



TENT CENTRAL AIR-CONDITIONING

TZA air handling unit ceiling series

TZB air handling unit

TZC combined air handling unit



Jiangsu Tent Environmental Technology Co., Ltd

About us

Our company is located in Nantong city, Jiangsu province, which is engaged in the research, production and sales of fresh air conditioner, rooftop air conditioner, floor standing air conditioner, air-cooled modules, purification air conditioners and so on. Tent possesses two production bases in Nantong Jiangsu and Hengshui Hebei, with total 80,000 square meters production area.

The rooftop air conditioner has obtained many industry-leading technology certifications, such as first-class energy efficiency certification, CRAA certification, energy saving certification, CCC certification and so on. We always adhered to the guiding principles of leading technology, reliable quality, efficient service and customer satisfaction, which make Tent rapidly develop into the top brand of rooftop air conditioner in the Chinese market. In 2022, the sales revenue is 350 million yuan.

In addition, a modern factory building of 25,000 square meters will be completed soon.

Air Conditioner



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Features and advantages

 1 High density frame structure

The whole foam forming box board is surrounded by the aluminum alloy profile frame with concave and convex groove, which forms a high-density frame structure of Yin and Yang module in the form of tenon during installation. The sealed box with strong torsion resistance is formed by the connection between the bolt and the embedded nut. The mechanical strength of the box can reach AHRI1350 CD4 grade, and the air leakage rate can reach AHRI1350 CL1 grade.

 3 Clean and hygienic, low noise operation

The unit is equipped with an integral water pan, and the water pan is insulated as a whole after anti-corrosion treatment by electrostatic spraying process, covering the bottom plate of the box, and the drainage slope is established during installation to ensure that the condensate discharge of the unit is smooth during operation and does not remain, and to prevent the growth of bacteria. The unit adopts double-wall foam board enclosure structure, which can not only achieve good thermal insulation effect, but also realize the role of noise reduction, so that the unit runs with low noise.

 5 Proprietary selection and verification software

Professional selection software is used for unit selection, friendly interface and fast selection. At the same time, it can meet the needs of customers for various non-standard working conditions, provide optimal configuration schemes, output professional selection reports, and improve design efficiency.

 7 Provide a variety of purification solutions

TZB series products can be equipped with plate filters and bag filters with different filtration levels to meet the needs of different applications. Standard horizontal units 3 and 5 can be equipped with high-efficiency bag filters with antibacterial function, and standard horizontal units 6 adopt advanced electrostatic haze removal and sterilization technology, which can solve the problem of air pollution in public places such as subways and airports, and create a healthy and safe public environment. At the same time, TZC series can meet the non-standard series requirements of various purification sites.

 2 High efficiency heat exchanger

The heat exchanger is designed with AHRI certified professional selection software to ensure the consistency of selection parameters and physical performance, which can meet the requirements of customers in various working conditions. The coil adopts RoHS certified high-quality copper tube and hydrophilic aluminum fins combined with advanced mechanical expansion process, and is 100% tested for air tightness before leaving the factory to ensure no leakage.

 4 No cold bridge, not easy to rust

The inside of the box is isolated from the outside by high-pressure foamed polyurethane and specially designed rubber seals to prevent cold bridges, which can reach AHR1350 CB2 grade. The outside of the box is wrapped in an aluminum profile frame, and the corners of the sheet metal are isolated from the wet air to avoid rust to the greatest extent.

 6 Good thermal insulation performance

The cabinet panel is made of low thermal conductivity polyurethane and inner and outer sheet metal one-time foam molding, foaming density $\geq 50\text{kg/m}^3$, with good thermal insulation and shock absorption and noise reduction performance, the box insulation performance can reach AHRI1350 CT2 grade.

 8 Intelligent integrated control

Mechatronics control can realize the integrated control of fan motor and water valve, and the control system is composed of low-voltage electrical appliances and thermostats of internationally renowned brands. If equipped with a temperature controller with communication function, it can be connected to a third-party control system such as building automation to realize remote network monitoring of the unit. The control cabinet contains multiple protections such as power supply phase dislocation, power supply phase loss, current overload, etc., to ensure the stable operation of the unit, while reserving rich external interlocks (fire dampers, fresh air valves, on-off water valve control signals, etc.). The integrated control meets the indoor temperature comfort and achieves the purpose of saving energy at the same time.

Overview

TZA ceiling air handling units are divided into three series: D series is direct drive, B series is belt drive, J series is jet unit, and the power supply is 380V3N-50Hz three-phase alternating current. The unit is mainly composed of filter, coil, fan, etc., which can meet a variety of static pressure requirements. The unit has compact structure, light weight, superior cooling performance, and can be equipped with hot water coil or electrical control according to the special requirements of users. The unit can be widely used in shopping malls, hotels, office buildings and other occasions that require centralized air treatment.

J Series Jet air handling unit is the new unit which developed for customers by Tent. The unit is a suspended ceiling structure, using a spherical nozzle with superior performance as the air outlet, which can achieve long-distance direct air supply without air duct, save space, reduce the floor height, and greatly reduce the one-time investment cost. The spherical air outlet can be freely adjusted within a certain range to ensure that hot and cold air are sent to the designated position, creating a comfortable air conditioning environment. The unit is widely used in supermarkets, large commercial buildings, factory workshops, stadiums, waiting halls, exhibition halls, etc. If the unit is installed near the coast or there are paper mills, iron mills, chemical plants and other corrosive environment occasions around, the customer needs to consult the factory to avoid the corrosive environment hindering the stability of long-term operation of the product.

Direct Drive & Belt Drive Series

Unit performance parameter table

Return air condition

Type	Air Volume	Standard cold					High cold					Condenser pipe diameter	Power supply
		Rated cooling capacity	Rated heating capacity	Water flow rate	Water resistance	Chilled water pipe diameter	Rated cooling capacity	Rated heating capacity	Water flow rate	Water resistance	Chilled water pipe diameter		
TZA	m³/h	kW	kW	l/s	kPa	DN	kW	kW	l/s	kPa	DN	DN	
010	1000	5.2	10.1	0.25	21.8	32	7.1	12.2	0.34	26.1	32	25	380V 3N-50Hz
015	1500	8.4	15.4	0.41	64.3	32	11.3	18.1	0.51	74.7	32	25	
020	2000	11.2	21.3	0.56	61.1	32	15.1	25.5	0.71	85.2	32	25	
025	2500	14.3	26.3	0.70	40.4	32	18.4	30.6	0.87	72.9	32	25	
030	3000	17.6	32.2	0.82	65.2	32	21.7	37.2	1.07	77.1	32	25	
040	4000	23.7	41.7	1.13	91.4	32	29.8	48.7	1.43	89.1	32	25	
050	5000	28.1	51.8	1.38	73.9	32	35.3	62.3	1.71	48.1	40	25	
060	6000	34.7	61.4	1.65	87.9	32	43.9	74.2	2.11	78.3	40	25	
070	7000	40.1	71.2	1.94	84.7	32	50.7	85.8	2.35	73.6	40	25	
080	8000	46.4	83.4	2.21	83.6	32	57.3	98.1	2.77	91.1	40	25	
100	10000	60.1	108.4	2.84	91.3	40	75.7	135.7	3.6	57.6	50	25	
120	12000	69.5	131.9	3.32	93.1	40	85.7	161.3	4.06	78.2	50	25	
150	15000	85.7	162.7	4.08	93.1	50	108.9	191.1	5.18	80.4	50	32	

NOTE

- Cooling: air inlet dry bulb temperature 27 °C, wet bulb temperature 19.5 °C, inlet/outlet temperature 7 °C/12 °C;
- Heating: air inlet dry bulb temperature 15 °C, hot water inlet and outlet water temperature 60 °C/50 °C;
- Specifications are subject to change without notice due to product improvements;
- The water flow in the table is the flow rate of cooling water, the flow rate of hot water supply is smaller than that of cold water, and the selection of water pump refers to the flow of cooling water.

Direct Drive & Belt Drive Series

Unit performance parameter table

Fresh air condition

Type	Air Volume	Standard cold					High cold					Condenser pipe diameter	Power supply
		Rated cooling capacity	Rated heating capacity	Water flow rate	Water resistance	Chilled water pipe diameter	Rated cooling capacity	Rated heating capacity	Water flow rate	Water resistance	Chilled water pipe diameter		
TZA	m³/h	kW	kW	l/s	kPa	DN	kW	kW	l/s	kPa	DN	DN	
010	1000	14.1	13.6	0.66	86.5	32	16.1	15.9	0.75	81.3	32	25	380V 3N-50Hz
015	1500	19.2	18.5	0.94	84.1	32	24.8	24.1	1.18	86.4	32	25	
020	2000	27.4	27.9	1.31	85.6	32	31.6	31.8	1.51	65.7	32	25	
025	2500	31.4	31.5	1.47	76.8	32	41.1	40.2	1.92	84.8	32	25	
030	3000	41.3	41.4	1.90	87.7	32	46.2	45.6	2.18	81.9	32	25	
040	4000	50.4	51.3	2.41	81.3	32	64.1	62.3	3.07	68.1	32	25	
050	5000	65.6	64.6	3.11	85.6	32	75.7	70.9	3.59	83.7	40	25	
060	6000	71.9	75.2	3.52	39.6	50	93.3	92.1	4.46	82.1	40	25	
070	7000	84.7	87.4	4.07	63.2	50	105.3	104.7	5.08	81.1	50	25	
080	8000	99.6	101.3	4.69	89.1	50	121.2	120.1	5.77	86.1	50	25	
100	10000	133.4	133.7	6.33	52.6	65	160.7	158.2	7.66	62.1	65	25	
120	12000	151.1	156.3	7.18	71.7	65	185.3	180.7	8.24	83.7	65	25	
150	15000	184.6	201.5	8.82	71.7	65	244.9	237.7	10.71	84	65	32	

NOTE

- Cooling: air inlet dry bulb temperature 35 °C, wet bulb temperature 28 °C, inlet/outlet temperature 7 °C/12 °C;
- Heating: air inlet dry bulb temperature 7 °C, hot water inlet and outlet water temperature 60 °C/50 °C;
- Specifications are subject to change without notice due to product improvements;
- The water flow in the table is the flow rate of cooling water, the flow rate of hot water supply is smaller than that of cold water, and the selection of water pump refers to the flow of cooling water.

Jet SeriesUnit performance parameter table

Return air condition

Type	Air Volume	Standard cold						High cold						Condenser pipe diameter	Power supply
		Rated cooling capacity	Rated heating capacity	Water flow rate	resistance Water	Motor power	Chilled water pipe diameter	Rated cooling capacity	Rated heating capacity	Water flow rate	resistance Water	Motor power	Chilled water pipe diameter		
TZA	m³/h	kW	kW	l/s	kPa	kW	DN	kW	kW	l/s	kPa	kW	DN	DN	
010	1000	5.2	10.1	0.25	21.8	0.18	32	7.1	12.2	0.34	26.1	0.18	32	25	380V 3N-50Hz
020	2000	11.2	21.3	0.56	61.1	0.55	32	15.1	25.5	0.71	85.2	0.55	32	25	
030	3000	17.6	32.2	0.82	65.2	1.1	32	21.7	37.2	1.07	77.1	1.1	32	25	
040	4000	23.7	41.7	1.13	91.4	1.1	32	29.8	48.7	1.43	89.1	1.1	32	25	
050	5000	28.1	51.8	1.38	73.9	1.5	32	35.3	62.3	1.71	48.1	1.5	40	25	
060	6000	34.7	61.4	1.65	87.9	1.5	32	43.9	74.2	2.11	78.3	1.5	40	25	
070	7000	40.1	71.2	1.94	84.7	2.2	32	50.7	85.8	2.35	73.6	2.2	40	25	
080	8000	46.4	83.4	2.21	83.6	2.2	32	57.3	98.1	2.77	91.1	3.0	40	25	
100	10000	60.1	108.4	2.84	91.3	3.0	40	75.7	135.7	3.6	57.6	3.0	50	25	
120	12000	69.5	131.9	3.32	93.1	3.0	40	85.7	161.3	4.06	78.2	3.0	50	25	

NOTE

- Cooling: air inlet dry bulb temperature 27 ℃, wet bulb temperature 19.5 ℃, inlet/outlet temperature 7 ℃/12 ℃;
- Heating: air inlet dry bulb temperature 15 ℃, hot water inlet and outlet water temperature 60 ℃/50 ℃;
- The unit itself does not have external static pressure. If the return air duct needs to be connected to an air duct, please specify when ordering;
- Specifications are subject to change without notice due to product improvements;
- The water flow in the table is the flow rate of cooling water, the flow rate of hot water supply is smaller than that of cold water, and the selection of water pump refers to the flow of cooling water.

Jet SeriesUnit performance parameter table

Fresh air condition

Type	Air Volume	Standard cold						High cold						Condenser pipe diameter	Power supply
		Rated cooling capacity	Rated heating capacity	Water flow rate	resistance Water	Motor power	Chilled water pipe diameter	Rated cooling capacity	Rated heating capacity	Water flow rate	resistance Water	Motor power	Chilled water pipe diameter		
TZA	m³/h	kW	kW	l/s	kPa	kW	DN	kW	kW	l/s	kPa	kW	DN	DN	
010	1000	14.1	13.6	0.66	86.5	0.18	32	16.1	15.9	0.75	81.3	0.18	32	25	380V 3N-50Hz
020	2000	27.4	27.9	1.31	85.6	0.55	32	31.6	31.8	1.51	65.7	0.55	32	25	
030	3000	41.3	41.4	1.90	87.7	1.1	32	46.2	45.6	2.18	81.9	1.1	32	25	
040	4000	50.4	51.3	2.41	81.3	1.1	32	64.1	62.3	3.07	68.1	1.1	40	25	
050	5000	65.6	64.6	3.11	85.6	1.5	32	75.7	70.9	3.59	83.7	1.5	40	25	
060	6000	71.9	75.2	3.52	39.6	1.5	50	93.3	92.1	4.46	82.1	1.5	40	25	
070	7000	84.7	87.4	4.07	63.2	2.2	50	105.3	104.7	5.08	81.1	2.2	50	25	
080	8000	99.6	101.3	4.69	89.1	2.2	50	121.2	120.1	5.77	86.1	3.0	50	25	
100	10000	133.4	133.7	6.33	52.6	3.0	65	160.7	158.2	7.66	62.1	3.0	65	25	
120	12000	151.1	156.3	7.18	71.7	3.0	65	185.3	180.7	8.24	83.7	3.0	65	25	

NOTE

- Cooling: air inlet dry bulb temperature 35 ℃, wet bulb temperature 28 ℃, inlet/outlet temperature 7 ℃/12 ℃;
- Heating: air inlet dry bulb temperature 7 ℃, hot water inlet and outlet water temperature 60 ℃/50 ℃;
- The unit itself does not have external static pressure. If the return air duct needs to be connected to an air duct, please specify when ordering;
- Specifications are subject to change without notice due to product improvements;
- The water flow in the table is the flow rate of cooling water, the flow rate of hot water supply is smaller than that of cold water, and the selection of water pump refers to the flow of cooling water.

