



ALTITUDE
REFRIGERATION SOLUTIONS

Medical Purificatory Modular Air Handling Unit



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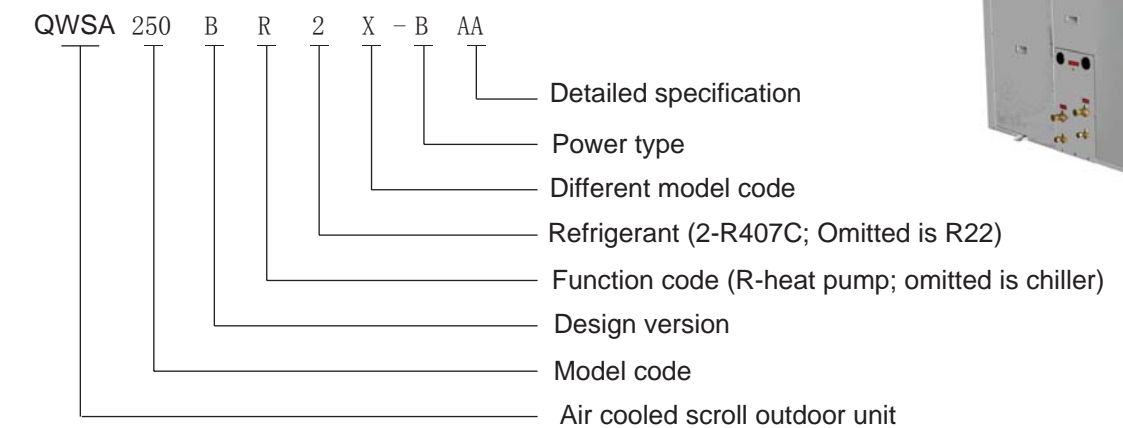
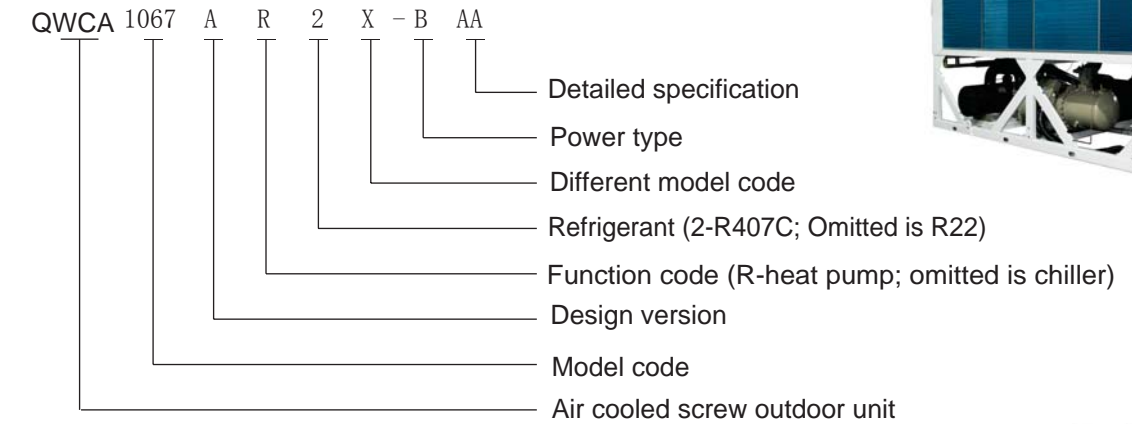
1 PRODUCT OVERVIEW

The new type medical purificatory modular air handling units is for the special requirements of the operation room, related medical treatment, medicament and foodstuff. It has many advantage such as low air leakage rate, high mechanical strength; the sterilization effect is good and also can inhibit bacteria propagation and breeding and so on.

The medical purificatory air handling unit can be divided into 2 series: water coiler combined air handling unit and direct expansion combine air handling unit.

2 MODEL SPECIFICATION

Direct Expansion Type Outdoor Unit



Note: The unit Under 25KW has no R407c type.

3 PRODUCT FEATURES

According to the special requirements of medical clean room, the medical purificatory air handling unit applies the special configuration for its air regulating system and the equipment.

1 ENERGY EFFICIENT

Patent tenon double column cabinet design

☆ Super strength

The panel and profile come into column after forming, the panels apply tenon structure +bolt connection, it can bear large pulling force and shear force, the intern of the panels are PU forming, the forming density is above 50kg/m³, it ensure the panel have enough strength.

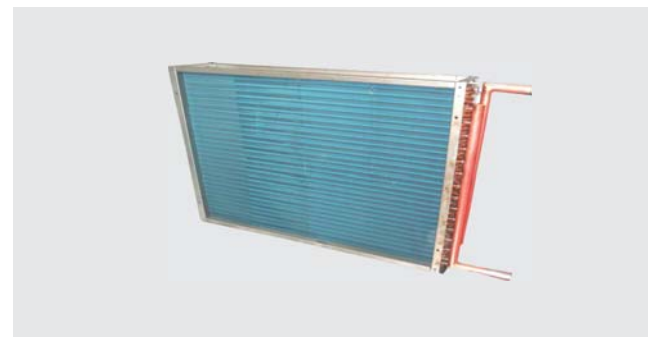
☆ Low air leakage

The panel apply 45°section connection, through multi-tenon and seals and O rings with bolts connecting, making sure the unit has the lower air leakage. In the national air leakage test report, the air leakage rate is 0.16%

☆ No cold bridge design

The panels design is tenon double column structure + insulating rubber, making the internal wallboard is totally isolated from the external metals. The panel apply high density PU forming, eliminating cold bridge. In the national cold bridge factors, heat transfer coefficient text report, the cold bridge meet TB2, heat transfer coefficient meet T2.

2 PURIFICATION APPLICATION

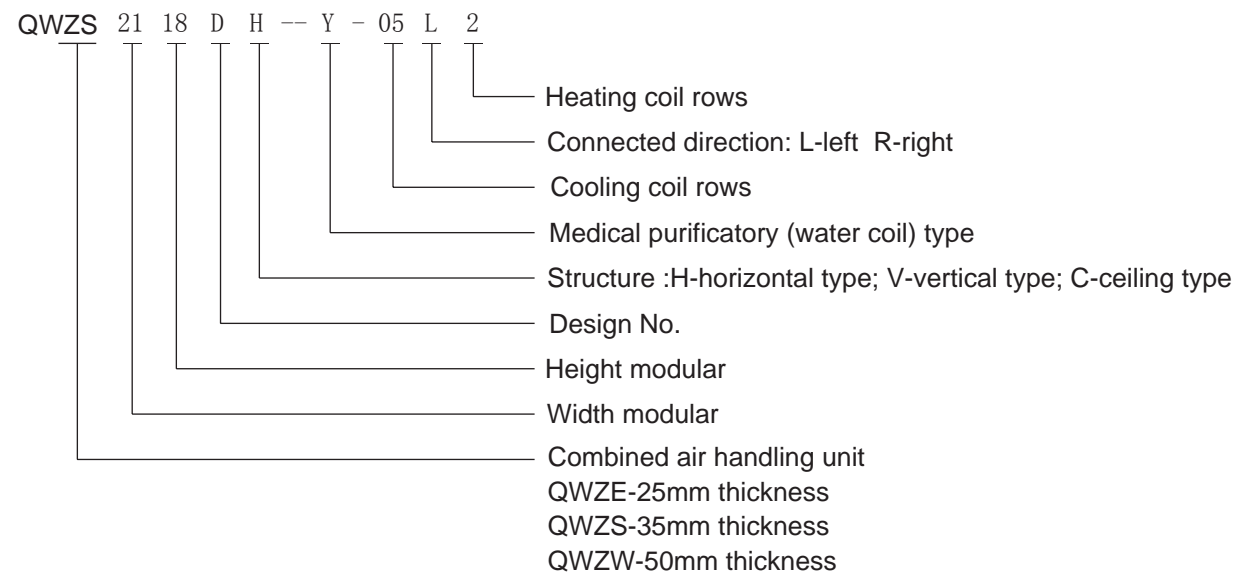
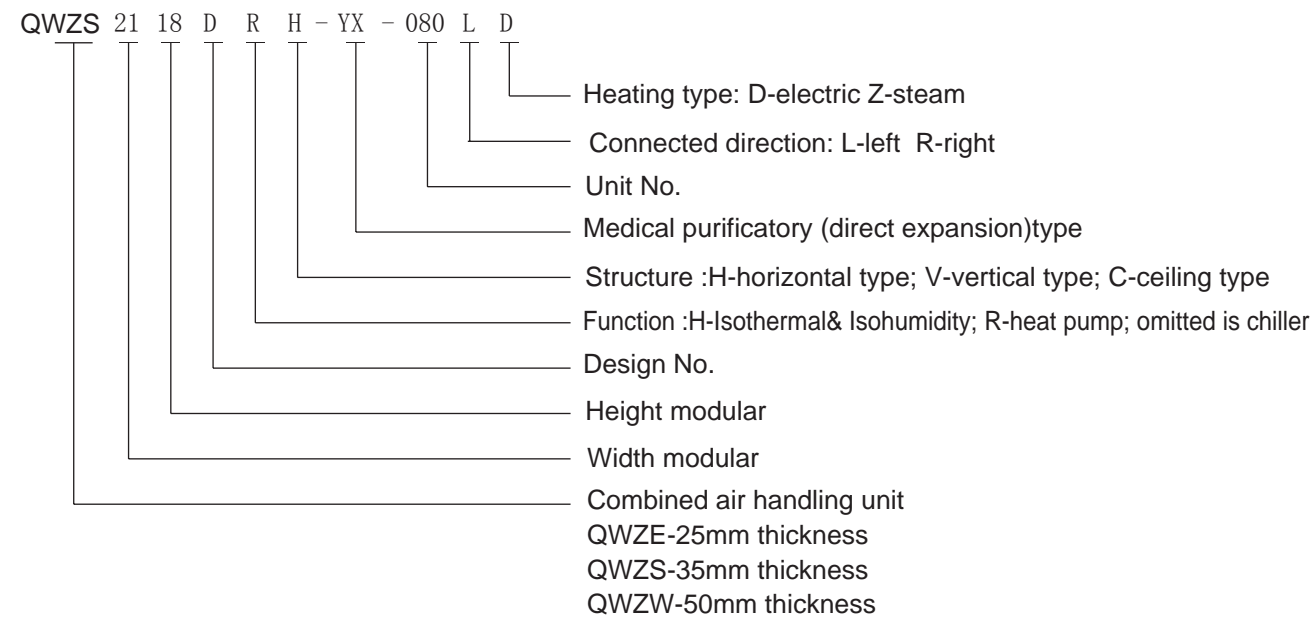
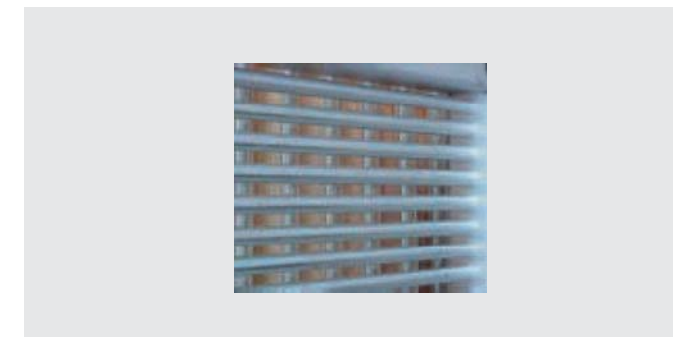


