

# TOSHIBA



## Stable Power Inverter

An energy-saving  
air conditioner that's  
a class apart!

### **SPI** CLASSIC

## INTRODUCING A STABLE POWER INVERTER FOR LIGHT COMMERCIAL USE

A compact, energy-saving air conditioner, the new SPI Classic comes with a 4-way cassette and duct ideal for light commercial use. Its compact size makes it easily installable in small spaces like retail stores, restaurants, etc. The SPI's USP lies in its high Energy Efficiency Ratio (EER) and reduced refrigerant volume.



Environment-friendly  
R32 refrigerant



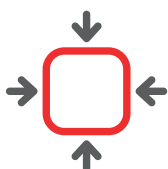
2 - 6 HP  
capacity range



High energy efficiency  
with ISEER value up to 4.42



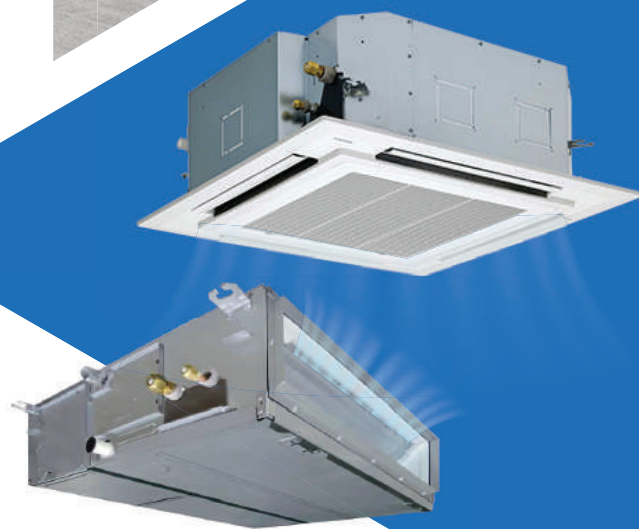
High reliability and  
durability



Compact &  
lightweight CDU



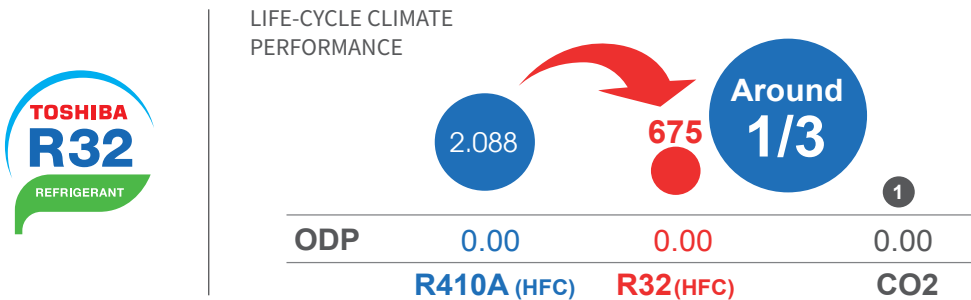
IDU designed for  
maximum comfort



## ENVIRONMENT-FRIENDLY

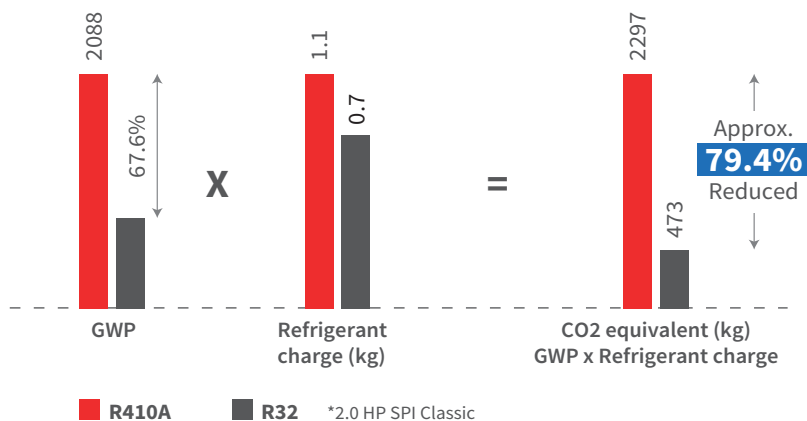
### SPI R32 TO REDUCE GWP

New generation of Toshiba SPI uses the new R32 refrigerant with low GWP (Global Warming Potential).



