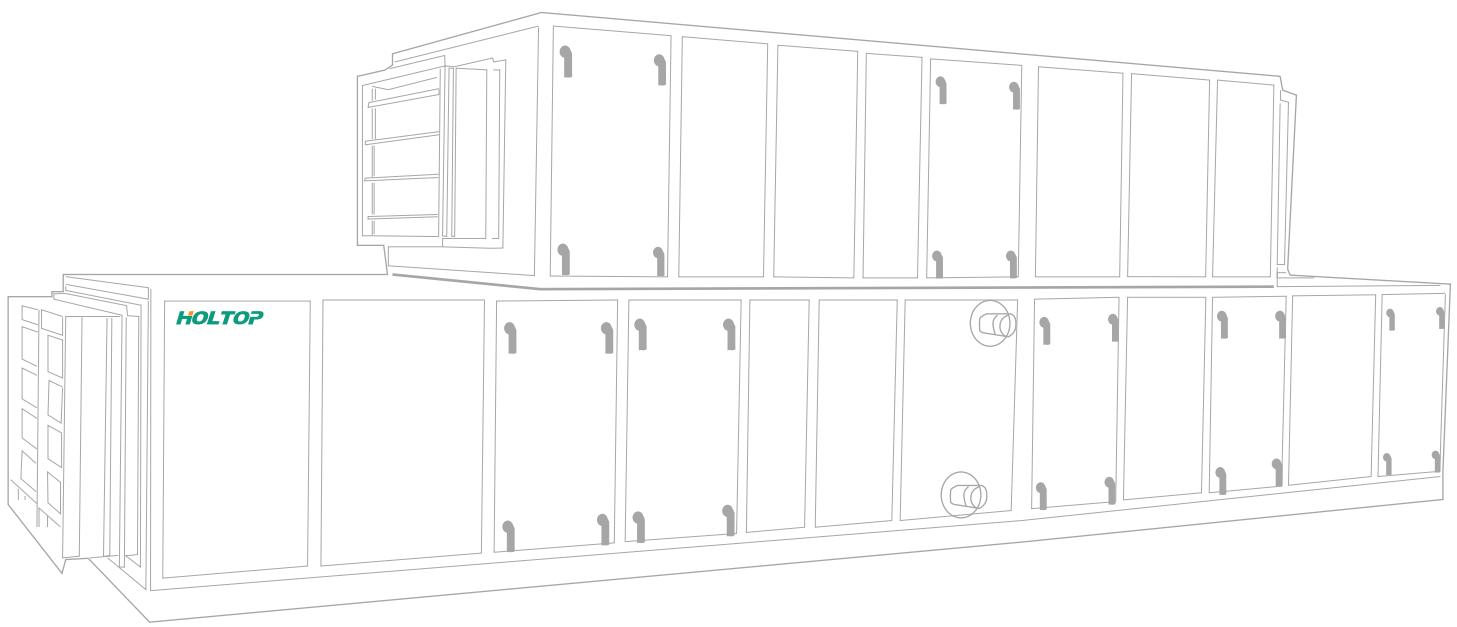


Combined Air Handling Unit



Beijing Holtop Air Conditioning Co., Ltd.



COMPANY PROFILE

Holtop is the leading manufacturer in China specializing in the production of air to air heat recovery equipments. Founded in 2002, it is dedicated to the research and technology development in the field of heat recovery ventilation and energy saving air handling equipments for more than 15 years.

Holtop headquarters is located in the foot of Beijing Baiwangshan Mountain, covering area of 30,000 square meters. The manufacturing base is in Beijing's Badaling Economic Development Zone, covering an area of 60 acres, with an annual production capacity of 200,000 units of air heat recovery equipments. Holtop builds a sound certificate system of ISO9001, ISO14001 and OHSAS18001 as well as product certification systems. Moreover, it has a laboratory certified by nation authority. As a well-known manufacturer in the field of heat recovery, Holtop has a strong R&D team and possesses dozens of national invention patents, and has participated in the compilation work of several national standards, and is also certified as Zhongguancun High-Tech Enterprise.

Holtop has mastered the core technology of heat recovery, independently developing products like plate and rotary heat exchangers, various heat & energy recovery systems and air handling units. Products have been exported to more than 41 countries and regions. Holtop continuously ranks the top in domestic market of heat and energy recovery ventilators.

Holtop will always committed to the mission of delivering highly efficient and energy saving products and solutions to improve indoor air quality, to ensure people's health and protect our earth.



CERTIFICATION

After years of dedication to the research and technology development in the field of heat recovery and indoor air quality, Holtop has many achievements on the product innovation and quality management, which is certified by National and International authorities.



■ Product Patent Certificates



■ Test lab Verification Certificates



■ Energy Saving Product Certificates



■ ISO9001 / ISO14001 / OHSAS18001 Certificates

The design of HJK-E series Combined Air Handling Unit, conforms to GB/T 14294-2008 National Standards strictly, and keeps deepen R&D and updates for times, established leading advantage on Heat Recovery Technology. Holtop's new generation of "U" Series Air Handling Unit, has been far beyond normal standards in many performance characteristics.

Delicate Section Design of AHU Case	Standard Module Design	Leading Core Technology of Heat Recovery	Aluminium Alloy Framework & Nylon Cold Bridge	Double Skin Panels
Totally 61 types of Standard Section Design of AHU Case, match to more specified air volume demand. Meanwhile, in order to adapt different air volume ratio between supply air & exhaust air for different application demands, Holtop makes additional Deformation Section design accordingly, to guarantee the AHU's performance, and makes compact AHU size at the same time, to save the cost & machine room space.	Adopt standard Module design, 1M=100mm. Module design makes AHU as compact as possible, meanwhile it makes design and manufacturing convenient & standardized.	HJK-E Series AHU, can equip with different heat recovery modes. Rotary heat exchanger is more compact & wide airflow applications. Plate heat exchanger is lower costs with appropriate recovery ratio. Heat pipe heat exchanger is easy to maintain and apply widely; Glycol circulation heat exchanger has zero cross contamination & high cleanliness level. Different heat recovery modes can satisfy different energy saving demands.	Adopt high strength dual composite aluminium alloy framework, mechanical strength up to D2 grade. Cold Bridge cut off design with enhanced PA66GF insulation strip, cold bridge factor up to TB2 grade. Meanwhile, new designed sealing structure of air leakage ratio <1%, achieves purification air conditioning standards.	Standard "Sandwich" panel structure, with 25mm & 50mm two specifications. Outer skin is Color Steel Sheet of white color matching to aluminium alloy framework. Inner skin is galvanized steel sheet, stainless steel sheet is optional to satisfy special application demand. PU foaming insulation materials provide the best thermal insulation property. The panels and frameworks are tightly sealed, inner surface is smooth and high cleanliness.
				
Flexible accessories available	High performance cooling / heating water coils	Multiple filters combinations	High quality fan	More convenient maintenance
VP & Moistureproof Lamp for Service Door is optional, the pressure switch or differential pressure meter for filters is optional, too. Air inlet or outlet equipped with closed air damper is optional. Many accessories are available.	Holtop water coils are independently researched and developed, which are made of high-quality copper pipes and aluminum fins, through a special expanding technology for complete jointing, with excellent heat transfer performance. After the coil, the PVC or stainless steel water eliminators can be installed. And a condensate tray can be installed to ensure timely discharge of condensate.	HJK-E series unit provides a combination of filters and filters of various specifications to meet the needs of the user for different clean ventilation. The coarse filters can meet the general requirements of the ventilation system, the medium filters can meet the general cleaning requirements of the ventilation. The PM2.5 special filters are optional, green air is no longer far away. In addition, special filters for electronic purification and other applications are also available.	A variety of high-quality fans are optional, including direct drive double suction centrifugal fan, double suction forward / backward centrifugal fan, plug fan, EC fan and so on. Fan outlet and flange are soft connected. The shock-absorbing components between the fan and the base can isolate the vibration effectively.	The unit uses many standard parts, which can be easily replaced. The unit is designed with necessary access doors and can be equipped with observation windows and moisture proof lights to facilitate maintenance. Unit panel can be removed from the outside, easy to disassemble. Panels are decorated with decorative caps, nail holes will not affect the appearance of the unit.



Let's see how to select the AHU

基础信息

送风量:	10000 CMH	机组类型:	25U	夏季新风:	33,200	夏季回风:	25,000	冬季新风:	-12,000	冬季回风:	18,000
回风量:	10000 CMH	使用季节:	冬季季	干球温度:	33,200	湿球温度:	26,400	干球温度:	17,900	湿球温度:	-13,600
新风量:	10000 CMH	数量:	1	图例:							
排风量:	10000 CMH	使用地区:	Beijing(北京市)	相对湿度:	59.062	风速:	50,000	风速:	45,000	风速:	40,000
		使用城市:	北京	风压:	82,883	风压:	60,696	风压:	-10,593	风压:	30,968
		海拔高度:	31.2 M	含湿量:	19,309	含湿量:	10,028	含湿量:	0,597	含湿量:	5,074

选择机组剖面

其他信息

基础高度:	1000	水盘材质:	冷板镀锌	护板内板材质:	镀锌钢板	护板外板材质:	彩钢板
机组位置:	室内	接管方向:	右式	护板内板厚度:	0.4	护板外板厚度:	0.4

确定 **取消**

- ① Input air volume selection of the most economical and reasonable unit section, adjust the air state point parameters.

气流方向: 上下式双层机组

配置 **完成** **一键计算**

机组信息

机组进风量:	10000 CMH	上层机组剖面:	1013
机组回风量:	10000 CMH	下层机组剖面:	1013
机组新风量:	10000 CMH	机组方案号:	ZLZH04 客户编号:
机组排风量:	10000 CMH	机组数量:	1 机组类型: 25U
机组总风量:	0 CMH	机组位置:	室内 水盘材质: 冷板镀锌

- ③ After professional and precise inner calculation, the functional sections parameters will run out.

HJK-E series AHU are designed and selected according to professional software, providing users with reasonable, economic, and practical air conditioning solutions. The features of Holtop AHU selection software also include:

- ▶ Sound project and AHU query management
- ▶ Precise airflow and unit section divisions
- ▶ Multiple heat recovery options and functional section combinations
- ▶ The air state point calculation of main sections

气流方向: 上下式双层机组

配置 **完成** **一键计算**

机组信息

机组进风量:	10000 CMH	上层机组剖面:	1013
机组回风量:	10000 CMH	下层机组剖面:	1013
机组新风量:	10000 CMH	机组方案号:	ZLZH04 客户编号:
机组排风量:	10000 CMH	机组数量:	1 机组类型: 25U
机组总风量:	0 CMH	机组位置:	室内 水盘材质: 冷板镀锌

- ② Drag the desired functional sections according to requirements and set parameters for each functional sections.

机组分段:

重置分段 **验证** **零件运输**

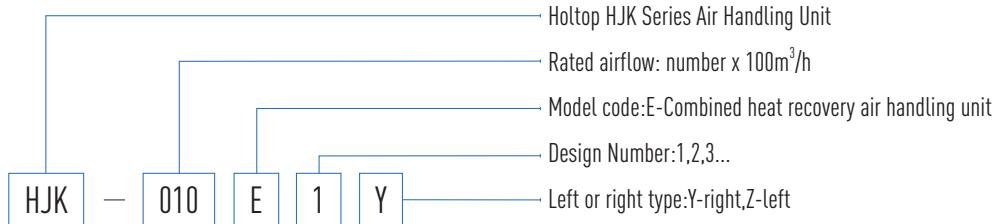
分段信息:

下层功能段:	SA-MFK	上层功能段:	
内面板材质:	镀锌钢板	外面板材质:	彩钢板
内面板厚度:	0.4 mm	外面板厚度:	0.4 mm

检修灯设置 **保存** **取消**

- ④ Divide the unit into one-piece or several sections to meet the transportation requirements.

- ▶ Various optional parts
- ▶ Flexible unit combinations
- ▶ Professional and detailed selection reports output



Example: A 20000m³/h airflow combined heat recovery air handling unit,right type. Model name is HJK-200E1Y.

Look at the supply air direction, it's left type if water inlet/outlet are located on the left side of the unit; otherwise, it's a right type.

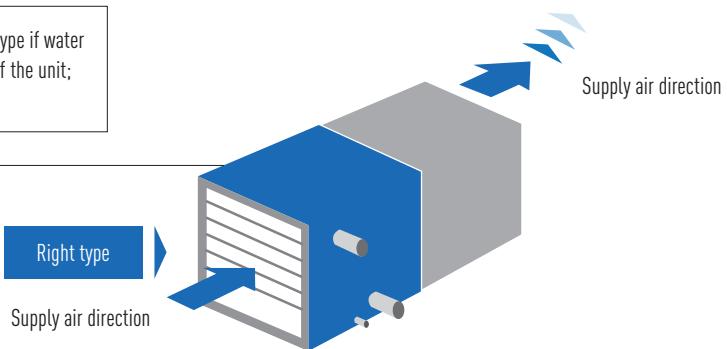


Diagram	Functional section	Diagram	Functional section
	Coarse filters section		Heat pipe heat exchanger section
	Coarse and medium filters section		Liquid circulation heat exchanger section
	PM2.5 filters section		Heating/Cooling coil section
	Rotary heat exchanger section		Wet film humidification section
	Plate heat exchanger section		Fan section
	Plate heat exchanger section		Air diffuser section



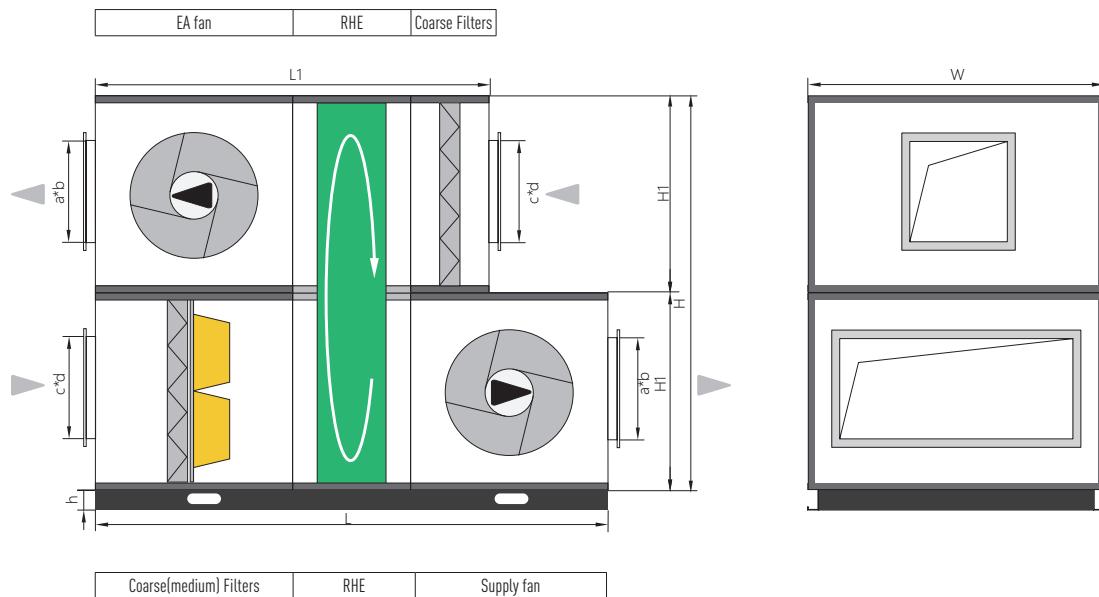
AHU Overview

Quick Selection Chart

Casing specifications	Rated airflow m3/h	Energy recovery components			Fan performance		
		Rotary heat exchanger		Plate heat exchanger	Heat pipe heat exchanger	Max. total fan pressure (Pa)	
		Left/Right type	Up/Down type				
0507	1890		▲	▲		1000	1.5
0508	2250		▲	▲		1000	1.5
0609	3263		▲	▲		1000	2.2
0610	3713		▲	▲		1200	3
0710	4455		▲	▲		1500	5.5
0811	5115		▲	▲		1500	5.5
0812	5687		▲	▲		1500	5.5
0912	6824		▲	▲		1500	5.5
0913	7510		▲	▲		1600	7.5
1013	8024		▲	▲		1600	7.5
1014	8767		▲	▲		1600	11
1115	10973		▲	▲		1800	11
1116	11831		▲	▲		2000	15
1117	12688		▲	▲		2000	15
1119	14402		▲	▲		2000	15
1219	16323		▲	▲		2000	18.5
1419	18080		▲	▲		2000	18.5
1421	20252		▲	▲		2000	22
1521	22383		▲	▲		2000	22
1622	24706		▲	▲		2000	30
1625	28478		▲	▲		2000	30
1725	31067		▲	▲		2000	30
1727	33810		▲	▲		2000	30
1927	38037		▲	▲		2000	37
1929	41123		▲	▲		2000	45
2129	45692		▲	▲		2000	45
2131	49121		▲	▲		2000	45
2331	54033		▲	▲		2000	55
2333	57805		▲	▲		2000	55
2535	67175		▲	▲		2000	75
2637	75250		▲	▲		2000	75
2839	85877		▲	▲		2000	90
1108	5187	▲			▲	1500	5.5
1208	5878	▲			▲	1500	5.5
1209	6850	▲			▲	1500	5.5
1309	7253	▲			▲	1600	7.5
1310	8127	▲			▲	1600	7.5
1410	9030	▲			▲	1600	11
1411	10173	▲			▲	1800	11
1511	10682	▲			▲	1800	11
1512	11882	▲			▲	2000	15
1613	13705	▲			▲	2000	15
1713	14951	▲			▲	2000	15
1814	17003	▲			▲	2000	18.5
1914	18131	▲			▲	2000	18.5
1915	19674	▲			▲	2000	22
2016	22003	▲			▲	2000	22
2116	23575	▲			▲	2000	22
2117	25289	▲			▲	2000	30
2217	26975	▲			▲	2000	30
2517	30347	▲			▲	2000	30
2717	32876	▲			▲	2000	30
2719	37334	▲			▲	2000	37
2919	40206	▲			▲	2000	45
2921	45006	▲			▲	2000	45
3122	50793	▲			▲	2000	45
3123	53364	▲			▲	2000	55
3324	59665	▲			▲	2000	55
3525	66309	▲			▲	2000	75
3727	76381	▲			▲	2000	75
3928	85354	▲			▲	2000	90

Note: ▲ Indicates the selected heat recovery mode.

