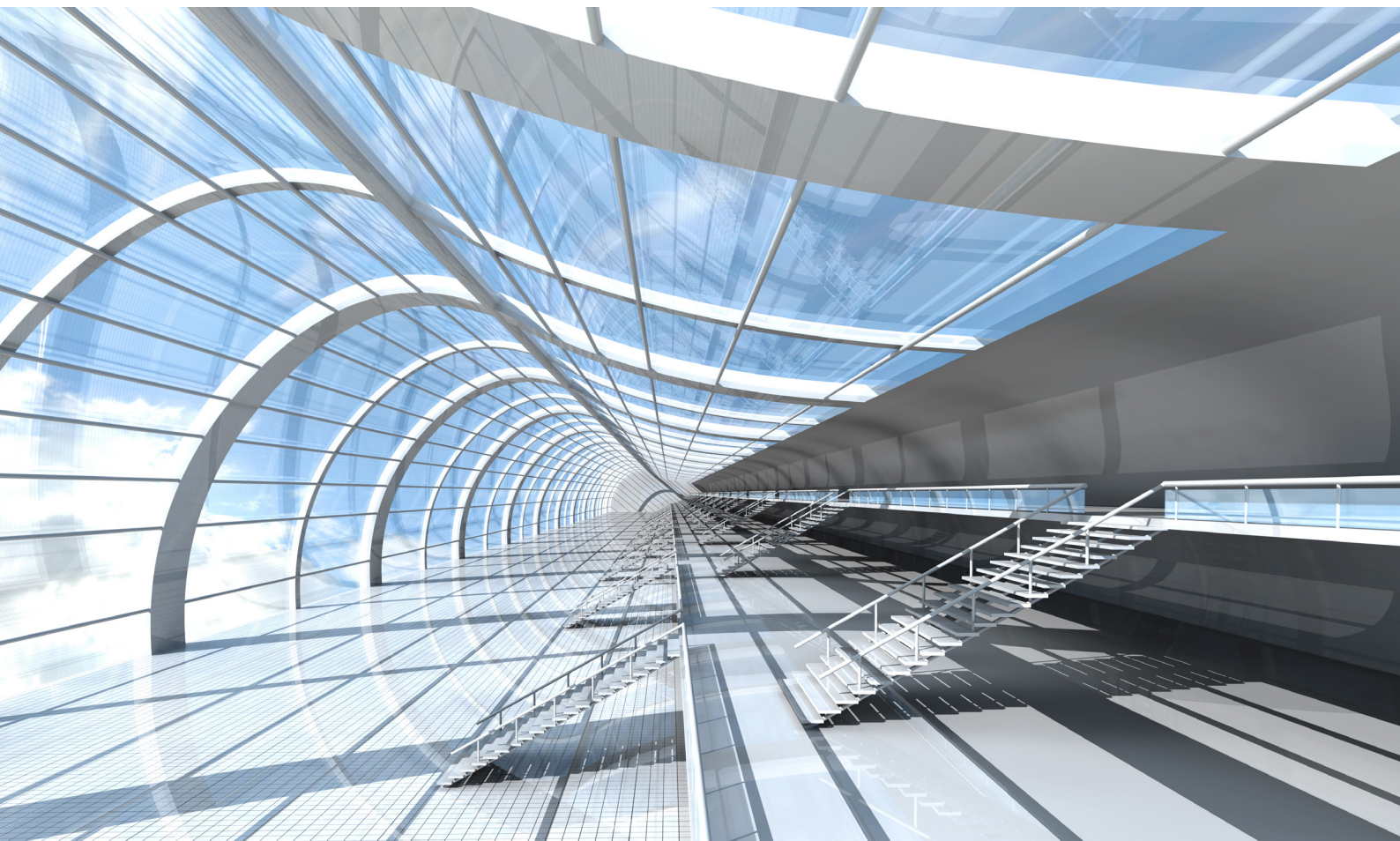
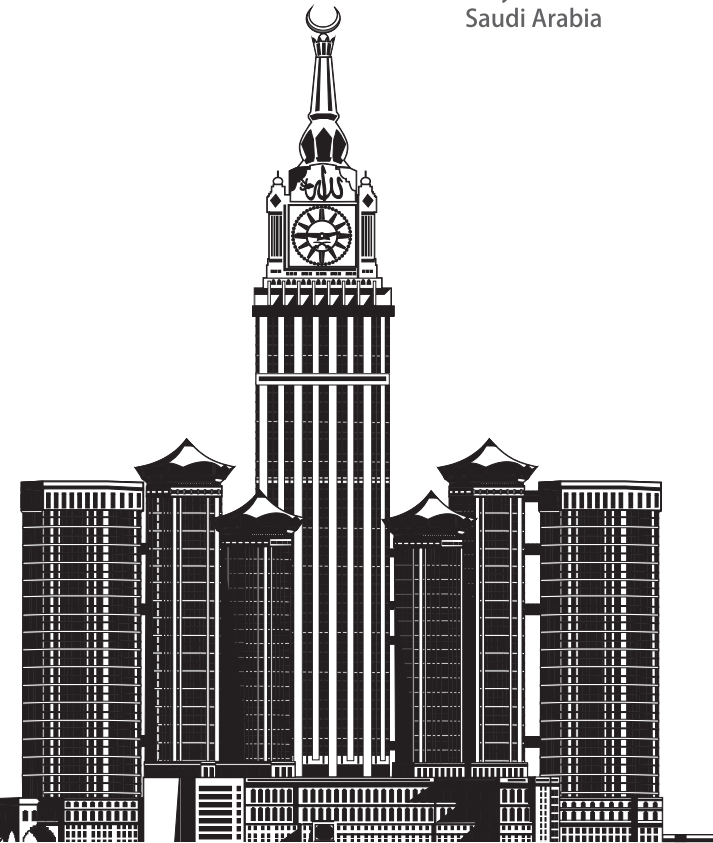


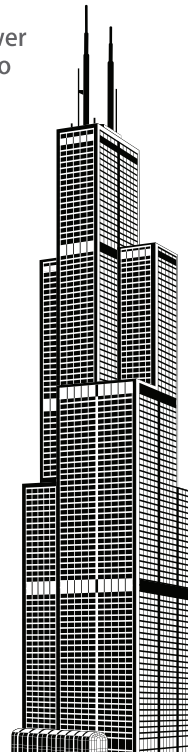
YBAH High Efficiency ECM Series Ceiling Mounted Air Handling Units



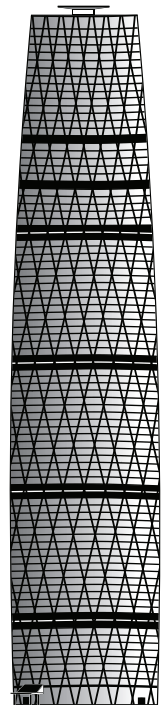
Makkah Royal Clock Tower
Saudi Arabia



Willis Tower
Chicago



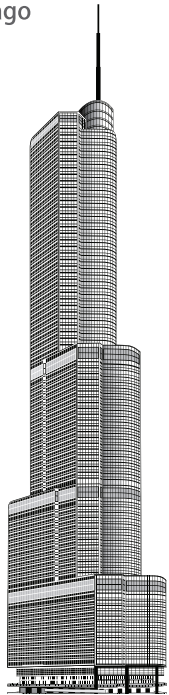
International Finance Center
Guangzhou



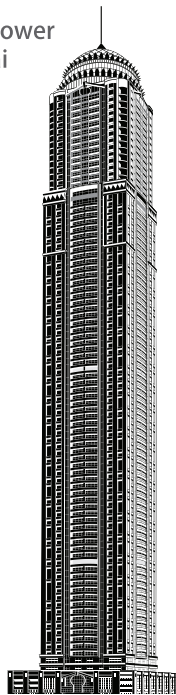
Trump
Chicago

PROVIDING PRODUCTS &
SOLUTIONS TO ASIA LANDMARKS

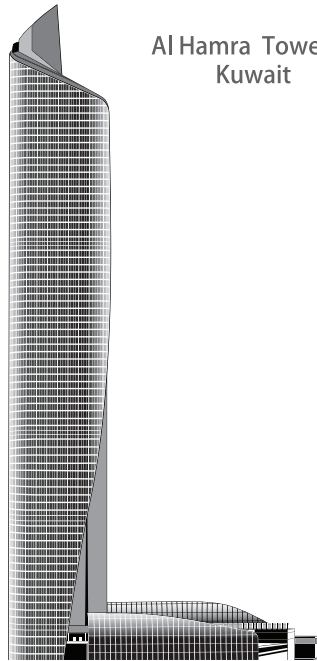
Chicago Tower



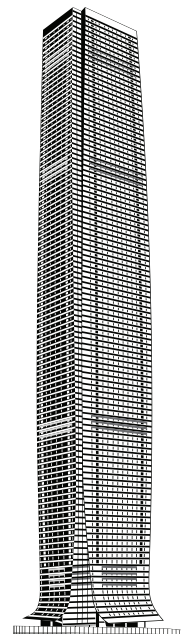
Princess Tower
Dubai



Al Hamra Tower
Kuwait



International Commerce Center
Hong Kong



High Efficiency



Quiet Operation



Flexible Application



Smart Control

YBAH High Efficiency ECM Series Ceiling Mounted Air Handling Units

Johnson Controls YORK® YBAH ECM series ceiling mounted air units are high static pressure air-conditioning units using high efficiency EC motors. YBAH ECM series are available in 8 models with integral EC motor incorporate fully variable 0-10v speed control, airflow range from 1000m³/h to 6000m³/h. YBAH ECM series with higher efficiency, wider external pressure range, low noise operation and compact ceiling install design are the ideal HVAC solution for both new construction and renovation projects for hotels, retail centers, office buildings, and education facilities.



High Efficiency

- EC motors are significantly more efficient than AC motors. At full load the ECM is typically 20% more efficient than a standard induction motor.
- Direct drive and no belt drive energy loss
- Lower rise in air temperature on the air stream and reduce the operation fee of HVAC system.
- High quality copper tube and hydrophilic aluminum fin, better heat transfer efficiency



Quiet Operation

- Field-Oriented Control (FOC) drive technology, smooth operation, reduce vibration and noise.
- Each fan has been dynamically and statically balanced
- Lower operation speed, lower partial load operating noise
- In accordance with AHRI 260 Standard, test radiated sound power data in reverberation test rooms.



Easy Installation

- EC motor with Integrated control design, small footprint and convenient installation.



Quick Maintenance

- Side/bottom removal filter
- Direct drive and no need to replace pulley
- Quick inspection panel for single skin units, optional access door for double skin units.



Smart Control

T7601 Series

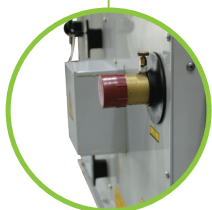
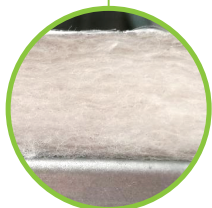
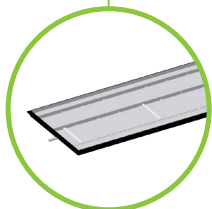
- T7601 are equipped with Modbus communication, which provide information to building automation system in order to implement enhanced energy saving strategies.
- Large backlit LCD and multiple color



Flexible Application

- EC technology and with a wide RPM range, can satisfy variable airflow and pressure from a 0 - 10 vdc control signal.
- Optional electric heater, and valve package(on/off type)





Comfort & Safety

High efficiency EC motor

- Indoor temperature PID calculation and stepless airflow, adjustment allow for precise room temperature control, improving occupant comfort.
- Patented dissipation structure design of controller
- Longer motor life for lower running temperatures
- Overcurrent and overheat protection prevent motor burnout.

Optional PM2.5 panel filter, PM2.5 removal efficiency up to 90%

Integral dry pan design

Dry pan allows quick and easy drainage of condensation

Better heat insulation

Polyester fiber insulation, good thermal insulation performance
Class V0, good fire resistance



Smooth surface, elegant profile

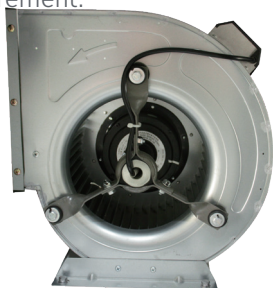
- Inner surface with aluminum foil surface, quality upgrade
- Ceiling-mounted design with firm and stability frame
- Steel bolts, nuts, screws with special treatment, enhance corrosion resistanceGalvanized steel with 15mm thick polyester fiber insulation
- Optional 25mm thick double skin construction with better heat insulation

YBAH ECM Motor Features

EC motor is frequently referred to as an ECM (electronically commutated motor). The motor has been in production for years and is commonly used in HVAC units. Fan speed control is accomplished through a microprocessor based variable speed controller (inverter) integral to the motor.

Ultra-High Energy Efficiency Motor

ECM motors are significantly more efficient than AC motors. At full load the ECM is typically 20% more efficient than a standard induction motor. Due to the permanent magnet, YBAH ECM maintains a high efficiency at low speeds. YBAH EC motor provides peak efficiency ratings up to 82%. Furthermore, the motor heat gain is greatly reduced providing additional energy savings by reducing the cold primary air requirement.



impeller bracket structure enhance the stable and reliable of bracket. ECM motor with compact size, wide air volume, high efficiency and stability features and will greatly improve the application of ceiling mounted air handling units.

