



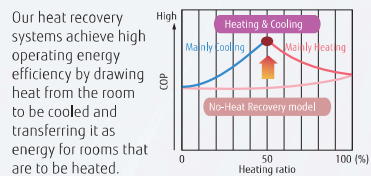
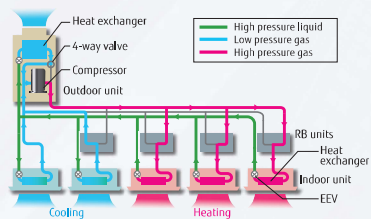
Heat Recovery

Modular type

VRF VR-IV

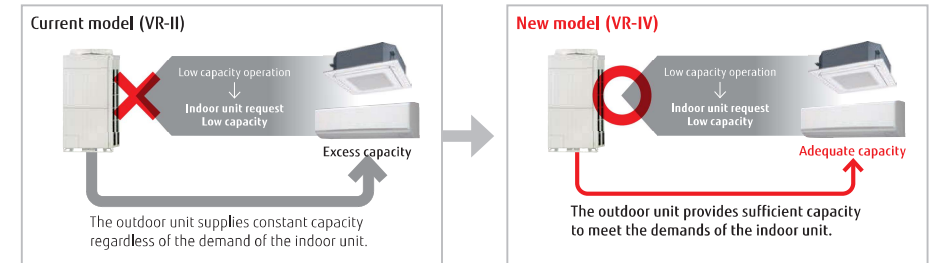
Highly energy-efficient operation

Our heat recovery systems achieve high operating energy efficiency by drawing heat from the room to be cooled and transferring it as energy for rooms that are to be heated.



New intelligent refrigerant control

Fujitsu General is proposing outdoor units equipped with refrigerant control function. The refrigerant control operates with suitable control corresponding to the heat load of the room and offers a more comfortable environment. The refrigerant control can also provide increased energy savings.



* The improvements due to the control and the actual sine wave vary depending on the combination of the indoor unit and system operating conditions.

Increase in the number of connectable indoor units

Capacity range of connectable indoor units

New model (VR-IV)	25%* to 150%
Current model (VR-II)	50% to 150%

*: For modular type, 25% to 49.9% operation in the entire system is available. (by one unit operation)

Increased number of connectable indoor units and space saving combinations

HP	10	12	14	16	...	28	30	32	...	48	
New model (VR-IV)	21	26	30	34	...	60	64	64	...	64	
Current model (VR-II)	15	16	17	21	24	...	42	45	48	...	64

The energy-saving technology that boosted operation efficiency

- Powerful large propeller fan**
The fan uses CFD* technology to achieve both high performance and low noise operation.
*CFD: Computational Fluid Dynamics
- 3-phase DC fan motor**
The use of a DC fan motor with sophisticated driver control improves energy efficiency substantially. In addition, this motor operates quietly.
- Subcooling heat exchanger**
High heat exchange efficiency is achieved by using an internal projection-shape double-pipe construction.
- High-efficient, large-capacity DC twin-rotary compressor**
Large-capacity high-efficient DC twin-rotary compressor with excellent intermediate capability.
- Sine-wave DC inverter control**
High-efficiency is realized by the adoption of reduced switching loss IPM.
- 4-face heat exchanger**
The 4-face heat exchanger increases the effective surface area and significantly improves heat-exchanging efficiency.
- Front intake port (Corner cut air inlet structure)**
In multiple outdoor unit installations, the unique front intake design improves airflow into the heat exchanger.

Extended connection ratio (applicable to multiple tenants)

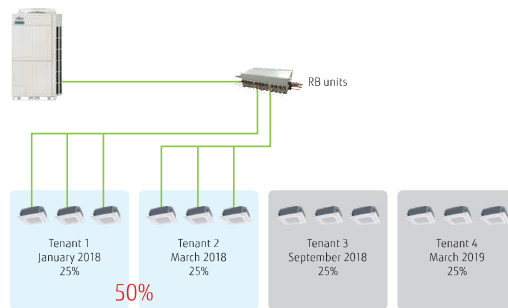
Especially useful when starting partial air conditioning in a building under construction. Installation can be added flexibly for each tenant.