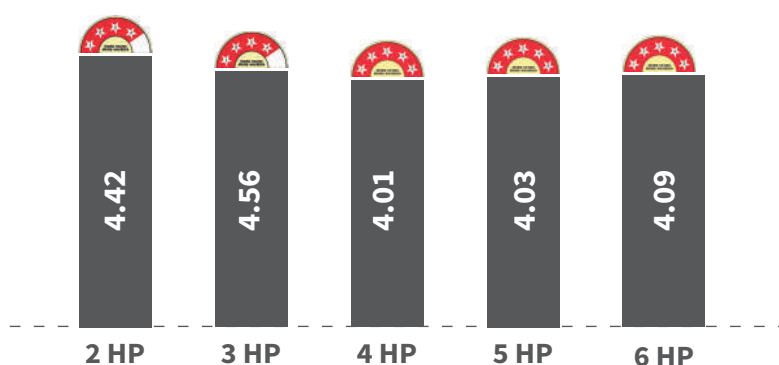
Lower GWP refrigerant means that the product will have a much lower impact on the climate.

Low GWP R32 refrigerant, combined with 36% reduction of refrigerant charge, allows to reduce the total equivalent CO2 by **79.4%** of the system.\*



## HIGH ENERGY PERFORMANCE

SPI's low power consumption gives it a high ISEER value, thus facilitating energy-optimal performance.



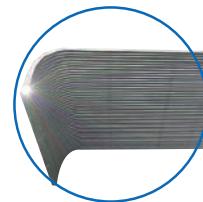
## ENDURING DURABILITY

### HIGH DURABILITY OF HEAT EXCHANGER

Special design of Toshiba aluminum alloy heat exchanger makes the SPI R32 product resistant to corrosion, making it highly durable.

Aluminum general alloy is used for making the heat exchanger fin while aluminum special alloy is used for the heat exchanger tube. Incorporating this design in the SPI Classic has reduced the corrosion rate and expanded the life of the product.

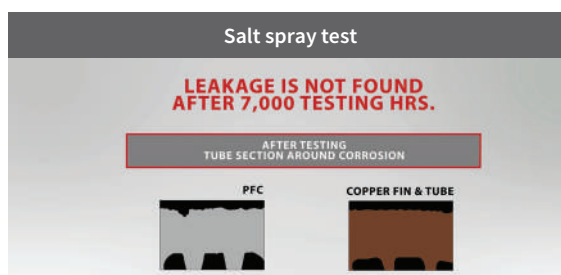
Additionally, the corrosion test results confirmed that the durability of the Toshiba aluminum alloy heat exchanger is at a similar level as a copper heat exchanger.



ALUMINUM ALLOY  
HEAT EXCHANGER



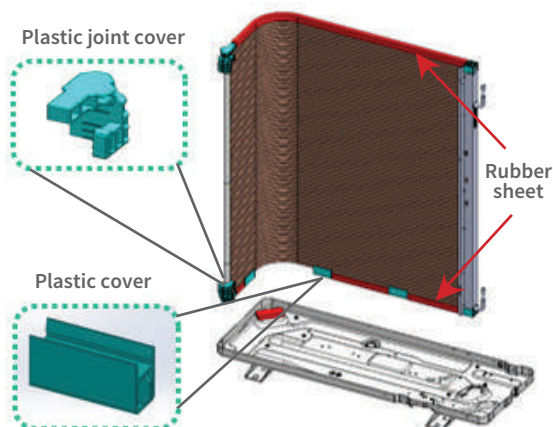
Aluminum general alloy fin acts as a sacrifice material protecting the aluminum special alloy tube from corrosion



