

Panasonic

RESIDENTIAL & LIGHT COMMERCIAL AIR CONDITIONERS **2015 / 2016**



ECONAVI



EVERY BUILDING MATTERS

A Better Life, A Better World

As we move towards our Centenary in 2018, our new brand slogan encapsulates Panasonic's vision of expanding and pursuing a better life for each of our customers. Working with our many partners, we operate in a wide range of fields such as the home, community, business and travel realising a better world globally through its contribution to the environment and other activities, in both its B2C and B2B businesses.



For Future Generations

Panasonic aims to become the No.1 green innovation company in the electronics industry



The 2014 Best Global Green Brands

2014 Brand Ranking Top 10

- 1 FORD
- 2 TOYOTA
- 3 HONDA
- 4 NISSAN
- 5 **Panasonic**
- 6 NOKIA
- 7 SONY
- 8 ADIDAS
- 9 DANONE
- 10 DELL

Interbrand has announced its 2014 ranking of Best Global Green Brands. In this year's ranking Panasonic was ranked number five, fulfilling our eco pledge "For future generations, Panasonic aims to become the No.1 Green Innovation Company in the Electronics Industry."

At Panasonic, our eco pledge is more than just a tagline; it's a harmonious way of life that we take very seriously. Panasonic was founded based on the philosophy of contributing to progress in society and to enriching people's lives through business activities. By offering products that help

people lead better, greener lives, we are making good on our strong commitment to continuous environmental sustainability management.

Interbrand's Best Global Green Brands 2014 report is a look at sustainability with performance data powered by Deloitte and consumer perception data. Interbrand evaluates organisations based on market perception; actual environmental performance; and products and services.*

Source: Best Global Green Brands 2014, Interbrand.
Go to www.bestglobalgreenbrands.com for more information.



Panasonic Eco City
Tianjin, China

Panasonic Air Conditioning Designed To Care For Your Projects

With more than 30 years of experience, exporting to more than 120 countries around the world, Panasonic is unquestionably one of the leaders in the air conditioning sector. The company is also a world leader in innovation as it has filed more than 91,539 patents to improve its customers' lives. Moreover, Panasonic is determined to remain at the forefront of its market. In all, the company has produced more than 200 million compressors and its products, particularly residential air conditioners, now hold the No. 1 market share in Japan and other major countries in Asia. You can be assured of the extremely high quality of Panasonic's air conditioners.

This wish to excel has made Panasonic the international leader in air conditioning solutions. The company's industrial capacity and firm commitment to the environment has enabled it to open new avenues of research and to develop innovative technologies which enhance its customers' way of life. Panasonic offers a range of turnkey air conditioning solutions for homes, medium-sized buildings such as offices and restaurants. These offer maximum effectiveness, comply with the strictest environmental standards and meet the most avant-garde construction requirements of our time.

At Panasonic we know what a great responsibility it is to install cooling and heating systems. Because offering you the best solutions in cooling and heating matters.

EVERY BUILDING MATTERS

WHAT'S NEW

Exclusive Feature 1



Using sensors and precise control programs, ECONAVI analyses room conditions and adjusts cooling and heating power to reduce wasted electricity.



Exclusive Feature 2

Deluxe Wired Remote Controller

Features a large LCD and touch keys for easy operation, and multiple energy-saving functions.



Panasonic

INVERTER

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ECONAVI reduces inefficient air conditioning

Providing outstanding energy-saving performance, Panasonic's large capacity air conditioners can be connected to ECONAVI to detect when energy is being wasted.

ECONAVI senses the presence or absence of people and the level of activity in each area of a room. When unnecessary heating or cooling is detected, indoor units are individually controlled to match room conditions for energy-saving operation.



ECONAVI Sensor
CZ-CENSC1



4-way Cassette



Under Ceiling



Mid Static Duct



High Static Duct

Applicable to all 4 types of indoor units*

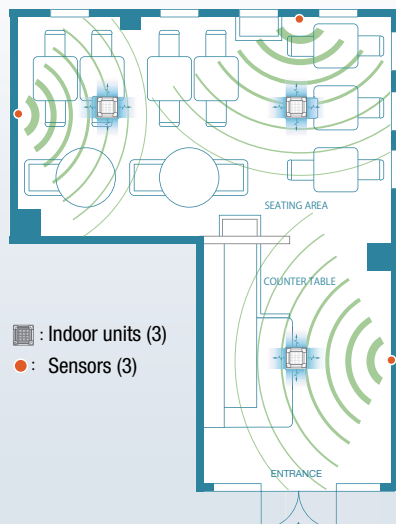
*Except 20.0kW

Up to 28% verified energy-saving*

With the set temperature increased by 2°C during cooling.

EXAMPLE 1

In a coffee shop power is reduced to match the number of customers in each area.



Gentle cooling in areas of low activity



Thorough cooling in areas of high activity

COFFEE SHOP



Detection of the level of activity enables optimum power saving

Presence or absence of people and the level of activity in the room are detected in real time. Set temperature is automatically adjusted to optimise the power consumption.

Case study at coffee shop



In the morning

Reduced cooling when there are fewer people

In the afternoon
Thorough cooling when there is a high level of activity



At night

Automatic Thermo Off depending on conditions at the end of the day*



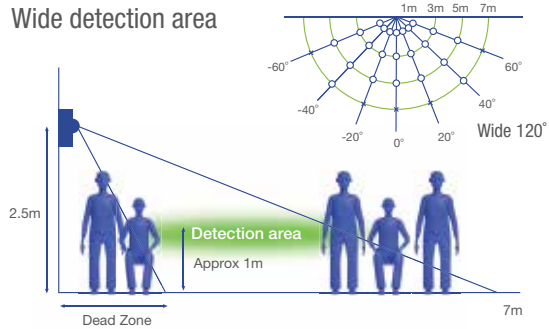
*Depending on conditions, the setting can change to Switch Off After 3 Hours, Thermo Off or Temperature Shift.



Sensors are remotely located to maximise the energy-saving effect

When sensors are built into the indoor unit, pillars, walls, cabinets and other fittings can obstruct the sensors, reducing the area of detection and lowering the energy-saving effect. Panasonic sensors can be located anywhere in the room which enables the optimum layout for sensors in any location.

Wide detection area



A sensor is remotely set to maximise the detection area.

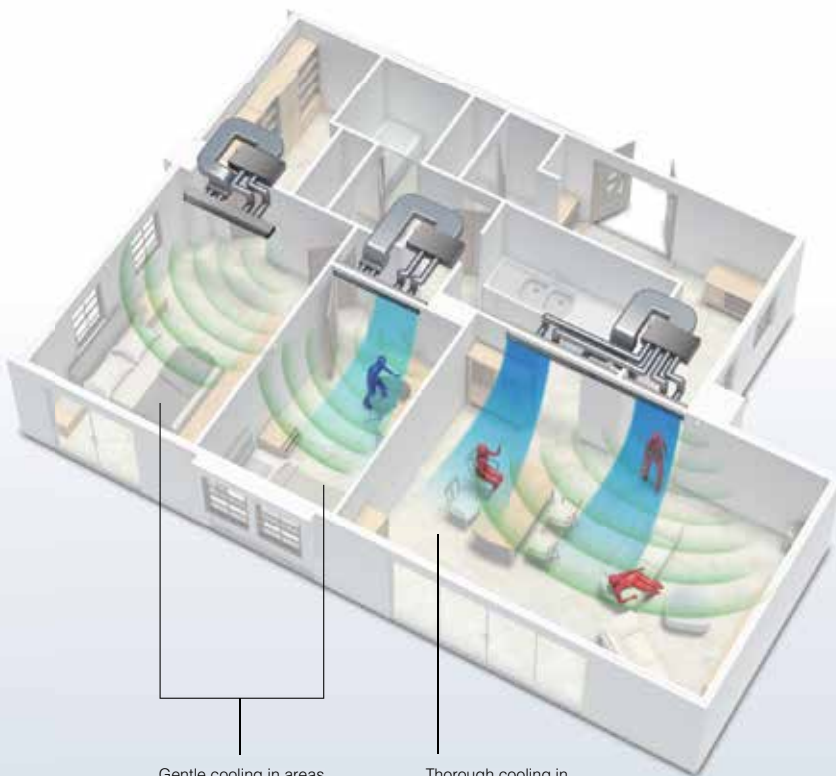
Installation flexibility ready for indoor unit layout changes.

Test method

*ECONAVI sensor allows energy saving by allowing set temperature to increase by up to 2°C during times when lower levels of human activity or human presence are detected. Tested with a uniform level of human activity and with doors opened and closed a uniform number of times. At each set temperature between 24°C and 28°C, cumulative power consumption over 3 hour period measured and compared. Maximum possible energy saving is 28% based upon the power consumption difference.

Test conditions

*Panasonic test room (29m²). Indoor unit: S-100PU1 (Single 4-way Cassette 10kW) Outdoor unit: U-100PE1 (Single DLX 10kW). Cooling operation, set temperature of 24 to 28°C, Hi airflow setting.

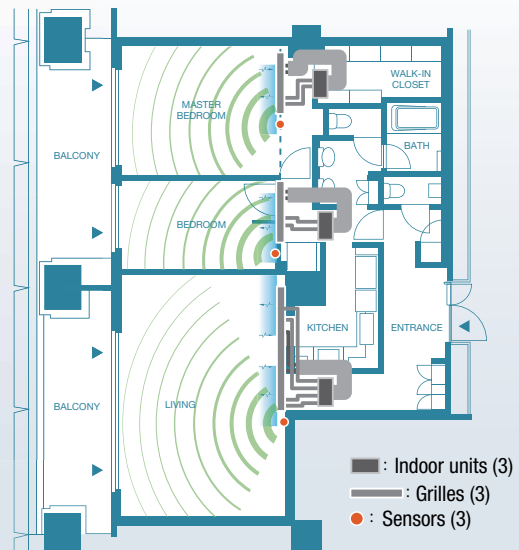


Gentle cooling in areas of low activity

Thorough cooling in areas of high activity

EXAMPLE 2

In an apartment, power output is adjusted to match the number of people present in each room.



Deluxe Wired Remote Controller

Easy-to-use, with multiple energy saving functions at your fingertips.



Actual size

1 Large 3.5" Full-dot LCD with White LED Backlight

Characters and icons are clearly displayed for improved visibility. The display is also large enough to provide a wide range of information for easy confirmation of operation conditions.



2 Stylish, Easy-to-use Touch Key Design

The elegant, flat design features large touch keys in a simple layout enabling easy, intuitive operation.





Energy consumption display and Log function



Day



Week

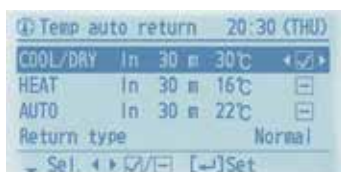


Month

Energy Consumption Monitoring Display

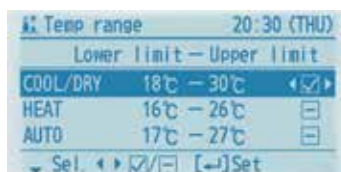
Graphs of daily, weekly and annual power consumption are displayed. A visual representation of power consumption lets you confirm the energy-saving effect and quickly detect energy-wasting operation. This helps to further improve energy saving.

Multiple control settings to meet a wide range of air conditioning needs



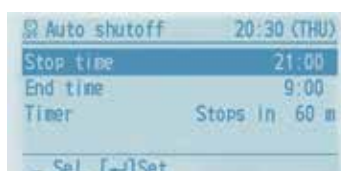
Temperature Auto Return

Even if you change the temperature setting, after a set time it automatically returns to the original temperature setting. You can set temperature auto return time in 10-minute intervals within a period of 4 hours.



Temperature Setting Range Limitation

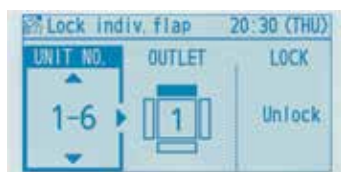
You can set the upper and lower temperature limits. Doing this helps reduce power consumption due to over cooling or heating. Setting is possible in the Cooling, Heating and Dry modes.



Auto Shutoff

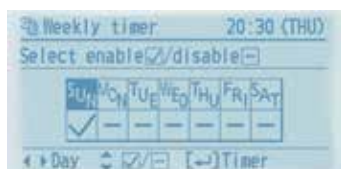
Air conditioning automatically stops after a set time, so you don't have to worry about forgetting to switch the unit off. Even if you manually switch the unit back on after it has stopped, it automatically switches off again after the set time.

Wide range of controls for extra convenience



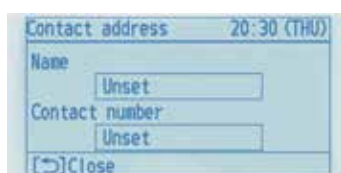
Individual Louver Control (For 4-way cassette U1 type)

One of the 4-directional outlets can be selected and locked to provide efficient air distribution that matches the indoor unit layout. Indoor units can be set individually.



Weekly Timer

This lets you specify 8 Start/Stop times and temperature presets for each day of the week.



Service Contact Address

Once you have registered service contact details, they are automatically displayed if a problem with the air conditioner occurs. This helps you quickly deal with the situation.

Convenient Controls



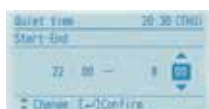
Operation Lock

Operation keys can be locked to prevent users accidentally changing the temperature setting, airflow rate, airflow direction and other settings.



Filter Information

Filter information is indicated for cleaning after a set time of operation has passed. The number of hours can be adjusted.



Quiet Operation Mode

There's a Quiet mode that reduces the outdoor unit's operating noise. The mode can be switched On/Off and the Start/End times can be set with the remote controller.



Maintenance Function

Display of outdoor malfunction data, service contact details, filter cleaning remaining time and other data enables at-a-glance verification of maintenance information with the remote controller.



Repeat OFF Timer

You can set the unit to switch off after a desired period of time.



Setting Information Lists

Information concerning current settings is displayed in the remote controller's LCD for easy confirmation.

Function List

Control Item	
Menu items	Basic instructions
	FLAP
	Individual louver control (Lock individual flap for 4-way cassette)
	ON/ OFF timer
	Weekly timer
	Filter information
	Outing function
	Quiet operation mode
	Power consumption monitor
	Energy saving
	Initial settings
	Ventilation
Energy Saving	Temperature auto return
	Temperature setting range
	Auto shutoff
	Schedule peak cut
	Repeat off timer
	ECONAVI on/ off
Maintenance Function	Outdoor unit error data
	Service Contact address
	RC setting mode
	Test Run
	Sensor Information
	Service check
	Simple/ Detailed Settings
	Auto address

Panasonic provides ideal solutions
for large-capacity air conditioning needs.