Four-tube heating coil SeriesUnit performance parameter table

Return air condition

Type	Air Volume	First row				Second row			
		Rated cooling capacity	Water flow rate	Water resistance	Water pipe diameter	Rated cooling capacity	Water flow rate	resistance	Water pipe diameter
TZA	m³/h	kW	l/s	kPa	DN	kW	l/s	kPa	DN
010	1000	3.1	0.1	0.17	32	6.4	0.2	0.87	32
015	1500	4.2	0.1	0.19	32	10.3	0.3	2.1	32
020	2000	6.9	0.2	0.59	32	13.7	0.4	3.0	32
025	2500	8.3	0.2	0.63	32	16.1	0.4	3.3	32
030	3000	11.2	0.3	1.4	32	20.3	0.5	5.3	32
040	4000	15.1	0.4	1.5	32	27.9	0.7	6.5	32
050	5000	19.4	0.5	2.5	32	35.5	0.9	11.6	32
060	6000	23.5	0.6	3.0	32	43.3	1.1	14.2	32
070	7000	27.8	0.7	4.3	32	49.6	1.2	18.2	32
080	8000	31.7	0.8	4.1	32	57.1	1.4	18.3	32
100	10000	42.9	1.1	8.3	32	76.5	1.9	34.0	32
120	12000	49.7	1.4	9.9	32	87.7	2.4	39.2	32
150	15000	61.3	1.6	10.2	32	108.6	2.7	37.5	32

NOTE

- Heating: air inlet dry bulb temperature 15 ℃, hot water inlet and outlet water temperature 60 ℃/50 ℃;
- Specifications are subject to change without notice due to product improvements;
- The hot coil resistance is 20Pa/row, and the external static pressure of the standard unit does not contain the resistance of the hot coil, such as the outlet static pressure of the heating water coil unit minus 20Pa/row.

Four-tube heating coil SeriesUnit performance parameter table

Fresh air condition

Type	Air Volume	First row				Second row			
		Rated cooling capacity	Water flow rate	Water resistance	Water pipe diameter	Rated cooling capacity	Water flow rate	resistance	Water pipe diameter
TZA	m³/h	kW	l/s	kPa	DN	kW	l/s	kPa	DN
010	1000	4.1	0.2	0.64	32	7.4	0.2	0.88	32
015	1500	6.7	0.2	0.69	32	11.7	0.3	2.3	32
020	2000	9.1	0.3	1.3	32	16.6	0.5	4.6	32
025	2500	11.3	0.3	1.4	32	20.1	0.5	4.9	32
030	3000	13.8	0.4	2.5	32	25.5	0.7	9.9	32
040	4000	18.4	0.5	2.3	32	33.9	0.9	10.1	32
050	5000	24.1	0.7	4.6	32	43.3	1.1	16.8	32
060	6000	29.4	0.8	5.2	32	51.8	1.3	19.3	32
070	7000	34.1	0.9	6.8	32	61.1	1.5	27.1	32
080	8000	40.3	1.1	7.2	32	70.3	1.7	25.9	32
100	10000	52.2	1.4	13.1	32	93.2	2.3	52.7	32
120	12000	61.1	1.6	14.3	32	106.4	2.7	56.5	32
150	15000	74.4	1.9	13.9	32	130.9	3.3	54.3	32

NOTE

- Heating: air inlet dry bulb temperature 7 ℃, hot water inlet and outlet water temperature 60 ℃/50 ℃;
- Specifications are subject to change without notice due to product improvements;
- The hot coil resistance is 20Pa/row, and the external static pressure of the standard unit does not contain the resistance of the hot coil, such as the outlet static pressure of the heating water coil unit minus 20Pa/row.

Design and selection of jet unit

The thermal performance parameters of the jet air handling unit using spherical nozzle as the air supply port are the same as those of ordinary ceiling units; The design selection is mainly for the calculation of airflow organization. For a project, when the air supply distance, air conditioning installation height, air supply temperature and air supply volume are roughly determined, it is necessary to select the appropriate jet air conditioning unit, and the cold and hot air jet sent by the air outlet of the unit must meet the following basic requirements:

01

The hot and cold air is sent to the designated location



02

The cold jet will not fall halfway, causing discomfort to human body



04

End temperature difference meets design requirements



03

Hot air can reach the required distance and location

The design selection should consider the mutual influence and joint action between the air supply outlets of multiple units.

The diffusion width of the jet is approximately 0.4 times the range.

The unit layout density should be slightly less than the diffusion width. If the unit is installed close to the ceiling, the impact of attachment should be considered.

The range of adherent airflow is 1.4 times of ordinary airflow.

Jet unit range selection recommendation table

Comprehensively considering the performance of air conditioning units and spherical nozzles, the following table gives the recommended selection range for horizontal air supply of various types of air conditioning: units:(m)

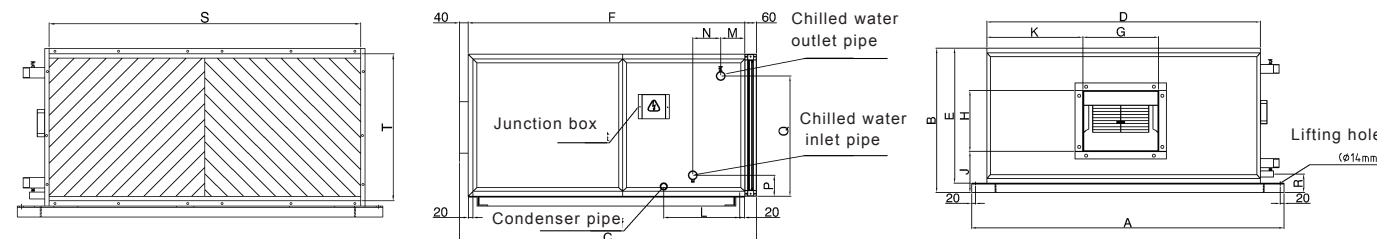
Model TZA	010	020	030	040	050	060	070	080	100	120
Range	14	21	21	21	25	22	28	30	28	31
Distance	20	27	27	27	31	28	34	36	34	37

NOTE

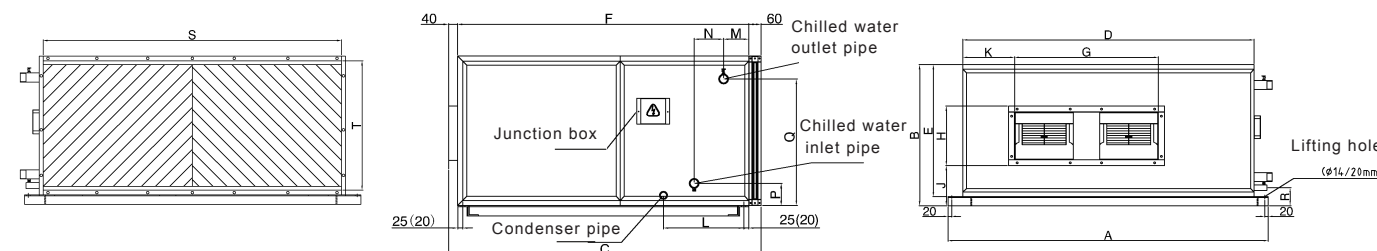
- The maximum coverage width of the jet of the unit is about 0.4 times the range. The unit layout should consider the diffusion angle of the air flow, and the spacing should not be too large;
- The unit can consider a unilateral arrangement or a relative air supply, but in a project, the range will not be enough, and the induction fan can be used to continue to transmit the airflow; One longitudinal 4~6 meters, 6~10 meters horizontally.
- Range: the distance when the wind speed at the end is 0.5m/s;
- Distance: the distance when the wind speed at the end is 0 m/s.

Outline dimension of standard unit

Direct-drive & belt drive series



Model TZA	A	B	C	D	E	F	Model		J	K	L	M		N		P	Q	R	Return air flange		Unit weight	
							G	H				Standard cold	High cold	Standard cold	High cold				S	T	Standard cold	High cold
010	717	545	900	553	505	800	302	232	122	132	385	108	86	64	108	150	413	90	493	445	50	57
015	867	545	900	703	505	800	302	275	122	207	385	108	86	64	108	150	413	90	643	445	57	63
020	1007	545	900	843	505	800	302	275	122	277	385	108	86	64	108	150	413	90	783	445	71	81
025	1067	625	950	903	585	850	302	306	122	307	385	108	86	64	108	150	514	90	843	525	76	86
030	1167	625	950	1003	585	850	302	262	184	226	385	108	86	64	108	150	514	90	943	525	90	121
040	1387	625	950	1223	585	850	331	289	146	356	385	108	86	64	108	150	514	90	1163	525	99	129
050	1567	635	950	1403	585	850	331	289	156	446	385	108	86	64	108	150	514	90	1343	525	128	158



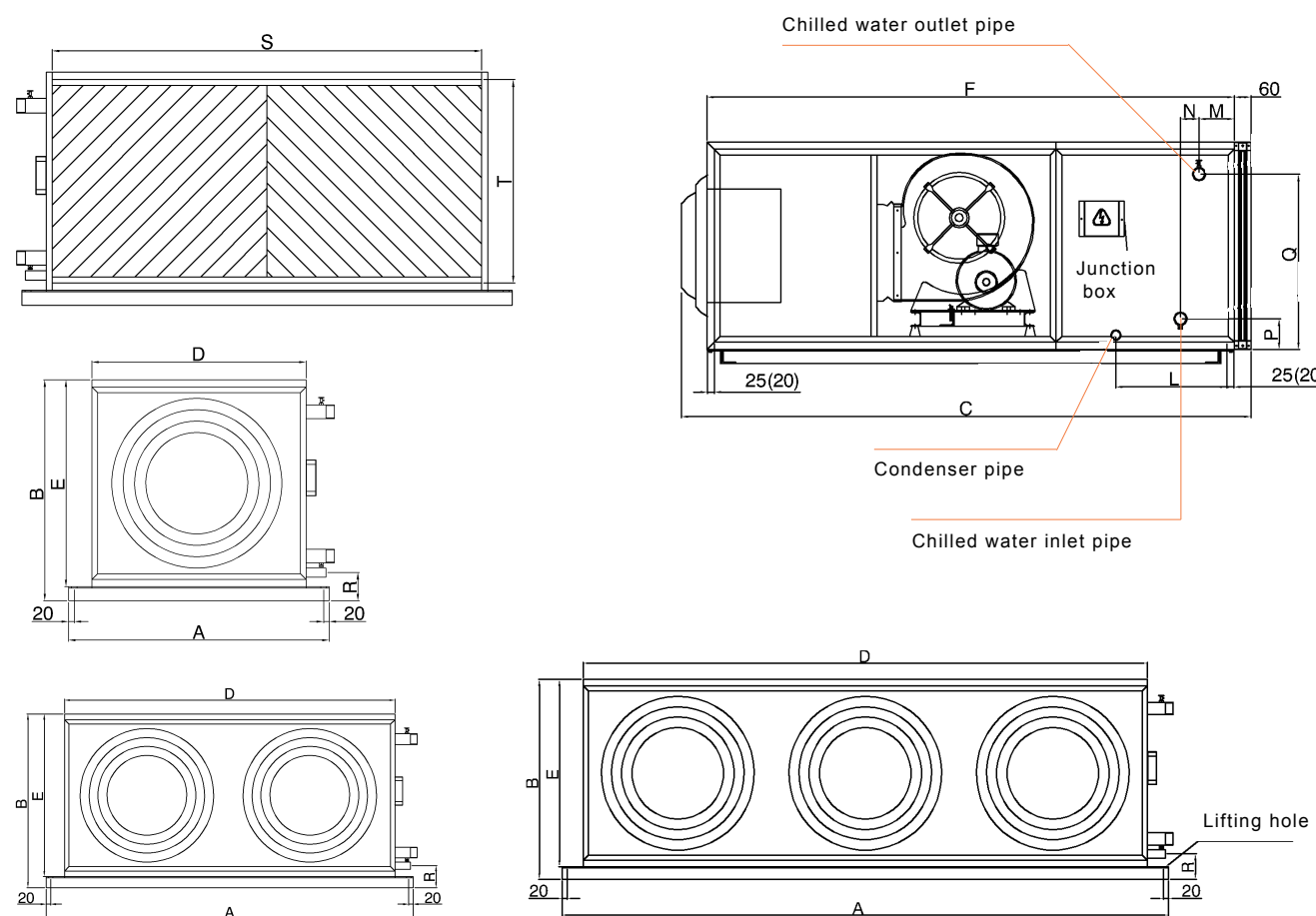
Model TZA	A	B	C	D	E	F	Model		J	K	L	M		N		P	Q	R	Return air flange		Unit weight		
							G	H				Standard cold	High cold	Standard cold					High cold	S	T	Standard cold	High cold
														Return air	Fresh air								
060	1757	635	950	1593	585	850	840	262	214.5	226	385	108	86	64	94	108	150	514	90	1533	525	139	180
070	1997	635	950	1833	585	850	840	262	214.5	346	385	108	86	64	94	108	150	514	90	1773	525	192	222
080	2207	635	950	2043	585	850	840	262	214.5	451	385	108	86	64	94	108	150	514	90	1983	525	231	271
100	2287	790	1050	2123	740	950	862	341	214.5	483	385	108	86	64	108	108	155	667	90	2063	680	279	309
120	2477	790	1050	2313	740	950	1114	341	214.5	437	385	108	86	64	108	108	155	667	90	2253	680	287	311
150	2477	940	1150	2313	890	1050	1040	404	214.5	557	385	108	86	94	108	108	155	819	90	2253	830	372	414

NOTE

- 25 (20) is the size of the lifting hole from the outer edge of the bottom frame, 040 and below models are 20, 040 and above models are 25,150 model lifting hole aperture Φ20mm;
- The above unit size is without heating coil size, if you need to increase the heating coil unit F size, TZA010-025 needs to be lengthened by 100mm, TZA030-150 needs to be extended by 200mm;
- The above dimensions and weights do not include the onboard control cabinet.