Quiet Operation

ECM motor is adopted Field-Oriented Control (FOC) drive technology, smooth operation, reduce vibration and noise. Each fan has been dynamically and statically balanced. Referring to AHRI260 standard, the sound power value is measured in the operating range of AHRI 220 standard reverberation chamber.

Wider Speed Range and Designer Flexibility

The unit adopts torque control motor and operation by automatically adjusting the speed in response to system pressure changes. Indoor temperature PID calculation and stepless airflow, adjustment allow for precise room temperature control, improving occupant comfort.

Patented Dissipation Structure Design of Controller

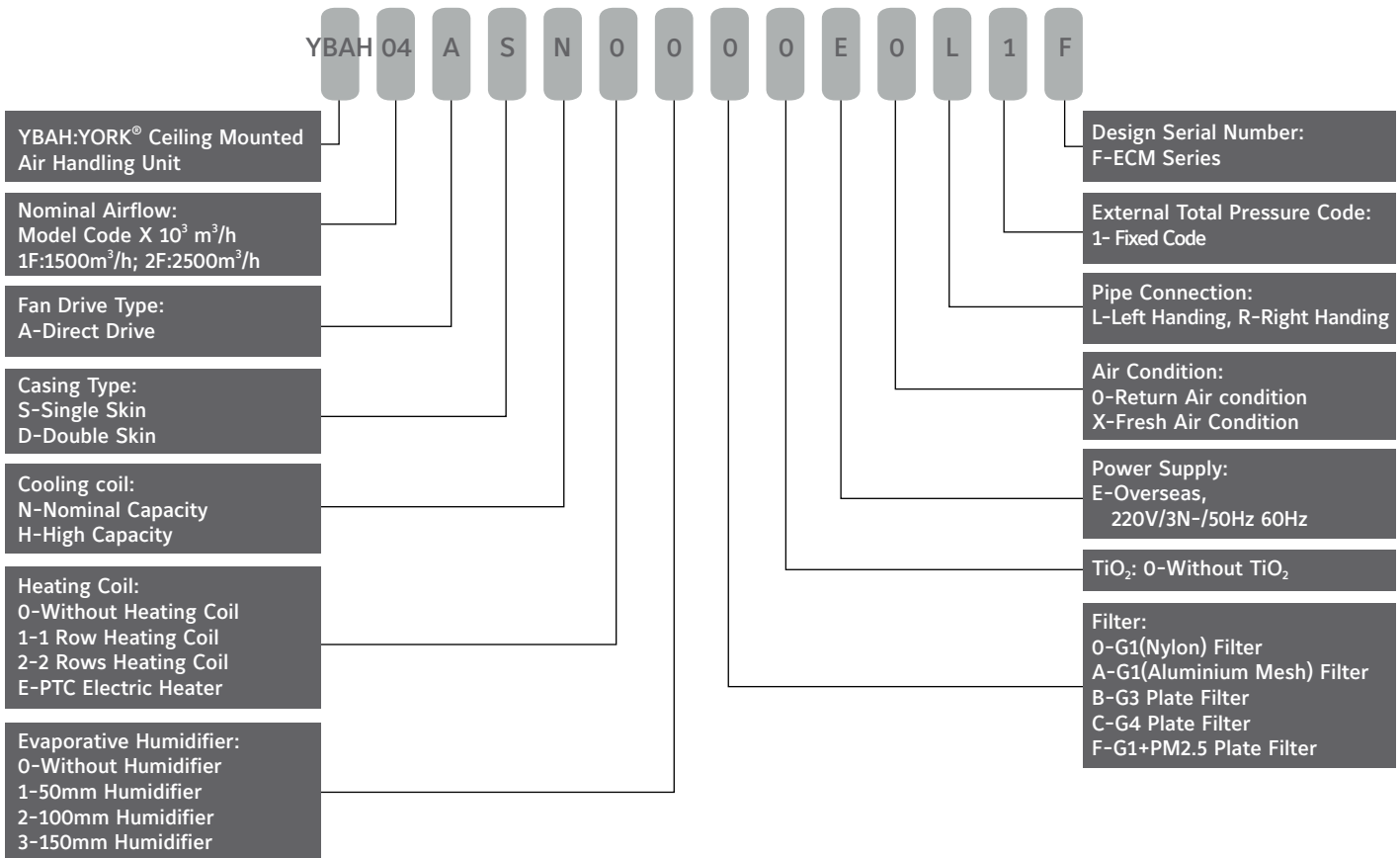
Patented dissipation structure design of ECM controller, provides a significantly reduced operating temperature of ECM motor. The lower temperature increases the longevity of all electrical components and therefore the life of the motor.

Perfect Integrated Design of ECM Motor and Centrifugal Fan

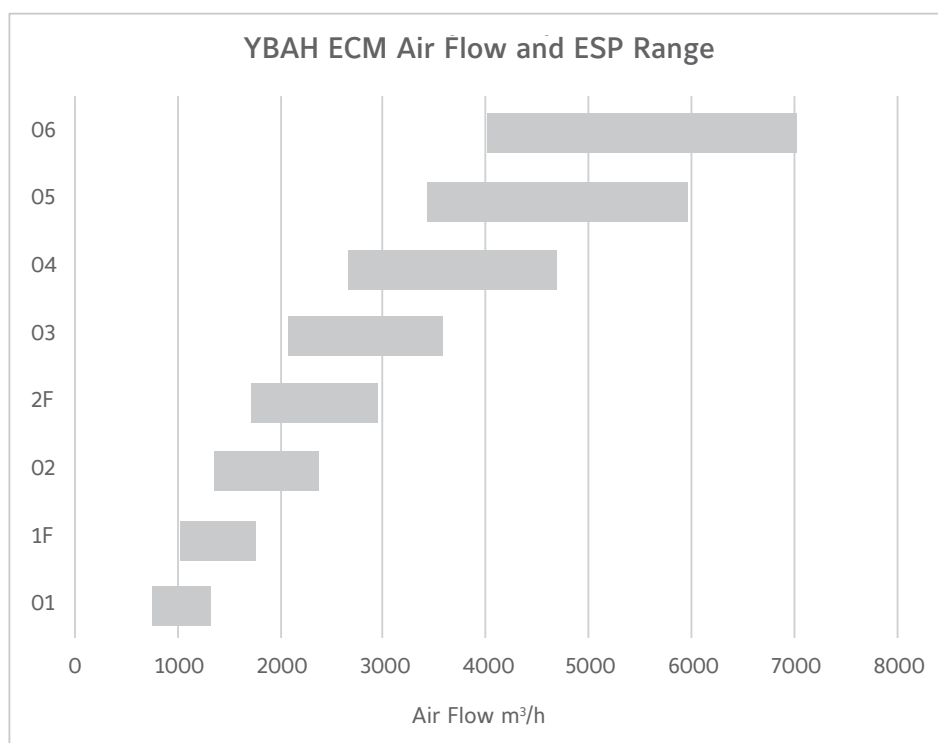
ECM motor is integrated with the intermediate partition of centrifugal fan, and Y bracket is used to fix both sides. The design can obviously reduce the negative pressure caused by the motor blocking the inlet of the fan, and improve the efficiency and capability of the fan. Bilateral balanced



Nomenclature



YBAH ECM Series Airflow Range



Specifications

Model	YBAH01	YBAH1.5	YBAH02	YBAH2.5	YBAH03	YBAH04	YBAH05	YBAH06
Rated Airflow m ³ /h)	1000	1500	2000	2500	3000	4000	5000	6000
Fan Type	High efficient, double air inlets forward curved							
Fan Number	1	1	1	1	1	2	2	2
Motor Type	EC direct drive							
Power Supply	220V/1N~/50Hz 60Hz							
Motor Number	1	1	1	1	1	2	2	2
Rated Motor Power (W)	375	375	500	750	750	750×2	750×2	750×2
Cooling Coil	Copper tube with louve hydrophilic aluminum							
Heating Coil	Copper tube corrugated aluminium fins							
Coil Face Velocity (m/s)	2.06	2.28	2.28	2.28	2.25	2.29	2.25	2.29
Filter Type	G1 Nylon filter/G1 Aluminium Mesh/G3/G4/PM2.5 Plate Filter							
Filter Number	1	1	1	1	2	2	2	2
Filter Size (mm)	489×354	559×394	709×394	859×394	511×394	586×443	731×443	851×443
Filter Face Velocity (m/s)	1.60	1.89	1.99	2.05	2.07	2.14	2.14	2.21
Max PTC Electric Heating Power (kW)	3.0	4.2	5.7	7.2	8.7	11.1	13.5	16.5
Unit Depth (mm)	860	860	860	860	860	940	940	940
Unit Width (mm)	630	700	850	1000	1160	1310	1600	1840
Unit Height (mm)	468	508	508	508	508	557	557	557
Net Weight(kg) (Single Skin 3R)	60	69	74	87	100	135	156	168
Shipping Weight (kg) (Single Skin 3R)	69	78	84	98	111	147	170	183
Operating Weight (kg) (Single Skin 3R)	61	70	76	89	103	139	161	173
Net Weight(kg) (Double Skin 3R)	65	78	85	100	115	152	176	191
Shipping Weight (kg) (Double Skin 3R)	74	87	95	111	126	164	190	206
Operating Weight (kg) (Double Skin 3R)	66	79	87	102	118	156	181	196
Net Weight(kg) (Single Skin 5R)	62	72	80	93	106	146	170	184
Shipping Weight (kg) (Single Skin 5R)	71	81	90	104	117	158	184	199
Operating Weight (kg) (Single Skin 5R)	64	74	83	97	111	152	178	193
Net Weight(kg) (Double Skin 5R)	70	82	91	106	121	164	190	208
Shipping Weight (kg) (Double Skin 5R)	79	91	101	117	132	176	204	223
Operating Weight (kg) (Double Skin 5R)	72	84	94	110	126	170	198	217

Note

1. Application range of motor voltage: 200V ~277V.
2. Operating weight of the unit is the weight of the unit coil with water, regardless of the operation of the fan motor.

Unit Configuration

Model Size	01/1F/02/2F/03/04/05/06
Coil Combination	3R/5R Cooling coil
	1R /2R Heating coil+ 3R/5R Cooling coil
	3R/5R Cooling coil + PTC Electric heater
	3R/5R Cooling coil + Evaporative humidifier
Pipe connection:	Left handing/Right handing

Dimension-YBAH Single Skin Units

Single Skin Unit Main Technical Data

Model	Airflow m ³ /h	Depth	Width	Height	Supply air flange size					Piping position			
		A	B	C	D	E	F	G	H	J		K	
										3R	5R	3R	5R
YBAH01	1000	860	630	468	199	232	256	-	173.5	55.5	60.5	66	88
YBAH1F	1500	860	700	508	234	232	262	-	186.5	60.5	60.5	66	88
YBAH02	2000	860	850	508	276	298	262	-	186.5	60.5	60.5	66	88
YBAH2F	2500	860	1000	508	351	298	262	-	186.5	60.5	60.5	66	88
YBAH03	3000	860	1160	508	431	298	262	-	186.5	60.5	60.5	66	88
YBAH04	4000	940	1310	557	194	331	291	261	216.5	60	60.5	66	88
YBAH05	5000	940	1600	557	250	331	291	439	216.5	60	60.5	66	88
YBAH06	6000	940	1840	557	310	331	291	559	216.5	60	60.5	66	88

Model	Piping position			Return air flange size		Coil piping (Connection diameter)	
	L	M	N	P	Q	R	
						3R	5R
YBAH01	308	157	370	490	371	Ø34	Ø34
YBAH1F	308	146	410	560	411	Ø34	Ø34
YBAH02	308	146	410	710	411	Ø34	Ø34
YBAH2F	308	146	410	860	411	Ø34	Ø34
YBAH03	308	146	410	1020	411	Ø34	Ø48
YBAH04	368	144	458	1170	460	Ø48	Ø60
YBAH05	368	144	458	1460	460	Ø48	Ø60
YBAH06	368	144	458	1700	460	Ø48	Ø60

Notes:

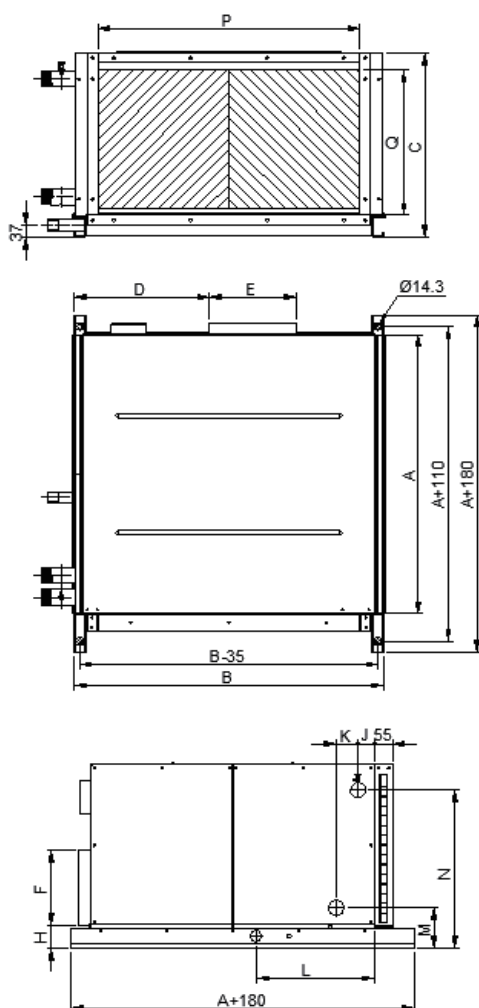
1. When G is "-", the unit has only one air supply duct connection.
2. The coil pipe connections use male threads(thread code R2), the corresponding imperial diameters are:
34mm---1" 42mm---1-1/4" 48mm---1-1/2"
60mm---2" 76mm---2-1/2" 89mm---3"
3. The condensate pipe connections use 34mm O.D. male threads(thread code R2).
4. All dimensions are SI unit(mm).