Indoor Unit

CAPACITY (kW)

6.0kW

Ducted

High Static Pressure Model

[Page 22-25](#) for 6.0kW-14.0kW

[Page 26-27](#) for 20.0kW


S-60PE1R5A



Ducted **NEW**

Mid Static Pressure Model

[Page 28-31](#)
S-60PF1R5A **NEW**

4-Way Cassette

* Panel is provided as an option (CZ-KPU21)

[Page 32-35](#)


S-60PU1R5A



Under Ceiling

[Page 36-39](#)


S-60PT2R5A



Outdoor Unit

CAPACITY (kW)

6.0kW

[Page 16-21](#)

U-60PE1R5A





7.1kW

10.0kW

12.5kW

14.0kW

20.0kW

S-71PE1R5A



S-100PE1R5A



S-125PE1R5A



S-140PE1R5A



S-200PE2R5

NEW



S-71PF1R5A

NEW



S-100PF1R5A

NEW



S-125PF1R5A

NEW



S-140PF1R5A

NEW



S-71PU1R5A



S-100PU1R5A



S-125PU1R5A



S-140PU1R5A



S-71PT2R5A



S-100PT2R5A



S-125PT2R5A



S-140PT2R5A



7.1kW

10.0kW

12.5kW

14.0kW

20.0kW

U-71PE1R5A



U-100PE1R5A
U-100PE1R8A*



U-125PE1R5A
U-125PE1R8A*



U-140PE1R5A
U-140PE1R8A*



U-200PE1R8*

NEW



(*3-phase)

Outdoor Unit

DC Inverter allows better comfort and energy savings

INVERTER

DRED ready
DEMAND RESPONSE
ENABLING
DEVICE

- Complies with all necessary Safety Approvals to ensure quality and safety
- Top-class EER:4.20 / COP:4.31 (4 Way Cassette type:10.0kW)
- Demand Response (DRED) compatible
- Cooling operation is possible when outdoor temperature as high as 46°C
- DC inverter technology combined with R410A for excellent efficiency

- Maximum piping length:180m
- Cooling operation is possible when outdoor temperature as low as -15°C*1
- Heating operation is possible when outdoor temperature as low as -25°C*2
- One ampere starting current
- Auto restart from outdoor unit

*1 Except 20.0kW
*2 20.0kW only





Product Quality and Safety

All Panasonic air conditioners undergo strict quality and safety tests before sale. This rigorous process includes obtaining all necessary Safety Approvals, to ensure that all air conditioners we sell are not only built to the highest market standards, but are also completely safe.



Energy-saving concept

The use of energy saving design for the structure of fans, fan motors, compressors and heat exchangers resulted in high COP value which ranked as one the top class in the industry. In addition, use of highly efficient R410A refrigerant reduces CO2 emission and lowers operating costs.



① Compact & High Efficient Compressor

A large inverter compressor has been adopted. The inverter compressor is superior in performance with improved partial-load capacity.

② Printed Circuit Board (S-LINK)

The number of PCB was reduced from 3 into 2* pieces to improve maintenance work.

③ DC Fan Motor

Checking load and outside temperature, the DC motor is controlled for optimum air volume.

④ New Large Diagonal (520mm) Air Flow Fan

The newly designed fan has been developed to inhibit air turbulence and to increase efficiency. As fan diameter has been increased to 520mm*, the air volume has been increased whilst maintaining a low sound level.

⑤ High-Efficiency Heat Exchanger

The heat exchanger and the size of the copper tube in the heat exchanger has been redesigned to increase efficiency.

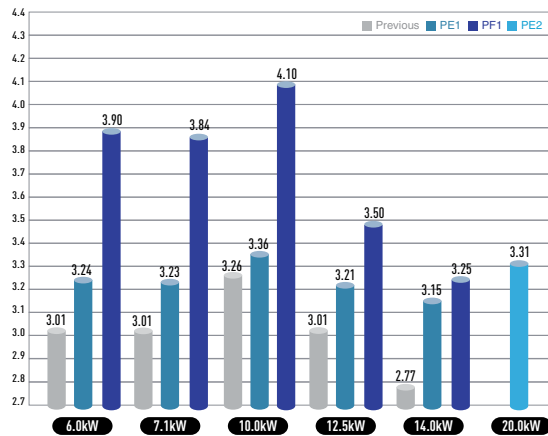
*Except for 20.0kW

Outdoor Unit

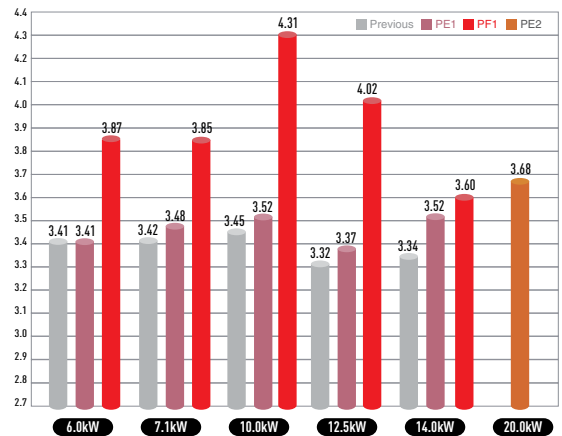
Improved Energy Saving

The operation efficiency has been improved using highly efficient R410A refrigerant, new DC inverter compressor, new DC motor and new design of heat exchanger.

Cooling (Ducted)



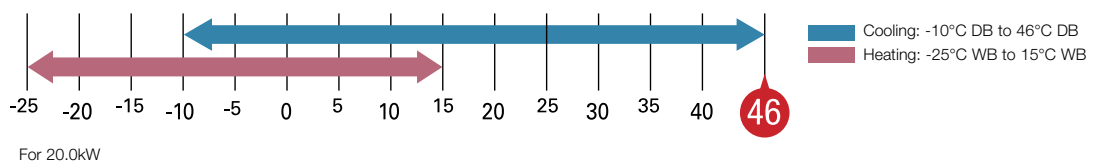
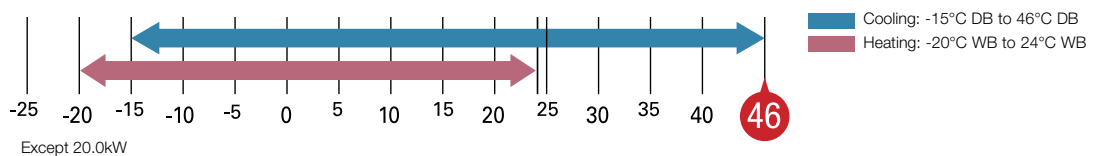
Heating (Ducted)



Wide Operating Range

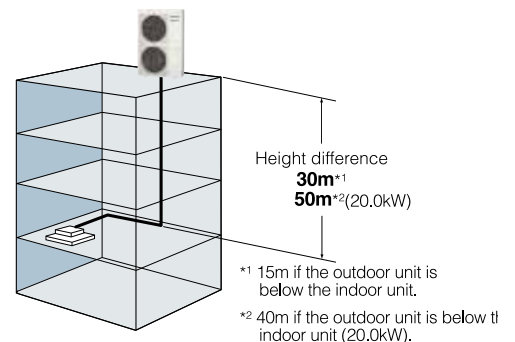
- Cooling operation is possible when outdoor temperature as low as -15°C^{*1}
 - Cooling operation is possible when outdoor temperature as high as 46°C
 - Heating operation is possible when outdoor temperature as low as -25°C^{*2}
- The remote controller temperature setting offers a range from 16°C to 30°C.

^{*1} Except 20.0kW
^{*2} 20.0kW only



Increased Piping Length for Greater Design Flexibility

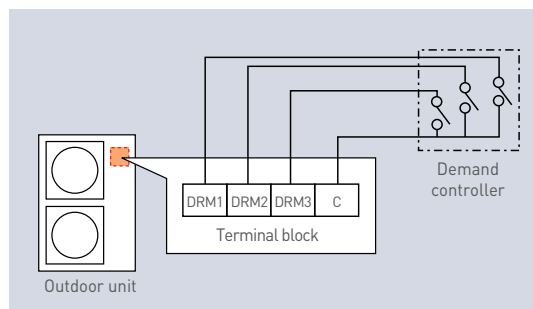
Adaptable to various building types and sizes
 Max. piping length : 50m (6.0kW, 7.1kW),
 75m (10.0kW, 12.5kW, 14.0kW),
 180m (20.0kW)



Demand Response Compliant

Panasonic air conditioners are equipped with a Demand Response Enabling Device (DRED) which complies to both AS 4755 and AS 3823. Panasonic continues to design and develop products that are tailored to local needs and requirements. This ensures that Panasonic products that you are installing today are compliant with the demand response standards that are likely to be implemented shortly.

The Equipment Energy Efficiency (E3) program has been supporting the development of Demand Response Enabling Device (DRED) standards for air-conditioners which should comply with AS 4755. DRED functionality is not compulsory today, however, this capability will be required for all installations in the very near future



Demand control terminal is available to control 0-50-75-100% of capacities.

Compact and Lightweight

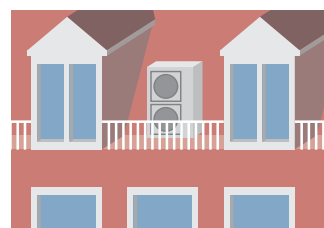
The weight is only 98 kg. (10.0kW, 12.5kW, 14.0kW)
Hence it is easy to carry, easy to install.



Compact & Flexible-design

The slim and lightweight design can be installed in various places.

* 14.0kW or smaller capacity unit



Quiet Mode

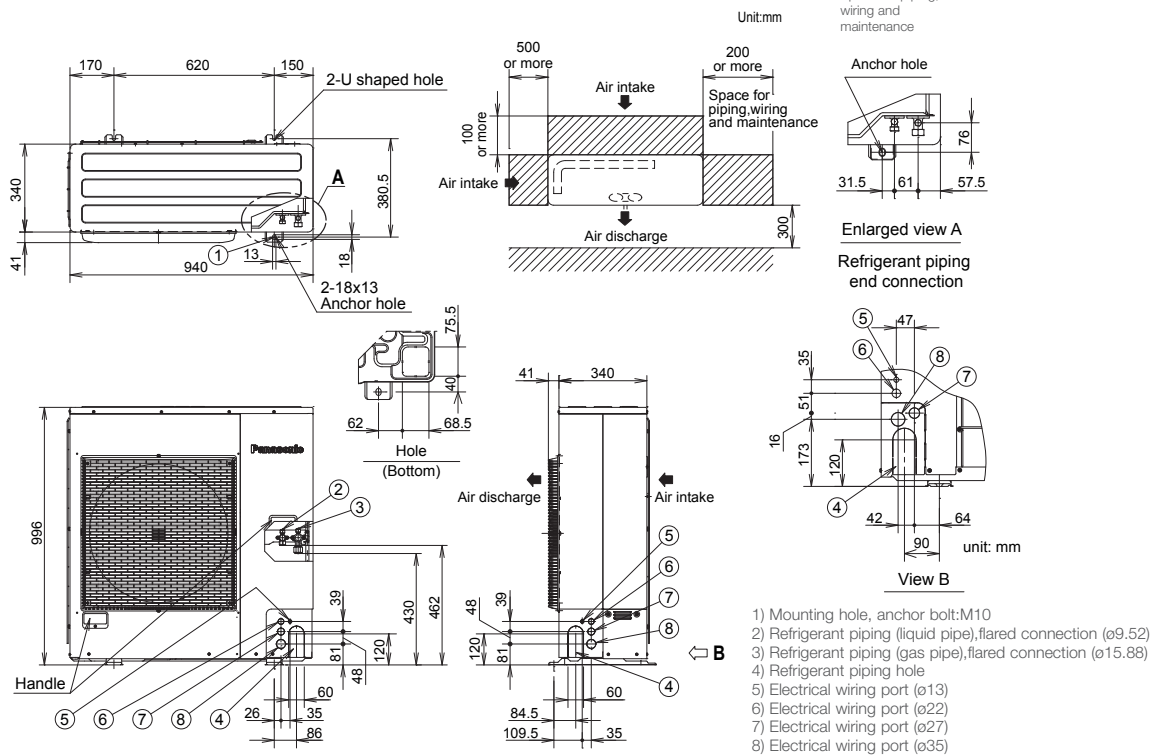
Quiet mode reduces outdoor operating sound by 5dB.
External input signal is also available.

* 14.0kW or smaller capacity unit

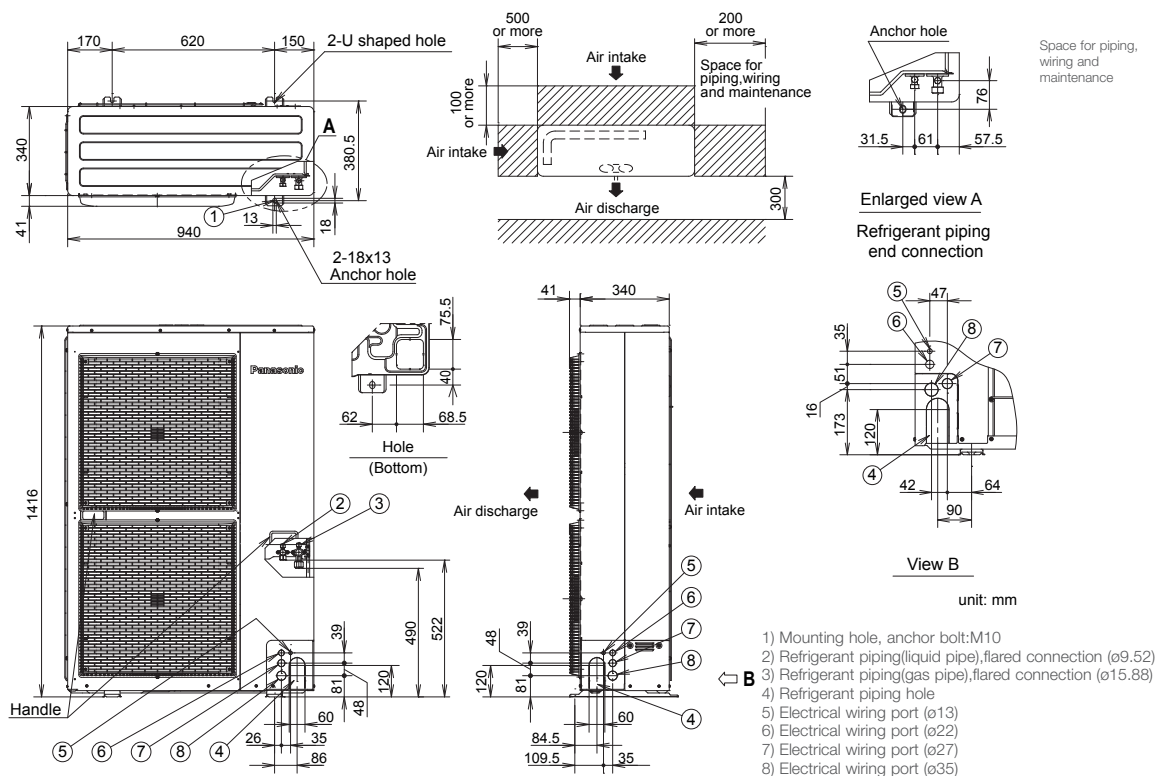


Outdoor Unit

Dimensions (6.0kW – 7.1kW)

