eco ideas

The Matsushita Group actively develops environmentally-conscious products.

Energy

We are promoting the use of high energy-saving performance inverter technology in our products. The dissemination of environment-friendly products helps to minimise energy consumption in the home and prevent global warming.

Materials

None of the products we ship contain any specified chemical substances* regardless of the market. And to reduce the environmental load of products due to the possibility of pollution after they are scrapped, we are promoting to create products that are easier to recycle. In consideration to the environment, we use the refrigerant R410A in our inverter air conditioners.

* Lead, cadmium, hexavalent chromium, mercury, specified bromine flame retardants (PBB, PBDE).

Factories

Our manufacturing sites around the world have acquired ISO 14001 certification. We are also taking thorough steps to reduce the environmental load through energy-saving efforts and the reduction of waste and chemical emissions.

RoHS Restriction of Hazardous Substances

總代理 Sole Agent:

SHUN HING GROUP 信興集團 SINCE 1953

信興電工工程有限公司
SHUN HING ELECTRIC WORKS AND ENGINEERING CO., LTD.
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保養及維修 Maintenance and Repair Service

信興電器服務中心有限公司
SHUN HING ELECTRIC SERVICE CENTRE LTD.
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Panasonic

• Specifications and designs are subject to change without notice.

R410A FS. 06/10

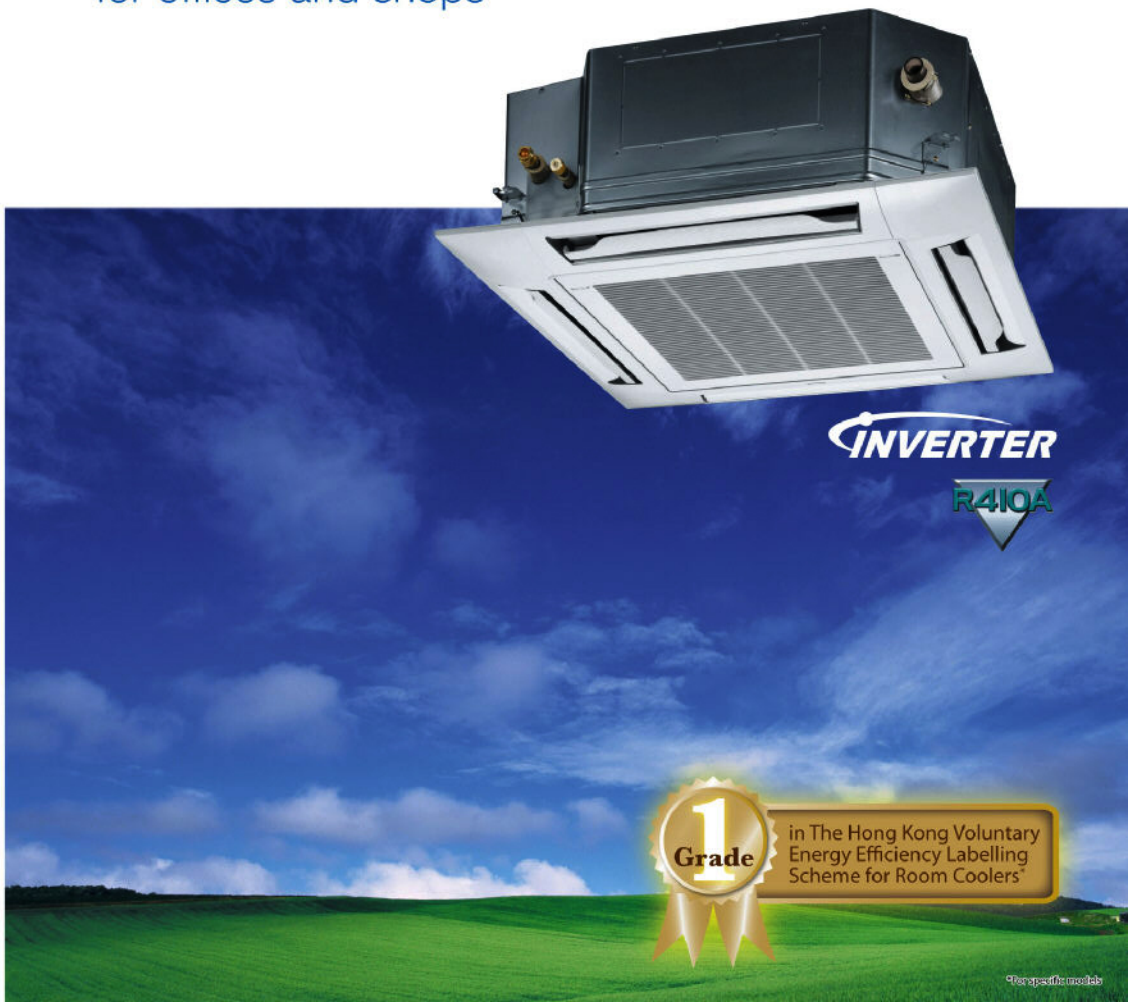
Panasonic
ideas for life

Air Conditioners

Flexi System Series

LARGE CAPACITY AIR CONDITIONERS

for offices and shops



Model Line-Up – LARGE CAPACITY AIR CONDITIONERS

INVERTER

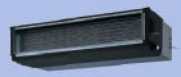
Flexi System Series

R410A

Indoor Unit (Inverter / Non-Inverter)

Both inverter and non-inverter indoor unit models can be used.

Models with the # mark cannot be used in single connection with an inverter unit.

CLASS	1.0HP	1.5HP	1.75HP	2.0HP	2.25HP	2.5HP	3.0HP	4.0HP	5.0HP	6.0HP
 Cassette		CS-F14DB4E5#		CS-F18DB4E5#		CS-F24DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F43DB4E5	CS-F50DB4E5
 Hide-Away (Low Static Pressure Models)		CS-F14DD3E5#		CS-F18DD3E5#		CS-F24DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F43DD3E5	CS-F50DD3E5
 Hide-Away (Middle Static Pressure Models)						CS-F24DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F43DD2E5	CS-F50DD2E5
 Ceiling				CS-F18DTE5#		CS-F24DTE5	CS-F28DTE5	CS-F34DTE5	CS-F43DTE5	CS-F50DTE5

Indoor Unit Combination page 21

INVERTER

Outdoor Unit (Inverter)

page 16

						 ■ CU-L24DBE5  ■ CU-YL24HBE5	 ■ CU-L28DBE5  ■ CU-YL28HBE5	 ■ CU-L34DBE5 ■ CU-L34DBE8*  ■ CU-YL34HBE5	 ■ CU-L43DBE5 ■ CU-L43DBE8*  ■ CU-YL43HBE5	 ■ CU-L50DBE8*

Outdoor Unit (Non-Inverter)

page 16

		 ■ CU-J14DBE5 ■ CU-B14DBE5		 ■ CU-J18DBE5 ■ CU-B18DBE5		 ■ CU-J24DBE5 ■ CU-J24DBE8* ■ CU-B24DBE5	 ■ CU-J28DBE5 ■ CU-J28DBE8* ■ CU-B28DBE5 ■ CU-B28DBE8*	 ■ CU-J34DBE5 ■ CU-J34DBE8* ■ CU-B34DBE5 ■ CU-B34DBE8*	 ■ CU-J43DBE8* ■ CU-B43DBE8*	 ■ CU-J50DBE8* ■ CU-B50DBE8*

* 3-Phase

Panasonic is participating in the EUROVENT Certification Programme. Products are as listed in the EUROVENT Directory of Certified Products.

CE

■ Cooling Only Model
■ Heat Pump Model

DC Inverter can attain comfortable and energy-saving operation.

Flexi System Series

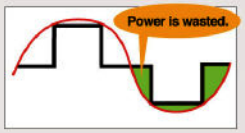
Energy-saving operation

All the models of Panasonic FS Inverter Series are equipped with DC inverters for the higher EER operation.
The new design attains the quiet and high-efficient operation and reduces the running cost.

Hyper Wave Inverter

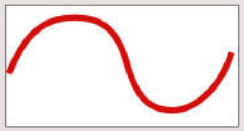
The Panasonic group's experiences and actual results in the development of inverters are released in the control. This control of the inverter demonstrates the optimum compressor torque.
The FS series quickly warms the room up to the set temperature and maintains a comfortable condition, whilst ensuring energy efficiency and savings.

Our conventional inverter



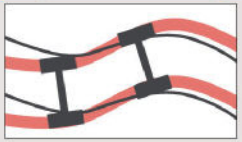
The current waveform deviates from the motor voltage waveform, so power is wasted.

Hyper Wave Inverter

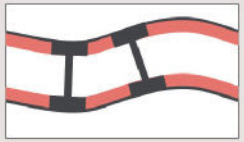


The current waveform closely matches the motor voltage waveform, so power consumption is reduced.

Compare this to a car rounding a corner.



Power is wasted when the car swings off course.



When the car stays right on course, there's no power loss.

High-Efficiency Compressor

Using of a powerful neodymium (rare-metal) magnet for a motor allowed us to make the motor more compact. The winding rotor motor of less magnetic field distortion attains higher efficiency.

INVERTER

1. Hyper Wave Inverter
2. DC Inverter Compressor
3. New Large Diagonal Air Flow Fan

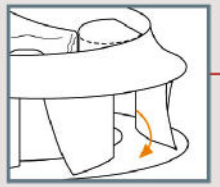
Class-Leading Efficiency

The cassette indoor unit is equipped with a newly-developed turbo fan; the new design released low operation noise and high air flow. In addition, the DC fan motor is able to give complete control, this is almost twice as efficient as a conventional motor and enables comfortable and energy saving operation.

The Advanced Air Path Design – Key to Efficiency.

Newly Designed Turbo Fan

1 The newly developed three-dimensional blade shape stabilizes the air flow.



Both air inlet and outlet are improved.

2 Optimizing layout of the indoor heat exchanger and the fan enables the increase in the fan diameter.

Space-saving design

Space-Saving Outdoor Unit

Improvement of the outdoor unit's fan has reduced the size of the unit to enable installation in a smaller space. Without sacrificing quietness, also higher efficiency is attained. More freedom in installation contributes to the easy piping and facilitates installation. It will lead to the reduction in installation cost.

*for 4HP model

Compact, Hide-Away Indoor Units

The compact Hide-Away Type* indoor units (Low Static Pressure Models) were newly developed. These downsized units can be installed in apartments and other places where space is limited. The top-class of compactness in the industry has been attained: 1200 mm in width, 250 mm in height, (650 mm in depth), 26% smaller than the conventional. *4 HP-6 HP models

**Add 100 mm for power supply equipment.

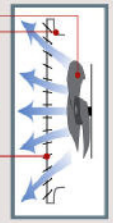
The Sophisticated Air Path Design – Key to Compact Size.

These three improvements to minimise the air resistance.

1 New Large Diagonal Air Flow Fan
The newly designed fan blades reduce the frontal discharge distance.

2 Improved front grille opening shape

3 Improved front grille grid shape



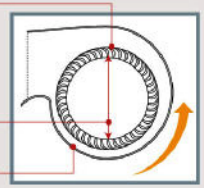
The Precise Air Path Design – Key to Saving Space.

High-Performance Large-Diameter Sirocco Fan and High-Performance Casing

1 The shape of the Sirocco fan airfoil shape has been improved to boost static pressure. (Air flow and peeling improved)

2* Large-diameter fan of high efficiency has been attained by reducing the scroll and the number of fans.

3* High-performance casing produces the maximum air efficiency. (Enlarging from the bottom side made it possible to reduce the height.)



*Patent applications have been made for these technologies.

Applicable Models: All FS Series Inverter Models

Pursuing the Perfect Design – In Air Quality, Airflow, and Convenience

Flexi System Series

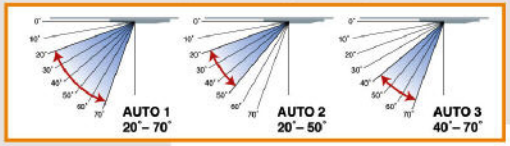
Comfort in every detail

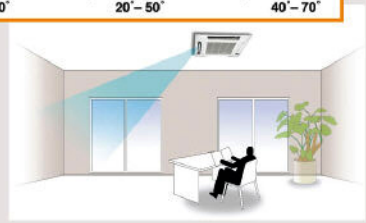
Panasonic FS Series includes the knowledge for carefully designing for comfort. Careful consideration has been given to both air flow and air quality. A Wired remote controller is also available, which is equipped with a high-performance timer to program the operation mode to meet the requirements of each user.

For cassette models

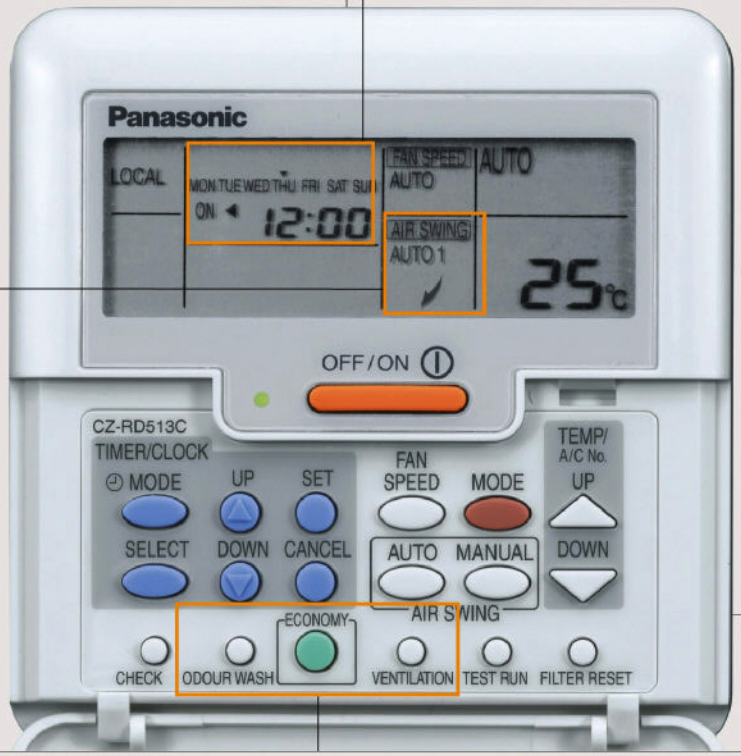
Multi Comfort Air Control

Newly developed control technology offers the various selection of fine air blowing angle. Select from the 3-pattern auto swings not to expose to the air directly (total 50-degree swing width).





