

UTOPIA



G7 Series (5-25 kW)
DC INVERTER Series (7-12,5 kW)
KPI - Total Heat Exchanger

HITACHI
Inspire the Next



HITACHI
Inspire the Next

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Specifications in this catalogue are subject to change without notice in order that HITACHI may bring the latest innovations to their customers. Omitting typing errors.

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Printed by:
HITACHI Air Conditioning Products Europe, S. A.

HAP/ET CB-02/03



**COMMERCIAL SPLIT
AIR CONDITIONING SYSTEM**



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HITACHI • Company Profile

HITACHI • Quality Control



Hitachi Air Conditioning Products Europe (HAPE works, Spain)



Hitachi Air Conditioning Systems Co., Ltd. (Shimizu works, Japan)

Air Conditioning from HITACHI can justifiably be described as the art of exploiting the latest ideas and developments in technology to create a range of innovative products which provide a more comfortable and more productive environment in which people can happily live and work. It is also an art executed with a responsible concern for protecting the environment. Ecological thinking begins at the very first stages of new product design and continues throughout production, installation procedures, equipment and operation.

Specifiers and users alike can always be assured that performance and costs are not the only parameters by which HITACHI products can be judged.

To achieve success with such objectives on a global scale requires not only enormous resources but also a commitment to the future. As one of the largest companies in the world, with over 321,517 employees, HITACHI is well positioned to undertake this commitment with the confidence that comes from successfully responding to the changing needs of people for over 90 years.

HITACHI - in Japanese the name means sunrise - is at the forefront of research and development turning new ideas and innovations into new products. Of its 7.993.700 million yen sales worldwide in 2002, close to 5.2% was invested in research and development programs. This vast amount of money has given HITACHI the opportunity to conceive many "world firsts" - examples of which include the technologically advanced and acclaimed scroll and semi-hermetic Screw compressors. These have been incorporated in HITACHI's air conditioning systems and water chillers which have revolutionised air conditioning worldwide. In 1992 HITACHI invested in a new purpose built, state of the art factory (HAPE) in

Barcelona, Spain. The site of the factory was carefully chosen to accommodate further building on its 40,000 square metre site. The creation of a European manufacturing facility and customer training centre helps to reduce production costs, speed up delivery times and enables full support to be given to all customers.

HITACHI's advanced air conditioning products are specified all over the world, wherever there is a requirement for ultimate performance and cost effective, long term reliability. A wide range of units coupled with a choice of advanced control systems mean HITACHI can provide solutions to meet every possible air conditioning application or specification. Authorised Distributors all over the world contribute their own specialised technical support and practical assistance to provide individual system designs, commissioning and after sales service.

HITACHI Authorised Distributors are committed to providing unrivalled support from a combination of experienced engineers, local product and spare parts stock, supported in turn by on-going technical support from HITACHI.

From the initial product concept at HITACHI's research and development facility in Japan, product development is dedicated to providing the products the customer requires. Product design and development is continuous with priority being given to the use of ecologically friendly refrigerants. To satisfy your cooling and heating requirements and to ensure the optimum indoor environment, consider HITACHI the first and last word in air conditioning.



Hitachi Air Conditioning Products Europe (HAPE works, Spain) has acquired International Standard Quality Management System ISO9001 & ISO14001 authorisation. HAPE performs thorough product quality control using various environmental tests. Hitachi Set Free Series Indoor units & panels are manufactured according to this ISO certification system.



Hitachi Air Conditioning Systems Co., Ltd. (Shimizu works, Japan) has acquired International Standard Quality Management System ISO9001 & ISO14001 authorization. Shimizu works performs thorough product quality control using various environmental tests, severe heating testing for compressors, and many others. Hitachi Set Free Series Outdoor units are manufactured according to this ISO certification system.

UTOPIA • Product Range



Expansion of UTOPIA Range:

1. New indoor units
RPK, RPF & RPF1
2. New outdoor units
Centrifugal & DC Inverter

R407C

Based on outdoor unit nominal input in HP



UTOPIA
UTOPIA **BIG**



Utopia SINGLE

			2HP	2.5HP	3HP	3.5HP	4HP	5HP	6HP	8HP	10HP
4 Way cassette	RCI	Cooling only	•	•	•	•	•	•	•		
		Heat Pump	•	•	•	•	•	•	•		
Ducted unit	RPI	Cooling only	•	•	•	•	•	•	•	•	•
		Heat Pump	•	•	•	•	•	•	•	•	•
Ceiling suspended	RPC	Cooling only	•	•	•	•	•	•	•		
		Heat Pump	•	•	•	•	•	•	•		
Wall type	RPK	Cooling only			•		•				
		Heat Pump			•		•				
Floor type	RPF	Cooling only	•	•							
		Heat Pump	•	•							
Concealed floor type	RPF1	Cooling only	•	•							
		Heat Pump	•	•							

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UTOPIA
UTOPIA **BIG**



Utopia TWIN, TRIPLE & QUAD

			2HP	2.5HP	3HP	3.5HP	4HP	5HP	6HP	8HP	10HP
4 Way cassette	RCI	Cooling only					•	•	•	•	•
		Heat Pump					•	•	•	•	•
Ducted unit	RPI	Cooling only					•	•	•	•	•
		Heat Pump					•	•	•	•	•
Ceiling suspended	RPC	Cooling only					•	•	•	•	•
		Heat Pump					•	•	•	•	•
Wall type	RPK	Cooling only							•	•	
		Heat Pump							•	•	
Floor type	RPF	Cooling only					•	•	•	•	•
		Heat Pump					•	•	•	•	•
Concealed floor type	RPF1	Cooling only					•	•	•	•	•
		Heat Pump					•	•	•	•	•

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UTOPIA



Utopia CENTRIFUGAL

			2HP	2.5HP	3HP	3.5HP	4HP	5HP	6HP	8HP	10HP
4 Way cassette	RCI	Heat Pump						•			
Ducted unit	RPI	Heat Pump						•			
Ceiling suspended	RPC	Heat Pump						•			
Floor type	RPF	Heat Pump						•			
Concealed floor type	RPF1	Heat Pump						•			

Available from Oct/03

Single and TWIN configurations are available for 5 HP version



UTOPIA
DC Inverter



Utopia DC Inverter

			2HP	2.5HP	3HP	3.5HP	4HP	5HP	6HP	8HP	10HP
4 Way cassette	RCI	Heat Pump			•		•	•			
Ducted unit	RPI	Heat Pump			•		•	•			
Ceiling suspended	RPC	Heat Pump			•		•	•			
2 Way cassette	RCD	Heat Pump			•		•	•			

Single and TWIN configurations are available for 5 HP version

Outdoor units are available in Cooling Only and Heat Pump configurations
Unified Indoor unit is compatible with both Heat Pump & Cooling Only Outdoor units



UTOPIA • Features & Benefits



G7 Series

General characteristics

Hitachi has developed the new series G7 considering the context of environmental protection and energy efficiency.

It is the history of units developed such as UTOPIA G5 that employs new cooling medium with zero ODP (Ozone Depletion Potential), for which highly efficiency cooling cycles and environmental load reduction are taken into account.

Moreover, Hitachi is making rapid progress in the abolition of the use of Styrofoam for packaging, the use of recyclable materials for components, the collection and reuse of cooling materials, and the development of systems for destroying discontinued refrigerants. Hitachi is evolving air-conditioning technology from the viewpoints of both human-friendly comfort and global environmental protection.

This Sales Catalogue provides data concerning G7 outdoor units in combination to G7 indoor units. These new models yield the following advantages:

New Aspect for Outdoor Units



Standardisation:

- Cooling Only now operates down to -5°C as standard.

- Only two different sizes of Outdoor Unit (RAS):

Current "G5 Series" (R407)				New Utopia "G7" (R407C)			
HP	HEIGHT	WIDTH	DEPTH	HP	HEIGHT	WIDTH	DEPTH
2, 2.5	735	890	285	2, 2.5, 3	800	850	350
3, 3.5	885	890	285				
4	1135	890	285	3.5, 4.5, 6	1240	850	350
5, 6	1135	1060	345				

- Outdoor Unit, Utopia, Utopia Big and Utopia Centrifugal.
- Only one Indoor Unit applicable to both Heat Pump and Cooling Only systems.
- Twin, Triple & Quad system is available with new G7 Indoor Unit.

New Piping Specification:

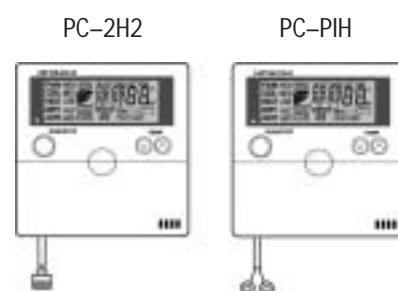
- Same piping size up to 50m for 3HP ~6HP.
- Better Efficiency: Av. Cooling EER 2.49, Av. Heating COP 2.88.

New standard functions:

- Release Ambient Temperature Limit
- Defrost Condition Changeover
- Demand Thermo Off
- Indoor fan set selection during defrosts, Stop or Slow
- Transmission system selection

Easy operation LCD controllers.

- PC-2H2 or new PC-P1H is available with new G7 Indoor Units.
 - PC-5H
 - PC-LH3 (with IU receiver or PC-RLH4) NEW Field Supply Accessory
- 3 Wires Polarity 2 Wires PC-2H2 Non-Polar PC-P1H

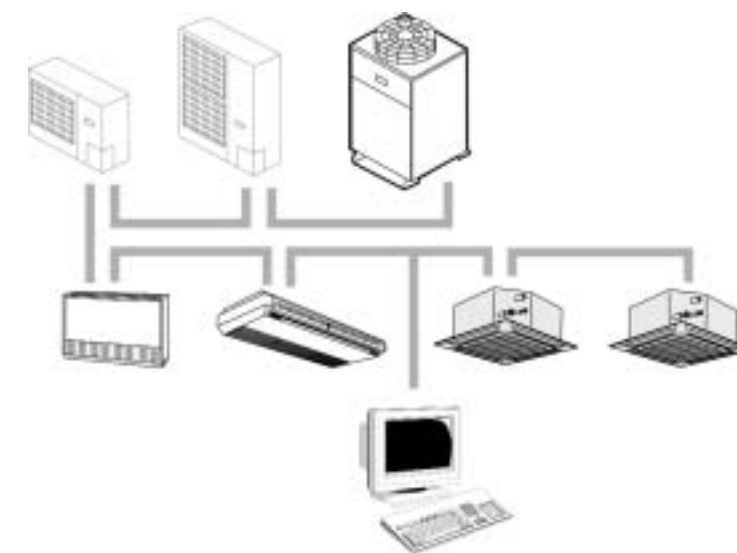


H-Link Control System

The new G7 Indoor Unit combined with G7 Outdoor Unit will use H-Link wiring system, which requires only two transmission wires connecting each indoor unit and outdoor unit for up to 16 refrigerant cycles.

The new system will give the following advantages:

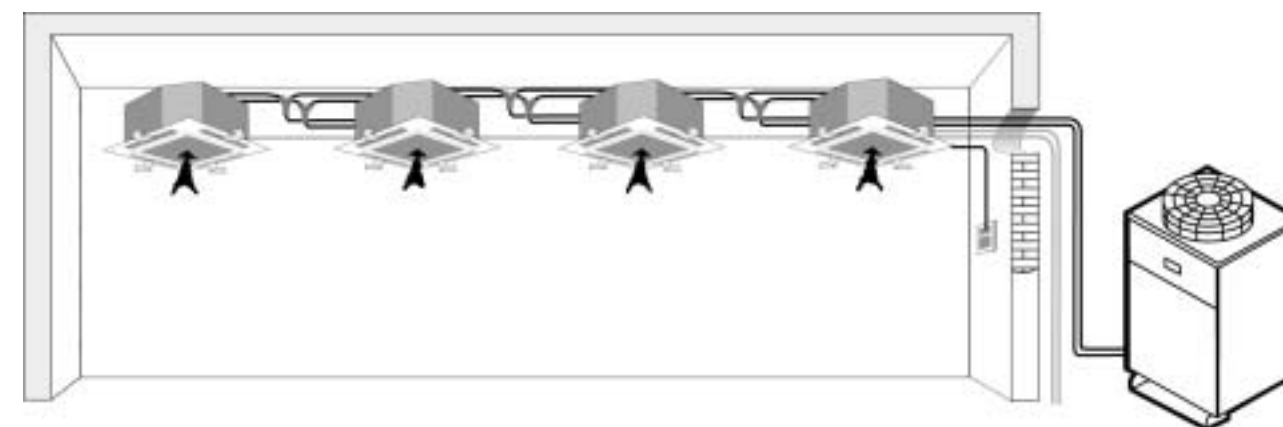
- Easy and flexible installation
- Non polarity
- Set-Free Combination
- Cs-Net connection via Indoor or Outdoor Unit
- Maximum 16 OU and 128 IU
- Maximum wiring length: 1000m



Single, Twin, Triple and Quad Combination

Single type is available with all Outdoor Unit types:

- Utopia, Utopia Big and Utopia Centrifugal
- Twin and Triple types are available with Utopia and Utopia Big
- Quad type is available with Utopia Big
- Twin, Triple and Quad concept is suitable for large-standard shaped areas, where several Units in this combination can be utilised to deliver a smooth and even airflow that would be difficult to achieve with a single large-sized standard Unit.



UTOPIA • Features & Benefits



DC Inverter

Energy-efficient Hitachi's energy-saving technology and growing reputation.

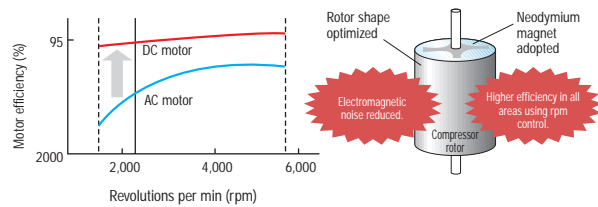
- DC inverter + New CBC control.
- DC fan motor with outstanding efficiency.
- DC compressor using neodymium magnet for greater efficiency in all operation areas!
- New heat exchanger.

(with new fins and optimum path alignment.)

Top class high COP value of 3.73!
(In case of RAS-5HVRG)

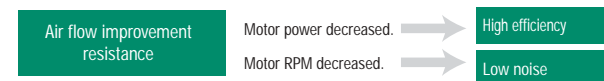
Energy-saving technology

DC compressor – A DC compressor is used for all models, thus greatly increasing efficiency in all areas. In particular, performance at low speed, which affects the annual running cost, has been hugely improved. Electromagnetic noise has also been significantly reduced by optimizing the rotor shape in the DC Compressor.

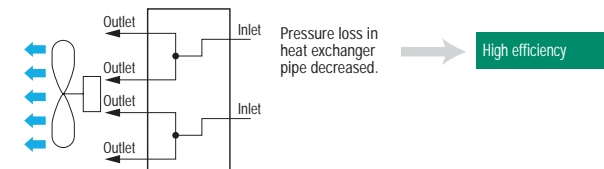


1. Performance at low speed, which affects annual running cost, hugely improved. → **High efficiency**
2. Electromagnetic noise significantly reduced. → **Low noise**
3. Stable motor operation without speed sensor. 180° conducting PWM. (Pulse Width Modulation) → **Beats all competitors**

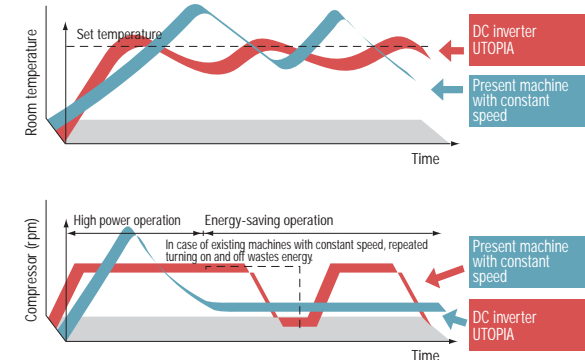
Aluminum fins used for new heat exchanger – Air flow resistance Operation Sound and performance decrease by frosting during heating have been significantly improved.