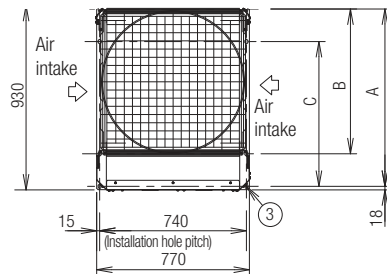


Dimensions (10.0kW – 14.0kW)

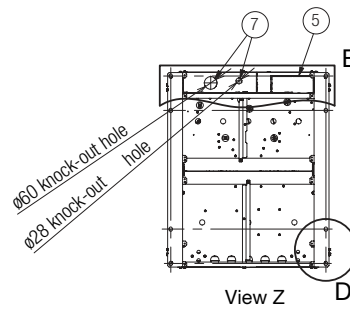


Dimensions (20.0kW)

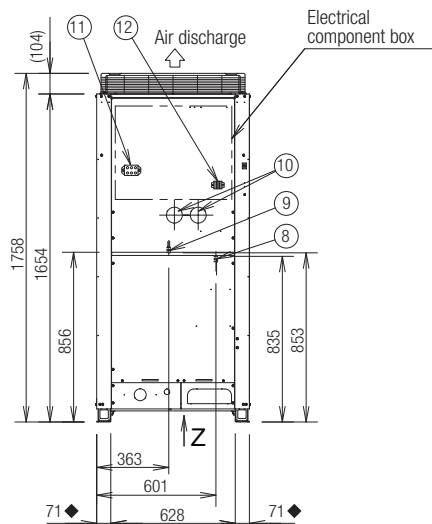
unit: mm



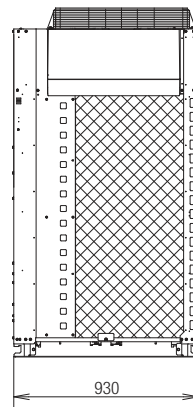
Top view



View Z

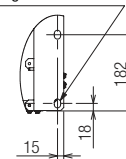


Front view

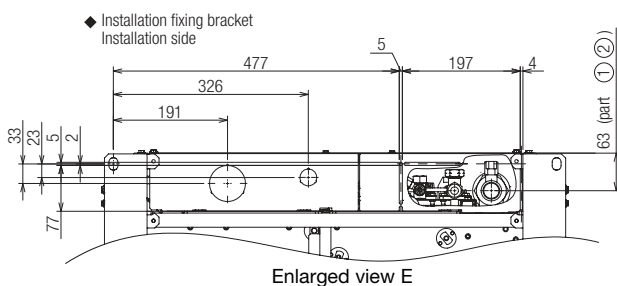


Side view

Installation hole
8 - 15 x 21 elongated hole

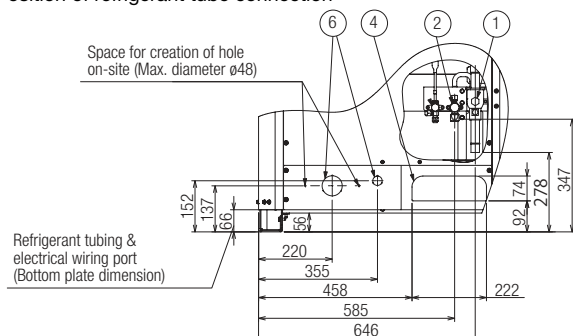


Enlarged view D



Enlarged view E

Position of refrigerant tube connection



- According to the installation site, you may choose the setting position in the depth direction of the anchor bolt from "A", "B" or "C".
- A : 894 (Installation hole pitch) * The tubing is routed out from the front.
- B : 730 (Installation hole pitch) * The tubing is routed out from the bottom.
- C : 730 (Installation hole pitch)

Types of unit			20.0kW
①	Refrigerant tubing (gas tube)	brazed connection	ø19.05
②	Refrigerant tubing (liquid tube)	flared connection	ø9.52
③	Installation holes(8-15x21 elongated holes), anchor bolts M12 or larger		
④	Refrigerant tubing port (front: knock-out hole)		
⑤	Refrigerant tubing port (bottom: slit hole)		
⑥	Electrical wiring port (front: ø60, ø28 knock-out hole - for conduit connection)		
⑦	Electrical wiring port (bottom: ø60, ø28 knock-out hole - for conduit connection)		
⑧	Pressure outlet port (for high pressure: ø7.94 Schrader-type connection)		
⑨	Pressure outlet port (for low pressure: ø7.94 Schrader-type connection)		
⑩	Knock-out hole for connecting pressure gauge (optional)		
⑪	Terminal plate		
⑫	Terminal plate for inter-unit control wiring		

Indoor Unit

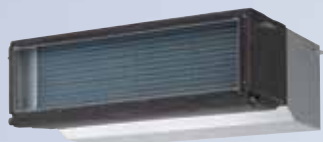
High Static Pressure

Ducted

High static and large airflow ducted for exceptional installation flexibility.

ECONAVI

ECONAVI ready



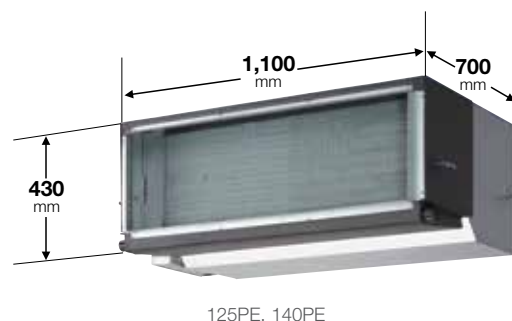
S-60PE1R5A
S-71PE1R5A
S-100PE1R5A



S-125PE1R5A
S-140PE1R5A

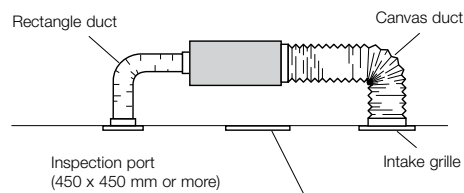
Compact Body Size

Hidden in the ceiling, ideal when interior decor is an important consideration such as in residences with many rooms and light commercial buildings.



System Example

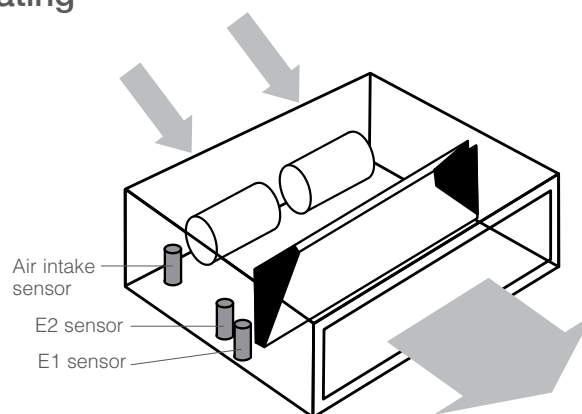
An inspection port (450 mm x 450 mm or more) is required at the control-box side of the indoor unit body.





Cold Drafts Reduced During Heating Operation

- Accurate temperature measurement by E1/E2 sensor to reduce cold drafts during heating operation.

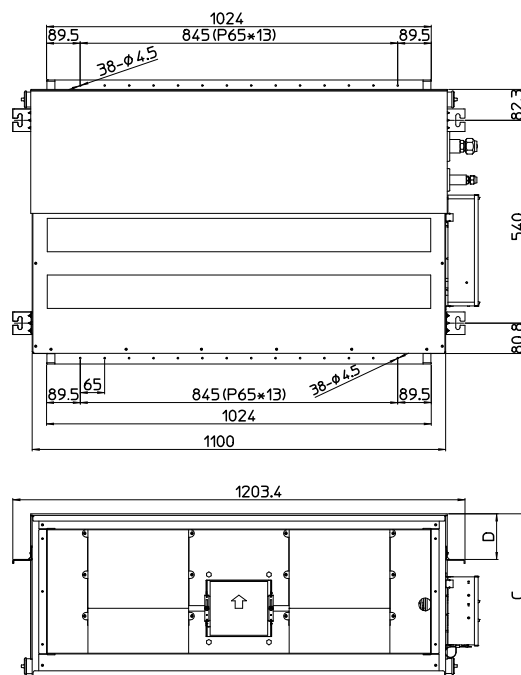


Indoor Unit

High Static Pressure

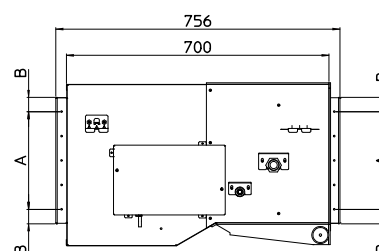
Ducted

Dimensions

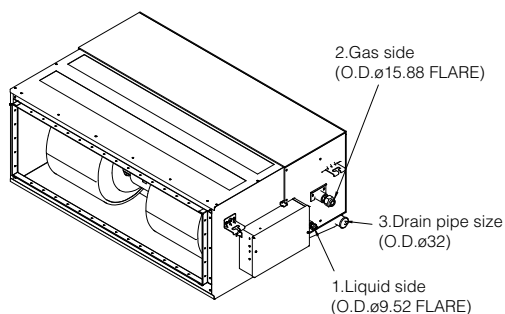


Dimensions: mm

model	A	B	C	D
S-60PE1R5A	130	33.1	290	118
S-71PE1R5A S-100PE1R5A	195	35.7	360	50
S-125PE1R5A S-140PE1R5A	260	38.2	430	121.5



Capacity			6.0kW	7.1kW	10.0kW
Model Name	Indoor Unit		S-60PE1R5A	S-71PE1R5A	S-100PE1R5A
	Outdoor Unit		U-60PE1R5A	U-71PE1R5A	U-100PE1R5A
Power source		Phase/Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz
		V	230V 240V	230V 240V	230V 240V
Cooling capacity : Heating capacity		kW	6.0 (2.5 - 7.1) 7.0 (2.0 - 8.0)	7.1 (2.5 - 8.0) 8.0 (2.0 - 9.0)	10.0 (3.3 - 12.5) 11.2 (4.1 - 14.0)
		BTU/h	20,500 (8,500 - 24,200) 23,900 (6,800 - 27,300)	24,200 (8,500 - 27,300) 27,300 (6,800 - 30,700)	34,100 (11,300 - 42,700) 38,200 (14,000 - 47,800)
EER : COP		W/W	3.24 : 3.41	3.23 : 3.48	3.36 : 3.52
Total power input	Cooling : Heating	kW	1.85 : 2.05	2.20 : 2.30	2.98 : 3.18
Indoor Unit					
Current	Cooling : Heating	A	0.85 : 0.85 0.86 : 0.86	1.24 : 1.24 1.25 : 1.25	1.72 : 1.72 1.74 : 1.74
Dimensions	H x W x D	mm	290x1,100 (+100)x700	360x1,100 (+100)x700	360x1,100 (+100)x700
Net weight		kg	35	42	44
Air volume	Cooling : Heating	L/s	366 : 366	500 : 500	666 : 666
External static pressure		Pa	70 (Max.100)	100 (Max.150)	100 (Max.150)
Sound pressure level (H/M/L)	Cooling : Heating	dB(A)	43 / 41 / 40 : 43 / 41 / 40	45 / 44 / 43 : 45 / 43 / 44	48 / 46 / 44 : 48 / 46 / 44
Sound power level (H/M/L)	Cooling : Heating	dB(A)	60 / 58 / 57 : 60 / 58 / 57	62 / 61 / 60 : 62 / 61 / 60	70 / 68 / 66 : 70 / 68 / 66
Number of fan speed			3	3	3
Drain pipe size		mm	VP-25	VP-25	VP-25
Outdoor Unit					
Current	Cooling : Heating	A	7.85 : 8.80 7.65 : 8.60	9.10 : 9.30 8.80 : 9.00	11.8 : 12.7 11.40 : 12.3
Dimensions	H x W x D	mm	996 x 940 x 340	996 x 940 x 340	1,416 x 940 x 340
Net weight		kg	68	69	98
Air volume	Cooling : Heating	L/s	1,000 : 1,000	1,000 : 1,000	1,833 : 1,583
Sound pressure level (Silent mode)	Cooling : Heating	dB(A)	48 (46) : 50 (48)	48 (46) : 50 (48)	52 (50) : 52 (50)
Sound power level (Silent mode)	Cooling : Heating	dB(A)	65 (63) : 67 (65)	65 (63) : 67 (65)	69 (67) : 69 (67)
Piping connections	Liquid/Gas	m	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
Pipe length	min. - max.	m	5 - 50	5 - 50	5 - 75
Elevation difference (OU located lower, OU located higher)		m	15, 30	15, 30	15, 30
Maximum chargeless length		m	30	30	30
Refrigerant at shipping, Additional gas amount		g	R410A 2,000, 50 (g/m)	R410A 2,350, 50 (g/m)	R410A 3,400, 50 (g/m)
Operation ranges	Cooling : Heating	°C	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24



Optional Controller

ECONAVI



ECONAVI sensor
CZ-CENSC1



Deluxe Wired
remote controller
CZ-RTC3

NEW



Timer remote controller
CZ-RTC4



Simplified remote controller
CZ-RE2C2



Wireless remote controller
CZ-RWSK2 + CZ-RWSC3

12.5kW		14.0kW	
S-125PE1R5A	S-125PE1R5A	S-140PE1R5A	S-140PE1R5A
U-125PE1R5A	U-125PE1R8A	U-140PE1R5A	U-140PE1R8A
1 Phase/ 50Hz	3 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz
230V 240V	400V 415V	230V 240V	400V 415V
12.5 (3.3 - 14.0)	12.5 (3.3 - 14.0)	14.0 (3.3 - 15.5)	14.0 (3.3 - 15.5)
14.0 (4.1 - 16.0)	14.0 (4.1 - 16.0)	16.0 (4.1 - 18.0)	16.0 (4.1 - 18.0)
42,700 (11,300 - 47,800)	42,700 (11,300 - 47,800)	47,800 (11,300 - 52,900)	47,800 (11,300 - 52,900)
47,800 (14,000 - 54,600)	47,800 (14,000 - 54,600)	54,600 (14,000 - 61,400)	54,600 (14,000 - 61,400)
3.21 : 3.37	3.21 : 3.37	3.15 : 3.52	3.15 : 3.52
3.90 : 4.16	3.90 : 4.16	4.45 : 4.55	4.45 : 4.55
1.82 : 1.82 1.84 : 1.84	1.82 : 1.82 1.84 : 1.84	2.62 : 2.62 2.70 : 2.70	2.62 : 2.62 2.70 : 2.70
430x1,100 (+100)x700	430x1,100 (+100)x700	430x1,100 (+100)x700	430x1,100 (+100)x700
48	48	53	53
833 : 833	833 : 833	1,000 : 1,000	1,000 : 1,000
100 (Max.150)	100 (Max.150)	100 (Max.150)	100 (Max.150)
49 / 47 / 45 : 49 / 47 / 45	49 / 47 / 45 : 49 / 47 / 45	51 / 49 / 47 : 51 / 49 / 47	51 / 49 / 47 : 51 / 49 / 47
71 / 69 / 67 : 71 / 69 / 67	71 / 69 / 67 : 71 / 69 / 67	73 / 71 / 69 : 73 / 71 / 69	73 / 71 / 69 : 73 / 71 / 69
3	3	3	3
VP-25	VP-25	VP-25	VP-25
16.0 : 17.2 15.4 : 16.6	5.30 : 5.70 5.10 : 5.50	17.8 : 18.1 17.2 : 17.5	5.80 : 5.95 5.55 : 5.70
1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340
98	98	98	98
2,166 : 1,833	2,166 : 1,833	2,250 : 2,000	2,250 : 2,000
53 (51) : 53 (51)	53 (51) : 53 (51)	54 (52) : 55 (53)	54 (52) : 55 (53)
70 (68) : 70 (68)	70 (68) : 70 (68)	71 (69) : 71 (69)	71 (69) : 71 (69)
Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
5 - 75	5 - 75	5 - 75	5 - 75
15, 30	15, 30	15, 30	15, 30
30	30	30	30
R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)
-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24

Indoor Unit

High Static Pressure

Ducted

NEW

High static and large airflow ducted for exceptional installation flexibility.



