YORK®

YSM Series

Air Handling Units

Johnson Controls | آلسالم AL SALEM

Pursuit of Excellence, Air Purification & Conditioning Expertise

Established in 1991, Al Salem Group of Companies in Saudi Arabia joined arms with YORK's mother company "Johnson Controls", a leading multi-industrial company and a pioneer provider of integrated solutions that incorporate HVAC equipment, fire and security systems, building management systems and controls, for the residential, commercial and industrial sectors, in the Kingdom of Saudi Arabia, Lebanon, Egypt & Yemen

Known as Al Salem York, we are proud to be one of the first companies in the Kingdom to provide sustainable solutions through products & services that not only optimize energy use, but also improve comfort and security levels. We are pleased to hold the reigns as the biggest supplier of air conditioners in the region. We envision becoming the leaders of market growth in our business; to hold the first rank in each section of the manufacturing & control categories.

With a workforce exceeding 2000 employees, Al Salem YORK is strategically located across the Kingdom of Saudi Arabia to serve its' diverse customers and industries, though our head office, branches and a well-established solid network of dealers and distributors.

EN1886 Mechanical Performance	YSM Series Class
Panel Thickness	50mm
Thermal Bridging Factor	TB2
Thermal Transmittance	T2
Air Leakage(-400/+700Pa)	L2
Casing Strength	D1
Filter Bypass Leakage	F9

Pursuit of Excellence

- Patented casing design
- Superior casing performance
- Certified quality

Environmentally-responsible

- Energy saving
- Indoor air quality
- Zero OPD&GWP panel

Features & Benefits

- Hygienic application designs
- Reliable operation
- Easy maintenance

Custom Made

- Up to 81 standard models
- Flexible configurations

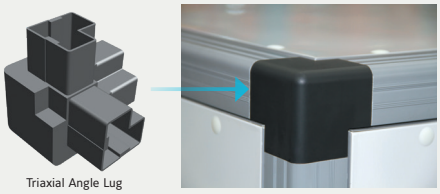
Smart Selection Software

- User-friendly interface
- Organized project management system
- Professional report

1. YSM Product Features

1.1. New Patented Casing Design

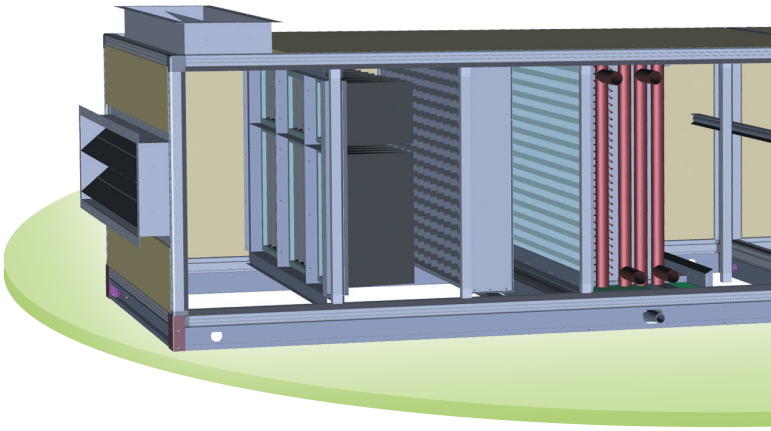
Aluminium profile joined reinforced plastic triaxial angle lug, forming the structural frame to house all internal components and able to comply with EN1886 class D1 mechanical strength (under the design condition, the deflection is less than 4mm/m)



Triaxial Angle Lug

1.2. Thermal Bridge Free Design

Patented structure of thermal bridge free design is applied in YSM series. New Aluminum alloy profile with nylon insulation strip, & NBR & PVC gasket, reinforced plastic triaxial angle lug and specially designed door make heat insulation more efficient & appearance more aesthetic, & thermal bridge factor can meet EN1886 class TB2.

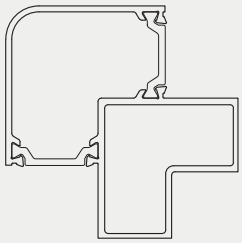


1.7. IAQ Solutions

Providing a complete range of advanced filtration, proper humidification & ultraviolet air purifiers, airborne contaminants are reduced to help in achieving an optimum room temperature, humidity and work toward providing a cleaner and healthier Indoor Air Quality.

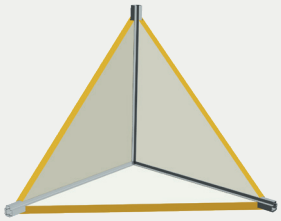
1.3. Low Air Leakage

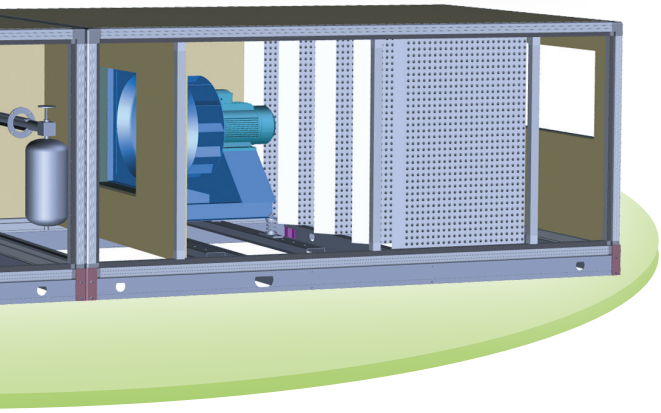
Sealing with PVC ribs & NBR&PVC insulation effectively reduce air leakage to have better energy saving. It is designed to ensure minimum air leakage, and able to comply with EN1886 class L2.



1.4. Better Heat Insulation

Double skin construction is provided by “sandwich” type panels with high density strip. The foam panel and profile skins are injected with Zero ODP & Zero GWP PU foam of 40kg/m3, and the thermal transmittance factor meets EN1886 class T2.

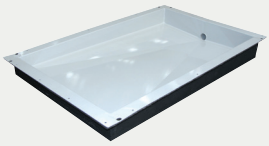




1.5. Hygiene

The flush-joint from the panel to frame has a smooth surface and curves at corners to prevent dirt and water retention.

Drain pan is dual V-shaped structure with longitudinal slope, which allows quick and easy drainage of condensate water.