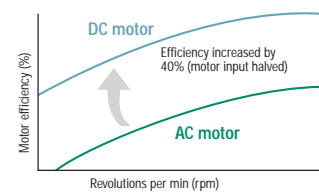
Heat exchanger path alignment optimised



• Concept of operation (in heating mode)



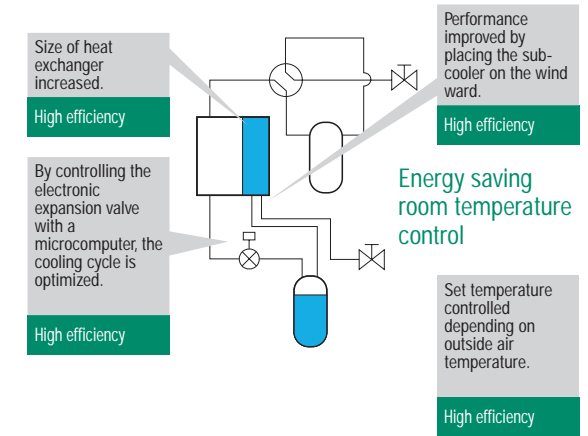
DC fan motor – The DC motor greatly improves efficiency compared with conventional products having an AC motor. Also, air blasts are reduced by controlling the rotation speed of the fan. Stable operation is guaranteed against strong head winds of about 10m/s on the front face of the outdoor unit.



1. Performance greatly improved, from low-to high-speed operation. → **High performance**
2. Fan power conserved when performance not necessary depending on outside air temperature. → **High efficiency**

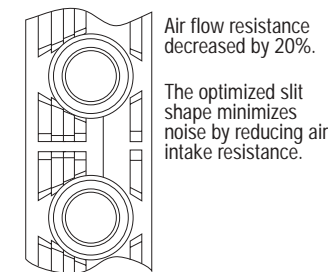
Energy-saving technology continued

New CBC control (condenser best control system) achieves high-efficiency cycles and lower energy consumption.

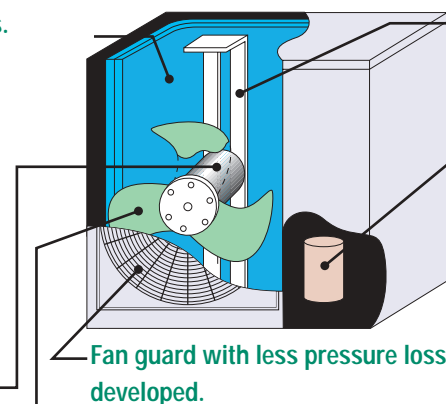


Low noise. Noise reduction technology

New fin with less pressure loss.



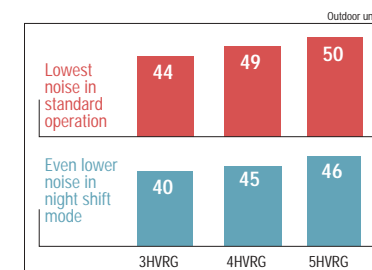
Flat noise
DC fan motor control reduce irritating electromagnetic noise and acoustics.



Noise lowered by mounting technology such as smaller motor clamp to decrease pressure loss.
Electromagnetic noise of compressor reduced.

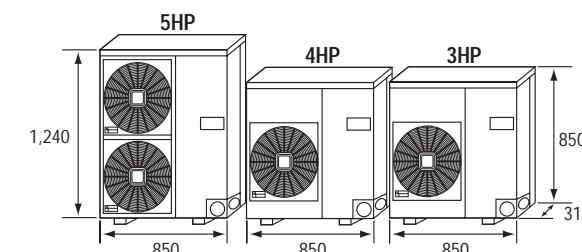
Super high-stream fan

Delta-shaped edges reduce fan size and noise.



Most compact among competitors, for efficient use of space

- Smaller size enables effective installation in limited spaces.
- Dimensions (width and depth) of all models in the series unified for ease of installation.



UTOPIA • G7 Technical description



4 way cassette type Application...



- **Pursuing Ultimate Silence** – The notion that air conditioning is accompanied with unpleasant noise has never been part of HITACHI's philosophy. Through the development of HI-STREAM Fan which smooths the air flow between the components inside the cabinet, a comparably low sound level has been achieved.
- **New, 31mm Slim Air Panel** – With an Air Panel, this slender indoor unit merges elegantly with virtually any ceiling.
- **Drain Pump as Standard Accessory** – A drain pump is equipped with this unit so that the unit can be installed in the center of a room.



PC-P1HE
Available as optional part.



...quiet operation and elegant design matching any interior.

R407C

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INDOOR UNITS																	
Model	RCI-2HG7E				RCI-2,5HG7E			RCI-3HG(N)7E		RCI-3,5HG7E	RCI-4HG(N)7E		RCI-5HG(N)7E		RCI-6HG(N)7E		
Indoor units configuration	Single	Twin	Triple	Quad	Single	Twin	Quad	Single	Twin	Single	Single	Twin	Single	Twin	Single		
Compatible Panel	P-G23WA(H)2E							P-G46WA(H)2E									
Power supply	V/Ph/Hz																
Nominal cooling capacity	kW																
Nominal heating capacity	kW																
Auxiliary Electric Heater	kW																
Sound Pressure levels	dB(A)																
Dimensions (HxWxD)	mm																
Panel Dimensions (HxWxD)	mm																
Net Weight Indoor unit	kg																
Net Weight Panel	kg																
Air Flow Rate	m3/min																
Approx packing measurement Unit	m3/unit																
Approx packing measurement Panel	m3/panel																
Working Range	°C																

OUTDOOR UNITS																	
COMBINED OUTDOOR UNIT	COOLING ONLY		RAS 2AGV7E	RAS 4AG(V)7E	RAS 6AG7E	RAS 8AG7E	RAS 2,5AG(V)7E	RAS 5AG7E	RAS 10AG7E	RAS 3AG(V)7E	RAS 6AG7E	RAS 3,5AG(V)7E	RAS 4AG(V)7E	RAS 8AG7E	RAS 5AG7E	RAS 10AG7E	RAS 6AG7E
	HEAT PUMP		RAS 2HGV7E	RAS 4HG(V)7E	RAS 6HG7E	RAS 8HG7E	RAS 2,5HG(V)7E	RAS 5HG7E	RAS 10HG7E	RAS 3HG(V)7E	RAS 6HG7E	RAS 3,5HG(V)7E	RAS 4HG(V)7E	RAS 8HG7E	RAS 5HG7E	RAS 10HG7E	RAS 6HG7E
Total Input power cooling	1-3~	kW	2,07	3,94	6,1	8,28	2,48	5,23	10,49	2,95	6,1	2,9	3,94	8,28	5,23	10,49	6,1
Total Input power heating	1-3~ (N)	kW	2,23	3,99	6,17	8,13	2,47	5,45	10,06	2,99	6,17 (9,27)	3,27	3,99 (7,09)	8,13 (14,33)	5,45 (8,55)	10,06 (16,26)	6,17 (9,27)
Energy Efficiency Class Cooling	1-3~		E	D	-	-	E	-	-	E	-	D	D	-	-	-	-
Energy Efficiency Class Heating	1-3~ (N)		E	D	-	-	D	-	-	E	-	D	D (G)	-	-	-	-
Sound Pressure levels		dB(A)	49	51	55	61	51	54	61	51	55	51	51	61	54	61	55
Air Flow Rate		m3/min	36	70	110	135	40	103	135	46	110	52	70	135	103	135	110
Dimensions (HxWxD)	Height	mm	800	1240	1240	1562	800	1240	1562	800	1240	1240	1240	1562	1240	1562	1240
	Width	mm	850	850	850	1000	850	850	1000	850	850	850	850	1000	850	1000	850
	Depth	mm	350	350	350	875	350	350	875	350	350	350	350	875	350	875	350
Net Weight		kg	64	85	101	230	65	105	240	72	101	85	94	230	105	240	101
Refrigerant type	R407C																
Refrigerant charge		kg	2,5	4	4,7	7,2	2,8	4,5	9	2,8	4,7	3,5	4	7,2	4,5	9	4,7
Precharged Length		m	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Liquid line		Inches	1/4	3/8	3/8	1/2	3/8	3/8	5/8	3/8	3/8	3/8	3/8	1/2	3/8	5/8	3/8
Gas line		Inches	5/8	3/4	3/4	1 1/8	5/8	3/4	1 1/8	5/8	3/4	5/8	3/4	1 1/8	3/4	1 1/8	3/4
Power supply	V/Ph/Hz																
Working Range	°C																
Approximate packing measurement	m3																

NOTES:

1 The nominal cooling and heating capacity is the combined capacity of the HITACHI standard split system, and are based on the ISO 5151.

Operation Conditions	Cooling	Heating
Indoor Air Inlet Temperature	27.0 °C DB 19.0 °C WB	20.0 °C DB
Outdoor Air Inlet Temperature	35.0 °C DB 6.0 °C WB	7.0 °C DB

2 N-Type models are only available with Heat Pump models, RAS-HG. The nominal heating capacity, for models RCI-3HG7E, RCI-4HG7E, RCI-5HG7E and RCI-6HG7E (*), includes extra capacity given by auxiliary Electric Heaters, when it is used because of the heating charge is higher than nominal capacity.

3 The Sound Pressure Level is based on the following conditions:
- 1.5 meters Beneath the Unit - Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases about 1 dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration when installing the unit.

4 For more information about capacities, see Technical Catalogue.
5 EEC (Energy Efficiency Class) according to Label Directive 2002/31/EC, 92/75/EEC.

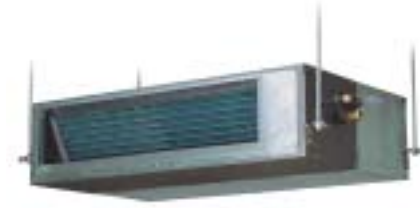
Only applied to units with up to 12 kw.

UTOPIA • G7 Technical description



Ducted type Application...

- **Space saving design** – With a height of 274mm this unit can be installed in a false ceiling space in almost any building.
- **Adjustable Fan speed** – The indoor fan motor has two speeds that can be adjusted to allow for pressure loss in the duct, thus providing a more efficient air flow.
- **Easy Maintenance** – Removing downside plate is possible to access to every component for replacement.
- **Built-in Drain Pump** – The RPI unit is equipped with an internal drain pump that removes accumulated condensation from the drain pan even while the cooling operation is in progress. An electronic sensor monitors water level and automatically activates the pump when draining becomes necessary.



...quiet operation and low height design for limited space inside of the ceiling



R407C

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		INDOOR UNITS																	
Model		RPI-2HG7E				RPI-2.5HG7E			RPI-3HG7E		RPI-3.5HG7E	RPI-4HG7E		RPI-5HG7E		RPI-6HG7E	RPI-8G5R	RPI-10G5R	
Indoor units configuration		Single	Twin	Triple	Quad	Single	Twin	Quad	Single	Twin	Single	Single	Twin	Single	Twin	Single	Single	Single	
Power supply		V/Ph/Hz																	
Nominal cooling capacity		kW																	
Nominal heating capacity		kW																	
Sound Pressure levels (overall A scale)		HSP				HSP			HSP		HSP	HSP		HSP		HSP	HSP	HSP	HSP
		STDSP				STDSP			STDSP		STDSP	STDSP		STDSP		STDSP	STDSP	STDSP	STDSP
		LSP				LSP			LSP		LSP	LSP		LSP		LSP	LSP	LSP	LSP
Static Pressure (Hi/Me/Lo)		HSP				HSP			HSP		HSP	HSP		HSP		HSP	HSP	HSP	HSP
		STDSP				STDSP			STDSP		STDSP	STDSP		STDSP		STDSP	STDSP	STDSP	STDSP
		LSP				LSP			LSP		LSP	LSP		LSP		LSP	LSP	LSP	LSP
Dimensions (HxWxD)		mm																	
		(N)																	
Net Weight Indoor unit		kg																	
Air Flow Rate (Hi/Me/Lo)		m ³ /min																	
		m ³ /unit																	
Working Range		°C																	
"Cooling Operation: 21 °C/32 °C WB & 15,5 °C/22,5 °C WB; Heating Operation: 15 °C / 27 °C DB"																			

		OUTDOOR UNITS																			
COMBINED OUTDOOR UNIT		COOLING ONLY		RAS 2AG7E	RAS 4AG(V)7E	RAS 6AG7E	RAS 8AG7E	RAS 2,5AG(V)7E	RAS 5AG7E	RAS 10AG7E	RAS 3AG(V)7E	RAS 6AG7E	RAS 3,5AG(V)7E	RAS 4AG(V)7E	RAS 8AG7E	RAS 5AG7E	RAS 10AG7E	RAS 6AG7E	RAS 8AG7E	RAS 10AG7E	
		HEAT PUMP		RAS 2HG7E	RAS 4HG(V)7E	RAS 6HG7E	RAS 8HG7E	RAS 2,5HG(V)7E	RAS 5HG7E	RAS 10HG7E	RAS 3HG(V)7E	RAS 6HG7E	RAS 3,5HG(V)7E	RAS 4HG(V)7E	RAS 8HG7E	RAS 5HG7E	RAS 10HG7E	RAS 6HG7E	RAS 8HG7E	RAS 10HG7E	
Total Input power cooling	1-3	kW		2,11	4,30	6,1	8,72	2,61	5,01	10,95	2,95	6,1	3,0	4,30	8,72	5,01	10,95	6,1	8,66	10,91	
Total Input power heating	1-3- (N)	kW		1,83	4,05	5,85	8,73	2,31	5,29	10,52	2,79	5,85	2,87	4,05	8,57	5,29	10,52	5,85	8,59	10,58	
Energy Efficiency Class Cooling	1-3	E		E	-	-	-	E	-	-	E	-	E	-	-	-	-	-	-	-	
Energy Efficiency Class Heating	1-3- (N)	D		E	-	-	-	E	-	-	E	-	D	-	-	-	-	-	-	-	
Sound Pressure levels		dB(A)		49	51	55	61	51	54	61	51	55	51	51	61	54	61	55	61	61	
Air Flow Rate		m ³ /min		36	70	110	135	40	103	135	46	110	52	70	135	103	135	110	135	135	
Dimensions (HxWxD)	Height	mm		800	1240	1240	1562	800	1240	1562	800	1240	1240	1240	1562	1240	1562	1240	1562	1562	
	Width	mm		850	850	850	1000	850	850	1000	850	850	850	850	1000	850	1000	850	1000	1000	
	Depth	mm		350	350	350	875	350	350	875	350	350	350	350	875	350	875	350	875	875	
Net Weight		kg		64	85	101	230	65	105	240	72	101	85	94	230	105	240	101	230	230	
Refrigerant type		R407C																			
Refrigerant charge		kg		2,5	4	4,7	7,2	2,8	4,5	9	2,8	4,7	3,5	4	7,2	4,5	9	4,7	7,2	7,2	
Precharged Length		m		10	10	10		10	10	10	10	10	10	10	10	10	10	10	10	10	
Liquid line		Inches		1/4	3/8	3/8	1/2	3/8	3/8	5/8	3/8	3/8	3/8	3/8	1/2	3/8	5/8	3/8	1/2	1/2	
Gas line		Inches		5/8	3/4	3/4	1 1/8	5/8	3/4	1 1/8	5/8	3/4	5/8	3/4	1 1/8	3/4	1 1/8	3/4	1 1/8	1 1/8	
Power supply		V/Ph/Hz		380-415 / 3 / 50 (V=220-240 / 1 / 50)																	
Working Range		°C		"Cooling Operation: -5°C / 43 °C DB; Heating Operation: -8°C / 15,5 °C WB"																	
Approximate packing measurement		m ³		0,36	0,53	0,53	1,62	0,36	0,53	1,62	0,36	0,53	0,53	0,53	1,62	0,53	1,62	0,53	1,62	1,62	

STDP: Standard Static Pressure Connection



- NOTES:**
- The nominal cooling and heating capacity is the combined capacity of the HITACHI standard split system, and are based on the ISO 5151.
- | Operation Conditions | Cooling | Heating |
|-------------------------------|--------------------------|------------|
| Indoor Air Inlet Temperature | 27.0 °C DB
19.0 °C WB | 20.0 °C DB |
| Outdoor Air Inlet Temperature | 35.0 °C DB
6.0 °C WB | 7.0 °C DB |

- The Sound Pressure Level is based on the following conditions:
 - 1.5 meters Beneath the Unit
 - Voltage of the power source for the indoor fan motor is 220V.
 - The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration when installing the unit.
- For more information about capacities, see Technical Catalogue.
- EEC (Energy Efficiency Class) according to Label Directive 2002/31/EC, 92/75/EEC.
- Only applied to units up to 12 kw.

