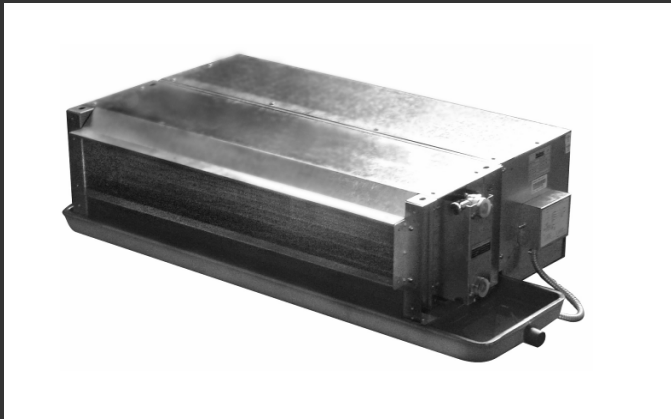




technical data



Fan coil unit

FWB – small duct unit

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1. Nomenclature

Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	F	W	B	0	0	A	A	S	N	6	V	1	-	-	-
				1	1	C	B	T	T	M		3	E	E	R
					2	J		U	V	C		A	F	F	S
					3	K		V	D			L	G	M	T
					4			W				J		P	
					5			E						Q	
					6			F						R	
					7			G							
					8			H							
					9			L							
													Options		

Digit	Character	Description	Digit	Character	Description
1-2	FW	Water fancoil	11-12		Power supply
3		<u>Type:</u>		V1	220-240V - 1 phase
	V	Vertical		V3	230V - 1 phase
	L	Flexi casing		VA	220-240V - 1 phase - 60 Hz
	M	Flexi no casing		VL	220V - 1 phase - 60 Hz
	B	Medium ESP duct		VJ	208 - 230V - 1 phase - 60 Hz
	D	Duct	13		Electric heater / fan stop thermostat
	T	Wall mounted		-	No heater / no fan stop thermostt
	C	Cassette		E	Electric heater
	F	60x60 cassette		F	Fan stop thermostat
4-5	01->18	Size		G	Electric heater / fan stop thermostat
6	A/C/J/K	Series	14		Controller
7	A...	Minor model change		-	No controller
8		Coil type:		E	electr. contr.
	S	Coil type: 2-pipe 12 Pa		F	electr. contr. with network
	T	Coil type: 2-pipe standard ESP		M	electro mech. contr.
	U	Coil type: 2-pipe 60 Pa		P	Power interface
	V	Coil type: 2-pipe 80 Pa		Q	P+E
	W	Coil type: 2-pipe 50 Pa		R	P+M
	E	Coil type: 4-pipe 12 Pa	15		Water connection
	F	Coil type: 4-pipe standard ESP		-	LL
	G	Coil type: 4-pipe 60 Pa		R	RR
	H	Coil type: 4-pipe 80 Pa		S	RL
	L	Coil type: 4-pipe 50 Pa		T	LR
9		Valves		A	left connection with horizontal drip tray
	N	without valves		B	right connection with horizontal drip tray
	T	with 2-way valves		D	right connection with vertical drip tray
	V	with 3-way valves			
	D	with simplified 3-way valves			
10	6	Italy			
	C	China			
	M	Malaysia			

2. Features

Their quiet operation, compact dimensions and particularly low height, make units ideal for false ceiling installation even in vintage buildings with narrow ceiling spaces. Units are standard supplied with sound proofed suction plenum, air filter and extra-long drain pan. Centrifugal fans, with forwards curved blades, are statically and dynamically balanced and moved by single-phase motor with three speeds (standard) plus one (optional).

The availability of 2&4 pipe versions, the possibility to change connection side on field and accessories like electronic thermostat and water on/off valves, provides the maximum flexibility and ease of installation.

3. Specification

3.1. Technical specification

3.1.1. FWB – 2-pipe series

MODELS FWB (2 PIPES)			02JT	03JT	04JT	05JT	06JT	07JT	08JT	09JT	10JT	11JT
Nominal Air Flow	S.High	m³/h	331	548	715	667	982	1241	1238	1323	1837	1695
	High	m³/h	262	428	431	428	757	945	950	1066	1463	1341
	Medium	m³/h	219	357	323	325	596	756	764	882	1171	1210
	Low	m³/h	187	304	248	255	476	628	633	733	946	1093
External static pressure		Pa	30									
Power Input		W	41	61	76	73	106	144	140	157	201	203
Cooling capacity	Total capacity	kW	2.18	3.10	4.13	4.59	5.79	6.42	7.56	8.55	9.84	10.66
	Sensible capacity	kW	1.38	2.27	2.94	3.08	4.22	5.21	5.54	6.08	7.65	7.82
Heating capacity		kW	2.94	4.32	5.71	5.92	7.69	9.15	10.09	11.52	13.73	14.13
Water flow	Cooling	l/h	386	549	739	803	1022	1109	1338	1523	1764	1910
Water pressure drop	Cooling	kPa	11	8	16	11	31	13	8	10	22	17
	Heating	kPa	9	7	13	9	26	11	7	9	19	14
Fan	Type	Direct driven centrifugal fan (forward-curved blades); hot-galvanised steel										
	Fan Speed	4 steps:super high, high, medium, low										
	Quantity		1	1	2	2	2	3	3	3	4	4
Motor	Type	Single phase capacitor running										
Air filter		Washable Nylon in 8mm Aluminium frame										
Power supply	V / Ph / Hz	220-240 / 1 / 50										

Rating Conditions:

The nominal air flow, power input and capacity test is under the power supply of 220V/1Ph/50Hz.

Nominal Air Flow: with plenum and filter, no water supply, ambient air temperature between 10 and 30°C

Power input: S.High fan speed

Cooling capacity: 7/12°C inlet/outlet water temperature, 27°C DB/19°C WB air temperature, S.High fan speed

Heating capacity: 50°C inlet water temperature, 20°C DB inlet air temperature, water flow rate same as for the cooling test, S.High fan speed

Heating capacity for additional heat exchanger: 70°C inlet water temperature, water temperature decrease 10°C, 20°C DB inlet air temperature, S.High fan speed

