



LARGE CAPACITY AIR CONDITIONERS

for offices and shops



Panasonic FS Series are supplied with DC Inverter



Indoor Unit (Inverter / Non-Inverter)

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

		1.5HP	2.0HP
	Cassette page 8-9	CS-F14DB4E5 [#]	CS-F18DB4E5 [#]
	Hide-Away (Low Static Pressure Models) page 10-11	CS-F14DD3E5 [#]	CS-F18DD3E5 [#]
	Hide-Away (Middle Static Pressure Models) page 12-13		
	Ceiling page 14-15		CS-F18DTE5 [#]

Indoor Unit Combination
page 20

Outdoor Unit (Inverter)

page 16

Outdoor Unit (Non-Inverter)

page 16

1.5HP

2.0HP



■ CU-J14DBE5
■ CU-B14DBE5



■ CU-J18DBE5
■ CU-B18DBE5

■ Cooling Only Model
■ Heat Pump Model

Energy-Saving Classification

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

Energy		Air-conditioner
Manufacturer	Panasonic	
Outside unit	CU-***	
Inside unit	CS-***	
More efficient		A
A		
B		
C		
D		
E		
F		
Less efficient		
G		
Annual energy consumption, kWh in cooling mode		***
Cooling output		kW ***
Energy efficiency ratio		***
Type		—
Cooling only		—
Cooling + Heating		←
Air cooled		←
Water cooled		—
Heat output		kW ***
Heating performance		A G: Lowest
Noise		***
Further information is contained in product brochures		***
Accessories		

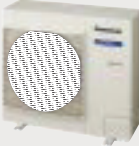
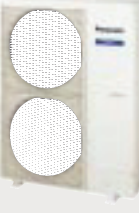
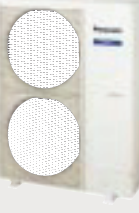
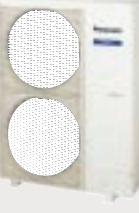


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and R410A, providing super lineup.



2.5HP	3.0HP	4.0HP	5.0HP	6.0HP
CS-F24DB4E5	CS-F28DB4E5	CS-F34DB4E5	CS-F43DB4E5	CS-F50DB4E5
CS-F24DD3E5	CS-F28DD3E5	CS-F34DD3E5	CS-F43DD3E5	CS-F50DD3E5
CS-F24DD2E5	CS-F28DD2E5	CS-F34DD2E5	CS-F43DD2E5	CS-F50DD2E5
CS-F24DTE5	CS-F28DTE5	CS-F34DTE5	CS-F43DTE5	CS-F50DTE5
2.5HP	3.0HP	4.0HP	5.0HP	6.0HP
 ■ CU-L24DBE5	 ■ CU-L28DBE5	 ■ CU-L34DBE5	 ■ CU-L43DBE5	 ■ CU-L50DBE8*
2.5HP	3.0HP	4.0HP	5.0HP	6.0HP
 ■ 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

DC Inverter can attain comfortable



Energy-saving operation

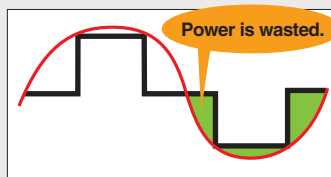
All the models of Panasonic FS Inverter Series are equipped with DC inverters for the higher EER operation.

The new design attains the quiet and high-efficient operation and reduces the running cost.

Hyper Wave Inverter

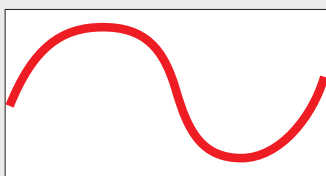
The Panasonic group's experiences and actual results in the development of inverters are realised in the control. This control of the inverter demonstrates the maximum compressor torque. The FS series quickly warms the room up to the set temperature and maintains a comfortable condition, whilst ensuring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

Our conventional inverter



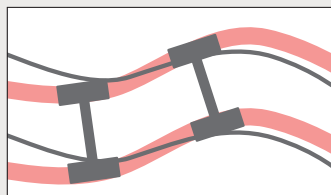
The current waveform deviates from the motor voltage waveform, so power is wasted.

Hyper Wave Inverter

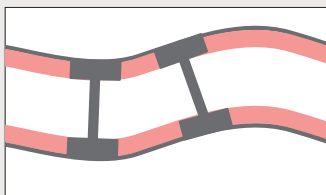


The current waveform closely matches the motor voltage waveform, so power consumption is reduced.

Compare this to a car rounding a corner.



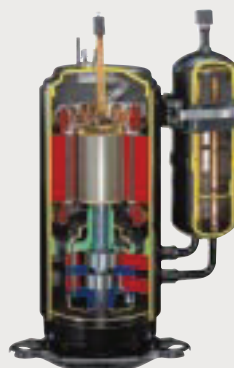
Power is wasted when the car swings off course.



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

High-Efficiency Compressor

Using of a powerful neodymium 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

and energy-saving operation.

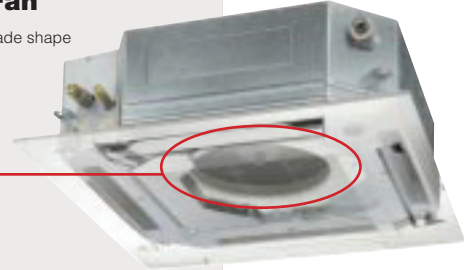
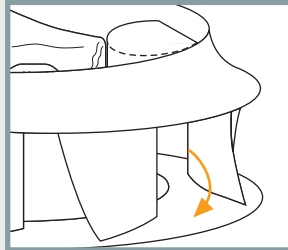
The Advanced Air Path Design – Key to Efficiency.

Class-Leading Efficiency

The cassette indoor unit is equipped with a newly-developed turbo fan; the new shape produces low noise and high air flow rate. 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.

Newly Designed Turbo Fan

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



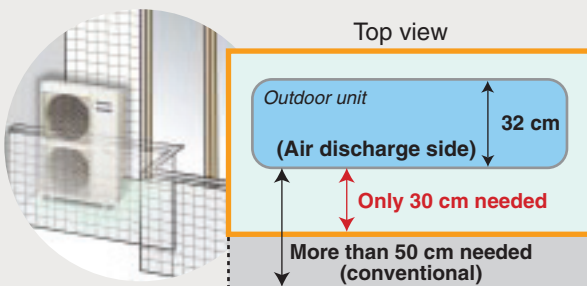
Both air inlet and outlet are improved.

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

Space-saving design

Space-Saving Outdoor Unit

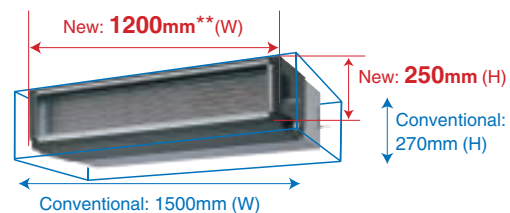
The improvement of the outdoor unit fan makes it possible to install the outdoor unit into a smaller space where the conventional model cannot be installed. Without sacrificing quietness, also higher efficiency is attained. More freedom in installation contributes to the easy piping and facilitates installation. It will cut the installation cost.



Compact, Hide-Away Indoor Units

The compact indoor units of Hide-Away Type* (Low Static Pressure Models) were newly developed. We succeed to make units small. And 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

Comparison in size



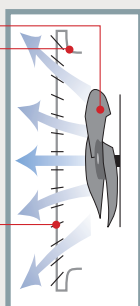
The unit can be installed in the limited space.

**Add 100 mm for power supply equipment.

The Sophisticated Air Path Design – Key to Compact Size.

These three improvements minimise the air resistance.

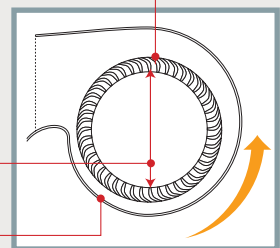
- 1 New Large Diagonal Air Flow Fan
The newly designed fan blades reduce the frontal discharge distance.
- 2 Improved front grille opening shape
- 3 Improved front grille grid shape



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)
New
Conventional
- 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.

Pursuing the Perfect Design – In Air

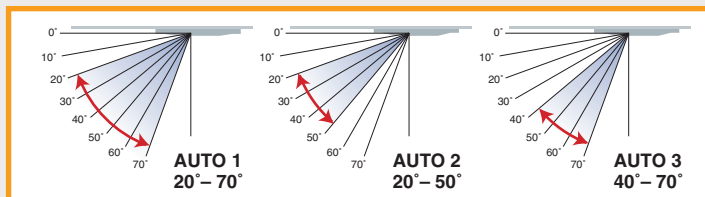
Comfort in every detail

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.



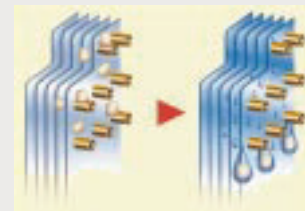
For all models

Odour Wash

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

Dual-system of odour control

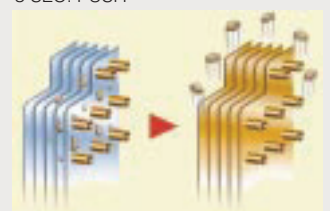
Odour Removing
ONE PUSH



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

Can be operated with the wireless remote control.

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.