The high quality direct-driven fan (plug fan) is optional, avoids pollution caused by wear of the drive belt.

1.6. High Efficiency Heat Exchanger

Cooling and heating coil are made of mechanically expanded copper tubes with aluminium fins, providing reliable performance certified by AHRI 410.

AHRI CERTIFIED®
www.ahridirectory.org
Air-Cooling and Air-Heating Coils
AHRI Standard 410

2. Selection Software Overview

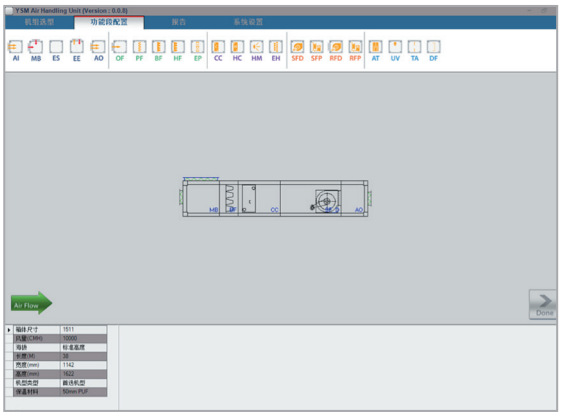
AECworks YSM Selection Software Features

Custom Made

- The user-friendly selection software makes for easy selection.
- The organized project management system quickly responds to customer's increasing design requirements.
- The flexible parametric design improves the design efficiency and effectively shortens design time.

Powerful Function

- Diverse configurations include simple and practical single-tier unit, slim unit and double-tier unit with smaller footprint area to meet various customer requirements.
- 81 preferred standard models are available to satisfy both conventional application and special applications with high requirement for dimension flexibility.
- Providing 18 segments available as an option.



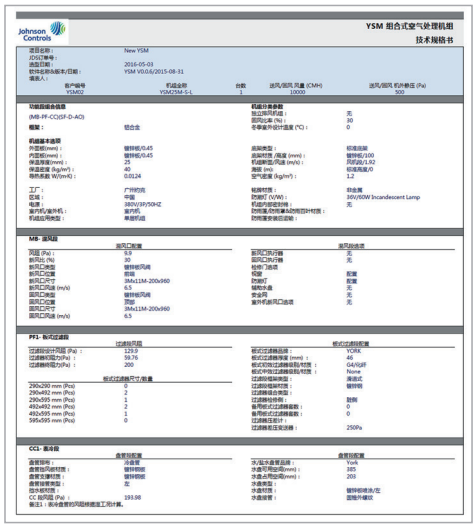
Professional Software for Coil Selection

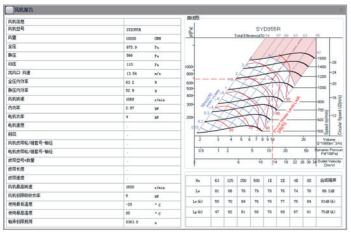
- Providing diverse rows of coils, circuit designs and fin options, the software is available to calculate coil performance for different operating conditions and environments, and can optimize core components configuration and improve efficiency of heat exchange.

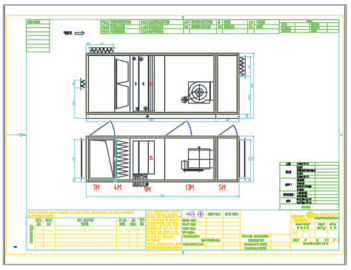
AHRI CERTIFIED®
www.ahridirectory.org
Air-Cooling and Air-Heating Coils
AHRI Standard 410

Comprehensive Output Reports

- Comprehensive performance report is provided.
- Scaled assembly drawing with automatic output is provided for professional's direct use
- Psychrometric I-D chart is provided to help to determine air state parameters in each functional segment and visually reflect the changes of air parameters.





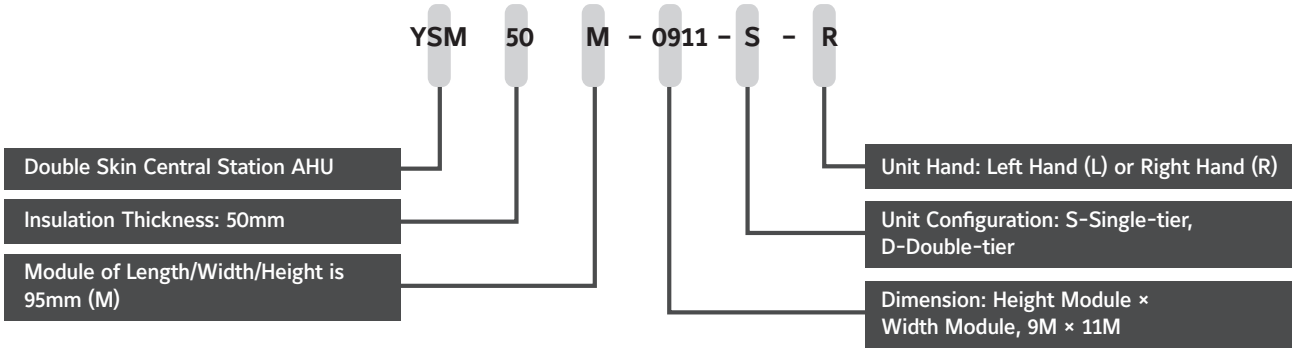


3. YSM Air Handling Units

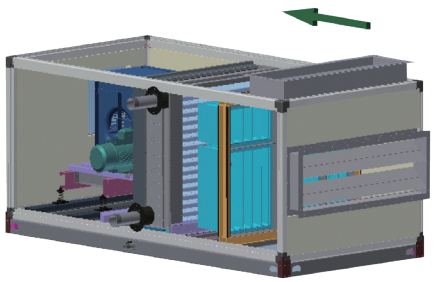
The YSM series double skin air handling unit (AHU) consists of 81 models having air volumes ranging from from 1,200 ~ 99,180m^3/h and standard internal static pressures as high ±1000 Pa (for 50mm thickness panel), to ensure maximum flexibility and the best solution for your application.

YSM air handling units are modular in design and can be manufactured in varied configurations, with a wide selection of components, to meet customer requirements. Units are suitable for shopping malls, hotels, office buildings etc. which in today's world demand improved indoor air quality requirements, and can also adapted to the hygiene and performance requirements of sectors and industries that depend on ultra-cleanliness, such as hospitals, pharmaceuticals, electronic factory etc.

