

# technical data



Fan Coil Units

FWT - wall mounted unit

# FWT - wall mounted unit



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intension to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.



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



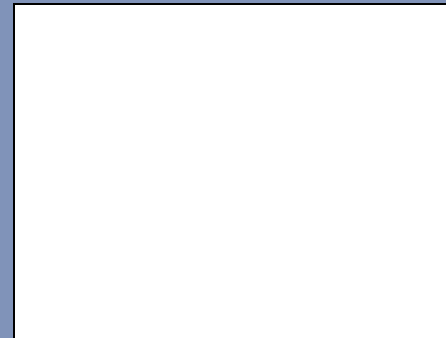
Daikin units comply with the European regulations that guarantee the safety of the product.



Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC); the certified data of certified models are listed in the Eurovent Directory.

Specifications are subject to change without prior notice

The present publication is drawn up by way of information only and does not constitute an offer binding upon Daikin Europe N.V.. Daikin Europe N.V. has compiled the content of this publication to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Daikin Europe N.V. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this publication. All content is copyrighted by Daikin Europe N.V..



## DAIKIN EUROPE N.V.

Naamloze Vennootschap  
Zandvoordestraat 300  
B-8400 Oostende, Belgium  
www.daikin.eu  
BTW: BE 0412 120 336  
RPR Oostende



EEDEN07-432 • 05/2007 • Copyright © Daikin  
Prepared in Belgium by Lamoo (www.lamooprint.be), a company whose concern for the environment is set in the EMAS and ISO 14001 systems.  
Responsible Editor: Daikin Europe N.V., Zandvoordestraat 300, B-8400 oostende

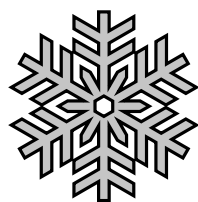
# technical data



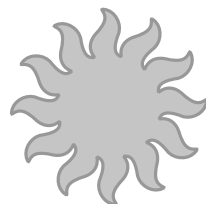
Fan coil units

FWT - wall mounted unit

Cooling only



Heating only



Heat pump



# TABLE OF CONTENTS

## FWT

1	Features .....	4
2	Specifications .....	5
	Nominal capacity and nominal input .....	5
	Technical Specifications .....	5
	Electrical Specifications .....	6
3	Control systems .....	7
4	Capacity tables .....	8
	Cooling capacity tables .....	8
	Capacity tables with glycol for process cooling applications .....	9
	Heating capacity tables .....	10
	Capacity correction factor .....	11
5	Dimensional drawing & centre of gravity .....	12
	Dimensional drawing .....	12
6	Piping diagram .....	14
7	Wiring diagram .....	15
	Wiring diagram .....	15
8	Sound data .....	17
	Sound power spectrum .....	17
9	Operation range .....	18
10	Hydraulic performance .....	19
	Water pressure drop curve evaporator .....	19

# 1 Features

- Wide operating range
- Quiet operation with auto-swing comfort
- Easy to install and maintain
- 3 speed fan motor
- Double-intake centrifugal fans
- Excellent air flow and air distribution
- Flexibility via interchangeable water connection side
- High power air flow
- Insulated with self-extinguishing class 1 heat insulation
- Removable washable air filter (self-extinguishing class 1)
- Slim and compact aesthetic design
- Wireless remote control up to 9m distance, availability of a wired or simplified controller
- LED indicator gives an indication on the (normal or wrong) operation of the unit



## 2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT			FWT02AT	FWT03AT	FWT04AT	FWT05AT	FWT06AT	
Power Input	High	W	24	25	29	66	69	
	Medium	W	22	22	23	46	47	
	Low	W	20	20	21	39	39	
Cooling capacity	Total capacity	High	kW	2.34	2.78	3.22	4.54	5.28
		Medium	kW	2.23	2.68	2.74	4.10	4.95
		Low	kW	2.10	2.20	2.20	3.95	4.25
	Sensible capacity	High	kW	1.74	2.03	2.35	3.65	4.33
		Medium	kW	1.51	1.82	2.00	3.21	3.95
		Low	kW	1.29	1.61	1.70	3.04	3.44
Heating capacity (2-pipe)	High	kW	3.02	3.75	4.10	6.01	6.74	
	Medium	kW	2.71	3.31	3.40	5.01	6.18	
	Low	kW	2.38	2.64	2.78	4.63	5.33	

2-2 TECHNICAL SPECIFICATIONS				FWT02AT	FWT03AT	FWT04AT	FWT05AT	FWT06AT
Dimensions	Unit	Height	mm	260	260	260	304	304
		Width	mm	799	899	899	1,062	1,062
		Depth	mm	198	198	198	222	222
	Unit with packing	Height	mm	337	337	337	378	378
		Width	mm	857	957	957	1,130	1,130
		Depth	mm	270	270	270	292	292
Weight	Machine weight	kg	10.0	12.0	12.0	16.0	16.0	
	Operation weight	kg	10.0	13.0	13.0	17.0	17.0	
	Gross weight	kg	11.0	13.0	13.0	17.0	17.0	
Material				High impact polystyrene				
Sound level	Sound pressure	High	dBA	40	39	42	49	50
		Medium	dBA	35	34	36	44	48
		Low	dBA	29	28	29	42	45
	Sound power	High	dBA	53	53	55	61	64
		Medium	dBA	48	47	49	57	61
		Low	dBA	44	43	44	55	59
Water flow	Cooling	l/h	402	478	554	781	908	
	Heating	l/h	402	478	554	781	908	
Water pressure drop	Cooling	kPa	48.3	64.7	69.3	50.3	69.3	
	Heating	kPa	42	58.6	60.6	50.6	70.6	
Fan	Type			Direct drive cross flow fan				
	Air flow rate	High	m <sup>3</sup> /h	467	510	586	1,070	1,121
		Medium	m <sup>3</sup> /h	382	425	484	833	985
		Low	m <sup>3</sup> /h	297	340	374	748	799
	Speed			3 steps : high, medium, low				
Quantity			1	1	1	1	1	
Motor	Type			Induction				
Standard heat exchanger	Rows	mm	2	2	2	2	2	
	Stages	mm	8	8	8	8*(2)+ 4*(4)	8*(2)+ 4*(4)	
	Fin pitch	mm	1.41	1.41	1.41	1.41	1.41	
	Face area	m <sup>2</sup>	0.20	0.23	0.23	0.33	0.33	
	Water volume	l	0.49	0.57	0.57	0.85	0.85	
Air filter				Washable Sarannet (nano filter)				
Insulation material				PE				
Vibration insulation				CR Rubber (Fan Motor)				
Water connections	Std. heat exchanger		inch	1/2"				
Drain			mm	16	16	16	20	20