[#] Applicable Models: Inverter Models Only

Quality, Airflow, and Convenience

For all models

Weekly Timer

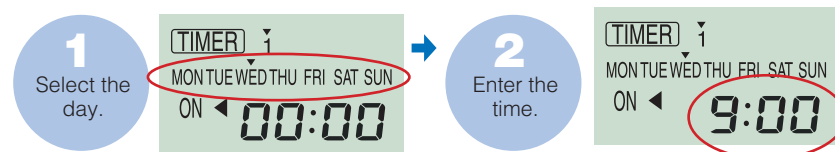
Weekly timer setting (each day of a week) is available to control the air conditioner. Max. 6 settings/day and 42 settings/week can be executed. The setting temperature can be also programmed for optimal comfort.



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. Mon-Fri On 9:00, Off 18:00 Sat On 9:00, Off 12:00 Sun Not set ➔ The timer can have different settings for every day of the week.	Example: Set a lower temperature at lunch time when a lot of persons may visit. Everyday On 12:00 23°C On 14:00 28°C ➔ In this case, the temperature can be set at the same time.	Example: To prevent forgetting to switch OFF weekdays Mon-Fri Off 20:00 ➔ The timer can be set for simple shut-off operation.

How to set



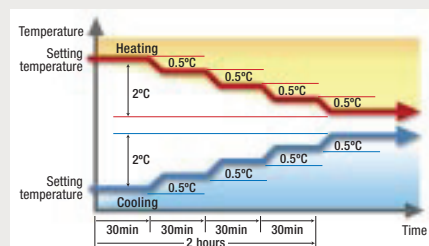
*Simple Timer Mode

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

For all models

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)



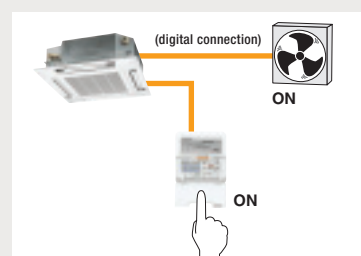
* During operating in the cooling mode at the remote control set temperature of 25 under the cooling standard temperature conditions.

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-TA30P*) is needed. *See page 21 for details.

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.

<Inactivating targets>

SUPER alleru-buster		
Anti-Allergen		
Pollen	Dust mites	Cat dander, mould
Catechin	Bio	
Anti-Virus	Anti-Bacteria	Anti-Mould
Virus	Bacteria	Mould

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

Cassette Type



Selectable Remote Controller

* Customer needs to choose either wired or wireless.



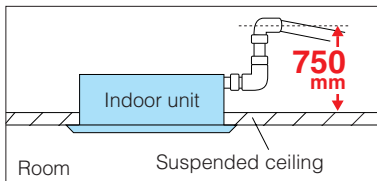
Wired Remote Controller

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.

Versatile Functions

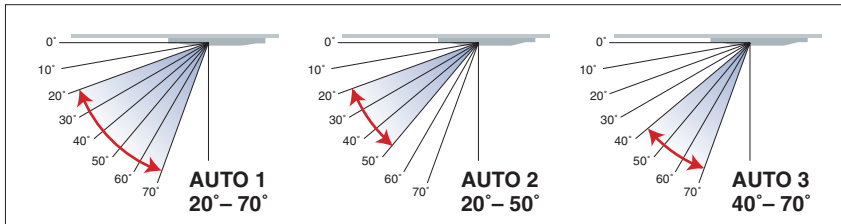
• 950 mm Square Panel for All Models (Optional: CZ-BT03P)



- 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)

Three Airflow Patterns for Extra Comfort

• Multi-Comfort Air Control



Specifications Inverter Models

Items	Cooling Capacity	Heating Capacity	Power Source	Power Input	EER COP	Air Volume	Noise Level*				Dimensions			Net Weight			Piping Connection		Pipe Length			Energy Saving Classification				
							Sound Pressure Level		Sound Power Level		Indoor			Indoor			Gas Side		Liquid Side		Max. Length††	Max. Height	Max. Chargeless Length	Cooling Class	Annual Energy Consumption	Heating Class
							Indoor (Hi/Lo)	Outdoor (Hi) Cooling Heating	Indoor (Hi) Cooling Heating	Outdoor (Hi) Cooling Heating	Indoor	Panel	Outdoor	Indoor	Panel	Outdoor	O.D. mm (inch)	O.D. mm (inch)								
Indoor Panel Outdoor	kW Btu/h	kW Btu/h	Phase V Hz	kW	W/W	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	kW				
CS-F14DB4E5X2 CZ-BT03PX2 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	2.00 (0.60-2.40) 2.11 (0.60-3.20)	3.55 3.79	15 x 2 15 x 2	34/31	48 50	49 49	64 66	246 840 840	950 950 45	795 900 320	25 4.5	71	15.88 (5/8)	9.53 (3/8)	50	30	30	A	1,000	A			
CS-F18DB4E5X2 CZ-BT03PX2 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	2.59 (1.15-3.20) 2.90 (1.10-4.10)	3.86 3.86	16 x 2 16 x 2	35/32	52 54	50 50	66 68	246 840 840	950 950 45	1,340 900 320	26 4.5	110	15.88 (5/8)	9.53 (3/8)	50	30	30	A	1,295	A			
CS-F24DB4E5 CZ-BT03P CU-L24DBE5	6.30 (2.10-7.10) 21,500 (7,200-24,200)	7.10 (2.20-8.00) 24,200 (7,500-27,300)	1φ 220-240 50	1.70 (0.50-2.20) 1.84 (0.50-3.10)	3.71 3.86	18 18	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)	50	30	30	A	850	A			
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	2.00 (0.60-2.40) 2.11 (0.60-3.20)	3.55 3.79	20 20	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)	50	30	30	A	1,000	A			
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	2.59 (1.15-3.20) 2.90 (1.10-4.10)	3.86 3.86	27 27	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)	50	30	30	A	1,295	A			
CS-F43DB4E5 CZ-BT03P CU-L43DBE5	12.50 (4.00-14.00) 42,600 (13,600-47,700)	14.00 (4.00-16.00) 47,700 (13,600-54,600)	1φ 220-240 50	3.64 (1.20-3.80) 3.88 (1.15-4.90)	3.43 3.61	31 31	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)	50	30	30	A	1,820	A			
CS-F50DB4E5 CZ-BT03P 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	4.65 (1.20-4.95) 4.69 (1.15-5.90)	3.01 3.41	32 32	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)	50	30	30	B	2,325	B			

INVERTER

Specifications	Non-Inverter Models
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Items	Cooling Capacity	Heating Capacity	Power Source	Power Input	EER COP	Air Volume	Noise Level*				Dimensions			Net Weight			Piping Connection		Pipe Length			Energy Saving Classification		
							Sound Pressure Level		Sound Power Level		Dimensions			Net Weight			Piping Connection		Pipe Length			Energy Saving Classification		
							Indoor (Hi/Lo)	Outdoor (Hi)	Indoor (Hi)	Outdoor (Hi)	Indoor	Panel	Outdoor	Indoor	Panel	Outdoor	Gas Side	Liquid Side	Max. Length**	Max. Height	Max. Chargeless Length	Cooling Class	Annual Energy Consumption	Heating Class
Indoor Panel Outdoor	kW Btu/h	kW Btu/h	Phase V Hz	kW	W/W	m ³ /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		kW	
CS-F14DB4E5 CZ-BT03P CU-J14DBE5	3.80	—	1 Ø 220-240 50	1.26 (1.23-1.29)	3.02			49		65	246 840 840	950 950 45	795 900 320	25	4.5		12.7 (1/2)	6.35 (1/4)	30	20	20	B		—
CS-F18DB4E5 CZ-BT03P CU-J18DBE5	5.00	—	1 Ø 220-240 50	1.72 (1.69-1.75)	2.91			49		65	246 840 840	950 950 45	795 900 320	26	4.5		12.7 (1/2)	6.35 (1/4)	30	20	20	C		—
CS-F24DB4E5 CZ-BT03P CU-J24DBE5	6.60 22,500	—	1 Ø 220-240 50	2.58 (2.53-2.63)	2.56	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)	50	30	30	E	1,290	—
CS-F24DB4E5 CZ-BT03P CU-J24DBE8	6.60 22,500	—	3 Ø 380-415 50	2.58 (2.53-2.63)	2.56	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)	50	30	30	E	1,290	—
CS-F28DB4E5 CZ-BT03P CU-J28DBE5	7.30 24,900	—	1 Ø 220-240 50	2.80 (2.74-2.85)	2.61	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)	50	30	30	D	1,400	—
CS-F28DB4E5 CZ-BT03P CU-J28DBE8	7.30 24,900	—	3 Ø 380-415 50	2.80 (2.74-2.85)	2.61	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)	50	30	30	D	1,400	—
CS-F34DB4E5 CZ-BT03P CU-J34DBE5	10.00 34,100	—	1 Ø 220-240 50	3.93 (3.88-3.98)	2.54	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)	50	30	30	E	1,965	—
CS-F34DB4E5 CZ-BT03P CU-J34DBE8	10.00 34,100	—	3 Ø 380-415 50	3.80 (3.75-3.85)	2.63	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)	50	30	30	D	1,900	—
CS-F43DB4E5 CZ-BT03P CU-J43DBE8	12.50 42,600	—	3 Ø 380-415 50	4.79 (4.74-4.84)	2.61	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)	50	30	30	D	2,395	—
CS-F50DB4E5 CZ-BT03P CU-J50DBE8	13.50 46,000	—	3 Ø 380-415 50	5.18 (5.13-5.23)	2.61	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)	50	30	30	D	2,590	—
CS-F14DB4E5 CZ-BT03P CU-B14DBE5	3.80	4.30	1 Ø 220-240 50	1.23 (1.20-1.26) 1.22 (1.19-1.25)	3.09 3.52			49 50		65 66	246 840 840	950 950 45	795 900 320	25	4.5		12.7 (1/2)	6.35 (1/4)	30	20	20	B		B
CS-F18DB4E5 CZ-BT03P CU-B18DBE5	5.00	5.60	1 Ø 220-240 50	1.72 (1.69-1.75) 1.62 (1.59-1.65)	2.91 3.46			49 50		65 66	246 840 840	950 950 45	795 900 320	26	4.5		12.7 (1/2)	6.35 (1/4)	30	20	20	C		B
CS-F24DB4E5 CZ-BT03P CU-B24DBE5	6.60 22,500	7.10 24,200	1 Ø 220-240 50	2.51 (2.46-2.57) 2.36 (2.31-2.41)	2.63 3.01	18	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)	50	30	30	D	1,255	D
CS-F28DB4E5 CZ-BT03P CU-B28DBE5	7.30 24,900	8.00 27,300	1 Ø 220-240 50	2.80 (2.74-2.85) 2.60 (2.55-2.65)	2.61 3.08	20	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)	50	30	30	D	1,400	D
CS-F28DB4E5 CZ-BT03P CU-B28DBE8	7.30 24,900	8.00 27,300	3 Ø 380-415 50	2.80 (2.74-2.85) 2.60 (2.55-2.65)	2.61 3.08	20	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)	50	30	30	D	1,400	D
CS-F34DB4E5 CZ-BT03P CU-B34DBE5	10.00 34,100	11.20 38,200	1 Ø 220-240 50	3.81 (3.76-3.86) 3.86 (3.81-3.91)	2.62 2.90	27	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)	50	30	30	D	1,905	D
CS-F34DB4E5 CZ-BT03P CU-B34DBE8	10.00 34,100	11.20 38,200	3 Ø 380-415 50	3.68 (3.63-3.73) 3.78 (3.73-3.83)	2.72 2.96	27	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)	50	30	30	D	1,840	D
CS-F43DB4E5 CZ-BT03P CU-B43DBE8	12.50 42,600	14.00 47,700	3 Ø 380-415 50	4.65 (4.60-4.70) 4.59 (4.54-4.64)	2.69 3.05	31	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)	50	30	30	D	2,325	D
CS-F50DB4E5 CZ-BT03P CU-B50DBE8	13.50 46,000	15.00 51,100	3 Ø 380-415 50	5.06 (5.01-5.15) 4.93 (4.88-4.98)	2.67 3.04	32	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)	50	30	30	D	2,530	D