Stand-alone

Current model (VR-II)

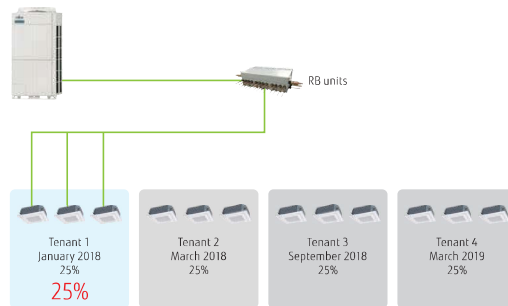
Example 50% of 12HP minimum connected indoor unit capacity is required



Installation is possible even for tenants who have not yet started operations.

New model (VR-IV)

Example 25% of 12HP minimum connected indoor unit capacity is required

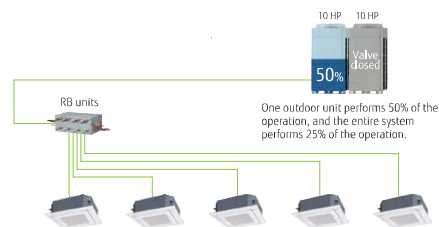


Installation and commissioning can be added flexibly to meet the opening dates of other tenants.

Modular type

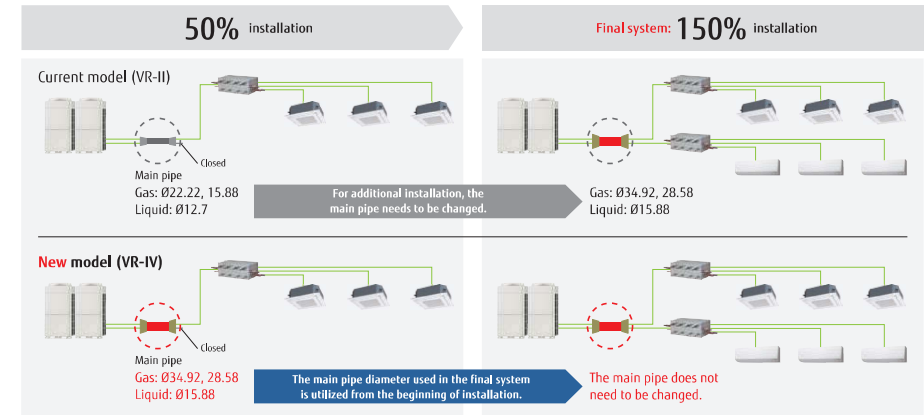
One outdoor unit operates effectively for the capacities of connectable indoor units in the entire system. (Each of the multiple outdoor units does not dare to operate at 25% capacity: any one of the outdoor units will operate at 50% and the remaining units will each output 0%, i.e., stop operating.)

Example: One 10HP outdoor unit performs 25% of the total 20HP outdoor units system.
One 10HP outdoor unit performs 50% of its capacity
→ Two outdoor units do not perform 25% of the operation.



Additional installation is possible without changing the main pipe.

A main pipe of a diameter that can be used for the final system is installed at the beginning of the installation. Duplication of the work will be avoided as there is no need to change the main pipe as in the previous model.



All-inverter compressor

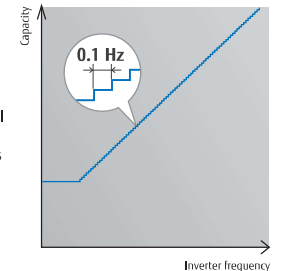
Large-capacity DC inverter compressor

Large-capacity high-efficient DC twin-rotary compressor with excellent intermediate capability.