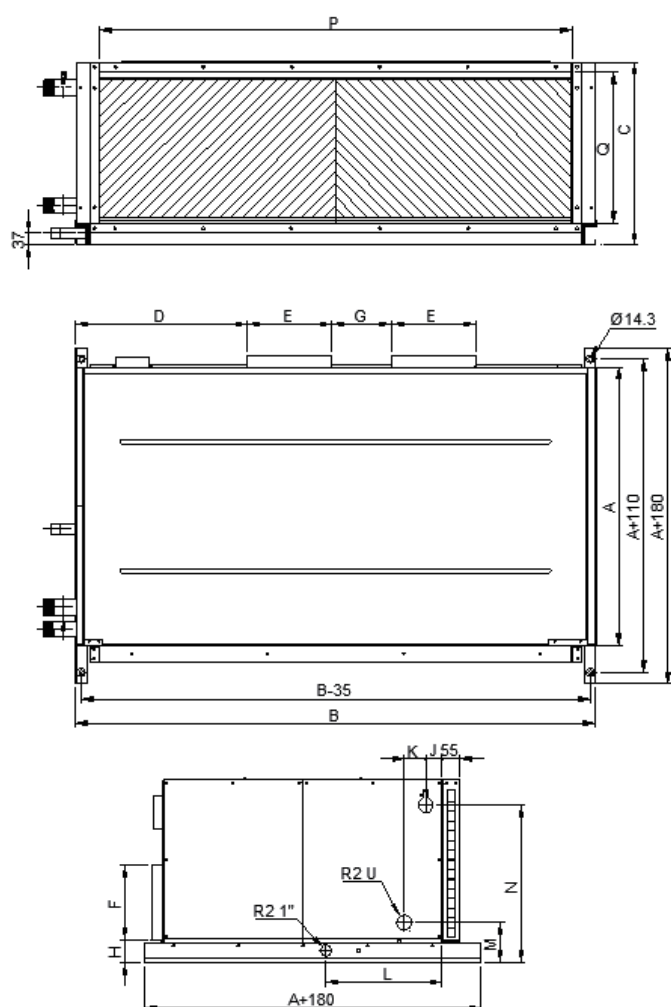
Dimension-YBAH Single Skin Units

Unit Drawings

Single Fan Units



Double Fan Units



Note: the drawing above are left-hand units.

Double Skin Unit (Optional)

Double Skin Unit Key Features

High Intensity Casing

Double skin design with new frame free structure. The foam panel and profile skins are injected with high density PU foam. Bolt mounting panel for multiple assembling and disassembling.

Low Air Leakage

Layer of high density closed cell foam to ensure air tightness around the panel assembly

Better Heat Insulation

PVC layer between internal and external skin for total thermal break design.

Nature Elegance

Designed with flush panels and doors, forming a smooth continuous surface, showing a clean and pleasant appearance. Flush finishing to deter dust accumulation and bacteria growth.

Excellent Sound Reduction

Double skin panel with 25mm thickness high density polymerized polyurethane foam has excellent sound reduction performance, and reduce noise level of equipment room effectively.

Double Skin Unit Main Dimension Data

Model	Airflow m ³ /h	Depth	Width	Height	Supply air flange size					Piping position			
		A	B	C	D	E	F	G	H	J		K	
										3R	5R	3R	5R
YBAH01	1000	889	644	476	190	232	256	-	168.2	72	77	66	88
YBAH1F	1500	889	714	516	225	232	262	-	181.2	77	77	66	88
YBAH02	2000	889	864	516	267	298	262	-	181.2	77	77	66	88
YBAH2F	2500	889	1014	516	342	298	262	-	181.2	77	77	66	88
YBAH03	3000	889	1174	516	422	298	262	-	181.2	77	77	66	88
YBAH04	4000	969	1324	565	184	331	291	261	211.2	77	77	66	88
YBAH05	5000	969	1614	565	240	331	291	439	211.2	77	77	67	88
YBAH06	6000	969	1854	565	300	331	291	559	211.2	77	77	67	88

Model	Piping position			Return air flange size		Coil piping (Connection diameter)	
	L	M	N	P	Q	R	
						3R	5R
YBAH01	306.5	162	375	490	371	Ø34	Ø34
YBAH1F	306.5	152	416	560	411	Ø34	Ø34
YBAH02	306.5	152	416	710	411	Ø34	Ø34
YBAH2F	306.5	152	416	860	411	Ø34	Ø34
YBAH03	306.5	152	416	1020	411	Ø34	Ø48
YBAH04	386.5	143	458	1170	460	Ø48	Ø60
YBAH05	386.5	143	458	1460	460	Ø48	Ø60
YBAH06	386.5	143	458	1700	460	Ø48	Ø60

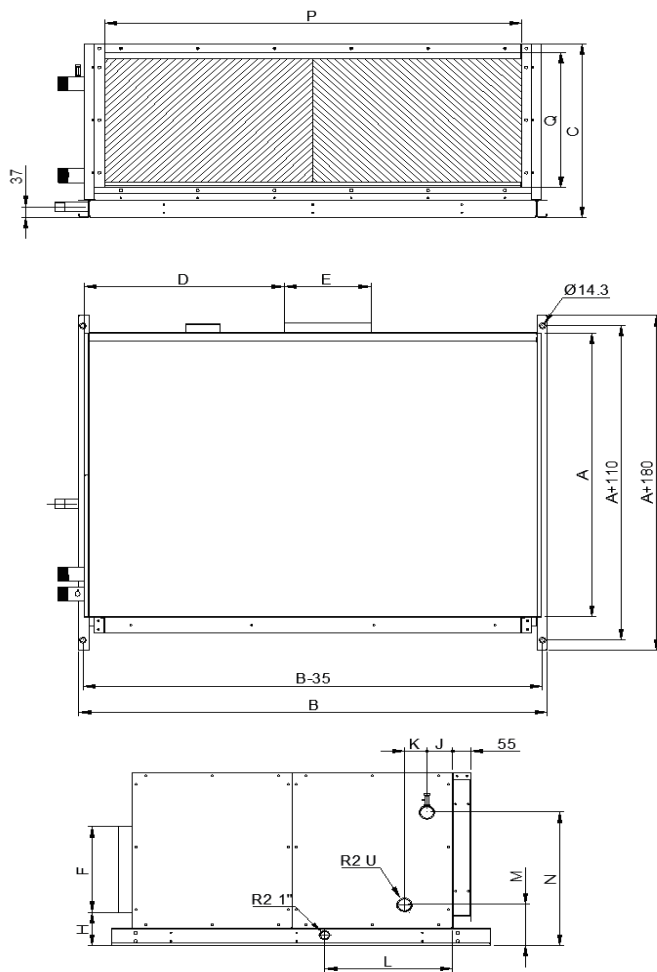
Notes:

1. When G is "-", the unit has only one air supply duct connection.
2. The coil pipe connections use male threads(thread code R2), the corresponding imperial diameters are:
34mm---1" 42mm---1-1/4" 48mm---1-1/2"
60mm---2" 76mm---2-1/2" 89mm---3"
3. The condensate pipe connections use 34mm O.D. male threads(thread code R2).
4. All dimensions are SI unit(mm).

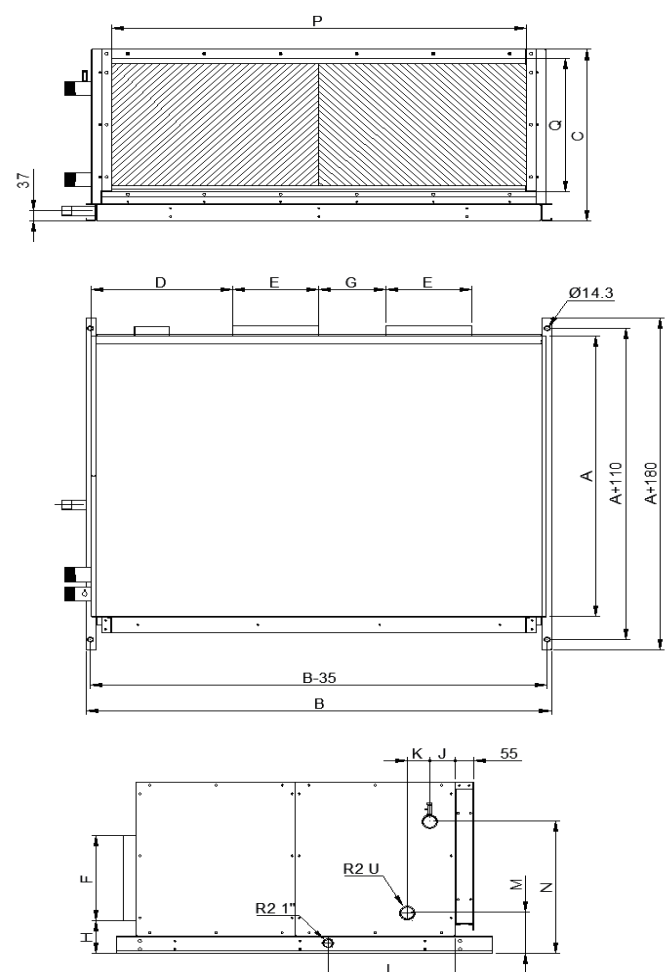
Dimension-Double Skin Unit (Optional)

Unit Drawings

Single Fan Units



Double Fan Units



Note: the drawing above are left-hand units.

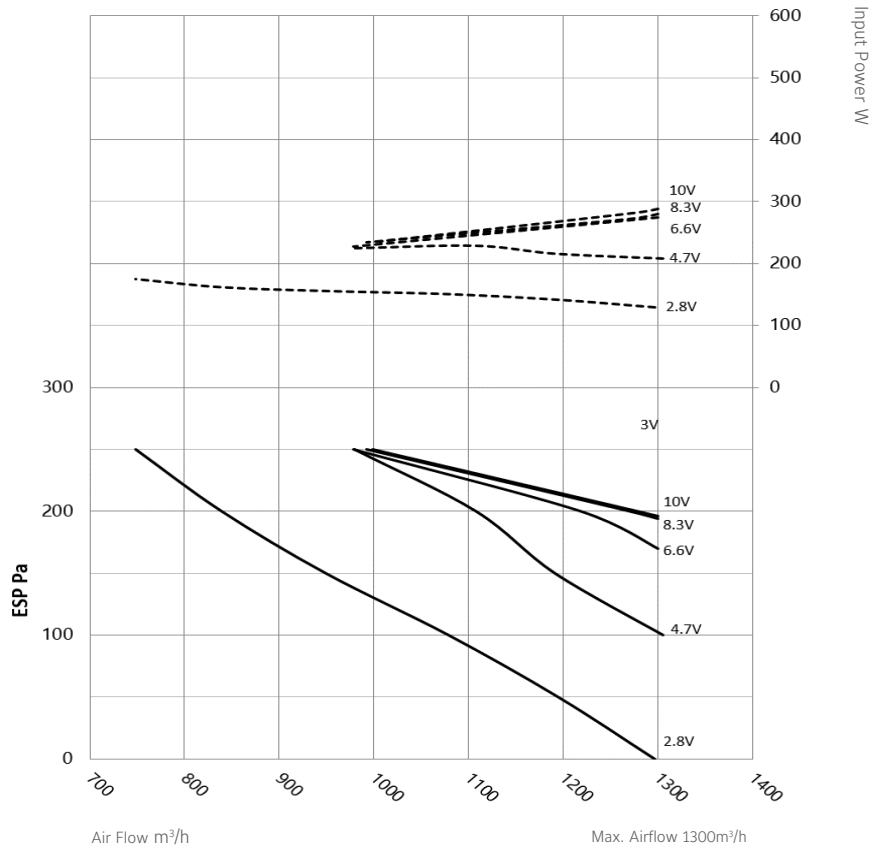
Performance Data

YBAH 01

Acoustics

Control Voltage (V)	ESP (Pa)	Airflow(m ³ /h)	Input Power (W)	SOUND POWER LEVEL						dB(A)
				125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	
10	200	1278	282	58.4	53.1	57.2	58.8	52.8	46.3	63.9
	250	999	234	57.1	53.7	56.0	57.9	51.7	44.4	63.0
8.3	200	1270	272	54.8	52.1	57.1	58.8	52.8	46.2	63.0
	250	992	234	57.1	52.3	56.1	57.8	51.7	44.4	62.8
6.6	200	1219	262	49.3	51.3	56.9	58.6	52.5	45.9	62.2
	250	979	227	54.1	51.2	56.0	57.8	51.6	44.3	62.1
4.7	100	1305	208	45.6	46.5	53.1	54.0	48.2	40.9	58.0
	150	1191	216	45.6	47.1	53.9	55.0	48.8	41.4	58.8
	200	1108	229	46.7	48.4	54.7	55.9	49.6	42.4	59.7
	250	980	225	48.4	50.1	55.6	57.5	51.2	43.7	61.1
2.8	0	1297	130	39.8	40.1	47.9	47.6	42.0	34.8	52.1
	50	1195	142	39.9	43.5	48.6	48.8	42.7	35.5	53.2
	100	1079	151	43.4	42.2	48.9	50.2	43.7	36.4	54.0
	150	949	156	43.1	44.0	50.1	51.4	45.0	37.3	55.2
	200	839	162	45.2	46.4	52.0	53.4	46.9	38.9	57.2
	250	748	175	45.7	49.0	54.7	56.0	49.7	41.5	59.7

