

HEAT PUMP
VRF CATALOGUE
 Variable Refrigerant Flow System

Fujitsu General (Thailand) Co., Ltd.



ISO 9001 Certification number: 01 100 075229
 ISO 14001 Certification number: 01 104 9245

Fujitsu General (Shanghai) Co., Ltd.



ISO 9001 Certification number: 01 100 79269
 ISO 14001 Certification number: CNB31246-UK

Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.



ISO 9001 Certification number: 1591702007395M
 ISO 14001 Certification number: 1591812002185M

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FUJITSU GENERAL LIMITED

3-3-17, Suenaga, Takatsu-ku, Kawasaki, Kanagawa, 213-8502, Japan
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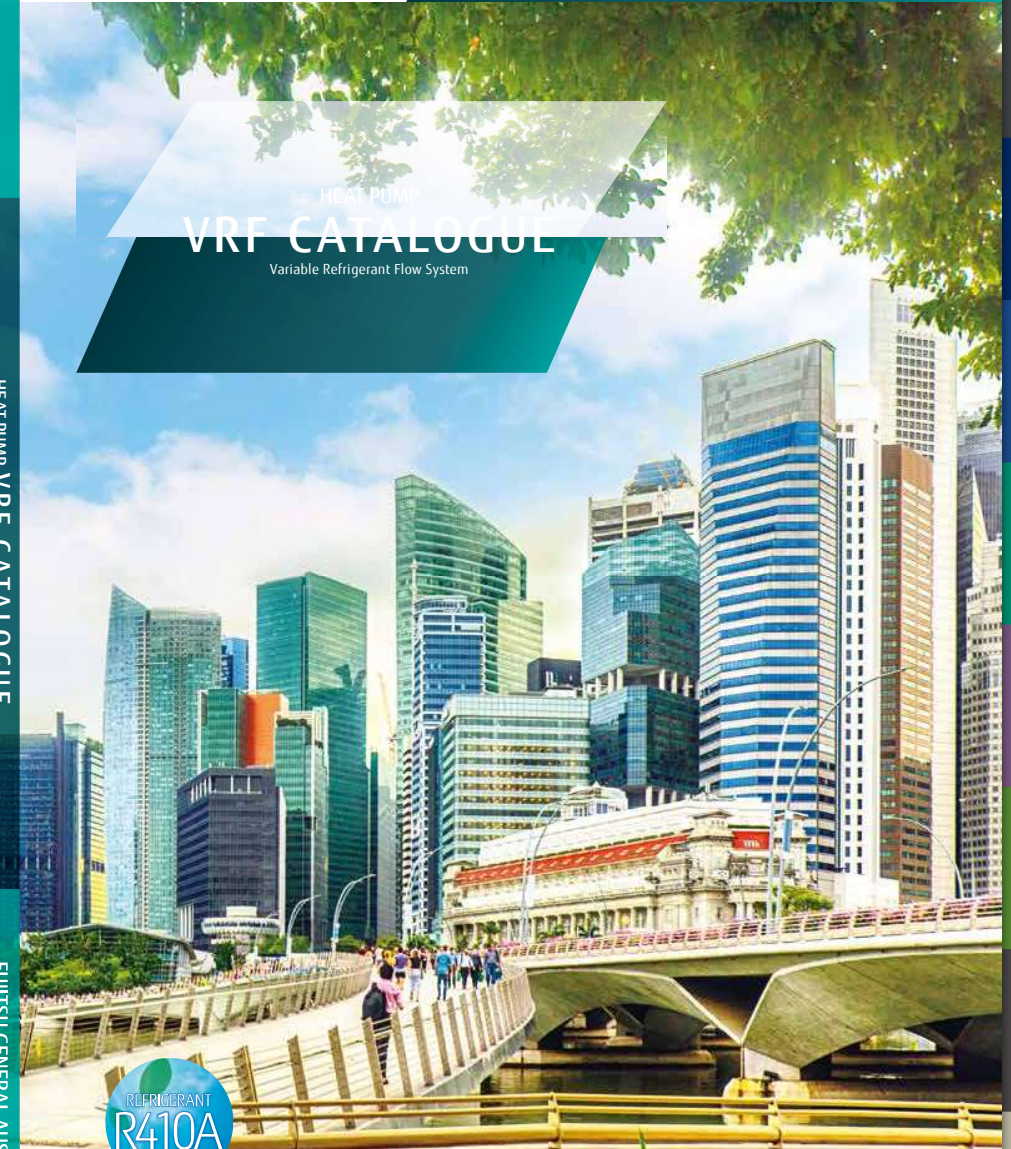
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FUJITSU