Model Description



Unit Orientation

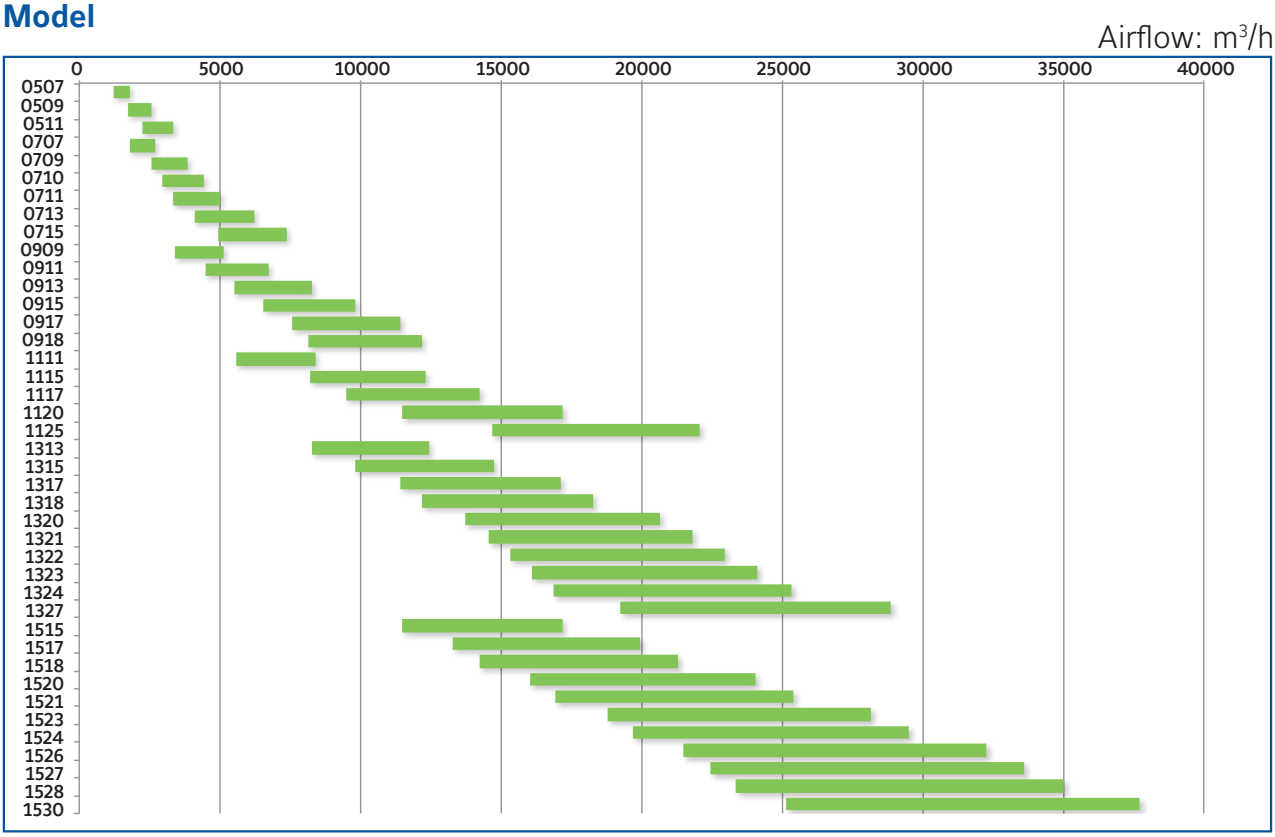


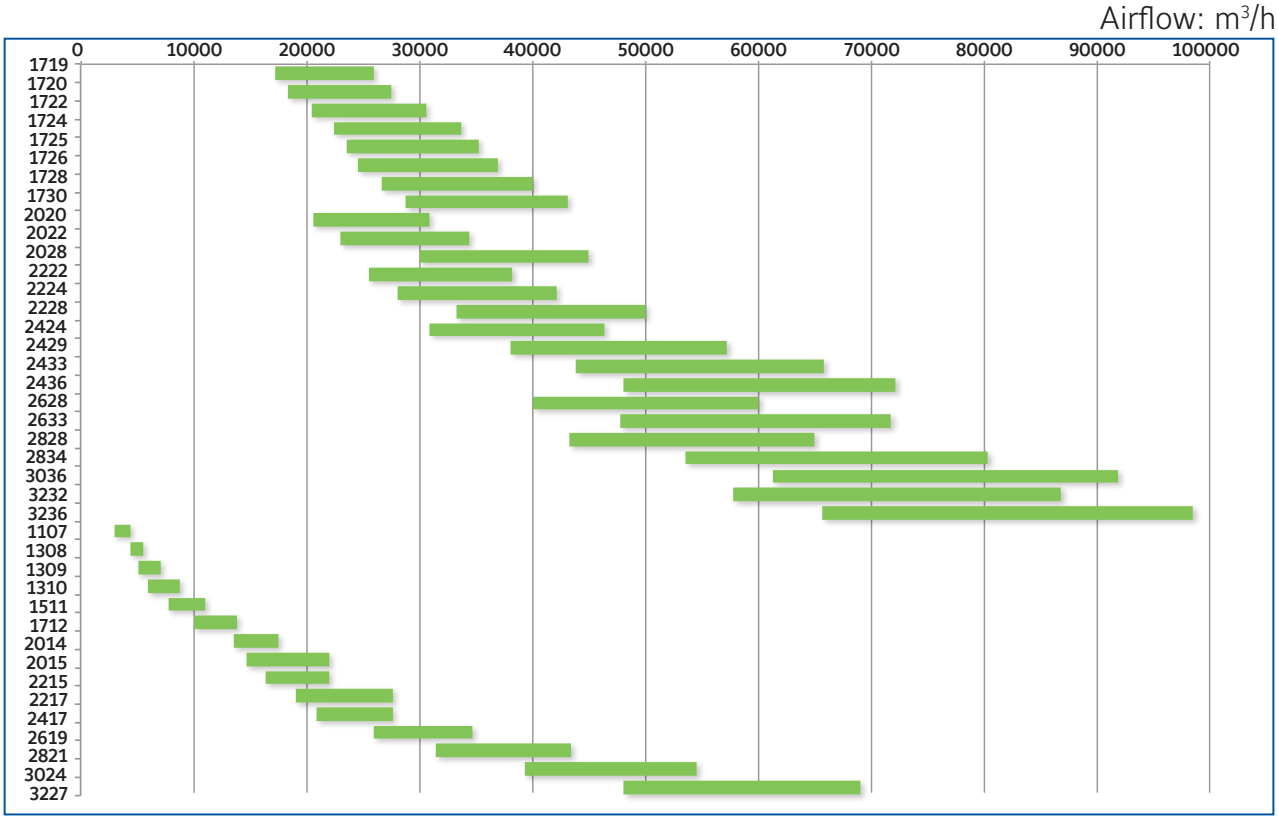
Unit orientation is determined by the location of the inlet and outlet pipes of the coil while facing unit in the direction of air flow.