Antimicrobial Type Heat Exchanger

The heat exchanger fins apply hydrophilic aluminum foil or copper fins, it has no spray on the fins, avoiding splash, preventing bacterial growth. Kingair can supply you fan coil for different kinds(different pitches of fins, varies fins structure, copper diameters, and etc.) we will try our best to meet your requirements.

The Bare Pipe Heater

The heater pipes apply stainless steel, smooth surface, no fins, preventing dust and bacteria.

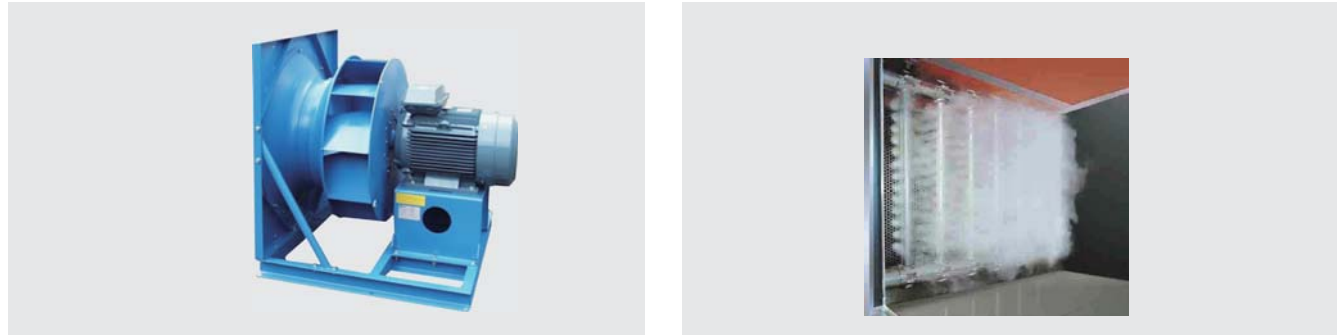


Direct drive frequency conversion voluteless fan

The fan applies frequency conversion voluteless fan, high transmission efficiency, no belt wear pollution, stable operation, this kinds of fan is easy to maintenance, especially for the clean room. The fan can meet the big air volume, high static pressure requirements.

Steam Humidifier

The unit applies electrode or dry steam clean humidify, avoid the water humidify bringing the humid environment, preventing bacterium.



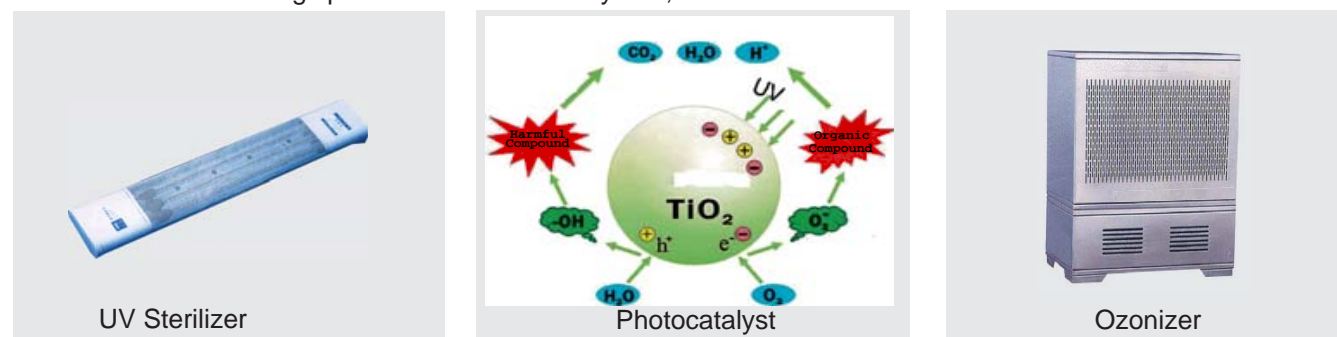
High Quality Filter

- 1, the unit can choose different filters for clients' requirements, making performance optimization.
- 2, filter's structure design, high collection efficiency. High dust holding capacity, it is easy to clean and change.
- 3, plate type and bag type filter can be put in the same frame, reducing the case length.
- 4, The filter frame can install different factories, zinc plated and coating making the frame has high corrosion resistance; sheet metal parts are perfect, no burrs; filters are fixed by bolts, goods air tightness.



Sterilization And Disinfection

- 1, Inner wallboard, condenser pan, coiler apply stainless steel material, heat exchanger applies aluminum foil and copper fins, preventing bacterial.
- 2, Tilting stainless steel water pan ensure that there is no water in the unit, no bacteria growth.
- 3, The unit can have UV sterilizer, photocatalyst, ozonizer, achieving sterilization and disinfection, improving the air quality.
- 4, The unit can have the electronic air cleaner, apply electrostatic dust removal technology, thoroughly to eliminate the breeding spread of bacteria and zymad, also eliminate the cross infection.



3 PRODUCT FEATURES

Reasonable Design

Front fan ensure the inner of the unit case is positive pressure; preventing air leaking affect the cleanliness, the condensing water is discharged by the unit positive pressure, front filter protects heat exchanger having no dust, preventing bacteria.

3 Intelligent Design

INTELLIGENT DESIGN

Professional Selection Software

- 1, Professional selection software
- 2, Simply operation interface
- 3, Supply multiple choices according to the clients' requirements;
- 4, Automatically output the performance parameters according to requirements
- 5, Ensure the parts list, calculating the unit price
- 6, Output the outline drawing, design chart and technology instruction

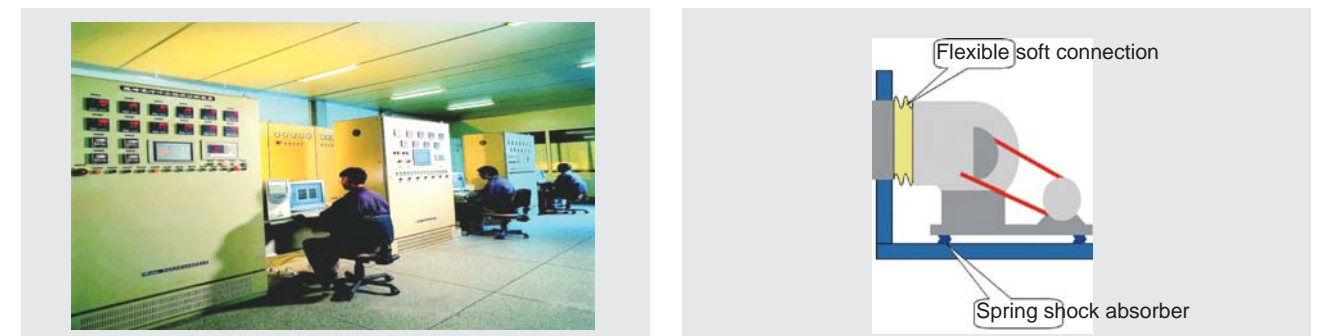
4 Reliability

STABLE AND RELIABLE

Double-stage vibration isolation design

- 1, Spring shock absorber, littler vibration, low noise.
- 2, Flexible soft connection, no vibration transfer

Production passed the performance test.