HEAT PUMP
VRF CATALOGUE
 Variable Refrigerant Flow System

HEAT PUMP VRF CATALOGUE

FUJITSU GENERAL AUSTRALIA



REFRIGERANT
R410A

INVERTER

FUJITSU GENERAL LIMITED

OUR MESSAGE

SOLUTIONS

CORE TECHNOLOGY

AIRSTAGE™ SERIES

INDOOR UNITS

VENTILATION

CONTROL SYSTEMS

OPTION

SUPPORT

HEAT PUMP TYPE

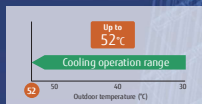
VRF **V-III** Tropical Series 

Fujitsu General tropical VRF is designed for tropical weather. Extensive lineup from 8HP to 54HP in 2HP increment. Connectable indoor unit capacity ratio up to 130%

System Outline

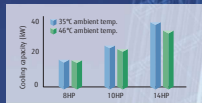
High ambient operation design

Possible to operate cooling up to 52°C outdoor temperature



Powerful cooling capacity design

Keeping high cooling power at even high ambient temperature

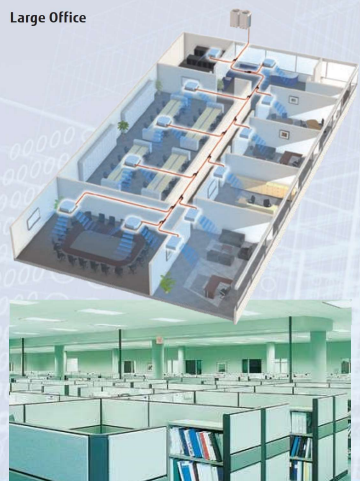


Anti-corrosion treatment design

All metallic and PCB components are protected against corrosion

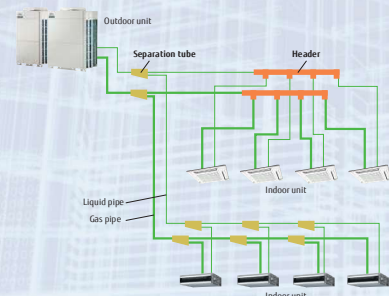


Large Office



System configuration example

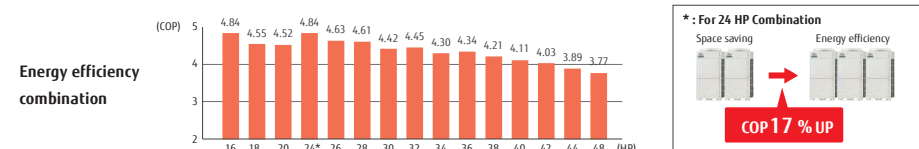
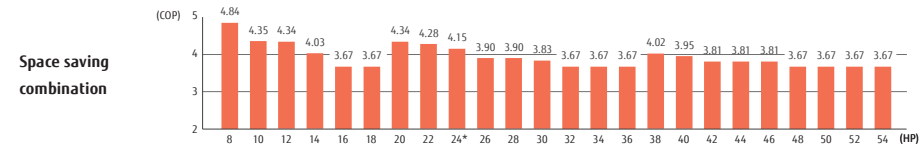
- This system is used for medium-sized and large buildings. Connecting each outdoor unit makes it possible to create a high-capacity system.
- Connection of multiple indoor units using separation tubes and headers.



Features

Efficiency in actual operation

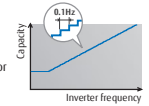
Top class high COP is realized for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and other our own technologies.



Energy saving technology that boosted operation efficiency



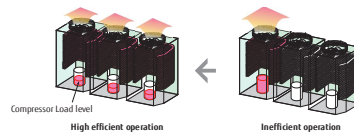
- Powerful large propeller fan**
By using CFD* technology, a newly designed fan achieves high performance and low noise operation. *CFD: Computational Fluid Dynamics
- 3 phase DC fan motor**
Efficiency is substantially improved by high efficient motor with sophisticated driver control. In addition, low noise is realized by DC fan motor.
- Sine-wave DC inverter control**
High efficiency is realized by adoption of reduced switching loss IGM.
- 4-face heat exchanger**
Heat exchange efficiency is significantly improved by the introduction of a new 4-face heat exchanger that increases effective surface area.
- Subcool heat exchanger**
High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construction.
- High efficient & Large capacity ALL DC inverter compressor**
Large capacity high efficient DC twin rotary compressor with 0.1Hz steps compressor speed control
- Front intake port (corner cut air inhaling structure)**



Advanced energy saving control

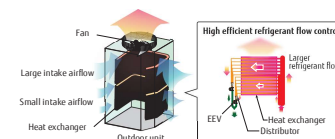
Multiple outdoor operation control

This control method operates all compressors at part load and distributes refrigerant to all heat exchangers to improve the overall system efficiency.



