

HITACHI

Inspire the Next

HITACHI SELF-CONTAINED AIR CONDITIONER

日立氣冷一體式箱型機

These HITACHI self-contained air conditioners are composed of compressors, air-cooled condensers, and an evaporator fan, condenser fans and auxiliary and control equipment, completely packaged in a weather-proof cabinet, and are completely assembled wired and tested at the factory.

Nominal Cooling Capacity Range
10,100 kcal/h to 78,100 kcal/h at 50Hz
11,700 W to 90,800 W
40,100 Btu/h to 310,100 Btu/h

Models :

RUA-4AT3S RUA-5AT3S RUA-6AT3S RUA-8AT3S
RUA-10AT3S RUA-13AT3S RUA-15AT3S RUA-20AT3S
RUA-25AT3S RUA-30AT3S

These RUA series are provided with excellent performances that can be operated up to 52°C (125°F) of maximum ambient temperature, and the light weight, compact, weather-proof design techniques make these air conditioners ideal for either on-the-ground or rooftop installation.



EFFICIENT, RELIABLE AND DURABLE NEW SERIES

* Baked Paint Galvanized Steel Panels

Corrosion Resistant Cabinet — The weather proof characteristics of the panels have been significantly reinforced by the adoption of galvanized steel panel which have been coated with synthetic resin paint through our unique baking process. The resistant panels ensure long-lasting fine appearance, and maintenance work has been minimized.

* Reliable Protection System

Compressor Protection—Each compressor is protected with a high pressure switch, an overcurrent relay, a crankcase heater, a discharge gas thermostat (only scroll compressor) and a cycling protection timer relay. This wide variety of protection devices provides perfect compressor guarding functions, assuring fewer service calls from customers.

Fan Motor—The evaporator fan motors are protected with thermal overcurrent relays and the condenser fan motors are protected with an internal thermostat.

* Energy-Saving Design

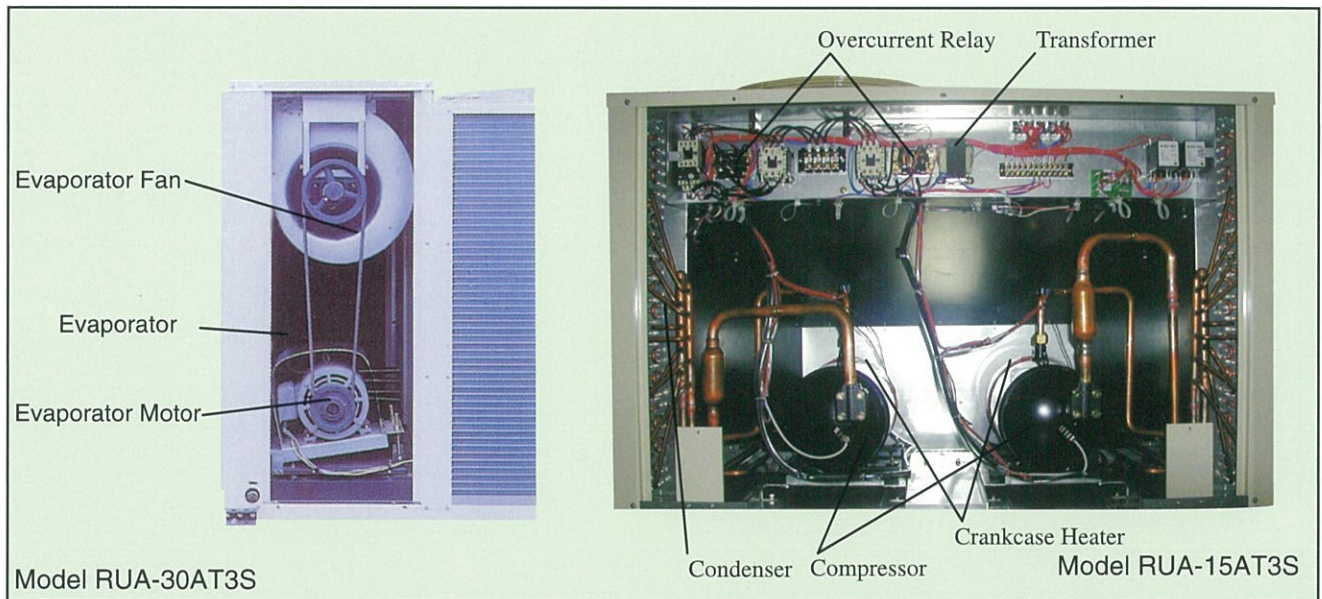
Highly-Efficient Compressor — Low power input is achieved by specially-developed compressors and heat-exchanger and their suitable combinations.