Test results show similar levels between Toshiba aluminum alloy heat exchanger, copper fin and tube heat exchanger

## INSTALLATION OF PLASTIC JOINT COVER AND RUBBER SHEET

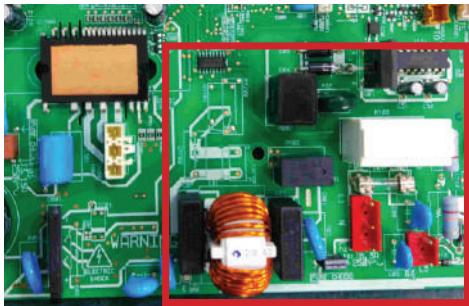
The installation of a plastic joint cover and a rubber sheet between the aluminium alloy heat exchanger and the steel part in the outdoor unit helps achieve longer lifetime operation. This also reduces corrosion.



## HIGH RELIABILITY

### PROTECTION CIRCUIT ON CONTROL BOARD

SPI has a protection circuit\* to protect the PC board under unstable power supply and a function that detects miswiring of the power supply.



Protection circuit



Black out



Unstable power supply

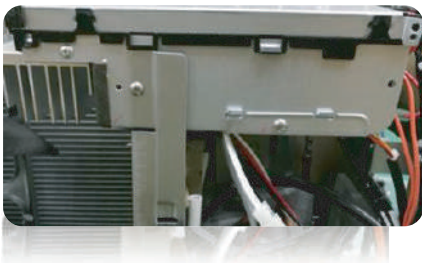


Temporary lower voltage

\*Applicable for 3Phase products

### SEALED-UP INVERTER BOX

The SPI inverter box is fully sealed up in order to avoid malfunction due to sand & dust particles, and small animals.



Inverter box

Sand particles



Dust particles

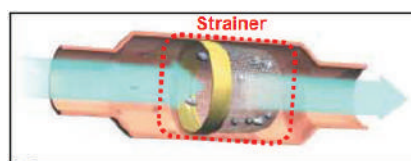


Small animals

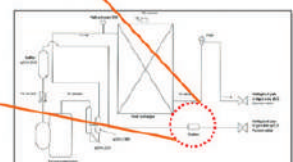


### STRAINER IN PIPE SYSTEM

SPI has a strainer in the pipe system to remove dust and metal-abrasion powder.



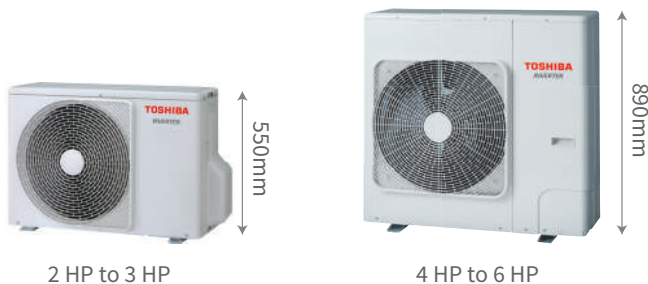
Refrigerant cycle diagram



# COMPACT AND INSTALLER-FRIENDLY CDU

## COMPACT SIZE AND LIGHT WEIGHT

SPI R32 is made with aluminum alloy to make it light weight.



Less than 900mm up to 6 HP, the SPI is extremely compact and can be installed in very small places. In addition, chassis under 6 HP are less than 53kgs.