3.1.2. FWB – 4-pipe series

MODELS FWB (4 PIPES)			02JF	03JF	04JF	06JF	07JF	08JF	10JF
Nominal Air Flow	S.High	m ³ /h	327	526	684	944	1200	1379	1738
	High	m ³ /h	220	424	437	747	898	1112	1385
	Medium	m ³ /h	218	350	326	597	737	920	1115
	Low	m ³ /h	184	301	251	489	599	777	916
External static pressure		Pa	30						
Power Input		W	40	58	74	103	141	160	200
Cooling capacity	Total capacity	kW	2.18	3.10	4.09	5.70	6.41	7.40	9.59
	Sensible capacity	kW	1.36	2.22	2.85	4.16	5.05	5.84	7.60
Heating capacity	3 Rows	kW	2.86	4.37	5.44	7.66	9.31	10.59	13.32
	Add Heat.Ex,1Row	kW	3.07	4.48	5.69	7.66	9.50	10.74	13.15
Water flow	Cooling	l/h	386	530	724	986	1138	1296	1660
	Add. Heat exch.	l/h	269	391	493	663	820	924	1142
Water pressure drop	Cooling	kPa	11	8	16	30	9	12	19
	Heating	kPa	9	7	13	24	8	10	16
	Add. Heat exch.	kPa	11	25	42	82	25	31	50
Fan	Type	Direct driven centrifugal fan (forward-curved blades); hot-galvanised steel							
	Fan Speed	4 steps:super high, high, medium, low							
	Quantity	1	1	2	2	3	3	4	
Motor	Type	Single phase capacitor running							
Air filter		Washable Nylon in 8mm Aluminium frame							
Power supply	V /Ph / Hz	220-240 / 1 / 50							

Rating Conditions:

The nominal air flow, power input and capacity test is under the power supply of 220V/1Ph/50Hz.

Nominal Air Flow: with plenum and filter, no water supply, ambient air temperature between 10 and 30°C

Power input: S.High fan speed

Cooling capacity: 7/12°C inlet/outlet water temperature, 27°C DB/19°C WB air temperature, S.High fan speed

Heating capacity: 50°C inlet water temperature, 20°C DB inlet air temperature, water flow rate same as for the cooling test, S.High fan speed

Heating capacity for additional heat exchanger: 70°C inlet water temperature, water temperature decrease 10°C, 20°C DB inlet air temperature, S.High fan speed

3.2. Electrical specification

Model	FWB	
Voltage range**	220V-240V/1Ph/50Hz	
Recommended fuse*	A	2
Power supply cable size*	mm ²	1.5
Number of conductors	3	

* These values are for information only. They should be checked and selected to comply with local and national codes and regulations. They are also subject to the type of installation and size of conductors.

** The appropriate voltage range should be checked with label data on the unit. 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 relevant local and national legislation

4. Correction factors

GLYCOL CORRECTION FACTORS

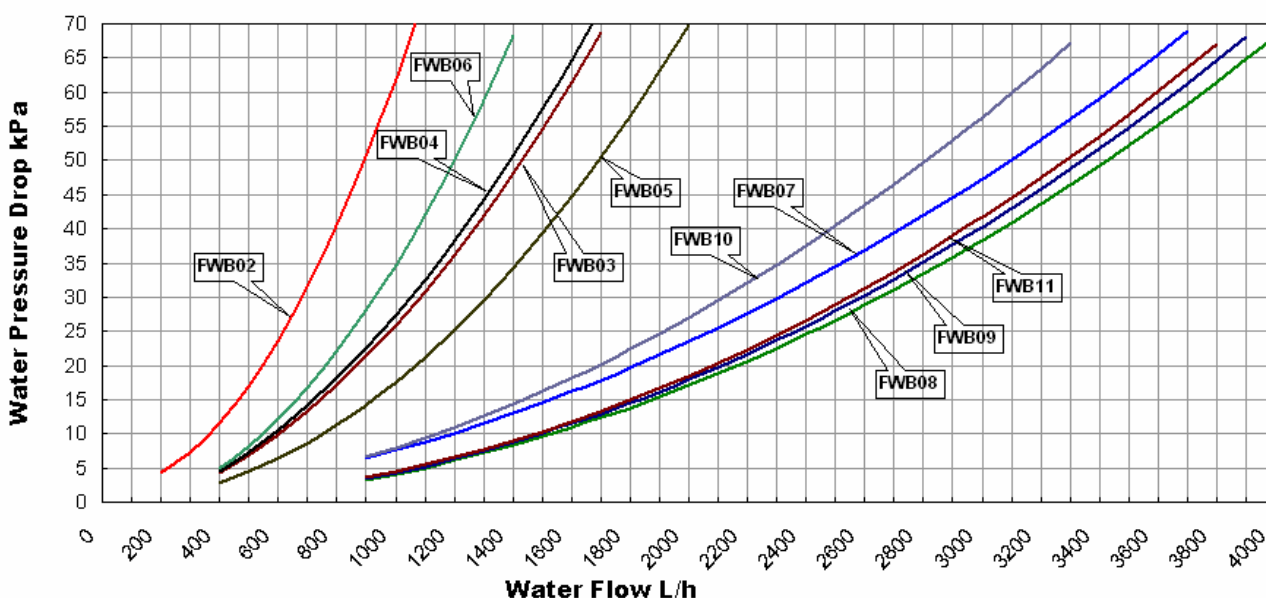
Glycol percentage in weight (%)	Freezing temperature (°C)	Capacity correction factor		Pressure drop correction factor	
		Cooling	Heating	Cooling	Heating
0	0	1	1	1	1
10	-4	0.93	0.98	1.09	1.08
20	-10	0.84	0.97	1.18	1.11
30	-16	0.76	0.94	1.27	1.22
40	-24	0.76	0.91	1.36	1.33

NOTE: Correction factors are based on an average value (at rated water flow rate). This can cause deviation depending on conditions used.