UTOPIA • G7 Technical description



Under Ceiling type Application...

- **Space Saving Design** Innovative fan and heat exchanger designs have created a slimmer unit, which can be installed in the ceiling without wasting valuable space. In fact only 163mm of ceiling space is needed for this unit, which will fit any decor with its fashionable styling.
- **Quiet Operation** The indoor unit is equipped with an efficient multi-blade centrifugal fan creating a soft and powerful air flow. The sound level has been minimized by smoothing the air flow outwards through cabinets.
- **Easy Installation** The indoor unit is equipped with a washable filter behind the air intake grilles. The air filter can be removed by opening the grilles. The indoor unit can be installed by simply mounting brackets onto the ceiling.



PC-P1HE
Available as optional part.



...quiet operation, easy installation and space-saving slim design

R407C

INDOOR UNITS																
Model	RPC-2HG7E				RPC-2,5HG7E			RPC-3HG(N)7E		RPC-3,5HG7E	RPC-4HG(N)7E		RPC-5HG(N)7E		RPC-6HG(N)7E	
Indoor units configuration	Single	Twin	Triple	Quad	Single	Twin	Quad	Single	Twin	Single	Single	Twin	Single	Twin	Single	
Power supply	V/Ph/Hz 220-240/1/50 (N=380/3/50)															
Nominal cooling capacity	4,8	10,8	14,0	20	5,9	12,7	25	7,2	14,0	7,9	10,8	20	12,7	25	14	
Nominal heating capacity	5,4	11,9	16,7	22,5	6,5	15,3	28	8,3 (10,4)	16,7 (19,8)	8,9	11,9 (14,9)	22,4 (25,5)	15,3 (18,3)	28 (31,1)	16,7 (19,8)	
Auxiliary Electric Heater								2,1	2,1	3,1		3,1	3,1	3,1	3,1	
Sound Pressure levels	High/Medium/Low 46/42/38				46/43/41			48/45/42		48/45/41	49/45/39		49/46/41		50/48/44	
Dimensions (HxWxD)	Height	163				163			163		163	225		225		225
	Width	1094				1094			1314		1314	1314		1574		1574
	Depth	625				625			625		625	625		625		625
Net Weight Indoor unit	(N)	28				31			31/34		31	35/38		41/44		41/44
Air Flow Rate	High/Medium/Low	15/13/10				18/16/12			30/17/15		23/20/16	30/24/19		35/28/21		37/32/27
Approx packing measurement Unit		0,24				0,24			0,29		0,29	0,36		0,43		0,43
Working Range		°C "Cooling Operation: 21 °C/32 °C WB & 15,5 °C/22,5 °C WB; Heating Operation: 15 °C / 27°C DB"														

OUTDOOR UNITS																	
COMBINED OUTDOOR UNIT	COOLING ONLY		RAS 2AGV7E	RAS 4AG(V)7E	RAS 6AG7E	RAS 8AG7E	RAS 2,5AG(V)7E	RAS 5AG7E	RAS 10AG7E	RAS 3AG(V)7E	RAS 6AG7E	RAS 3,5AG(V)7E	RAS 4AG(V)7E	RAS 8AG7E	RAS 5AG7E	RAS 10AG7E	RAS 6AG7E
	HEAT PUMP		RAS 2HG(V)7E	RAS 4HG(V)7E	RAS 6HG7E	RAS 8HG7E	RAS 2,5HG(V)7E	RAS 5HG7E	RAS 10HG7E	RAS 3HG(V)7E	RAS 6HG7E	RAS 3,5HG(V)7E	RAS 4HG(V)7E	RAS 8HG7E	RAS 5HG7E	RAS 10HG7E	RAS 6HG7E
Total Input power cooling	1-3-	kW	1,99	4,32	6,1	8,32	2,45	5,09	10,61	2,99	6,1	3,06	4,32	8,32	5,09	10,61	6,1
Total Input power heating	1-3- (N)	kW	1,89	4,06	5,79	8,34	2,35	5,25	10,18	2,90 (5,0)	5,79	3,17	4,06 (7,16)	8,17 (14,38)	5,25 (8,35)	10,18 (16,28)	5,79 (8,89)
Sound Pressure levels		dB(A)	49	51	55	61	51	54	61	51	55	51	51	61	54	61	55
Air Flow Rate		m3/min	36	70	110	135	40	103	135	46	110	52	70	135	103	135	110
Dimensions (HxWxD)	Height	mm	800	1240	1240	1562	800	1240	1562	800	1240	1240	1240	1562	1240	1562	1240
	Width	mm	850	850	850	1000	850	850	1000	850	850	850	850	1000	850	1000	850
	Depth	mm	350	350	350	875	350	350	875	350	350	350	350	875	350	875	350
Net Weight		kg	64	85	101	230	65	105	240	72	101	85	94	230	105	240	101
Refrigerant type			R407C														
Refrigerant charge		kg	2,5	4	4,7	7,2	2,8	4,5	9	2,8	4,7	3,5	4	7,2	4,5	9	4,7
Precharged Length		m	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Liquid line		Inches	1/4	3/8	3/8	1/2	3/8	3/8	5/8	3/8	3/8	3/8	3/8	1/2	3/8	5/8	3/8
Gas line		Inches	5/8	3/4	3/4	1 1/8	5/8	1 1/8	1 1/8	5/8	3/4	5/8	3/4	1 1/8	3/4	1 1/8	3/4
Power supply		V/Ph/Hz	380-415 / 3 / 50 (N=220-240 / 1 / 50)														
Working Range		°C	"Cooling Operation: -5°C / 43 °C DB; Heating Operation: -8°C / 15,5°C WB"														
Approximate packing measurement		m3	0,36	0,53	0,53	1,62	0,36	0,53	1,62	0,36	0,53	0,53	0,53	1,62	0,53	1,62	0,53

NOTES:
1 The nominal cooling and heating capacity is the combined capacity of the HITACHI standard split system, and are based on the ISO 5151.

Operation Conditions	Cooling	Heating
Indoor Air Inlet Temperature	27.0 °C DB 19.0 °C WB	20.0 °C DB
Outdoor Air Inlet Temperature	35.0 °C DB 6.0 °C WB	7.0 °C DB

Piping Length: 7.5 meters
DB: Dry Bulb; WB: Wet Bulb

2 N-Type models are only available with Heat Pump models, RAS-HG. The nominal heating capacity, for models RPC-3HG(N)7E, RPC-4HG(N)7E, RPC-5HG(N)7E and RPC-6HG(N)7E (*), includes extra capacity given by auxiliary Electric Heaters, when it is used because of the heating charge is higher than nominal capacity.

3 The Sound Pressure Level is based on the following conditions:
- 1.5 meters Beneath the Unit
- Voltage of the power source for the indoor fan motor is 220V.
In case of the power source of 240V, the sound pressure level increases about 1 dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration when installing the unit.

4 For more information about capacities, see Technical Catalogue.
5 EEC (Energy Efficiency Class) according to Label Directive 2002/31/EC, 92/75/EEC.

UTOPIA • G7 Technical description

Wall type Application...

...a technological and functional solution

- **New Elegant Design** – With its new, elegant and timeless design, this unit will match any decor. Its compact size makes it easy to install even in the smallest of rooms.
- **Quiet Operation** – By utilising a long centrifugal fan which has a small diameter and smooth air flow patterns, operation sound has been significantly reduced to 34dB-A (at Low position). This model creates a pleasant, quiet and comfortable environment.
- **New Function, "Swing Louver"** – The new "Swing Louver" with three flaps (&) at both sides has been adopted, in order to provide comfortable air to the entire room.
- **Wireless or Wired Control** – The indoor unit is equipped with a wireless receiver kit inside as a standard accessory. The wired remote control switch, PC-P1HE is also applicable.



PC-P1HE
Available as optional part.

UTOPIA • G7 Technical description

Utopia Centrifugal...

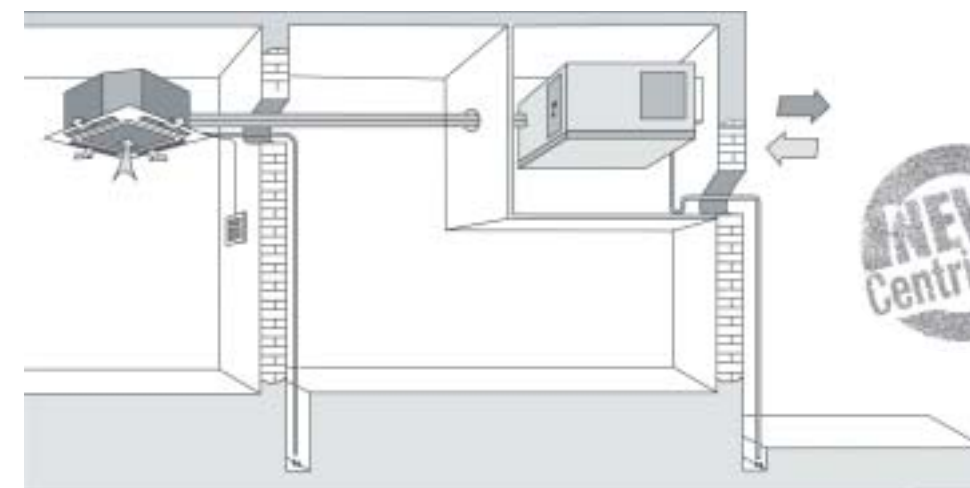


Available from Oct/03

Ducted Condensing Unit

- Non visible installation:
 - Suitable application in business and housing where it's forbidden or impossible to place outdoor unit outside the building.
 - Avoid legislation and local regulations regarding outdoor units installation.
- Hitachi high reliable Scroll Compressor, and Utopia series control.
- New structure and dimensioning according to use of centrifugal fan.
- Space saving due to use of centrifugal fan.
- Installation of ducts could be performed.
- The new unit can be installed in indoor or outdoor locations.
- Four different configurations for air inlet and outlet (changeable in the field).
- Piping length up to 50m available.
- Split system outdoor unit compatible with all models G5 and G7 indoor units (Cassette, Ducted In-the-Ceiling and Floor units).

Application Example



NEW Centrifugal

R407C

R407C

INDOOR UNITS			
Model		RPK-3HG7M	RPK-3,5HG7M
Indoor units configuration		Single □—□	Twin □—□—□ Single □—□
Power supply	V/Ph/Hz	220-240/1/50	
Nominal cooling capacity	kW	7,1	14
Nominal heating capacity	kW	8,1	16,7
Sound Pressure levels	High/Medium/Low dB(A)	44/41/38	
Dimensions (HxWxD)	Height	360	
	Width	1390	
	Depth	225	
Net Weight Indoor unit	(N)	22	
Air Flow Rate (Hi/Me/Lo)	High/Medium/Low m3/min	22/18/15	
Approx packing measurement Unit	m3/unit	0,2	
Working Range	°C	"Cooling Operation: 21 °C/32 °C WB & 15,5 °C/22,5 °C WB; Heating Operation: 15 °C / 27 °C DB"	

OUTDOOR UNITS					
COMBINED OUTDOOR UNIT		COOLING ONLY	RAS 3AG(V)7E	RAS 6AG7E	RAS 3.5A(V)G7E
		HEAT PUMP	RAS 3HG(V)7E	RAS 6HG7E	RAS 4H(V)G7E
Total Input power cooling	1~/3~	kW	2,95	6,1	3,06
Total Input power heating	1~/3~ (N)	kW	2,99	6,17	3,17
Sound Pressure levels		dB(A)	51	55	51
Air Flow Rate		m3/min	46	110	52
Dimensions (HxWxD)	Height	mm	800	1240	1240
	Width	mm	850	850	850
	Depth	mm	350	350	350
Net Weight		kg	72	101	85
Refrigerant type			R407C		
Refrigerant charge		kg	2,8	4,7	3,5
Precharged Length		m	10	10	10
Liquid line		Inches	3/8	3/8	3/8
Gas line		Inches	5/8	3/4	5/8
Power supply		V/Ph/Hz	380-415 / 3 / 50 (V=220-240 / 1 / 50)		
Working Range		°C	"Cooling Operation: -5°C / 43 °C DB; Heating Operation: -8°C / 15,5 °C WB"		
Approximate packing measurement		m3	0,36	0,53	0,53

Model Ducted(*)	OUTDOOR	RASC-5HE7E
Nominal Cooling Capacity	kW	13
"(Indoor:27DB-19wb/Outdoor:35DB)"		
Nominal Heating Capacity	kW	15,8
"(Indoor:20DB/Outdoor:7DB-6WB)"		
Air Flow Rate	m3/min	62
Static Pressure	Pa	50
Fan Motor	W	550
Sound Power Level	d(A)	73,5
(Overall A Scale)		
Outer dimensions		
Height	mm	555
Width	mm	1312
Depth	mm	835
Net Weight	kg	161
Refrigerant	kg	4,5
Connections	Flare-Nut Connection	
Refrigerant Piping		
Liquid Line	mm (inch)	9.53 (3/8)
Gas Line	mm (inch)	19.04 (3/4)
Condensate Drain	mm	22
Packing Measurements	m3	0,88



NOTES:

1 The nominal cooling and heating capacity is the combined capacity of the HITACHI standard split system, and are based on the ISO 5151.

2 The Sound Pressure Level is based on the following conditions:

- 1.5 meters Beneath the Unit
- Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases about 1 dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration when installing the unit.

4 For more information about capacities, see Technical Catalogue.

5 EEC (Energy Efficiency Class) according to Label Directive 2002/31/EC, 92/75/EEC.

Operation Conditions	Cooling	Heating
Indoor Air Inlet Temperature	27.0 °C DB 19.0 °C WB	20.0 °C DB
Outdoor Air Inlet Temperature	35.0 °C DB 6.0 °C WB	7.0 °C DB

Piping Length: 7.5 meters
DB: Dry Bulb; WB: Wet Bulb

UTOPIA • G7 DC Inverter Technical description



4 way cassette type
Extremely quiet operation and elegant design matching any interior

- **Unified panel sizes** – Panel sizes are unified throughout the range at 950mm square.
- **Fan motor input reduced by DC motor** – The motor input is reduced by employing a ferritic magnetic surface-mounted rotor, centralised winding system and split core system. The motor efficiency is improved in all aspects, and is 50% smaller and lighter (than conventional machines).



C-P1HE
available as optional part.