## INSTALLER-FRIENDLY



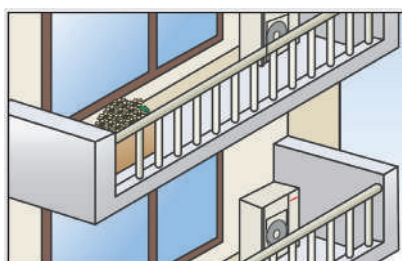
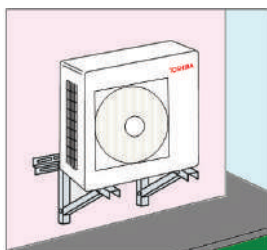
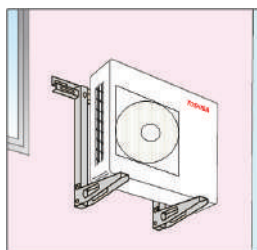
The outdoor unit is easy to install on the wall via racks



It is possible to reuse the pipe as the working pressure for R410A and R32 are similar



Easy to carry and transport



## APPLICATION AREA

RETAIL



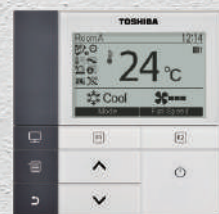
RESTAURANT



LIVING ROOM



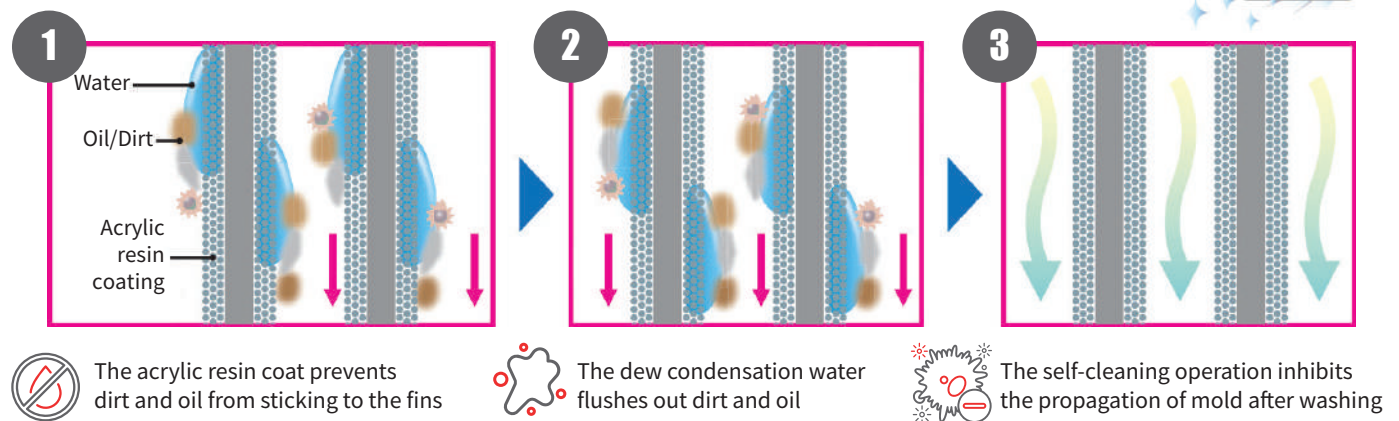
OFFICE



# IDU DESIGNED FOR MAXIMUM COMFORT

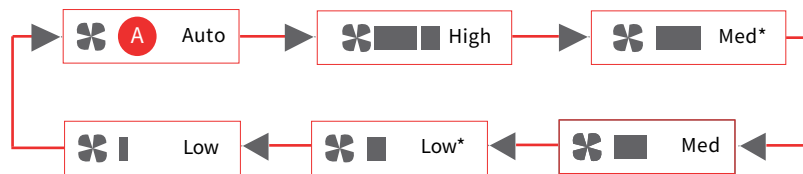
## SELF-CLEAN OPERATION

The self-cleaning mechanism of the acrylic resin-coated indoor unit's fins ensures clean and fresh air indoors.  
ACRYLIC RESIN-COATED HEAT EXCHANGER



## HIGHER ACCURACY OF ADJUSTMENT OF THE INDOOR AIRFLOW

Through a 5-step airflow, the SPI can control the wind strength with higher accuracy.\*



RBC-AMSU51-EN



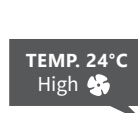
RBC-ASCU11-E

These remote controllers are optional accessories.