Unit outline diamention

Jet unit



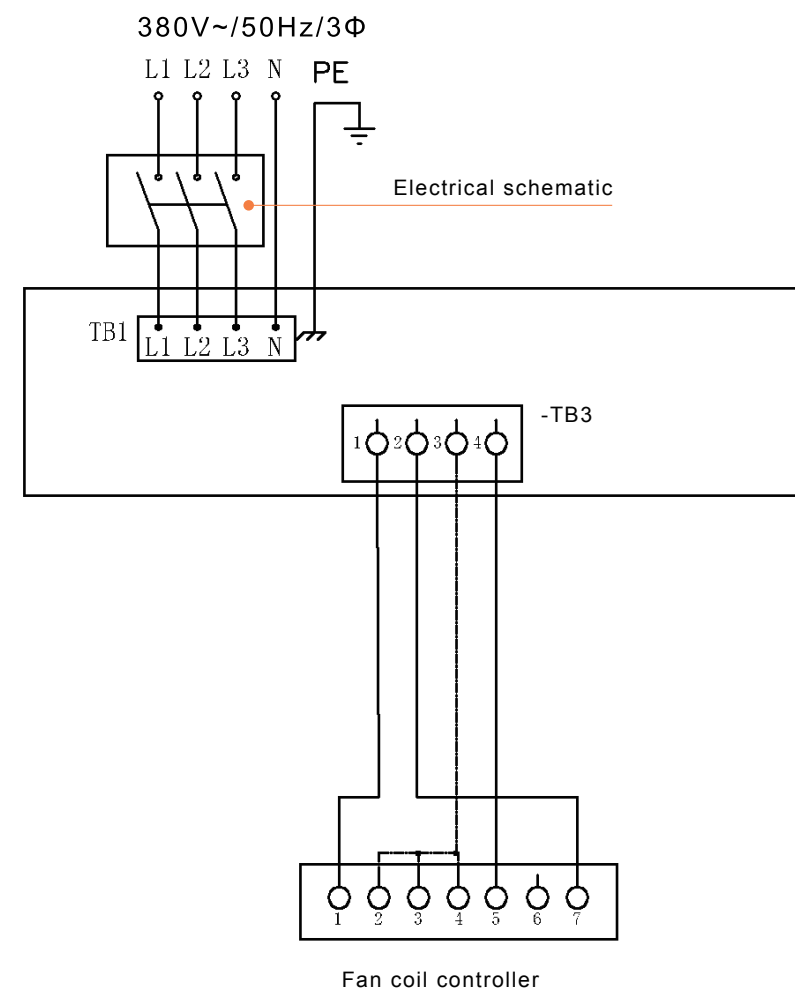
Model TZA	A	B	C	D	E	F	L	M		N			P	Q	R	Return air flange		Tuyere quantity	Jet tuyere specification	Outer diameter	Inner diameter	Unit weight	
								Standard cold	High cold	Standard cold		High cold											
										Return air	Fresh air												
010	717	545	1305	553	505	1200	385	108	86	64	64	108	150	413	90	493	445	1	Φ315	384	190	50	57
020	1007	545	1340	843	505	1200	385	108	86	64	64	108	150	413	90	783	445	1	Φ315	384	190	71	81
030	1167	625	1390	1003	585	1250	385	108	86	64	64	108	150	514	90	943	525	1	Φ400	467	230	90	121
040	1387	625	1390	1223	585	1250	385	108	86	64	64	108	150	514	90	1163	525	2	Φ400	467	230	99	129
050	1567	635	1390	1403	585	1250	385	108	86	64	64	108	150	514	90	1343	525	2	Φ400	467	230	128	158
060	1757	635	1390	1593	585	1250	385	108	86	64	94	108	150	514	90	1553	525	2	Φ400	467	230	139	180
070	1997	635	1390	1833	585	1250	385	108	86	64	94	108	150	514	90	1793	525	3	Φ400	467	230	192	222
080	2207	635	1390	2043	585	1250	385	108	86	64	94	108	150	514	90	2003	525	3	Φ400	467	230	231	271
100	2287	790	1500	2123	740	1350	385	108	86	64	108	108	155	667	90	2063	680	2	Φ500	600	275	279	309
120	2477	790	1500	2313	740	1350	385	108	86	64	108	108	155	667	90	2253	680	3	Φ500	600	275	287	311

NOTE

- 25 (20) is the size of the lifting hole from the outer edge of the bottom frame, 20 for models 040 and below, 25 for models above 040;
- The above dimensions and weights do not include the onboard control cabinet.

Electrical wiring diagram

Electrical schematic



Specification

- The picture on the left is the user's installation wiring, the standard unit does not have this configuration, the wiring must be tightened by the user;
- The grounding terminal is located in the junction box, please be sure to connect it firmly as required;
- If you need to configure the control cabinet, you need to indicate it when ordering.

Control Cabinet Description

The control cabinet is installed on the side of the TZA unit when it leaves the factory, the thermostat is shipped randomly, and the wall is installed on the wall in the indoor operation room to realize remote control operation, and the field wiring includes the control power line and the signal line between the thermostat and the control cabinet.

Other specification

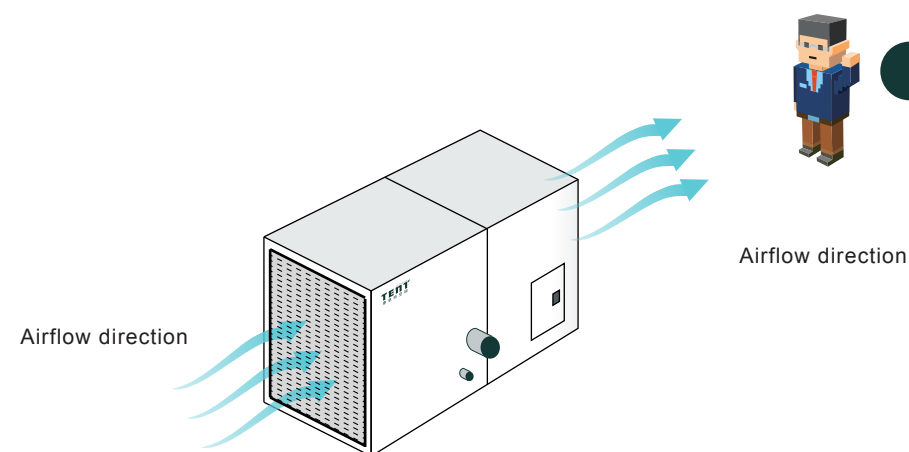
- This control function is optional;
- The water valve needs to be self-equipped according to the pipe diameter, the requirement is 220V, three-wire switching water valve;
- For new wind places, antifreeze protection should be considered, and it is not recommended to install water valves;
- The control system of the water valve is only a switch, and the opening cannot be adjusted;
- The QTA control of the control system for the fan motor is only a switch, and the air volume cannot be adjusted.

Overview

Tent TZB series air handling unit adopts aluminum alloy profile structure, which adheres to the characteristics of Tent air conditioning box with low air leakage rate, high strength and no cold bridge. According to the combination of functional sections and different structures, the unit is divided into 9 combination types. Innovations have been made in the original mechanism, making the filter and coil maintenance more convenient. The air volume of the unit is from 200-60000m³/h, and there are a variety of static pressure options. The unit has compact structure, excellent cooling and heating performance, and can be equipped with hot water coils and wet film humidifiers according to customer requirements.

Unit left and right type judgment chart

Facing the direction of airflow, the inlet and outlet pipes in the left is for left type, and right on the contrary.



This unit is left-handed.

Model Description

TZB R 050 W1 L 4 1

Hot water coil:
1-1 row, 2-2 row (No such function can be represented by N)

Cooling coil:
3-3 row, 4-4 row, 5-5 row, 6-6 row, 8-8 row (No such function can be represented by N)

Unit direction:
L-left type, R-right type, Q-not sure yet

Unit form:
W1: Horizontal standard one; W2: Horizontal standard two;
W3: Horizontal standard three; W4: Horizontal standard four;
W5: Horizontal standard five; W6: Horizontal standard six;
W7: Horizontal standard seven;
L1: Vertical standard one;
L2: Vertical standard two; (When the horizontal standard is made of suspended ceiling unit, add "D" after the formal standard code such as W1D)

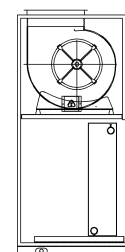
Unit air volume:
*100m³/h 050 specification air volume: 5000m³/h

Unit working conditions:
R- return air condition; F- fresh air condition

Tent air handling unit

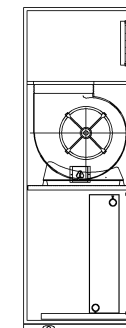
Unit classification

Vertical standard one 1



External nylon filter
+
surface cooling
+
fan

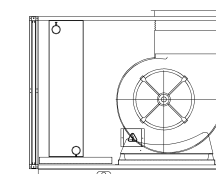
Vertical standard two 2



Return wind louver
+
surface cooling
+
fan
+
air outlet grille

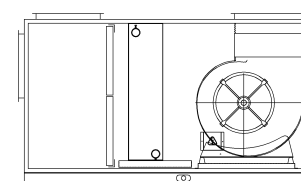
Horizontal standard one 1

External nylon filter
+
surface cooling
+
fan



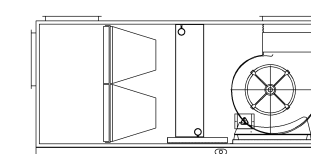
Horizontal standard two 2

Mix
+
primary filtration
+
surface cooling
+
fan



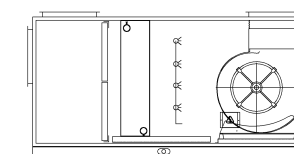
Horizontal standard three 3

Mix
+
primary filtration
+
intermediate filtration
+
surface cooling
+
fan



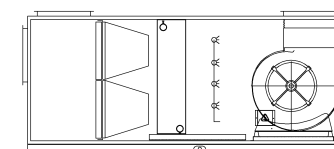
Horizontal standard four 4

Mix
+
primary filtration
+
surface cooling
+
dry Steam Humidifier
+
fan



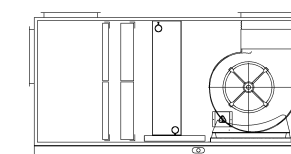
Horizontal standard five 5

Mix
+
primary filtration
+
intermediate filtration
+
surface cooling
+
dry Steam Humidifier
+
fan



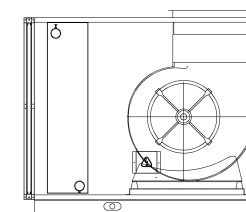
Horizontal standard six 6

Mix
+
primary filtration
+
electrostatic precipitator
+
surface cooling
+
fan



Horizontal standard seven 7

External nylon filter
+
hot coil
+
fan



Air handling unit

Unit performance parameter table

Standard working conditions

Model	Air Volume	Four rows						Six rows					
		Rated cooling capacity	Rated heating capacity	Water flow rate	Water resistance	Chilled water pipe diameter	Condenser water pipe diameter	Rated cooling capacity	Rated heating capacity	Water flow rate	Water resistance	Chilled water pipe diameter	Condenser water pipe diameter
TZB	m³/h	kW	kW	l/s	kPa	DN	DN	kW	kW	l/s	kPa	DN	DN
020	2000	11.2	22.8	0.5	19.4	32	25	14.9	27.5	0.7	44.8	32	25
030	3000	17.3	35.0	0.8	29.7	32	25	22.5	42.2	1.1	71.6	32	25
040	4000	23.5	47.4	1.1	45.3	32	25	29.8	54.7	1.5	32.8	32	25
050	5000	28.1	56.7	1.4	38.9	32	25	34.6	64.2	1.6	30.3	32	25
060	6000	35.4	69.8	1.7	59.5	40	25	42.2	78.6	2.0	40.6	40	25
070	7000	41.2	81.1	2.1	69.8	50	25	48.6	92.9	2.3	50.0	50	25
080	8000	48.1	94.2	2.3	38.5	50	25	57.3	107.1	2.8	74.3	50	25
090	9000	52.6	103.3	2.5	35.4	50	25	65.0	121.2	3.1	75.7	50	25
105	10500	59.5	116.3	2.9	50.6	50	25	74.3	138.7	3.6	46.8	50	25
120	12000	69.6	137.3	3.3	73.4	50	25	90.0	165.8	4.3	75.6	50	25
135	13500	79.3	159.2	3.8	48.2	65	32	104.2	187.3	5.0	39.0	65	32
150	15000	90.6	173.8	4.3	50.2	65	32	115.1	207.5	5.7	38.1	65	32
180	18000	107.2	210.6	5.2	66.4	65	32	136.5	247.6	6.5	50.2	65	32
210	21000	126.3	247.5	6.1	85.6	65	32	157.2	289.2	7.5	62.4	65	32
240	24000	149.1	285.9	7.1	39.0	65	32	182.0	332.1	8.7	84.0	65	32
270	27000	167.7	321.6	8.0	43.0	65	32	204.6	372.1	9.8	83.5	65	32
300	30000	186.0	357.5	9.0	43.5	65	32	226.3	413.6	10.8	39.0	65	32
330	33000	204.5	393.0	9.8	56.0	80	32	253.1	456.4	12.2	52.0	80	32
350	35000	220.0	416.9	10.7	66.5	80	32	271.2	487.1	12.9	59.5	80	32
400	40000	230.6	451.9	11.1	69.4	80	32	299.9	546.4	14.3	50.5	80	32
450	45000	248.3	485.1	12.0	71.5	80	32	341.0	617.0	16.4	59.8	80	32
500	50000	275.8	538.9	13.1	79.1	80	32	379.5	685.8	18.2	62.9	80	32
600	60000	362.3	671.7	17.3	70.5	80	32	452.4	708.2	21.8	52.5	80	32

- NOTE
- Cooling: air inlet dry bulb temperature 27 °C, wet bulb temperature 19.5 °C, inlet/outlet temperature 7 °C/12 °C;
Heating: The air inlet dry bulb temperature is 15 °C, the hot water inlet

• During the actual use of the unit, if the fresh air volume is increased, the cooling capacity of the unit will change. For details, please consult Tent Company;

• Refer to the product selection software for parameters corresponding to other rows of coils and air inlet conditions.