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.
 ** Additional gas might be required.
 *** Indoor Unit

Hide-Away Type

Low Static Pressure Models



Remote Controller

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

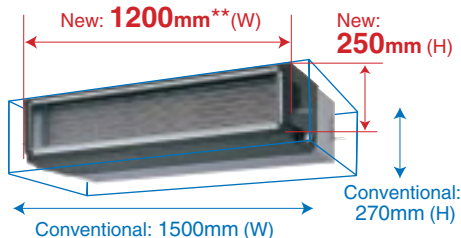


Wired Remote Controller

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

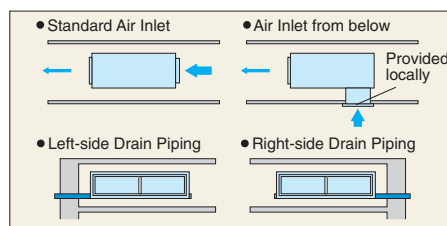
Various Installation Applications

• 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

Specifications

Inverter Models

Items	Cooling Capacity	Heating Capacity	Power Source	Power Input	EER COP	Air Volume	External Static Pressure	Noise Level*				Dimensions		Net Weight		Piping Connection		Pipe Length			Energy Saving Classification		
								Sound Pressure Level		Sound Power Level													
								Indoor (Hi/Lo)	Outdoor (Hi) Cooling Heating	Indoor (Hi) Cooling Heating	Outdoor (Hi) Cooling Heating	Indoor	Outdoor	Indoor	Outdoor	Gas Side	Liquid Side	Max. Length†	Max. Height	Max. Chargeless Length	Cooling Class	Annual Energy Consumption	Heating Class
Indoor Outdoor	kW Btu/h	kW Btu/h	Phase V Hz	kW	W/W	m³/min	Pa (mmHg)	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		kW	
CS-F14DD3E5X2 CU-L28DBE5	7.10 (2.10-7.50) 24,200 (7,200-25,600)	8.00 (2.20-8.50) 27,300 (7,500-29,000)	1φ 220-240 50	2.21 (0.65-2.45) 2.34 (0.65-3.25)	3.21 3.42	15 x 2 15 x 2	50 (5.1)	42/38	48 50	58 58	64 66	250 780+100 650	795 900 320	34	71	15.88 (5/8)	9.53 (3/8)	50	30	30	A	1,105	B
CS-F18DD3E5X2 CU-L34DBE5	10.00 (4.00-12.00) 34,100 (13,600-40,900)	11.20 (4.00-13.50) 38,200 (7,500-46,000)	1φ 220-240 50	2.77 (1.30-3.45) 3.28 (1.30-4.25)	3.61 3.41	17 x 2 17 x 2	50 (5.1)	42/38	52 54	58 58	66 68	250 780+100 650	1,340 900 320	34	110	15.88 (5/8)	9.53 (3/8)	50	30	30	A	1,385	B
CS-F24DD3E5 CU-L28DBE5	6.30 (2.00-6.50) 21,500 (6,800-22,200)	7.10 (2.10-7.50) 24,200 (7,200-25,600)	1φ 220-240 50	1.96 (0.60-2.40) 2.08 (0.60-3.15)	3.21 3.41	22 22	50 (5.1)	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)	50	30	30	A	980	B
CS-F28DD3E5 CU-L28DBE5	7.10 (2.10-7.50) 24,200 (7,200-25,600)	8.00 (2.20-8.50) 27,300 (7,500-29,000)	1φ 220-240 50	2.21 (0.65-2.45) 2.34 (0.65-3.25)	3.21 3.42	22 22	50 (5.1)	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)	50	30	30	A	1,105	B
CS-F34DD3E5 CU-L34DBE5	10.00 (4.00-12.00) 34,100 (13,600-40,900)	11.20 (4.00-13.50) 38,200 (7,500-46,000)	1φ 220-240 50	2.77 (1.30-3.45) 3.28 (1.30-4.25)	3.61 3.41	36 36	50 (5.1)	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)	50	30	30	A	1,385	B
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	4.15 (1.40-4.40) 4.11 (1.40-5.10)	3.01 3.41	40 40	50 (5.1)	45/41	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)	50	30	30	B	2,075	B
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	4.98 (1.45-5.20) 4.98 (1.40-6.10)	2.81 3.21	40 40	50 (5.1)	46/42	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)	50	30	30	C	2,490	C