Can be operated with the wireless remote control.



For all models

Weekly Timer

Weekly timer setting (each day of a week) is available to control the air conditioner.
Max. 6 settings/day and 42 settings/week can be executed.
The setting temperature can be also programmed for optimal comfort.

Set like this for these uses

Shop with regular holidays	The number of persons varies depending on time zones.	Not to forget to switch OFF
Example: Closed Saturday afternoon and all day Sunday.	Example: Set a lower temperature at lunch time when a lot of persons may visit.	Example: To prevent forgetting to switch OFF weekdays
Mon-Fri On 9:00, Off 18:00 Sat On 9:00, Off 12:00 Sun Not set	Everyday On 12:00 23°C On 14:00 28°C	Mon-Fri Off 20:00
➡ The timer can have different settings for every day of the week.	➡ In this case, the temperature can be set at the same time.	➡ The timer can be set for simple shut-off operation.

How to set

***Simple Timer Mode**
Using the 24-hour On/Off timer, the operation of On/Off can be set at a same time everyday.

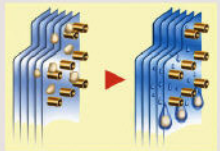
For all models

Odour Wash

Odour Wash reduces any unpleasant odours produced from the air conditioner's heat exchanger.

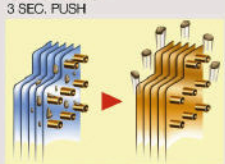
Dual-system of odour control

Odour Removing
ONE PUSH



When the air from the outlet smells musty. Moisture in the heat exchanger washes away odours.

Odour Clear#
3 SEC. PUSH



When odours are strong, and before and after the air conditioning season. The heat exchanger heats up to clear odours.

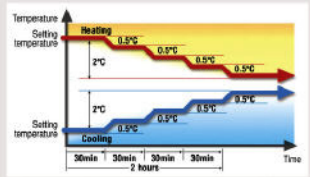
Can be operated with the wireless remote control.

Applicable Models: Inverter Models Only

For all models

Economy Mode

An approximate 20%* energy-saving operation is attained. The air conditioner judges the stable condition and moderately shifts the set temperature in 0.5-degree steps to control the energy-saving operation. (Max. 2 degrees)



* During operating in the cooling mode at the remote control set temperature of 25 under the cooling standard temperature conditions.

Can be operated with the wireless remote control.

For all models

Ventilation

When the external device such as a ventilator is connected to the indoor unit, switch ON/OFF of the ventilator can be controlled by the wired remote control. Either link-ventilation or independent-ventilation is selectable.

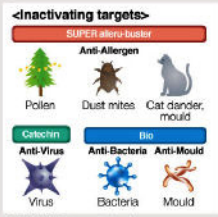
Ventilators are not included in the product line.
Optional printed circuit board (Interface Adapter for External Signals: CZ-TA31P*) is needed.

Option

For cassette and ceiling models

SUPER alleru-buster filter

SUPER alleru-buster filter uses three types of functional materials that make it possible to inactivate various harmful airborne elements including allergens, viruses, and bacteria. This filter is available as an option.



CZ-SA11P (For cassette type)
CZ-SA12P (For ceiling type)

Applicable for FS Series

Cassette Type

Selectable Remote Controller

* Customer needs to choose either wired or wireless.

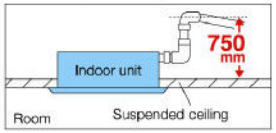
Wired Remote Controller

Wireless Remote Controller

Fast, Flexible Installation

- **750 mm Drain-Up Mechanism**

Drain hose can be elevated 750 mm from the base of the unit simply by connecting an elbow. This adds to ease of drain piping work, and flexibility in locating the indoor unit.



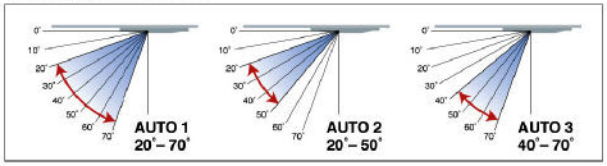
Easy Maintenance and Cleaning

- **Anti-Mould Long-Life Air Filter**

* For optimum comfort, we recommend cleaning the air filter every 1.5 months.

Three Airflow Patterns for Extra Comfort

- **Multi-Comfort Air Control**



Versatile Functions

- **950 mm Square Panel for All Models (Optional: CZ-BT03P)**
- **Weekly Timer** (Wired Remote Controller only)
- **24-Hour On/Off Real Setting Timer**
- **Odour Wash**
- **Economy Mode**
- **Auto Restart Function**
- **Auto Changeover Function** (Heat Pump Model)
- **Auto Fan Mode**
- **Dry Mode Function**
- **Low Ambient Cooling Operation**

* See page 16 for details.

- **Hot Start Control**
- **Self-Diagnostic Function**
- **Optional: SUPER alleru-buster filter (CZ-SA11P)**

INVERTER

Specifications — Inverter Models

Cooling/Heating

Items / Indoor Panel Outdoor	Cooling Capacity	Heating Capacity	Power Source	Current	Power Input Cooling Heating	EER COP Energy Saving Classification	Annual Energy Consumption	Air Volume Cooling Heating	Noise Level* SoundPressure Level Indoor (Hi/Lo) Cooling Heating	SoundPressure Level Outdoor (Hi) Cooling Heating	SoundPower Level Indoor (Hi) Cooling Heating	SoundPower Level Outdoor (Hi) Cooling Heating	Dimensions Indoor	Dimensions Panel	Dimensions Outdoor	Net Weight Indoor	Net Weight Panel	Net Weight Outdoor	Piping Connection Gas Side	Piping Connection Liquid Side	Pipe Length Min – Max. Length	Pipe Length Elevation Difference (CU up)** CU down	Pipe Length Max. Charge-less Length	Pipe Length Additional Gas	Operation Range (Outdoor)***
	kW Btu/h	kW Btu/h	Phase V Hz	A	kW	W/W (EEL)	kW	m³/min	dB(A)	dB(A)	dB	dB	mm (H/W/D)	mm (H/W/D)	mm (H/W/D)	kg	kg	kg	O.D. mm (inch)	O.D. mm (inch)	m	m	m	g/m	°C
CS-F24DB4E5 CZ-BT03P CU-L24DBE5	5.30 (2.15-7.30) 21,500 (7,280-24,200)	7.10 (2.20-8.00) 24,200 (7,500-27,300)	1φ 220-240 50	7.7 8.4	1.70 (0.50-2.25) 3.84 (0.50-5.15)	3.71A 3.86A (1)	850	18 18	36/32 36/32	47 49	51 51	63 65	246 840 840	950 950 45	795 900 320	26	4.5	71	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5-43 -20-24
CS-F28DB4E5 CZ-BT03P CU-L28DBE5	7.10 (2.20-8.00) 24,200 (7,500-27,300)	8.00 (2.30-8.50) 27,300 (7,800-29,000)	1φ 220-240 50	9.2 9.6	2.00 (0.60-2.46) 4.11 (0.60-5.26)	3.55A 3.79A (1)	1,000	20 20	38/33 38/33	48 50	53 53	64 66	246 840 840	950 950 45	795 900 320	26	4.5	71	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5-43 -20-24
CS-F34DB4E5 CZ-BT03P CU-L34DBE5	10.00 (4.00-12.00) 34,100 (13,600-40,900)	11.20 (4.00-14.00) 38,200 (13,600-47,700)	1φ 220-240 50	11.7 13.2	2.59 (1.15-3.20) 2.90 (1.80-4.16)	3.86A 3.86A (1)	1,295	27 27	42/37 42/37	52 54	57 57	66 68	288 840 840	950 950 45	1,340 900 320	28.5	4.5	110	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5-43 -20-24
CS-F34DB4E5 CZ-BT03P CU-L34DBE8	10.00 (4.00-12.00) 34,100 (13,600-40,900)	11.20 (4.00-14.00) 38,200 (13,600-47,700)	3φ 380-415 50	4.1 4.6	2.59 (1.15-3.20) 2.90 (1.80-4.16)	3.86A 3.86A (1)	1,295	27 27	42/37 42/37	52 54	57 57	66 68	288 840 840	950 950 45	1,340 900 320	28.5	4.5	105	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5-43 -20-24
CS-F43DB4E5 CZ-BT03P CU-L43DBE5	12.50 (4.00-14.00) 42,600	14.00 (4.00-16.00) 47,700	1φ 220-240 50	16.5 17.6	3.64 (1.20-3.80) 3.88 (1.80-4.98)	3.43A 3.61A	1,820	31 31	46/41 46/41	53 55	61 61	67 69	288 840 840	950 950 45	1,340 900 320	28.5	4.5	110	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5-43 -20-24
CS-F43DB4E5 CZ-BT03P CU-L43DBE8	12.50 (4.00-14.00) 42,600 (13,600-47,700)	14.00 (4.00-16.00) 47,700 (13,600-54,600)	3φ 380-415 50	5.8 6.1	3.64 (1.20-3.80) 3.88 (1.80-4.98)	3.43A 3.61A	1,820	31 31	46/41 46/41	53 55	61 61	67 69	288 840 840	950 950 45	1,340 900 320	28.5	4.5	105	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5-43 -20-24
CS-F50DB4E5 CZ-BT03P CU-L50DBE8	14.00 (4.00-16.00) 47,700 (13,600-54,600)	15.00 (4.00-16.00) 51,100 (13,600-61,400)	3φ 380-415 50	7.1 7.2	4.05 (1.20-4.95) 4.69 (1.80-5.98)	3.01B 3.41B	2,325	32 32	47/42 47/42	54 56	62 62	68 70	288 840 840	950 950 45	1,340 900 320	28.5	4.5	105	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5-43 -20-24
CS-F24DB4E5 CZ-BT03P CU-YL24HBE5	5.60 (2.08-6.38) 19,100 (6,800-21,500)	7.00 (2.10-7.65) 23,900 (7,280-25,900)	1φ 220-240 50	8.30 9.20	1.86 (0.55-2.28) 2.05 (0.58-2.8)	3.01B 3.41B (1)	930	18 18	36/32 36/32	49 51	51 51	67 68	246 840 840	950 950 45	795 875+170* 320	26	4.5	65	15.88 (5/8)	9.52 (3/8)	7.5-30	(25) 20	30	-	-5-43 -15-24
CS-F28DB4E5 CZ-BT03P CU-YL28HBE5	7.50 (2.10-7.70) 24,200 (7,200-25,300)	8.00 (2.20-8.50) 27,300 (7,500-29,000)	1φ 220-240 50	10.60 10.50	2.36 (0.60-2.68) 2.94 (0.6-3.3)	3.01B 3.42B (1)	1,180	20 20	38/33 38/33	50 52	53 53	68 69	246 840 840	950 950 45	795 875+170* 320	26	4.5	65	15.88 (5/8)	9.52 (3/8)	7.5-30	(25) 20	30	-	-5-43 -15-24
CS-F34DB4E5 CZ-BT03P CU-YL34HBE5	10.00 (3.80-11.60) 34,100 (13,000-37,900)	11.20 (3.80-13.60) 38,200 (13,000-44,400)	1φ 220-240 50	15.20 15.00	3.32 (1.25-3.95) 3.28 (1.80-4.18)	3.01B 3.41B (2)	1,660	27 27	42/37 42/37	53 56	57 57	71 73	288 840 840	950 950 45	795 900 320	29	4.5	66	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	-5-43 -15-24
CS-F43DB4E5 CZ-BT03P CU-YL43HBE5	12.50 (3.80-13.60) 42,700 (13,000-44,400)	14.00 (3.80-15.60) 47,800 (13,000-51,200)	1φ 220-240 50	19.00 18.80	4.15 (1.25-4.45) 4.10 (1.80-4.98)	3.01B 3.41B	2,075	31 31	46/41 46/41	54 56	61 61	72 73	288 840 840	950 950 45	1,170 900 320	29	4.5	94	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	-5-43 -15-24