Air handling unit

Unit performance parameter table

Fresh air working conditions

Model	Air Volume	Four rows						Six rows					
		Rated cooling capacity	Rated heating capacity	Water flow rate	Water resistance	Chilled water pipe diameter	Condenser water pipe diameter	Rated cooling capacity	Rated heating capacity	Water flow rate	Water resistance	Chilled water pipe diameter	Condenser water pipe diameter
TZB	m³/h	kW	kW	l/s	kPa	DN	DN	kW	kW	l/s	kPa	DN	DN
020	2000	27.2	30.3	1.3	31.8	40	25	34.2	34.5	1.7	66.5	40	25
030	3000	41.1	44.1	2.0	44.0	40	25	47.3	48.8	2.3	89.4	40	25
040	4000	54.3	58.9	2.6	60.5	50	25	63.2	67.4	3.1	55.8	50	25
050	5000	69.1	73.3	3.3	64.3	50	25	80.5	83.8	3.9	50.5	50	25
060	6000	81.3	85.4	4.0	78.3	50	25	98.9	101.5	4.8	74.9	50	25
070	7000	89.2	95.2	4.4	40.5	65	25	115.9	116.3	5.5	30.4	65	25
080	8000	102.1	108.9	4.9	55.7	65	25	126.7	134.9	6.3	42.8	65	25
090	9000	116.4	123.4	5.8	58.5	65	25	140.9	146.8	6.9	40.9	65	25
105	10500	132.9	155.4	7.0	78.3	65	25	162.5	167.1	7.7	62.0	65	25
120	12000	158.2	175.3	7.5	82.7	65	25	192.6	196.6	9.3	89.0	65	25
135	13500	172.3	195.8	8.4	27.2	80	32	222.8	223.7	10.6	61.8	80	32
150	15000	194.9	221.1	9.3	25.8	80	32	252.3	252.4	12.2	64.8	80	32
180	18000	230.9	257.7	11.2	37.8	80	32	293.8	296.7	13.1	74.6	80	32
210	21000	276.1	303.1	13.2	51.5	80	32	330.5	336.3	14.1	83.2	80	32
240	24000	320.3	348.9	15.2	70.2	80	32	*366.8	*381.6	*12.7	80.0	80	32
270	27000	359.4	390.5	17.0	76.5	80	32	*409.1	*429.1	*14.1	85.0	80	32
300	30000	384.7	420.7	18.3	70.0	80	32	*456.2	*473.5	*15.5	80.0	80	32
330	33000	444.9	482.1	21.3	86.5	80	32	*503.2	*523.8	*17.2	84.0	80	32
350	35000	454.0	490.2	21.6	76.5	80	32	*553.2	*578.8	*15.6	80.9	80	32
400	40000	477.6	525.6	22.7	40.3	80	32	*589.1	*622.8	*18.8	*83.5	80	32
450	45000	536.3	595.1	25.3	43.3	80	32	*648.2	*678.6	*19.3	*81.8	80	32
500	50000	605.4	664.1	28.9	51.6	80	32	*727.5	*774.2	*21.6	*89.9	80	32
600	60000	822.3	828.2	39.1	54.5	80	32	991.2	883.7	46.7	102.0	80	32

- NOTE
- Cooling: air inlet dry bulb temperature 35 °C, wet bulb temperature 28 °C, inlet/outlet temperature 7 °C/12 °C;
Heating: The air inlet dry bulb temperature is 15 °C, the hot water inlet

• "*" indicates that in order to control the pressure drop of the refrigerant water pipeline, the temperature difference between the inlet and return water is greater than 5 °C;

• Refer to the product selection software for parameters corresponding to other rows of coils and air inlet conditions.

Four-tube heating coil series

Unit performance parameter table

Standard working conditions

Model	Air Volume	First row				Second row			
		Rated cooling capacity	Water flow rate	Water resistance	Condenser water pipe diameter	Rated cooling capacity	Water flow rate	Water resistance	Condenser water pipe diameter
TZB	m³/h	kW	l/s	kPa	DN	kW	l/s	kPa	DN
020	2000	6.5	0.2	0.2	32	13.7	0.3	1.2	32
030	3000	10.7	0.3	0.3	32	20.1	0.5	2.0	32
040	4000	14.1	0.3	0.5	32	27.5	0.7	3.1	32
050	5000	18.2	0.6	0.5	32	35.9	0.9	3.3	32
060	6000	23.3	0.6	0.7	32	43.3	1.1	4.2	32
070	7000	27.8	0.7	0.9	32	50.8	1.2	5.1	32
080	8000	32.7	0.9	1.4	32	57.1	1.4	6.4	32
090	9000	37.6	0.9	1.3	32	64.3	1.6	6.7	32
105	10500	42.1	1.0	1.8	32	77.8	1.8	10.3	32
120	12000	48.9	1.2	2.6	32	88.6	2.2	14.1	32
135	13500	56.6	1.4	3.7	40	101.7	2.5	20.4	40
150	15000	61.6	1.5	3.9	40	111.1	2.7	21.6	40
180	18000	75.1	1.8	5.6	40	135.2	3.3	29.2	40
210	21000	88.7	2.3	7.0	40	158.8	3.8	37.8	40
240	24000	103.3	2.5	10.2	40	174.1	4.3	7.7	40
270	27000	116.5	2.8	10.3	40	196.7	4.8	7.8	40
300	30000	128.9	3.2	10.4	40	216.6	5.4	7.7	40
330	33000	141.4	3.5	13.5	40	241.1	5.9	10.5	40
350	35000	151.3	3.7	15.6	40	254.6	6.2	11.7	40
400	40000	167.7	4.0	13.9	40	281.8	7.0	10.7	40
450	45000	188.9	4.7	16.3	40	322.7	7.9	11.8	40
500	50000	207.8	5.2	16.7	40	358.9	8.8	12.8	40
600	60000	258.3	6.1	25.6	40	427.7	9.8	47.6	40

NOTE

- Heating (air return condition): air inlet dry bulb temperature is 15 °C, hot water inlet temperature is 60 °C, and water outlet temperature is 50 °C;
- Heating (fresh air condition): air inlet dry bulb temperature is 7 °C, hot water inlet temperature is 60 °C, and water outlet temperature is 50 °C;

Four-tube heating coil series

Unit performance parameter table

Fresh air working conditions

Model	Air Volume	First row				Second row			
		Rated cooling capacity	Water flow rate	Water resistance	Condenser water pipe diameter	Rated cooling capacity	Water flow rate	Water resistance	Condenser water pipe diameter
TZB	m³/h	kW	l/s	kPa	DN	kW	l/s	kPa	DN
020	2000	9.2	0.2	0.3	32	16.7	0.4	1.7	32
030	3000	13.7	0.3	0.5	32	25.9	0.6	3.1	32
040	4000	18.9	0.5	0.8	32	33.1	0.8	4.3	32
050	5000	23.1	0.6	0.8	32	43.7	1.1	4.6	32
060	6000	28.5	0.7	1.0	32	51.6	1.2	5.7	32
070	7000	34.1	0.8	1.5	32	63.3	1.5	7.2	32
080	8000	39.7	1.0	1.9	32	73.7	1.8	10.7	32
090	9000	45.3	1.1	1.8	32	78.8	1.9	9.1	32
105	10500	51.8	1.4	2.4	32	92.8	2.3	14.0	32
120	12000	59.5	1.4	3.5	32	106.1	2.7	19.2	32
135	13500	69.1	1.7	5.4	40	123.6	3.0	28.6	40
150	15000	75.5	1.9	5.5	40	134.7	3.4	29.5	40
180	18000	92.7	2.3	7.6	40	162.1	3.9	40.7	40
210	21000	109.8	2.8	10.2	40	182.5	4.6	7.4	40
240	24000	124.6	3.0	14.1	40	212.3	5.3	10.7	40
270	27000	140.1	3.4	14.6	40	237.4	5.8	10.4	40
300	30000	156.3	3.8	14.4	40	261.7	6.6	10.7	40
330	33000	173.7	4.3	18.7	40	293.1	7.1	14.1	40
350	35000	184.5	4.5	22.1	40	309.6	7.6	16.7	40
400	40000	202.4	4.8	19.2	40	342.3	8.6	14.5	40
450	45000	227.7	5.6	20.2	40	386.7	9.4	16.3	40
500	50000	256.3	6.2	23.6	40	423.3	10.3	17.1	40
600	60000	312.3	7.4	38.2	40	508.2	10.7	54.1	40

NOTE

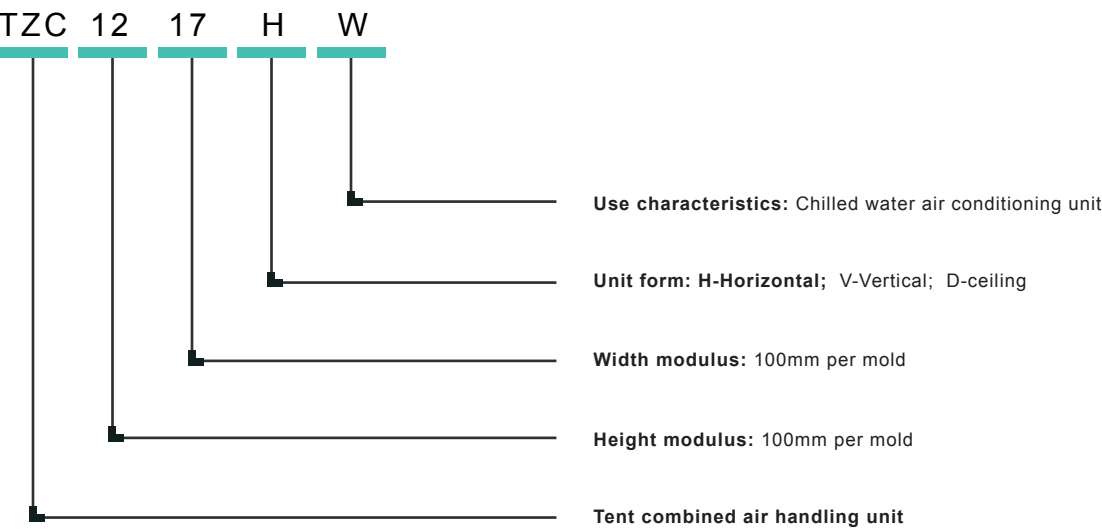
- Heating (air return condition): air inlet dry bulb temperature is 15 °C, hot water inlet temperature is 60 °C, and water outlet temperature is 50 °C;
- Heating (fresh air condition): air inlet dry bulb temperature is 7 °C, hot water inlet temperature is 60 °C, and water outlet temperature is 50 °C;

Overview

Tent combined air handling units can provide a variety of functional segment combinations according to customer requirements, which can be widely used in subways, exhibition centers, airports, office buildings, hotels, restaurants, theaters, state administrative agencies, electronics, precision machinery, textile, medical, food, petrochemical, tobacco and other occasions.If the unit is installed close to the coast or surrounded by paper mills, ironworks, chemical plants and other corrosive environments,customers need to consult the factory to avoid the corrosive environment hindering the stability of long-term operation of the product.

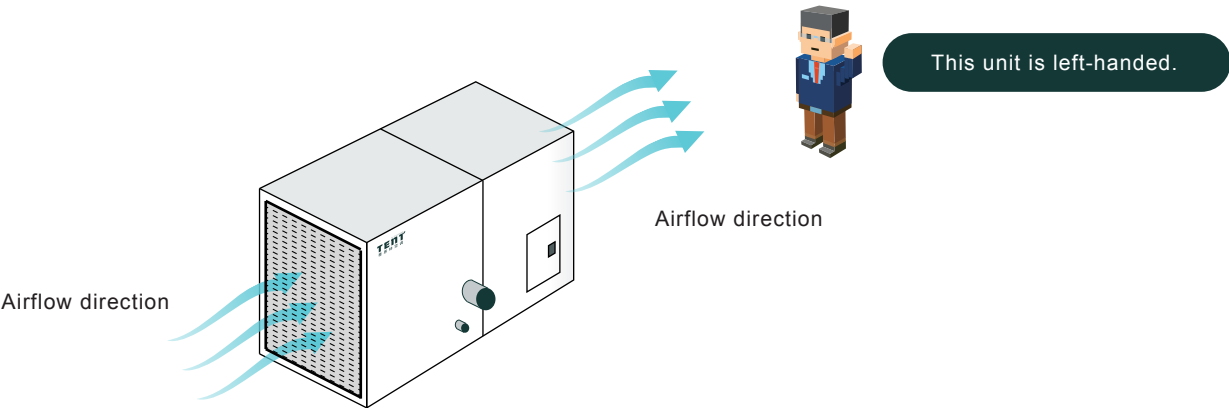
Tent combined air handling units can be equipped with intelligent control systems according to user needs, which are widely used in public welfare air conditioning places and comfort air conditioning places. The control system can choose industrial-grade high-precision controller, which has the characteristics of high reliability,fast computing speed, strong anti-interference ability, etc., with high-quality sensors, actuators, etc., to ensure the control accuracy and stability of the user system,and can realize the automatic control of process air conditioning such as hospital operating rooms, pharmaceutical factories, store sites, and precision laboratories.

Model Description



Unit left and right type judgment chart

Facing the direction of airflow, the inlet and outlet pipes in the left is for left type, and right on the contrary.