PC-P11
Available as optional part

2 way cassette type
Quiet operation and low height design for any ceiling

- **Low-profile design allows installation in a small space inside of ceiling** – A compact turbo fan simplifies the structure and reduces the height to 298mm, for easy installation.
- **Downsizing and weight reduction simplify handling for easier renewal.**



R407C

INDOOR UNITS

Model		RCI-3HRG	RCI-4HRG	RCI-5HRG	2xRCI-2,5HRG
Indoor units configuration		Single □—□	Single □—□	Single □—□	Twin □—□
Adaptable Panel model		PG23WA2			
Power supply	V/Ph/Hz	220-240/1/50			
Nominal cooling capacity	kW	7,1	10	12,5	12,5
Nominal heating capacity	kW	8	11,2	14	14
Sound Pressure levels	High/Medium/Low dB(A)	34/32/30	38/35/33	39/37/35	2x32/30/28
Dimensions (HxWxD) Indoor	Height	298	298	298	2x248
	Width	840	840	840	2x840
	Depth	840	840	840	2x840
Dimensions (HxWxD) Panel	Height	37	37	37	2x37
	Width	950	950	950	2x950
	Depth	950	950	950	2x950
Net Weight Indoor unit	(N) kg	26	29	29	2x24
Net Weight Panel	(N) kg	6	6	6	2x6
Air Flow Rate	High/Medium/Low m3/min	26/23/20	32/28/24	34/29/25	2x20/17/15
Approx packing measurement Indoor	m3	0,26	0,26	0,26	2x0,22
Approx packing measurement Panel	m3	0,08	0,08	0,08	2x0,08
Working Range	°C	"Cooling Operation: 32 °C/21 °C DB & 23 °C/15 °C WB; Heating Operation: 27 °C / 15 °C DB"			

OUTDOOR UNITS

COMBINED OUTDOOR UNIT	HEAT PUMP	RAS 3HVRG	RAS 4HVRG	RAS 5HVRG	RAS 5HVRG
Total Input power cooling	1~/3~ kW	2,13	3,45	3,63	3,61
Total Input power heating	1~/3~ (N) kW	2,02	3,38	3,51	3,49
Energy Efficiency Class Cooling	1~/3~	A	C	A	A
Energy Efficiency Class Heating	1~/3~ (N)	A	C	A	A
Sound Pressure levels	Cool (Night Shift) / Heat dB(A)	40 (40) / 46	49 (45) / 50	50 (46) / 51	50 (46) / 51
Air Flow Rate	m3/min	45	55	105	105
Dimensions (HxWxD)	Height	800	800	1240	1240
	Width	850	850	850	850
	Depth	315	315	315	315
Net Weight	kg	70	70	96	96
Refrigerant type		R407C			
Refrigerant charge	kg	2,7	3	3,8	3,8
Liquid line	mm (Inches)	9,53 (3/8)	9,53 (3/8)	9,53 (3/8)	9,53 (3/8)
Gas line	mm (Inches)	15,18 (5/8)	19,88 (3/4)	19,88 (3/4)	19,88 (3/4)
Power supply	V/Ph/Hz	220-240 / 1 / 50	220-240 / 1 / 50	220-240 / 1 / 50	220-240 / 1 / 50
Working Range	°C	"Cooling Operation: -5°C / 43 °C DB; Heating Operation: -15 °C / 15 °C WB"			
Approximate packing measurement	m3	0,34	0,34	0,5	0,5

NOTES:
1 The nominal cooling and heating capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions Indoor Air Inlet Temperature: 19.0°C WB Outdoor Air Inlet Temperature:	27°C DB 35°C DB
Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: 6°C WB	20°C DB 7°C DB
Piping Length: 7.5 Meters	Piping Lift: 0 Meter

2 The Sound Pressure Level is based on the following conditions:
- 1.5 meters Beneath the Unit
- Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases about 1 dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration when installing the unit.

R407C

INDOOR UNITS

Model		RCD-3HRG	RCD-4HRG	RCD-5HRG	2xRCD-2,5HRG
Indoor units configuration		Single □—□	Single □—□	Single □—□	Twin □—□
Adaptable Panel model		PG23DWA1	PG46DWA1		PG23DWA1
Power supply	V/Ph/Hz	220-240/1/50			
Nominal cooling capacity	kW	7,1	10	12,5	12,5
Nominal heating capacity	kW	8	11,2	14	14
Sound Pressure levels	High/Medium/Low dB(A)	40/36/33	40/36/33	43/40/36	2x38/34/31
Dimensions (HxWxD) Indoor	Height	298	298	298	2x298
	Width	860	1420	1420	2x860
	Depth	620	620	620	2x620
Dimensions (HxWxD) Panel	Height	30	30	30	2x30
	Width	1100	1660	1660	2x1100
	Depth	710	710	710	2x710
Net Weight Indoor unit	(N) kg	30	48	48	2x30
Net Weight Panel	(N) kg	6	8	8	2x6
Air Flow Rate	High/Medium/Low m3/min	22/19/16	29/24/21	34/29/25	2x19/16/14
Approx packing measurement Indoor	m3	0,23	0,37	0,37	2x0,23
Approx packing measurement Panel	m3	0,1	0,15	0,15	2x0,1
Working Range	°C	"Cooling Operation: 32 °C/21 °C DB & 23 °C/15 °C WB; Heating Operation: 27 °C / 15 °C DB"			

OUTDOOR UNITS

COMBINED OUTDOOR UNIT	HEAT PUMP	RAS 3HVRG	RAS 4HVRG	RAS 5HVRG	RAS 5HVRG
Total Input power cooling	1~/3~ kW	2,15	3,46	3,67	3,67
Total Input power heating	1~/3~ (N) kW	2,06	3,41	3,57	3,54
Energy Efficiency Class Cooling	1~/3~	A	C	A	A
Energy Efficiency Class Heating	1~/3~ (N)	A	C	A	A
Sound Pressure levels	Cool (Night Shift) / Heat dB(A)	44 (40) / 46	49 (45) / 50	50 (46) / 51	50 (46) / 51
Air Flow Rate	m3/min	45	55	105	105
Dimensions (HxWxD)	Height	800	800	1240	1240
	Width	850	850	850	850
	Depth	315	315	315	315
Net Weight	kg	70	70	96	96
Refrigerant type		R407C			
Refrigerant charge	kg	2,7	3	3,8	3,8
Liquid line	mm (Inches)	9,53 (3/8)	9,53 (3/8)	9,53 (3/8)	9,53 (3/8)
Gas line	mm (Inches)	15,18 (5/8)	19,88 (3/4)	19,88 (3/4)	15,18 (5/8)
Power supply	V/Ph/Hz	220-240 / 1 / 50			
Working Range	°C	"Cooling Operation: -5°C / 43 °C DB; Heating Operation: -15 °C / 15 °C WB"			
Approximate packing measurement	m3	0,34	0,34	0,5	0,5

NOTES:
1 The nominal cooling and heating capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions Indoor Air Inlet Temperature: 19.0°C WB Outdoor Air Inlet Temperature:	27°C DB 35°C DB
Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: 6°C WB	20°C DB 7°C DB
Piping Length: 7.5 Meters	Piping Lift: 0 Meter

2 The Sound Pressure Level is based on the following conditions:
- 1.5 meters Beneath the Unit
- Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases about 1 dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration when installing the unit.

UTOPIA • G7 DC Inverter Technical description



Ceiling type
Quiet operation, easy installation
and space-saving slim design

- **Amenity improved by auto-louwer at air opening** – The round, lower part of the air opening complements the gentle, quiet operation.
- **Noise and vibration drastically reduced from our original design** – The large fan and improved resistance of the air-flow path lower the r.p.m. of the blower, thus reducing noise and vibration.

• Improved resistance of air-flow path



PC-P1HE
Available as optional part.



PC-P1HE
Available as optional part.

Ducted Ceiling type
Quiet operation and low height
design for limited space
inside of the ceiling

- **Space-saving design** – Less than 350mm in height, this unit can fit into practically any previously existing false ceiling or formerly ducted space without substantial modification.
- **Quiet operation** – Far less noise than conventional models.



R407C

INDOOR UNITS

Model		RPC-3HRG	RPC-4HRG	RPC-5HRG	2xRPC-2,5HRG
Indoor units configuration		Single □—□	Single □—□	Single □—□	Twin □—□
Power supply	V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
Nominal cooling capacity	kW	7,1	10	12,5	12,5
Nominal heating capacity	kW	8	11,2	14	14
Sound Pressure levels	High/Medium/Low dB(A)	43/40/37	44/41/38	44/41/38	2x40/37/34
Dimensions (HxWxD) Indoor	Height	mm	210	270	270
	Width	mm	1320	1320	1580
	Depth	mm	670	670	670
Net Weight Indoor unit	(N)	kg	30	34	42
Air Flow Rate	High/Medium/Low m3/min	22/18/15	25/21/18	33/28/23	2x18/15/12
Approx packing measurement Indoor	m3	0,36	0,43	0,5	2x0,36
Working Range	°C	"Cooling Operation: 32 °C/21 °C DB & 23 °C/15 °C WB; Heating Operation: 27 °C / 15 °C DB"			

OUTDOOR UNITS

COMBINED OUTDOOR UNIT	HEAT PUMP	RAS 3HVRG	RAS 4HVRG	RAS 5HVRG	RAS 5HVRG
Total Input power cooling	1~/3~ kW	2,14	3,51	3,67	3,67
Total Input power heating	1~/3~ (N) kW	2,05	3,49	3,49	3,61
Energy Efficiency Class Cooling	1~/3~	A	C	A	A
Energy Efficiency Class Heating	1~/3~ (N)	A	C	A	A
Sound Pressure levels	Cool (Night Shift) / Heat dB(A)	44 (40) / 46	49 (45) / 50	50 (46) / 51	50 (46) / 51
Air Flow Rate	m3/min	45	55	105	105
Dimensions (HxWxD)	Height	mm	800	800	1240
	Width	mm	850	850	850
	Depth	mm	315	315	315
Net Weight	kg	70	70	96	96
Refrigerant type		R407C			
Refrigerant charge	kg	2,7	3	3,8	3,8
Liquid line	Inches	3/8	3/8	3/8	3/8
Gas line	Inches	5/8	3/4	3/4	5/8
Power supply	V/Ph/Hz	220-240 / 1 / 50	220-240 / 1 / 50	220-240 / 1 / 50	220-240 / 1 / 50
Working Range	°C	"Cooling Operation: -5°C / 43 °C DB; Heating Operation: -15 °C / 15 °C WB"			
Approximate packing measurement	m3	0,34	0,34	0,5	0,5

NOTES:

1 The nominal cooling and heating capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions Indoor Air Inlet Temperature: 19.0°C WB Outdoor Air Inlet Temperature:	27°C DB 35°C DB
Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: 6°C WB	20°C DB 7°C DB
Piping Length: 7.5 Meters	Piping Lift: 0 Meter

2 The Sound Pressure Level is based on the following conditions:

- 1.5 meters Beneath the Unit
- Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases about 1 dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration when installing the unit.

NOTES:

1 The nominal cooling and heating capacity is the combined capacity of the HITACHI standard split system, and is based on the JIS standard B8616.

Cooling Operation Conditions Indoor Air Inlet Temperature: 19.0°C WB Outdoor Air Inlet Temperature:	27°C DB 35°C DB
Heating Operation Conditions Indoor Air Inlet Temperature: Outdoor Air Inlet Temperature: 6°C WB	20°C DB 7°C DB
Piping Length: 7.5 Meters	Piping Lift: 0 Meter

2 The Sound Pressure Level is based on the following conditions:

- 1.5 meters Beneath the Unit
- Voltage of the power source for the indoor fan motor is 220V. In case of the power source of 240V, the sound pressure level increases about 1 dB. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration when installing the unit.

3 The data for external pressure *1) indicates "Standard Pressure Setting (High Pressure Setting - Low Pressure Setting)" values when a filter is not used. The sound pressure level is based on the Standard Pressure Setting.

Wide Variation of Optional Remote Controllers.



PC-P1HE

Remote Control Switch

Features a wide range of functions, including a large liquid crystal display screen, self-diagnostic capabilities, and a timer which can be set in 1/2 hour intervals. A convenient remote control.



PSC-5S

Central Station

This Central Station enables centralized control of up to 16 groups of indoor units (at maximum 128 indoor units). Features a wide range of functions, including a large liquid crystal display screen and alarm code. User friendly Central Station.



PC-LH3

Wireless Remote Control Switch

This controller is used to send commands about operation mode, timer setting, etc. to the indoor unit. Face the transmitter of the controller toward the receiver of the indoor unit and press the switch of required operation so that commands (by infrared rays) are sent to the indoor units.



PSC-5T

7-Day Timer

The 7-Day Timer allows long-term unattended control. By plugging this timer in to the optional remote control switch or Central Station, daily ON/OFF operation control throughout the week is available. ON/OFF setting is available three times a day by two different patterns.



PC-5H

Remote Control Switch (Core-Function)

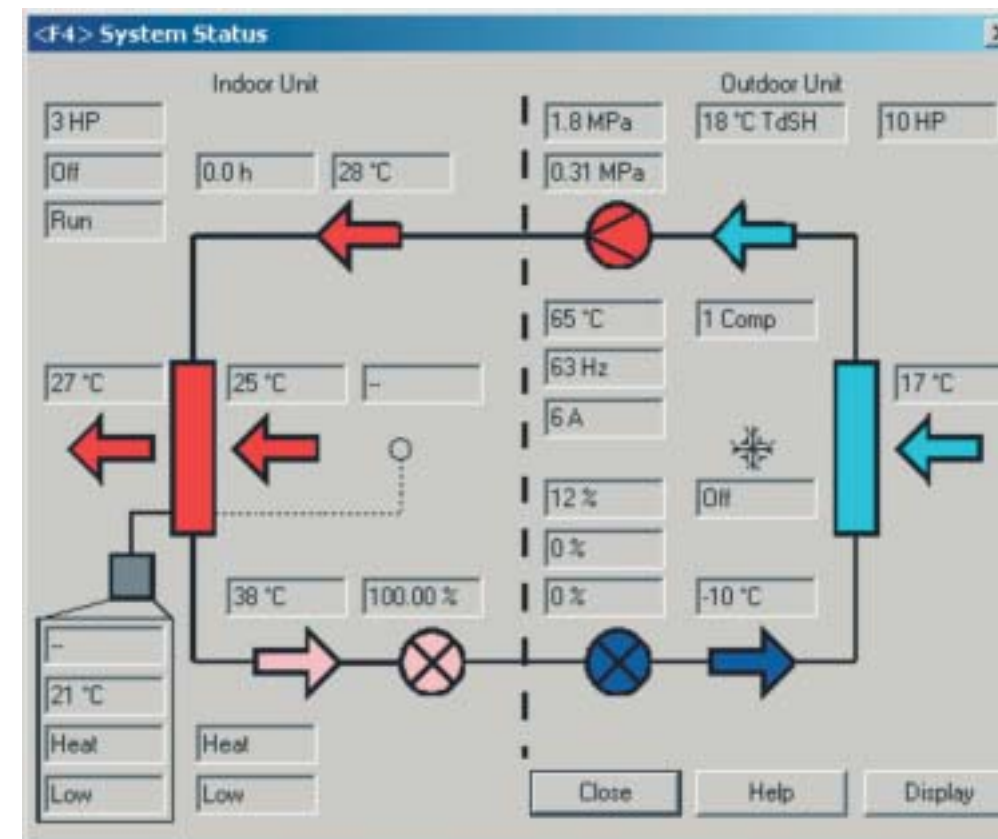
A half-sized remote control switch allowing you to switch between RUN and STOP, set the chosen temperature and fan speed, by simply pressing the control buttons. Use it with Central Station or CS-NET. Since cooling and heating are switched automatically, use this remote control switch together with the wired remote control switch or CS-NET for COOL / HEAT mode change.



CSNET



HARC 40



- CSNET can control a wide range of HITACHI products (Set Free, Mini Set Free, Utopia, Utopia DC-Inverter).
- Installation & Programming is simple & quick.
- Friendly control screen: global vision of the whole installation and precise status of each indoor unit.
- Simple use for final user.
- Sophisticated technical support for installer.
- Unique "automatic Cool/Heat" operation.
- Historical data of all the installation: win time in terms of repairing.
- Communication with BMS is possible.

KPI Series Total Heat Exchanger

Optional Parts

Provides a comfortable environment by Control Interlocking with Air conditioning. Units are controllable using the remote control switch for the air conditioning unit. Can be controlled various ways using the remote control switch for the air conditioning unit (PC-P1H).

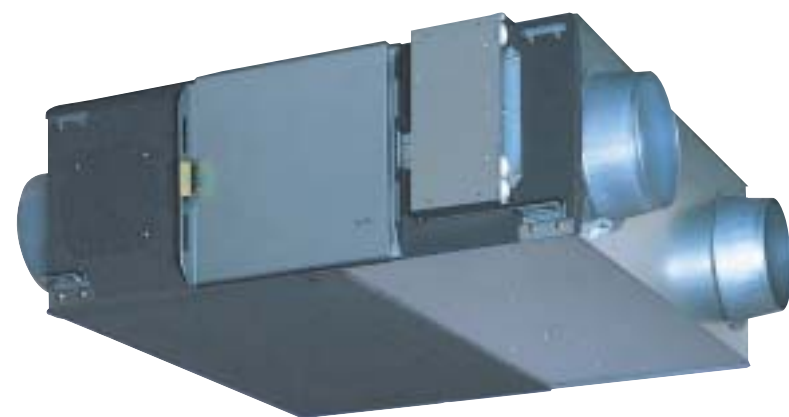
Functions

- Simultaneous RUN/STOP switching between both air conditioning units and heat exchanging unit.
- Individual operation of heat exchanging unit.
- Fan speed control (high/medium/low).
- Ventilation mode selection (automatic/heat exchange/bypass)*1.
- Pre-cool/pre-heat control (interlocking start with delay in 30 or 60 minutes)*1.
- ON/OFF timer (every half hour, maximum 24 hours).
- Increased air supply operation (only for medium or low speeds)*1.
- Specific alarm display.

