

# FUJITSU 2 & 3-4 Head Multi System



JUNE 2008



NEW ZEALAND'S FAVOURITE AIR™



INVERTER

2 & 3-4 ROOM

# Multi System

The Fujitsu Inverter Multi System has been designed with flexibility in mind. With the introduction of indoor units in a range of capacities and types, Fujitsu have made it easier to air condition or heat most domestic applications in New Zealand.

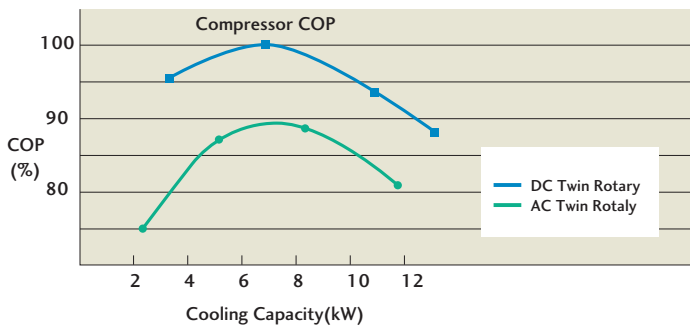
The Fujitsu Inverter Multi System is ideal where an individual indoor unit is required in each room, for example, a living room and 3 bedrooms. The Fujitsu Inverter Multi System allows only one outdoor unit to be connected up to a wide variety of 2 for the AOT24LMAM2 or 3 or 4 for the AOT30LMAW4 indoor units including Hi-Wall, Floor/Ceiling Console, Cassette and Bulkhead type ducted. All indoor units can be controlled separately.

## DC Twin Rotary Compressor

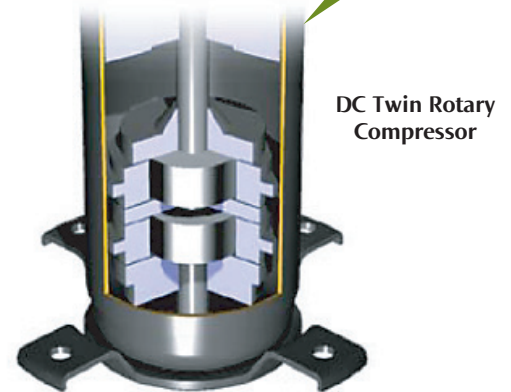
The Fujitsu Inverter System is equipped with a state of the art DC twin rotary compressor. It can reach the room temperature you set 15%\* quicker than conventional models. Advanced DC twin rotary compressor makes operation at high power and high efficiency a reality.

38,000  
BTU  
(at 240V)

Comparison of cooling efficiency of DC compressor (against AC compressor)

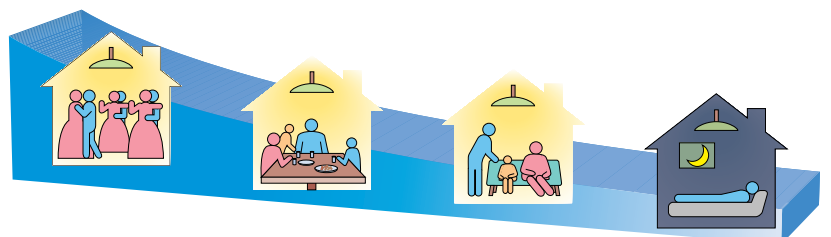


\*Depends on room size and heat load.



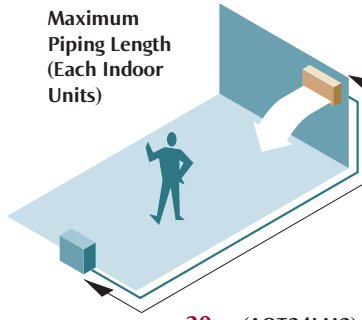
## Stable & Comfort

The Heat Pump's output is stabilised at the optimum setting within the range from maximum to minimum to match the load, which is affected by factors such as the room temperature and the number of people present.

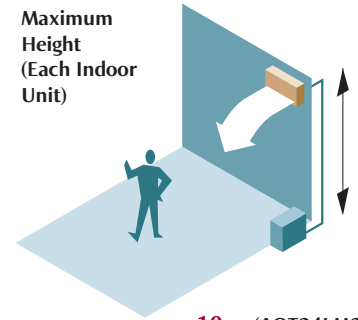


## Flexible Installation

The outdoor unit can be installed in a wide range of properties by the long piping of 30m (gas chargeless) for AOT24LM2 and 70m (gas chargeless to 50m) for AOT30LM4.