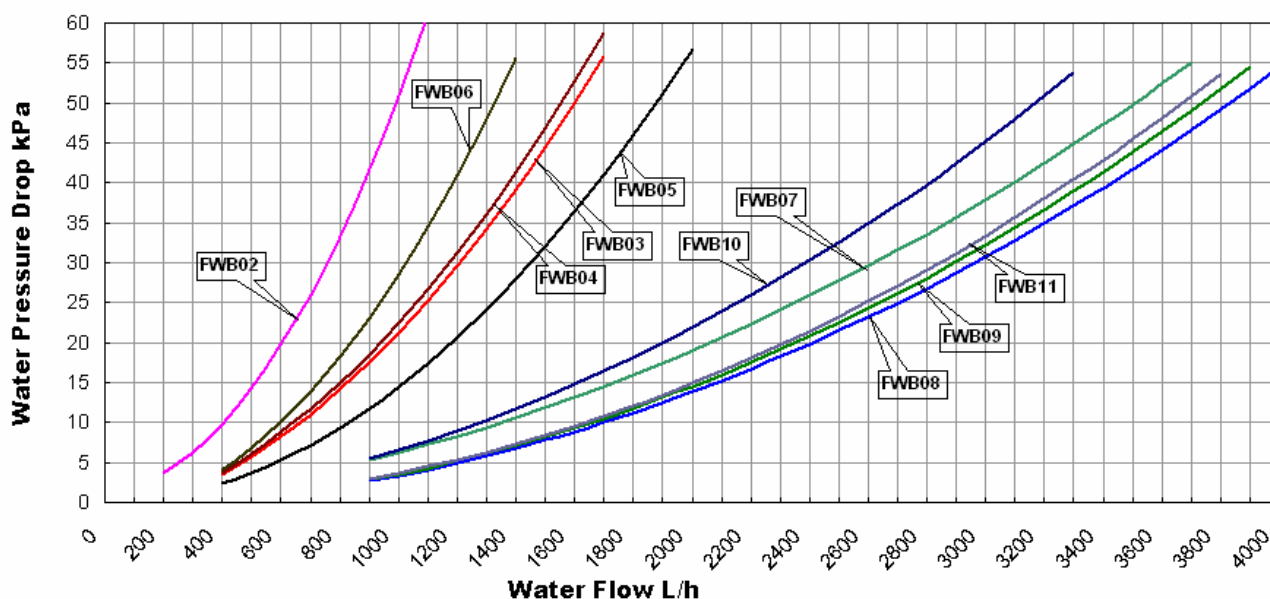
5. Water pressure drop

NOTE: The pressure drop is only for the coil and excludes water connections and valves.

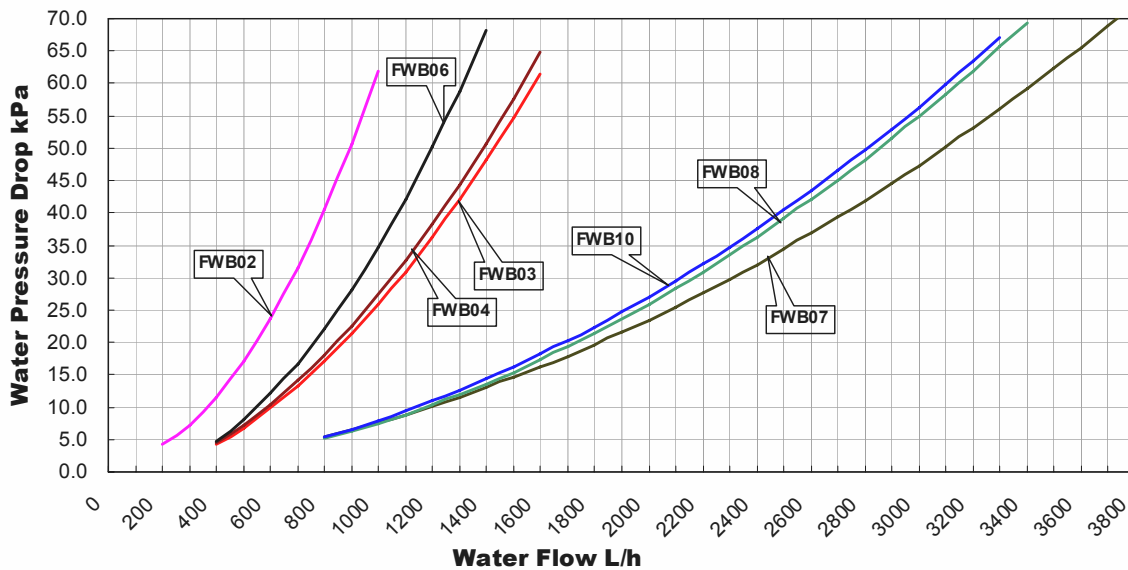
2-Pipe System Water Pressure Drop Curve(Cooling)



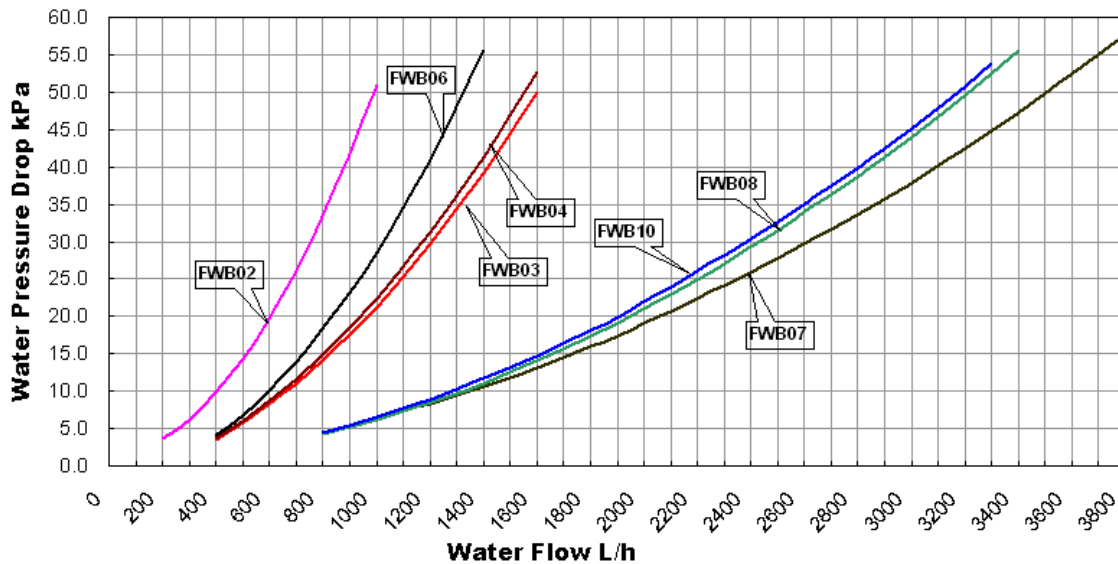
2-Pipe System Water Pressure Drop Curve(Heating)