Fan Curve



Notes:

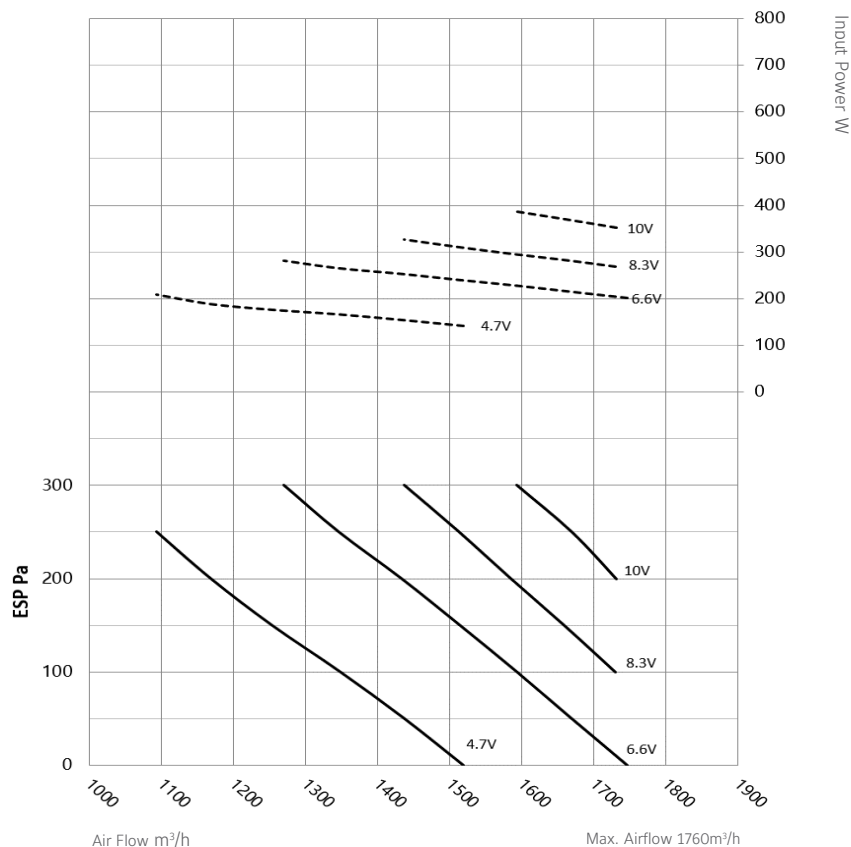
- Above performance data are based on the unit configuration with 3 rows cooling coil and G1 Nylon filter. Airflow and input power data are for dry coil.
- Internal air pressure drop changes for wet coil condition or the units with other configurations.
- See the following page for air pressure drop of main components.
- According to AHRI 260. Sound Rating of Ducted Air Moving and Conditioning Equipment and ISO 3743. Engineering methods for special reverberation test rooms, measure the radiated sound power of unit casing in reverberation test rooms.
- Sound pressure level are in dB (A).

YBAH 1F

Acoustics

Control Voltage (V)	ESP (Pa)	Airflow (m³/h)	Input Power (W)	SOUND POWER LEVEL						
				125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	dB(A)
10	200	1732	352	48.1	47.7	56.9	60.1	52.8	46.2	62.7
	250	1670	368	49.8	48.7	56.6	60.4	52.9	46.2	63.0
	300	1593	387	51.8	50.5	56.6	60.6	53.3	46.7	63.3
8.3	100	1730	269	45.5	45.1	53.9	57.0	50.5	43.8	59.8
	150	1659	283	45.5	45.6	53.6	57.2	50.4	43.5	59.8
	200	1585	296	46.2	47.4	53.7	57.7	50.6	43.6	60.3
	250	1513	310	48.4	47.4	55.3	58.7	51.3	44.4	61.4
	300	1437	326	49.8	49.0	56.1	59.0	52.1	45.3	62.0
6.6	0	1747	202	41.4	47.4	53.7	54.0	48.2	42.2	58.1
	50	1670	215	39.9	46.8	52.5	54.1	47.9	41.5	57.6
	100	1594	228	43.6	43.0	52.0	54.6	48.1	41.2	57.6
	150	1515	240	42.7	44.3	51.6	55.0	48.3	40.8	57.7
	200	1434	253	43.6	45.2	51.6	55.4	48.7	41.0	58.1
	250	1347	265	45.5	46.4	53.7	56.2	49.8	43.1	59.3
	300	1271	281	48.8	48.7	54.7	57.2	51.1	44.3	60.6
4.7	0	1520	142	40.0	44.0	50.6	50.8	44.2	38.9	54.9
	50	1438	154	38.3	46.2	49.8	50.5	44.5	38.7	54.7
	100	1349	166	38.9	46.3	49.8	50.8	44.3	37.9	54.8
	150	1254	176	41.2	41.9	49.4	51.5	45.3	38.3	54.8
	200	1169	188	42.2	43.8	50.1	52.6	47.0	40.1	55.9
	250	1094	208	46.1	47.1	52.9	54.7	48.7	40.9	58.3

Fan Curve



Notes:

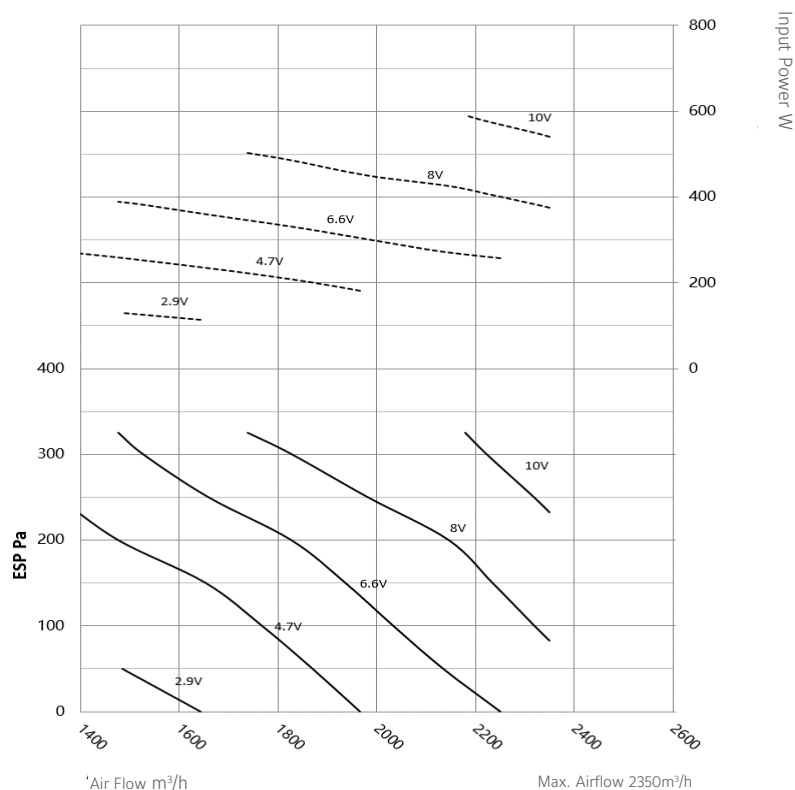
- Above performance data are based on the unit configuration with 3 rows cooling coil and G1 Nylon filter. Airflow and input power data are for dry coil.
- Internal air pressure drop changes for wet coil condition or the units with other configurations.
- See the following page for air pressure drop of main components.
- According to AHRI 260. Sound Rating of Ducted Air Moving and Conditioning Equipment and ISO 3743. Engineering methods for special reverberation test rooms, measure the radiated sound power of unit casing in reverberation test rooms.
- Sound pressure level are in dB(A).

YBAH 02

Acoustics

Control Voltage (V)	ESP (Pa)	Airflow (m³/h)	Input Power (W)	SOUND POWER LEVEL						
				125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	dB(A)
10	200	2404	526	47.1	53.8	58.8	61.3	54.6	49.4	64.4
	250	2318	550	49.2	54.4	59.3	61.8	55.1	51	65.1
	300	2223	577	49.6	55.3	59.4	62.4	55.9	51.4	65.6
	325	2180	591	50.7	56.6	60	62.7	56.2	51.6	66.1
8	50	2403	361	45.8	51.3	57.3	58.4	51.5	43.5	62.0
	100	2320	384	46	51.3	56.8	58.4	51.6	43.5	61.8
	150	2235	405	45.2	51.7	56.7	58.8	52	44.7	62.1
	200	2146	426	46.5	52.3	57.6	59.5	52.8	47.1	62.9
	250	1982	450	47.5	53.2	57.9	60.1	53.7	49.3	63.5
	300	1828	485	47.5	53.2	57.9	60.1	53.7	49.3	64.7
6.6	0	2250	258	43.7	49.7	55.5	55.2	48.6	40.6	59.5
	50	2134	273	43.8	49	55	55.4	48.9	40.6	59.3
	100	2033	292	46	49.2	54.6	55.6	49	41.3	59.4
	150	1936	311	44.9	49.6	54.8	56.4	50.1	43	60.0
	200	1826	332	46	51.2	55.5	57.2	51.1	45.6	60.9
	250	1658	360	49.9	52.9	57	58.3	52.5	48.2	62.5
	300	1526	383	51.8	55.1	58.2	59.4	53.7	49.7	63.8
	325	1476	390	53.4	56.2	59.3	60.5	54.6	50.2	64.9
4.7	0	1965	182	40.6	46.8	52.2	51.5	44.3	37.5	56.0
	50	1869	201	40.7	46.7	51.8	51.3	44.8	37.3	55.8
	100	1767	218	41.1	46.3	52	51.8	46	38.3	56.2
	150	1653	235	44.4	47.5	52.5	53.3	47.2	40.5	57.4
	200	1476	259	46.4	49.5	54	54.4	49.3	44	59.0
	250	1356	273	49.7	52.6	55.9	56.8	51.3	47.4	61.4
2.9	0	1644	114	40.1	44	49	47.6	40.8	37.4	52.8
	50	1485	130	38.9	46	49.3	47.9	41.1	37	53.3

Fan Curve



Notes:

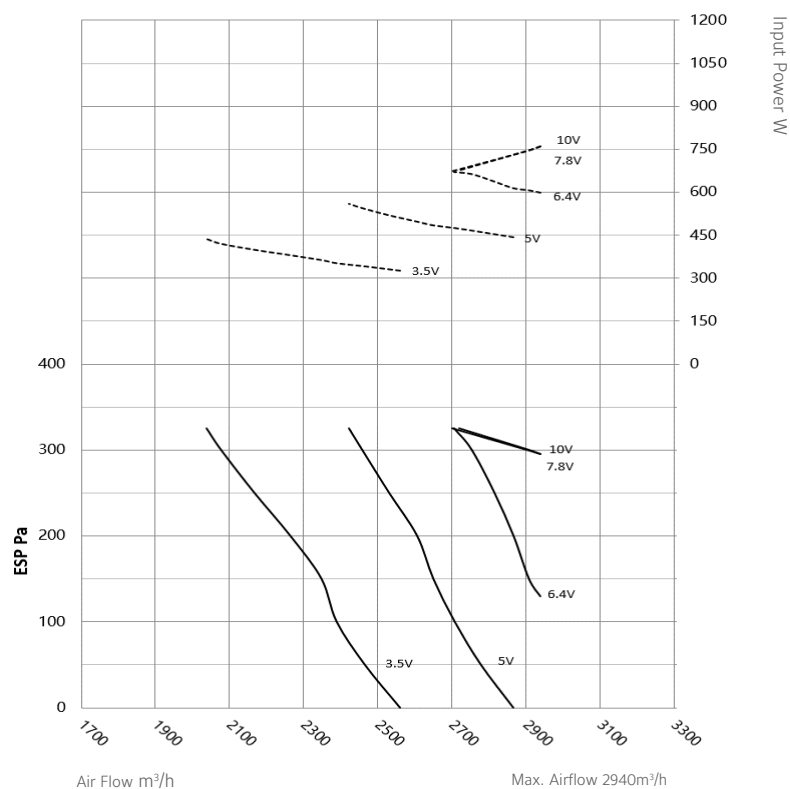
- Above performance data are based on the unit configuration with 3 rows cooling coil and G1 Nylon filter. Airflow and input power data are for dry coil.
- Internal air pressure drop changes for wet coil condition or the units with other configurations.
- See the following page for air pressure drop of main components.
- According to AHRI 260. Sound Rating of Ducted Air Moving and Conditioning Equipment and ISO 3743. Engineering methods for special reverberation test rooms, measure the radiated sound power of unit casing in reverberation test rooms.
- Sound pressure level are in dB (A).