Condenser—The adoption of a highly efficient super-slit fin heat exchanger provides low operation cost.

Evaporator — Highly-efficient super-slit fin coils and inner grooved tube have been applied, to provide a large cooling capacity with low noise.

Insulated Indoor Compartment — This insulation compartment effectively eliminates heat loss.

Capacity control (Dual circuit units) — Each unit is equipped with two compressors and two independent refrigeration cycles so that one compressor operation can reduce the operation cost against a half load of one large compressor (60% load operation is available for RUA-13AT3S)



EFFECTIVELY MATCHED SELECTION FOR INDIVIDUAL

* Optimum Matched Choice

High Temperature Operation—Designed for high outdoor temperatures, these units guarantee reliable operation even under condition up to an ambient temperature of 52°C (125°F).

Attractive Fan Performance — Adequate external static pressure by the evaporator fan can be obtained for individual ducting applications.

* Minimum Installation Arrangement

Easy Installation — This easy-to-install and ready-to-operate unit ensure rapid and low cost installation work.

Pre-Drilled Duct Flange — Flanges are prepared at the supply and return duct connections so that they can reduce duct connection work at the site.

Factory-Completed — Only system connection work is required, excluding the installation work for auxiliary equipment.

* Quiet Operation

Compressor — Noise and vibration have been effectively reduced by the adoption of new hermetic compressor.

Condenser Fan — This direct drive propeller fan is dynamically balanced to ensure smooth airflow.

Evaporator Fan — The centrifugal fan and fan casing are optimum shaped for efficient and low noise operation.

* Reduced Maintenance Work

Easy Maintenance — Large service spaces and rapidly removable service panels have been provided for easy maintenance work.

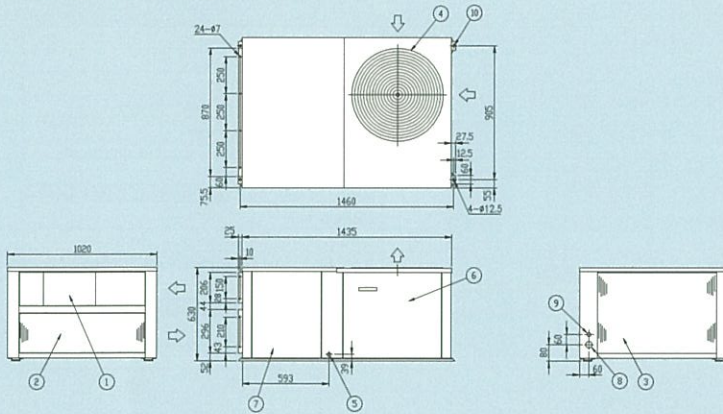
* Safety Control with Low Voltage Control Center

Twenty-Four Volt Control Center — The optional control center can be applied for remote control operation.

The control center is composed of a 24 V electronic thermostat a Pilot lamp, an operation switch, a system switch and a reset switch.

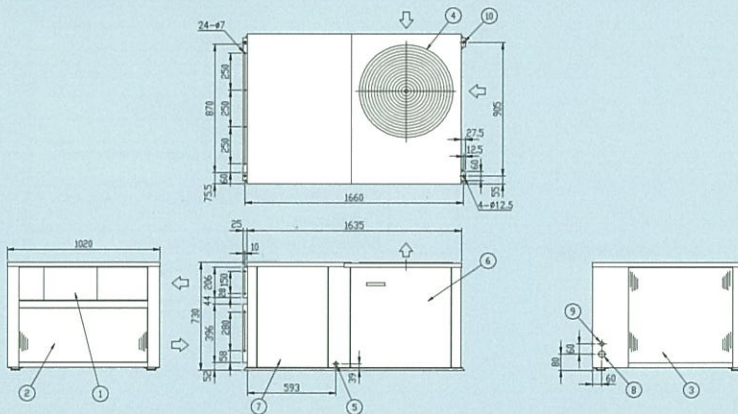
Unit Dimensions...