\*This function is available with a wireless remote controller and a wired remote controller named RBC-AMSU51-EN and RBC-ASCU11-E respectively.

## AUTO-RESTART FUNCTION

For stable operation in areas with unstable electricity, SPI has a standard auto-restart function for seamless continuity in blackout situations.



Post power failure recovery



SPI ensures that its operations continue as per the previous state

## 4-WAY CASSETTE

The 4-way cassette is designed to provide uniform air distribution and total comfort. It is the ideal solution for light commercial applications.

### COMFORT

The angles of each louver can be set individually

Individual setting of louver position: 3 different swing modes

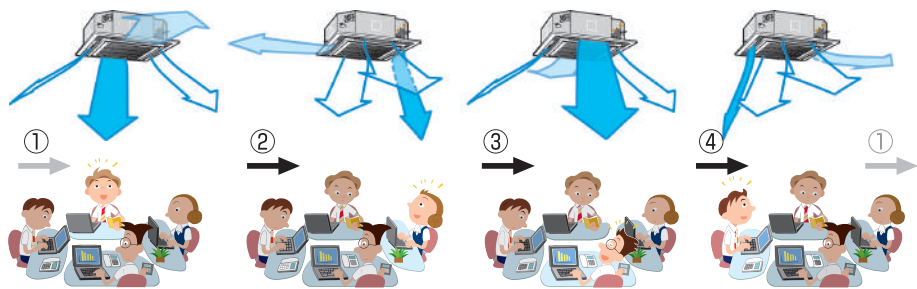
#### 1 STANDARD



#### 2 DIAGONALLY OPPOSITE

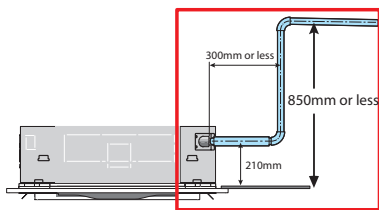


#### 3 TURN-AROUND



### FLEXIBILITY

Built-in high-lift drain pump



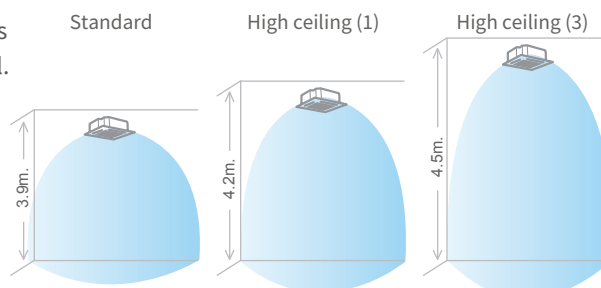
### CLEANLINESS

Built-in silver glass (anti-bacteria treatment) on the drain pump lid to prevent the growth of bacteria and mould in the drain pan. This increases cleanliness and reduces bad odour emanating from the drain water.



### SUITABLE FOR HIGH CEILINGS

Even in spaces with high ceilings, comfortable airflow is carried down to the floor level.



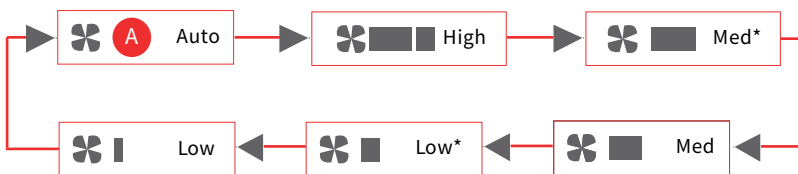
When the 4-way discharge direction is selected, a ceiling up to 4.5m in height can be accommodated (6 HP).

## CONCEAL DUCT TYPE

Whatever the shape of the room, this flexible model ensures a uniform temperature and air distribution for optimal end-user comfort.