Specifications — Non-Inverter Models

Cooling/Heating

Items / Indoor Panel Outdoor	Cooling Capacity	Heating Capacity	Power Source	Current	Power Input Cooling Heating	EER COP Energy Saving Classification	Annual Energy Consumption	Air Volume Cooling Heating	Noise Level* SoundPressure Level Indoor (Hi/Lo) Cooling Heating	SoundPressure Level Outdoor (Hi) Cooling Heating	SoundPower Level Indoor (Hi) Cooling Heating	SoundPower Level Outdoor (Hi) Cooling Heating	Dimensions Indoor	Dimensions Panel	Dimensions Outdoor	Net Weight Indoor	Net Weight Panel	Net Weight Outdoor	Piping Connection Gas Side	Piping Connection Liquid Side	Pipe Length Min – Max. Length	Pipe Length Elevation Difference (CU up)** CU down	Pipe Length Max. Charge-less Length	Pipe Length Additional Gas	Operation Range (Outdoor)***
	kW Btu/h	kW Btu/h	Phase V Hz	A	kW	W/W (EEL)	kW	m³/min	dB(A)	dB(A)	dB	dB	mm (H/W/D)	mm (H/W/D)	mm (H/W/D)	kg	kg	kg	O.D. mm (inch)	O.D. mm (inch)	m	m	m	g/m	°C
CS-F14DB4E5 CZ-BT03P CU-J14DBE5	3.80 13,000	—	1φ 220 - 240 50	5.7	1.26 (1.23-1.29)	3.02B (1)	630	15	34/31	49	49	65	246 840 840	950 950 45	795 900 320	25	4.5	54	12.7 (1/2)	6.35 (1/4)	7.5-30	(20) 20	20	20	5-43 -10-24
CS-F18DB4E5 CZ-BT03P CU-J18DBE5	5.00 17,100	—	1φ 220 - 240 50	7.7	1.72 (1.69-1.75)	2.91C (2)	860	20	35/32	49	50	65	246 840 840	950 950 45	795 900 320	26	4.5	56	12.7 (1/2)	6.35 (1/4)	7.5-30	(20) 20	20	20	5-43 -10-24
CS-F24DB4E5 CZ-BT03P CU-J24DBE5	6.60 22,500	—	1φ 220-240 50	13.2	2.58 (2.53-2.63)	2.58E	1,290	18	36/32	50	51	66	246 840 840	950 950 45	795 900 320	26	4.5	61	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F24DB4E5 CZ-BT03P CU-J24DBE8	6.60 22,500	—	3φ 380-415 50	4.55	2.58 (2.53-2.63)	2.56E	1,290	18	36/32	50	51	66	246 840 840	950 950 45	795 900 320	26	4.5	61	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F28DB4E5 CZ-BT03P CU-J28DBE5	7.30 24,900	—	1φ 220-240 50	12.9	2.80 (2.74-2.85)	2.61D (3)	1,400	20	38/33	52	53	67	246 840 840	950 950 45	795 900 320	26	4.5	61	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F28DB4E5 CZ-BT03P CU-J28DBE8	7.30 24,900	—	3φ 380-415 50	4.9	2.80 (2.74-2.85)	2.61D	1,400	20	38/33	52	53	67	246 840 840	950 950 45	795 900 320	26	4.5	61	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F34DB4E5 CZ-BT03P CU-J34DBE5	10.00 34,100	—	1φ 220-240 50	18.1	3.93 (3.88-3.98)	2.54E	1,965	27	42/37	55	57	69	288 840 840	950 950 45	1,170 900 320	28.5	4.5	92	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F34DB4E5 CZ-BT03P CU-J34DBE8	10.00 34,100	—	3φ 380-415 50	6.2	3.80 (3.75-3.85)	2.63D	1,900	27	42/37	55	57	69	288 840 840	950 950 45	1,170 900 320	28.5	4.5	90	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F43DB4E5 CZ-BT03P CU-J43DBE8	12.50 42,600	—	3φ 380-415 50	8.0	4.79 (4.74-4.84)	2.61D	2,395	31	46/41	56	61	70	288 840 840	950 950 45	1,170 900 320	28.5	4.5	97	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F50DB4E5 CZ-BT03P CU-J50DBE8	13.50 46,000	—	3φ 380-415 50	8.5	5.18 (5.13-5.23)	2.61D	2,590	32	47/42	56	62	70	288 840 840	950 950 45	1,170 900 320	28.5	4.5	97	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F14DB4E5 CZ-BT03P CU-B14DBE5	3.80 13,000	4.30 14,700	1φ 220 - 240 50	5.5 5.45	1.23 (1.20-1.26) 1.22 (1.19-1.25)	3.09B 3.52B	615	15 15	34/31 34/31	49 50	49 49	65 66	246 840 840	950 950 45	795 900 320	25	4.5	55	12.7 (1/2)	6.35 (1/4)	7.5-30	(20) 20	20	20	5-43 -10-24
CS-F18DB4E5 CZ-BT03P CU-B18DBE5	5.00 17,100	5.60 19,100	1φ 220 - 240 50	7.7 7.2	1.72 (1.69-1.75) 1.62 (1.59-1.65)	2.91C 3.46B	860	20 20	35/32 34/31	49 50	50 49	65 66	246 840 840	950 950 45	795 900 320	26	4.5	57	12.7 (1/2)	6.35 (1/4)	7.5-30	(20) 20	20	20	5-43 -10-24
CS-F24DB4E5 CZ-BT03P CU-B24DBE5	6.60 22,500	7.10 24,200	1φ 220-240 50	12.4 11.2	2.51 (2.46-2.57) 2.36 (2.31-2.41)	2.63D 3.01D	1,255	18 18	36/32 36/32	50 51	51 51	66 67	246 840 840	950 950 45	795 900 320	26	4.5	69	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F28DB4E5 CZ-BT03P CU-B28DBE5	7.30 24,900	8.00 27,300	1φ 220-240 50	12.8 11.8	2.80 (2.74-2.85) 2.60 (2.55-2.65)	2.61D 3.08D	1,400	20 20	38/33 38/33	52 53	53 53	67 68	246 840 840	950 950 45	795 900 320	26	4.5	69	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F28DB4E5 CZ-BT03P CU-B28DBE8	7.30 24,900	8.00 27,300	3φ 380-415 50	4.85 4.3	2.80 (2.74-2.85) 2.60 (2.55-2.65)	2.61D 3.08D	1,400	20 20	38/33 38/33	52 53	53 53	67 68	246 840 840	950 950 45	795 900 320	26	4.5	69	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F34DB4E5 CZ-BT03P CU-B34DBE5	10.00 34,100	11.20 38,200	1φ 220-240 50	18.1 17.7	3.81 (3.76-3.86) 3.86 (3.81-3.91)	2.62D 2.90D	1,905	27 27	42/37 42/37	55 56	57 57	69 70	288 840 840	950 950 45	1,170 900 320	28.5	4.5	102	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F34DB4E5 CZ-BT03P CU-B34DBE8	10.00 34,100	11.20 38,200	3φ 380-415 50	6.1 6.0	3.68 (3.63-3.73) 3.78 (3.73-3.83)	2.72D 2.96D	1,840	27 27	42/37 42/37	55 56	57 57	69 70	288 840 840	950 950 45	1,170 900 320	28.5	4.5	100	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F43DB4E5 CZ-BT03P CU-B43DBE8	12.50 42,600	14.00 47,700	3φ 380-415 50	7.9 7.7	4.65 (4.60-4.70) 4.59 (4.54-4.64)	2.69D 3.05D	2,325	31 31	46/41 46/41	56 57	61 61	70 71	288 840 840	950 950 45	1,170 900 320	28.5	4.5	102	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24
CS-F50DB4E5 CZ-BT03P CU-B50DBE8	13.50 46,000	15.00 51,100	3φ 380-415 50	8.5 8.0	5.06 (5.01-5.15) 4.93 (4.88-4.98)	2.67D 3.04D	2,530	32 32	47/42 47/42	56 57	62 62	70 71	288 840 840	950 950 45	1,170 900 320	28.5	4.5	102	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5-43 -10-24

Rating Conditions

	Cooling	Heating
Inside air temperature	27°C DB/19°C WB	20°C DB
Outside air temperature	35°C DB/24°C WB	7°C DB/6°C WB

* The Sound Pressure Level of the outdoor unit shows the value measured of a position 1 meter in front of the main body and 1,5 meters from the ground.
** When installing the outdoor unit at a higher position than the indoor unit.
*** Cooling operation at -15°C <inverter L series> / -10°C <non-inverter> is possible in non-residential computer rooms, etc., where the temperature is not less than 21°C and humidity is not more than 45%.
Add 70mm for piping port.
The specifications listed on the table indicate values under the condition of 50Pa(5.1mmAq) which are applied for factory default setting.
EEL: Energy Efficiency Labelling Scheme

Hide-Away Type

Low Static Pressure Models

Remote Controller

* A remote controller is in the same package with the indoor unit.

Wired Remote Controller

Compact, Lightweight Design for Easy Installation

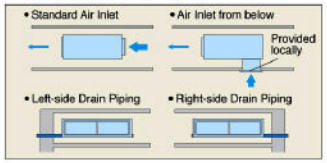
Thin and only 250mm* high, with a slim width of only 1,200 mm* this compact unit fits easily in limited spaces. The lightweight and small size also make it easier to transport and install.

* 4.0 HP-6.0 HP models

** Add 100 mm for power supply equipment

Various Installation Applications

- **Versatile Air Inlet and Drain Installation**
  The mounting locations for the air inlet and drain outlet can be changed as desired for easy, flexible system layout and installation.
- **Static Pressure Selection**
  The static pressure is selectable from 5 or 7 mmAq according to the condition of the duct. For short ducts, the lower pressure of 5 mmAq provides efficient operation.



Easy Maintenance

- **3-Way Removable Air Filter**
  The air filter can be removed in three directions for easier maintenance.

Versatile Functions

- Auto Fan Mode
- Auto Restart Function
- Dry Mode Function
- Auto Changeover Function (Heat Pump Model)
- Low Ambient Cooling Operation
  * See page 16 for details.
- Weekly Timer
- 24-Hour On/Off Real Setting Timer
- Odour Wash
- Economy Mode
- Hot Start Control
- Self-Diagnostic Function

INVERTER

Specifications — Inverter Models

Cooling/Heating

Items / Indoor / Outdoor	Cooling Capacity	Heating Capacity	Power Source	Current	Power Input Cooling	Power Input Heating	EER COP	Energy Saving Classification	Annual Energy Consumption	Air Volume Cooling	Air Volume Heating	External Static Pressure	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Cooling	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Heating	NoiseLevel* SoundPressure Level Outdoor (Hi) Cooling	NoiseLevel* SoundPressure Level Outdoor (Hi) Heating	NoiseLevel* SoundPower Level Indoor (Hi) Cooling	NoiseLevel* SoundPower Level Indoor (Hi) Heating	NoiseLevel* SoundPower Level Outdoor (Hi) Cooling	NoiseLevel* SoundPower Level Outdoor (Hi) Heating	Dimensions Indoor	Dimensions Outdoor	Net Weight Indoor	Net Weight Outdoor	Piping Connection Gas Side	Piping Connection Liquid Side	Pipe Length Min – Max. Length	Pipe Length Elevation Difference (CU up)** CU down	Pipe Length Max. Charge-less Length	Pipe Length Additional Gas	Operation Range (Outdoor)***
	kW Btu/h	kW Btu/h	Phase V Hz	A	kW	kW	W/W		kW	m³/min	m³/min	Pa (mmAq)	dB(A)	dB(A)	dB	dB	dB	dB	dB	dB	mm (H×W×D)	mm (H×W×D)	kg	kg	O.D. mm (inch)	O.D. mm (inch)	m	m	m	g/m	°C
CS-F24DD3E5 CU-L24DBE5	6.30 (2.00-8.50) 21,500 (6,800-29,000)	7.10 (2.10-7.30) 24,200 (7,200-25,000)	1Φ 220-240 50	9.0 9.5	1.96 (0.69-2.60) 2.08 (0.69-3.25)	3.21A 3.41B	980	22 22	50(5.1) 69(7)	43/39 43/39	47 49	59 59	63 65	250 1,000+100* 650	795 900 320	41	71	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5~43 -20~24
CS-F28DD3E5 CU-L28DBE5	7.10 (2.10-7.50) 24,200 (7,200-25,600)	8.00 (2.20-8.90) 27,300 (7,500-28,000)	1Φ 220-240 50	10.1 10.6	2.21 (0.69-2.95) 2.34 (0.65-3.25)	3.21A 3.42B	1,105	22 22	50(5.1) 69(7)	43/39 43/39	48 50	59 59	64 66	250 1,000+100* 650	795 900 320	41	71	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5~43 -20~24
CS-F34DD3E5 CU-L34DBE5	10.00 (4.80-12.00) 34,100 (13,600-40,900)	11.20 (4.80-13.50) 38,200 (13,600-46,000)	1Φ 220-240 50	12.6 14.9	2.77 (1.38-3.45) 2.94 (1.38-4.25)	3.61A 3.41B	1,385	36 36	50(5.1) 69(7)	47/43 45/41	52 54	60 59	66 68	250 1,200+100* 650	1,340 900 320	47	110	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5~43 -20~24
CS-F34DD3E5 CU-L34DBE8	10.00 (4.80-12.00) 34,100 (13,600-40,900)	11.20 (4.80-13.50) 38,200 (13,600-46,000)	3Φ 380-415 50	4.4 5.2	2.77 (1.38-3.45) 3.08 (1.38-4.25)	3.61A 3.41B	1,385	36 36	50(5.1) 69(7)	45/41 44/40	52 54	60 59	66 68	250 1,200+100* 650	1,340 900 320	47	105	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5~43 -20~24
CS-F43DD3E5 CU-L43DBE5	12.50 (4.00-13.50) 42,600 (13,600-46,000)	14.00 (4.00-15.50) 47,700 (13,600-52,900)	1Φ 220-240 50	18.8 18.7	4.15 (1.40-4.40) 4.11 (1.40-5.10)	3.01B 3.41B	2,075	40 40	50(5.1) 69(7)	45/41 44/40	53 55	60 59	67 69	250 1,200+100* 650	1,340 900 320	47	110	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5~43 -20~24
CS-F43DD3E5 CU-L43DBE8	12.50 (4.00-13.50) 42,600 (13,600-46,000)	14.00 (4.00-15.50) 47,700 (13,600-52,900)	3Φ 380-415 50	6.5 6.5	4.15 (1.40-4.40) 4.11 (1.40-5.10)	3.01B 3.41B	2,075	40 40	50(5.1) 69(7)	45/41 44/40	53 55	60 59	67 69	250 1,200+100* 650	1,340 900 320	47	105	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5~43 -20~24
CS-F50DD3E5 CU-L50DBE8	14.00 (4.00-16.00) 47,700 (13,600-54,600)	16.00 (4.00-18.00) 54,600 (13,600-61,400)	3Φ 380-415 50	7.6 7.6	4.98 (1.40-5.20) 4.98 (1.40-6.10)	2.81C 3.21C	2,490	40 40	50(5.1) 69(7)	46/42 45/41	54 56	61 60	68 70	250 1,200+100* 650	1,340 900 320	47	105	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5~43 -20~24
CS-F24DD3E5 CU-YL24HBE5	5.60 (2.00-5.30) 19,100 (550-2,200)	7.00 (2.10-7.00) 23,900 (7,200-23,900)	1Φ 220-240 50	9.00 11.30	1.99 (0.55-2.20) 2.49 (0.55-2.80)	2.81C 2.81D	995	22 22	50(5.1) 69(7)	43/39 43/39	49 51	59 59	67 68	250 1,000+100* 650	795 875+70** 320	41	65	15.88 (5/8)	9.52 (3/8)	7.5–30	(25) 20	30	-	-5~43 -15~24
CS-F28DD3E5 CU-YL28HBE5	7.10 (2.10-7.70) 24,200 (7,200-26,300)	8.00 (2.20-8.90) 27,300 (7,500-28,300)	1Φ 220-240 50	11.40 12.20	2.53 (0.65-2.80) 2.65 (0.65-3.30)	2.81C 2.81D	1,265	22 22	50(5.1) 69(7)	43/39 43/39	50 52	59 59	68 69	250 1,000+100* 650	795 875+70** 320	41	65	15.88 (5/8)	9.52 (3/8)	7.5–30	(25) 20	30	-	-5~43 -15~24
CS-F34DD3E5 CU-YL34HBE5	10.00 (3.80-11.50) 34,100 (13,000-39,000)	11.20 (3.80-12.50) 38,200 (13,000-42,700)	1Φ 220-240 50	16.30 17.00	3.56 (1.38-4.10) 3.72 (1.20-4.25)	2.81C 3.01D	1,780	36 36	50(5.1) 69(7)	45/41 44/40	53 56	60 59	71 73	250 1,200+100* 650	795 900 320	47	66	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	-5~43 -15~24
CS-F43DD3E5 CU-YL43HBE5	12.50 (3.80-13.00) 42,700 (13,000-44,400)	14.00 (3.80-14.50) 47,800 (13,000-49,500)	1Φ 220-240 50	20.30 21.20	4.45 (1.38-4.70) 4.65 (1.20-5.80)	2.81C 3.01D	2,225	40 40	50(5.1) 69(7)	45/41 44/40	54 56	60 59	72 73	250 1,200+100* 650	1170 900 320	47	94	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	-5~43 -15~24