4 PERFORMANCE PARAMETER T

Model QWZE/QWZS/QWZW	Rated Air flow (m ³ /h)	Fresh air working condition						Return air working condition					
		4 Rows		6 Rows		8 Rows		4 Rows		6 Rows		8 Rows	
		Sensible kW	Total kW	Sensible kW	Total kW	Sensible kW	Total kW	Sensible kW	Total kW	Sensible kW	Total kW	Sensible kW	Total kW
0606	1563	7.8	17.8	10.2	25	11.5	28.7	5.7	7.3	7.3	10.7	8.3	13
0906	2720	14	30	18	41	20	46	11	14	13	19	15	21
0908	3920	22	49	27	64	29	68	16	22	20	29	21	33
0909	4275	23	49	30	69	33	77	17	23	22	32	24	37
1209	6161	36	81	45	106	48	112	25	35	31	47	33	52
1409	8047	49	114	60	142	63	150	33	47	39	58	44	70
1511	8961	47	105	58	138	62	147	36	48	44	61	44	71
1512	11704	64	147	84	192	93	213	47	65	55	82	61	95
1812	14448	81	189	95	224	101	239	59	83	72	107	79	122
1914	17191	96	224	110	259	121	285	71	101	85	123	90	140
1515	15362	83	192	96	222	107	247	63	90	73	107	80	120
2114	18962	107	248	133	309	142	330	77	108	94	141	104	158
2018	22563	125	290	146	339	157	364	93	132	105	160	120	184
2415	26163	143	331	173	400	186	430	102	150	120	182	135	215
2121	24963	140	324	161	373	177	410	100	144	124	187	133	210
2119	27935	163	381	198	463	213	498	115	164	145	220	154	240
2419	32393	177	409	206	475	222	513	130	184	166	239	175	272
2719	36850	207	481	243	564	265	615	150	210	165	261	196	304
2521	35079	200	466	239	556	257	599	142	199	170	260	192	300
2624	38622	216	502	262	607	283	657	157	222	195	296	209	330
2722	43937	241	558	282	653	307	710	170	244	217	327	236	376
3022	49252	264	608	338	778	371	853	195	282	236	362	257	426
2525	45606	264	613	313	727	340	792	186	264	225	337	246	389
2824	49606	280	649	332	769	363	840	201	285	246	371	260	426
3027	55607	308	710	364	840	399	921	210	305	280	410	290	466
3325	67768	368	851	448	1078	503	1225	272	376	346	525	381	600
3427	74369	407	944	496	1195	556	1355	385	420	381	581	420	663
3628	87118	473	1095	577	1389	648	1578	443	487	444	676	490	772
4230	94851	518	1204	633	1525	710	1730	384	538	486	741	535	845
4530	113006	587	1336	767	1855	859	2094	466	658	576	876	620	965
4830	120927	634	1448	825	1995	922	2250	502	711	603	907	666	1041
4533	126459	549	1196	859	2075	961	2343	522	737	645	980	693	1080
4833	135323	593	1297	923	2232	1032	2518	562	796	675	1015	746	1165
4536	142603	615	1338	964	2327	1079	2632	585	825	705	1054	780	1212
4836	152599	664	1449	1036	2504	1160	2828	630	891	758	1138	838	1307
5136	162594	712	1562	1108	2680	1240	3025	674	958	812	1221	897	1402
5436	172590	761	1674	1181	2857	1321	3222	719	1025	865	1305	956	1497
5736	182585	810	1787	1253	3033	1401	3418	764	1092	919	1388	1014	1591
6036	192581	859	1899	1326	3211	1482	3615	808	1159	972	1472	1074	1686
6636	208000	943	2100	1447	3508	1614	3939	859	1213	1061	1615	1169	1843

- Note: 1, Chilled water inlet/ outlet temperature: 7°C/12°C
 2, Return air inlet DB temperature 27°C, WB temperature 19°C; Fresh air inlet DB temperature 35°C, WB temperature 28°C.
 3, All the above is for your reference, if the working condition has changed, the capacity will change too, please contact with Kingair for details.
 4, No further inform if there are some products change.
 5, Sensible means sensible cooling capacity; Total means total cooling capacity.

5 VARIABLE COEFFICIENT

Model QWZE/QWZS/QWZW	Rated Air flow (m ³ /h)	Fresh air working condition				Return air working condition			
		1 Row	2 Rows	3 Rows	4 Rows	1 Row	2 Rows	3 Rows	4 Rows
		Total kW	Total kW	Total kW	Total kW	Total kW	Total kW	Total kW	Total kW
0606	1563	5.3	11.7	14.9	18.6	4	9.4	11.9	15.1
0906	2720	13	22	30	36	11	17	25	29
0908	3920	21	33	45	53	16	27	38	43
0909	4275	21	34	48	56	18	27	39	47
1209	6161	32	51	70	83	26	43	59	69
1409	8047	43	70	95	111	35	57	79	92
1511	8961	47	76	104	122	38	62	86	102
1512	11704	62	100	138	160	50	82	115	133
1812	14448	77	127	171	198	64	104	143	166
1914	17191	93	150	204	233	76	123	168	197
1515	15362	75	133	182	210	60	109	150	176
2114	18962	94	167	226	261	77	136	186	218
2018	24000	115	200	270	308	94	163	221	257
2415	26163	136	234	310	359	111	193	261	300
1919	24963	133	220	297	344	112	181	246	288
2121	27935	153	247	334	383	125	203	279	319
2419	32393	178	290	384	444	146	237	324	372
2719	36850	195	332	440	509	168	273	364	424
2521	35079	192	310	411	481	157	257	350	401
2624	38622	212	345	457	530	175	286	381	442
2722	43937	234	395	518	612	200	322	435	508
3022	49252	262	428	573	676	215	367	487	567
2525	45606	239	408	538	626	205	337	450	528
2824	49606	262	429	590	684	216	369	492	572
3027	55607	297	482	665	764	242	415	551	639
3325	67768	332	539	730	849	268	444	616	709
3427	74369	367	594	794	921	299	487	673	781
3628	87118	430	698	928	1079	350	570	792	909
4230	94851	468	767	1005	1181	382	623	854	992
4530	113006	563	915	1213	1412	460	750	1029	1175
4830	120927	605	986	1306	1510	499	807	1082	1259
4533	126459	630	1030	1360	1574	523	848	1148	1321
4833	135323	645	1107	1462	1685	559	908	1234	1416
4536	142603	689	1163	1535	1774	593	959	1296	1491
4836	152599	731	1254	1665	1926	632	1035	1404	1603
5136	162594	793	1317	1783	2079	682	1120	1494	1731
5436	172590	857	1398	1922	2207	696	1206	1599	1860
5736	182585	917	1490	2059	2357	748	1291	1709	1987
6036	192581	980	1601	2188	2518	800	1316	1828	2116
6636	208000	1058	1729	2363	2720	864	1422	1975	2285

- Note:
 1, Hot water inlet /outlet temperature 60/50°C;
 2, Return air working condition DB temperature 15°C; fresh air working condition DB temperature 7°C.
 3, All the above is for your reference, if the working condition is changed, the heating capacity will change, please contact with Kingair for details.
 4, No further inform if there are some products change.

6 DIRECT EXPANSION SPECIFICATIONS

Model	Indoor unit		QWZE0906D-YX-012	QWZE0906DR-YX-012	QWZE0906D-YX-014	QWZE0906DR-YX-014	QWZE0908D-YX-019	QWZE0908DR-YX-019	
	Outdoor unit	Name	QWSA050BX	QWSA050BRX	QWSA060BX	QWSA060BRX	QWSA075BX	QWSA075BRX	
		Quantity	1	1	1	1	1	1	
Rated cooling capacity	kW		12	12	14	14	19	19	
Rated heating capacity	kW		-	13	-	16	-	21	
Power		380V/3N~/50Hz							
Refrigerant		R22							
Indoor unit	Airflow	m ³ /h	2500		3000		4200		
	Size	Width	950		950		950		
		Height	730		730		930		
		Length	Based on the functional sections						
Compressor		scroll*1				scroll*2			
Cooling power input	kW	4.25	4.25	4.9	4.9	6.96	6.96		
Heating power input	kW	-	3.85	-	4.55	-	6.4		
Outdoor unit	Weight	kg	120	120	120	120	215	223	
	Size	Width	940		940		1403		
		Deep	400		400		821		
		Height	1243		1243		980		
	Pipe	Liquid	mm (in)	9.52 (3/8)		9.52 (3/8)		2*12.7 (1/2)	
		Steam	mm (in)	19.05 (3/4)		19.05 (3/4)		2*19.05 (3/4)	

Model	Indoor unit		QWZE0909D-YX-026	QWZE0909DR-YX-026	QWZE1209D-YX-030	QWZE1209DR-YX-030	QWZE1409D-YX-039	QWZE1409DR-YX-039	
	Outdoor unit	Name	QWSA100BX	QWSA100BRX	QWSA125BX	QWSA125BRX	QWSA150BX	QWSA150BRX	
		Quantity	1	1	1	1	1	1	
Rated cooling capacity	kW		26.5	26.5	30	30	37	37	
Rated heating capacity	kW		-	28	-	34	-	41	
Power		380V/3N~/50Hz							
Refrigerant		R22							
Indoor unit	Airflow	m ³ /h	5000		6500		7500		
	Size	Width	950		1250		1450		
		Height	1030		1030		1030		
		Length	Based on the functional sections						
Compressor		scroll*1				scroll*2			
Cooling power input	kW	8.5	8.5	10.2	10.2	11.6	11.6		
Heating power input	kW	-	7.8	-	10	-	11.2		
Outdoor unit	Weight	kg	232	240	252	260	305	315	
	Size	Width	1403		1558		1558		
		Deep	821		882		882		
		Height	980		1170		1170		
	Pipe	Liquid	mm (in)	2*12.7 (1/2)		2*12.7 (1/2)		2*12.7 (1/2)	
		Steam	mm (in)	2*19.05 (3/4)		2*19.05 (3/4)		2*22.22 (7/8)	