The left hand is shown in the figure.

4. Quick Selection

Model

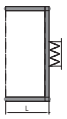
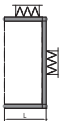
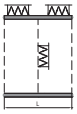
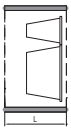
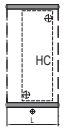
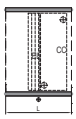




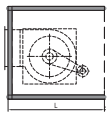
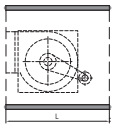
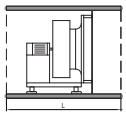
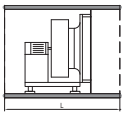
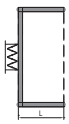
Note: Preferred standard models are listed.

5. Segment Specifications

Segment Specifications

Segment Name	Notation	Sketch (⟵ Airflow direction)	Length (Module) (for reference only)	Optional
Air Inlet Segment	AI		Damper located at front: L=5M Damper located at top or side: L=Dmp_L=5M~32M (Dmp_L is length module following air flow direction at side or top damper,determined by model and damper air flow rate)	Damper arrangement, Flange, Manual damper, Motorized damper without actuator, Motorized damper with On-Off or analog signal actuator, Access door, Marine light
Mixing Box Segment	MB		L=Dmp_L=5M~32M (Dmp_L is max length module following air flow direction at side or top damper, will be determined by model and damper air flow rate)	Damper arrangement, Fresh air ratio, Flange, Manual damper, Motorized damper without actuator, Motorized damper with On-Off or analog signal actuator, Access door, Marine light
Economizer Segment	EE		L=EA_Dmp_L +OA_Dmp_L=10M~36M (EA_Dmp_L is length module of exhaust air damper following air flow direction, OA_Dmp_L is length module of outdoor air damper following air flow direction, and it is determined by model and damper air flow rate)	Damper arrangement, Exhaust air ratio, Flange, Manual damper, Motorized damper without actuator, Motorized damper with On-Off or analog signal actuator, Access door, Marine light
Plate Filter Segment	PF		L=2M	G2,G3,G4,M5,M6,F7,F8 Plate filter, Dual plate combination filter, Without filter (only offer plate filter frame), Spare filter, Pressure difference gauge
Bag Filter Segment	BF		L=5M 300mm Bag filter L=5M Plate filter+300mm Bag filter L=7M 500mm Bag filter L=7M Plate filter+500mm Bag filter	G2,G3,G4,M5,M6,F7,F8 Plate filter; G4,M6,F7,F8,F9 Bag filter, Bag filter length 300/500mm, Single bag filter, Plate and bag combination filter, Without filter (only offer bag filter frame), Spare filter, Pressure difference gauge, Access door
Heating Coil Segment	HC		L=3M 1R, 2R L=4M 3R, 4R Note: L is 4M when TPC is 2 at 2R heating coil	1~4R Heating coil, Steel/copper header, Piping direction, 1~2R copper tube with aluminium fin, 1~2R steel tube with aluminium fin
Cooling Coil Segment	CC		L=5M~11M 1. It is determined by coil row and combination mode 2. Evaporative humidifier, droplet eliminator installed in coil segment, and does not occupy a separate segment	1~12R Cooling coil+1~4R Heating coil, 1~12R Cooling coil+1~2R Steam coil, Dual cooling coil, Steel/copper header, Piping direction, Droplet eliminator, 50/100/150/200mm Evaporative humidifier (EV),Humidifier brand
Electric Heater Segment	EH		Variable length. Depends on heater capacity and number of steps.	Heater Power

Segment Specifications

Segment Name	Notation	Sketch (⟵ Airflow direction)	Length (Module) (for reference only)	Optional
Humidifier Segment	HM		L=6M Electrode humidifier (EL) The length of the section depends on the absorption distance	Manual/electric switch for dry steam humidify, Humidifier Brand
Supply Fan – DIDW Fan Segment	SF_D		L=7M~34M Determined by model, fan and motor specification	Fan brand, Motor Band, Motor location, Fan discharge Access door, Marine light, View port, VFD
Return Fan – DIDW Fan Segment	RF_D		L=7M~34M Determined by model, fan and motor specification	Fan brand, Motor Band, Motor location, Fan discharge, Access door, Marine light, View port, VFD
Supply Fan – Plug Fan Segment	SF_P		L=9M~29M	Fan brand, Motor brand, Fan discharge, Access door, Marine light, Viewport, VFD
Return Fan – Plug Fan Segment	RF_P		L=9M~29M	Fan brand, Motor brand, Fan discharge, Access door, Marine light, Viewport, VFD
Empty Segment	ES		L=2M~12M Select it according to the requirement	Access door, Marine light, Flange, Damper, Viewport, Auxiliary Drain pan
Sound Attenuator Segment	AT		L=5M, 7M, 9M, 11M,13M, 15M Select it according to sound attenuator requirement.	
Air Outlet Segment	AO		Damper located at front: L=5M Damper located on top or side_L=Dmp_ L=5M~32M (Dmp_L is length module following air flow direction, will be determinded by model and damper air flow rate)	Damper arrangement, Flange, Manual damper, Motorized damper without actuator, Motorized damper with On-Off or analog signal actuator, Access door, Marine light, Viewport
UV Segment	UV		L=2M	

5. Segment Specifications

Unit Length Calculation

Overall length

For 50mm unit:

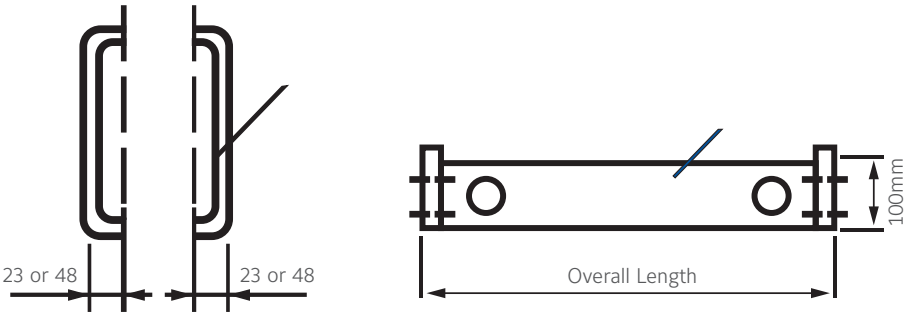
Overall length	=	Unit overall length module L No.	x	95mm	+	split shipped No.	x	96mm

Delivery section length

For 50mm unit:

The delivery length of each split	=	L No. in each split	x	95mm	+	96mm

Notes:
Width module W not larger than 20M, maximum split length module L is 36M
Width module W not less than 20M, maximum split length moduler L is 21M
Height module H not less than 22M, unit is shipped by completely knock-down
The length is only for your reference. Please contact Johnson Controls' local office for detailed dimension.



Overall unit height (without VC) =

Unit height module H No.	x	95mm	+	96mm	+	100mm

Overall unit height (with VC) =

Unit height module H No.	x	95mm	+	96mm x 2	+	100mm

For example:

One YSM50 unit with length module 28M, is divided into 2 segments, one is 12M, another is 16M

Then overall length is 28 x 95 + 2 x 96 = 2852mm

Delivery length of each segment is 12 x 95 + 96 = 1236mm, 16 x 95 + 96 = 1616mm

Split Principle

- Split at upstream of EE/RF_D/SF_D/ES/DF/AO/VE/TN, split at downstream of AI/MB/EE/BF/ES/RF_P/SF_P/VE/TN.
- EE/VE can be divided at upstream or downstream, and even can be divided in the middle.

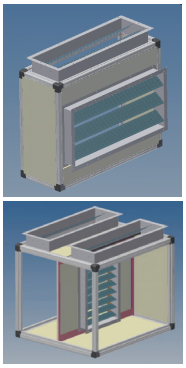
Segment Arrangement Principle

- AI/MB should be located in most upstream only.
- AO should be located in most downstream only.
- Diffuser segment can be only located next to downstream of RF_D or SF_D.
- SP of HM can't be chosen if HM is not next to downstream of CC.
- RF_D is necessity if EE/VE is chosen. Besides, EE must be at downward air flow side of RF_D. SF must be chosen if RF is chosen, and SF must be at downstream of RF.
- In order to facilitate maintenance, at least 5M maintenance space is needed next to upstream or downstream of PF/BF/HF.
- There are spare upstream maintenance space in AI/MB/DF/EE/ES/RF_D/SF_D/VE/TN; And spare downstream maintenance space in EE/RF_P/SF_P/ES/AO/VE/TN.
- The length of ES with access door can't be less than 5M.

6. Segments Specifications & Illustration

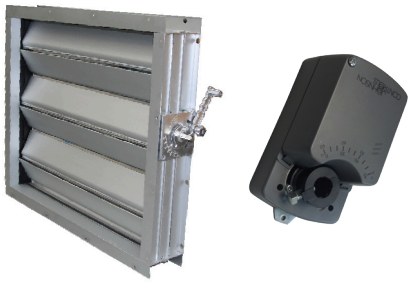
Air Inlet / Mixing Box / Air Outlet / Economizer Segment

- Air inlet segment – it is linked with return air duct or fresh air duct, and supply return air into air handling unit.
- Mixing box – it can adjust the proportion of return air and outdoor air to satisfy the need of air conditioning environment.
- Air outlet segment – it is linked with supply air duct, and supply air to air conditioning systems.
- Economizer segment – it can adjust the proportion of outside air to take advantage of free cooling at low temperatures.



Damper

- Damper material options: Aluminium alloy.
- Providing flange, manual damper, motorized damper without actuator or with actuator.
- Damper Location
  - Air inlet, Air outlet, Mixing box segment: Front/Top/Side
  - Economizer/Empty segment: Top/Side.



Filter Segment

- Plate filter: Uses polyester synthetic fiber filter media, filtration efficiency is G2,G3,G4,M5,M6,F7,F8
- Bag filter: Filtering material and efficiency: G4 Polyester Cotton, M6,F7,F8,F9 Synthetic fiber. Bag length of 300mm or 500mm.

- Service Instructions
  - Remove the open return filter from side.
  - Replace the plate & bag filters from the front side (front release).
  - Replace the high-efficiency filter from the dirty side (upstream side).

- Options

  Pressure difference gauge: Provides the visual reading of differential pressure through the filter, avoiding the filter efficiency reduction due to dust over-accumulation.

Filter Quantity

YSM size	External Height mm	Internal Width mm	Internal Height mm	Internal Width mm	PF Filter Qty								
					12″ x 12″	12″ x 20″	20″ x 12″	12″ x 24″	24″ x 12″	20″ x 20″	20″ x 24″	24″ x 20″	24″ x 24″
0507	571	761	467	657				1					
0509	571	951	467	847	1	1							
0511	571	1141	467	1037	1			1					
0707	761	761	657	657									1
0709	761	951	657	847					1			1	
0710	761	1046	657	942					1			1	
0711	761	1141	657	1037					1				1
0713	761	1331	657	1227								1	1
0715	761	1521	657	1417					1			2	
0909	951	951	847	847					1		1		
0911	951	1141	847	1037					1				1
0913	951	1331	847	1227								1	1
0915	951	1521	847	1417					1			2	
0917	951	1711	847	1607					1				2
0918	951	1806	847	1702								2	1
1107	1141	761	1037	657				1					1
1111	1141	1141	1037	1037				1	1				1
1115	1141	1521	1037	1417		2			1			2	
1117	1141	1711	1037	1607				2	1				2
1120	1141	1996	1037	1892		1		2				1	2
1125	1141	2471	1037	2367		2		2				2	2
1308	1331	856	1227	752							2		
1309	1331	951	1227	847			2			2			
1310	1331	1046	1227	942			2				2		
1313	1331	1331	1227	1227						2	2		
1315	1331	1521	1227	1417			2			4			
1317	1331	1711	1227	1607			2				4		
1318	1331	1806	1227	1702						4	2		
1320	1331	1996	1227	1892						2	4		
1321	1331	2091	1227	1987							6		
1322	1331	2186	1227	2082			2			4	2		
1323	1331	2281	1227	2177			2			2	4		
1324	1331	2376	1227	2272			2				6		
1327	1331	2661	1227	2557							8		
1511	1521	1141	1417	1037					2				2