Specifications — Non-Inverter Models

Cooling/Heating

Items / Indoor / Outdoor	Cooling Capacity	Heating Capacity	Power Source	Current	Power Input Cooling	Power Input Heating	EER COP	Energy Saving Classification	Annual Energy Consumption	Air Volume Cooling	Air Volume Heating	External Static Pressure	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Cooling	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Heating	NoiseLevel* SoundPressure Level Outdoor (Hi) Cooling	NoiseLevel* SoundPressure Level Outdoor (Hi) Heating	NoiseLevel* SoundPower Level Indoor (Hi) Cooling	NoiseLevel* SoundPower Level Indoor (Hi) Heating	NoiseLevel* SoundPower Level Outdoor (Hi) Cooling	NoiseLevel* SoundPower Level Outdoor (Hi) Heating	Dimensions Indoor	Dimensions Outdoor	Net Weight Indoor	Net Weight Outdoor	Piping Connection Gas Side	Piping Connection Liquid Side	Pipe Length Min – Max. Length	Pipe Length Elevation Difference (CU up)** CU down	Pipe Length Max. Charge-less Length	Pipe Length Additional Gas	Operation Range (Outdoor)***
	kW Btu/h	kW Btu/h	Phase V Hz	A	kW	kW	W/W		kW	m³/min	m³/min	Pa (mmAq)	dB(A)	dB(A)	dB	dB	dB	dB	dB	dB	mm (H×W×D)	mm (H×W×D)	kg	kg	O.D. mm (inch)	O.D. mm (inch)	m	m	m	g/m	°C
CS-F14DD3E5 CU-J14DBE5	3.80 13,000	—	1Φ 220 - 240 50	6.21	1.35 (1.32-1.38)	2.81C	675	17	50(5.1) 69(7)	42/38	49	58	65	250 780+100* 650	795 900 320	34	54	12.7 (1/2)	6.35 (1/4)	7.5–30	(20) 20	20	20	5~43 -10~24
CS-F18DD3E5 CU-J18DBE5	5.00 17,100	—	1Φ 220 - 240 50	8.38	1.86 (1.83-1.89)	2.69D	930	17	50(5.1) 69(7)	42/38	49	58	65	250 780+100* 650	795 900 320	34	56	12.7 (1/2)	6.35 (1/4)	7.5–30	(20) 20	20	20	5~43 -10~24
CS-F24DD3E5 CU-J24DBE5	6.60 22,500	—	1Φ 220-240 50	12.9	2.66 (2.62-2.70)	2.48E	1,330	22	50(5.1) 69(7)	43/39	50	59	66	250 1,000+100* 650	795 900 320	41	61	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F24DD3E5 CU-J24DBE8	6.60 22,500	—	3Φ 380-415 50	4.54	2.66 (2.62-2.70)	2.48E	1,330	22	50(5.1) 69(7)	43/39	50	59	66	250 1,000+100* 650	795 900 320	41	61	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F28DD3E5 CU-J28DBE5	7.30 24,900	—	1Φ 220-240 50	13.5	2.89 (2.83-2.94)	2.53E	1,445	22	50(5.1) 69(7)	43/39	52	59	67	250 1,000+100* 650	795 900 320	41	61	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F28DD3E5 CU-J28DBE8	7.30 24,900	—	3Φ 380-415 50	4.9	2.89 (2.83-2.94)	2.53E	1,445	22	50(5.1) 69(7)	43/39	52	59	67	250 1,000+100* 650	795 900 320	41	61	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F34DD3E5 CU-J34DBE5	10.00 34,100	—	1Φ 220-240 50	18.8	4.04 (3.95-4.12)	2.48E	2,020	36	50(5.1) 69(7)	45/41	55	60	69	250 1,200+100* 650	1,170 900 320	47	92	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F34DD3E5 CU-J34DBE8	10.00 34,100	—	3Φ 380-415 50	6.45	3.80 (3.75-3.85)	2.63D	1,900	36	50(5.1) 69(7)	45/41	55	60	69	250 1,200+100* 650	1,170 900 320	47	90	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F43DD3E5 CU-J43DBE8	12.50 42,600	—	3Φ 380-415 50	8.1	4.84 (4.80-4.95)	2.58E	2,420	40	50(5.1) 69(7)	45/41	56	60	70	250 1,200+100* 650	1,170 900 320	47	97	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F50DD3E5 CU-J50DBE8	13.50 46,000	—	3Φ 380-415 50	13.5	5.41 (5.36-5.51)	2.50E	2,655	40	50(5.1) 69(7)	46/42	56	61	70	250 1,200+100* 650	1,170 900 320	47	97	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F14DD3E5 CU-B14DBE5	3.80 13,000	4.30 14,700	1Φ 220 - 240 50	6.31 5.96	1.35 (1.32-1.38) 1.21 (1.18-1.24)	2.81C 3.55B	675	17 17	50(5.1) 69(7)	42/38 40/36	49 50	58 56	65 66	250 780+100* 650	795 900 320	34	55	12.7 (1/2)	6.35 (1/4)	7.5–30	(20) 20	20	20	5~43 -10~24
CS-F18DD3E5 CU-B18DBE5	5.00 17,100	5.60 19,100	1Φ 220 - 240 50	8.53 7.63	1.89 (1.86-1.92) 1.70 (1.67-1.73)	2.66D 3.29C	945	17 17	50(5.1) 69(7)	42/38 40/36	49 50	58 56	65 66	250 780+100* 650	795 900 320	34	57	12.7 (1/2)	6.35 (1/4)	7.5–30	(20) 20	20	20	5~43 -10~24
CS-F24DD3E5 CU-B24DBE5	6.60 22,500	7.10 24,200	1Φ 220-240 50	12.9 11.8	2.59 (2.56-2.64) 2.47 (2.46-2.55)	2.55E 2.87D	1,295	22 22	50(5.1) 69(7)	43/39 43/39	50 51	59 59	66 67	250 1,000+100* 650	795 900 320	41	69	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F28DD3E5 CU-B28DBE5	7.30 24,900	8.00 27,300	1Φ 220-240 50	13.5 12.5	2.84 (2.78-2.89) 2.69 (2.61-2.78)	2.57E 2.97D	1,420	22 22	50(5.1) 69(7)	43/39 43/39	52 53	59 59	67 68	250 1,000+100* 650	795 900 320	41	69	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F28DD3E5 CU-B28DBE8	7.30 24,900	8.00 27,300	3Φ 380-415 50	4.9 4.7	2.84 (2.78-2.89) 2.69 (2.61-2.78)	2.57E 2.97D	1,420	22 22	50(5.1) 69(7)	43/39 43/39	52 53	59 59	67 68	250 1,000+100* 650	795 900 320	41	69	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F34DD3E5 CU-B34DBE5	10.00 34,100	11.20 38,200	1Φ 220-240 50	18.6 18.6	3.88 (3.83-4.05) 3.94 (3.86-4.00)	2.58E 2.84D	1,940	36 36	50(5.1) 69(7)	45/41 44/40	55 56	60 59	69 70	250 1,200+100* 650	1,170 900 320	47	102	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F34DD3E5 CU-B34DBE8	10.00 34,100	11.20 38,200	3Φ 380-415 50	6.45 6.2	3.75 (3.70-3.80) 3.58 (3.54-3.64)	2.67D 3.13D	1,875	36 36	50(5.1) 69(7)	45/41 44/40	55 56	60 59	69 70	250 1,200+100* 650	1,170 900 320	47	100	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F43DD3E5 CU-B43DBE8	12.50 42,600	14.00 47,700	3Φ 380-415 50	8.1 7.9	4.80 (4.75-4.87) 4.68 (4.61-4.78)	2.60E 2.99D	2,400	40 40	50(5.1) 69(7)	45/41 44/40	56 57	60 59	70 71	250 1,200+100* 650	1,170 900 320	47	102	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24
CS-F50DD3E5 CU-B50DBE8	13.50 46,000	15.00 51,100	3Φ 380-415 50	8.8 8.4	5.31 (5.26-5.46) 5.08 (5.03-5.13)	2.54E 2.95D	2,655	40 40	50(5.1) 69(7)	46/42 45/41	56 57	61 60	70 71	250 1,200+100* 650	1,170 900 320	47	102	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5~43 -10~24

Rating Conditions

	Cooling	Heating
Inside air temperature	27°C DB/19°C WB	20°C DB
Outside air temperature	35°C DB/24°C WB	7°C DB/6°C WB

* The Sound Pressure Level of the outdoor unit shows the value measured of a position 1 meter in front of the main body and 1.5 meters from the ground.
** When installing the outdoor unit at a higher position than the indoor unit.
*** Cooling operation at -15°C <inverter L series> / -10°C <non-inverter> is possible in non-residential computer rooms, etc., where the temperature is not less than 21°C and humidity is not more than 45%.
# Add 100mm for power supply box.
Add 70mm for piping port.
The specifications listed on the table indicate values under the condition of 50Pa(5.1mmAq) which are applied for factory default setting.

Hide-Away Type

Middle Static Pressure Models

Remote Controller

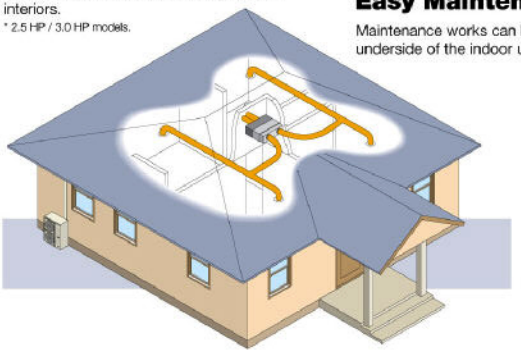
* A remote controller is in the same package with the indoor unit.

Wired Remote Controller

Thin (Only 29 cm*), Lightweight Design

The unit has a height of only 29 cm, so it allows installation in limited ceiling spaces. The lightweight, attractive design simplifies installation, and matches virtually all room interiors.

* 2.5 HP / 3.0 HP models.



Flexible Installation

The powerful airflow enables a longer duct to be used. Since the air outlet can be installed away from the main unit, a variety of air conditioner layouts become possible.

Easy Maintenance

Maintenance works can be done from the underside of the indoor unit.