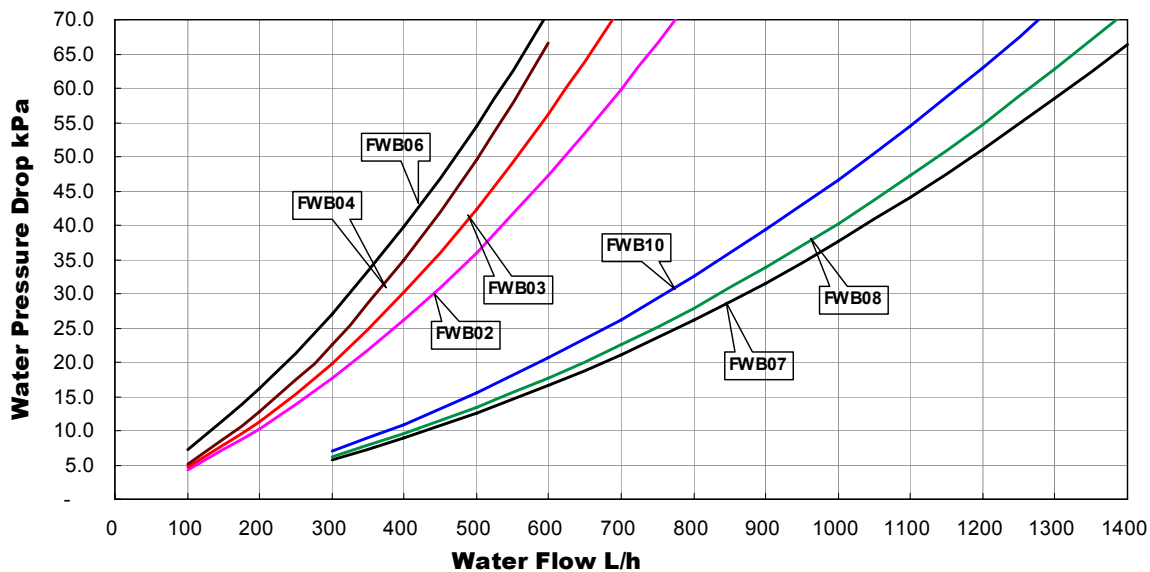
4-Pipe System Cooling Coil Water Pressure Drop Curve(Cooling)



4-Pipe System Cooling Coil Water Pressure Drop Curve(Heating)



4-Pipe System Heating Coil Water Pressure Drop Curve(Heating)



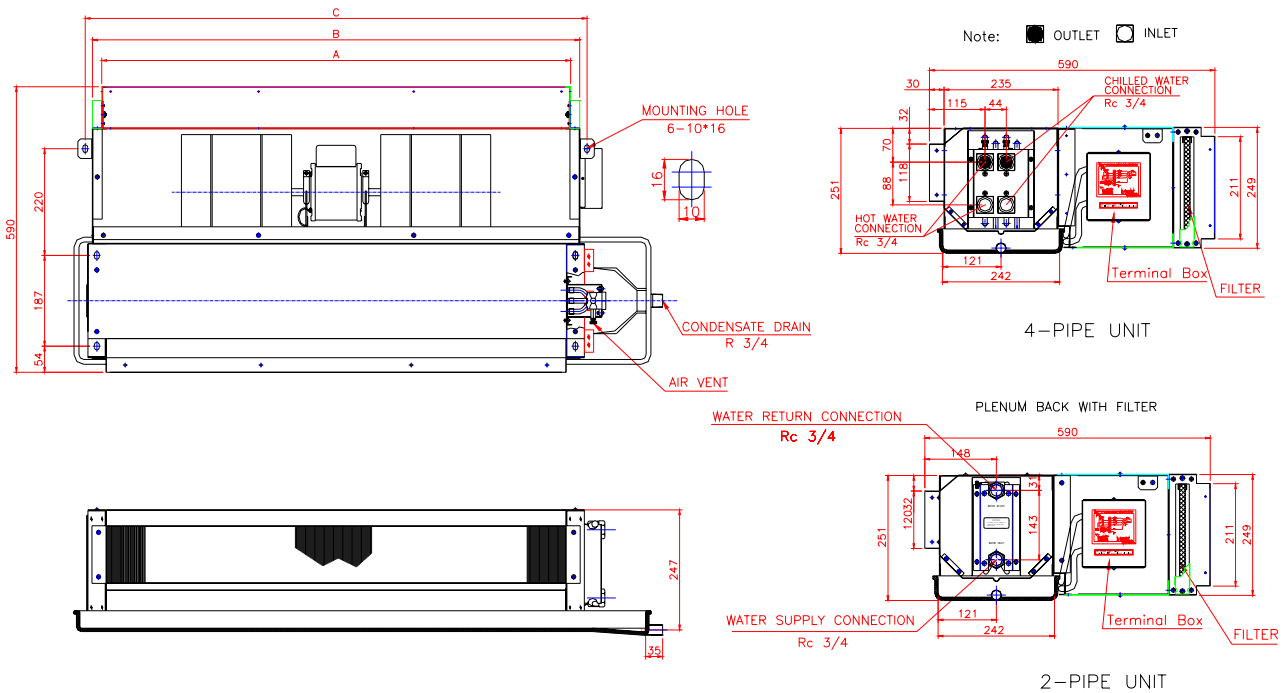
6. Operation range

OPERATING LIMITS

OPERATING LIMITS	
Maximum water-side pressure	16 bar
Minimum entering water temperature	3°C
Maximum entering water temperature	95°C
Minimum air inlet temperature	5°C
Maximum air inlet temperature	43°C
Power supply	220-240V/ 1Ph / 50Hz

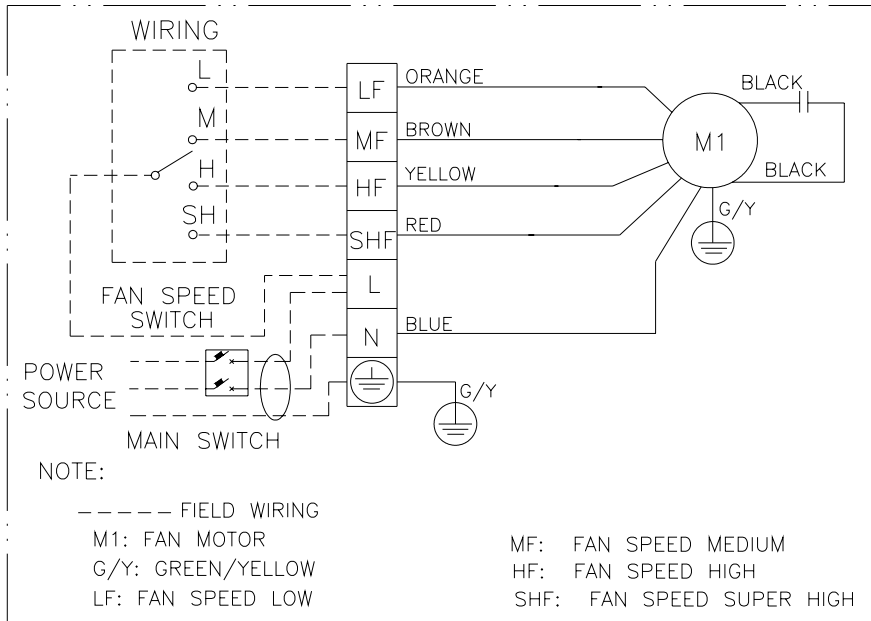
7. Dimensional drawings

MODEL FWB		02JT	03JT	04/05 JT	06JT	07JT	09JT	10/11 JT
		02JF	03JF	04JF	06JF	07JF	08JF	10JF
A	mm	467	637	767	967	1217	1317	1577
B	mm	505	675	805	1005	1255	1355	1615
C	mm	535	705	835	1035	1285	1385	1645