### COMFORT

5 fan speeds for airflow selection



RBC-AMSU51-EN



RBC-ASCU11-E

These remote controllers are optional accessories.

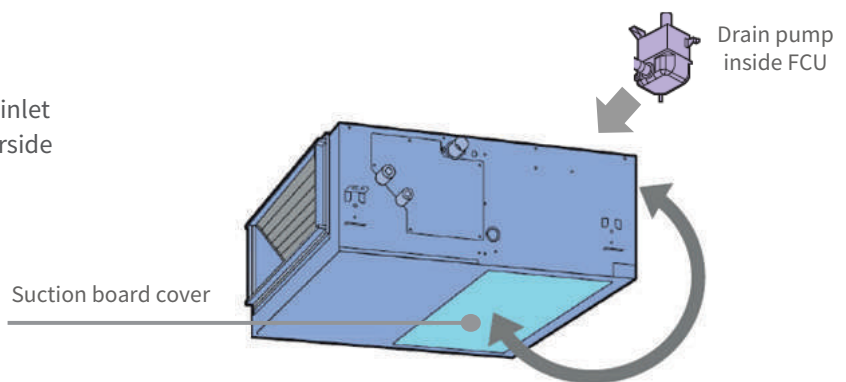


### FLEXIBILITY

External static pressure up to 120Pa

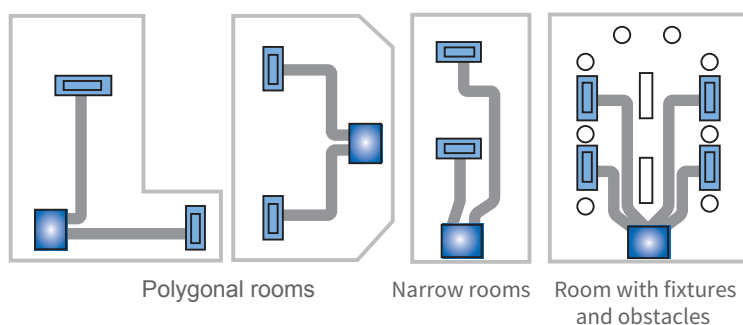
Its flexible design allows the inlet air to be configured between the standard rear inlet design or as an alternative from the underside of the unit. There is also provision for a fresh air intake supply via a pre-punched knockout hole

Compact and thin chassis measuring just 275mm in height



Built-in high-lift drain pump

Airzone compatibility: multiple individual controlled rooms with only one indoor unit



## TECHNICAL SPECIFICATION

### RAV-GVXXX1UP-IN SPI CLASSIC

Equivalent			HP	2.0	3.0	4.0	5.0	6.0
Model Name	Indoor unit (RAV-)		GV1801UP-IN	GV2401UP-IN	GV3601UP-IN	GV4201UP-IN	GV4801UP-IN	
	Outdoor unit (RAV-)		GV1801AP-IN	GV2401AD-IN	GV3601A8D-IN	GV4201A8P-IN	GV4801A8P-IN	
Power supply (Outdoor unit)			1-phase 50Hz 230V			3-phase 50Hz 400V		
Cooling capacity			kW	5.3 (1.3 - 5.6)	7.0 (1.3 - 8.0)	10.6 (3.5 - 11.2)	12.3 (3.5 - 13.2)	14.1 (3.5 - 15.9)
Power consumption			kW	1.58	2.23	3.42	4.10	4.78
EER				3.35	3.18	3.10	3.00	2.95
ISEER				4.42 (4 Star)	4.56 (4 Star)	4.01 (5 Star)	4.03 (5 Star)	4.09 (5 Star)
Indoor unit	Airflow (H/M/L)		m³/h	1050/870/780	1230/960/810	1800/1530/1230	1860/1530/1230	2130/1500/1260
	Sound pressure level (H/M/L)		dB(A)	32/29/28	35/31/28	47/44/39	48/44/39	48/44/39
	Panel model*			RBC-U31PGXP(W)-IN1				
	Dimensions (HxWxD)	Main unit	mm	256x840x840	256x840x840	256x840x840	256x840x840	319x840x840
		Panel*	mm	30x950x950	30x950x950	30x950x950	30x950x950	30x950x950
	Weight	Main unit	kg	18	20	20	20	24
		Panel*	kg	4	4	4	4	4
Outdoor unit	Refrigerant charge (R32)		kg	0.7	0.9	1.05	1.05	1.2
	Sound pressure level		dB(A)	52	52	53	54	58
	Dimensions (HxWxD)		mm	550x780x290	550x780x290	890x900x320	890x900x320	890x900x320
	Weight		kg	27	32	52	52	53
Piping connections	Liquid side		mm	6.4	9.5	9.5	9.5	9.5
	Gas side		mm	12.7	15.9	15.9	15.9	15.9
Max. total pipe length			m	25	25	30	30	50
Max. height			m	10	10	20	20	30
Operation range			°C	15 ~ 46	15 ~ 46	15 ~ 46	15 ~ 46	15 ~ 46