Maximum Piping Length (Each Indoor Units)



Maximum Height (Each Indoor Unit)

### Total Maximum Piping Length:

**30m** (AOT24LM2) **70m** (AOT30LM4)  
(All Indoor Units Combined)

**20m** (AOT24LM2)  
**25m** (AOT30LM4)

**10m** (AOT24LM2)  
**10m** (AOT30LM4)

## High Energy Efficiency

The high efficiency DC Inverter Multi System offers energy saving operation and 50% higher efficiency than a constant-speed multi system. Improved Inverter cooling ratio prevents a drop in capacity when operating under load conditions.



## Independent Control

Each indoor unit can be operated independently. That is, on/off, temperature, air movement, up/down/left/right, time clock operation, can all be controlled from their own wireless remote. (Wired remote controller for bulkhead models)



## Capacity Table

### AOT24LMAM2 1 outdoor unit to 2 indoor units

The total capacity of the indoor units that can be connected is 4.1 ~ 8.7kW (14,000 ~ 30,000BTU)

### AOT30LMAW4 1 outdoor unit to 3-4 indoor units

The total capacity of the indoor units that can be connected is 7.9 ~ 14.3kW (27,000 ~ 49,000BTU)

	Hi-Wall Type (Small Size)	Hi-Wall Type (Large Size)	Cassette Type (Compact)	Floor/Ceiling Universal Type	Bulkhead	
2.3kW (7,900 BTU)	ASTA07L					AOT30LMAW4
2.7kW (9,200 BTU)	ASTA09L					
3.5kW (11,900 BTU)	ASTA12L		AUT12L			
4.2 - 4.3kW (14,300 - 14,600 BTU)				ABT14L		
5.2kW (18,700 BTU)		AST18L	AUT18L	ABT18L	ART18L	
6.3kW (21,500 BTU)					ART22L	
6.8kW (23,200 BTU)		AST24L*		ABT24L*		AOT24LMAM2

\*When connecting a 24 indoor unit on to the AOT30LMAW4 only two other indoor units are permissible to be connected



Cassette (Compact) Type  
AUT12/18L



Bulkhead Type  
ART18/22L



Hi-Wall Type  
ASTA07/09/12L





Universal Type  
ABT14/18/24L



Hi-Wall Type  
AST18/24L





AOT24LMAM2

 5.80kW / 19,800BTU/h  
 6.40kW / 21,900BTU/h



AOT30LMAW4

 8.00kW / 27,300BTU/h  
 9.60kW / 32,800BTU/h



	Moisture	Up/Down	Left/Right	Double	Auto Louvers	Auto Shut Louvers	Adjust	Restart	Sleep	Program	Distributing	Fresh	Fresh	Ion	AF	Wash	Weekly	W+S
AUT12L/18L	•	•			•	•	•	•	•	•	•	•				•		
ART18L/22L	•						•	•	•	•			•				•	•
ABT14L/18L/24L	•	•	•	•	•	•	•	•	•	•								
ASTA07L/09L/12L	•	•			•	•	•	•	•	•				•	•	•		
AST18L/24L	•	•	•	•	•	•	•	•	•	•				•	•	•		

## Advanced Features

- Equipped with DC Twin Rotary compressor
- 2 indoor units can be connected to one outdoor unit (AOT24LMAM2)
- 2\*, 3 or 4 indoor units can be connected to one outdoor unit (AOT30LMAW4)
- Wide variety of indoor units including Hi-Wall, Floor/Ceiling Console, Cassette and Bulkhead Type Ducted
- All units can be controlled independently
- Reverse cycle operation
- Single phase (230V) power supply

\*An external receiver tank (UTR-RTLTA) needs to be connected to the outdoor unit when connecting only 2 indoor units to the AOT30LMAW4

The external receiver tank stores the surplus refrigerant and is necessary for the system to operate efficiently.

- Refer to the installation manual of the UTR-RTLTA receiver tank for permissible indoor unit combinations

