 - (-8) = 10K$;

2. The required nominal cooling capacity Q_n is determined:

Based on the actual required cooling capacity, the required nominal cooling capacity is calculated, that is, the nominal cooling capacity at the evaporation temperature of -8℃, cold room temperature of 0℃, and heat transfer temperature difference of 8K in the data. It can be calculated with the following formula:

$Q_n = Q / (K_1 \times K_2 \times K_3)$
Formula: Q - Cooling capacity required of the air cooler matching the compressor (KW);
 K_1 —Nominal cooling capacity correction coefficient of working conditions, see the above table;
 K_2 —Refrigerant correction coefficient; see the table above
 K_3 —Fin material correction coefficient; see the table above

The nominal cooling capacity of the selected air cooler shall not be less than that required in calculation.

3. Reasonably select the fin pitch of the air cooler:

The fin pitch selected has a great impact on the operation of the air cooler; when it is running below 0℃, or when the humidity in the store is high, if the fin pitch is too small, it is easy to cause rapid frosting and affect the operation of the air cooler. Refer to the table below:

Cold room temperature	0-15℃	-2~-18℃	-18~-28℃	-25~-35℃
Recommended pitch	4.0mm	6.0mm	9.0mm	12.0mm

Example of selecting "Kaidi" air cooler with fluorine

Example 1: The temperature in a cold storage is required to be 0-5℃; the store is mainly used for the preservation and storage of fruits, vegetables and other agricultural products; the required cooling capacity is 50KW, and the refrigerant is R507A; according to the evaporation temperature of -10℃, a BITZER 4FE-28Y air-cooled unit is selected, and the cooling capacity is 49.6KW under the condition with the evaporation temperature of -10℃ and the condensation temperature of 45℃. The selection of the air cooler is stated below:

1) Calculation of the heat transfer temperature difference: Based on the evaporation temperature of -10℃ and the cold room temperature of 0℃, the heat transfer temperature difference is 10K;

2) Calculation of the nominal cooling capacity required: $Q_n = Q / (K_1 \times K_2 \times K_3)$
Based on the heat transfer temperature difference of 10K and the cold room temperature of 0℃, refer to the table: $K_1 = 1.25$
Based on the refrigerant R507A used, refer to the table: $K_2 = 0.97$
If the fins made of hydrophilic aluminum foil are used, refer to the table; $K_3 = 0.97$
Then, $Q_n = Q / (K_1 \times K_2 \times K_3) = 49.6 / (1.25 \times 0.97 \times 0.97) = 42.2KW$, the nominal cooling capacity of the air cooler required is 42.2KW

3) Based on the operating temperature of 0-5℃, the 4.0mm fin pitch can be selected.
According to the above conditions, an EL504/EL air cooler can be selected, with a nominal cooling capacity of 43.3KW with a margin of +2.6%.

Example 2: The temperature in a cold storage is required to be 0-5℃; the store is mainly used for the preservation and storage of fruits, vegetables and other agricultural products; the required cooling capacity is 50KW, and the refrigerant is R507A; according to the evaporation temperature of -10℃, a BITZER 4GE-23Y air-cooled unit is selected, and the cooling capacity is 49.9KW under the condition with the evaporation temperature of 6℃ and the condensation temperature of 45℃. The selection of the air cooler is stated below:

1) Calculation of the heat transfer temperature difference: Based on the evaporation temperature of -6℃ and the cold room temperature of 0℃, the heat transfer temperature difference is 6K;

2) Calculation of the nominal cooling capacity required: $Q_n = Q / (K_1 \times K_2 \times K_3)$
Based on the heat transfer temperature difference of 6K and the cold room temperature of 0℃, refer to the table: $K_1 = 0.75$
Based on the refrigerant R507A used, refer to the table: $K_2 = 0.97$
If the fins made of hydrophilic aluminum foil are used, refer to the table; $K_3 = 0.97$
Then, $Q_n = Q / (K_1 \times K_2 \times K_3) = 49.9 / (0.75 \times 0.97 \times 0.97) = 70.7KW$, the nominal cooling capacity of the air cooler required is 70.7KW

3) Based on the operating temperature of 0-5℃, the 4.0mm fin pitch can be selected.
According to the above conditions, an EL634/EL air cooler can be selected, with a nominal cooling capacity of 73.5KW with a margin of +4%.

In Example 1 and 2, it is illustrated that the selection conclusion is different based on the same cooling capacity and the different heat transfer temperature differences. If the compressor in Example 2 is equipped with the air cooler in Example 1, because the air cooler becomes smaller, the cooling capacity of the compressor should match that of the air cooler during operation, resulting in a decrease in the evaporation temperature of the compressor from -6℃ to -8.5℃, and the cooling capacity from the designed value of 50KW to 44.8KW!

Example 3: The temperature in a cold storage is required to be -23~-25℃; the store is mainly used for the preservation and storage of frozen sea foods; the required cooling capacity is 25KW, and the refrigerant is R507A; according to the evaporation temperature of -31℃, a BITZER 6FE-44Y air-cooled unit is selected, and the cooling capacity is 25.8KW under the condition with the evaporation temperature of 6℃ and the condensation temperature of 45℃. The selection of the air cooler is stated below:

1) Calculation of the heat transfer temperature difference: Based on the evaporation temperature of -31℃ and the cold room temperature of -25℃, the heat transfer temperature difference is 6K;

2) Calculation of the nominal cooling capacity required: $Q_n = Q / (K_1 \times K_2 \times K_3)$
Based on the heat transfer temperature difference of 6K and the cold room temperature of -25℃, refer to the table: $K_1 = 0.66$
Based on the refrigerant R507A used, refer to the table: $K_2 = 0.97$
If the fins made of hydrophilic aluminum foil are used, refer to the table; $K_3 = 0.97$
Then, $Q_n = Q / (K_1 \times K_2 \times K_3) = 25.8 / (0.66 \times 0.97 \times 0.97) = 41.5KW$, the nominal cooling capacity of the air cooler required is 41.5KW

3) Based on the operating temperature of -25℃, the 9.0mm fin pitch can be selected.
According to the above conditions, an EL633/FJ air cooler can be selected, with a nominal cooling capacity of 43.8KW with a margin of +5.5%.

ECG series commercial dual discharge air cooler with ethylene glycol



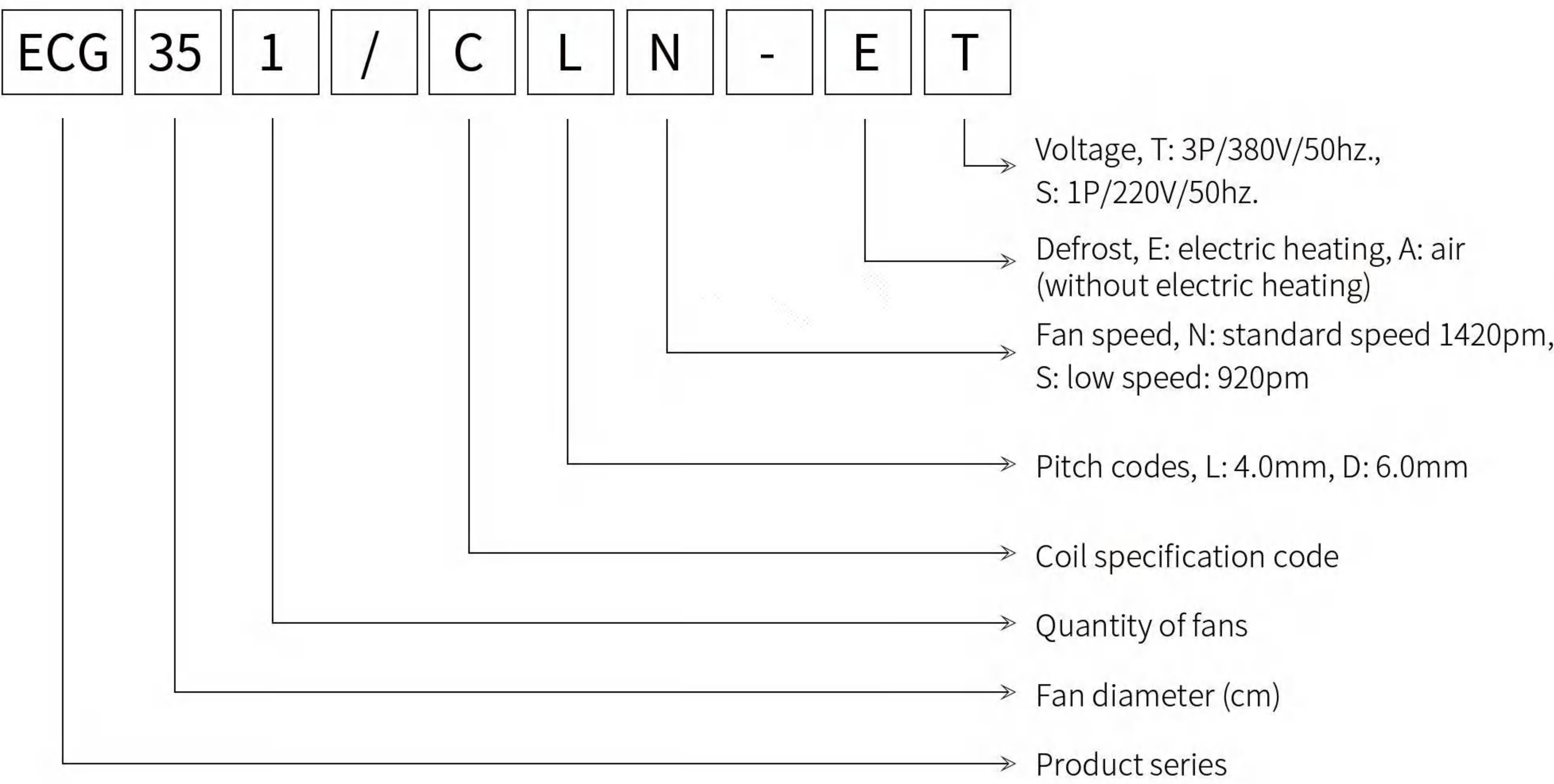
I. Product Overview:

ECG series air cooler with ethylene glycol developed by our company is designed with ultra-thin structure, with air inlet at bottom and air supply on both sides, which is mainly used for cold storage with ethylene glycol aqueous solution as refrigerant. The product installation space is small, which is mainly used in the processing room with operators with low-temperature ethylene glycol aqueous solution as the refrigerant. ECG series air cooler can meet the requirements of cold storage at about 10°C, 0°C and -18°C respectively. This series of products has the following characteristics:

- 1. Casing: Made of aluminum plate sprayed with powder coating (silver gray RAL9006), featuring high corrosion resistance and lightweight;
- 2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
- 3. Double drain trays design: The outer water plate is designed with overall hinge structure, which is convenient for operation; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate via the specially designed water trough;
- 4. Coil: Tube spacing 38.1×33 in triangle arrangement, with high heat transfer efficiency;
- 5. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm and 6.0mm to meet the requirements of different temperatures and humidity;
- 6. Fan: Specifications: φ350, high-speed and low-speed design in line with requirements of different noises, operating temperature: -30~60 °C, quantity of fans: 1-4;
- 7. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and the inner water plate, which can bring about desirable defrosting effect;
- 8. The IP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
- 9. It is subjected to strict factory pressure test at the pressure of 23bar;



II. Model Explanation:



III. Standard Configuration and Options

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	●	Aluminum foil	Normal aluminium foil	○
	Powder coated steel plate	○		Hydrophilic aluminum foil (blue foil)	●
	Powder coated galvanized sheet	○	Defrost	Air defrost	○
	Stainless steel plate	○		Defrosting with electric heating	●
Motor	Weiguang external rotor motor	●	Defrosting with water		×
	EBM external rotor motor	○	Drain heater		○
	Air tube fan	×	Fan tube heater		×

Note: ●: Standard component; ○: Optional component; ×: Not available.

ECG series commercial dual discharge air cooler with ethylene glycol



IV. Performance Datasheet:

Low fan speed (920rpm)

◆ Fin pitch 4.0mm

Standard fan speed (1420rpm)

◆ Fin pitch 4.0mm

Model	Ethylene glycol 25% T ₁ =-3℃, T ₂ =2℃ Tr=10℃, RH85%		Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)					Inlet	Outlet	Drain	
ECG351/CLN-ET	3.5	0.6	2.6	0.8	13.1	2.5	2200	6	φ 22	φ 22	G1"	31
ECG351/DLN-ET	4.4	0.8	3.2	1.0	17.5	3.4	2000	6	φ 22	φ 22	G1"	33
ECG352/CLN-ET	7.1	1.3	5.1	1.6	26.3	4.7	4400	8	φ 28	φ 28	G1"	51
ECG352/DLN-ET	8.8	1.6	6.3	2.0	35.0	6.3	4000	8	φ 28	φ 28	G1"	55
ECG353/CLN-ET	10.6	2.0	7.7	2.5	39.4	6.9	6600	10	φ 28	φ 28	G1"	73
ECG353/DLN-ET	13.1	2.4	9.4	3.0	52.5	9.2	6000	10	φ 35	φ 35	G1"	79
ECG354/CLN-ET	14.2	2.6	10.2	3.3	52.5	9.1	8800	12	φ 35	φ 35	G1"	93
ECG354/DLN-ET	17.5	3.2	12.6	4.0	70.0	12.2	8000	12	φ 35	φ 35	G1"	100

Model	Ethylene glycol 25% T ₁ =-3℃, T ₂ =2℃ Tr=10℃, RH85%		Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)					Inlet	Outlet	Drain	
ECG351/CLS-ET	2.9	0.5	1.8	0.6	13.1	2.5	1150	5	φ 22	φ 22	G1"	31
ECG351/DLS-ET	3.5	0.6	2.1	0.7	17.5	3.4	1300	5	φ 22	φ 22	G1"	33
ECG352/CLS-ET	5.8	1.1	3.7	1.2	26.3	4.7	2300	7	φ 28	φ 28	G1"	51
ECG352/DLS-ET	7.0	1.3	4.2	1.3	35.0	6.3	2600	7	φ 28	φ 28	G1"	55
ECG353/CLS-ET	8.7	1.6	5.5	1.8	39.4	6.9	3450	8	φ 28	φ 28	G1"	73
ECG353/DLS-ET	10.5	1.9	6.3	2.0	52.5	9.2	3900	8	φ 35	φ 35	G1"	79
ECG354/CLS-ET	11.6	2.1	7.4	2.4	52.5	9.1	4600	10	φ 35	φ 35	G1"	93
ECG354/DLS-ET	14.0	2.6	8.4	2.7	70.0	12.2	5200	10	φ 35	φ 35	G1"	100

Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

◆ Fin pitch 6.0mm

◆ Fin pitch 6.0mm

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Ethylene glycol 50% T ₁ =-28℃, T ₂ =-25℃ Tr=-18℃, RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)					Inlet	Outlet	Drain	
ECG351/CDN-ET	2.1	0.7	1.9	0.7	9.0	2.5	2350	6	φ 22	φ 22	G1"	30
ECG351/DDN-ET	2.6	0.8	2.4	0.8	12.0	3.4	2200	6	φ 22	φ 22	G1"	32
ECG352/CDN-ET	4.3	1.4	3.9	1.4	18.1	4.7	4700	8	φ 28	φ 28	G1"	50
ECG352/DDN-ET	5.3	1.7	4.8	1.7	24.1	6.3	4400	8	φ 28	φ 28	G1"	53
ECG353/CDN-ET	6.4	2.0	5.8	2.0	27.1	6.9	7050	10	φ 28	φ 28	G1"	71
ECG353/DDN-ET	7.9	2.5	7.2	2.5	36.1	9.2	6600	10	φ 35	φ 35	G1"	76
ECG354/CDN-ET	8.5	2.7	7.8	2.7	36.1	9.1	9400	12	φ 35	φ 35	G1"	91
ECG354/DDN-ET	10.6	3.4	9.6	3.4	48.2	12.2	8800	12	φ 35	φ 35	G1"	97

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Ethylene glycol 50% T ₁ =-28℃, T ₂ =-25℃ Tr=-18℃, RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)					Inlet	Outlet	Drain	
ECG351/CDS-ET	1.5	0.5	1.3	0.5	9.0	2.5	1300	5	φ 22	φ 22	G1"	30
ECG351/DDS-ET	1.8	0.6	1.6	0.6	12.0	3.4	1450	5	φ 22	φ 22	G1"	32
ECG352/CDS-ET	3.1	1.0	2.7	1.0	18.1	4.7	2600	7	φ 28	φ 28	G1"	50
ECG352/DDS-ET	3.6	1.2	3.1	1.2	24.1	6.3	2900	7	φ 28	φ 28	G1"	53
ECG353/CDS-ET	4.6	1.5	4.1	1.5	27.1	6.9	3900	8	φ 28	φ 28	G1"	71
ECG353/DDS-ET	5.4	1.7	4.7	1.7	36.1	9.2	4350	8	φ 35	φ 35	G1"	76
ECG354/CDS-ET	6.1	2.0	5.4	2.0	36.1	9.1	5200	10	φ 35	φ 35	G1"	91
ECG354/DDS-ET	7.2	2.3	6.3	2.3	48.2	12.2	5800	10	φ 35	φ 35	G1"	97

Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

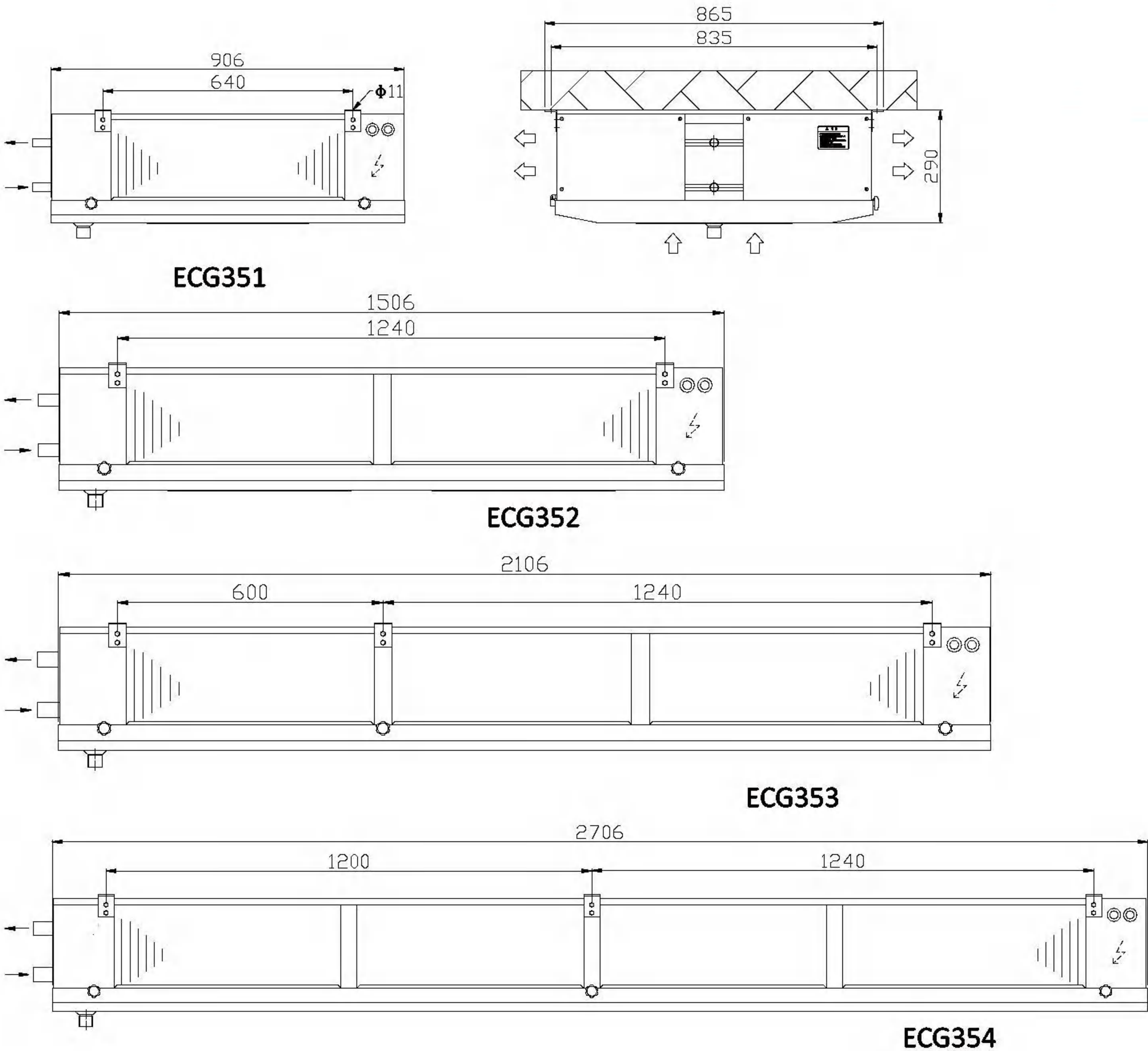
Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

ECG series commercial dual discharge air cooler with ethylene glycol

V. Electrical Parameters:

Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
ECG351/**N-ET	380-3	165	0.43	1420	2×0.6	2×0.6	2.4
ECG352/**N-ET	380-3	330	0.86	1420	2×1.1	2×1.1	4.4
ECG353/**N-ET	380-3	495	1.29	1420	2×1.6	2×1.6	6.4
ECG354/**N-ET	380-3	660	1.72	1420	2×2.0	2×2.0	8.0
ECG351/**S-ET	380-3	80	0.32	920	2×0.6	2×0.6	2.4
ECG352/**S-ET	380-3	160	0.64	920	2×1.1	2×1.1	4.4
ECG353/**S-ET	380-3	240	0.96	920	2×1.6	2×1.6	6.4
ECG354/**S-ET	380-3	320	1.28	920	2×2.0	2×2.0	8.0

VI. Outline and Installation Dimension



EHG series commercial ceiling-type air cooler with ethylene glycol

I. Product Overview:

EHG series commercial air cooler with ethylene glycol developed by our company is mainly designed with $\phi 12$ copper tube, which is mainly used with ethylene glycol aqueous solution as refrigerant. EHG series air cooler can meet the requirements of cold storage at about 10°C , 0°C and -18°C respectively, which can meet the requirements of cold storage with low and medium cooling capacity.

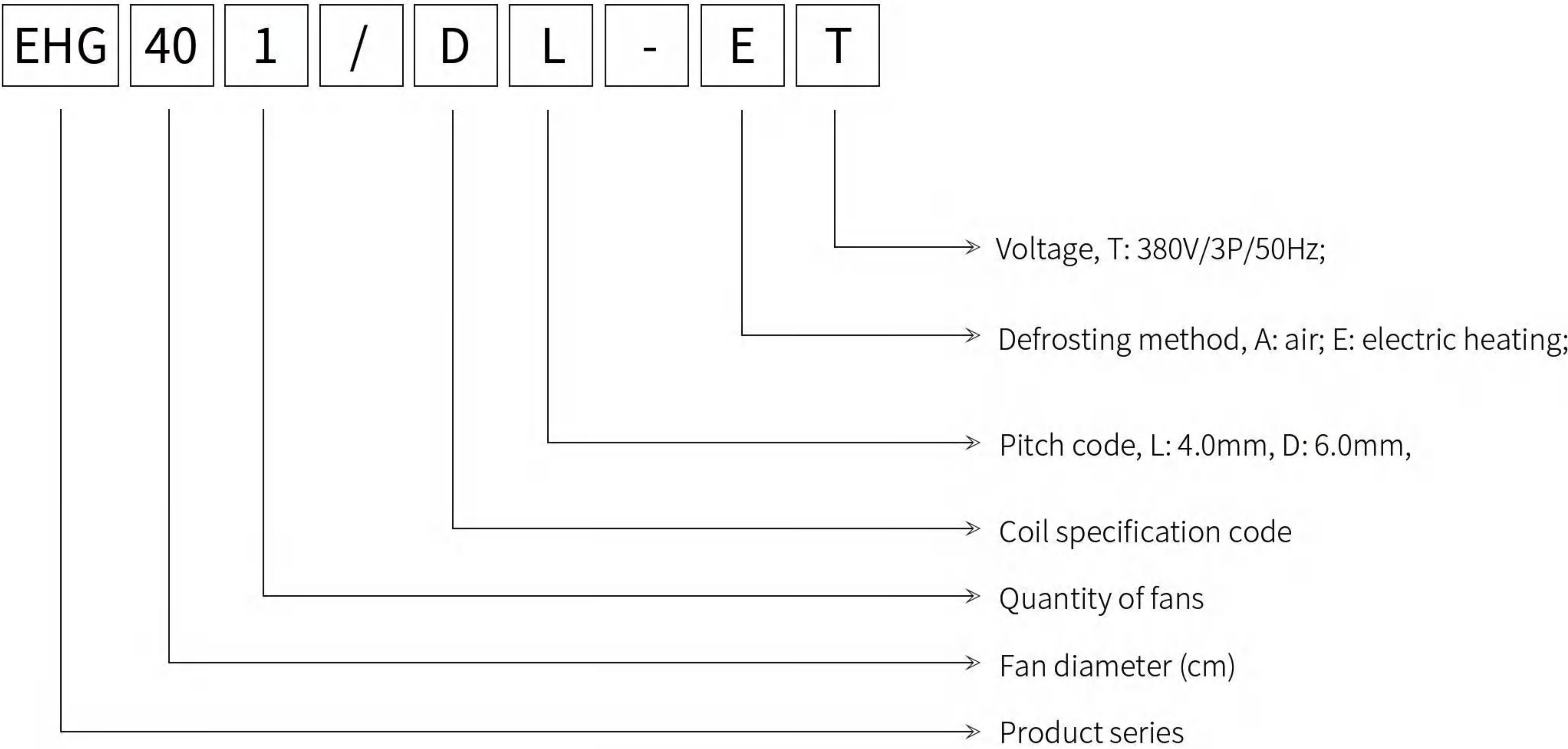
1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; both the side plates and the outer water plate are designed with hinged structure, which is convenient to operate;
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Double drain trays design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
4. Designed with overall stretching large arc high air tube, it has the characteristics of excellent air guiding effect.
5. For fans with a diameter of 500, there are floor supports for easy installation;
6. Coil: Tube spacing 38.1×33 in triangle arrangement, with high heat exchange efficiency;
7. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm and 6.0mm to meet the requirements of different temperatures and humidity;
8. Fan: High-power external rotor fan, operating temperature: $-30^{\circ}\text{C} \sim 60^{\circ}\text{C}$; fan specifications: $\phi 350$, $\phi 400$, $\phi 500$, product series of different specifications, giving users more choices;
9. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and the inner water plate, which can bring about desirable defrosting effect;
10. The IP65 waterproof junction box are used in fan and heating tube, with better waterproofing, which can lead to high reliability;
11. It is subjected to strict pressure test at the pressure of 23bar;



EHG series commercial ceiling-type air cooler with ethylene glycol



II. Model Explanation:



III. Standard Configuration and Options

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Aluminum foil	Normal aluminium foil	○
	Powder coated steel plate	○		Hydrophilic aluminum foil (blue foil)	●
	Powder coated galvanized sheet	●	Defrost	Air defrost	○
	Stainless steel plate*	○		Defrosting with electric heating	●
Motor	Weiguang external rotor motor	●	Defrosting with water		×
	EBM external rotor motor*	○	Drain heater		○
	Air tube fan	○	Fan tube heater		○

Note: ●: Standard component; ○: Optional component; ×: Not available. * Regular fan tube

IV. Performance Datasheet

◆ Fin pitch 4.0mm

Model	Ethylene glycol 25% T ₁ =-3℃, T ₂ =2℃ Tr=10℃, RH85%		Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)	m ²	dm ³	m ³ /h	m	Inlet	Outlet	Drain	kg
350 fan series												
EHG351/CL-ET	2.9	0.5	2.2	0.7	10.9	2.2	2050	7	16	16	G1"	36
EHG351/DL-ET	3.6	0.7	2.6	0.8	14.6	2.9	1850	7	16	16	G1"	37
EHG352/CL-ET	5.9	1.1	4.4	1.4	21.9	4.0	4100	9	22	22	G1"	56
EHG352/DL-ET	7.3	1.4	5.3	1.7	29.2	5.3	3700	9	22	22	G1"	59
EHG353/CL-ET	8.9	1.6	6.6	2.1	32.8	5.8	6150	10	28	28	G1"	77
EHG353/DL-ET	11.0	2.0	7.8	2.5	43.8	7.8	5550	10	28	28	G1"	81
EHG354/CL-ET	11.8	2.2	8.8	2.8	43.8	7.7	8200	11	28	28	G1"	98
EHG354/DL-ET	14.6	2.7	10.5	3.4	58.4	10.2	7400	11	35	35	G1"	104
400 fan series												
EHG401/DL-ET	6.0	1.1	4.2	1.4	23.2	4.5	3600	11	22	22	G1"	47
EHG401/FL-ET	8.4	1.6	5.8	1.9	35.0	6.7	2950	11	28	28	G1"	52
EHG402/DL-ET	12.1	2.3	8.4	2.7	46.7	8.4	7200	12	28	28	G1.5"	77
EHG402/FL-ET	16.8	3.1	11.5	3.7	70.0	12.6	5900	12	35	35	G1.5"	86
EHG403/DL-ET	18.2	3.4	12.6	4.0	70.0	12.3	10800	13	35	35	G1.5"	106
EHG403/FL-ET	25.2	4.7	17.3	5.6	105.0	18.4	8850	13	42	42	G1.5"	120
EHG404/DL-ET	24.2	4.5	16.8	5.4	93.4	16.2	14400	14	42	42	G1.5"	132
EHG404/FL-ET	33.6	6.2	23.1	7.4	140.1	24.3	11800	14	50	50	G1.5"	151
500 fan series												
EHG501/DL-ET	10.6	2.0	7.3	2.4	39.4	7.2	6500	17	28	28	G1.5"	78
EHG501/FL-ET	14.7	2.7	10.0	3.2	59.1	10.8	5400	16	35	35	G1.5"	86
EHG502/DL-ET	21.2	3.9	14.5	4.7	78.8	13.8	13000	19	35	35	G1.5"	124
EHG502/FL-ET	29.5	5.5	20.1	6.5	118.2	20.7	10800	18	42	42	G1.5"	139
EHG503/DL-ET	31.9	5.9	21.9	7.0	118.2	20.4	19500	21	42	42	G2"	171
EHG503/FL-ET	44.3	8.2	30.1	9.7	177.3	30.7	16200	20	50	50	G2"	194
EHG504/DL-ET	42.5	7.8	29.1	9.3	157.6	27.0	26000	22	50	50	G2"	219
EHG504/FL-ET	59.1	10.9	40.2	12.9	236.4	40.6	21600	21	50	50	G2"	251

Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

EHG series commercial ceiling-type air cooler with ethylene glycol



◆ Fin pitch 6.0mm

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Ethylene glycol 50% T ₁ =-28℃, T ₂ =-25℃ Tr=-18℃, RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (kW)	Flow (m3/h)	Cooling capacity (kW)	Flow (m3/h)	m ²	dm ³	m ³ /h	m	Inlet	Outlet	Drain	kg
350 fan series												
EHG351/CD-ET	1.8	0.6	1.6	0.6	7.5	2.2	2100	8	16	16	G1"	35
EHG351/DD-ET	2.2	0.7	2.0	0.7	10.0	2.9	1900	8	16	16	G1"	37
EHG352/CD-ET	3.6	1.1	3.3	1.1	15.0	4.0	4200	10	22	22	G1"	55
EHG352/DD-ET	4.4	1.4	4.0	1.4	20.0	5.3	3800	10	22	22	G1"	58
EHG353/CD-ET	5.4	1.7	5.0	1.8	22.6	5.8	6300	11	28	28	G1"	75
EHG353/DD-ET	6.6	2.1	6.0	2.1	30.0	7.8	5700	11	28	28	G1"	79
EHG354/CD-ET	7.2	2.3	6.6	2.3	30.0	7.7	8400	12	28	28	G1"	97
EHG354/DD-ET	8.8	2.8	8.0	2.8	40.1	10.2	7600	12	35	35	G1"	102
400 fan series												
EHG401/DD-ET	3.5	1.2	3.2	1.2	16.1	4.5	3700	12	22	22	G1"	47
EHG401/FD-ET	5.1	1.6	4.5	1.6	24.1	6.7	3200	12	28	28	G1"	51
EHG402/DD-ET	7.0	2.3	6.4	2.5	32.1	8.4	7400	13	28	28	G1.5"	75
EHG402/FD-ET	10.0	3.2	9.1	3.2	48.2	12.6	6400	13	35	35	G1.5"	83
EHG403/DD-ET	10.6	3.4	9.6	3.4	48.2	12.3	11100	14	35	35	G1.5"	104
EHG403/FD-ET	15.1	4.9	13.7	4.8	72.2	18.4	9600	14	42	42	G1.5"	116
EHG404/DD-ET	14.1	4.5	12.8	4.5	64.2	16.2	14800	15	42	42	G1.5"	129
EHG404/FD-ET	20.2	6.5	18.2	6.4	96.3	24.3	12800	15	50	50	G1.5"	145
500 fan series												
EHG501/DD-ET	5.9	1.9	5.4	1.9	27.1	7.2	6800	18	28	28	G1.5"	77
EHG501/FD-ET	8.5	2.7	7.7	2.7	40.6	10.8	5800	17	35	35	G1.5"	84
EHG502/DD-ET	11.9	3.8	10.8	3.8	54.2	13.8	13600	20	35	35	G1.5"	120
EHG502/FD-ET	17.1	5.5	15.4	5.4	81.3	20.7	11600	19	42	42	G1.5"	134
EHG503/DD-ET	17.9	5.7	16.3	5.7	81.3	20.4	20400	22	42	42	G2"	165
EHG503/FD-ET	25.5	8.2	23.1	8.1	121.9	30.7	17400	21	50	50	G2"	187
EHG504/DD-ET	23.8	7.6	21.6	7.6	108.3	27.0	27200	23	50	50	G2"	212
EHG504/FD-ET	34.1	10.9	30.9	10.8	162.5	40.6	23200	22	50	50	G2"	240

Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

V. Electrical Parameters:

Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EHG351*	380-3	129	0.4	1400	2×0.5	1×0.5	1.5
EHG352*	380-3	258	0.8	1400	2×0.9	1×0.9	2.7
EHG353*	380-3	387	1.2	1400	2×1.3	1×1.3	3.9
EHG354*	380-3	516	1.6	1400	2×1.7	1×1.7	5.1
EHG401/D*	380-3	205	0.51	1380	3×0.6	1×0.6	2.4
EHG401/F*	380-3	205	0.51	1380	5×0.6	1×0.6	3.6
EHG402/D*	380-3	410	1.02	1380	3×1.1	1×1.1	4.4
EHG402/F*	380-3	410	1.02	1380	5×1.1	1×1.1	6.6
EHG403/D*	380-3	615	1.53	1380	3×1.6	1×1.6	6.4
EHG403/F*	380-3	615	1.53	1380	5×1.6	1×1.6	9.6
EHG404/D*	380-3	820	2.04	1380	3×2.0	1×2.0	8.0
EHG404/F*	380-3	820	2.04	1380	5×2.0	1×2.0	12.0
EHG501/D*	380-3	500	0.95	1380	3×0.8	2×0.8	4.0
EHG501/F*	380-3	500	0.95	1380	5×0.8	2×0.8	5.6
EHG502/D*	380-3	1000	1.9	1380	3×1.6	2×1.6	8.0
EHG502/F*	380-3	1000	1.9	1380	5×1.6	2×1.6	11.2
EHG503/D*	380-3	1500	2.85	1380	3×2.3	2×2.3	11.5
EHG503/F*	380-3	1500	2.85	1380	5×2.3	2×2.3	16.1
EHG504/D*	380-3	2000	3.8	1380	3×3.0	2×3.0	15.0
EHG504/F*	380-3	2000	3.8	1380	5×3.0	2×3.0	21.0

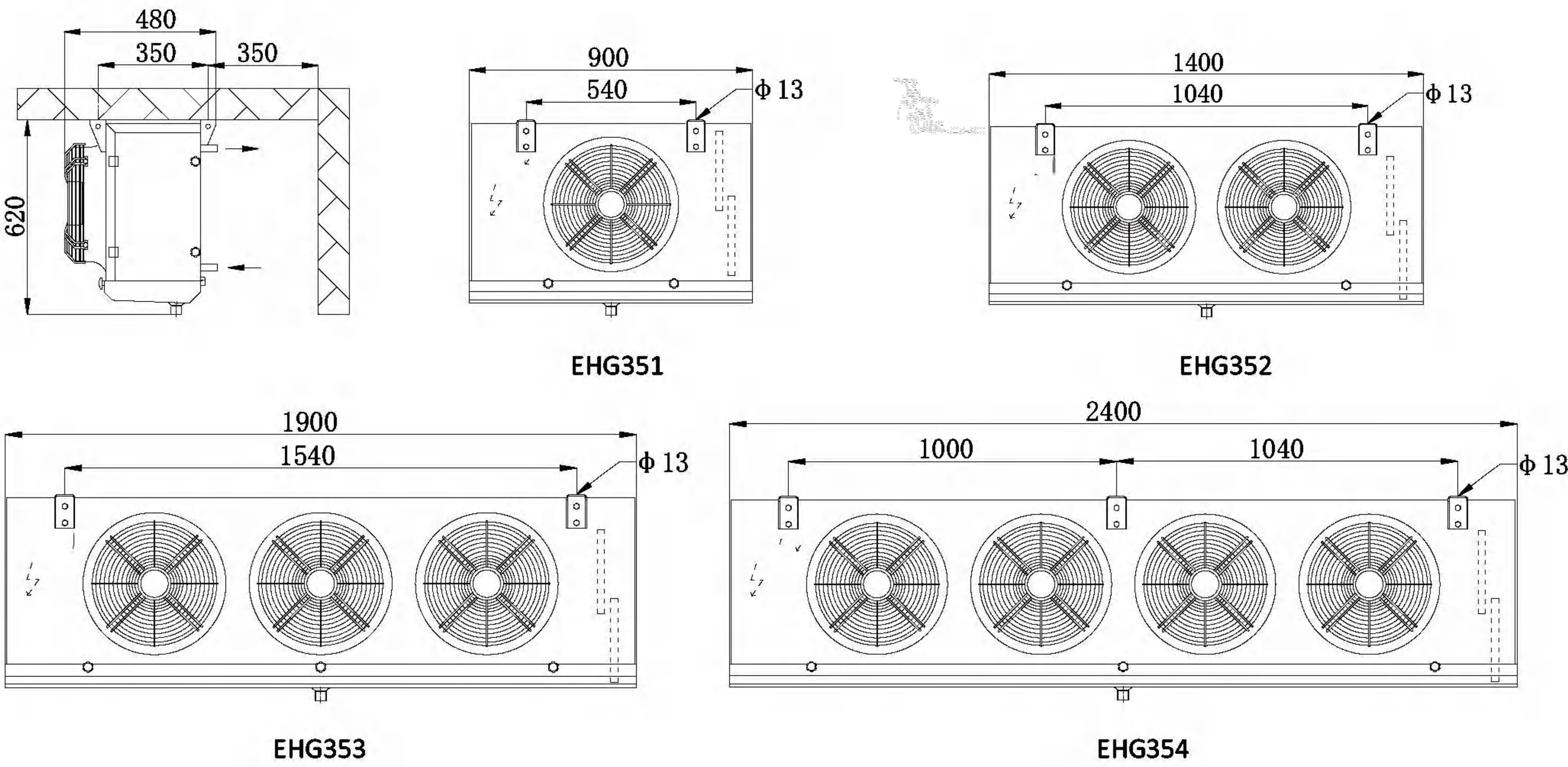


EHG series commercial ceiling-type air cooler with ethylene glycol

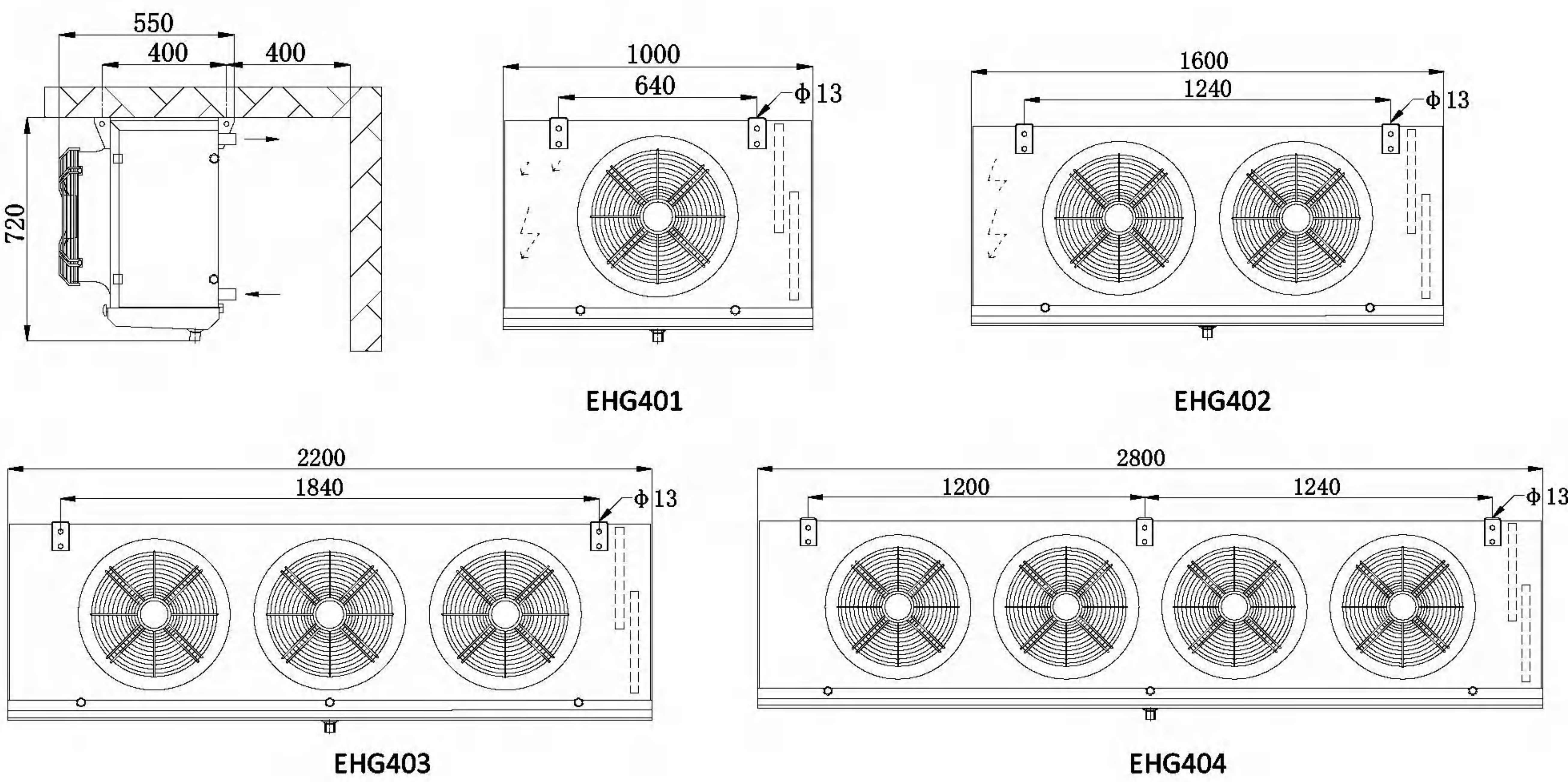


VI. Outline and Installation Dimension

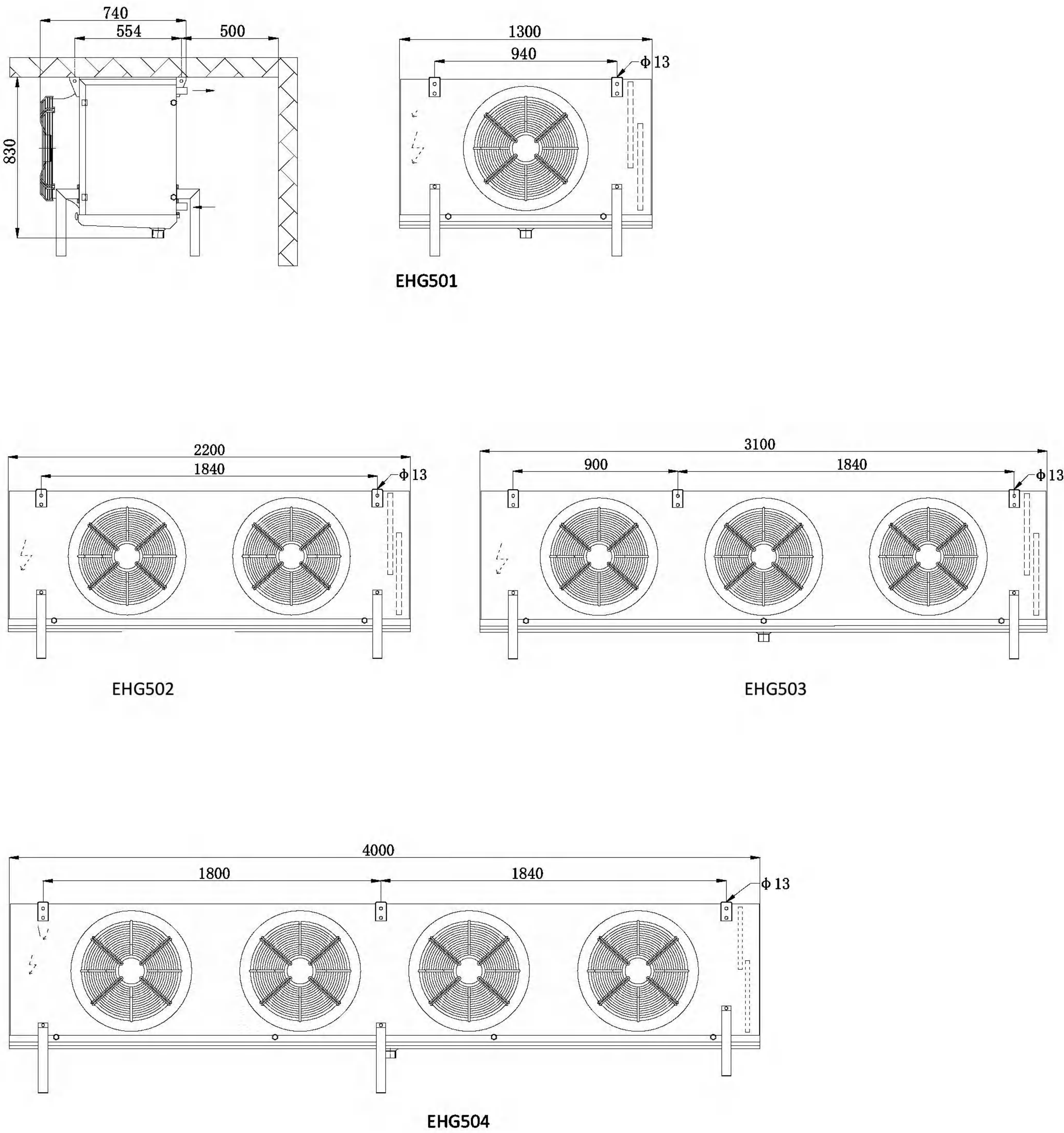
◆ EHG35 series



◆ EHG40 series



◆ EHG50 series



ECG series industrial dual discharge air cooler with ethylene glycol



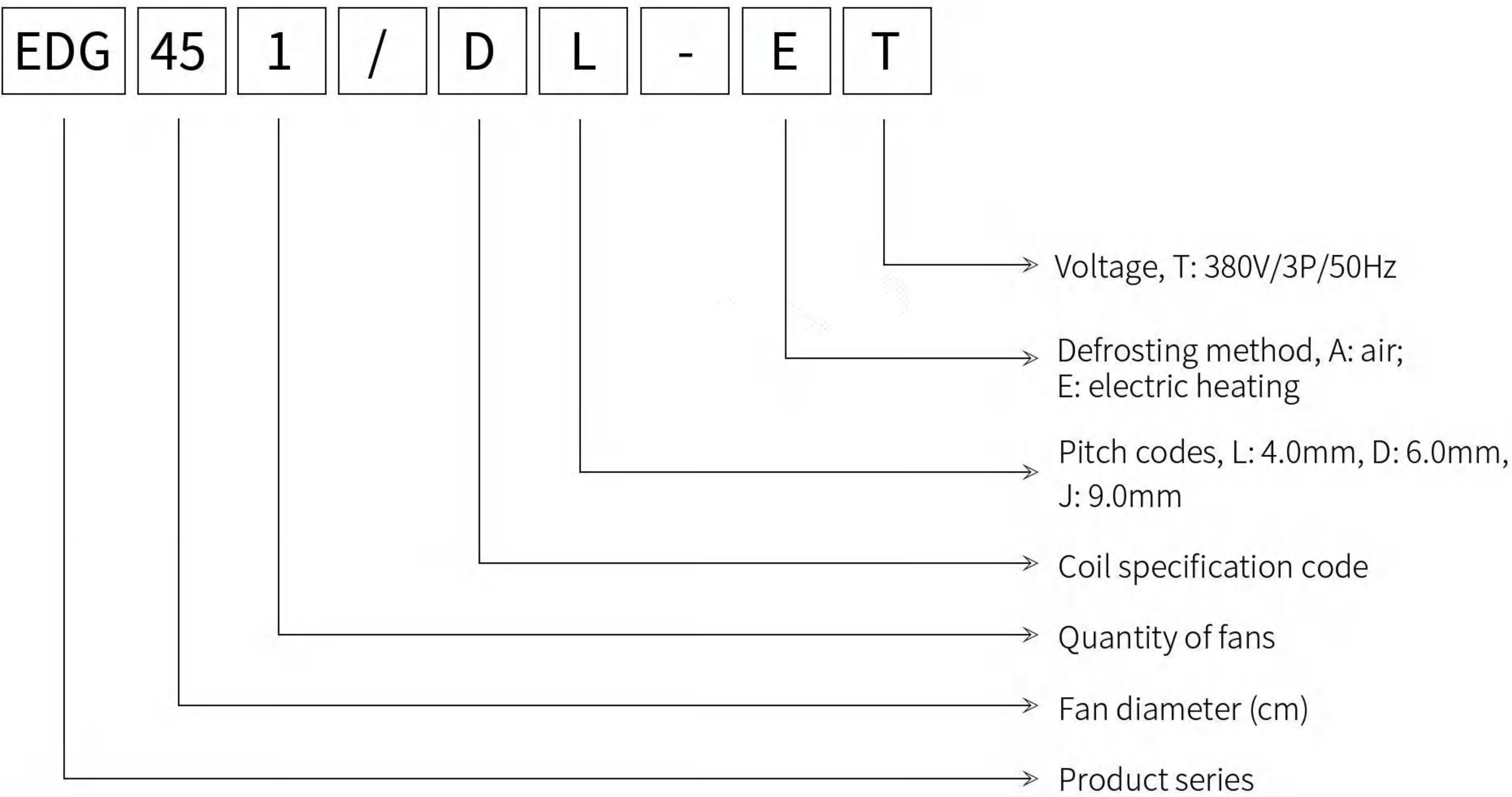
I. Product Overview:

EDG series air cooler developed by our company is designed with air inlet at bottom and air supply on both sides, which is mainly used for cold storage with ethylene glycol aqueous solution as refrigerant. The low-temperature ethylene glycol aqueous solution circulates in the heat exchange tube of the air cooler to absorb the external heat, so as to achieve the purpose of reducing the temperature in the store. EDG series air cooler can meet the requirements of cold storage at about 10°C, 0°C and -18°C respectively.

1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance; the outer water plate is designed with hinged structure, which is convenient to operate;
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Double drain trays design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
4. Coil: The aligned tube pattern 50 X 50 mm features large heat transfer area, low heat transfer temperature difference, low dry food consumption and slow frosting speed of fins;
5. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm, 6.0mm and 9.0mm to meet the requirements of different temperatures and humidity;
6. Fan: External rotor fan with blowing air, operating temperature: -30 °C ~ 60 °C; fan specifications: φ450 and φ500, product series of different specifications, giving users more choices;
7. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and the inner water plate, which can bring about desirable defrosting effect; the heating tube hole in the coil is equipped with an aluminum sleeve to improve the efficiency of defrosting effect;
8. The IP65 waterproof junction box are used in fan and heating tube, with better waterproofing, which can lead to high reliability;
9. It is subjected to strict pressure test at the pressure of 23bar;



II. Model Explanation:



III. Standard Configuration and Options

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Aluminum foil	Normal aluminium foil	○
	Powder coated steel plate	○		Hydrophilic aluminum foil (blue foil)	●
	Powder coated galvanized sheet	●	Defrost	Air defrost	○
	Stainless steel plate	○		Defrosting with electric heating	●
Motor	Weiguang external rotor motor	●	Defrosting with water		×
	EBM external rotor motor	○	Drain heater		○
	Air tube fan	×	Fan tube heater		×

Note: ●: Standard component; ○: Optional component; ×: Not available.

ECG series industrial dual discharge air cooler with ethylene glycol



IV. Performance Datasheet

◆ Fin pitch 4.0mm

Model	Ethylene glycol 25% T ₁ =-3℃, T ₂ =2℃ Tr=10℃, RH85%		Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)					Inlet	Outlet	Drain	
EDG451/DL-ET	7.4	1.4	4.2	1.3	35.0	4.8	4500	6	22	22	2-1"	73
EDG452/DL-ET	14.7	2.7	8.4	2.7	70.0	8.8	9000	8	28	28	2-1"	114
EDG453/DL-ET	22.1	4.1	12.6	4.0	105.0	12.9	13500	10	28	28	2-1.5"	155
EDG454/DL-ET	29.4	5.4	16.8	5.4	140.0	17.0	18000	12	35	35	2-1.5"	196
EDG501/DL-ET	10.5	1.9	5.8	1.9	52.5	6.8	6000	7	28	28	2-1"	89
EDG502/DL-ET	21.0	3.9	11.6	3.7	105.0	12.9	12000	9	28	28	2-1.5"	145
EDG503/DL-ET	31.5	5.8	17.3	5.5	157.5	19.0	18000	11	35	35	2-1.5"	201
EDG504/DL-ET	42.0	7.7	23.1	7.4	210.0	25.0	24000	13	35	35	2-1.5"	257

◆ Fin pitch 6.0mm

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃,RH85%		Ethylene glycol 50% T ₁ =-28℃,T ₂ =-25℃ Tr=-18℃,RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)					Inlet	Outlet	Drain	
EDG451/DD-ET	3.8	1.2	3.1	1.1	23.7	4.8	5000	6	22	22	2-1"	71
EDG452/DD-ET	7.6	2.4	6.2	2.2	47.5	8.8	10000	8	28	28	2-1"	110
EDG453/DD-ET	11.4	3.6	9.3	3.3	71.2	12.9	15000	10	28	28	2-1.5"	149
EDG454/DD-ET	15.2	4.9	12.3	4.3	94.9	17.0	20000	12	35	35	2-1.5"	188
EDG501/DD-ET	5.3	1.7	4.3	1.5	35.6	6.8	6300	7	28	28	2-1"	86
EDG502/DD-ET	10.7	3.4	8.5	3.0	71.2	12.9	12600	9	28	28	2-1.5"	139
EDG503/DD-ET	16.0	5.1	12.8	4.5	106.8	19.0	18900	11	35	35	2-1.5"	192
EDG504/DD-ET	21.4	6.9	17.1	6.0	142.4	25.0	25200	13	35	35	2-1.5"	246

◆ Fin pitch 9.0mm

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Ethylene glycol 50% T ₁ =-28℃,T ₂ =-25℃ Tr=-18℃,RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)					Inlet	Outlet	Drain	
EDG451/DJ-ET	3.1	1.0	2.6	0.9	16.2	4.8	5400	7	22	22	2-1"	71
EDG452/DJ-ET	6.2	2.0	5.2	1.8	32.5	8.8	10800	9	28	28	2-1"	109
EDG453/DJ-ET	9.3	3.0	7.8	2.7	48.7	12.9	16200	11	28	28	2-1.5"	148
EDG454/DJ-ET	12.4	4.0	10.4	3.6	65.0	17.0	21600	13	35	35	2-1.5"	186
EDG501/DJ-ET	4.4	1.4	3.7	1.3	24.6	6.8	6900	8	28	28	2-1"	85
EDG502/DJ-ET	8.8	2.8	7.3	2.6	48.7	12.9	13800	10	28	28	2-1.5"	138
EDG503/DJ-ET	13.2	4.2	11.0	3.9	73.1	19.0	20700	12	35	35	2-1.5"	190
EDG504/DJ-ET	17.8	5.7	14.6	5.1	97.5	25.0	27600	14	35	35	2-1.5"	243

Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

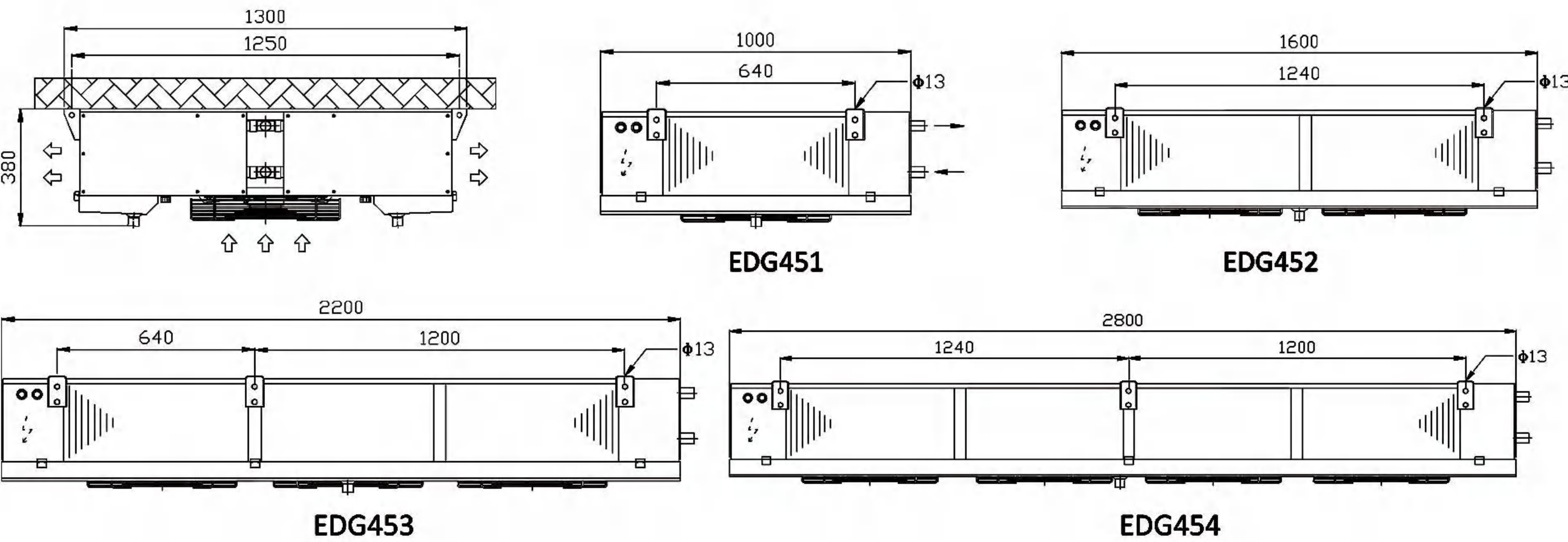
V. Electrical Parameters:

Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
EDG451*	380-3	370	0.75	1380	4×0.6	2×0.6	3.6
EDG452*	380-3	740	1.5	1380	4×1.1	2×1.1	6.6
EDG453*	380-3	1110	2.25	1380	4×1.6	2×1.6	9.6
EDG454*	380-3	1480	3.0	1380	4×2.0	2×2.0	12.0
EDG501*	380-3	500	0.95	1380	4×0.8	2×0.8	4.8
EDG502*	380-3	1000	1.9	1380	4×1.6	2×1.6	9.6
EDG503*	380-3	1500	2.85	1380	4×2.3	2×2.3	13.8
EDG504*	380-3	2000	3.8	1380	4×3.0	2×3.0	18.0

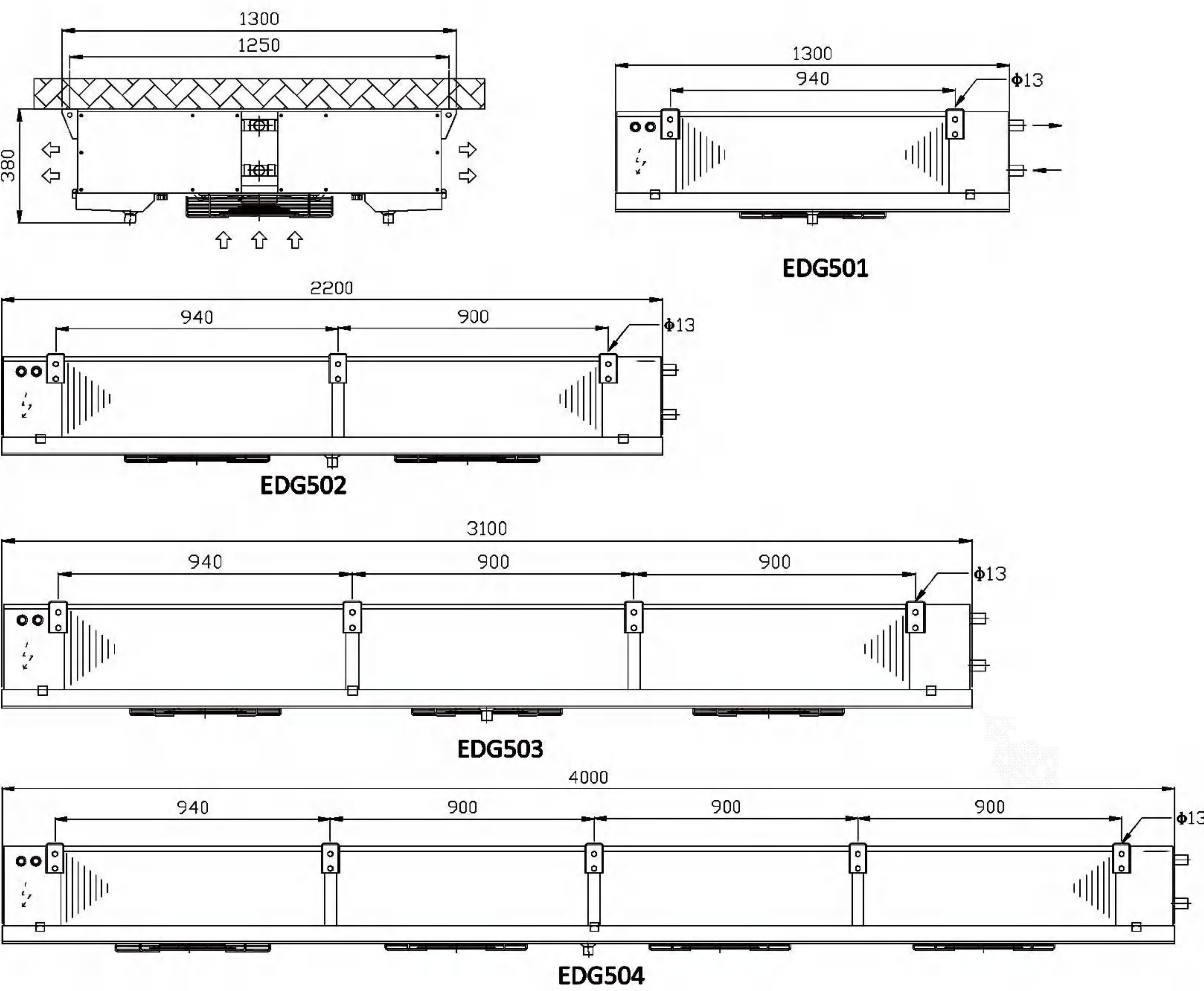
ECG series industrial dual discharge air cooler with ethylene glycol

