

LOW STATIC HYDRONIC DUCTED UNIT

PDWA-~AC SERIES



Model	PDWA(4R)-~-V-MEDC	PDWA(4R)-~-V-MEEU	PDWA(3R)-~-V	PDWA(3R+1)-~-P
	cooling capacity(KW) at Medium Speed	cooling capacity (KW) at Medium Speed	cooling capacity (KW) at High Speed	cooling capacity (KW) at High Speed
200	2.16	2.42	2.64	2.64
300	2.8	3.07	3.27	3.27
400	3.74	3.96	4.36	4.36
500	4.65	5.29	5.36	5.36
600	5.42	6.11	6.55	6.55
800	7.12	7.88	8.67	8.67
1000	9.11	10.1	10.1	10.1
1200	9.74	11.2	11.4	11.4
1400	10.7	12.1	14.3	14.3
1600	13.5	15.3	16.2	16.2

The PDWA series terminals are air-conditioning units for systems that use water as cooling and/or heating fluid. These are units for false-ceiling installation designed for the air-conditioning of places such as: banks, shops, offices, homes, hotels, hospitals, etc.

Featuring silent centrifugal fans with low/medium static pressure and internal soundproofing, they are suitable for applications with air outlet ducts in the room.

The range of versions and accessories available make these units easily adaptable to various types of systems.

MAIN FEATURES

General

The PDWA FCUs are specifically designed to satisfy high cooling capacity application requirement. They represent one of the most cost effective solutions to provide a comfortable environment for both commercial and residential applications. Their quiet operation, compact dimensions and particularly low height, make units ideal for ceiling concealed installation even in buildings with narrow ceiling spaces. Units are standard supplied with suction plenum and air filter. Centrifugal fans, with forward curved blades, are statically and dynamically balanced and driven by single phase motors with three speeds. They feature elegant design, advanced structure, high efficiency, low noise, convenient installation and low maintenance. They are widely used in houses, shopping malls, hospitals and office etc.

Higher Cooling Capacity in High Delta T Application (MEDC VERSION)

MEDC units are particularly suitable for high External Static Pressure and high Delta T (chilled water temperature difference) applications. They can deliver more cooling capacity in high Delta T conditions with the specially designed fans & motors, coils and excellent combination of them.

Low Chilled Water Pressure Drop

In order to meet even the most demanding customer requirements, PDWA FCUs adopt the most reasonable and optimized water circuit design and utilize the National accredited thermal test room to guarantee both the perfect performance and a low chilled water pressure drop.

Extra High Air Flow Volume at High ESP

These units can supply more air flow at high ESP. 10 models of PDWA cover an air flow range from 200 to 1600 CFM at medium speed with ESP of 50Pa

High Efficiency and Energy Saving

A boundary layer film of air adhering to the fin surface will insulate the fin designed and HYDROPHILIC BLUE FIN eliminates this boundary layer of air and creates continuous turbulence for best heat exchange efficiency.

Flexibility Units are available with left or right hand water connections, which can be easily switched in the field by changing the positions of the fan-motor assembly and the supply air flange assembly if required.

Compact Design

The low height design makes this fan coil unit series ideally suited for the tight ceiling concealed installation.

Low Noise Design

Enlarged fan wheels design allows lower fan speed selection for the same external static pressure and airflow requirement. Thereby noise level is significantly reduced.

CONFIGURATION CODE



	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PDWA	4R	200	50	X	G	EH1.0	A
	4R	300	20-75Pa	C	X	EH 1.0KW	220~240V
	3R	400	R right connection	B	F		1 ph
	3+1R	500	L left connection	D	G		50 / 60 Hz
		600		E	H		
		800		F	J		
		1000		X			
		1200					
		1400					
		1600					

(1) Coil 3R----2- pipe 3rows 4R----2-pipe 4 rows for High Delt Water 3+1r----4-pipe 3 rows for cooling 1 row for heating	(4): Type of return air C---No return air plenum B----Back plenum return air D---Bottom plenum return air E----Back plenum with 10 mm of felt muffler F----Back plenum with 15 mm of felt muffler X-----Back plenum with 5 mm of NBR plastic muffler
(2) ESP:12~75 Pa	(5): Type of filter X – No filter F – Double-layer nylon net filter with 8mm aluminum frame G – Double-layer nylon net filter with 25mm aluminum frame H – Triple-layer aluminum net filter with 25mm aluminum frame
(3) Water connection R---right connection L---left connection (face to airflow direction)	(6):Electrical heater EH1.0-----1.0KW
	(7) Power supply 220-240V 1PH 50Hz

GENERAL TECHNICAL SPECIFICATIONS--Middle East conditions with High Delta Water arise

PDWA(4R)--V-MEDC Hydronic Ductable Unit 4-row coil 2-pipe 3-speed

PDWA(4R)-[Size]-V-MEDC					200	300	400	500	600	
Unit Configuration	Configuration				2-pipe					
	Number Of Fan Blowers				Single		Twin			
	Power Supply		(V/Ph/Hz)		220~240 / 1 / 50~60hZ					
	Operation Control				~T: Terminal strip only.					
Performance Data	Air	Total Air Flow	H	3	m³/hr	505	649	842	1017	1307
			M	2		412	514	678	910	1050
			L	1		333	379	482	650	840
		Available pressure	H	3	Pa	50	50	50	50	50
			M	2		50	50	50	50	50
			L	1		50	50	50	50	50
	Cooling	Cooling Capacity	H	3	kW	2.58	3.29	4.34	5.05	6.33
			M	2		2.18	2.8	3.74	4.65	5.42
			L	1		1.78	2.21	2.81	3.76	4.57
		Sensible Cooling Capacity	H	3		1.8	2.27	2.99	3.56	4.44
			M	2		1.51	1.92	2.56	3.26	3.77
			L	1		1.22	1.5	1.89	2.61	3.15
		Fan Motor Power	H	3	W	82	105	139	154	206
			M	2		75	96	128	146	188
			L	1		68	88	111	129	173
		Fan Motor Running Current @ H			A	0.36	0.459	0.608	0.672	0.926
		Fan Motor Starting Current @ H			A	1.08	1.14	1.35	1.95	2.1
	Hydraulic	Cooling Water Flow Rate		3	L/s	0.069	0.088	0.116	0.135	0.17
				2		0.0585	0.075	0.1	0.125	0.145
				1		0.0477	0.0592	0.0752	0.101	0.122
		Cooling Pressure Drop		3	kPa	10	17.0	30.5	14.4	23.1
				2		7.57	12.9	23.6	12.5	17.7
				1		5.37	8.66	14.4	8.71	13.2
Construction and Packing Data	Water Connections		Type		Socket(Threaded Female)					
			In	mm [in]	19.05[3/4]					
			Out							
	Condensate Drainage Connection									
	Dimensions		L	mm	755	855	955	1155	1255	
			W		550					
			H		250					
Net Weight			Kg	17	23	24	28	31		

					PDWA(4R)-[Size]-V-MEDC			800	1000	1200	1400	1600
Unit Configuration	Configuration					2-pipe						
	Number Of Fan Blowers					Four				Three	Four	
	Power Supply		(V/Ph/Hz)			220~240 / 1 / 50~60						
	Operation Control					~T: Terminal strip only.						
Performance Data	Air	Total Air Flow	H	3	m³/hr	1543	1950	2145	2700	3100		
			M	2		1346	1740	2027	2500	2700		
			L	1		1145	1382	1714	2200	2350		
		Available pressure	H	3	Pa	50	50	50	50	50		
			M	2		50	50	50	50	50		
			L	1		50	50	50	50	50		
	Cooling	Cooling Capacity	H	3	kW	8.49	9.79	10.2	13.0	15.4		
			M	2		7.14	9.11	9.74	10.7	13.9		
			L	1		5.59	7.02	8.52	9.53	12.5		
		Sensible Cooling Capacity	H	3		5.9	6.79	7.28	9.19	10.7		
			M	2		4.92	6.3	6.94	7.49	9.66		
			L	1		3.8	4.79	6.02	6.62	8.6		
	Electrical	Fan Motor Power	H	3	W	261	288	359	430	511		
			M	2		238	276	342	365	460		
			L	1		216	249	325	345	412		
		Fan Motor Running Current @ H				A	1.137	1.217	1.613	1.95	2.33	
		Fan Motor Starting Current @ H				A	2.7	3.52	4.81	5.65	6.75	
	Hydraulic	Cooling Water Flow Rate		3	L/s	0.228	0.262	0.273	0.349	0.413		
				2		0.191	0.244	0.261	0.287	0.373		
				1		0.15	0.188	0.228	0.255	0.334		
		Cooling Pressure Drop		3	kPa	23.2	31.4	11.8	21.3	32.8		
				2		17.2	27.8	10.9	15.2	27.6		
				1		11.3	17.7	8.7	12.5	22.8		
Construction and Packing Data	Water Connections		Type		Socket(Threaded Female)							
			In	mm [in]	19.05[3/4]							
			Out									
	Condensate Drainage Connection											
	Dimensions		L	mm	1655	1755	1855	1755	1955			
			W		550			620				
			H		250			300				
	Net Weight			Kg	36	43	45	51	60			

1: THE PERFORMANCE DATA ARE BASED ON THE FOLLOWING CONDITIONS:

A) COOLING: 24°C DB/18°C WB INDOOR AND WATER INLET 5.5°C OUTLET 14.5°C.

B) 50PA ESP.

2: ALL THE DIMENSIONS ARE FOR THE UNITS WITH STANDARD DRAIN PAN. TO GET DIMENSIONS FOR UNITS WITH EXTENDED DRAIN PAN,

PLEASE INCREASE THE ABOVE LENGTH VALUES ACCORDINGLY.

GENERAL TECHNICAL SPECIFICATIONS--Middle East conditions with Standard delta water arise

PDWA(4R)-- V-MEEU Hydronic Ductable Unit 4-row coil 2-pipe 3-speed

PDWA(4R)-[Size]-V-MEEU					200	300	400	500	600	
Unit Configuration	Configuration				2-pipe					
	Number Of Fan Blowers				Single		Twin			
	Power Supply		(V/Ph/Hz)		220~240 / 1 / 50~60hZ					
	Operation Control				~T: Terminal strip only.					
Performance Data	Air	Total Air Flow	H	3	m³/hr	505	649	842	1017	1307
			M	2		412	514	678	910	1050
			L	1		333	379	482	650	840
		Available pressure	H	3	Pa	50	50	50	50	50
			M	2		50	50	50	50	50
			L	1		50	50	50	50	50
	Cooling	Cooling Capacity	H	3	kW	2.88	3.64	4.62	5.76	7.2
			M	2		2.42	3.07	3.96	5.29	6.11
			L	1		1.95	2.4	2.94	4.24	5.11
		Sensible Cooling Capacity	H	3		1.93	2.43	3.11	3.87	4.82
			M	2		1.61	2.04	2.66	3.54	4.07
			L	1		1.3	1.58	1.95	2.82	3.39
		Fan Motor Power	H	3	W	82	105	139	154	206
			M	2		75	96	128	146	188
			L	1		68	88	111	129	173
		Fan Motor Running Current @ H		A		0.36	0.459	0.608	0.672	0.926
		Fan Motor Starting Current @ H		A		1.08	1.14	1.35	1.95	2.1
	Hydraulic	Cooling Water Flow Rate		3	L/s	0.137	0.173	0.22	0.275	0.343
				2		0.115	0.147	0.189	0.252	0.292
				1		0.0932	0.115	0.14	0.202	0.244
		Cooling Pressure Drop		3	kPa	10.9	18.2	13.9	22.4	35.8
				2		8.07	13.6	10.7	19.2	26.9
				1		5.62	8.94	6.43	13.1	19.8
Construction and Packing Data	Water Connections		Type		Socket(Threaded Female)					
			In	mm [in]	19.05[3/4]					
			Out							
	Condensate Drainage Connection									
	Dimensions		L	mm	755	855	955	1155	1255	
			W		550					
			H		250					
Net Weight			Kg	17	23	24	28	31		