# SPECIFICATIONS

## HI-WALL INDOOR UNITS

Type			HI WALL	HI WALL	HI WALL	HI WALL	HI WALL			
MODEL No.	Indoor Unit		ASTA07LACM	ASTA09LACM	ASTA12LACM	AST18LBAJ	AST24LBAJ			
Reverse Cycle			Yes	Yes	Yes	Yes	Yes			
Cooling Capacities			Watts	2,300	2,700	3,500	5,200	6,800		
			BTU/Hr	7,900	9,200	11,900	17,800	23,200		
Heating Capacities			Watts	2,700	3,300	4,000	6,000	8,200		
			BTU/Hr	9,200	11,300	13,700	20,490	28,000		
Moisture Removal			L/Hr	0.8	1	1.2	3	3		
Fan Speeds				4	4	4	4	4		
Air Circulation			l/s	138	152	161	263	283		
Indoor Sound Pressure Level			Quiet	DbA at 1m	22	23	24	32	32	
			Low	DbA at 1m	29	30	31	35	36	
			Medium	DbA at 1m	32	33	34	39	41	
			High	DbA at 1m	35	37	39	43	47	
Dimensions and Weights			I.U	Height	mm	275	275	275	320	320
				Width	mm	790	790	790	1120	1120
				Depth	mm	215	215	215	220	220
				Net Weight	kg	9	9	9	16	16
Interconnect cables - size			Qty - mm2	4 - 2.5	4 - 2.5	4 - 2.5	4 - 2.5	4 - 2.5		
Power Supply Attachment				Outdoor	Outdoor	Outdoor	Outdoor	Outdoor		
Refrigerant Type				R410a	R410a	R410a	R410a	R410a		
Connection Pipe Sizes			Gas	mm	9.52	9.52	9.52	12.7	15.88	
			Liquid	mm	6.35	6.35	6.35	6.35	9.52	
Minimum Pipe Length			Metre	5	5	5	5	5		
Maximum Pipe Length			Metre	25	25	25	25	25		
Maximum Pipe Height			Metre	10	10	10	10	10		
Pipe Connection Method				Flare	Flare	Flare	Flare	Flare		

## COMPACT CASSETTE INDOOR UNITS

Type			CASSETTE	CASSETTE			
MODEL No.	Indoor Unit		AUT12LBAB	AUT18LBAB			
Reverse Cycle			Yes	Yes			
Cooling Capacities			Watts	3,500	4,300		
			BTU/Hr	11,900	14,700		
Heating Capacities			Watts	3,800	5,000		
			BTU/Hr	13,000	17,100		
Moisture Removal			L/Hr	1.2	2		
Fan Speeds				3	3		
Air Circulation			l/s	152	172		
Indoor Sound Pressure Level			Quiet	DbA at 1m	N/A	N/A	
			Low	DbA at 1m	36	38	
			Medium	DbA at 1m	39	41	
			High	DbA at 1m	42	44	
Dimensions and Weights			I.U	Height	mm	235	235
				Width	mm	580	580
				Depth	mm	580	580
				Net Weight	kg	18	18
Indoor Unit Hole Cutout Size			mm	600 x 600	600 x 600		
Interconnect cables - size			Qty - mm2	4 - 2.5	4 - 2.5		
Power Supply Attachment				Outdoor	Outdoor		
Refrigerant Type				R410a	R410a		
Connection Pipe Sizes			Gas	mm	9.52	12.7	
			Liquid	mm	6.35	6.35	
Minimum Pipe Length			Metre	5	5		
Maximum Pipe Length			Metre	25	25		
Maximum Pipe Height			Metre	10	10		
Pipe Connection Method				Flare	Flare		

## FLOOR/CEILING INDOOR UNITS

Type			FLOOR CEILING	FLOOR CEILING	FLOOR CEILING			
MODEL No.	Indoor Unit		ABT14LBAJ	ABT18LBAJ	ABT24LBAJ			
Reverse Cycle			Yes	Yes	Yes			
Cooling Capacities			Watts	4,200	5,200	6,800		
			BTU/Hr	14,300	17,800	23,200		
Heating Capacities			Watts	4,800	6,000	8,200		
			BTU/Hr	16,400	20,500	28,000		
Moisture Removal			L/Hr	1.5	1.7	2.5		
Fan Speeds				3	3	3		
Air Circulation			l/s	177	216	244		
Indoor Sound Pressure Level			Quiet	DbA at 1m	N/A	N/A		
			Low	DbA at 1m	30	36	41	
			Medium	DbA at 1m	34	41	45	
			High	DbA at 1m	37	44	49	
Dimensions and Weights			I.U	Height	mm	199	199	199
				Width	mm	990	990	990
				Depth	mm	655	655	655
				Net Weight	kg	28	28	28
Interconnect cables - size			Qty - mm2	4 - 2.5	4 - 2.5	4 - 2.5		
Power Supply Attachment				Outdoor	Outdoor	Outdoor		
Refrigerant Type				R410a	R410a	R410a		
Connection Pipe Sizes			Gas	mm	12.7	12.7	15.88	
			Liquid	mm	6.35	6.35	9.52	
Minimum Pipe Length			Metre	5	5	5		
Maximum Pipe Length			Metre	25	25	25		
Maximum Pipe Height			Metre	10	10	10		
Pipe Connection Method				Flare	Flare	Flare		