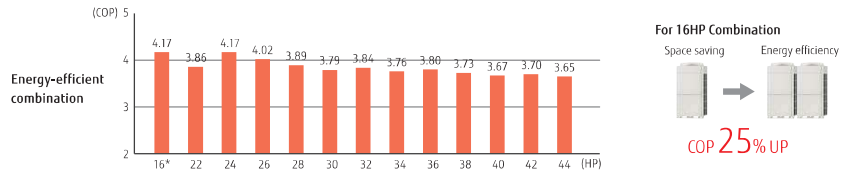
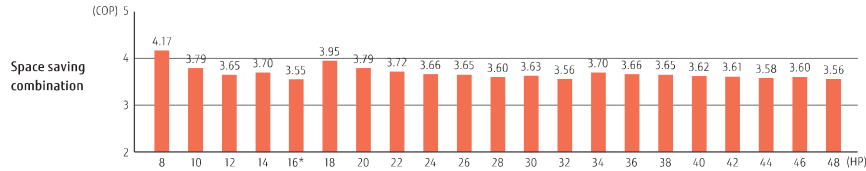
High-efficiency compressor speed control

The compressor speed control in 0.1 Hz increments ensures a comfortable space with less change in room temperature and less energy loss.

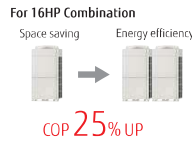


Efficiency in actual operating conditions

Class-leading high COP (Maximum) The use of our proprietary heat exchanger structure and high-efficiency DC twin-rotary compressors achieves the class-leading coefficient of performance (COP) in every combination.

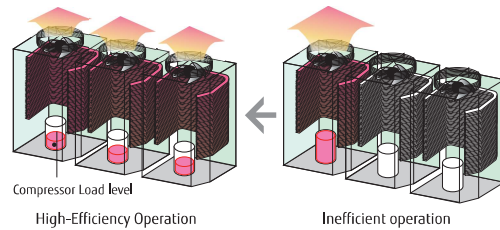


* These specifications are determined by Cassette combination.
 ** Multiple outdoor units are not certified by Eurovent.



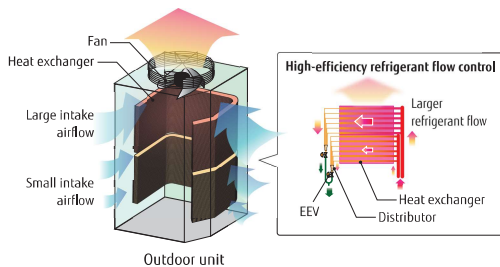
Multiple outdoor operation control

When multiple outdoor units are connected, each compressor carries out sophisticated operation. Instead of operating one compressor at full load to distribute the refrigerant to one heat exchanger, all compressors operate at partial load to distribute the refrigerant to all heat exchangers, thereby improving the efficiency of the entire system.



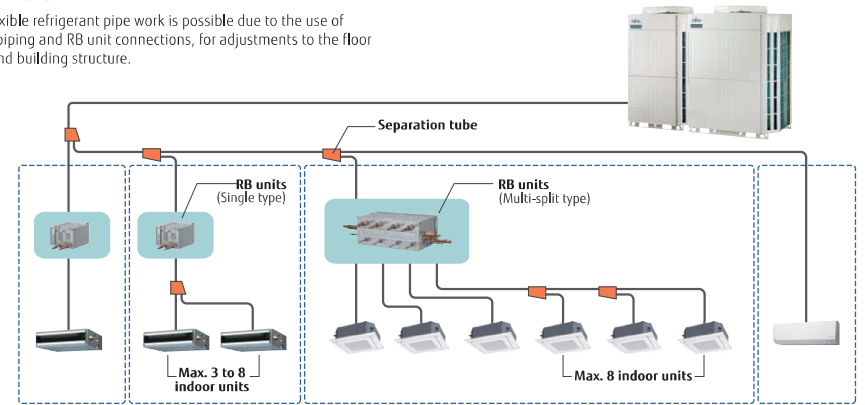
Heat exchanger refrigerant control

The heat exchanger in the outdoor unit is divided into two parts, upper and lower. The efficiency of the heat exchanger has been improved by adopting an optimum refrigerant path control where the refrigerant is distributed more into the top heat exchanger as this is where there is a greater air flow intake.