## 2 Specifications

1  
2

2-2 TECHNICAL SPECIFICATIONS				FWT02AT	FWT03AT	FWT04AT	FWT05AT	FWT06AT
Notes				Rating conditions cooling 2 pipe: air 27				
				Rating conditions heating 2 pipe : air 20				
				Sound power level according to ISO3741				
				Sound pressure measured at 1 m in front of the unit and 0.8 m below the vertical centre line of the unit. (JIS C 9612)				
				Sound pressure measured at 1,4m below the facia (JIS C 9612)				
				Sound pressure measured at 1,5m below the facia (JIS B 8615)				
				Rating conditions heating 4 pipe : air 20				

2-3 ELECTRICAL SPECIFICATIONS				FWT02AT	FWT03AT	FWT04AT	FWT05AT	FWT06AT
Current input	High		A	0.11	0.11	0.13	0.29	0.30
	Medium		A	0.08	0.09	0.10	0.19	0.25
	Low		A	0.07	0.08	0.09	0.17	0.24
Required power supply			V / f / Hz	220-240 / 1 / 50				
Required fuses			A	2	2	2	2	2
Required wire section			mm <sup>2</sup>	1.5	1.5	1.5	1.5	1.5



### 3 Control systems

**Control systems for FWC-FWF-FWT**

Controller	Application	Operation mode		Basic Controls			Energy saving mode	Timer setting	Air distribution	Faster cooling/heating
		Manual	Automatic	Temperature setting	Automatic Fan Speed	Fan speed: high/medium/low	Sleep mode	ON/OFF	Automatic air swing	Turbo
WRC	2-pipe	x		x	x	x	x	x	option	x
	4-pipe	x	x	x	x	x	x	x	option	x
SRC	2-pipe	x		x	x	x	x	x	option	
	4-pipe	x	x	x	x	x	x	x	x	
MÉRCA	2-pipe	x		x	x	x	x	x	x	
	4-pipe	x	x	x	x	x	x	x	x	

**Operation mode:**

- Cooling only: Cool, Dry and Fan
- Heating mode: Auto, Cool, Dry, Fan and Heat
- Automode is only available for 4-pipe applications

**Temperature Setting:** To set the desired room temperature

**Fan speed:** high, medium, low or automatic

**Sleep Mode:** energy saving option while optimising comfort conditions by temperature adjustment

**Timer setting:** to turn ON/OFF the air conditioner at the desired time

**Automatic air swing:** air distribution according to a specific direction

# 4 Capacity tables

## 4 - 1 Cooling capacity tables

### Cooling capacities FWT (2 pipe)

1  
4

Air temperature (°C DB - °C WB)		22-16															
Water temperature (Entering °C - Leaving °C)		6-11				7-12				8-13				9-14			
Model	Air Flow m <sup>3</sup> /hr	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa
FWT02AT	467	1.77	1.65	0.31	29.86	1.59	1.55	0.27	24.74	1.45	1.45	0.25	21.22	1.35	1.35	0.23	18.83
	382	1.69	1.43	0.29	27.37	1.51	1.35	0.26	22.72	1.31	1.26	0.22	17.84	1.17	1.17	0.20	15.05
	297	1.59	1.23	0.27	24.92	1.43	1.15	0.25	20.73	1.24	1.08	0.21	16.34	1.04	1.00	0.18	12.52
FWT03AT	510	1.94	1.94	0.33	39.75	1.88	1.77	0.32	38.01	1.60	1.60	0.28	30.46	1.43	1.43	0.25	26.15
	425	1.81	1.74	0.31	36.28	1.81	1.59	0.31	36.16	1.44	1.44	0.25	26.26	1.29	1.29	0.22	22.53
	340	1.54	1.54	0.26	29.01	1.49	1.40	0.26	27.66	1.27	1.27	0.22	22.21	1.14	1.14	0.20	19.04
FWT04AT	586	2.44	2.23	0.42	46.36	2.07	2.05	0.36	36.60	1.85	1.85	0.32	31.10	1.65	1.65	0.28	26.35
	484	2.07	1.92	0.36	36.82	1.77	1.77	0.30	29.22	1.59	1.59	0.27	25.18	1.42	1.42	0.24	21.34
	374	1.66	1.60	0.29	26.92	1.47	1.47	0.25	22.55	1.33	1.33	0.23	19.42	1.19	1.19	0.20	16.44
FWT05AT	1070	3.51	3.51	0.60	31.50	3.28	3.28	0.56	27.72	3.01	3.01	0.52	23.70	2.74	2.74	0.47	19.99
	833	3.12	3.12	0.54	25.44	2.91	2.91	0.50	22.40	2.67	2.67	0.46	19.16	2.44	2.44	0.42	16.17
	748	2.93	2.91	0.50	22.79	2.71	2.71	0.47	19.73	2.49	2.49	0.43	16.88	2.27	2.27	0.39	14.25
FWT06AT	1121	4.20	4.20	0.72	45.62	3.96	3.96	0.68	40.82	3.70	3.70	0.64	35.99	3.44	3.44	0.59	31.46
	985	3.89	3.83	0.67	39.69	3.61	3.61	0.62	34.55	3.37	3.37	0.58	30.47	3.14	3.14	0.54	26.64
	799	3.34	3.33	0.57	30.05	3.14	3.14	0.54	26.87	2.94	2.94	0.51	23.71	2.73	2.73	0.47	20.74