## BULKHEAD INDOOR UNITS

Type			BULKHEAD	BULKHEAD			
MODEL No.	Indoor Unit		ART18LUAD	ART22LUAD			
Reverse Cycle			Yes	Yes			
Cooling Capacities			Watts	5,200	6,300		
			BTU/Hr	17,800	21,500		
Heating Capacities			Watts	6,000	7,500		
			BTU/Hr	20,500	25,600		
Moisture Removal			L/Hr	1.7	2.2		
Fan Speeds				3	3		
Air Circulation			l/s	222	288		
Indoor Sound Pressure Level			Quiet	DbA at 1m	N/A	N/A	
			Low	DbA at 1m	30	33	
			Medium	DbA at 1m	35	41	
			High	DbA at 1m	41	46	
Dimensions and Weights			I.U	Height	mm	217	217
				Width	mm	953	953
				Depth	mm	595	595
				Net Weight	kg	25	25
Interconnect cables - size			Qty - mm2	4 - 2.5	4 - 2.5		
Power Supply Attachment				Outdoor	Outdoor		
Refrigerant Type				R410a	R410a		
Connection Pipe Sizes			Gas	mm	12.7	12.7	
			Liquid	mm	6.35	6.35	
Minimum Pipe Length			Metre	5	5		
Maximum Pipe Length			Metre	25	25		
Maximum Pipe Height			Metre	10	10		
Pipe Connection Method				Flare	Flare		

## CONNECTION COMBINATIONS

Please consult the Design and Technical manual for allowable connectable configuration of indoor units and actual indoor unit capacities.

AOT30LMAW4 2 indoor unit connection precautions:

- Refer to the installation manual of the UTR-RTLA receiver tank for permissible indoor unit combinations.
- It is not possible to connect any 2 compact cassette models (model prefix AU + AU).
- The smallest capacity indoor unit that can be connected is 14,000BTU.
- For actual indoor capacities please consult the Design and Technical manual.
- It is not necessary to use a receiver tank when both indoor units are 24,000BTU each, however maximum pipe length is limited to 50m and additional refrigerant is required if pipe length is over 30m.

## OUTDOOR UNITS

Type			Inverter	Inverter	
MODEL No. Outdoor Unit	Outdoor Unit		AOT24LMAM2	AOT30LMAW4	
Reverse Cycle			Yes	Yes	
Cooling Capacities	Watts		5,800 (7,800 Max)	8,000 (10,100 Max)	
	BTU/Hr		19,800 (26,600 Max)	27,300 (34,500 Max)	
Heating Capacities	Watts		6,400 (9,000 Max)	9,600 (12,000 Max)	
	BTU/Hr		21,900 (30,700 Max)	32,800 (41,000 Max)	
E.E.R Cool	W/W		3.35	3.6	
C.O.P Heat	W/W		3.9	4.0	
Running Current	Cool	Amps	7.3 (12.2 Max)	9.7 (15.7 Max)	
	Heat	Amps	6.9 (12.2 Max)	10.5 (15.7 Max)	
Input Power	Cool	Watts	1,730 (2,920 Max)	2,220 (3,580 Max)	
	Heat	Watts	1,640 (2,920 Max)	2,400 (3,580 Max)	
Outdoor Sound Pressure Level		DbA at 1m	49	51	
Outdoor Sound Power Level		DbA	62	64	
Dimensions and Weights	O.U	Height	mm	650	835
		Width	mm	830	900
		Depth	mm	320	330
		Net Weight	kg	56	68
Compressor Type			DC Rotary	Twin Rotary	
Interconnect cables - size	Qty - mm2		4 - 2.5 (X2)	4 - 2.5 (X4)	
Recommended Min. Power Cable	mm2		4	4	
Phase - Frequency	Ph - Hz		1 - 50	1 - 50	
Power Supply Attachment			Outdoor	Outdoor	
Power Supply	Volts		230	230	
Refrigerant Type			R410a	R410a	
Connection Pipe Sizes	Gas	mm	1X 9.52 1X 12.7	2X 9.52 2X 12.7	
	Liquid	mm	2X 6.35	4X 6.35	
Minimum Pipe Length		Metre	5	5	
Maximum Pipe Length (per indoor)		Metre	20	25	
Maximum Pipe Length (total)		Metre	30	70	
Maximum Pipe Height		Metre	10	10	
Pre Charge length		Meter	30	50	
Pipe Connection Method			Flare	Flare	
Outdoor Operating Temperature	Cool	Degree C	0 to 43	0 to 43	
	Heat	Degree C	-10 to 24	-10 to 24	



## NEW ZEALAND'S FAVOURITE AIR™

Fujitsu General New Zealand Limited  
www.fujitsugeneral.co.nz

Products depicted in this brochure contain high operating pressure R410a refrigerant. It is illegal to vent that refrigerant to the atmosphere. Only persons qualified and experienced in the installation, service and repair of these products are authorised to undertake such work.