Self-diagnosing
Function



Automatic
Fan
Operation



Mild dry



Automatic
Restart
Function



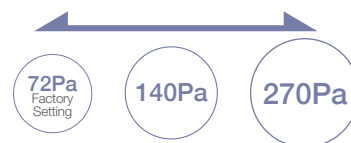
DC
motor

Technical focus

- Design flexibility thanks to high static pressure and large air volume
- DC motor equipped
- Low power input
- Discharge air temperature control to reduce cold drafts during heating operation
- Configurable air temperature control

3-step static pressure set up

You can select between the three Static Pressure modes of 270 Pa / 140 Pa / 72 Pa for extra installation flexibility.



Max. 270 Pa static pressure setting

A maximum static pressure setting of a high 270 Pa enables the use of long ducts for installation in a wide range of spaces. Ideal for large-scale offices, restaurants and other facilities.

Capacity		20.0kW	
Model Name	Indoor Unit	S-200PE2R5	
	Outdoor Unit	U-200PE1R8	
Power source		Phase/Hz	1 Phase/ 50Hz
		V	230V 240V
Cooling capacity : Heating capacity		kW	20.0 (7.0 - 21.5)
			22.4 (6.0 - 25.0)
		BTU/h	68,200 (23,900 - 73,400)
EER : COP		W/W	3.31 : 3.68
Total power input	Cooling : Heating	kW	6.05 : 6.09
Indoor Unit			
Current	Cooling : Heating	A	3.20 : 3.20 3.10 : 3.10
Dimensions	H x W x D	mm	479x1,453x1,205
Net weight		kg	106
Air volume	Cooling : Heating	L/s	1,200 / 1,050 / 883.33 : 1,200 / 1,050 / 883.33
External static pressure		Pa	72 (Max.270)
Sound pressure level (H/M/L)	Cooling : Heating	dB(A)	47 / 45 / 42 : 47 / 45 / 42
Sound power level (H/M/L)	Cooling : Heating	dB(A)	79 / 77 / 74 : 79 / 77 / 74
Outdoor Unit			
Power source		Phase/Hz	3 Phase/ 50Hz
		V	400V 415V
Current	Cooling : Heating	A	8.60 : 8.80 8.30 : 8.50
Dimensions	H x W x D	mm	1,758 x 770 x 930
Net weight		kg	234
Air volume	Cooling : Heating	L/s	2,450
Piping connections	Liquid / Gas	mm (inch)	Ø9.52 (3/8) / Ø19.05 (3/4)*
Pipe length	min. - max.	m	7.5 - 180
Elevation difference (OU located lower, OU located higher)		m	40, 50
Operation ranges	Cooling : Heating	°C	-10 to 46: -25 to 15

* Tubing size is Ø12.70 (1/2) / Ø22.22 (7/8) when the length is over 90m. Please refer to technical documents for more details.



S-200PE2R5



CZ-RTC3



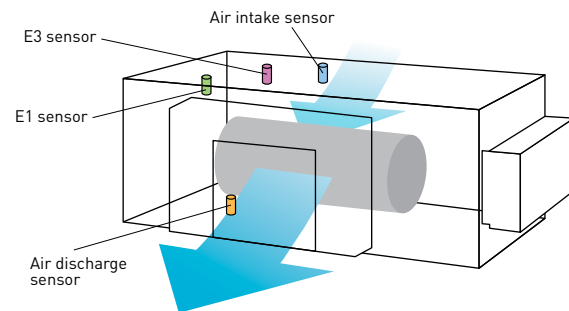
CZ-RTC4

Sensible cooling 5-10% improved

New heat exchanger with $\phi 7\text{mm}$ pipe that increases the heat transfer surface to improve sensible cooling (5-10% improvement)

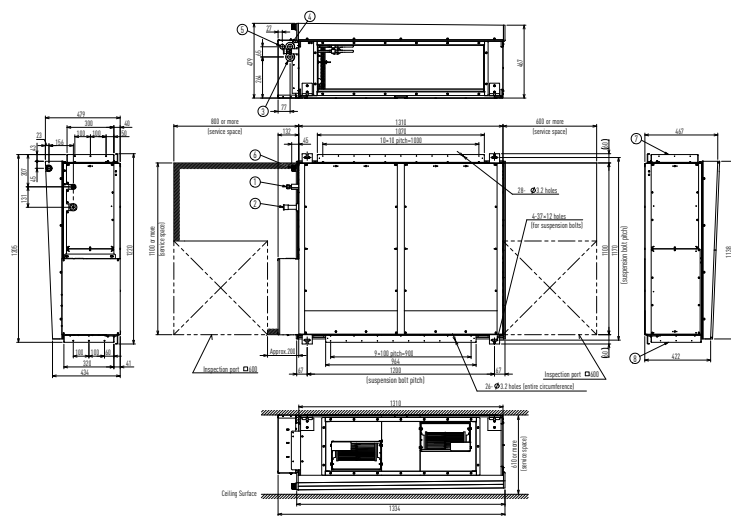
Discharge air temperature control

- Equipped with 4 sensors (Intake/ Discharge)
- Able to control discharge air temperature for accurate room temperature control.
- Possible to reduce cold drafts during heating operation.



HIGH STATIC DUCTED Dimensions

- 1 Refrigerant piping (liquid pipes) $\phi 9.52$
- 2 Refrigerant piping (gas pipes)
76 type: $\phi 19.05$, 96 type: $\phi 22.22$
- 3 Power supply outlet ($\phi 25$ grommet, rubber)
- 4 Power supply outlet (spare) ($\phi 30$ knock-out)
- 5 Optional outlet for piping
- 6 Drain port 25 A, male thread
- 7 Duct connection for suction
- 8 Duct connection for discharge



Indoor Unit

Mid Static Pressure

Ducted

NEW



ECONAVI ready

Provides exceptional performance, super quiet operation and the ultimate in control. A perfect solution when ceiling heights are restricted.

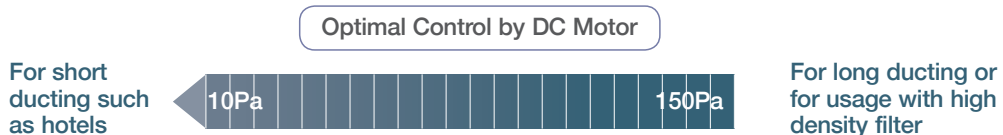


Technical focus

- Space saving 290mm height
- DC fan motor for variable external static pressure control
- Easy to install and maintain
- Air off sensor avoids cold air drafts during heating operation
- Configurable air temperature control

Variable external static pressure control

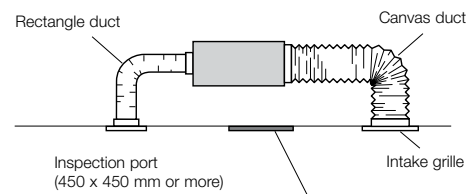
Optimal airflow set-up is possible for different ducting design and conditions.



* Please refer to technical databook for detail.

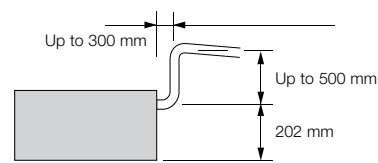
System example

An inspection port (450 mm x 450 mm or larger) is required at the lower side of the indoor unit body.



More powerful drain pump

Using a high-lift built-in drain pump, drain piping can be elevated up to 702 mm from the base of the unit.





S-60PF1R5A
S-71PF1R5A



S-100PF1R5A
S-125PF1R5A
S-140PF1R5A

ECONAVI

ECONAVI ready

NEW



CZ-CENSC1



CZ-RTC3



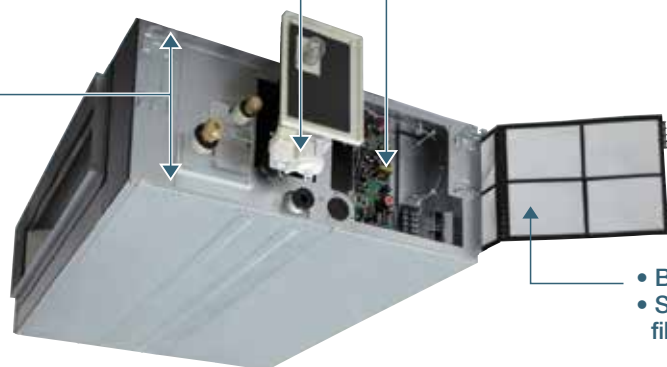
CZ-RTC4

Built-in Drain pump (DC motor pump)

Space saving height of 290mm for all models

290mm standardised height provides easy and uniform installation for models with different capacities, especially when ceiling heights are restricted.

External electrical equipment box makes maintenance easy

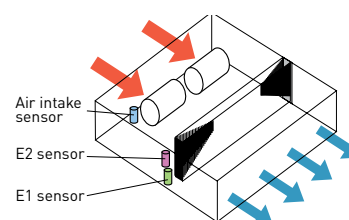


- Built-in filter
- Side removable filter

Discharge air temperature control

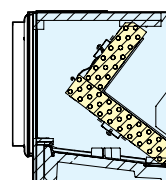
- Possible to control discharge air temperature for accurate room temperature control.
- Possible to reduce cold drafts during heating operation.

*Before spec-in, please consult with an authorised Panasonic dealer.



V-shaped heat exchanger

To improve heat exchange efficiency, an original V-shaped heat exchanger was developed incorporating a conventional high-efficiency fan and high-efficiency grooved heat transfer tubes. This increases the heat exchange surface area by about 80%.



Increases surface area by about 30 to 80%

Indoor Unit

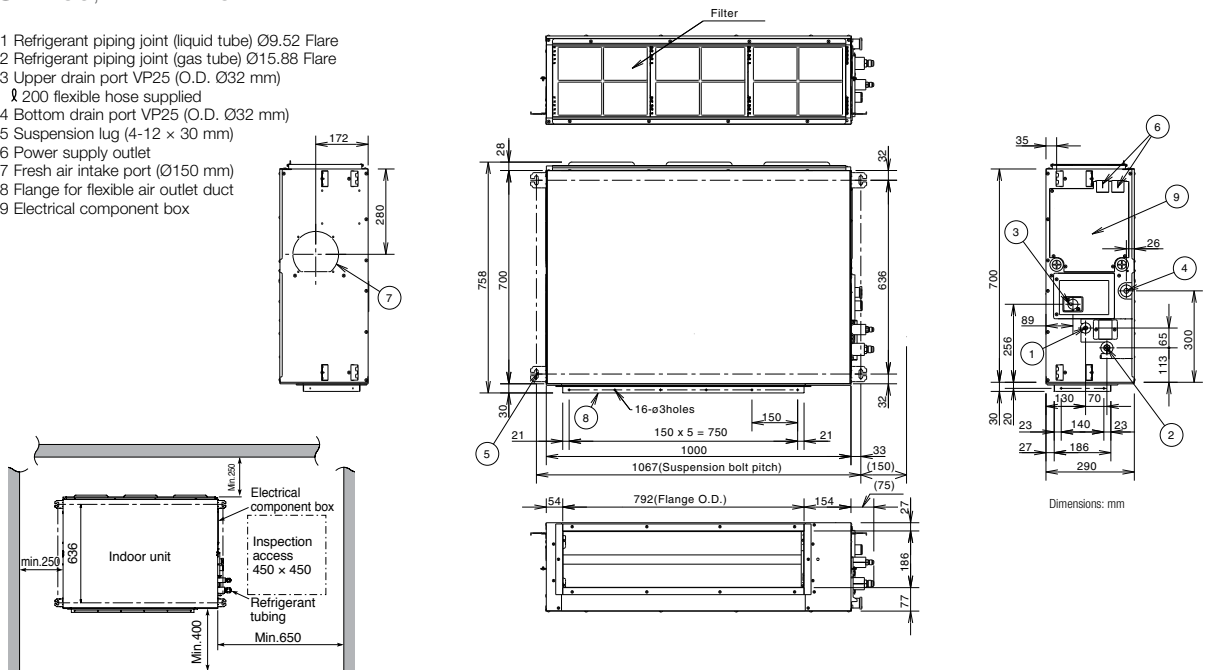
Mid Static Pressure

Ducted

MID STATIC DUCTED Dimensions

SIZE 60, 71 PF1R5A

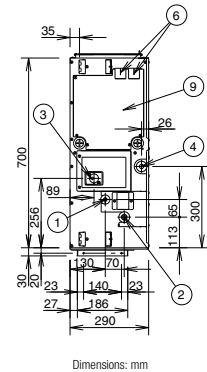
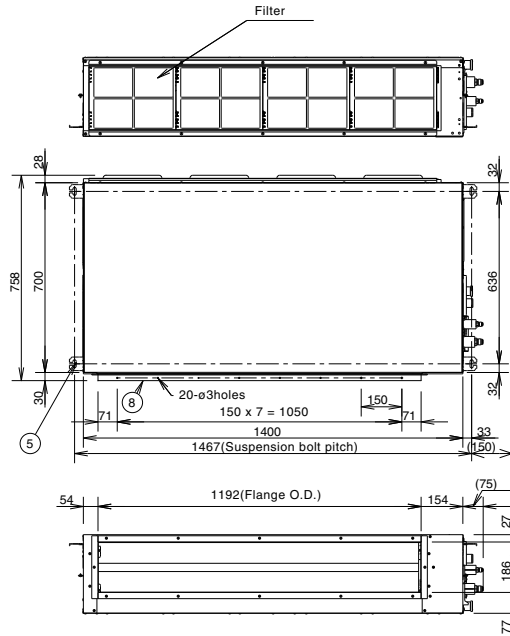
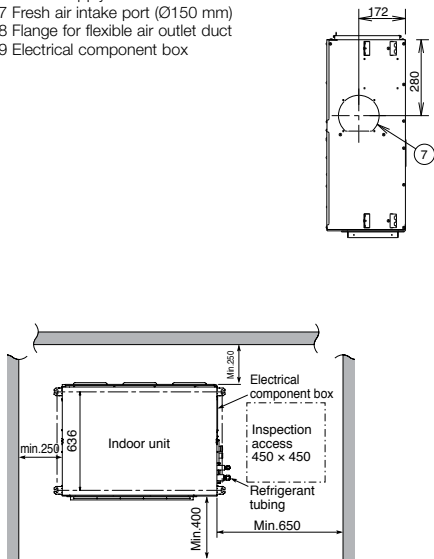
- 1 Refrigerant piping joint (liquid tube) Ø9.52 Flare
- 2 Refrigerant piping joint (gas tube) Ø15.88 Flare
- 3 Upper drain port VP25 (O.D. Ø32 mm)
- 4 200 flexible hose supplied
- 5 Bottom drain port VP25 (O.D. Ø32 mm)
- 6 Power supply outlet
- 7 Fresh air intake port (Ø150 mm)
- 8 Flange for flexible air outlet duct
- 9 Electrical component box