Versatile Functions

- Auto Fan Mode
- Auto Restart Function
- Dry Mode Function
- Auto Changeover Function (Heat Pump Model)
- Low Ambient Cooling Operation
  * See page 16 for details.
- Weekly Timer
- 24-Hour On/Off Real Setting Timer
- Odour Wash
- Economy Mode
- Hot Start Control
- Self-Diagnostic Function

Specifications — Inverter Models

INVERTER

Cooling/Heating

Items / Indoor / Outdoor	Cooling Capacity	Heating Capacity	Power Source	Current	Power Input Cooling	Power Input Heating	EER COP	Energy Saving Classification	Annual Energy Consumption	Air Volume Cooling	Air Volume Heating	External Static Pressure	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Cooling	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Heating	NoiseLevel* SoundPressure Level Outdoor (Hi) Cooling	NoiseLevel* SoundPressure Level Outdoor (Hi) Heating	NoiseLevel* SoundPower Level Indoor (Hi) Cooling	NoiseLevel* SoundPower Level Indoor (Hi) Heating	NoiseLevel* SoundPower Level Outdoor (Hi) Cooling	NoiseLevel* SoundPower Level Outdoor (Hi) Heating	Dimensions Indoor	Dimensions Outdoor	Net Weight Indoor	Net Weight Outdoor	Piping Connection Gas Side	Piping Connection Liquid Side	Pipe Length Min – Max. Length	Pipe Length Elevation Difference (CU up)** CU down	Pipe Length Max. Charge-less Length	Additional Gas	Operation Range (Outdoor)***
	kW Btu/h	kW Btu/h	Phase V Hz	A	kW	kW	W/W		kW	m³/min	Pa (mmAq)		dB(A)	dB(A)	dB	dB					mm (H/W/D)	mm (H/W/D)	kg	kg	O.D. mm (inch)	O.D. mm (inch)	m	m	m	g/m	°C
CS-F24DD2E5 CU-L24DBE5	6.30 (2.86-6.50) 21,500 (9,800-22,200)	7.10 (2.10-7.50) 24,200 (7,200-25,600)	1Φ 220-240 50	9.5 9.5	2.09 (0.60-2.40) 2.08 (0.60-2.50)		3.01B 3.41B	1,045		22 22	69 (7)	45/41 43/39	47 49	61 59	63 65	290 1,000+100* 500	795 900 320	35	71	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5–43 -20–24
CS-F28DD2E5 CU-L28DBE5	7.10 (2.10-7.50) 24,200 (7,200-25,600)	8.00 (2.24-8.50) 27,300 (7,500-29,000)	1Φ 220-240 50	10.7 10.6	2.36 (0.65-2.65) 2.34 (0.65-2.75)		3.01B 3.42B	1,180		22 22	69 (7)	45/41 43/39	48 50	61 59	64 66	290 1,000+100* 500	795 900 320	35	71	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5–43 -20–24
CS-F34DD2E5 CU-L34DBE5	10.00 34,100 (4.69-12.80) (13,800-43,600)	11.20 38,200 (4.81-13.60) (13,600-46,200)	1Φ 220-240 50	13.8 14.9	3.05 (1.35-3.50) 3.05 (1.35-4.30)		3.27A 3.41B	1,530		38 38	98 (10)	49/45 47/44	52 54	64 62	66 68	360 1,000+100* 650	1,340 900 320	48	110	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5–43 -20–24
CS-F34DD2E5 CU-L34DBE8	10.00 34,100 (4.68-12.80) (13,600-46,000)	11.20 38,200 (4.81-13.60) (13,600-46,000)	3Φ 380-415 50	4.8 5.2	3.05 (1.35-3.50) 3.25 (1.35-4.30)		3.27A 3.41B	1,530		38 38	98 (10)	49/45 47/44	52 54	64 62	66 68	360 1,000+100* 650	1,340 900 320	48	105	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5–43 -20–24
CS-F43DD2E5 CU-L43DBE5	12.50 (4.09-13.90) 42,600 (13,900-46,000)	14.00 (4.35-15.90) 47,700 (13,900-52,900)	1Φ 220-240 50	18.8 19.7	4.15 (1.40-4.50) 4.35 (1.40-5.30)		3.01B 3.21C	2,075		40 40	98 (10)	49/45 47/44	53 55	64 62	67 69	360 1,000+100* 650	1,340 900 320	48	110	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5–43 -20–24
CS-F43DD2E5 CU-L43DBE8	12.50 (4.09-13.90) 42,600 (13,800-46,800)	14.00 (4.35-15.90) 47,700 (13,800-52,900)	3Φ 380-415 50	6.5 6.6	4.15 (1.40-4.50) 4.35 (1.40-5.30)		3.01B 3.21C	2,075		40 40	98 (10)	49/45 47/44	53 55	64 62	67 69	360 1,000+100* 650	1,340 900 320	48	105	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5–43 -20–24
CS-F50DD2E5 CU-L50DBE8	14.00 (4.09-15.80) 47,700 (13,800-54,600)	16.00 (4.69-18.00) 54,600 (13,800-61,400)	3Φ 380-415 50	7.7 7.4	5.05 (1.40-5.40) 4.85 (1.40-6.10)		2.77D 3.30C	2,590		45 45	98 (10)	49/45 47/44	54 56	64 62	68 70	360 1,000+100* 650	1,340 900 320	48	105	15.88 (5/8)	9.53 (3/8)	7.5–50	(30) 20	30	50	-5–43 -20–24
CS-F24DD2E5 CU-YL24HBE5	5.60 (2.00-6.30) 19,100 (6,800-21,500)	7.00 (2.39-7.80) 23,900 (7,200-25,000)	1Φ 220-240 50	9.00 11.30	1.99 (0.55-2.30) 2.49 (0.55-2.80)		2.81C 2.81D	995		22 22	69 (7)	45/41 43/39	49 51	61 59	67 68	290 1,000+100* 500	795 875+70** 320	35	65	15.88 (5/8)	9.52 (3/8)	7.5–30	(25) 20	30	-	-5–43 -15–24
CS-F28DD2E5 CU-YL28HBE5	7.10 (2.10-7.75) 24,200 (7,200-26,500)	8.00 (2.24-8.80) 27,300 (7,500-28,900)	1Φ 220-240 50	11.50 12.80	2.60 (0.65-2.80) 2.85 (0.65-3.20)		2.81C 2.81D	1,265		22 22	69 (7)	45/41 43/39	50 52	61 59	68 69	290 1,000+100* 500	795 875+70** 320	35	65	15.88 (5/8)	9.52 (3/8)	7.5–30	(25) 20	30	-	-5–43 -15–24
CS-F34DD2E5 CU-YL34HBE5	10.00 (3.80-10.50) 34,100 (13,800-38,800)	11.20 (3.84-12.50) 38,200 (13,800-42,700)	1Φ 220-240 50	16.30 17.00	3.55 (1.30-4.30) 3.72 (1.30-4.25)		2.81C 3.01D	1,780		38 38	98 (10)	49/45 47/44	53 56	64 62	71 73	360 1,000+100* 650	795 900 320	48	66	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	-5–43 -15–24
CS-F43DD2E5 CU-YL43HBE5	12.50 (3.80-13.90) 42,700 (13,800-44,400)	14.00 (3.85-14.90) 47,800 (13,800-48,500)	1Φ 220-240 50	20.30 21.20	4.45 (1.30-4.70) 4.65 (1.20-5.80)		2.81C 3.01D	2,225		40 40	98 (10)	49/45 47/44	54 56	64 62	72 73	360 1,000+100* 650	1170 900 320	48	94	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	-5–43 -15–24

Specifications — Non-Inverter Models

Cooling/Heating

Items / Indoor / Outdoor	Cooling Capacity	Heating Capacity	Power Source	Current	Power Input Cooling	Power Input Heating	EER COP	Energy Saving Classification	Annual Energy Consumption	Air Volume Cooling	Air Volume Heating	External Static Pressure	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Cooling	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Heating	NoiseLevel* SoundPressure Level Outdoor (Hi) Cooling	NoiseLevel* SoundPressure Level Outdoor (Hi) Heating	NoiseLevel* SoundPower Level Indoor (Hi) Cooling	NoiseLevel* SoundPower Level Indoor (Hi) Heating	NoiseLevel* SoundPower Level Outdoor (Hi) Cooling	NoiseLevel* SoundPower Level Outdoor (Hi) Heating	Dimensions Indoor	Dimensions Outdoor	Net Weight Indoor	Net Weight Outdoor	Piping Connection Gas Side	Piping Connection Liquid Side	Pipe Length Min – Max. Length	Pipe Length Elevation Difference (CU up)** CU down	Pipe Length Max. Charge-less Length	Additional Gas	Operation Range (Outdoor)***
	kW Btu/h	kW Btu/h	Phase V Hz	A	kW	kW	W/W		kW	m³/min	Pa (mmAq)		dB(A)	dB(A)	dB	dB					mm (H/W/D)	mm (H/W/D)	kg	kg	O.D. mm (inch)	O.D. mm (inch)	m	m	m	g/m	°C
CS-F24DD2E5 CU-J24DBE5	6.60 22,500	—	1Φ 220-240 50	13.1	2.70 (2.66-2.74)		2.44E	1,350		22	69 (7)	45/41	50	61	66	290 1,000+100* 500	795 900 320	35	61	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F24DD2E5 CU-J24DBE8	6.60 22,500	—	3Φ 380-415 50	4.63	2.70 (2.66-2.74)		2.44E	1,350		22	69 (7)	45/41	50	61	66	290 1,000+100* 500	795 900 320	35	61	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F28DD2E5 CU-J28DBE5	7.30 24,900	—	1Φ 220-240 50	13.17	2.91 (2.86-2.96)		2.51E	1,455		22	69 (7)	45/41	52	61	67	290 1,000+100* 500	795 900 320	35	61	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F28DD2E5 CU-J28DBE8	7.30 24,900	—	3Φ 380-415 50	4.9	2.91 (2.86-2.96)		2.51E	1,455		22	69 (7)	45/41	52	61	67	290 1,000+100* 500	795 900 320	35	61	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F34DD2E5 CU-J34DBE5	10.00 34,100	—	1Φ 220-240 50	19.0	4.10 (4.03-4.15)		2.44E	2,050		38	98 (10)	49/45	55	64	69	360 1,000+100* 650	1,170 900 320	48	92	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F34DD2E5 CU-J34DBE8	10.00 34,100	—	3Φ 380-415 50	6.5	3.92 (3.86-3.96)		2.55E	1,960		38	98 (10)	49/45	55	64	69	360 1,000+100* 650	1,170 900 320	48	90	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F43DD2E5 CU-J43DBE8	12.50 42,600	—	3Φ 380-415 50	8.2	4.98 (4.90-5.12)		2.51E	2,490		40	98 (10)	49/45	56	64	70	360 1,000+100* 650	1,170 900 320	48	97	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F50DD2E5 CU-J50DBE8	13.50 46,000	—	3Φ 380-415 50	9.0	5.46 (5.41-5.51)		2.47E	2,680		45	98 (10)	49/45	56	64	70	360 1,000+100* 650	1,170 900 320	48	97	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F24DD2E5 CU-B24DBE5	6.60 22,500	7.10 24,200	1Φ 220-240 50	13.1 11.9	2.64 (2.61-2.70) 2.53 (2.45-2.62)		2.50E 2.81D	1,320		22 22	69 (7)	45/41 43/39	50 51	61 59	66 67	290 1,000+100* 500	795 900 320	35	69	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F28DD2E5 CU-B28DBE5	7.30 24,900	8.00 27,300	1Φ 220-240 50	13.7 12.6	2.86 (2.81-2.91) 2.71 (2.62-2.80)		2.55E 2.95D	1,430		22 22	69 (7)	45/41 43/39	52 53	61 59	67 68	290 1,000+100* 500	795 900 320	35	69	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F28DD2E5 CU-B28DBE8	7.30 24,900	8.00 27,300	3Φ 380-415 50	4.9 4.7	2.86 (2.81-2.91) 2.71 (2.62-2.80)		2.55E 2.95D	1,430		22 22	69 (7)	45/41 43/39	52 53	61 59	67 68	290 1,000+100* 500	795 900 320	35	69	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F34DD2E5 CU-B34DBE5	10.00 34,100	11.20 38,200	1Φ 220-240 50	18.8 18.7	3.97 (3.89-4.08) 3.99 (3.90-4.05)		2.52E 2.81D	1,985		38 38	98 (10)	49/45 47/44	55 56	64 62	69 70	360 1,000+100* 650	1,170 900 320	48	102	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F34DD2E5 CU-B34DBE8	10.00 34,100	11.20 38,200	3Φ 380-415 50	6.5 6.4	3.83 (3.79-3.92) 3.69 (3.63-3.75)		2.61D 3.04D	1,915		38 38	98 (10)	49/45 47/44	55 56	64 62	69 70	360 1,000+100* 650	1,170 900 320	48	100	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F43DD2E5 CU-B43DBE8	12.50 42,600	14.00 47,700	3Φ 380-415 50	8.2 8.0	4.92 (4.85-5.04) 4.66 (4.56-4.78)		2.54E 3.00D	2,460		40 40	98 (10)	49/45 47/44	56 57	64 62	70 71	360 1,000+100* 650	1,170 900 320	48	102	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24
CS-F50DD2E5 CU-B50DBE8	13.50 46,000	15.00 51,100	3Φ 380-415 50	8.9 8.5	5.36 (5.31-5.46) 5.13 (5.08-5.18)		2.52E 2.92D	2,680		45 45	98 (10)	49/45 47/44	56 57	64 62	70 71	360 1,000+100* 650	1,170 900 320	48	102	15.88 (5/8)	9.52 (3/8)	7.5–50	(30) 20	30	50	5–43 -10–24

Rating Conditions

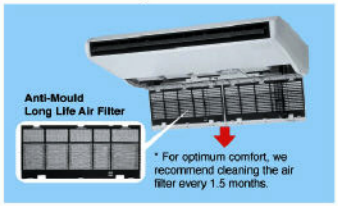
	Cooling	Heating
Inside air temperature	27°C DB/19°C WB	20°C DB
Outside air temperature	35°C DB/24°C WB	7°C DB/6°C WB

* The Sound Pressure Level of the outdoor unit shows the value measured of a position 1 meter in front of the main body and 1.5 meters from the ground.
** When installing the outdoor unit at a higher position than the indoor unit.
*** Cooling operation at -15°C <inverter L series> / -10°C <non-inverter> is possible in non-residential computer rooms, etc., where the temperature is not less than 21°C and humidity is not more than 45%.
# Add 100mm for power supply box.
Add 70mm for piping port.

Ceiling Type

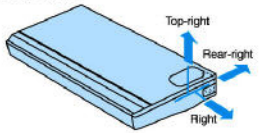
Easier Maintenance and Cleaning

- **Anti-Mould Long Life Air Filter**



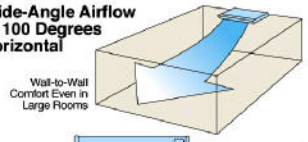
- **3-Direction Pipe Lead-Out**

The refrigerant piping can be lead out in one of three directions (right, rear-right and top-right), and the drain pipe direction can be selected from four directions.