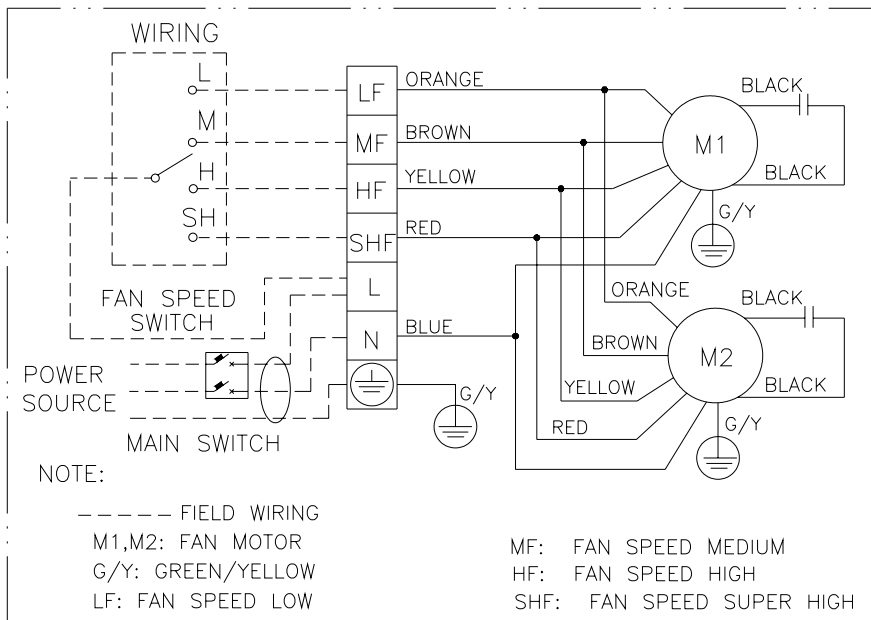


8. Wiring diagrams

MODELS	FWB 02J~06J T/F
	2 PIPES & 4 PIPES



MODELS	FWB 07J~11J T/F
	2 PIPES & 4 PIPES



9. Sound power data

FWB (2 Pipes) Sound Pressure Level [Lp]

Models FWB	Fan Speed	Octave Band Frequency[dB(A)]								Total [dB(A)]
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
02JT	S.High	40.3	39.6	38.6	38.1	31.8	27.6	20.4	20.2	38.0
	High	39.9	36.9	36.3	36.0	28.6	22.4	17.4	15.2	35.5
	Medium	36.6	30.6	31.6	33.2	25.0	16.6	14.9	14.1	32.0
	Low	35.4	30.1	31.0	32.2	23.4	14.7	12.7	11.3	31.0
03JT	S.High	39.1	40.1	41.6	42.3	36.3	29.0	20.0	15.2	42.0
	High	38.0	39.4	39.6	40.8	34.0	27.1	19.2	14.8	40.0
	Medium	35.1	38.6	37.7	36.5	32.8	22.5	15.8	13.5	37.0
	Low	34.8	34.8	34.0	33.6	32.1	19.8	13.7	11.4	35.0
04JT	S.High	39.9	40.0	39.9	39.9	34.0	35.0	23.5	19.7	41.0
	High	36.1	36.8	35.9	35.1	31.5	30.8	19.3	17.0	37.0
	Medium	32.0	33.1	32.6	31.9	27.6	25.0	16.0	14.2	33.0
	Low	31.3	32.0	31.4	31.0	26.3	23.9	14.3	13.1	32.0
05JT	S.High	39.9	40.0	39.9	39.9	34.0	35.0	23.5	19.7	41.0
	High	37.1	37.8	36.9	38.1	32.5	31.8	20.3	18.0	38.0
	Medium	32.6	33.7	32.9	32.8	28.2	25.6	16.6	14.8	34.0
	Low	32.1	32.8	31.9	31.3	27.1	24.7	15.1	13.9	32.5
06JT	S.High	46.6	43.2	41.4	41.7	39.4	30.9	23.3	20.2	43.0
	High	42.4	42.3	40.5	39.4	35.0	27.3	19.1	18.5	40.0
	Medium	40.3	40.9	39.0	37.3	33.1	25.6	16.3	15.2	38.0
	Low	39.7	38.5	36.8	35.9	28.4	23.2	14.4	13.9	35.5
07JT	S.High	45.1	44.6	42.6	42.5	36.5	34.4	26.0	24.8	43.0
	High	44.8	41.0	41.4	40.1	31.8	29.7	21.4	20.8	40.0
	Medium	41.0	38.7	39.6	37.7	30.0	28.1	20.7	20.2	38.0
	Low	40.3	37.3	36.6	36.6	28.0	22.5	18.2	18.0	36.0
08JT	S.High	45.4	44.9	42.9	42.8	37.0	34.7	26.3	25.1	43.5
	High	44.4	40.6	41.0	39.7	31.2	29.3	21.0	20.4	39.5
	Medium	41.0	38.7	39.6	37.7	30.0	28.1	20.7	20.2	38.0
	Low	40.3	37.3	36.6	36.6	28.0	22.5	18.2	18.0	36.0
09JT	S.High	45.0	43.7	45.1	45.8	38.0	36.3	28.5	25.5	45.5
	High	44.0	41.0	42.3	42.9	35.4	33.4	25.2	23.8	43.0
	Medium	40.1	38.0	39.8	41.1	33.6	31.2	22.3	19.9	41.0
	Low	43.8	40.2	37.3	39.1	32.1	28.6	20.5	18.4	39.0
10JT	S.High	46.3	48.6	46.9	45.0	39.9	37.2	28.1	27.4	46.0
	High	43.5	45.0	45.2	41.2	36.6	35.8	26.3	25.0	43.5
	Medium	41.4	44.4	42.7	38.5	32.1	28.9	20.1	19.7	41.0
	Low	41.0	44.2	40.7	38.3	30.2	28.9	20.6	20.2	39.0
11JT	S.High	46.3	48.6	46.9	45.0	41.3	37.2	28.1	27.4	46.5
	High	43.5	45.0	45.6	41.6	37.1	35.9	26.3	25.0	44.0
	Medium	43.0	46.0	44.3	40.1	33.7	30.5	21.7	21.3	41.5
	Low	41.7	44.9	41.4	39.0	30.9	29.6	21.3	20.9	39.5