*1 Required option to be selected at remote control switch

Automatic selection of most suitable ventilation mode

Depending on temperature conditions both outdoors and indoors, the most suitable ventilation mode is automatically selected, demonstrating an energy saving effect.



Other Characteristics

- Quiet operation with low noise level of 32.5-33.5 db (A) (at Hi Tap of KP-5021 Type) has been realised by improving the flow path configuration.
- Operation Not Only with UTOPIA series Indoor Unit, but also with SET-FREE.
- Connectable to H-LINK System with Central Station or CS-NET in Operation with Indoors.
- Flexible duct installation.
- Reduced packing material for environmental protection.
- Can be also installed upside down.

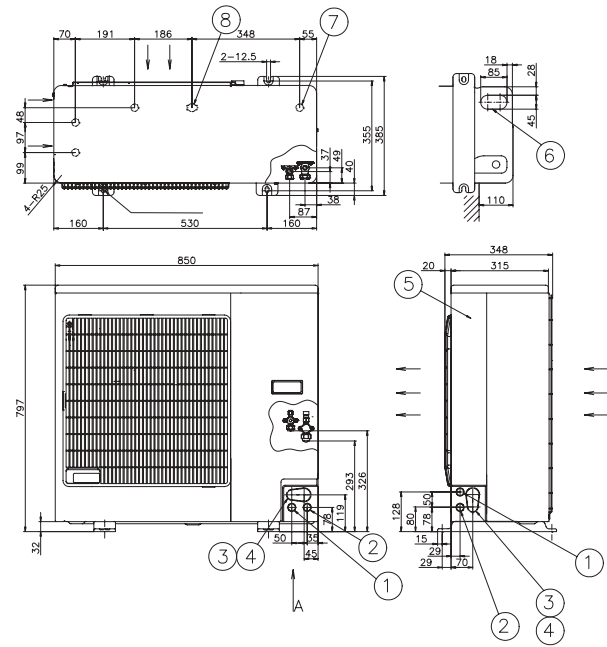
Fixed type Heat Exchanging Element

- The newly - developed fixed type heat exchanging element with high temp. exchange efficiency equivalent to the rotor type element, has been adopted for the new total heat exchangers. Additionally, reliability is increased due to reduction of moving parts.
- Low weight with simple unit structure: 33kg (in case of 500 m3/h type unit).

	INDOOR		OUTDOOR								
	Others	RCI	2	2,5	3	3,5	4	5	6	8	10
Remote controllers											
PC-P1HE	X	X									
PC-5H	X	X									
PC-LH3	X	X									
PSC-5T	X	X									
PSC-5S1	X	X									
PC-RLH4	X	X									
PRC-10E1-30E1	X	X									
PRC-10E-30E	X	X									
Filter Dryer											
D-2AVE			X								
D-2HVE			X								
D-10AVE				X	X	X	X	X	X	X	X
D-10HVE				X	X	X	X	X	X	X	X
Outdoor unit Drain-Kit			X	X	X	X	X	X	X	X	X
RCI 3 WAY											
PI-23LS3		X									
FD-1B		X									
FD-2B		X									
PDB-15W		X									
Remote sensor											
THM-R2E	X	X									
Branch Pipes											
TE-04*							X				
TE-56*								X	X		
TE-810*										X	X
TRE-06*									X		
QE-810*										X	X

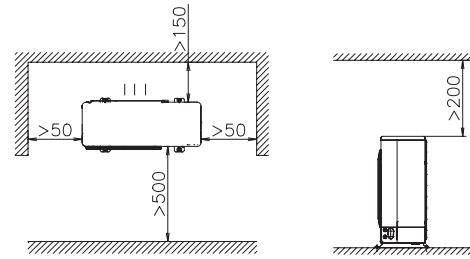
* T (Twin); TR (Triple); Q (Quad)

RAS-(2/2.5/3)H/AG(V)7E

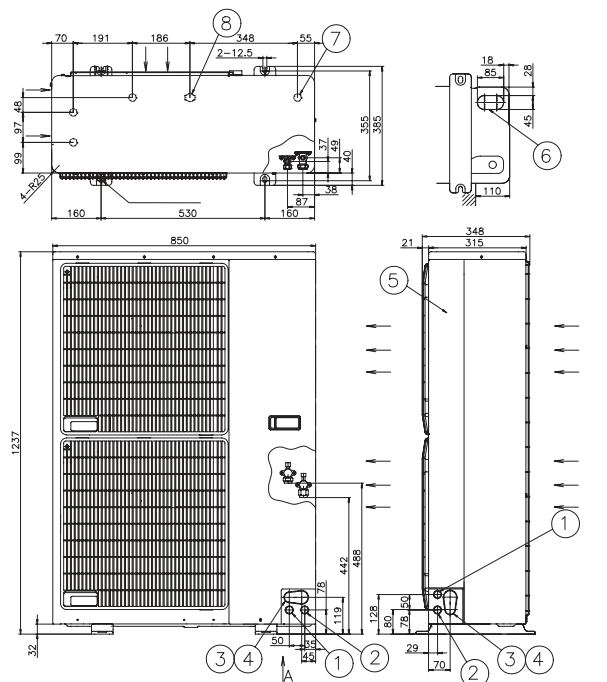


Mark	Name	Remarks
1	Hole for Power Supply Wiring connection	Ø26.5 Knockout Hole
2	Hole for Control Circuit Wiring connection	Ø26.5 Knockout Hole
3	Refrigerant Gas Piping Connection	Flare Connection for Ø19.05 Pipe
4	Refrigerant Liquid Piping Connection	Flare Connection for Ø9.53 Pipe
5	Service Panel for Compressor and Electrical Control Box	
6	Hole for Refrigerant Piping	Knockout Hole
7	Hole for Condensate Drain Piping	4-Ø24
8	Hole for Condensate Drain	4-Ø26

NOTE: Refrigerant Stop Valves are located inside the cabinet Air Flow Direction

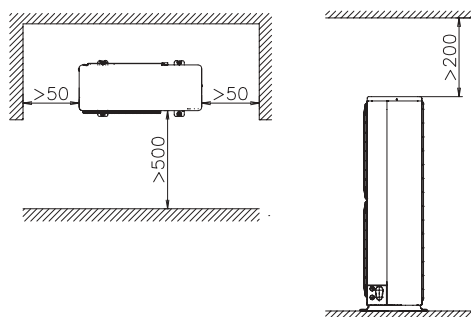


RAS-(3/3.5/4/5/6)H/AG(V)7E

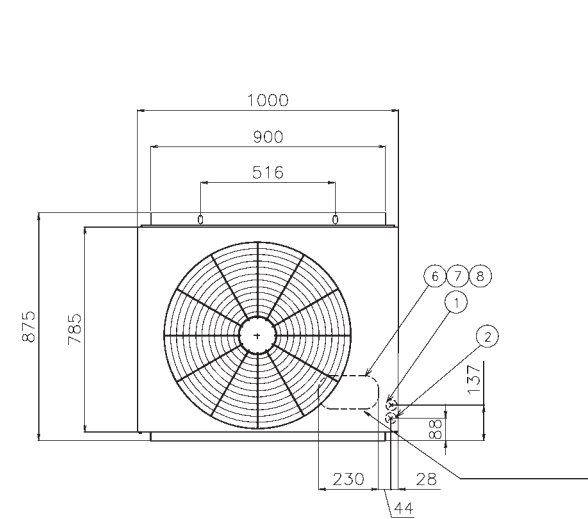


Mark	Name	Remarks
1	Hole for Power Supply Wiring connection	Ø26.5 Knockout Hole
2	Hole for Control Circuit Wiring connection	Ø26.5 Knockout Hole
3	Refrigerant Gas Piping Connection	Flare Connection for Ø19.05 Pipe
4	Refrigerant Liquid Piping Connection	Flare Connection for Ø9.53 Pipe
5	Service Panel for Compressor and Electrical Control Box	
6	Hole for Refrigerant Piping	Knockout Hole
7	Hole for Condensate Drain Piping	4-Ø24
8	Hole for Condensate Drain	4-Ø26

NOTE: Refrigerant Stop Valves are located inside the cabinet Air Flow Direction

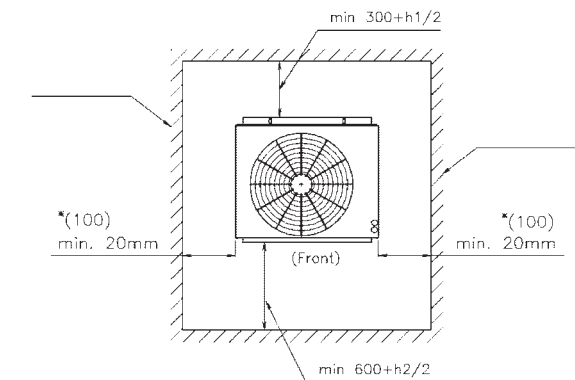
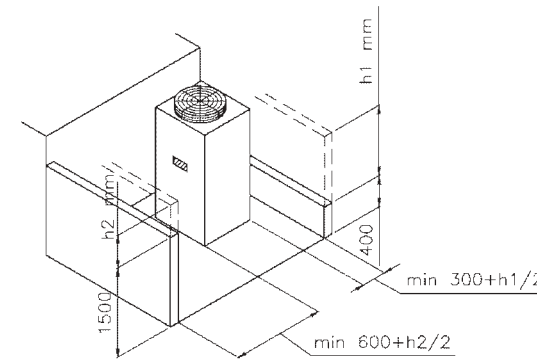
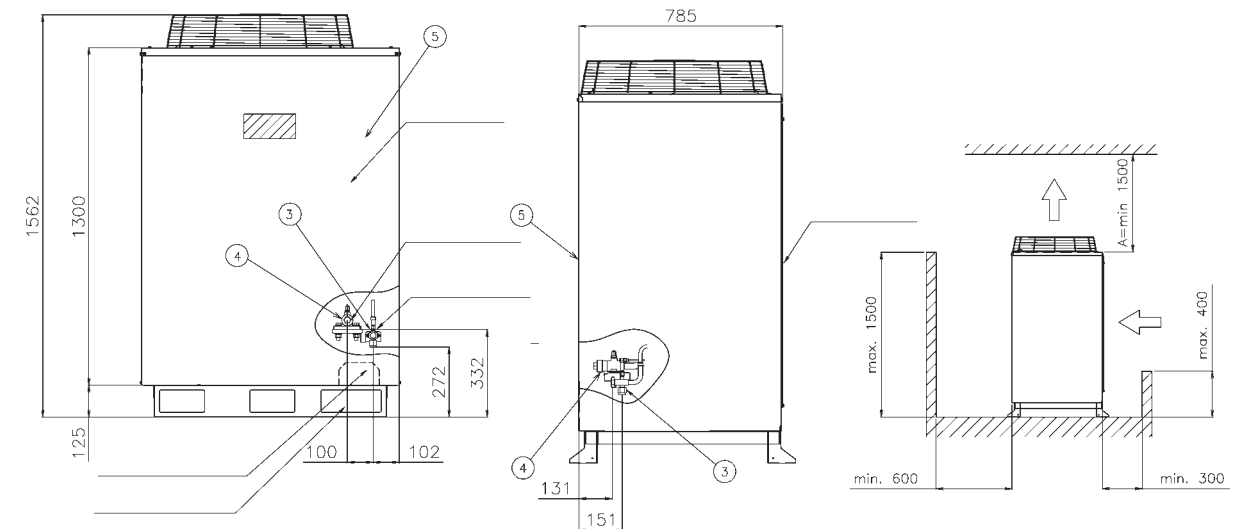


RAS-(8/10)(H/A)G7E

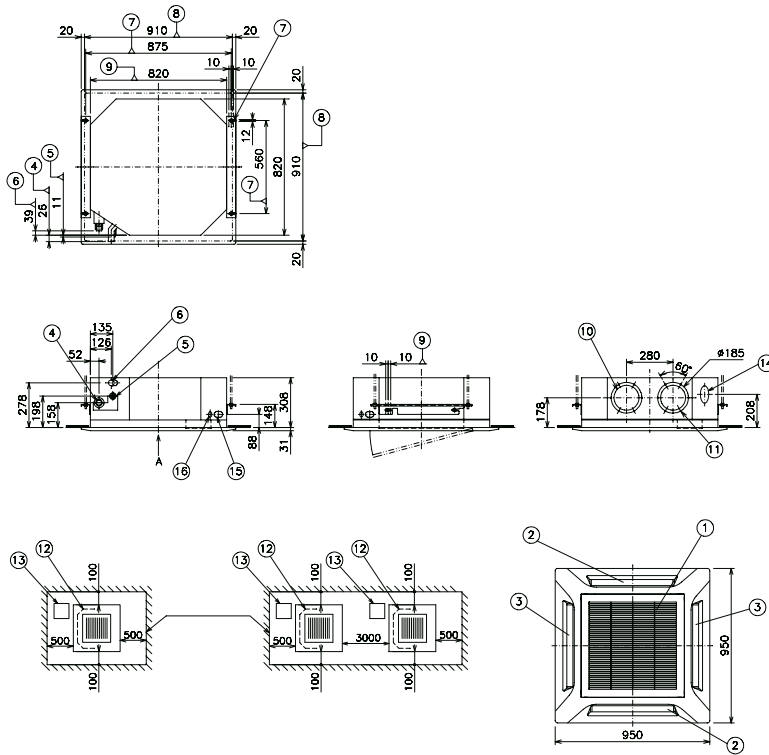


Mark	Name	Remarks
1	Hole for Power Supply Wiring connection	Ø32.5 Knockout Hole
2	Hole for Control Circuit Wiring connection	Ø32.5 Knockout Hole
3	Refrigerant Gas Piping Connection	Flare Connection for Ø28.6 Pipe
4	Refrigerant Liquid Piping Connection	Flare Connection for Ø12.7 (RAS-8) Ø15.88 (RAS-10)
5	Service Panel for Compressor and Electrical Control Box	
6	Hole for Refrigerant Piping	Knockout Hole
7	Hole for Condensate Drain Piping	4-Ø24
8	Hole for Condensate Drain	1-Ø26

NOTE: Refrigerant Stop Valves are located inside the cabinet Air Flow Direction



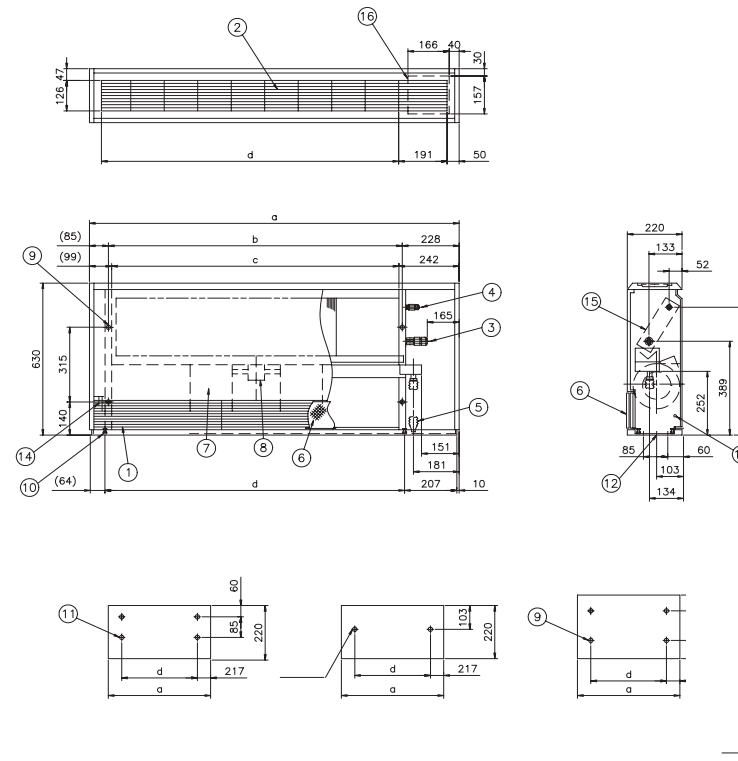
RCI-(2/2.5/3/3.5)HG(N)7E with Optional Air Panel PG23W(A)2E



