

**PRESS RELEASE**

(Air conditioning system for overseas)

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FUJITSU GENERAL LIMITED

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**Strengthening air conditioner product lineup for Europe including "AIRSTAGE" J-IIIIL series, multi air conditioning system for stores and offices realizing the industry's smallest\*<sup>1</sup> outdoor unit and top class low sound operation.**

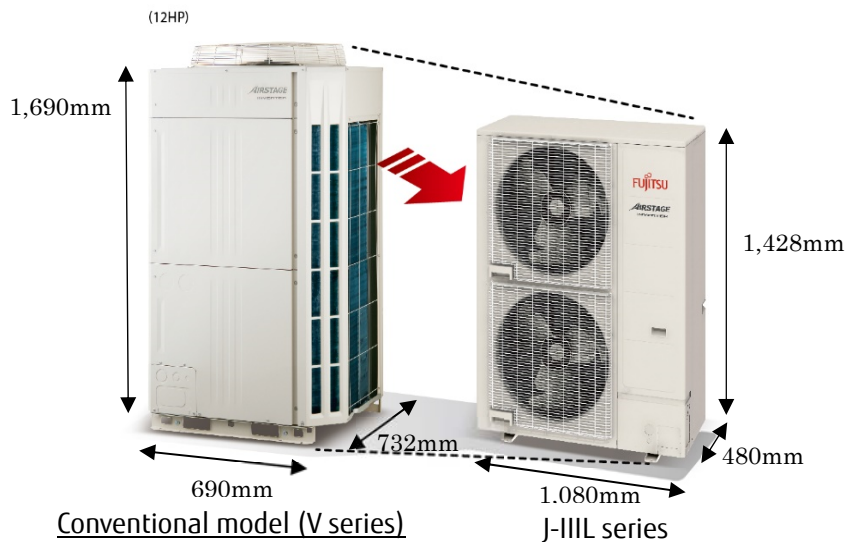
Our company strengthened the product lineup of commercial use air conditioners including multi air conditioning system "AIRSTAGE" J-IIIIL series realizing the industry's smallest outdoor unit (1,428mm H x 1,080mm W x 480mm D) for expanding the business of air conditioners for small scale stores and offices in Europe.

For small stores and offices in Europe, there are many places where installation of facility equipment is restricted to preserve the landscape, and it is required to install outdoor units utilizing narrow space such as gaps or balcony of buildings. In the "AIRSTAGE" J-IIIIL series, the cabinet structure of outdoor unit was reviewed and the industry's smallest compact indoor unit was realized. Also, the top class low sound operation was realized by reviewing the fan shape of outdoor unit and the amount of refrigerant used was reduced by optimizing the structure of heat exchanger.

In addition, the multi air conditioning system (8/10 HP) with outdoor unit of the same size as J-IIIIL operating 4 indoor units simultaneously and the large size duct single air conditioners (8/10 HP) in which indoor units can be carried in a divided manner were added to the lineup to respond to various needs according to the usage form of building.

\*<sup>1</sup> In the multi air conditioning system of 12 HP class for stores and offices. As of October 30, 2017. (According to our company's survey)

\* "AIRSTAGE" is the registered trademark of Fujitsu General Limited.



Industry's smallest outdoor unit (The form is common for "AIRSTAGE" J-IIIIL series, multi air conditioning system with 4 indoor units simultaneous operation and large size duct single air conditioner)

### **1.Main features of "AIRSTAGE" J-III L series**

The new product "AIRSTAGE" J-III L series is designed to make it easier to install outdoor unit in the balcony with smaller size (262mm in height and 252mm in depth) compared with conventional V series.

Furthermore, we achieved low sound of 66dB and reduction of refrigerant consumption by 18%.