Fujitsu General Accredited Installers have shown they have the necessary equipment and have accepted responsibility for their installations and the requirements of any statutes or laws.

Due to ongoing Research and Development specifications and designs are subject to improvement without notice therefore relevant manuals must be consulted before any action is taken to install or service these products.

Heating/Cooling capacities and run current tests are based on the requirements of AS/NZS3283, that standard tests at the temperature below.

COOLING: Indoor Temp: 27°C DB / 19°C WB  
Outdoor Temp: 35°C DB

HEATING: Indoor Temp: 20°C DB  
Outdoor Temp: 7°C DB / 6°C WB

As actual temperature ranges in New Zealand vary considerably only competent people should provide advice as to size and placement of units.

Recommended cable sizes are based in AS/NZS3000 and AS/NZS3008.

Fujitsu General New Zealand Ltd warrants the equipment against any defects in materials and factory workmanship for a period of five years from the date of installation, or for 6 years if installed by an Accredited Installer.

This warranty does not cover defects or failures which are attributable to; incorrect or improper installation; environmental damage; airflow restriction; inadequate electrical supply; getting access to the product.

## EXPLANATION OF TERMS

**Capacity:** the higher the capacity, the more area and faster the heat pump will heat (and cool) the room.  
**COP:** Stands for coefficient of performance or (more simply), the relationship between energy used and heat delivered.  
For example with a heating COP of 4.11 – you will get 4.11kW of heat for every 1kW of energy used.

**Energy Star Rating:** your quick guide to energy efficiency – more stars means more efficient.  
**Indoor Sound** – measured in decibels, this is the sound level of your indoor unit at selected fan speeds. For example 20-30 decibels is less than the sound of a human whisper.

**Heating Range** – with our Kiwi winter, your heat pump needs to be able to supply heat indoors, even when its -15°C outside!

## EXPLANATION OF FEATURES

- Moisture Removal**  
The computer effectively dehumidifies the air.
- Auto Shut Louvers**  
The auto shut louvers close or open auto-matically when the unit stops or starts.
- Sleep Timer**  
The micro-computer gradually changes the room temperature automatically to afford a comfortable night's sleep.
- Connectable Distributing Duct**  
Conditioned air can be distributed by means of a distribution duct.
- Up/Down Swing Flaps**  
The up/down flaps automatically swing to up and down.
- Automatic Air Flow Adjustment**  
The micro-computer automatically adjusts the air flow effectively to follow the changes of room temperature.
- Program Timer**  
This digital timer allows selection of one of four options.  
ON, OFF, ON → OFF, or OFF → ON.
- Connectable Fresh Air Duct**  
Duct connection port hole opening. Fresh air can be introduced through this opening.
- Right/Left Swing Flaps**  
The right/left flaps automatically swing in either direction.
- Auto Restart**  
In the event of a temporary power failure, the air conditioner will automatically restart in the same operating mode as before, once the power supply is restored.
- ON-OFF Timer**  
ON-OFF timer can be set to operate once.
- Washable Panel**
- Double Swing Automatic**  
Complex swing action of flaps enables automatically to swing both horizontal and vertical directions.
- Auto-Changeover**  
The unit automatically switches between heating and cooling modes based on your temperature setting and the room temperature.
- Weekly Timer**  
Different on-off times can be set for each day.
- Long-life Ion deodorization filter**
- Apple-catechin filter**
- Automatic Louvers**  
The position of the louvers is set automatically to match the operating mode. It is also possible to adjust the louvers using the remote control.
- Weekly + Setback Timer**  
Weekly + Setback timer can set temperature for two time spans and for each day of the week.

Cooling Heating



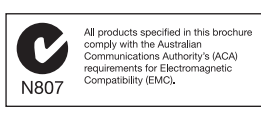
JAS is Accredited by the Joint Accreditation System of Australia and New Zealand, Acc No. S132699A&B



ISO 9002  
Certified number: JQA-2005



ISO 14001  
Certified number: EC98J1137



All products specified in this brochure comply with the Australian Communications Authority's (ACA) requirements for Electromagnetic Compatibility (EMC).



THE GLOBAL MARK OF ENERGY EFFICIENCY



5 Year full parts and labour warranty. 6 years (an extra full year's warranty) when you use a Fujitsu Accredited installer.