Mark	Name	Remarks
1	Air Inlet	
2	Air Outlet 1	
3	Air Outlet 2	
4	Refrigerant Gas Line	Not Available for 1.0HP
5	Refrigerant Liquid Line	Piping Connection with $\varnothing a$ Flare Nut
6	Drain Pipe	Piping Connection with $\varnothing b$ Flare Nut
7	4-12x32 Hole	VP-25
8	Ceiling Opening Hole	Adjustable
9	Range	Knockout Hole 2- $\varnothing 150$
10	Supply Duct Connection	Self-Tapping Screw 6-M4
11	Service Access Panel	
12	Piping Connection	
13	Service Access Panel	
14	Fresh Air Intake	100mm Knockout Hole
15	Wiring Connection for cable	34x60mm Hole
16	Wiring Connection	32.5mm Knockout Hole

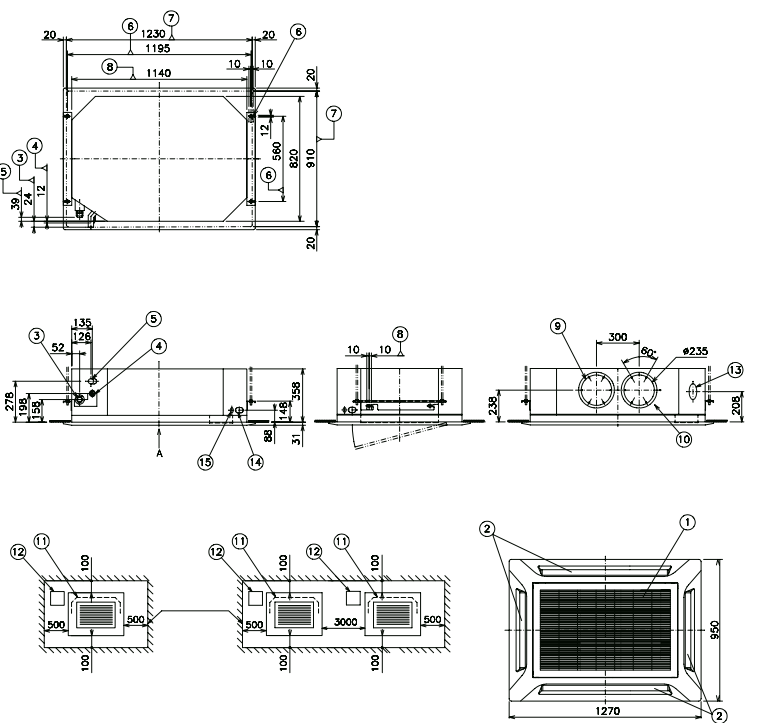
Model / Pipe Sizes	a	b
RCI-2.0 HG7E	15.88	6.35
RCI-2.5 HG7E	15.88	9.53
RCI-3.0 HG(N)7E	15.88	9.53
RCI-3.5 HG7E	15.88	

RPF-(2/2.5)HG7E



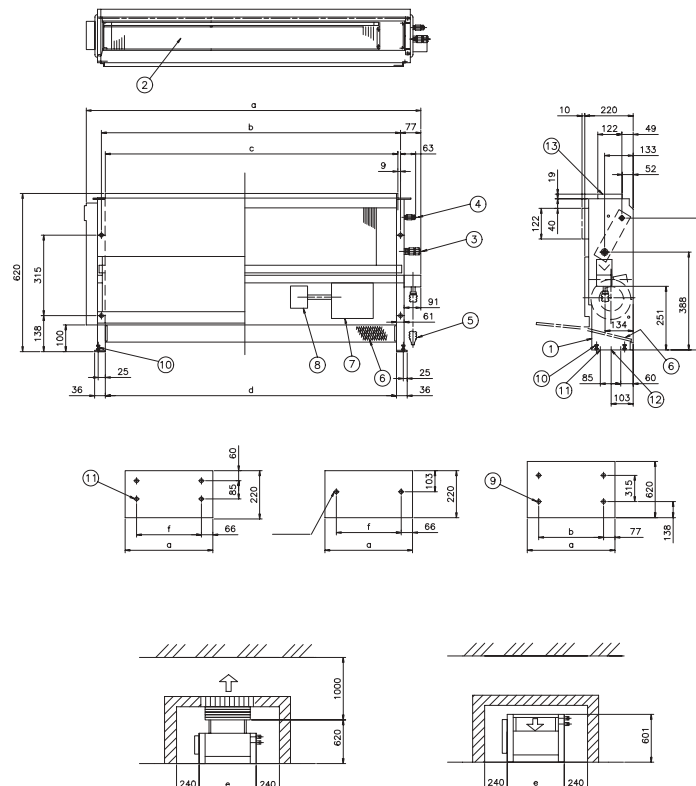
Mark	Name	Remarks
1	Air Inlet	
2	Air Outlet	
3	Refrigerant Gas Line	Piping Connection with $\varnothing 12.7$ mm Flare Nut
4	Refrigerant Liquid Line	Piping Connection with $\varnothing 6.35$ mm Flare Nut
5	Condensate Drain	
6	Air Filter	
7	Fan	
8	Fan Motor	
9	Fixing Hole on Wall	4- $\varnothing 14$ mm(Rear)
10	Adjusting Screw	For Installation
11	Fixing Hole on Floor	4- $\varnothing 7$ mm for Wood Screw
12	Fixing Hole on Floor	
13	Earth Screw	
14	Opening for Wiring	Rear Side
15	Heat Exchanger	
16	Space for Piping Connection On Floor	

RCI-(4/5/6)HG(N)7E with Optional Air Panel PG46W(A)2E



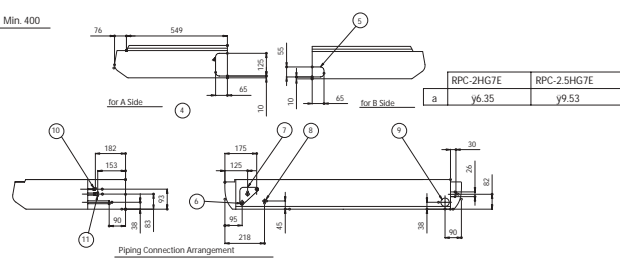
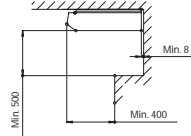
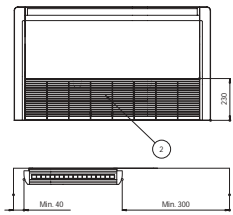
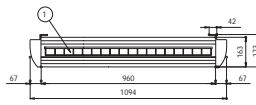
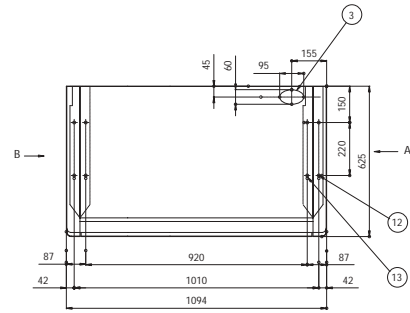
Mark	Name	Remarks
1	Air Inlet	
2	Air Outlet	
3	Refrigerant Gas Line	Piping Connection with $\varnothing 19.05$ Flare Nut
4	Refrigerant Liquid Line	Piping Connection with $\varnothing 9.53$ Flare Nut
5	Drain Pipe	VP-25
6	4-12x32 Hole	For Suspension Bolt
7	Ceiling Opening Hole	Adjustable
8	Range	Knock Hole 2- $\varnothing 200$
9	Supply Duct Connection	Self-Tapping Screw 6-M4
10	Service Access Panel	
11	Piping Connection	
12	Service Access Panel	
13	Fresh Air Intake	100 mm Knockout Hole
14	Wiring Connection for cable	34x60 mm Hole
15	Wiring Connection	32.5mm Knockout Hole

RPF1-(2.0/2.5)HG7E



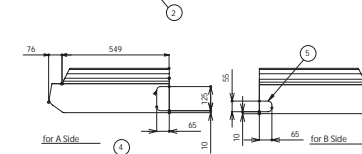
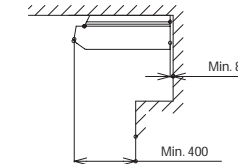
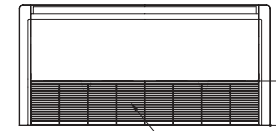
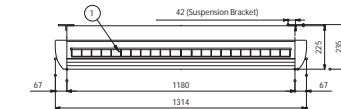
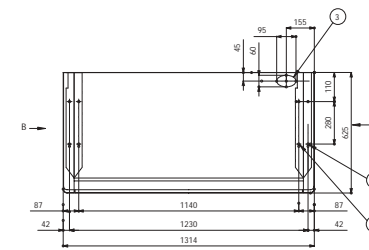
Mark	Name	Remarks
1	Air Inlet	
2	Air Outlet	
3	Refrigerant Gas Line	Piping Connection with $\varnothing a$ mm Flare Nut
4	Refrigerant Liquid Line	Piping Connection with $\varnothing b$ mm Flare Nut
5	Condensate Drain	
6	Air Filter	
7	Fan	
8	Fan Motor	
9	Fixing Hole on Wall	4- $\varnothing 14$ mm(Rear)
10	Adjusting Screw	For Installation
11	Fixing Hole on Floor	4- $\varnothing 7$ mm for Wood Screw
12	Fixing Hole on Floor	
13	Connection Flange	

RPC-(2/2.5)HG7E



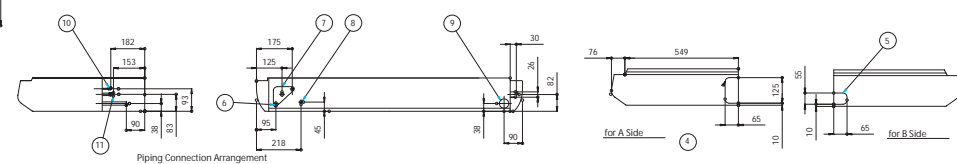
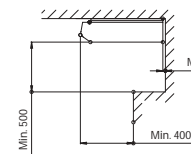
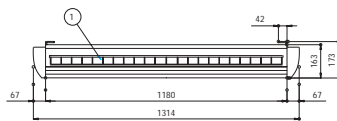
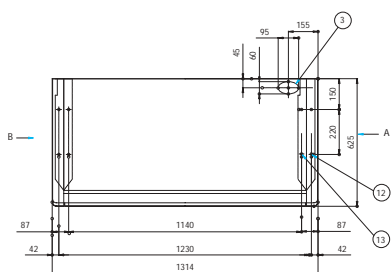
Mark	Name	Remarks
1	Air Discharge	
2	Air Inlet	
3	Hole for Refrigerant Piping	Knockout Hole for Top Side. Refrigerant Piping Arrangement
4	Hole for Refrigerant Piping	Knockout Hole for A Side. Refrigerant Piping Arrangement
5	Hole for Condensate Drain Piping	Knockout for B Side. Refrigerant Piping Arrangement
6	Condensate Drain Piping Connection	(for A Side) VP20
7	Hole for Refrigerant Piping	Knockout Hole
8	Hole for Conduit Tube	Ø32.5 Knockout Hole
9	Condensate Drain Piping Connection	(for B Side) VP20 Ø46 knockout Hole
10	Liquid Line	Øa Flare Nut
11	Gas Line	Ø15.88 Flare Nut
12	Hole for Suspension Bolt	Ø12 Removable
13	Hole for Suspension Bolt	Ø12 Bracket can be attached to this position

RPC-4HG(N)7E



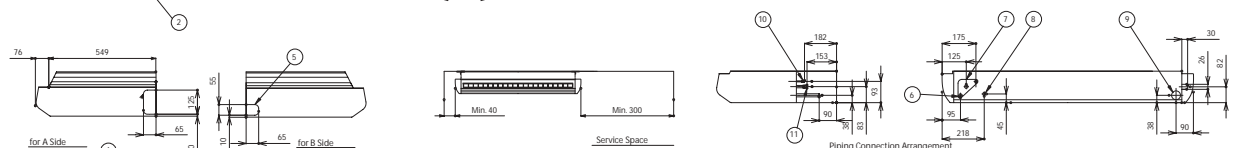
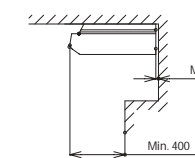
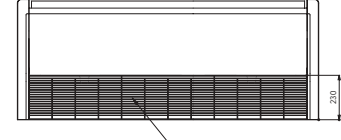
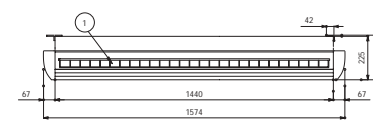
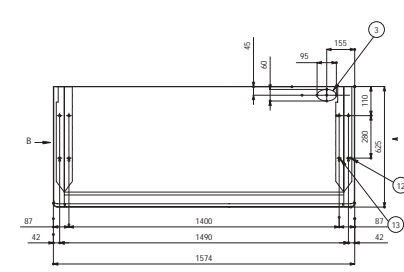
Mark	Name	Remarks
1	Air Discharge	
2	Air Inlet	
3	Hole for Refrigerant Piping	Knockout Hole for Top Side. Refrigerant Piping Arrangement
4	Hole for Refrigerant Piping	Knockout Hole for A Side. Refrigerant Piping Arrangement
5	Hole for Condensate Drain Piping	Knockout for B Side. Refrigerant Piping Arrangement
6	Condensate Drain Piping Connection	(for A Side) VP20
7	Hole for Refrigerant Piping	Knockout Hole
8	Hole for Conduit Tube	Ø32.5 Knockout Hole
9	Condensate Drain Piping Connection	(for B Side) VP20 Ø46 knockout Hole
10	Liquid Line	Ø9.53 Flare Nut
11	Gas Line	Ø15.88 Flare Nut
12	Hole for Suspension Bolt	Ø12 Removable
13	Hole for Suspension Bolt	Ø12 Bracket can be attached to this position

RPC-(3/3.5)HG(N)7E



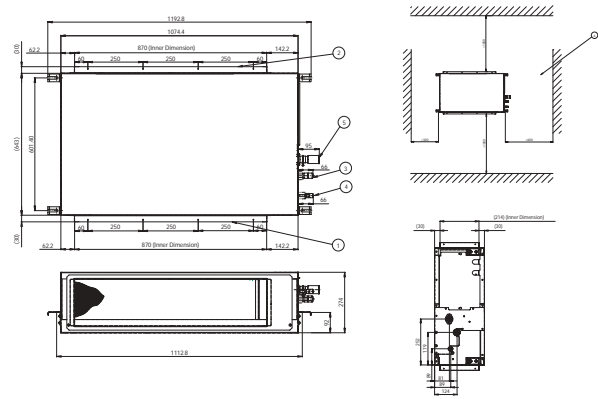
Mark	Name	Remarks
1	Air Discharge	
2	Air Inlet	
3	Hole for Refrigerant Piping	Knockout Hole for Top Side. Refrigerant Piping Arrangement
4	Hole for Refrigerant Piping	Knockout Hole for A Side. Refrigerant Piping Arrangement
5	Hole for Condensate Drain Piping	Knockout for B Side. Refrigerant Piping Arrangement
6	Condensate Drain Piping Connection	(for A Side) VP20
7	Hole for Refrigerant Piping	Knockout Hole
8	Hole for Conduit Tube	Ø32.5 Knockout Hole
9	Condensate Drain Piping Connection	(for B Side) VP20 Ø46 knockout Hole
10	Liquid Line	Ø9.53 Flare Nut
11	Gas Line	Ø15.88 Flare Nut
12	Hole for Suspension Bolt	Ø12 Removable
13	Hole for Suspension Bolt	Ø12 Bracket can be attached to this position