▶ Rotary Heat Exchanger + Coarse (Medium) Filters+Supply Fan



Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	W	H	H1	a*b	c*d		
25mm series	0507	1740	1540	740	1180	540	375*375	575*175	273
	0508	1740	1540	840	1180	540	375*375	675*175	312
	0609	1740	1540	940	1380	640	475*475	775*175	421
	0610	1940	1640	1040	1380	640	475*475	875*175	494
	0710	1940	1640	1040	1580	740	475*475	875*275	568
	0811	2040	1740	1140	1780	840	475*475	975*275	714
	0812	2140	1740	1240	1780	840	475*475	1075*275	790
	0912	2140	1740	1240	1980	940	475*475	1075*375	889
	0913	2340	1840	1340	1980	940	575*575	1175*375	991
	1013	2340	1840	1340	2180	1040	575*575	1175*375	1106
	1014	2340	1840	1440	2180	1040	575*575	1275*375	1191
	1115	2540	1940	1540	2380	1140	575*575	1375*475	1282
	1116	2540	1940	1640	2380	1140	675*675	1475*475	1367
	1117	2540	1940	1740	2380	1140	675*675	1575*475	1452
	1119	2740	2040	1940	2380	1140	775*775	1775*475	1536
	1219	2740	2040	1940	2580	1240	775*775	1775*475	1676
	1419	2740	2040	1940	2980	1440	775*775	1775*575	1955
	1421	2940	2440	2140	2980	1440	775*775	1975*575	2168
	1521	2940	2440	2140	3180	1540	775*775	1975*575	2322
	1622	3140	2540	2240	3380	1640	875*875	2075*675	2647
	1625	3340	2640	2540	3380	1640	875*875	2375*675	2854
	1725	3340	2640	2540	3580	1740	975*975	2375*675	3032
	1727	3340	2640	2740	3580	1740	975*975	2575*675	3274
50mm series	1927	3790	2890	2790	3980	1990	1075*1075	2625*775	3982
	1929	3990	2990	2990	4080	1990	1075*1075	2825*775	4575
	2129	3990	2990	2990	4480	2190	1175*1175	2825*875	5056
	2131	4190	3090	3190	4480	2190	1175*1175	3025*875	5634
	2331	4190	3090	3190	4880	2390	1175*1175	3025*975	6170
	2333	4690	3390	3390	4880	2390	1375*1375	3225*975	7285
	2535	4690	3390	3590	5280	2590	1375*1375	3425*1075	8398
	2637	4890	3490	3790	5480	2690	1475*1475	3625*1175	9572
	2839	5290	3690	3990	5880	2890	1575*1575	3825*1175	10591

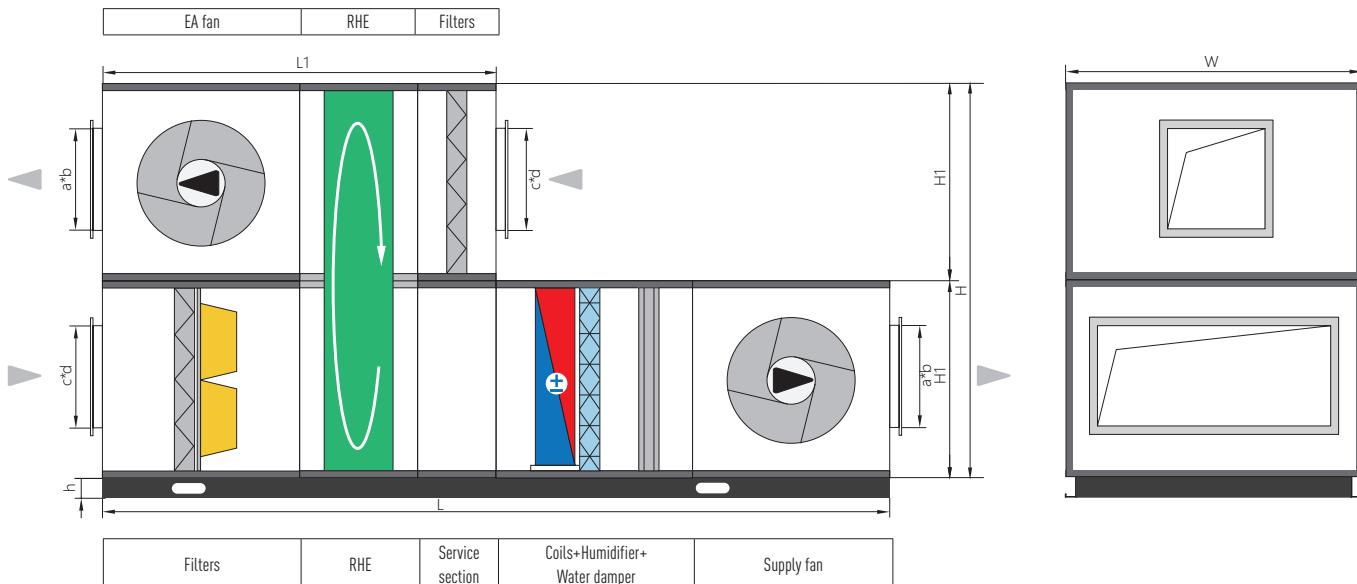
Remark:

1. L+50mm, W+50mm, H+100mm, when 25 series AHU using 50mm panels.

2. H=100mm.

3. By-pass damper is optional for transition season.

► Rotary Heat Exchanger + Coarse (Medium) Filters + Coils (Cooling/Heating) + Humidifier + Supply Fan

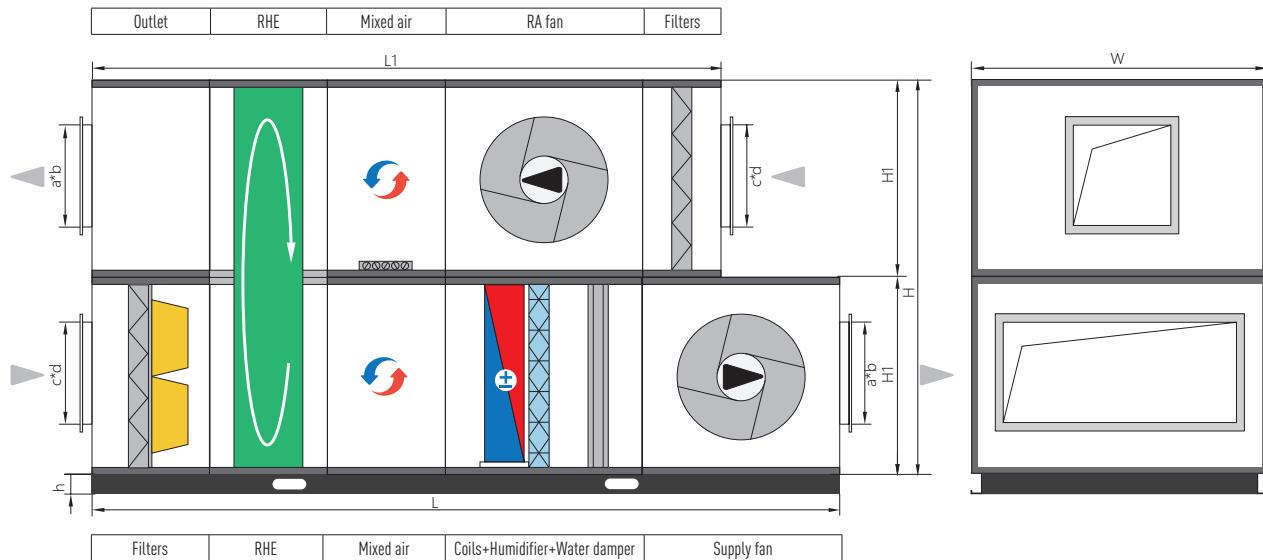


Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	W	H	H1	a*b	c*d		
25mm series	0507	2940	1540	740	1180	540	375*375	575*175	362
	0508	2940	1540	840	1180	540	375*375	675*175	413
	0609	2940	1540	940	1380	640	475*475	775*175	559
	0610	3140	1640	1040	1380	640	475*475	875*175	637
	0710	3140	1640	1040	1580	740	475*475	875*275	744
	0811	3340	1740	1140	1780	840	475*475	975*275	912
	0812	3440	1740	1240	1780	840	475*475	1075*275	1118
	0912	3440	1740	1240	1980	940	475*475	1075*375	1157
	0913	3640	1840	1340	1980	940	575*575	1175*375	1286
	1013	3640	1840	1340	2180	1040	575*575	1175*375	1428
	1014	3640	1840	1440	2180	1040	575*575	1275*375	1537
	1115	3840	1940	1540	2380	1140	575*575	1375*475	1725
	1116	3840	1940	1640	2380	1140	675*675	1475*475	1840
	1117	3840	1940	1740	2380	1140	675*675	1575*475	1955
	1119	4040	2040	1940	2380	1140	775*775	1775*475	2166
	1219	4040	2040	1940	2580	1240	775*775	1775*475	2362
	1419	4040	2040	1940	2980	1440	775*775	1775*575	2697
	1421	4240	2440	2140	2980	1440	775*775	1975*575	2813
	1521	4240	2440	2140	3180	1540	775*775	1975*575	3013
	1622	4440	2540	2240	3380	1640	875*875	2075*675	3263
	1625	4640	2640	2540	3380	1640	875*875	2375*675	3450
	1725	4640	2640	2540	3580	1740	975*975	2375*675	3665
	1727	4640	2640	2740	3580	1740	975*975	2575*675	3958
50mm series	1927	5090	2890	2790	3980	1990	1075*1075	2625*775	4707
	1929	5290	2990	2990	4080	1990	1075*1075	2825*775	5368
	2129	5290	2990	2990	4480	2190	1175*1175	2825*875	5733
	2131	5490	3090	3190	4480	2190	1175*1175	3025*875	6105
	2331	5490	3090	3190	4880	2390	1175*1175	3025*975	6686
	2333	5990	3390	3390	4880	2390	1375*1375	3225*975	7806
	2535	5990	3390	3590	5280	2590	1375*1375	3425*1075	8944
	2637	6190	3490	3790	5480	2690	1475*1475	3625*1175	10093
	2839	6590	3690	3990	5880	2890	1575*1575	3825*1175	11205

Remarks

1. L+50mm, W+50mm, H+100mm, when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm.
4. By-pass damper is optional for transition season.

▶ Rotary Heat Exchanger + Coarse (Medium) Filters + Mixed Air + Coils (Cooling/Heating) + Humidifier + Supply Fan



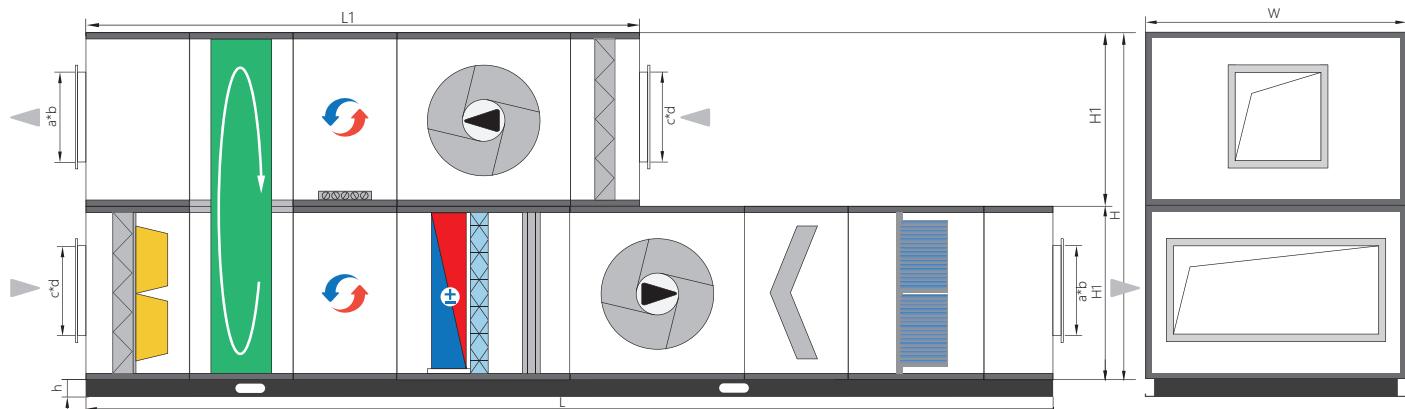
Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	W	H	H1	a*b	c*d		
25mm series	0507	2840	2540	740	1180	540	375*375	575*175	419
	0508	2840	2540	840	1180	540	375*375	675*175	478
	0609	2840	2540	940	1380	640	475*475	775*175	647
	0610	2940	2640	1040	1380	640	475*475	875*175	716
	0710	2940	2640	1040	1580	740	475*475	875*275	836
	0811	3140	2740	1140	1780	840	475*475	975*275	1016
	0812	3140	2740	1240	1780	840	475*475	1075*275	1221
	0912	3140	2740	1240	1980	940	475*475	1075*375	1264
	0913	3240	2840	1340	1980	940	575*575	1175*375	1372
	1013	3240	2840	1340	2180	1040	575*575	1175*375	1524
	1014	3240	2840	1440	2180	1040	575*575	1275*375	1640
	1115	3340	2940	1540	2380	1140	575*575	1375*475	1802
	1116	3340	2940	1640	2380	1140	675*675	1475*475	1922
	1117	3340	2940	1740	2380	1140	675*675	1575*475	2042
	1119	3440	3040	1940	2380	1140	775*775	1775*475	2218
	1219	3440	3040	1940	2580	1240	775*775	1775*475	2419
	1419	3440	3040	1940	2980	1440	775*775	1775*575	2762
	1421	3840	3440	2140	2980	1440	775*775	1975*575	2946
	1521	3840	3440	2140	3180	1540	775*775	1975*575	3156
	1622	3940	3540	2240	3380	1640	875*875	2075*675	3360
	1625	4040	3640	2540	3380	1640	875*875	2375*675	3496
	1725	4040	3640	2540	3580	1740	975*975	2375*675	3714
	1727	4040	3640	2740	3580	1740	975*975	2575*675	4011
50mm series	1927	4290	3890	2790	3980	1990	1075*1075	2625*775	4635
	1929	4390	3990	2990	4080	1990	1075*1075	2825*775	5217
	2129	4390	3990	2990	4480	2190	1175*1175	2825*875	5572
	2131	4490	4090	3190	4480	2190	1175*1175	3025*875	5861
	2331	4490	4090	3190	4880	2390	1175*1175	3025*975	6419
	2333	4790	4390	3390	4880	2390	1375*1375	3225*975	7331
	2535	4790	4390	3590	5280	2590	1375*1375	3425*1075	8400
	2637	4890	4490	3790	5480	2690	1475*1475	3625*1175	9384
	2839	5090	4690	3990	5880	2890	1575*1575	3825*1175	10225

Remark:

1. L+50mm, W+50mm, H+100mm, when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm
4. By-pass damper is optional for transition season.

► Rotary Heat Exchanger + Coarse (Medium) Filters + Mixed Air + Coils (Cooling/Heating)+ Humidifier + Fan + PM2.5 Filters

Air outlet	RHE	Mixed air	RA fan	Filters
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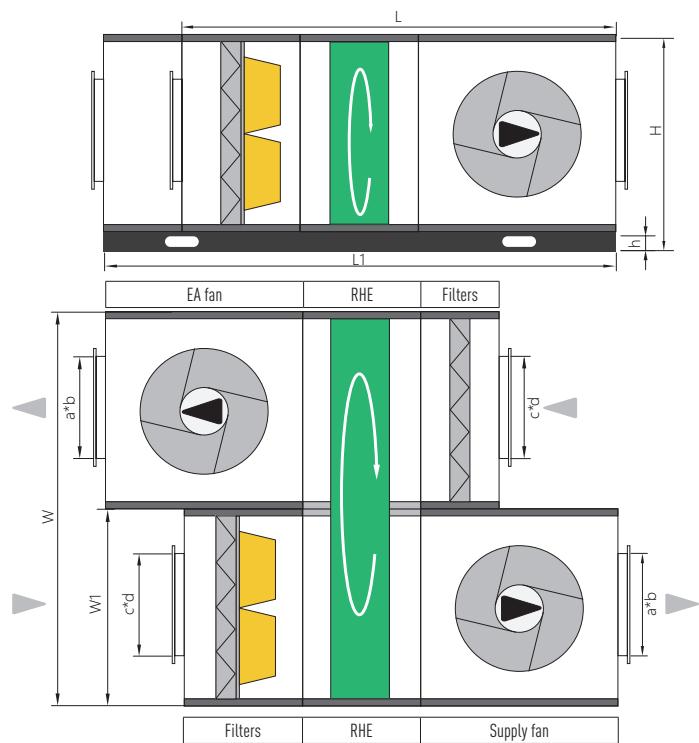
Filters	RHE	Mixed air	Coils+Humidifier+Water damper	Supply fan	Air diffuser	PM2.5 Filters	Air outlet
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Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	0507	4340	2540	740	1180	540	375*375	575*175	538
	0508	4340	2540	840	1180	540	375*375	675*175	613
	0609	4340	2540	940	1380	640	475*475	775*175	830
	0610	4440	2640	1040	1380	640	475*475	875*175	911
	0710	4440	2640	1040	1580	740	475*475	875*275	1064
	0811	4640	2740	1140	1780	840	475*475	975*275	1279
	0812	4640	2740	1240	1780	840	475*475	1075*275	1537
	0912	4640	2740	1240	1980	940	475*475	1075*375	1590
	0913	4740	2840	1340	1980	940	575*575	1175*375	1715
	1013	4740	2840	1340	2180	1040	575*575	1175*375	1904
	1014	4740	2840	1440	2180	1040	575*575	1275*375	2050
	1115	4840	2940	1540	2380	1140	575*575	1375*475	2238
	1116	4840	2940	1640	2380	1140	675*675	1475*475	2387
	1117	4840	2940	1740	2380	1140	675*675	1575*475	2536
	1119	4940	3040	1940	2380	1140	775*775	1775*475	2738
	1219	4940	3040	1940	2580	1240	775*775	1775*475	2986
	1419	4940	3040	1940	2980	1440	775*775	1775*575	3410
	1421	5340	3440	2140	2980	1440	775*775	1975*575	3560
	1521	5340	3440	2140	3180	1540	775*775	1975*575	3813
	1622	5440	3540	2240	3380	1640	875*875	2075*675	4041
	1625	5540	3640	2540	3380	1640	875*875	2375*675	4186
	1725	5540	3640	2540	3580	1740	975*975	2375*675	4447
	1727	5540	3640	2740	3580	1740	975*975	2575*675	4803
50mm series	1927	5790	3890	2790	3980	1990	1075*1075	2625*775	5504
	1929	5890	3990	2990	4080	1990	1075*1075	2825*775	6172
	2129	5890	3990	2990	4480	2190	1175*1175	2825*875	6591
	2131	5990	4090	3190	4480	2190	1175*1175	3025*875	6908
	2331	5990	4090	3190	4880	2390	1175*1175	3025*975	7565
	2333	6290	4390	3390	4880	2390	1375*1375	3225*975	8553
	2535	6290	4390	3590	5280	2590	1375*1375	3425*1075	9800
	2637	6390	4490	3790	5480	2690	1475*1475	3625*1175	10914
	2839	6590	4690	3990	5880	2890	1575*1575	3825*1175	11822

Remarks

1. L+50mm, W+50mm, H+100mm, when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm.
4. By-pass damper is optional for transition season.