RUA-4AT3S and RUA-5AT3S



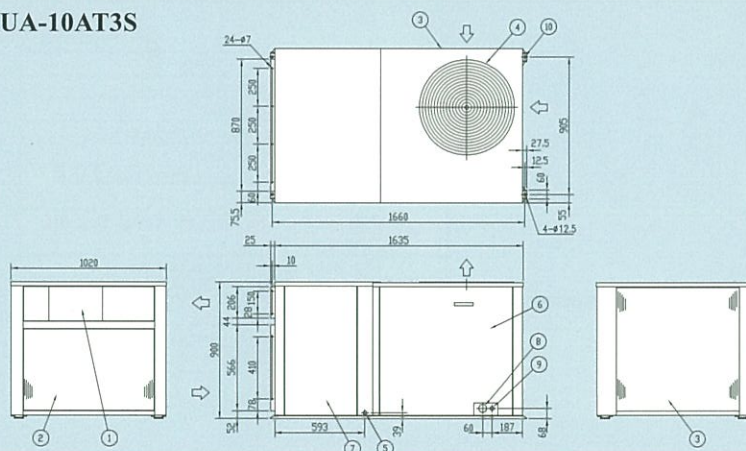
Mark	Name
1	Supply Air Connection
2	Return Air Connection
3	Condenser Air Intake (Both Sides)
4	Condenser Air Discharge
5	Indoor Side Condensate Drain Connection (FPT 3/4)
6	Service Panel for Magnetic Switch Box and Compressor
7	Service Panel for Indoor Fan Motor
8	Knockout Hole for Power Supply Wiring (ϕ 52)
9	Knockout Hole for Operation Circuit Wiring (ϕ 26.1)
10	Mounting Holes

RUA-6AT3S and RUA-8AT3S



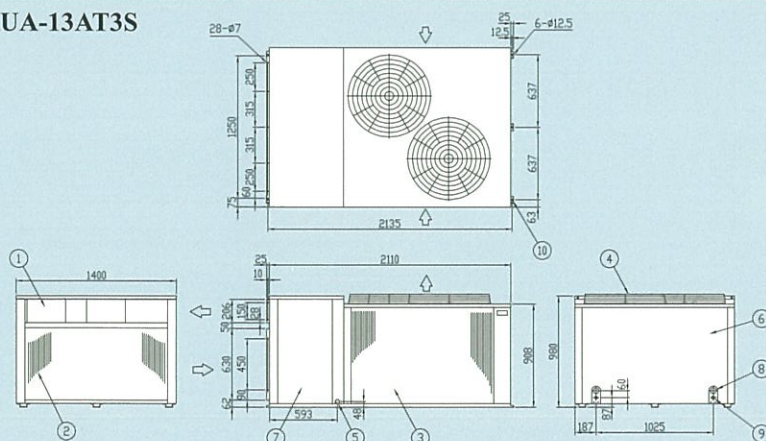
Mark	Name
1	Supply Air Connection
2	Return Air Connection
3	Condenser Air Intake (Both Sides)
4	Condenser Air Discharge
5	Indoor Side Condensate Drain Connection (FPT 3/4)
6	Service Panel for Magnetic Switch Box and Compressor
7	Service Panel for Indoor Fan Motor
8	Knockout Hole for Power Supply Wiring (ϕ 52)
9	Knockout Hole for Operation Circuit Wiring (ϕ 26.1)
10	Mounting Holes