		PDWA(4R)-[Size]-V-MEEU				800	1000	1200	1400	1600					
Unit Configuration		Configuration				2-pipe									
		Number Of Fan Blowers				Four			Three	Four					
		Power Supply		(V/Ph/Hz)		220~240 / 1 / 50~60									
		Operation Control				~T: Terminal strip only.									
Performance Data		Air		Total Air Flow	H	3	m³/hr	1543	1950	2145	2700	3100			
					M	2		1346	1740	2027	2500	2700			
					L	1		1145	1382	1714	2200	2350			
				Available pressure	H	3	Pa	50	50	50	50	50			
					M	2		50	50	50	50	50			
					L	1		50	50	50	50	50			
		Cooling		Cooling Capacity	H	3	kW	9.44	10.9	11.8	14.9	17.4			
					M	2		7.88	10.1	11.2	12.1	15.7			
					L	1		6.1	7.68	9.75	10.7	13.9			
				Sensible Cooling Capacity	H	3		6.31	7.26	7.96	10.0	11.6			
					M	2		5.24	6.72	7.57	8.11	10.4			
					L	1		4.03	5.08	6.55	7.14	9.24			
				Electrical		Fan Motor Power		H	3	W	261	288	359	430	511
								M	2		238	276	342	365	460
								L	1		216	249	325	345	412
		Fan Motor Running Current @ H				A		1.137	1.217	1.613	1.95	2.33			
		Fan Motor Starting Current @ H				A		2.7	3.52	4.81	5.65	6.75			
		Hydraulic		Cooling Water Flow Rate		3	L/s	0.45	0.518	0.562	0.71	0.829			
						2		0.376	0.481	0.536	0.579	0.747			
						1		0.259	0.366	0.465	0.512	0.665			
				Cooling Pressure Drop		3	kPa	25.0	33.9	18.8	33.3	50.3			
						2		18.3	29.7	17.3	23.4	41.9			
						1		11.8	18.6	13.5	18.9	34.2			
Construction and Packing Data		Water Connections		Type		Socket(Threaded Female)									
				In	mm [in]	19.05[3/4]									
				Out											
		Condensate Drainage Connection													
		Dimensions		L	mm	1655	1755	1855	1755	1955					
				W		550			620						
				H		250			300						
Net Weight				Kg	36	43	45	51	60						

1: THE PERFORMANCE DATA ARE BASED ON THE FOLLOWING CONDITIONS:
A) COOLING: 24°C DB/18°C WB INDOOR AND WATER INLET 7°C OUTLET 12°C.
B) 50PA ESP.

2: ALL THE DIMENSIONS ARE FOR THE UNITS WITH STANDARD DRAIN PAN. TO GET DIMENSIONS FOR UNITS WITH EXTENDED DRAIN PAN,
PLEASE INCREASE THE ABOVE LENGTH VALUES ACCORDINGLY.

GENERAL TECHNICAL SPECIFICATIONS---ARI specification with Standard delta water arise

PDWA(3R)--V Hydronic Ductable Unit 3-row coil 2-pipe 3-speed

PDWA(3R)-[Size]-V-					200	300	400	500	600		
Unit Configuration	Configuration				2-pipe						
	Number Of Fan Blowers				Single		Twin				
	Power Supply		(V/Ph/Hz)		220~240 / 1 / 50~60hZ						
	Operation Control				~T: Terminal strip only.						
Performance Data	Air	Total Air Flow	H	3	m³/hr	444	535	720	925	1132	
			M	2		355	450	620	840	959	
			L	1		260	280	430	593	776	
		Available pressure	H	3	Pa	75	75	75	75	75	
			M	2		75	75	75	75	75	
			L	1		75	75	75	75	75	
	Cooling	Cooling Capacity	H	3	kW	2.64	3.27	4.36	5.36	6.55	
			M	2		2.21	2.85	3.86	4.95	5.72	
			L	1		1.71	1.92	2.86	3.75	4.84	
		Sensible Cooling Capacity	H	3		1.8	2.21	2.93	3.65	4.44	
			M	2		1.5	1.92	2.59	3.36	3.87	
			L	1		1.15	1.28	1.9	2.53	3.26	
	Heating	Heating capacity	H	3	kW	4.05	4.93	6.51	8.16	9.9	
			M	2		3.36	4.27	5.75	7.51	8.6	
			L	1		2.58	2.83	4.2	5.62	7.23	
		Fan Motor Power	H	3	W	79	97	126	144	187	
			M	2		70	91	119	138	176	
			L	1		63	78	104	119	159	
		Fan Motor Running Current @ H				A	0.335	0.424	0.551	0.631	0.849
		Fan Motor Starting Current @ H				A	1.08	1.14	1.35	1.95	2.1
		Hydraulic	Cooling Water Flow Rate		3	L/s	0.126	0.156	0.208	0.256	0.312
	2				0.106		0.136	0.184	0.236	0.273	
	1				0.0818		0.0915	0.136	0.179	0.231	
	Cooling Pressure Drop		3	kPa	7.02	11.3	20.6	14.7	22.7		
			2		5.18	8.94	16.7	12.9	18		
			1		3.36	4.55	9.95	7.97	13.5		
	Construction and Packing Data	Water Connections		Type		Socket(Threaded Female)					
In				mm [in]	19.05[3/4]						
Out											
Condensate Drainage Connection											
Dimensions		L	mm	755	855	955	1155	1255			
		W		550							
		H		250							
Net Weight			Kg	17	23	24	28	31			

					PDWA(3R)-[Size]-V		800	1000	1200	1400	1600					
Unit Configuration		Configuration				2-pipe										
		Number Of Fan Blowers				Four			Three	Four						
		Power Supply		(V/Ph/Hz)		220~240 / 1 / 50~60										
		Operation Control				~T: Terminal strip only.										
Performance Data		Air		Total Air Flow		H	3	m³/hr	1480	1728	1952	2561	2878			
						M	2		1210	1580	1830	2366	2627			
						L	1		877	1120	1530	2041	2442			
				Available pressure		H	3	Pa	75	75	75	75	75			
						M	2		75	75	75	75	75			
						L	1		75	75	75	75	75			
				Cooling		Cooling Capacity		H	3	kW	8.67	10.1	11.4	14.3	16.6	
								M	2		7.39	9.38	10.8	13.4	15.5	
								L	1		5.69	7.09	9.37	12.0	14.5	
		Sensible Cooling Capacity				H	3	5.88	6.81		7.69	9.76	11.2			
						M	2	4.99	6.34		7.29	9.15	10.4			
						L	1	3.81	4.76		6.3	8.11	9.79			
		Heating				Heating capacity		H	3		kW	13.1	15.2	17.1	21.8	24.5
								M	2			11.1	14.1	16.2	20.4	22.8
								L	1			8.46	10.5	14.0	18.1	21.4
		Electrical		Fan Motor Power		H	3	W	240	273	338	430	511			
						M	2		223	259	321	365	460			
						L	1		199	230	298	345	412			
				Fan Motor Running Current @ H				A	1.045	1.18	1.522	1.95	2.33			
				Fan Motor Starting Current @ H				A	2.7	3.52	4.81	5.65	6.75			
		Hydraulic		Cooling Water Flow Rate		3	L/s	0.414	0.48	0.543	0.683	0.793				
						2		0.352	0.447	0.515	0.641	0.738				
						1		0.271	0.338	0.447	0.57	0.679				
				Cooling Pressure Drop		3	kPa	16.2	22.2	29.1	23.3	34.8				
						2		12.2	19.7	26.6	20.9	30.7				
						1		7.81	12.1	20.7	17.1	26.6				
Construction and Packing Data		Water Connections		Type		Socket(Threaded Female)										
				In	mm [in]	19.05[3/4]										
				Out												
		Condensate Drainage Connection														
		Dimensions		L	mm	1655	1755	1855	1755	1955						
				W		550			620							
				H		250			300							
		Net Weight				Kg	36	43	45	51	60					

1: THE PERFORMANCE DATA ARE BASED ON THE FOLLOWING CONDITIONS:

A) COOLING: 27°C DB/19.5°C WB INDOOR AND WATER INLET 7°C OUTLET 12°C.

B) HEATING: 21°C DB INDOOR AND WATER INLET 60°C, WATER FLOW IS SAME TO COOLING MODE.

C) 75PA ESP.

2: ALL THE DIMENSIONS ARE FOR THE UNITS WITH STANDARD DRAIN PAN. TO GET DIMENSIONS FOR UNITS WITH EXTENDED DRAIN PAN, PLEASE INCREASE THE ABOVE LENGTH VALUES ACCORDINGLY.

GENERAL TECHNICAL SPECIFICATIONS---ARI specification with Standard delta water arise

PDWA(3R+1)-P~ Hydronic Ductable Unit 3-row +1-row coil 4-pipe 3-speed

PDWA(3R+1)-[Size]-P-					200	300	400	500	600		
Unit Configuration	Configuration				2-pipe						
	Number Of Fan Blowers				Single		Twin				
	Power Supply		(V/Ph/Hz)		220~240 / 1 / 50~60hZ						
	Operation Control				~T: Terminal strip only.						
Performance Data	Air	Total Air Flow	H	3	m³/hr	444	535	720	925	1132	
			M	2		355	450	620	840	959	
			L	1		260	280	430	593	776	
		Available pressure	H	3	Pa	70	70	70	70	70	
			M	2		70	70	70	70	70	
			L	1		70	70	70	70	70	
	Cooling	Cooling Capacity	H	3	kW	2.64	3.27	4.36	5.36	6.55	
			M	2		2.21	2.85	3.86	4.95	5.72	
			L	1		1.71	1.92	2.86	3.75	4.84	
		Sensible Cooling Capacity	H	3		1.8	2.21	2.93	3.65	4.44	
			M	2		1.5	1.92	2.59	3.36	3.87	
			L	1		1.15	1.28	1.9	2.53	3.26	
	Heating	Heating capacity	H	3	kW	2.62	3.19	4.16	5.21	6.07	
			M	2		2.23	2.81	3.72	4.85	5.37	
			L	1		1.76	1.97	2.83	3.76	4.61	
		Fan Motor Power	H	3	W	79	97	126	144	187	
			M	2		70	91	119	138	176	
			L	1		63	78	104	119	159	
		Fan Motor Running Current @ H				A	0.335	0.424	0.551	0.631	0.849
		Fan Motor Starting Current @ H				A	1.08	1.14	1.35	1.95	2.1
		Hydraulic	Cooling Water Flow Rate		3	L/s	0.126	0.156	0.208	0.256	0.312
	2				0.106		0.136	0.184	0.236	0.273	
	1				0.0818		0.0915	0.136	0.179	0.231	
	Cooling Pressure Drop		3	kPa	7.02	11.3	20.6	14.7	22.7		
			2		5.18	8.94	16.7	12.9	18		
			1		3.36	4.55	9.95	7.97	13.5		
	Construction and Packing Data	Water Connections		Type		Socket(Threaded Female)					
In				mm [in]	19.05[3/4]						
Out											
Condensate Drainage Connection											
Dimensions		L	mm	755	855	955	1155	1255			
		W		550							
		H		250							
Net Weight				Kg	17	23	24	28	31		

					PDWA(3R)-[Size]-V		800	1000	1200	1400	1600					
Unit Configuration		Configuration				2-pipe										
		Number Of Fan Blowers				Four			Three	Four						
		Power Supply		(V/Ph/Hz)		220~240 / 1 / 50~60										
		Operation Control				~T: Terminal strip only.										
Performance Data		Air		Total Air Flow		H	3	m³/hr	1480	1728	1952	2561	2878			
						M	2		1210	1580	1830	2366	2627			
						L	1		877	1120	1530	2041	2442			
				Available pressure		H	3	Pa	70	70	70	70	70			
						M	2		70	70	70	70	70			
						L	1		70	70	70	70	70			
				Cooling		Cooling Capacity		H	3	kW	8.67	10.1	11.4	14.3	16.6	
								M	2		7.39	9.38	10.8	13.4	15.5	
								L	1		5.69	7.09	9.37	12.0	14.5	
		Sensible Cooling Capacity				H	3	5.88	6.81		7.69	9.76	11.2			
						M	2	4.99	6.34		7.29	9.15	10.4			
						L	1	3.81	4.76		6.3	8.11	9.79			
		Heating				Heating capacity		H	3		kW	8.32	9.54	10.7	13	14.6
								M	2			7.17	8.94	10.2	12.3	13.7
								L	1			5.66	6.93	8.95	11.0	13.0
		Electrical		Fan Motor Power		H	3	W	240	273	338	430	511			
						M	2		223	259	321	365	460			
						L	1		199	230	298	345	412			
				Fan Motor Running Current @ H			A	1.045	1.18	1.522	1.95	2.33				
				Fan Motor Starting Current @ H			A	2.7	3.52	4.81	5.65	6.75				
		Hydraulic		Cooling Water Flow Rate		3	L/s	0.414	0.48	0.543	0.683	0.793				
						2		0.352	0.447	0.515	0.641	0.738				
						1		0.271	0.338	0.447	0.57	0.679				
				Cooling Pressure Drop		3	kPa	16.2	22.2	29.1	23.3	34.8				
						2		12.2	19.7	26.6	20.9	30.7				
						1		7.81	12.1	20.7	17.1	26.6				
Construction and Packing Data		Water Connections		Type		Socket(Threaded Female)										
				In	mm [in]	19.05[3/4]										
				Out												
		Condensate Drainage Connection														
		Dimensions		L	mm	1655	1755	1855	1755	1955						
				W		550			620							
				H		250			300							
		Net Weight			Kg	36	43	45	51	60						

1: THE PERFORMANCE DATA ARE BASED ON THE FOLLOWING CONDITIONS:

A) COOLING: 27°C DB/19.5°C WB INDOOR AND WATER INLET 7°C OUTLET 12°C.