VI. Outline and Installation Dimension

◆ EDG45 series



◆ EDG50 series



ELG series industrial ceiling-type air cooler with ethylene glycol

I. Product Overview:

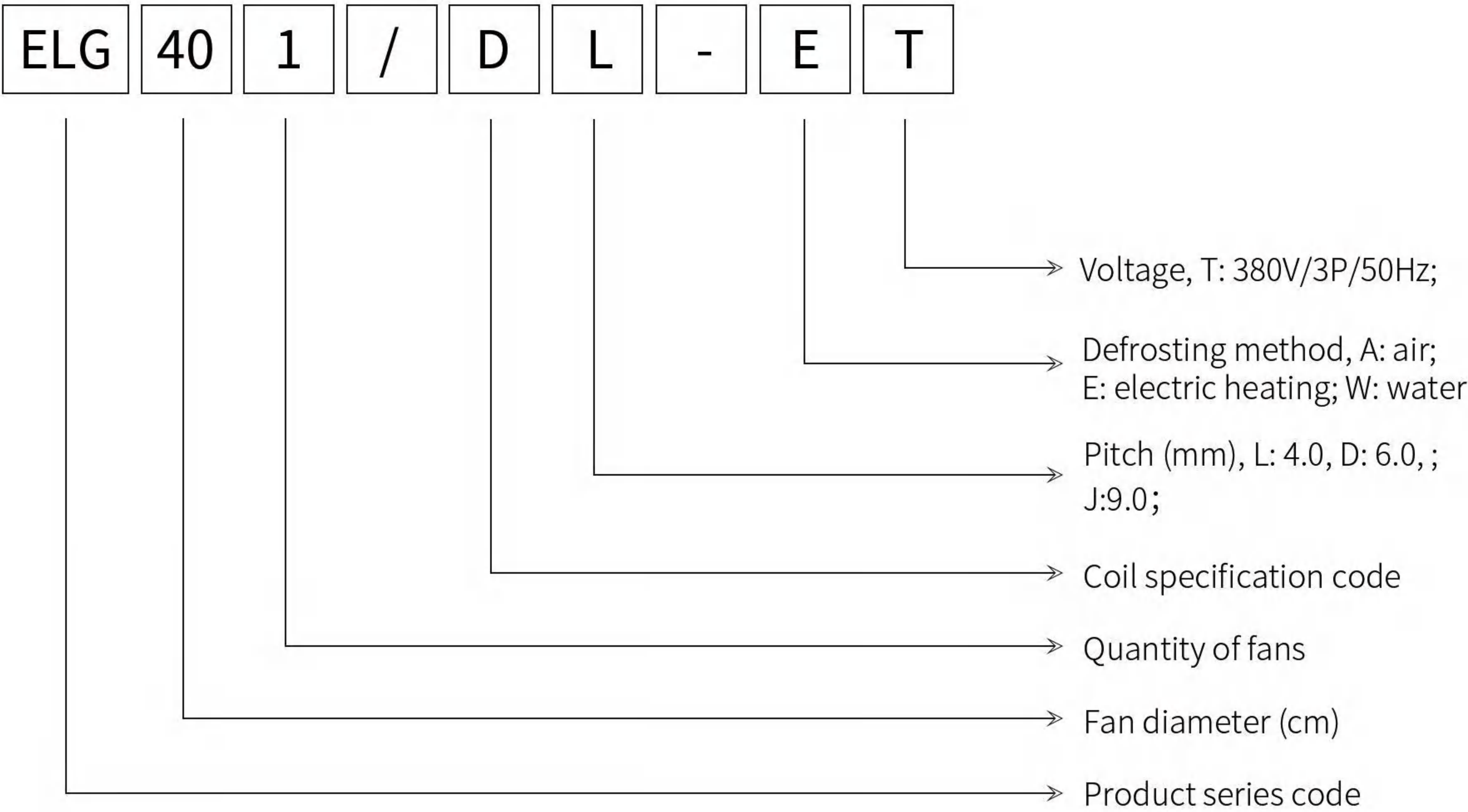
- ELG series air cooler developed by our company is designed is mainly used for cold storage with ethylene glycol aqueous solution as refrigerant. The low-temperature ethylene glycol aqueous solution circulates in the heat exchange tube of the air cooler to absorb the external heat, so as to achieve the purpose of reducing the temperature in the store. ELG series air cooler can meet the requirements of cold storage at about 10°C, 0°C and -18°C respectively.
1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006); both the side plates and the outer water plate are designed with hinged structure, which is convenient to operate;
 2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
 3. Double drain trays design: The outer water plate is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water plate is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain outlet of the outer water plate through the inner water plate;
 4. Designed with overall stretching large arc high air tube, it has the characteristics of excellent air guiding effect.
 5. For fans with a diameter of 500 and above, there are floor supports for easy installation;
 6. Coil: The aligned tube pattern 50 X 50 mm features large heat transfer area, low heat transfer temperature difference, low dry food consumption and slow frosting speed of fins;
 7. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.0mm, 6.0mm and 9.0mm to meet the requirements of different temperatures and humidity;
 8. Fan: High-power external rotor fan, operating temperature: -30 °C ~ 60 °C; fan specifications: $\phi 400$, $\phi 500$ and $\phi 630$, product series of different specifications, giving users more choices;
 9. Defrosting: The electric heating pipe is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins and the inner water plate, which can bring about desirable defrosting effect; the heating tube hole in the coil is equipped with an aluminum sleeve to improve the efficiency of defrosting effect; the water defrosting can also be used as required by the customers;
 10. The IP65 waterproof junction box are used in fan and heating tube, with better waterproofing, which can lead to high reliability;
 11. It is subjected to strict pressure test at the pressure of 23bar;



ELG series industrial ceiling-type air cooler with ethylene glycol



II. Model Explanation:



III. Standard Configuration and Options

Component		Configuration	Component		Configuration
Casing	Powder coated aluminum plate	×	Aluminum foil	Normal aluminium foil	○
	Powder coated steel plate	○		Hydrophilic aluminum foil (blue foil)	●
	Powder coated galvanized sheet	●	Defrost	Air defrost	○
	Stainless steel plate*	○		Defrosting with electric heating	●
Motor	Weiguang external rotor motor	●		Defrosting with water	○
	EBM external rotor motor*	○	Drain heater		○
	Air tube fan	○	Fan tube heater		○

Note: ●: Standard component; ○: Optional component; ×: Not available. * Regular fan tube

IV. Performance Datasheet

◆ Fin pitch 4.0mm

Model	Ethylene glycol 25% T ₁ =-3℃, T ₂ =2℃ Tr=10℃, RH85%		Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)	m ²	dm ³	m ³ /h	m	Inlet	Outlet	Drain	kg
400 fan series												
ELG401/CL-ET	5.5	1.0	3.3	1.1	26.2	4.1	3700	12	28	28	1"	49
ELG401/DL-ET	7.0	1.3	4.0	1.3	35.0	5.4	3200	12	28	28	1"	52
ELG402/CL-ET	11.0	2.0	6.6	2.1	52.5	7.5	7400	13	35	35	1.5"	72
ELG402/DL-ET	14.0	2.6	8.1	2.6	70.0	10.0	6400	13	35	35	1.5"	78
ELG403/CL-ET	16.5	3.0	9.8	3.1	78.7	11.0	11100	14	35	35	1.5"	95
ELG403/DL-ET	21.0	3.9	12.1	3.9	105.0	14.6	9600	14	35	35	1.5"	104
ELG404/CL-ET	22.1	4.1	13.1	4.2	105.0	14.5	14800	15	35	35	1.5"	118
ELG404/DL-ET	28.0	5.2	16.1	5.2	140.0	19.3	12800	15	42	42	1.5"	130
500 fan series												
ELG501/DL-ET	12.8	2.4	7.3	2.3	61.2	9.0	6800	18	35	35	1.5"	93
ELG501/EL-ET	15.3	2.8	8.4	2.7	76.5	11.2	6350	17	35	35	1.5"	99
ELG501/FL-ET	17.5	3.2	9.2	3.0	91.9	13.5	5500	17	35	35	1.5"	104
ELG502/DL-ET	25.7	4.7	14.7	4.7	122.5	17.1	13600	20	42	42	1.5"	132
ELG502/EL-ET	30.6	5.6	16.8	5.4	153.1	21.3	12700	19	42	42	1.5"	143
ELG502/FL-ET	34.9	6.4	18.4	5.9	183.7	25.6	11000	19	50	50	1.5"	153
ELG503/DL-ET	38.6	7.1	22.0	7.0	183.7	25.2	20400	22	50	50	2"	180
ELG503/EL-ET	43.3	8.0	23.8	7.6	216.5	32.7	19050	21	50	50	2"	196
ELG503/FL-ET	52.4	9.6	27.6	8.8	275.6	37.8	16500	21	50	50	2"	212
ELG504/DL-ET	51.4	9.5	29.4	9.4	244.9	33.3	27200	23	50	50	2"	228
ELG504/EL-ET	57.7	10.6	31.8	10.2	288.7	39.2	25400	22	50	50	2"	249
ELG504/FL-ET	69.8	12.8	36.7	11.8	367.4	49.9	22000	22	66	66	2"	270
ELG505/DL-ET	64.3	11.8	36.7	11.8	306.2	41.4	34000	24	66	66	2"	276
ELG505/EL-ET	72.2	13.3	39.7	12.7	360.9	48.7	31750	23	66	66	2"	302
ELG505/FL-ET	87.3	16.1	45.9	14.7	459.3	62.0	27500	23	66	66	2"	328

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ELG series industrial ceiling-type air cooler with ethylene glycol



Model	Ethylene glycol 25% T ₁ =-3℃, T ₂ =2℃ Tr=10℃, RH85%		Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)	m ²	dm ³	m ³ /h	m	Inlet	Outlet	Drain	kg
630 fan series												
ELG631/DL-ET	22.1	4.1	12.6	4.1	105.0	15.0	10000	28	42	42	1.5"	125
ELG631/EL-ET	26.2	4.8	14.4	4.6	131.2	18.8	9600	27	42	42	1.5"	134
ELG631/FL-ET	29.9	5.5	15.7	5.0	157.5	22.5	9100	27	42	42	1.5"	143
ELG632/DL-ET	44.1	8.1	25.2	8.1	210.0	28.9	20000	31	50	50	1.5"	206
ELG632/EL-ET	52.5	9.7	28.9	9.3	262.4	36.1	19200	30	50	50	1.5"	224
ELG632/FL-ET	59.8	11.0	31.5	10.1	314.9	43.3	18200	30	66	66	1.5"	242
ELG633/DL-ET	66.1	12.2	37.8	12.1	314.9	42.8	30000	34	66	66	2"	288
ELG633/EL-ET	78.7	14.5	43.3	13.9	393.7	53.4	28800	33	66	66	2"	314
ELG633/FL-ET	89.8	16.5	47.2	15.1	472.4	64.1	27300	33	66	66	2"	341
ELG634/DL-ET	88.2	16.2	50.3	16.1	419.9	56.6	40000	36	66	66	2"	369
ELG634/EL-ET	105.0	19.4	57.7	18.5	524.9	70.8	38400	35	76	76	2"	405
ELG634/FL-ET	119.7	22.0	63.0	20.2	629.9	84.9	36400	35	76	76	2"	440

Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

◆ Fin pitch 6.0mm

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃,RH85%		Ethylene glycol 50% T ₁ =-28℃,T ₂ =-25℃ Tr=-18℃,RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)	m ²	dm ³	m ³ /h	m	Inlet	Outlet	Drain	kg
400 fan series												
ELG401/CD-ET	3.0	1.0	2.5	0.9	17.8	4.1	3800	13	28	28	1"	47
ELG401/DD-ET	3.8	1.3	3.1	1.1	23.7	5.4	3450	13	28	28	1"	50
ELG402/CD-ET	6.1	2.0	5.0	1.8	35.6	7.5	7600	14	35	35	1.5"	69
ELG402/DD-ET	7.6	2.5	6.2	2.2	47.5	10.0	6900	14	35	35	1.5"	74
ELG403/CD-ET	9.1	3.0	7.5	2.6	53.4	11.0	11400	15	35	35	1.5"	90
ELG403/DD-ET	11.4	3.7	9.3	3.3	71.2	14.6	10350	15	35	35	1.5"	98
ELG404/CD-ET	12.1	4.0	10.0	3.5	71.2	14.5	15200	16	35	35	1.5"	112
ELG404/DD-ET	15.2	5.0	12.3	4.3	94.9	19.3	13800	16	42	42	1.5"	122

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃,RH85%		Ethylene glycol 50% T ₁ =-28℃,T ₂ =-25℃ Tr=-18℃,RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)	m ²	dm ³	m ³ /h	m	Inlet	Outlet	Drain	kg
500 fan series												
ELG501/DD-ET	7.1	2.3	5.4	1.9	41.5	9.0	7000	19	35	35	1.5"	90
ELG501/ED-ET	8.3	2.7	6.2	2.2	51.9	11.2	6500	18	35	35	1.5"	94
ELG501/FD-ET	9.3	3.0	6.9	2.5	62.3	13.5	6100	18	35	35	1.5"	99
ELG502/DD-ET	14.1	4.5	10.8	3.8	83.1	17.1	14000	21	42	42	1.5"	126
ELG502/ED-ET	16.6	5.4	12.5	4.4	103.8	21.3	13000	20	42	42	1.5"	134
ELG502/FD-ET	18.7	6.0	13.7	4.8	124.6	25.6	12200	20	50	50	1.5"	143
ELG503/DD-ET	21.2	6.8	16.2	5.7	124.6	25.2	21000	23	50	50	2"	170
ELG503/ED-ET	23.5	7.5	17.6	6.2	146.8	32.7	19500	22	50	50	2"	183
ELG503/FD-ET	28.0	9.0	20.6	7.2	186.9	37.8	18300	22	50	50	2"	196
ELG504/DD-ET	28.2	9.0	21.6	7.6	166.1	33.3	28000	24	50	50	2"	215
ELG504/ED-ET	31.3	10.0	23.5	8.3	195.8	39.2	26000	23	50	50	2"	232
ELG504/FD-ET	37.4	12.0	27.4	9.6	249.2	49.9	24400	23	66	66	2"	250
ELG505/DD-ET	35.3	11.3	27.0	9.5	207.6	41.4	35000	25	66	66	2"	259
ELG505/ED-ET	39.2	12.5	29.4	10.3	244.7	48.7	32500	24	66	66	2"	281
ELG505/FD-ET	46.7	15.0	34.3	12.0	311.5	62.0	30500	24	66	66	2"	303
630 fan series												
ELG631/DD-ET	12.1	3.9	9.3	3.3	71.2	15.0	10300	29	42	42	1.5"	119
ELG631/ED-ET	14.2	4.6	10.7	3.8	89.0	18.8	9800	28	42	42	1.5"	126
ELG631/FD-ET	16.0	5.2	11.7	4.1	106.8	22.5	9100	28	42	42	1.5"	134
ELG632/DD-ET	24.2	7.8	18.5	6.5	142.4	28.9	20600	32	50	50	1.5"	194
ELG632/ED-ET	28.5	9.2	21.4	7.5	178.0	36.1	19600	31	50	50	1.5"	209
ELG632/FD-ET	32.0	10.3	23.5	8.3	213.6	43.3	18200	31	66	66	1.5"	224
ELG633/DD-ET	36.3	11.7	27.8	9.8	213.6	42.8	30900	35	66	66	2"	270
ELG633/ED-ET	42.7	13.7	32.0	11.2	267.0	53.4	29400	34	66	66	2"	292
ELG633/FD-ET	48.1	15.4	35.2	12.4	320.4	64.1	27300	34	66	66	2"	315
ELG634/DD-ET	48.4	15.5	37.0	13.0	284.8	56.6	41200	37	66	66	2"	346
ELG634/ED-ET	57.0	18.3	42.7	15.0	356.0	70.8	39200	36	76	76	2"	375
ELG634/FD-ET	64.1	20.5	47.0	16.5	427.2	84.9	36400	36	76	76	2"	405

Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

ELG series industrial ceiling-type air cooler with ethylene glycol



◆ Fin pitch 9.0mm

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Ethylene glycol 50% T ₁ =-28℃,T ₂ =-25℃ Tr=-18℃,RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling capacity (kW)	Flow (m3/h)	Cooling capacity (kW)	Flow (m3/h)	m ²	dm ³	m ³ /h	m	Inlet	Outlet	Drain	kg
400 fan series												
ELG401/CJ-ET	2.4	0.8	2.0	0.7	12.2	4.1	3900	14	28	28	1"	47
ELG401/DJ-ET	3.1	1.0	2.5	0.9	16.2	5.4	3650	14	28	28	1"	50
ELG402/CJ-ET	4.9	1.6	4.1	1.5	24.4	7.5	7800	15	35	35	1.5"	68
ELG402/DJ-ET	6.2	2.0	5.2	1.9	32.5	10.0	7300	15	35	35	1.5"	73
ELG403/CJ-ET	7.3	2.4	6.2	2.2	36.5	11.0	11700	16	35	35	1.5"	89
ELG403/DJ-ET	9.2	3.0	7.8	2.8	48.7	14.6	10950	16	35	35	1.5"	97
ELG404/CJ-ET	9.7	3.1	8.3	2.9	48.7	14.5	15600	17	35	35	1.5"	111
ELG404/DJ-ET	12.4	4.0	10.4	3.7	65.0	19.3	14600	17	42	42	1.5"	120
500 fan series												
ELG501/DJ-ET	5.4	1.8	4.5	1.6	28.4	9.0	7380	20	35	35	1.5"	89
ELG501/EJ-ET	6.4	2.1	5.3	1.9	35.5	11.2	6800	19	35	35	1.5"	93
ELG501/FJ-ET	7.2	2.3	6.0	2.1	42.6	13.5	6350	19	35	35	1.5"	98
ELG502/DJ-ET	10.8	3.5	9.1	3.2	56.9	17.1	14760	22	42	42	1.5"	124
ELG502/EJ-ET	12.8	4.1	10.7	3.8	71.1	21.3	13600	21	42	42	1.5"	132
ELG502/FJ-ET	14.5	4.7	11.9	4.2	85.3	25.6	12700	21	50	50	1.5"	141
ELG503/DJ-ET	16.2	5.2	13.6	4.8	85.3	25.2	22140	24	50	50	2"	168
ELG503/EJ-ET	18.1	5.8	15.1	5.3	100.5	32.7	20400	23	50	50	2"	180
ELG503/FJ-ET	21.7	7.0	17.9	6.3	127.9	37.8	19050	23	50	50	2"	193
ELG504/DJ-ET	21.6	7.0	18.2	6.4	113.7	33.3	29520	25	50	50	2"	212
ELG504/EJ-ET	24.1	7.8	20.1	7.0	134.0	39.2	27200	24	50	50	2"	228
ELG504/FJ-ET	29.0	9.3	23.9	8.4	170.6	49.9	25400	24	66	66	2"	245
ELG505/DJ-ET	27.0	8.7	22.7	8.0	142.1	41.4	36900	26	66	66	2"	256
ELG505/EJ-ET	30.2	9.7	25.1	8.8	167.5	48.7	34000	25	66	66	2"	276
ELG505/FJ-ET	36.2	11.6	29.8	10.5	213.2	62.0	31750	25	66	66	2"	297
630 fan series												
ELG631/DJ-ET	9.3	3.0	7.8	2.8	48.7	15.0	10600	30	42	42	1.5"	118
ELG631/EJ-ET	11.0	3.6	9.1	3.2	60.9	18.8	10000	29	42	42	1.5"	125
ELG631/FJ-ET	12.4	4.0	10.2	3.6	73.1	22.5	9600	29	42	42	1.5"	132

Model	Ethylene glycol 34% T ₁ =-10℃, T ₂ =-7℃ Tr=0℃, RH85%		Ethylene glycol 50% T ₁ =-28℃,T ₂ =-25℃ Tr=-18℃,RH95%		Surface	Tube volume	Airflow	Air throw	Connection pipe (mm)			Weight
	Cooling- capacity (KW)	Flow (m3/h)	Cooling capacity (KW)	Flow (m3/h)	m ²	dm ³	m ³ /h	m	Inlet	Outlet	Drain	kg
630 fan series												
ELG632/DJ-ET	18.5	6.0	15.6	5.5	97.5	28.9	21200	33	50	50	1.5"	192
ELG632/EJ-ET	21.9	7.0	18.3	6.5	121.8	36.1	20000	32	50	50	1.5"	206
ELG632/FJ-ET	24.9	8.0	20.5	7.2	146.2	43.3	19200	32	66	66	1.5"	220
ELG633/DJ-ET	27.8	9.0	23.4	8.2	146.2	42.8	31800	36	66	66	2"	266
ELG633/EJ-ET	32.9	10.5	27.4	9.6	182.7	53.4	30000	35	66	66	2"	282
ELG633/FJ-ET	37.3	12.0	30.7	10.8	219.3	64.1	28800	35	66	66	2"	309
ELG634/DJ-ET	37.0	12.0	31.2	10.9	194.9	56.6	42400	38	66	66	2"	340
ELG634/EJ-ET	43.8	14.0	36.5	12.8	243.6	70.8	40000	37	76	76	2"	369
ELG634/FJ-ET	49.7	16.0	40.9	14.5	292.4	84.9	38400	37	76	76	2"	397

Note: T1 in the table is the inlet temperature of ethylene glycol refrigerant, T2 is the outlet temperature, and Tr is the cold room temperature.

V. Electrical Parameters:

Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
ELG401/C*	380-3	205	0.51	1380	3×0.6	1×0.6	2.4
ELG401/D*	380-3	205	0.51	1380	4×0.6	1×0.6	3.0
ELG402/C*	380-3	410	1.02	1380	3×1.1	1×1.1	4.4
ELG402/D*	380-3	410	1.02	1380	4×1.1	1×1.1	5.5
ELG403/C*	380-3	615	1.53	1380	3×1.6	1×1.6	6.4
ELG403/D*	380-3	615	1.53	1380	4×1.6	1×1.6	8.0
ELG404/C*	380-3	820	2.04	1380	3×2.0	1×2.0	8.0
ELG404/D*	380-3	820	2.04	1380	4×2.0	1×2.0	10.0
ELG501/D*	380-3	500	0.95	1380	4×0.8	2×0.8	4.8
ELG501/E*	380-3	500	0.95	1380	6×0.8	2×0.8	6.4
ELG501/F*	380-3	500	0.95	1380	6×0.8	2×0.8	6.4
ELG502/D*	380-3	1000	1.9	1380	4×1.6	2×1.6	9.6

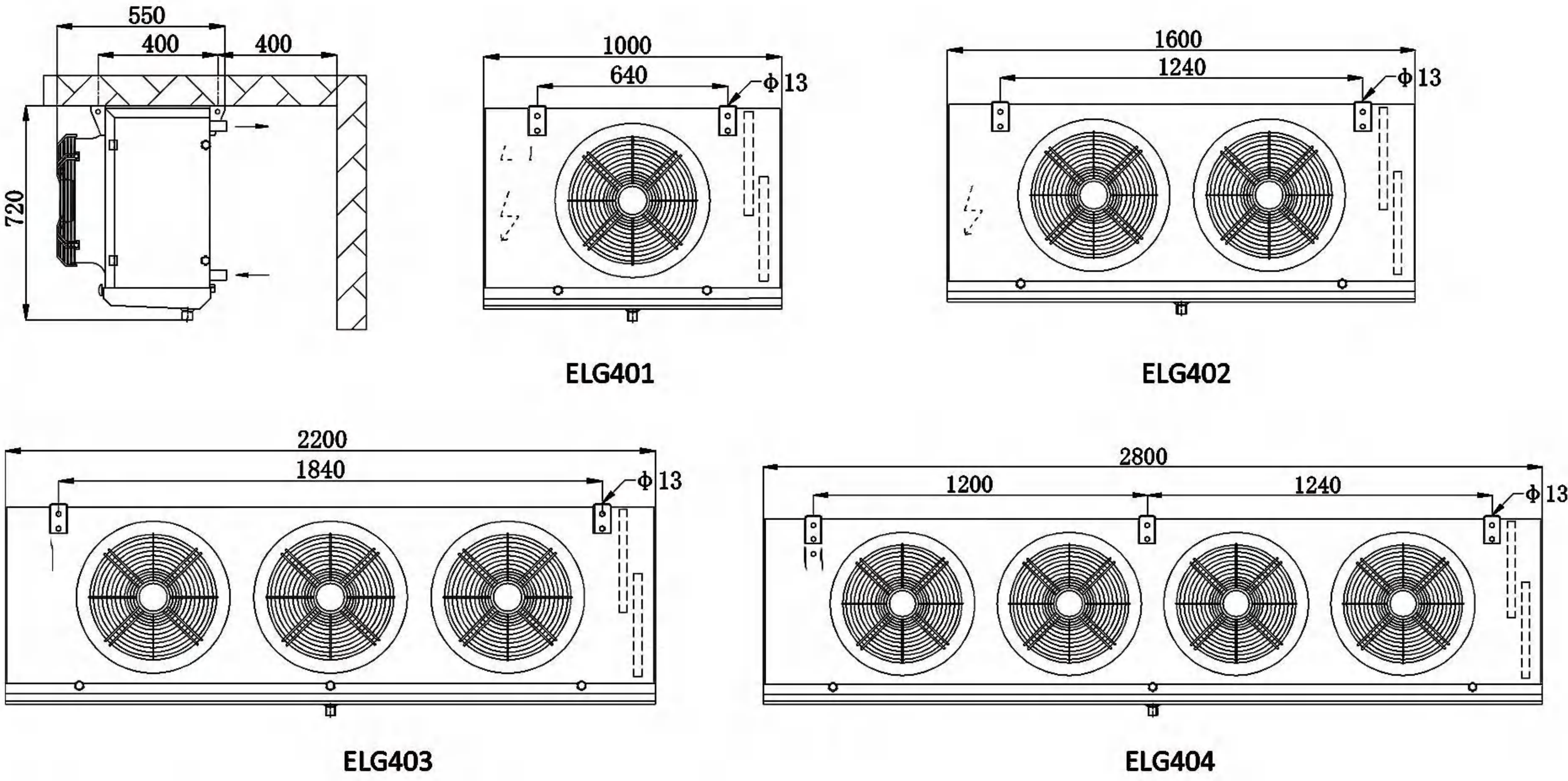
ELG series industrial ceiling-type air cooler with ethylene glycol



Model	Fan motor				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil (KW)	Water plate (KW)	Total power (KW)
ELG502/E*	380-3	1000	1.9	1380	6×1.6	2×1.6	12.8
ELG502/F*	380-3	1000	1.9	1380	6×1.6	2×1.6	12.8
ELG503/D*	380-3	1500	2.85	1380	4×2.3	2×2.3	13.8
ELG503/E*	380-3	1500	2.85	1380	6×2.3	2×2.3	18.4
ELG503/F*	380-3	1500	2.85	1380	6×2.3	2×2.3	18.4
ELG504/D*	380-3	2000	3.8	1380	4×3.0	2×3.0	18.0
ELG504/E*	380-3	2000	3.8	1380	6×3.0	2×3.0	24.0
ELG504/F*	380-3	2000	3.8	1380	6×3.0	2×3.0	24.0
ELG505/D*	380-3	2500	4.75	1380	4×3.7	2×3.7	22.2
ELG505/E*	380-3	2500	4.75	1380	6×3.7	2×3.7	29.6
ELG505/F*	380-3	2500	4.75	1380	6×3.7	2×3.7	29.6
ELG631/D*	380-3	800	1.6	1320	6×1.1	2×1.1	8.8
ELG631/E*	380-3	800	1.6	1320	9×1.1	2×1.1	12.1
ELG631/F*	380-3	800	1.6	1320	9×1.1	2×1.1	12.1
ELG632/D*	380-3	1600	3.2	1320	6×2.0	2×2.0	16.0
ELG632/E*	380-3	1600	3.2	1320	9×2.0	2×2.0	22.0
ELG632/F*	380-3	1600	3.2	1320	9×2.0	2×2.0	22.0
ELG633/D*	380-3	2400	4.8	1320	6×3.0	2×3.0	24.0
ELG633/E*	380-3	2400	4.8	1320	9×3.0	2×3.0	33.0
ELG633/F*	380-3	2400	4.8	1320	9×3.0	2×3.0	33.0
ELG634/D*	380-3	3200	6.4	1320	6×4.0	2×4.0	32.0
ELG634/E*	380-3	3200	6.4	1320	9×4.0	2×4.0	44.0
ELG634/F*	380-3	3200	6.4	1320	9×4.0	2×4.0	44.0

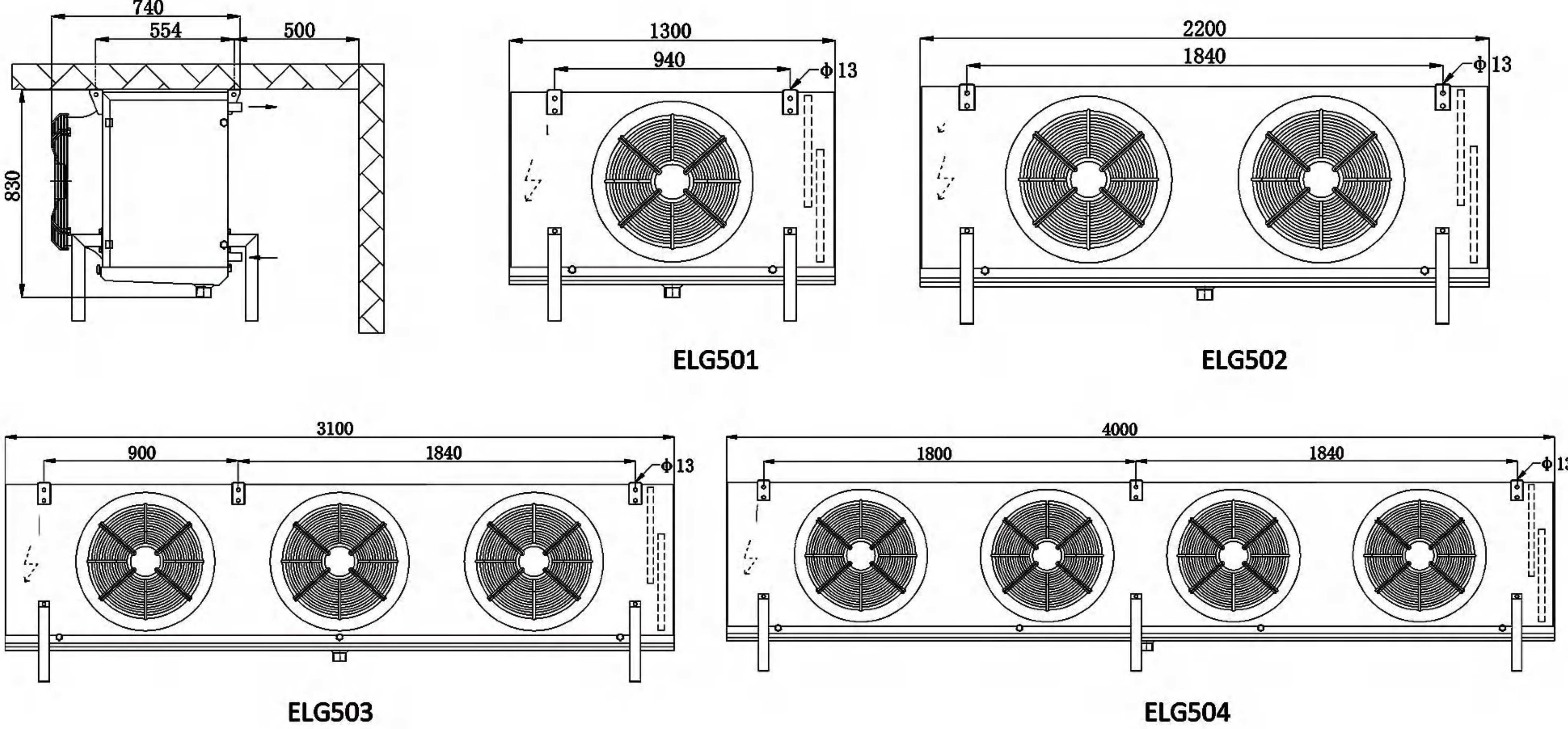
VI. Outline and Installation Dimension

◆ ELG40 series

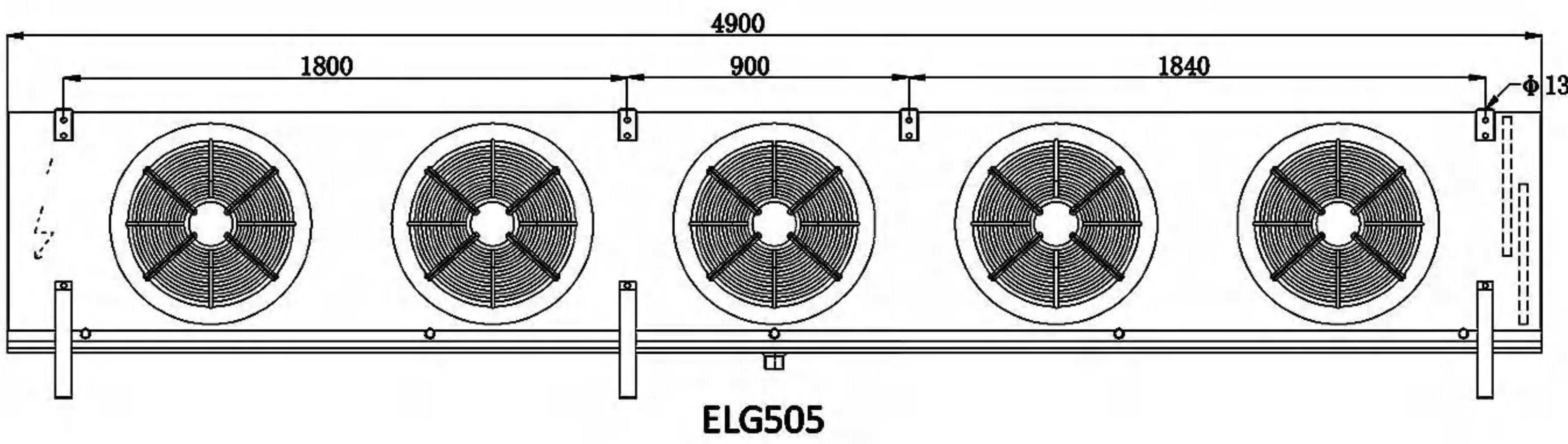


Remarks: defrost with water, height plus 80mm.