RUA-10AT3S



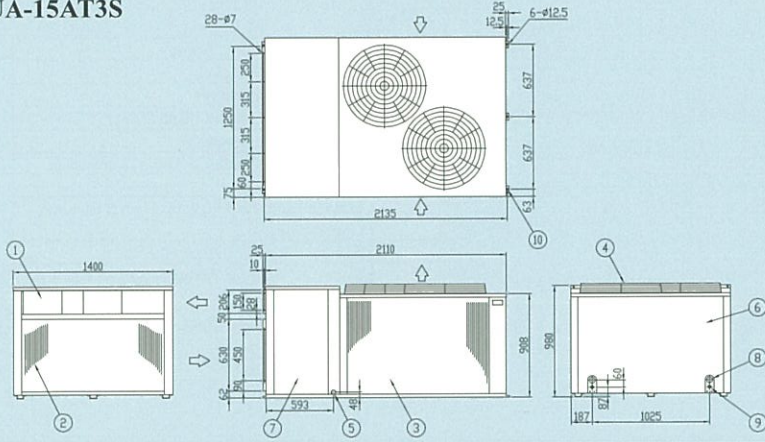
Mark	Name
1	Supply Air Connection
2	Return Air Connection
3	Condenser Air Intake (Both Sides)
4	Condenser Air Discharge
5	Indoor Side Condensate Drain Connection (FPT 3/4)
6	Service Panel for Magnetic Switch Box and Compressor
7	Service Panel for Indoor Fan Motor
8	Knockout Hole for Power Supply Wiring (ϕ 52)
9	Knockout Hole for Operation Circuit Wiring (ϕ 26.1)
10	Mounting Holes

RUA-13AT3S



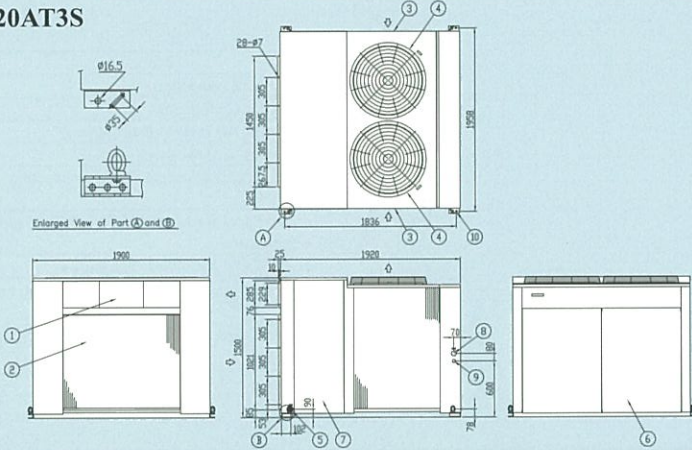
Mark	Name
1	Supply Air Connection
2	Return Air Connection
3	Condenser Air Intake (Both Sides)
4	Condenser Air Discharge
5	Indoor Side Condensate Drain Connection (FPT 3/4-Both Sides)
6	Service Panel for Magnetic Switch Box and Compressor
7	Service Panel for Indoor Fan Motor
8	Knockout Hole for Power Supply Wiring (ϕ 52-Both Sides)
9	Knockout Hole for Operation Circuit Wiring (ϕ 26-Both Sides)
10	Mounting Holes

RUA-15AT3S



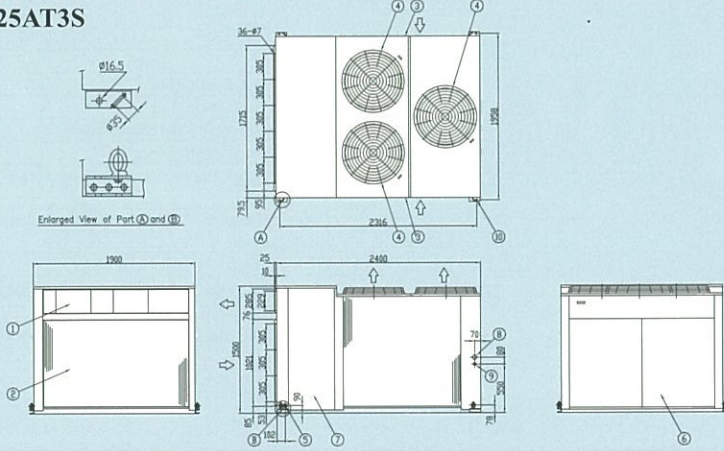
Mark	Name
1	Supply Air Connection
2	Return Air Connection
3	Condenser Air Intake (Both Sides)
4	Condenser Air Discharge
5	Indoor Side Condensate Drain Connection (FPT 3/4-Both Sides)
6	Service Panel for Magnetic Switch Box and Compressor
7	Service Panel for Indoor Fan Motor
8	Knockout Hole for Power Supply Wiring (ϕ 52-Both Sides)
9	Knockout Hole for Operation Circuit Wiring (ϕ 26-Both Sides)
10	Mounting Holes