Flexible pipe connection

More flexible refrigerant pipe work is possible due to the use of various piping and RB unit connections, for adjustments to the floor layout and building structure.



	Single connection	Group connection	Single connection & Group connection	RB unit less connection*2
Application	Individual cooling and heating	Simultaneous cooling and heating	Individual cooling and heating	Simultaneous cooling and heating

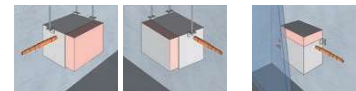
* An RB unit can be placed between the first branch and an indoor unit.
 * The maximum height difference between RB units is 15 m. No RB Unit is required for cooling only use.

Flexible installation of RB unit

Small and slim design with a height of 198 mm makes it easy to install in tight spaces with height constraints.

- A drain pipe is not required.
- Different positions of a control box can be chosen to accommodate installation conditions.
- Series connection for simplified installation

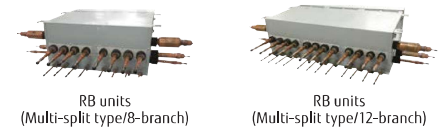
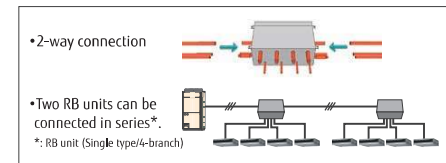
*: RB unit (single type)



An RB unit can be installed on either side of the control box.

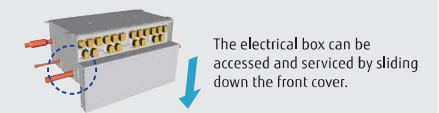
An RB unit can be installed on top of the control box to save space.

*: RB unit (single type)

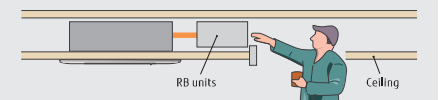


Easy maintenance in tight spaces

Maintenance can be performed from the side.














Parts can be accessed and replaced easily even in tight spaces inside the ceiling.



8,10,12HP : AJY072GALDH / AJY090GALDH / AJY108GALDH
 14,16HP : AJY126GALDH / AJY144GALDH

Outdoor units lineup • Combinations other than those listed below are not recommended.

Space saving combination

22.4kW (8HP)  AJY072GALDH UNIT : AJY072GALDH	28.0kW (10HP)  AJY090GALDH UNIT : AJY090GALDH	33.5kW (12HP)  AJY108GALDH UNIT : AJY108GALDH	40.0kW (14HP)  AJY126GALDH UNIT : AJY126GALDH	45.0kW (16HP)  AJY144GALDH UNIT : AJY144GALDH
50.4kW (18HP)  AJY162GALDH UNIT : AJY090/072GALDH	56.0kW (20HP)  AJY180GALDH UNIT : AJY090/090GALDH	61.5kW (22HP)  AJY198GALDH UNIT : AJY108/090GALDH	67.0kW (24HP)  AJY216GALDH UNIT : AJY108/108GALDH	73.0kW (26HP)  AJY234GALDH UNIT : AJY144/090GALDH
78.5kW (28HP)  AJY252GALDH UNIT : AJY144/108GALDH	85.0kW (30HP)  AJY270GALDH UNIT : AJY144/126GALDH	90.0kW (32HP)  AJY288GALDH UNIT : AJY144/144GALDH	95.0kW (34HP)  AJY306GALDH UNIT : AJY108/108/090GALDH	100.5kW (36HP)  AJY324GALDH UNIT : AJY108/108/108GALDH
106.5kW (38HP)  AJY342GALDH UNIT : AJY144/108/090GALDH	112.0kW (40HP)  AJY360GALDH UNIT : AJY144/108/108GALDH	118.0kW (42HP)  AJY378GALDH UNIT : AJY144/144/090GALDH	123.5kW (44HP)  AJY396GALDH UNIT : AJY144/144/108GALDH	130.0kW (46HP)  AJY414GALDH UNIT : AJY144/144/126GALDH
135.0kW (48HP)  AJY432GALDH UNIT : AJY144/144/144GALDH				