INVERTER

Specifications	Non-Inverter Models
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Items	Cooling Capacity	Heating Capacity	Power Source	Power Input Cooling Heating	EER COP Cooling Heating	Air Volume Cooling Heating	External Static Pressure	Noise Level*				Dimensions		Net Weight		Piping Connection		Pipe Length			Energy Saving Classification		
								Sound Pressure Level		Sound Power Level		Indoor mm (H W D)	Outdoor mm (H W D)	Indoor kg	Outdoor kg	Gas Side O.D. mm (inch)	Liquid Side O.D. mm (inch)	Max. Length** m	Max. Height m	Max. Chargeless Length m	Cooling Class	Annual Energy Consumption kW	Heating Class
								Indoor (Hi/Lo)	Outdoor (Hi) Cooling Heating	Indoor (Hi) Cooling Heating	Outdoor (Hi) Cooling Heating												
Indoor Outdoor	kW Btu/h	kW Btu/h	Phase V Hz	kW	W/W	m ³ /min	Pa (mmHg)	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		kW	
CS-F14DD3E5 CU-J14DBE5	3.80	—	1 Ø 220-240 50	1.35 (1.32-1.38)	2.81	—	50 (5.1)	—	49	65	66	250 780 100 650	795 900 320	34	—	12.7 (1/2)	6.35 (1/4)	30	20	20	C	—	—
CS-F18DD3E5 CU-J18DBE5	5.00	—	1 Ø 220-240 50	1.81 (1.78-1.84)	2.76	—	50 (5.1)	—	49	65	66	250 780 100 650	795 900 320	34	—	12.7 (1/2)	6.35 (1/4)	30	20	20	D	—	—
CS-F24DD3E5 CU-J24DBE5	6.60 22,500	—	1 Ø 220-240 50	2.66 (2.62-2.70)	2.48	22	50 (5.1)	43/39	50	59	66	250 1,000+100 650	795 900 320	41	61	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,330	—
CS-F24DD3E5 CU-J24DBE8	6.60 22,500	—	3 Ø 380-415 50	2.66 (2.62-2.70)	2.48	22	50 (5.1)	43/39	50	59	66	250 1,000+100 650	795 900 320	41	61	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,330	—
CS-F28DD3E5 CU-J28DBE5	7.30 24,900	—	1 Ø 220-240 50	2.89 (2.83-2.94)	2.53	22	50 (5.1)	43/39	52	59	67	250 1,000+100 650	795 900 320	41	61	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,445	—
CS-F28DD3E5 CU-J28DBE8	7.30 24,900	—	3 Ø 380-415 50	2.89 (2.83-2.94)	2.53	22	50 (5.1)	43/39	52	59	67	250 1,000+100 650	795 900 320	41	61	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,445	—
CS-F34DD3E5 CU-J34DBE5	10.00 34,100	—	1 Ø 220-240 50	4.04 (3.95-4.12)	2.48	36	50 (5.1)	45/41	55	60	69	250 1,200+100 650	1,170 900 320	47	92	15.88 (5/8)	9.52 (3/8)	50	30	30	E	2,020	—
CS-F34DD3E5 CU-J34DBE8	10.00 34,100	—	3 Ø 380-415 50	3.80 (3.75-3.85)	2.63	36	50 (5.1)	45/41	55	60	69	250 1,200+100 650	1,170 900 320	47	90	15.88 (5/8)	9.52 (3/8)	50	30	30	D	1,900	—
CS-F43DD3E5 CU-J43DBE8	12.50 42,600	—	3 Ø 380-415 50	4.84 (4.80-4.95)	2.58	40	50 (5.1)	45/41	56	60	70	250 1,200+100 650	1,170 900 320	47	97	15.88 (5/8)	9.52 (3/8)	50	30	30	E	2,420	—
CS-F50DD3E5 CU-J50DBE8	13.50 46,000	—	3 Ø 380-415 50	5.41 (5.36-5.51)	2.50	40	50 (5.1)	46/42	56	61	70	250 1,200+100 650	1,170 900 320	47	97	15.88 (5/8)	9.52 (3/8)	50	30	30	E	2,655	—
CS-F14DD3E5 CU-B14DBE5	3.80	4.30	1 Ø 220-240 50	1.32 (1.29-1.35) 1.30 (1.27-1.33)	2.88 3.31	—	50 (5.1)	—	49 50	65 66	66	250 780 100 650	795 900 320	34	—	12.7 (1/2)	6.35 (1/4)	30	20	20	C	—	C
CS-F18DD3E5 CU-B18DBE5	5.00	5.60	1 Ø 220-240 50	1.81 (1.78-1.84) 1.70 (1.67-1.73)	2.76 3.29	—	50 (5.1)	—	49 50	65 66	66	250 780 100 650	795 900 320	34	—	12.7 (1/2)	6.35 (1/4)	30	20	20	D	—	C
CS-F24DD3E5 CU-B24DBE5	6.60 22,500	7.10 24,200	1 Ø 220-240 50	2.59 (2.56-2.64) 2.47 (2.40-2.56)	2.55 2.87	22 22	50 (5.1)	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)	50	30	30	E	1,295	D
CS-F28DD3E5 CU-B28DBE5	7.30 24,900	8.00 27,300	1 Ø 220-240 50	2.84 (2.78-2.89) 2.69 (2.61-2.78)	2.57 2.97	22 22	50 (5.1)	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)	50	30	30	E	1,420	D
CS-F28DD3E5 CU-B28DBE8	7.30 24,900	8.00 27,300	3 Ø 380-415 50	2.84 (2.78-2.89) 2.69 (2.61-2.78)	2.57 2.97	22 22	50 (5.1)	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)	50	30	30	E	1,420	D
CS-F34DD3E5 CU-B34DBE5	10.00 34,100	11.20 38,200	1 Ø 220-240 50	3.88 (3.83-4.05) 3.94 (3.86-4.00)	2.58 2.84	36 36	50 (5.1)	45/41	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)	50	30	30	E	1,940	D
CS-F34DD3E5 CU-B34DBE8	10.00 34,100	11.20 38,200	3 Ø 380-415 50	3.75 (3.70-3.80) 3.58 (3.54-3.64)	2.67 3.13	36 36	50 (5.1)	45/41	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)	50	30	30	D	1,875	D
CS-F43DD3E5 CU-B43DBE8	12.50 42,600	14.00 47,700	3 Ø 380-415 50	4.80 (4.75-4.87) 4.68 (4.61-4.78)	2.60 2.99	40 40	50 (5.1)	45/41	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)	50	30	30	E	2,400	D
CS-F50DD3E5 CU-B50DBE8	13.50 46,000	15.00 51,100	3 Ø 380-415 50	5.31 (5.26-5.46) 5.08 (5.03-5.13)	2.54 2.95	40 40	50 (5.1)	46/42	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)	50	30	30	E	2,655	D

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.

** Additional gas might be required.

*** Indoor Unit

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.

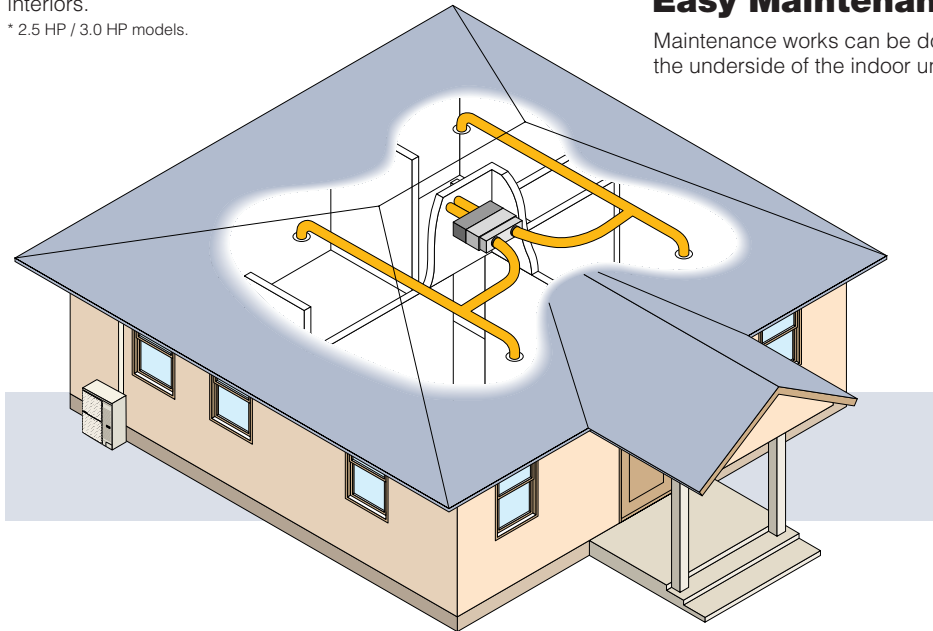
* 2.5 HP / 3.0 HP models.

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

Items	Cooling Capacity	Heating Capacity	Power Source	Power Input	EER COP	Air Volume	External Static Pressure	Noise Level*				Dimensions		Net Weight		Piping Connection		Pipe Length			Energy Saving Classification		
								Sound Pressure Level		Sound Power Level		Indoor	Outdoor	Indoor	Outdoor	Gas Side	Liquid Side	Max. Length**	Max. Height	Max. Chargeless Length	Cooling Class	Annual Energy Consumption	Heating Class
								Indoor (Hi/Lo)	Outdoor (Hi) Cooling Heating	Indoor (Hi) Cooling Heating	Outdoor (Hi) Cooling Heating												
Indoor Outdoor	kW Btu/h	kW Btu/h	Phase V Hz	kW	W/W	m ³ /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		kW	
CS-F24DD2E5 CU-L24DBE5	6.30 (2.00-6.50) 21,500 (6,800-22,200)	7.10 (2.10-7.50) 24,200 (7,200-25,600)	1φ 220-240 50	2.09 (0.60-2.40) 2.08 (0.60-3.15)	3.01 3.41	22 22	69 (7)	45/41	47 49	61 59	63 65	290 1,000+100 500	795 900 320	35	71	15.88 (5/8)	9.53 (3/8)	50	30	30	B	1,045	B
CS-F28DD2E5 CU-L28DBE5	7.10 (2.10-7.50) 24,200 (7,200-25,600)	8.00 (2.20-8.50) 27,300 (7,500-29,000)	1φ 220-240 50	2.36 (0.65-2.45) 2.34 (0.65-3.25)	3.01 3.42	22 22	69 (7)	45/41	48 50	61 59	64 66	290 1,000+100 500	795 900 320	35	71	15.88 (5/8)	9.53 (3/8)	50	30	30	B	1,180	B
CS-F34DD2E5 CU-L34DBE5	10.00 (3.00-12.00) 34,100 (13,600-40,900)	11.20 (3.20-13.50) 38,200 (13,600-46,000)	1φ 220-240 50	3.06 (1.35-3.50) 3.28 (1.35-4.30)	3.27 3.41	38 38	98 (10)	49/45	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)	50	30	30	A	1,530	B
CS-F43DD2E5 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	4.15 (1.40-4.50) 4.36 (1.40-5.10)	3.01 3.21	40 40	98 (10)	49/45	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)	50	30	30	B	2,075	C
CS-F50DD2E5 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	5.06 (1.45-5.40) 4.85 (1.40-6.10)	2.77 3.30	45 45	98 (10)	49/45	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)	50	30	30	D	2,530	C