RUA-20AT3S



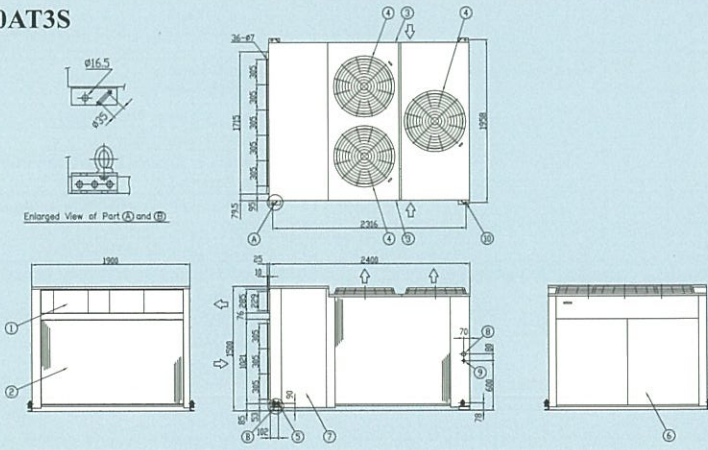
Mark	Name
1	Supply Air Connection
2	Return Air Connection
3	Condenser Air Intake (Both Sides)
4	Condenser Air Discharge
5	Indoor Side Condensate Drain Connection (FPT 1-Both Sides)
6	Service Panel for Magnetic Switch Box and Compressor
7	Service Panel for Indoor Fan Motor
8	Knockout Hole for Power Supply Wiring (ϕ 52-Both Sides)
9	Knockout Hole for Operation Circuit Wiring (ϕ 32.5-Both Sides)
10	Mounting Holes

RUA-25AT3S



Mark	Name
1	Supply Air Connection
2	Return Air Connection
3	Condenser Air Intake (Both Sides)
4	Condenser Air Discharge
5	Indoor Side Condensate Drain Connection (FPT 1-Both Sides)
6	Service Panel for Magnetic Switch Box and Compressor
7	Service Panel for Indoor Fan Motor
8	Knockout Hole for Power Supply Wiring (ϕ 52-Both Sides)
9	Knockout Hole for Operation Circuit Wiring (ϕ 32.5-Both Sides)
10	Mounting Holes

RUA-30AT3S



Mark	Name
1	Supply Air Connection
2	Return Air Connection
3	Condenser Air Intake (Both Sides)
4	Condenser Air Discharge
5	Indoor Side Condensate Drain Connection (FPT 1-Both Sides)
6	Service Panel for Magnetic Switch Box and Compressor
7	Service Panel for Indoor Fan Motor
8	Knockout Hole for Power Supply Wiring (ϕ 52-Both Sides)
9	Knockout Hole for Operation Circuit Wiring (ϕ 32.5-Both Sides)
10	Mounting Holes

UNIT GENERAL DATA...