Power Supply: 240V/1Ph/50Hz

FWB (2 Pipes) Sound Power Level [Lw]

Models FWB	Fan Speed	Octave Band Frequency[dB(A)]								Total [dB(A)]
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
02JT	S.High	48.6	51.3	50.9	50.6	42.9	44.9	38.8	32.9	51.5
	High	48.2	45.3	46.6	47.4	40.0	38.7	33.9	23.5	47.5
	Medium	45.0	38.4	41.4	43.6	35.0	30.5	28.9	22.6	43.0
	Low	41.5	37.4	38.4	41.5	34.9	26.9	23.9	20.6	41.0
03JT	S.High	47.4	51.8	54.8	54.6	47.4	46.3	38.4	27.9	55.0
	High	46.3	47.8	49.2	52.1	45.4	43.4	35.7	23.1	52.0
	Medium	42.5	45.4	45.8	47.0	42.6	36.2	29.6	22.0	48.0
	Low	40.7	42.0	42.9	42.6	43.1	31.9	24.9	20.7	45.5
04JT	S.High	47.2	50.7	51.6	51.2	45.1	50.3	41.9	32.4	54.5
	High	44.4	44.7	45.1	45.9	42.7	44.5	35.8	25.3	49.0
	Medium	38.8	39.3	39.9	41.5	37.4	38.1	29.6	22.7	43.5
	Low	37.4	39.3	37.6	40.6	37.0	36.1	25.5	22.4	42.5
05JT	S.High	47.2	50.7	51.6	51.2	45.1	50.3	41.9	32.4	54.5
	High	45.2	45.5	45.9	46.7	43.5	45.3	36.6	26.1	50.0
	Medium	39.3	39.3	39.9	41.5	37.8	38.1	29.6	23.3	44.5
	Low	37.9	39.8	38.1	41.1	37.5	36.6	26.0	22.9	43.0
06JT	S.High	54.9	54.9	56.1	54.0	50.5	48.2	41.7	32.9	56.0
	High	50.7	50.7	52.1	50.5	46.4	43.6	35.6	26.8	52.0
	Medium	47.7	47.7	48.5	47.6	42.9	39.3	30.1	23.7	48.5
	Low	45.8	45.8	46.2	45.3	39.9	35.4	25.6	23.2	46.0
07JT	S.High	56.3	57.1	55.5	52.8	51.6	48.9	41.3	33.4	56.0
	High	53.9	53.1	53.1	49.9	46.9	43.1	34.8	25.5	52.0
	Medium	51.2	51.0	50.6	46.3	42.9	39.7	31.9	24.8	48.5
	Low	50.9	49.1	46.5	45.0	40.7	33.8	28.0	22.6	46.0
08JT	S.High	56.6	57.4	55.8	53.1	51.8	49.2	41.6	33.7	56.5
	High	53.5	52.7	52.7	49.5	46.3	42.7	34.4	25.1	51.5
	Medium	51.2	51.0	50.6	46.1	42.7	39.7	31.9	24.8	48.5
	Low	43.8	44.1	46.2	44.6	40.2	33.6	27.5	22.4	46.0
09JT	S.High	56.2	56.2	58.0	56.1	54.0	50.8	43.8	34.1	58.5
	High	53.1	53.1	54.0	52.7	50.5	46.8	38.6	28.5	55.0
	Medium	50.3	50.3	50.8	49.7	47.1	42.8	33.5	24.5	51.5
	Low	47.3	47.0	47.9	47.1	44.3	39.7	29.8	22.8	49.0
10JT	S.High	57.5	61.1	59.8	55.3	55.3	51.7	43.4	36.0	59.5
	High	52.6	57.1	56.7	51.0	50.5	49.2	39.7	29.7	55.5
	Medium	51.6	56.7	53.7	48.1	46.5	40.8	31.3	24.3	51.5
	Low	51.6	56.0	51.6	46.7	42.9	40.2	30.4	24.8	49.5
11JT	S.High	57.9	61.5	60.2	55.7	55.7	52.1	43.8	36.4	60.0
	High	52.6	57.1	56.7	51.4	50.5	49.3	39.7	29.7	56.0
	Medium	53.2	58.3	55.3	48.1	46.5	40.8	32.9	25.9	52.0
	Low	45.7	52.2	52.5	47.5	43.6	41.2	31.1	25.8	50.0

Power Supply: 240V/1Ph/50Hz

FWB (4 Pipes) Sound Pressure Level [Lp]

Models FWB	Fan Speed	Octave Band Frequency[dB(A)]								Total [dB(A)]
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
02JF	S.High	40.3	39.6	38.5	38.1	31.8	27.6	20.4	20.2	38.0
	High	39.6	36.6	35.9	35.6	28.3	22.1	17.1	14.9	35.0
	Medium	37.5	31.5	32.7	34.1	25.9	17.5	15.8	15.0	33.0
	Low	35.5	30.2	31.0	32.3	23.5	14.8	12.8	11.4	31.0
03JF	S.High	39.1	40.1	41.9	42.3	36.3	29.0	20.0	15.2	42.0
	High	38.0	39.4	39.5	41.0	34.0	27.1	19.2	14.8	40.0
	Medium	35.1	38.6	37.5	36.7	32.8	22.5	15.8	13.5	37.0
	Low	34.8	34.8	34.0	33.6	32.1	19.8	13.7	11.4	35.0
04JF	S.High	39.9	40.0	39.9	39.9	34.0	35.0	23.5	19.7	41.0
	High	37.1	37.8	36.9	38.1	32.5	31.8	20.3	18.0	38.0
	Medium	32.6	33.7	32.9	32.8	28.2	25.6	16.6	14.8	34.0
	Low	32.1	32.8	31.9	31.3	27.1	24.7	15.1	13.9	32.5
06JF	S.High	46.6	43.2	42.4	41.7	39.4	30.9	23.3	20.2	43.0
	High	42.4	42.3	40.5	39.4	35.3	27.3	19.1	18.5	40.0
	Medium	40.3	40.9	39.0	37.3	33.3	25.6	16.3	15.2	38.0
	Low	39.7	38.5	36.9	35.9	28.4	23.2	14.4	13.9	35.5
07JF	S.High	45.4	44.9	42.9	42.8	37.0	34.7	26.3	25.1	43.5
	High	44.4	40.6	41.0	39.7	31.2	29.3	21.0	20.4	39.5
	Medium	41.0	38.7	39.6	37.7	30.0	28.1	20.7	20.2	38.0
	Low	40.3	37.3	36.6	36.6	28.0	22.5	18.2	18.0	36.0
08JF	S.High	45.0	43.7	45.1	45.8	38.0	36.3	28.5	25.5	45.5
	High	44.0	41.0	42.3	42.9	35.4	33.4	25.2	23.8	43.0
	Medium	40.1	38.0	39.8	41.1	33.6	31.2	22.3	19.9	41.0
	Low	43.8	40.2	37.3	39.1	32.1	28.6	20.5	18.4	39.0
10JF	S.High	46.3	48.6	46.9	45.0	41.3	37.2	28.1	27.4	46.5
	High	43.5	45.0	45.6	41.6	37.1	35.9	26.3	25.0	44.0
	Medium	43.0	46.0	44.3	40.1	33.7	30.5	21.7	21.3	41.5
	Low	41.7	44.9	41.4	39.0	30.9	29.6	21.3	20.9	39.5