Energy efficiency combination

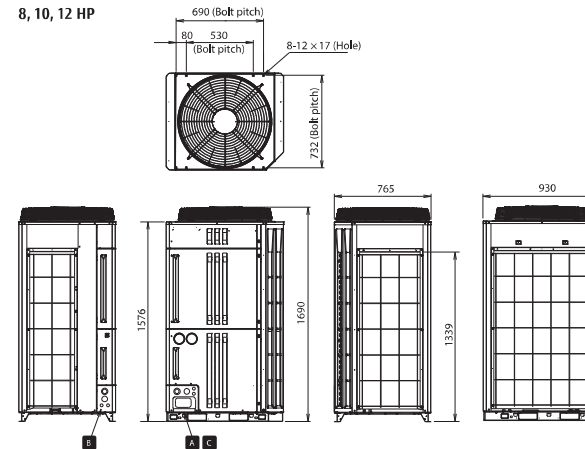
44.8kW (16HP)  AJY144GALDHH UNIT : AJY072/072GALDH	62.4kW (22HP)  AJY198GALDHH UNIT : AJY126/072GALDH	67.2kW (24HP)  AJY216GALDHH UNIT : AJY072/072/072GALDH	72.8kW (26HP)  AJY234GALDHH UNIT : AJY090/072/072GALDH	78.4kW (28HP)  AJY252GALDHH UNIT : AJY090/090/072GALDH
84.0kW (30HP)  AJY270GALDHH UNIT : AJY090/090/090GALDH	90.4kW (32HP)  AJY288GALDHH UNIT : AJY126/090/072GALDH	96.0kW (34HP)  AJY306GALDHH UNIT : AJY126/090/090GALDH	102.4kW (36HP)  AJY324GALDHH UNIT : AJY126/126/072GALDH	108.0kW (38HP)  AJY342GALDHH UNIT : AJY126/126/090GALDH
113.0kW (40HP)  AJY360GALDHH UNIT : AJY144/126/090GALDH	120.0kW (42HP)  AJY378GALDHH UNIT : AJY126/126/126GALDH	125.0kW (44HP)  AJY396GALDHH UNIT : AJY144/126/126GALDH		



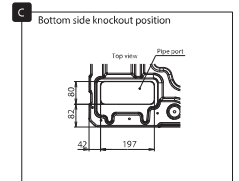
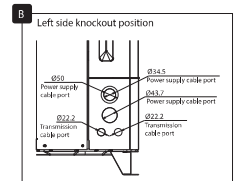
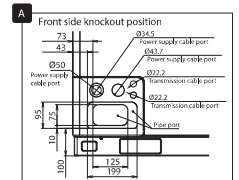
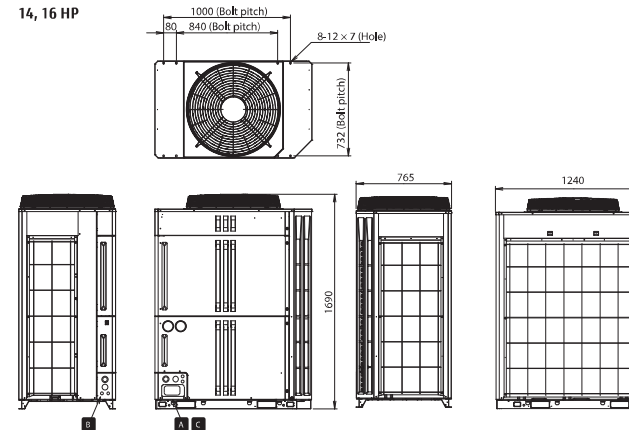
Dimensions

(Unit: mm)