Specifications	Non-Inverter Models
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Items	Cooling Capacity	Heating Capacity	Power Source	Power Input	EER COP	Air Volume	External Static Pressure	Noise Level*				Dimensions		Net Weight		Piping Connection		Pipe Length			Energy Saving Classification		
								Sound Pressure Level		Sound Power Level													
								Indoor (Hi/Lo)	Outdoor (Hi) Cooling Heating	Indoor (Hi) Cooling Heating	Outdoor (Hi) Cooling Heating	Indoor	Outdoor	Indoor	Outdoor	Gas Side	Liquid Side	Max. Length**	Max. Height	Max. Chargeless Length	Cooling Class	Annual Energy Consumption	Heating Class
	Indoor Outdoor	kW Btu/h	kW Btu/h	Phase V Hz	kW	W/W	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		kW
CS-F24DD2E5 CU-J24DBE5	6.60 22,500	—	1ϕ 220-240 50	2.70 (2.66-2.74)	2.44	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)	50	30	30	E	1,350	—
CS-F24DD2E5 CU-J24DBE8	6.60 22,500	—	3ϕ 380-415 50	2.70 (2.66-2.74)	2.44	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)	50	30	30	E	1,350	—
CS-F28DD2E5 CU-J28DBE5	7.30 24,900	—	1ϕ 220-240 50	2.91 (2.86-2.96)	2.51	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)	50	30	30	E	1,455	—
CS-F28DD2E5 CU-J28DBE8	7.30 24,900	—	3ϕ 380-415 50	2.91 (2.86-2.96)	2.51	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)	50	30	30	E	1,455	—
CS-F34DD2E5 CU-J34DBE5	10.00 34,100	—	1ϕ 220-240 50	4.10 (4.03-4.15)	2.44	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)	50	30	30	E	2,050	—
CS-F34DD2E5 CU-J34DBE8	10.00 34,100	—	3ϕ 380-415 50	3.92 (3.86-3.96)	2.55	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)	50	30	30	E	1,960	—
CS-F43DD2E5 CU-J43DBE8	12.50 42,600	—	3ϕ 380-415 50	4.98 (4.90-5.12)	2.51	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)	50	30	30	E	2,490	—
CS-F50DD2E5 CU-J50DBE8	13.50 46,000	—	3ϕ 380-415 50	5.46 (5.41-5.51)	2.47	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)	50	30	30	E	2,680	—
CS-F24DD2E5 CU-B24DBE5	6.60 22,500	7.10 24,200	1ϕ 220-240 50	2.64 (2.61-2.70) 2.53 (2.45-2.62)	2.50 2.81	22 22	69 (7)	45/41	50 51	61 59	66 67	290 1,000+100 500	795 900 320	35	69	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,320	D
CS-F28DD2E5 CU-B28DBE5	7.30 24,900	8.00 27,300	1ϕ 220-240 50	2.86 (2.81-2.91) 2.71 (2.62-2.80)	2.55 2.95	22 22	69 (7)	45/41	52 53	61 59	67 68	290 1,000+100 500	795 900 320	35	69	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,430	D
CS-F28DD2E5 CU-B28DBE8	7.30 24,900	8.00 27,300	3ϕ 380-415 50	2.86 (2.81-2.91) 2.71 (2.62-2.80)	2.55 2.95	22 22	69 (7)	45/41	52 53	61 59	67 68	290 1,000+100 500	795 900 320	35	69	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,430	D
CS-F34DD2E5 CU-B34DBE5	10.00 34,100	11.20 38,200	1ϕ 220-240 50	3.97 (3.89-4.08) 3.98 (3.90-4.05)	2.52 2.81	38 38	98 (10)	49/45	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)	50	30	30	E	1,985	D
CS-F34DD2E5 CU-B34DBE8	10.00 34,100	11.20 38,200	3ϕ 380-415 50	3.83 (3.79-3.92) 3.68 (3.63-3.75)	2.61 3.04	38 38	98 (10)	49/45	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)	50	30	30	D	1,915	D
CS-F43DD2E5 CU-B43DBE8	12.50 42,600	14.00 47,700	3ϕ 380-415 50	4.92 (4.85-5.04) 4.66 (4.56-4.78)	2.54 3.00	40 40	98 (10)	49/45	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)	50	30	30	E	2,460	D
CS-F50DD2E5 CU-B50DBE8	13.50 46,000	15.00 51,100	3ϕ 380-415 50	5.36 (5.31-5.46) 5.13 (5.08-5.18)	2.52 2.92	45 45	98 (10)	49/45	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)	50	30	30	E	2,680	D

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.
 ** Additional gas might be required.

Ceiling Type



Selectable Remote Controller

* Customer needs to choose either wired or wireless.



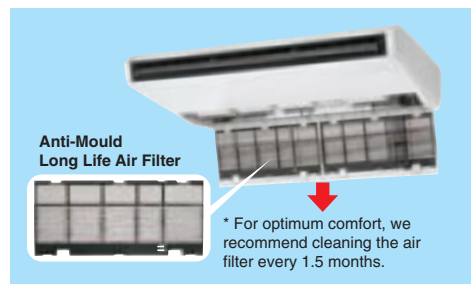
Wired Remote Controller



Wireless Remote Controller

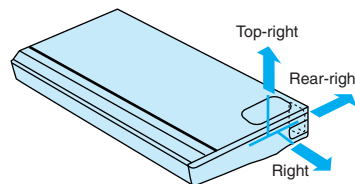
Easier Maintenance and Cleaning

• Anti-Mould Long Life Air Filter



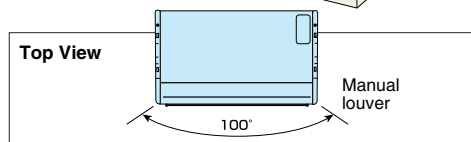
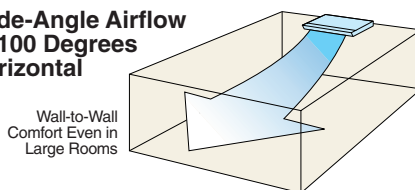
• 3-Direction Pipe Lead-Out

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.

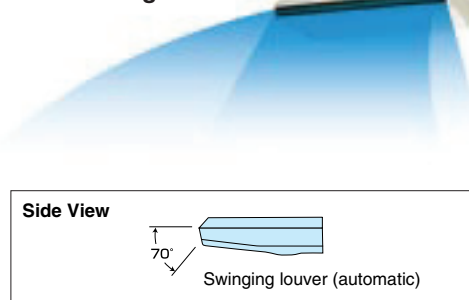


Wide Air Discharge, Comfortable Control

• 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

Items	Cooling Capacity	Heating Capacity	Power Source	Power Input	EER COP	Air Volume	Noise Level*				Dimensions		Net Weight		Piping Connection		Pipe Length			Energy Saving Classification		
							Sound Pressure Level		Sound Power Level		Indoor	Outdoor	Indoor	Outdoor	Gas Side	Liquid Side	Max. Length**	Max. Height	Max. Chargeless Length	Cooling Class	Annual Energy Consumption	Heating Class
							Indoor (Hi/Low)	Outdoor (Hi)	Indoor (Hi)	Outdoor (Hi)												
Indoor Outdoor	kW Btu/h	kW Btu/h	Phase V Hz	kW	W/W	m ³ /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		kW	
CS-F18DTE5X2 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 (1.25-3.40) 3.28 (1.25-4.20)	3.33 3.41	14 x 2 14 x 2	41/37	52 54	58 58	66 68	210 1,245 700	1,340 900 320	33	110	12.7 x 2 (1/2 x 2) 15.88 (5/8)	6.35 x 2 (1/4 x 2) 9.53 (3/8)	50	30	30	A	1,500	B
CS-F24DTE5 CU-L24DBE5	6.30 (2.00-6.50) 21,500 (6,800-22,200)	7.10 (2.10-7.50) 24,200 (7,200-25,600)	1φ 220-240 50	1.96 (0.65-2.30) 2.21 (0.65-3.15)	3.21 3.21	17 17	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)	50	30	30	A	980	C
CS-F28DTE5 CU-L28DBE5	7.10 (2.10-7.50) 24,200 (7,200-25,600)	8.00 (2.20-8.50) 27,300 (7,500-29,000)	1φ 220-240 50	2.44 (0.65-2.45) 2.65 (0.65-3.25)	2.91 3.02	18 18	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)	50	30	30	C	1,220	D
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 (1.25-3.40) 3.28 (1.25-4.20)	3.33 3.41	29 29	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)	50	30	30	A	1,500	B
CS-F43DTE5 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	4.15 (1.30-4.30) 4.00 (1.25-5.00)	3.01 3.50	31 31	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)	50	30	30	B	2,075	B
CS-F50DTE5 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	4.81 (1.35-5.10) 4.69 (1.30-6.00)	2.91 3.41	32 32	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)	50	30	30	C	2,405	B