B) HEATING: 20°C DB INDOOR AND WATER INLET 70°C OUTLET 60°C.

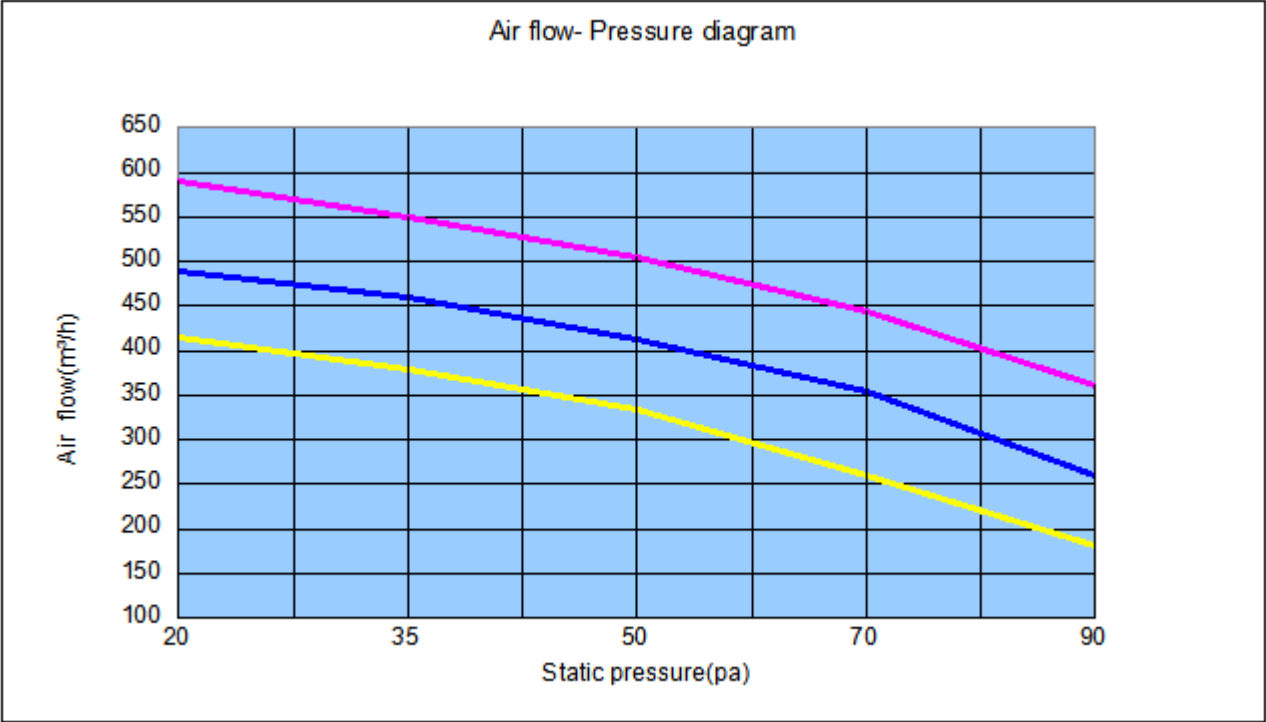
C) 70PA ESP.

2: ALL THE DIMENSIONS ARE FOR THE UNITS WITH STANDARD DRAIN PAN. TO GET DIMENSIONS FOR UNITS WITH EXTENDED DRAIN PAN, PLEASE INCREASE THE ABOVE LENGTH VALUES ACCORDINGLY.

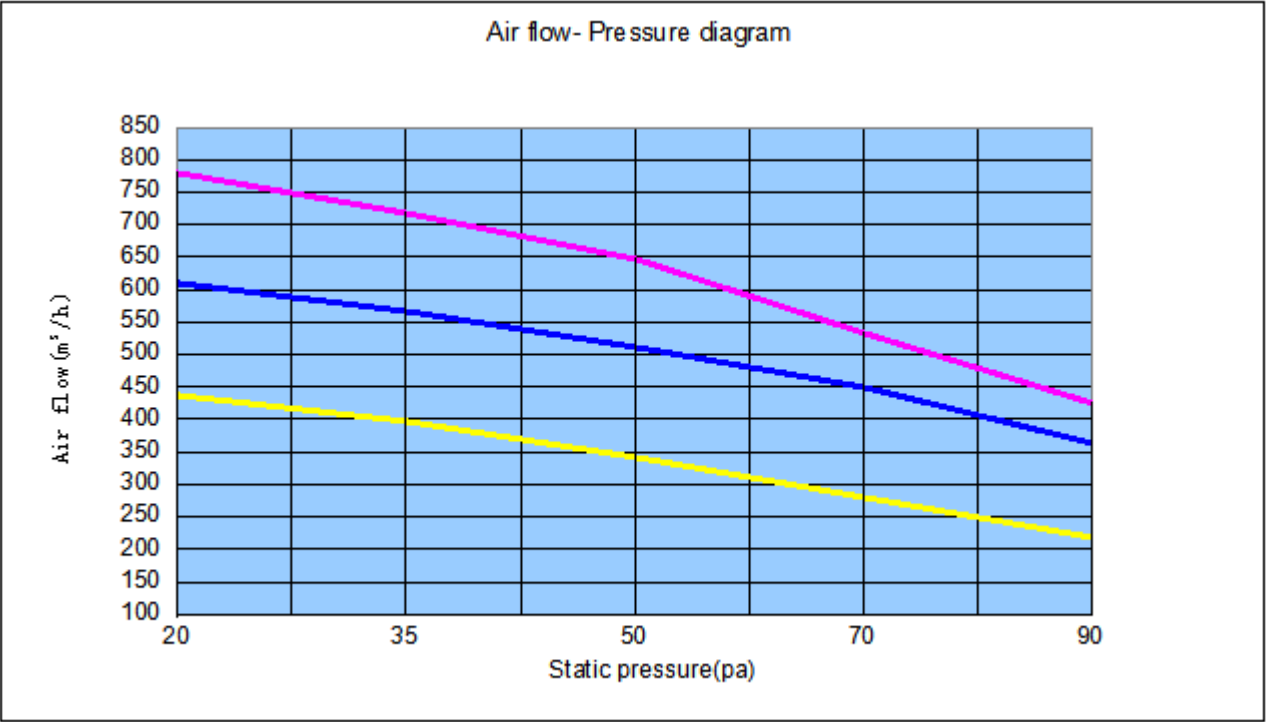
Model				200	300	400	500	600	800	1000	1200	1400	1600
Fan	Type			Centrifugal (Blade: forward-curved)									
	Quantity			1	1	2	2	2	3	4	4	3	4
	Material			Galvanized steel									
	Drive			Direct Drive									
	Diameter	mm		160	160	160	160	160	160	160	160	200	200
	Length	mm		200	200	160	200	200	200	200	200	190	190
Motor	Type			Split-capacitor Motor With Ball Bearing									
	Number of motors			1					2				
	Power supply			220~240V/1P/50Hz									
	IP/Insulation class			IP20/Class B									
	Poles			4									
Coil	Type			Seamless copper tube mechanically bonded to corrugated aluminum fin									
	Testing pressure			Leakage test 3.0MPa for 3 minutes									
	Tube	Material		copper									
		Diameter	mm	9.52									
		Thickness	mm	0.3									
	Fin	Material		Hydrophilic Aluminum									
		Thickness	mm	0.105									
		Face area	m2	0.096	0.116	0.136	0.156	0.176	0.256	0.276	0.296	0.345	0.38
		Row		3 or 4 or 3+1									
		Fins per inch		12.7									
Insulation	Coil top panel	Material		NBR plastic foam									
		Thickness	mm	5	5	5	5	5	5	5	5	5	5
	Others Panel	Material		NBR plastic foam									
		Thickness	mm	5	5	5	5	5	5	5	5	5	5
	Drain pan	Material		NBR plastic foam									
		Thickness	mm	7	7	7	7	7	7	7	7	7	7
Air filter	Material			Nylon filter									
	Number			1	1	1	1	2	2	3	3	3	3
	size	Length	mm	480	580	680	780	440	640	460	490	460	490
		Width	mm	227	227	227	227	227	227	227	227	277	277
		Thickness	mm	8	8	8	8	8	8	8	8	8	8
Drain pan	Material			Steel with painting									
	Thickness		mm	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Outer casing	Material			Galvanized steel (zinc weight: 100g/m2)									
	Thickness		mm	0.8	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.0