8, 10, 12 HP



14, 16 HP



Outdoor unit specifications

Space saving combination

Rated capacity range		HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	
Model name			AYJ072GALDH	AYJ090GALDH	AYJ108GALDH	AYJ126GALDH	AYJ144GALDH	AYJ162GALDH	AYJ180GALDH	AYJ198GALDH	AYJ216GALDH	AYJ234GALDH	AYJ252GALDH	AYJ270GALDH	AYJ288GALDH	AYJ306GALDH	AYJ324GALDH	AYJ342GALDH	AYJ360GALDH	AYJ378GALDH	AYJ396GALDH	AYJ414GALDH	AYJ432GALDH	
Unit 1 Unit 2 Unit 3			AYJ072GALDH	AYJ090GALDH	AYJ108GALDH	AYJ126GALDH	AYJ144GALDH	AYJ162GALDH	AYJ180GALDH	AYJ198GALDH	AYJ216GALDH	AYJ234GALDH	AYJ252GALDH	AYJ270GALDH	AYJ288GALDH	AYJ306GALDH	AYJ324GALDH	AYJ342GALDH	AYJ360GALDH	AYJ378GALDH	AYJ396GALDH	AYJ414GALDH	AYJ432GALDH	
Maximum connectable indoor units*			17	21	26	30	34	39	43	47	52	56	60	64	64	64	64	64	64	64	64	64	64	64
Connectable capacity range of indoor units		kW	5.6-33.6	7.0-42.0	8.4-50.2	10.0-60.0	11.3-67.5	12.6-75.6 ³	14.0-84.0 ³	15.4-92.2 ³	16.8-100.5 ³	18.3-109.5 ³	19.7-117.7 ³	21.3-127.5 ³	22.5-135.0 ³	23.8-142.5 ³	25.2-150.7 ³	26.7-159.7 ³	28.0-168.0 ³	29.5-177.0 ³	30.9-185.2 ³	32.5-195.0 ³	33.8-202.5 ³	
Power source			3-phase, 4-wire, 400 V, 50Hz										3-phase, 4-wire, 400 V, 50Hz											
Capacity	Cooling	kW	22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.0	73.0	78.5	85.0	90.0	95.0	100.5	106.5	112.0	118.0	123.5	130.0	135.0	
			22.4	28.0	33.5	40.0	42.0	50.4	56.0	61.5	67.0	70.0	70.0	75.5	82.0	84.0	90.0	100.5	103.5	109.0	112.0	117.5	126.0	126.0
			25.0	31.5	37.5	45.0	48.0	56.5	63.0	69.0	75.0	79.5	85.5	93.0	96.0	106.5	112.5	117.0	123.0	127.5	133.5	141.0	144.0	
Input power	Cooling	kW	6.26	9.53	11.89	13.16	16.71	15.79	19.06	21.42	23.78	26.24	28.60	29.87	33.42	33.31	35.67	38.13	40.49	42.95	45.31	46.58	50.13	
			5.37	7.38	9.16	10.80	11.81	12.75	14.76	16.54	18.32	19.19	20.97	22.61	23.62	25.70	27.48	28.35	30.13	31.00	32.78	34.42	35.43	
			6.25	8.96	11.48	13.95	14.98	15.21	17.92	20.44	22.96	23.96	26.46	28.93	29.96	31.92	34.44	35.42	37.94	38.92	41.44	43.91	44.94	
EER	Cooling	WW	3.57	2.93	2.81	3.03	2.69	3.19	2.94	2.87	2.82	2.78	2.74	2.85	2.69	2.85	2.82	2.79	2.77	2.75	2.73	2.70	2.69	
			4.17	3.79	3.65	3.70	3.55	3.39	3.79	3.72	3.66	3.65	3.60	3.63	3.56	3.70	3.66	3.65	3.62	3.61	3.58	3.50	3.56	
			4.00	3.51	3.26	3.22	3.20	3.21	3.52	3.38	3.37	3.32	3.23	3.21	3.20	3.34	3.27	3.30	3.24	3.28	3.22	3.21	3.20	
SEER	Cooling	kW	7.16	6.61	6.73	6.76	6.27	6.89	6.61	6.67	6.73	6.44	6.50	6.52	6.27	6.69	6.73	6.54	6.58	6.38	6.42	6.43	6.27	
			3.78	3.76	3.86	4.31	4.41	3.77	3.76	3.81	3.86	4.09	4.14	4.36	4.41	3.83	3.86	4.01	4.04	4.19	4.23	4.38	4.41	