Air volume table (Unit:m³/h)

Unitspecifications TZC		Coil oncoming wind speed(m/s)					
		2.00	2.25	2.50	2.80	3.00	3.50
06	07	1537	1784	1974	2209	2335	2758
06	08	1810	1998	2226	2493	2704	3147
06	09	2190	2802	2767	3105	3297	3877
06	10	2498	2858	3143	3559	3805	4397
07	10	2904	3237	3631	4061	4343	5033
07	11	3241	3669	4091	4531	4901	5709
08	10	3590	4082	4494	5065	5394	6294
08	11	4045	4602	5102	5987	6093	7096
08	12	4497	5105	5633	6319	6811	7896
08	13	5003	5595	6240	7001	7443	8696
08	14	5411	6097	6813	7591	8144	9494
10	12	5904	6597	7362	8255	8797	10307
10	13	6503	7303	8112	9077	9696	11347
10	15	7650	8597	9609	10745	11508	13397
10	16	8283	9307	10925	11549	12403	14475
11	15	8858	9971	11038	12404	13276	15501
11	16	9499	10694	11897	13330	14315	16702
11	17	10197	11507	12791	14293	15296	17905
12	17	10914	12245	13596	15238	16360	19053
12	18	11598	13104	14548	16290	17461	20361
13	17	12270	13814	15298	17139	18403	21473
13	18	13102	14698	16370	18297	19598	22906
13	19	13895	15657	17405	19478	20869	24315
14	19	14703	16495	18329	20565	21997	25704
14	20	15569	17504	19452	21749	23297	27195
15	19	16196	18262	20305	22695	24354	28405
15	21	18160	20395	22704	25412	27197	31762
16	21	18991	21402	23744	26596	28491	33246
16	22	19998	22497	24991	27993	29998	34995
16	24	21998	24795	27542	30848	30863	38552
19	22	24573	27614	30715	34404	36829	43001
19	23	25807	28995	32229	36096	38715	45125
19	25	28274	31804	35317	39590	42414	49477
20	25	29294	32965	36656	41021	43980	51304
20	26	30603	34393	38258	42798	45912	53553
21	26	32803	36885	40979	45900	49140	57341
22	27	33842	38104	42324	47396	50814	59249
23	26	36075	40546	45081	50502	54103	63107
22	30	39557	44506	49394	55370	59299	69206
25	28	42597	47928	53303	59700	63918	74602
25	31	47572	53496	59463	66865	71351	83212
25	34	52508	59048	62596	73507	78762	91884
28	34	59806	67278	74753	83694	83710	104647
28	38	67311	75712	84098	94186	100947	117769
29	40	72782	81876	90975	101901	109136	127331
31	41	79303	89195	99092	110996	118957	138781
32	45	49484	100673	111846	125269	134190	156545
35	46	101497	114192	123891	142453	152304	177684
37	50	117401	132058	146694	164296	176033	205416
38	55	136897	154051	171170	191707	205401	239594
43	58	165068	185713	206293	231101	247607	
45	65	191601	215495	239488	268192	280013	

Specifications of each functional section

Function name	Diagram	Dimension(mm) [Just for reference]	Function name	Diagram	Dimension(mm) [Just for reference]																						
Mixed section		<table><tr><th>Unit specification</th><th>L</th></tr><tr><td>0607-1117</td><td>600</td></tr><tr><td>1217-2126</td><td>800</td></tr><tr><td>2227-2534</td><td>1000</td></tr><tr><td>2834-4565</td><td>1200</td></tr></table>	Unit specification	L	0607-1117	600	1217-2126	800	2227-2534	1000	2834-4565	1200	Surface cooling section		<table><tr><th>Unit specification</th><th>[1-4] rows</th><th>[5-6] rows</th><th>[8-12] rows</th></tr><tr><td>0607-2940</td><td>600</td><td>700</td><td>900</td></tr><tr><td>3141-4565</td><td>1000</td><td>1000</td><td>1200</td></tr></table> Equipped with standard water tray Water tray width<25m Drain pipe diameterDN32 25≤Water tray width≤35m Drain pipe diameterDN50 Water tray width>35m Drain pipe diameterDN50 【2 pcs】	Unit specification	[1-4] rows	[5-6] rows	[8-12] rows	0607-2940	600	700	900	3141-4565	1000	1000	1200
Unit specification	L																										
0607-1117	600																										
1217-2126	800																										
2227-2534	1000																										
2834-4565	1200																										
Unit specification	[1-4] rows	[5-6] rows	[8-12] rows																								
0607-2940	600	700	900																								
3141-4565	1000	1000	1200																								
External filter		Installed at outside of the box, does not occupy the space of the box	Heating section		<table><tr><th>Unit specification</th><th>0607-2940</th><th>3141-4565</th></tr><tr><td>L(1-2rows)</td><td>300</td><td>600</td></tr></table> For models smaller than 3141, if the heating section is located behind the surface cooling section of no more than 8 rows, and there is no need for maintenance between the cold and hot coils, the cold and hot coils can be placed in the same water tray, accounting for a total length of 900 sections	Unit specification	0607-2940	3141-4565	L(1-2rows)	300	600																
Unit specification	0607-2940	3141-4565																									
L(1-2rows)	300	600																									
Plate filter		L=100 The plate filter has primary effect and medium effect for selection, and can be placed in the mixing section, or externally and does not take up space alone	Electric heating section		<table><tr><th>T</th><th>L</th></tr><tr><td><4</td><td>300</td></tr><tr><td>≥4</td><td>700</td></tr></table> T=electric heat(W)/air volume	T	L	<4	300	≥4	700																
T	L																										
<4	300																										
≥4	700																										
Bag filter Dense pleated filter		Bag filter L=400 Dense pleated filter L=400	Steam humidification section		L=600 If it is placed after the fan section, 900 is required Equipped with simple water tray Drain pipe diameterDN32																						

Specifications of each functional section

Function name	Diagram	Dimension(mm) [Just for reference]	Function name	Diagram	Dimension(mm) [Just for reference]										
Fresh air exhaust section		<table><tr><th>Unit specification</th><th>L</th></tr><tr><td>0607-1925</td><td>1200</td></tr><tr><td>2025-2940</td><td>1500</td></tr><tr><td>3141-4565</td><td>1800</td></tr></table>	Unit specification	L	0607-1925	1200	2025-2940	1500	3141-4565	1800	Wet film humidification section		Segment length shared with the surface cooling section: if it is divided into separate sections, another 600 sections are required Equipped with simple water tray Drain pipeDN32		
Unit specification	L														
0607-1925	1200														
2025-2940	1500														
3141-4565	1800														
Flow equalization section		L=600	High pressure spray humidification section		L=900 Need to add water baffle Equipped with standard water tray Water tray width<25m Drain pipe diameterDN32 25≤Water tray width≤35m Drain pipe diameterDN50 Water tray width>35m Drain pipe diameterDN50										
Silencer section		L=500 800 1100 【Three options】	Middle section		L=600 It is convenient for maintenance and repair before the filter section, surface cooling section, heating section, silencer section, etc.										
Fan section		Unit specification L=700-3500 Please refer to the size table of each functional section for details	Air outlet section		<table><tr><th>Unit specification</th><th>L</th></tr><tr><td>0607-1117</td><td>600</td></tr><tr><td>1217-2126</td><td>800</td></tr><tr><td>2227-2534</td><td>1000</td></tr><tr><td>2834-4565</td><td>1200</td></tr></table>	Unit specification	L	0607-1117	600	1217-2126	800	2227-2534	1000	2834-4565	1200
Unit specification	L														
0607-1117	600														
1217-2126	800														
2227-2534	1000														
2834-4565	1200														
Other functional section		Water retaining section	Shared section length with surface cooling section												

Length table of each functional section of the unit

Unit specification TZC		Length (m)												
		New return air mixing section	Plate filter section	Bag filter section	Dense pleated filter section	Fresh air exhaust section	Surface cooling section (1-4 rows)	New return air mixing section	New return air mixing section	Steam and hot water heating section	Middle section	Silencer section	Fan section (fan model A)	Fan section (fan model B)
06	07	600	100	400	400	1200	600	700	900	300	600	800	900(200)	1100(225)
06	08	600	100	400	400	1200	600	700	900	300	600	800	900(200)	1100(225)
06	09	600	100	400	400	1200	600	700	900	300	600	800	700(200)	1200(280)
06	10	600	100	400	400	1200	600	700	900	300	600	800	700(200)	1300(315)
07	10	600	100	400	400	1200	600	700	900	300	600	800	700(200)	1300(315)
07	11	600	100	400	400	1200	600	700	900	300	600	800	800(225)	1300(315)
08	10	600	100	400	400	1200	600	700	900	300	600	800	700(200)	1300(315)
08	11	600	100	400	400	1200	600	700	900	300	600	800	800(225)	1300(315)
08	12	600	100	400	400	1200	600	700	900	300	600	800	800(315)	
08	13	600	100	400	400	1200	600	700	900	300	600	800	800(315)	
08	14	600	100	400	400	1200	600	700	900	300	600	800	800(315)	
10	12	600	100	400	400	1200	600	700	900	300	600	800	800(315)	1500(400)
10	13	600	100	400	400	1200	600	700	900	300	600	800	900(355)	1500(400)
10	15	600	100	400	400	1200	600	700	900	300	600	800	900(355)	1500(400)
10	16	600	100	400	400	1200	600	700	900	300	600	800	900(355)	1500(400)
11	15	600	100	400	400	1200	600	700	900	300	600	800	1000(400)	1800(500)
11	16	600	100	400	400	1200	600	700	900	300	600	800	1000(400)	1800(500)
11	17	600	100	400	400	1200	600	700	900	300	600	800	1100(450)	1800(500)
12	17	800	100	400	400	1200	600	700	900	300	600	800	1100(450)	
12	18	800	100	400	400	1200	600	700	900	300	600	800	1100(450)	1200(500)
13	17	800	100	400	400	1200	600	700	900	300	600	800	1100(450)	
13	18	800	100	400	400	1200	600	700	900	300	600	800	1100(450)	1200(500)
13	19	800	100	400	400	1200	600	700	900	300	600	800	1100(450)	1300(560)
14	19	800	100	400	400	1200	600	700	900	300	600	800	1200(500)	1300(560)
14	20	800	100	400	400	1200	600	700	900	300	600	800	1200(500)	1300(560)
15	19	800	100	400	400	1200	600	700	900	300	600	800	1200(500)	1300(560)
15	21	800	100	400	400	1200	600	700	900	300	600	800	1300(560)	1500(630)
16	21	800	100	400	400	1200	600	700	900	300	600	800	1300(560)	1500(630)
16	22	800	100	400	400	1200	600	700	900	300	600	800	1300(560)	1500(630)
16	24	800	100	400	400	1200	600	700	900	300	600	800	1300(560)	1700(710)
19	22	800	100	400	400	1200	600	700	900	300	600	800	1500(630)	2600(800)
19	23	800	100	400	400	1200	600	700	900	300	600	800	1500(630)	2600(800)
19	25	800	100	400	400	1200	600	700	900	300	600	800	1700(710)	2600(800)
20	25	800	100	400	400	1500	600	700	900	300	600	800	1700(710)	2600(800)
20	26	800	100	400	400	1500	600	700	900	300	600	800	1800(800)	3000(900)
21	26	800	100	400	400	1500	600	700	900	300	600	800	1800(800)	3000(900)
22	27	1000	100	400	400	1500	600	700	900	300	600	800	2100(900)	3300(1000)
23	26	1000	100	400	400	1500	600	700	900	300	600	800	1800(800)	3000(900)
22	30	1000	100	400	400	1500	600	700	900	300	600	800	2100(900)	3300(1000)
25	28	1000	100	400	400	1500	600	700	900	300	600	800	2100(900)	3300(1000)
25	31	1000	100	400	400	1500	600	700	900	300	600	800	2100(900)	2200(1000)
25	34	1000	100	400	400	1500	600	700	900	300	600	800	2100(900)	2200(1000)
28	34	1200	100	400	400	1500	600	700	900	300	600	800	2100(900)	2200(1000)
28	38	1200	100	400	400	1500	600	700	900	300	600	800	2600(800*2)	
29	40	1200	100	400	400	1500	600	700	900	300	600	800	2600(800*2)	
31	41	1200	100	400	400	1800	1000	1000	1200	600	600	800	2600(800*2)	
32	45	1200	100	400	400	1800	1000	1000	1200	600	600	800	2800(900*2)	
35	46	1200	100	400	400	1800	1000	1000	1200	600	600	800	3300(1000*2)	
37	50	1200	100	400	400	1800	1000	1000	1200	600	600	800	3300(1000*2)	
38	55	1200	100	400	400	1800	1000	1000	1200	600	600	800	3400(1120*2)	
43	58	1200	100	400	400	1800	1000	1000	1200	600	600	800	3400(1120*2)	
45	65	1200	100	400	400	1800	1000	1000	1200	600	600	800	3500(1250*2)	
Others		The length of the dehumidification section in the heat recovery section needs to be selected separately based on specific circumstances; Combustion section: 3000; Activated carbon section: 100-500												

NOTE

- The overall length of the unit is equal to the sum of the lengths of each functional section
- The length of the functional section may vary depending on the specific design, and the above data is just for reference
- If you have special requirements for the functional section, please contact Tent

Filter section

The unit area quality, resistance, lintel performance, antistatic characteristics, moisture absorption, burning resistance and filtration of the primary and medium-efficiency filter all comply with GB/T14295-2019, and the high-efficiency filter meets other relevant national standards.

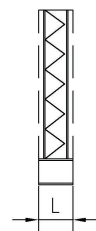
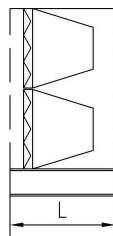


Plate filter section



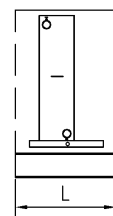
Bag filter section

- The primary filter is divided into plate type and bag type, the filter adopts chemical fiber and glass fiber.
- The medium efficiency filter is divided into plate type, bag type and dense garnet type, the filter adopts chemical fiber or glass fiber.
- The sub-high efficiency filter is divided into split plate type and dense pleated type, the filter adopts glass fiber.
- The high efficiency filter is divided into dense pleated type, large air volume box type. The filter adopts glass fiber.
- The activated carbon filter is made of a variety of organic chemical fibers by carbonization activation, mainly to remove ozone, odor and low-density vapor phase pollutants in the air environment. The front and rear of the activated carbon filter need to be equipped with conventional filters, the front protection to prevent dust from blocking the activated carbon material, and the back protection to prevent possible activated carbon powder from contaminating the ventilation system.