◆ ELG50 series

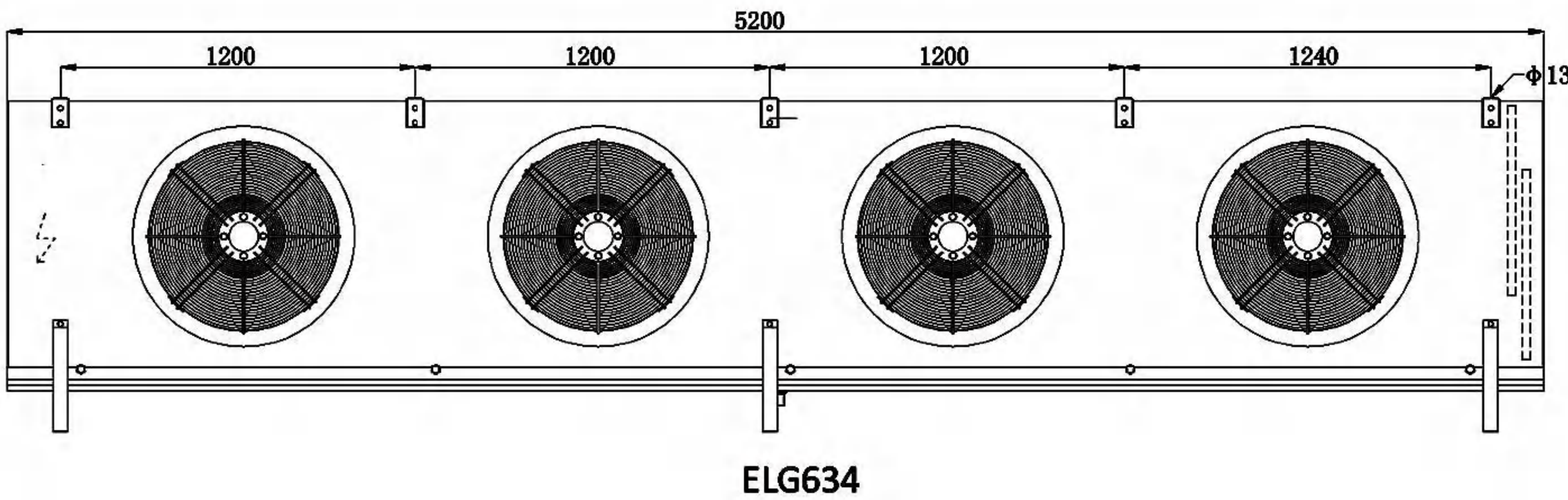
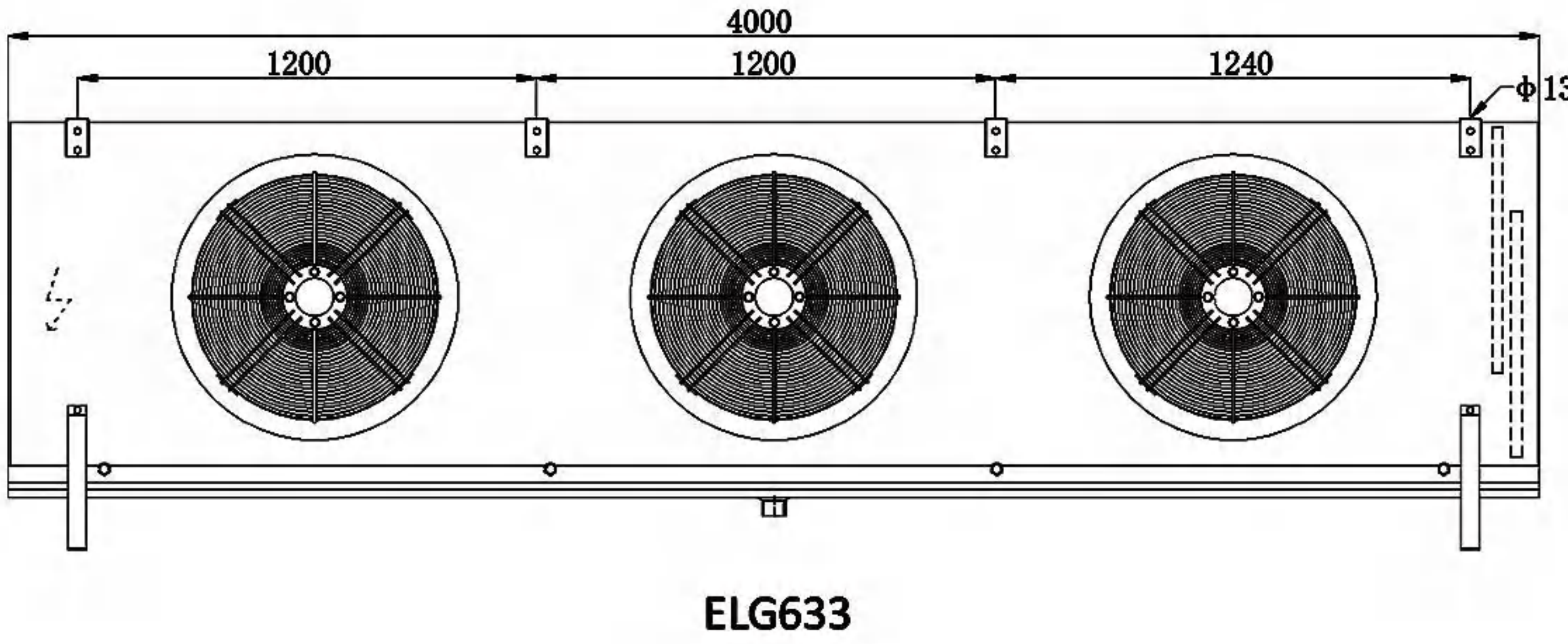
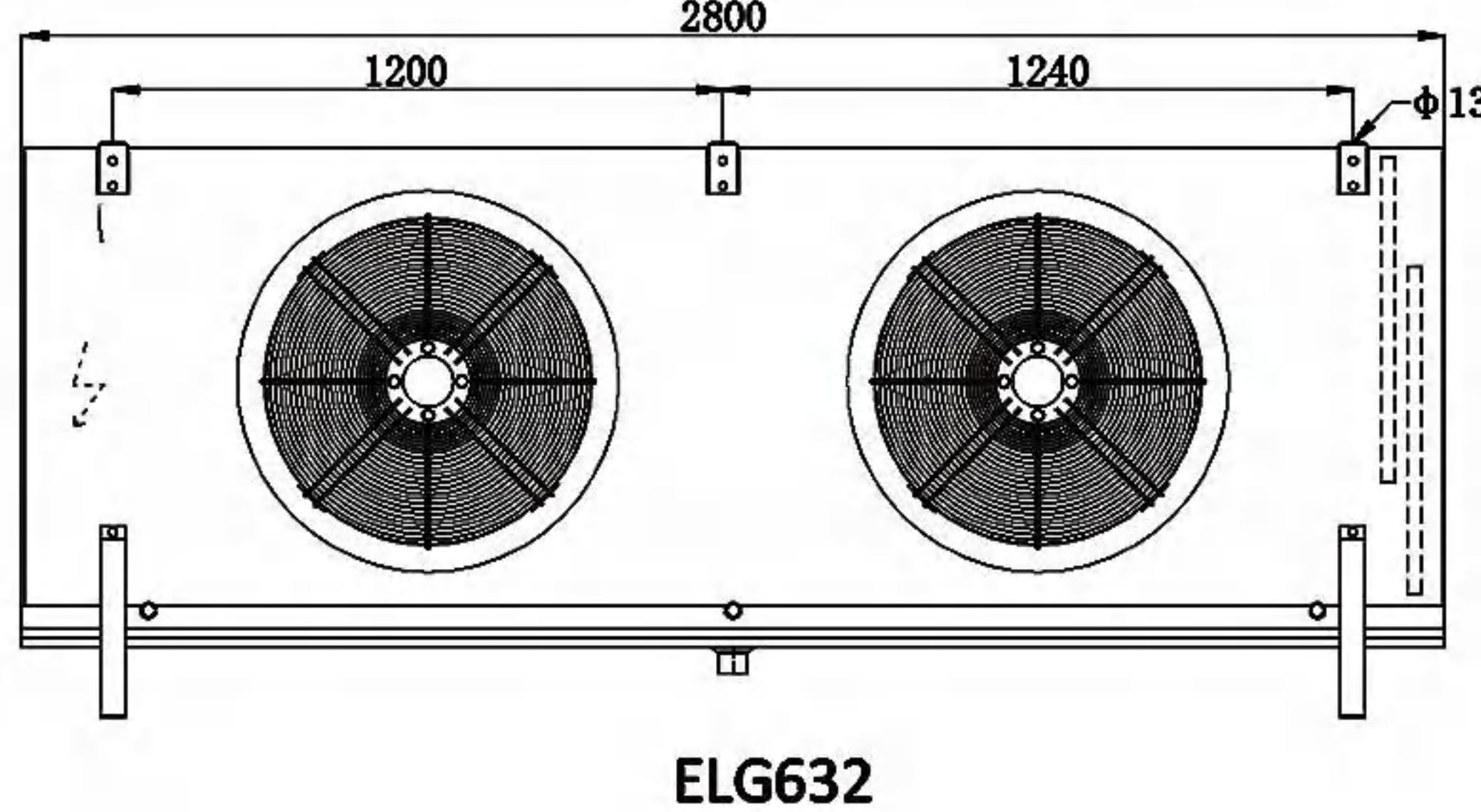
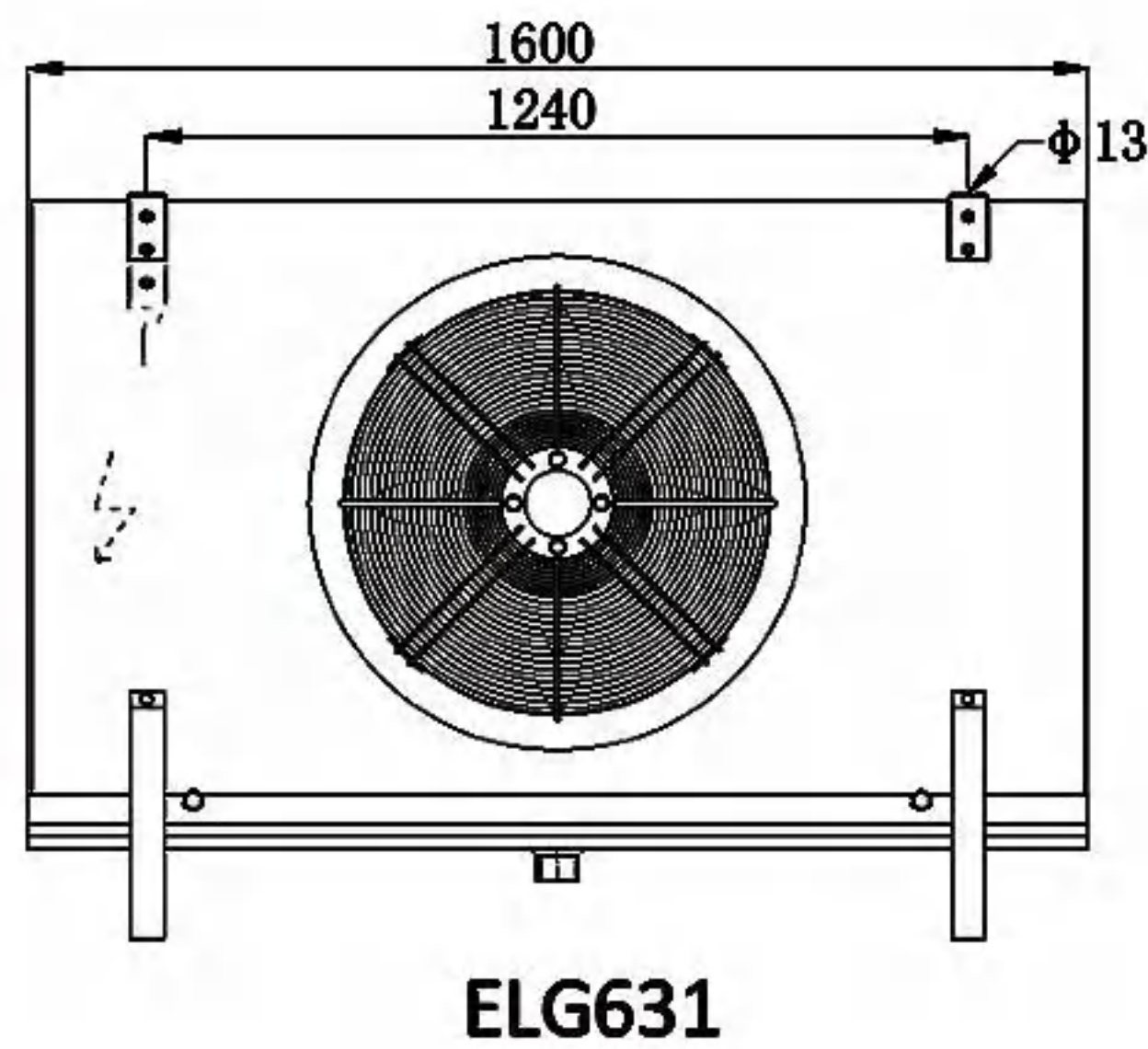
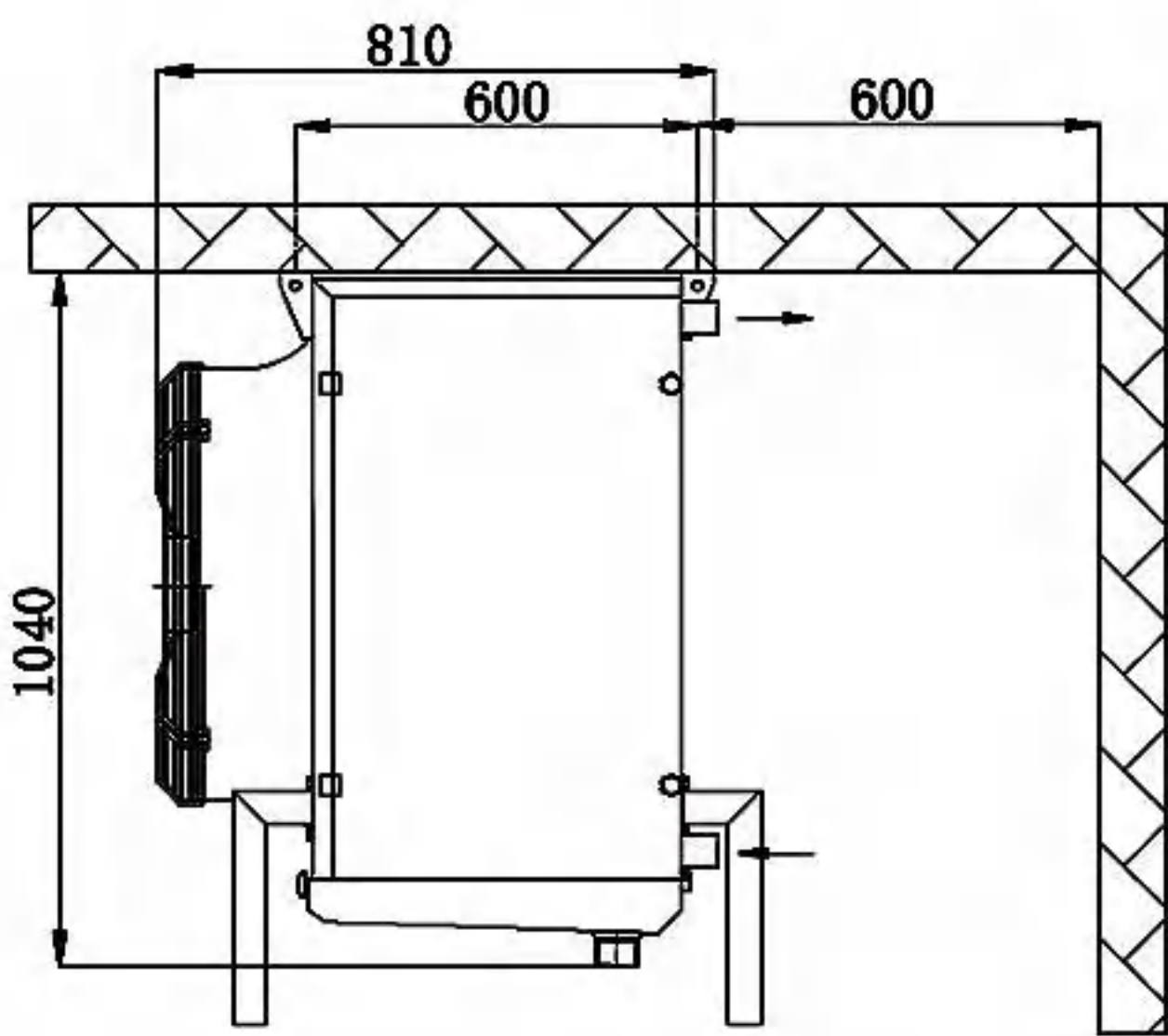


ELG series industrial ceiling-type air cooler with ethylene glycol



Remarks: defrost with water, height plus 80mm, width plus 50mm.

ELG63 series



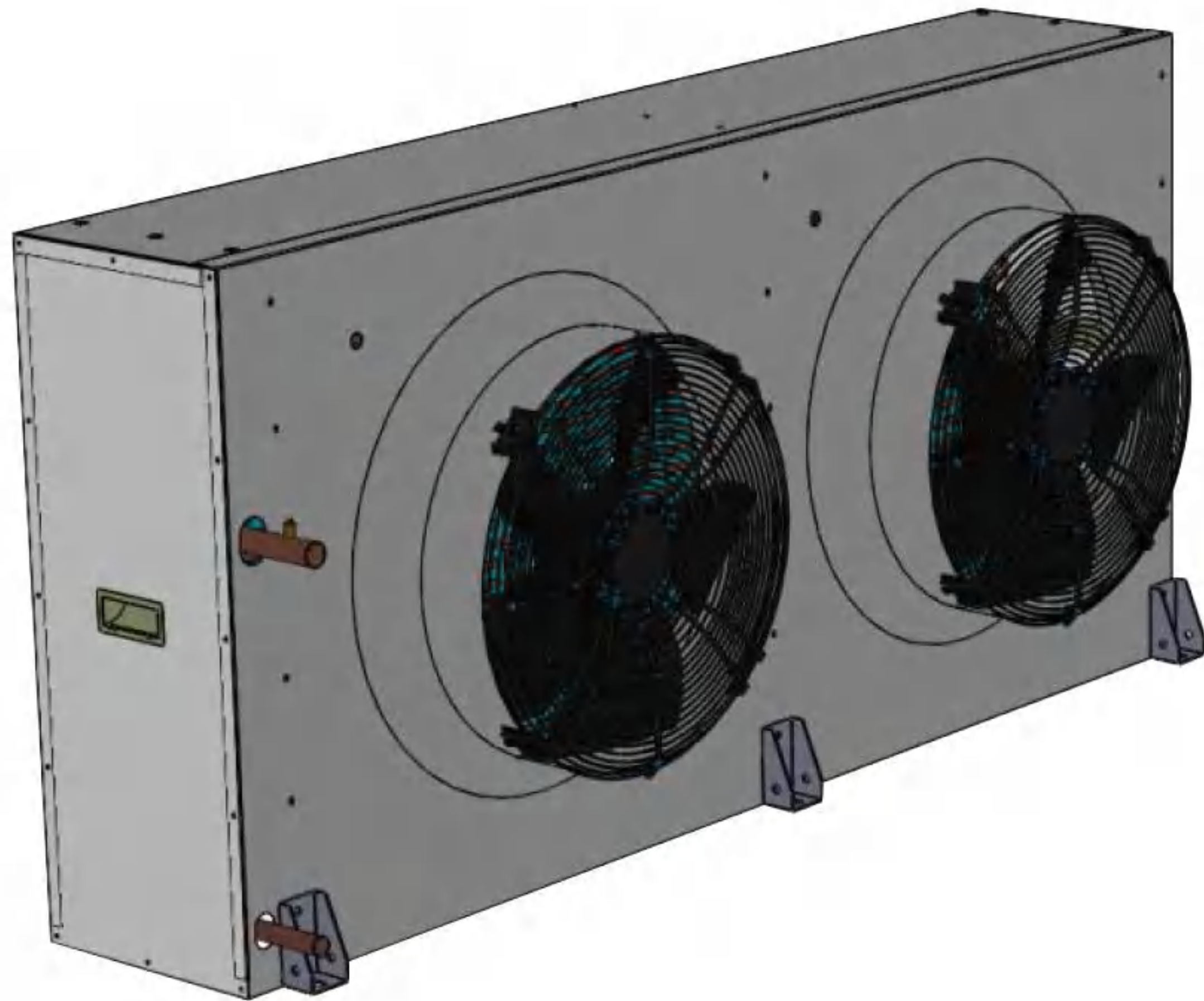
Remarks: defrost with water, height plus 80mm.

CL series vertical side-mounted condenser

I. Product Overview:

CL series condenser is designed with vertical side-mounted structure, air intake on the rear side and air outlet on the front side; It is mainly used in air-cooled condensing units where the condenser and compressor are required to be installed separately. This series of products has the following characteristics:

1. With vertical side-mounted structure, the condenser can be installed in a stacked manner to save installation space.
2. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006); the fan tube is designed with overall stretching large rounded high air tube, it has the characteristics of excellent air guiding effect, low noise and aesthetic appearance.
3. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube;
4. Coil: Tube diameter $\phi 9.5$, female thread copper pipe, tube spacing 25×21.65 in triangular arrangement, high heat exchange efficiency.
5. Corrugated aluminum sheet made of hydrophilic aluminum foil is adopted, with the sheet spacing of 2.1mm;
6. Fan: It is design with standard 3P/380V/50Hz power supply, fitted with $\phi 400$, $\phi 500$ and $\phi 630$ external rotor fans, 1-3 fans in one row, 4-6-8 fans in double rows; 4-pole motor is adopted as the standard component.
7. The test pressure of the product is 32bar.
8. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



II. Model Explanation:

CL 50 1 1 B 4

- CL → Product series
- 50 → Coil specification code;
- 1 → Number of fans per row;
- 1 → Number of fan rows, 1: single row, 2: double rows;
- B → Fan specifications (CM)
- 4 → Number of motor poles, 4:4 poles

CL series vertical side-mounted condenser

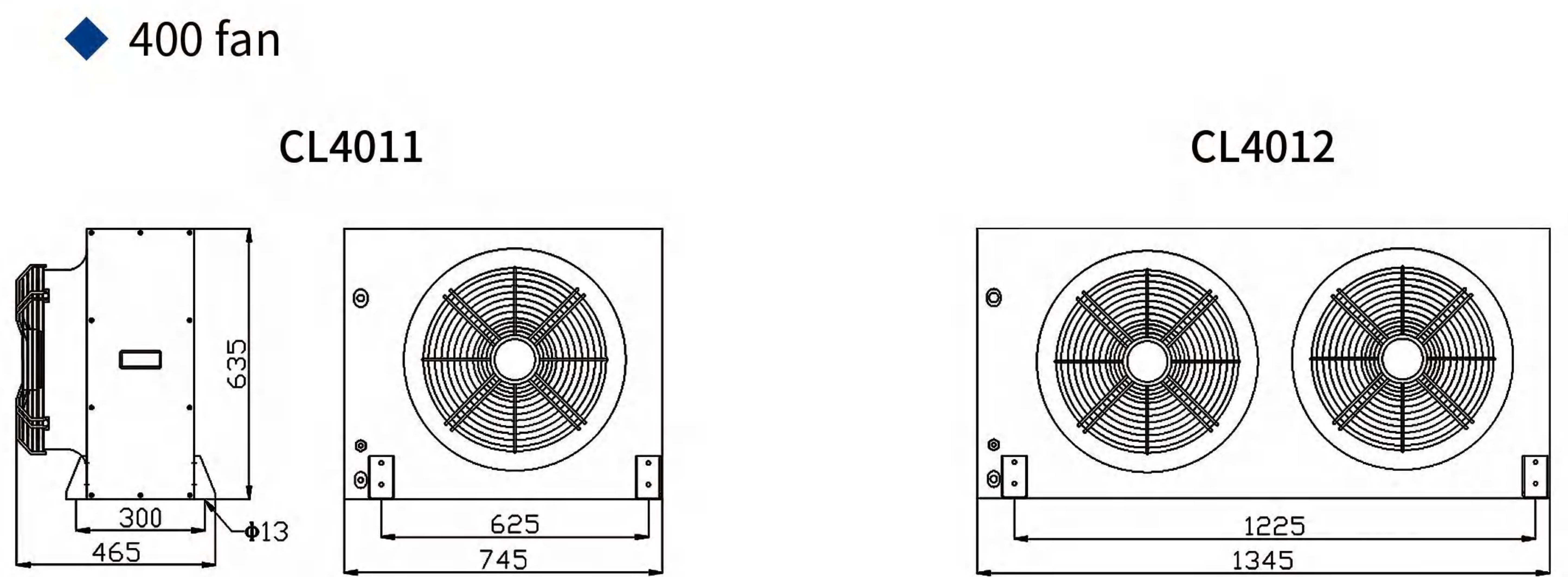
III. Performance Datasheet:

Model	Heat exchange (KW) △T=15K	Surface m²	Tube volume dm³	Fan			Noise dB(A)	Connection pipe (mm)		Weight kg
				Airflow m³/h	Power (W)	Current (A)		Inlet air	Effluent	
φ400 fan										
CL4011C4	11.2	20.8	2.7	4000	205	0.51	45	φ 16	φ 12	33
CL4011D4	13.3	27.7	3.6	3700	205	0.51	45	φ 16	φ 12	37
CL4012C4	22.5	41.6	5.2	8000	410	1.02	48	φ 22	φ 16	57
CL4012D4	26.6	55.4	6.9	7400	410	1.02	48	φ 22	φ 16	64
CL4013C4	33.6	62.3	7.7	12000	615	1.53	50	φ 28	φ 22	82
CL4013D4	39.9	83.1	10.2	11100	615	1.53	50	φ 28	φ 22	93
CL4022C4	44.9	83.1	10.4	16000	820	2.04	51	φ 28	φ 22	109
CL4022D4	53.2	110.8	13.8	14800	820	2.04	51	φ 28	φ 22	124
CL4023C4	67.3	124.7	15.3	24000	1230	3.06	53	φ 35	φ 22	155
CL4023D4	79.8	166.2	20.5	22200	1230	3.06	53	φ 35	φ 22	177
CL4024C4	89.7	166.2	20.3	32000	1640	4.08	55	φ 35	φ 28	202
CL4024D4	106.4	221.6	27.0	29600	1640	4.08	55	φ 35	φ 28	231
φ500 fan										
CL5011C4	23.6	36.9	4.7	6400	414	0.85	52	φ 22	φ 16	57
CL5011D4	25.4	49.3	6.2	6000	414	0.85	52	φ 22	φ 16	63
CL5012C4	47.3	73.9	9.0	12800	828	1.70	55	φ 28	φ 22	101
CL5012D4	50.7	98.5	12.1	12000	828	1.70	55	φ 28	φ 22	114
CL5013C4	70.9	110.8	13.4	19200	1242	2.55	56	φ 35	φ 22	147
CL5013D4	76.1	147.8	17.9	18000	1242	2.55	56	φ 35	φ 22	166
CL5022C4	94.6	147.8	18.1	25600	1656	3.40	57	φ 35	φ 28	191
CL5022D4	101.5	197.0	24.1	24000	1656	3.40	57	φ 35	φ 28	217
CL5023C4	141.8	221.6	26.8	38400	2484	5.10	59	φ 42	φ 35	275
CL5023D4	152.2	295.5	35.7	36000	2484	5.10	59	φ 42	φ 35	314
CL5024C4	189.1	295.5	35.5	51200	3312	6.80	61	φ 42	φ 35	358
CL5024D4	202.9	394.0	47.3	48000	3312	6.80	61	φ 54	φ 35	409
φ630 fan										
CL6311C4	36.3	57.7	7.2	11500	800	1.6	57	φ 28	φ 22	81
CL6311D4	41.5	77.0	9.6	10750	800	1.6	57	φ 28	φ 22	92

Model	Heat exchange (KW) △T=15K	Surface m ²	Tube volume dm ³	Fan			Noise dB(A)	Connection pipe (mm)		Weight kg —
				Airflow m ³ /h	Power (W)	Current (A)		Inlet air	Effluent	
φ630 fan										
CL6312C4	72.7	115.4	14.0	23000	1600	3.2	60	φ 35	φ 28	148
CL6312D4	83.1	153.9	18.7	21500	1600	3.2	60	φ 35	φ 28	168
CL6313C4	109.1	173.2	20.8	34500	2400	4.8	61	φ 35	φ 28	214
CL6313D4	124.5	230.9	27.8	32250	2400	4.8	61	φ 42	φ 28	244
CL6322C4	145.4	230.9	28.0	46000	3200	6.4	62	φ 42	φ 35	281
CL6322D4	166.2	307.8	37.4	43000	3200	6.4	62	φ 42	φ 35	322
CL6323C4	218.1	346.2	41.6	69000	4800	9.6	64	φ 54	φ 42	378
CL6323D4	249.3	461.8	55.5	64500	4800	9.6	64	φ 54	φ 42	438
CL6324C4	290.0	461.8	55.3	92000	6400	12.8	66	2- φ 42	2- φ 35	532
CL6324D4	332.4	615.7	73.7	86000	6400	12.8	66	2- φ 42	2- φ 35	612

- 1) Calibration of cooling capacity: Inlet air temperature 25 °C, condensation temperature 40 °C, temperature difference 15K, refrigerant R404A. For heat exchange in other working conditions, please refer to the correction coefficient.
- 2) The noise is calibrated to the sound pressure value at a distance of 10 meters.