Model	Indoor unit		QWZE1511D-YX-050	QWZE1511DR-YX-050	QWZE1512D-YX-062	QWZE1512DR-YX-062	QWZE1812D-YX-076	QWZE1812DR-YX-076	
	Outdoor unit	Name	QWSA200BX	QWSA200BRX	QWSA250BX	QWSA250BRX	QWSA150BM	QWSA150BRM	
		Quantity	1	1	1	1	2	2	
Rated cooling capacity	kW		50	50	62	62	74	74	
Rated heating capacity	kW		-	56	-	68	-	82	
Power		380V/3N~/50Hz							
Refrigerant		R22							
Indoor unit	Airflow	m ³ /h	10000		12000		15000		
	Size	Width	1550		1550		1850		
		Height	1230		1330		1330		
		Length	Based on the functional sections						
Compressor		scroll*2				scroll*3			
Cooling power input	kW	17.6	17.6	19.8	19.8	11.6	11.6		
Heating power input	kW	-	16.5	-	18.6	-	11.2		
Outdoor unit	Weight	kg	480	492	532	544	305	315	
	Size	Width	1808		1808		1558		
		Deep	1090		1090		882		
		Height	1190		1190		1170		
	Pipe	Liquid	mm (in)	2*15.88 (5/8)		2*15.88 (5/8)		2*12.7 (1/2)	
		Steam	mm (in)	2*28.6 (1-1/8)		2*28.6 (1-1/8)		2*22.22 (7/8)	

Model	Indoor unit		QWZE2114D-YX-102	QWZE2114DR-YX-102	QWZE2018D-YX-125	QWZE2018DR-YX-125	QWZE2121D-YX-152	QWZE2121DR-YX-152	
	Outdoor unit	Name	QWSA200BM	QWSA200BRM	QWSA250BM	QWSA250BRXM	QWSA200BM	QWSA200BRM	
		Quantity	2	2	2	2	3	3	
Rated cooling capacity	kW		102	102	125	125	152	152	
Rated heating capacity	kW		-	110	-	128	-	160	
Power		380V/3N~/50Hz							
Refrigerant		R22							
Indoor unit	Airflow	m ³ /h	20000		24000		30000		
	Size	Width	2150		2050		2170		
		Height	1530		1930		2270		
		Length	Based on the functional sections						
Compressor		scroll*2							
Cooling power input	kW	17.6	17.6	19.8	19.8	17.6	17.6		
Heating power input	kW	-	16.5	-	18.6	-	16.5		
Outdoor unit	Weight	kg	480	492	532	544	480	492	
	Size	Width	1808		1808		1808		
		Deep	1090		1090		1090		
		Height	1190		1190		1190		
	Pipe	Liquid	mm (in)	2*15.88 (5/8)		2*15.88 (5/8)		2*15.88 (5/8)	
		Steam	mm (in)	2*28.6 (1-1/8)		2*28.6 (1-1/8)		2*28.6 (1-1/8)	

6 DIRECT EXPANSION SPECIFICATIONS

Model	Indoor unit		QWZS2521D-YX-186	QWZS2521DR-YX-186	QWZS2721D-YX-235	QWZS2721DR-YX-235	QWZS2824D-YX-076	QWZS2824DR-YX-076
	Outdoor unit	Name	QWSA250BM	QWSA250BRM	QWCA1067AX	QWCA1067ARX	QWCA1078AX	QWCA1078ARX
		Quantity	3	3	1	1	1	1
Rated cooling capacity	kW		186	186	235	235	272	272
Rated heating capacity	kW		-	192	-	273	-	315
Power			380V/3N~/50Hz					
Refrigerant			R22					
Indoor unit	Airflow	m ³ /h	37500		40000		50000	
	Size	Width	2570		2770		2870	
		Height	2270		2270		2570	
		Length	Based on the functional sections					
Compressor			scroll*2			Semi-hermetical screw *1		
Cooling power input	kW		19.8	19.8	75.3	75.3	82.8	82.8
Heating power input	kW		-	18.6	-	68.5	-	75.2
Weight	kg		532	544	2580	2650	2780	2850
Size	Width	mm	1808		2940		3100	
	Deep	mm	1090		2232		2232	
	Height	mm	1190		2370		2370	
Pipe	Liquid	mm(in)	2*15.88 (5/8)		28.6 (1-1/8)		34.9 (1-3/8)	
	Steam	mm(in)	2*28.6 (1-1/8)		66.68 (2-5/8)		79.4 (3-1/8)	

Model	Indoor unit		QWZW3027D-YX-325	QWZW3027DR-YX-325	QWZW3427D-YX-372	QWZW3427DR-YX-372	QWZW3530D-YX-451	QWZW3530DR-YX-451
	Outdoor unit	Name	QWCA1093AX	QWCA1093ARX	QWCA1108AX	QWCA1108ARX	QWCA1130AX	QWCA1130ARX
		Quantity	1	1	1	1	1	1
Rated cooling capacity	kW		325	325	372	372	451	451
Rated heating capacity	kW		-	375	-	430	-	520
Power			380V/3N~/50Hz					
Refrigerant			R22					
Indoor unit	Airflow	m ³ /h	60000		70000		80000	
	Size	Width	3100		3500		3600	
		Height	2900		2900		3200	
		Length	Based on the functional sections					
Compressor			Semi-hermetical screw *1			Semi-hermetical screw *1		
Cooling power input	kW		105.7	105.7	118	118	139.9	139.9
Heating power input	kW		-	97	-	108.2	-	127.5
Weight	kg		3570	3650	3660	3740	4100	4200
Size	Width	mm	4040		4040		4040	
	Deep	mm	2232		2232		2232	
	Height	mm	2500		2500		2880	
Pipe	Liquid	mm(in)	34.9 (1-3/8)		34.9 (1-3/8)		41.3 (1-5/8)	
	Steam	mm(in)	79.4 (3-1/8)		79.4 (3-1/8)		92 (3-5/8)	

Note:

- 1, Rated cooling capacity is based on room DB/WB temp. 27/19°C; and environment temp DB 35°C.
- 2, Rated heating capacity is based on room DB temp. 20°C and environment DB/WB temperature 7/6°C.
- 3, Rated cooling capacity doesn't consider the fan motor heating loss, the ESP can make based on the custom requirements.
- 4, There is no further information if there is some improvements.

7 STANDARD SPECIFICATION FOR DIRECT EXPANSION TYPE CONSTANT TEMPERATURE AND HUMIDITY UNIT

Model	Indoor unit		QWZE0909D-YX-029	QWZE1209D-YX-029	QWZE1409D-YX-037	QWZE1511D-YX-048	QWZE1512D-YX-059	
	Outdoor unit	Name	QWSA100BX	QWSA125BX	QWSA150BX	QWSA200BX	QWSA250BX	
		Quantity	1	1	1	1	1	
Rated cooling capacity	kW		25.2	29	35.5	48	59	
Electrical heater	kW		16	20	24	28	32	
Humidify	kg/h		8	10	13	18	22	
Power			380V/3N~/50Hz					
Refrigerant			R22					
Indoor unit	Airflow	m ³ /h	5000	6500	7500	10000	12000	
	Size	Width	950	1250	1450	1550	1550	
		Height	1030	1030	1030	1230	1330	
		Length	Based on the functional sections					
Compressor			scroll*2		scroll*2		scroll*2	
Cooling power input	kW		8.5	10.2	11.6	17.6	19.8	
Weight	kg		232	252	305	480	532	
Size	Width	mm	1403	1558	1558	1808	1808	
	Deep	mm	821	882	882	1090	1090	
	Height	mm	980	1170	1170	1190	1190	
Pipe	Liquid	mm(in)	2*12.7 (1/2)	2*12.7 (1/2)	2*12.7 (1/2)	2*15.88 (5/8)	2*15.88 (5/8)	
	Steam	mm(in)	2*19.05 (3/4)	2*19.05 (3/4)	2*22.22 (7/8)	2*28.6 (1-1/8)	2*28.6 (1-1/8)	

Model	Indoor unit		QWZE1812D-YX-073	QWZE2114D-YX-097	QWZE2018D-YX-120	QWZE2121D-YX-146	QWZE2521D-YX-176	
	Outdoor unit	Name	QWSA150BX	QWSA200BX	QWSA250BX	QWSA200BX	QWCA1050AX	
		Quantity	2	2	2	3	1	
Rated cooling capacity	kW		71	97	120	146	176	
Electrical heater	kW		38	50	65	75	100	
Humidify	kg/h		25	35	43	54	60	
Power			380V/3N~/50Hz					
Refrigerant			R22					
Indoor unit	Airflow	m ³ /h	15000	20000	24000	30000	37500	
	Size	Width	1850	2150	2050	2170	2570	
		Height	1330	1530	1930	2270	2270	
		Length	Based on the functional sections					
Compressor			scroll*2		scroll*2		Semi-hermetical screw *1	
Cooling power input	kW		11.6	17.6	19.8	17.6	62.1	
Weight	kg		305	480	532	480	2050	
Size	Width	mm	1558	1808	1808	1808	2340	
	Deep	mm	882	1090	1090	1090	2232	
	Height	mm	1170	1190	1190	1190	2270	
Pipe	Liquid	mm(in)	2*12.7 (1/2)	2*15.88 (5/8)	2*15.88 (5/8)	2*15.88 (5/8)	28.6 (1-1/8)	
	Steam	mm(in)	2*22.22 (7/8)	2*28.6 (1-1/8)	2*28.6 (1-1/8)	2*28.6 (1-1/8)	53.97 (2-1/8)	