6. Segments Specifications & Illustration

Filter Quantity

YSM size	External Height mm	Internal Width mm	Internal Height mm	Internal Width mm	PF Filter Qty								
					12″ x 12″	12″ x 20″	20″ x 12″	12″ x 24″	24″ x 12″	20″ x 20″	20″ x 24″	24″ x 20″	24″ x 24″
1515	1521	1521	1417	1417					2			4	
1517	1521	1711	1417	1607					2				4
1518	1521	1806	1417	1702								4	2
1520	1521	1996	1417	1892									6
1521	1521	2091	1417	1987									6
1523	1521	2281	1417	2177					2				6
1524	1521	2376	1417	2272					2				6
1526	1521	2566	1417	2462								2	6
1527	1521	2661	1417	2557									8
1528	1521	2756	1417	2652									8
1530	1521	2946	1417	2842					2				8
1712	1711	1236	1607	1132		2						4	
1719	1711	1901	1607	1797				2	2				4
1720	1711	1996	1607	1892				3					6
1722	1711	2186	1607	2082		1		2	2			2	4
1724	1711	2376	1607	2272				3	2				6
1725	1711	2471	1607	2367		1		3				2	6
1726	1711	2566	1607	2462		1		3				2	6
1728	1711	2756	1607	2652				4					8
1730	1711	2946	1607	2842				4	2				8
2014	1996	1426	1892	1322									6
2015	1996	1521	1892	1417					3			6	
2020	1996	1996	1892	1892									9
2022	1996	2186	1892	2082					3			3	6
2028	1996	2756	1892	2652									12
2215	2186	1521	2082	1417					3			6	
2217	2186	1711	2082	1607					3				6
2222	2186	2186	2082	2082					3			6	3
2224	2186	2376	2082	2272					3				9
2228	2186	2756	2082	2652									12
2417	2376	1711	2272	1607				2	3				6
2424	2376	2376	2272	2272				3	3				9
2429	2376	2851	2272	2747				4					12
2433	2376	3231	2272	3127				5					15
2436	2376	3516	2272	3412				5	3				15

Filter Quantity

YSM size	External Height mm	Internal Width mm	Internal Height mm	Internal Width mm	PF Filter Qty								
					12″ x 12″	12″ x 20″	20″ x 12″	12″ x 24″	24″ x 12″	20″ x 20″	20″ x 24″	24″ x 20″	24″ x 24″
2619	2566	1901	2462	1797			1		3		2		6
2628	2566	2756	2462	2652							4		12
2633	2566	3231	2462	3127							5		15
2821	2756	2091	2652	1987									12
2828	2756	2756	2652	2652									16
2834	2756	3326	2652	3222									20
3024	2946	2376	2842	2272				4	4				12
3036	2946	3516	2842	3412				5	4				20
3227	3136	2661	3032	2557				4					16
3232	3136	3136	3032	3032				4	4				16
3236	3136	3516	3032	3412				5	4				20

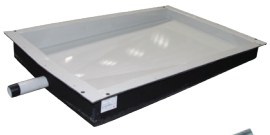
Comparison of Efficiency & Specifications in CHINA, USA & EU

China GB/T14295	Premium efficiency≥5μm 80%>Efficiency≥20%					Medium efficency≥1μm 70%>Efficiency≥20%				High-medium efficiency≥1μm 99%>Efficiency≥70%		
U.S. ASHRAE	C1	C2-C4	L5	L6	L7	L8	M9	M10	M11	M12	M13	M14
Europe New specification	G1 65%	G2 80%	G3 80%~90%		G4 >90%	F5 40%		F6 60%		F7 90%	F8 90%	
Europe Old specification	EU1	EU2	EU3		EU4	EU5		EU6		EU7	EU8	

6. Segments Specifications & Illustration

Cooling & Heating Coil

- Cooling and heating coil are made of mechanically expanded copper tubes with aluminium fins, providing reliable performance, certified by AHRI 410.
- All coils are pre-tested for leakage before delivery.
- The coil has a framework made of galvanized steel (stainless steel is optional).
- The drain pan is made of powder coated galvanized steel or optional stainless steel.
- Drain pan is dual V-shaped structure with longitudinal slope, and allows quick and easy drainage of condensed water.
- An eliminator can be installed if required by customer to prevent condensed water from being blown out of coil. (As specified by the manufacturer, eliminator can be installed for coil face velocity in the range 2.5~3m/s).
- Hydrophilic aluminium fin is optional.
- Water inlet/outlet flange connection is optional.



Water coil tube height list

Modular Height(M)	1/2"Coil		3/8"Coil
	Coil Height	Combination	
5	-	-	16
7	-	-	22
9	-	-	30
11	30	30	38
13	36	36	44
15	42	42	-
17	48	48	-
20	54	24+30	-
22	60	30+30	-
24	66	30+36	-
26	72	36+36	-
28	78	36+42	-
30	84	42+42	-
32	90	42+48	-

Notes:

1. Coil header connector is male thread. Below is corresponding metric and imperial unit diameter (The imperial diameter is nominal dimension).