► Rotary Heat Exchanger + Coarse (Medium) Filters + Supply Fan



Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	1108	2140	1840	1240	1680	840	475*475	375*775	752
	1208	2140	1840	1340	1680	840	475*475	375*875	811
	1209	2140	1840	1340	1880	940	475*475	475*775	912
	1309	2340	1940	1440	1880	940	575*575	475*875	1015
	1310	2340	1940	1440	2080	1040	575*575	575*775	1133
	1410	2340	1940	1540	2080	1040	575*575	575*875	1220
	1411	2540	2040	1540	2280	1140	575*575	675*875	1274
	1511	2540	2040	1640	2280	1140	575*575	675*875	1311
	1512	2540	2040	1640	2480	1240	675*675	775*875	1431
	1613	2540	2040	1740	2680	1340	675*675	875*875	1527
	1713	2740	2140	1840	2680	1340	775*775	875*975	1623
	1814	2740	2140	1940	2880	1440	775*775	975*975	1851
	1914	2740	2140	2040	2880	1440	775*775	975*975	1996
	1915	2940	2240	2040	3080	1540	775*775	1075*975	2271
	2016	2940	2240	2140	3280	1640	775*775	1175*1075	2550
	2116	3140	3040	2240	3280	1640	875*875	1175*1075	3195
	2117	3140	3040	2240	3480	1740	875*875	1275*1075	3395
	2217	3140	3040	2340	3480	1740	875*875	1275*1175	3557
50mm series	2517	3340	3340	2640	3480	1740	975*975	1275*1275	3387
	2717	3340	3340	2840	3480	1740	975*975	1275*1375	3658
	2719	3990	3690	2890	3980	1990	1075*1075	1525*1375	4519
	2919	3940	3690	3090	3980	1990	1075*1075	1525*1475	4969
	2921	4140	3790	3090	4380	2190	1175*1175	1725*1475	5708
	3122	4190	3790	3290	4580	2290	1175*1175	1825*1575	6474
	3123	4190	3790	3290	4780	2390	1175*1175	1925*1575	6764
	3324	4690	4090	3490	4980	2490	1375*1375	2025*1675	8267
	3525	4690	4090	3690	5180	2590	1375*1375	2125*1675	9126
	3727	5090	4290	3890	5580	2790	1475*1475	2325*1775	11132
	3928	5690	4590	4090	5780	2890	1575*1575	2425*1975	12125

Remark:

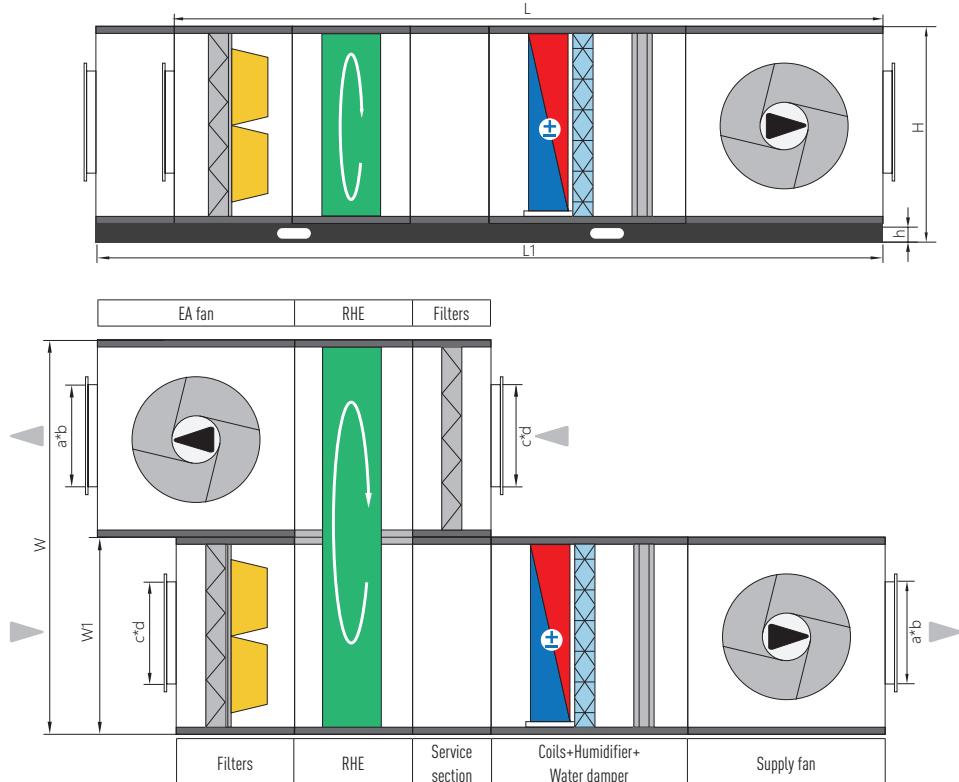
1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. H=100mm
3. By-pass damper is optional for transition season.



HOLTOP

Application of Rotary Heat Exchangers-6

- Rotary Heat Exchanger + Coarse (Medium) Filters + Coils (Heating/Cooling) + Humidifier + Supply Fan

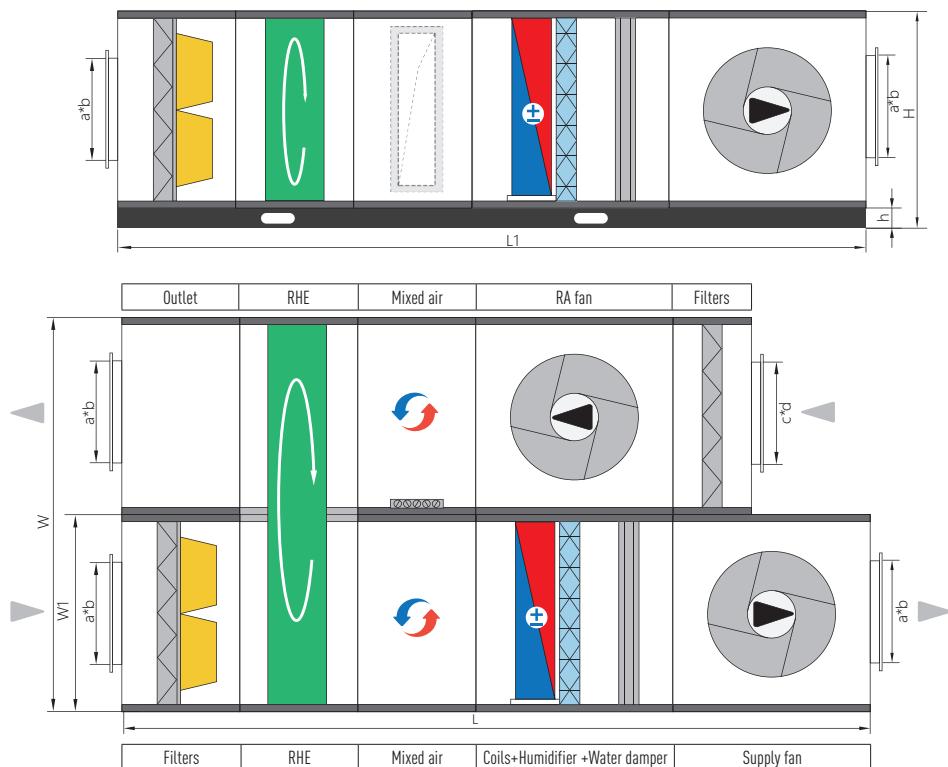


Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	1108	3440	3140	1240	1680	840	475*475	375*775	979
	1208	3440	3140	1340	1680	840	475*475	375*875	1055
	1209	3440	3140	1340	1880	940	475*475	475*775	1187
	1309	3640	3240	1440	1880	940	575*575	475*875	1300
	1310	3640	3240	1440	2080	1040	575*575	575*775	1450
	1410	3640	3240	1540	2080	1040	575*575	575*875	1562
	1411	3840	3340	1540	2280	1140	575*575	675*875	1595
	1511	3840	3340	1640	2280	1140	575*575	675*875	1655
	1512	3840	3340	1640	2480	1240	675*675	775*875	1806
	1613	3840	3340	1740	2680	1340	675*675	875*875	1927
	1713	4040	3440	1840	2680	1340	775*775	875*975	2048
	1814	4040	3440	1940	2880	1440	775*775	975*975	2336
	1914	4040	3440	2040	2880	1440	775*775	975*975	2487
	1915	4240	3540	2040	3080	1540	775*775	1075*975	2797
	2016	4240	3840	2140	3280	1640	775*775	1175*1075	3141
	2116	4440	3940	2240	3280	1640	875*875	1175*1075	3447
	2117	4440	3940	2240	3480	1740	875*875	1275*1075	3663
	2217	4440	3940	2340	3480	1740	875*875	1275*1175	3838
	2517	4640	4040	2640	3480	1740	975*975	1275*1275	3692
	2717	4640	4040	2840	3480	1740	975*975	1275*1375	3986
50mm series	2719	5290	4390	2890	3980	1990	1075*1075	1525*1375	4877
	2919	5290	4390	3090	3980	1990	1075*1075	1525*1475	5362
	2921	5490	4490	3090	4380	2190	1175*1175	1725*1475	6143
	3122	5490	4490	3290	4580	2290	1175*1175	1825*1575	6961
	3123	5490	4490	3290	4780	2390	1175*1175	1925*1575	7272
	3324	5990	4790	3490	4980	2490	1375*1375	2025*1675	8831
	3525	5990	4790	3690	5180	2590	1375*1375	2125*1675	9750
	3727	6390	4990	3890	5580	2790	1475*1475	2325*1775	11844
	3928	6990	5290	4090	5780	2890	1575*1575	2425*1975	12832

Remarks

- L/W/H should add 50mm when 25 series AHU using 50mm panels.
- L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
- H=100mm
- By-pass damper is optional for transition season.

► Rotary Heat Exchanger + Coarse (Medium) Filters + Mixed Air + Coils (Cooling/Heating) + Humidifier + Supply Fan



Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	1108	4640	2740	1240	1680	840	475*475	375*775	1394
	1208	4640	2740	1340	1680	840	475*475	375*875	1503
	1209	4640	2740	1340	1880	940	475*475	475*775	1691
	1309	4740	2840	1440	1880	940	575*575	475*875	1798
	1310	4740	2840	1440	2080	1040	575*575	575*775	2006
	1410	4740	2840	1540	2080	1040	575*575	575*875	2160
	1411	4840	2940	1540	2280	1140	575*575	675*875	2129
	1511	4840	2940	1640	2280	1140	575*575	675*875	2227
	1512	4840	2940	1640	2480	1240	675*675	775*875	2430
	1613	4840	2940	1740	2680	1340	675*675	875*875	2592
	1713	4940	3040	1840	2680	1340	775*775	875*975	2754
	1814	4940	3040	1940	2880	1440	775*775	975*975	3141
	1914	4940	3040	2040	2880	1440	775*775	975*975	3264
	1915	5040	3140	2040	3080	1540	775*775	1075*975	3585
	2016	5340	3440	2140	3280	1640	775*775	1175*1075	4026
	2116	5440	3540	2240	3280	1640	875*875	1175*1075	4324
	2117	5440	3540	2240	3480	1740	875*875	1275*1075	4595
	2217	5440	3540	2340	3480	1740	875*875	1275*1175	4814
50mm series	2517	5540	3640	2640	3480	1740	975*975	1275*1275	4655
	2717	5540	3640	2840	3480	1740	975*975	1275*1375	5026
	2719	5890	3990	2890	3980	1990	1075*1075	1525*1375	5830
	2919	5890	3990	3090	3980	1990	1075*1075	1525*1475	6411
	2921	5990	4090	3090	4380	2190	1175*1175	1725*1475	7230
	3122	5990	4090	3290	4580	2290	1175*1175	1825*1575	8178
	3123	5990	4090	3290	4780	2390	1175*1175	1925*1575	8544
	3324	6290	4390	3490	4980	2490	1375*1375	2025*1675	10056

Remark:

1. L/W/H should add 50mm when 25 series AHU using 50mm panels

2. H=100mm

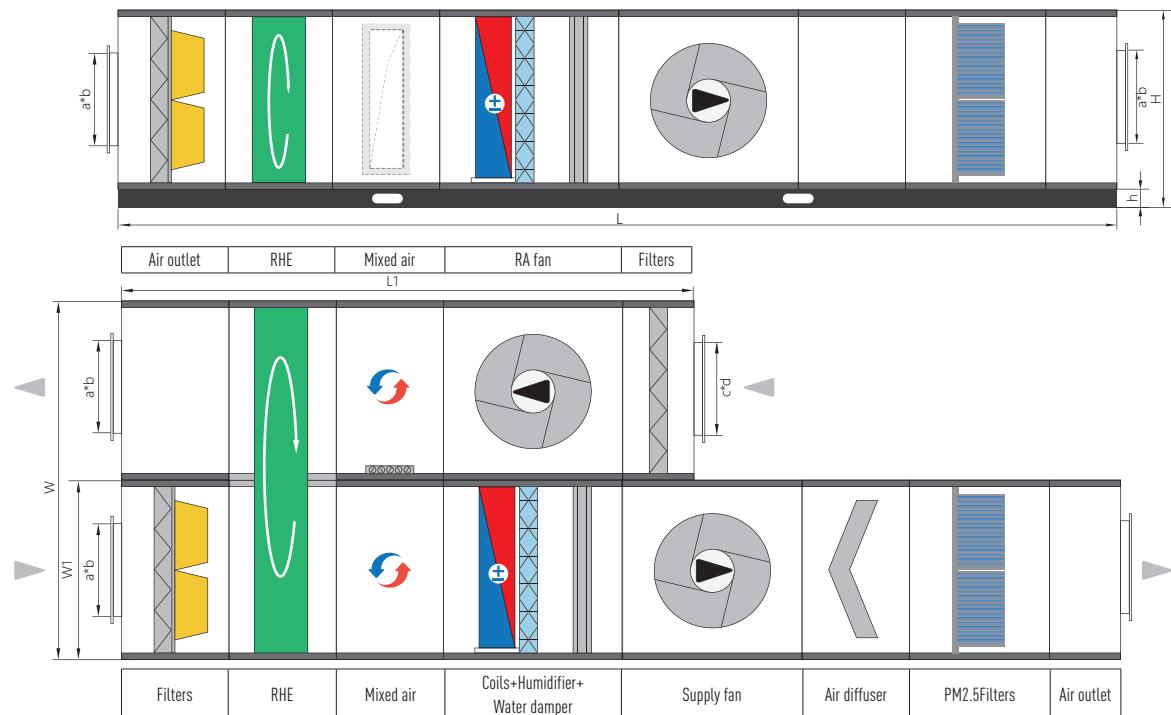
3. By-pass damper is optional for transition season.



HOLTOP

Application of Rotary Heat Exchangers-8

- Rotary Heat Exchanger + Coarse (Medium) Filters + Mixed Air + Coils (Cooling/Heating) + Humidifier + Fan + PM2.5 Filters + Air Outlet

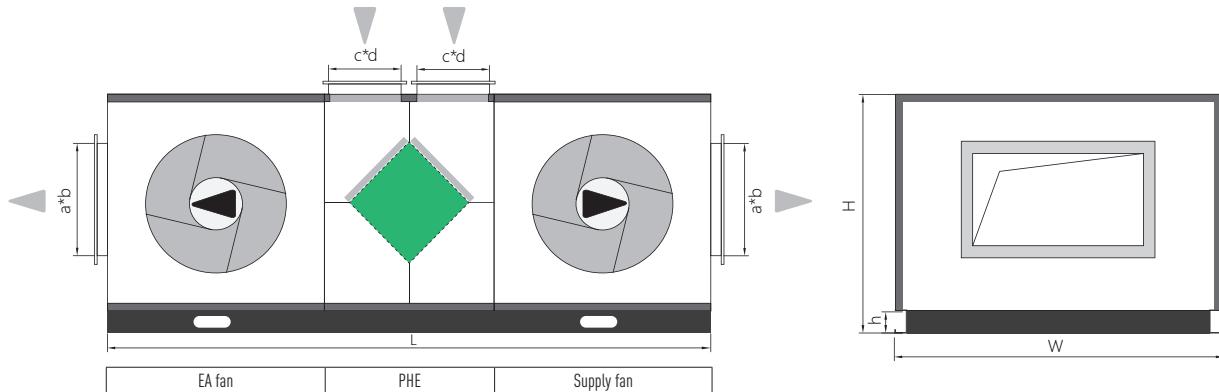


Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	1108	4640	2740	1240	1680	840	475*475	375*775	1394
	1208	4640	2740	1340	1680	840	475*475	375*875	1503
	1209	4640	2740	1340	1880	940	475*475	475*775	1691
	1309	4740	2840	1440	1880	940	575*575	475*875	1798
	1310	4740	2840	1440	2080	1040	575*575	575*775	2006
	1410	4740	2840	1540	2080	1040	575*575	575*875	2160
	1411	4840	2940	1540	2280	1140	575*575	675*875	2129
	1511	4840	2940	1640	2280	1140	575*575	675*875	2227
	1512	4840	2940	1640	2480	1240	675*675	775*875	2430
	1613	4840	2940	1740	2680	1340	675*675	875*875	2592
	1713	4940	3040	1840	2680	1340	775*775	875*975	2754
	1814	4940	3040	1940	2880	1440	775*775	975*975	3141
	1914	4940	3040	2040	2880	1440	775*775	975*975	3264
	1915	5040	3140	2040	3080	1540	775*775	1075*975	3585
	2016	5340	3440	2140	3280	1640	775*775	1175*1075	4026
	2116	5440	3540	2240	3280	1640	875*875	1175*1075	4324
	2117	5440	3540	2240	3480	1740	875*875	1275*1075	4595
	2217	5440	3540	2340	3480	1740	875*875	1275*1175	4814
	2517	5540	3640	2640	3480	1740	975*975	1275*1275	4655
	2717	5540	3640	2840	3480	1740	975*975	1275*1375	5026
50mm series	2719	5890	3990	2890	3980	1990	1075*1075	1525*1375	5830
	2919	5890	3990	3090	3980	1990	1075*1075	1525*1475	6411
	2921	5990	4090	3090	4380	2190	1175*1175	1725*1475	7230
	3122	5990	4090	3290	4580	2290	1175*1175	1825*1575	8178
	3123	5990	4090	3290	4780	2390	1175*1175	1925*1575	8544
	3324	6290	4390	3490	4980	2490	1375*1375	2025*1675	10056
	3525	6290	4390	3690	5180	2590	1375*1375	2125*1675	11101
	3727	6490	4590	3890	5580	2790	1475*1475	2325*1775	13149
	3928	6790	4890	4090	5780	2890	1575*1575	2425*1975	13776

Remarks

- L/W/H should add 50mm when 25 series AHU using 50mm panels.
- L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
- H=100mm
- By-pass damper is optional for transition season.