Capacity			6.0KW	7.1KW	10.0KW
Model Name	Indoor Unit		S-60PF1R5A	S-71PF1R5A	S-100PF1R5A
	Outdoor Unit		U-60PE1R5A	U-71PE1R5A	U-100PE1R5A
Power source	Phase/Hz		1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz
	V		230V 240V	230V 240V	230V 240V
Cooling capacity :	kW		6.0 (2.5 - 7.1)	7.1 (2.5 - 8.0)	10.0 (3.3 - 12.5)
	Heating capacity		7.0 (2.0 - 8.0)	8.0 (2.0 - 9.0)	11.2 (4.1 - 14.0)
	BTU/h		20,500 (8,500 - 24,200)	24,200 (8,500 - 27,300)	34,100 (11,300 - 42,700)
			23,900 (6,800 - 27,300)	27,300 (6,800 - 30,700)	38,200 (14,000 - 47,800)
EER : COP	W/W		3.90 : 3.87	3.84 : 3.85	4.10 : 4.31
Total power input	Cooling : Heating	kW	1.54 : 1.81	1.85 : 2.08	2.44 : 2.60
Indoor Unit					
Current	Cooling : Heating	A	0.89 : 0.89 0.87 : 0.87	0.89 : 0.89 0.87 : 0.87	1.30 : 1.34 1.27 : 1.29
Dimensions	H x W x D	mm	290x1,000x700	290x1,000x700	290x1,400x700
Net weight		kg	33	33	45
Air volume	Cooling : Heating	L/s	350 : 350	350 : 350	533 : 533
External static pressure		Pa	70 (10 - 150)	70 (10 - 150)	100 (10 - 150)
Sound pressure level (H/M/L)	Cooling : Heating	dB(A)	35 / 32 / 26 : 35 / 32 / 26	35 / 32 / 26 : 35 / 32 / 26	38 / 34 / 31 : 38 / 34 / 31
Sound power level (H/M/L)	Cooling : Heating	dB(A)	58 / 55 / 49 : 58 / 55 / 49	58 / 55 / 49 : 58 / 55 / 49	61 / 57 / 54 : 61 / 57 / 54
Drain piping		mm	VP-25	VP-25	VP-25
Outdoor Unit					
Current	Cooling : Heating	A	7.40 : 7.10 8.40 : 8.10	8.60 : 9.50 8.30 : 9.20	10.60 : 11.20 10.30 : 10.70
Dimensions	H x W x D	mm	996 x 940 x 340	996 x 940 x 340	1,416 x 940 x 340
Net weight		kg	68	69	98
Air volume	Cooling : Heating	L/s	1,000 : 1,000	1,000 : 1,000	1,833 : 1,583
Sound pressure level	Cooling : Heating	dB(A)	48 : 50	48 : 50	52 : 52
Sound power level	Cooling : Heating	dB(A)	65 : 67	65 : 67	69 : 69
Piping connections	Liquid / Gas	m	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
Pipe length	min. - max.	m	5 - 50	5 - 50	5 - 75
Elevation difference (OU located lower, OU located higher)		m	15, 30	15, 30	15, 30
Maximum chargeless length		m	30	30	30
Refrigerant at shipping, Additional gas amount		g	R410A 2,000, 50 (g/m)	R410A 2,350, 50 (g/m)	R410A 3,400, 50 (g/m)
Operation ranges	Cooling : Heating	°C	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24

SIZE 100,125,140 PF1R5A

- 1 Refrigerant piping joint (liquid tube) Ø9.52 Flare
- 2 Refrigerant piping joint (gas tube) Ø15.88 Flare
- 3 Upper drain port VP25 (O.D. Ø32 mm)
- 4 Bottom drain port VP25 (O.D. Ø32 mm)
- 5 Suspension lug (4-12 x 30 mm)
- 6 Power supply outlet
- 7 Fresh air intake port (Ø150 mm)
- 8 Flange for flexible air outlet duct
- 9 Electrical component box



12.5KW		14.0KW		
S-100PF1R5A	S-125PF1R5A	S-125PF1R5A	S-140PF1R5A	S-140PF1R5A
U-100PE1R8A	U-125PE1R5A	U-125PE1R5A	U-140PE1R5A	U-140PE1R8A
3 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz	1 Phase/ 50Hz	3 Phase/ 50Hz
400V 415V	230V 240V	400V 415V	230V 240V	400V 415V
10.0 (3.3 - 12.5) 11.2 (4.1 - 14.0)	12.5 (3.3 - 14.0) 14.0 (4.1 - 16.0)	12.5 (3.3 - 14.0) 14.0 (4.1 - 16.0)	14.0 (3.3 - 15.5) 16.0 (4.1 - 18.0)	14.0 (3.3 - 15.5) 16.0 (4.1 - 18.0)
34,100 (11,300 - 42,700) 38,200 (14,000 - 47,800)	42,700 (11,300 - 47,800) 47,800 (14,000 - 54,600)	42,700 (11,300 - 47,800) 47,800 (14,000 - 54,600)	47,800 (11,300 - 52,900) 54,600 (14,000 - 61,400)	47,800 (11,300 - 52,900) 54,600 (14,000 - 61,400)
4.10 : 4.31	3.50 : 4.02	3.50 : 4.02	3.25 : 3.60	3.25 : 3.60
2.44 : 2.60	3.57 : 3.48	3.57 : 3.48	4.31 : 4.44	4.31 : 4.44
1.30 : 1.34 1.27 : 1.29	1.44 : 1.42 1.39 : 1.38	1.44 : 1.42 1.39 : 1.38	1.50 : 1.50 1.47 : 1.46	1.50 : 1.50 1.47 : 1.46
290x1,400x700	290x1,400x700	290x1,400x700	290x1,400x700	290x1,400x700
45	45	45	45	45
533 : 533	566 : 566	566 : 566	600 : 600	600 : 600
100 (10 - 150)	100 (10 - 150)	100 (10 - 150)	100 (10 - 150)	100 (10 - 150)
38 / 34 / 31 : 38 / 34 / 31	39 / 35 / 32 : 39 / 35 / 32	39 / 35 / 32 : 39 / 35 / 32	40 / 36 / 33 : 40 / 36 / 33	40 / 36 / 33 : 40 / 36 / 33
61 / 57 / 54 : 61 / 57 / 54	62 / 58 / 55 : 62 / 58 / 55	62 / 58 / 55 : 62 / 58 / 55	63 / 59 / 56 : 63 / 59 / 56	63 / 59 / 56 : 63 / 59 / 56
VP-25	VP-25	VP-25	VP-25	VP-25
3.53 : 3.70 3.43 : 3.58	15.90 : 15.80 15.30 : 15.10	5.29 : 5.26 5.12 : 5.05	19.30 : 19.10 18.60 : 18.40	6.42 : 6.35 8.18 : 6.15
1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340
98	98	98	98	98
1,833 : 1,583	2,166 : 1,833	2,166 : 1,833	2,250 : 2,000	2,250 : 2,000
52 : 52	53 : 53	53 : 53	54 : 55	54 : 55
69 : 69	70 : 70	70 : 70	71 : 71	71 : 71
Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
5 - 75	5 - 75	5 - 75	5 - 75	5 - 75
15, 30	15, 30	15, 30	15, 30	15, 30
30	30	30	30	30
R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)
-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24

Indoor Unit

4-WAY Cassette

Provides a neat fit in the ceiling to match modern decor, and uniform cooling throughout the room, plus easy installation.



ECONAVI ready



Technical focus

- Compact design
- Low sound levels
- DC fan motor for increased efficiency
- Powerful drain pump gives 850 mm lift
- Lightweight design
- Fresh air knockout
- Branch duct connection
- Optional air-intake plenum CZ-FDU2

Wide & Comfortable Airflow

Comfort/Quiet

A proprietary design features wide-angle discharge outlets and flaps that are larger in the middle, featuring a shape that was selected based on numerical mechanics and testing of actual prototype units. Air coming out of the centre of the discharge outlets travels farther. From the sides of each outlet, where the openings are larger, airflow spreads out to reach the corners of the room. Air is discharged across a wide area from the four sides of the unit. The curves on the room temperature distribution graph expand gently out through 360° in a circle centred on the indoor unit.

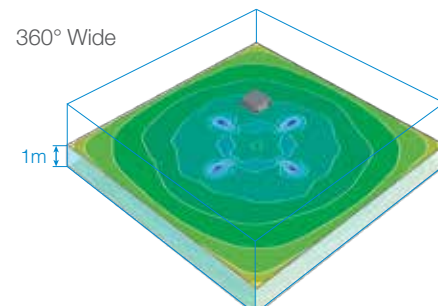
Ample airflow: 36 m³/min

Industry's leading in the 140PU class.



Temperature distribution by thermograph (cooling operation)

Simulation conditions:
P140 4-way ceiling-mounted cassette type in cooling mode
/ Floor area of 225 m²
/ Ceiling height of 3 m



AIR INTAKE CHAMBER



- 1 Air intake box CZ-BCU2 for main unit.
2 Air intake box CZ-ATU2* for Air intake plenum.

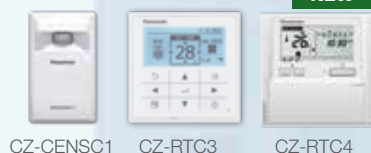
* When using Air intake box (CZ-ATU2), Air intake plenum (CZ-FDU2) required.

PANEL (CZ-KPU21)



ECONAVI ready

NEW



CZ-CENSC1

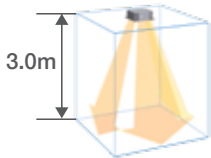
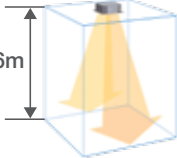
CZ-RTC3

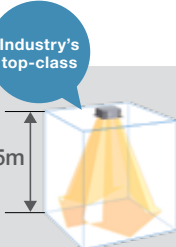
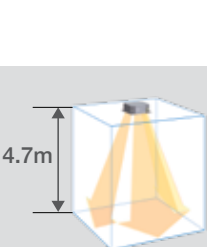
CZ-RTC4



High-Ceiling Installation (Up to 5 m for 10.0kW+ models)

The units can be installed in rooms with high ceilings, where they provide ample floor-level heating in the winter. (See ceiling height guidelines below.)

High Ceiling (Factory settings)			
New model			
Capacity	60PU, 71PU	100PU, 125PU, 140PU	

100PU-140PU			
			
Capacity	4-way discharge high ceiling settings2	3-way discharge with the optional air-blocking materials	2-way discharge with the optional air-blocking materials

Ceiling height guidelines

Indoor unit	4-way discharge			3-way discharge (optional air-blocking materials)	2-way discharge (optional air-blocking materials) *2
	Factory settings 1	High ceiling setting 1	High ceiling setting 2		
60PU-71PU	3.0	3.3	3.6	3.8	4.2
100PU, 125PU, 140PU	3.6	3.9	4.5	4.7	5.0

*1 When using the unit in a configuration other than the factory settings, it is necessary to make settings on site to increase airflow.

*2 Use air-blocking materials (CZ-CFU2) to completely block two discharge outlets for 2-way airflow.

Indoor Unit 4-way Cassette

Easy Maintenance and Cleaning

The flap can be removed easily for cleaning.



It is easy to remove the washable flaps by hand.



Suction grill able to make 90 degree turns.

Low-Profile 33.5 mm Panel

The square panel integrates seamlessly with the ceiling. Discharge outlets close when the unit is stopped.

One of the industry's thinnest panels

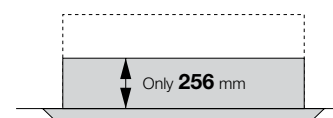


Protrusion of **33.5 mm**

Lighter and Slimmer, Easier Installation

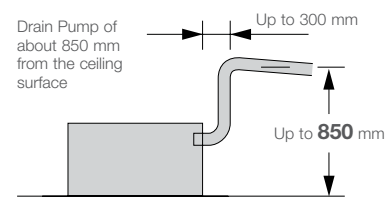
A lightweight unit at 24 kg, the unit is also very slim with a height of only 256 mm, making installation possible even in narrow ceilings.

* For 6.0kW/7.1kW



A Drain Height of Approx. 850 mm from the Ceiling Surface

The drain height can be increased by approximately 350 mm over the conventional value by using a high-lift drain pump, and long horizontal piping is possible.