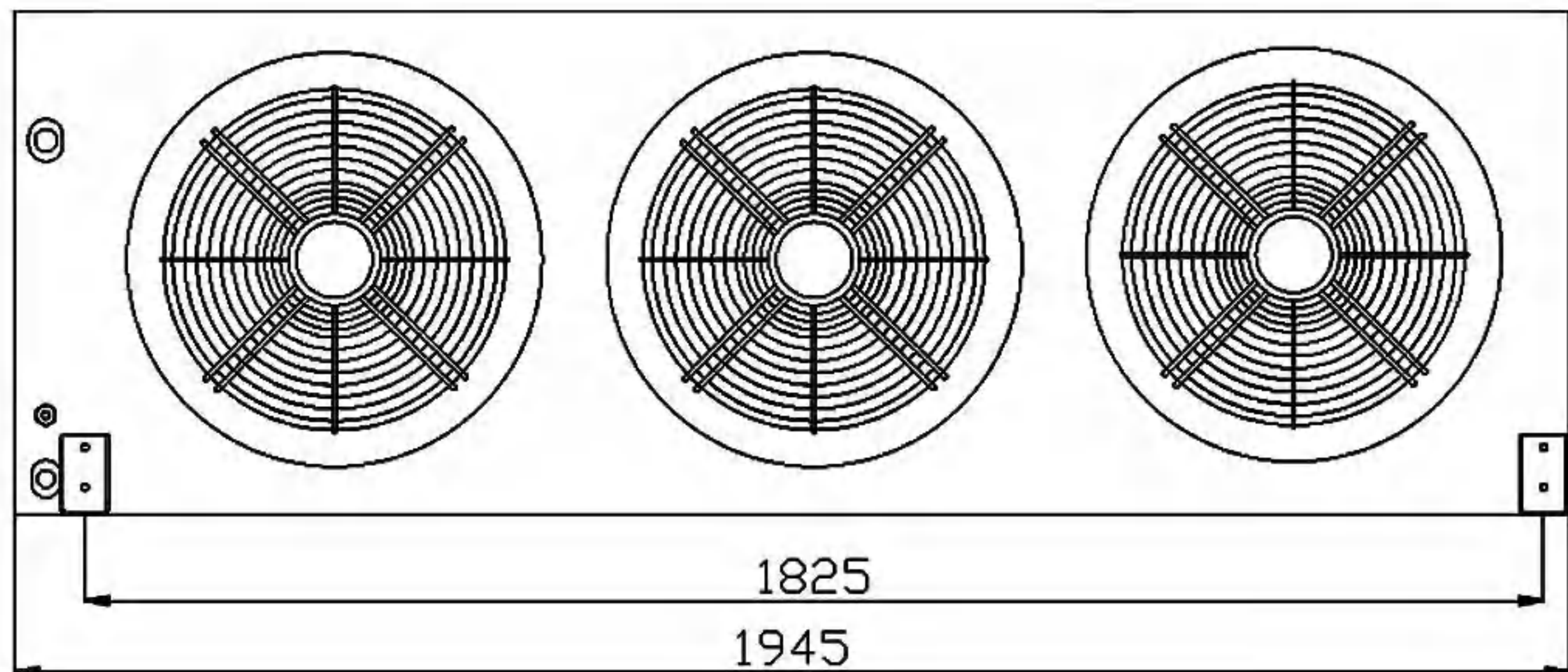
IV. Outline and Installation Dimension:



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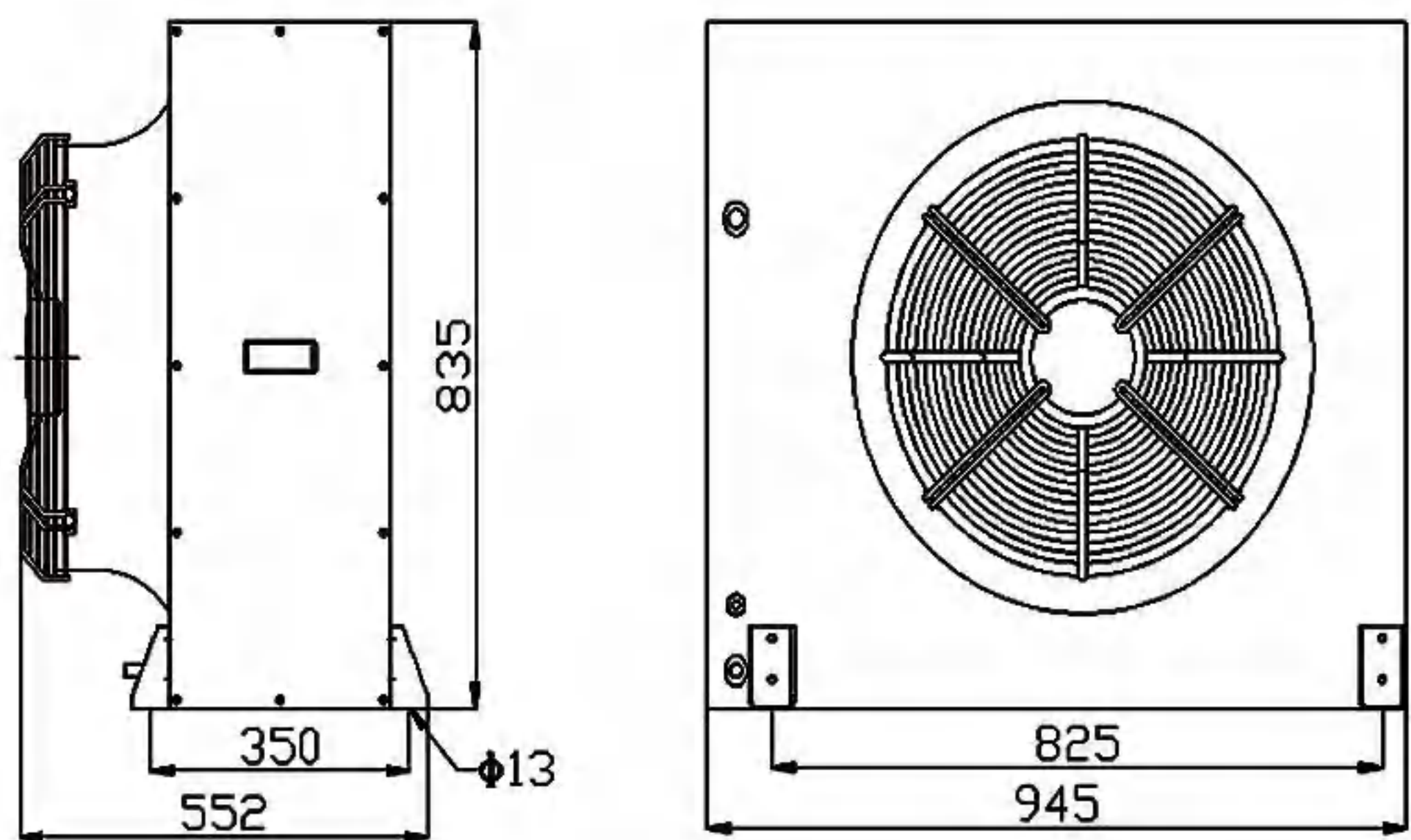
CL series vertical side-mounted condenser

CL4013

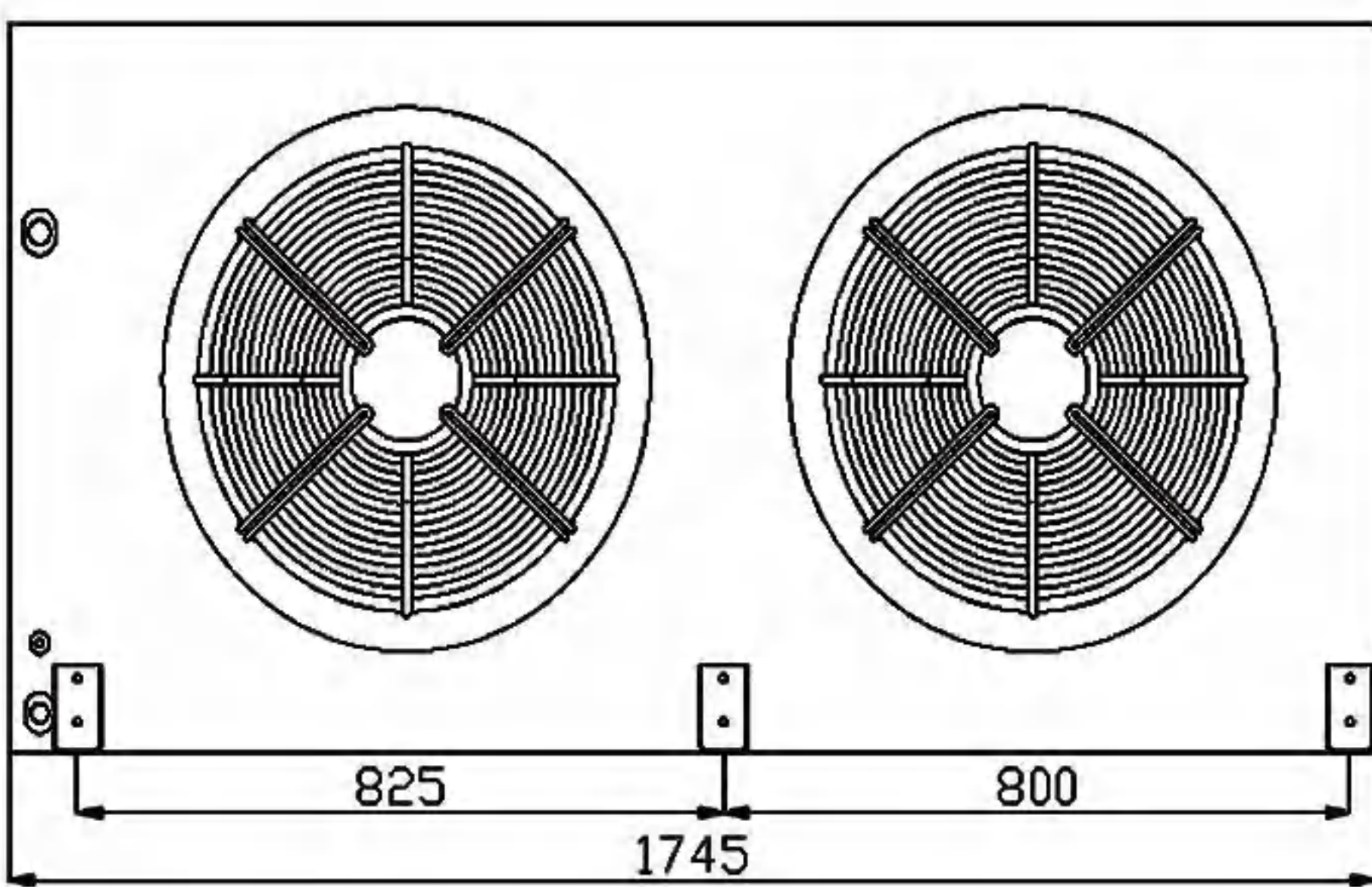


◆ 500 fan

CL5011

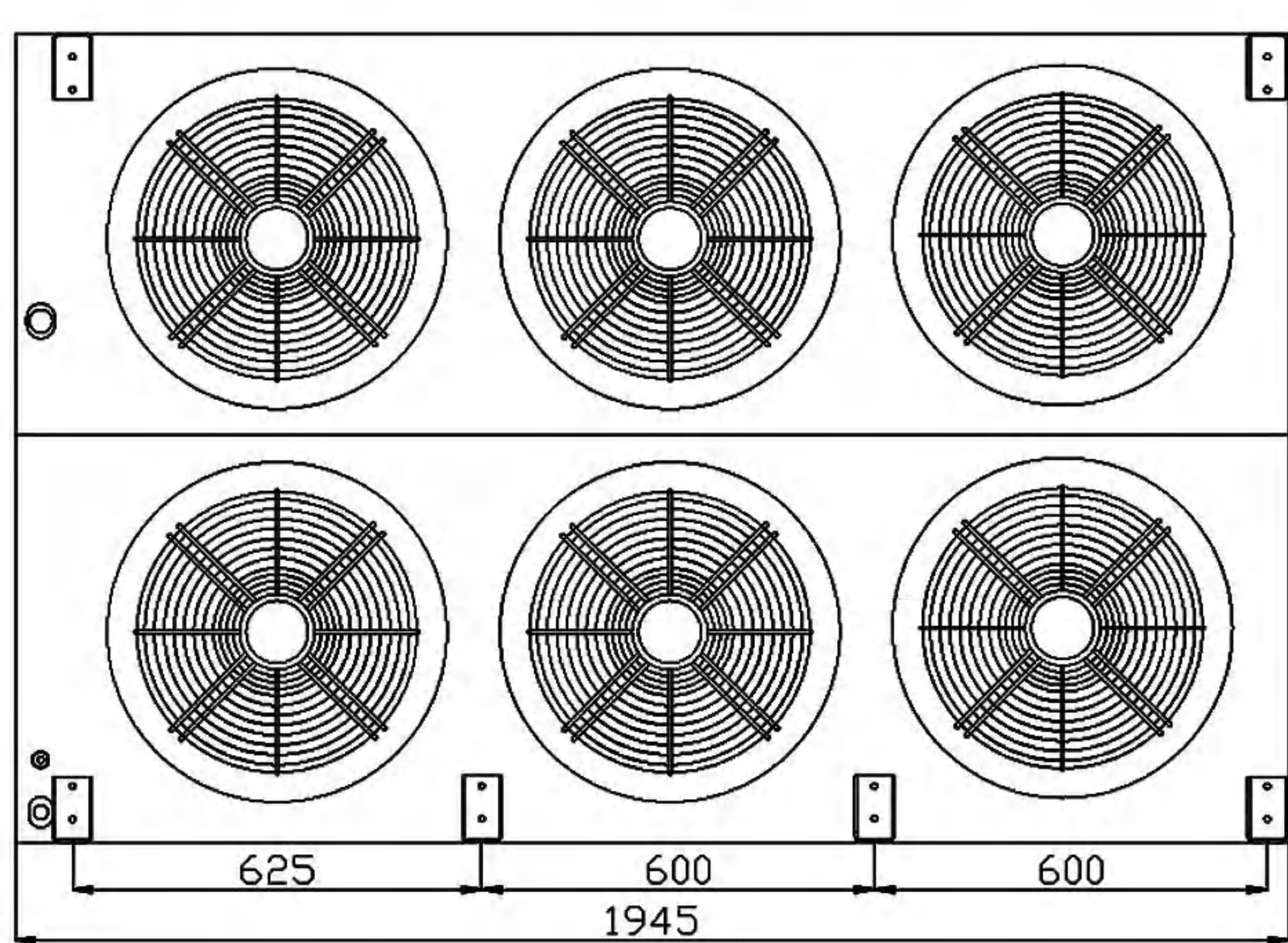
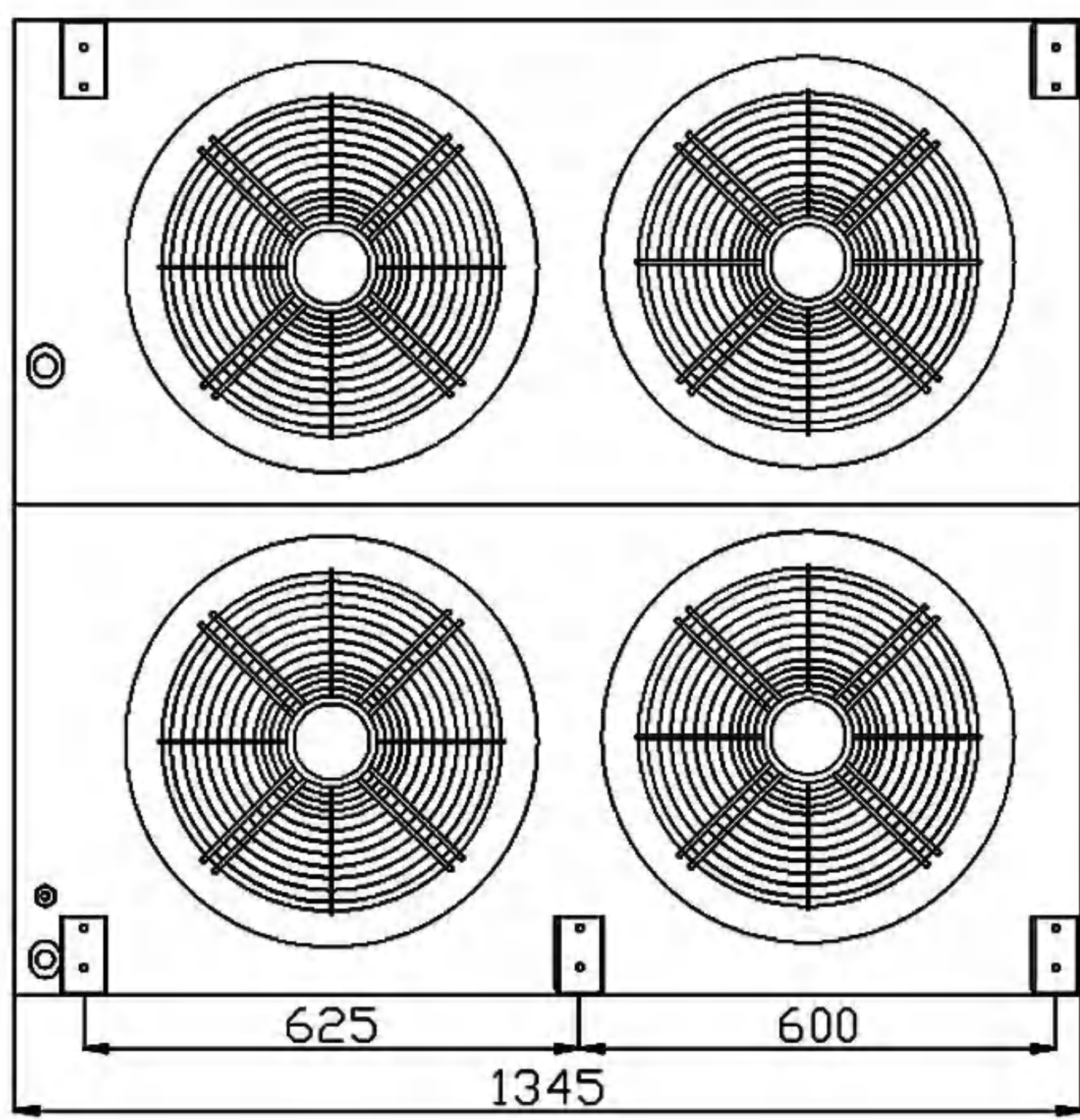
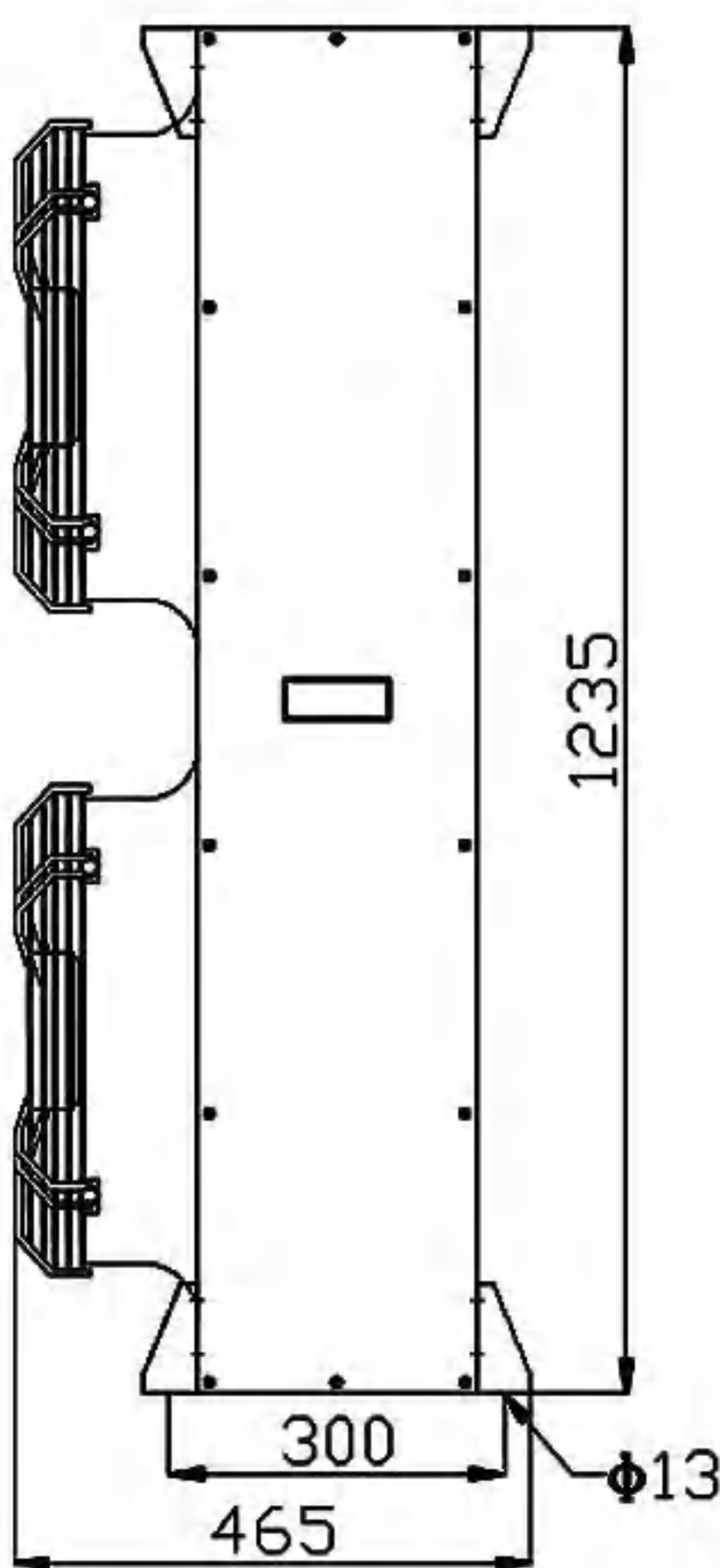


CL5012

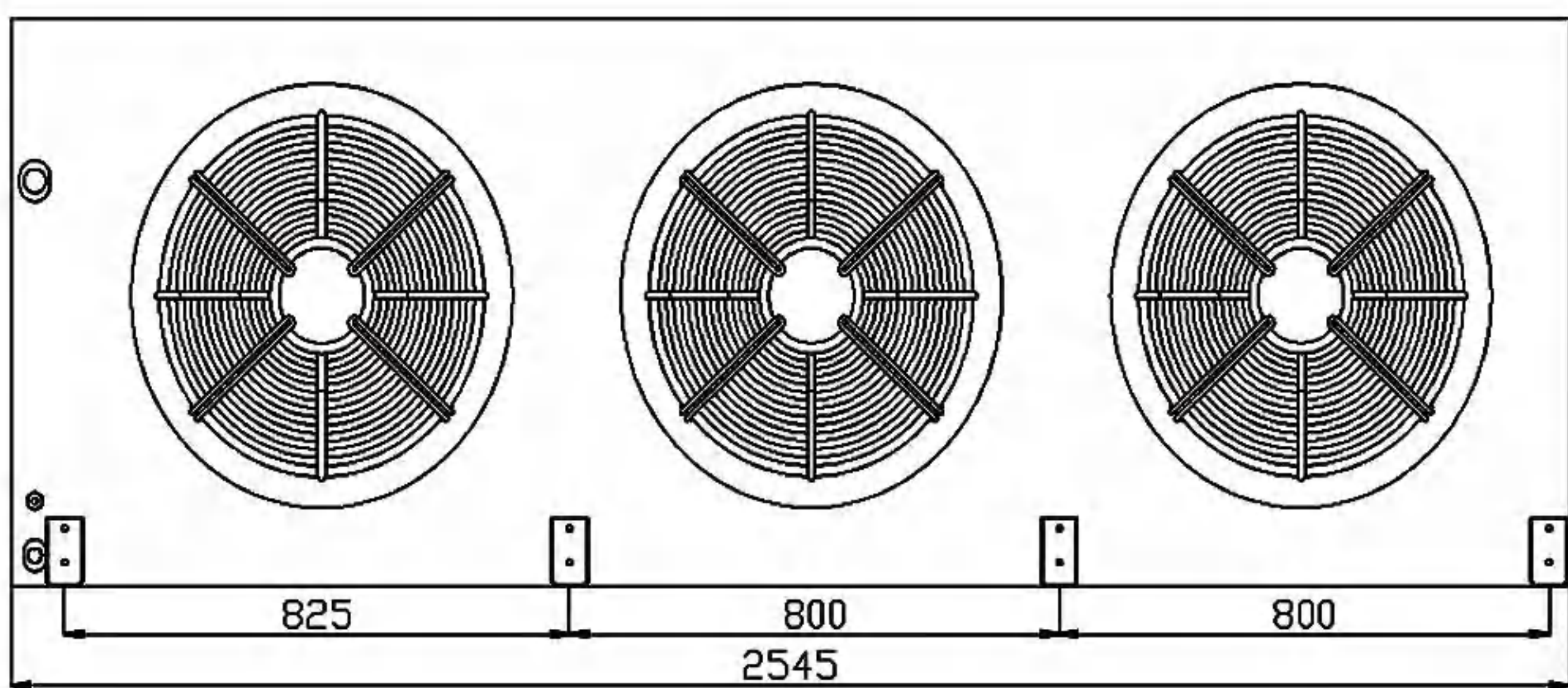


CL4022

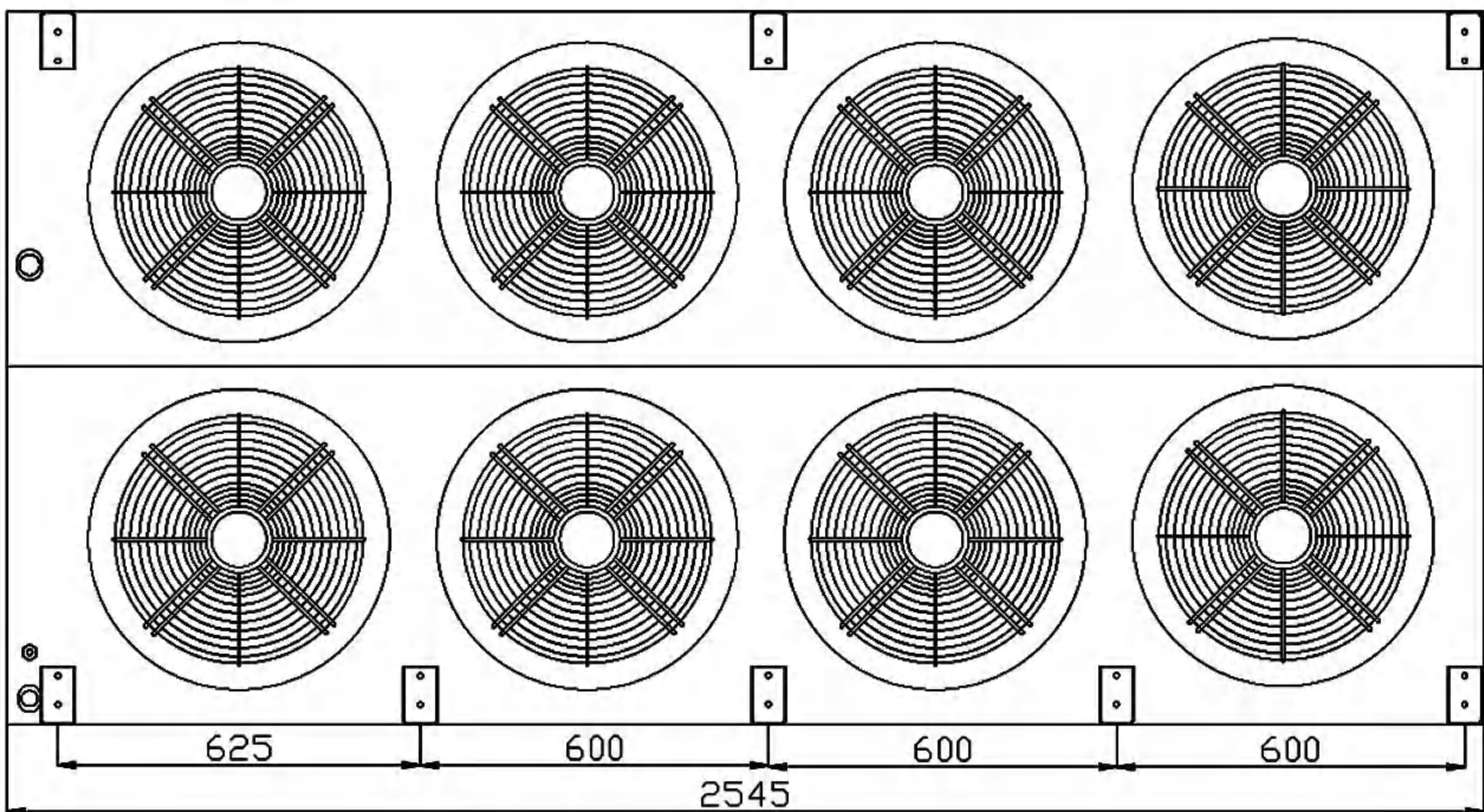
CL4023



CL5013

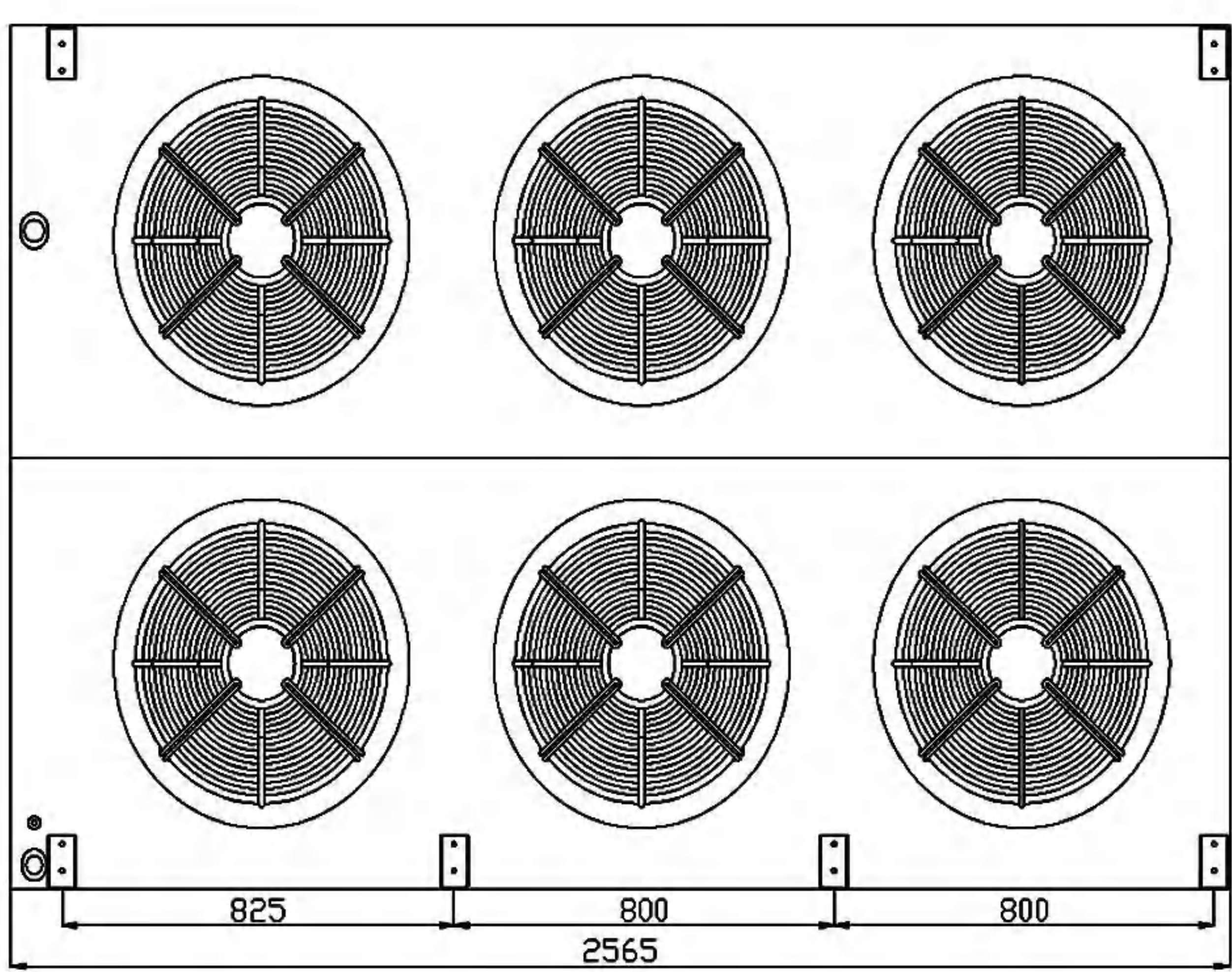
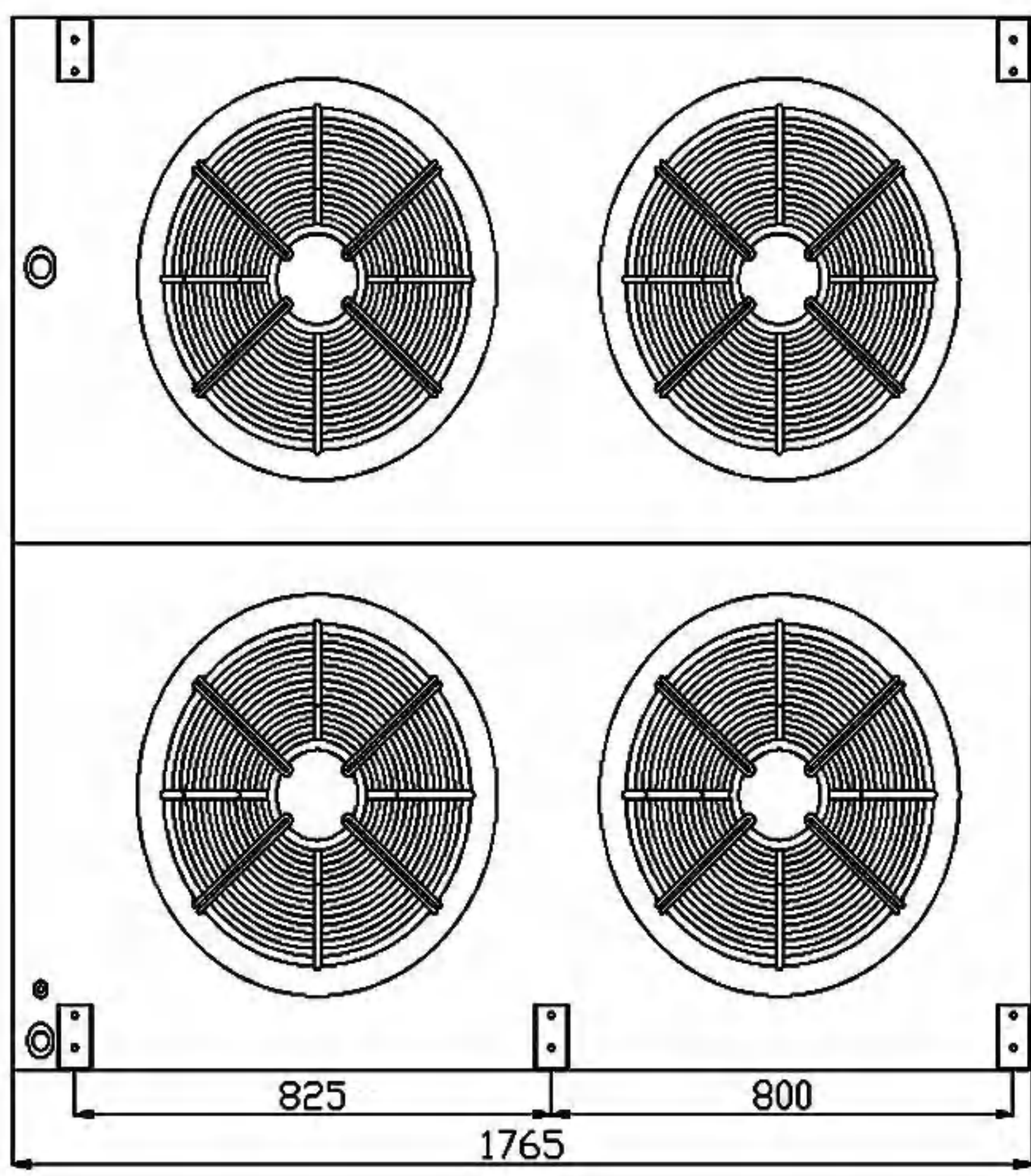
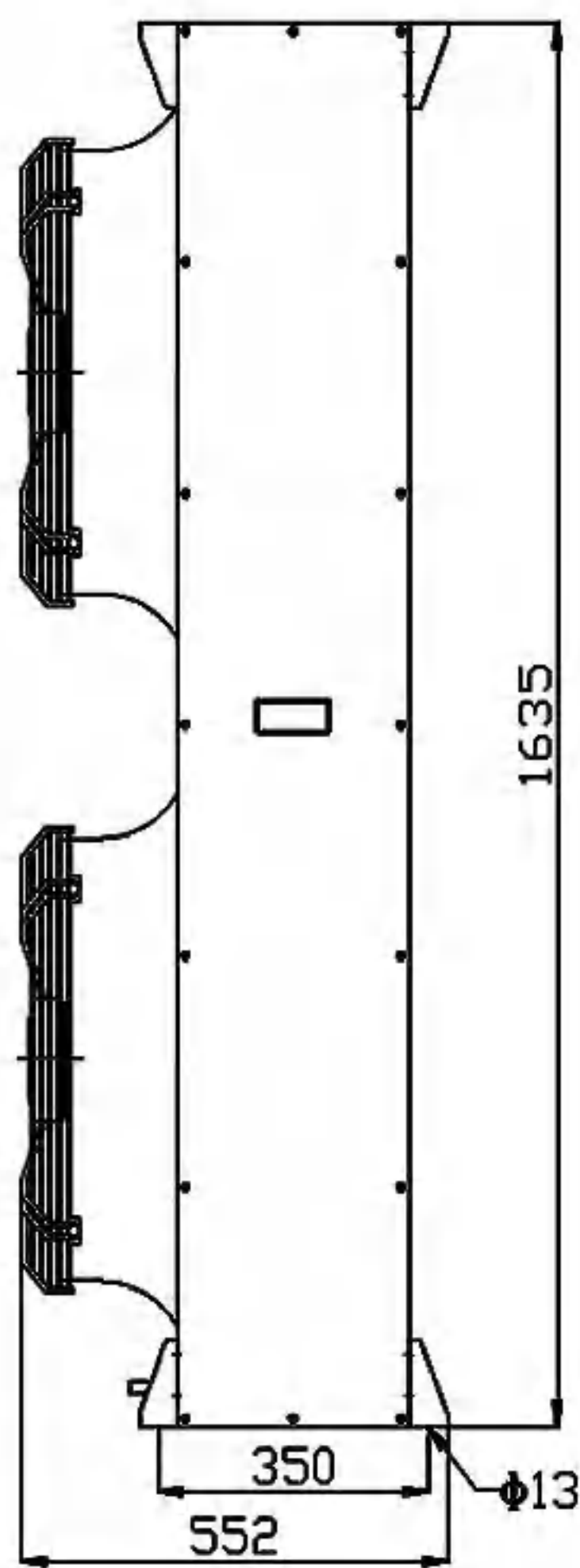