Note: According to the user's requirement.

- Optional - nylon filter (not recommended to do built-in), multi-layer metal filter.
- The filtration cross-sectional area of plate and bag filters is the same but the thickness is different, the plate thickness is 46mm, and the bag thickness is 381mm.
- The external filter can be withdrawn from the side and the built-in filter can be removed from the front.
- The built-in filter installation form is divided into slide and frame: the general comfort occasion adopts the slipway form, and the purification occasion adopts the frame form.

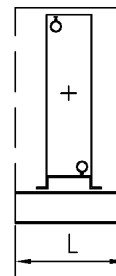
Surface cooling section and heating section



Surface cooling section

The surface cooling and heating coil adopts copper tube and aluminum fin, and the aluminum alloy fin is fixed on the purple steel tube by mechanical expansion process: the fin is 8-14 pieces / inch; The coil end plate is made of galvanized steel sheet, the water collection pipe is made of steel pipe, the upper part is equipped with a vent, the lower part is equipped with a drainage port, and the water supply and return pipes are standard steel pipes; The uniformity of the air inlet section of the coil is greater than 80%, and the coil is tested at 24MPa in the factory, which is suitable for working pressure below 16MPa;

The water connection ports of water supply, return water and condensate are on the same side of the unit box; After the coil, a water baffle can be set according to user requirements, even at high wind speed, no water droplets will blow out, the water tray is made of steel plate spraying, the outside is insulated to prevent condensation, and the lowest point of the water tray is equipped with a drainage pipe, which can discharge condensate smoothly.



Heating section

Warning:

The steam coil must be guaranteed to close the steam valve before the fan stops, and the steam coil must be equipped with a trap according to the operator's manual

Note: According to the user's requirement.

- Coil fins can be made of copper fins or hydrophilic aluminum foil.
- Coil end plate stainless steel, water tray stainless steel.
- The coil can be made of stainless steel pipe and galvanized steel pipe.

Cooling performance parameter table

Unit specification TZC		Rated air volume m³/h	Fresh air condition						Return air condition					
			4Rows		6Rows		8Rows		4Rows		6Rows		8Rows	
			Sensible cooling capacity kW	Total cooling capacity kW	Sensible cooling capacity kW	Total cooling capacity kW	Sensible cooling capacity kW	Total cooling capacity kW	Sensible cooling capacity kW	Total cooling capacity kW	Sensible cooling capacity kW	Total cooling capacity kW	Sensible cooling capacity kW	Total cooling capacity kW
00	07	1974	9.1	21.2	12.1	29.2	13.1	31.3	8.1	9.1	9.1	12.1	10.1	15.1
06	08	2226	10.9	23.9	13.9	32.8	14.9	35.8	9.0	10.9	9.9	13.9	10.9	16.9
06	09	2767	13.0	29.1	17.1	41.1	18.1	44.1	11.0	13.0	12.0	17.1	14.0	21.1
06	10	3143	14.9	32.8	18.9	45.8	20.9	49.8	11.9	14.9	13.9	18.9	15.9	23.9
07	10	3631	17.1	38.2	22.1	53.3	24.1	58.3	14.1	17.1	16.1	22.1	18.1	28.2
07	11	4091	19.1	43.3	25.1	60.4	27.2	65.4	16.1	20.1	18.1	25.1	21.1	31.2
08	10	4494	20.9	46.8	27.9	65.7	29.9	71.7	17.9	21.9	19.9	26.9	22.9	34.9
08	11	5102	24.1	53.2	31.1	75.3	34.1	81.3	20.1	24.1	22.1	31.1	26.1	39.1
08	12	5633	26.9	58.8	34.9	82.7	36.9	89.6	21.9	26.9	24.9	33.9	28.9	42.8
08	13	6240	29.1	66.1	38.1	92.2	41.1	99.2	24.1	30.1	27.1	38.1	31.1	48.1
08	14	6813	32.1	72.2	42.1	100.2	45.1	108.2	27.1	33.1	30.1	41.1	34.1	52.1
10	12	7362	35.1	77.1	45.1	108.2	49.1	117.2	29.0	35.1	32.0	45.1	37.1	56.1
10	13	8112	38.1	85.2	50.1	119.3	53.1	129.3	32.1	39.1	36.1	49.1	41.1	62.1
10	15	9609	45.1	101.3	59.2	141.4	63.2	153.5	37.1	46.1	42.1	58.2	48.1	73.2
10	16	10925	51.9	115.4	66.7	160.9	72.0	174.6	42.3	52.9	47.6	66.7	55.0	83.6
11	15	11038	51.9	115.8	67.9	162.8	72.9	175.7	42.9	52.9	48.9	66.9	55.9	84.9
11	16	11897	55.9	124.9	72.9	174.8	78.9	189.8	45.9	56.9	51.9	71.9	59.9	90.9
11	17	12791	60.1	134.2	78.1	188.3	84.1	204.4	50.1	61.1	56.1	78.1	54.1	98.2
12	17	13596	63.9	142.7	83.9	199.6	89.8	216.6	52.9	64.9	59.9	82.9	68.9	103.8
12	18	14548	69.1	153.1	89.1	214.2	96.1	232.2	57.1	70.1	64.1	88.1	73.1	111.1
13	17	15298	71.9	160.7	93.9	224.6	100.8	243.6	59.9	73.9	66.9	92.9	76.9	117.8
13	18	16370	77.1	172.2	100.1	241.3	108.1	261.3	64.1	79.1	72.1	99.1	82.1	125.1
13	19	17405	82.1	183.3	107.2	256.4	115.2	277.4	68.1	83.1	76.1	106.2	88.1	133.2
14	19	18329	86.9	192.8	112.9	269.8	120.9	292.7	71.9	87.9	80.9	110.9	92.9	140.9
14	20	19452	92.1	204.2	119.1	286.3	128.1	310.3	76.1	93.1	85.1	118.1	98.1	149.2
15	19	20305	96.1	213.3	124.2	298.4	134.2	324.4	79.1	97.1	89.1	123.2	102.1	156.2
15	21	22704	107.1	239.3	139.2	334.4	150.2	362.4	89.1	109.1	100.1	138.2	114.1	174.2
16	21	23744	111.9	249.9	145.9	349.8	156.9	378.8	92.9	113.9	103.9	143.9	119.9	181.9
16	22	24991	117.9	262.8	152.9	367.7	164.8	398.6	97.9	119.9	109.9	151.9	125.9	191.8
16	24	27542	130.1	290.1	169.1	405.2	182.1	439.2	107.1	132.1	121.1	167.1	139.1	211.1
19	22	30715	145.1	323.2	188.1	452.2	203.1	490.3	120.1	147.1	135.1	186.1	155.1	235.1
19	23	32229	151.9	338.9	197.9	473.8	212.9	513.8	125.9	154.9	141.9	195.9	162.9	246.9
19	25	35317	166.9	371.9	216.9	519.8	232.9	563.8	138.0	169.9	155.0	214.9	177.9	270.9
20	25	36656	173.1	385.2	225.1	539.3	242.1	585.3	143.1	176.1	161.1	222.1	185.1	281.1
20	26	38258	180.1	402.2	234.1	563.3	252.1	610.3	149.1	184.1	168.1	232.1	193.1	293.2
21	26	40979	193.1	431.1	251.1	603.2	270.1	654.2	160.0	197.1	180.0	249.1	207.1	314.1
22	27	42324	199.0	444.9	258.9	622.9	278.9	675.9	165.0	204.0	186.0	256.9	214.0	323.9
23	26	45081	212.1	474.2	276.1	663.2	297.1	719.3	176.1	216.1	198.1	274.1	227.1	346.1
22	30	49394	232.9	519.7	302.8	726.6	325.8	788.6	192.9	237.9	216.9	299.8	249.9	378.8
25	28	53303	251.1	560.3	327.2	784.4	352.2	850.4	208.1	256.1	234.1	324.2	269.1	409.2
25	31	59463	280.1	625.1	365.1	875.2	392.1	948.2	232.1	285.1	261.1	361.1	300.1	456.1
25	34	62596	308.9	689.7	401.8	964.6	432.8	1046.6	255.9	314.9	287.9	397.8	330.9	502.8
28	34	74753	352.1	786.2	458.1	1100.3	493.1	1192.3	292.1	359.1	328.1	454.1	377.1	573.1
28	38	84098	397.0	884.9	515.9	1236.9	554.9	1341.9	328.0	404.0	370.0	510.9	424.0	644.9
29	40	90975	429.1	957.2	558.1	1338.2	600.1	1451.3	355.1	437.1	400.1	552.1	459.1	698.1
31	41	99092	466.9	1042.8	607.9	1457.7	653.8	1580.6	386.9	475.9	434.9	601.9	499.9	759.8
32	45	111846	527.1	1177.1	686.1	1645.2	738.1	1784.2	436.1	537.1	491.1	679.1	564.1	858.1
35	46	123891	583.8	1303.3	759.5	1822.7	818.1	1976.9	483.2	594.5	544.8	752.7	624.8	949.9
37	50	146694	691.9	1542.8	899.9	2157.7	967.9	2340.7	572.9	704.9	644.9	890.9	739.9	1124.9
38	55	171170	807.1	1801.2	1050.1	2518.3	1130.1	2731.3	668.1	822.1	752.1	1039.1	863.1	1313.1
43	58	206293	972.9	2170.7	1264.9	3034.6	1361.8	3291.6	804.9	990.9	905.9	1252.9	1039.9	1581.8
45	65	239488	1129.1	2519.2	1468.1	3523.3	1581.1	3821.3	935.1	1150.1	1052.1	1454.1	1207.1	1837.1

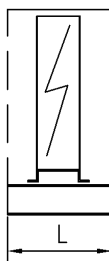
NOTE

- **Fresh air conditions:** inlet dry bulb temperature 35℃, wet bulb temperature 28℃;
- **Return air condition:** inlet dry bulb temperature 27℃, wet bulb temperature 19.5℃;
- The inlet and outlet temperature of chilled water is 7/12℃, and the head-on wind speed of the coil is 2.5m/s;
- The above data is just for reference, if the working conditions change or differences in the coil circuit can lead to differences in cooling capacity, please contact Tent for specific data.

Hot water coil performance parameter table

Unit specification TZC		Rated air volume m³/h	Fresh air conditions(inlet dry bulb temperature 7℃)				Return air condition(inlet dry bulb temperature 15℃)			
			1Rows	2Rows	3Rows	4Rows	1Rows	2Rows	3Rows	4Rows
			Total heat kW	Total heat kW	Total heat kW	Total heat kW	Total heat kW	Total heat kW	Total heat kW	Total heat kW
06	07	1974	12.1	18.1	23.2	26.2	9.1	14.1	19.2	21.2
06	08	2226	13.9	19.9	25.9	29.8	9.9	15.9	20.9	23.9
06	09	2767	17.1	25.1	32.1	37.1	12.0	20.1	26.1	30.1
06	10	3143	19.9	28.9	36.8	41.8	13.9	22.9	29.9	33.8
07	10	3631	23.1	33.2	42.2	48.3	16.1	26.2	34.2	39.2
07	11	4091	26.2	37.2	47.3	54.3	18.1	29.2	39.2	44.3
08	10	4494	27.9	40.8	51.8	59.8	19.9	31.9	42.8	48.8
08	11	5102	32.1	46.2	59.2	68.3	23.1	36.1	49.2	55.2
08	12	5633	35.9	51.8	64.7	74.7	24.9	40.8	53.8	61.8
08	13	6240	39.1	57.1	72.2	83.2	28.1	45.1	59.1	68.2
08	14	6813	43.1	62.1	79.2	91.2	30.1	49.1	65.1	74.2
10	12	7362	46.1	68.1	85.1	98.1	33.0	53.1	70.1	80.1
10	13	8112	51.1	74.2	94.2	108.2	36.1	58.1	77.2	88.2
10	15	9609	60.2	87.3	111.3	128.4	42.1	69.2	91.3	105.3
10	16	10925	68.8	99.5	127.0	146.0	48.7	78.3	104.8	119.6
11	15	11038	69.9	100.9	127.8	146.8	48.9	78.9	105.8	120.8
11	16	11897	74.9	108.9	137.8	158.8	52.9	84.9	113.9	129.8
11	17	12791	81.1	116.2	148.3	170.3	57.1	91.2	122.2	139.2
12	17	13596	85.8	123.8	157.7	181.7	59.9	97.8	129.8	148.7
12	18	14548	92.1	133.1	168.2	194.2	64.1	104.1	139.1	159.2
13	17	15298	96.8	139.8	176.7	203.7	67.9	109.8	145.8	166.7
13	18	16370	103.1	149.2	189.2	218.3	72.1	117.1	156.2	178.2
13	19	17405	110.2	158.2	201.3	232.3	77.1	124.2	166.2	190.3
14	19	18329	115.9	166.9	211.8	244.8	80.9	130.9	174.8	199.8
14	20	19452	123.1	177.2	225.2	259.3	86.1	139.2	186.2	212.2
15	19	20305	128.2	185.3	235.3	270.4	90.1	145.2	194.3	221.3
15	21	22704	143.2	207.2	263.3	302.4	100.1	162.2	217.3	247.3
16	21	23744	149.9	216.9	274.8	316.8	104.9	169.9	226.9	258.9
16	22	24991	157.9	227.8	289.7	333.7	110.9	178.8	238.8	272.7
16	24	27542	174.1	251.1	319.2	367.2	122.1	197.1	263.1	300.1
19	22	30715	194.1	280.1	355.2	409.2	136.1	220.1	293.2	335.2
19	23	32229	203.9	293.9	372.8	429.8	142.9	230.9	307.9	351.9
19	25	35317	222.9	321.9	408.9	470.9	157.0	252.9	336.9	385.9
20	25	36656	231.1	334.2	424.2	488.3	162.1	262.1	350.2	400.2
20	26	38258	241.1	349.2	443.2	510.3	169.1	274.2	365.2	417.2
21	26	40979	259.1	374.1	474.1	546.1	182.0	293.1	391.1	447.1
22	27	42324	267.9	388.9	496.9	561.9	184.0	302.9	398.9	453.9
23	26	45081	284.1	411.1	522.2	601.2	200.1	323.1	430.2	492.2
22	30	49394	312.8	453.8	580.7	655.7	214.9	352.8	465.8	529.7
25	28	53303	336.2	486.2	617.3	710.4	236.1	382.2	509.3	581.3
25	31	59463	375.1	542.1	688.2	793.2	263.1	426.1	568.1	649.2
25	34	62596	413.8	597.8	759.7	874.7	290.9	469.8	626.7	715.7
28	34	74753	472.1	682.2	865.2	996.2	331.1	535.1	714.2	816.2
28	38	84098	530.9	766.9	973.9	1120.9	373.0	601.9	802.9	917.9
29	40	90975	574.1	829.1	1053.2	1213.2	403.1	652.1	869.2	993.2
31	41	99092	625.9	903.8	1147.7	1321.7	438.9	709.8	946.8	1081.7
32	45	111846	706.1	1020.1	1295.2	1491.2	496.1	801.1	1068.1	1220.1
35	46	123891	782.0	1129.5	1434.1	1651.8	548.7	887.4	1183.2	1352.1
37	50	146694	925.9	1337.8	1698.8	1955.7	649.9	1050.9	1400.8	1600.8
38	55	171170	1080.1	1561.2	1982.2	2282.2	758.1	1226.1	1635.2	1868.2
43	58	206293	1301.8	1880.8	2388.7	2750.7	913.9	1477.8	1969.8	2250.7
45	65	239488	1512.1	2184.2	2773.2	3193.3	1061.1	1715.1	2287.2	2613.2

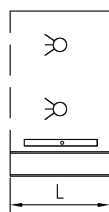
Electric heating section

**Warning:**

1. You must ensure that the electric heating is turned on after the fan is turned on.
2. Turn off the electric heating 5 minutes before the fan stops.
3. The electric heater overheating protection switch needs to be connected to the electric heating control loop.
4. PTC electric heating cannot be controlled by thyristors to avoid the problem that the zero line is too large to affect safety and the current control is not good to affect the temperature control accuracy.