Air temperature (°C DB - °C WB)		25-18															
Water temperature (Entering °C - Leaving °C)		6-11				7-12				8-13				9-14			
Model	Air Flow m <sup>3</sup> /hr	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa
FWT02AT	467	2.27	1.72	0.39	46.09	2.09	1.62	0.36	39.60	1.87	1.52	0.32	32.61	1.66	1.42	0.29	26.34
	382	2.16	1.49	0.37	42.10	1.99	1.40	0.34	36.20	1.78	1.32	0.31	29.86	1.57	1.23	0.27	24.17
	297	2.04	1.27	0.35	38.19	1.88	1.20	0.32	32.88	1.68	1.12	0.29	27.17	1.49	1.05	0.26	22.04
FWT03AT	510	2.70	2.03	0.47	62.62	2.48	1.86	0.43	55.47	2.07	1.69	0.36	43.32	1.67	1.52	0.29	32.13
	425	2.61	1.82	0.45	59.54	2.39	1.66	0.41	52.75	2.00	1.51	0.34	41.21	1.61	1.36	0.28	30.57
	340	2.14	1.61	0.37	45.43	1.96	1.47	0.34	40.30	1.64	1.34	0.28	31.52	1.32	1.21	0.23	23.37
FWT04AT	586	3.19	2.33	0.55	68.53	2.84	2.15	0.49	57.54	2.36	1.95	0.41	43.98	1.88	1.75	0.32	31.74
	484	2.72	2.00	0.47	54.23	2.41	1.85	0.42	45.61	2.01	1.68	0.35	34.94	1.60	1.51	0.28	25.25
	374	2.18	1.67	0.38	39.53	1.94	1.54	0.33	33.30	1.61	1.40	0.28	25.55	1.28	1.26	0.22	18.46
FWT05AT	1070	4.47	3.63	0.77	48.91	4.01	3.40	0.69	40.03	3.69	3.13	0.64	34.36	3.38	2.87	0.58	29.11
	833	4.06	3.23	0.70	41.09	3.65	3.02	0.63	33.65	3.36	2.78	0.58	28.90	3.07	2.55	0.53	24.50
	748	3.87	3.01	0.67	37.70	3.48	2.82	0.60	30.88	3.20	2.60	0.55	26.53	2.93	2.37	0.50	22.49
FWT06AT	1121	5.26	4.33	0.90	68.89	4.71	4.08	0.81	56.22	4.07	3.83	0.70	42.85	3.58	3.58	0.62	33.85
	985	4.93	3.95	0.85	61.22	4.42	3.72	0.76	49.97	3.82	3.49	0.66	38.11	3.27	3.27	0.56	28.66
	799	4.23	3.44	0.73	46.26	3.79	3.24	0.65	37.79	3.27	3.04	0.56	28.86	2.84	2.84	0.49	22.31

Air temperature (°C DB - °C WB)		27-19															
Water temperature (Entering °C - Leaving °C)		6-11				7-12				8-13				9-14			
Model	Air Flow m <sup>3</sup> /hr	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa
FWT02AT	467	2.52	1.84	0.43	55.56	2.34	1.74	0.40	48.38	2.12	1.64	0.37	40.59	1.91	1.54	0.33	33.52
	382	2.40	1.60	0.41	50.69	2.22	1.51	0.38	44.17	2.02	1.42	0.35	37.10	1.81	1.34	0.31	30.68
	297	2.27	1.37	0.39	45.92	2.10	1.29	0.36	40.05	1.91	1.22	0.33	33.69	1.71	1.14	0.30	27.91
FWT03AT	510	3.11	2.21	0.54	76.19	2.78	2.03	0.48	64.92	2.38	1.86	0.41	52.26	1.98	1.70	0.34	40.53
	425	3.00	1.98	0.52	72.41	2.68	1.82	0.46	61.72	2.29	1.67	0.39	49.71	1.91	1.52	0.33	38.56
	340	2.46	1.76	0.42	55.15	2.20	1.61	0.38	47.08	1.88	1.48	0.32	37.98	1.57	1.35	0.27	29.49
FWT04AT	586	3.57	2.52	0.61	80.72	3.22	2.35	0.55	69.18	2.74	2.15	0.47	54.46	2.25	1.95	0.39	41.06
	484	3.04	2.17	0.52	63.78	2.74	2.03	0.47	54.74	2.33	1.85	0.40	43.19	1.92	1.68	0.33	32.63
	374	2.44	1.81	0.42	46.39	2.20	1.69	0.38	39.89	1.87	1.54	0.32	31.54	1.54	1.40	0.26	23.86
FWT05AT	1070	5.01	3.88	0.86	60.31	4.54	3.65	0.78	50.21	4.35	3.38	0.75	46.26	4.16	3.12	0.72	42.47
	833	4.55	3.45	0.78	50.64	4.13	3.24	0.71	42.18	3.95	3.01	0.68	38.87	3.78	2.77	0.65	35.70
	748	4.34	3.22	0.75	46.45	3.94	3.02	0.68	38.70	3.77	2.80	0.65	35.66	3.60	2.58	0.62	32.76
FWT06AT	1121	5.81	4.60	1.00	82.83	5.28	4.33	0.91	69.21	4.65	4.10	0.80	54.60	4.01	3.86	0.69	41.66
	985	5.45	4.19	0.94	73.59	4.95	3.95	0.85	61.50	4.36	3.74	0.75	48.54	3.76	3.53	0.65	37.05
	799	4.68	3.65	0.80	55.58	4.25	3.44	0.73	46.47	3.74	3.25	0.64	36.71	3.23	3.07	0.56	28.06

Air temperature (°C DB - °C WB)		30-22															
Water temperature (Entering °C - Leaving °C)		6-11				7-12				8-13				9-14			
Model	Air Flow m <sup>3</sup> /hr	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Total cooling capacity kW	Sensible cooling capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa
FWT02AT	467	3.32	2.02	0.57	91.81	3.14	1.94	0.54	82.45	2.92	1.84	0.50	72.10	2.71	1.74	0.47	62.48
	382	3.16	1.76	0.54	83.57	2.98	1.68	0.51	75.08	2.78	1.60	0.48	65.69	2.57	1.51	0.44	56.96
	297	2.99	1.50	0.51	75.50	2.82	1.44	0.49	67.86	2.63	1.37	0.45	59.41	2.43	1.29	0.42	51.55
FWT03AT	510	4.11	2.45	0.71	112.66	3.78	2.28	0.65	99.66	3.38	2.11	0.58	84.91	2.98	1.95	0.51	71.02
	425	3.97	2.19	0.68	106.96	3.64	2.04	0.63	94.65	3.26	1.90	0.56	80.68	2.87	1.75	0.49	67.51
	340	3.26	1.94	0.56	81.07	2.99	1.81	0.51	71.85	2.68	1.68	0.46	61.36	2.36	1.54	0.41	51.45
FWT04AT	586	4.54	2.75	0.78	115.11	4.17	2.55	0.72	101.22	3.74	2.38	0.64	85.79	3.30	2.22	0.57	71.36
	484	3.86	2.37	0.66	90.62	3.55	2.20	0.61	79.78	3.18	2.05	0.55	67.73	2.81	1.91	0.48	56.45
	374	3.10	1.97	0.53	65.59	2.85	1.83	0.49	57.85	2.55	1.71	0.44	49.22	2.26	1.59	0.39	41.11
FWT05AT	1070	6.55	4.30	1.13	98.61	6.05	4.05	1.04	84.97	5.48	3.78	0.94	70.71	4.92	3.52	0.85	57.72
	833	5.95	3.82	1.02	82.75	5.50	3.60	0.95	71.31	4.98	3.36	0.86	59.36	4.47	3.13	0.77	48.47
	748	5.68	3.56	0.98	75.87	5.25	3.35	0.90	65.39	4.75	3.13	0.82	54.44	4.26	2.91	0.73	44.46
FWT06AT	1121	7.58	5.10	1.30	134.												