#### **1) Realized the industry's smallest\*1 compact outdoor unit in 12 HP class**

We realized the industry's smallest\*1 compact outdoor unit in 12 HP class by changing the heat exhaust port of outdoor unit from vertical blow type to side blow 2 fan type and adopting our original high density heat exchanger. As a result, in the place like small stores and offices, the choice of installation layout was widened and the flexibility of facility design was improved.

#### **2) Industry's top class low sound operation of 66dB**

Industry's top class low sound operation of 66dB was realized by adopting a large capacity scroll compressor as well as using our original wing shape for outdoor unit fan and increasing its size to  $\phi 570\text{mm}$ .

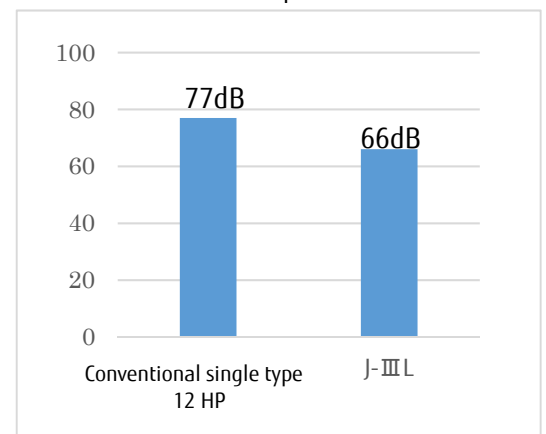
Outdoor unit fan of wing shape



Scroll compressor



Low sound operation



#### **3) Refrigerant saving**

The reduction of refrigerant by about 18% was realized by reviewing the structure of heat exchanger of outdoor unit in order to comply with the European Safety Standard EN-378\*.

\*EN-378 Standard: European Safety Standard to provide safety requirements related to the design, structure and handling over the entire refrigeration system and ensure the conformity to various directives in EU.

#### **4) Lineup of 1.1kW indoor units with optimized heat exchanger size**

We made a lineup of indoor units optimizing the heat exchanger size of each type of wall mounted, floor, duct and ceiling, and in case of 12HP, improved the flexibility of design according to the usage form for small and middle size offices by making it possible to connect up to 30 indoor units of 1.1kW with one outdoor unit.



New indoor unit for 1.1kW ① Ceiling ② Floor ③ Wall mounted ④ Duct

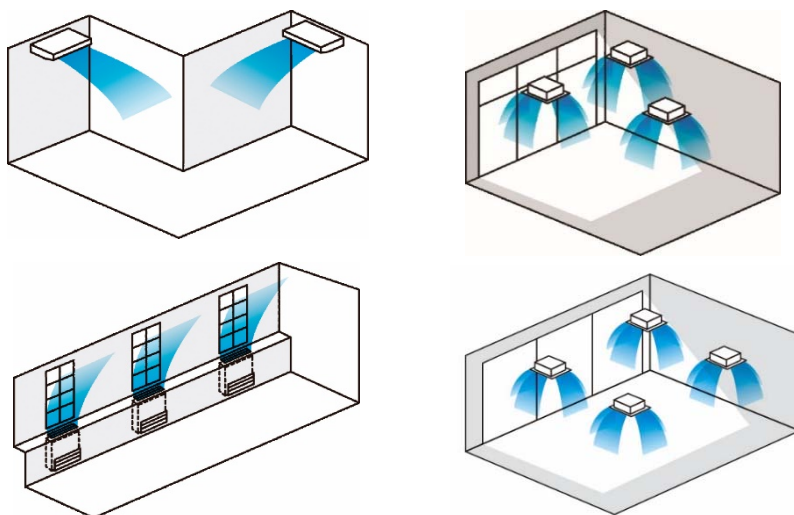
**2.Multi air conditioning system enabling to operate up to 4 indoor units simultaneously**

We developed a multi air conditioning system with 8HP to 10HP enabling air conditioning and heating at the same time throughout the building. It responds to the requests such as the replace of existing properties and the properties which cannot be ducted. As an example, when changing the store divided into plural rooms to one warehouse without partition, it is possible to control air conditioning of the whole warehouse evenly by introducing a simultaneous operation multi air conditioner.