Metric / mm	34mm	48mm	60mm	76mm	89mm
Imperial / Inch	1"	1-1/2"	2"	2-1/2"	3"

2. Condensate connector is 48mm OD male thread pipe connector.
3. For model size of 2020 (including 2020) or above, the coils have two water-in and two water-out connection.
4. TPC: Tube quantity of each circuit, the formula as follows:

$$TPC = \frac{\text{Tube High X Rows}}{\text{Circuits}}$$

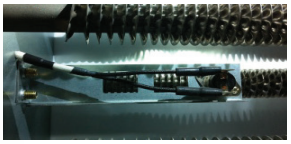
Water coil connection pipe sizes for 1/2" Coil (mm)

Rows	TPC	Tube High						
		12	18	24	30	36	42	48
1 Row	2	48	48	60	60	60	60	60
	4	34	48	48	48	60	60	60
2 Row	2	60	60	76	76	89	89	89
	4	48	48	60	60	60	60	60
	6	48	48	48	48	60	60	60
	8	34	48	48	48	60	60	60
3 Row	2	60	76	89	89	89	89	89
	4	48	60	76	76	76	76	76
	6	48	48	60	60	76	76	76
4 Row	2	76	76	89	89	89	89	89
	4	60	60	76	76	89	89	89
	6	48	60	60	60	76	76	76
	8	48	48	60	60	76	76	76
5 Row	4	60	76	76	76	89	89	89
	6	48	60	76	76	76	76	76
	8	48	60	60	60	76	76	76
	10	48	48	60	60	76	76	76
6 Row	4	60	76	89	89	89	89	89
	6	60	60	76	76	89	89	89
	8	48	60	76	76	76	76	76
	12	48	48	60	60	76	76	76
8 Rows	4	76	76	89	89	89	89	89
	6	60	76	76	76	89	89	89
	8	60	60	76	76	89	89	89
	12	48	60	60	60	76	76	76
	16	48	48	60	60	76	76	-
10 Rows	6	-	76	89	89	89	89	89
	8	-	76	76	76	89	89	89
	10	-	60	76	76	89	89	89
	12	-	60	76	76	76	76	76
	16	-	60	60	60	76	76	-
12 Rows	6	-	76	89	89	89	89	89
	8	-	76	89	89	89	89	89
	12	-	60	76	76	89	89	89
	16	-	60	76	76	76	76	-

Notes: Connection size information for 1/2" and 3/8" coils is provided in the selection report from AECWorks.

Electric Heater Segment

- The electric heater employs stainless steel tube with helical fins and temperature protection switch, etc.
- The electric heater element is fixed on the frame. Electric control box is supplied and installed by the user. And its control must be interlocked with the fan.
- Features
  - 1-4 steps control, to satisfy various needs of heating power;
  - Overheating protection: Built-in temperature protection switch shall automatically shut off when the temperature is too high.



6. Segments Specifications & Illustration

Sound Attenuator Segment

- Sound attenuator uses galvanized steel as frame, non-hygroscopic and anticorrosive superfine fiber glass as inner lining acoustic absorbent, with perforated plate as protective cover of lining material. The allowable velocity is 20m/s. The sound attenuator unit is installed on a guide rail in the box.
- The standard sound attenuator segment is supplied in length of 5M/7M/9M/11M/13M/15M.

UV Lamp Segment

- It uses high-grade and durable UV lamp to kill bacteria and germs retained by or attached on specific functional segments e.g. filter segment and cooling coil segment. The interlocked travel limit switch of access door is used to disable the lamp to avoid injury when entering the section for service.

Humidifier Segment

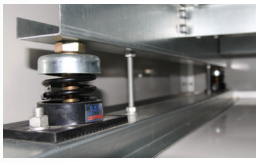
Electrode Humidifier

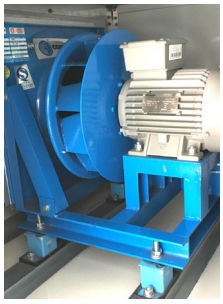
- Main of the humidifier converts electric energy to heat with electrode and heats water to steam, which is delivered to AHU through pipe.
- Key component of the humidifier is integrated to electric control box and controlled by microcomputer, easy for installation and use.
- Stainless steel or aluminium alloy steam distribution pipe
- Regulating Signal: ON-OFF, 0-10V/4-20mA
- Regulation Mode: Switch type, proportion type

Fan Segment

DIDW Centrifugal Fan

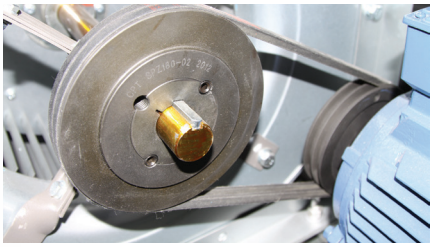
- Double-inlet forward-curve/backward-curve centrifugal fan or plug fan from well known brand is adopted, safer and more reliable.
- Both impeller and frame are made of high-strength alloy steel plate with robust design. Impeller has been statically and dynamically balanced.





- The optional VSD converter can regulate the running speed of fan, reducing energy consumption of system.
- High-quality damper spring is used for damping, which effectively lowers vibration and noise produced by fan.
- Base of motor is equipped with sliding rail adjustment device to facilitate adjustment of motor and belt by user.
- On outlet of fan there's flexible connection of canvas, which prevents transfer of vibration and compliance to BS476.

- Belt is provided with high driving power and good wear resistance.
- European-style taper sleeve belt pulley which is reliable and easy to disassemble is used.
  Impeller has been statically and dynamically balanced.
- Each bearing is product from known brand, with high assembly accuracy.



Plug Centrifugal Fan

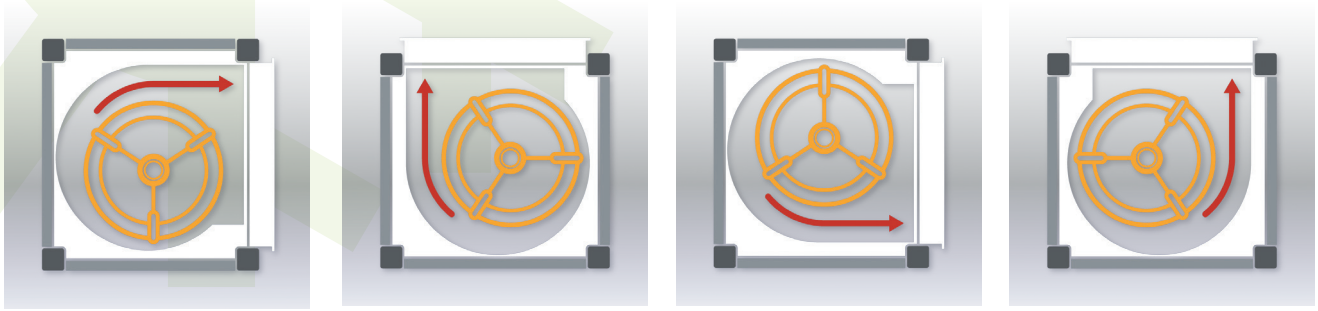
- Plug fan application provides flexibility of supply discharge duct arrangement. This makes installation easier.
- Plug fan with open structure, easier for cleaning and maintenance.
- High efficiency, low noise.
- Direct-driven plug fan is directly driven with motor. This avoids secondary pollution from debris of belt produced during belt driving. Such fan is widely used in clean-room industries. e.g. electronics, pharmacy etc.