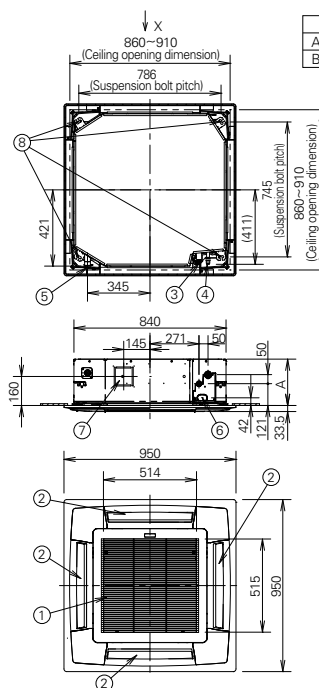
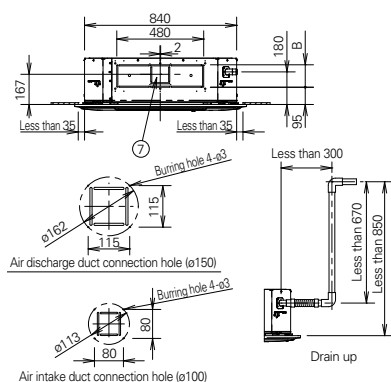


Capacity			6.0kW	7.1kW	10.0kW
Model Name	Indoor Unit		S-60PU1R5A	S-71PU1R5A	S-100PU1R5A
	Outdoor Unit		U-60PE1R5A	U-71PE1R5A	U-100PE1R5A
	Panel		CZ-KPU21	CZ-KPU21	CZ-KPU21
Power source	Phase/Hz		1 phase, 50Hz	1 phase, 50Hz	1 phase, 50Hz
	V		230V 240V	230V 240V	230V 240V
Cooling capacity Heating capacity	kW		6.0 (2.5 - 8.0) 7.0 (2.0 - 8.5)	7.1 (2.5 - 8.2) 8.0 (2.0 - 9.0)	10.0 (3.3 - 12.5) 11.2 (4.1 - 14.0)
			20,500 (8,500 - 27,300) 23,900 (6,800 - 29,000)	24,200 (8,500 - 28,000) 27,300 (6,800 - 30,700)	34,100 (11,300 - 42,700) 38,200 (14,000 - 47,800)
	BTU/h				
EER : COP	Cooling : Heating	W/W	4.05 : 3.87	3.94 : 4.00	4.20 : 4.31
Total power input	Cooling : Heating	kW	1.48 : 1.81	1.80 : 2.00	2.38 : 2.60
Indoor Unit					
Current	Cooling : Heating	A	0.31 : 0.30 0.30 : 0.29	0.33 : 0.32 0.32 : 0.31	0.71 : 0.65 0.71 : 0.64
Dimensions	H x W x D	mm	256 x 840 x 840	256 x 840 x 840	319 x 840 x 840
	Panel	mm	33.5 x 950 x 950	33.5 x 950 x 950	33.5 x 950 x 950
Net weight	Indoor	kg	24	24	27
	Panel	kg	4	4	4
Air volume	Cooling : Heating	L/s	350 : 350	366 : 366	550 : 550
Sound pressure level (H/M/L)	Cooling : Heating	dB(A)	36 / 31 / 28 : 36 / 31 / 28	37 / 31 / 28 : 37 / 31 / 28	44 / 38 / 32 : 44 / 38 / 32
Sound power level (H/M/L)	Cooling : Heating	dB(A)	53 / 48 / 45 : 53 / 48 / 45	54 / 48 / 45 : 54 / 48 / 45	62 / 55 / 49 : 62 / 55 / 49
Number of fan speed			3	3	3
Drain pipe size		mm	VP-25	VP-25	VP-25
Outdoor Unit					
Current	Cooling : Heating	A	6.90 : 8.20 6.70 : 7.95	8.10 : 9.00 7.90 : 8.70	10.3 : 11.4 9.90 : 11.0
Dimensions	H x W x D	mm	996 x 940 x 340	996 x 940 x 340	1,416 x 940 x 340
Net weight		kg	68	69	98
Air volume	Cooling : Heating	L/s	1,000 : 1,000	1,000 : 1,000	1,833 : 1,583
Sound pressure level (Silent mode)	Cooling : Heating	dB(A)	48 (46) : 50 (48)	48 (46) : 50 (48)	52 (50) : 52 (50)
Sound power level (Silent mode)	Cooling : Heating	dB(A)	65 (63) : 67 (65)	65 (63) : 67 (65)	69 (67) : 69 (67)
Piping connections		m	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
Pipe length	min. - max.	m	5 - 50	5 - 50	5 - 75
Elevation difference (OU located lower, OU located higher)		m	15, 30	15, 30	15, 30
Maximum chargeless length		m	30	30	30
Refrigerant at shipping, Additional gas amount		g	R410A 2,000, 50 (g/m)	R410A 2,350, 50 (g/m)	R410A 3,400, 50 (g/m)
Operation ranges	Cooling : Heating	°C	-15 - 46 : -20 - 24	-15 - 46 : -20 - 24	-15 - 46 : -20 - 24

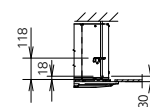
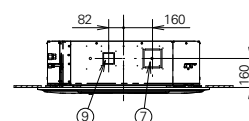
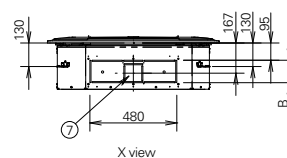
Dimensions

- 1 Air intake grill
- 2 Air discharge outlet
- 3 Refrigerant piping (liquid pipes) : $\phi 9.52$ (flared)
- 4 Refrigerant piping (gas pipes) : $\phi 15.88$ (flared)
- 5 Drain outlet VP25(outer $\phi 32$)
- 6 Power supply port
- 7 Discharge duct ($\phi 150$)
- 8 Suspension bolt hole (4-12x30 slot)
- 9 Fresh air intake duct connection port ($\phi 100$)*1

*1: Air inlet kit is necessary.
Filter size: 520 x 520 x 16



	60PU-71PU	100PU-140PU
A	256	319
B	124	187



Dimensions: mm

* Adjust the suspension bolt length so that the gap from the lower ceiling surface becomes 30 mm or more (18 mm or more from the lower surface of the body) as shown in the figure. When the suspension bolt length is long, it hits the ceiling panel and installation is not possible.

12.5kW		14.0kW	
S-125PU1R5A	S-125PU1R5A	S-140PU1R5A	S-140PU1R5A
U-125PE1R5A	U-125PE1R8A	U-140PE1R5A	U-140PE1R8A
CZ-KPU21	CZ-KPU21	CZ-KPU21	CZ-KPU21
1 phase, 50Hz	3 phase, 50Hz	1 phase, 50Hz	3 phase, 50Hz
230V 240V	400V 415V	230V 240V	400V 415V
12.5 (3.3 - 14.0)	12.5 (3.3 - 14.0)	14.0 (3.3 - 15.5)	14.0 (3.3 - 15.5)
14.0 (4.1 - 16.0)	14.0 (4.1 - 16.0)	16.0 (4.1 - 18.0)	16.0 (4.1 - 18.0)
42,700 (11,300 - 47,800)	42,700 (11,300 - 47,800)	47,800 (11,300 - 52,900)	47,800 (11,300 - 52,900)
47,800 (14,000 - 54,600)	47,800 (14,000 - 54,600)	54,600 (14,000 - 61,400)	54,600 (14,000 - 61,400)
3.60 : 4.00	3.60 : 4.00	3.25 : 3.70	3.25 : 3.70
3.47 : 3.50	3.47 : 3.50	4.31 : 4.33	4.31 : 4.33
0.76 : 0.73 0.73 : 0.73	0.76 : 0.73 0.73 : 0.73	0.89 : 0.80 0.87 : 0.79	0.89 : 0.80 0.87 : 0.79
319 x 840 x 840	319 x 840 x 840	319 x 840 x 840	319 x 840 x 840
33.5 x 950 x 950	33.5 x 950 x 950	33.5 x 950 x 950	33.5 x 950 x 950
27	27	27	27
4	4	4	4
583 : 583	583 : 583	600 : 600	600 : 600
45 / 39 / 33 : 45 / 39 / 33	45 / 39 / 33 : 45 / 39 / 33	46 / 40 / 34 : 46 / 40 / 34	46 / 40 / 34 : 46 / 40 / 34
63 / 56 / 50 : 63 / 56 / 50	63 / 56 / 50 : 63 / 56 / 50	64 / 57 / 51 : 64 / 57 / 51	64 / 57 / 51 : 64 / 57 / 51
3	3	3	3
VP-25	VP-25	VP-25	VP-25
15.3 : 15.4 14.8 : 14.9	15.15 : 5.20 5.00 : 5.05	19.0 : 19.2 18.4 : 18.6	6.45 : 6.50 6.20 : 6.25
1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340
98	98	98	98
2,166 : 1,833	2,166 : 1,833	2,250 : 2,000	2,250 : 2,000
53 (51) : 53 (51)	53 (51) : 53 (51)	54 (52) : 55 (53)	54 (52) : 55 (53)
70 (68) : 70 (68)	70 (68) : 70 (68)	71 (69) : 71 (69)	71 (69) : 71 (69)
Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
5 - 75	5 - 75	5 - 75	5 - 75
15, 30	15, 30	15, 30	15, 30
30	30	30	30
R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)
-15 - 46 : -20 - 24	-15 - 46 : -20 - 24	-15 - 46 : -20 - 24	-15 - 46 : -20 - 24

Optional Controller

ECONAVI



ECONAVI sensor
CZ-CENSC1

NEW



Timer remote controller
CZ-RTC4



Simplified remote controller
CZ-RE2C2



Deluxe Wired remote controller
CZ-RTC3



Wireless remote controller
CZ-RWSU2N

Indoor Unit Under Ceiling

Providing outstanding energy-saving performance, comfort and long-distance air flow distribution, these units are perfect for retail stores and schools.



ECONAVI ready

Compact Looking, Stylish, One-Motion Design

With its streamlined, one-motion form, the unit looks thin and compact when installed for a neat appearance in any room.

When not operating, the louver closes to provide an elegant look while also keeping the unit clean.



Energy-Saving Technology Delivering Top-Class Efficiency

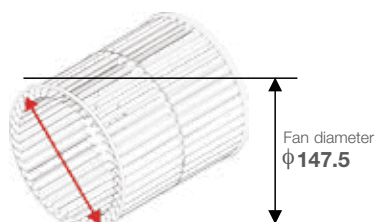
Top Class Energy Saving

Optimisation of the shape of the casing and fan assures bigger air flow and higher efficiency. Energy-saving performance is top class in the industry.

New DC fan motor



Large Diagonal Air Flow Fan





S-60PT2R5A
S-71PT2R5A



S-100PT2R5A
S-125PT2R5A
S-140PT2R5A

ECONAVI
ECONAVI ready

NEW



CZ-CENSC1



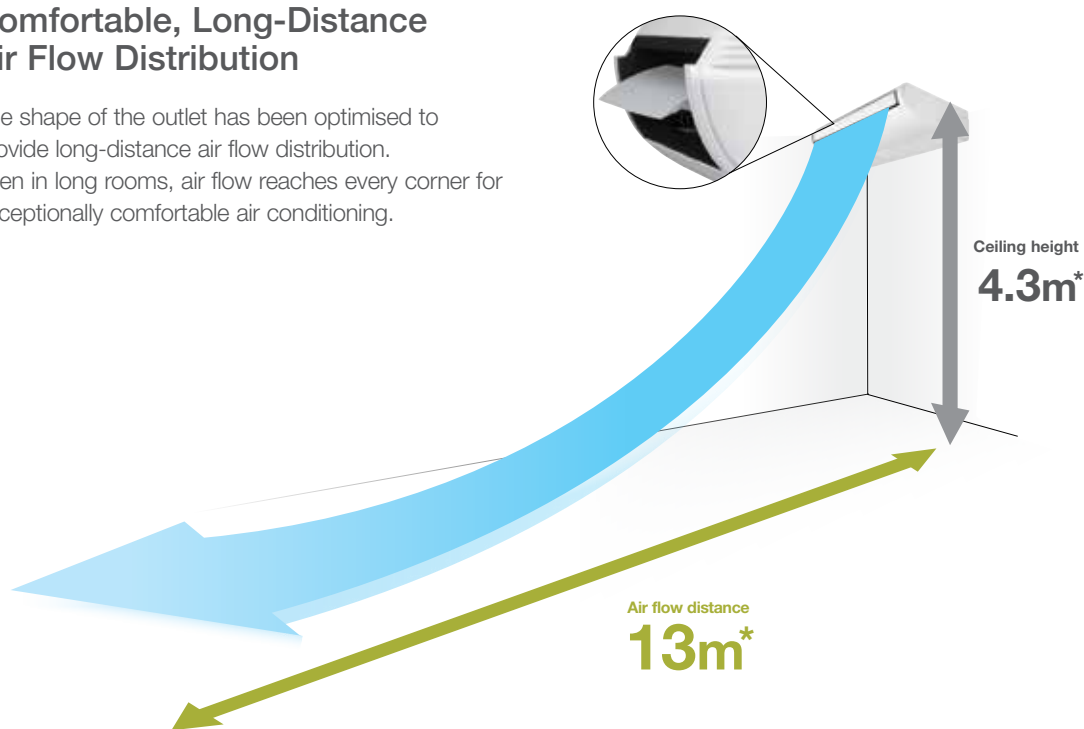
CZ-RTC3



CZ-RTC4

Comfortable, Long-Distance Air Flow Distribution

The shape of the outlet has been optimised to provide long-distance air flow distribution. Even in long rooms, air flow reaches every corner for exceptionally comfortable air conditioning.



* Results are based on specific testing conditions

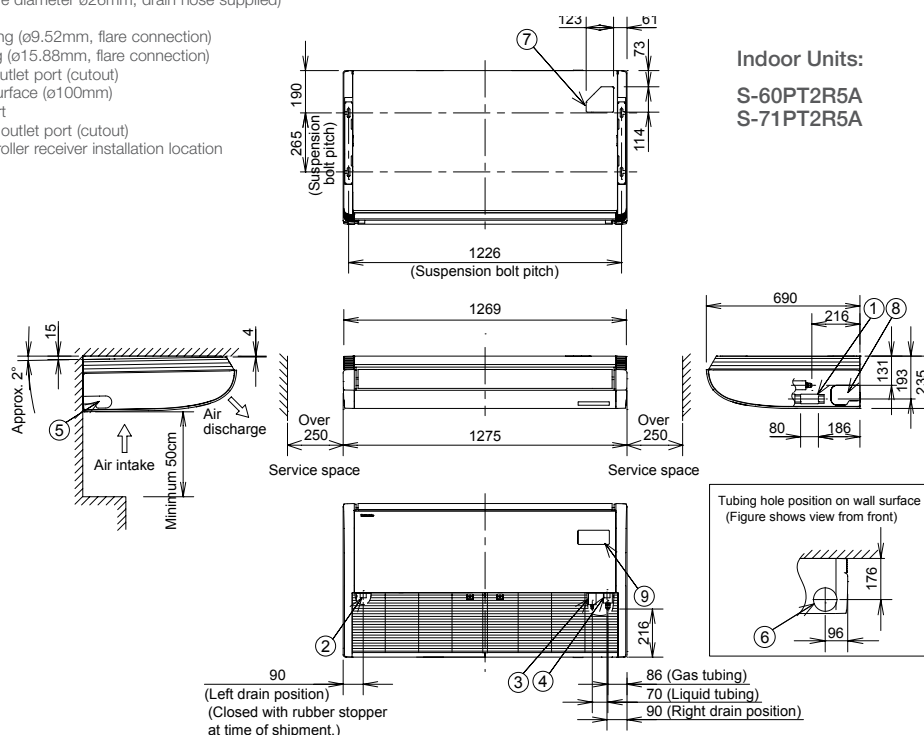
High Ceiling Setting <small>*Setting by remote control</small>	Air flow distance		
	100	125	140
4.3m	12m	13m	13m