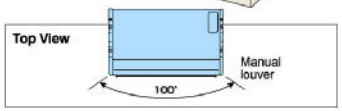


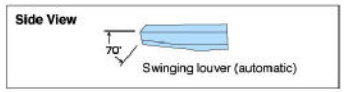
Wide Air Discharge, Comfortable Control

- **Wide-Angle Airflow — 100 Degrees Horizontal**



- **Auto Swing Louver**





Versatile Functions

- **Auto Restart Function**
- **Auto Fan Mode**
- **Weekly Timer** (Wired Remote Controller only)
- **24-Hour On/Off Real Setting Timer**
- **Odour Wash**
- **Economy Mode**
- **Low Ambient Cooling Operation** *See page 16 for details.
- **Auto Changeover Function** (Heat Pump Model)
- **Dry Mode Function**
- **Hot Start Control**
- **Self-Diagnostic Function**
- **Optional: SUPER alleru-buster filter (CZ-SA12P)**

Specifications — Inverter Models

INVERTER

Cooling/Heating

Items / Indoor / Outdoor	Cooling Capacity	Heating Capacity	Power Source	Power Input Cooling / Heating	Current	EER COP / Energy Saving Classification	Annual Energy Consumption	Air Volume Cooling / Heating	SoundPressure Level Indoor (Hi/Lo) Cooling / Heating	SoundPressure Level Outdoor (Hi) Cooling / Heating	SoundPower Level Indoor (Hi) Cooling / Heating	SoundPower Level Outdoor (Hi) Cooling / Heating	Dimensions Indoor	Dimensions Outdoor	Net Weight Indoor	Net Weight Outdoor	Piping Connection Gas Side	Piping Connection Liquid Side	Pipe Length Min – Max. Length	Pipe Length Elevation Difference (CU up)** / CU down	Pipe Length Max. Charge-less Length	Pipe Length Additional Gas	Operation Range (Outdoor)***
	kW Btu/h	kW Btu/h	Phase V Hz	kW	A	W/W (EEL)	kW	m³/min	dB(A)	dB(A)	dB	dB	mm (H × W × D)	mm (H × W × D)	kg	kg	O.D. mm (inch)	O.D. mm (inch)	m	m	m	g/m	°C
CS-F24DTE5 CU-L24DBE5	6.30 (2.08-6.30) 21,500 (6,800-22,200)	7.10 (2.10-7.50) 24,200 (7,200-25,600)	1φ 220-240 50	1.96 (0.93-2.30) 2.21 (0.93-3.17)	8.9 10.0	3.21A 3.21C (3)	980	17 17	43/39 43/39	47 49	60 60	63 65	210 1,245 700	795 900 320	33	71	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5~43 -20~24
CS-F28DTE5 CU-L28DBE5	7.10 (2.10-7.50) 24,200 (7,200-25,600)	8.00 (2.30-8.50) 27,300 (7,700-29,000)	1φ 220-240 50	2.44 (0.93-2.46) 2.65 (0.93-3.26)	11.1 12.0	2.91C 3.02D (3)	1,220	18 18	45/41 45/41	48 50	62 62	64 66	210 1,245 700	795 900 320	33	71	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5~43 -20~24
CS-F34DTE5 CU-L34DBE5	10.00 (4.00-12.00) 34,100 (13,600-40,900)	11.20 (4.00-13.50) 38,200 (13,600-46,000)	1φ 220-240 50	3.00 (1.25-3.80) 3.28 (1.25-4.20)	13.0 14.9	3.33A 3.41B (1)	1,500	29 29	47/43 47/43	52 54	64 64	66 68	250 1,600 700	1,340 900 320	43	110	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5~43 -20~24
CS-F34DTE5 CU-L34DBE8	10.00 (4.00-12.00) 34,100 (13,600-40,900)	11.20 (4.09-13.50) 38,200 (13,600-46,000)	3φ 380-415 50	3.00 (1.25-3.80) 3.28 (1.25-4.20)	4.7 5.2	3.33A 3.41B (1)	1,500	29 29	47/43 47/43	52 54	64 64	66 68	250 1,600 700	1,340 900 320	43	105	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5~43 -20~24
CS-F43DTE5 CU-L43DBE5	12.50 (4.00-13.00) 42,600 (13,600-46,000)	14.00 (4.00-15.30) 47,700 (13,600-52,200)	1φ 220-240 50	4.15 (1.30-4.90) 4.00 (1.29-5.03)	18.8 18.2	3.01B 3.50B	2,075	31 31	49/45 49/45	53 55	66 66	67 69	250 1,600 700	1,340 900 320	47	110	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5~43 -20~24
CS-F43DTE5 CU-L43DBE8	12.50 (4.00-13.00) 42,600 (13,600-46,000)	14.00 (4.00-15.30) 47,700 (13,600-52,200)	3φ 380-415 50	4.15 (1.30-4.90) 4.00 (1.29-5.03)	6.5 6.3	3.01B 3.50B	2,075	31 31	49/45 49/45	53 55	66 66	67 69	250 1,600 700	1,340 900 320	47	105	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5~43 -20~24
CS-F50DTE5 CU-L50DBE8	14.00 (4.00-16.00) 47,700 (13,600-54,600)	16.00 (4.09-18.90) 54,600 (13,600-61,400)	3φ 380-415 50	4.81 (1.35-5.10) 4.68 (1.30-6.00)	7.4 7.2	2.91C 3.41B	2,405	32 32	50/46 50/46	54 56	67 67	68 70	250 1,600 700	1,340 900 320	47	105	15.88 (5/8)	9.53 (3/8)	7.5-50	(30) 20	30	50	-5~43 -20~24
CS-F24DTE5 CU-YL24HBE5	5.60 (2.08-6.30) 19,100 (6,800-21,500)	7.00 (2.82-7.50) 23,900 (9,600-25,600)	1φ 220-240 50	1.99 (0.80-2.38) 2.49 (0.93-2.96)	8.9 11.2	2.81C 2.81D (3)	995	17 17	43/39 43/39	49 51	60 60	67 68	210 1,245 700	795 875+70* 320	33	65	15.88 (5/8)	9.52 (3/8)	7.5-30	(25) 20	30	-	-5~43 -15~24
CS-F28DTE5 CU-YL28HBE5	7.10 (2.08-7.30) 24,200 (6,800-25,600)	8.00 (2.30-9.00) 27,300 (7,700-28,300)	1φ 220-240 50	2.53 (0.93-2.70) 2.855 (0.93-3.25)	11.3 12.8	2.81C 2.80D (3)	1,265	18 18	45/41 45/41	50 52	62 62	68 69	210 1,245 700	795 875+70* 320	33	65	15.88 (5/8)	9.52 (3/8)	7.5-30	(25) 20	30	-	-5~43 -15~24
CS-F34DTE5 CU-YL34HBE5	10.00 (3.90-10.50) 34,100 (13,000-35,800)	11.20 (3.09-12.50) 38,200 (13,000-42,700)	1φ 220-240 50	3.83 (1.30-4.60) 4.49 (1.25-4.80)	17.5 15	2.61D 3.21C (3)	1,915	29 29	47/43 47/43	53 56	64 64	71 73	250 1,600 700	795 900 320	43	66	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	-5~43 -15~24
CS-F43DTE5 CU-YL43HBE5	12.50 (3.90-15.60) 42,700 (13,000-44,400)	14.00 (3.86-14.50) 47,800 (13,000-49,500)	1φ 220-240 50	4.45 (1.30-4.70) 4.23 (1.13-5.00)	20.3 19.4	2.81C 3.31C	2,225	31 31	49/45 49/45	54 56	66 66	72 73	250 1,600 700	1170 900 320	47	94	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	-5~43 -15~24

Grade 1 ENERGY LABEL

Grade 1 ENERGY LABEL

Specifications — Non-Inverter Models

Cooling/Heating

Items / Indoor / Outdoor	Cooling Capacity	Heating Capacity	Power Source	Current	Power Input Cooling / Heating	EER COP / Energy Saving Classification	Annual Energy Consumption	Air Volume Cooling / Heating	NoiseLevel* SoundPressure Level Indoor (Hi/Lo) Cooling / Heating	SoundPressure Level Outdoor (Hi) Cooling / Heating	SoundPower Level Indoor (Hi) Cooling / Heating	SoundPower Level Outdoor (Hi) Cooling / Heating	Dimensions Indoor	Dimensions Outdoor	Net Weight Indoor	Net Weight Outdoor	Piping Connection Gas Side	Piping Connection Liquid Side	Pipe Length Min – Max. Length	Pipe Length Elevation Difference (CU up)** / CU down	Pipe Length Max. Charge-less Length	Pipe Length Additional Gas	Operation Range (Outdoor)***
	kW Btu/h	kW Btu/h	Phase V Hz	A	kW	W/W (EEL)	kW	m³/min	dB(A)	dB(A)	dB	dB	mm (H × W × D)	mm (H × W × D)	kg	kg	O.D. mm (inch)	O.D. mm (inch)	m	m	m	g/m	°C
CS-F18DTE5 CU-J18DBE5	5.00 17,100	—	1φ 220-240 50	8.1	1.81 (1.78-1.84)	2.76D (3)	905	14	41/37	49	58	65	210 1,245 700	795 900 320	33	56	12.7 (1/2)	6.35 (1/4)	7.5-30	(20) 20	20	50	5~43 -10~24
CS-F24DTE5 CU-J24DBE5	6.60 22,500	—	1φ 220-240 50	13.3	2.63 (2.58-2.68)	2.51E (3)	1,315	17	43/39	50	60	66	210 1,245 700	795 900 320	33	61	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F24DTE5 CU-J24DBE8	6.60 22,500	—	3φ 380-415 50	4.6	2.63 (2.58-2.68)	2.51E	1,315	17	43/39	50	60	66	210 1,245 700	795 900 320	33	61	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F28DTE5 CU-J28DBE5	7.30 24,900	—	1φ 220-240 50	13.0	2.85 (2.80-2.90)	2.56E	1,425	18	45/41	52	62	67	210 1,245 700	795 900 320	33	61	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F28DTE5 CU-J28DBE8	7.30 24,900	—	3φ 380-415 50	4.95	2.85 (2.80-2.90)	2.56E	1,425	18	45/41	52	62	67	210 1,245 700	795 900 320	33	61	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F34DTE5 CU-J34DBE5	10.00 34,100	—	1φ 220-240 50	18.5	4.02 (3.97-4.07)	2.49E	2,010	29	47/43	55	64	69	250 1,600 700	1,170 900 320	43	92	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F34DTE5 CU-J34DBE8	10.00 34,100	—	3φ 380-415 50	6.1	3.89 (3.84-3.94)	2.57E	1,945	29	47/43	55	64	69	250 1,600 700	1,170 900 320	43	90	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F43DTE5 CU-J43DBE8	12.50 42,600	—	3φ 380-415 50	8.2	4.89 (4.84-4.94)	2.56E	2,445	31	49/45	56	66	70	250 1,600 700	1,170 900 320	47	97	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F50DTE5 CU-J50DBE8	13.50 46,000	—	3φ 380-415 50	8.6	5.28 (5.23-5.33)	2.56E	2,640	32	50/46	56	67	70	250 1,600 700	1,170 900 320	47	97	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F18DTE5 CU-B18DBE5	5.00 17,100	5.60 19,100	1φ 220-240 50	8.1	1.81 (1.78-1.84) 1.74 (1.71-1.77)	2.76D 3.22C	905	14 14	41/37 41/37	49 50	58 58	65 66	210 1,245 700	795 900 320	33	57	12.7 (1/2)	6.35 (1/4)	7.5-30	(20) 20	20	50	5~43 -10~24
CS-F24DTE5 CU-B24DBE5	6.60 22,500	7.10 24,200	1φ 220-240 50	12.6 12.6	2.57 (2.51-2.63) 2.49 (2.44-2.62)	2.57E 2.85D	1,285	17 17	43/39 43/39	50 51	60 60	66 67	210 1,245 700	795 900 320	33	69	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F28DTE5 CU-B28DBE5	7.30 24,900	7.80 26,600	1φ 220-240 50	12.9 13.0	2.85 (2.80-2.90) 2.75 (2.70-2.80)	2.56E 2.84D	1,425	18 18	45/41 45/41	52 53	62 62	67 68	210 1,245 700	795 900 320	33	69	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F28DTE5 CU-B28DBE8	7.30 24,900	7.80 26,600	3φ 380-415 50	4.9 4.7	2.85 (2.80-2.90) 2.75 (2.70-2.80)	2.56E 2.84D	1,425	18 18	45/41 45/41	52 53	62 62	67 68	210 1,245 700	795 900 320	33	69	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F34DTE5 CU-B34DBE5	10.00 34,100	11.20 38,200	1φ 220-240 50	18.2 18.2	3.90 (3.85-3.95) 3.99 (3.94-4.04)	2.56E 2.81D	1,950	29 29	47/43 47/43	55 56	64 64	69 70	250 1,600 700	1,170 900 320	43	102	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F34DTE5 CU-B34DBE8	10.00 34,100	11.20 38,200	3φ 380-415 50	6.1 6.4	3.77 (3.72-3.82) 3.91 (3.86-3.96)	2.65D 2.86D	1,885	29 29	47/43 47/43	55 56	64 64	69 70	250 1,600 700	1,170 900 320	43	100	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F43DTE5 CU-B43DBE8	12.50 42,600	14.00 47,700	3φ 380-415 50	8.0 7.8	4.75 (4.70-4.80) 4.69 (4.64-4.74)	2.63D 2.99D	2,375	31 31	49/45 49/45	56 57	66 66	70 71	250 1,600 700	1,170 900 320	47	102	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24
CS-F50DTE5 CU-B50DBE8	13.50 46,000	15.00 51,100	3φ 380-415 50	8.6 8.0	5.16 (5.11-5.28) 5.03 (4.95-5.08)	2.62D 2.98D	2,580	32 32	50/46 50/46	56 57	67 67	70 71	250 1,600 700	1,170 900 320	47	102	15.88 (5/8)	9.52 (3/8)	7.5-50	(30) 20	30	50	5~43 -10~24

Rating Conditions

	Cooling	Heating
Inside air temperature	27°C DB/19°C WB	20°C DB
Outside air temperature	35°C DB/24°C WB	7°C DB/6°C WB

* The Sound Pressure Level of the outdoor unit shows the value measured of a position 1 meter in front of the main body and 1.5 meters from the ground.
** When installing the outdoor unit at a higher position than the indoor unit.
*** Cooling operation at -15°C <inverter L series> / -10°C <non-inverter> is possible in non-residential computer rooms, etc., where the temperature is not less than 21°C and humidity is not more than 45%.
Add 70mm for piping port.
EEL: Energy Efficiency Labelling Scheme

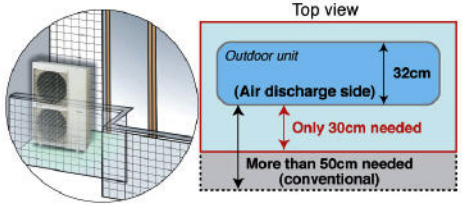
Outdoor Units

Flexible Installation in Smaller Spaces

A variety of improvements has reduced installation time and space.