YBAH 2F

Acoustics

Control Voltage (V)	ESP (Pa)	Airflow (m³/h)	Input Power (W)	SOUND POWER LEVEL						
				125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	dB(A)
10	300	2908	738	54.6	56.1	61.4	64.4	58.2	49.7	67.5
	325	2719	677	52.3	55.7	60.2	63.2	56.7	48.4	66.3
7.8	300	2902	746	54.3	56.0	61.3	64.4	58.0	49.6	67.4
	325	2702	672	53.5	55.6	60.3	63.1	56.6	48.3	66.3
6.4	150	2889	608	50.9	57.2	62.7	65.0	59.3	51.3	68.3
	200	2867	615	49.7	56.0	61.7	64.7	58.9	50.9	67.7
	250	2815	638	50.2	55.8	61.9	64.7	58.8	50.5	67.7
	300	2753	664	51.3	55.9	61.3	64.2	58.0	49.6	67.3
	325	2705	671	51.6	54.6	58.7	61.1	54.4	45.8	64.5
5	0	2867	443	51.6	54.6	58.7	61.1	54.4	45.8	66.1
	50	2779	461	50.0	55.1	60.6	62.7	56.8	48.7	66.1
	100	2708	475	49.4	55.3	60.8	62.7	56.8	48.8	66.1
	150	2650	484	49.6	53.7	60.5	63.1	60.2	51.8	66.7
	200	2606	497	48.3	54.0	59.7	62.4	56.3	48.3	65.5
	250	2530	519	48.8	54.3	60.0	62.6	56.3	48.3	65.7
	300	2457	544	49.2	55.2	60.4	63.2	56.9	48.8	66.2
	325	2421	559	51.4	54.4	58.6	61.1	54.9	49.9	64.7
3.5	0	2560	326	46.6	52.1	58.3	59.6	53.8	45.6	63.2
	50	2465	341	46.7	52.3	58.2	59.6	53.6	45.6	63.2
	100	2389	352	46.2	52.1	58.2	59.7	53.6	45.7	63.2
	150	2348	363	45.2	51.4	57.4	59.4	53.2	45.1	62.7
	200	2264	380	45.5	52.0	57.4	59.6	53.1	44.9	62.8
	250	2167	399	46.3	52.9	57.6	59.9	53.6	45.4	63.2
	300	2077	420	47.7	53.7	58.5	60.9	54.4	46.3	64.1
	325	2038	437	48.2	54.1	58.9	61.5	54.8	46.7	64.6

Fan Curve



Notes:

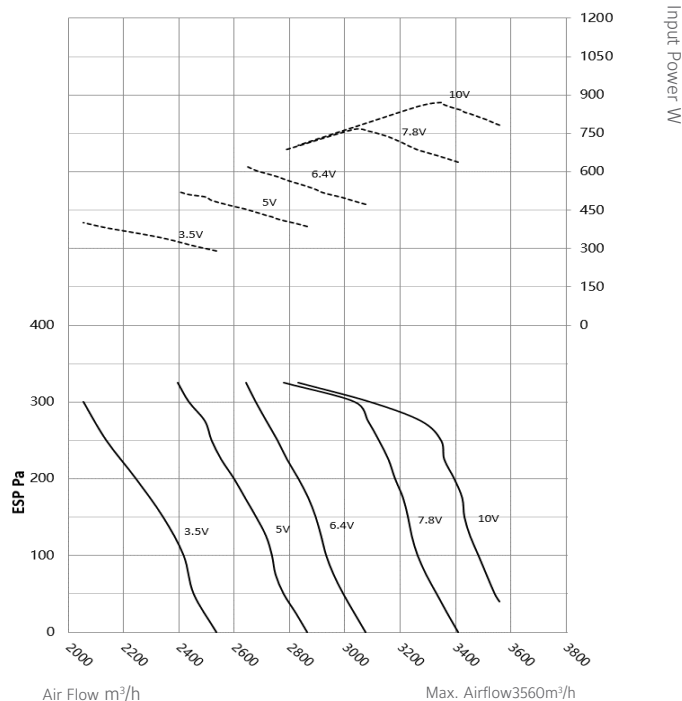
- Above performance data are based on the unit configuration with 3 rows cooling coil and G1 Nylon filter. Airflow and input power data are for dry coil.
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- Sound pressure level are in dB (A).

YBAH 03

Acoustics

Control Voltage (V)	ESP (Pa)	Airflow (m³/h)	Input Power (W)	SOUND POWER LEVEL						
				125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	dB(A)
10	50	3543	789	53.8	60.1	65.0	67.6	62.0	53.2	70.8
	100	3484	814	53.7	59.7	64.8	67.5	61.7	52.9	70.6
	150	3433	832	53.3	59.4	64.7	67.3	61.6	52.8	70.5
	200	3396	848	52.9	59.2	64.3	67.3	61.6	52.8	70.4
	250	3348	870	52.6	58.2	63.5	66.7	60.9	52.5	69.7
	300	3090	794	53.4	55.9	61.2	64.7	58.6	51.5	67.7
7.8	325	2830	703	52.2	55.3	60.3	63.5	57.5	51.3	66.7
	0	3411	636	52.6	58.7	64.0	65.9	60.2	51.5	69.3
	50	3333	663	52.6	58.3	63.5	66.0	60.1	51.3	69.2
	100	3264	685	52.5	58.1	63.4	65.8	59.8	51.1	69.0
	150	3229	702	52.1	57.9	62.9	65.7	59.8	51.1	68.8
	200	3182	726	51.0	57.5	62.7	65.7	59.7	51.2	68.7
6.4	250	3123	749	50.5	57.3	62.6	65.7	59.8	51.7	68.7
	300	3035	767	51.5	56.1	61.2	64.7	58.5	51.5	67.6
	325	2778	683	51.5	56.1	61.2	64.7	58.5	51.5	66.7
	0	3076	474	50.7	56.7	62.2	64.1	58.0	49.3	67.5
	50	2995	499	51.1	56.7	62.0	64.0	57.9	49.1	67.4
	100	2933	515	50.9	56.1	61.7	63.9	57.7	49.0	67.2
5	150	2895	531	49.5	55.5	61.2	63.7	57.5	49.0	66.8
	200	2832	553	49.1	55.6	60.8	63.8	57.6	49.3	66.8
	250	2756	580	49.6	55.4	60.7	63.9	57.7	50.3	66.8
	300	2677	604	49.4	55.5	60.8	64.2	58.1	51.3	67.1
	325	2642	621	49.9	55.3	60.2	63.6	57.4	51.3	66.6
	0	2863	386	48.7	54.5	60.0	61.5	55.2	46.5	65.0
3.5	50	2778	409	48.7	54.0	59.7	61.4	55.0	46.3	64.8
	100	2736	424	47.9	53.5	59.4	61.3	54.8	46.2	64.6
	150	2679	442	47.9	53.2	59.0	61.3	54.8	46.5	64.5
	200	2599	465	47.7	52.9	58.5	61.4	55.0	47.3	64.4
	250	2518	489	47.4	53.1	58.7	61.6	55.4	48.9	64.6
	300	2436	512	48.1	53.9	59.0	62.0	56.0	50.2	65.1
	325	2396	525	48.0	54.2	59.4	62.4	56.4	51.0	65.5
	0	2534	290	46.4	51.3	57.4	57.8	51.5	43.0	61.8
	50	2452	310	45.9	50.7	57.2	57.8	51.4	42.7	61.6
	100	2416	320	45.0	50.4	56.6	57.8	51.3	42.8	61.4
	150	2342	340	45.1	50.0	56.3	58.0	51.6	43.8	61.4
	200	2244	360	45.8	50.6	56.0	58.5	52.3	45.6	61.7
	250	2137	380	45.7	51.5	56.5	58.8	53.1	47.8	62.2
	300	2055	400	46.9	52.7	57.3	59.4	54.0	49.4	63.1

Fan Curve



Notes:

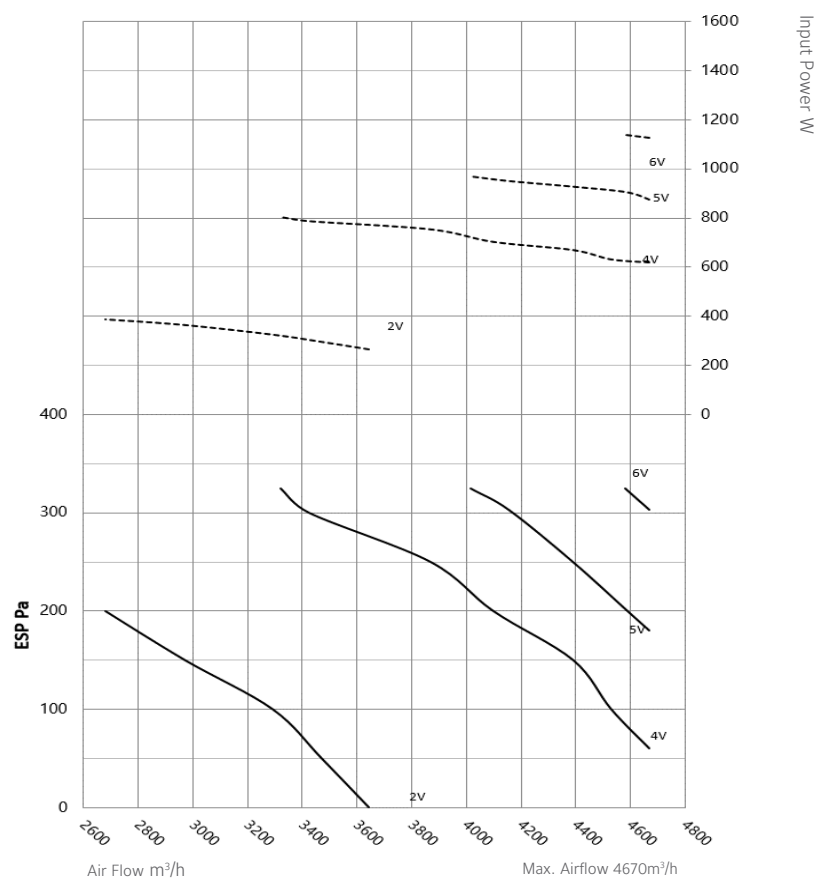
1. Above performance data are based on the unit configuration with 3 rows cooling coil and G1 Nylon filter. Airflow and input power data are for dry coil.
2. Internal air pressure drop changes for wet coil condition or the units with other configurations.
3. See the following page for air pressure drop of main components.
4. According to AHRI 260. Sound Rating of Ducted Air Moving and Conditioning Equipment and ISO 3743. Engineering methods for special reverberation test rooms, measure the radiated sound power of unit casing in reverberation test rooms.
5. Sound pressure level are in dB (A).