Indoor Unit Under Ceiling

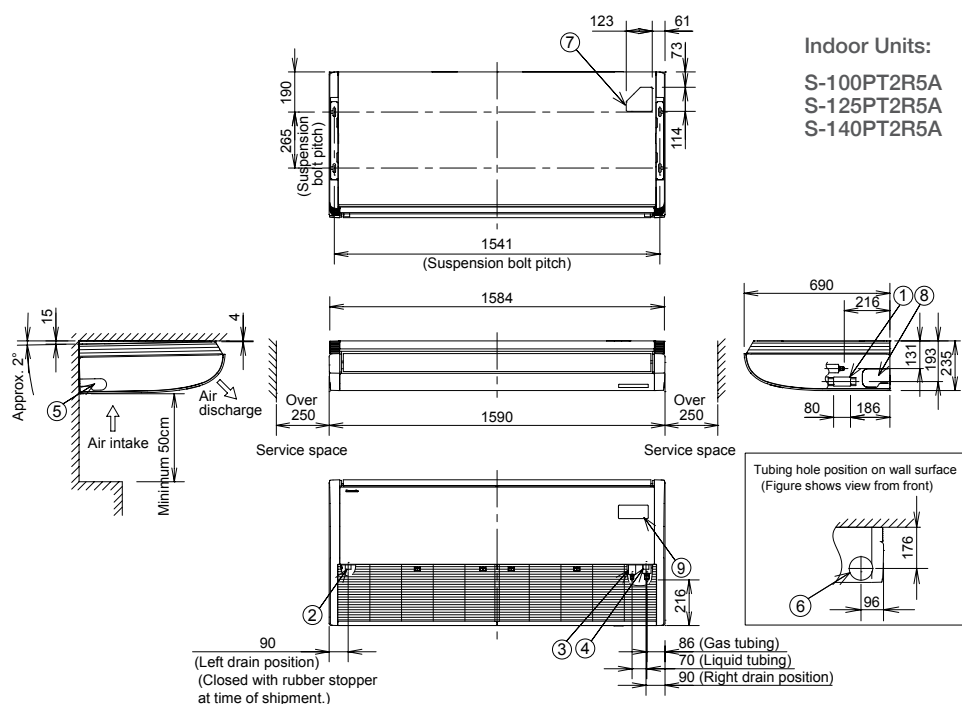
Dimensions

- 1 Drain port VP20 (inside diameter ø26mm, drain hose supplied)
- 2 Left drain position
- 3 Refrigerant liquid tubing (ø9.52mm, flare connection)
- 4 Refrigerant gas tubing (ø15.88mm, flare connection)
- 5 Left side drain hose outlet port (cutout)
- 6 Tubing hole on wall surface (ø100mm)
- 7 Upper side tubing port
- 8 Right side drain hose outlet port (cutout)
- 9 Wireless remote controller receiver installation location



Indoor Units:
S-60PT2R5A
S-71PT2R5A

Capacity			6.0kW	7.1kW	10.0kW
Model Name	Indoor Unit		S-60PT2R5A	S-71PT2R5A	S-100PT2R5A
	Outdoor Unit		U-60PE1R5A	U-71PE1R5A	U-100PE1R8A
Power source		Phase/Hz	1 Phase/ 50Hz	1 Phase/ 50Hz	1 Phase/ 50Hz
		V	230V 240V	230V 240V	230V 240V
Cooling capacity : Heating capacity		kW	6.0 (2.5 - 7.1) 7.0 (2.0 - 8.0)	7.1 (2.5 - 8.0) 8.0 (2.0 - 9.0)	10.0 (3.3 - 12.5) 11.2 (4.1 - 14.0)
		BTU/h	20,500 (8,500 - 24,200) 23,900 (6,800 - 27,300)	24,200 (8,500 - 27,300) 27,300 (6,800 - 30,700)	34,100 (11,300 - 42,700) 38,200 (14,000 - 47,800)
EER : COP		W/W	4.03 : 4.02	3.68 : 4.15	3.95 : 4.31
Total power input	Cooling : Heating	kW	1.49 : 1.74	1.93 : 1.93	2.53 : 2.60
Indoor Unit					
Current	Cooling : Heating	A	0.41 : 0.41 0.40 : 0.40	0.44 : 0.44 0.43 : 0.43	0.67 : 0.67 0.65 : 0.65
Dimensions	H x W x D	mm	235x1,275x690	235x1,275x690	235x1,590x690
Net weight		kg	33	33	40
Air volume	Cooling : Heating	L/s	333 : 333	350 : 350	500 : 500
External static pressure		Pa	-	-	-
Sound pressure level (H/M/L)	Cooling : Heating	dB(A)	38 / 34 / 30 : 38 / 34 / 30	39 / 35 / 31 : 39 / 35 / 31	42 / 37 / 35 : 42 / 37 / 35
Sound power level (H/M/L)	Cooling : Heating	dB(A)	56 / 52 / 48 : 56 / 52 / 48	57 / 53 / 49 : 57 / 53 / 49	60 / 55 / 53 : 60 / 55 / 53
Number of fan speed			3	3	3
Drain pipe size		mm	VP-20	VP-20	VP-20
Outdoor Unit					
Current	Cooling : Heating	A	6.90 : 7.80 6.70 : 7.60	8.70 : 8.60 8.40 : 8.30	11.1 : 11.4 10.6 : 11.0
Dimensions	H x W x D	mm	996 x 940 x 340	996 x 940 x 340	1,416 x 940 x 340
Net weight		kg	68	69	98
Air volume	Cooling : Heating	L/s	1,000 : 1,000	1,000 : 1,000	1,833 : 1,583
Sound pressure level	Cooling : Heating	dB(A)	48 : 50	48 : 50	52 : 52
Sound power level	Cooling : Heating	dB(A)	65 : 67	65 : 67	69 : 69
Piping connections	Liquid/Gas	m	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
Pipe length	min. - max.	m	5 - 50	5 - 50	5 - 75
Elevation difference (OU located lower, OU located higher)		m	15, 30	15, 30	15, 30
Maximum chargeless length		m	30	30	30
Refrigerant at shipping, Additional gas amount		g	R410A 2,000, 50 (g/m)	R410A 2,350, 50 (g/m)	R410A 3,400, 50 (g/m)
Operation ranges	Cooling : Heating	°C	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24



Indoor Units:

S-100PT2R5A
S-125PT2R5A
S-140PT2R5A

12.0kW		14.0kW	
S-125PT2R5A	S-125PT2R5A	S-140PT2R5A	S-140PT2R5A
U-125PE1R5A	U-125PE1R8A	U-140PE1R5A	U-140PE1R8A
1 Phase/ 50Hz	3-Phase/ 50Hz	1 Phase/ 50Hz	3-Phase/ 50Hz
230V 240V	400V 415V	230V 240V	400V 415V
12.5 (3.3 - 14.0) 14.0 (4.1 - 16.0)	12.5 (3.3 - 14.0) 14.0 (4.1 - 16.0)	14.0 (3.3 - 15.0) 16.0 (4.1 - 18.0)	14.0 (3.3 - 15.0) 16.0 (4.1 - 18.0)
42,700 (11,300 - 47,800) 47,800 (14,000 - 54,600)	42,700 (11,300 - 47,800) 47,800 (14,000 - 54,600)	47,800 (11,300 - 51,200) 54,600 (14,000 - 61,400)	47,800 (11,300 - 51,200) 54,600 (14,000 - 61,400)
3.35 : 3.99	3.35 : 3.99	3.01 : 3.67	3.01 : 3.67
3.73 : 3.51	3.73 : 3.51	4.65 : 4.36	4.65 : 4.36
0.86 : 0.86 0.83 : 0.83	0.86 : 0.86 0.83 : 0.83	0.91 : 0.91 0.88 : 0.88	0.91 : 0.91 0.88 : 0.88
235x1,590x690	235x1,590x690	235x1,590x690	235x1,590x690
40	40	40	40
566 : 566	566 : 566	583 : 583	583 : 583
-	-	-	-
46 / 40 / 36 : 46 / 40 / 36	46 / 40 / 36 : 46 / 40 / 36	47 / 41 / 37 : 47 / 41 / 37	47 / 41 / 37 : 47 / 41 / 37
64 / 58 / 54 : 64 / 58 / 54	64 / 58 / 54 : 64 / 58 / 54	65 / 59 / 55 : 65 / 59 / 55	65 / 59 / 55 : 65 / 59 / 55
3	3	3	3
VP-20	VP-20	VP-20	VP-20
16.4 : 15.4 15.8 : 14.9	5.55 : 5.20 5.35 : 5.05	20.5 : 19.2 19.8 : 18.5	6.95 : 6.50 6.70 : 6.25
1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340	1,416 x 940 x 340
98	98	98	98
2,166 : 1,833	2,166 : 1,833	2,250 : 2,000	2,250 : 2,000
53 : 53	53 : 53	54 : 55	54 : 55
70 : 70	70 : 70	71 : 71	71 : 71
Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88	Ø9.52 / Ø15.88
5 - 75	5 - 75	5 - 75	5 - 75
15, 30	15, 30	15, 30	15, 30
30	30	30	30
R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)	R410A 3,400, 50 (g/m)
-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24	-15 to 46 : -20 to 24

Optional Controller

ECONAVI



ECONAVI sensor
CZ-CENSC1

NEW



Timer remote controller
CZ-RTC4



Simplified remote controller
CZ-RE2C2








Deluxe Wired remote
controller
CZ-RTC3



Wireless remote controller
CZ-RWST3N

Controllers

A wide variety of control options to meet the requirements of different applications.

OPERATION SYSTEM	INDIVIDUAL CONTROL SYSTEMS				TIMER OPERATION
Requirements	High-spec operation	Normal operation	Operation from anywhere in the room	Quick and easy operation	Daily and weekly program
External appearance		NEW 			
Type, model name	Deluxe Wired Remote Controller	Timer Remote Controller (Wired)	Wireless Remote Controller	Simplified Remote Controller	Schedule Timer
	CZ-RTC3	CZ-RTC4	CZ-RWSU2N CZ-RWST3N	C-RWSK2 + CZ-RWSC3	CZ-RE2C2
Built-in thermostat	●	●	●	●	—
ECONAVI on/off control	●	●	—	—	—
Number of indoor units which can be controlled	1 group, 8 units	1 group, 8 units	1 group, 8 units	1 group, 8 units	64 groups, max. 64 units
Use limitations	· Up to 2 controllers can be connected per group. (When using ECONAVI sensor, only one remote controller is possible to connect at indoor unit)	· Up to 2 controllers can be connected per group. (When using ECONAVI sensor, only one remote controller is possible to connect at indoor unit)	· Up to 2 controllers can be connected per group.	· Up to 2 controllers can be connected per group.	· Required power supply from the system controller · When there is no system controller, connection is possible to the T10 terminal of an indoor unit.
Function ON/OFF	●	●	●	●	—
Mode setting	●	●	●	●	—
Fan speed setting	●	●	●	●	—
Temperature setting	●	●	●	●	—
Air flow direction	●	●	●	●	—
Permit/Prohibit switching	●	—	—	—	—
Weekly program	●	●	—	—	●












1. Setting is not possible when a remote control unit is present. (Use the remote controller for setting.)
All specifications subject to change without notice.

ECONAVI Sensor [CZ-CENSC1]



Utilises ECONAVI Sensor and Control Program technologies to detect where energy is normally wasted and self-adjusts cooling power to reduce energy waste.

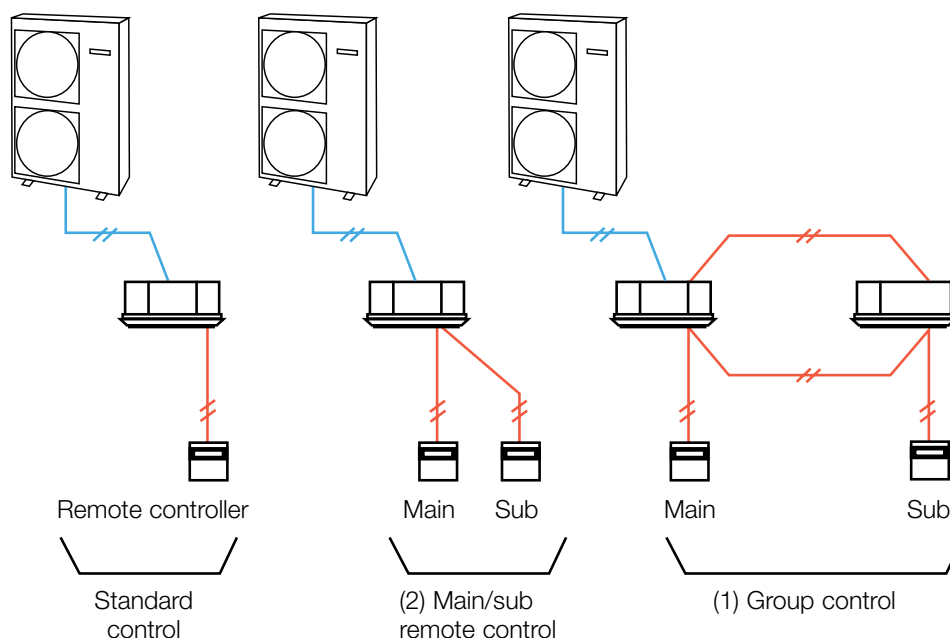
- Activity detection
- Absence detection

CENTRALISED CONTROL SYSTEMS					
Operation with various function from centre station	Only ON/OFF operation from centre station	Simplified load distribution ratio (LDR) for each tenant	Touch screen panel	BMS System PC Base	Connection with 3rd Party Controller
				P-AIMS Basic Software  CZ-CSWKC2	Seri-Para I/O unit for outdoor unit  CZ-CAPDC2
System Controller	ON/OFF Controller	Intelligent Controller			
CZ-64ESMC2	CZ-ANC2	CZ-256ESMC2 (CZ-CFUNC2)		Optional software  CZ-CSWAC2 for Load distribution CZ-CSWWC2 for Web application CZ-CSWGC2 for Object layout display CZ-CSWBC2 for BACnet software interface *PC required (field supply)	Interface adaptor  CZ-CAPC2
—	—	—			
64 groups, max. 64 units	16 groups, max. 64 units	64 units x 4 links, max. 256 units			Seri-Para I/O unit for each indoor unit  CZ-CAPBC2
<ul style="list-style-type: none"> Up to 10 controllers, can be connected to one system. Main unit/sub unit (1 main unit + 1 sub unit) connection is possible. Use without remote controller is possible. 	<ul style="list-style-type: none"> Up to 8 controllers (4 main units + 4 sub units) can be connected to one system. Use without remote controller is impossible. 	<ul style="list-style-type: none"> A communication adaptor (CZ-CFUNC2) must be installed for three or more links. 			Communication Adaptor  CZ-CFUNC2
●	●	●			
●	—	●			
●	—	●			
●	—	●			
● ¹	—	● ¹		Web Interface Systems  CZ-CWEBC2 *PC required (field supply)	LonWorks Interface  CZ-CLNC2
●	●	●			
—	—	●			

Individual Control Systems

Control contents	Part name, model No.	Quantity
Standard Control <ul style="list-style-type: none"> Control of the various operations of the indoor unit by wired or wireless remote controller. Cooling or heating mode of the outdoor unit is decided by the first priority of the remote controller. Switching between remote controller sensor and body sensor is possible. 	Timer remote controller CZ-RTC4 / CZ-RTC3 Simplified remote controller CZ-RE2C2 Wireless remote controller CZ-RWSU2N / CZ-RWST3N / CZ-RWSK2 + CZ-RWSC3	1 unit each
(1) Group control <ul style="list-style-type: none"> Batch remote control on all indoor units. Operation of all indoor cells in the same mode. Up to 8 units can be connected. The sensor is the body sensor, and thermostat ON/OFF setting in regard to the temperature set by the remote controller is possible for each indoor unit. 	Timer remote controller CZ-RTC4 / CZ-RTC3 Simplified remote controller CZ-RE2C2 Wireless remote controller CZ-RWSU2N / CZ-RWST3N / CZ-RWSK2 + CZ-RWSC3	As required
(2) Main/sub remote control <ul style="list-style-type: none"> Max 2 remote controllers per indoor unit. (Main remote controller can be connected) The button pressed last has priority. Timer setting is possible even with the sub remote controller. When using ECONAVI sensor, only one remote controller is possible to connect at indoor unit. 	Main or sub Timer remote controller CZ-RTC4 / CZ-RTC3 Simplified remote controller CZ-RE2C2 Wireless remote controller CZ-RWSU2N / CZ-RWST3N / CZ-RWSK2 + CZ-RWSC3	As required

SYSTEM EXAMPLE



Deluxe wired remote controller (CZ-RTC3)



Dimensions
H 120 x W 120 x
D 16 mm

Energy Saving

- ECONAVI on/ off*
- Temperature Auto Return
- Temperature Setting Range
- Auto Shutoff
- Schedule peak cut
- Repeat off timer

Basic Operation

- Individual Louver Control (Lock individual flap for 4-way cassette)
- ON/ OFF timer
- Weekly Timer
- Filter information*
- Outing function
- Quiet operation mode*
- Power consumption monitor*
- Energy saving*
- Initial settings
- Ventilation

Maintenance Function

- Outdoor unit error data
- Service Contact address
- RC setting mode
- Test Run
- Sensor Information*
- Service check
- Simple/ Detailed Settings
- Auto address

* Subject to the connected model

Timer remote controller (CZ-RTC4)

NEW



Dimensions
H 120 x W 120 x D 20 mm

Basic remote controller ON/OFF

- Operation mode changeover (Cooling, Heating, Dry, Auto, Fan).
- Temperature setting (Cooling/Dry: 18-30 deg Heating: 16-30 deg).
- Fan speed setting H/ M/ L and Auto.
- Air flow direction adjustment.
- ECONAVI on/ off*

Time Function 24 hours real time clock

- Day of the week indicator.