## 4 Capacity tables

### 4 - 2 Capacity tables with glycol for process cooling applications

#### Glycol correction factor

FWT Entering water temperature °C	Cooling capacity				Pressure Drop
	0	20	40	60	
0%	1	1	1	1	1
10%	0.955	0.969	0.973	0.980	1.060
20%	0.929	0.941	0.955	0.964	1.120
30%	0.898	0.913	0.929	0.939	1.180
40%	0.863	0.882	0.899	0.911	1.240

# 4 Capacity tables

## 4 - 3 Heating capacity tables

### Heating capacities FWT (2 pipe)

1  
4

Air temperature (°C DB - °C WB)		20								
Water temperature (Entering °C - Leaving °C)		50 - 45			60 - 50			70 - 60		
Model	Air Flow m <sup>3</sup> /HR	Heating capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Heating capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Heating capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa
FWT02AT	467	3.20	0.55	74.08	2.90	0.25	18.37	3.31	0.28	21.97
	382	2.85	0.49	60.34	2.49	0.21	14.45	2.86	0.25	17.34
	297	2.48	0.42	46.88	2.05	0.18	10.78	2.38	0.20	12.92
FWT03AT	510	3.98	0.68	96.36	3.77	0.32	33.23	4.25	0.37	37.69
	425	3.46	0.59	79.28	3.18	0.27	26.41	3.61	0.31	30.21
	340	2.78	0.48	58.51	2.41	0.21	18.11	2.76	0.24	20.93
FWT04AT	586	4.31	0.74	92.26	3.99	0.34	29.29	4.53	0.39	33.76
	484	3.59	0.62	70.51	3.16	0.27	21.01	3.62	0.31	24.51
	374	3.00	0.51	54.35	2.50	0.22	15.08	2.88	0.25	17.75
FWT05AT	1070	6.50	1.11	96.71	5.58	0.48	20.07	6.47	0.56	25.28
	833	5.40	0.92	68.73	4.21	0.36	12.14	4.98	0.43	15.77
	748	4.90	0.84	57.56	3.62	0.31	9.27	4.31	0.37	12.19
FWT06AT	1121	7.21	1.24	124.02	6.19	0.53	25.64	7.20	0.62	32.48
	985	6.57	1.13	104.58	5.39	0.46	20.02	6.36	0.55	25.95
	799	5.71	0.98	80.76	4.25	0.37	13.08	5.13	0.44	17.62

Air temperature (°C DB - °C WB)		22								
Water temperature (Entering °C - Leaving °C)		50 - 45			60 - 50			70 - 60		
Model	Air Flow m <sup>3</sup> /HR	Heating capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Heating capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa	Heating capacity kW	Water flow m <sup>3</sup> /hr	Water pressure drop kPa
FWT02AT	467	2.98	0.51	65.12	2.69	0.23	16.30	3.13	0.27	19.99
	382	2.66	0.46	53.06	2.30	0.20	12.81	2.70	0.23	15.75
	297	2.29	0.39	41.06	1.89	0.16	9.59	2.23	0.19	11.73
FWT03AT	510	3.70	0.63	87.15	3.52	0.30	30.30	4.03	0.35	35.10
	425	3.23	0.55	71.85	2.96	0.25	23.98	3.42	0.29	28.03
	340	2.58	0.44	52.81	2.24	0.19	16.37	2.60	0.22	19.33
FWT04AT	586	4.01	0.69	83.01	3.72	0.32	26.47	4.29	0.37	31.23
	484	3.34	0.57	63.43	2.93	0.25	18.87	3.41	0.29	22.54
	374	2.78	0.48	48.63	2.32	0.20	13.49	2.71	0.23	16.26
FWT05AT	1070	6.04	1.03	84.40	5.12	0.44	17.19	6.07	0.52	22.52
	833	5.00	0.86	59.74	3.83	0.33	10.24	4.63	0.40	13.86
	748	4.52	0.77	49.74	3.28	0.28	7.78	4.00	0.34	10.65
FWT06AT	1121	6.68	1.14	107.61	5.66	0.49	21.82	6.75	0.58	28.89
	985	6.10	1.05	91.14	4.89	0.42	16.80	5.93	0.51	22.86
	799	5.29	0.91	70.16	3.81	0.33	10.75	4.74	0.41	15.26