Specifications	Non-Inverter Models
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Items	Cooling Capacity	Heating Capacity	Power Source	Power Input	EER COP	Air Volume	Noise Level*				Dimensions		Net Weight		Piping Connection		Pipe Length			Energy Saving Classification		
							Sound Pressure Level		Sound Power Level		Indoor	Outdoor	Indoor	Outdoor	Gas Side	Liquid Side	Max. Length**	Max. Height	Max. Chargeless Length	Cooling Class	Annual Energy Consumption	Heating Class
							Indoor (Hi/Lo)	Outdoor (Hi) Cooling Heating	Indoor (Hi) Cooling Heating	Outdoor (Hi) Cooling Heating												
Indoor Outdoor	kW Btu/h	kW Btu/h	Phase V Hz	kW	W/W	m ³ /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		kW	
CS-F18DTE5 CU-J18DBE5	5.00		1 Ø 220-240 50	1.78 (1.75-1.81)	2.81			49		65	210 1,245 700	795 900 320	33		12.7 (1/2)	6.35 (1/4)	30	20	20	C		—
CS-F24DTE5 CU-J24DBE5	6.60 22,500	—	1 Ø 220-240 50	2.63 (2.58-2.68)	2.51	17	43/39	50	60	66	210 1,245 700	795 900 320	33	61	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,315	—
CS-F24DTE5 CU-J24DBE8	6.60 22,500	—	3 Ø 380-415 50	2.63 (2.58-2.68)	2.51	17	43/39	50	60	66	210 1,245 700	795 900 320	33	61	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,315	—
CS-F28DTE5 CU-J28DBE5	7.30 24,900	—	1 Ø 220-240 50	2.85 (2.80-2.90)	2.56	18	45/41	52	62	67	210 1,245 700	795 900 320	33	61	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,425	—
CS-F28DTE5 CU-J28DBE8	7.30 24,900	—	3 Ø 380-415 50	2.85 (2.80-2.90)	2.56	18	45/41	52	62	67	210 1,245 700	795 900 320	33	61	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,425	—
CS-F34DTE5 CU-J34DBE5	10.00 34,100	—	1 Ø 220-240 50	4.02 (3.97-4.07)	2.49	29	47/43	55	64	69	250 1,600 700	1,170 900 320	43	92	15.88 (5/8)	9.52 (3/8)	50	30	30	E	2,010	—
CS-F34DTE5 CU-J34DBE8	10.00 34,100	—	3 Ø 380-415 50	3.89 (3.84-3.94)	2.57	29	47/43	55	64	69	250 1,600 700	1,170 900 320	43	90	15.88 (5/8)	9.52 (3/8)	50	30	30	E	1,945	—
CS-F43DTE5 CU-J43DBE8	12.50 42,600	—	3 Ø 380-415 50	4.89 (4.84-4.94)	2.56	31	49/45	56	66	70	250 1,600 700	1,170 900 320	47	97	15.88 (5/8)	9.52 (3/8)	50	30	30	E	2,445	—
CS-F50DTE5 CU-J50DBE8	13.50 46,000	—	3 Ø 380-415 50	5.28 (5.23-5.33)	2.56	32	50/46	56	67	70	250 1,600 700	1,170 900 320	47	97	15.88 (5/8)	9.52 (3/8)	50	30	30	E	2,640	—
CS-F18DTE5 CU-B18DBE5	5.00	5.60	1 Ø 220-240 50	1.78 (1.75-1.81) 1.74 (1.71-1.77)	2.81 3.22			49 50		65 66	210 1,245 700	795 900 320	33		12.7 (1/2)	6.35 (1/4)	30	20	20	C		C
CS-F24DTE5 CU-B24DBE5	6.60 22,500	7.10 24,200	1 Ø 220-240 50	2.57 (2.51-2.63) 2.49 (2.44-2.62)	2.57 2.85	17 17	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)	50	30	30	E	1,285	D
CS-F28DTE5 CU-B28DBE5	7.30 24,900	7.80 26,600	1 Ø 220-240 50	2.85 (2.80-2.90) 2.75 (2.70-2.80)	2.56 2.84	18 18	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)	50	30	30	E	1,425	D
CS-F28DTE5 CU-B28DBE8	7.30 24,900	7.80 26,600	3 Ø 380-415 50	2.85 (2.80-2.90) 2.75 (2.70-2.80)	2.56 2.84	18 18	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)	50	30	30	E	1,425	D
CS-F34DTE5 CU-B34DBE5	10.00 34,100	11.20 38,200	1 Ø 220-240 50	3.90 (3.85-3.95) 3.99 (3.94-4.04)	2.56 2.81	29 29	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)	50	30	30	E	1,950	D
CS-F34DTE5 CU-B34DBE8	10.00 34,100	11.20 38,200	3 Ø 380-415 50	3.77 (3.72-3.82) 3.91 (3.86-3.96)	2.65 2.86	29 29	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)	50	30	30	D	1,885	D
CS-F43DTE5 CU-B43DBE8	12.50 42,600	14.00 47,700	3 Ø 380-415 50	4.75 (4.70-4.80) 4.69 (4.64-4.74)	2.63 2.99	31 31	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)	50	30	30	D	2,375	D
CS-F50DTE5 CU-B50DBE8	13.50 46,000	15.00 51,100	3 Ø 380-415 50	5.16 (5.11-5.28) 5.03 (4.98-5.08)	2.62 2.98	32 32	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)	50	30	30	D	2,580	D

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.
 ** Additional gas might be required.
 *** Indoor Unit

Outdoor Units

NON-INVERTER

INVERTER



2.5 HP - 3.0 HP



4.0 HP - 6.0 HP



1.5 HP - 3.0 HP



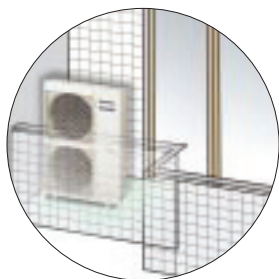
4.0 HP - 6.0 HP

Flexible Installation in Smaller Spaces

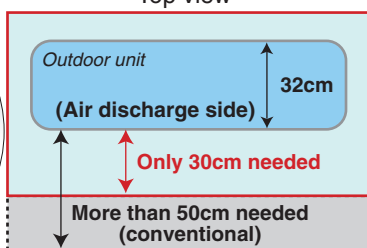
A variety of improvements has reduced installation time and space.

• 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.

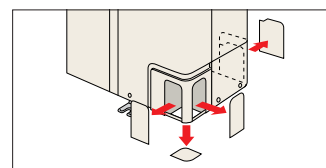


Top view



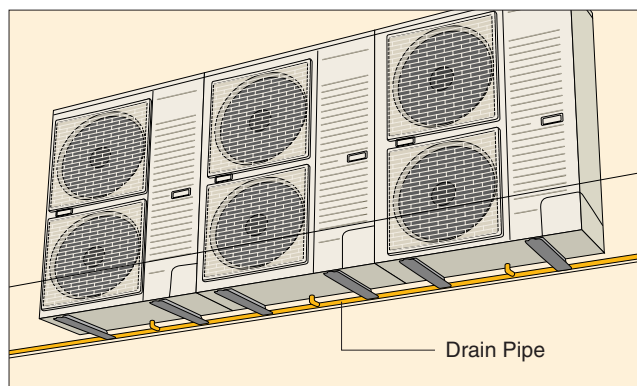
• Flexible 4-Way Piping

Piping can be routed in any of four directions.



• Centralized Drain Method

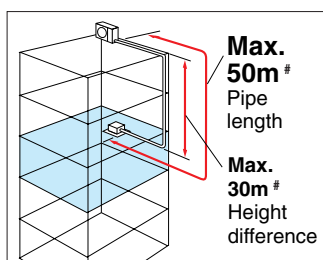
The drain outlets can be gathered into a single drain pipe even when multiple outdoor units are installed to a wall.



• 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

Additional gas is required.

	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

*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.

• 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.

Quiet, Efficient Design

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> -5°C* to 43°C (outdoor temperature)

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

* However, cooling operation at -15°C <Inverter>/-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%.

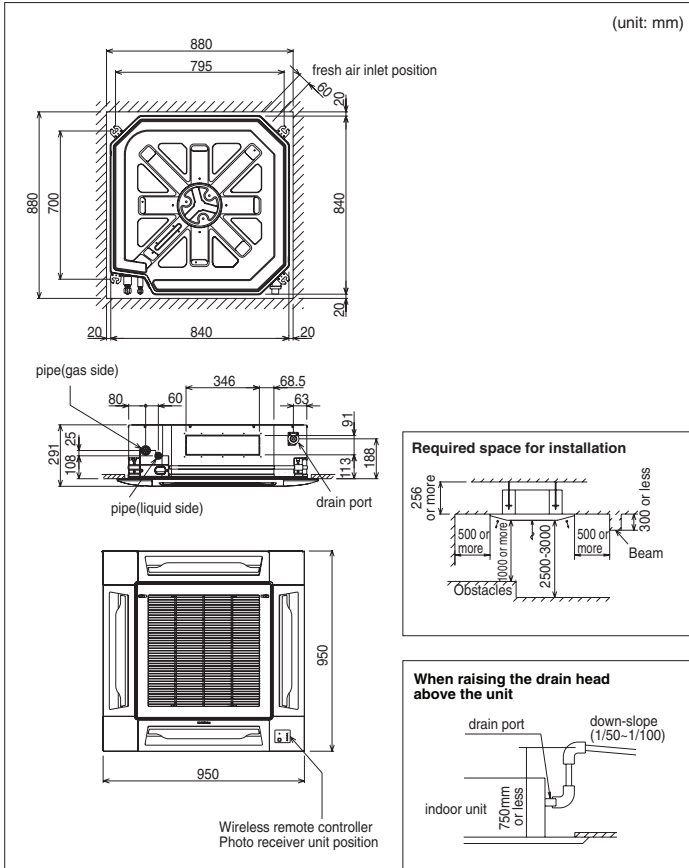
• Regular heating conditions:

<Inverter> -20°C to 24°C (outdoor temperature)