7 STANDARD SPECIFICATION FOR DIRECT EXPANSION TYPE CONSTANT TEMPERATURE AND HUMIDITY UNIT

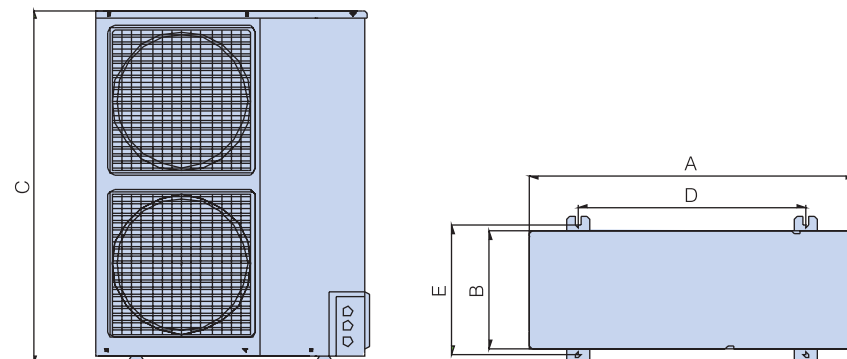
Model	Indoor unit		QWZS2721D-YX-225	QWZS2824D-YX-258	QZW3027D-YX-310	QZW3427D-YX-355	QZW3530D-YX-430	
	Outdoor unit	Name	QWCA1067AX	QWCA1078AX	QWCA1093AX	QWCA1108AX	QWCA1130AX	
		Quantity	1	1	1	1	1	
Rated cooling capacity	kW		225	258	310	355	430	
Electrical heater	kW		120	140	160	180	220	
Humidify	kg/h		65	80	90	100	120	
Power		380V/3N~/50Hz						
Refrigerant		R22						
Indoor unit	Airflow	m ³ /h	40000	50000	60000	70000	80000	
	Size	Width	mm	2770	2870	3100	3500	3600
		Height	mm	2270	2570	2900	2900	3200
		Length	mm	Based on the functional sections				
Outdoor unit	Compressor		Semi-hermetical screw *1					
	Cooling power input	kW	75.3	82.8	105.7	118	139.9	
	Weight	kg	2580	2780	3570	3660	4100	
	Size	Width	mm	2940	3100	4040	4040	4040
		Deep	mm	2232	2232	2232	2232	2232
		Height	mm	2370	2370	2500	2500	2880
Pipe	Liquid	mm (in)	28.6 (1-1/8)	34.9 (1-3/8)	34.9 (1-3/8)	34.9 (1-3/8)	41.3 (1-5/8)	
	Steam	mm (in)	66.68 (2-5/8)	79.4 (3-1/8)	79.4 (3-1/8)	79.4 (3-1/8)	92 (3-5/8)	

- Note:
- 1, Rated cooling capacity is based on room DB/WB temp. 23/17°C; and environment temp DB 35°C.
 - 2, Rated cooling capacity doesn't consider the fan motor heating lose, the ESP can make based on the custom requirements.
 - 3, There is no further information if there is some improvements.

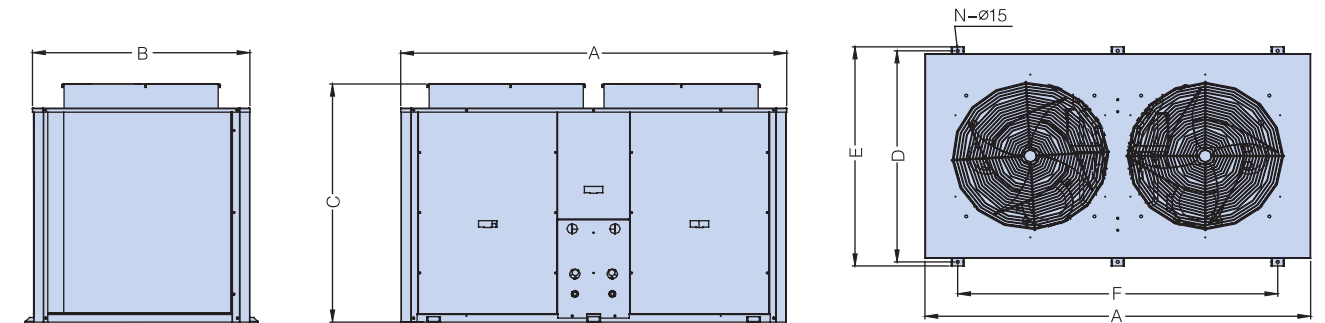
8 DIRECT EXPANSION OUTDOOR MACHINE APPEARANCE

QWSA050B(R)X/QWSA060B(R)X

QWSA050B(R)X/QWSA060B(R)X	
A	940
B	350
C	1243
D	590
E	380

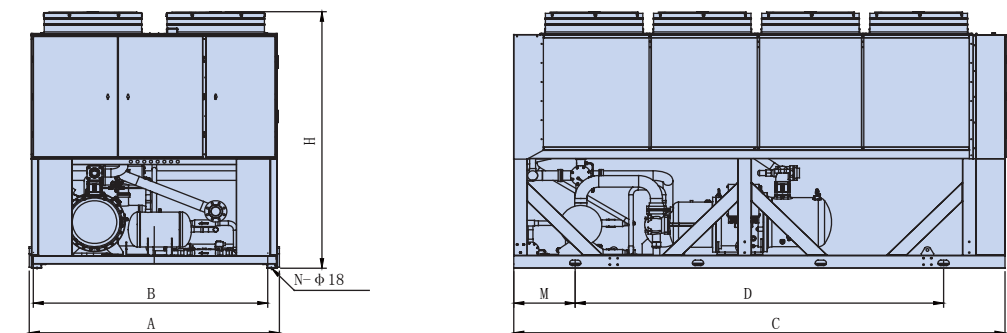


● QWSA075/100/125/150/200/250B(R)X/150/200/250B(R)M



Model	A	B	C	D	E	F	N
QWSA075B(R)X	1403	746	980	781	821	770	4
QWSA100B(R)X	1403	746	980	781	821	810	4
QWSA125B(R)X	1558	808	1170	842	882	880	4
QWSA150B(R)X/B(R)M	1558	808	1170	842	882	880	4
QWSA200B(R)X/B(R)M	1808	1018	1190	1050	1090	750p*2=1500	6
QWSA250B(R)X/B(R)M	1808	1018	1190	1050	1090	750p*2=1500	6

QWCA1050/1067/1078/1093/1108/1130A(R)X



QWCA	Size	A	B	B	D	H	M	N
1050A (R) X		2235	2100	2430	900p×2=1800	2400	280	6
1067A (R) X		2235	2100	2430	900p×2=1800	2400	210	6
1078A (R) X		2235	2100	2430	900p×3=2700	2400	260	8
1093A (R) X		2235	2100	3435	900p×3=2700	2400	520	8
1108A (R) X		2235	2100	3435	900p×3=2700	2400	520	8
1130A (R) X		2235	2100	4400	1100p×3=3300	2400	520	8

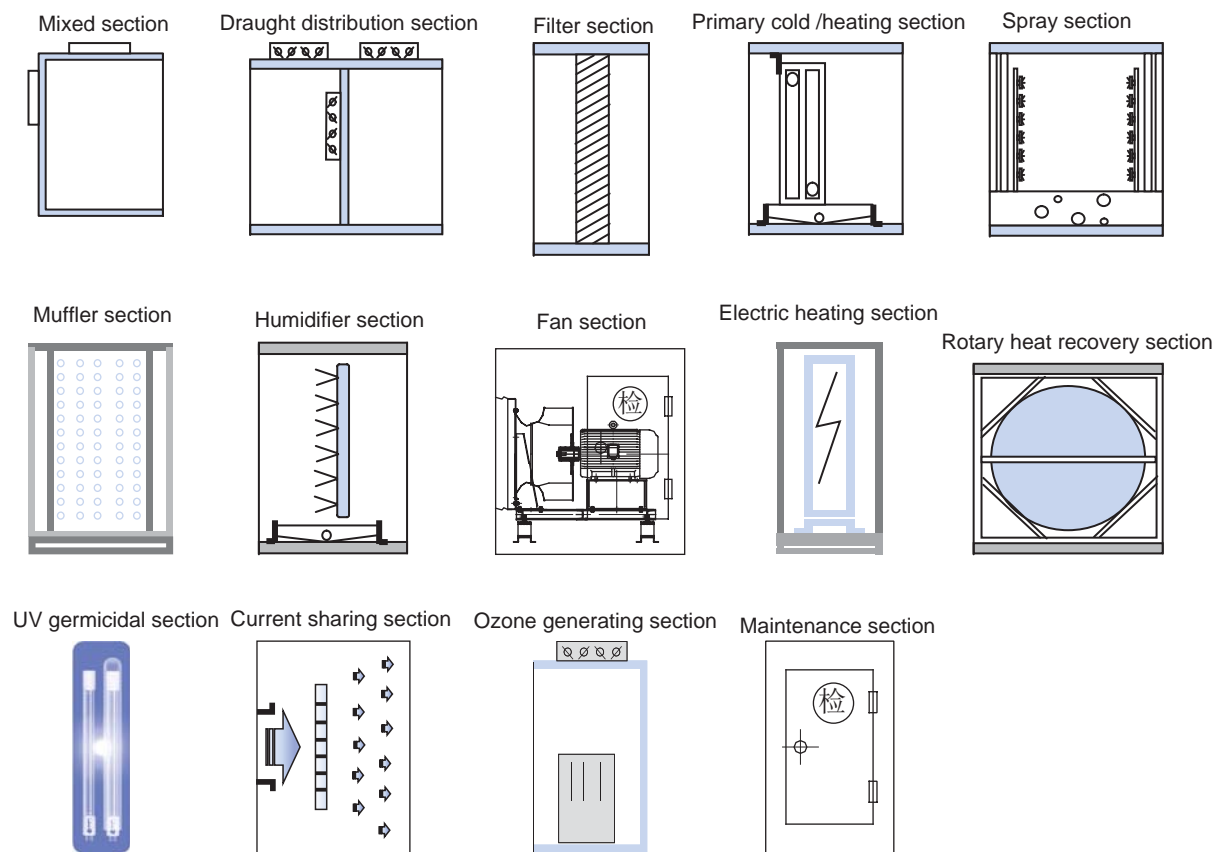
WIND TURBINE SAFETY CONDITIONS

	Cooling	Heating
Return air temperature	18~32°C	10~30°C
Environment temperature	18~45°C	-10~25°C

- Note:
- 1, If the working condition is out of the above working condition, the protection device will be started.
 - 2, The unit not included in the above, it will be non-standard design unit.