YBAH 04

Acoustics

Control Voltage (V)	ESP (Pa)	Airflow (m³/h)	Input Power (W)	SOUND POWER LEVEL						
				125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	dB(A)
6	325	4580	1137	55.8	58.6	62.6	67.2	62.3	54.3	70.6
5	200	4590	906	52.5	55.9	60.0	64.5	59.5	51.1	67.3
	250	4391	929	54.2	57.0	60.6	65.1	60.2	52.2	68.1
	300	4158	952	54.2	57.0	60.6	65.1	60.2	52.2	68.7
	325	4018	971	56.3	58.4	61.7	65.9	61.4	53.7	69.2
4	100	4530	632	49.4	52.3	57.7	61.3	56.8	47.6	64.4
	150	4392	670	50.5	53.3	58.2	62.2	57.4	48.8	65.2
	200	4099	704	51.9	54.9	58.4	62.8	57.9	49.9	65.8
	250	3870	755	53.4	56.3	59.3	63.7	58.9	51.6	67.8
	300	3426	788	56.1	57.0	60.5	64.3	59.9	52.7	67.8
	325	3320	805	56.8	57.7	61.1	64.9	60.7	53.4	68.5
2	0	3643	266	42.1	46.3	52.0	53.0	49.2	37.6	57.1
	50	3470	296	42.6	46.2	51.6	53.3	50.1	38.0	57.3
	100	3291	324	42.6	46.2	51.6	53.3	50.1	38.0	59.1
	150	2971	363	48.1	50.2	53.4	56.8	53.1	44.7	60.5
	200	2680	386	58.1	60.0	61.6	58.3	52.8	46.6	55.7

Fan Curve



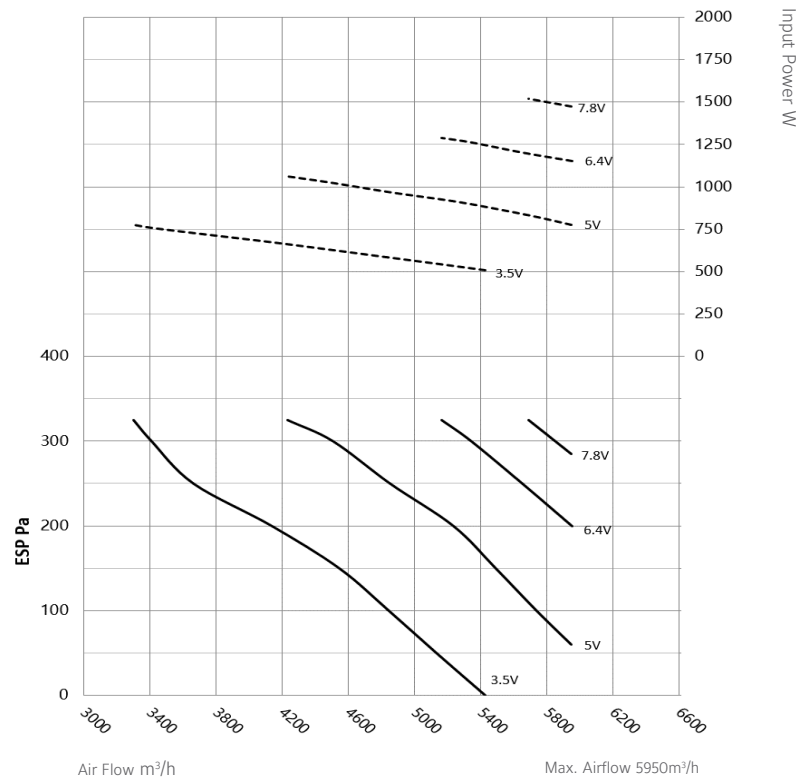
- Notes:
1. Above performance data are based on the unit configuration with 3 rows cooling coil and G1 Nylon filter. Airflow and input power data are for dry coil.
 2. Internal air pressure drop changes for wet coil condition or the units with other configurations.
 3. See the following page for air pressure drop of main components.
 4. According to AHRI 260. Sound Rating of Ducted Air Moving and Conditioning Equipment and ISO 3743. Engineering methods for special reverberation test rooms, measure the radiated sound power of unit casing in reverberation test rooms.
 5. Sound pressure level are in dB (A).

YBAH 05

Acoustics

Control Voltage (V)	ESP (Pa)	Airflow (m³/h)	Input Power (W)	SOUND POWER LEVEL						
				125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	dB(A)
7.8	325	5939	1520	59.0	60.6	62.5	67.9	62.1	52.8	70.7
6.4	200	5953	1153	55.1	57.1	59.4	64.7	59.1	49.8	67.5
	250	5702	1202	55.7	57.9	59.7	65.1	59.2	49.9	67.9
	300	5346	1261	58.0	59.5	61.2	66.1	60.3	50.8	69.2
	325	5167	1287	58.5	59.9	61.4	66.4	60.6	51.0	69.5
5	50	5975	776	50.2	53.6	57.8	61.6	56.4	47.2	64.6
	100	5740	823	50.4	53.5	57.4	61.6	56.3	47.0	64.5
	150	5493	871	50.6	54.4	57.2	61.8	56.4	47.0	64.7
	200	5237	916	52.1	55.2	57.5	62.2	56.6	47.2	65.1
	250	4854	969	52.1	55.2	57.5	62.2	56.6	47.2	66.7
	300	4509	1024	58.3	59.1	60.6	64.6	59.0	49.1	68.2
	325	4234	1063	59.3	59.9	61.1	65.0	59.5	49.6	68.8
3.5	0	5427	506	45.8	50.4	55.4	58.0	52.8	43.3	61.3
	50	5132	545	47.1	50.2	54.5	57.7	52.5	43.0	60.9
	100	4844	582	46.6	50.7	54.4	57.7	52.6	42.8	60.9
	150	4545	621	48.8	51.7	54.4	58.1	53.0	43.1	61.4
	200	4137	673	52.8	54.1	56.2	59.9	54.5	44.4	63.4
	250	3664	728	55.8	56.6	58.1	61.5	56.0	45.6	65.4

Fan Curve



Notes:

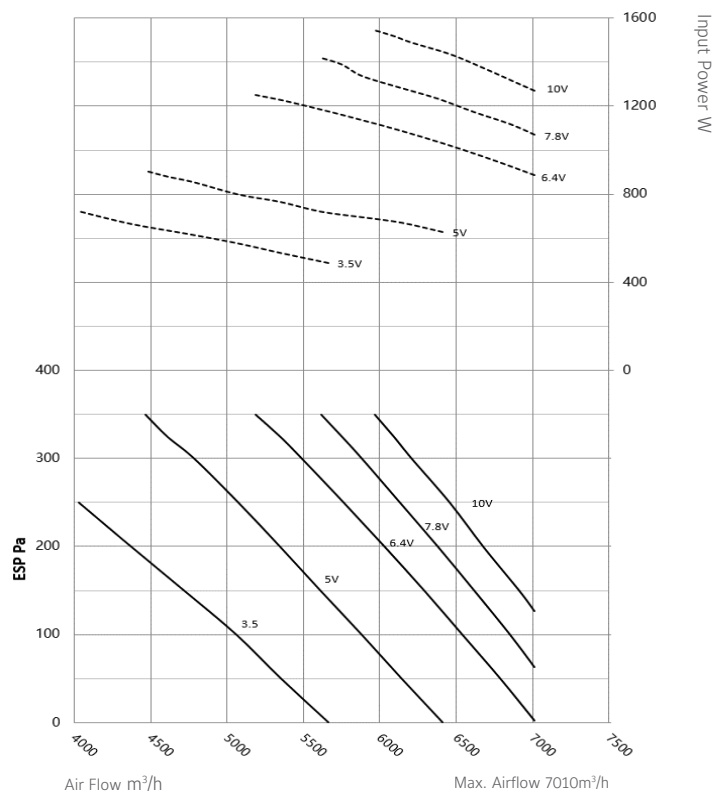
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3. See the following page for air pressure drop of main components.
4. According to AHRI 260. Sound Rating of Ducted Air Moving and Conditioning Equipment and ISO 3743. Engineering methods for special reverberation test rooms, measure the radiated sound power of unit casing in reverberation test rooms.
5. Sound pressure level are in dB (A).

YBAH 06

Acoustics

Control Voltage (V)	ESP (Pa)	Airflow (m³/h)	Input Power (W)	SOUND POWER LEVEL						
				125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	dB(A)
10	250	6459	1635	56.1	55.3	60.5	65.4	58.8	50.0	68.0
	300	6211	1622	56.7	55.9	60.8	65.6	59.0	50.5	68.2
	325	6094	1557	56.7	56.0	61.0	65.7	59.1	50.8	68.4
	350	5970	1550	56.6	56.5	61.2	65.9	59.3	51.2	68.5
7.8	100	6913	1179	51.4	52.8	59.9	63.2	57.1	48.5	66.0
	150	6695	1238	52.1	53.1	59.4	63.6	57.0	48.6	66.2
	200	6528	1315	53.1	53.5	59.2	63.6	57.1	48.5	66.2
	250	6290	1369	55.0	54.0	59.4	64.1	57.4	48.9	66.7
	300	6049	1423	55.4	55.2	59.9	64.3	57.8	49.5	67.1
	325	5927	1450	56.1	55.5	60.1	64.4	58.1	50.0	67.3
	350	5803	1477	58.6	56.9	61.3	65.3	59.0	50.8	68.4
6.4	0	6869	877	50.0	51.9	59.3	61.6	56.2	47.4	64.8
	50	6637	929	50.5	51.7	58.9	61.4	55.7	46.9	64.5
	100	6398	981	50.8	51.8	58.5	61.2	55.4	46.9	64.3
	150	6153	1034	50.7	51.6	58.1	61.8	55.4	47.1	64.5
	200	5914	1086	52.1	52.6	57.9	62.1	55.7	47.1	64.8
	250	5663	1136	53.4	53.6	58.2	62.3	56.1	47.8	65.2
	300	5390	1185	56.7	55.4	59.6	63.4	57.3	49.3	66.6
	325	5213	1218	56.7	55.4	59.6	63.4	57.3	49.3	67.4
	350	4953	1249	59.9	57.7	61.8	64.9	58.9	50.7	68.6
5	0	6234	674	47.5	49.9	57.7	59.5	54.1	45.6	62.9
	50	5987	719	48.4	49.8	57.2	59.0	53.5	45.0	62.4
	100	5722	767	48.7	49.6	56.7	59.0	53.3	45.3	62.3
	150	5462	815	50.0	50.2	56.5	59.5	53.6	45.6	62.6
	200	5189	862	51.3	51.0	56.4	60.4	54.0	45.8	63.2
	250	4901	907	54.5	53.2	57.8	61.2	55.3	47.1	64.6
	300	4435	967	58.1	56.0	59.9	62.9	57.0	48.6	66.7
	325	4165	1003	59.0	56.8	60.6	63.4	57.7	49.3	67.4
	350	4165	1003	59.0	56.8	60.6	63.4	57.7	49.3	67.4
3.5	0	5701	489	45.4	47.4	56.1	56.9	51.6	43.5	60.7
	50	5408	522	46.0	47.1	54.9	56.4	50.9	42.9	59.9
	100	5199	562	47.4	47.4	55.1	56.4	51.1	42.5	60.1
	150	4830	604	48.6	48.3	54.6	57.0	51.6	43.0	60.4
	200	4531	648	51.7	50.8	55.7	58.5	52.9	44.2	62.1
	250	4056	707	55.8	53.9	57.7	60.4	54.7	45.9	64.4

Fan Curve



Notes:

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Cooling Capacity

Model	Airflow	Rows	Chilled Water Inlet Temp.	Inlet Air Temp.at 27°C DB/19.5°C WB					Inlet Air Temp.at 23°C DB/17°C WB					Inlet Air Temp.at 35°C DB/28°C WB				
				Total cooling capacity	Sensible cooling capacity	Outlet Air Temp. (DB/WB)	Water Flow Rate	Water Pressure Drop	Total cooling capacity	Sensible cooling capacity	Outlet Air Temp. (DB/WB)	Water Flow Rate	Water Pressure Drop	Total cooling capacity	Sensible cooling capacity	Outlet Air Temp. (DB/WB)	Water Flow Rate	Water Pressure Drop
	m³/h	#	°C	kW	kW	°C	L/S	kPa	kW	kW	°C	L/S	kPa	kW	kW	°C	L/S	kPa
YBAH01	1000	N	6	5.8	4.0	14.9/13.4	0.27	33.3	3.9	3.0	13.9/12.6	0.19	21.1	12.5	5.4	18.6/17.3	0.59	25.4
			7	5.2	3.8	15.7/14.0	0.25	29.2	3.4	2.8	14.7/13.3	0.16	16.2	11.9	5.2	19.3/18.0	0.57	23.2
			8	4.6	3.5	16.4/14.7	0.22	25.2	2.9	2.6	15.3/13.8	0.14	12.9	11.3	5.0	19.9/18.6	0.54	21.1
		H	6	7.7	5.1	11.6/11.0	0.36	34.8	5.4	3.9	11.3/10.7	0.26	22.7	16.4	7.2	13.2/12.8	0.79	26.4
			7	7.0	4.8	12.5/11.9	0.33	30.4	4.7	3.6	12.2/11.6	0.22	18.3	15.7	6.9	14.1/13.7	0.75	24.0
			8	6.3	4.5	13.5/12.7	0.30	26.3	4.1	3.3	13.1/12.4	0.19	14.1	15.0	6.6	15.0/14.6	0.71	21.8
YBAH1F	1500	N	6	9.1	6.2	14.4/13.0	0.44	109.1	6.5	4.9	13.3/12.1	0.31	58.8	19.5	8.3	18.1/16.8	0.92	77.0
			7	8.2	5.9	15.2/13.7	0.39	86.7	5.8	4.5	14.0/12.7	0.27	51.1	18.5	8.0	18.8/17.5	0.88	69.0
			8	7.4	5.5	15.9/14.3	0.36	73.2	5.0	4.2	14.7/13.3	0.23	41.3	17.6	7.7	19.5/18.2	0.84	63.3
		H	6	12.6	8.3	10.4/10.1	0.60	108.2	9.7	9.3	10.0/9.7	0.45	63.4	25.3	11.0	12.7/12.2	1.21	77.2
			7	11.5	7.8	11.3/11.0	0.54	90.5	8.2	6.0	11.0/10.7	0.39	49.8	24.2	10.5	13.6/13.2	1.15	70.8
			8	10.5	7.3	12.3/11.9	0.50	77.3	7.3	5.6	11.9/11.5	0.35	43.2	23.1	10.1	14.5/14.1	1.10	64.7
YBAH02	2000	N	6	12.5	8.6	14.1/12.8	0.60	102.8	9.0	6.7	13.1/11.9	0.43	55.6	25.7	11.0	18.3/17.0	1.24	62.9
			7	11.3	8.1	14.9/13.5	0.54	83.1	7.9	6.2	13.8/12.6	0.38	43.7	24.4	10.6	19.0/17.7	1.16	55.8
			8	10.2	7.5	15.6/14.2	0.48	68.3	7.0	5.7	14.4/13.1	0.33	37.8	23.2	10.2	19.6/18.3	1.10	50.8
		H	6	16.5	10.9	10.6/10.2	0.78	68.8	12.2	8.5	10.3/9.9	0.58	40.3	33.1	14.4	13.1/12.7	1.57	79.5
			7	15.1	10.3	11.5/11.2	0.72	59.0	10.8	7.9	11.2/10.8	0.51	33.4	31.7	13.8	14.0/13.5	1.51	74.2
			8	13.7	9.6	12.5/12.0	0.66	50.0	9.4	7.3	12.1/11.7	0.45	27.4	30.2	13.3	14.9/14.4	1.43	66.8
YBAH2F	2500	N	6	14.6	10.2	14.7/13.3	0.69	41.5	10.1	7.8	13.7/12.5	0.49	24.0	29.8	12.8	19.4/18.0	1.43	78.9
			7	13.3	9.6	15.4/13.9	0.64	35.8	8.8	7.2	14.4/13.1	0.42	18.9	28.2	12.3	20.1/18.6	1.33	68.9
			8	11.9	9.0	16.1/14.5	0.57	30.3	7.6	6.7	15.0/13.7	0.36	14.8	26.8	11.8	20.7/19.2	1.28	64.1
		H	6	19.0	12.7	11.7/11.1	0.90	51.1	13.8	9.8	11.3/10.7	0.66	31.7	38.6	16.8	14.5/14.0	1.82	30.6
			7	17.3	11.9	12.7/12.0	0.82	42.2	12.0	9.1	12.2/11.5	0.57	24.9	36.9	16.2	15.3/14.8	1.77	28.9
			8	15.7	11.2	13.5/12.7	0.75	36.2	10.4	8.3	13.0/12.3	0.49	19.5	35.0	15.5	16.2/15.7	1.66	26.0
YBAH03	3000	N	6	19.0	13.0	13.9/12.7	0.91	82.8	13.7	10.2	12.9/11.8	0.65	44.9	38.1	16.4	18.4/17.1	1.81	66.9
			7	17.2	12.3	14.7/13.4	0.82	67.0	12.1	9.4	13.7/12.5	0.57	35.2	36.2	15.8	19.1/17.8	1.71	60.1
			8	15.6	11.5	15.4/14.0	0.75	57.3	10.6	8.7	14.3/13.1	0.51	29.7	34.4	15.2	19.7/18.4	1.65	55.7
		H	6	24.7	16.2	10.7/10.3	1.18	94.9	18.2	12.8	10.3/9.9	0.87	53.8	49.9	21.6	13.0/12.6	2.39	89.4
			7	22.6	15.3	11.6/11.2	1.08	79.6	16.1	11.8	11.3/10.8	0.76	42.3	47.6	20.7	14.0/13.5	2.25	79.7
			8	20.5	14.3	12.6/12.1	0.98	65.6	14.2	10.9	12.1/11.6	0.68	35.4	45.5	19.9	14.8/14.4	2.18	74.9
YBAH04	4000	N	6	24.7	17.1	14.1/12.9	1.18	73.1	17.6	13.3	13.1/12.0	0.83	40.3	53.2	22.8	17.7/16.5	2.56	90.7
			7	22.5	16.1	14.8/13.5	1.08	62.1	15.5	12.3	13.8/12.7	0.74	32.5	50.5	21.9	18.4/17.2	2.41	80.8
			8	20.1	15.1	15.6/14.2	0.96	49.6	13.4	11.3	14.5/13.3	0.64	25.2	47.8	21.0	19.1/18.0	2.26	71.4
		H	6	33.5	22.2	10.3/10.1	1.58	82.8	24.5	17.3	10.1/9.8	1.16	46.8	68.0	29.5	12.5/12.1	3.25	103.0
			7	30.7	20.9	11.2/11.0	1.46	71.2	21.8	16.1	11.0/10.7	1.03	38.9	65.0	28.4	13.4/13.0	3.12	95.5
			8	27.9	19.6	12.2/11.9	1.34	60.5	19.2	14.9	11.9/11.6	0.91	31.9	61.8	27.2	14.4/14.0	2.94	84.9
YBAH05	5000	N	6	31.2	21.6	14/12.8	1.49	78.2	22.5	16.8	13/11.9	1.08	43.6	66.3	28.3	17.8/16.6	3.14	90.1
			7	28.2	20.3	14.8/13.5	1.34	64.4	19.7	15.5	13.7/12.6	0.93	34.6	63.1	27.2	18.5/17.2	2.99	82.2
			8	25.6	19.1	15.5/14.1	1.23	54.3	17.2	14.4	14.4/13.2	0.82	26.9	59.9	26.1	19.2/17.9	2.84	74.7
		H	6	42.2	27.8	10.3/10	2.01	99.5	31.1	21.8	10/9.7	1.49	57.7	83.6	36.3	12.9/12.4	3.96	89.0
			7	38.6	26.2	11.2/10.9	1.84	84.0	27.6	20.2	11/10.6	1.32	45.9	80.1	34.9	13.7/13.3	3.84	83.9
			8	35.0	24.5	12.2/11.8	1.67	69.7	24.2	18.7	11.9/11.5	1.15	35.9	76.2	33.4	14.7/14.3	3.60	74.2
YBAH06	6000	N	6	37.2	25.5	14.2/12.8	1.76	96.7	26.9	19.9	13.1/11.9	1.28	53.8	76.3	32.7	18.5/17.1	3.67	85.9
			7	33.6	24.0	14.9/13.6	1.59	79.8	23.8	18.5	13.8/12.6	1.14	43.2	72.6	31.4	19.1/17.8	3.47	77.4
			8	30.5	22.5	15.7/14.2	1.45	67.0	20.9	17.2	14.5/13.1	0.99	33.7	68.8	30.1	19.8/18.4	3.28	69.4
		H	6	48.2	31.9	11.0/10.5	2.29	84.5	35.2	24.9	10.6/10.2	1.67	48.2	104.0	45.2	12/11.6	4.96	113.2
			7	44.1	30.0	11.9/11.4	2.10	71.8	31.2	23.1	11.5/11.0	1.48	39.6	99.6	43.5	12.9/12.6	4.79	105.8
			8	40.0	28.2	12.8/12.3	1.91	60.0	27.2	21.3	12.4/11.9	1.29	30.1	94.9	41.7	13.9/13.6	4.53	95.2

Note: The temperature difference of inlet/outlet water is 5°C

Heating Capacity

Model	Airflow m ³ /h	Rows	Water Inlet Temp. °C	Inlet Air Temp. (DB)											
				21°C				15°C				7°C			
				Total heating capacity kW	Outlet Air Temp. (DB/WB) °C	Water Flow Rate L/S	Water Pressure Drop kPa	Total heating capacity kW	Outlet Air Temp. (DB/WB) °C	Water Flow Rate L/S	Water Pressure Drop kPa	Total heating capacity kW	Outlet Air Temp. (DB/WB) °C	Water Flow Rate L/S	Water Pressure Drop kPa
YBAH01	1000	1	60	3.4	30.7	0.08	2.7	4.1	26.6	0.10	3.8	4.8	20.8	0.12	6.2
		2	60	6.2	38.8	0.15	17.7	7.5	36.3	0.18	24.8	9.0	32.7	0.22	35.0
YBAH1F	1500	1	60	4.4	29.4	0.11	8.0	5.3	25.1	0.13	11.1	6.7	19.7	0.16	16.5
		2	60	8.5	37.2	0.20	13.8	10.2	34.4	0.25	19.2	12.4	30.6	0.30	28.2
YBAH02	2000	1	60	6.1	29.8	0.15	17.6	7.3	25.5	0.18	24.5	9.1	20.1	0.22	35.9
		2	60	11.6	37.5	0.28	29.7	13.8	34.7	0.33	41.4	16.8	31.0	0.41	61.8
YBAH2F	2500	1	60	8.1	30.3	0.20	9.9	9.7	26.0	0.23	13.7	11.9	20.6	0.29	20.3
		2	60	14.1	37.1	0.34	24.1	16.9	34.3	0.41	34.3	20.7	30.6	0.50	49.1
YBAH03	3000	1	60	9.7	30.3	0.24	17.0	11.6	26.1	0.28	24.1	14.3	20.6	0.35	33.9
		2	60	17.7	37.9	0.44	21.3	21.2	35.2	0.52	29.9	24.9	30.7	0.60	42.1
YBAH04	4000	1	60	13.4	30.5	0.33	16.6	16.0	26.4	0.39	23.2	18.3	20.1	0.45	32.5
		2	60	23.4	37.7	0.57	27.7	27.8	34.9	0.67	38.7	33.7	31.1	0.82	54.5
YBAH05	5000	1	60	16.6	30.5	0.40	31.5	19.8	26.3	0.48	43.7	24.2	20.8	0.59	61.7
		2	60	29.2	37.7	0.71	23.3	34.9	34.9	0.85	32.8	42.1	31.0	1.02	45.9
YBAH06	6000	1	60	20.4	30.7	0.50	27.0	24.2	26.5	0.59	37.3	27.8	20.3	0.68	52.2
		2	60	35.4	37.9	0.86	26.6	42.2	35.1	1.02	37.2	48.7	30.2	1.18	53.1

Note: The temperature difference of inlet/outlet water is 10°C



Options

PTC Electric Heater Key Features

The air is heated by electric energy and PTC electric heater is used in the electric heating device. The surface temperature is low and equipped with temperature protection switch and other components.

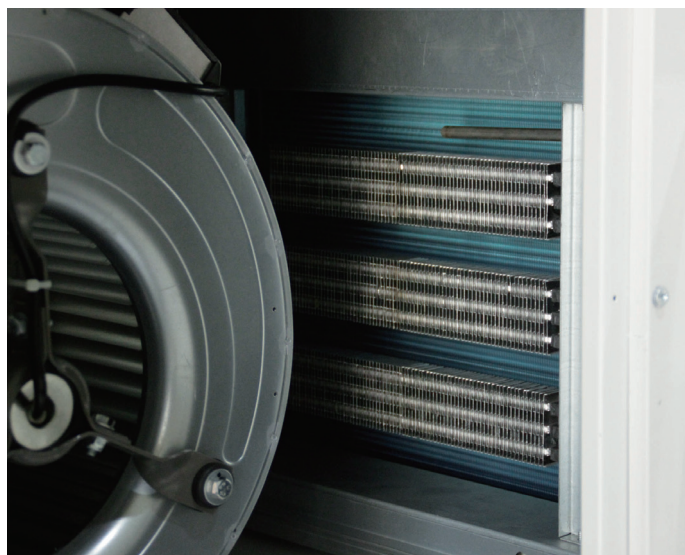
The electric heater element is installed on the slide frame and ease to pull out for repair or replacement. Electric control box is supplied and installed by the user. And its control must be interlocked with the fan.

Features

1-3 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. Primary automatic reset thermal protection: 70°C / 50°C. Secondary thermal fuse protection: 110°C.

Suitable for cooling coil leave air temperature re-heat, to reduce the supply air temperature difference.



Model	Maximum electric heating power	Stage of electric heating power		
	kW	1 Stage (kW)	2 Stages (kW)	3 Stages (kW)
YBAH01	3	1	1	1
YBAH1F	4.2	1.4	1.4	1.4
YBAH02	5.7	1.9	1.9	1.9
YBAH2F	7.2	2.4	2.4	2.4
YBAH03	8.7	2.9	2.9	2.9
YBAH04	11.1	3.7	3.7	3.7
YBAH05	13.5	4.5	4.5	4.5
YBAH06	16.5	5.5	5.5	5.5

Options

Plate filter option

Standard configuration with G1 Nylon filter, optional G1(Aluminium Mesh): G3 & G4 plate filters, remove the large particle dust in the air effectively.

PM2.5 plate filter option

- PM2.5 remove efficiency up to 90%
- 65mm thickness design, reduce initial resistance
- PM2.5 plate filter used combine with prefilter filter, 2-stage filter application to prolong the life of PM2.5 plate filter.



Evaporative Humidifier

Humidify the air to meet the requirement of relative humidity. The evaporative humidification is an isenthalpic process, which is only suitable for comfort air-conditioning, and not suitable for the applications where high precision of humidity control is required. Evaporative humidifier is optional 50mm, 100mm and 150mm, with advantage of high saturation efficiency, space saving, cleanness, safety and reliability.