Air flow VS ESP

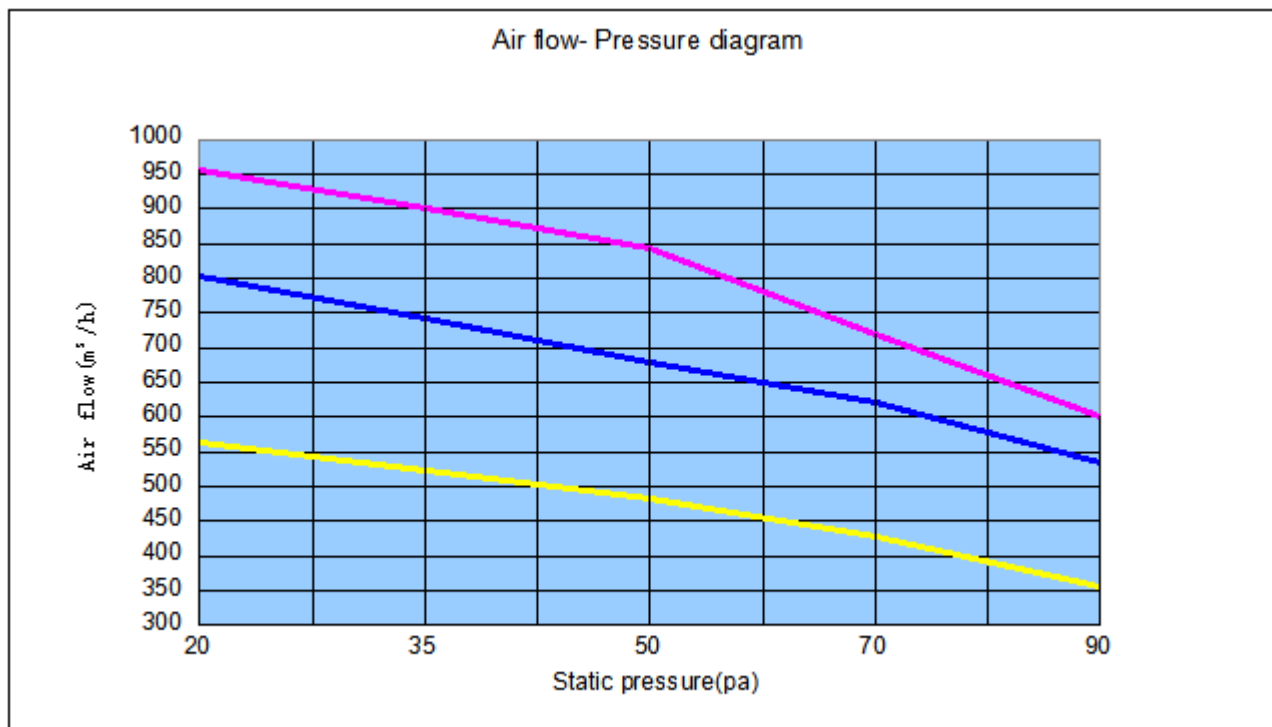
PDWA(4R)-200-V



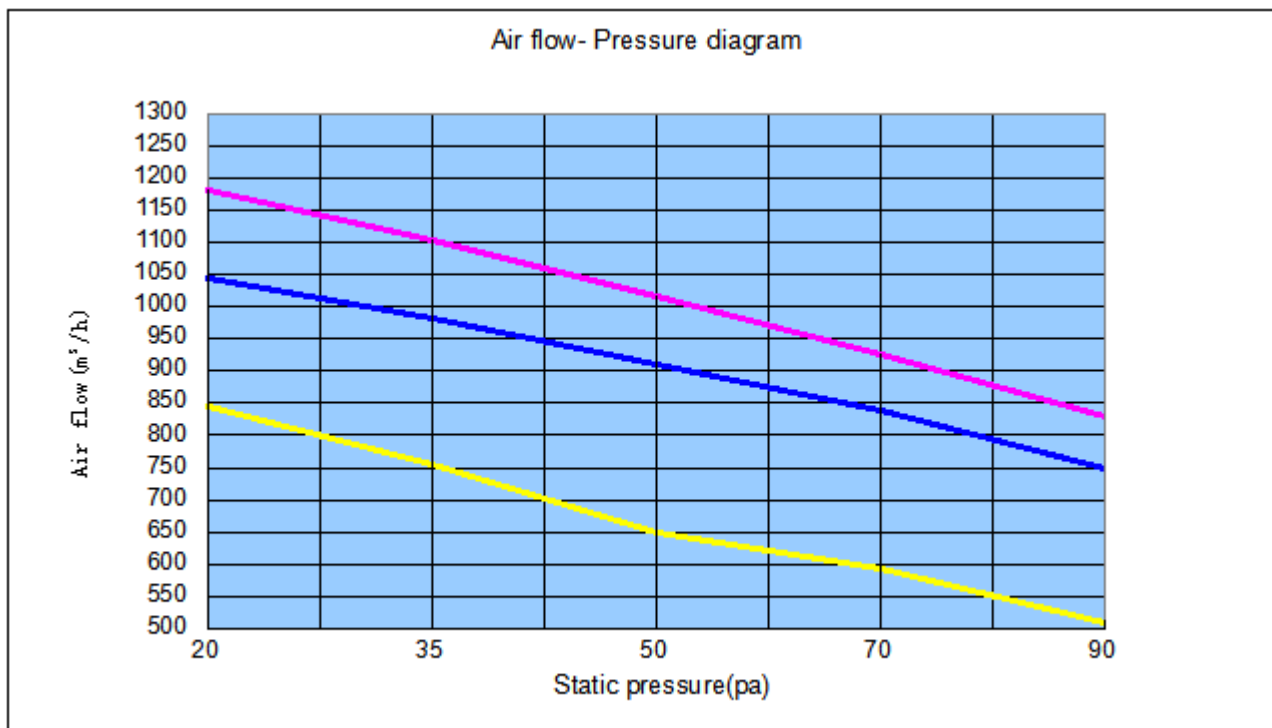
PDWA(4R)-300-V



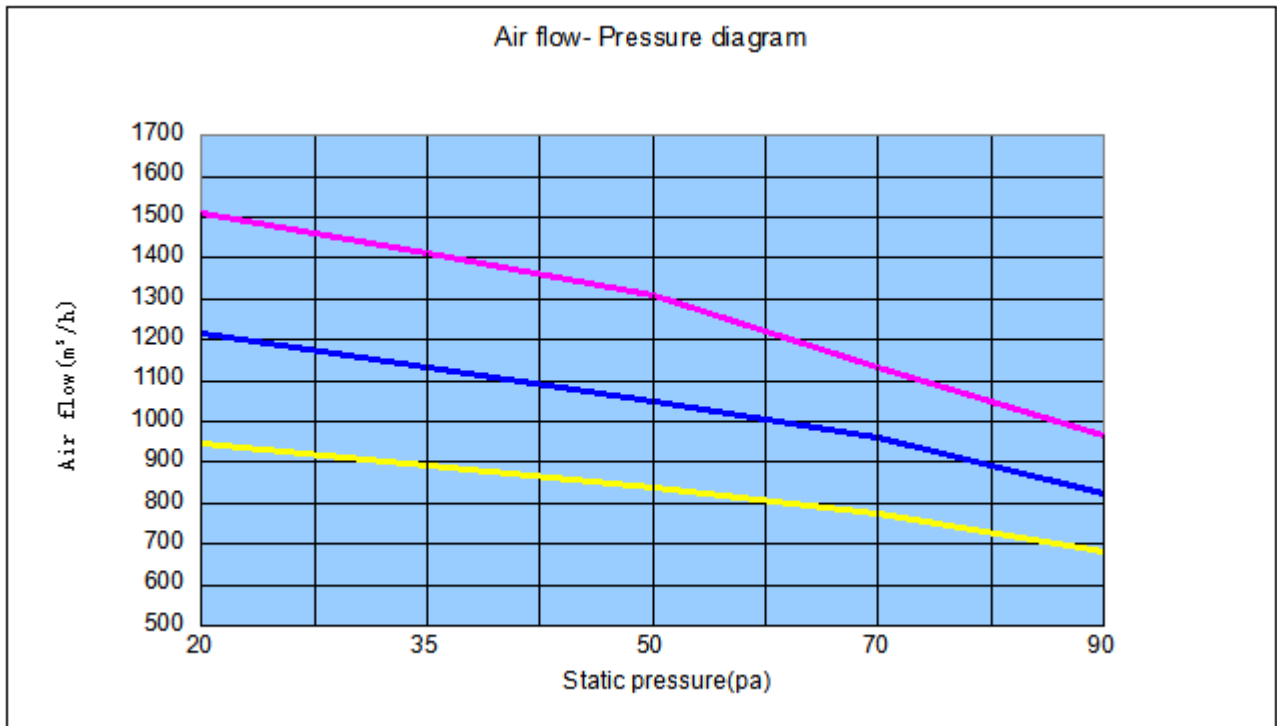
PDWA(4R)-400-V



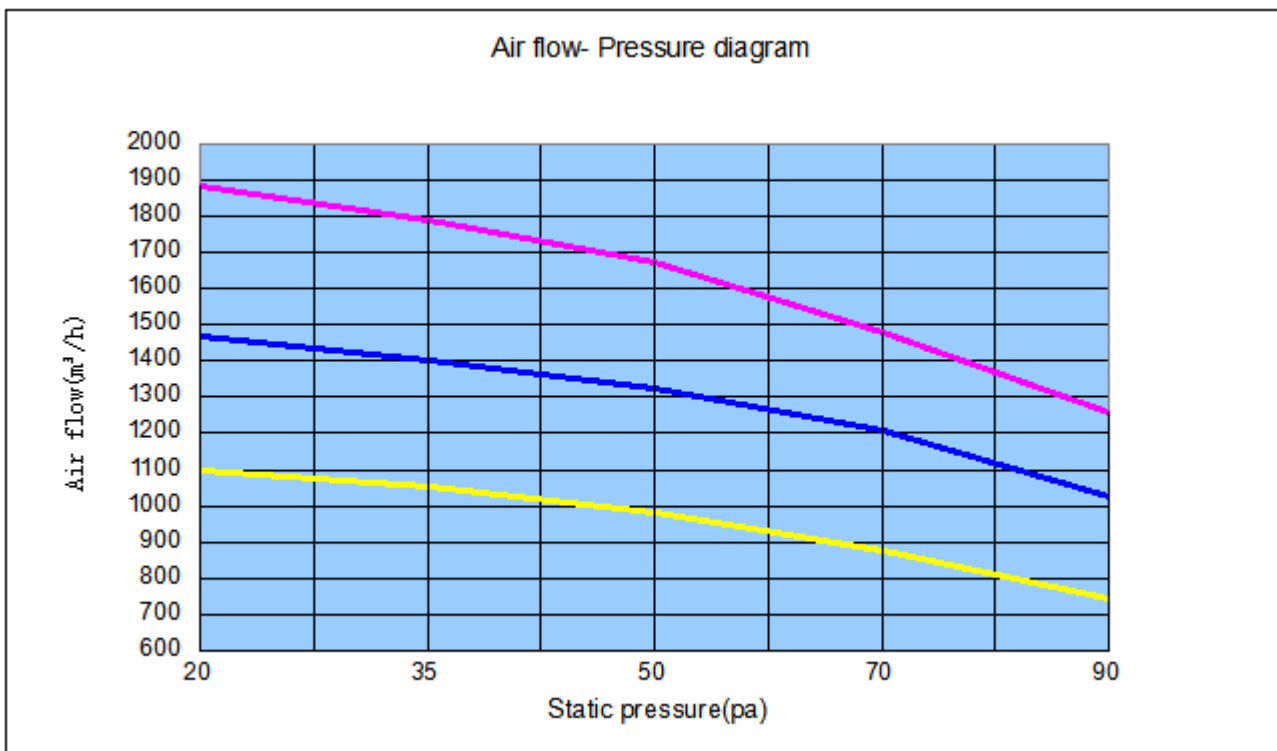
PDWA(4R)-500-V



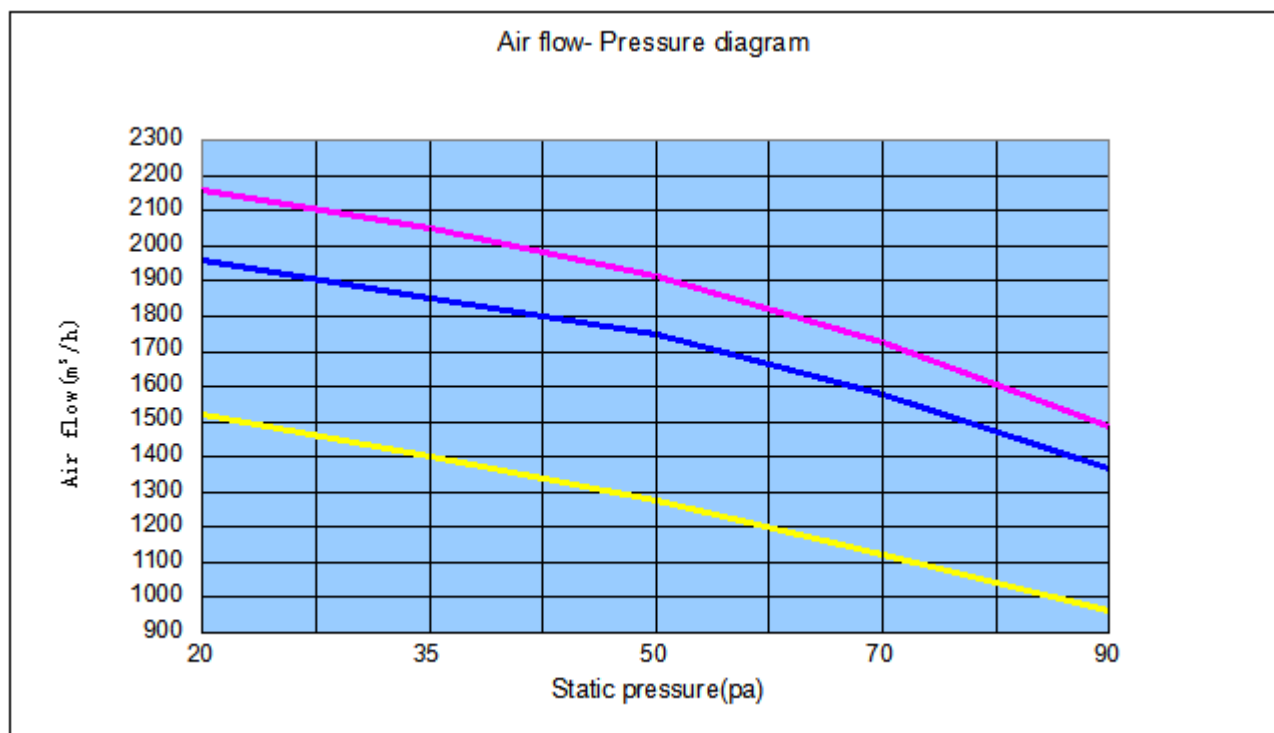
PDWA(4R)-600-V