9 SCHEMATIC DIAGRAM OF FUNCTIONAL SECTION

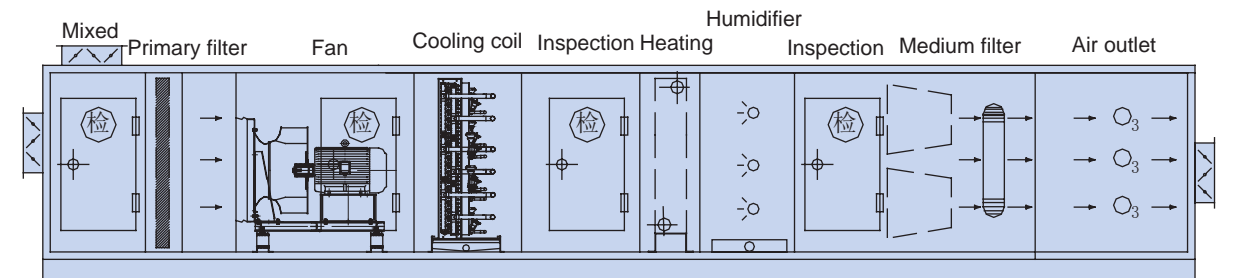
The medical purificatory modular air handling unit can supply you different air handling functional sections, such as mixed section, draught distribution section, filter section, primary cold /heating section, spray section, muffler section, humidifier section, fan section, electric heating section, rotary heat recovery section, UV germicidal section, current sharing section, ozone generating section, maintenance section and so on, the user choose the suitable ones according to their needs, we will do that for every customers, supply the best unit for controlling the temperature, humidity and cleanness.



10 COMMON FUNCTION COMBINATION

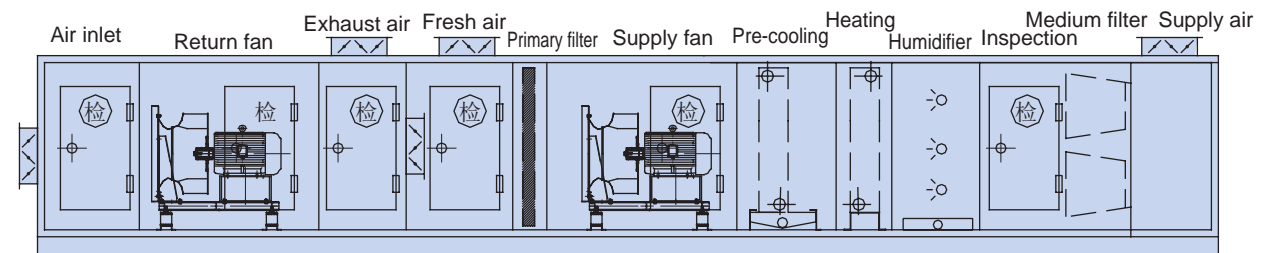
- The combination for hospital operation room

(mixed + primary + fan + cooling coil + inspection + heating + humidifier + medium/ UV germicidal + air outlet/Ozone)
The unit has not only the primary and medium filter, also has the UV germicidal lamps which can kill the bacteria, set the Ozone generator at the air outlet section, it can improve the air quality.



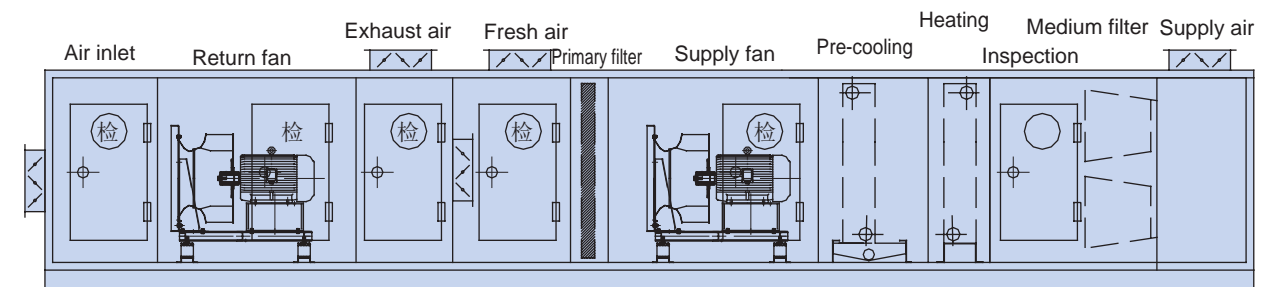
- Pharmaceutical industry clean room 1

(air inlet + return fan +exhaust air + fresh air + primary filter + supply fan +pre-cooling + heating +humidifier +inspection + medium filter/ UV germicidal + air outlet)
The return fan and supply fan are working together, through distribution to exhaust air, the air handling volume is big, and purification and filter level are higher.



- Pharmaceutical industry clean room 2

(air inlet + return fan +exhaust air + fresh air + primary filter + supply fan +pre-cooling + heating +inspection + medium filter/ UV germicidal + air outlet)
The unit has cooling, heating, no need humidifier, suitable for the place where doesn't need humidifier.

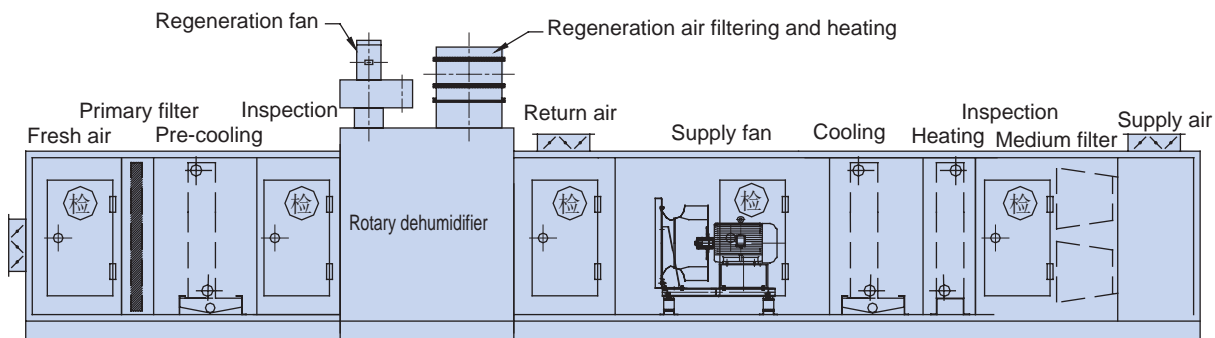


10 COMMON FUNCTION COMBINATION

- Pharmaceutical industry clean room 3

(fresh air + primary filter + pre-cooling + inspection + rotary dehumidifier + air return + supply fan + cooling coil + heating + inspection + medium filter + air outlet)

The unit has cooling, heating, and dehumidifier, suitable for the place where need dehumidifier.

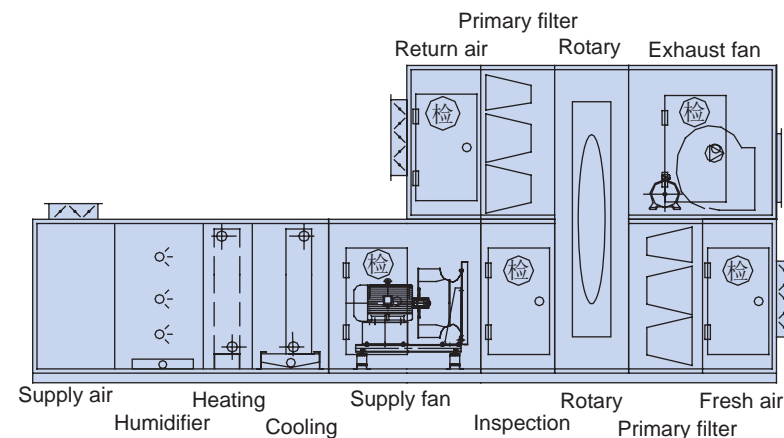


- The combination with heat recovery

(Upper: Return air + primary filter + rotary + exhaust air)

(Bottom: fresh air + primary filter + rotary + inspection + supply fan + cooling + heating + humidifier + supply air)

The unit has heat recovery device, exchange the exhaust air heat with the fresh air, use the exhaust energy to achieve energy saving.