CL4024



CL5022

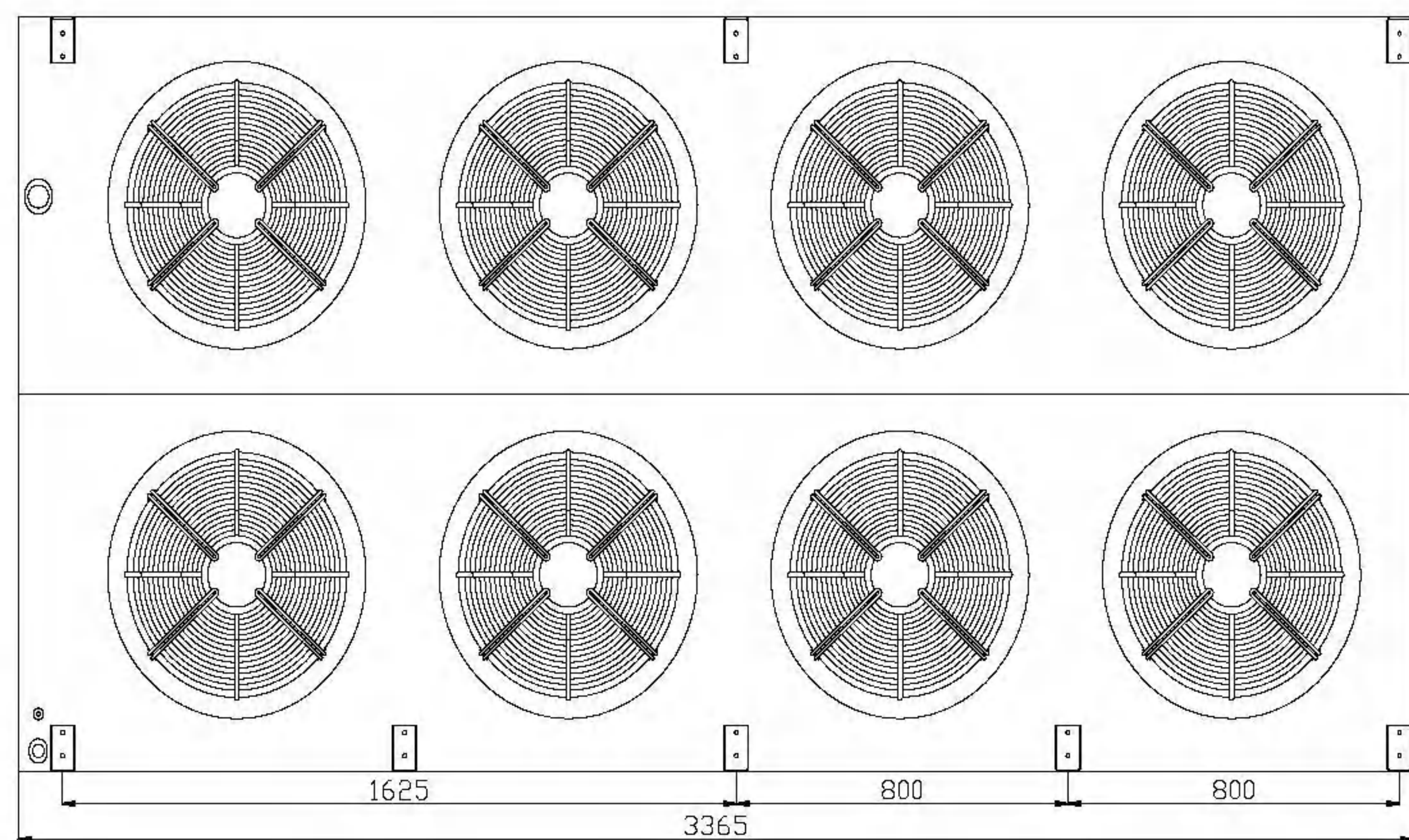
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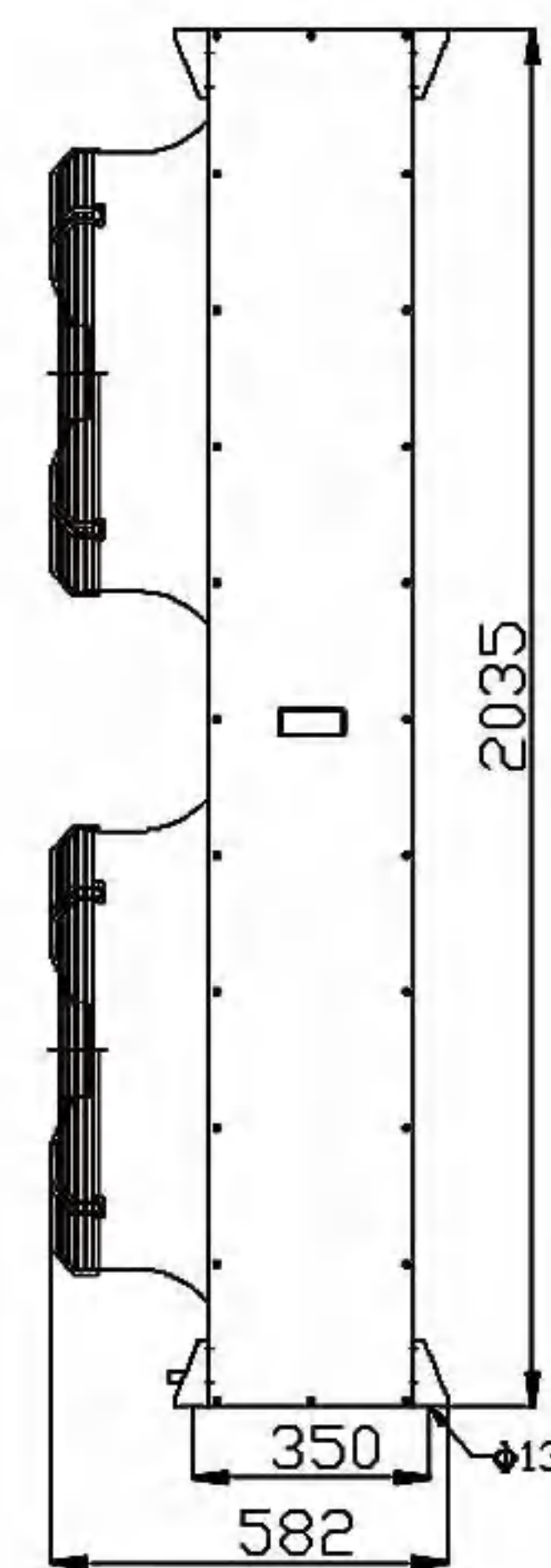
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CL series vertical side-mounted condenser

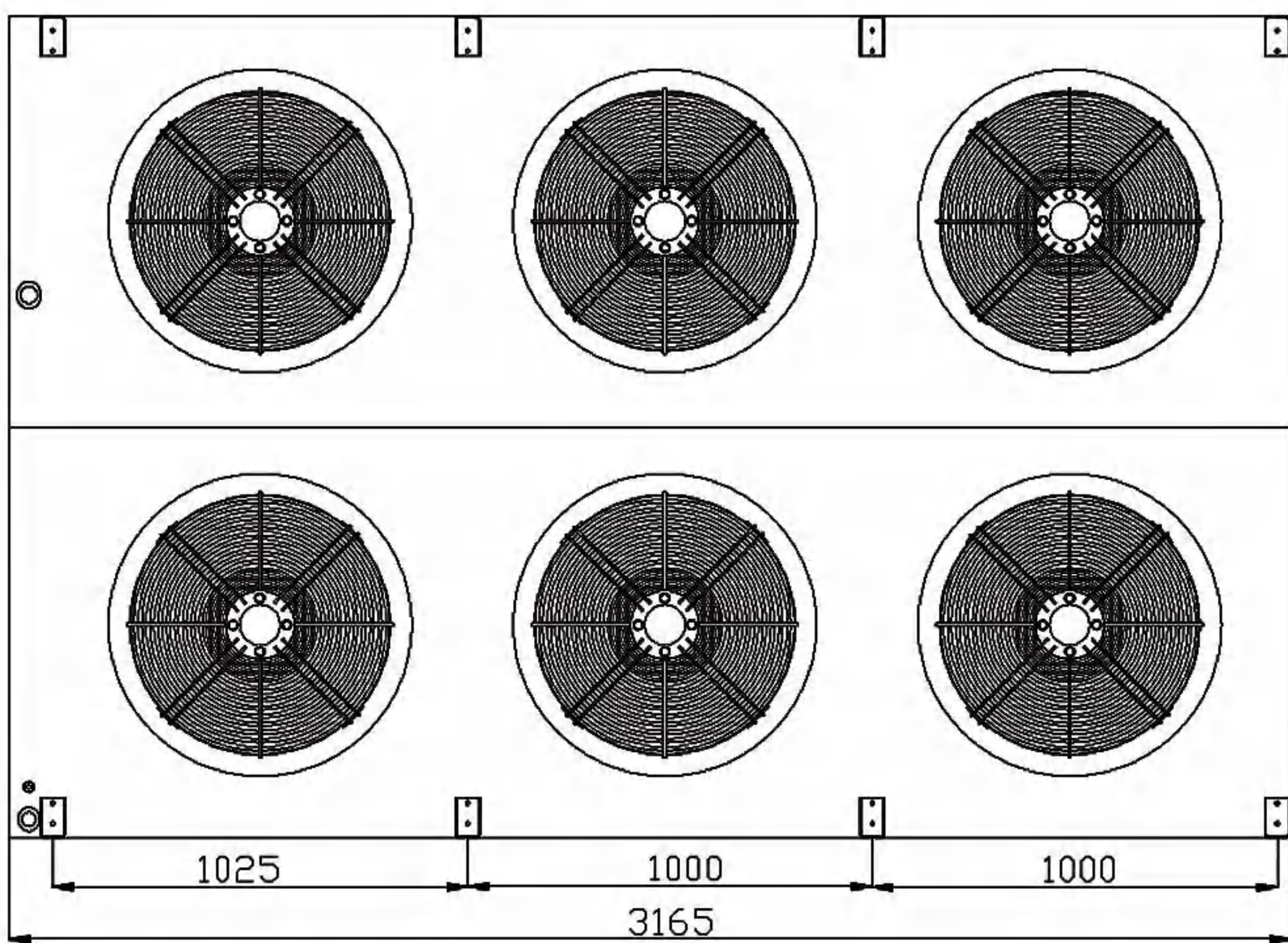
CL5024



CL6322

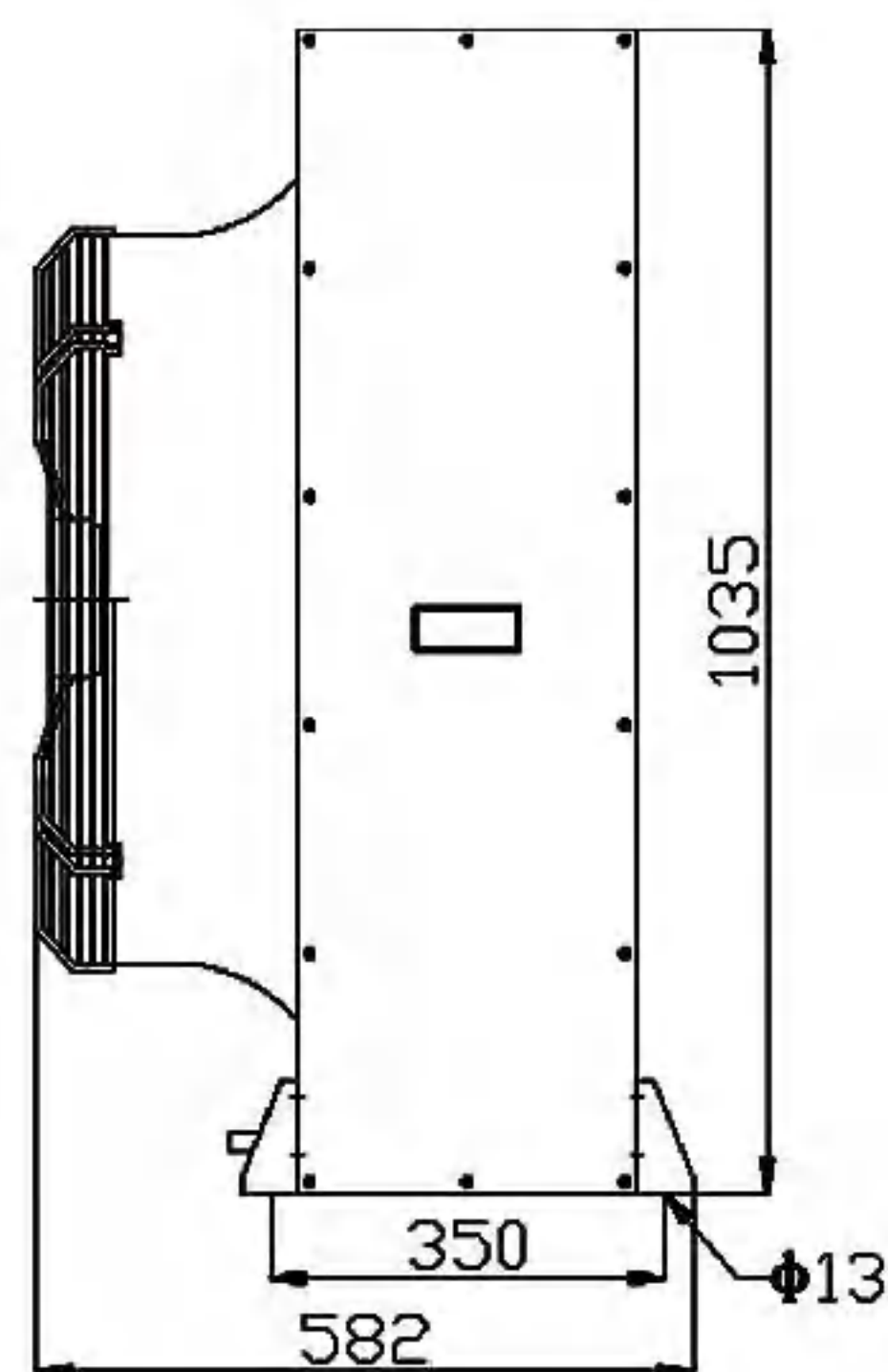


CL6323

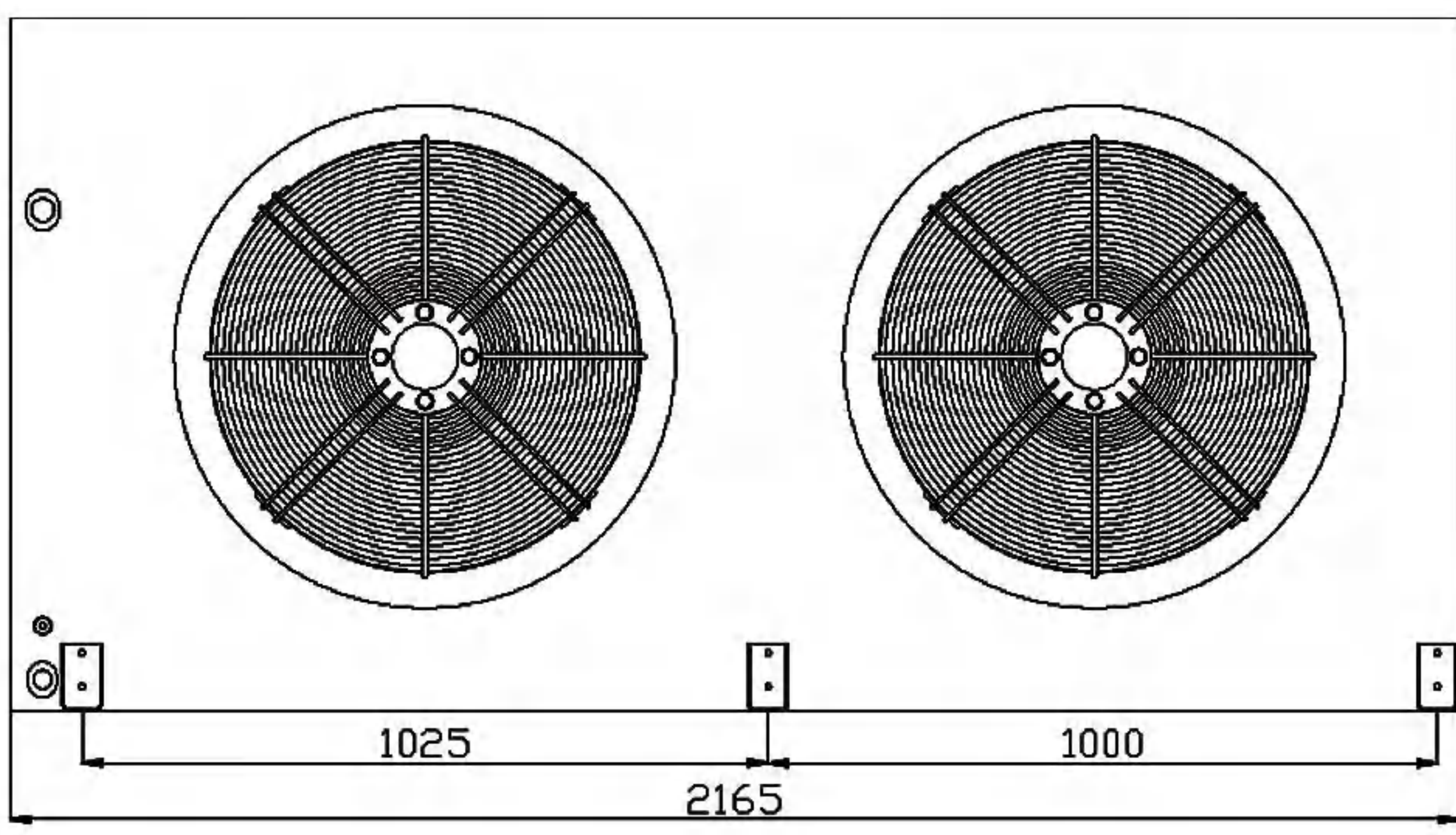
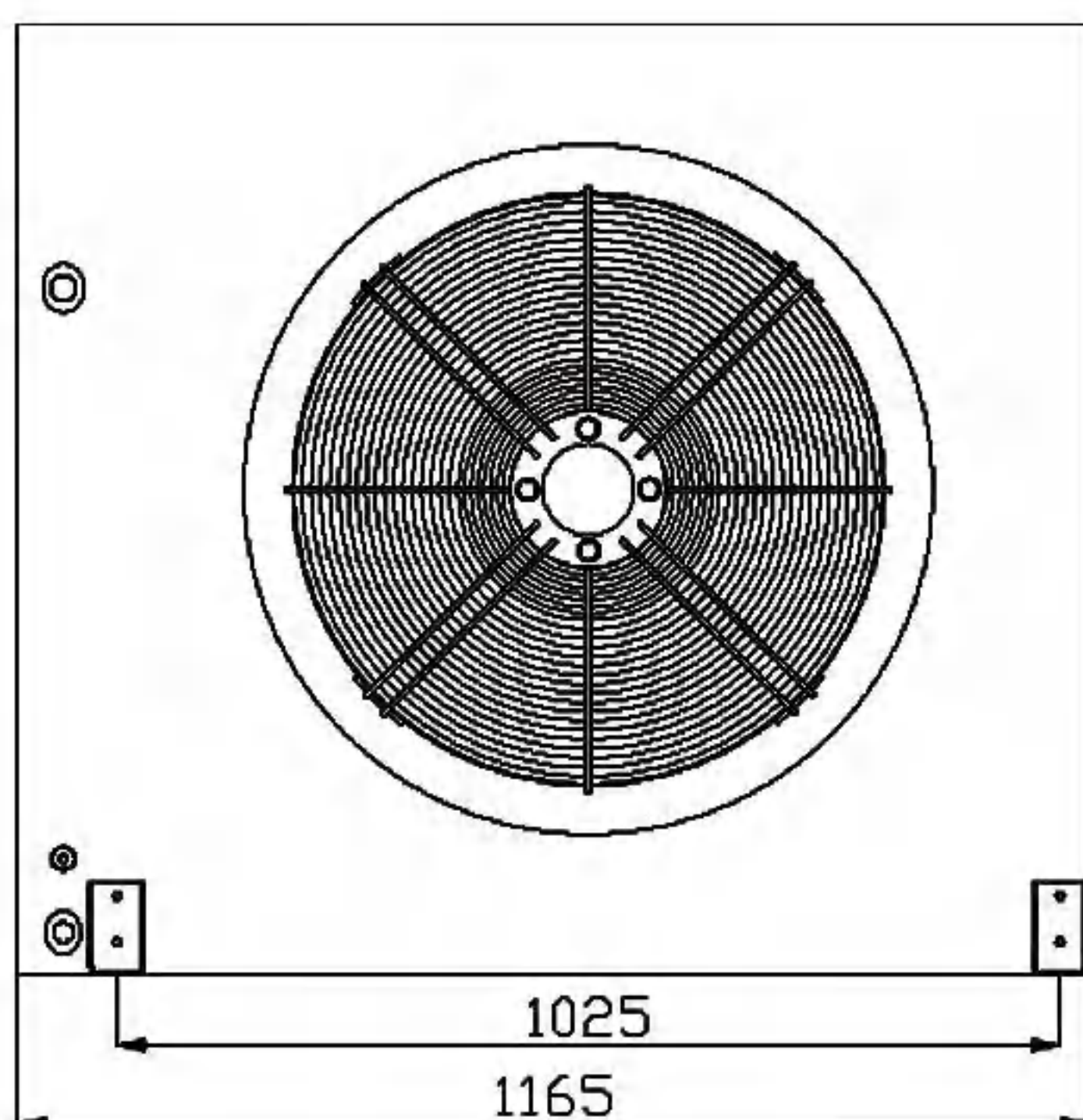


◆ 4.3 630 fan

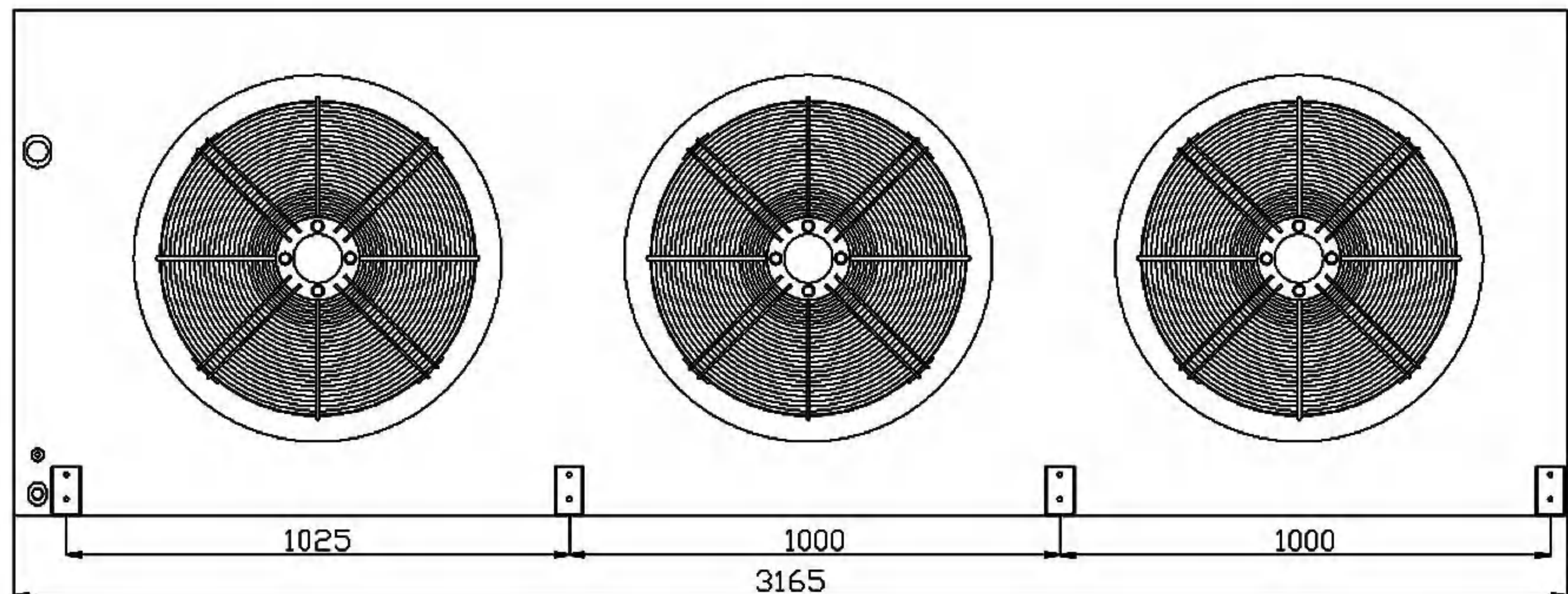
CL6311



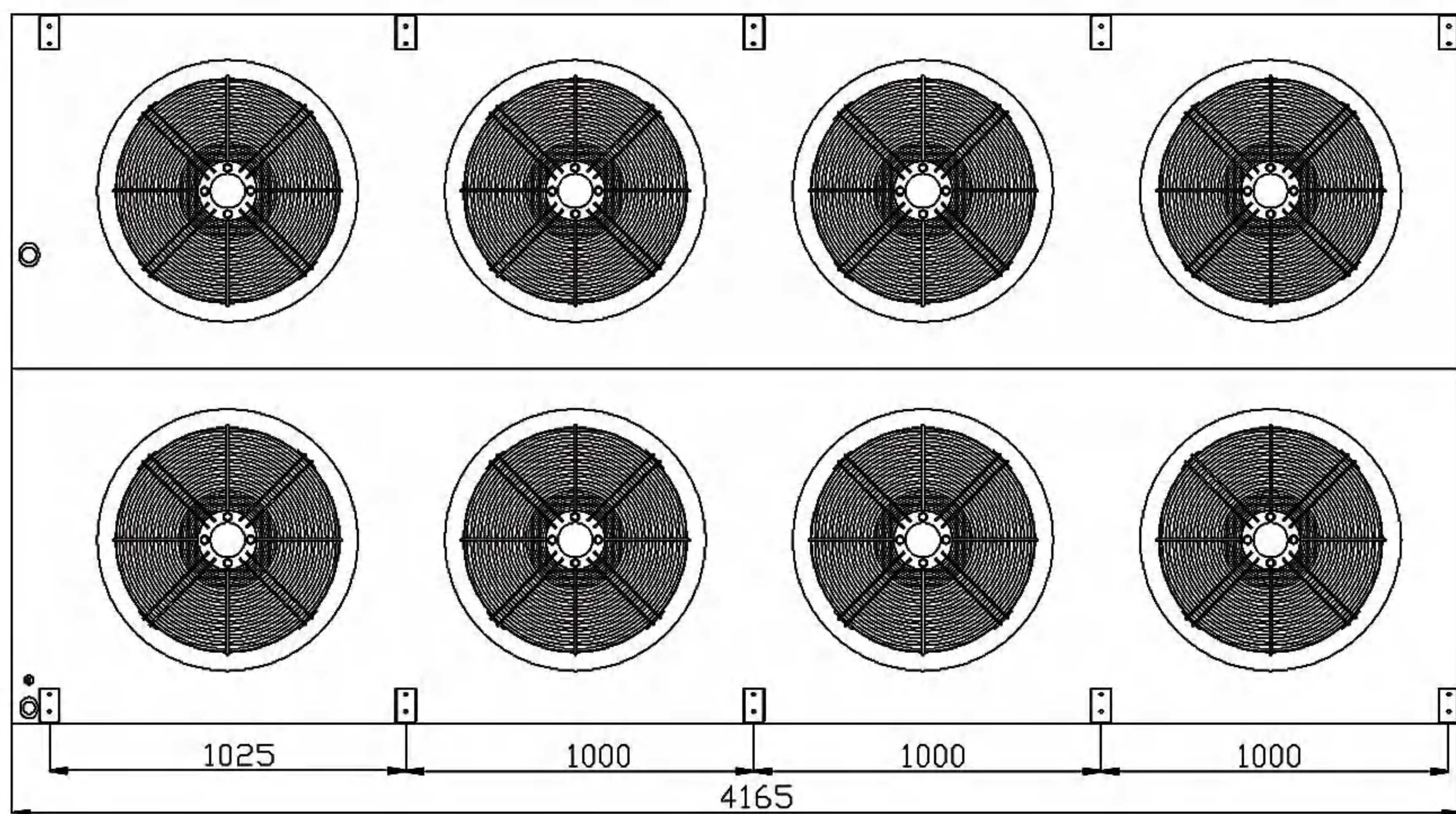
CL6312



CL6313



CL6324



CP series horizontal plate-type condenser



I. Product Overview:

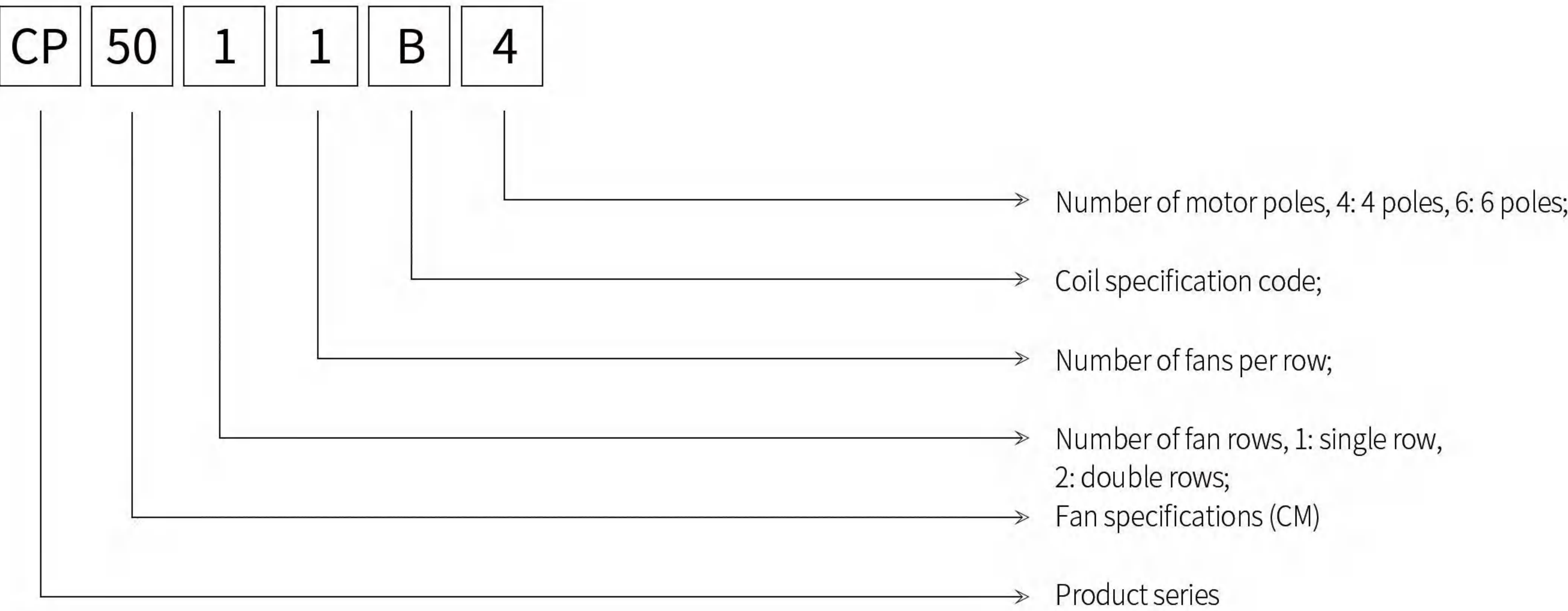
CP series condenser is designed with horizontal flat plate structure, with air inlet at bottom and air outlet on top; it is mainly equipped with the remotely mounted pistons and parallel units or screw units requiring high heat exchange.