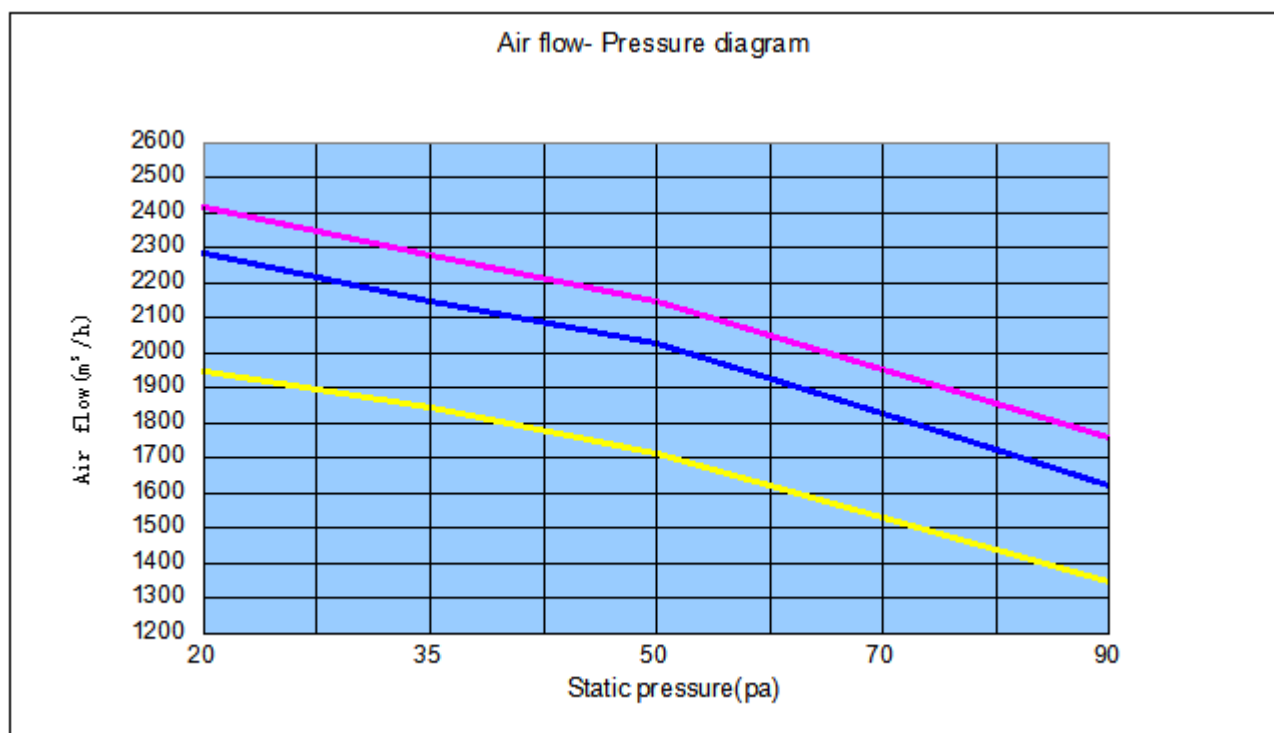
PDWA(4R)-800-V



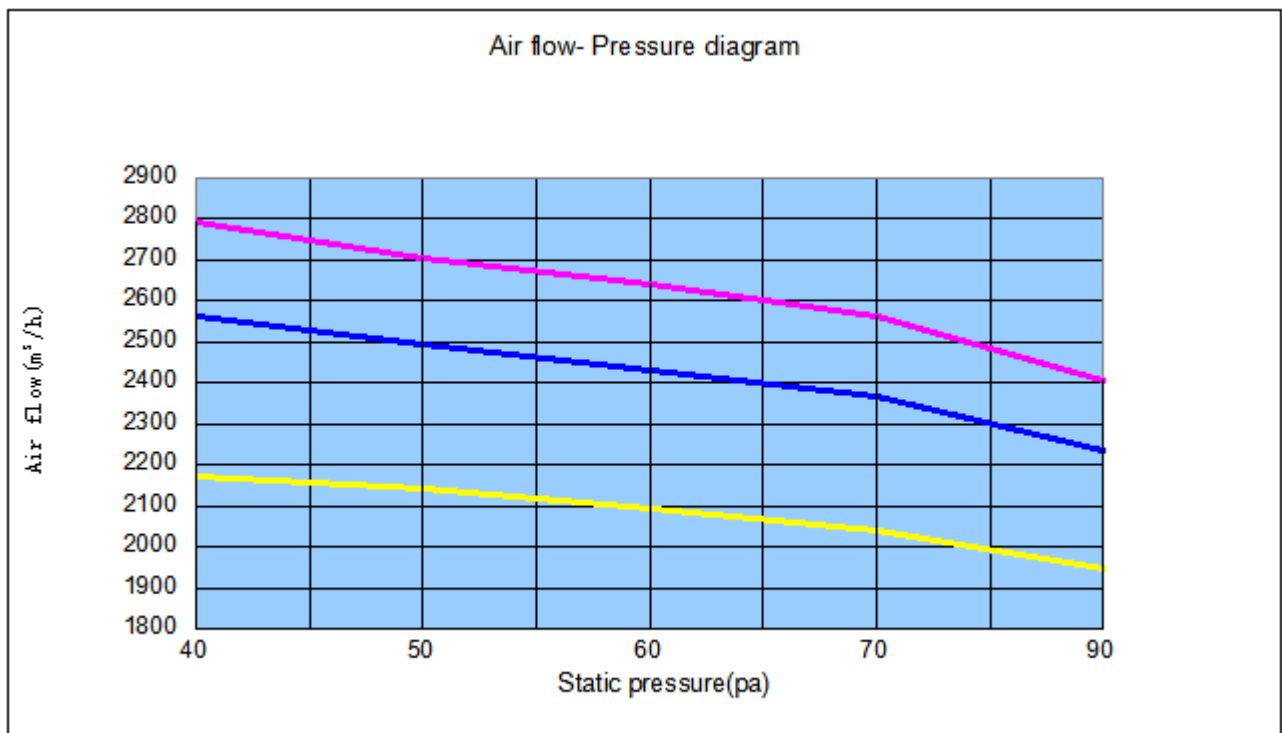
PDWA(4R)-1000-V



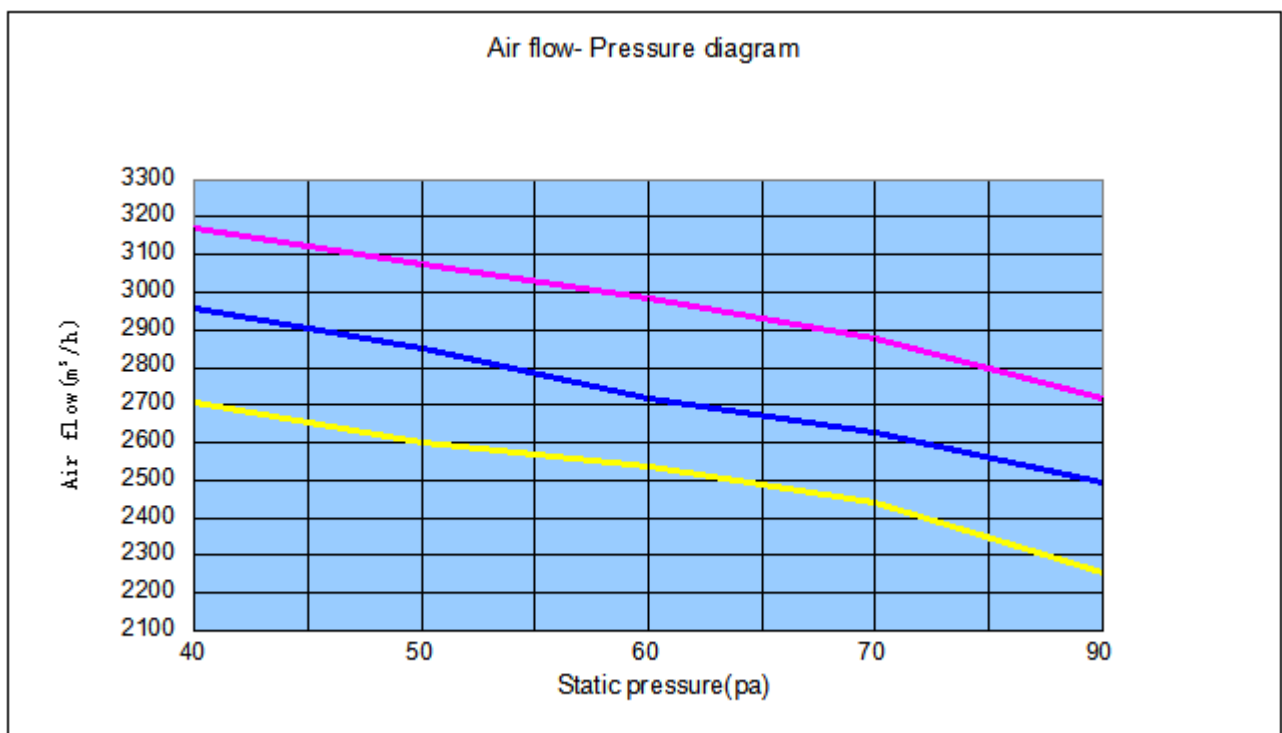
PDWA(4R)-1200-V



PDWA(4R)-1400-V



PDWA(4R)-1600-V

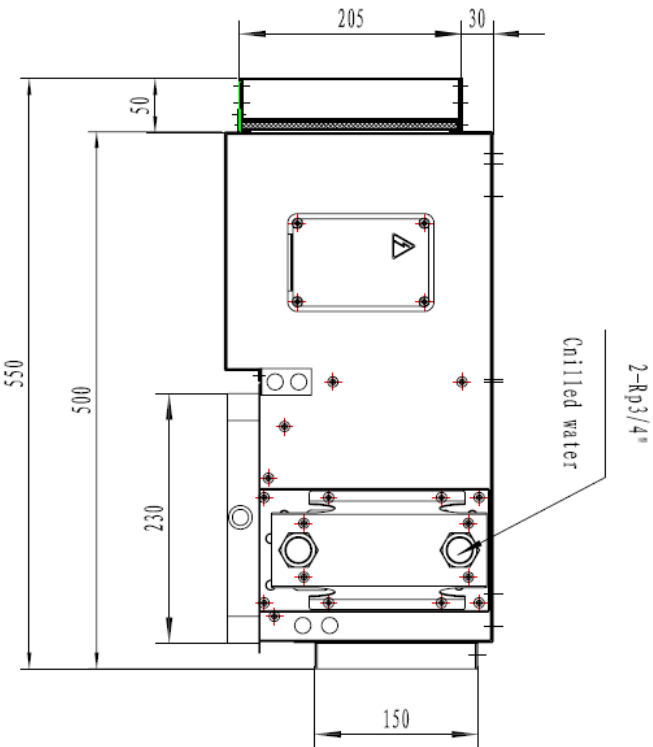
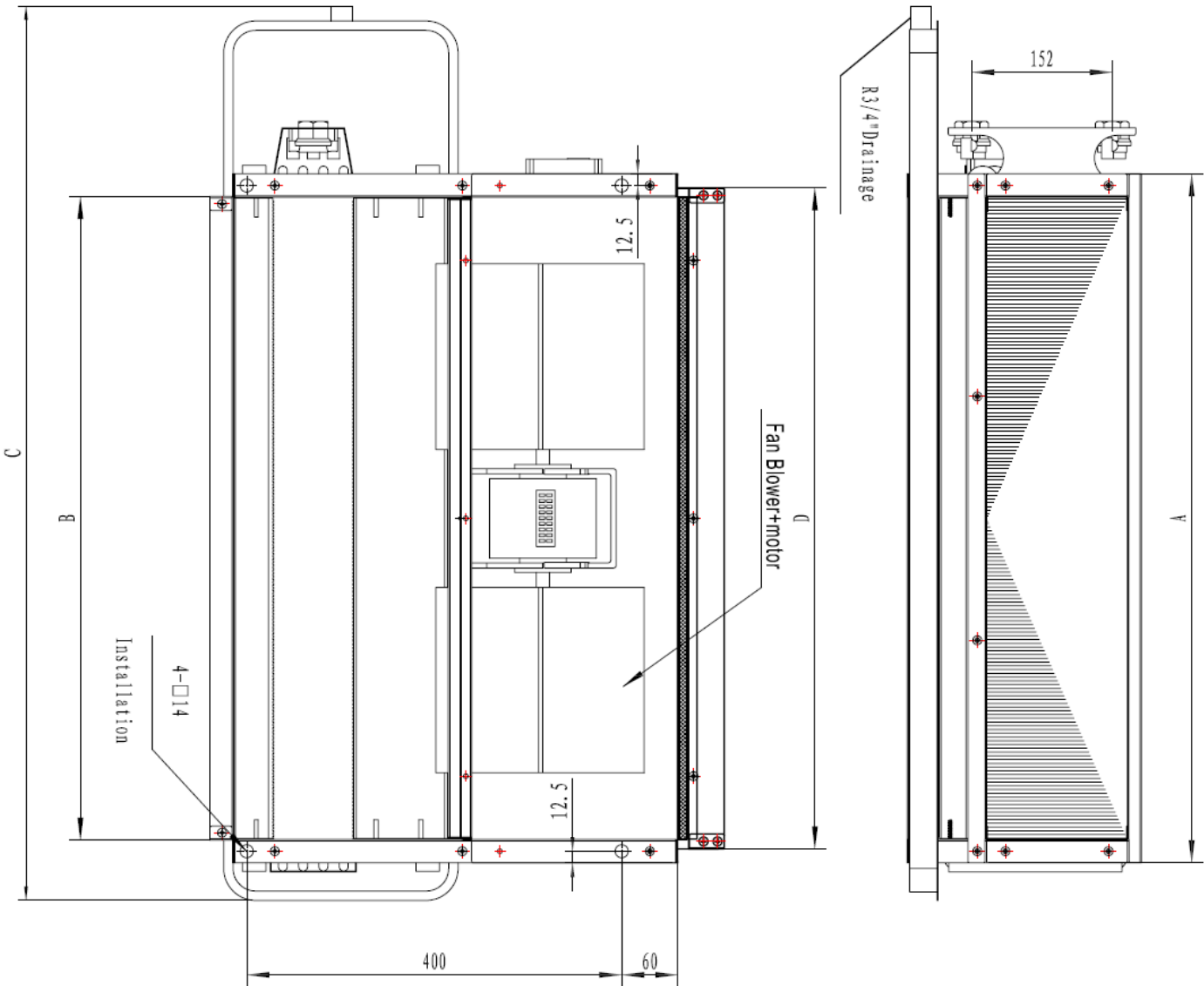