## 4 Capacity tables

### 4 - 4 Capacity correction factor

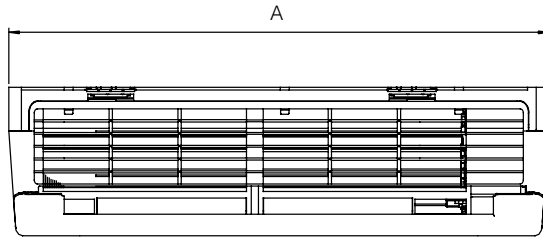
#### Heating correction factor

Entering Air temperature °C	FWT												
	Entering Water temperature °C												
	37.8	43.3	45.0	48.8	50.0	54.4	60.0	65.5	70.0	71.1	76.7	82.2	87.7
4.4	1.338	1.376	1.388	1.414	1.422	1.452	1.491	1.529	1.559	1.569	1.605	1.643	1.683
7.2	1.257	1.297	1.310	1.338	1.347	1.379	1.421	1.462	1.497	1.507	1.547	1.586	1.630
10.0	1.176	1.221	1.235	1.265	1.275	1.311	1.356	1.401	1.433	1.444	1.488	1.531	1.577
12.7	1.093	1.140	1.155	1.187	1.198	1.235	1.284	1.331	1.370	1.381	1.426	1.476	1.523
15.5	1.010	1.061	1.077	1.113	1.124	1.165	1.217	1.268	1.306	1.318	1.368	1.420	1.471
18.3	0.958	0.999	1.013	1.044	1.054	1.095	1.149	1.199	1.242	1.255	1.308	1.363	1.419
20.0	0.877	0.933	0.950	0.989	1.000	1.046	1.103	1.159	1.204	1.216	1.274	1.330	1.386
21.1	0.824	0.890	0.910	0.953	0.965	1.014	1.074	1.134	1.179	1.192	1.251	1.308	1.364
23.9	0.758	0.819	0.838	0.880	0.894	0.943	1.005	1.066	1.115	1.129	1.191	1.252	1.312
26.7	0.677	0.741	0.761	0.806	0.820	0.871	0.937	1.001	1.052	1.067	1.133	1.197	1.259

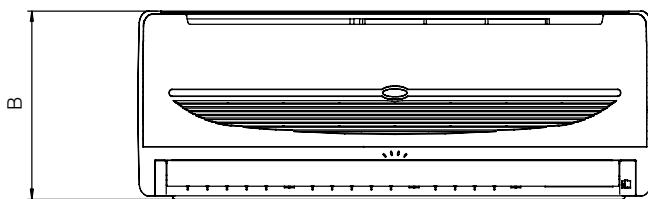
# 5 Dimensional drawing & centre of gravity

## 5 - 1 Dimensional drawing

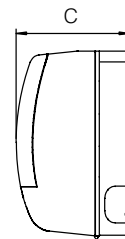
FWT (02, 03, 04)



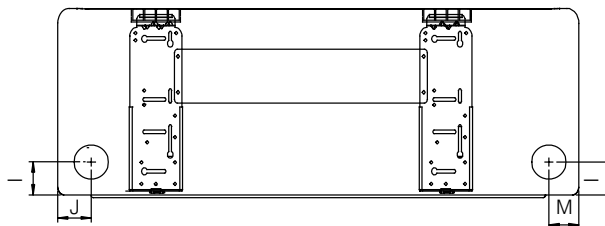
TOP VIEW



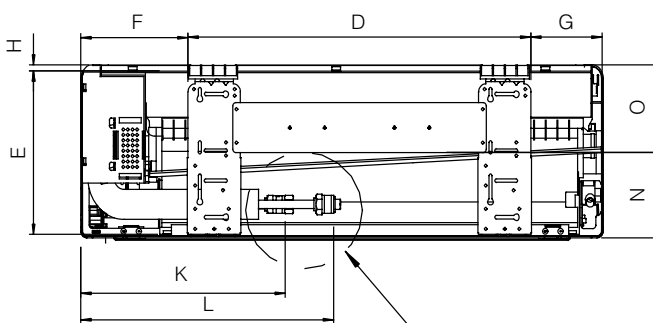
FRONT VIEW



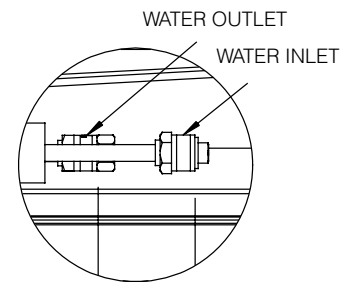
SIDE VIEW



INSTALLATION PLATE



SEE DETAIL A



DETAIL A

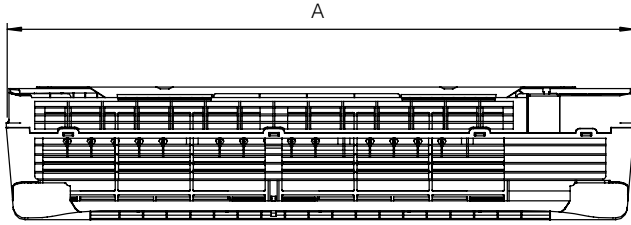
Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
FWT02AATNMV1	799 (31,5)	260 (10,2)	198 (7,8)	379 (15,0)	246 (9,7)	185 (7,3)	124 (4,9)	8 (0,3)	56 (2,2)	50 (2,0)	350 (13,8)	379 (15,0)	50 (2,0)	128 (5,1)	132 (5,2)
FWT03AATNMV1 / FWT04AATNMV1	899 (35,4)	260 (10,2)	198 (7,8)	590 (23,2)	246 (9,7)	185 (7,3)	124 (4,9)	8 (0,3)	56 (2,2)	50 (2,0)	435 (17,1)	495 (19,5)	50 (2,0)	128 (5,1)	132 (5,2)

# 5 Dimensional drawing & centre of gravity

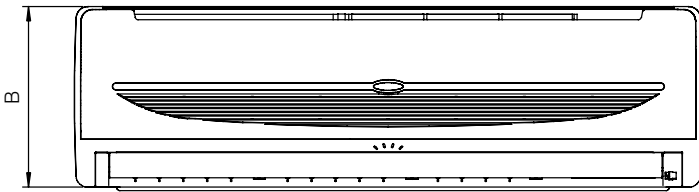
## 5 - 1 Dimensional drawing

1  
5

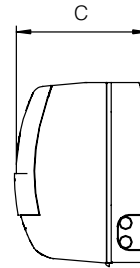
FWT (05, 06)