11 EACH FUNCTIONAL SECTION LENGTH OF WEIGHT

Model QWZE/QWZS/QWZW	Empty section weight(kgs)														
	Case thickness 25mm					Case thickness 35mm					Case thickness 55mm				
	End panel	300	600	900	1200	End panel	300	600	900	1200	End panel	300	600	900	1200
0606	4	25	38	52	72	5	27	40	55	76	6	32	47	62	86
0906	6	31	49	66	84	7	31	50	68	87	8	34	55	76	97
1206	8	33	53	72	91	9	34	54	74	94	10	37	60	83	106
0909	9	38	58	77	96	10	39	59	79	99	10	42	65	88	111
1209	12	40	62	83	104	13	41	63	85	107	13	45	70	96	121
1509	14	43	66	88	111	15	44	67	91	115	16	48	75	103	131
1212	15	48	71	93	116	16	49	72	96	120	17	53	81	108	136
1512	18	50	75	99	123	19	51	76	102	128	20	56	86	116	146
1812	21	52	78	105	131	23	53	81	108	136	24	59	91	123	156
2112	25	55	82	110	138	26	56	85	114	144	27	61	96	131	166
1515	23	57	84	110	136	23	58	86	113	141	24	64	96	128	161
1815	27	60	88	115	143	27	61	90	119	149	29	67	101	136	171
2115	31	62	91	121	151	32	63	94	125	156	33	69	106	143	180
2415	35	64	95	127	158	36	66	98	131	164	37	72	112	151	190
1919	35	70	101	132	162	36	72	104	136	168	37	78	117	155	194
2119	38	72	103	135	167	39	73	106	140	174	40	80	120	160	200
2419	43	74	107	141	174	44	76	111	146	181	45	83	125	168	210
2719	50	76	111	147	182	49	78	115	152	189	51	86	131	175	220
2222	47	80	114	148	182	46	81	117	153	189	48	89	132	175	218
2422	51	81	116	152	187	50	83	120	157	194	52	91	136	180	225
2722	57	84	120	157	194	56	85	124	163	202	58	94	141	188	235
3022	63	86	124	163	201	62	88	128	168	210	63	97	146	195	245
2525	59	89	127	164	202	59	91	130	170	210	60	100	148	195	243
2725	65	91	129	168	206	63	93	133	174	215	65	102	151	200	250
3025	72	93	133	174	214	69	95	137	180	223	71	105	156	208	259
3325	79	95	137	179	221	76	98	142	185	231	78	108	161	215	269
3625	86	98	141	185	228	82	100	146	191	239	84	110	167	223	279
3628	95	105	150	196	241	91	107	155	202	251	94	118	177	235	294
3928	104	107	154	201	248	99	110	159	208	259	101	121	182	243	304
4530	122	117	168	220	271	120	120	174	228	283	123	132	199	266	333
4830	135	119	172	225	278	128	122	178	234	291	131	135	205	274	343
4533	133	124	177	230	283	132	127	183	239	296	134	140	210	279	348
4833	147	126	181	236	291	140	129	187	245	304	143	143	215	286	358
4536	144	131	186	241	296	143	134	192	250	309	146	148	220	292	363
4836	159	134	190	247	303	152	137	196	256	317	155	151	225	299	373
5136	171	136	194	252	310	161	139	200	262	325	164	154	230	307	383
5436	181	138	198	258	318	170	142	205	268	333	173	157	236	314	393
5736	191	141	202	264	325	179	144	209	274	340	182	160	241	322	402
6036	200	143	206	269	332	188	146	213	280	348	191	163	246	329	412
6636	220	158	227	296	365	207	161	234	308	383	210	180	271	362	453

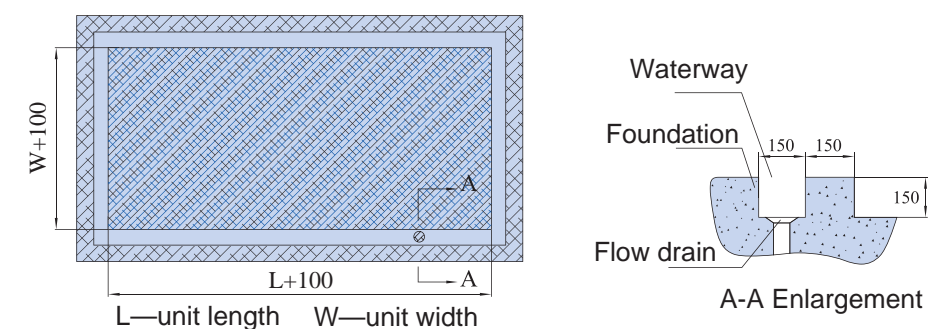
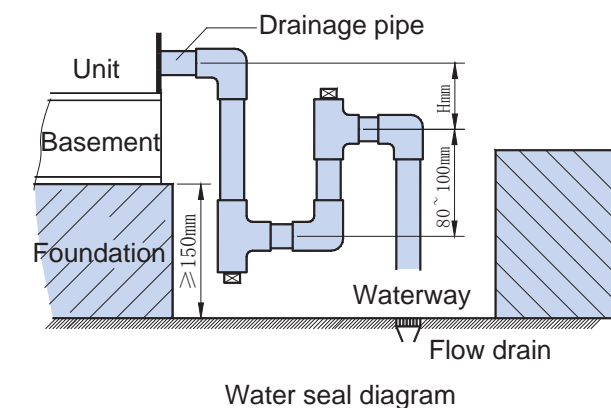
12 UNIT AIR FLOW

Model QWZE/QWZS/QWZW	Air speed (m/s)	Air flow (m ³ /h)								
		1.60	2.00	2.25	2.50	2.75	2.85	3.00	3.50	4.00
0606		1000	1250	1406	1563	1719	1781	1875	2188	2500
0906		1741	2176	2448	2720	2992	3101	3264	3808	4353
0908		2509	3136	3528	3920	4313	4469	4705	5489	6273
0909		2736	3420	3847	4275	4702	4873	5130	5985	6840
1209		3943	4929	5545	6161	6777	7023	7393	8625	9857
1409		5150	6437	7242	8047	8851	9173	9656	11265	12875
1511		5735	7169	8065	8961	9857	10216	10753	12546	14338
1512		7490	9363	10534	11704	12875	13343	14045	16386	18727
1812		9246	11558	13003	14448	15892	16470	17337	20227	23116
1914		11002	13753	15472	17191	18910	19597	20629	24067	27505
1515		9832	12290	13826	15362	16898	17513	18434	21507	24579
2114		12136	15170	17066	18962	20859	21617	22755	26547	30340
2018		14440	18050	20307	22563	24819	25722	27075	31588	36101
2415		16745	20931	23547	26163	28780	29826	31396	36629	41861
1919		15976	19970	22467	24963	27459	28458	29956	34948	39941
2121		17878	22348	25141	27935	30728	31846	33522	39109	44696
2419		20731	25914	29153	32393	35632	36928	38871	45350	51828
2719		23584	29480	33165	36850	40535	42009	44220	54590	58961
2521		22450	28063	31571	35079	38587	39990	42094	49110	56126
2624		24718	30898	34760	38622	42484	44029	46346	54071	61795
2722		28120	35150	39543	43937	48331	50088	52754	61512	70299
3022		31521	39401	44327	49252	54177	56147	59102	68953	78803
2525		29188	36485	41045	45606	50166	51990	54727	63848	72969
2824		31748	39685	44646	49606	54567	56551	59527	69449	79370
3027		35589	44486	50046	55607	61168	63392	66728	77850	88971
3325		39429	49286	55447	61608	67768	70233	73929	86251	98572
3427		43270	54087	60848	67608	74369	77074	81130	94652	108174
3628		50687	63359	71279	79198	87118	90286	95038	110878	126718
4230		55186	68982	77605	86228	94851	98300	103474	120719	137965
4530		65749	82186	92460	102733	113006	117115	123279	143826	164373
4830		70358	87947	98940	109934	120927	125324	131920	153907	175894
4533		73576	91970	103467	114963	126459	131058	137956	160948	183941
4833		78734	98417	110719	123021	135323	140244	147625	172230	196834
4536		82969	103711	116675	129639	142603	147789	155567	181495	207422
4836		88785	110981	124853	138726	152599	158148	166471	194216	221961
5136		94600	118250	133031	147813	162594	168507	177375	206938	236500
5436		100416	125520	141210	156900	172590	178866	188280	219659	251039
5736		106231	132789	149388	165986	182585	189225	199184	232381	265578
6036		112047	140059	157566	175073	192581	199548	210088	245103	280117
6636		121020	151300	170200	189090	208000	215560	227000	265000	300000