Sound Pressure Level

Model		200			300			400			500			600		
speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
A-weighted Sound Pressure in 1/3 Octave-bands under ESP:50Pa	63	2.31	6.30	5.01	11.46	9.06	12.52	10.54	6.20	8.77	14.33	9.11	11.33	14.60	13.60	6.70
	80	14.03	10.49	6.56	15.21	12.89	12.90	17.65	16.70	16.27	18.29	15.70	16.52	25.40	22.00	19.58
	100	15.68	18.25	11.83	20.72	23.71	20.28	25.40	19.74	17.86	23.37	21.83	22.35	23.40	22.20	12.59
	125	25.60	17.58	14.69	23.46	21.00	17.46	22.62	21.68	21.49	24.91	27.81	21.16	28.40	24.70	17.31
	160	26.16	23.69	21.94	30.34	27.91	24.15	30.85	26.82	24.80	32.67	32.01	26.49	35.40	32.60	18.45
	200	30.90	30.05	25.93	32.95	33.78	30.83	34.41	30.51	27.86	36.97	35.95	29.86	38.50	34.30	28.75
	250	34.23	32.75	24.28	33.91	34.44	31.63	32.90	32.00	28.39	34.19	33.72	28.58	40.20	36.00	32.40
	315	32.21	31.10	27.52	31.57	32.53	30.86	38.26	36.22	32.86	40.39	37.43	34.71	39.40	36.00	34.35
	400.	40.98	39.50	38.36	38.78	37.64	35.29	38.27	35.72	33.51	41.41	38.56	36.35	41.90	40.60	34.31
	500	39.63	39.70	38.14	41.47	40.54	40.16	37.34	34.68	32.31	39.34	37.19	34.63	40.30	38.90	36.95
	630	41.22	37.97	35.90	38.66	39.70	38.23	43.78	39.18	37.57	40.45	39.46	38.07	43.00	42.20	36.50
	800	40.23	36.84	33.85	38.50	38.06	34.91	43.60	40.50	37.23	44.24	42.04	38.47	46.30	44.10	35.41
	1000	42.89	40.15	34.99	40.86	38.61	36.20	43.50	41.16	39.05	44.25	42.26	36.49	44.80	43.80	37.61
	1250	37.93	35.22	32.93	36.79	36.41	33.67	38.06	36.19	34.15	42.10	38.78	35.82	44.70	41.70	35.67
	1600	37.11	34.04	30.55	38.14	37.53	33.65	39.20	36.83	33.18	41.42	38.51	35.16	43.90	41.10	35.48
	2000	38.92	34.98	29.45	36.52	36.27	33.29	39.03	35.84	32.27	39.92	37.72	32.53	43.20	40.40	33.65
	2500	35.12	30.85	26.56	34.39	33.51	31.29	35.48	33.35	29.60	38.00	36.47	31.63	41.40	38.40	31.17
	3150.	32.47	29.06	24.35	32.26	32.34	27.86	33.92	31.04	27.17	36.94	34.10	28.59	39.20	36.40	28.70
	4000	29.63	26.15	18.98	28.59	27.90	23.74	31.93	28.94	24.25	32.17	29.95	23.33	37.00	33.40	26.39
	5000	26.10	21.80	15.79	26.46	25.30	20.14	28.38	25.15	20.96	28.22	26.30	19.37	33.70	30.00	22.88
	6300	22.48	18.04	12.46	23.39	22.45	16.93	23.76	19.92	15.75	24.65	21.79	15.73	31.10	25.80	18.72
	8000	19.71	14.66	8.49	20.57	20.03	13.79	20.10	16.46	12.04	21.98	18.36	11.94	27.90	22.80	15.27
	10000	15.56	9.94	4.71	16.71	15.70	8.96	15.84	11.92	7.51	16.90	13.72	6.81	23.30	18.40	10.04
	12500	8.16	3.48	0.87	9.15	8.37	2.62	8.44	4.79	1.75	9.92	6.64	1.67	15.70	10.50	1.75
	16000	1.91	0.62	-0.12	2.26	2.38	0.28	2.06	0.70	0.19	2.79	1.27	0.17	7.20	3.50	-0.08
Sound Pressure dB(A)		45.20	42.20	39.20	44.80	43.70	41.10	46.00	43.70	41.10	47.50	45.70	41.70	49.70	47.40	44.40

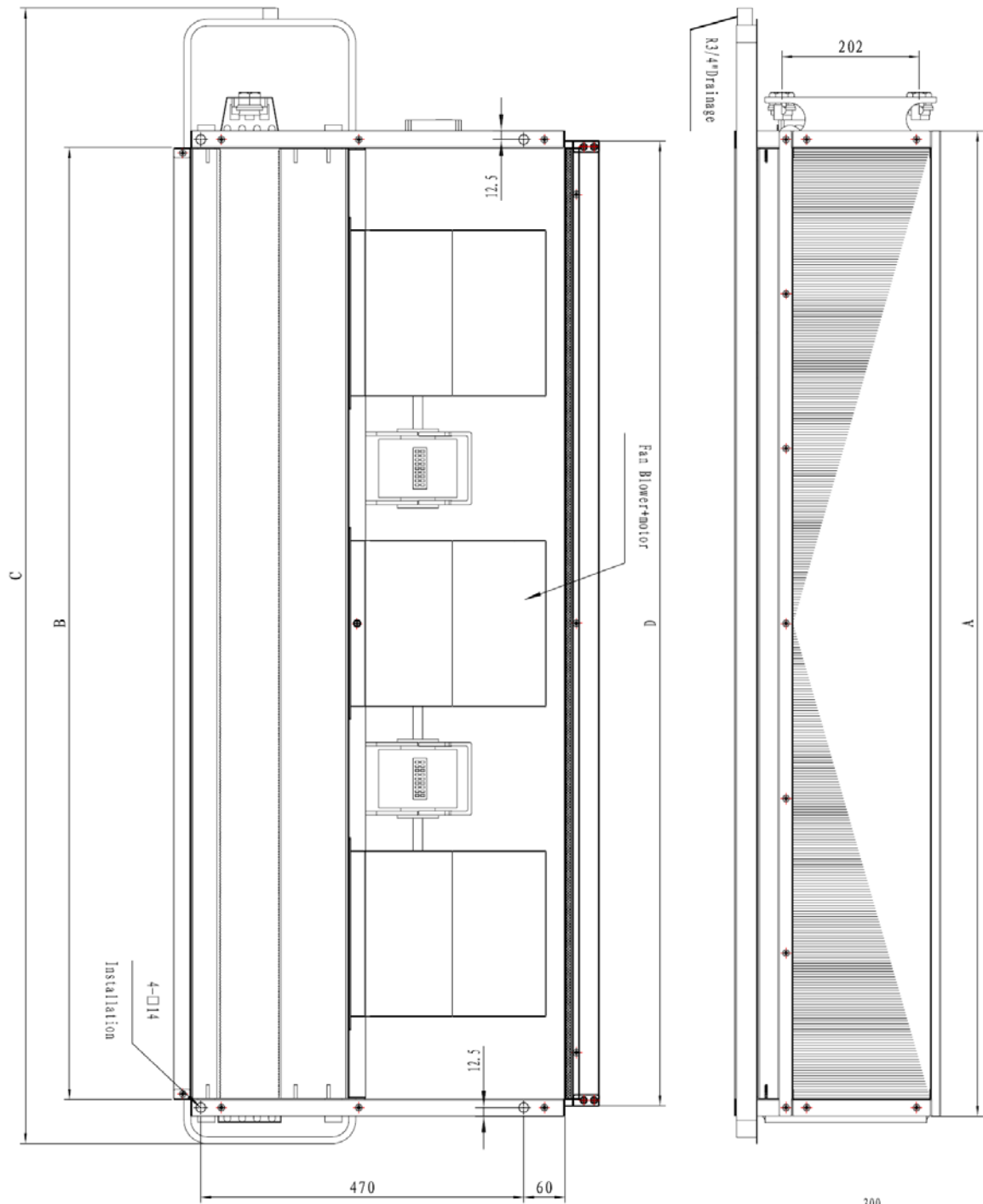
Model		800			1000			1200			1400			1600		
speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
A-weighted Sound Pressure in 1/3 Octave-bands under ESP:50Pa	63	9.40	8.54	4.31	14.38	11.42	11.80	13.32	14.79	11.61	16.35	14.51	11.56	17.96	17.96	11.95
	80	13.97	13.44	13.02	21.90	14.39	10.65	25.57	17.13	15.56	23.72	21.67	17.54	27.19	27.19	20.70
	100	23.81	26.66	26.90	23.41	27.35	24.66	26.63	22.96	18.44	26.42	21.19	20.42	28.14	28.14	24.35
	125	26.87	27.17	23.26	31.44	29.89	26.66	36.04	31.18	29.38	30.69	28.24	27.05	31.24	31.24	27.26
	160	32.06	27.93	28.70	34.09	31.22	28.08	35.06	33.67	30.59	41.05	35.53	30.79	39.25	39.25	34.94
	200	37.48	35.95	32.57	39.27	36.69	32.01	39.76	39.78	35.57	49.28	43.79	40.54	46.10	46.10	43.07
	250	36.89	34.41	30.72	39.67	35.35	32.16	41.35	36.69	33.82	45.93	40.21	38.07	46.41	46.41	40.65
	315	34.91	36.47	30.57	37.58	36.03	32.73	38.00	38.01	32.21	40.58	35.88	34.77	42.42	42.42	35.86
	400.	41.00	43.38	38.75	42.40	42.24	37.34	44.30	43.75	41.45	43.18	39.08	34.12	43.59	43.59	40.10
	500	40.96	39.93	36.61	41.36	39.99	36.65	43.49	41.18	39.83	43.81	39.90	39.48	44.78	44.78	39.65
	630	40.04	38.82	37.25	39.35	40.94	37.23	43.05	41.58	39.97	44.57	42.27	39.60	45.16	45.16	40.86
	800	41.85	40.26	38.01	46.78	43.99	40.84	49.00	45.01	44.08	49.56	46.27	42.82	51.09	51.09	45.30
	1000	43.29	42.34	39.34	47.44	45.03	40.44	49.14	46.85	43.25	40.95	38.51	33.44	47.80	47.80	37.89
	1250	42.46	41.91	38.53	42.85	41.40	38.74	46.84	43.38	39.81	44.85	41.06	39.34	51.85	51.85	40.18
	1600	41.36	38.75	34.78	43.44	40.32	36.34	45.11	41.82	39.06	44.27	42.42	37.40	51.18	51.18	39.64
	2000	37.91	36.71	33.00	40.74	39.63	34.70	44.81	40.91	37.45	40.89	38.37	34.13	48.74	48.74	38.38
	2500	38.03	35.24	31.26	38.53	36.61	32.19	42.89	39.32	35.60	40.46	40.13	34.00	47.38	47.38	40.48
	3150.	34.98	33.68	29.24	36.67	34.73	29.68	42.36	38.65	34.30	40.08	38.05	33.59	46.68	46.68	37.71
	4000	32.15	31.21	25.27	34.00	31.91	25.80	39.18	35.42	30.91	38.39	37.26	30.92	46.56	46.56	36.49
	5000	29.09	27.66	21.74	30.20	28.69	22.48	36.53	31.90	26.80	35.09	34.23	27.41	43.87	43.87	33.88
	6300	25.93	23.53	17.42	27.57	25.01	19.13	32.74	28.60	23.44	31.15	28.55	23.24	38.07	38.07	28.61
	8000	22.04	20.04	13.52	25.77	23.66	16.26	29.88	25.08	19.54	29.18	26.66	21.39	35.17	35.17	25.90
	10000	17.20	15.97	8.16	20.44	17.87	11.12	24.37	19.91	14.32	24.88	21.20	15.23	32.78	32.78	20.51
	12500	10.06	10.14	2.49	12.26	10.06	3.44	16.98	12.04	6.18	16.35	12.22	6.21	25.56	25.56	11.10
	16000	2.66	5.39	0.07	5.02	3.05	-0.40	7.64	3.99	1.27	6.74	6.03	1.32	13.49	13.49	4.04
Sound Pressure dB(A)		47.00	45.80	42.80	49.00	47.30	43.70	51.40	49.10	45.90	50.90	48.50	44.60	55.00	52.70	47.50