RPC-(5/6)HG(N)7E



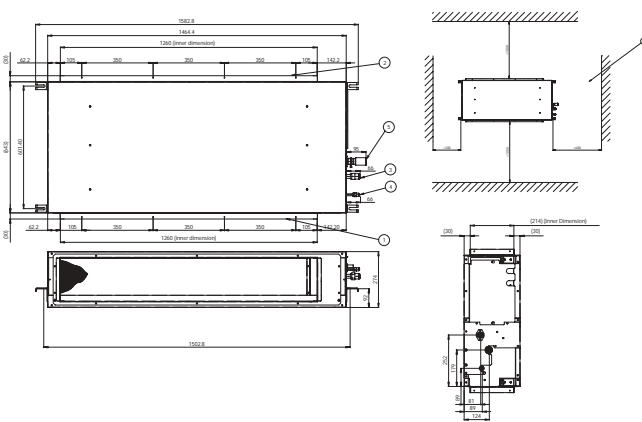
Mark	Name	Remarks
1	Air Discharge	
2	Air Inlet	
3	Hole for Refrigerant Piping	Knockout Hole for Top Side. Refrigerant Piping Arrangement
4	Hole for Refrigerant Piping	Knockout Hole for A Side. Refrigerant Piping Arrangement
5	Hole for Condensate Drain Piping	Knockout for B Side. Refrigerant Piping Arrangement
6	Condensate Drain Piping Connection	(for A Side) VP20
7	Hole for Refrigerant Piping	Knockout Hole
8	Hole for Conduit Tube	Ø32.5 Knockout Hole
9	Condensate Drain Piping Connection	(for B Side) VP20 Ø46 knockout Hole
10	Liquid Line	Ø9.53 Flare Nut
11	Gas Line	Ø15.88 Flare Nut
12	Hole for Suspension Bolt	Ø12 Removable
13	Hole for Suspension Bolt	Ø12 Bracket can be attached to this position

RPI-(2/2.5/3/3.5)HG7E



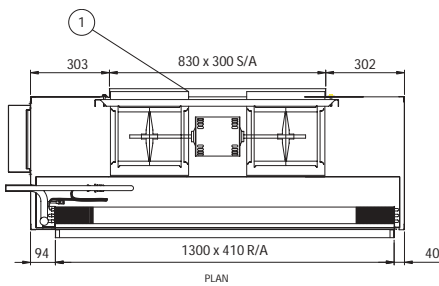
Mark	Name	Remarks
1	Air Discharge	
2	Air Inlet	
3	Gas Line	ø a Flare Nut
4	Liquid Line	ø b Flare Nut
5	Condensate Drain Piping	ø '32 OD

RPI-4/5/6 HG7E

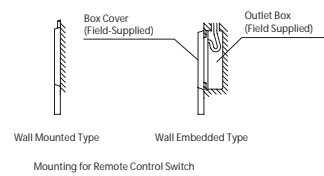
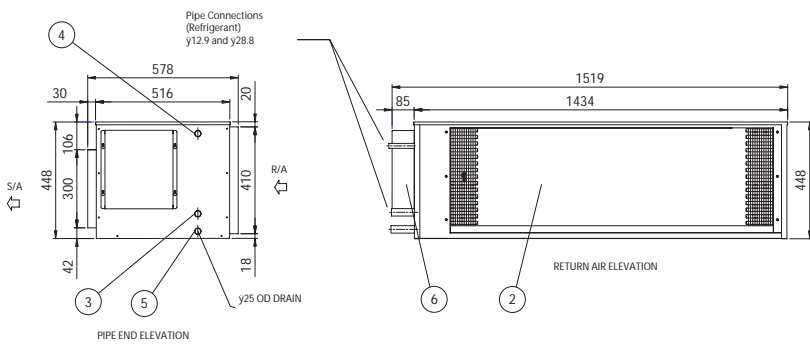


Mark	Name	Remarks
1	Air Discharge	
2	Air Intake	
3	Refrigerant Gas Piping	
4	Refrigerant Liquid Piping	
5	Condensate Drain Piping	
6	Service Space Door (>600x600)	

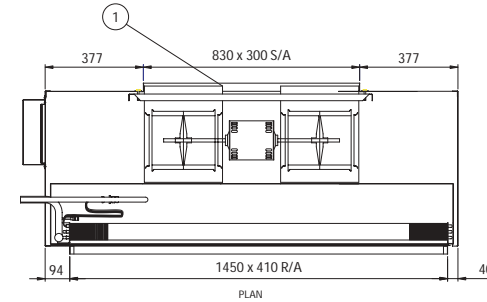
RPI-8G5R



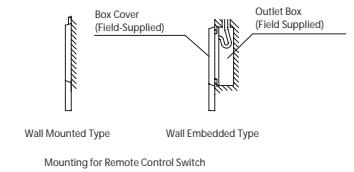
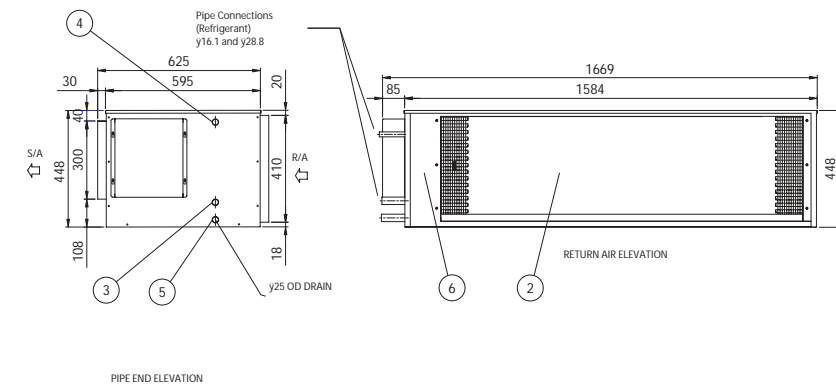
Mark	Name	Remarks
1	Air Discharge	
2	Air Inlet	
3	Refrigerant Gas Piping	ø25.6 Copper Tube Brazed Connection (ø28.8 Hole)
4	Refrigerant Liquid Piping	ø12.7 Copper Tube Brazed Connection (ø12.9 Hole)
5	Condensate Drain Piping	ø25 OD
6	Electrical control Box	



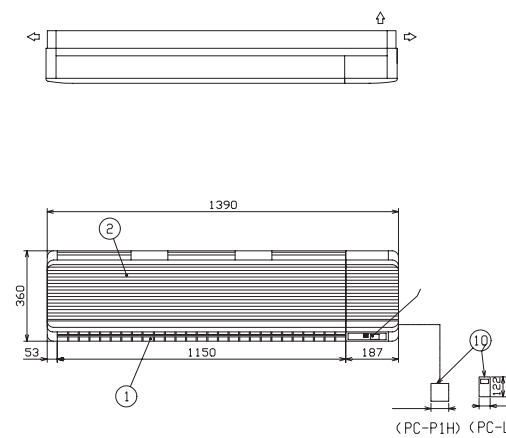
RPI-10G5R



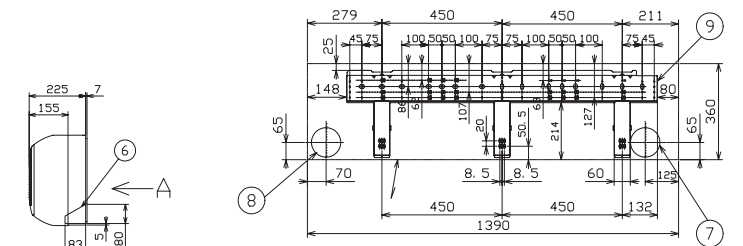
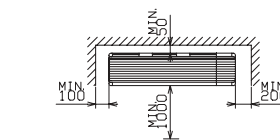
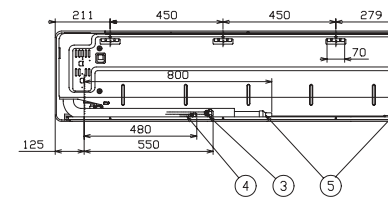
Mark	Name	Remarks
1	Air Discharge	
2	Air Inlet	
3	Refrigerant Gas Piping	ø28.5 Copper Tube Brazed Connection (ø28.8 Hole)
4	Refrigerant Liquid Piping	ø15.88 Copper Tube Brazed Connection (ø16.1 Hole)
5	Condensate Drain Piping	ø25 OD
6	Electrical control Box	



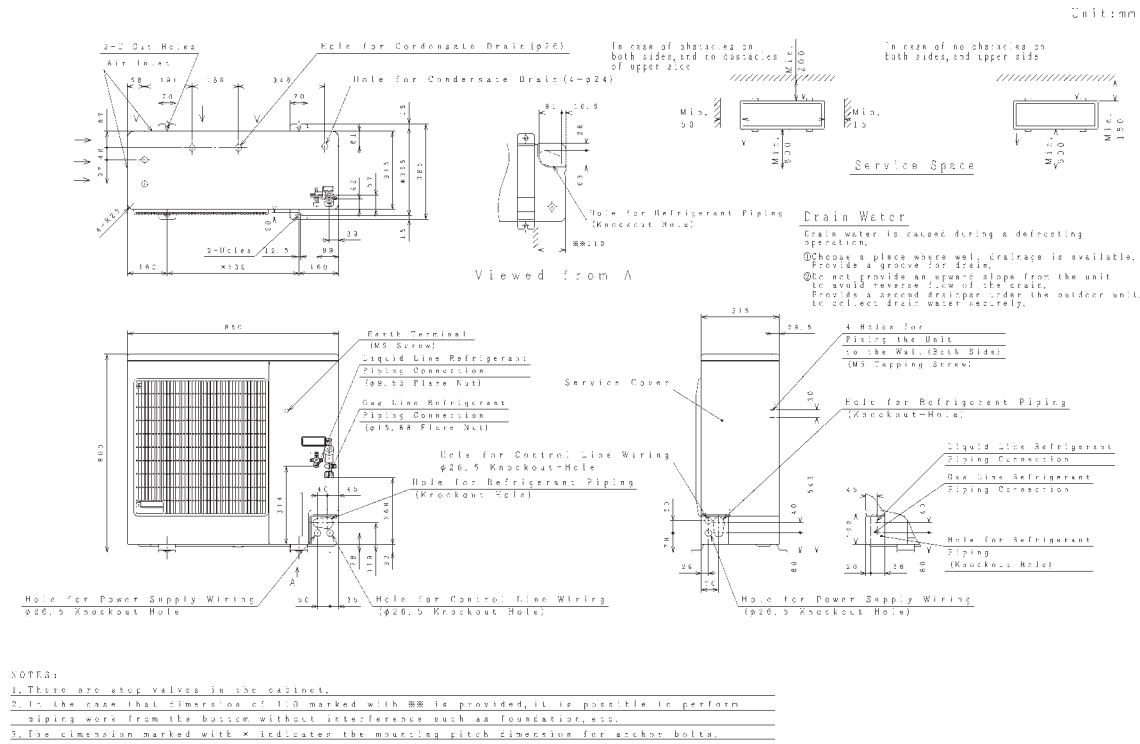
RPK-(3/3.5)HG7M



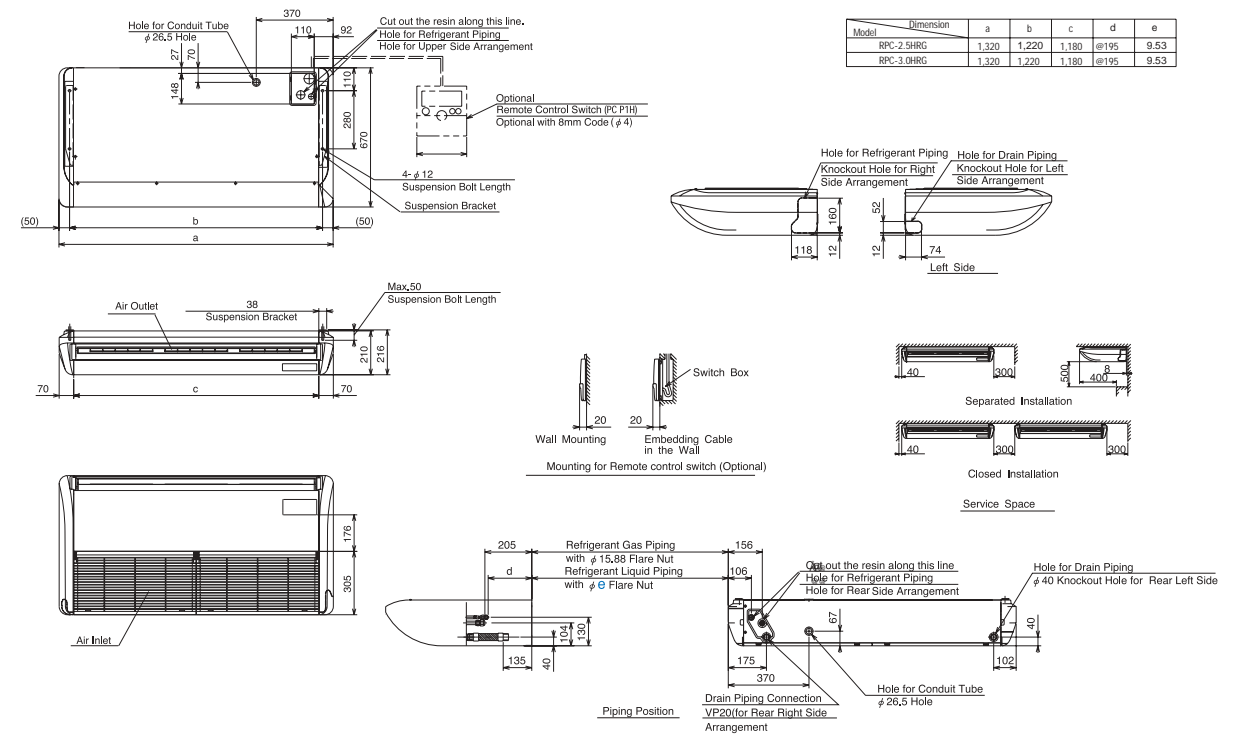
Mark	Name	Remarks
1	Air Outlet	
2	Air Inlet	
3	Refrigerant Gas Pipe Connection	with Ø19.05 mm Flare Nut
4	Refrigerant Liquid Piping Connection	with Ø9.53 mm Flare Nut
5	Drain piping connection	VP20
6	Wiring and piping Hole	Knockout Hole
7	Wiring and piping Hole	Ø110 Knockout Hole
8	Wiring and piping Hole	Ø110 Knockout Hole
9	Suspension Bracket	
10	Remote Control Switch (Optional)	Wired PC-P1H(E) Wireless PC-LH3