- High-quality motor with high energy efficiency is used. Motor is IP55 protection class & Class F insulation. It can run reliably and efficiently. Motors are VFD compatible
- Constant-speed motors and VSD motors are available.
- Power supply: 400V/3P/50Hz, 415V/3P/50Hz, 380V/3P/60Hz, 400V/3P/60Hz, 460V/3P/60Hz

6. Segments Specifications & Illustration

Fan Arrangement

Airflow



HH HVCC HHCC HV

Note:

For DIDW fan, the air inlet and outlet direction are shown as above with blue and red arrow.
For plug fan, air inlet is axial diretion, and air outlet is radial direction, which allows fan outlet with Top, Bottom, Side and Back position.

Fan Weight List

Plug Fan

Fan Models	Weight (Only fan wheel)
250	10
280	10
315	10
355	13
400	13
450	21
500	35
560	50
630	58
710	80
800	91
900	117
1000	150
1120	201
1250	258

DIDW Fan

Fan Model	Fan with forward curved		Fan with backward curved	
	Weight (kg)	Frame Type	Weight (kg)	Frame Type
160	5.7	L	-	-
180	6.5	L	6	L
200	7.4	L	8	L
225	9.2	L	10	L
250	11	L	16	L
280	29	K	32	K
315	35	K	42.6	K
355	42	K	54.7	K
400	57	K	63.6	K
450	72	K	82.5	K
500	92	K	104.5	K
560	160	K	171	K
630	185	K	197	K
710	240	K	271	K
800	290	K	300	K
900	365	K	481.5	K
1000	480	K	530	K
1120	-	-	687	-

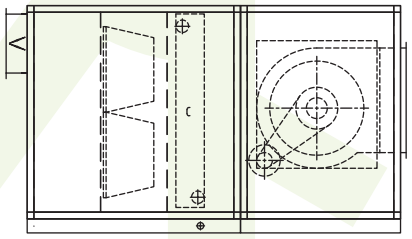
Motor Weight List

Motor Power (Kw)	50/60Hz 380V 4P Motor Weight (Kg)
0.75	12.5
1.1	17.5
1.5	19.5
2.2	25
3	26
4	34
5.5	55
7.5	57
11	92
15	99
18.5	130
22	155
30	225
37	235
45	318
55	350
75	428
90	470

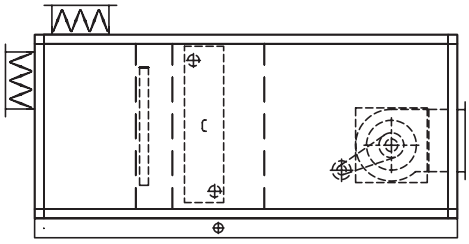
Note: Take the weight of Arcelik motor as a reference, and take the fan weight of Yilida fan for reference

6. Segments Specifications & Illustration

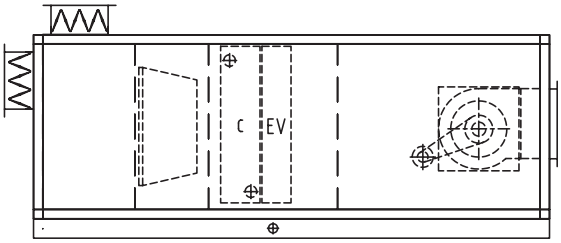
YSM General Segment Arrangement



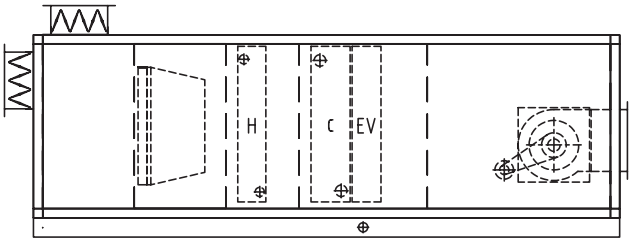
Model I: AI+BF+CC+SF



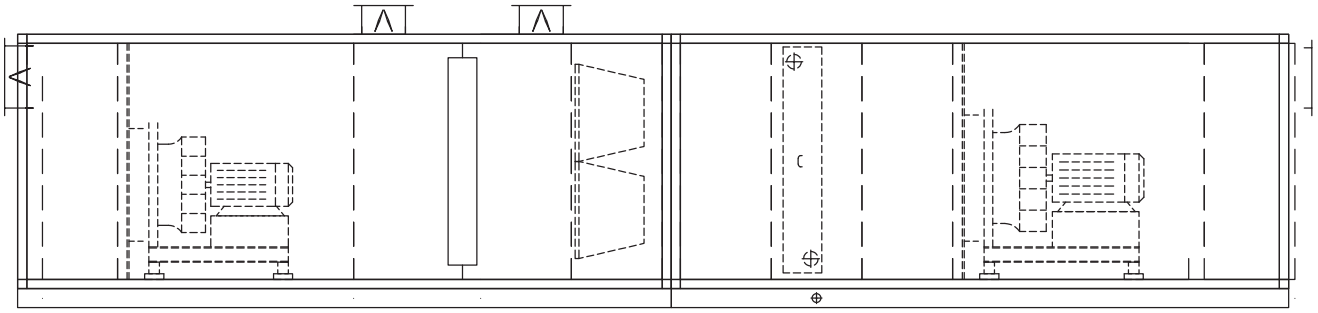
Model II: MB+PF+CC+SF



Model III: MB+PF+BF+CC(+EV)+SF



Model IV: MB+PF+BF+CC(+EV)+HC+SF



Model V: AI+RF(Plug fan)+EE+BF+ES+CC+UV+ES+SF(Plug fan)+AO

Note

Note

Note

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