Outline and Dimension of PDWA(4R)-200~1200-V



model	200	300	400	500	600	800	1000	1200
A	535	635	735	835	935	1335	1435	1575
B	485	585	685	785	885	1285	1385	1525
C	755	855	955	1155	1255	1655	1755	1855
D	505	605	705	805	905	1305	1405	1545

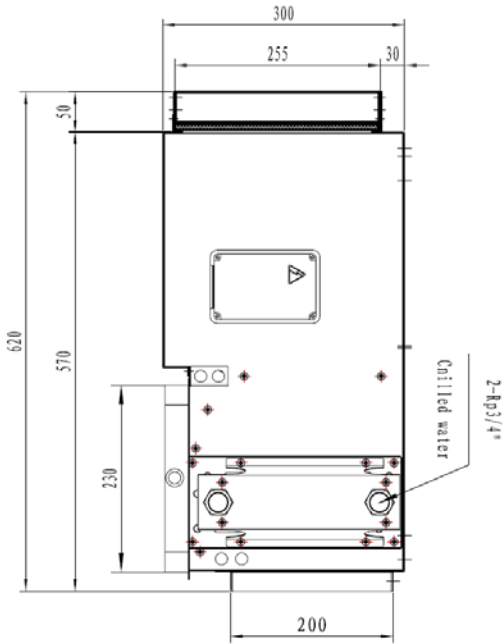
Outline and Dimension of PDWA(4R)-1400/1600-V



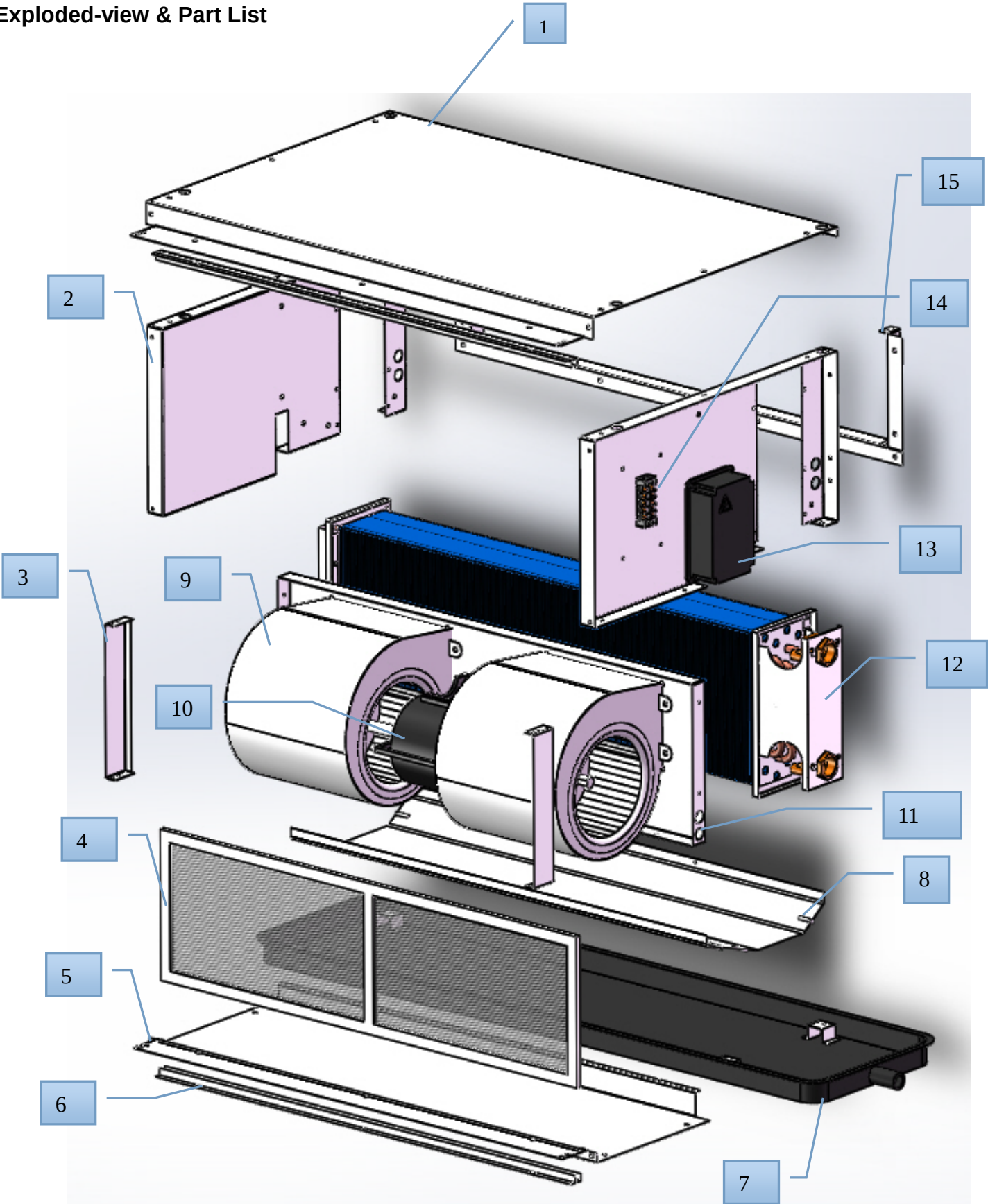
model	1400	1600
A	1435	1695
B	1385	1645
C	1755	1955
D	1405	1665

NOTES:

- 1) ALL DIMENSIONS ARE IN MM;
- 2) ALL STANDARD UNITS ARE WITH BACK AIR PLENUM AND SIDE REMOVAL FILTERS;
- 3) LEFT HAND COIL CONNECTION SHOWN;
- 4) WIRING CONNECTION SIDE IS THE SAME AS COIL AND DRAIN CONNECTIONS.



Exploded-view & Part List



Item	Description
1	Top Panel
2	Right side panel
3	Return air flange
4	Filter
5	Bottom panel
6	Filter fixture
7	Drain pan
8	Drain guide
9	Fan blower
10	Motor
11	Fan deck
12	Coil
13	Control box
14	Terminal block
15	Discharge flange

Wiring Diagram

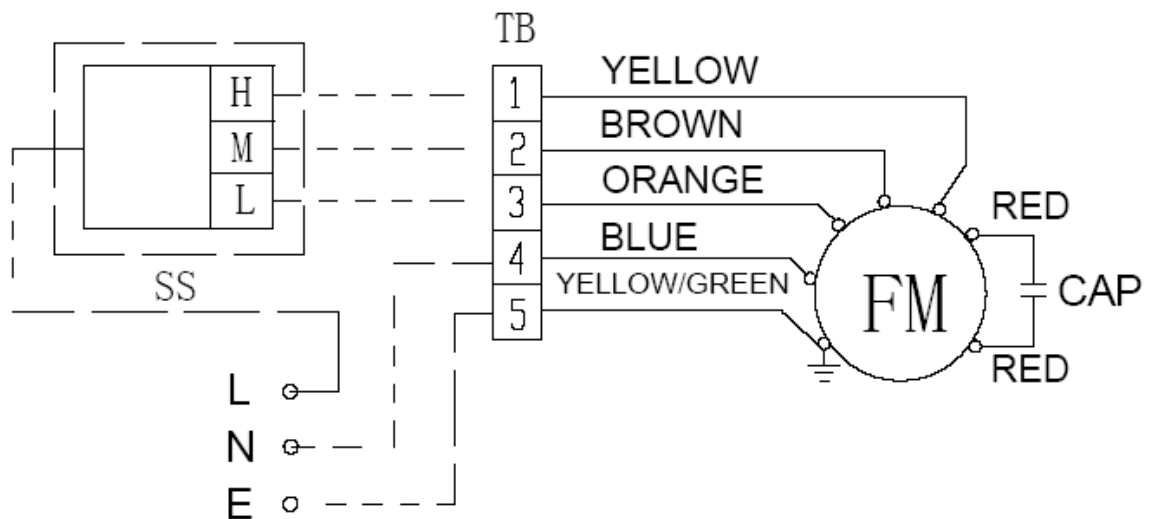
The fan coil comes fully wired and only requires:

-Connecting to the mains electricity supply and to any room control.

It is also recommended to check that:

- The characteristics of the mains electricity supply are suitable for the input indicated in the table below, which (with maximum values) should serve for sizing both the circuit breakers and the power cables (any other appliances working in parallel should also be taken into consideration).
- The supply voltage corresponds to the rated value +/- 10%.

WIRING DIAGRAM



FM--FAN MOTOR

TB--TERMINAL

CAP--CAPACITOR

SS--3-SPEED SWITCH

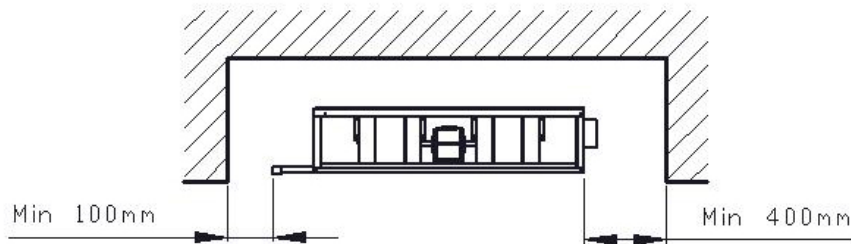
Blue wiring is N.