			283.0	261.0	266.0	267.0	248.0	272.0	261.0	263.5	266.0	254.5	257.0	257.5	248.0	264.3	266.0	258.3	260.0	252.3	254.0	254.3	254.3	248.0
Air flow rate	Cooling	m ³ /h	148.0	147.0	151.0	169.0	173.0	147.5	147.0	149.0	151.0	160.0	162.0	167.0	171.0	173.0	149.7	151.0	157.0	157.0	163.0	165.7	171.7	
			11.100	11.100	11.100	13.000	13.000	11.100-2	11.100-2	11.100-2	11.100-2	11.100-2	13.000-11.100	13.000-11.100	13.000-2	11.100-2	11.100-3	11.100-3	13.000-11.100-2	13.000-11.100-2	13.000-2+11.100	13.000-2+11.100	13.000-3	13.000-3
			56/77	58/78	59/79	60/82	61/82	61/81	61/81	62/82	62/82	64/84	63/83	63/84	64/85	64/85	63/83	64/84	64/85	65/86	65/86	65/86	65/87	66/87
Power level	Cooling	dB(A)	58/79	59/79	63/82	62/83	63/83	63/83	62/82	62/82	64/84	64/84	66/86	66/86	66/86	67/86	67/86	68/87	68/87	67/87	67/87	68/87	68/88	
			80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
			7.5	7.5	7.5	11.0	11.0	7.5 + 2	7.5 + 2	7.5 + 2	7.5 + 2	7.5 + 2	11.0 + 7.5	11.0 + 7.5	11.0 + 2	11.0 + 2	7.5 + 3	7.5 + 3	11.0 + 7.5 + 2	11.0 + 7.5 + 2	11.0 + 2 + 7.5	11.0 + 2 + 7.5	11.0 + 3	11.0 + 3
Net Dimensions	Height	mm	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	
			930	930	930	1240	1240	930 + 2	930 + 2	930 + 2	930 + 2	930 + 2	1240 + 930	1240 + 930	1240 + 2	1240 + 2	930 + 3	930 + 3	1240 + 930 + 2	1240 + 930 + 2	1240 + 2 + 930	1240 + 2 + 930	1240 + 3	1240 + 3
			765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight	kg	262	262	262	286	286	262 + 2	262 + 2	262 + 2	262 + 2	286 + 262	286 + 262	286 + 2	286 + 2	262 + 3	262 + 3	286 + 262 + 2	286 + 262 + 2	286 + 2 + 262	286 + 2 + 262	286 + 3	286 + 3		
		R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	R410A (2.088)	
		11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.8 (24.6)	11.8 + 2 (24.6 + 2)	11.8 + 2 (24.6 + 2)	11.8 + 2 (24.6 + 2)	11.8 + 2 (24.6 + 2)	11.8 + 2 (24.6 + 2)	11.8 + 2 (24.6 + 2)	11.8 + 2 (24.6 + 2)	11.8 + 2 (24.6 + 2)	11.8 + 3 (24.6 + 3)	11.8 + 3 (24.6 + 3)	11.8 + 3 (24.6 + 3)	11.8 + 3 (24.6 + 3)	11.8 + 3 (24.6 + 3)	11.8 + 3 (24.6 + 3)	11.8 + 3 (24.6 + 3)	11.8 + 3 (24.6 + 3)	
Connection pipe diameter	Liquid	mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	
			15.88	19.05	19.05	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22
			22.22	22.22	28.58	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	
Operating Range	Cooling	°CDB	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46		
			-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	
			-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	