Heat exchanger refrigerant control

The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.



Outdoor units lineup

• Combinations other than the followings are not recommended.

Space saving combinations

22.4kW (8HP) AJY072LNTCH UNIT : AJY072LNTCH	28.0kW (10HP) AJY090LNTCH UNIT : AJY090LNTCH	33.5kW (12HP) AJY108LNTCH UNIT : AJY108LNTCH	40.0kW (14HP) AJY126LNTCH UNIT : AJY126LNTCH	45.0kW (16HP) AJY144LNTCH UNIT : AJY144LNTCH
50.0 kW (18HP) AJY162LNTCH UNIT : AJY162LNTCH	56.0kW (20HP) AJY180LNTCH UNIT : AJY090/090LNTCH	62.4 kW (22HP) AJY198LNTCH UNIT : AJY126/072LNTCH	68.0 kW (24HP) AJY216LNTCH UNIT : AJY126/090LNTCH	73.0 kW (26HP) AJY234LNTCH UNIT : AJY144/090LNTCH
78.0 kW (28HP) AJY252LNTCH UNIT : AJY162/090LNTCH	85.0 kW (30HP) AJY270LNTCH UNIT : AJY144/126LNTCH	90.0 kW (32HP) AJY288LNTCH UNIT : AJY144/144LNTCH	95.0 kW (34HP) AJY306LNTCH UNIT : AJY162/144LNTCH	100.0 kW (36HP) AJY324LNTCH UNIT : AJY144/090LNTCH
106.0 kW (38HP) AJY342LNTCH UNIT : AJY162/090/090LNTCH	113.0 kW (40HP) AJY360LNTCH UNIT : AJY144/126/090LNTCH	118.0 kW (42HP) AJY378LNTCH UNIT : AJY144/144/090LNTCH	123.0 kW (44HP) AJY396LNTCH UNIT : AJY162/144/090LNTCH	128.0 kW (46HP) AJY414LNTCH UNIT : AJY162/162/090LNTCH
135.0 kW (48HP) AJY432LNTCH UNIT : AJY144/144/144LNTCH	140.0 kW (50HP) AJY450LNTCH UNIT : AJY162/144/144LNTCH	145.0 kW (52HP) AJY468LNTCH UNIT : AJY162/162/144LNTCH	150.0 kW (54HP) AJY486LNTCH UNIT : AJY162/162/162LNTCH	