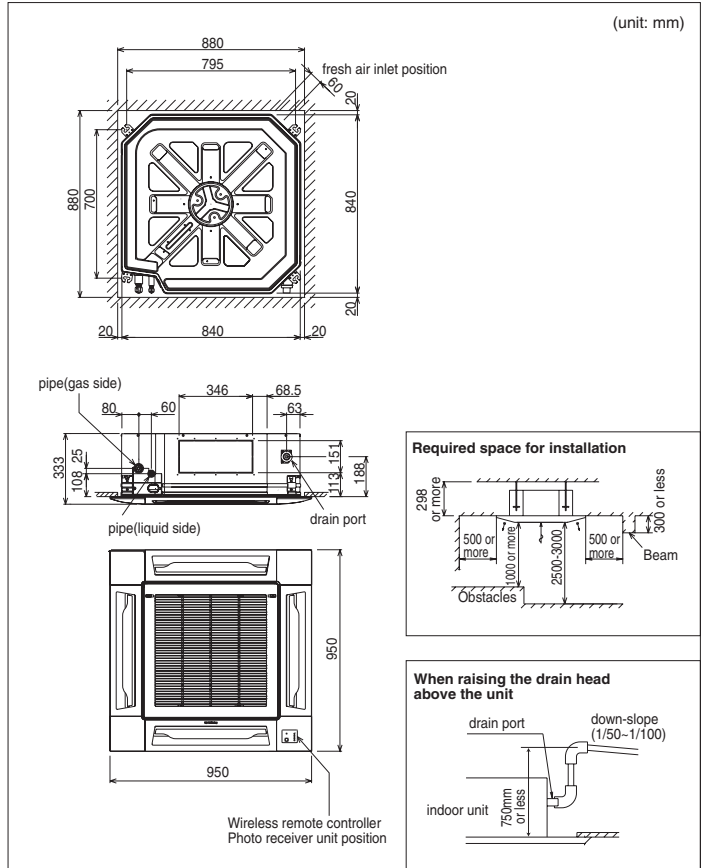
<Non-Inverter> -10°C to 24°C (outdoor temperature)

CASSETTE TYPE

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

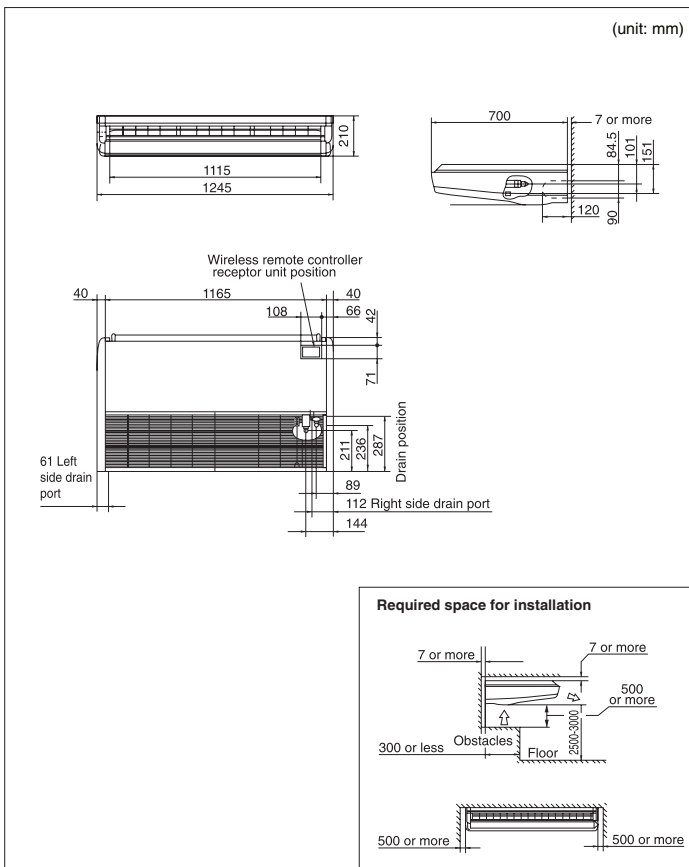


CS-F34DB4E5/CS-F43DB4E5/CS-F50DB4E5

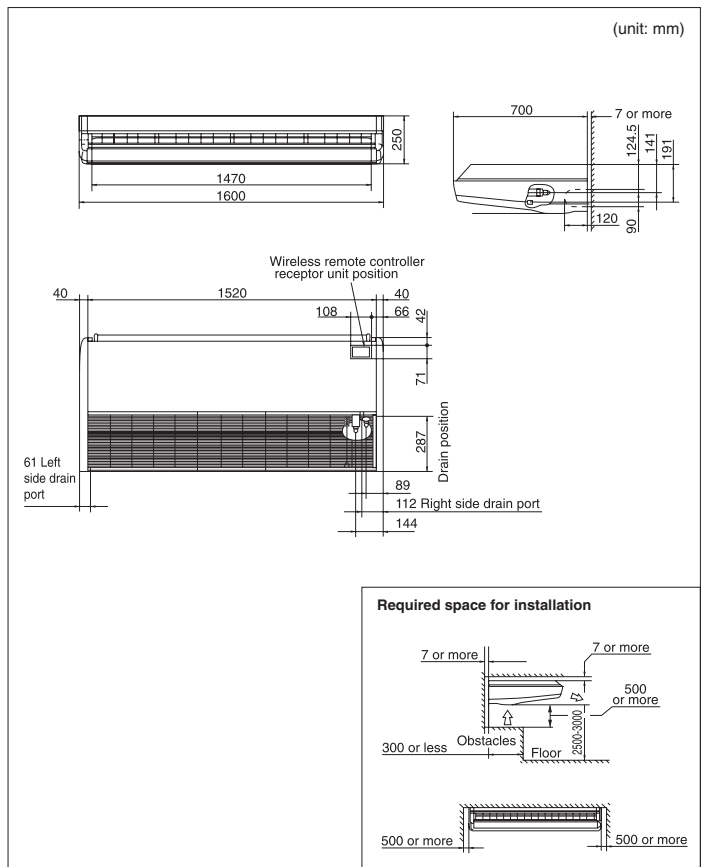


CEILING TYPE

CS-F18DTE5/CS-F24DTE5/CS-F28DTE5

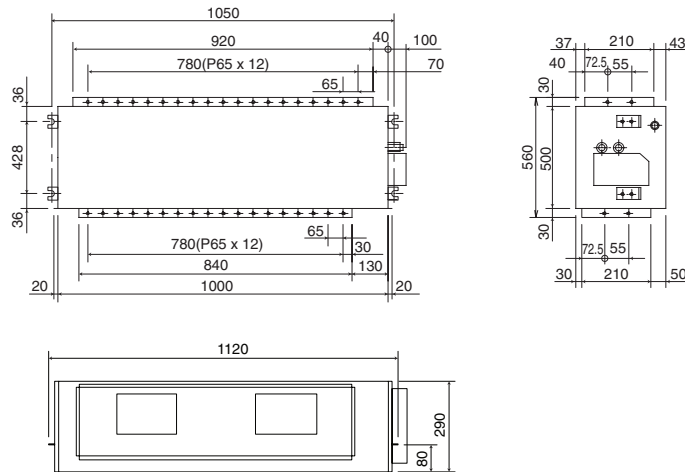


CS-F34DTE5/CS-F43DTE5/CS-F50DTE5



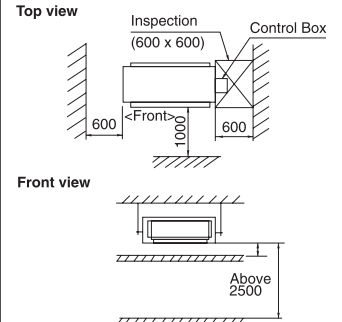
HIDE-AWAY TYPE (MIDDLE STATIC PRESSURE MODELS)

CS-F24DD2E5/CS-F28DD2E5

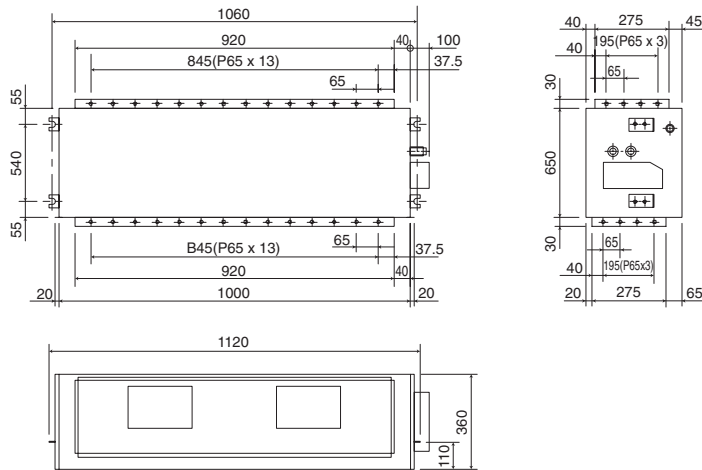


(unit: mm)

Required space for installation

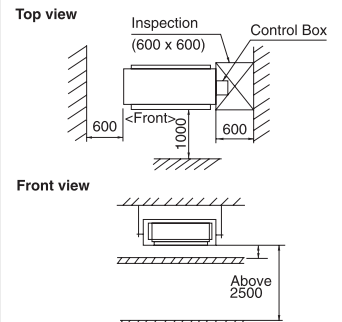


CS-F34DD2E5/CS-F43DD2E5/CS-F50DD2E5



(unit: mm)