Installation

1) LOCATION

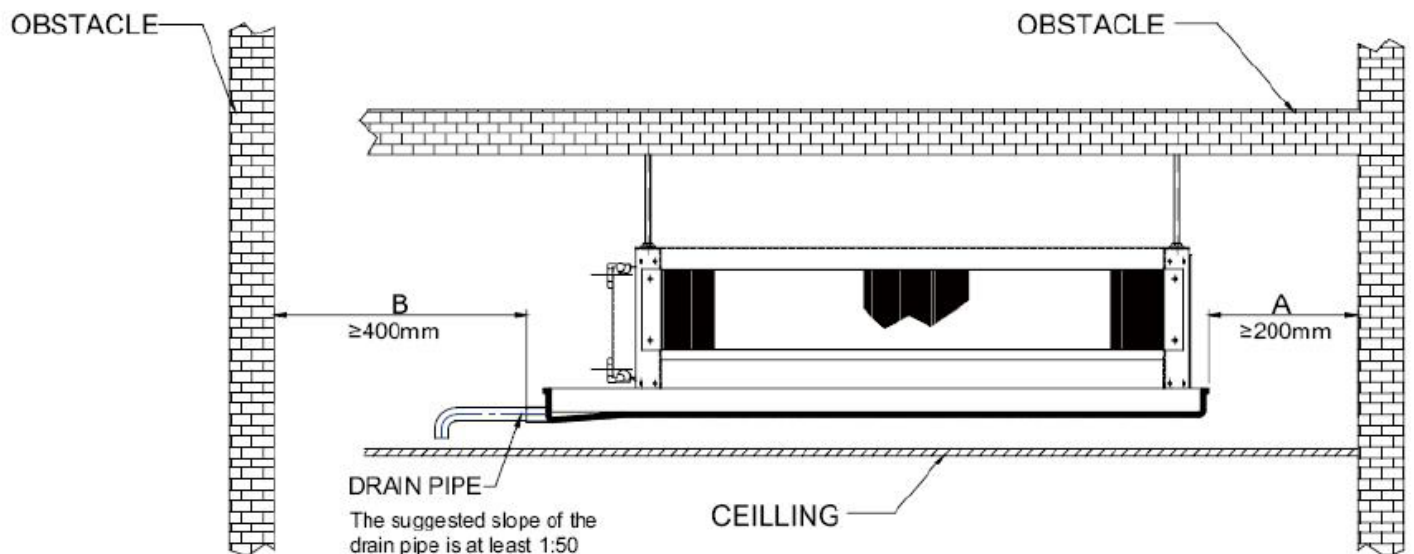
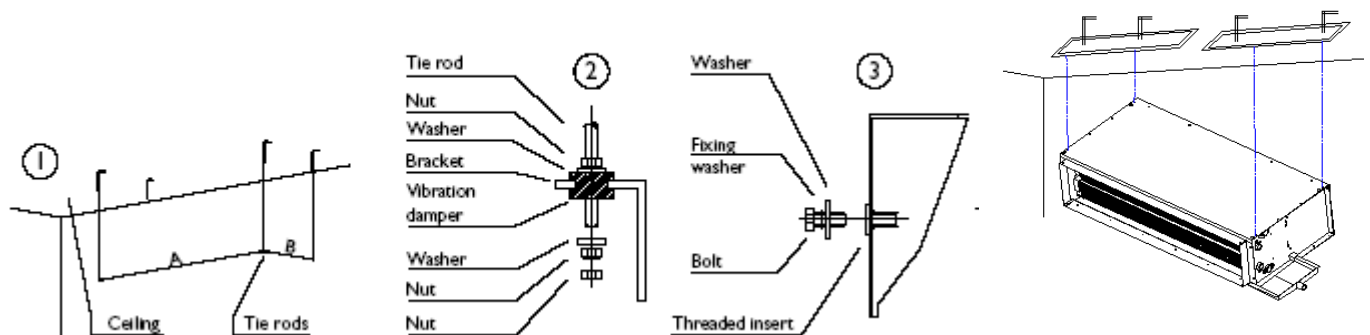
Before installation and running the unit, please check the following:

- There must be enough space for the unit installation and maintenance. Please refer the unit's outlines and dimensions and the minimum distance between the unit and the obstacle.
- Please ensure enough space for piping connection and electrical wiring.
- Check whether the hanging rods can support weight of the unit (see specification table for weight of the unit).
- The unit must be installed horizontally to ensure proper operation and condensate draining.
- The external static pressure of the ducting must be within the design static pressure range.
- Confirm that the unit has been switched OFF before installing or servicing the unit.



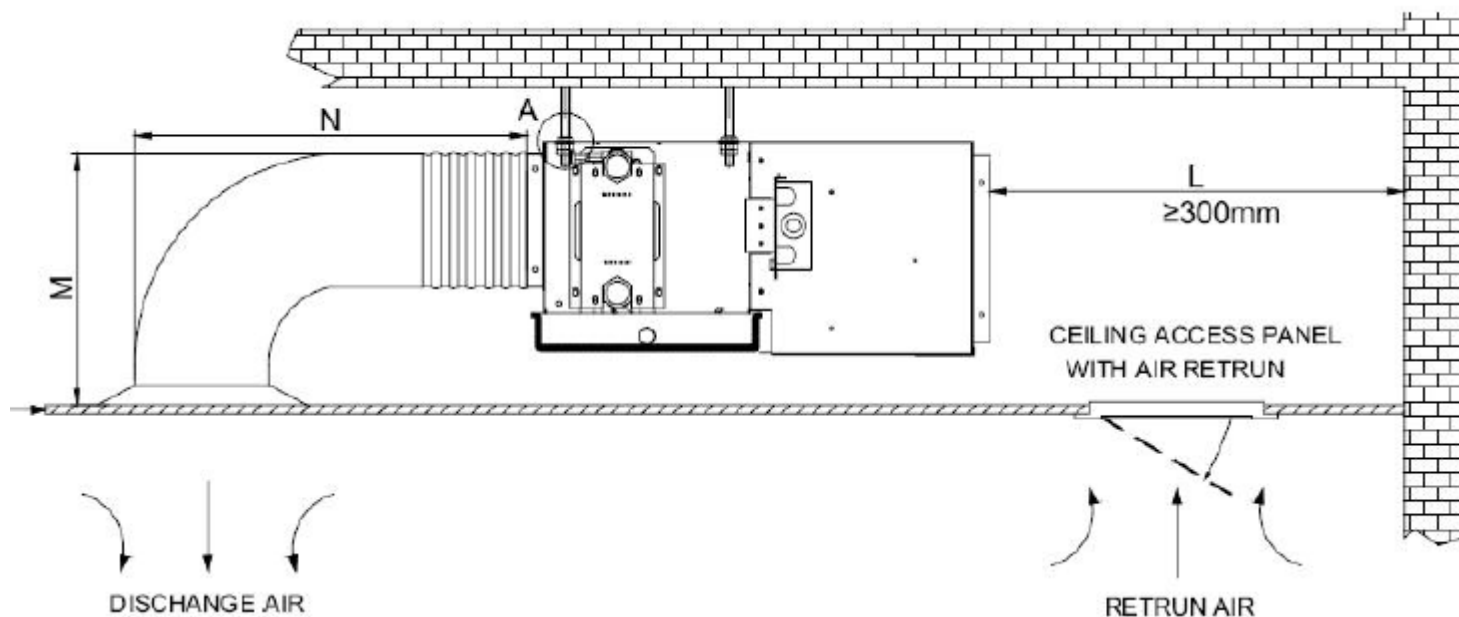
2) INSTALLATION

- The unit is designed to be installed in a concealed ceiling. Installation and maintenance should be performed by qualified persons who are familiar with local codes and regulations, and experienced with this type of appliance.
- Please refer to picture below illustrates the installation procedure.



Caution:

Make sure the top of the unit is level after installation. The drain pan is designed with a little gradient to facilitate drainage.



Caution:

Dimension M and N was determined by air duct design. Air duct should be fire-proof. Please refer to concerned country national and local regulation.

Circulatory air pressure drop should be approximately equal to the External Static Pressure.

3) Insulation

1. The insulation design and materials should be complying with local and national codes and regulations.
2. Chilled water pipes and all parts on the pipes should be insulated.
3. It is also necessary to insulate the air duct.

4) Air Duct Connection

1. Circulatory air pressure drop should be within External Static Pressure.
2. Galvanized steel air ducts are suitable.
3. Make sure there is no leak of air.
4. Air duct should be fire-proof, refer to concerned country national and local regulations.

5) Pipe Connection

1. Using suitable fittings as water pipe connections with reference to the outline and dimensions.
2. The water inlet is on the bottom while outlet on top.
3. The connection must be concealed with rubberized fabric to avoid leakage.
4. Drain pipe can be PVC or steel.
5. Tightening torque should not be too high when connecting water pipes, in order to avoid brass deformation or water-leakage by torsion split.
6. The suggested slope of the drain pipe is at least 1:50.

6) Wiring

1. Wiring connection must be done according to the wiring diagram on the unit. "Blue wire is N"
2. The unit must be GROUNDED well.
3. An appropriate strain relief device must be used to attach the power wires to the terminal box.
4. A 7/8" hole is designed on the terminal box for field installation of the strain relief device.
5. Field wiring must be complied with the national security regulations.
6. A main switch or other means for disconnection, having a contact separation in all poles, must be incorporated in the fixed wiring in accordance with the relevant local and national legislation.

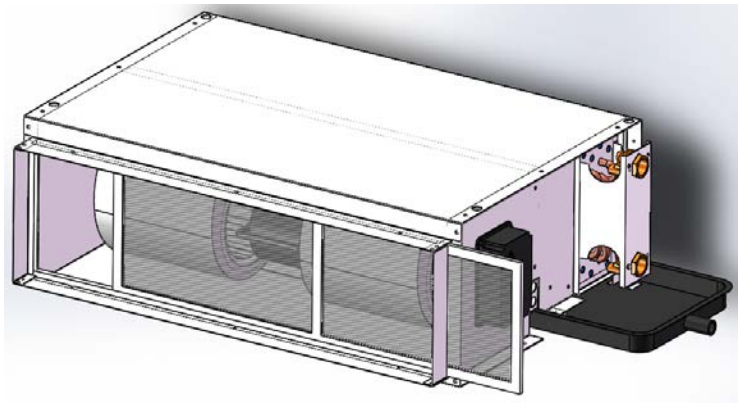
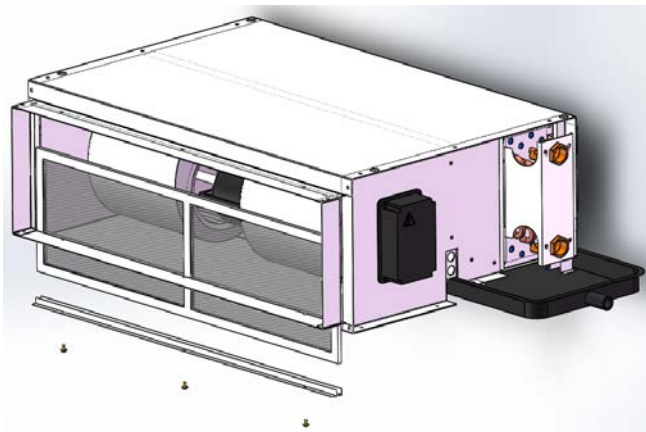
Maintenance

GENERAL

1. Installation and maintenance should be performed by qualified persons who are familiar with local codes and regulations, and experienced with this type of appliance.
2. Confirm that the unit has been switched OFF before installing or servicing the unit.
3. A good general maintenance plan will avoid losses and unexpected shutting down of the equipment.
4. Dirty filters reduce air flow as well as unit performance. Thus changing or cleaning the filters is very important. Check the cleanliness of filter and replace or clean as required monthly.
5. Coils should be cleaned from dust, dirt or lint with compressed air or water. They can be brushed with a soft brush and vacuum cleaner.
6. Water coil not used during winter season should be drained, or anti-freezing solution should be added to the water circuit to avoid freezing.
7. Monthly:
 - a. Inspect and clean condensate drain pan to avoiding clogging of drainage by dirt, dust, etc. Inspect drainage piping to ensure the proper condensate flow.
 - b. Check and clean the coil. Clean the coils with low pressure water jet or low pressure air.
 - c. Clean and tighten all the wiring connections.
 - d. Drain out the system water and check for build up of mineral deposits.

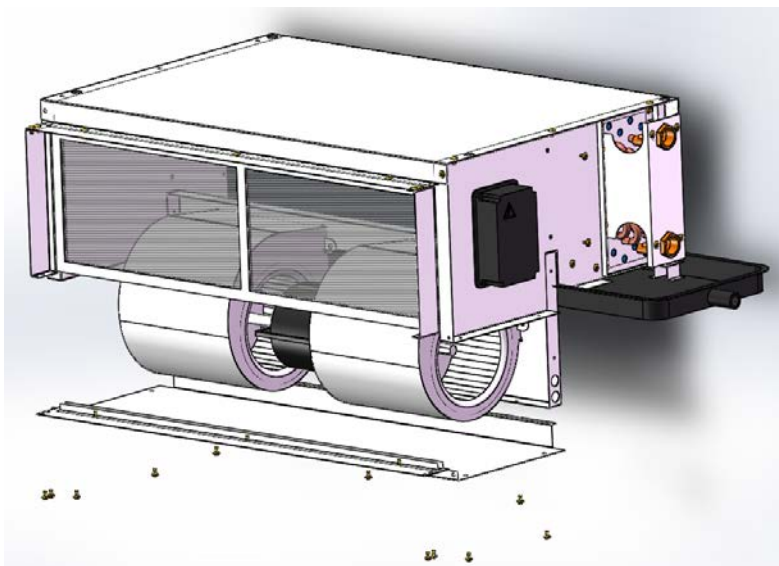
FILTER CLEANING

1. Remove the filter from the bottom or side.
2. Clean the filter with a brush, or with water.
3. Put back the filter by sliding it back into the groove.



FAN-MOTOR ASSEMBLY MAINTENANCES

1. Remove the screws for Bottom panel.
2. Remove the 4-screws on the both side.
3. The complete fan-motor assembly can be taken out easily



COIL MAINTENANCE OR INTERCHANGE THE CONNECTION

1. Remove 4 screws for to remove the drain pan;
2. Remove 6 screws on the both side to remove drain guide;
- 4: Remove 4 screws on the both side of coil mounting brackets;
5. The complete coil assembly can be taken out easily