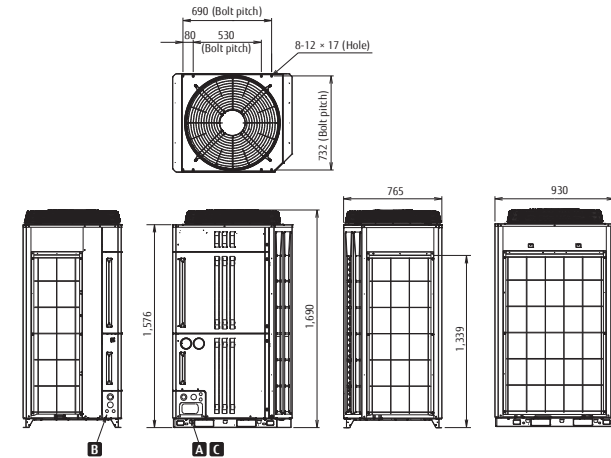
Energy efficiency combinations

44.8 kW (16HP) AJY144LNTCHH UNIT : AJY108/072/072LNTCH	50.4kW (18HP) AJY162LNTCHH UNIT : AJY090/072LNTCH	55.9 kW (20HP) AJY180LNTCHH UNIT : AJY108/072LNTCH	67.2 kW (24HP) AJY216LNTCHH UNIT : AJY072/072/072LNTCH	72.8 kW (26HP) AJY234LNTCHH UNIT : AJY090/072/072LNTCH
78.3 kW (28HP) AJY252LNTCHH UNIT : AJY108/072/072LNTCH	84.8 kW (30HP) AJY270LNTCHH UNIT : AJY126/072/072LNTCH	89.4 kW (32HP) AJY288LNTCHH UNIT : AJY108/108/072LNTCH	95.9 kW (34HP) AJY306LNTCHH UNIT : AJY126/108/072LNTCH	100.5 kW (36HP) AJY324LNTCHH UNIT : AJY108/108/108LNTCH
107.0 kW (38HP) AJY342LNTCHH UNIT : AJY126/108/108LNTCH	113.5 kW (40HP) AJY360LNTCHH UNIT : AJY126/126/108LNTCH	120.0 kW (42HP) AJY378LNTCHH UNIT : AJY126/126/126LNTCH	125.0 kW (44HP) AJY396LNTCHH UNIT : AJY144/126/126LNTCH	130.0 kW (46HP) AJY414LNTCHH UNIT : AJY144/144/126LNTCH

Dimensions

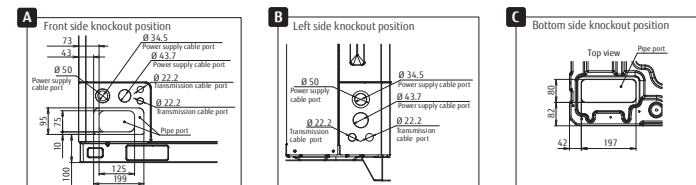
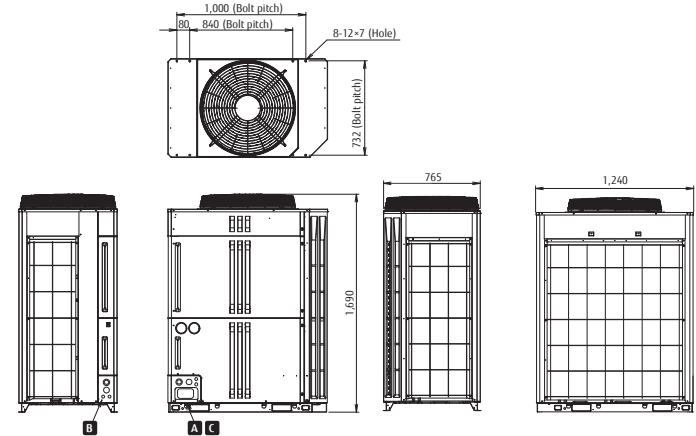
8,10HP : AJY072LNTCH / AJY090LNTCH

(Unit : mm)



12,14,16,18HP : AJY108LNTCH / AJY126LNTCH / AJY144LNTCH / AJY162LNTCH

(Unit : mm)



Outdoor units specifications



Space Saving Combinations

Rating Capacity range		HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	54			
Model name		Unit 1	AYV072LNCH	AYV090LNCH	AYV108LNCH	AYV126LNCH	AYV144LNCH	AYV162LNCH	AYV180LNCH	AYV198LNCH	AYV216LNCH	AYV234LNCH	AYV252LNCH	AYV270LNCH	AYV288LNCH	AYV306LNCH	AYV324LNCH	AYV342LNCH	AYV360LNCH	AYV378LNCH	AYV396LNCH	AYV414LNCH	AYV432LNCH	AYV450LNCH	AYV468LNCH	AYV486LNCH		
Unit 2		Unit 3	AYV072LNCH	AYV090LNCH	AYV108LNCH	AYV126LNCH	AYV144LNCH	AYV162LNCH	AYV180LNCH	AYV198LNCH	AYV216LNCH	AYV234LNCH	AYV252LNCH	AYV270LNCH	AYV288LNCH	AYV306LNCH	AYV324LNCH	AYV342LNCH	AYV360LNCH	AYV378LNCH	AYV396LNCH	AYV414LNCH	AYV432LNCH	AYV450LNCH	AYV468LNCH	AYV486LNCH		
Maximum Connectable Indoor Unit			13	16	19	23	26	29	33	36	40	43	46	50	53	55	55	55	55	55	55	55	55	55	55	55		
Indoor unit connectable capacity		Cooling	kW																									
Power source			3 phase 4 wire, 400V, 50Hz													3 phase 4 wire, 400V, 50Hz												
T1 condition	Capacity	Cooling	kW																									
		Heating	kW																									
		Cooling	Btu/h																									
		Heating	Btu/h																									
		Current	A																									
	Input power	Cooling	kW																									
		Heating	kW																									
		Cooling	W																									
		Heating	W																									
		Current	A																									
T3 condition	Capacity	Cooling	kW																									
		Heating	kW																									
		Cooling	Btu/h																									
		Heating	Btu/h																									
		Current	A																									
Power factor	Cooling	%																										
	Heating	%																										
	Cooling	%																										
	Heating	%																										
	Current	A																										
Air flow rate	High	m³/h																										
	Low	m³/h																										
	Cooling	dB(A)																										
	Heating	dB(A)																										
	Maximum external static pressure	Pa																										
Compressor motor output	Cooling	kW																										
	Heating	kW																										
	Cooling	W																										
	Heating	W																										
	Heat exchanger fin	mm																										
Dimensions	Height	mm																										
	Width	mm																										
	Depth	mm																										
	Weight	kg																										
	Refrigerant	Type (Global Warming Potential)																										
Connection pipe diameter	Liquid	mm																										
	Discharge Gas	mm																										
	Cooling	mm																										
	Heating	mm																										
	Operating range	°C																										