Power Supply: 240V/1Ph/50Hz

FWB (4 Pipes) Sound Power Level [Lw]

Models FWB	Fan Speed	Octave Band Frequency[dB(A)]								Total [dB(A)]
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
02JF	S.High	48.6	51.3	50.9	50.6	42.9	44.9	38.8	32.9	51.5
	High	47.8	44.9	45.6	47.0	39.6	38.3	33.5	23.1	47.0
	Medium	46.1	39.5	42.5	44.7	36.1	31.6	30.0	23.7	44.0
	Low	41.6	37.5	38.5	41.6	35.5	27.0	24.0	20.7	41.0
03JF	S.High	47.4	51.8	54.8	54.6	47.4	46.3	38.4	27.9	55.0
	High	46.3	47.8	49.2	52.1	45.1	43.4	35.7	23.1	52.0
	Medium	42.5	45.4	45.8	47.0	42.4	36.2	29.6	22.0	48.0
	Low	40.7	42.0	42.9	42.6	43.1	31.9	24.9	20.7	45.5
04JF	S.High	47.2	50.7	51.6	51.2	45.1	50.3	41.9	32.4	54.5
	High	45.2	45.5	45.9	46.7	43.5	45.3	36.6	26.1	50.0
	Medium	39.3	39.3	39.9	41.5	37.8	38.1	29.6	23.3	44.5
	Low	37.9	39.8	38.1	41.1	37.5	36.6	26.0	22.9	43.0
06JF	S.High	54.9	54.9	56.1	54.0	50.5	48.2	41.7	32.9	56.0
	High	50.7	50.7	52.1	50.5	46.4	43.6	35.6	26.8	52.0
	Medium	47.7	47.7	48.5	47.6	42.9	39.3	30.1	23.7	48.5
	Low	45.8	45.8	46.2	45.3	40.4	35.4	25.6	23.2	46.0
07JF	S.High	56.6	57.4	55.8	53.1	51.8	49.2	41.6	33.7	56.5
	High	53.5	52.7	52.7	49.5	46.3	42.7	34.4	25.1	51.5
	Medium	51.2	51.0	50.6	46.1	42.7	39.7	31.9	24.8	48.5
	Low	43.8	44.1	46.2	44.6	40.2	33.6	27.5	22.4	46.0
08JF	S.High	56.2	56.2	58.0	56.1	54.0	50.8	43.8	34.1	58.5
	High	53.1	53.1	54.0	52.7	50.5	46.8	38.6	28.5	55.0
	Medium	50.3	50.3	50.8	49.7	47.1	42.8	33.5	24.5	51.5
	Low	47.3	47.0	47.9	47.1	44.3	39.7	29.8	22.8	49.0
10JF	S.High	57.9	61.5	60.2	55.7	55.7	52.1	43.8	36.4	60.0
	High	52.6	57.1	56.7	51.4	50.5	49.3	39.7	29.7	56.0
	Medium	53.2	58.3	55.3	48.1	46.5	40.8	32.9	25.9	52.0
	Low	45.7	52.2	52.5	47.5	43.6	41.2	31.1	25.8	50.0

Power Supply: 240V/1Ph/50Hz

10. Installation

10.1. RECEIVING

All units leaving the factory have been inspected to ensure the shipment of high quality products and reasonable means are utilized to properly pack the fan coil units to protect them in transit.

Carefully inspect all shipments immediately upon delivery. When damage is visible, note this fact on the carrier's freight bill and request that the carrier send a representative to inspect the damage. This may be done by telephone or in person, but should always be confirmed in writing.

The shipment should be unpacked in the presence of the agent so that the damage or loss can be determined. The carrier's agent will make an inspection report and a copy will be given to the consignee for forwarding to the carrier with a formal claim.

10.2. LOCATION

Before installation, please check the following:

1. There must be enough space for unit installation and maintenance. Please refer to the outline and dimensions and fig.1 for the minimum distance between the unit and obstacle.
2. In case of installation in free blow, the unit must be installed at a minimum height of 2.5m to avoid contact with the appliance.
3. Please ensure enough space for piping connection and electrical wiring.
4. Please make sure that the hanging rods can support weight of the unit.

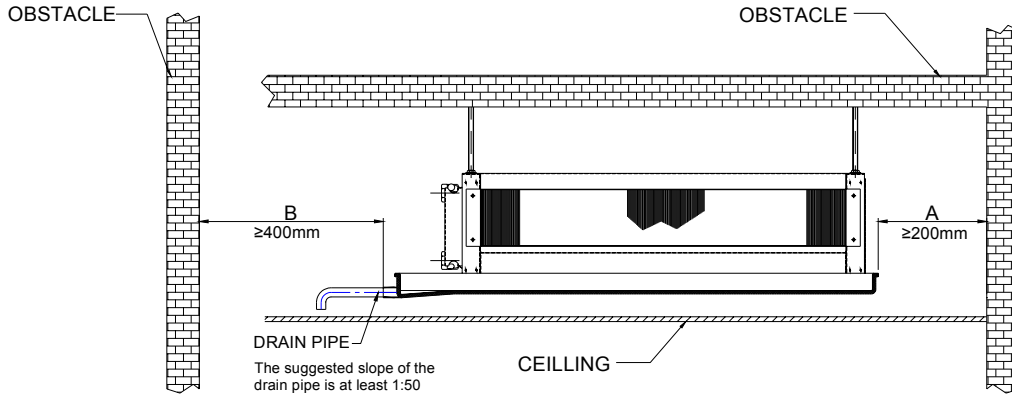
10.3. INSTALLATION

1. The unit is designed for concealed ceiling installation.

2. There are holes on the top of the unit for hanging. Please refer to Fig.1. Fig.2 and Fig.3.
3. Make sure that the top of the unit is level.

10.4. 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.