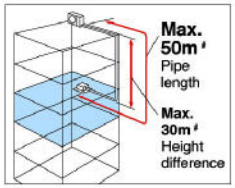
- **Space-Saving Outdoor Unit**

  By improving the fan, we were able to make the outdoor unit small enough to fit in spaces too tight for conventional units.



- **50m Long Piping**

  Piping can be extended up to 30 meters without additional gas charging, and up to 50 meters with additional gas charging.
  By giving you more flexibility in positioning the outdoor unit, this gives you a wider range of installation options.



Allowable Pipe Length (except YL series)

	1.5-2.0HP	2.5-3.0HP	4.0HP	5.0-6.0HP
Max. Length #	30 m	50 m	50 m	50 m
Max. Chargeless Length	20 m	30 m	30 m	30 m
Max. Height Difference #	20 m	30 m*1 20 m*2	30 m*1 20 m*2	30 m*1 20 m*2

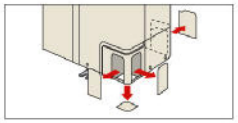
YL Series

	2.5-3.0HP	4.0HP	5.0HP
Max. Length #	30 m	50 m	50 m
Max. Chargeless Length	30 m	30 m	30 m
Max. Height Difference #	25 m*1 20 m*2	30 m*1 20 m*2	30 m*1 20 m*2

#Gas is pre-charged for 30m. (Additional gas is required when pipe length is extended.)
*1 When installing the outdoor unit at a higher position than the indoor unit.
*2 When installing the outdoor unit at a lower position than the indoor unit.

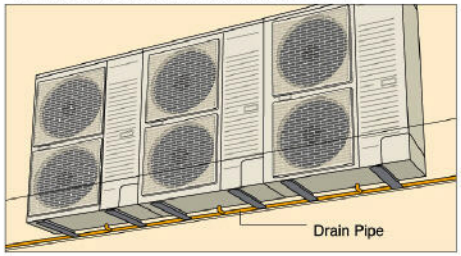
- **Flexible 4-Way Piping**

  Piping can be routed in any of four directions.
  *Except YL series 2.5 - 3HP



- **Centralized Drain Method**

  The drain outlets can be gathered into a single drain pipe even when multiple outdoor units are installed to a wall.



- **Side-by-Side Continuous Installation**

  Even outdoor units with different capacities can be installed side by side in an efficient, orderly layout. To make this possible, we have positioned the service port in the front and given all models the same depth.
  *Except YL series 2.5 - 3HP

Quiet, Efficient Design Fan

A host of silencing technologies achieves super-quiet operation. We've also improved operating efficiency and reduced energy consumption.

Noise-Suppressing Winglet Fan

Low Ambient Cooling Operation

The unit can be used for cooling even when the outdoor temperature is extremely low.
This is ideal for locations that require cooling even in winter.

- **Regular cooling conditions:**

  <Inverter L series> -5°C* to 43°C (outdoor temperature)
  <Inverter YL series> -5°C* to 43°C (outdoor temperature)
  <Non-Inverter> 5°C* to 43°C (outdoor temperature)

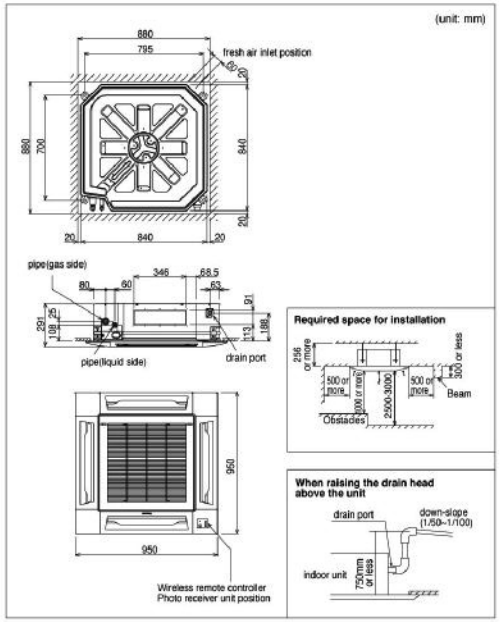
  * Cooling operation at -15°C <Inverter L series> /-10°C <Non-Inverter> is possible in non-residential computer rooms, etc., where the temperature is not less than 21°C and humidity is not more than 45%.

- **Regular heating conditions:**

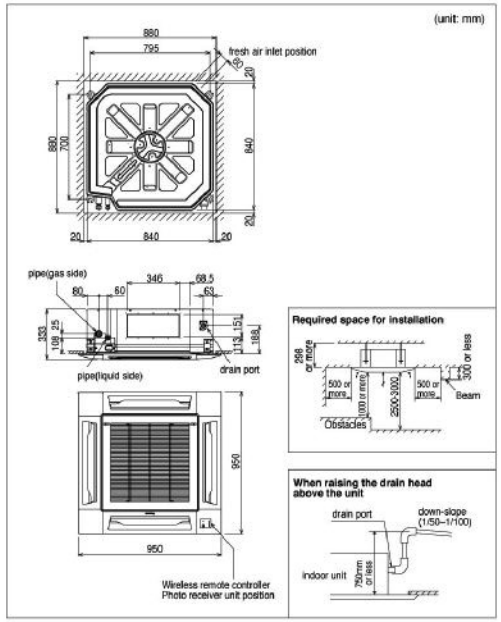
  <Inverter L series> -20°C to 24°C (outdoor temperature)
  <Inverter YL series> -15°C to 24°C (outdoor temperature)
  <Non-Inverter> -10°C to 24°C (outdoor temperature)

CASSETTE TYPE

CS-F14DB4E5/CS-F18DB4E5/CS-F24DB4E5/CS-F28DB4E5

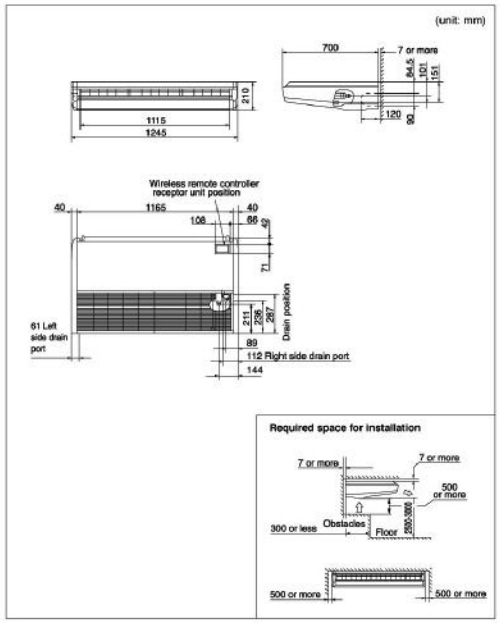


CS-F34DB4E5/CS-F43DB4E5/CS-F50DB4E5

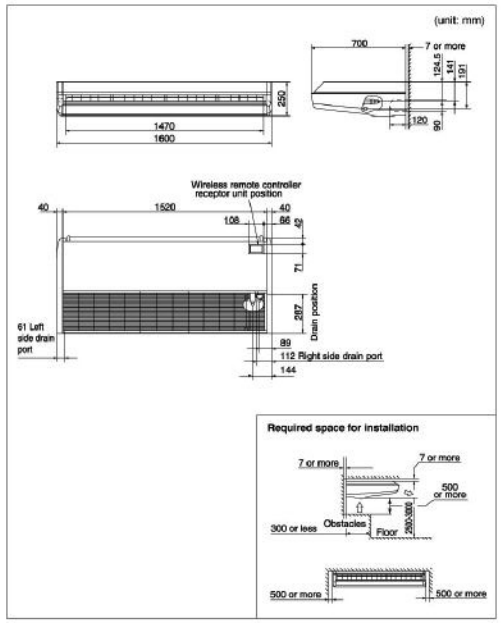


CEILING TYPE

CS-F18DTE5/CS-F24DTE5/CS-F28DTE5



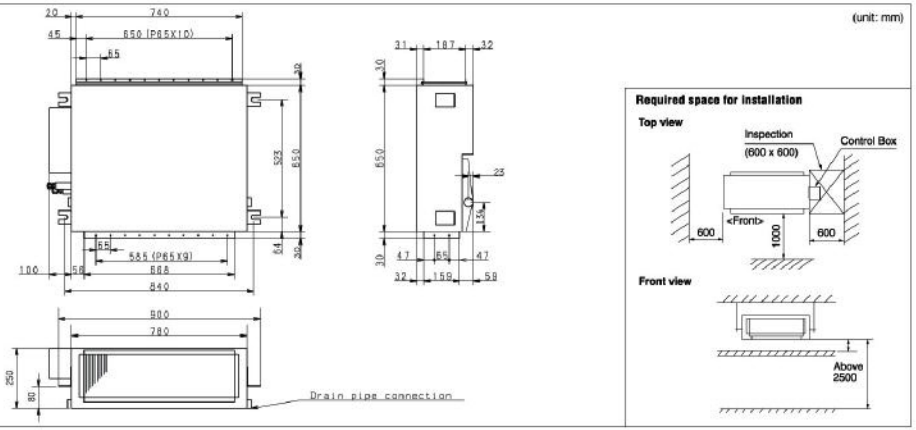
CS-F34DTE5/CS-F43DTE5/CS-F50DTE5



HIDE-AWAY TYPE (LOW STATIC PRESSURE MODELS)

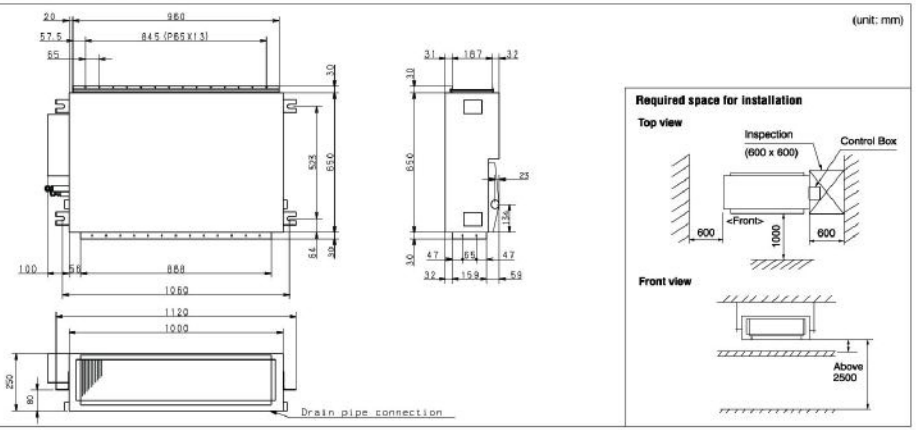
CS-F14DD3E5/CS-F18DD3E5

(unit: mm)



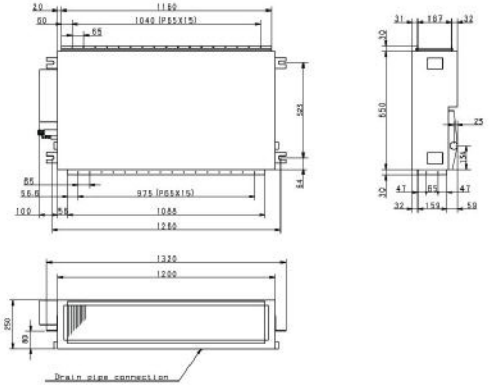
CS-F24DD3E5/CS-F28DD3E5

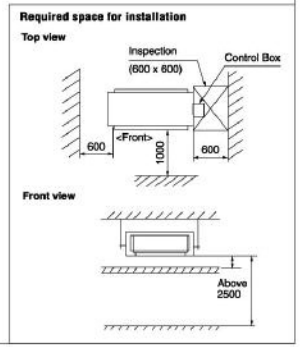
(unit: mm)



CS-F34DD3E5/CS-F43DD3E5/CS-F50DD3E5

(unit: mm)