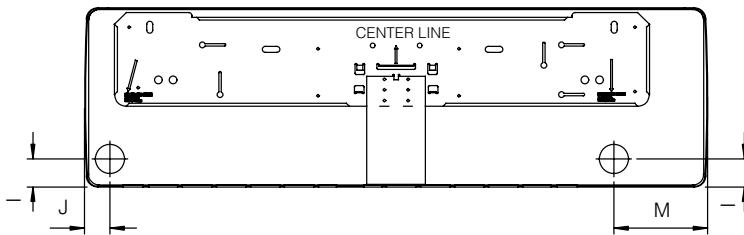
TOP VIEW



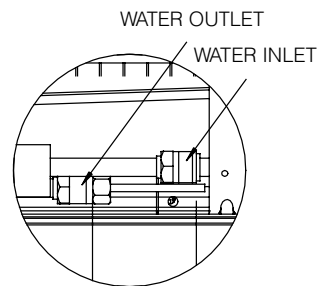
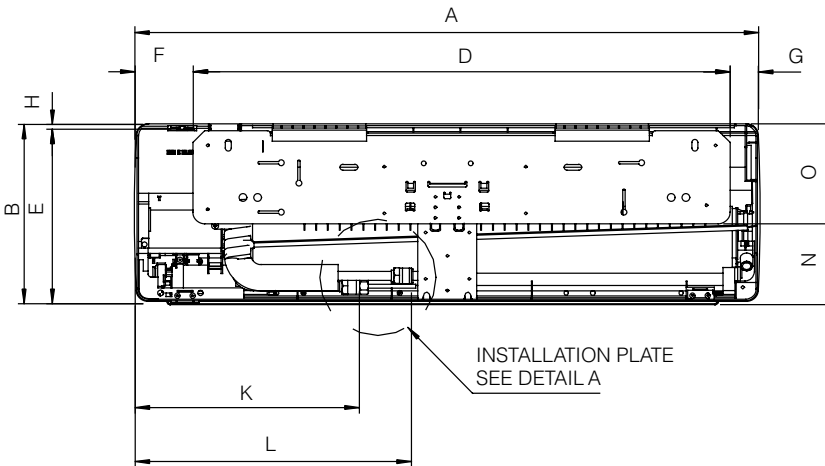
FRONT VIEW



SIDE VIEW



INSTALLATION PLATE



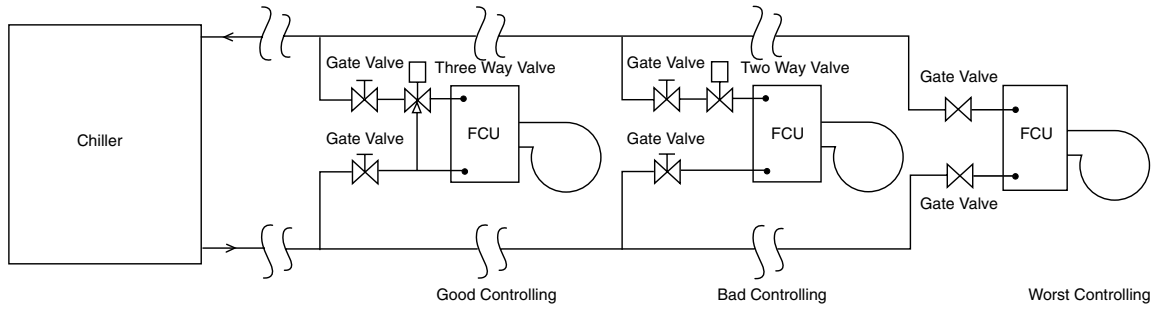
DETAIL A

Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
FWT05AATNMV1 / FWT06AATNMV1	1060 (41,7)	310 (12,2)	220 (8,6)	912 (35,9)	294 (11,6)	99 (3,9)	51 (2,0)	8 (0,3)	48 (1,9)	43 (1,7)	369 (14,5)	453 (17,8)	160 (6,3)	138 (5,4)	160 (6,3)