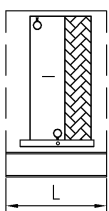
- The electric heating element is fixed to the frame.
- The power supply can be connected to 380V 3N~50Hz.
- The control cabinet is installed by the user.
- Two-to-multi-gear binning to meet different heating power control needs.

Humidification section

The below humidifiers can be chosen:

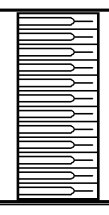
- Dry steam humidifier. Isothermal humidification, all stainless steel manufacturing, corrosion resistance, small size, easy installation, clean humidification, high humidification efficiency, there are electric and manual two options. Suitable for humidification with steam source.
- Electrode humidifier. The use of AC power supply to directly treat tap water to produce clean steam, microcomputer control, proportional adjustment and switching adjustment two control methods. Suitable for process humidification without steam source.
- Vaporized (wet film) humidifiers. The wet film material is used to absorb water, and the air flow is vaporized by the wet film moisture, which has a washing and filtering effect on the air at the same time, and can be doubled as a water baffle. Direct water supply or circulating water can be used.
- The high-pressure spray humidifier pressurizes the tap water and atomizes it finely through the nozzle, producing fine droplets that evaporate and humidify in the air. The humidification efficiency should be considered when selecting a high-pressure spray humidifier, generally 40%~50%.

Evaporative cooling section



Through tap water or circulating water sprayed on the evaporative filler, absorb heat in the air, cool and humidify the air. Its refrigerant is tap water or circulating water, no pollution, no refrigerant, extremely low power consumption, especially suitable for high temperature and low humidity in Xinjiang, Qinghai, Gansu, Ningxia and other regions.

Health, sterilization unit Electronic purification section

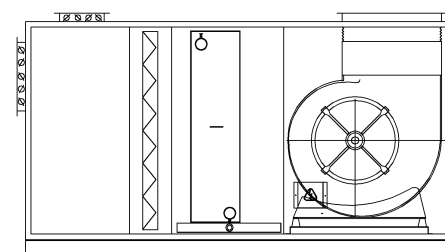
**Dust removal and purification**

Ionize suspended particles in the air passing through a purifying electric field. Use high-voltage electrostatic field to make all suspended particles in the air (minimum 0.01 μm) attach positive electricity. Then it is quickly adsorbed by the dust collection plate to achieve the purpose of efficient dust removal and purification. The one-time dust removal efficiency is greater than 98.9%.

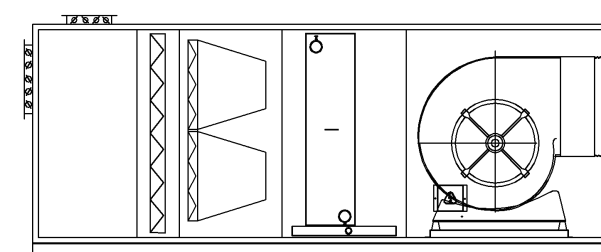
Sterilization and purification

The discharge electrode produces plasma under high pressure, the plasma will quickly destroy and completely kill the nucleus of bacteria, viruses and dust mites and other microorganisms in the air, and the residual substances are sintered and adsorbed by the dust plate, and the sterilization rate is as high as 99%, completely eliminating bacteria, viruses and infectious viruses using the central air conditioning system to reproduce and spread, completely eliminating cross-infection. The one-pass sterilization efficiency is greater than 94.69%.

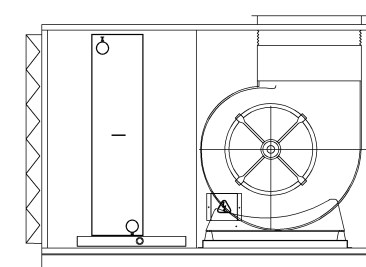
Common functional section combinations



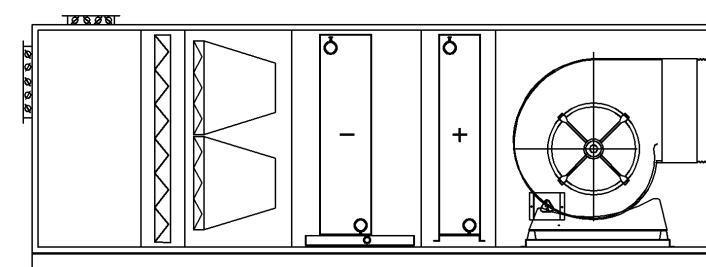
Mixing section + plate filter section
+ surface cooling section + fan section



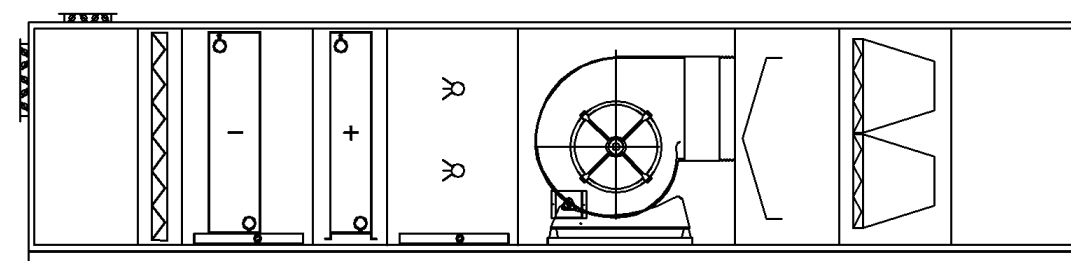
Mixing section + plate filter section + bag filter section
+ surface cooling section + fan section



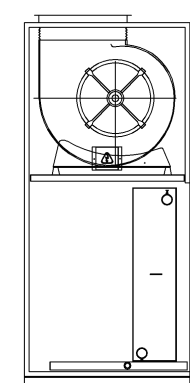
External filter section + surface cooling section
+ fan section



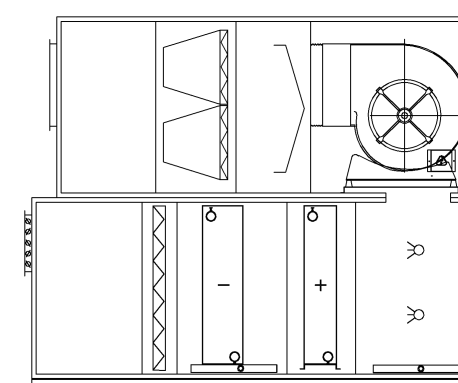
Mixing section + plate filter section + bag filter section
+ surface cooling section + heating section + air cooling section



Mixing section + plate filter section + surface cooling section + heating section + humidification section
+ fan section + flow equalization section + bag filter section + air supply section



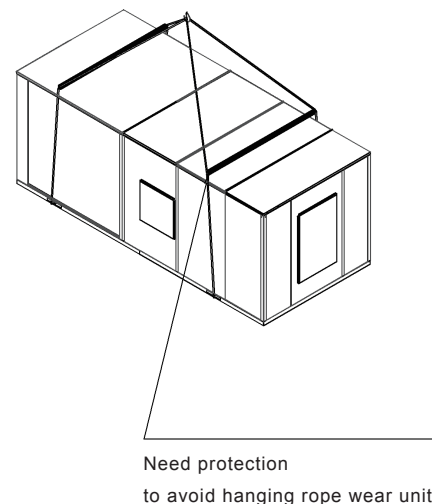
External filter section
+ surface cooling section + fan section



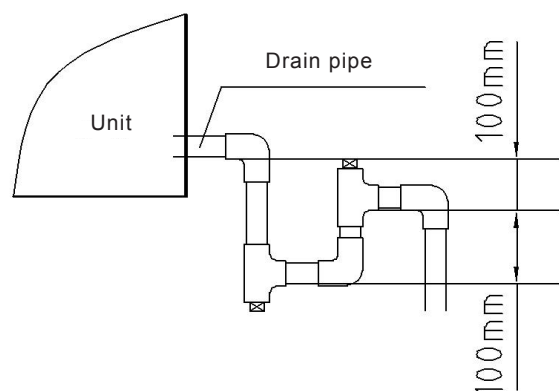
Mixing section + plate filter section + surface cooling section
+ heating section + humidification section + fan section
+ flow equalization section + bag filter section + air supply section

Unit installation

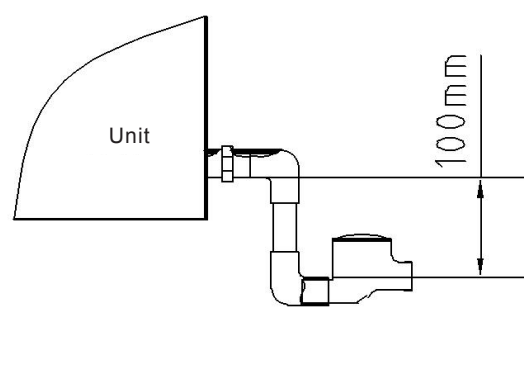
- Before the installation of the unit, check the unit in detail whether there is damage, if there are the following situations, please contact the seller to repair and replace: the unit is bruised or seriously deformed, the unit panel or shell has scratches that obviously affect the appearance, and the fan and motor are loose.
 - For safety, the unit of the ceiling must be firmly hoisted, the unit must be lifted as (right picture), or loaded and unloaded by forklift, and the lifting point should be strong and strong enough to bear the weight of the unit and ensure the level of the unit.
 - Before wiring, check whether the voltage, frequency and phase amplitude of the power supply are consistent with the unit, and the deviation of the power supply voltage does not exceed $\pm 10\%$ of the rated voltage. Before starting the fan, it is necessary to enter the fan box to turn the fan impeller by hand, carefully check whether there is a metal friction sound, and if there is any abnormality, it should be eliminated. After the power supply is turned on, start the fan, check whether the impeller rotation direction is correct, if the steering is found to be wrong, just change the phase sequence of the power supply inlet.
 - It is recommended to set a static pressure box at the air inlet and outlet of the unit, an air volume regulating valve on the air duct, and a fire valve according to the fire protection requirements. If an electric air volume regulator is installed, the damper actuator should open before the fan and then close after the fan.
-



U-shaped water seal installation drawing

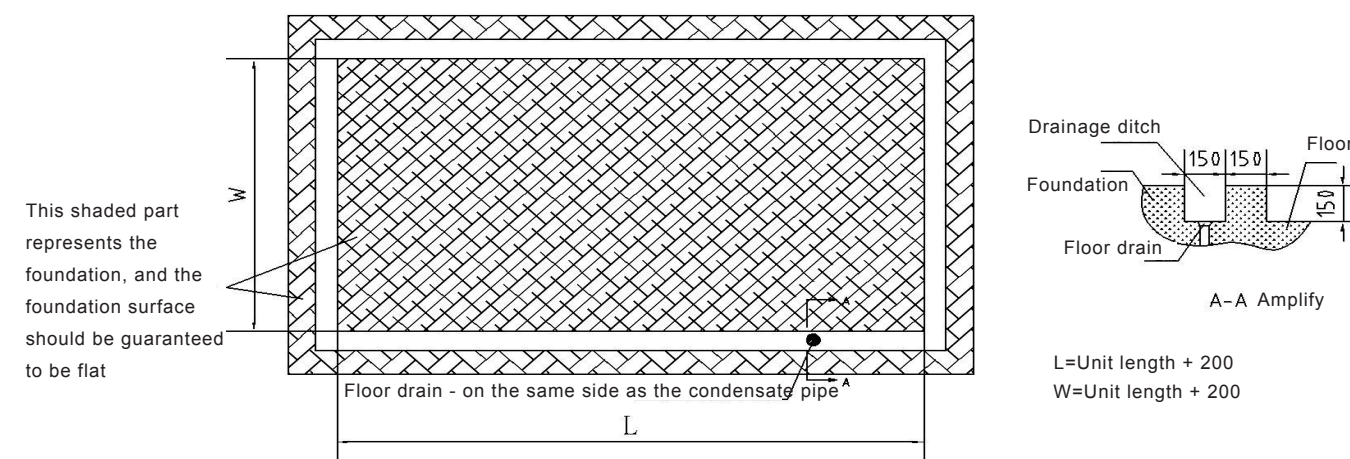


Spherical water seal installation drawing



- Before connecting the water pipe, you should pay attention to cleaning the water pipe. The direction of cold (hot) water inlet and exit, according to the unit label to take over, the unit inlet pipe must be equipped with valves and filtration devices to adjust the flow. Cut off the cold (hot) water source during maintenance, and at the same time prevent impurities from entering the hot exchanger and blockage, the inlet and outlet pipes must be insulated with insulation pipes.
- When connecting the inlet and outlet pipes, a pipe clamp should be used to fix the inlet and outlet pipes, and to avoid torsion on the inlet and outlet pipes during operation, it is recommended to use raw tape to seal to avoid water leakage. The condensate generated in the unit must be connected to a certain height of water seal and led to the sewer with a drain pipe, as shown above.
- The weight of air pipes, water pipes, etc. connected to the unit shall not be borne by the unit.
- The unit must have reliable grounding and check whether the electrical wiring is good and meets the safety requirements for electricity use.