Energy Efficiency Combinations

Rating Capacity range		HP	16	18	20	24	26	28	30	32	34	36	38	40	42	44	46						
Model name		Unit 1	AYV162LNCH	AYV180LNCH	AYV198LNCH	AYV216LNCH	AYV234LNCH	AYV252LNCH	AYV270LNCH	AYV288LNCH	AYV306LNCH	AYV324LNCH	AYV342LNCH	AYV360LNCH	AYV378LNCH	AYV396LNCH	AYV414LNCH	AYV432LNCH					
Unit 2		Unit 3	AYV162LNCH	AYV180LNCH	AYV198LNCH	AYV216LNCH	AYV234LNCH	AYV252LNCH	AYV270LNCH	AYV288LNCH	AYV306LNCH	AYV324LNCH	AYV342LNCH	AYV360LNCH	AYV378LNCH	AYV396LNCH	AYV414LNCH	AYV432LNCH					
Maximum Connectable Indoor Unit			26	29	33	39	43	46	50	52	55	55	55	55	55	55	55						
Indoor unit connectable capacity		Cooling	kW															60.0-156.0		62.5-162.5		65.0-169	
Power source			3 phase 4 wire, 400V, 50Hz													3 phase 4 wire, 400V, 50Hz							
T1 condition	Capacity	Cooling	kW																	kW			
		Heating	kW																	kW			
		Cooling	Btu/h																	Btu/h			
		Heating	Btu/h																	Btu/h			
		Current	A																	A			
	Input power	Cooling	kW																	kW			
		Heating	kW																	kW			
		Cooling	W																	W			
		Heating	W																	W			
		Current	A																	A			
T3 condition	Capacity	Cooling	kW																	kW			
		Heating	kW																	kW			
		Cooling	Btu/h																	Btu/h			
		Heating	Btu/h																	Btu/h			
		Current	A																	A			
Power factor	Cooling	%																	%				
	Heating	%																	%				
	Cooling	%																	%				
	Heating	%																	%				
	Current	A																	A				
Air flow rate	High	m³/h																	m³/h				
	Low	m³/h																	m³/h				
	Cooling	dB(A)																	dB(A)				
	Heating	dB(A)																	dB(A)				
	Maximum external static pressure	Pa																	Pa				
Compressor motor output	Cooling	kW																	kW				
	Heating	kW																	kW				
	Cooling	W																	W				
	Heating	W																	W				
	Heat exchanger fin	mm																	mm				
Dimensions	Height	mm																	mm				
	Width	mm																	mm				
	Depth	mm																	mm				
	Weight	kg																	kg				
	Refrigerant	Type (Global Warming Potential)																	Type (Global Warming Potential)				
Connection pipe diameter	Liquid	mm																	mm				
	Discharge Gas	mm																	mm				
	Cooling	mm																	mm				
	Heating	mm																	mm				
	Operating range	°C																	°C				

Note: Specifications are based on the following conditions.
 Cooling (T1): Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB
 Heating (T1): Indoor temperature of 23°CDB / 19°CWB, and outdoor temperature of 46°CDB / 24°CWB
 Heating (T3): Indoor temperature of 20°CDB / 15°CWB, and outdoor temperature of 7°CDB / 6°CWB
 Pipe length: 7.5 m. Height difference between outdoor and indoor unit: 0 m.