► Plate Heat Exchanger + Coarse (Medium) Filters Supply Fan



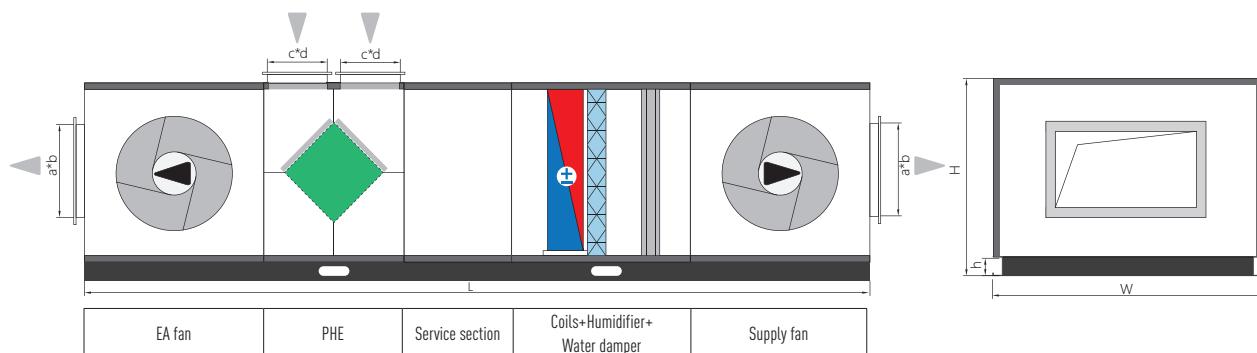
Casing specifications	Dimensions of AHU (mm)			Dimensions of flanges (mm)		Weight (kg)	
	L	W	H	a * b	c * d		
25mm series	0507	1940	740	540	375*375	575*150	178
	0508	1940	840	540	375*375	675*150	203
	0609	2040	940	640	475*475	775*175	289
	0610	2240	1040	640	475*475	875*175	341
	0710	2240	1040	740	475*475	875*175	391
	0811	2640	1140	840	475*475	975*300	549
	0812	2640	1240	840	475*475	1075*300	592
	0912	2640	1240	940	475*475	1075*300	666
	0913	2840	1340	940	575*575	1175*300	741
	1013	2940	1340	1040	575*575	1175*375	856
	1014	2940	1440	1040	575*575	1275*375	922
	1115	3340	1540	1140	575*575	1375*450	1052
	1116	3340	1640	1140	675*675	1475*450	1122
	1117	3340	1740	1140	675*675	1575*450	1191
	1119	3540	1940	1140	775*775	1775*450	1252
	1219	3640	1940	1240	775*775	1775*550	1404
	1419	3640	1940	1440	775*775	1775*550	1638

Remark:

1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. H=100mm



- Plate Heat Exchanger + Coarse (Medium) Filters + Coils (Cooling/Heating) + Humidifier + Supply Fan

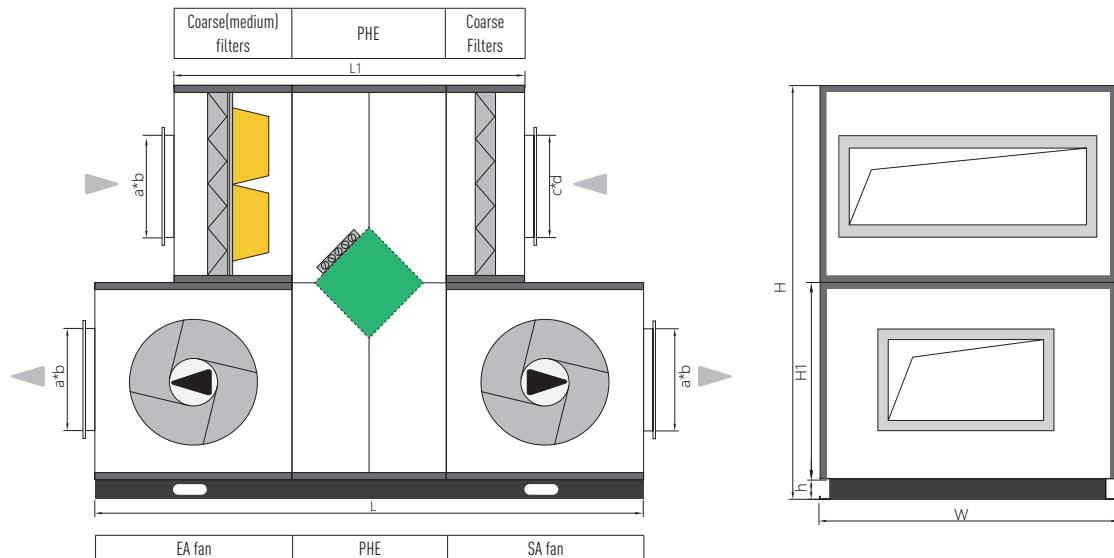


Casing specifications	Dimensions of AHU (mm)			Dimensions of flanges (mm)		Weight (kg)
	L	W	H	a * b	c * d	
25mm series	0507	2540	740	540	375*375	575*150
	0508	2540	840	540	375*375	675*150
	0609	2640	940	640	475*475	775*175
	0610	2840	1040	640	475*475	875*175
	0710	2840	1040	740	475*475	875*175
	0811	3340	1140	840	475*475	975*300
	0812	3340	1240	840	475*475	1075*300
	0912	3340	1240	940	475*475	1075*300
	0913	3540	1340	940	575*575	1175*300
	1013	3640	1340	1040	575*575	1175*375
	1014	3640	1440	1040	575*575	1275*375
	1115	4040	1540	1140	575*575	1375*450
	1116	4040	1640	1140	675*675	1475*450
	1117	4040	1740	1140	675*675	1575*450
	1119	4240	1940	1140	775*775	1775*450
	1219	4340	1940	1240	775*775	1775*550
	1419	4340	1940	1440	775*775	2118

Remarks

1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm

▶ Plate Heat Exchanger + Coarse (Medium) Filters + Supply Fan

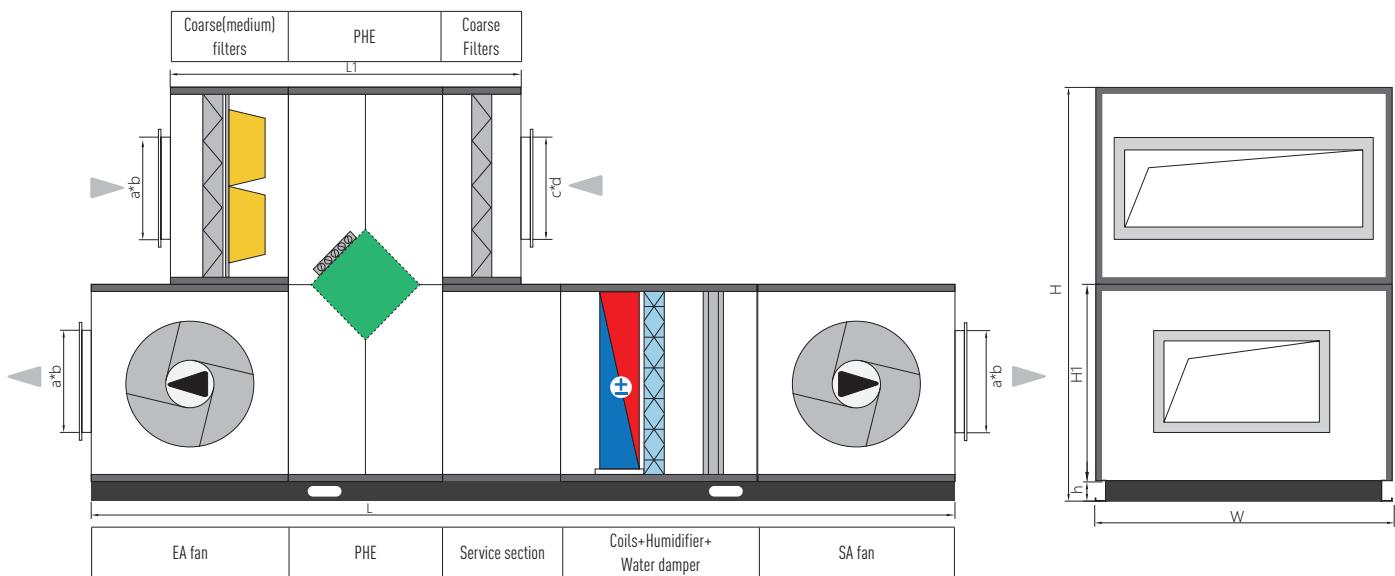


Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	0507	1840	1540	740	1180	540	375*375	575*175	342
	0508	1840	1540	840	1180	540	375*375	675*175	390
	0609	1840	1540	940	1380	640	475*475	775*175	527
	0610	2040	1540	1040	1380	640	475*475	875*175	600
	0710	2140	1640	1040	1580	740	475*475	875*275	726
	0811	2440	1740	1140	1780	840	475*475	975*275	957
	0812	2440	1740	1240	1780	840	475*475	1075*275	1032
	0912	2440	1740	1240	1980	940	475*475	1075*375	1160
	0913	2640	1740	1340	1980	940	575*575	1175*375	1258
	1013	2840	1940	1340	2180	1040	575*575	1175*375	1531
	1014	2840	1940	1440	2180	1040	575*575	1275*375	1649
	1115	3140	2040	1540	2380	1140	575*575	1375*475	1795
	1116	3340	2240	1640	2380	1140	675*675	1475*475	2062
	1117	3340	2240	1740	2380	1140	675*675	1575*475	2189
	1119	3540	2240	1940	2380	1140	775*775	1775*475	2249
	1219	3540	2240	1940	2580	1240	775*775	1775*475	2453
	1419	3540	2240	1940	2980	1440	775*775	1775*575	2862

Remark:

1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. H=100mm

► Plate Heat Exchanger + Coarse (Medium) Filters + Humidifier + Supply Fan

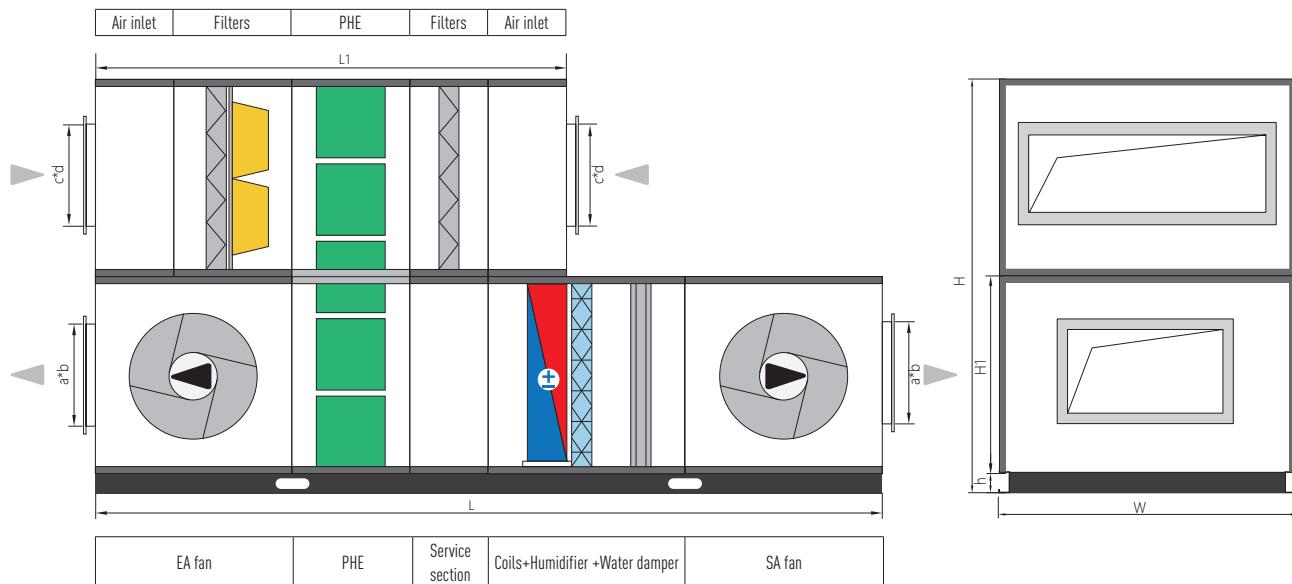


Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	0507	3040	1540	740	1180	540	375*375	575*175	449
	0508	3040	1540	840	1180	540	375*375	675*175	512
	0609	3040	1540	940	1380	640	475*475	775*175	693
	0610	3240	1540	1040	1380	640	475*475	875*175	773
	0710	3340	1640	1040	1580	740	475*475	875*275	940
	0811	3740	1740	1140	1780	840	475*475	975*275	1192
	0812	3740	1740	1240	1780	840	475*475	1075*275	1432
	0912	3740	1740	1240	1980	940	475*475	1075*375	1482
	0913	3940	1740	1340	1980	940	575*575	1175*375	1614
	1013	4140	1940	1340	2180	1040	575*575	1175*375	1919
	1014	4140	1940	1440	2180	1040	575*575	1275*375	2066
	1115	4440	2040	1540	2380	1140	575*575	1375*475	2342
	1116	4640	2240	1640	2380	1140	675*675	1475*475	2651
	1117	4640	2240	1740	2380	1140	675*675	1575*475	2818
	1119	4840	2240	1940	2380	1140	775*775	1775*475	3053
	1219	4840	2240	1940	2580	1240	775*775	1775*475	3329
	1419	4840	2240	1940	2980	1440	775*775	1775*575	3801

Remarks

1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm

▶ Plate Heat Exchanger + Coarse (Medium) Filters + Coils (Heating+Cooling) + Humidifier + Supply Fan

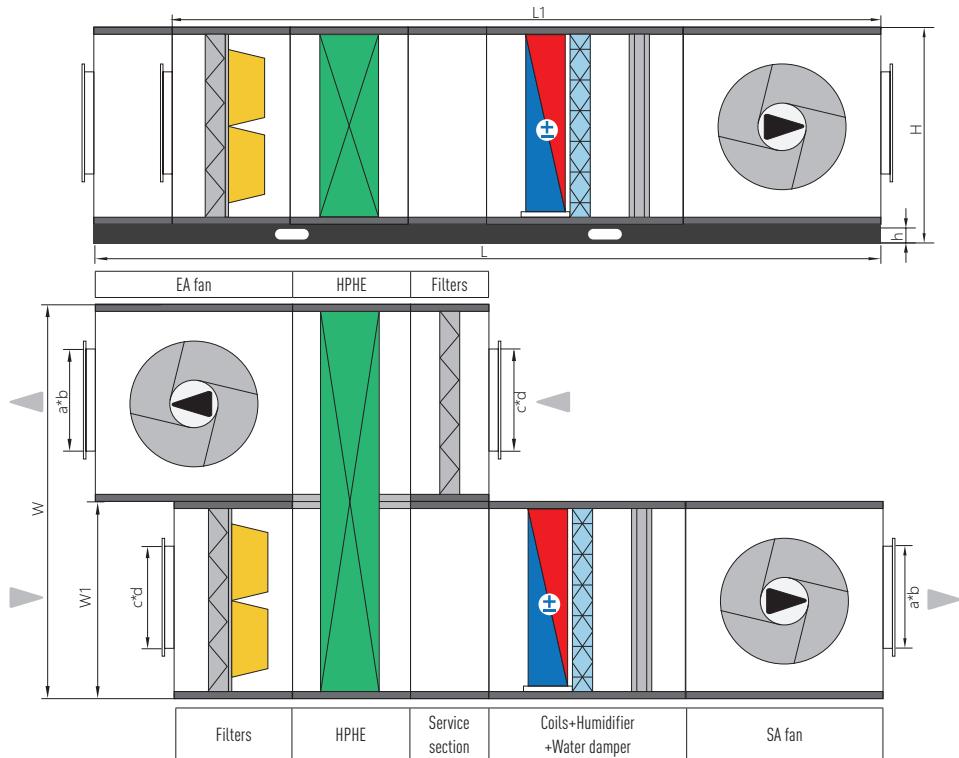


Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)
	L	L1	H	W	W1	a * b	c * d	
25mm series	1421	4340	2140	2140	1440	775*775	1975*575	2557
	1521	4340	2140	2140	1540	775*775	1975*575	2753
	1622	4540	2140	2240	1640	875*875	2075*675	2954
	1625	4740	2140	2540	1640	875*875	2375*675	3094
	1725	4940	2340	2540	1740	975*975	2375*675	3502
	1727	4940	2340	2740	1740	975*975	2575*675	3798
50mm series	1927	5390	2390	2790	1990	1075*1075	2625*775	4435
	1929	5590	2390	2990	1990	1075*1075	2825*775	5026
	2129	5590	2390	2990	2190	1175*1175	2825*875	5381
	2131	5790	2390	3190	2190	1175*1175	3025*875	5679
	2331	5790	2390	3190	2390	1175*1175	3025*975	6239
	2333	6390	2590	3390	2390	1375*1375	3225*975	7348
	2535	6390	2590	3590	2590	1375*1375	3425*1075	8449
	2637	6590	2590	3790	2690	1475*1475	3625*1175	9468
	2839	6990	2590	3990	2890	1575*1575	3825*1175	10547

Remark:

1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm

► Heat Pipe Heat Exchanger + Coarse (Medium) Filters + Coils (Heating+Cooling) + Humidifier + Supply Fan



Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	1108	3540	3240	1240	1680	840	475*475	375*775	1029
	1208	3540	3240	1340	1680	840	475*475	375*875	1109
	1209	3540	3240	1340	1880	940	475*475	475*775	1248
	1309	3740	3340	1440	1880	940	575*575	475*875	1365
	1310	3740	3340	1440	2080	1040	575*575	575*775	1552
	1410	3740	3340	1540	2080	1040	575*575	575*875	1672
	1411	3940	3440	1540	2280	1140	575*575	675*875	1706
	1511	3940	3440	1640	2280	1140	575*575	675*875	1804
	1512	3940	3440	1640	2480	1240	675*675	775*875	2005
	1613	3940	3440	1740	2680	1340	675*675	875*875	2140
	1713	4140	3540	1840	2680	1340	775*775	875*975	2271
	1814	4140	3540	1940	2880	1440	775*775	975*975	2591
	1914	4140	3540	2040	2880	1440	775*775	975*975	2758
	1915	4340	3640	2040	3080	1540	775*775	1075*975	3099
	2016	4340	3940	2140	3280	1640	775*775	1175*1075	3477
	2116	4540	4040	2240	3280	1640	875*875	1175*1075	3812
	2117	4540	4040	2240	3480	1740	875*875	1275*1075	4013
	2217	4540	4040	2340	3480	1740	875*875	1275*1175	4205
	2517	4740	4140	2640	3480	1740	975*975	1275*1275	4042
	2717	4740	4140	2840	3480	1740	975*975	1275*1375	4364
50mm series	2719	5390	4490	2890	3980	1990	1075*1075	1525*1375	5327
	2919	5390	4490	3090	3980	1990	1075*1075	1525*1475	5856
	2921	5590	4590	3090	4380	2190	1175*1175	1725*1475	6705
	3122	5590	4590	3290	4580	2290	1175*1175	1825*1575	7598
	3123	5590	4590	3290	4780	2390	1175*1175	1925*1575	7937
	3324	5990	4790	3490	4980	2490	1375*1375	2025*1675	9450
	3525	5990	4790	3690	5180	2590	1375*1375	2125*1675	10433
	3727	6390	4990	3890	5580	2790	1475*1475	2325*1775	12674
	3928	6990	5290	4090	5780	2890	1575*1575	2425*1975	13731

Remarks

1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm

► Heat Pipe Heat Exchanger + Coarse (Medium) Filters + Mixed Air Section + Coils (Heating /Cooling) + Humidifier + Supply Fan



