

**HOLTOP**

# SUSPENDED AIR HANDLING UNIT WITH HEAT RECOVERY

*Brings in Fresh Air*

*Save Operating Costs*

*Thin Height*

Energy Recovery Ventilation Specialist





Everyone needs to breathe  
**25,000** times  
 per day

- Clean and fresh air is essential
- HOLTOP keeps working on providing you with integrated fresh, clean, comfortable and intelligent air solutions.
- HOLTOP delivers fresh and clean air, just for your healthy breathing!

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## ABOUT HOLTOP

**2002**  
 HOLTOP WAS FOUND

**200000+**  
 Units Production Capacity

**70000+**  
 m<sup>2</sup> Area

**100+**  
 Countries Exportation

**30+**  
 Sales Organizations



ISO Certifications



Dozens of National Patents Owner



Industrial Standards Participated



World Leading Manufacturer



Zhongguancun&National High-tech Enterprise



Equipment Supplier for Beijing Olympics and The Shanghai World Expo



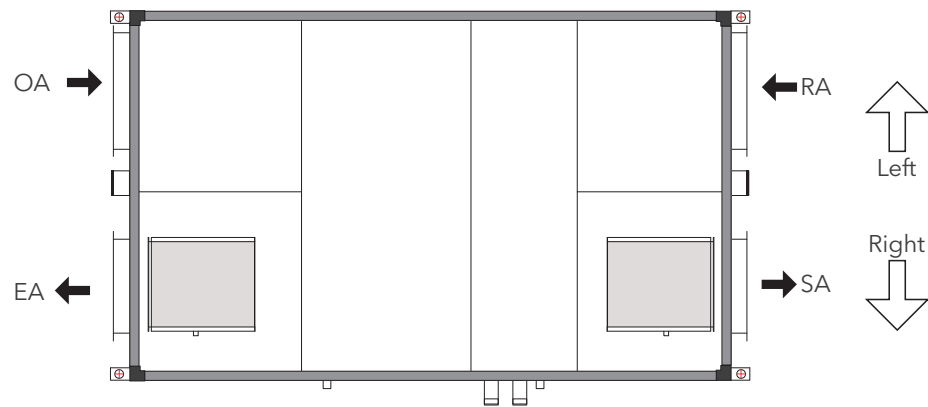
## UNDERSTANDING MODEL NUMBER AND AIRFLOWS

HJK-010-RQC-4-Y1

- Type of AHU, Z for left and Y for right
- Rows of coils is 4
- RQC stands for suspended type heat recovery AHU
- Nominal airflow multiplied by 100m<sup>3</sup>/h
- Holtop HJK series AHU

## JUDGING LEFT OR RIGHT TYPE

Look at the direction of supply air, it's left type if water pipes on the left; otherwise, it's a right type. For standard AHU, service door, wiring port and water pipe of heating/cooling coils locate at the same side.



## SUITABLE AIRFLOW

Model	Suitable airflow
HJK-010RQC~HJK-015RQC	1000m <sup>3</sup> /h~1500m <sup>3</sup> /h
HJK-020RQC~HJK-025RQC	2000m <sup>3</sup> /h~2500m <sup>3</sup> /h
HJK-030RQC~HJK-040RQC	3000m <sup>3</sup> /h~4000m <sup>3</sup> /h
HJK-050RQC~HJK-060RQC	5000m <sup>3</sup> /h~6000m <sup>3</sup> /h
HJK-080RQC~HJK-100RQC	8000m <sup>3</sup> /h~10000m <sup>3</sup> /h

## PERFORMANCE PARAMETERS

Parameter charts (fresh air condition)