Weekly Programme Function

- A maximum of 6 settings/day and 42 settings/week can be programmed.

Outing Function

- This function can prevent the room temperature from dropping or rising when the occupants are out for a long time.

Sleeping Function

- This function controls the room temperature for comfortable sleeping.

Max. 8 indoor units can be controlled from one remote controller

Remote control by main remote controller and sub controller is possible

Max. 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit.

* Depending on the model, some menus cannot be used.

Wireless remote controller



For 4-Way
cassette type
CZ-RWSU2N

Remote control by main remote controller and sub controller is possible

- Max. 2 remote controllers (main remote controller and sub controller) can be installed for one indoor unit.

When CZ-RWSC3 is used, wireless control becomes possible for all indoor units

- When a separate receiver is set up in a different room, control from that room also becomes possible.
- Automatic operation by means of the emergency operation button is possible even when the remote controller has been lost or the batteries have been exhausted.



For all Ducted types
CZ-RWSC2 +
CZ-RWSC3

In addition, there are other functions such as temperature setting, operation switching, wind direction/fan speed setting, etc

Ventilation independent operation is possible

When commercial ventilation fans or heat-exchange ventilation fans have been installed, they can be operated with this remote control (interlocked operation with the indoor unit or independent ventilation ON/OFF).



For under ceiling type
CZ-RWST3N

Simplified remote controller (CZ-RE2C2)



Dimensions
H 120 x W 70 x D 17 mm

A remote controller with simple functions and basic operation

- Suitable for open rooms or hotels where detailed functions are not required.
- ON/OFF, operation mode switching, temperature setting, wind velocity switching, wind direction setting, alarm display, and remote controller self-diagnosis can be performed.
- Batch group control for up to 8 indoor units.
- Remote control by main remote controller and sub controller is possible with a simplified remote controller or a wired remote controller (up to two units).

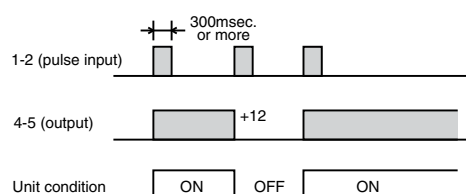
T10 Terminal for External Control (Digital Connection)

Connecting an indoor unit to an external device is easy.
The T10 Terminal featured in the electronic circuit board of all indoor units enables digital connection to external devices.



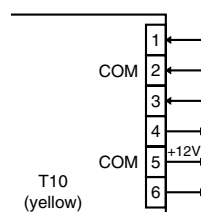
1. T10 Terminal Specification (T10:CN061 at indoor unit PCB)

- **Control items:** 1. Start/stop input
2. Remote controller prohibit input
3. Start signal output
4. Alarm signal output



NOTE: The wire length from indoor unit to the Relay must be within 2.0m.
Pulse signal changeable to static with JP cutting. (Refer to JP001)

• Example of wiring



Condition

1. 1-2 (Pulse input): Unit ON/OFF condition switching with a pulse signal. (1 pulse signal: shortage status more than 300msec. or more)
2. 2-3 (Static input): Open/ Operation with Remote is permitted. (Normal condition) Close/ Remote controller is prohibited.
3. 4-5 (Static output): 12V output during the unit ON. / No output at OFF.
4. 5-6 (Static output): 12V output when some errors occur / No output at normal.

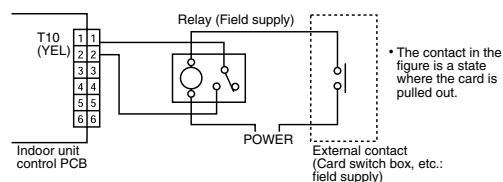
2. Usage Example

Forced OFF control

• Condition

1-2 (Static input): Close/ Operation with Remote is permitted. (Normal condition) Open/ Unit is forcibly OFF and Remote controller operation is prohibited.

• Example of wiring



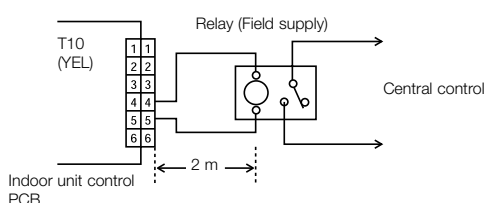
NOTE: The wire length from indoor unit to the Relay must be within 2.0m

Operation ON/OFF signal output

• Condition

4-5 (Static output): 12V output during the unit ON / No output at OFF

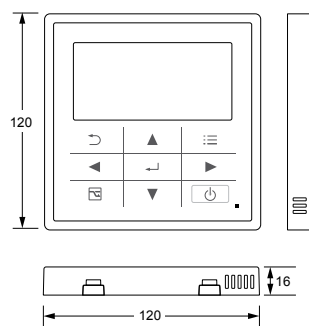
• Example of wiring



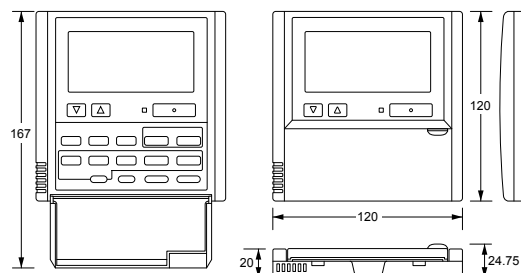
NOTE: The wire length from indoor unit to the Relay must be within 2.0m
Pulse signal changeable to static with JP cutting. (Refer to JP001)

Remote Controller External Dimensions

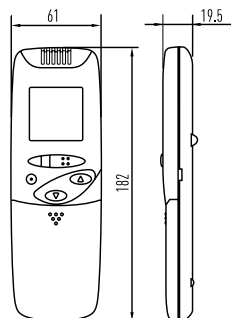
DELUXE WIRED
REMOTE CONTROLLER
(CZ-RTC3)



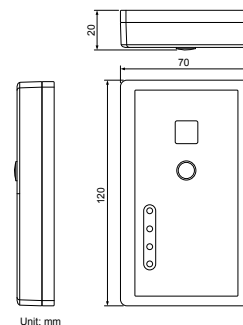
TIMER REMOTE
CONTROLLER
(CZ-RTC4)



WIRELESS REMOTE
CONTROLLER

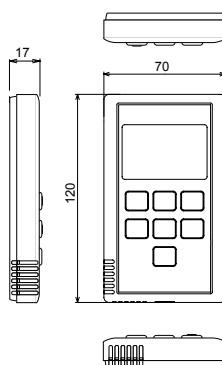


SEPARATE RECEIVER FOR
WIRELESS REMOTE CONTROLLER
(CZ-RWSC3)

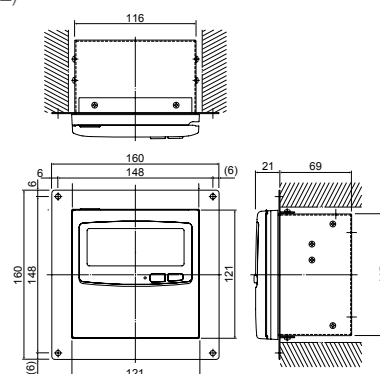


Unit: mm

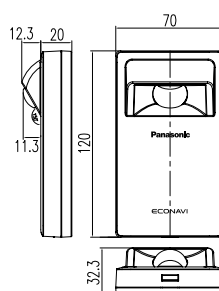
SIMPLIFIED REMOTE
CONTROLLER
(CZ-RE2C2)



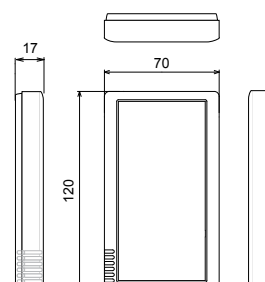
SYSTEM CONTROLLER
(CZ-64ESMC2)



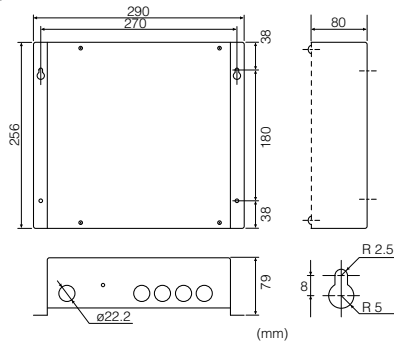
ECONAVI SENSOR
(CZ-CENSC1)



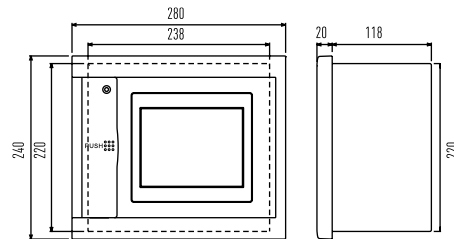
REMOTE SENSOR
(CZ-CSRC3)



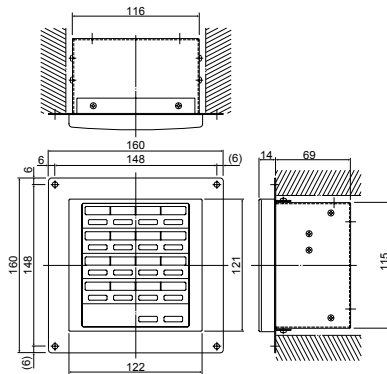
COMMUNICATION ADAPTOR
(CZ-CFUNC2)



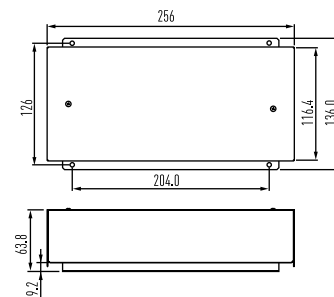
INTELLIGENT CONTROLLER
(CZ-256ESMC2)



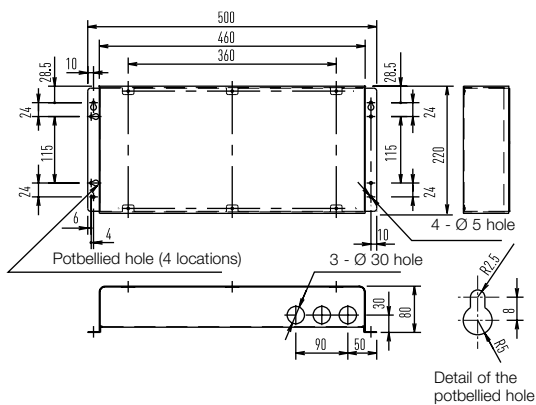
ON/OFF CONTROLLER
(CZ-ANC2)



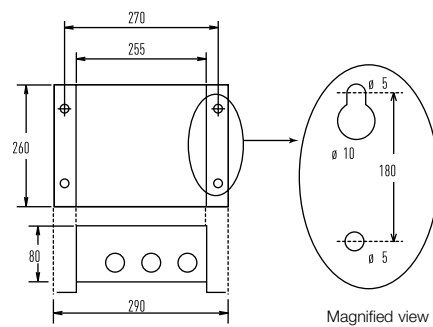
SERI-PARA I/O UNIT FOR EACH INDOOR UNIT
(CZ-CAPBC2)



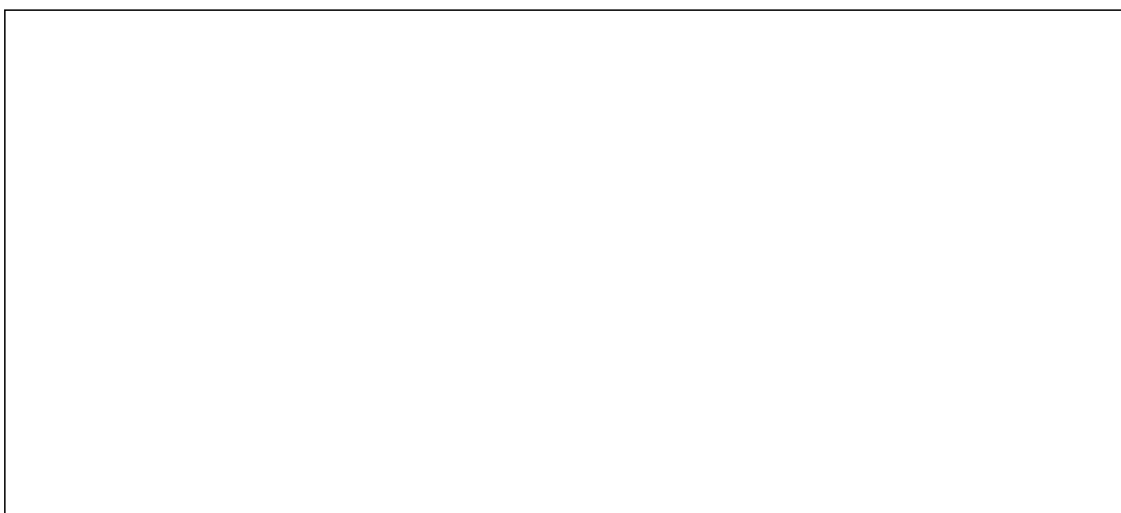
LONWORKS INTERFACE
(CZ-CLNC2)



SERI-PARA I/O UNIT FOR OUTDOOR UNIT
(CZ-CAPDC2)



EVERY BUILDING MATTERS



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