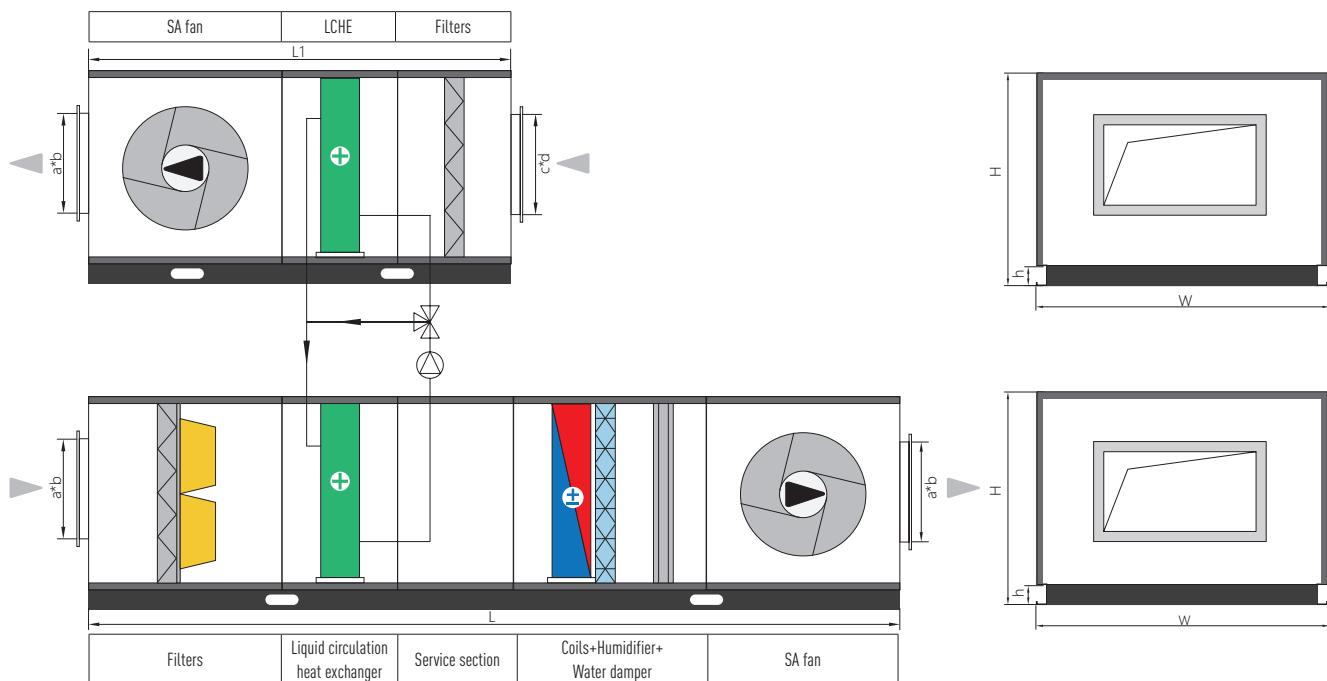
Casing specifications	Dimensions of AHU (mm)					Dimensions of flanges (mm)		Weight (kg)	
	L	L1	H	W	W1	a * b	c * d		
25mm series	1108	4140	3840	1240	1680	840	475*475	375*775	1212
	1208	4140	3840	1340	1680	840	475*475	375*875	1306
	1209	4140	3840	1340	1880	940	475*475	475*775	1469
	1309	4340	3940	1440	1880	940	575*575	475*875	1597
	1310	4340	3940	1440	2080	1040	575*575	575*775	1816
	1410	4340	3940	1540	2080	1040	575*575	575*875	1956
	1411	4540	4040	1540	2280	1140	575*575	675*875	1984
	1511	4540	4040	1640	2280	1140	575*575	675*875	2098
	1512	4540	4040	1640	2480	1240	675*675	775*875	2332
	1613	4540	4040	1740	2680	1340	675*675	875*875	2488
	1713	4740	4140	1840	2680	1340	775*775	875*975	2626
	1814	4740	4140	1940	2880	1440	775*775	975*975	2996
	1914	4740	4140	2040	2880	1440	775*775	975*975	3189
	1915	4940	4240	2040	3080	1540	775*775	1075*975	3566
	2016	4940	4540	2140	3280	1640	775*775	1175*1075	3981
	2116	5140	4640	2240	3280	1640	875*875	1175*1075	4346
	2117	5140	4640	2240	3480	1740	875*875	1275*1075	4575
	2217	5140	4640	2340	3480	1740	875*875	1275*1175	4794
50mm series	2517	5340	4740	2640	3480	1740	975*975	1275*1275	4589
	2717	5340	4740	2840	3480	1740	975*975	1275*1375	4954
	2719	5990	5090	2890	3980	1990	1075*1075	1525*1375	5975
	2919	5990	5090	3090	3980	1990	1075*1075	1525*1475	6568
	2921	6190	5190	3090	4380	2190	1175*1175	1725*1475	7496
	3122	6190	5190	3290	4580	2290	1175*1175	1825*1575	8494
	3123	6190	5190	3290	4780	2390	1175*1175	1925*1575	8873
	3324	6590	5390	3490	4980	2490	1375*1375	2025*1675	10502

Remark:

1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm



► Liquid Circulation Heat Exchanger



Casing specifications	Dimensions of AHU (mm)				Dimensions of flanges (mm)		Weight of exhaust fan unit(kg)	Weight of fresh air fan unit (kg)	
	L	L1	W	H	a * b	c * d			
25mm series	0507	2840	1740	740	640	375*375	575*175	276	183
	0508	2840	1740	840	640	375*375	675*175	315	209
	0609	2840	1740	940	740	475*475	775*175	426	283
	0610	2940	1840	1040	740	475*475	875*175	471	319
	0710	2940	1840	1040	840	475*475	875*275	550	373
	0811	3140	1940	1140	940	475*475	975*275	677	453
	0812	3140	1940	1240	940	475*475	1075*275	814	545
	0912	3140	1940	1240	1040	475*475	1075*375	842	564
	0913	3240	2040	1340	1040	575*575	1175*375	913	575
	1013	3240	2040	1340	1140	575*575	1175*375	1014	638
	1014	3240	2040	1440	1140	575*575	1275*375	1091	687
	1115	3340	2140	1540	1240	575*575	1375*475	1197	767
	1116	3340	2140	1640	1240	675*675	1475*475	1276	818
	1117	3340	2140	1740	1240	675*675	1575*475	1356	869
	1119	3440	2240	1940	1240	775*775	1775*475	1471	958
	1219	3440	2240	1940	1340	775*775	1775*475	1604	1045
	1419	3440	2240	1940	1540	775*775	1775*575	1832	1193
	1421	4440	3240	2140	1540	775*775	1975*575	2057	1570
	1521	4440	3240	2140	1640	775*775	1975*575	2203	1681
	1622	4540	3340	2240	1740	875*875	2075*675	2335	1796
	1625	4640	3440	2540	1740	875*875	2375*675	2419	1875
	1725	4640	3440	2540	1840	975*975	2375*675	2570	1992
	1727	4640	3440	2740	1840	975*975	2575*675	2775	2058
50mm series	1927	4890	3690	2790	2090	1075*1075	2625*775	3173	2395
	1929	4990	3790	2990	2090	1075*1075	2825*775	3559	2703
	2129	4990	3790	2990	2290	1175*1175	2825*875	3801	2887
	2131	5090	3890	3190	2290	1175*1175	3025*875	3984	3045
	2331	5090	3890	3190	2490	1175*1175	3025*975	4165	3335
	2333	5290	4090	3390	2490	1375*1375	3225*975	4623	3745
	2535	5290	4090	3590	2690	1375*1375	3425*1075	5297	4290
	2637	5390	4190	3790	2790	1475*1475	3625*1175	5901	4806
	2839	5590	4390	3990	2990	1575*1575	3825*1175	6398	5264

Remarks

1. L/W/H should add 50mm when 25 series AHU using 50mm panels.
2. L refer to the unit length of AHU use wet-film humidifier. L should be recalculated with other type of humidifier. Other type of humidifier, please refer to introduction part of humidifier.
3. H=100mm

► Fresh Air Cooling Conditions

Casing specifications	Rated airflow (m³/h)	4 rows				6 rows				8 rows			
		Cooling capacity (Kw)	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/ outlet specifications	Cooling capacity (Kw)	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/ outlet specifications	Cooling capacity (Kw)	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/ outlet specifications
0507	1890	20	0.93	7	DN32	23	1.1	5.1	DN40	28	1.36	11	DN40
0508	2250	25	1.2	11.8	DN40	29	1.4	8.8	DN50	33	1.6	6.4	DN50
0609	3263	37	1.8	18.6	DN50	44	2.1	12.4	DN50	49	2.3	10.2	DN65
0610	3713	43	2	25.3	DN50	50	2.4	18	DN65	57	2.7	13.7	DN65
0710	4455	51	2.5	28.2	DN65	60	2.9	18	DN65	68	3.3	13.8	DN65
0811	5115	59	2.8	17.4	DN65	78	3.7	35.5	DN65	86	4.1	25	DN65
0812	5687	67	3.2	22.2	DN65	87	4.2	45	DN65	91	4.4	11.3	DN65
0912	6824	81	3.9	22.2	DN65	97	4.6	16.9	DN80	110	5.2	12.6	DN80
0913	7510	90	4.3	27.6	DN65	110	5.2	21.3	DN80	123	5.9	15.7	DN80
1013	8024	96	4.6	26.9	DN65	117	5.6	20.7	DN80	131	6.3	15.3	DN80
1014	8767	106	5.1	36.3	DN80	130	6.2	25.5	DN80	144	6.9	18.6	DN80
1115	10973	115	5.5	7.3	DN80	165	7.9	30.8	DN80	182	8.7	22.3	DN80
1116	11831	127	6.1	8.8	DN80	179	8.6	36.6	DN80	198	9.5	26.4	DN80
1117	12688	140	6.7	10.5	DN80	194	9.3	43	DN80	214	10.2	31	DN80
1119	14402	163	7.8	14.3	DN80	223	10.6	57.2	DN80	238	9.5	28.2	DN80
1219	16323	185	8.8	14.3	DN80	243	9.7	38.9	DN80	270	10.7	28.2	DN80
1419	18080	203	9.7	13.8	DN80*2	245	11.9	9.5	DN80*2	307	14.6	40	DN80*2
1421	20252	234	11.2	18.2	DN80*2	282	13.5	17	DN80*2	319	15.2	9.3	DN80*2
1521	22383	260	12.4	18.5	DN80*2	337	13.4	49.7	DN80*2	374	14.9	36	DN80*2
1622	24706	290	13.9	20.9	DN80*2	360	12.3	40	DN80*2	415	16.5	40.7	DN80*2
1625	28478	341	16.3	28.8	DN80*2	407	12.2	41.8	DN80*2	470	16	41	DN80*2
1725	31067	372	17.7	28.8	DN80*2	444	13.3	41.8	DN80*2	513	17.5	41	DN80*2
1727	33810	408	19.4	34.8	DN80*2	489	14.6	51.3	DN80*2	564	19.2	50	DN80*2
1927	38037	440	17.5	23.5	DN80*2	550	16.4	51.3	DN80*2	613	18.3	37.5	DN80*2
1929	41123	480	19.1	28.1	DN80*2	578	15.4	47.3	DN80*2	669	20	45.3	DN80*2
2129	45692	533	21.2	28.1	DN80*2	642	17.1	47.3	DN80*2	719	19.1	34.8	DN80*2
2131	49121	553	18.8	23.5	DN80*2	697	18.5	56.5	DN80*2	780	20.7	41.6	DN80*2
2331	54033	608	20.8	23.5	DN80*2	767	20.4	56.5	DN80*2	829	19.8	32.6	DN80*2
2333	57805	623	18.6	20	DN80*2	798	19	52	DN80*2	895	21.2	40.8	DN80*2
2535	67175	700	18.5	16.7	DN80*2	907	19.7	46.7	DN80*2	1058	25.3	46.1	DN80*2
2637	75250	788	21	20.1	DN80*2	1017	22.1	59.2	DN80*2	1211	28.9	59.1	DN80*2
2839	85877	848	28.5	17.8	DN80*2	1115	22.2	56.3	DN80*2	1308	28.4	52.4	DN80*2
1108	5187	53	2.5	6.3	DN65	72	3.4	13.7	DN65	81	3.9	10.3	DN65
1208	5878	60	2.9	6.3	DN65	81	3.9	13.7	DN65	92	4.4	10	DN65
1209	6850	73	3.5	9.4	DN65	95	4.5	6.6	DN65	117	5.6	16	DN80
1309	7253	78	3.7	9.4	DN65	109	5.2	9.6	DN65	124	5.9	7.3	DN80
1310	8127	90	4.3	12.5	DN65	121	5.8	9.6	DN80	138	6.6	7.3	DN80
1410	9030	100	4.8	14	DN80	140	6.2	12.8	DN80	159	7.6	9.6	DN80
1411	10173	116	5.6	18.7	DN80	140	6.7	12.8	DN80	159	7.6	9.6	DN80
1511	10682	122	5.9	16.7	DN65*2	147	7.1	11.5	DN65*2	166	8	8.6	DN65*2
1512	11882	139	6.7	21.6	DN65*2	168	8	14.8	DN65*2	189	9	12.2	DN80*2
1613	13705	163	7.8	26.9	DN65*2	198	9.4	20.7	DN80*2	222	10.6	15.3	DN80*2
1713	14951	177	8.5	26.9	DN65*2	216	10.3	20.7	DN80*2	242	11.5	15.3	DN80*2
1814	17003	204	9.8	36.3	DN80*2	250	11.9	25.5	DN80*2	277	13.3	18.6	DN80*2
1914	18131	216	10.4	35.3	DN80*2	266	12.7	24.8	DN80*2	297	14.2	18.2	DN80*2
1915	19674	237	11.3	42.1	DN80*2	293	13.9	30	DN80*2	324	15.4	21.7	DN80*2
2016	22003	259	10.3	34.4	DN80*2	331	15.8	35.7	DN80*2	366	17.5	25.8	DN80*2
2116	23575	275	10.9	34	DN80*2	354	16.9	35.7	DN80*2	392	18.7	25.8	DN80*2
2117	25289	297	11.8	39.7	DN80*2	383	18.3	42	DN80*2	424	20.2	30.3	DN80*2
2217	26975	317	12.6	39.7	DN80*2	409	19.5	42	DN80*2	452	21.6	30.3	DN80*2
2517	30347	365	14.2	39.7	DN80*2	440	17.5	28.2	DN80*2	490	19.5	20.6	DN80*2
2717	32876	386	15.4	39.7	DN80*2	476	18.9	28.2	DN80*2	511	17.4	14.7	DN80*2
2719	37334	427	14.6	37.9	DN80*2	527	18	26.9	DN80*2	593	20.3	20	DN80*2
2919	40206	452	21.6	14	DN80*3	594	23.6	38	DN80*3	659	26.2	27.6	DN80*3
2921	45006	521	25	18.5	DN80*3	674	26.8	49.7	DN80*3	748	29.8	36	DN80*3
3122	50793	594	28.3	20.9	DN80*3	737	25.1	40	DN80*3	820	28	29.2	DN80*3
3123	53364	629	30	23.4	DN80*3	780	26.6	45.2	DN80*3	867	29.6	32.9	DN80*3
3324	59665	668	26.6	17.1	DN80*3	877	30	50.5	DN80*3	942	28.2	27.4	DN80*3
3525	66309	702	24	13	DN80*3	944	28.2	41.8	DN80*3	1053	31.4	30.6	DN80*3
3727	76381	773	23.1	11.4	DN80*3	1058	28.1	39	DN80*3	1186	31.5	28.8	DN80*3
3928	85354	873	26.1	12.6	DN80*3	1138	27.2	33.2	DN80*3	1285	30.7	24.8	DN80*3

Remark:

1. Chilled water inlet and outlet temperature 7°C/12°C, with coil face velocity 2.5m/s.

2. Air inlet DB/WB temperature 35°C/28°C.

3. The above sheet are for the coil performance, performance data of AHU should be subject to AHU selection report.



HOLTOP

Coil Performance

► Return Air Cooling Conditions

Casing specifications	Rated airflow (m³/h)	4 rows				6 rows				8 rows			
		Cooling capacity (Kw)	water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/ outlet specifications	Cooling capacity (Kw)	water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/ outlet specifications	Cooling capacity (Kw)	water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/ outlet specifications
0507	1890	9	0.43	10.3	DN32	10	0.49	6.3	DN32	12	1.36	8.9	DN32
0508	2250	10	0.49	6.2	DN32	13	0.61	9.8	DN32	14	1.6	7.3	DN32
0609	3263	16	0.75	8.8	DN32	18	0.85	6	DN32	22	2.3	10.9	DN40
0610	3713	18	0.88	12.2	DN32	21	0.8	8.3	DN32	24	2.7	6.4	DN40
0710	4455	22	1.1	14.4	DN40	25	1.21	8.8	DN40	28	3.3	6.5	DN40
0811	5115	26	1.23	8.2	DN40	31	1.5	6.44	DN50	36	4.1	10.6	DN50
0812	5687	29	1.4	11.5	DN50	35	1.7	8.3	DN50	41	4.4	13.7	DN50
0912	6824	36	1.7	12.8	DN50	42	2	8.3	DN50	49	5.2	14.6	DN65
0913	7510	40	1.9	16.2	DN50	47	2.23	10.5	DN65	52	5.9	8.26	DN65
1013	8024	42	2	14.5	DN50	50	2.4	11	DN65	55	6.3	7.85	DN65
1014	8767	47	2.25	18.1	DN50	56	2.7	13.7	DN65	62	6.9	9.75	DN65
1115	10973	55	2.6	8.32	DN65	71	3.4	16.7	DN65	78	8.7	12	DN65
1116	11831	61	2.9	10.1	DN65	71	3.4	6.6	DN65	86	9.5	14.6	DN65
1117	12688	66	3.2	12.1	DN65	77	3.7	7.84	DN65	93	10.2	17.3	DN65
1119	14402	77	3.7	16.5	DN65	90	4.3	10.7	DN65	100	9.5	8.5	DN80
1219	16323	87	4.2	16.5	DN65	102	4.9	11.7	DN80	113	10.7	8.5	DN80
1419	18080	95	4.56	15.9	DN65*2	112	5.3	10.3	DN65*2	124	14.6	7.5	DN65*2
1421	20252	112	5.3	22.1	DN65*2	128	6.1	13.7	DN65*2	142	15.2	9.9	DN65*2
1521	22383	125	6	22.4	DN65*2	142	6.8	13.9	DN65*2	158	14.9	10.1	DN65*2
1622	24706	139	6.6	25.5	DN65*2	159	7.6	15.8	DN65*2	176	16.5	11.5	DN65*2
1625	28478	163	7.8	35.9	DN65*2	198	9.4	26.8	DN80*2	208	16	17.8	DN80*2
1725	31067	178	8.5	35.9	DN65*2	216	10.3	26.8	DN80*2	227	17.5	17.8	DN80*2
1727	33810	195	9.3	47.4	DN80*2	238	11.4	33	DN80*2	251	19.2	21.9	DN80*2
1927	38037	220	10.4	47.4	DN80*2	268	12.8	33	DN80*2	282	18.3	21.9	DN80*2
1929	41123	238	11.4	56.7	DN80*2	293	13.9	39.9	DN80*2	311	20	26.9	DN80*2
2129	45692	264	12.6	56.7	DN80*2	325	15.5	39.9	DN80*2	345	19.1	26.9	DN80*2
2131	49121	272	10.8	44.9	DN80*2	352	16.8	47.6	DN80*2	374	20.7	32	DN80*2
2331	54033	299	11.9	44.9	DN80*2	387	18.5	47.6	DN80*2	412	19.8	32	DN80*2
2333	57805	322	12.8	52.7	DN80*2	417	20	56	DN80*2	444	21.2	40	DN80*2
2535	67175	357	12.2	42.8	DN80*2	463	18.5	43.5	DN80*2	491	25.3	29.1	DN80*2
2637	75250	402	13.7	49.5	DN80*2	523	20.8	50.5	DN80*2	554	28.9	35.7	DN80*2
2839	85877	455	15.5	58	DN80*2	564	19.2	41.5	DN80*2	595	28.4	27.6	DN80*3
1108	5187	25	1.2	6.6	DN40	31	1.5	10.4	DN50	36	1.7	12.8	DN50
1208	5878	28	1.3	6.7	DN40	35	1.7	9.8	DN50	41	2	12.4	DN50
1209	6850	34	1.6	10.7	DN50	41	1.9	7.6	DN50	48	2.3	11.1	DN50
1309	7253	37	1.8	12.1	DN50	43	2.1	7.9	DN50	50	2.4	11.4	DN65
1310	8127	39	1.9	7	DN50	50	2.4	11.3	DN65	56	2.7	8.3	DN65
1410	9030	44	2.1	6.8	DN50	56	2.6	11.3	DN65	62	3	8.3	DN65
1411	10173	51	2.4	10	DN65	60	2.9	6.8	DN65	71	3.4	11	DN65
1511	10682	53	2.5	8.3	DN40*2	67	3.2	14	DN50*2	74	3.5	10	DN50*2
1512	11882	61	2.9	11.8	DN50*2	72	3.4	8.1	DN50*2	85	4	13.2	DN50*2
1613	13705	72	3.4	15	DN50*2	85	4	10.2	DN50*2	93	4.5	7.1	DN65*2
1713	14951	79	3.76	15.8	DN50*2	92	4.4	10.2	DN50*2	102	4.9	8	DN65*2
1814	17003	83	3.9	6.1	DN50*2	106	5.1	13.7	DN65*2	119	5.6	9.9	DN65*2
1914	18131	87	4.2	5.9	DN50*2	114	5.4	13.3	DN65*2	126	6	9.4	DN65*2
1915	19674	98	4.6	8.1	DN65*2	125	6	16.2	DN65*2	139	6.6	11.4	DN65*2
2016	22003	111	5.3	9.8	DN65*2	131	6.3	6.4	DN65*2	157	7.5	13.7	DN65*2
2116	23575	119	5.7	9.8	DN65*2	140	6.7	6.4	DN65*2	169	8.1	14.2	DN65*2
2117	25289	130	6.2	11.7	DN65*2	153	7.3	7.6	DN65*2	184	8.8	16.9	DN65*2
2217	26975	139	6.6	11.7	DN65*2	163	7.8	7.6	DN65*2	195	9.3	18	DN80*2
2517	30347	156	7.5	11.7	DN65*2	183	8.8	7.6	DN65*2	220	10.5	18.2	DN80*2
2717	32876	169	8	11.7	DN65*2	199	9.5	8.4	DN80*2	238	11.3	18	DN80*2
2719	37334	197	9.4	17.7	DN80*2	232	11.1	11.5	DN80*2	257	12.3	8.3	DN80*2
2919	40206	213	10.2	16.1	DN65*3	249	11.9	10.5	DN65*3	276	13.2	7.6	DN65*3
2921	45006	250	11.9	22.4	DN65*3	285	13.6	13.9	DN65*3	316	15.1	11	DN80*3
3122	50793	285	13.6	25.5	DN65*3	325	15.5	17.2	DN80*3	361	17.2	12.5	DN80*3
3123	53364	301	14.4	31.3	DN80*3	344	16.4	19.4	DN80*3	382	18.3	14.1	DN80*3
3324	59665	339	16.2	35	DN80*3	409	19.5	24	DN80*3	431	20.6	15.9	DN80*3
3525	66309	378	18	38.9	DN80*3	458	21.9	26.8	DN80*3	483	23.1	17.8	DN80*3
3727	76381	439	20.9	47.4	DN80*3	535	25.5	33	DN80*3	565	27	21.9	DN80*3
3928	85354	491	23.5	51.9	DN80*3	601	28.7	36.4	DN80*3	635	30.4	24.2	DN80*3