Model	L*W*H (mm)	Rated airflow (m <sup>3</sup> /h)	Supply fan		Exhaust fan		Coil				Heat recovery efficiency (%)	Filter class	N.W. (Kg)
			Input power (kw)	ESP (Pa)	Input power (kw)	ESP (Pa)	Rows	Cooling cap. (kw)	Heating cap. (kw)	Water inlet/out pipe spec.			
HJK-010RQC4DY1	2084*1120*550	1000	0.25	155	0.25	180	4	12.2	13.1	DN32	60	G2	240
HJK-015RQC4DY1	2084*1200*570	1500	0.32	155	0.25	180	4	18.4	19.8	DN32	60	G2	260
HJK-020RQC4DY1	2194*1280*570	2000	0.45	160	0.32	190	4	25.2	27	DN40	60	G2	280
HJK-025RQC4DY1	2244*1400*620	2500	0.55	160	0.55	190	4	30.4	33.1	DN40	60	G2	310
HJK-030RQC4DY1	2354*1400*630	3000	1	250	1	250	4	36.4	39.7	DN40	60	G2	360
HJK-040RQC4DY1	2404*1400*695	4000	1	290	1	330	4	14.9	46.4	DN50	60	G2	400
HJK-050RQC4DY1	2554*1530*705	5000	1.5	330	1.5	350	4	50.2	56.7	DN50	60	G2	440
HJK-060RQC4DY1	2634*1750*800	6000	2.2	400	1.5	400	2	66	68.3	DN65	60	G2	530
HJK-080RQC4DY1	2904*2000*900	8000	3	430	3	430	2	83.9	86.4	DN65	60	G2	690
HJK-100RQC4DY1	2904*2200*960	10000	4	500	4	500	2	108.5	110.4	DN65	60	G2	770

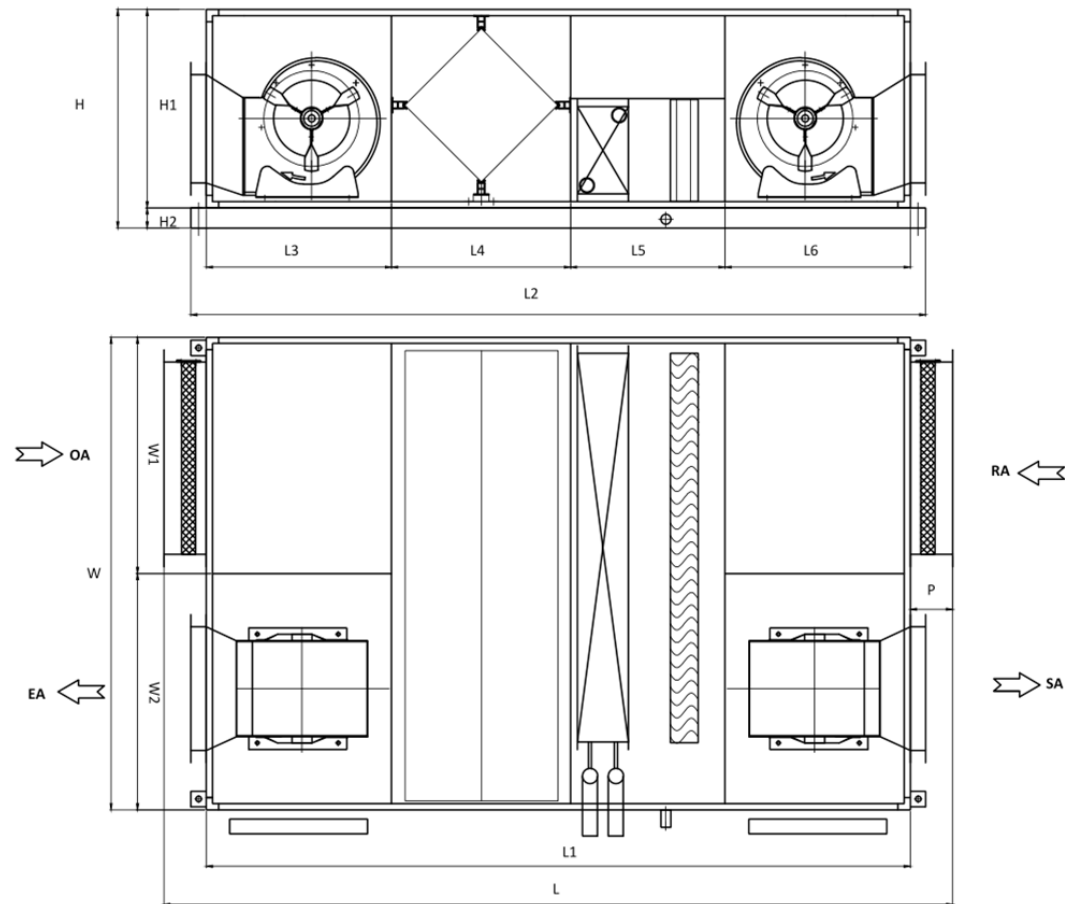
### Working Conditions:

- Cooling: Outdoor air DB35°C, WD28°C, cold water inlet/outlet temperature 7°C/12°C.
- Heating: Outdoor air DB0°C, hot water inlet/outlet temperature 60°C/50°C.



## DRAWINGS AND DIMENSIONS

### Drawings

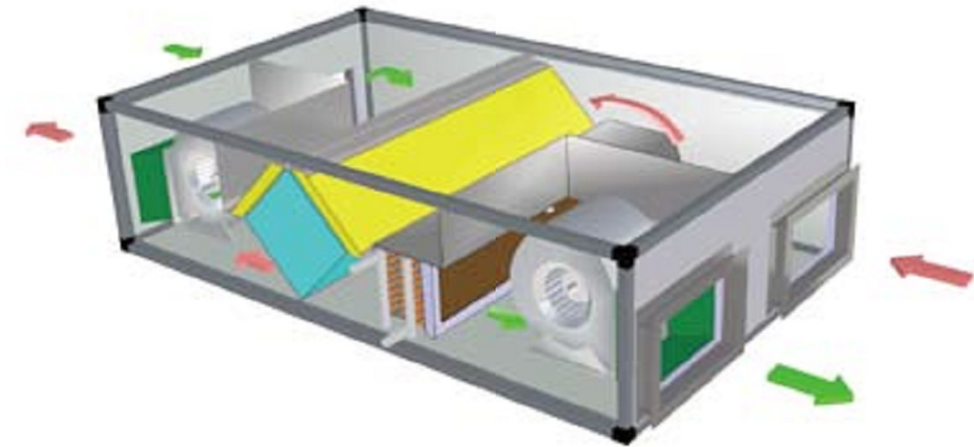


Model	L	W	H	L1	L2	L3	L4	L5	L6	W1	W2	H1	H2	P	Air inlet flange	Air outlet flange
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	L*W (mm)	L*W (mm)
HJK-010RQC4DY1	2084	1120	550	1810	1910	460	440	450	460	560	560	485	65	137	418*323	300*220
HJK-015RQC4DY1	2084	1200	570	1810	1910	460	440	450	460	600	600	505	65	137	458*343	300*220
HJK-020RQC4DY1	2194	1920	570	505	202	515	440	450	515	640	640	505	65	137	498*343	300*220
HJK-025RQC4DY1	2244	1970	620	1970	2070	540	440	450	540	700	700	555	65	137	558*393	360*280
HJK-030RQC4DY1	2354	1400	630	2080	2180	560	510	450	560	700	700	565	65	137	558*403	360*280
HJK-040RQC4DY1	2404	1400	695	2130	2230	560	510	500	560	700	700	630	65	137	558*468	380*350
HJK-050RQC4DY1	2554	1530	705	2280	2380	600	580	500	600	765	765	640	65	137	623*478	400*350
HJK-060RQC4DY1	2634	1750	875	2360	2340	600	580	580	600	875	875	700	100	137	733*538	500*460
HJK-080RQC4DY1	2904	2000	900	2630	2610	700	650	580	700	1000	1000	800	100	137	858*638	600*450
HJK-100RQC4DY1	2904	2200	960	2630	2610	700	650	580	700	1100	1100	860	100	137	958*698	600*500

## MAIN FEATURES AND COMPONENTS

### Main features

- Equipped with supply fan and exhaust fan, brings in fresh air and exhausts out stale indoor air as well.
- Equipped with plate heat exchanger, recovers energy from outgoing indoor air, to save operating costs.
- Thin height, easily installed in the ceiling space.