This series of products has the following characteristics:

- 1. It is designed with horizontal flat plate structure, fans in one row and fans in double rows.
- 2. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006); the fan tube is designed with overall stretching large rounded high air tube, it has the characteristics of excellent air guiding effect, low noise and aesthetic appearance.
- 3. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube;
- 4. Coil: Tube diameter $\phi 9.5$, female thread copper pipe, tube spacing 25×21.65 in triangular arrangement, high heat exchange efficiency.
- 5. Corrugated aluminum sheet made of hydrophilic aluminum foil is adopted, with the sheet spacing of 2.1mm;
- 6. Fan: It is design with standard 3P/380V/50Hz power supply, fitted with $\phi 500$ and $\phi 630$ external rotor fans, 1-5 fans in one row, 4-10 fans in double rows; it is designed with 4-pole and 6-pole motor, which can meet different noise requirements.
- 7. The test pressure of the product is 32bar.
- 8. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



II. Model Description:



III. Performance Datasheet:

◆ 500 fan series

Model	Heat exchange (KW) △T=15K	Surface m ²	Tube volume dm ³	Fan			Noise dB(A)	Connection pipe (mm)		Weight kg
				Airflow m ³ /h	Power (W)	Current (A)		Inlet air	Effluent	
4-pole motor: speed 1320r/min										
CP5011B4	20.6	24.6	3.1	6600	414	0.85	52	φ 22	φ 16	56
CP5011C4	23.6	36.9	4.7	6400	414	0.85	52	φ 22	φ 16	60
CP5011D4	25.4	49.3	6.2	6000	414	0.85	52	φ 22	φ 16	64
CP5012B4	41.4	49.3	6.0	13200	828	1.70	55	φ 28	φ 22	85
CP5012C4	47.3	73.9	9.0	12800	828	1.70	55	φ 28	φ 22	93
CP5012D4	50.7	98.5	12.1	12000	828	1.70	55	φ 28	φ 22	101
CP5013B4	62.1	73.9	8.9	19800	1242	2.55	56	φ 35	φ 22	115
CP5013C4	70.9	110.8	13.4	19200	1242	2.55	56	φ 35	φ 22	126
CP5013D4	76.1	147.8	17.9	18000	1242	2.55	56	φ 35	φ 22	137
CP5014B4	82.7	98.5	11.8	26400	1656	3.40	57	φ 35	φ 28	152
CP5014C4	94.6	147.8	17.8	25600	1656	3.40	57	φ 35	φ 28	167
CP5014D4	101.5	197.0	23.7	24000	1656	3.40	57	φ 35	φ 28	182
CP5015B4	103.4	123.1	14.7	33000	2070	4.25	58	φ 35	φ 28	181
CP5015C4	118.2	184.7	22.1	32000	2070	4.25	58	φ 42	φ 28	200
CP5015D4	126.8	246.3	29.5	30000	2070	4.25	58	φ 42	φ 28	219
CP5022B4	82.7	98.5	12.1	26400	1656	3.40	57	φ 35	φ 28	170
CP5022C4	94.6	147.8	18.1	25600	1656	3.40	57	φ 35	φ 28	186
CP5022D4	101.5	197.0	24.1	24000	1656	3.40	57	φ 35	φ 28	202
CP5023B4	124.2	147.8	17.9	39600	2484	5.10	59	φ 42	φ 35	230
CP5023C4	141.8	221.6	26.8	38400	2484	5.10	59	φ 42	φ 35	252
CP5023D4	152.2	295.5	35.7	36000	2484	5.10	59	φ 42	φ 35	274
CP5024B4	165.5	197.0	23.7	52800	3312	6.80	61	φ 42	φ 35	304
CP5024C4	189.1	295.5	35.5	51200	3312	6.80	61	φ 42	φ 35	334
CP5024D4	202.9	394.0	47.3	48000	3312	6.80	61	φ 54	φ 35	364
CP5025B4	206.9	246.3	29.5	66000	4140	8.50	63	φ 54	φ 42	362
CP5025C4	236.4	369.4	44.2	64000	4140	8.50	63	φ 54	φ 42	400
CP5025D4	253.6	492.5	58.9	60000	4140	8.50	63	φ 54	φ 42	438
6-pole motor: speed 900r/min										
CP5011B6	16.0	24.6	3.1	4700	210	0.54	46	φ 22	φ 16	56
CP5011C6	18.5	36.9	4.7	4400	210	0.54	46	φ 22	φ 16	60

CP series horizontal plate-type condenser



Model	Heat exchange (KW) △T=15K	Surface m²	Tube volume dm³	Fan			Noise dB(A)	Connection pipe (mm)		Weight kg
				Airflow m³/h	Power (W)	Current (A)		Inlet air	Effluent	
6-pole motor: speed 900r/min										
CP5012B6	32.0	49.3	6.0	9400	420	1.08	49	φ 28	φ 22	85
CP5012C6	36.9	73.9	9.0	8800	420	1.08	49	φ 28	φ 22	93
CP5013B6	48.0	73.9	8.9	14100	630	1.62	50	φ 35	φ 28	115
CP5013C6	55.4	110.8	13.4	13200	630	1.62	50	φ 35	φ 28	126
CP5014B6	64.0	98.5	11.8	18800	840	2.16	51	φ 35	φ 28	152
CP5014C6	73.9	147.8	17.8	17600	840	2.16	51	φ 35	φ 28	167
CP5015B6	79.9	123.1	14.7	23500	1050	2.70	52	φ 35	φ 28	181
CP5015C6	92.3	184.7	22.1	22000	1050	2.70	52	φ 42	φ 28	200
CP5022B6	64.0	98.5	12.1	18800	840	2.16	51	φ 35	φ 28	170
CP5022C6	73.9	147.8	18.1	17600	840	2.16	51	φ 35	φ 28	186
CP5023B6	96.1	147.8	17.9	28200	1260	3.24	53	φ 42	φ 35	230
CP5023C6	110.8	221.6	26.8	26400	1260	3.24	53	φ 42	φ 35	252
CP5024B6	128.1	197.0	23.7	37600	1680	4.32	55	φ 42	φ 35	304
CP5024C6	147.7	295.5	35.5	35200	1680	4.32	55	φ 42	φ 35	334
CP5025B6	160.1	246.3	29.5	47000	2100	5.40	57	φ 54	φ 42	362
CP5025C6	184.7	369.4	44.2	44000	2100	5.40	57	φ 54	φ 42	400

CP6322D4	166.2	307.8	37.4	43000	3200	6.4	62	φ 42	φ 35	278
CP6323B4	172.7	230.9	27.8	70500	4800	9.6	64	φ 42	φ 35	312
CP6323C4	218.1	346.2	41.6	69000	4800	9.6	64	φ 54	φ 42	348
CP6323D4	249.3	461.8	55.5	64500	4800	9.6	64	φ 54	φ 42	388
CP6324B4	230.2	307.8	36.8	94000	6400	12.8	66	2- φ 42	2- φ 35	412
CP6324C4	290.0	461.8	55.3	92000	6400	12.8	66	2- φ 42	2- φ 35	460
CP6324D4	332.4	615.7	73.7	86000	6400	12.8	66	2- φ 42	2- φ 35	508
CP6325B4	287.8	384.8	45.9	117500	8000	16.0	68	2- φ 42	2- φ 35	494
CP6325C4	363.6	577.2	68.9	115000	8000	16.0	68	2- φ 54	2- φ 42	556
CP6325D4	415.5	769.6	91.8	107500	8000	16.0	68	2- φ 54	2- φ 42	616

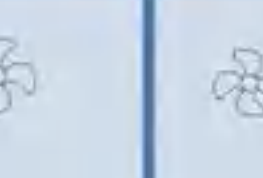
6-pole motor: speed 900r/min										
CP6311B6	25.4	38.5	4.8	9375	550	1.45	52	φ 28	φ 22	72
CP6311C6	31.7	57.7	7.2	8850	550	1.45	52	φ 28	φ 22	78
CP6311D6	34.6	77.0	9.6	8150	550	1.45	52	φ 28	φ 22	84
CP6312B6	50.8	77.0	9.3	18750	1100	2.90	55	φ 28	φ 22	115
CP6312C6	63.4	115.4	14.0	17700	1100	2.90	55	φ 35	φ 28	127
CP6312D6	69.2	153.9	18.7	16300	1100	2.90	55	φ 35	φ 28	139
CP6313B6	76.2	115.4	13.9	28125	1650	4.35	56	φ 35	φ 28	156
CP6313C6	95.2	173.2	20.8	26550	1650	4.35	56	φ 35	φ 28	174
CP6313D6	103.9	230.9	27.8	24450	1650	4.35	56	φ 42	φ 28	194
CP6314B6	101.5	153.9	18.4	37500	2200	5.80	57	φ 42	φ 28	206
CP6314C6	127.0	230.9	27.6	35400	2200	5.80	57	φ 42	φ 35	230
CP6314D6	138.5	307.9	36.8	32600	2200	5.80	57	φ 42	φ 35	254
CP6315B6	127.0	192.4	23.0	46875	2750	7.25	58	φ 42	φ 35	247
CP6315C6	158.7	288.6	34.4	44250	2750	7.25	58	φ 42	φ 35	278
CP6315D6	173.2	384.8	45.9	40750	2750	7.25	58	φ 54	φ 42	308
CP6322B6	101.5	153.9	18.7	37500	2200	5.80	57	φ 42	φ 35	230
CP6322C6	127.0	230.9	28.0	35400	2200	5.80	57	φ 42	φ 35	254
CP6322D6	138.5	307.8	37.4	32600	2200	5.80	57	φ 42	φ 35	278
CP6323B6	152.3	230.9	27.8	56250	3300	8.70	59	φ 42	φ 35	312
CP6323C6	190.4	346.2	41.6	53100	3300	8.70	59	φ 54	φ 42	348
CP6323D6	207.8	461.8	55.5	48900	3300	8.70	59	φ 54	φ 42	388
CP6324B6	203.1	307.8	36.8	75000	4400	11.6	61	2- φ 42	2- φ 35	412
CP6324C6	254.0	461.8	55.3	70800	4400	11.6	61	2- φ 42	2- φ 35	460
CP6324D6	277.0	615.7	73.7	65200	4400	11.6	61	2- φ 42	2- φ 35	508
CP6325B6	254.0	384.8	45.9	93750	5500	14.5	63	2- φ 42	2- φ 35	494
CP6325C6	317.4	577.2	68.9	88500	5500	14.5	63	2- φ 54	2- φ 42	556
CP6325D6	346.3	769.6	91.8	81500	5500	14.5	63	2- φ 54	2- φ 42	616

1) Calibration of cooling capacity: Inlet air temperature 25 °C, condensation temperature 40 °C, temperature difference 15K, refrigerant R404A. For heat exchange in other working conditions, please refer to the correction coefficient.
2) The noise is calibrated to the sound pressure value at a distance of 10 meters.

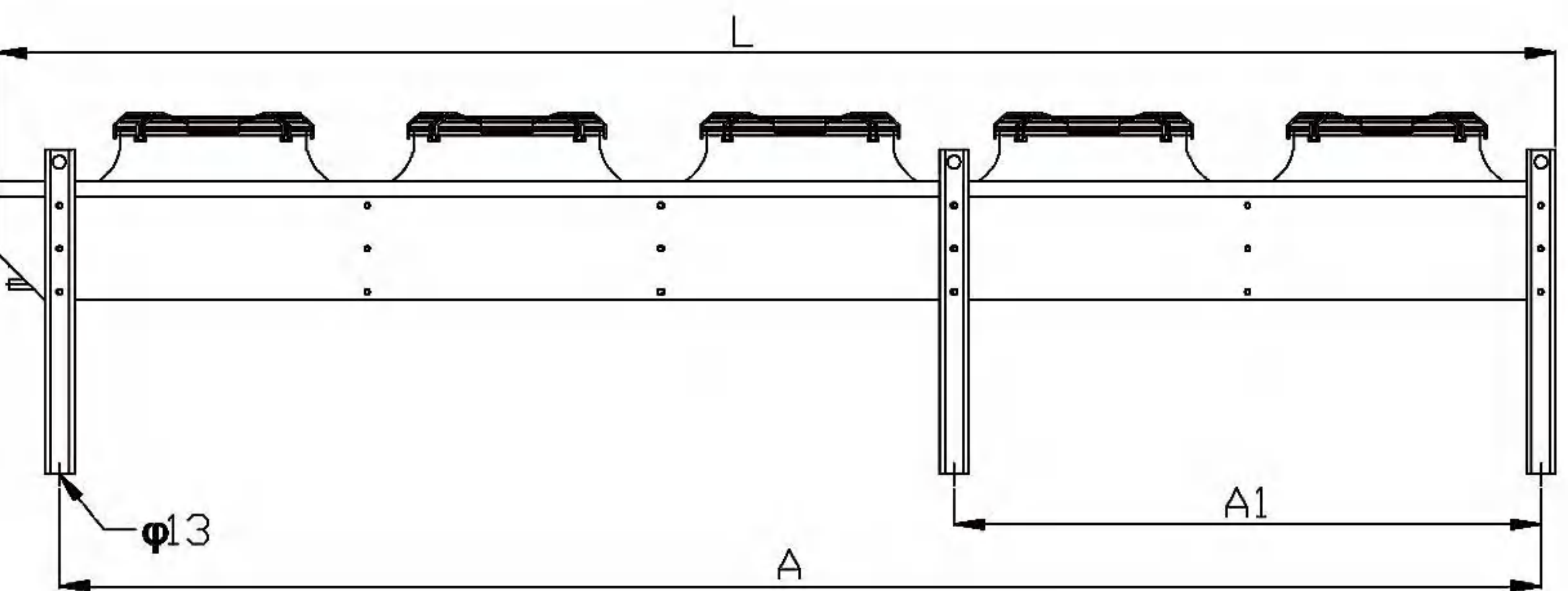
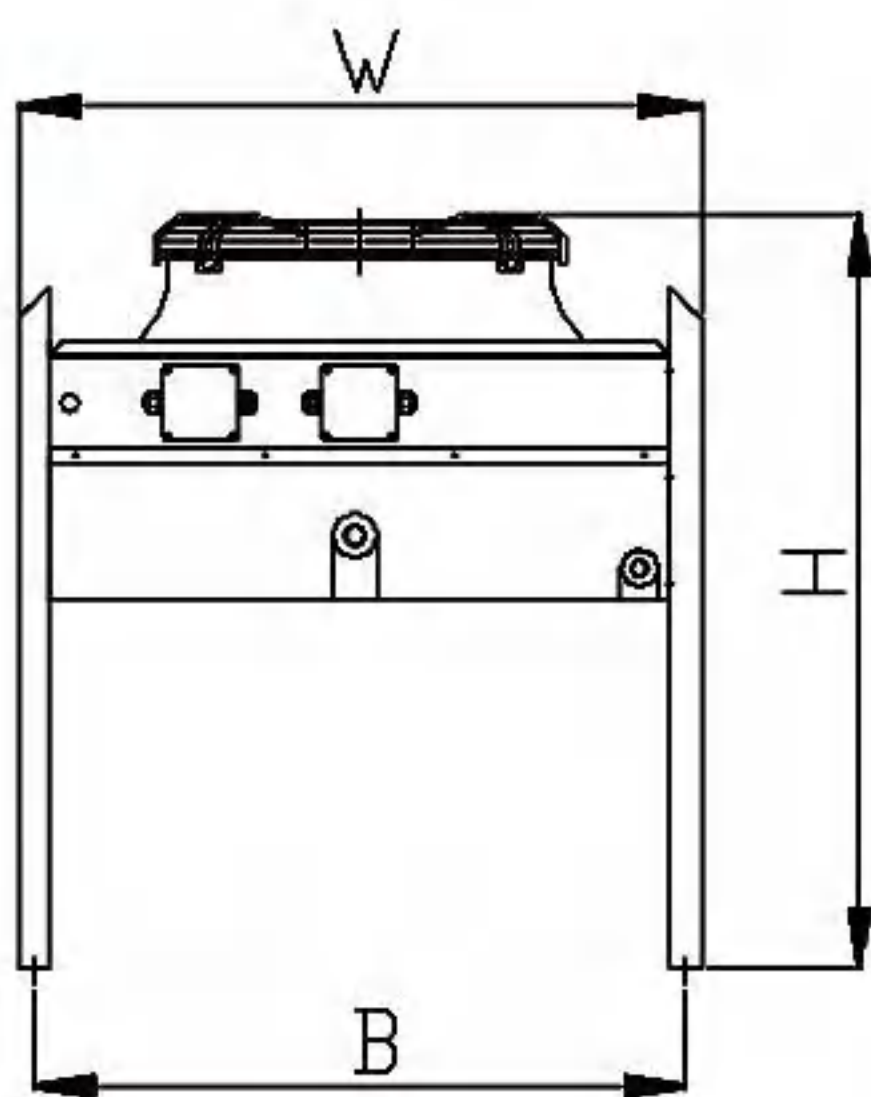
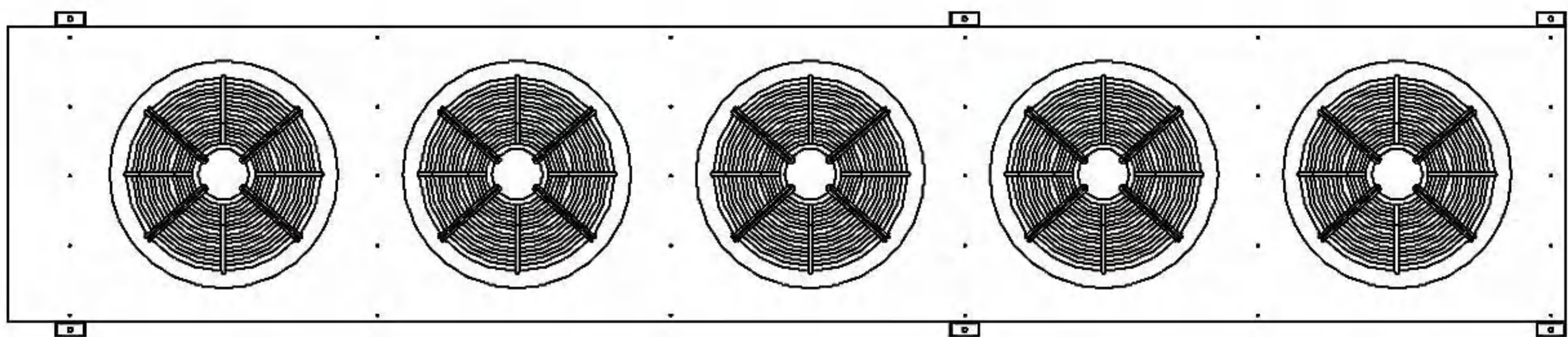
CP series horizontal plate-type condenser

CV series V-type condenser

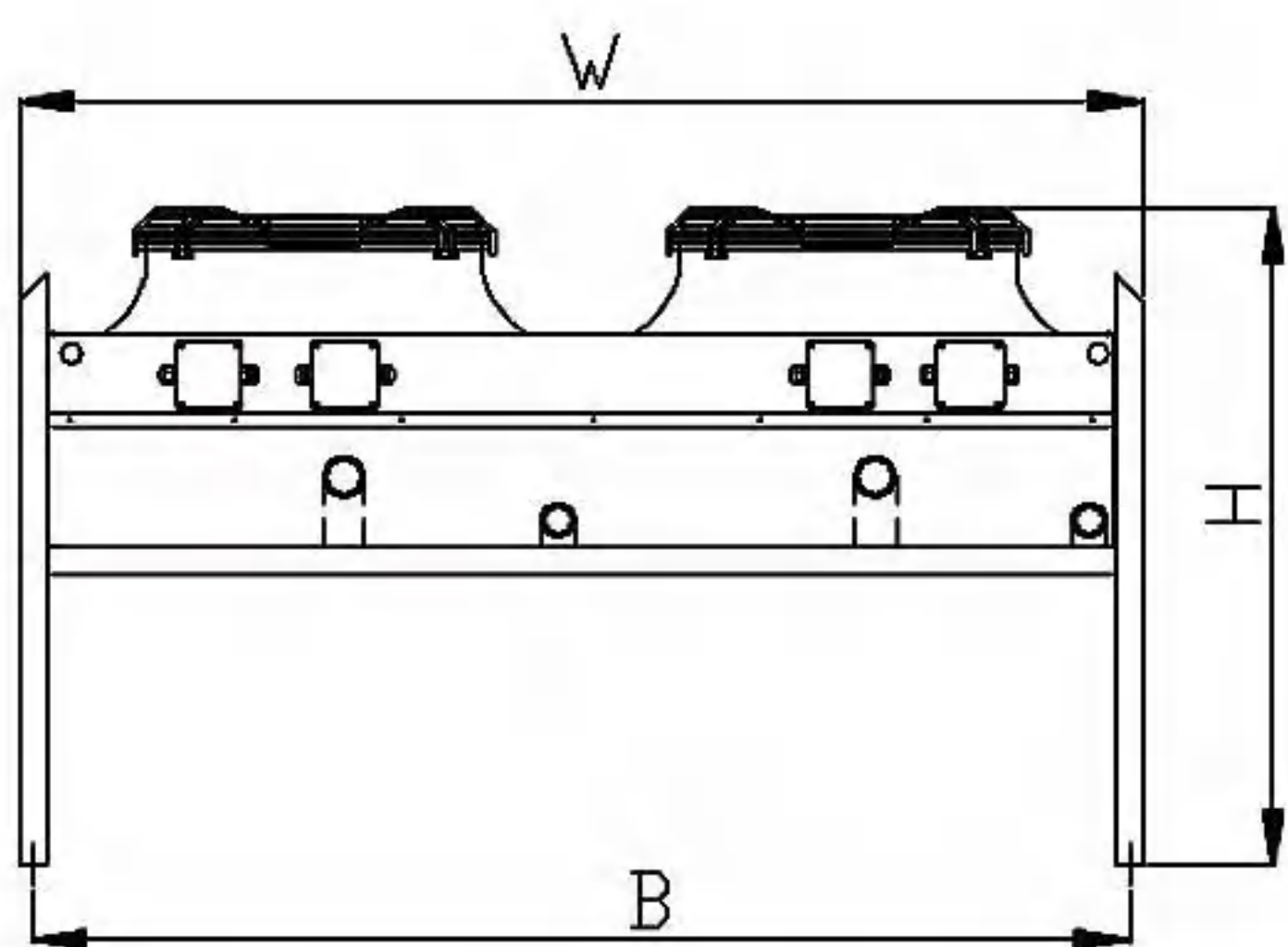
IV. Outline and Installation Dimension:

Model	Dimensions	Fans in single row (View A)					Fans in double rows (View B)			
										
CP50	L	1050	1850	2650	3450	4250	1850	2650	3450	4250
	W	900	900	900	900	900	1700	1700	1700	1700
	H	1000	1000	1000	1000	1000	1000	1000	1000	1000
	A	840	1640	2440	3240	4040	1640	2440	3240	4040
	A1	/	/	/	1600	1600	/	/	1600	1600
	B	860	860	860	860	860	1660	1660	1660	1660
CP63	L	1250	2250	3250	4250	5250	2250	3250	4250	5250
	W	1100	1100	1100	1100	1100	2100	2100	2100	2100
	H	1025	1025	1025	1025	1025	1025	1025	1025	1025
	A	1040	2040	3040	4040	5040	2040	3040	4040	5040
	A1	/	/	/	2000	2000	/	/	2000	2000
	B	1060	1060	1060	1060	1060	2060	2060	2060	2060

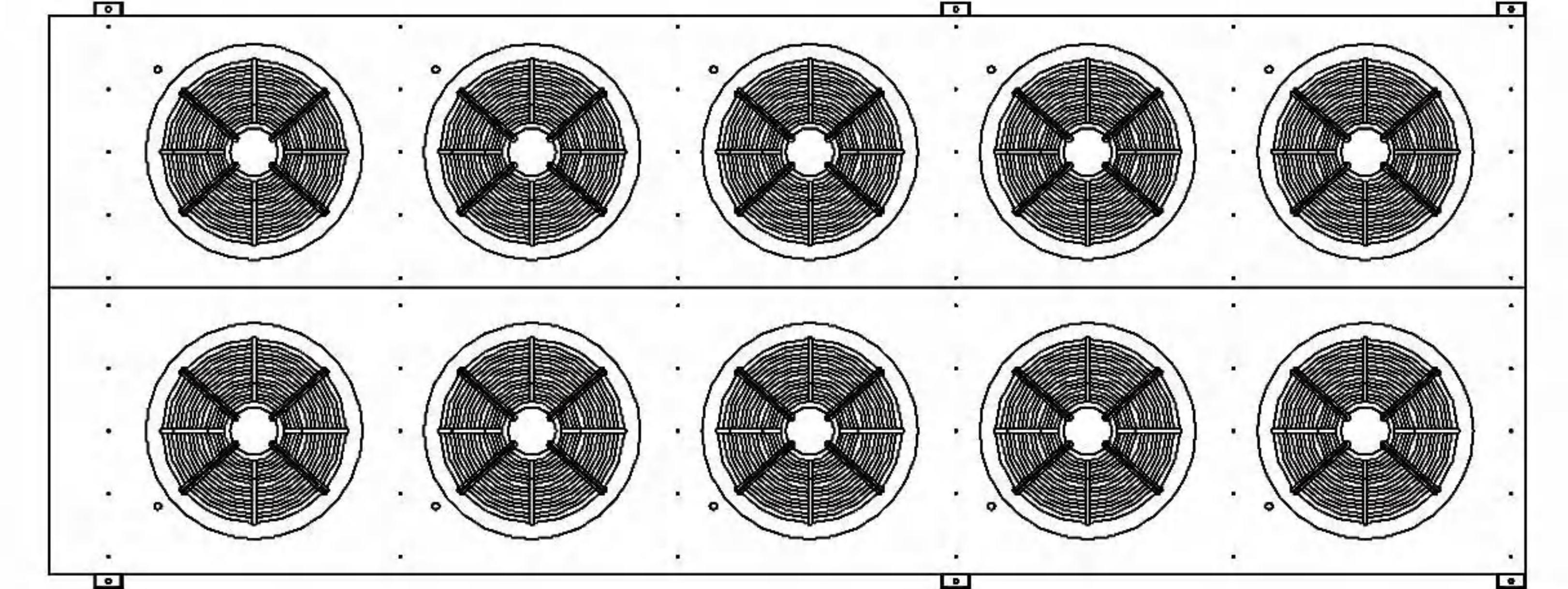
View A:



◀ (This figure is a side view shared in View A and B)



View B:



I. Product Overview:

CV series condenser is designed with V-shaped structure, air inlet on both sides and air outlet on top and larger windward area; it is mainly equipped with the remotely mounted pistons and parallel units or screw units requiring high heat exchange. This series of products has the following characteristics:

1. Casing: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006); the fan tube is designed with overall stretching large rounded high air tube, it has the characteristics of excellent air guiding effect, low noise and aesthetic appearance.
2. Coil: Tube diameter $\phi 9.5$, female thread copper pipe, tube spacing 25×21.65 in triangular arrangement, high heat exchange efficiency.
3. Corrugated aluminum sheet made of hydrophilic aluminum foil is adopted, with the sheet spacing of 2.1mm;
4. Fan: It is designed with standard 3P/380V/50Hz power supply; 1-6 $\phi 630$ fans are adopted with 4-pole and 6-pole motors; the quantity of $\phi 800$ fans in single row ranges from 1 to 8, and from 4 to 16 in double rows, and the number of motor poles is 6.
5. The test pressure of the product is 32bar.
6. It is compatible with R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.