Remarks

- Chilled water inlet and outlet temperature 7°C/12°C, with coil face velocity 2.5m/s
- Air inlet DB/WB temperature 27°C/19.5°C.
- The above sheet are for the coil performance, performance data of AHU should be subject to AHU selection report.

► Fresh Air Heating Condition

Casing specifications	Rated airflow [m³/h]	2 rows				4 rows				6 rows			
		Cooling capacity [Kw]	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/outlet specifications	Cooling capacity [Kw]	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/outlet specifications	Cooling capacity [Kw]	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/outlet specifications
0507	1890	13	0.3	7.3	DN32	20	0.48	5.7	DN32	22	0.53	7.4	DN32
0508	2250	15	0.35	4.5	DN32	25	0.6	8.7	DN32	26	0.62	5	DN32
0609	3263	22	0.52	6.4	DN32	34	0.8	4.2	DN32	38	0.93	6.9	DN32
0610	3713	25	0.6	8.6	DN32	40	0.96	5.7	DN32	44	1.1	9.8	DN32
0710	4455	30	0.7	8.6	DN32	48	1.2	6.2	DN40	53	1.3	9.8	DN40
0811	5115	35	0.8	5.4	DN32	54	1.3	9.1	DN40	65	1.6	7.4	DN50
0812	5687	40	1	6.9	DN32	60	1.4	12.4	DN50	73	1.8	9.3	DN50
0912	6824	48	1.1	7.4	DN40	73	1.7	13.7	DN50	88	2.1	9.3	DN50
0913	7510	53	1.3	9.3	DN40	77	1.9	5.9	DN50	97	2.3	12.4	DN65
1013	8024	57	1.4	9.1	DN40	83	2	5.7	DN50	104	2.5	12.1	DN65
1014	8767	63	1.5	12.2	DN50	91	2.2	7	DN50	114	2.7	14.7	DN65
1115	10973	79	1.9	14.7	DN50	115	2.8	9.3	DN65	139	3.3	6.3	DN65
1116	11831	85	2	17.2	DN50	125	3	11	DN65	150	3.6	7.5	DN65
1117	12688	92	2.2	20.4	DN50	135	3.2	12.9	DN65	162	3.9	8.8	DN65
1119	14402	97	2.3	5.2	DN65	155	3.7	17.3	DN65	186	4.5	11.6	DN65
1219	16323	110	2.6	5.2	DN65	176	4.2	17.3	DN65	211	5	12.7	DN80
1419	18080	121	2.9	4.4	DN50*2	193	4.6	16.7	DN65*2	232	5.5	11.3	DN65*2
1421	20252	138	3.32	5.8	DN50*2	231	5.5	21.8	DN65*2	277	6.6	14.8	DN65*2
1521	22383	154	3.7	5.9	DN50*2	242	5.8	21.8	DN65*2	291	7	14.8	DN65*2
1622	24706	171	4.1	6.7	DN50*2	271	6.5	25	DN65*2	323	7.7	16.7	DN65*2
1625	28478	202	4.8	10.5	DN65*2	293	7	6	DN65*2	374	9	23.1	DN80*2
1725	31067	220	5.3	10.5	DN65*2	319	7.7	6	DN65*2	409	9.8	25	DN80*2
1727	33810	242	5.8	12.8	DN65*2	351	8.4	7.3	DN65*2	447	10.7	30.4	DN80*2
1927	38037	272	6.5	12.8	DN65*2	395	9.5	8.2	DN80*2	503	12	30.4	DN80*2
1929	41123	293	7	15.1	DN65*2	430	10.4	9.8	DN80*2	545	13.1	36.3	DN80*2
2129	45692	326	7.8	15.1	DN65*2	479	11.5	9.8	DN80*2	606	14.5	36.3	DN80*2
2131	49121	354	8.5	17.9	DN65*2	519	12.4	11.6	DN80*2	654	15.7	43	DN80*2
2331	54033	390	9.3	20	DN80*2	571	13.6	11.6	DN80*2	719	17.3	43	DN80*2
2333	57805	421	10.1	23.5	DN80*2	615	14.7	13.5	DN80*2	772	18.5	50.3	DN80*2
2535	67175	493	11.8	27.2	DN80*2	719	17.2	15.7	DN80*2	889	19.4	48.4	DN80*2
2637	75250	555	13.3	31.2	DN80*2	811	19.4	18	DN80*2	999	21.8	58.7	DN80*2
2839	85877	629	15.1	36.3	DN80*2	908	19.7	17.3	DN80*2	1125	22.5	58.4	DN80*2
1108	5187	35	0.8	6.5	DN32	53	1.3	7.7	DN40	66	1.6	11.6	DN50
1208	5878	40	1	5.8	DN32	60	1.4	8.4	DN50	74	1.8	11	DN50
1209	6850	47	1.1	8.8	DN40	69	1.7	5.9	DN50	86	2.1	8.7	DN50
1309	7253	51	1.2	9.8	DN40	74	1.8	6.1	DN50	92	2.2	9	DN50
1310	8127	54	1.3	4.2	DN40	84	2	7.9	DN50	104	2.5	12.4	DN65
1410	9030	60	1.4	4.7	DN50	93	2.2	7.7	DN50	115	2.8	12.4	DN65
1411	10173	69	1.7	6.2	DN50	106	2.5	11	DN65	128	3.1	7.7	DN65
1511	10682	73	1.7	5.2	DN32*2	111	2.7	9.9	DN50*2	134	3.2	7.1	DN50*2
1512	11882	82	1.9	7.2	DN40*2	125	3	12.7	DN50*2	151	3.6	9	DN50*2
1613	13705	96	2.3	9	DN40*2	140	3.3	5.7	DN50*2	175	4.2	11.2	DN50*2
1713	14951	105	2.5	9	DN40*2	152	3.7	5.7	DN50*2	191	4.6	12.1	DN65*2
1814	17003	121	2.9	12.2	DN50*2	175	4.2	7	DN50*2	219	5.2	14.7	DN65*2
1914	18131	128	3.1	11.9	DN50*2	187	4.5	7.5	DN65*2	233	5.6	14.3	DN65*2
1915	19674	141	3.4	14.3	DN50*2	204	4.9	9	DN65*2	247	5.9	6.2	DN65*2
2016	22003	157	3.8	16.7	DN50*2	231	5.5	10.7	DN65*2	278	6.7	7.3	DN65*2
2116	23575	168	4	16.7	DN50*2	247	5.9	10.7	DN65*2	297	7.1	7.3	DN65*2
2117	25289	183	4.4	19.9	DN50*2	267	6.4	12.6	DN65*2	321	7.7	8.6	DN65*2
2217	26975	195	4.7	21.8	DN65*2	285	6.8	12.6	DN65*2	342	8.2	8.6	DN65*2
2517	30347	219	5.3	21.8	DN65*2	320	7.7	12.6	DN65*2	385	9.2	9.4	DN80*2
2717	32876	238	5.7	21.8	DN65*2	347	8.4	12.6	DN65*2	417	10	9.4	DN80*2
2719	37334	273	6.6	29.4	DN65*2	399	9.6	18.5	DN80*2	478	11.5	12.5	DN80*2
2919	40206	295	7.1	29.4	DN65*3	430	10.3	16.9	DN65*3	515	12.3	11.4	DN65*3
2921	45006	333	8	38	DN65*3	484	11.6	21.8	DN65*3	582	13.9	16.1	DN80*3
3122	50793	376	9	42.7	DN65*3	554	13.3	25	DN65*3	660	15.8	18.2	DN80*3
3123	53364	396	9.5	47.8	DN65*3	590	14.1	31	DN80*3	696	16.7	20.3	DN80*3
3324	59665	438	9.5	44	DN65*3	668	16	35.1	DN80*3	781	18.7	22.7	DN80*3
3525	66309	488	10.6	48.7	DN65*3	751	18	39.5	DN80*3	868	20.8	25	DN80*3
3727	76381	556	11.1	49.6	DN65*3	883	21.1	49.2	DN80*3	1005	24.1	30.4	DN80*3
3928	85354	614	11.3	46.1	DN65*3	995	23.8	54.6	DN80*3	1125	27	33.3	DN80*3

Remark:

1. Hot water inlet and outlet temperature 60°C/50°C, with coil face velocity 2.5m/s.

2. Air inlet DB temperature 7°C

3. The above sheet are for the coil performance, performance data of AHU should be subject to AHU selection report.



HOLTOP

Coil Performance

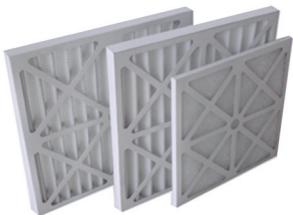
► Return Air Heating Conditions

Casing specifications	Rated airflow (m³/h)	2 rows				4 rows				6 rows			
		Cooling capacity (Kw)	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/outlet specifications	Cooling capacity (Kw)	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/outlet specifications	Cooling capacity (Kw)	Water flow rate (Kg/s)	Water pressure drop (kPa)	Water inlet/outlet specifications
0507	1890	10	0.24	5.1	DN32	17	0.42	9.8	DN32	19	0.45	9.2	DN32
0508	2250	13	0.3	7.7	DN32	20	0.48	6.1	DN32	22	0.54	7.9	DN32
0609	3263	18	0.4	4.5	DN32	30	0.72	8.4	DN32	33	0.79	11	DN32
0610	3713	21	0.5	6.1	DN32	33	0.78	4	DN32	37	0.88	6.7	DN32
0710	4455	25	0.6	6.1	DN32	39	0.9	4	DN32	44	1	7.1	DN32
0811	5115	30	0.7	10.7	DN32	44	1.1	6.5	DN40	56	1.3	10.7	DN40
0812	5687	32	0.8	4.8	DN32	50	1.2	8.3	DN40	61	1.5	6.7	DN50
0912	6824	39	0.9	4.8	DN32	60	1.4	9.8	DN50	73	1.7	6.7	DN50
0913	7510	43	1	6.5	DN40	67	1.6	12.2	DN50	81	1.9	8.4	DN50
1013	8024	46	1.1	6.4	DN40	71	1.7	11.1	DN50	86	2.1	8.1	DN50
1014	8767	52	1.2	7.9	DN40	79	1.9	13.6	DN50	95	2.3	10.8	DN65
1115	10973	65	1.6	10.5	DN50	95	2.3	6.6	DN65	120	2.9	12.9	DN65
1116	11831	71	1.7	12.5	DN50	104	2.5	7.9	DN65	130	3.1	15.4	DN65
1117	12688	77	1.8	14.8	DN50	112	2.7	9.3	DN65	136	3.2	6.4	DN65
1119	14402	88	2.1	19.6	DN50	129	3.1	12.5	DN65	155	3.7	8.5	DN65
1219	16323	99	2.4	22.3	DN65	146	3.5	12.5	DN65	176	4.2	8.5	DN65
1419	18080	109	2.61	18.8	DN50*2	160	3.84	11	DN50*2	194	4.64	8.2	DN65*2
1421	20252	112	2.7	4.1	DN50*2	182	4.4	15.7	DN65*2	219	5.24	10.7	DN65*2
1521	22383	126	3.01	4.12	DN50*2	202	4.8	15.9	DN65*2	244	5.9	10.8	DN65*2
1622	24706	140	3.4	4.7	DN50*2	224	5.4	18	DN65*2	270	6.5	12.2	DN65*2
1625	28478	165	4	6.6	DN50*2	262	6.3	25.2	DN65*2	314	7.5	17	DN65*2
1725	31067	180	4.3	6.6	DN50*2	286	6.9	25.2	DN65*2	343	8.2	17	DN65*2
1727	33810	199	4.8	9.1	DN65*2	319	7.6	31.7	DN65*2	376	9	20.8	DN65*2
1927	38037	224	5.4	9.1	DN65*2	326	7.9	5.3	DN65*2	423	10.2	22.4	DN80*2
1929	41123	245	5.8	10.9	DN65*2	357	8.5	6.3	DN65*2	459	11	26.8	DN80*2
2129	45692	271	6.5	10.9	DN65*2	396	9.5	7	DN80*2	509	12.2	26.8	DN80*2
2131	49121	295	7.1	13	DN65*2	430	10.3	8.3	DN80*2	549	13.2	31.7	DN80*2
2331	54033	324	7.8	13	DN65*2	472	11.3	8.3	DN80*2	604	14.5	31.7	DN80*2
2333	57805	350	8.4	15.2	DN65*2	510	12.2	9.7	DN80*2	649	15.5	37.1	DN80*2
2535	67175	409	9.8	18.7	DN80*2	602	14.4	10.9	DN80*2	760	18.3	41.4	DN80*2
2637	75250	459	11	22.3	DN80*2	673	16.1	13	DN80*2	850	20.4	49.6	DN80*2
2839	85877	522	12.5	26.2	DN80*2	767	18.4	15.3	DN80*2	956	20.8	48.6	DN80*2
1108	5187	30	0.7	9	DN32	46	1.1	19.3	DN40	55	1.3	8	DN40
1208	5878	34	0.8	9.2	DN32	52	1.3	17.2	DN40	63	1.5	13.8	DN50
1209	6850	39	0.9	5.8	DN32	59	1.4	8.5	DN50	73	1.8	11.2	DN50
1309	7253	41	1	6.5	DN32	63	1.5	9.5	DN50	78	1.9	11.5	DN50
1310	8127	47	1.1	9.1	DN40	72	1.7	12.3	DN50	87	2.1	8.4	DN50
1410	9030	52	1.3	8.2	DN40	80	1.9	12.3	DN50	96	2.3	9.1	DN65
1411	10173	60	1.4	11.8	DN50	88	2.1	7.3	DN50	110	2.6	11.8	DN65
1511	10682	63	1.6	10.3	DN32*2	92	2.2	6.6	DN40*2	115	2.7	10.4	DN40*2
1512	11882	67	1.6	4.7	DN32*2	103	2.5	8.5	DN40*2	126	3	6.6	DN50*2
1613	13705	79	1.9	6	DN32*2	121	2.9	11.4	DN50*2	146	3.5	8.2	DN50*2
1713	14951	86	2.1	6.4	DN40*2	132	3.2	11.9	DN50*2	160	3.8	8.2	DN50*2
1814	17003	99	2.3	7.9	DN40*2	152	3.7	14.7	DN50*2	183	4.4	10.8	DN50*2
1914	18131	106	2.5	7.7	DN40*2	162	3.9	13.8	DN50*2	195	4.7	10.5	DN65*2
1915	19674	116	2.7	10.2	DN50*2	169	4.1	5.9	DN50*2	214	5.2	12.6	DN65*2
2016	22003	131	3.1	12.2	DN50*2	191	4.6	7.7	DN65*2	240	5.8	15	DN65*2
2116	23575	140	3.4	12.2	DN50*2	204	4.9	7.7	DN65*2	257	6.2	15	DN65*2
2117	25289	152	3.6	14.4	DN50*2	221	5.3	9.1	DN65*2	268	6.4	6.2	DN65*2
2217	26975	162	3.9	14.4	DN50*2	236	5.7	9.1	DN65*2	286	6.8	6.2	DN65*2
2517	30347	182	4.4	14.4	DN50*2	265	6.4	9.1	DN65*2	322	7.7	6.2	DN65*2
2717	32876	197	4.7	15.8	DN65*2	287	6.9	9.1	DN65*2	349	8.4	6.2	DN65*2
2719	37334	225	5.4	20.9	DN65*2	331	8	12.2	DN65*2	400	9.6	9.1	DN80*2
2919	40206	243	5.8	19.1	DN50*3	357	8.5	12.2	DN65*3	431	10.3	7.3	DN65*3
2921	45006	251	6	4.1	DN50*3	404	9.7	15.9	DN65*3	487	11.7	10.8	DN65*3
3122	50793	287	6.9	5.3	DN65*3	459	11	18	DN65*3	552	13.2	12.2	DN65*3
3123	53364	304	7.3	6	DN65*3	485	11.6	20.2	DN65*3	582	13.9	14.9	DN80*3
3324	59665	342	8.2	6.7	DN65*3	540	12.9	22.3	DN65*3	653	15.7	16.6	DN80*3
3525	66309	383	9.2	7.4	DN65*3	608	14.6	27.3	DN80*3	729	17.5	18.4	DN80*3
3727	76381	447	10.7	9.1	DN65*3	717	17.2	34.2	DN80*3	845	20.2	22.4	DN80*3
3928	85354	502	12.1	10	DN65*3	809	19.4	38	DN80*3	946	22.6	24.5	DN80*3

Remarks

- Hot water inlet and outlet temperature 60°C/50°C, with coil face velocity 2.5m/s.
- Air inlet DB temperature 15°C.
- The above sheet are for the coil performance, performance data of AHU should be subject to AHU selection report.