Energy Efficiency Combination

Rated capacity range		HP	16	22	24	26	28	30	32	34	36	38	40	42	44	
Model name			AYJ144GALDHH	AYJ198GALDHH	AYJ216GALDHH	AYJ234GALDHH	AYJ252GALDHH	AYJ270GALDHH	AYJ288GALDHH	AYJ306GALDHH	AYJ324GALDHH	AYJ342GALDHH	AYJ360GALDHH	AYJ378GALDHH	AYJ396GALDHH	
Unit 1 Unit 2 Unit 3			AYJ072GALDH AYJ072GALDH	AYJ126GALDH AYJ072GALDH	AYJ090GALDH AYJ072GALDH	AYJ126GALDH AYJ072GALDH	AYJ090GALDH AYJ072GALDH	AYJ126GALDH AYJ090GALDH	AYJ126GALDH AYJ090GALDH	AYJ126GALDH AYJ090GALDH	AYJ126GALDH AYJ090GALDH	AYJ126GALDH AYJ090GALDH	AYJ126GALDH AYJ090GALDH	AYJ144GALDH AYJ126GALDH	AYJ144GALDH AYJ126GALDH	
Maximum connectable indoor units*			34	47	52	56	60	64	64	64	64	64	64	64		
Connectable capacity range of indoor units		kW	11.2-67.2 ³	15.6-93.6 ³	16.8-109.9 ³	18.2-109.2 ³	19.6-117.6 ³	21.0-126.0 ³	22.6-135.6 ³	24.0-144.0 ³	25.6-153.6 ³	27.0-162.0 ³	28.3-169.5 ³	30.0-180.0 ³	31.3-187.5 ³	
Power source			3-phase, 4-wire, 400 V, 50Hz							3-phase, 4-wire, 400 V, 50Hz						
Capacity	Cooling	kW	44.8	62.4	67.2	72.8	78.4	84.0	84.0	90.4	96.0	102.4	108.0	113.0	120.0	
			44.8	62.4	67.2	72.8	78.4	84.0	84.0	84.0	90.4	96.0	102.4	108.0	110.0	120.0
			50.0	70.0	75.0	81.5	88.0	94.5	101.5	108.0	115.0	121.5	124.5	135.0	138.0	144.0
Input power	Cooling	kW	12.52	19.42	18.78	22.05	28.95	25.32	28.59	27.58	32.58	35.85	39.40	39.48	43.03	
			10.24	16.17	16.11	18.12	20.13	22.14	23.55	25.56	26.97	28.98	29.99	32.40	33.41	
			12.50	20.20	18.75	21.44	24.17	26.88	29.16	31.87	34.15	36.86	37.89	41.85	42.88	
EER	Cooling	WW	3.58	3.21	3.58	3.30	3.10	2.94	3.14	3.12	2.98	3.14	3.01	2.87	3.04	
			4.17	3.86	4.17	4.02	3.89	3.79	3.84	3.76	3.80	3.73	3.52	3.70	3.65	
			4.00	3.47	4.00	3.80	3.54	3.52	3.48	3.39	3.37	3.39	3.29	3.23	3.22	
SEER	Cooling	kW	7.16	6.96	7.16	6.98	6.79	6.61	6.64	6.66	6.69	6.71	6.55	6.76	6.60	
			3.78	4.05	3.78	3.77	3.95	3.77	3.94	3.76	4.13	4.13	4.16	4.31	4.34	
			283.0	275.0	283.0	275.7	268.3	261.0	270.3	263.0	272.3	265.0	258.7	267.0	260.7	
Air flow rate	Cooling	m ³ /h	148.0	158.5	148.0	147.7	154.7	147.0	162.0	154.7	154.3	161.7	163.0	169.0	170.3	
			11.100-2	13.000+11.100	11.100-3	11.100-3	11.100-3	11.100-3	13.000+11.100-2	13.000+11.100-2	13.000-2+11.100	13.000-2+11				