II. Model Explanation:

CV 63 1 1 B 4

- Product series
- Fan specifications (CM)
- Number of fan rows, 1: single row, 2: double rows;
- Number of fans per row;
- Coil specification code;
- Number of motor poles, 4: 4 poles, 6: 6 poles;

CV series V-type condenser



III. Performance Datasheet

◆ 630 fan series

Model	Heat exchange (KW) △T=15K	Surface m²	Tube volume dm³	Fan			Noise dB(A)	Connection pipe (mm)		Weight kg
				Airflow m³/h	Power (W)	Current (A)		Inlet air	Effluent	
4-pole motor: speed 1320r/min										
CV6311B4	40.5	62.3	7.8	11750	800	1.6	57	2-φ22	2-φ16	123
CV6311C4	47.6	93.5	11.8	11500	800	1.6	57	2-φ22	2-φ16	132
CV6311D4	50.9	124.7	15.7	10750	800	1.6	57	2-φ22	2-φ16	142
CV6312B4	81.0	124.7	15.2	23500	1600	3.2	60	2-φ28	2-φ22	199
CV6312C4	95.3	187.0	22.8	23000	1600	3.2	60	2-φ28	2-φ22	218
CV6312D4	101.7	249.4	30.4	21500	1600	3.2	60	2-φ35	2-φ28	238
CV6313B4	121.5	187.0	22.5	35250	2400	4.8	61	2-φ35	2-φ28	276
CV6313C4	143.0	280.5	33.8	34500	2400	4.8	61	2-φ35	2-φ28	304
CV6313D4	152.5	374.0	45.1	32250	2400	4.8	61	2-φ35	2-φ28	333
CV6314B4	162.1	249.4	29.9	47000	3200	6.4	62	2-φ42	2-φ28	351
CV6314C4	190.7	374.0	44.8	46000	3200	6.4	62	2-φ42	2-φ28	388
CV6314D4	203.4	498.7	59.8	43000	3200	6.4	62	2-φ42	2-φ28	427
CV6315B4	202.6	311.7	37.2	58750	4000	8.0	63	2-φ42	2-φ28	426
CV6315C4	238.4	467.5	55.9	57500	4000	8.0	63	2-φ42	2-φ35	474
CV6315D4	254.3	623.4	74.5	53750	4000	8.0	63	2-φ42	2-φ35	523
CV6316B4	243.1	374.0	44.6	70500	4800	9.6	64	2-φ42	2-φ35	501
CV6316C4	286.1	561.0	66.9	69000	4800	9.6	64	2-φ42	2-φ35	558
CV6316D4	305.2	748.1	89.2	64500	4800	9.6	64	2-φ42	2-φ35	616

6-pole motor: speed 900r/min										
CV6311B6	31.1	62.3	7.8	9375	550	1.45	52	2- φ 22	2- φ 16	123
CV6311C6	38.3	93.5	11.8	8850	550	1.45	52	2- φ 22	2- φ 16	132
CV6311D6	41.2	124.7	15.7	8150	550	1.45	52	2- φ 22	2- φ 16	142
CV6312B6	62.3	124.7	15.2	18750	1100	2.90	55	2- φ 28	2- φ 22	199
CV6312C6	76.6	187.0	22.8	17700	1100	2.90	55	2- φ 28	2- φ 22	218
CV6312D6	82.3	249.4	30.4	16300	1100	2.90	55	2- φ 35	2- φ 28	238
CV6313B6	93.5	187.0	22.5	28125	1650	4.35	56	2- φ 35	2- φ 28	276
CV6313C6	115.0	280.5	33.8	26550	1650	4.35	56	2- φ 35	2- φ 28	304
CV6313D6	123.4	374.0	45.1	24450	1650	4.35	56	2- φ 35	2- φ 28	333

CV6314B6	102.3	249.4	29.9	37500	2200	5.80	57	2- φ 42	2- φ 28	351
CV6314C6	153.3	374.0	44.8	35400	2200	5.80	57	2- φ 42	2- φ 28	388
CV6314D6	164.5	498.7	59.8	32600	2200	5.80	57	2- φ 42	2- φ 28	427
CV6315B6	155.8	311.7	37.2	46875	2750	7.25	58	2- φ 42	2- φ 28	426
CV6315C6	191.6	467.5	55.9	44250	2750	7.25	58	2- φ 42	2- φ 35	474
CV6315D6	205.7	623.4	74.5	40750	2750	7.25	58	2- φ 42	2- φ 35	523
CV6316B6	187.0	374.0	44.6	56250	3300	8.70	59	2- φ 42	2- φ 35	501
CV6316C6	230.0	561.0	66.9	53100	3300	8.70	59	2- φ 42	2- φ 35	558
CV6316D6	246.8	748.1	89.2	48900	3300	8.70	59	2- φ 42	2- φ 35	616

- 1) Calibration of cooling capacity: Inlet air temperature 25 °C, condensation temperature 40 °C, temperature difference 15K, refrigerant R404A. For heat exchange in other working conditions, please refer to the correction coefficient.
- 2) The noise is calibrated to the sound pressure value at a distance of 10 meters.

◆ 800 fan series

1) Fans in single row

Model	Heat exchange (KW) △T=15K	Surface m ²	Tube volume dm ³	Fan			Noise dB(A)	Connection pipe (mm)		Weight kg
				Airflow m ³ /h	Power (W)	Current (A)		Inlet air	Effluent	
6-pole motor: speed 880r/min										
CV8011B6	70.7	115	14.3	21600	1940	3.9	54	2-φ 28	2-φ 22	212
CV8011C6	88.2	173	21.4	20800	1940	3.9	54	2-φ 28	2-φ 22	240
CV8011D6	93.5	231	28.5	20000	1940	3.9	54	2-φ 28	2-φ 22	267
CV8012B6	142.0	231	27.9	43200	3880	7.8	57	2-φ 35	2-φ 28	361
CV8012C6	176.5	346	41.8	41600	3880	7.8	57	2-φ 35	2-φ 28	416
CV8012D6	187.1	462	55.7	40000	3880	7.8	57	2-φ 35	2-φ 28	471
CV8013B6	212.8	346	41.5	64800	5820	11.7	59	2-φ 42	2-φ 35	514
CV8013C6	265.2	520	62.2	62400	5820	11.7	59	2-φ 42	2-φ 35	597
CV8013D6	280.6	693	83.0	60000	5820	11.7	59	2-φ 42	2-φ 35	679
CV8014B6	284.1	462	55.1	86400	7760	15.6	60	2-φ 42	2-φ 35	662
CV8014C6	353.4	693	82.6	83200	7760	15.6	60	2-φ 42	2-φ 35	772
CV8014D6	374.2	924	110.2	80000	7760	15.6	60	2-φ 42	2-φ 35	882

CV series V-type condenser



Model	Heat exchange (KW) △T=15K	Surface m ²	Tube volume dm ³	Fan			Noise dB(A)	Connection pipe (mm)		Weight kg
				Airflow m ³ /h	Power (W)	Current (A)		Inlet air	Effluent	
6-pole motor: speed 880r/min										
CV8015B6	354.8	577	68.7	108000	9700	19.5	61	2- φ 42	2- φ 35	817
CV8015C6	441.6	866	103.1	104000	9700	19.5	61	2- φ 54	2- φ 42	954
CV8015D6	467.3	1154	137.4	100000	9700	19.5	61	2- φ 54	2- φ 42	1091
CV8016B6	426.2	693	83.1	129600	11640	23.4	61	2- φ 54	2- φ 42	970
CV8016C6	529.9	1039	124.6	124800	11640	23.4	61	2- φ 54	2- φ 42	1134
CV8016D6	560.9	1385	166.2	120000	11640	23.4	61	2- φ 54	2- φ 42	1298
CV8017B6	496.9	808	96.9	151200	13580	27.3	62	2- φ 54	2- φ 42	1129
CV8017C6	618.1	1212	145.3	145600	13580	27.3	62	2- φ 54	2- φ 42	1320
CV8017D6	654.5	1616	193.7	140000	13580	27.3	62	2- φ 67	2- φ 54	1512
CV8018B6	567.6	923	110.6	172800	15520	31.2	62	2- φ 54	2- φ 42	1283
CV8018C6	706.4	1385	165.9	166400	15520	31.2	62	2- φ 67	2- φ 54	1502
CV8018D6	748.0	1847	221.2	160000	15520	31.2	62	2- φ 67	2- φ 54	1720

- 1) Calibration of cooling capacity: Inlet air temperature 25 °C, condensation temperature 40 °C, temperature difference 15K, refrigerant R404A. For heat exchange in other working conditions, please refer to the correction coefficient.
- 2) The noise is calibrated to the sound pressure value at a distance of 10 meters.

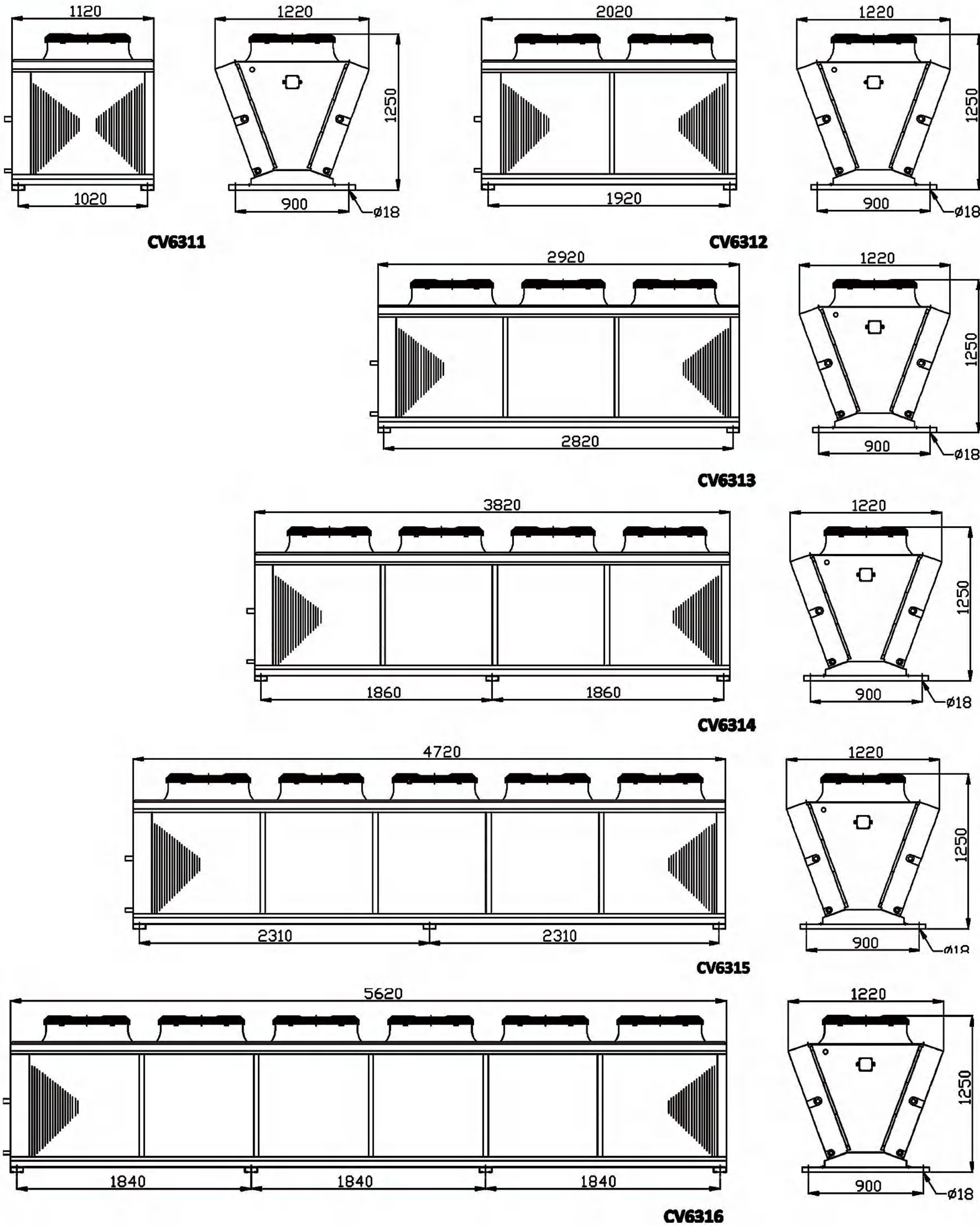
2) Fans in double rows

Model	Heat exchange (KW) △T=15K	Surface m²	Tube volume dm³	Fan			Noise dB(A)	Connection pipe (mm)		Weight kg
				Airflow m³/h	Power (W)	Current (A)		Inlet air	Effluent	
6-pole motor: speed 880r/min										
CV8022C6	281.4	531	71.1	83200	7760	15.6	60	2- φ 42	2- φ 35	788
CV8022D6	297.4	708	94.8	80000	7760	15.6	60	2- φ 42	2- φ 35	880
CV8023C6	422.2	797	105.7	124800	11640	23.4	62	2- φ 54	2- φ 42	1134
CV8023D6	446.1	1062	140.9	120000	11640	23.4	62	2- φ 54	2- φ 42	1271
CV8024C6	562.9	1062	140.3	166400	15520	31.2	63	2- φ 54	2- φ 42	1451
CV8024D6	594.7	1416	187.1	160000	15520	31.2	63	2- φ 54	2- φ 42	1634
CV8025C6	703.6	1328	175.0	208000	19400	39.0	64	2- φ 67	2- φ 54★	1774
CV8025D6	743.4	1770	233.3	200000	19400	39.0	64	2- φ 67	2- φ 54	2002
CV8026C6	844.3	1593	209.6	249600	23280	46.8	64	2- φ 67	2- φ 54★	2114
CV8026D6	892.1	2124	279.5	240000	23280	46.8	64	2- φ 67	2- φ 54	2388
CV8027C6	985.3	1859	244.2	291200	27160	54.6	65	2- φ 67	2- φ 54	2457
CV8027D6	1040.8	2478	325.6	280000	27160	54.6	65	2- φ 76	2- φ 67	2780
CV8028C6	1125.7	2124	278.8	332800	31040	62.4	65	2- φ 76	2- φ 67	2777
CV8028D6	1189.5	2832	371.8	320000	31040	62.4	65	2- φ 76	2- φ 67	3143

- 1) Calibration of cooling capacity: Inlet air temperature 25 °C, condensation temperature 40 °C, temperature difference 15K, refrigerant R404A. For heat exchange in other working conditions, please refer to the correction coefficient.
- 2) The noise is calibrated to the sound pressure value at a distance of 10 meters.
- 3) Marked with ★: The interface is on the other side.

IV. Outline and Installation Dimension:

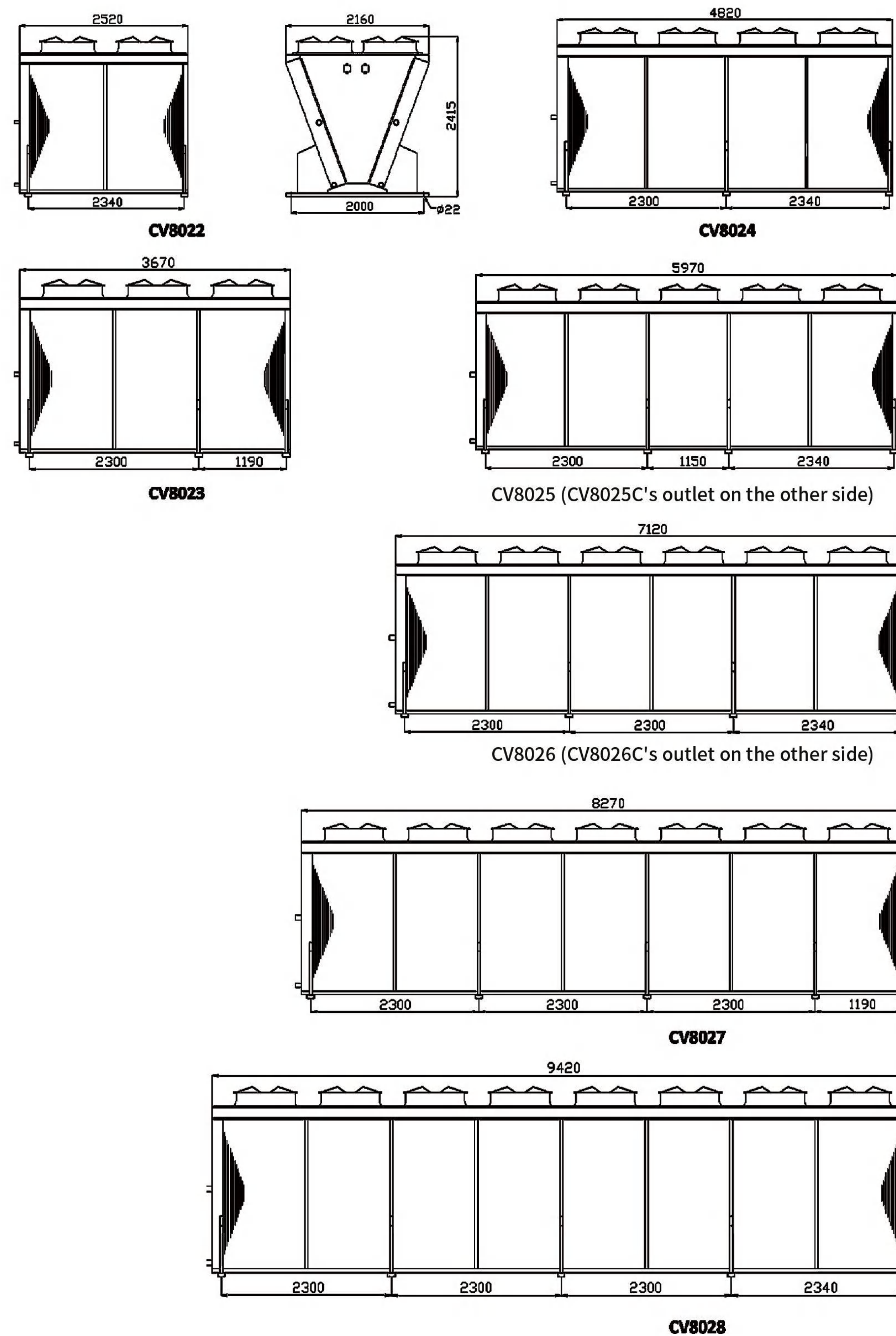
◆ 630 fan



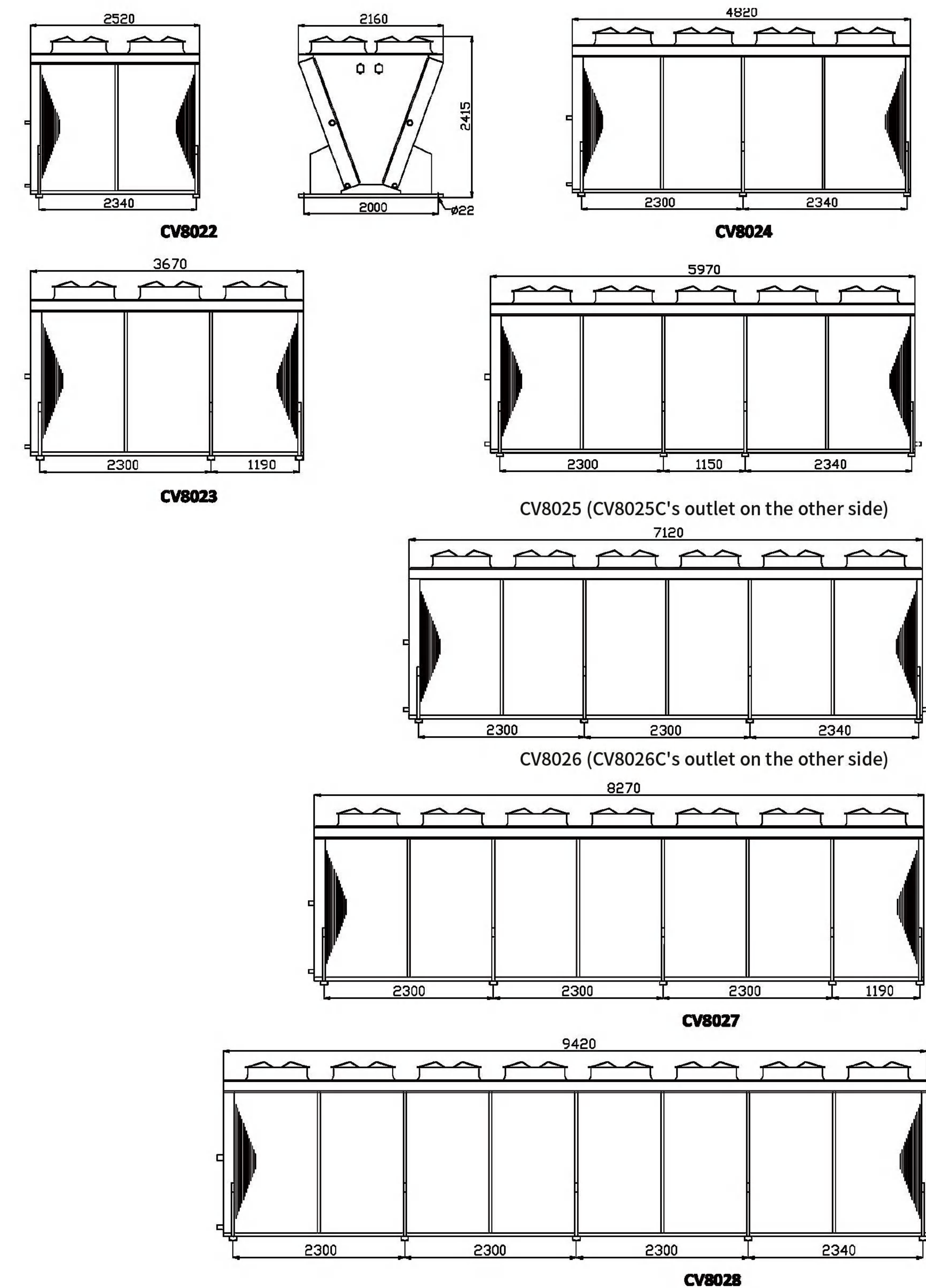
CV series V-type condenser

Heat exchange correction coefficient and selection guide of condensers

◆ 800 fan



◆ 800 fans in double rows



Heat exchange correction coefficient and selection guide of condensers

I. Heat exchange correction coefficient:

◆ 1.1 Heat transfer temperature difference correction coefficient:

The heat transfer temperature difference refers to the difference between the condensing temperature determined during compressor selection and the ambient temperature (the average daily temperature of the air conditioning calculated outdoors in summer). The heat transfer temperature difference is different, and the heat exchange generated by the condenser is also different. The smaller the heat transfer temperature difference, the lower the heat exchange of the condenser.

The correction coefficient of heat transfer temperature difference to condenser heat exchange is shown in the table below:

K1 heat transfer temperature difference (ΔT) correction coefficient table:

Heat transfer temperature difference $\Delta T(^{\circ}\text{C})$	8	9	10	11	12	13	14	15	16	17	18	19	20
K1	0.53	0.60	0.67	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.20	1.27	1.33

Heat transfer temperature difference ΔT = condensation temperature T_k - ambient temperature T_a . For example, the condensation temperature is 45 $^{\circ}\text{C}$ and the ambient temperature is 32 $^{\circ}\text{C}$, $\Delta \text{cool } \Delta T=45-32=13\text{K}$

◆ 1.2 Refrigerant correction coefficient:

As for the impact of different refrigerants used on heat exchange, the correction coefficient is shown in the following table:

K2 refrigerant correction coefficient table:

Refrigerant	R404A	R507A	R134a	R407A	R407C	R22
K2	1.00	1.00	0.93	0.83	0.87	0.96

◆ 1.3 Influence coefficient of condenser's inlet air temperature (ambient temperature) on heat exchange:

K3 condenser inlet air temperature correction coefficient:

Inlet air temperature ($^{\circ}\text{C}$)	10	15	20	25	30	32	35	40	45	50
K3	1.04	1.03	1.02	1.00	0.99	0.98	0.97	0.95	0.94	0.93

◆ 1.4 Influence coefficient of altitude on heat exchange:

K4 altitude correction coefficient:

Altitude (m)	0	200	400	600	800	1000	1200	1400
K4	1.000	0.987	0.974	0.960	0.945	0.931	0.917	0.903
Altitude (m)	1600	1800	2000	2200	2400	2600	2800	3000
K4	0.890	0.876	0.862	0.847	0.833	0.818	0.805	0.790

◆ 1.5 Influence coefficient of aluminum foil material on heat exchange:

K5 aluminum foil material correction coefficient:

Aluminum foil material	Light aluminum foil	Coated aluminum foil
K5	1.00	0.97

II. Selection of condenser:

The condenser can be selected in the following steps:

◆ 2.1 Determine the heat exchange (condensation load) of the condenser required in the design conditions:

The condensation load of the condenser can be determined in two ways stated below:

1) Calculated with the formula $Q_c=Q_o+P_e$:

Where, Q_c —condensation load (KW);

Q_o —cooling capacity (KW) in design conditions;

P_e —input power (KW) of the compressor in design conditions;

For example, a 6FE-50Y BITZER semi-hermetic compressor is designed with the evaporation temperature of -5 $^{\circ}\text{C}$, condensation temperature of 45 $^{\circ}\text{C}$ and R404A refrigerant. Based on the compressor data or selection software, it can be found that under this operating condition, the compressor's cooling capacity is 81.2kw and the input power is 36.4kw, and the condensing load required is as follows:

$Q_c=81.2+36.4=117.6\text{kw}$.

2) Calculated with the formula $Q_c=Q_o\times F_c$:

Where, F_c —condensation load factor; see Table F_c

F_c table (condensation load coefficient table of hermetic and semi-hermetic compressors):

Condensation temperature($^{\circ}\text{C}$)	Evaporation temperature($^{\circ}\text{C}$)									
	-40	-35	-30	-25	-20	-15	-10	-5	0	5
30	1.72	1.65	1.50	1.44	1.40	1.35	1.31	1.27	1.24	1.20
35	1.80	1.72	1.57	1.50	1.45	1.40	1.36	1.32	1.28	1.24
40	1.89	1.80	1.65	1.57	1.51	1.45	1.41	1.36	1.32	1.28
45	1.99	1.90	1.74	1.65	1.58	1.52	1.47	1.42	1.37	1.33
50	2.10	2.01	1.86	1.75	1.67	1.60	1.56	1.49	1.44	1.39
55	2.24	2.14	2.01	1.88	1.78	1.70	1.64	1.58	1.52	1.47

For example, at the evaporation temperature of -5 $^{\circ}\text{C}$ and the condensation temperature of 45 $^{\circ}\text{C}$, the condensing load coefficient F_c is 1.42; if the cooling capacity of the compressor is 81.2KW, the load of the required condenser is $Q_c=81.2\text{KW}\times 1.42=115.3\text{KW}$.

◆ 2.2 Determine the nominal heat exchange required by the condenser (the heat exchange in the parameter table) Q_n :

The nominal heat transfer can be calculated with the following formula:

Where, K_1 —correction coefficient of heat transfer temperature difference; see Table K_1 ; Heat transfer temperature difference ΔT = condensation temperature T_k - inlet air temperature T_a .

K_2 —refrigerant correction coefficient; see Table k_2 ;

K_3 —condenser inlet air temperature correction coefficient; see Table K_3 ;

K_4 —altitude correction coefficient; see Table k_4 ;

K_5 —fin material correction coefficient; see Table k_5 ;

Select the right condenser according to the nominal heat exchange required.

Heat exchange correction coefficient and selection guide of condensers

III. Example of selecting condensers:

It is required to be equipped with a BITZER 6FE-50Y semi-hermetic compressor, designed with evaporation temperature of 5 °C, condensation temperature of 40 °C, R404A refrigerant, which is fitted with hydrophilic aluminum foil and used in Kunming. The selection can be made in following steps:

3.1 Determine the condensation load required by the condenser:

Based on the operating conditions of the compressor, referring to BITZER compressor data or software, the compressor cooling capacity is 98.2KW, the input power is 35.7KW, and then the condensing load of the required condenser is 98.2KW + 35.7KW = 133.9KW.

3.2 Nominal heat exchange required for calculation:

- 1) Calculating the heat transfer temperature difference: According to the meteorological data in Kunming, the average daily temperature of the outdoor air conditioning in summer is 23 °C, the heat transfer temperature difference ΔT=40 °C-23 °C=17 °C; refer to K1 table, and K1=1.13;
- 2) Based on the refrigerant R404A used, refer to Table K2 and K2=1.0;
- 3) Based on the inlet air temperature (ambient temperature) of 23 °C, refer to Table K3 and K3=1.01;
- 4) Based on the altitude of Kunming of 2000 meters, refer to Table K4 and K4=0.862;
- 5) Based on the hydrophilic aluminum foil according to requirements, refer to Table K5 and K5=0.97;

The nominal heat exchange of the condenser required is listed below:

Qn= Qc/ (K1×k2×K3×K4×K5) =133.9 / (1.13×1.0×1.01×0.862×0.97) =140.3kw

3.3 Selecting the right condenser:

Based on the nominal heat exchange of 140.3KW, if a V-type condenser is selected, according to the product data, model CV6313C4 can be selected; the nominal heat exchange is 143.0KW with the margin of 1.9%, as shown in Figure 1:

3.1 630 fan series						
Model	Heat exchange (KW) $\Delta T=15K$	Surface m ²	Tubevolume dm ³	Fan		
				Airflow m ³ /h	Power (W)	Current (A)
4-pole motor: speed 1320r/min						
CV6311B4	40.5	62.3	7.8	11750	800	1.6
CV6311C4	47.6	93.5	11.8	11500	800	1.6
CV6311D4	50.9	124.7	15.7	10750	800	1.6
CV6312B4	81.0	124.7	15.2	23500	1600	3.2
CV6312C4	95.3	187.0	22.8	23000	1600	3.2
CV6312D4	101.7	249.4	30.4	21500	1600	3.2
CV6313B4	121.5	187.0	22.5	35250	2400	4.8
CV6313C4	143.0	280.5	33.8	34500	2400	4.8

Figure 1

3.1 630 fan series						
Model	Heat exchange	Surface	Tubevolume	Fan		
	(KW) ΔT=15K	m²	dm³	Airflow m³/h	Power (W)	Current (A)
4-pole motor: speed 1320r/min						
CV6311B4	40.5	62.3	7.8	11750	800	1.6
CV6311C4	47.6	93.5	11.8	11500	800	1.6
CV6311D4	50.9	124.7	15.7	10750	800	1.6
CV6312B4	81.0	124.7	15.2	23500	1600	3.2
CV6312C4	95.3	187.0	22.8	23000	1600	3.2
CV6312D4	101.7	249.4	30.4	21500	1600	3.2
CV6313B4	121.5	187.0	22.5	35250	2400	4.8
CV6313C4	143.0	280.5	33.8	34500	2400	4.8
CV6313D4	152.5	374.0	45.1	32250	2400	4.8
CV6314B4	162.1	249.4	29.9	47000	3200	6.4
CV6314C4	190.7	374.0	44.8	46000	3200	6.4
CV6314D4	203.4	498.7	59.8	43000	3200	6.4

Figure 2

IV. Impact of heat transfer temperature difference on condenser selection:

The heat transfer temperature difference directly impacts the selection of the condenser; in the case of a certain ambient temperature, the larger the selected heat transfer temperature difference, the higher the condensation temperature, the lower the compressor's cooling capacity, the worse the energy efficiency and the smaller the condenser required; likewise, if the selected heat transfer temperature difference is smaller, the lower the condensing temperature, the greater the compressor's cooling capacity, and the larger the condenser required. The reasonable heat transfer temperature difference should be 10-15°C.

For example:

It is required to be equipped with a BITZER 6FE-50Y compressor, designed with evaporation temperature of -5 °C, condensation temperature of 35 °C, R404A refrigerant, which is fitted with hydrophilic aluminum foil and used in Kunming.

1) Determine the condensation load:

According to the design operating conditions, referring to the software, the compressor's cooling capacity is 107.8KW, the input power is 33.6KW, and the condensing load is 107.8+33.6=141.3KW

2) Calculate the nominal heat exchange required:

Based on the ambient temperature of 23 °C and the condensation temperature of 35 °C, the heat transfer temperature difference ΔT = 35 °C-23 °C = 12 °C, so the heat transfer temperature difference correction coefficient K1 = 0.8; other correction coefficients remain unchanged, and the nominal heat exchange required is as follows:
Qn= Qc/ (K1×k2×K3×K4×K5) =141.3/ (0.8×1.0× 1.01×0.862×0.97) =209.1kw, you need to select one CV6314D4 condenser with a nominal heat exchange of 203.4KW with the margin of -2.9% as shown in Figure 2

The comparison of condenser heat transfer temperature difference on condenser selection and system operation is shown in the table below:

Taking the BITZER 6FE-50Y compressor as an example, the evaporation temperature is -5°C, and the refrigerant R404A is used in the Kunming area.

Heat transfer temperature difference (°C)		12	17
Ambient temperature(°C)		23	23
Condensation temperature(°C)		35	40
Cooling capacity (KW)		107.8	98.2
Input power (KW)		33.6	35.7
Coefficient of performance (COP)		3.21	2.75
Condensation load (KW)		141.3	136.3
Selection of condenser	Model	CV6314D4	CV6313C4
	Nominal heat exchange (KW)	203.4	136.3
	Selection margin	-2.9%	+1.9%
	Fan specifications and quantity	Φ 630×4	Φ 630×3
	Heat exchange area(m2)	498.7	280.5



Instructions

1. For any technical problems or matters not covered in the manual, please consult our technical department;
2. Our company can design and manufacture various non-standard box-type condensing units according to the special requirements of customers, and the detailed requirements can be communicated with our technical department or marketing department;
3. Our company reserves the right to change any technical data in the documents without prior notice without taking any responsibility.