\*Panel to be purchased separately

Rated conditions: Indoor Air temperature 27°C DB / 19°C WB, Outdoor Air temperature 35°C DB.

Star rating as per standards & labelling program of Bureau of Energy Efficiency.

Airflow measured is at high fan speed.

### RAV-GVXXX1BP-IN SPI CLASSIC

Equivalent				HP	2.0	3.0	4.0	5.0	6.0	
Model	Indoor unit			(RAV-)	GV1801BP-IN	GV2401BP-IN	GV3601BP-IN	GV4201BP-IN	GV4801BP-IN	
Name	Outdoor unit			(RAV-)	GV1801AP-IN	GV2401AP-IN	GV3601A8P-IN	GV4201A8P-IN	GV4801A8P-IN	
Power supply (Outdoor unit)					1-phase 50Hz 230V		3-phase 50Hz 400V			
Cooling capacity					kW	5.3 (1.3 - 5.6)	7.1 (1.3 - 8.0)	10.6 (3.5 - 11.2)	12.3 (3.5 - 13.2)	14.1 (3.5 - 15.9)
Power consumption					kW	1.60	2.29	3.40	4.10	4.78
EER						3.31	3.10	3.12	3.00	2.95
Indoor unit	Airflow (H/M/L)		m³/h		900/720/540	1440/1220/960	1710/1260/830	2100/1650/1260	2100/1650/1260	
	External static pressure	Standard	Pa		30	30	30	50	50	
		Upper-Lower	Pa		120-30	120-30	120-30	120-30	120-30	
	Sound pressure level (H/M/L)			dB(A)		33/29/25	41/37/34	44/42/39	44/42/39	44/42/39
	Dimensions (HxWxD)			mm		275x700x750	275x1000x750	275x1000x750	275x1400x750	275x1400x750
Weight				kg	23	31	31	41	41	
Outdoor unit	Refrigerant charge (R32)		kg		0.7	0.9	1.05	1.05	1.2	
	Sound pressure level		dB(A)		52	52	53	54	58	
	Dimensions (HxWxD)		mm		550x780x290	550x780x290	890x900x320	890x900x320	890x900x320	
	Weight		kg		27	32	52	52	53	
Piping connections	Liquid side		mm		6.4	9.5	9.5	9.5	9.5	
	Gas side		mm		12.7	15.9	15.9	15.9	15.9	
Max. total pipe length				m	25	25	30	30	50	
Max. height				m	10	10	20	20	30	
Operation range				°C	15 ~ 46	15 ~ 46	15 ~ 46	15 ~ 46	15 ~ 46	

Rated conditions: Indoor Air temperature 27°C DB / 19°C WB, Outdoor Air temperature 35°C DB.

Airflow measured is at high fan speed.



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