### Housing construction

- **Double skin panel**  
25mm thick, inner skin made of galvanized steel sheet, outer skin color steel sheet, between skins is sandwiched with high density fireproof PU with thermal coefficient below 0.0199W/m<sup>2</sup>·C.
- **High air tightness**  
Double inlaid sealing system to tightly join the framework and panels, total air leakage rate below 3%.



### Supply fan and exhaust fan

- Outer rotor motor, direct driven centrifugal fan, dynamic balance, compact and low noise level.

### Heat exchangers



- Total heat or sensible heat type available for different applications.
- Total heat exchanger is made of special fiber paper, featured by high moisture permeability, good air tightness, excellent tear resistance, and aging resistance. Suitable for high humidity difference between conditioned space and outdoors.
- Sensible heat exchanger is made of thin aluminum foil, featured by high heat conductivity and long service life. Suitable for high temperature difference between indoors and outdoors.



### Airflow damper (optional)

- The edges of lamina are with special plastic seals, ensures low leakage.
- Manual or motorized control available for options.



### Water cooling/heating coil

- Copper pipe with double-side bended wave hydrophilic aluminum foil, higher heat exchange performance.
- Air releaser and drainage plug are set in pipe connection box to ensure return path free from accumulated air, convenient for maintenance in winter.



### Filter

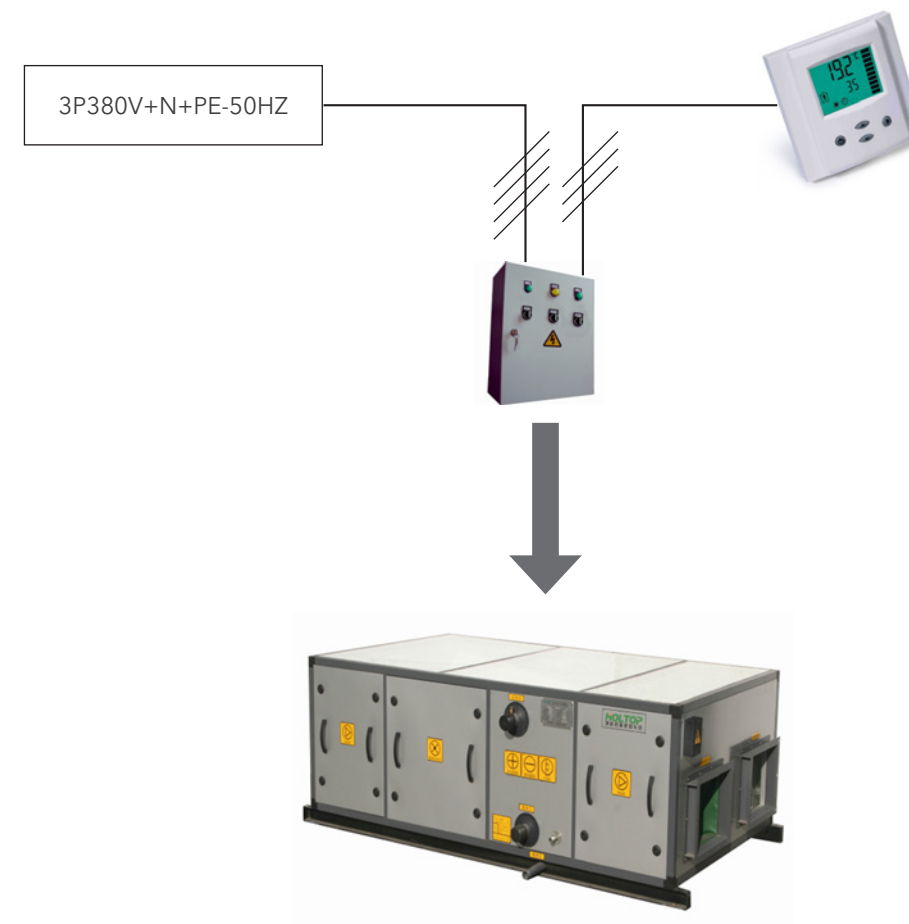
- Plate type(G2) coarse filter as standard configuration. (Medium filter F5~F8 available as per request of customer).
- Draw-push installation, easy maintenance.