- The unit should be installed by professionals who are familiar with the product and understand the relevant local regulations, and collision, pressing and scratching are strictly prohibited during installation.



Precautions for installation and use

If the unit is not running for a long time and does not operate in winter, the power must be turned off.

In order to avoid electric shock or fire and other possible injuries, the following rules should be kept in mind and strictly observed.

Users should not try to install or modify the air conditioning unit by themselves, if the operation is improper, it may cause water leakage, electric shock, fire.

The grounding wire of the air conditioning equipment should not be connected to the gas pipe, water pipe, lightning rod, etc.

Use accessories designated by our company and provide installation and technical services to manufacturers or authorized distributors.

The data cable of the unit controller should be isolated from the power supply power line to prevent interference.

Do not damage the power cord, do not unplug or insert the power plug to turn the air conditioning unit on and off.

Do not directly rinse the air conditioning unit with water, otherwise it is easy to cause electric shock or other accidents.

Users must not attempt to repair by themselves, if improper repair may lead to unit operation failure or burnout; If you need to repair, please contact your local branch or authorized repairer.

The air conditioning unit is not allowed to operate in corrosive gas environments such as acids, alkalis and salt spray, otherwise it will cause damage to the unit shell, pipelines or electrical components.

The surroundings of the unit should be kept clean and dry, with good ventilation. If the air-side heat exchanger can be cleaned regularly (1~2 months), it can maintain its good heat exchange effect and save energy.

It should be frequently checked whether the wiring of the power supply and electrical system of the unit is firm, whether the electrical components are abnormal in action, and if there is an abnormality, it should be repaired and replaced in time to regularly check whether the grounding of the unit is reliable.

The drain pipe must be installed in accordance with the requirements of this manual to ensure smooth drainage and heat insulation to prevent condensation. The drain pipe must be checked before the unit is running. If blocked, foreign matter must be removed so that condensate drains smoothly.

The minimum starting voltage of the unit must be maintained at more than 90% of the rated voltage, and the voltage difference between the phases should be within $\pm 2\%$ of the rated voltage within 10% of the rated voltage during operation. When the voltage is too high or too low, it has a bad effect on the unit. The stability of the power supply should be ensured, and when the voltage is unstable, when the unit starts and runs, it will cause excessive current, which can cause damage to the unit motor.

Only when the machine is turned off and the power is cut off, the maintenance and repair operation of the unit can be carried out.

After the unit fails, the cause should be found out and eliminated before it can be restarted, and it cannot be forcibly turned on without the fault being eliminated.

Do not short-connect the line of the unit protection device, otherwise it may cause unit failure.

The internal cables of the unit should be protected to prevent the insulation layer from being damaged by sharp objects.

Wires and cables should be kept away from heat sources, reduce movement, and should not be bent or twisted violently.

Air filter

Regularly (recommended twice a month) check the dust accumulation of the filter of the unit, and the user equipped with the differential pressure detection device should clean or replace the filter in time when the final resistance reaches the specified value. Tyne recommends that the final resistance values be:

Filtration efficiency specification	Recommended final resistance (Pa)
G3(primary effect)	100-200
G3(primary effect)	150-250
M5-M6(medium effect)	250-300
F7-F8(high efficiency effect)	300-400
F9-E11(sub-high efficiency)	400-450
high efficiency and super efficiency	400-600

Heat exchanger

Pay attention to ensure that there is no scratch and bump phenomenon of coil fins, copper tubes, etc.To keep the coil clean, use a nylon brush to brush the fins of the coil.It must be cleaned with a vacuum cleaner before brushing. If compressed air is available,the coil can be cleaned using a high-pressure air tube or nozzle.After the coil is cleaned, the outer surface should be free of dust,and the heat transfer effect of the inner surface should reach its original heat exchange capacity.

One week after the unit starts operation, the tightness of the belt should be readjusted, and a routine inspection should be done every three months of operation.

After the unit runs for a period of time, the wire terminal pile head will be loose, and it should be checked and tightened three days after the first start-up.

The bearings of fans and motors should be checked regularly (recommended three times a month).Check the sealing ring (such as V-sealing ring) of the motor shaft extension,and replace it in time if necessary; Check whether the installation connection is loose; Check bearing operation by listening for abnormal noise,vibration detection, monitoring oil consumption or bearing vibration measuring elements, etc. If any abnormality occurs,it should be stopped immediately,check the cause and eliminate it in time. To install and replace the bearing, heat or use special tools, and do not knock or pry the bearing.

Maintenance of fan bearings

Fans with oil injection nozzles need to be regularly greased with the bearings: clean lithium grease No. 2; If the user selects a grade of grease for fattening, it is necessary to use that grade of grease all the time; The grease expiration date depends on the grease type, bearing speed, shaft diameter and operating environment.Under normal circumstances, the grease needs to be replaced for about 1500 hours of fan operation;The fan runs continuously for 24 hours, and the lubricating grease is replaced every 500~700 hours of operation; Method of filling grease: keep the shaft rotating when greasy, stop greasing when you see a layer of fresh grease overflowing at the dust cap, and quickly turn the wind wheel by hand to make the excess grease discharge.

Regularly (it is recommended to do it once a month) check the sealing strip of the maintenance door, the soft joint of the air duct, and replace it in time if there is air leakage.

Additional notes:

- 1) Clean the air conditioner only after shutting down and turning off the power, otherwise you may be electrocuted or injured.
- 2) Please do not perform maintenance while the unit is running.
- 3) Please do not use steel or copper wire instead of fuse, please use the correct specification fuse, otherwise it will hurt the unit.
- 4) If you notice any abnormalities (such as burnt smell), turn off the power and seek guidance from the vendor. In this case, if it continues to be used,the air conditioner is damaged and may cause electric shock or fire accidents, maintenance can only be carried out by professional maintenance personnel,and all power must be cut off before wiring the device.
- 5) For other unmentioned matters, please refer to the "Installation Operation Manual".

Unit components, such as humidifiers, runner heat recovery, etc., if the unit components have random operation and maintenance manuals or user manuals,and there are operation and maintenance rules in the document, their operation and maintenance must be carried out in accordance with the random manual or user manual of the components.

Electrical wiring diagram

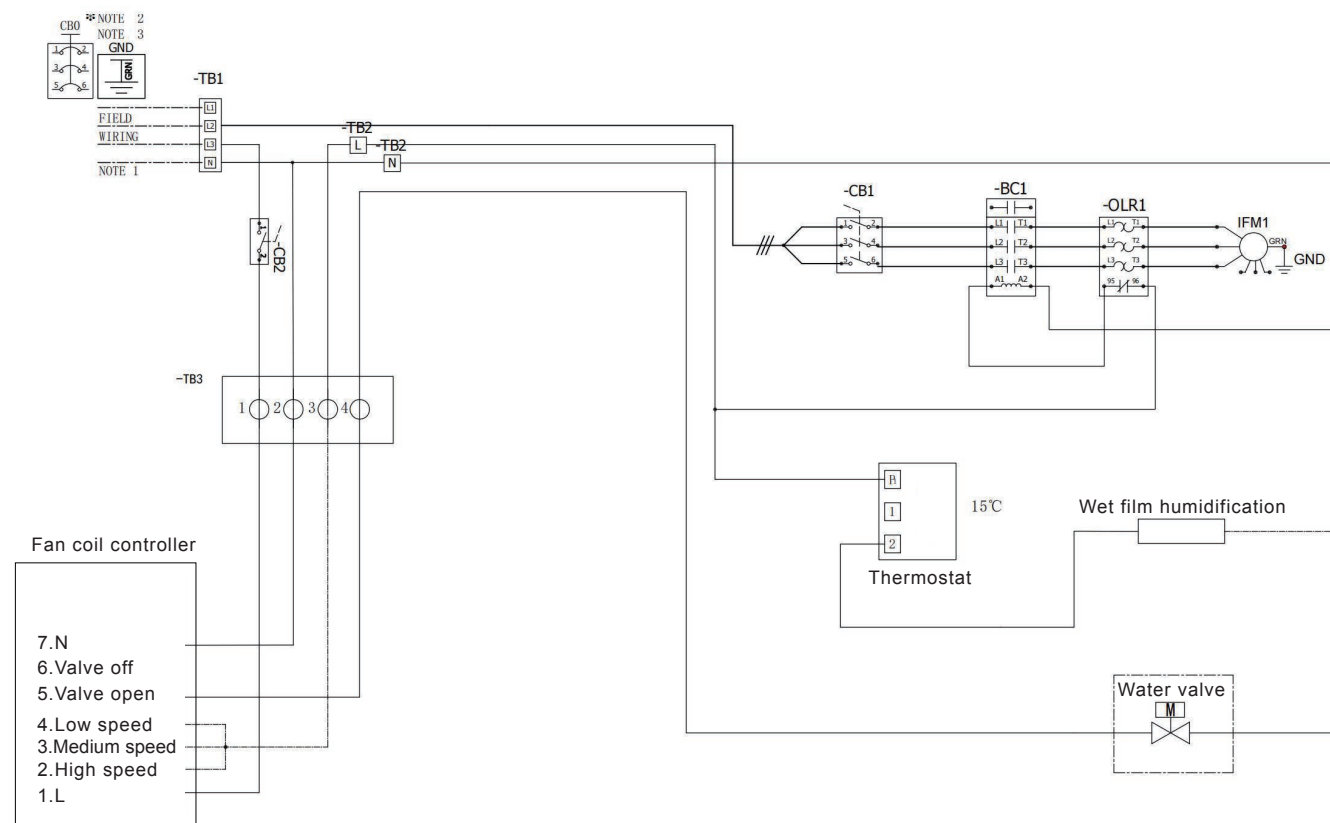
Control cabinet installation diagram

When the motor power $\leq 7.5\text{kW}$, the control cabinet is installed on the side or upper part of the TZ unit,the motor wiring has been connected, the thermostat is shipped randomly,and the site is installed on the wall in the indoor operation room to realize remote control operation,and the field wiring includes the power line of the control cabinet and the signal line between the thermostat and the control cabinet.

When the motor power $\geq 11\text{kW}$, the motor adopts star-delta start, the control cabinet is shipped independently as an accessory,and the wiring is installed on site,including the power supply line of the control cabinet, the motor power cord between the control cabinet and the motor, and the thermostat has been installed on the control cabinet panel.

Additional notes:

Connecting the water valve can save energy, but for new air occasions, for antifreeze protection, it is strictly forbidden to install water valves; The water valve contact is only suitable for 220V powered on-off water valves, not for regulating valves.



Routine maintenance and maintenance

① Before putting it into use for the first time, it is necessary to check whether the end equipment and other components of the water system are normal.

② During the use of the equipment, we recommend that users use the following maintenance and maintenance methods:

Check items			Monthly	Quarterly	Annual	Focus
End box	Electronic dust filter	Check whether the filter screen is dirty or blocked	●	●	●	The final resistance of the unit reaches the regulations (see the technical manual for the alarm value)
		Electronic dust filter	○	○	●	Whether there is dirty or blockage
	Coil section	Surface cold coil	○	○	●	Whether the surface is full of dust, oil stains, sundries, etc
		Steam coil	○	○	●	Check whether the gas supply pressure and steam gauge pressure are 0.02~0.4Mpa, and whether the trap is not dirty
		Condensate receiving pan and drain pipe	○	○	○	Whether there is dirty blockage and whether the drainage is smooth
		Wet film humidifier	○	○	○	Refer to the technical instruction manual for each type of humidifier.
		Dry Steam Humidifier	○	○	○	
	Fan section	Check the tension of the belt	○	○	○	Whether has any cracks during inspection
		Bearing inspection of fans and motors	●	●	●	Under normal circumstances, the grease needs to be replaced for 1500 hours of fan operation; The fan runs continuously for 24 hours, and the lubricating grease is replaced every 500~700 hours of operation
Electronic control	Electric control cabinet	Fuse	○	○	○	Disconnect
		Contactor	○	○	○	Severe electrical corrosion of touchpoint during inspection or noise during operationSevere electrical corrosion of touchpoint during inspection or noise during operation
		Sensor	○	○	○	The detected value still deviates from the actual value after correction
		High voltage switch	○	○	○	Controller false alarm
		Whether the wiring connection points is loose or not	●	●	●	Toggle the cable, the contact is loose or can rotate freely
		Power supply check	●	●	●	Rated voltage $\pm 10\%$, phase unbalance $< 2\%$
		Phase sequence check	○	○	○	No phase loss and dislocation

③ If the equipment is not used for a long time, we recommend the following maintenance and maintenance methods:

If the unit is not running for a long time and does not operate in winter,the power must be turned off and the water in the unit water system and steam coil must be removed.If the unit is not running for a long time and does not operate in winter,the power must be turned off and the water in the unit water system and steam coil must be removed.

If necessary, it can be carried out in accordance with the maintenance method before the equipment is put into use.

**Quality assurance**

Tent provides high-quality warranty services for the standard products of the "TENT" brand produced and sold,and the warranty scope is described in the latest warranty policy announced by Tyent. During the free warranty period, due to the failure or damage of parts caused by the quality of the product itself (excluding the appearance,cleanliness and other items affected by the environment, climate and other factors),Tent is responsible for free repair or replacement of parts (except for consumable parts or materials).

Warranty service unit: **Tent air conditioning service center assigned to the service organization in each region**

Tent Air Conditioning Service Hotline:

4008-283-996