# 6 Piping diagram

1  
6

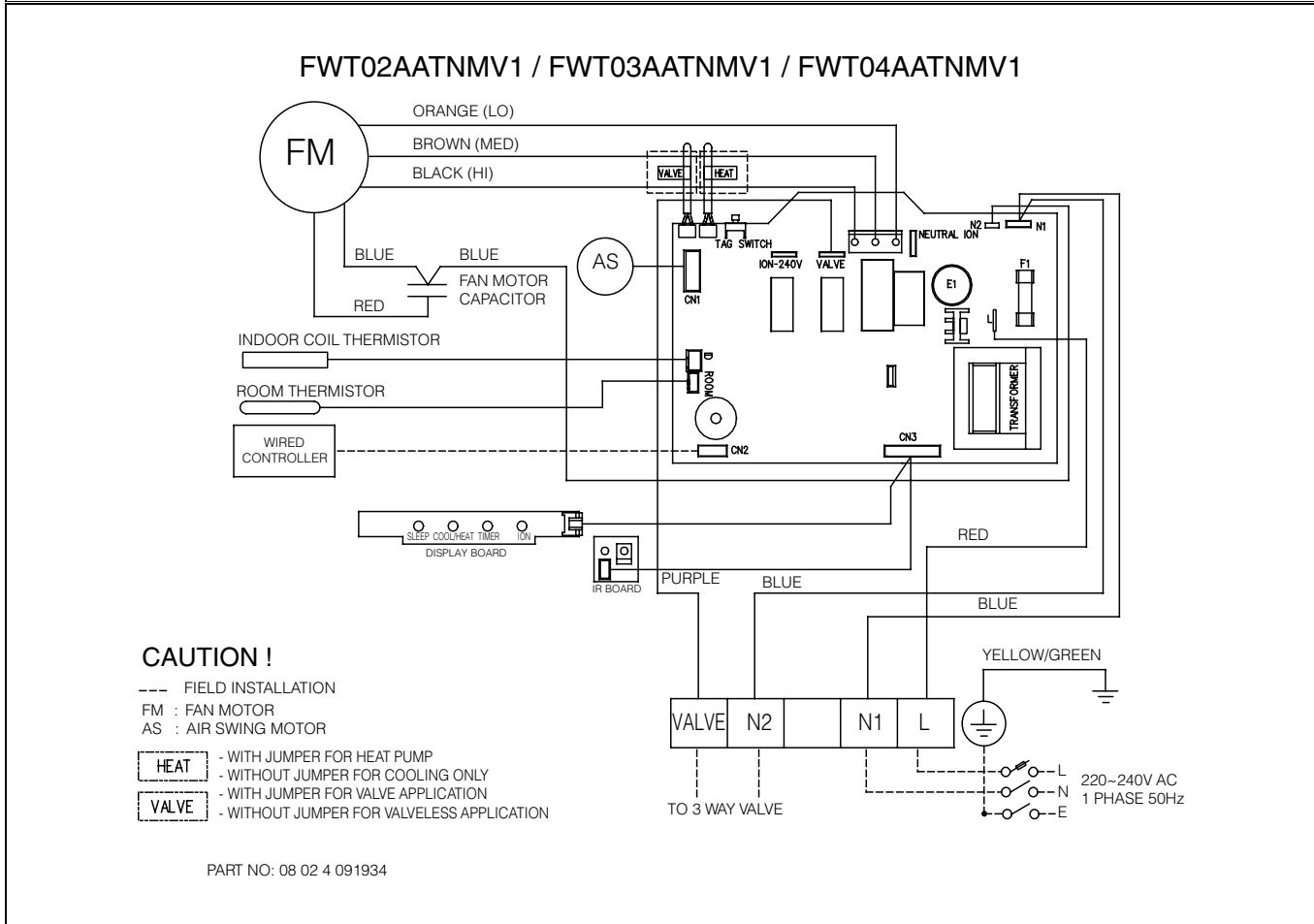
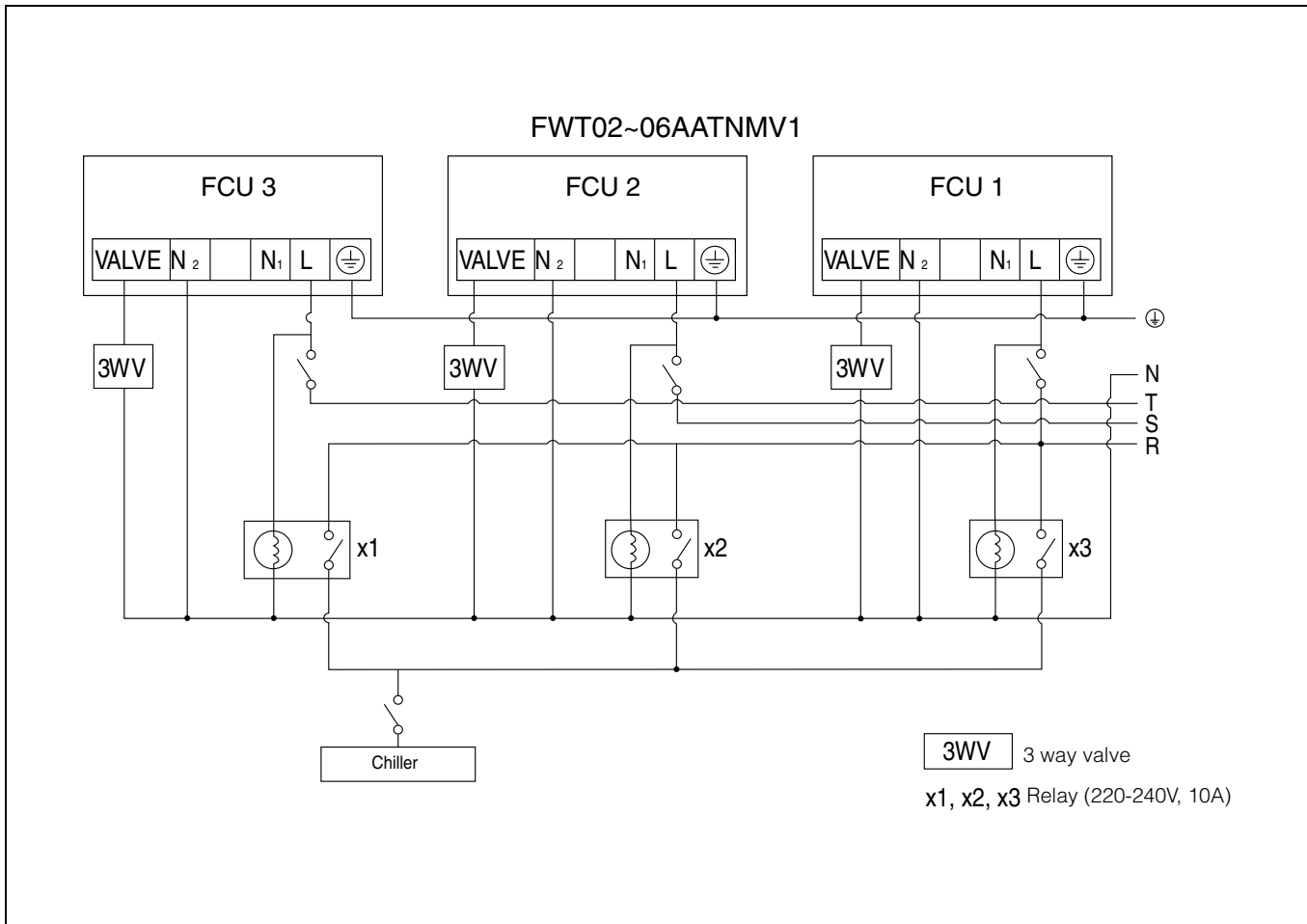
FWT (Water piping diagram)