Models		RUA-4AT3S	RUA-5AT3S	RUA-6AT3S	RUA-8AT3S	RUA-10AT3S	RUA-13AT3S	RUA-15AT3S	RUA-20AT3S	RUA-25AT3S	RUA-30AT3S	
Nominal Cooling Capacity at 35°C outdoor temperature*	kcal/h	10,100	12,500	15,500	18,600	26,300	31,300	38,800	52,700	61,000	78,100	
	W	11,700	14,600	18,000	21,700	30,600	36,400	45,100	61,300	70,930	90,800	
Nominal Cooling Capacity at 46°C outdoor temperature**	kcal/h	8,900	11,300	14,000	16,700	23,700	28,300	35,000	47,500	53,800	70,400	
	W	10,400	13,200	16,300	19,400	27,600	32,900	40,700	55,200	62,560	81,900	
Capacity Control	%	100,0	100,0	100,0	100,0	100,0	100,60,0	100,50,0	100,50,0	100,50,0	100,50,0	
Cabinet Color (MUNSELL CODE)		Synthetic Resin Paint Baked on Galvanized Steel Plates Beige (2.5Y 8/2)										
Outer Dimensions	Height	mm (in.)	630 (24-13/16)	630 (24-13/16)	730 (28-3/4)	730 (28-3/4)	900 (35-7/16)	980 (38-19/32)	980 (38-19/32)	1,500 (59-1/16)	1,500 (59-1/16)	1,500 (59-1/16)
	Width	mm (in.)	1,020 (40-3/16)	1,020 (40-3/16)	1,020 (40-3/16)	1,020 (40-3/16)	1,020 (40-3/16)	1,400 (55-1/8)	1,400 (55-1/8)	1,900 (74-13/16)	1,900 (74-13/16)	1,900 (74-13/16)
	Depth	mm (in.)	1,460 (57-1/2)	1,460 (57-1/2)	1,660 (65-3/8)	1,660 (65-3/8)	1,660 (65-3/8)	2,135 (84)	2,135 (84)	2,135 (76-9/16)	2,425 (95-1/2)	2,425 (95-1/2)
Net Weight	kg (lbs.)	195 (430)	195 (430)	230 (507)	280 (617)	310 (682)	495 (1089)	565 (1,243)	800 (1,760)	950 (2,094)	985 (2,167)	
Refrigerant Flow Control		R-22 Capillary Tube										
Number of Circuits		1	1	1	1	1	2	2	2	2	2	
Compressor Model		Hermetic Scroll										
Motor	kW (hp)	400DH 3.0 (4)	500DH 3.75 (5)	600DH 4.4 (6)	750EL 5.5 (7.5)	1000EL 7.5 (10)	750EL / 500DH 5.5/3.75 (7.5)/(5)	750EL 5.5 (7.5)	1000EL 7.5 (10)	1200EL 9.0 (12)	ZR19M3 10.8 (15)	
Quantity		1	1	1	1	1	2	2	2	2	2	
Condenser		Multi-Pass Cross-Finned Tube										
Fan		Propeller Fan										
Fan Air Flow	m³/min	120	120	135	135	160	255	270	320	480	480	
Motor	kW (hp)	0.3 (2/5)	0.3 (2/5)	0.45 (3/5)	0.45 (3/5)	0.4 (1/2)	0.4/0.3 (1/2)/(2/5)	0.4 (1/2)	0.3 (2/5)	0.3 (2/5)	0.3 (2/5)	
Quantity		1	1	1	1	1	2	2	2	3	3	
Evaporator		Multi-Pass Cross-Finned Tube										
Fan		Multi-Blade Centrifugal Fan (Double Suction)										
Nominal Air Flow	m³/min	37	46	65	69	90	110	130	180	234	260	
	m³/s	0.62	0.77	1.08	1.15	1.5	1.83	2.17	3.0	3.9	4.33	
	L/s	620	770	1,080	1,150	1,500	1,830	2,170	3,000	3,900	4,330	
Motor	kW (hp)	0.35 (1/2)	0.55 (3/4)	0.75 (1)	0.75 (1)	1.5 (2)	2.2 (3)	2.2 (3)	3.7 (5)	5.5 (7.5)	5.5 (7.5)	
Quantity		1	1	1	1	1	1	1	1	1	1	
Connections		Female Piping Thread Screw										
Condensate Drain	FTP	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1	1	1	
Quantity		1	1	1	1	1	2	2	2	2	2	
Wiring Hole		Knockout Hole										
Main Power	mm (in.)	52 (2-1/16)	52 (2-1/16)	52 (2-1/16)	52 (2-1/16)	52 (2-1/16)	52 (2-1/16)	52 (2-1/16)	52 (2-1/16)	52 (2-1/16)	52 (2-1/16)	
Control	mm (in.)	26.1 (1-1/32)	26.1 (1-1/32)	26.1 (1-1/32)	26.1 (1-1/32)	26.1 (1-1/32)	26.1 (1-1/32)	26.1 (1-1/32)	32.5 (1-1/4)	32.5 (1-1/4)	32.5 (1-1/4)	
Shipping Weight	kg (lbs.)	220 (484)	220 (484)	260 (573)	310 (683)	345 (759)	610 (1,342)	680 (1,490)	960 (2,112)	1,140 (2,513)	1,175 (2,585)	
Approximate Packing List	Height	mm (in.)	785 (30-14/16)	785 (30-14/16)	885 (34-13/16)	885 (34-13/16)	1,055 (41-9/16)	1,075 (42-5/16)	1,075 (42-5/16)	1,680 (66-1/8)	1,680 (66-1/8)	1,680 (66-1/8)
	Width	mm (in.)	1,080 (42-1/2)	1,080 (42-1/2)	1,080 (42-1/2)	1,080 (42-1/2)	1,080 (42-1/2)	1,525 (60-1/16)	1,525 (60-1/16)	2,100 (82-11/16)	2,100 (82-11/16)	2,100 (82-11/16)
	Depth	mm (in.)	1,525 (60)	1,525 (60)	1,725 (67-15/16)	1,725 (67-15/16)	1,725 (67-15/16)	2,220 (87-3/8)	2,220 (87-3/8)	2,045 (80-1/2)	2,510 (98-13/16)	2,510 (98-13/16)
Measurements	m³	1.29	1.29	1.65	1.65	1.97	3.64	3.64	7.2	8.86	8.86	