Evaporative Humidifier Performance

Model	Airflow m ³ /h	Air pressure drop(Pa)			Fresh air humidification (kg/h)			Mixed air humidification (kg/h)			Weight(kg)		
		Depth 50 mm	Depth 100 mm	Depth 150 mm	Depth 50 mm	Depth 100 mm	Depth 150 mm	Depth 50 mm	Depth 100 mm	Depth 150 mm	Depth 50 mm	Depth 100 mm	Depth 150 mm
YBAH01	1000	16	28	39	2	4	6	2	4	4	2	3	4
YBAH1F	1500	24	42	60	3	6	8	3	5	6	2	4	5
YBAH02	2000	23	40	57	4	8	10	4	7	8	3	5	7
YBAH2F	2500	24	42	60	5	10	13	5	9	10	4	7	10
YBAH03	3000	24	42	60	6	12	15	5	10	12	4	7	10
YBAH04	4000	24	41	59	8	16	20	7	13	16	5	9	14
YBAH05	5000	24	42	60	10	19	24	8	16	20	6	12	17
YBAH06	6000	24	42	60	12	23	29	10	19	24	7	14	20

Notes:

1. The evaporative humidification is an isenthalpic process, which is only suitable for comfort air-conditioning, and not suitable for the applications where high precision of humidity control is required.
2. When the unit is equipped with a evaporative humidifier. The external static pressure of unit should be deducted by air pressure drop across the humidifier.
3. Fresh air humidification conditions: 28°C DB; 10% RH. Face velocity less than 3.0m/s.
4. Mixed air (fresh air ratio at 20-30%) humidification condition: 28°C DB; 25% RH. Face velocity less than 3.0m/s.
5. The above net weight includes the weight of evaporative humidifier, stainless steel frame and water distribution box; the operation weight of the evaporative humidifier is about 150% more than the unit.
6. The face velocity of direct feeding evaporative humidifier is the same as those of coils.

Johnson Controls T7600 Series LCD Thermostat

The T7600 series Modbus LCD thermostats are designed to control heating and cooling through air conditioning unit in commercial and residential application. Typical applications include the control of fan coil units, floor heating, packaged terminal air conditioners and combination of heating and cooling equipment. As part of the system, T7600 series thermostat can control two-way or three-way valve and multiplespeed line voltage fan or ECM fan.



T7600 features with large LCD screen that displays the status of work mode (cooling, heating, air venting, floor heating), fan speed, indoor temperature and set point etc. T7600 are equipped with Modbus communication, which provide information to building automation system in order to implement enhanced energy saving strategies.

Features and Benefits

Selection Guide

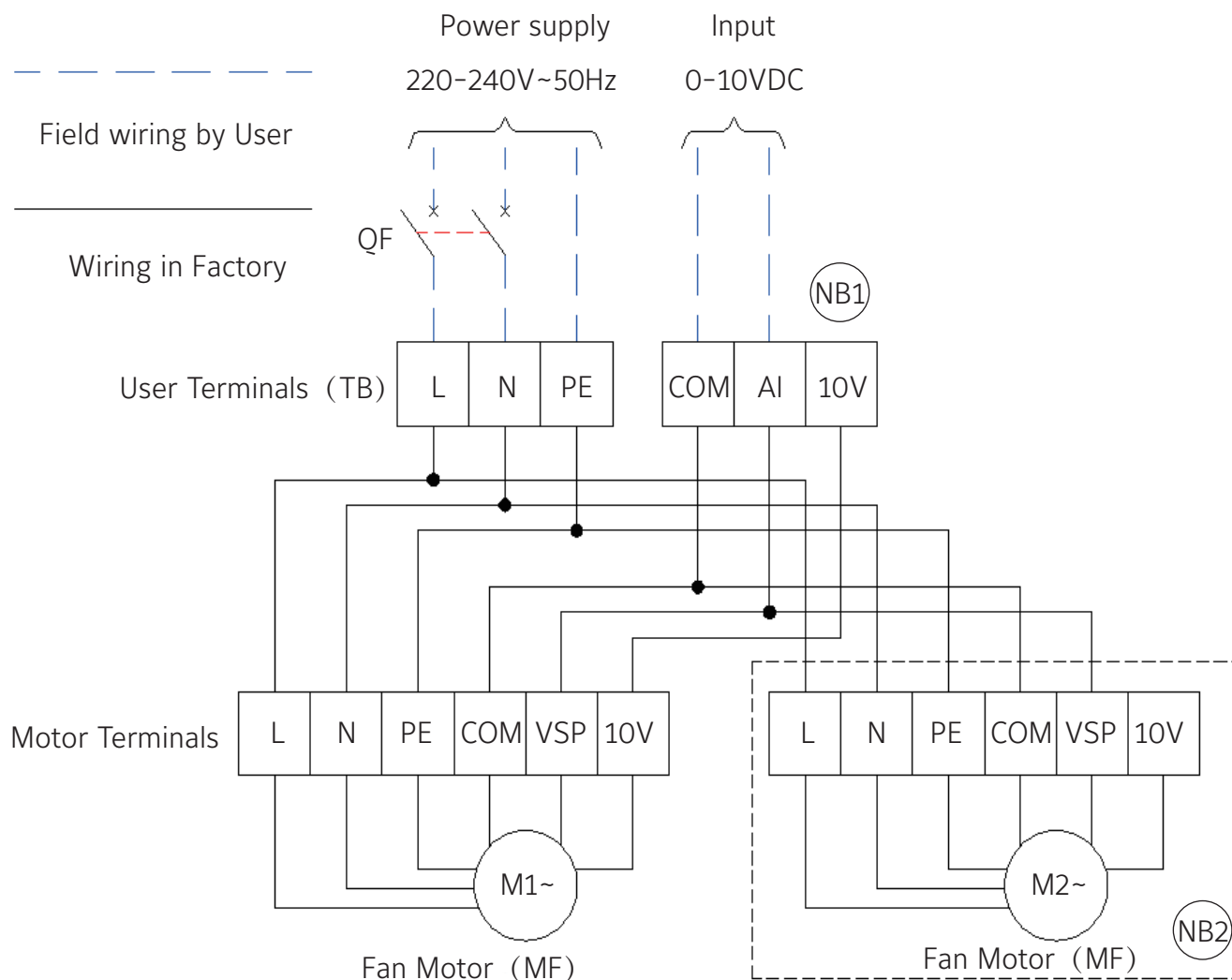
Features	Benefits
Large backlit LCD	LCD is larger than 40% of front area, provide real time status of the environment with intuitive and clear user interface
New installation method	New method without opening T7600 cover during installation, avoids the risk of components damage by screwdriver
Modbus communication	Modbus communication with adjustable address and baud rate
Suitable for various installation box	Small back part which is suitable for all installation boxes available in China and Europe market
EEPROM storage of data	Thermostat retains the last events and parameter settings after power loss.
Multiple color	There are two standard color: White and Black. Other colors also can be customized
Push button for user operation	User can change working mode, temperature set point and fan speed via push buttons, easy for operation

Product code numberModel	T7601-TF20-9JS0	T7601-TF20-1JS0
Color	White	Black
2-pipe, on/off		
4-pipe, on/off		
2-pipe 3-wire on/off		
2-pipe on/off with TiO ₂ /ESP		
2-pipe on/off with floor heating		
Water source heat pump		
Sing stage heater (Floor heater)		
2-pipe 0-10VDC		
4-pipe 0-10VDC		
Fan speed control	ECM	ECM

Technical specifications

Supply Voltage	110-240 VAC 50/60 Hz
Power consumption	Max. 5VA
Terminations	Screw terminal block
Communication	Modbus RTU
Wire size	Screw terminal block: 1.0-1.5mm ² rigid conductor for 5mm connector; 0.14-1.5 mm ² rigid conductor for 3.5mm connector
Mounting	Flush-mounted
Temperature measurement range	0-49°C (32-99°F)
Temperature accuracy	1°C (2°F)
Default temperature set point range	5.0°C to 35.0°C in 0.5°C increments
Ambient conditions	Operating: 0 to 40°C (32 to 104°F), 10 to 90% RH, noncondensing, 29 (85°F) maximum dew point
	Storage: -20 to 60°C (-4 to 140°F), 5 to 95% RH, noncondensing
Protection class	IP20
Pollution degree	2
Heat and fire resistance category	D
Temperature for ball pressure test	125°C
Limitation of operating time	Continuous
Product category	Type 1.B P42(74)
Internal temperature sensor type	10K NTC type II
Shipping weight	Approx 300g
Compliance	CE
	RCM mark, Australia/NZ emissions compliance
	RoHS, REACH, WEEE

Electric Wiring Diagrams

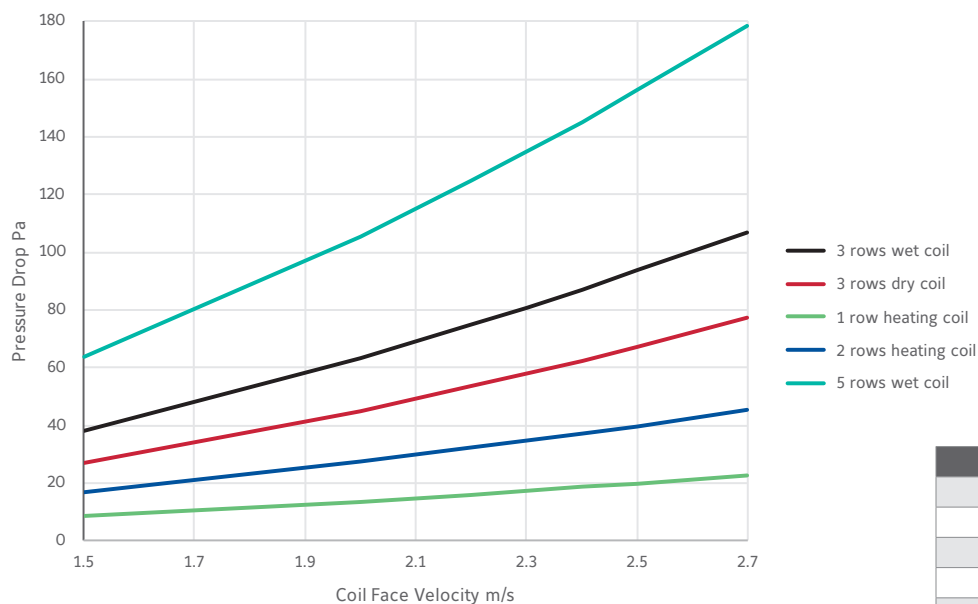


Notes:

- (NB1) Terminal 10V: Fixed voltage output 10VDC, max 10mA. Fan Motor will run at full speed if 10V and AI terminals are shorted.
- (NB2) Single Fan Motor units do not have these parts of wiring.

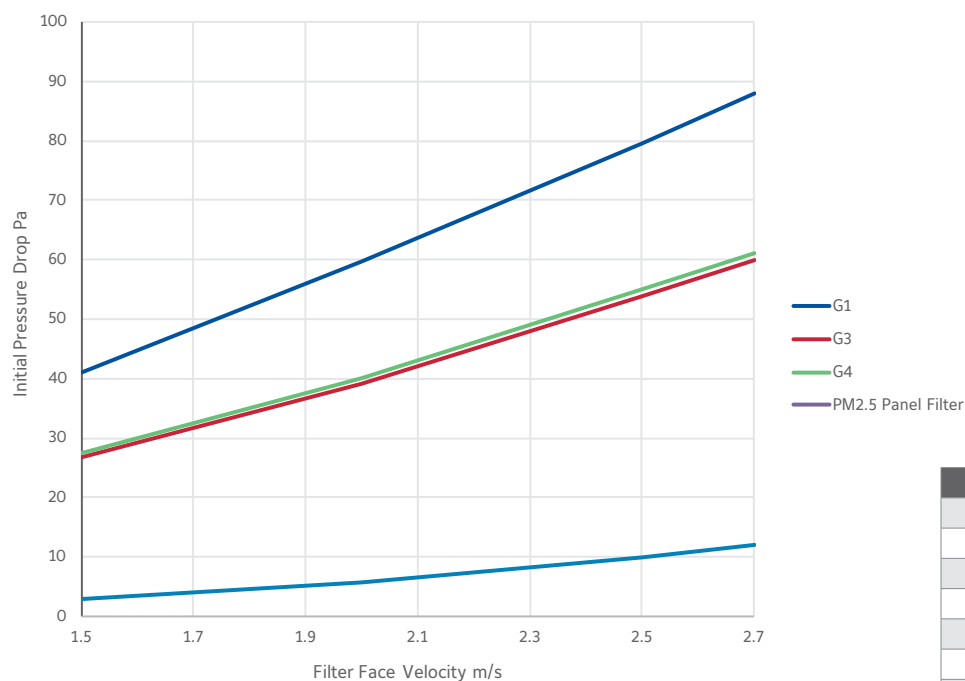
Main Components Air Pressure Drop

Coil Section Airside Pressure Drop Curve



Model	Coil Face Area (m ²)
YBAH01	0.135
YBAH1F	0.183
YBAH02	0.244
YBAH2F	0.305
YBAH03	0.370
YBAH04	0.485
YBAH05	0.617
YBAH06	0.727

Filter Section Pressure Drop Curve



Model	Filter Face Area (m ²)
YBAH01	0.173
YBAH1F	0.220
YBAH02	0.279
YBAH2F	0.338
YBAH03	0.403
YBAH04	0.519
YBAH05	0.648
YBAH06	0.754

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