# 7 Wiring diagram

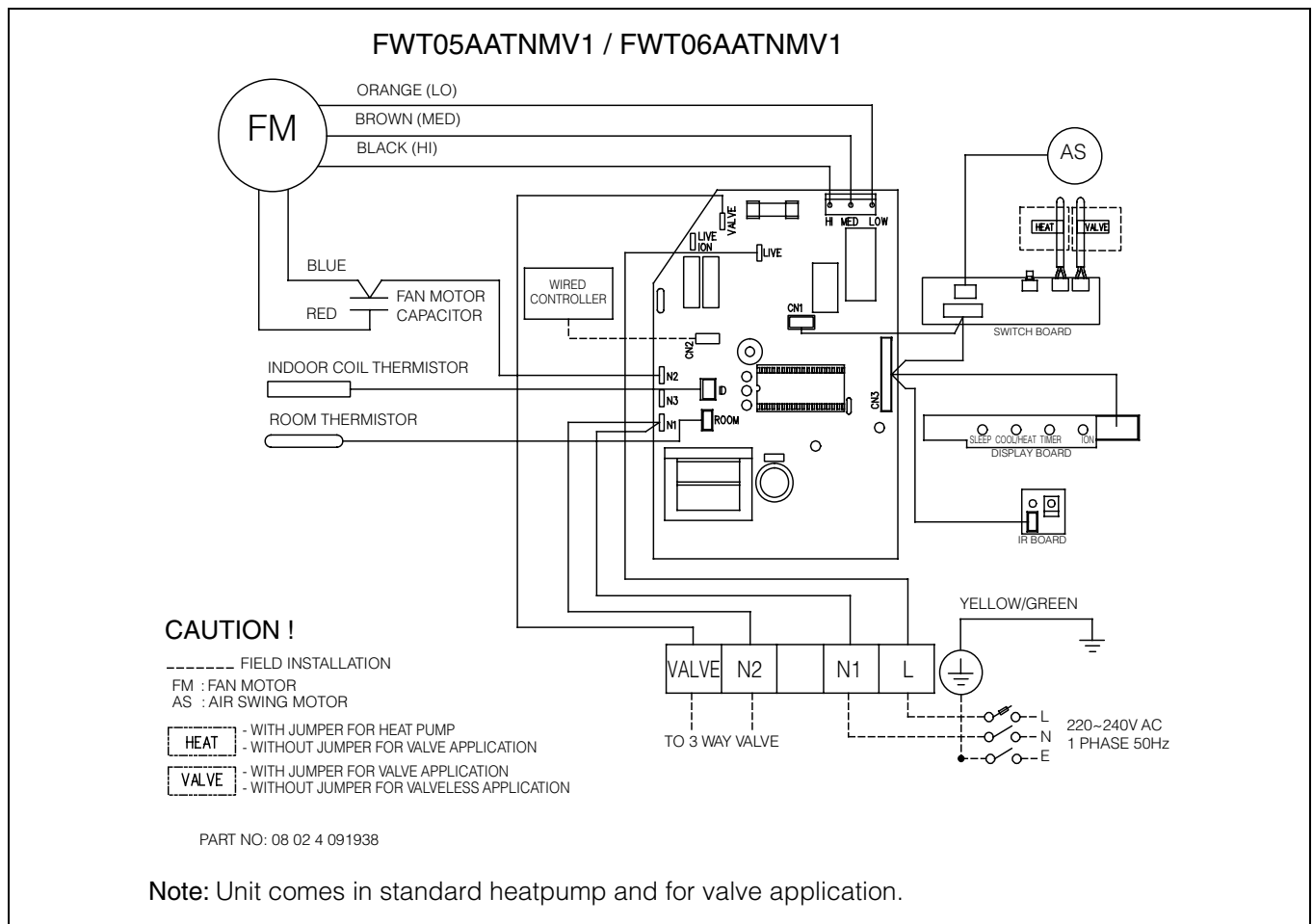
## 7 - 1 Wiring diagram



# 7 Wiring diagram

## 7 - 1 Wiring diagram

1  
7



## 8 Sound data

### 8 - 1 Sound power spectrum

FWT (2 PIPE)

Model	Freq	1/1 Octave Sound Power Level (dB, reference 1pW)							Overall (dBA)
		125	250	500	1000	2000	4000	8000	
FWT02AT	Hi	49	48	51	50	42	34	29	53
	Me	47	45	47	44	36	30	28	48
	Lo	46	42	43	40	32	29	27	44
FWT03AT	Hi	50	48	50	50	41	31	28	53
	Me	47	44	46	43	35	29	27	47
	Lo	45	42	43	38	30	27	26	43
FWT04AT	Hi	51	49	52	52	43	33	29	55
	Me	48	45	48	45	37	30	27	49
	Lo	46	43	43	39	31	28	26	44
FWT05AT	Hi	58	60	60	56	50	43	34	61
	Me	56	57	56	53	47	39	32	57
	Lo	54	54	54	50	44	38	31	55
FWT06AT	Hi	57	60	61	57	54	46	38	64
	Me	55	59	60	56	53	44	37	61
	Lo	53	55	57	53	50	42	35	59

Microphone position: FWT 1m in front and 0.8m below the vertical centre line of the unit

## 9 Operation range

1  
9

### FWT

#### OPERATING RANGE

##### Operating Limits:

Thermal carrier : Water

Water temperature : 5 ~50°C

Maximum water pressure : 16 bar

Air temperature : (as below)

##### Cooling Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	16.0 / 60.8	11.0 / 51.8
Maximum indoor temperature	32.0 / 89.6	23.0 / 73.4
Minimum outdoor temperature	16.0 / 60.8	-
Maximum outdoor temperature	46.0 / 114.8	-

##### Heating Mode

Temperature	Ts °C/°F	Th °C/°F
Minimum indoor temperature	16.0 / 60.8	-
Maximum indoor temperature	30.0 / 86.0	-
Minimum outdoor temperature	-5.0 / 23.0	-6.0 / 21.2
Maximum outdoor temperature	24.0 / 75.2	18.0 / 64.4

Ts: Dry bulb temperature.

Th: Wet bulb temperature.

# 10 Hydraulic performance

## 10 - 1 Water pressure drop curve evaporator

FWT

Water flow m <sup>3</sup> /hr	FWT (2 PIPE) cooling				
	Water pressure drop (kPa)				
	FWT02AT	FWT03AT	FWT02AT	FWT03AT	FWT02AT
0.1	1.98	7.14	5.53	1.18	1.24
0.2	10.98	19.72	16.07	4.36	4.56
0.3	24.95	34.27	28.64	8.95	9.36
0.4	43.82	50.71	43.15	14.94	15.62
0.5	67.51	68.94	59.51	22.30	23.32
0.6	95.94	88.87	77.64	31.01	32.42
0.7	129.02	110.43	97.46	41.04	42.91
0.8		133.51	118.88	52.36	54.75
0.9			141.82	64.96	67.92
1.0				78.80	82.39
1.1				93.87	98.15
1.2				110.14	115.16
1.3				127.58	133.40
1.4					152.84
1.5					173.45

**1**  
**10**

FWT

Water flow m <sup>3</sup> /hr	FWC-T (2 PIPE) heating				
	Water pressure drop (kPa)				
	FWT02AT	FWT03AT	FWT04AT	FWT05AT	FWT06AT
0.1	2.65	6.47	4.83	1.19	1.26
0.2	10.85	17.86	14.06	4.38	4.64
0.3	23.20	31.04	25.05	9.00	9.54
0.4	39.63	45.92	37.73	15.03	15.92
0.5	60.05	62.44	52.04	22.43	23.76
0.6	84.40	80.49	67.89	31.18	33.03
0.7	112.60	100.01	85.22	41.27	43.71
0.8	144.56	120.92	103.95	52.66	55.77
0.9	180.21	143.13	124.01	65.33	69.19
1.0		166.56	145.33	79.25	83.93
1.1			167.83	94.40	99.98
1.2				110.76	117.31
1.3				128.30	135.88
1.4				147.00	155.68
1.5				166.83	176.68