► Coarse Filter



Filtration Class	G2-G4
Application	Applied in general requirement of primary air filtration or as prefilter for higher filtration requirement, primary filter can not only meet indoor cleanliness requirement but also keep the high efficiency of heat recovery section and cooling/heating coils section.
Materials	Washable "W" layout non-woven fabrics in PVC or aluminum frame.
Optional Configurations	Differential pressure gauge or differential pressure switch. Filter resistance can be monitored by the differential pressure gauge or differential pressure switch to remind user to maintenance or replacement filter.

► Medium Filter



Filtration Class	F5-F9												
Application	Applied in general requirement of final air filtration as coarse filter or as the prefilter to protect HEPA filter, medium filter has a higher filtration level it meet a higher indoor cleanliness requirement and ensure the higher efficiency of heat recovery section and cooling/heating coils section.												
Materials	Not washable chemical fiber or glass fiber bag filter, aluminum frame.												
Optional Configurations	1. Differential pressure gauge or differential pressure switch. Filter resistance can be monitored by the differential pressure gauge or differential pressure switch to remind user to maintenance or replacement filter. 2. Before the medium filter should install the primary filter, the recommended combination is as the following table.												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #0072BD; color: white;"> <th>Final filtration class</th> <th>F5</th> <th>F6</th> <th>F7</th> <th>F8</th> <th>F9</th> </tr> </thead> <tbody> <tr> <td>Combination</td> <td>G3+F5</td> <td>G3+F6</td> <td>G4+F7</td> <td>G3+F5+F8</td> <td>G4+F7+F9</td> </tr> </tbody> </table>		Final filtration class	F5	F6	F7	F8	F9	Combination	G3+F5	G3+F6	G4+F7	G3+F5+F8	G4+F7+F9
Final filtration class	F5	F6	F7	F8	F9								
Combination	G3+F5	G3+F6	G4+F7	G3+F5+F8	G4+F7+F9								

► PM2.5 Filter



Filtration Efficiency	Up to 95%
Application	Specially applied in ventilation system which requires filtering the PM2.5, before PM2.5 filter should install coarse filter and medium filter.
Materials	Microfiber filtration paper, galvanized steel frame.
Optional Configurations	Differential pressure gauge or differential pressure switch. Filter resistance can be monitored by the differential pressure gauge or differential pressure switch to remind user to maintenance or replacement filter.

► Filter Class Table

Standards	Coarse				Medium					Sub HEPA			HEPA		Ultra HEPA		
China Refrigeration and Air-conditioning Industry Association; CRAA 430-2008	G1	G2	G3	G4	F5	F6	F7	F8	F9	Y10	Y11	Y12	H13	H14	U15	U16	U17
Chinese Standards, GT/T 13554-2008	C4	C3	C2	C1	Z3	Z2	Z1	G2	Y6								
European Standards, EN 779:2012	G1	G2	G3	G4	M5	M6	F7	F8	F9	E10	E11	E12	H13	H14	U15	U16	U17
United States Standards, ASHRAE	MERV 1	MERV 2~4	MERV 5~6	MERV 7~8	MERV 9~10	MERV 11~12	MERV 13	MERV 14	MERV15~16				MERV17~19	MERV20			

► Working Principle

Rotary heat exchanger is constructed by alveolate heat wheel, casing, driving system and sealing parts. The exhaust air and fresh air go through half of the wheel separately. In winter exhaust air heat absorbed by fresh air while in summer fresh air heat took away by exhaust air, in a similar way , moisture exchange between fresh air and exhaust air.

► Rotary Heat Exchanger Features

- (1) The heat sensible wheel are made of 0.05mm special aluminum foil.
- (2) Enthalpy exchanger wheel is coated with 3A molecular sieve which can absorb the moisture and expel the odor or other harmful gas.
- (3) The wave type structure of the wheel forms narrow channels in the direction of air flow. The air flow forms a laminar flow inside the wheel when passing through it. When the wheel rotates, dust won't accumulate on the channel, it's called self-cleaning function.
- (4) Unique flexible dual air sealing system, smaller resistance, better sealing and longer life.
- (5) Different housing selections and rotor cut to satisfy different installation and transportation requirements.



Rotary Heat Exchanger

Rated airflow (m³/h)	Up and down casing specifications	Right and left casing specifications	Rotary heat exchanger specifications	Rotary heat exchanger size (mm)	Power (kW)	Weight (Kg)	Power system
2061	0507	-	500	600	0.09	42	3-380V50Hz
2439	0508	-	600	700	0.09	59	
3621	0609	-	700	800	0.09	71	
4107	0610	-	800	900	0.09	82	
5020	0710	-	800	900	0.09	82	
6207	0811	1108	900	1030	0.09	102	
6893	0812	1208	1000	1130	0.09	130	
8271	0912	1209	1000	1130	0.09	130	
9094	0913	1309	1100	1230	0.09	151	
9718	1013	1310	1100	1230	0.09	151	
10610	1014	1410	1200	1330	0.18	169	
12208	-	1411	1200	1330	0.18	169	
13271	1115	1511	1300	1430	0.18	190	
14299	1116	1512	1300	1430	0.18	190	
15328	1117	-	1400	1530	0.18	205	
16446	-	1613	1400	1530	0.18	205	
17386	1119	-	1500	1630	0.18	212	
17941	-	1713	1500	1630	0.18	220	
19704	1219	-	1600	1730	0.18	230	
20403	-	1814	1600	1730	0.18	239	
22975	1419	1914	1700	1830	0.25	256	
23609	-	1915	1700	1830	0.25	266	
25718	1421	-	1800	1930	0.25	283	
26404	-	2016	1800	1930	0.25	293	
27004	1521	-	1900	2030	0.25	301	
28290	-	2116	1900	2030	0.25	320	
29799	1622	-	2000	2130	0.25	358	
30347	-	2117	1900	2030	0.25	320	
32370	-	2217	2000	2130	0.25	370	
34325	1625	-	2200	2400	0.37	420	
37445	1725	2517	2200	2400	0.37	420	
40737	1727	2717	2400	2600	0.37	500	
45829	1927	2719	2400	2600	0.37	500	
49532	1929	2919	2600	2800	0.37	570	
55036	2129	2921	2600	2800	0.37	570	
59151	2131	-	2800	3000	0.37	860	
60951	-	3122	2800	3000	0.37	860	
65066	2331	3123	2800	3000	0.37	860	
69592	2333	-	3000	3200	0.55	950	
71598	-	3324	3000	3200	0.55	1039	
80856	2535	3525	3200	3400	0.55	1110	
90560	2637	-	3400	3600	0.55	1220	
91658	-	3727	3400	3600	0.55	1220	
100813	2839	3928	3600	3800	0.55	1360	

Note: Above wheel specification is based on the standard housing design, the real size should be subject to the real selection report.

► Working Principle

Air to air plate heat exchanger is made of aluminium foils or special ER paper with totally separated and sealed airflow channels. When two air streams (fresh air and exhaust air) passing through two sides of the plate with temperature or moisture difference in crossflow way or counterflow way, heat or moisture will be exchanged.

► Features

- (1) Sensible heat exchanger is made of pure aluminum foils which is specially designed for air to air heat exchanger, high efficiency, washable and minimizing cross contamination.
- (2) Enthalpy heat exchanger is made of special E.R paper, the membrane fiber gap is very small which only allow moisture molecule goes through so latent heat recovered. This feature can avoid the harmful gas or odor from stale air mix up with fresh air. High Moisture permeability, good air tightness, anti-tearing and aging resistance.
- (3) No moving part inside, easy to maintain and no extra running costs.



Holtop air to air plate heat exchanger

Rated air volume (m³/h)	Module specifications	Single heat exchanger side length (mm)	Single heat exchanger width (mm)	Double heat exchangers side length (mm)	Double heat exchangers width (mm)	Vertical heat exchanger side length (mm)	Vertical heat exchanger height (mm)
2061	0507	300	690	300	608	-	-
2439	0508	300	790	300	708	-	-
3621	0609	350	890	350	808	-	-
4107	0610	350	990	350	908	-	-
5020	0710	400	990	400	908	-	-
6207	0811	500	1090	500	1008	-	-
6893	0812	500	1190	500	1108	-	-
8271	0912	500	1190	500	1108	-	-
9094	0913	500	1290	500	1208	-	-
9718	1013	600	1290	600	1208	-	-
10610	1014	600	1390	600	1308	-	-
13271	1115	700	1490	700	1408	-	-
14299	1116	700	1590	800	1508	-	-
15328	1117	700	1690	800	1608	-	-
17386	1119	700	1890	800	1808	-	-
19704	1219	800	1890	800	1808	-	-
22975	1419	800	1890	800	1808	-	-
25718	1421	-	-	-	-	300	2830
27004	1521	-	-	-	-	300	3030
29799	1622	-	-	-	-	350	3230
34325	1625	-	-	-	-	350	3230
37445	1725	-	-	-	-	400	3430
40737	1727	-	-	-	-	400	3430
45829	1927	-	-	-	-	500	3830
49532	1929	-	-	-	-	500	3830
55036	2129	-	-	-	-	500	4230
59151	2131	-	-	-	-	500	4230
65066	2331	-	-	-	-	500	4630
69592	2333	-	-	-	-	600	4630
80856	2535	-	-	-	-	600	5030
90560	2637	-	-	-	-	600	5230
100813	2839	-	-	-	-	600	5630

Note: Above plate heat exchanger specifications are based on the standard housing design, the real size should be subject to the real selection report.

► Working Principle

When heating one end of the heat pipe, liquid inside this end evaporates, the steam flows to the other end under pressure difference. Steam will condense and release heat in the condensing end. Heat transfers from high temperature to low temperature. When finished, condensate flows back to the evaporating end. In the same way, liquid inside the heat pipe evaporates and condenses circularly, so, heat is transferred from high temperature to low temperature constantly.

► Features and Applications

- (1) Applying cooper tube with hydrophilic aluminum fin, low air resistance, less condensing water, better anti-corrosion.
- (2) Galvanized steel frame, good resistance to corrosion and higher durability.
- (3) Heat insulation section separates heat source and cold source, then liquid inside the pipe has no heat transfer to outside.
- (4) Special inner mixed air structure, more uniform airflow distribution, making heat exchange more sufficient.
- (5) Different working area designed more reasonably, Special heat insulation section avoids leakage and cross-contamination of supply and exhaust air, heat recovery efficiency is 5% higher than the traditional design.
- (6) Inside the heat pipe is special fluoride without corrosion, it is much safer.
- (7) Heat pipe level is placed, no adjustment equipment is needed during the season, so heat recovery can be achieved.
- (8) Zero energy consumption, free of maintenance.
- (9) Reliable, washable and long life.



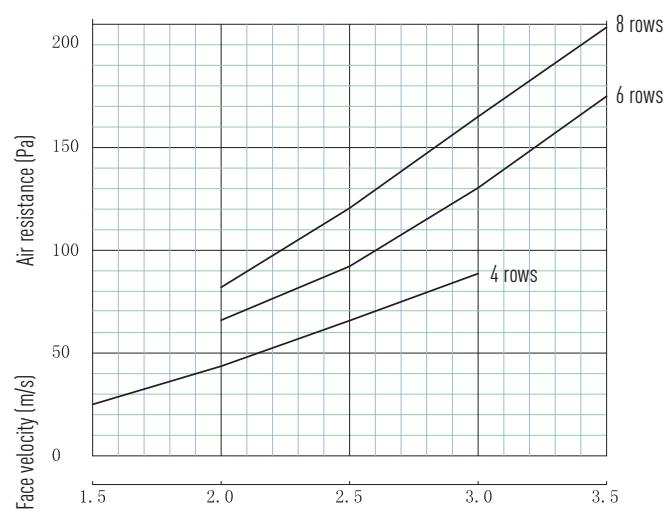
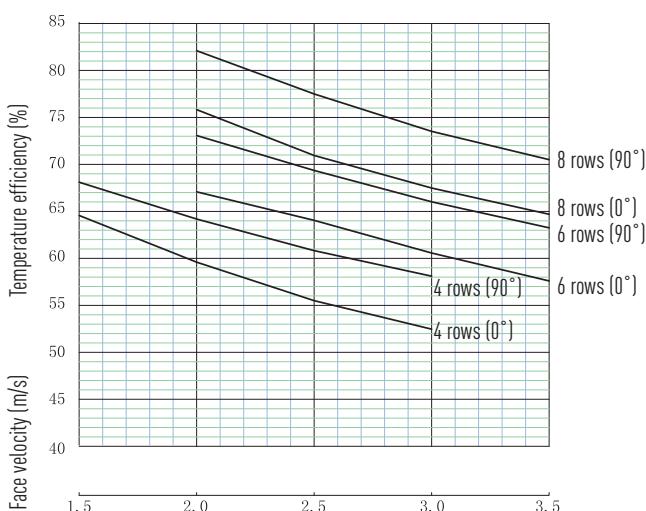
HOLTOP Heat Pipe Heat Exchanger

► Heat Pipe Heat Exchanger Efficiency and Resistance Table

Rows no.	Face velocity	Items	2.0m/s	2.5m/s	3.0m/s	3.5m/s
4		Recovery efficiency	59.60%	55.50%	52.50%	50.00%
		Resistance	43.0Pa	66.0Pa	88.0Pa	110.0Pa
6		Recovery efficiency	67.00%	64.00%	60.80%	57.50%
		Resistance	66.0Pa	92.0Pa	130.0Pa	175.0Pa
8		Recovery efficiency	75.90%	71.00%	67.50%	65.00%
		Resistance	82.0Pa	120.0Pa	165.0Pa	214.0Pa

Note: Efficiency and resistance of above table is the performance of heat pipe heat exchanger under testing conditions, the AHU performance is subject to the selection report.

► Heat Exchanger Efficiency and Resistance Curves



► Working Principle

Liquid circulation heat exchanger is liquid to air heat exchanger, heat exchangers installed in both fresh air side and exhaust air side, the pump between the 2 heat exchangers make the liquid circulate then the heat in the liquid preheat or precool the fresh air. Normally the liquid is water but in order to decrease the freezing point, moderate ethylene glycol will be added into the water according to reasonable percentage.

► Features

- (1) Fresh air and exhaust air heat exchanged by separated liquid pipes, zero cross contamination. Suitable for hospital, germfree lab and industries which discharge poisonous and harmful gas.
- (2) Stable and reliable operation, long service life
- (3) Flexible connection between fresh air and exhaust air exchangers, easy installation which is convenient for old AHU improvement.
- (4) Accessories like water pump, heat exchangers are conventional, easy and low maintenance costs.
- (5) Wide range of application, various connection ways like one to one, one to many or many to many.

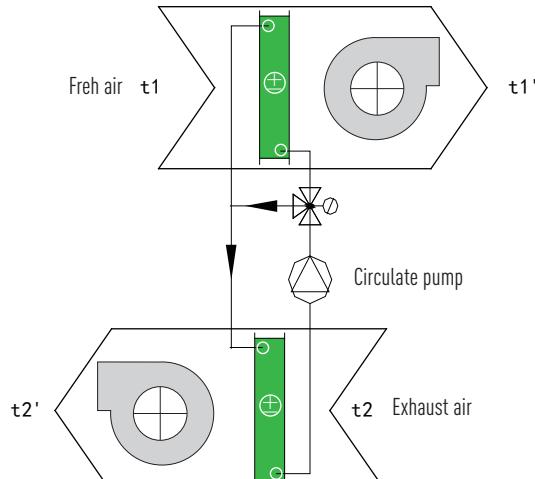
► Specifications

- (1) Liquid circulation heat exchanger is sensible heat exchanger, efficiency is between 55% to 60%.
- (2) Suggested rows are 6 or 8, face velocity not over 2.8m/s
- (3) The choice of circulating pump can refer to the fresh air and exhaust air pressure drop and the waterflow pressure drop.
- (4) Air flow direction has significant effect on the heat recovery efficiency, influence rate up to 20%.
- (5) Freezing point of the hybrid ethylene glycol and water should be 4 to 6 celsius lower than the local minimum winter outdoor temperature, percentage of hybrid can be referred to the following table

Freezing point	-1.4	-1.3	-5.4	-7.8	-10.7	-14.1	-17.9	-22.3
Weight percentage (%)	5	10	15	20	25	30	35	40
Volume percentage (%)	4.4	8.9	13.6	18.1	22.9	27.7	32.6	37.5



Holtop Liquid Circulation Heat Exchanger



Working Principle

► Introductions

Holtop cooling and heating coils are made of red copper tube and hydrophilic aluminum fins, with the special processing technology to fix the copper tube and aluminum fins together, the technology significantly improves the heat transfer efficiency and at the same time to reduce the air resistance.

Optional PVC or aluminium alloy water eliminator can be installed after the coils to avoid the condensate water blown to supply air.

Cooling and heating coils section is designed with condensate water pan to ensure the fast removal of condensate water, optional stainless steel water pan is available under special circumstances.



► Introductions

Holtop is able to produce wet film humidification, high pressure spray humidification, dry steam humidification, electrode humidification, electric heating humidification and other humidification functional sections.

Users can choose different types of humidification section according to different requirements like humidification efficiency and humidification accuracy.

► Comparison of Different Humidifiers

Method	Theory	Environment Temp.	Environment Humid.	Requirement of the water	Section Length	Main features
Wet film humidifier	Equal enthalpy humidification	1~90°C	< 90%RH	Clean water or equivalent	Fix in the cooling and heating coils section	Safe, Self-adjustment, energy saving, long service life
High pressure spray humidifier		1~40°C	≤ 80%RH	Clean water or equivalent	600mm	Stable, safe, long service life
Dry steam humidifier	Equal temperature humidification	1~40°C	≤ 80%RH no condensation	Steam	600mm	High efficiency, easy installation, corrosion resistance, long service life.
Electrode humidifier		1~40°C	≤ 80%RH no condensation	Softened water or equivalent	600mm	Clean and efficient, safe and reliable, comprehensive control.
Electric heating humidifier		1~40°C	≤ 80%RH no condensation	Pure water or softened water	600mm	Clean and efficient, safe and reliable, comprehensive control.

► Wet Film Humidifier

The filtered water will be distributed to the water spray on the top of humidifier, when the water flows down through the wet film, it will be absorbed by them and form the even water film.

When the dry air goes through the wet film, the water molecules fully absorb the heat from the air and evaporate then to increase the air humidity. It can self-adjust the humidity capacity, oversaturation and condensation phenomenon never happen. It saves space for the AHU and has low running costs and long service life.

► Technical Specifications of Wet Film Humidifier

Film Thickness (mm)	50	100	200	300
Saturation efficiency (%)	30	55	80	93
Standard humidification capacity Kg/h*m ²	23	44	64	72
Working conditions	Inlet air DB 40°C , 15%RH, face velocity 2.5m/s, water temperature 20°C			

► High Pressure Spray Humidifier

Humidifier increases the clean water pressure so the water spray out in high speed through the ceramics sprayer, the extreme small water particles exchange heat with the air and evaporate then to increase the air humidity. Special ceramic sprayer is anti-corrosive and can ensure the water particles are as small as possible to increase humidification efficiency. High pressure spray humidification can be controlled manually or automatically.

► Double Vaporization Humidifier

Double vaporization humidifier is the perfect combination of wet film vaporization humidification and high pressure spray humidification, which enhance the water usage rate and clean the air before humidification, improving air cleanliness.

► Working Principle

For HJK-E series AHU, there are different type of fans for options, such as direct driven centrifugal fan, belt driven DIDW forward / backward centrifugal fan, plug fan and EC fan. They are of high quality, superior performance and outstanding durability.