13 UNIT INSTALLATION

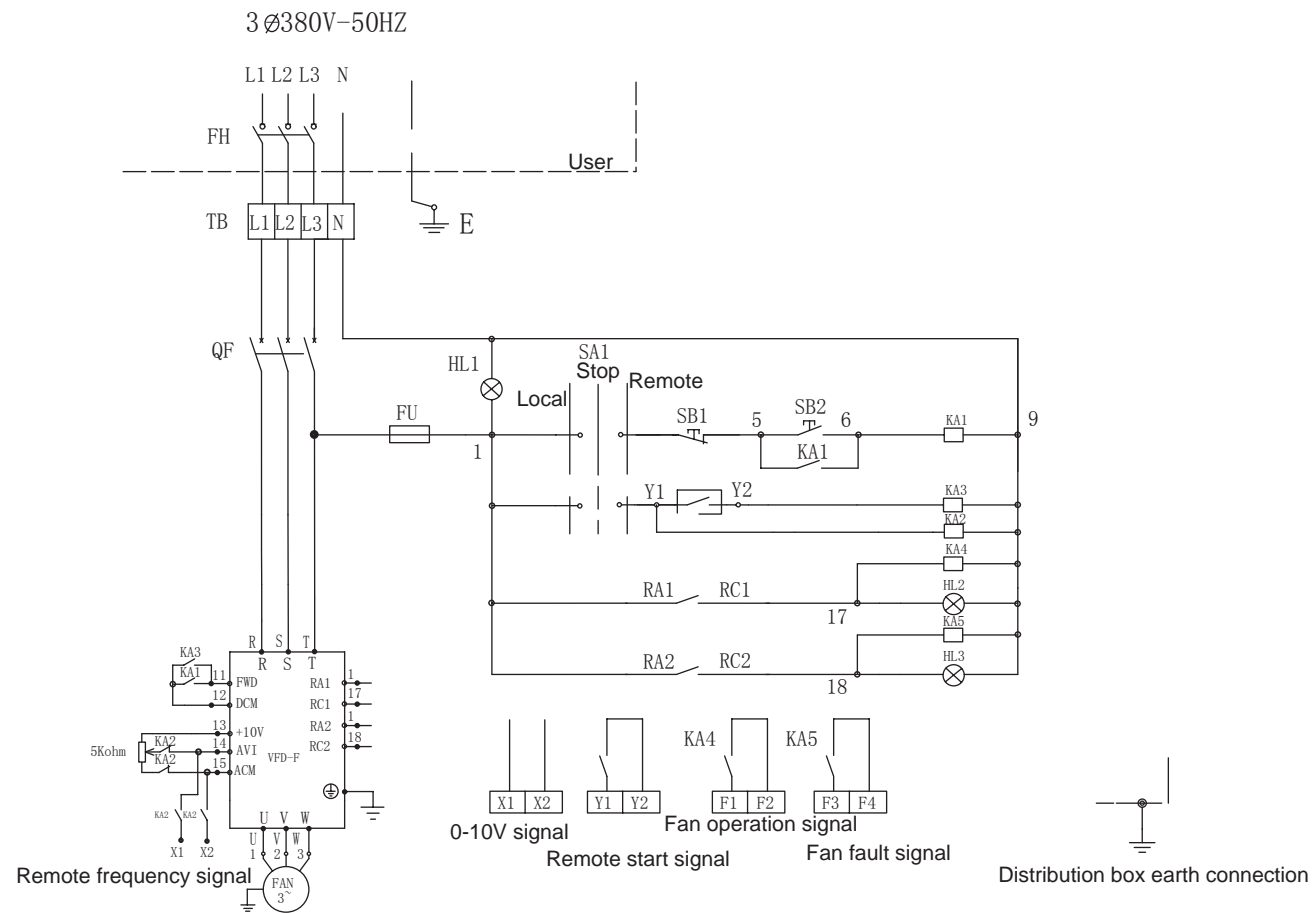
- Ensuing the air handling unit is installed on the horizontal position.
- There should be keeping enough space (suggestion not less than 1m) around the unit, especially for the piping and the maintenance.
- Condensed water outlet should be set water seal (like the picture), then connected to the external piping.
- Please make the pipes correctly according to the indication, even effort on the pipes when connection, do not make effort to large, ensuing the internal structure of the unit is not damaged.
- The standard power of the unit is 3 phase 4 wires, 380V, 50Hz, AC, before power on, please check whether the voltage is meet the requirements or not, whether it has the phase lacking, and etc, after power on, start motor first, check the fan has the right direction of rotation.
- The motor of the unit should be connected to the power which has the overload protector.
- The connection between the unit and air ducts and water pipes should use soften connection, in order to avoid vibration.

Suggestion: $H \geq 150\text{mm}$



14 ELECTRICAL WIRING

1 FREQUENCY CONVERSION STARTING CABINET

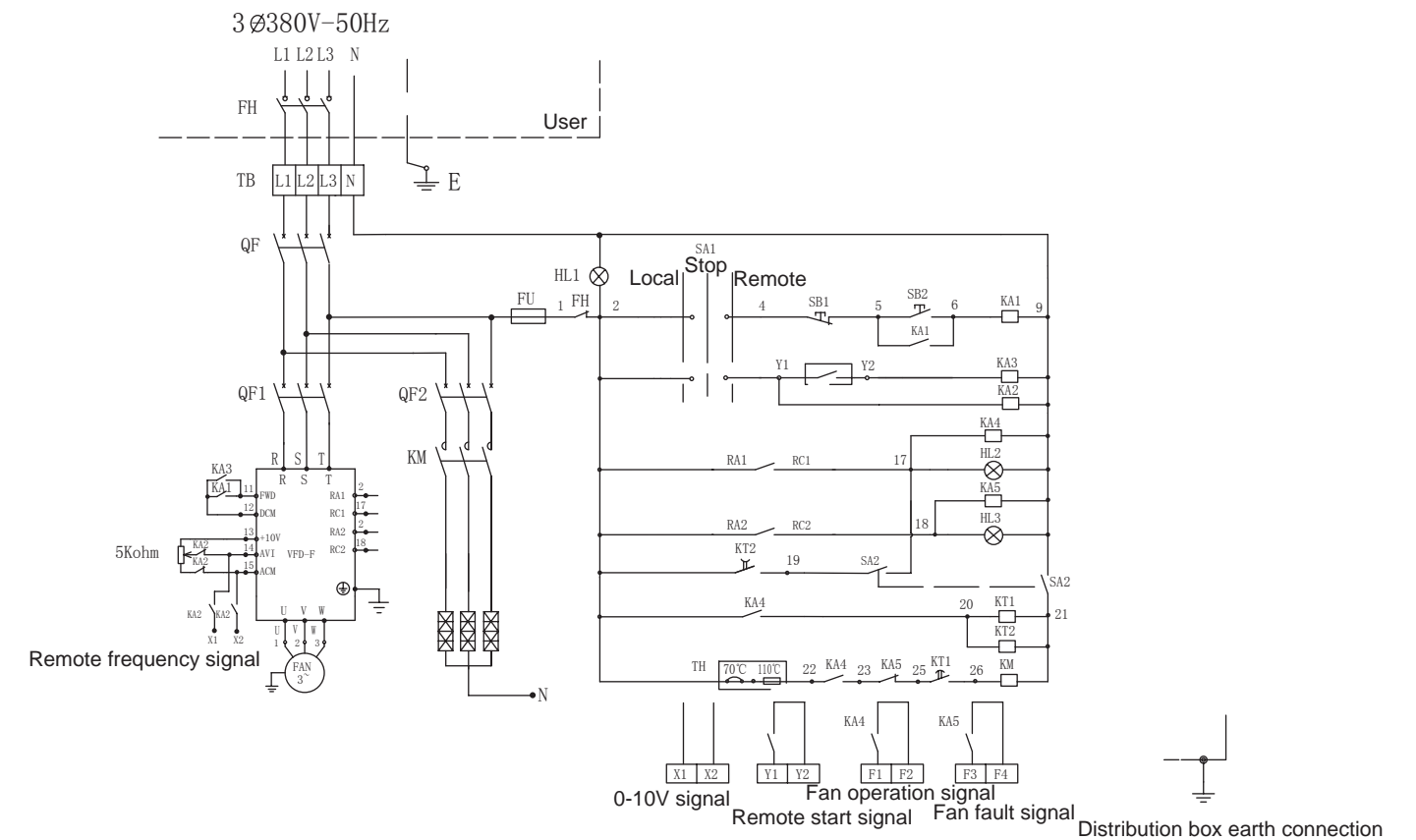


Instruction : dotted line-----client connection

DF—low pressure breaker SB1—stop button SB2—start button FU—fuse protector
VFD—F Delta fan pump special frequency converter KA—intermediate relay
HL1—power indicator HL2—operation indicator HL3—fault indicator SA—switch
FAN- fan motor

2 VARIABLE FREQUENCY STARTING CABINET FOR ELECTRIC HEATER

- Electric heater is finished into unit frame before delivery, the internal line has been connected, and keeping the power connector, please connect to the power according to the signal, please refer to the wiring drawing as below:



Instruction: Dotted line-----client connection

DF—low pressure breaker VFD—F Delta fan pump special frequency converter SB1—stop button
SB2—start button FU—fuse protector FH—fire damper KM—electrical heater connector
KT2—power off time delay relay KT1—power on time delay relay KA—intermediate relay
HL1—power indicator HL2—operation indicator HL3—fault indicator SA—switch FAN- fan motor

Generally power on time delay set 30 seconds, power off time delay set at least 180 seconds.

14 ELECTRICAL WIRING

Warning:

Electric heater protector should be connected into the return part of the fan and electric heater control circle, can not be short circuit.

After the fan is in regular operation, then start the electric heater. If stop the unit, before stop the fan, shut down the electric heater for 3 minutes.

When design the control part, the dehumidifier and any other wiring, please in accordance with the wiring drawing with the unit.

Please note: the dehumidifier should be linked with the fan, after the fan start, then it can be start, shut down it first then stop the fan.

If there are motor damper in regular state when the fan is in operation.

Warning:

All the electrical equipment should be safety earthing connected according to the signal, can not be used zero as the earthing connection. If there are some mistakes, it will cause bomb, fire and other accident.

15 USE AND MAINTENANCE

- Before each operation, please check all the valves of the water pipes and air ducts, making sure that they are in the operation state;
- Please make the regular checking for the fan, motor and any other moving parts, making the adjustment in time;
- The clean of the primary filter according to the degree of the dirty, the clean frequency is according to the environment;
- Medium efficiency filter should be cleaned and changed when the resistance is two times as primary resistance;
- If the unit is not in use in winter, please let the water in the coiler out; if the unit is in use in winter, please keep the coiler water flowing, shut down the fresh air valve when stop the unit preventing the coiler is frost damage. Let the water out when stop the unit for long time.
- The cold water and hot water is softened water, please clean the scale in the coiler and the fins every two year.

For the details please refer to the [USERS' OPERATION MANUAL](#)