NOTE:

1. The capacities are gross capacities which do not include a deduction for evaporator fan motor heat.

2. The nominal cooling capacity is based on the following conditions.

Evaporator Air Inlet Temperature: 27°C DB (80°F DB)

19°C WB (66°F WB)

Condenser Air Inlet Temperature: *35°C DB (95°F DB)

**46°C DB (115°F DB)

Standard Power Supply:

Main (AC 3)

380V 50Hz

415V 50Hz

Control (AC 1)

220V 50Hz

240V 50Hz

The control circuit voltage is decreased to AC 1 24V by the transformer provided in the unit, and the following electric components are connected with the 24V circuit : coils of the magnetic switches, and timer, and whole components for the control center.

Working Range

Models	Condenser Air Inlet Temperature		Evaporator Air Inlet Temperature	
	Maximum	Minimum	Maximum	Minimum
RUA-4AT3S RUA-5AT3S RUA-6AT3S RUA-8AT3S RUA-10AT3S RUA-13AT3S RUA-15AT3S	52°C DB 125°F DB	20°C DB 68°F DB	35°C DB/ 21.5°C WB (95°F DB/ 70.5°F WB)	19.5°C DB/ 14°C WB (67°F DB/ 57°F WB)
RUA-20AT3S	52°C DB 125°F DB	10°C DB 50°F DB		
RUA-25AT3S RUA-30AT3S	52°C DB 125°F DB	14°C DB 57°F DB		

1. When the unit is operating at a condenser air inlet temperature of 52°C DB (125°F DB), the maximum evaporator air inlet temperature shall be 18°C WB (64.4°F WB).

2. The indoor temperature ranges are based on the following airflow.

Air Flow: 80% to 120% of Nominal Air Flow.

OPTIONAL ACCESSORIES...

Filter Box and Filter



Specifications in this catalog are subject to change without notice, in order that HITACHI may bring the latest innovations to our customers.
本說明的內容隨時更改，恕不另行通知；此舉有助日立公司隨時把最新的科技創意帶給客戶採用。



Printed in Taiwan

Catalog No. TU-PM-06