Direct driven centrifugal fan



- Integration of fan and motor
- Direct driven
- Small air volume, moderate total pressure, high direct driven efficiency, small fan size and less space occupation

Belt driven DIDW forward / backward centrifugal fan



- Fan and motor share the same framework, good quality steel plate shell and bearing
- Belt driven
- Very wide range of air volume and air pressure

Plug fan



- Without spiral casing, fan and motor share the same framework
- Direct driven/ belt driven
- Relative wide range of air volume and air pressure. Air from all directions distributes evenly and air outlet direction is not limited.

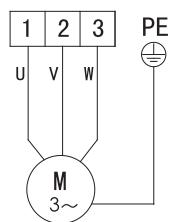
EC fan



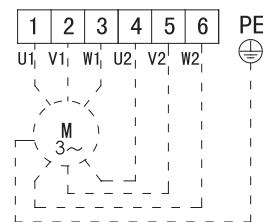
- Brushless DC motor
- Direct driven
- High efficiency, variable speed driven, small vibration and long service life.

► Common Motor Wiring Diagram

(1) Wiring diagram for motor with power equal or below 11KW



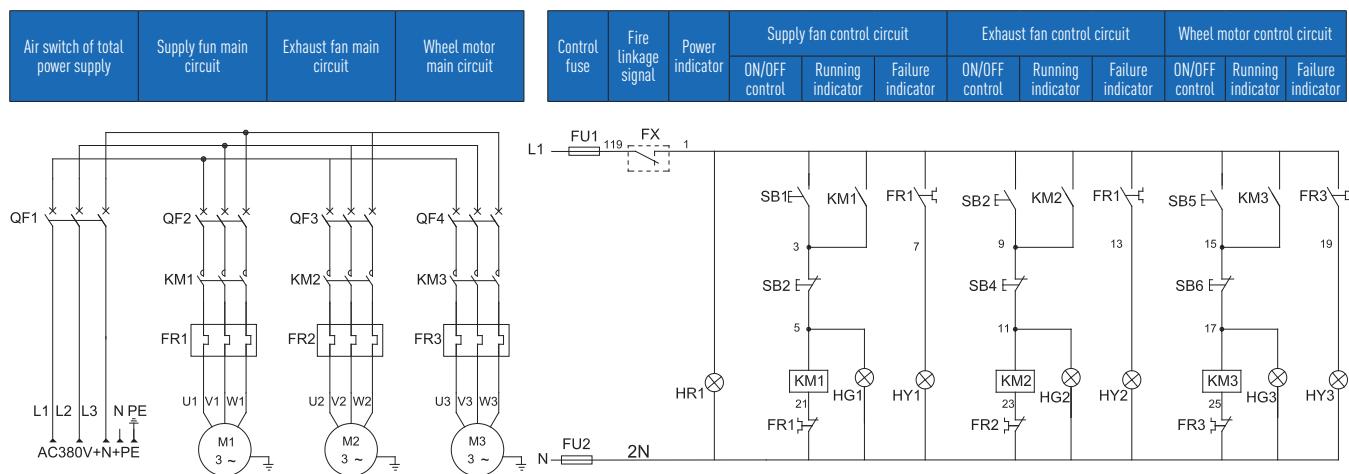
(2) Wiring diagram for motor with power equal or below 15KW



In order to meet the needs of users, air handling units are equipped with diverse electric control schemes, mainly include common ON/OFF control, reserved building control BA interface control, frequency control analog instrument control and energy and building control net-working DDC control system, etc.

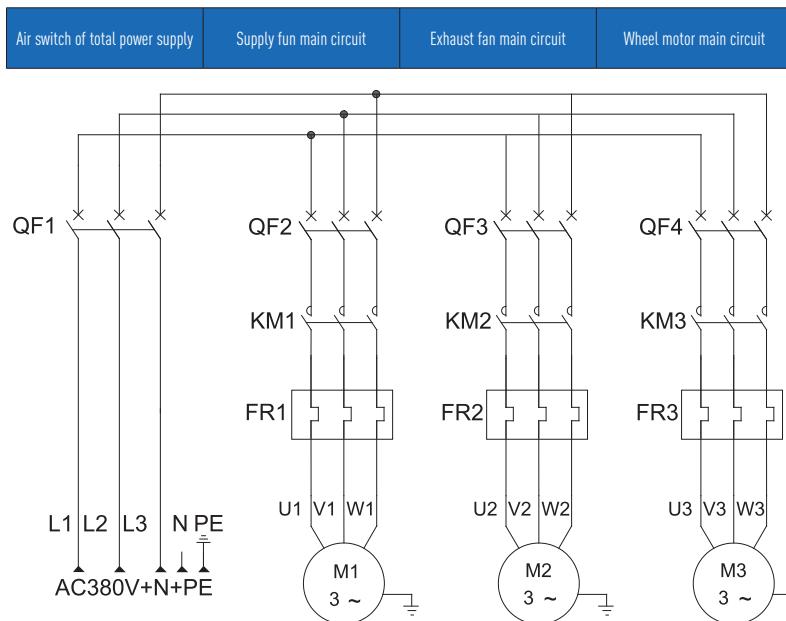
Common ON/OFF control scheme (take the direct driven way as an example), the functions are as follows:

- Control box is supplied by AC380V power, including overload, over current, short circuit protection functions, installed independently indoor.
- Supply fan, exhaust fan, wheel motor are manual control (also called local control). Starting mode could be direct start (11 kw and below) and star triangle step-down starting way(15 kw and above).
- Supply fan, exhaust fan, wheel motor have individual ON/OFF control function with light touch buttons. Operation is convenient, quick and safe. There are power indicator, running indicator and fault indicator.
- Fire linkage function is included, reserving a fire signal terminal Fx (normally closed). If Fx disconnected, the fans stop running.



Reserved building control BA interface control scheme (take the direct driven way as an example), the functions are as follows:

- Control box is supplied by AC380V power, including overload, over current, short circuit protection functions, installed independently indoor.
- Supply fan, exhaust fan, wheel motor are manual control (also called local control) or automatic control (also called remote control). Driven mode can be divided into direct start(11 Kw and below) and star triangle step-down starting way (15 Kw and above).
- Supply fan, exhaust fan, wheel motor control have individual ON/OFF control function. Under manual control, ON/OFF both use light touch buttons., operation is convenient, fast and safe. Under automatic control, through the reserved BA interfaces (dry contact) remote ON/OFF control could be realized. Reversed interfaces include fan ON/OFF control signal, automatic state signal, running state signal and fault state signal. For more details, please refer to the table of reserved control interfaces.
- Control box has power indicator, running indicator, fault indicator and remote status indicator.
- Fire linkage function is included, reserving a fire signal terminal Fx (normally closed). If Fx disconnected, the fans stop running.



► The Reserved Control Interfaces Table

NO.	Graphic code	Components Name	Reserve connector descriptions	Connector mode
1	101—ZJ1—02	ZJ1 relay	Remote ON/OFF control points of supply fan	User supply DC24V Control signal
2	103—ZJ2—04	ZJ2 relay	Remote ON/OFF control points of exhaust fan	
3	104—ZJ3—06	ZJ3 relay	Remote ON/OFF control points of Wheel motor	
4	119—FX—1		Fire linkage signal	Dry contact (supplied by user)
5	2—KX1—4	KX1 auxiliary normally open contact	Auto state signal of supply fan	Dry contact
6	6—KM1—8	KX1 auxiliary normally open contact	Auto state signal of exhaust fan	
7	10—GZ1—12	GZ1 auxiliary normally open contact	Fault signal of supply fan	
8	14—KX2—16	KX2 auxiliary normally open contact	Auto state signal of exhaust fan	
9	18—KM2—20	KM2 auxiliary normally open contact	Operating signal of exhaust fan	
10	22—GZ2—24	GZ2 auxiliary normally open contact	Fault signal of exhaust fan	
11	26—KX3—28	KX3 auxiliary normally open contact	Auto signal of wheel	
12	30—KM3—32	KM3 auxiliary normally open contact	Operating signal of wheel	
13	34—GZ3—36	GZ3 auxiliary normally open contact	Fault signal of wheel	
Remark: The remote ON/OFF control signal includes AC24V, DC24V and dry contact. It can be reserved according to the user's requirements.				

► Air Handling Unit Electric Control

Analog instrument control scheme, the functions are as follows:

- Control box is supplied by AC380V power, including overload, over current, short circuit protection functions, installed independently indoor. Supply fan, exhaust fan and wheel motor are manually controlled (also called local control). Driven mode can be divided into direct start(11 Kw and below) and star triangle step-down starting way (15 Kw and above).

Supply fan, exhaust fan, wheel motor have individual ON/OFF control function by pressing buttons. Operation is convenient, fast and safe. It includes power indication, running indication, failure indication and fire linkage function, reserving a fire linkage signal terminal Fx (normally closed). If Fx disconnected, the fans stop running.

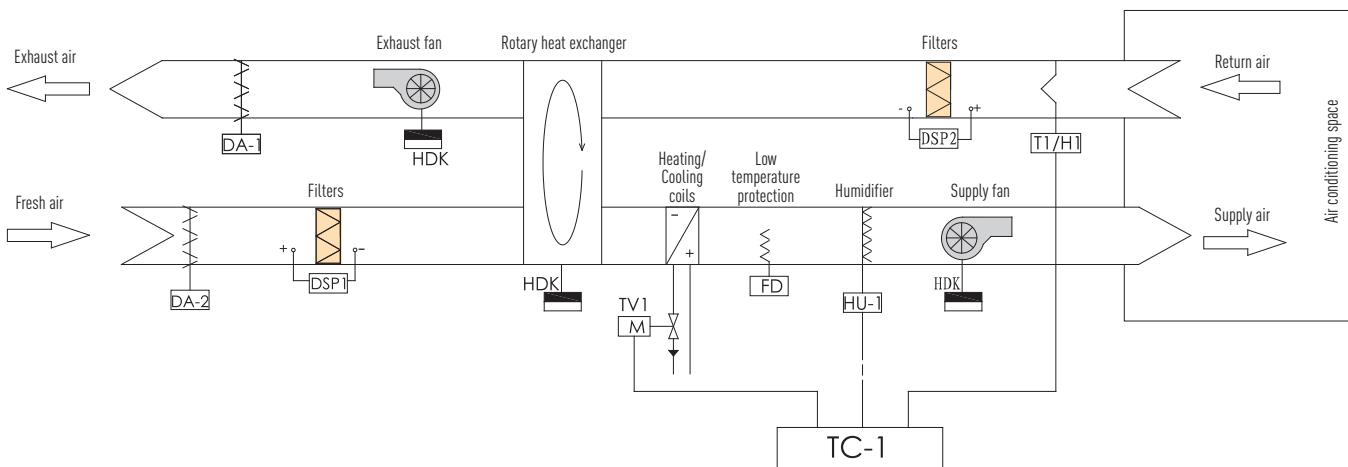
- Imported Swaziland brand intelligent controller, performance is stable and reliable. Winter and summer working condition conversion, temperature and humidity setting values could be changed by parameters setting. No communication interface and no network control function.

- Air valve and fan can be interlocked. When the fan starts, the air valve opens; when the fan stops running, air valve closes.

- Air duct type temperature and humidity sensor inspects the RA temperature and sends signal to the intelligent thermostat to compare with setting values. According to the calculation results, the controller outputs signal to control the opening degree of electric control valve on cooling/heating coil and the start/stop of humidifier, so as to keep the RA temperature and humidity within the scope of requirements.

- Filter blockage alarm function. Installing differential pressure switch beside the filter to inspect the pressure difference on both sides of the filter. When inspected value is larger than the setting value, the filter blocking alarm lights to remind maintenance persons to clean or replace the filters.

- Low temperature protection function is realized by installing antifreeze protection switch (setting value is 5 °C). When the temperature of heating coil is below the setting value, the machine stops and at the same time low temperature protection alarm lights.(this function is optional)



► Component Descriptions

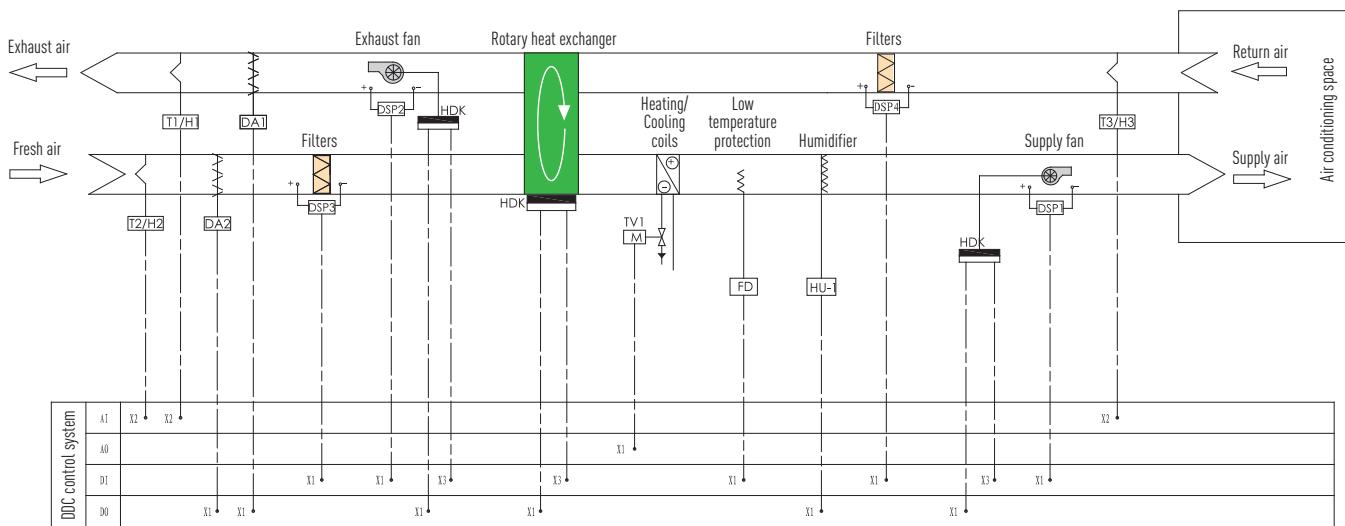
Component code	Component name	Remarks
DA-1/2	Damper actuator	
T1/H1	Temperature and humidity sensor	
DSP1/2	Differential pressure switch	
TV1	Electric two - way regulating valve	Temperature control
FD	Antifreeze protection switch	Cooling coil antifreezing protection
HU-1	Humidification control	
TC-1	Intelligent controller	With AO/DO outlets

Remarks: The above is for reference only, the number of components is based on specific project requirements and needs to be configured

► Air Handling Unit Electric Control

DDC / PLC control system, the functions are as follows:

- The standard configuration of AHU automatic control system adopt uses Siemens POL series DDC/PLC controllers, which are of advanced technology and stable performance. The controller can satisfy the requirement of independent working and networking control.
- System terminal control components such as temperature and humidity sensors, water valve are supplied by the world famous brand to provide users with high reliable and high precision products.
- According to the real-time parameter monitoring of fan operation state, differential pressure and fault state, temperature and humidity parameters, air valve opening degree, water valve opening degree, DDC/PLC control system works based on various combination functions of AHU, seeking the best air heat and humidity treatment scheme under different working conditions so as to satisfy the processing or comfortable requirement while achieving low energy consumption and thus create economic benefits for customers.



► Component Descriptions

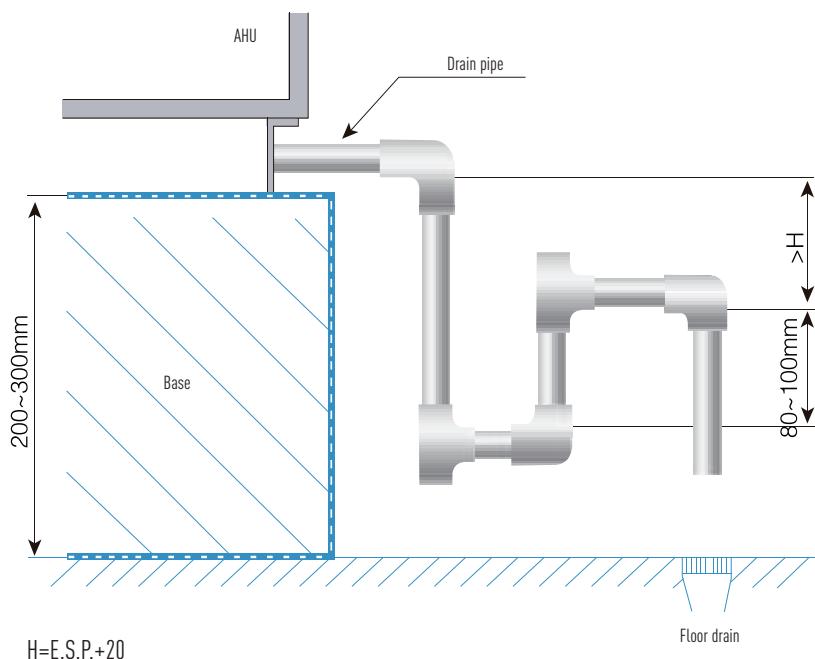
Component code	Component name	Remarks
DDC/PLC	Controller and extended module	
DA1/2	Damper executor	
T1/H1~T3/H3	Temperature and humidity sensor	Temperature control check
DSP1/2	Differential pressure switch	Supply/exhaust fan protection
DSP3/4	Differential pressure switch	Filter blockage alarm
TV1	Proportional electric two-way control valve	Valve body and Actuator
FD	Antifreeze protection switch	Cooling coil antifreezing protection
HU-1	Humidification control	
Remarks: The above is for reference only, the number and configurations of components are based on specific project requirements.		

► Other Control Schemes

In addition to the above typical control schemes, we can also design according to customer's specific requirements.

► Installation

- (1) For maintenance purpose, enough space should be left for the AHU, especially the sideof service door andwaterinlet/outlet.
- (2) The base should be designed according to the length and width of AHU and must kept flat and level.
- (3) Base should be higher than the ground to make it easy to set up trap for condensation water. As shown in figure.
- (4) Connect the water inlet/outlet to the external water pipe after cleaning.The weight of external connection of valve, pipe and others shall not burden on the machine unit.
- (5) Use soft fittings to connect the air inlet/outlet of unitand air ducts.
- (6) The machine casing should connect to ground. For motor bigger than15Kw, it's suggested to use step-down start.



► Operation and Maintenance

- (1) Air handling unit is supplied by TN-S power system, AC3-380 v + N + PE.
- (2) Before running the AHU, the fan vibration locking devices shall be removed.
- (3) Before starting, please check if the fan impellers rotate flexible or not. And do the commissioning to check the fan rotating direction. Run the machine after all mechanical and electric equipments were checked by professional personnel without fault.
- (4) Before running the unit, please do the debugging and control the motor running under the rated current to prevent the motor from overload and burn out. All air valves of the air inlet should not be closed, in case of damage and deformation of the unit.
- (5) The heat and cold media of heat exchanger are clean demineralized water. The working pressure shall not be larger than 1.6 MPa. Steam supply pressure ranges from 0.2 to 0.4MPa.
- (6) In winter, please drain out all the inside water and blow away all water in the cooling coil. If the water can't blowout completely, antifreeze liquid should be charged into the coils.
- (7) Examine the filter sregularly. When reaches the value of end resistance, the filter should be cleaned or replaced.
- (8) Check the belt looseness and wear condition sregularly. If too loose, please adjust the screw under the base to tight the belt. And check the bearing lubricated condition and add lubricating grease regularly.



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