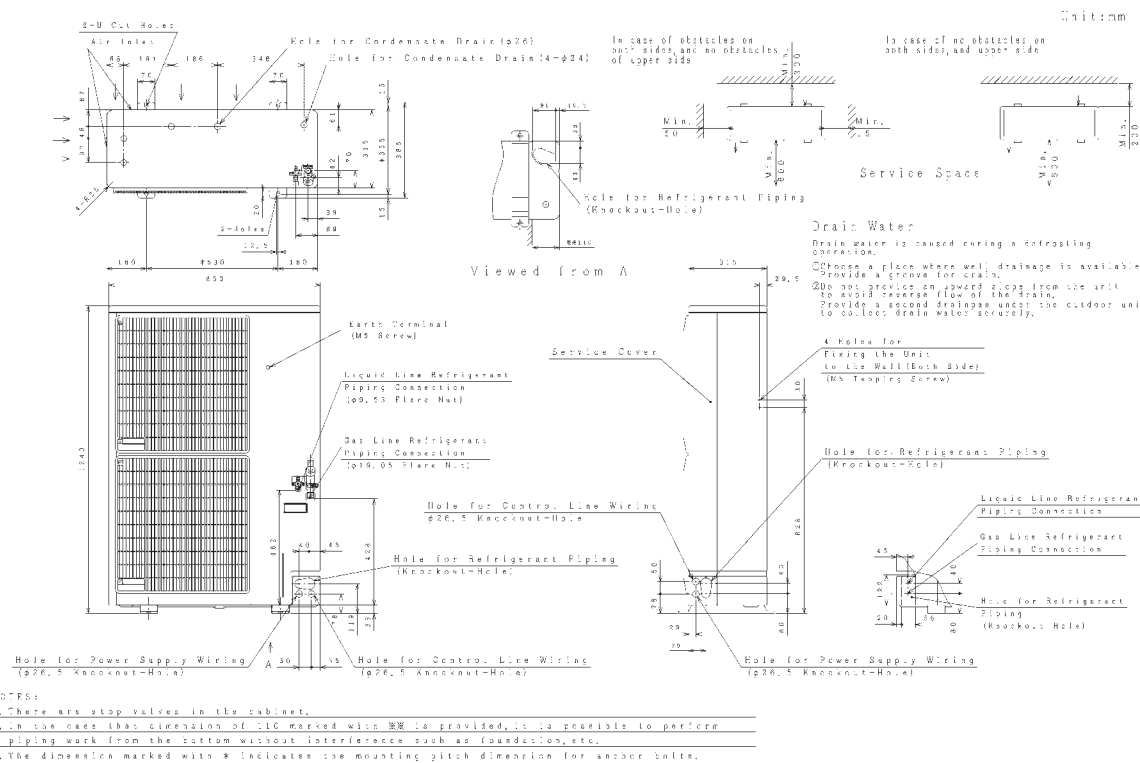
RAS-3.0HVRG and RAS-4.0HVRG



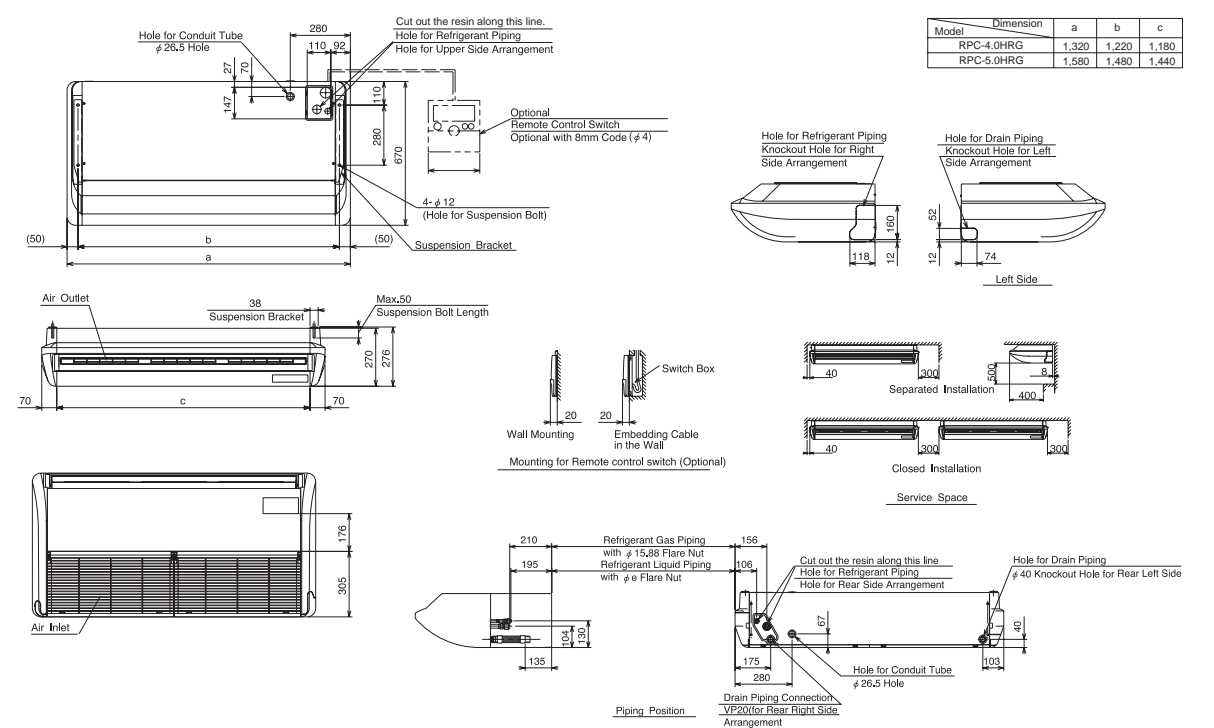
RPC-2.5HRG and RPC-3.0HRG



RAS-5.0HVRG

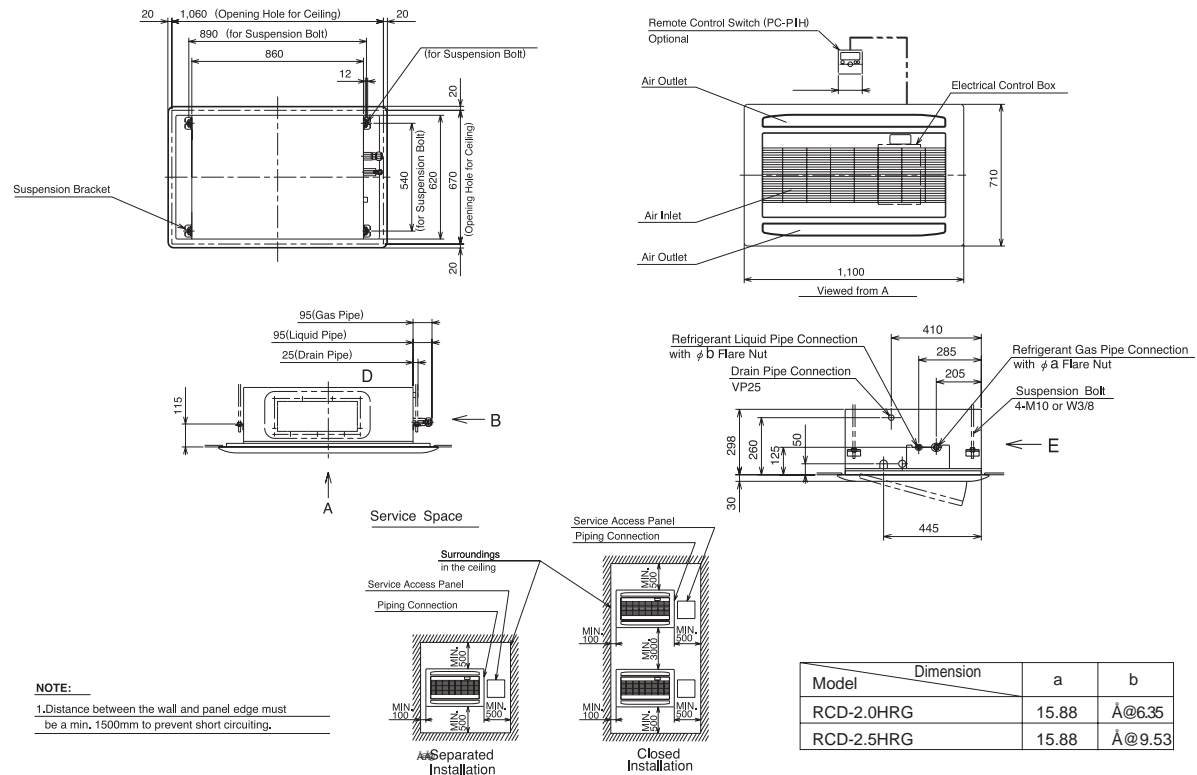


RPC-4.0HRG and RPC-5.0HRG



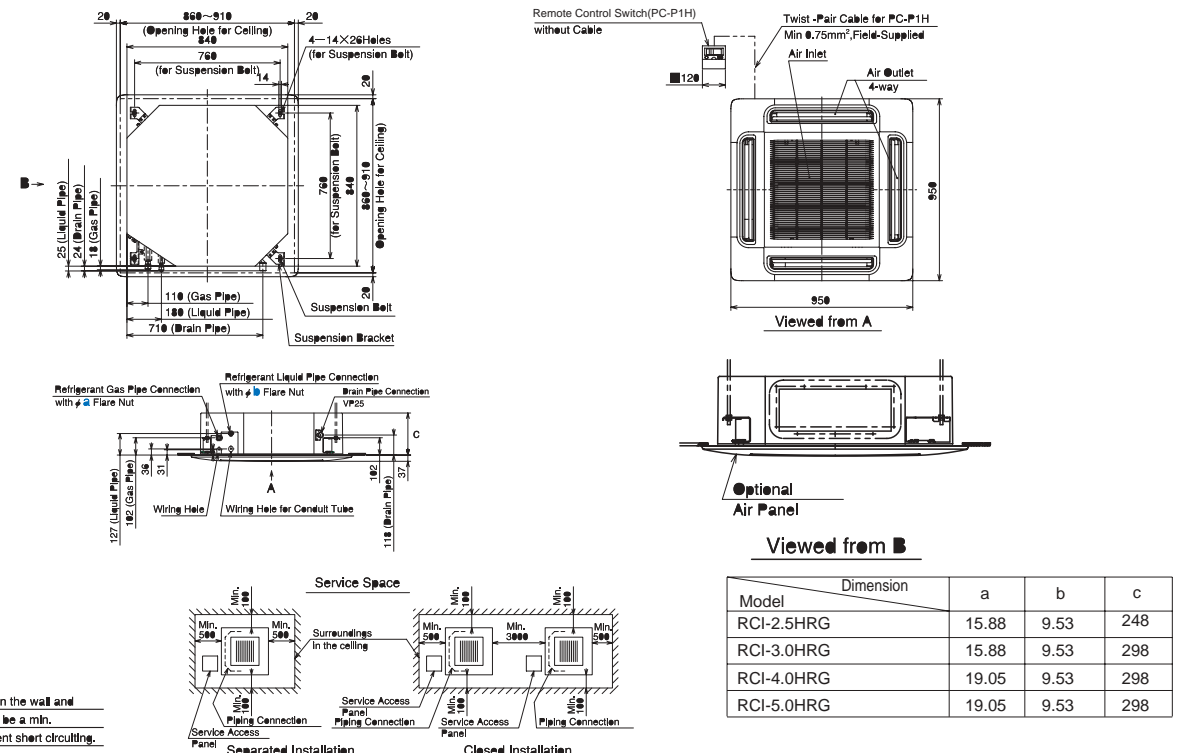


RCD-2.5HRG and RCD-3.0HRG with Air Panel P-G23DWA1



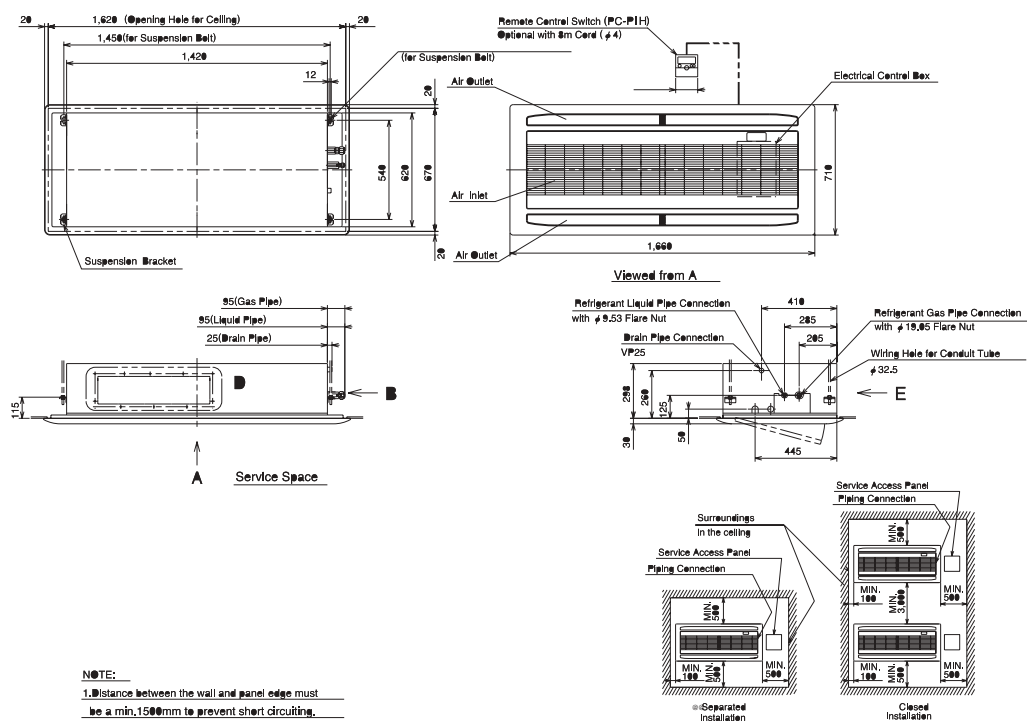
NOTE:
1. Distance between the wall and panel edge must be a min. 150mm to prevent short circuiting.

RCI-2.5HRG, RCI-3.0 HRG, RCI-4.0HRG and RCI-5.0HRG with Air Panel P-G23WA2



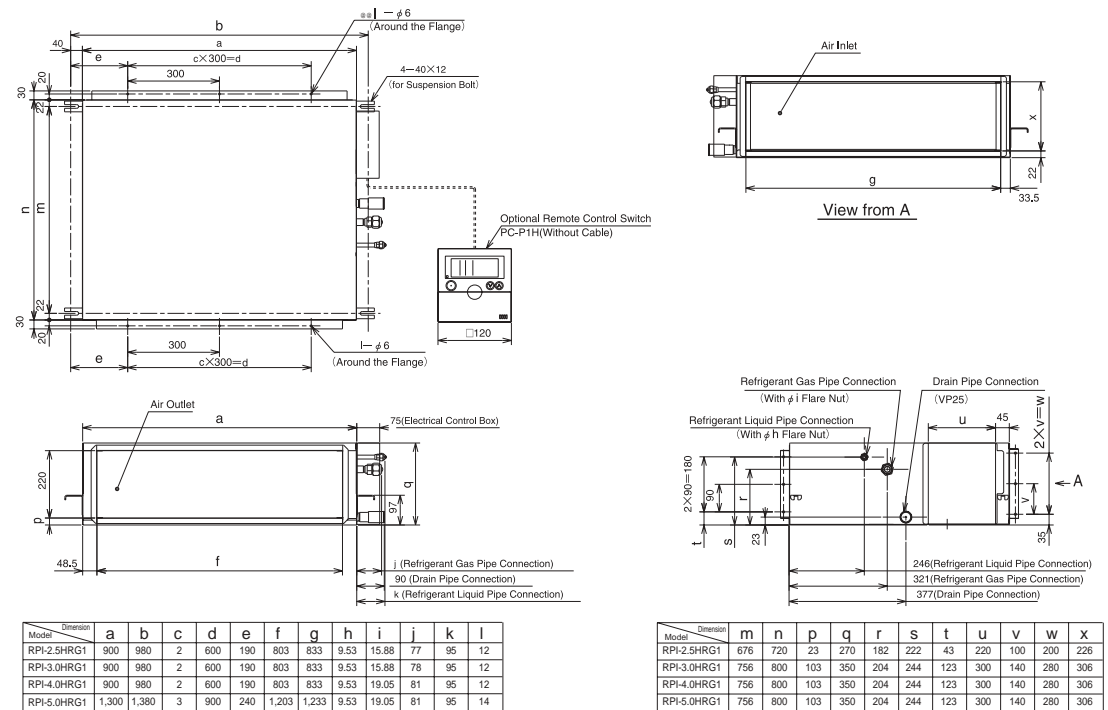
NOTES:
1. Distance between the wall and panel edge must be a min. 150mm to prevent short circuiting.

RCD-4.0HRG and RCD-5.0HRG with Air Panel P-G46DWA1



NOTE:
1. Distance between the wall and panel edge must be a min. 150mm to prevent short circuiting.

RPI-2.5HRG, RPI-3.0HRG, RPI-4.0HRG and RPI-5.0HRG



Model	Dimension	m	n	p	q	r	s	t	u	v	w	x
RPI-2.5HRG1		676	720	23	270	182	222	43	220	100	200	226
RPI-3.0HRG1		756	800	103	350	204	244	123	300	140	280	306
RPI-4.0HRG1		756	800	103	350	204	244	123	300	140	280	306
RPI-5.0HRG1		756	800	103	350	204	244	123	300	140	280	306