NOTE:
 Dimension M and N was determined by air duct design, air duct should be fire-proof, refer to concerned country national and local regulations.
 Circulatory air pressure drop should be approximately equal to the External Static Pressure.

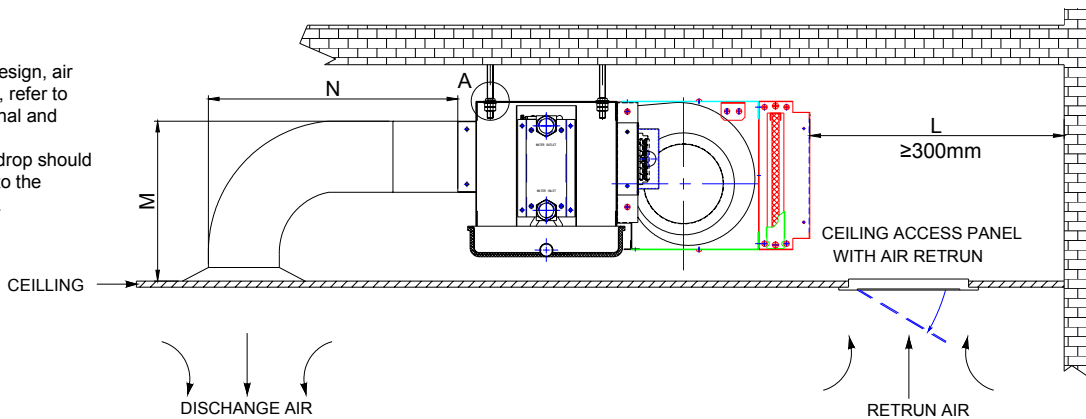
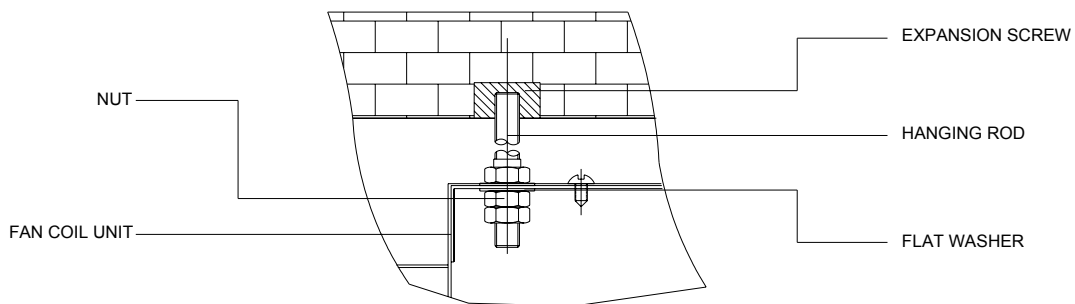


Fig.3 DETAILA:



Detail A

10.5. 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.

10.6. 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.

10.7. WIRING

1. Wiring connection must be done according to the wiring diagram on the unit.
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.

11. Options

11.1. VALVES KIT

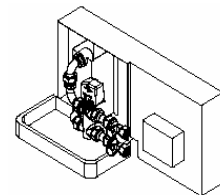
The 3-way motorized ON/OFF valve kit, connected to the Daikin controllers, permits to set the room temperature by cutting off the water flow to the heat exchanger.

The kit is available in various fittings for all FWB units, both for 2-pipe and for 4-pipe systems.

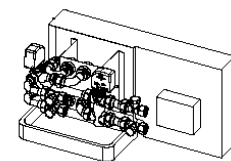
The KIT Consist Of

- **3-way valve body with 4 connections** with built-in by-pass made of brass, maximum working pressure 16 bar.
- **Electro thermal actuator** having the following specifications:
 - power supply: 220-240 V,
 - activation: ON/OFF,
 - total opening time: 4 minutes.
- **Hydraulic kit** for the installation of the valve on the heat exchanger, complete with 2 regulating valves for adjusting the water flow and for closing the water circuit when performing maintenance to the unit.
- **Bushing** for routing the cables of the actuator inside the unit.

Thermal insulation to prevent condensation on the valve kit when it operates in cooling mode (only the valve of the standard heat exchanger can work in cooling mode).



Valve Kit for 2-Pipe system



Valve Kit for 4-Pipe system

The flow resistance of the connecting valve/hydraulic kit assembly is obtained from the following formula:

$$\Delta P_w = (Q_w / K_v)^2$$

Where:

ΔP_w is the flow resistance expressed in kg/cm²

Q_w is the water flow rate expressed in m³/h

K_v is the flow rate identified in the table

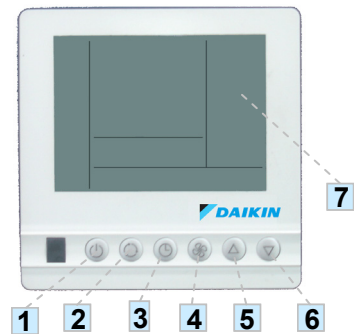
Valve	K_v Direct Passage	K_v By-Pass
1/2"	1.7	1.2
3/4"	2.8	1.8

11.2. ELECTRONIC THERMOSTAT EC8100A + REMOTE CONTROL RC8100A

Location	Wall Mounted
Parameters	On/Off
	Temperature
	Fan Speed
	Auto Fan Speed selection
	Date / Time setting
	Mode
Main Functions	Selectable Temperature Operation range: 16-30°C
	Automatic re-start with memory settings
	Heating/Cooling change-over based on system control input
	Auto-diagnosis
	Automatic On/Off setting for each day in a week
	Air sensor control
	2 or 3 ways Valves with ON/OFF control
	Remote control – max. distance: 2.5 meters

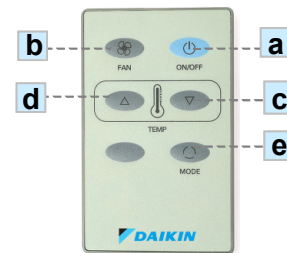
ELECTRONIC THERMOSTAT EC8100A

- 1 On/Off key
- 2 Heating/Cooling mode key
- 3 Clock/Timer setting
- 4 Fan Speed selection key (HIGH/MEDIUM/LOW/AUTO)
- 5 Temperature up key
- 6 Temperature down key
- 7 Back-light LCD Display



REMOTE CONTROL RC8100A

- a On/Off key
- b Fan Speed selection key (HIGH/MEDIUM/LOW/AUTO)
- c Temperature up key
- d Temperature down key
- e Heating/Cooling mode key



Fan coil units

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ISO14001 assures an effective environmental management system in order to help protect human health and the environment from potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin units comply with the European regulations that guarantee the safety of the product.



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