Required space for installation



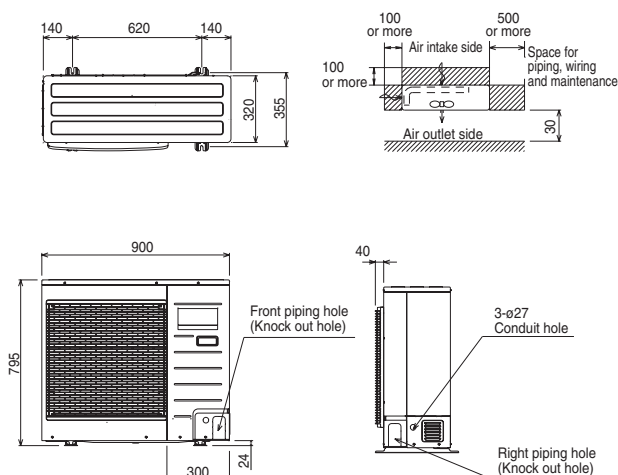
OUTDOOR UNITS

Inverter: CU-L24DBE5/CU-L28DBE5

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

1.5HP-3.0HP

(unit: mm)

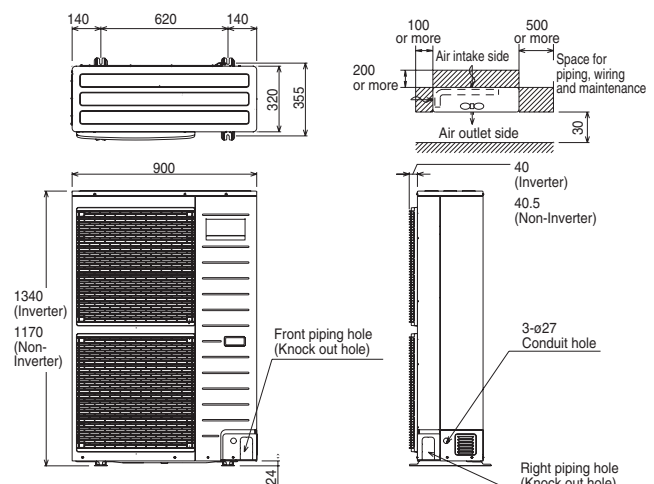


Inverter: CU-L34DBE5/CU-L43DBE5/CU-L50DBE8

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

4.0HP-6.0HP

(unit: mm)



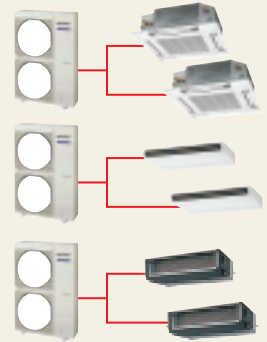
Indoor Unit Combination

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

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

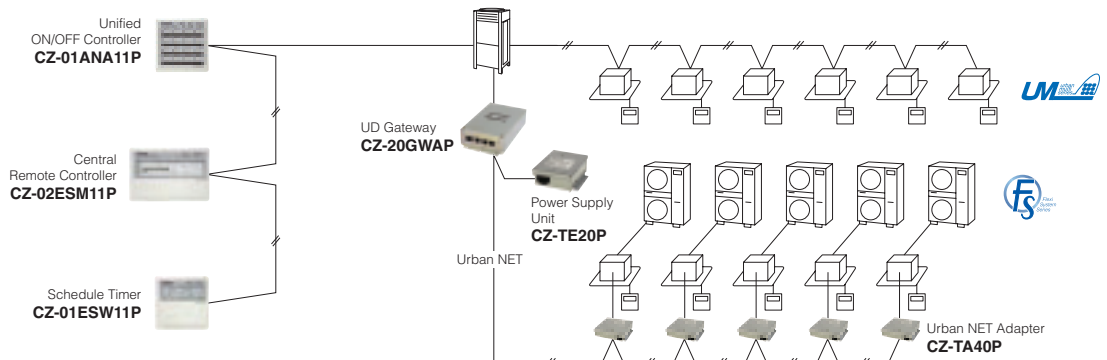
Outdoor Unit \ Indoor Unit	Cassette	Hide-Away (Low Static Pressure)	Hide-Away (Middle Static Pressure)	Ceiling
3.0 HP				
4.0 HP				
5.0 HP				
6.0 HP				

: Outdoor Unit Capacity : Indoor Unit Capacity

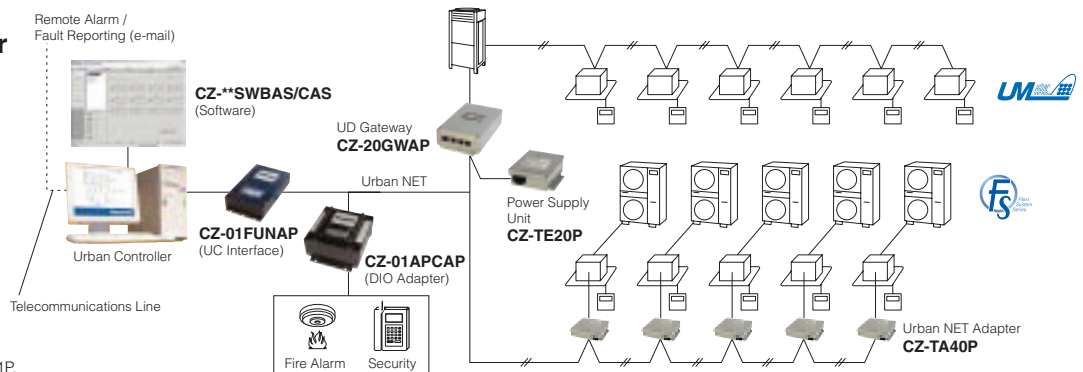


Centralized Control System

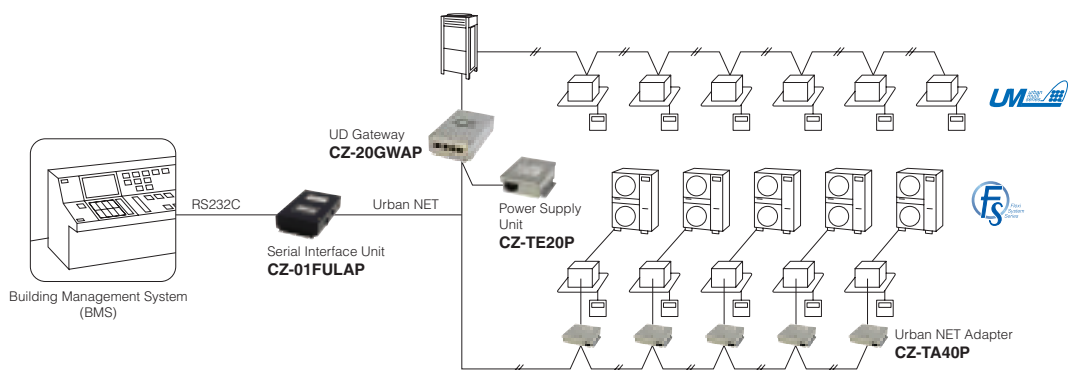
System Example with Centralized Control (UM NET)



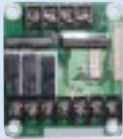
System Example with Urban Controller



System Example with BMS RS232C Serial Connection



Equipment of the Centralized Control System

	Interface Adapter for External Signals	CZ-TA30P	• 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 condition of the indoor unit (malfunctions, operating status) can be externally output. • Control in linkage with a total heat exchanger 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 a 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

■ 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)

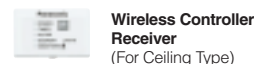
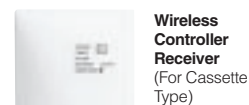
CZ-RL513T (For Ceiling Type)



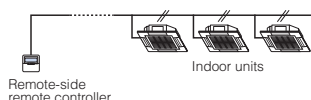
Cooling Only Models

CZ-RL013B (For Cassette Type)

CZ-RL013T (For Ceiling Type)

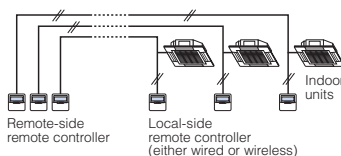


● Group Control by a Single Remote Controller



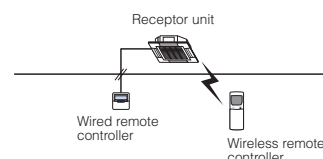
- All indoor units operate in the same mode.

● 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.

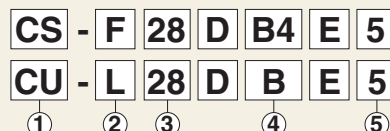
CZ-H2H53DP

(For 3.0-4.0 HP)

CZ-H2H53EP

(For 5.0-6.0 HP)

■ The System of Model Numbers



① Model Type

CS: Split Type (Indoor Unit)

CU: Split Type (Outdoor Unit)

② Function

Indoor Unit

F: Can be used with Inverter, Non-Inverter, Cooling Only, and Heat Pump Models

Outdoor Unit

L: 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)

ISO 9000 Series Certification



CERTIFIED TO MS ISO 9002: 1994

Panasonic HA Air-Conditioning (M) Sdn. Bhd. (PHAAM)
(Formerly known as Matsushita Industrial Corp. Sdn. Bhd.)
Registration No.: AR 0866

Environmental Management Systems Approval Certificate



CERTIFIED TO MS ISO 14001: 1997

Panasonic HA Air-Conditioning (M) Sdn. Bhd. (PHAAM)
(Formerly known as Matsushita Industrial Corp. Sdn. Bhd.)
Certification No.: M015802127