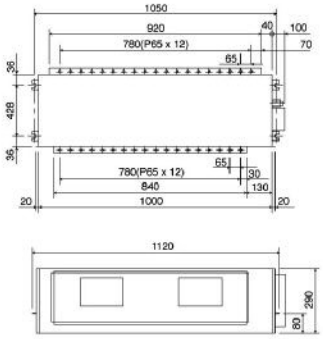


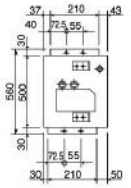


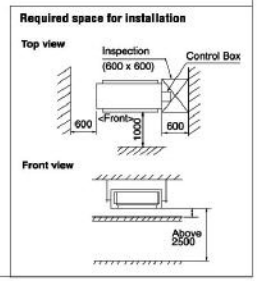
HIDE-AWAY TYPE (MIDDLE STATIC PRESSURE MODELS)

CS-F24DD2E5/CS-F28DD2E5

(unit: mm)

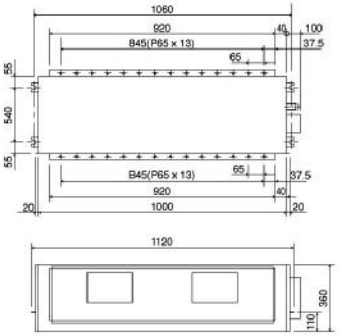


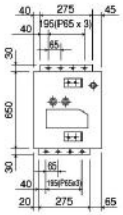


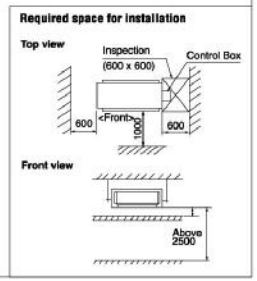


CS-F34DD2E5/CS-F43DD2E5/CS-F50DD2E5

(unit: mm)







OUTDOOR UNITS

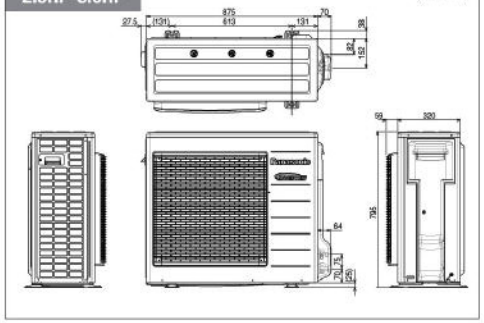
Inverter: CU-YL24HBE5/CU-YL28HBE5

Inverter: CU-L24DBE5/CU-L28DBE5/CU-YL34HBE5

Non-Inverter: CU-B14DBE5/CU-B18DBE5/CU-B24DBE5/CU-B28DBE5/ CU-B28DBE8/CU-J14DBE5/CU-J18DBE5/CU-J24DBE5/ CU-J24DBE8/CU-J28DBE5/CU-J28DBE8

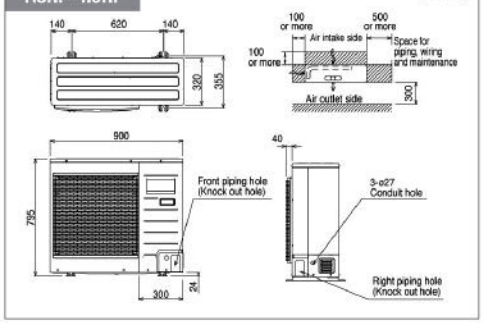
2.5HP-3.0HP

(unit: mm)



1.5HP-4.0HP

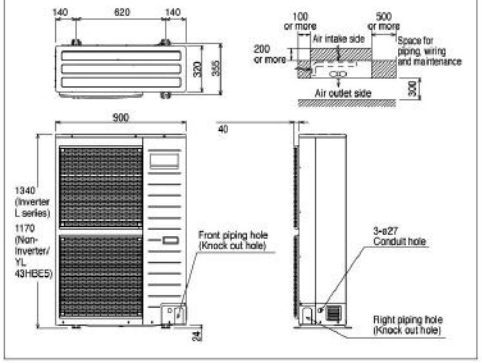
(unit: mm)



OUTDOOR UNITS

4.0HP-6.0HP

(unit: mm)



Inverter: CU-L34DBE5/CU-L34DBE8/CU-L43DBE5/CU-L43DBE8/ CU-L50DBE8/CU-YL43HBE5

Non-Inverter: CU-B34DBE5/CU-B34DBE8/CU-B43DBE8/CU-B50DBE8 CU-J34DBE5/CU-J34DBE8/CU-J43DBE8/CU-J50DBE8

Remote Controller

Wired Remote Controller

CZ-RD513C
(For Cassette Type and Ceiling Type)

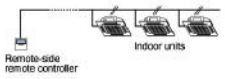
* A wired remote controller is included with hide-away types.

Wireless Remote Controller

Heat Pump Models
CZ-RL513B (For Cassette Type)
CZ-RL513T (For Ceiling Type)

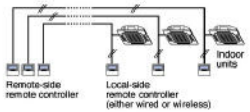
Cooling Only Models
CZ-RL013B (For Cassette Type)
CZ-RL013T (For Ceiling Type)

- **Group Control by a Single Remote Controller**



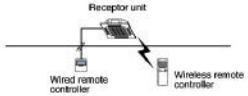
- All indoor units operate in the same mode.

- **Separate Control by Twin Remote Controllers**



- Each indoor unit can be operated by either of the two remote controllers.
- Apart from the timer setting time, the displays for the two remote controllers are identical.
- The last button pressed has priority (The main or slave attribute is set with the remote controller).

- **Common Control by Both Wired and Wireless Remote Controllers**



- The last button pressed has priority (using either wired or wireless remote controllers).

Optional Accessories

SUPER alleru-buster filter

CZ-SA11P
(For Cassette Type)
CZ-SA12P
(For Ceiling Type)

Branch Pipe Set

Connects indoor units of the same type and capacity in a twin-unit configuration.

CZ-H2H53DP
(For 3.0-4.0 HP)
CZ-H2H53EP
(For 5.0-6.0 HP)

Indoor Unit Combination

Twin Unit Configuration (Simultaneous Operation)

Indoor units of the same type and capacity can be connected in a twin-unit configuration.(Simultaneous operation)

* An optional branch pipe set (CZ-H2H53DP for 3.0-4.0 HP, CZ-H2H53EP for 5.0-6.0 HP) is required.

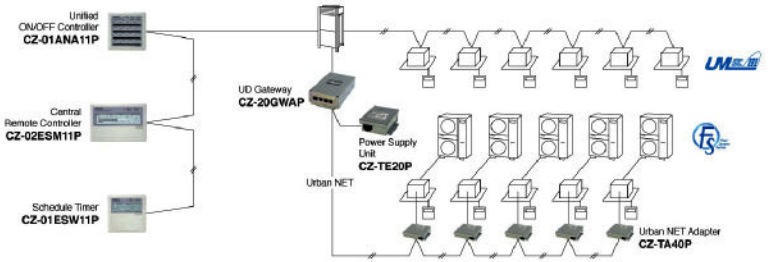
Outdoor Unit \ Indoor Unit	Cassette	Hide-Away (Low Static Pressure)	Hide-Away (Middle Static Pressure)	Ceiling
3.0 HP	3.0 / 1.5 / 1.5	3.0 / 1.5 / 1.5		
4.0 HP	4.0 / 2.0 / 2.0	4.0 / 2.0 / 2.0		4.0 / 2.0 / 2.0
5.0 HP	5.0 / 2.5 / 2.5	5.0 / 2.5 / 2.5	5.0 / 2.5 / 2.5	5.0 / 2.5 / 2.5
6.0 HP*	6.0 / 3.0 / 3.0	6.0 / 3.0 / 3.0	6.0 / 3.0 / 3.0	6.0 / 3.0 / 3.0

: Outdoor Unit Capacity : Indoor Unit Capacity

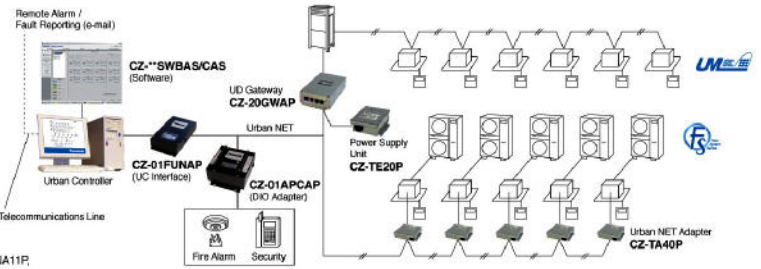
*Except YL series

Centralized Control System

System Example with Centralized Control (UM NET)

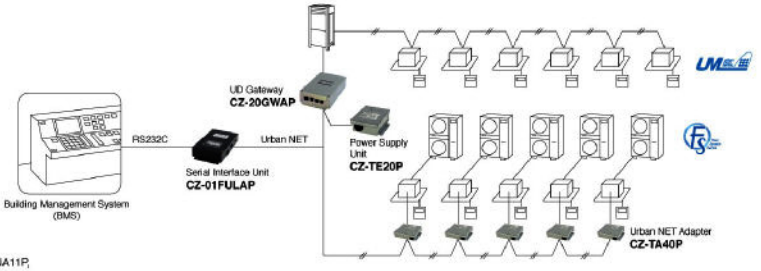


System Example with Urban Controller



Cannot be used with the CZ-01ANA11P, CZ-02ESM11P, or CZ-01ESW11P.

System Example with BMS RS232C Serial Connection



Cannot be used with the CZ-01ANA11P, CZ-02ESM11P, or CZ-01ESW11P.

Equipment of the Centralized Control System (Optional Parts)

	**Interface Adapter for External Signals**	**CZ-TA31P**	• By connecting to the indoor unit, a separately sold ventilator can be controlled. • Remote operation control of the indoor unit is enabled (ON/OFF control). • The operating condition of the indoor unit (malfunctions, operating status) can be externally output. • Control in linkage with a Energy Recovery Ventilators (ERV) and the like is possible.
	**Urban NET Adapter**	**CZ-TA40P**	• Communications converter for centralized control of indoor units.
	**Adapter for Address Set-Up**	**CZ-TA50P**	• Printed Circuit Board for manually setting centralized addresses of indoor units. Used to set addresses before turning on the indoor unit power, and when there is no handheld remote controller.
	**Power Supply Unit**	**CZ-TE20P**	• Power supply for Urban NET. Set one unit per network.
	**UD Gateway for Urban NET and UM NET**	**CZ-20GWAP**	• Controllable indoor units: 64 • Air Conditioner control functions; • ON/OFF • Operating mode • Set temperature • Airflow volume • Air direction • Operating location • Error display • Thermostat ON/OFF • Filter display • Room temperature
	**Serial Interface Unit**	**CZ-01FULAP**	• Controllable indoor units: 64 • External connection: RS232C Consult your local sales company or distributor for details concerning air conditioner control functions.
	**Central Remote Controller**	**CZ-02ESM11P**	• Maximum connectable indoor units: 64 • Remote ON/OFF • Individual indoor unit control, monitoring: Total/Group • Weekly timer* *Separate Schedule Timer (CZ-01ESW11P) required. • Individual monitoring of operation/error status • Operating location: Remote/Common Display text: English
	**Unified ON/OFF Controller**	**CZ-01ANA11P**	• Maximum connectable indoor units: 16 • Remote ON/OFF • Individual indoor unit control, monitoring: Total/Group • Operating location: Remote/Common Display text: English
	**Schedule Timer**	**CZ-01ESW11P**	• All ON/OFF on a weekly schedule • Two operation stops/day • Combines with Central Remote Controller (CZ-02ESM11P) Display text: English

The System of Model Numbers(FS, Semi FS)

CS	-	F	28	D	B4	E	5
CU	-	L	28	D	B	E	5
①		②	③		④	⑤	⑥

① Model Type
CS: Split Type (Indoor Unit)
CU: Split Type (Outdoor Unit)
CZ: Accessories

② Function
Indoor Unit
E: Inverter Heat Pump
F: Can be used with Inverter, Non-Inverter, Cooling Only, and Heat Pump Models
Outdoor Unit
E: Inverter Heat Pump
L, YL: Inverter Models
J: Non-Inverter Cooling Only Models
B: Non-Inverter Heat Pump Models

③ Capacity
Value = Capacity (Btu/h) x 1/1000 e.g. 28,000 Btu/h x 1/1000 ≒ 28

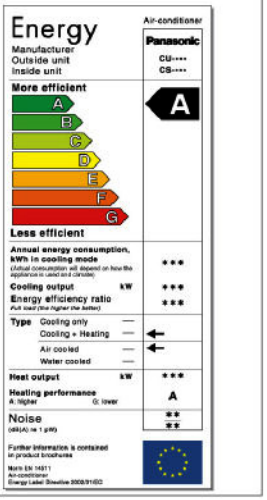
④ Type
Split Type: Indoor/Outdoor Unit
B4: Cassette (4-Way)
D2: Hide-Away (Middle Static Pressure Models)
D3: Hide-Away (Low Static Pressure Models)
T : Ceiling
B : Outdoor Unit for Cassette, Ceiling and Hide-Away Type Indoor Unit

⑤ Power Supply
5: 50Hz (Single Phase)
8: 50Hz (3-Phase)

⑥ A: Annual Cooling

Energy-Saving Classification

There are seven classifications of energy efficiency, from A to G. The most efficient level is "A".



ISO 9001 Series Certification

CERTIFIED TO MS ISO 9001: 2000
Panasonic HA Air-Conditioning (M) Sdn. Bhd. (PHAAM)
Registration No.: AR 1010

CERTIFIED TO DIN EN ISO 9001: 2000
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.
Matsushita Home Appliances Company
Air-Conditioner Business Unit
Certificate Registration No.09 100 5766

Environmental Management Systems Approval Certificate

CERTIFIED TO MS ISO 14001: 2004
Panasonic HA Air-Conditioning (M) Sdn. Bhd. (PHAAM)
Certification No.: P06860001

CERTIFIED TO ISO 14001: 2004
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.
Matsushita Home Appliances Company
Air-Conditioner Business Unit
saApproval Certificate No.: YKA 0771754