## ELECTRICAL CONTROL

### Control system schemes

Standardly, we do not offer control box and related control components for AHUs, but offer wiring terminals only. Besides, we offer following control system as options.

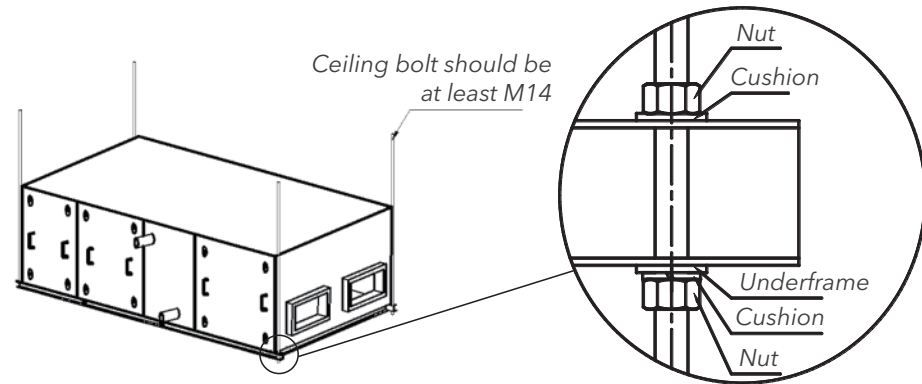
- Independent run/stop of supply fan and exhaust fan.
- Water switch control and temperature control.
- LCD thermostat controller .
- DDC (PLC) controller is optional.



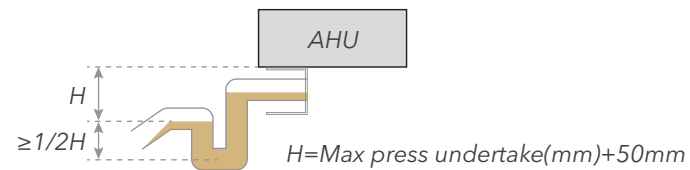
## INSTALLATION, OPERATION AND MAINTENANCE

### Installation

1. For maintenance purpose, please leave enough space for the access door and water coils. Optimal space should be bigger than the length of the heating/cooling coil. Least space should be enough for take-down operation of filters.
2. AHU shall be horizontally installed under ceiling 150~200mm. Shock absorber should be installed between suspender and lugs.



3. Use seal tape for drainpipe to ensure smooth draining. Connect as per following diagram.



4. Clean all the water paths before connecting them to the unit. Make gentle connection in order to protect the coil. Weight of valves, pipes and other components beside the AHU should not be borne on the AHU.
5. Use soft fittings to connect the air inlet/outlet of unit and ducts.
6. Supply air should not be higher than 80 °C, otherwise, please inform us before ordering so as to take related measures.
7. AHU housing should be well earthed.

### Operation and maintenance

1. AHU is powered by TN-S power supply system, i.e. AC3~380V+N+PE.
2. Check and make sure motor runs at right direction and freely. Run the unit after all the electric parts are checked without fault by a professional.
3. Commissioning is required before putting the equipment into use. Motors should be running under rated electric current.
4. Cooling & heating coil should use clean demineralized water as medium, working pressure  $\leq 1.2$ MPa.
5. Drain out the water in the coil in winter, and blow away the remains water as far as possible. In case remains water can not be blew away, inject antifreeze into the coil.
6. Maintain the filter regularly, clean or replace it if resistance comes to the end resistance. Dry the washed filter totally before reuse.
7. Fully clean or maintain the unit after each 1 or 2-year operation. Clean the coils using compressed air or high pressure water.

MAKE AIR TREATMENT MORE HEALTHY AND ENERGY SAVING

**HOLTOP**

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\* Data is subject to changes without notification due to product improvement