The outdoor unit which is same size as J-III series can be installed in a narrow space such as gaps or balcony of buildings and place where installation of facility equipment is restricted to preserve the landscape. As to indoor units, there are ceiling hanging, ceiling cassette, floor and wall mounted types and up to 4 units can be connected.

In addition, by making a crossover wiring of indoor units, one remote controller can control simultaneous operation of up to 16 units (4 systems in 4 units).

Thus, the flexibility of the installation according to the usage form of buildings from small stores and offices to middle size warehouses and factories was improved.



Installation example of 2 to 4 indoor units

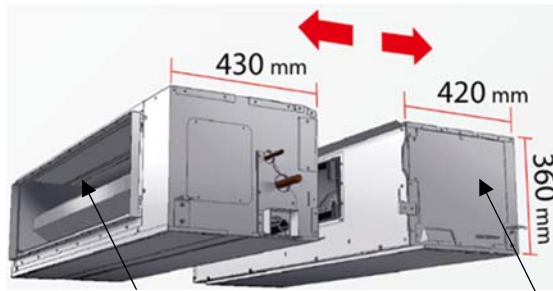


Outdoor unit: AOYG72/90LRLA

### **3.Large size duct single indoor unit that can be delivered in a divided manner**

As the main body of the indoor unit can be divided into air blowing part and heat exchanger part, it is possible to carry in the main body from the ceiling panel of 550mm x 750mm size which is common in Europe so that the ceiling construction for carrying in a large size indoor unit becomes unnecessary.

The outdoor unit which is same size as J-III series can be installed in a narrow space such as gaps or balcony of buildings and place where installation of facility equipment is restricted to preserve the landscape.



Air blowing part

Heat exchanger part



By dividing, it has become easy to carry in the ceiling.

### **Main specifications/Time of release/ Production quantity**

■ AIRSTAGE J-III series, 4 units simultaneous operation multi air conditioning system, large size duct single air conditioner (outdoor unit)

Product name	"AIRSTAGE" J-III	4 units simultaneous operation multi air conditioning system	Large size duct single air conditioner
Model name	AJY072/090/108LELAH	AOYG72/90LRLA	AOYG72/90LRLA
Horse Power	8/10/12	8/10	8/10
Power supply	3 phase 400V 50Hz	3 phase 400V 50Hz	3 phase 400V 50Hz
Cooling capacity (kW)	22.4/28.0/33.5	19.0/22.0	19.0/22.0
EER* <sup>2</sup> (W/W)	3.56/3.26/3.22	-/-	2.94/2.83
Heating capacity (kW)	22.4/28.0/33.5	22.4/27.0	22.4/27.0
COP* <sup>2</sup> (W/W)	4.82/4.24/4.10	-/-	3.4/3.3
Dimensions (H x W x D)	1,428 x 1,080 x 480mm		
Weight (kg)	170/177/178	177/178	165/174
Time of release	June, 2017	Nov, 2017	June, 2017
Production quantity	2,000 systems	2,000 systems	2,000 systems

\* <sup>2</sup> The values of energy consumption efficiency (EER/COP) are the numerical values when combining wall mounted or ceiling cassette type with indoor unit

■ Large-size duct air conditioner (Indoor unit)

Model name	ARYG72/90LHTA
Horse Power	8/10
Power supply	Single phase 230V 50Hz
Cooling capacity (kW)	19.0/22.0
EER*2 (W/W)	2.94/2.83
Heating capacity (kW)	22.4/27.0
COP*2 (W/W)	3.4/3.3
Dimensions (H x W x D)	360 x 1,400 x 850mm
Weight (kg)	69/80
Time of release	June, 2017
Production quantity	2,000 systems

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<http://www.fujitsu-general.com/global/contact/press.html>