

RAV Digital Inverter Outdoor Units

DIGITAL INVERTER

Inverter Air Conditioning For Light Commercial Use



Toshiba's Digital Inverter split-system series of air conditioners combines remarkable energy-efficiency and performance in a compact body, making it well-suited for shops and small offices. DI features state-of-the-art vector-controlled inverter and DC twin-rotary technologies, flexible heating and cooling temperature control, and easy installation to bring natural comfort and convenience to any business environment. A complete range of indoor units is available: high-wall, cassette, ducted and ceiling-suspended types. This flexible outdoor unit delivers high performance in a wide range of operating ambient temperatures. One outdoor unit can be connected to 2, 3 or 4 indoor units to provide simultaneous operation of heating or cooling for twin, triple or quad installations.

FEATURES

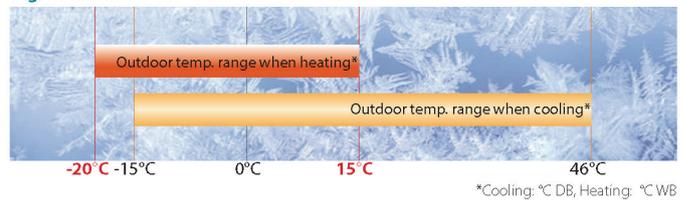
Wide operating range

Heating operation is possible starting from an outdoor temperature of -15°C up to 6 hp and -20°C 8-10 hp, while cooling operation is possible at -15°C and 46°C (6 hp 43°C) outdoor temperatures. This enables wider applications and use of the system in colder regions.

Small, compact and lightweight outdoor unit

The small footprint of the outdoor unit reduces installation space and enables a more efficient use of the site.

Digital Inverter 8-10HP



Easy and safe operation for maintenance of the outdoor unit



Inspection window enables easy access to diagnostic LEDs and switches.

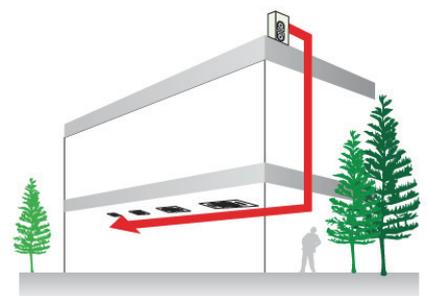
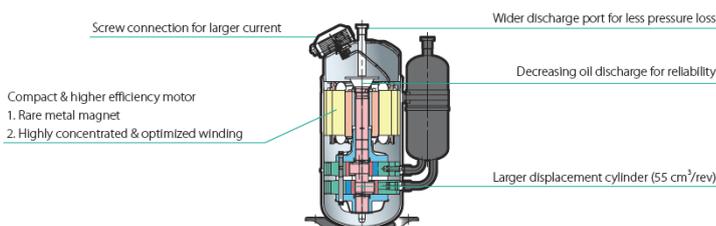
Outstandingly quiet operation and energy-save operation setting

- Night operation mode makes it possible to reduce the operating noise of the outdoor unit within the time that is desired [12 dB(A) reduction for 5 hp unit operating in heating mode].
- Energy-save operation setting is available from 50% to 100% by 1% increments.
- Quiet operation and energy-save operation settings available for 1 hp to 5 hp units.

Note: Night operation is set using the optional remote controller RBC-AMS55E. Energy-save operation is available for 4 series and later models and set using RBC-AMT32E, RBC-AMS41E or RBC-AMS55E.

High efficiency EER/COP performance

Digital Inverter is equipped with twin-rotary DC inverter compressor with high efficiency R410A refrigerant. A new technology twin-rotary DC compressor, 100 W (x 2 larger models) output, highly-efficient DC fan motor, propeller fan for newly developed 3-row heat exchanger.



Installations can reach up to 70 m in total length (depending on the outdoor unit model) and 30 m in elevation.

RAV Super Digital Inverter Outdoor Units

**SUPER
DIGITAL INVERTER**



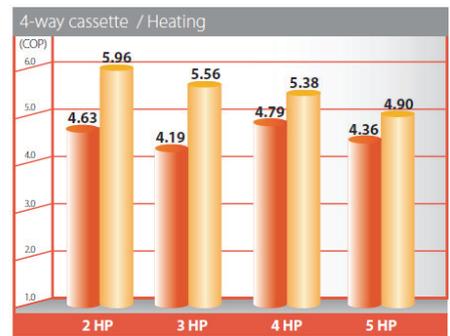
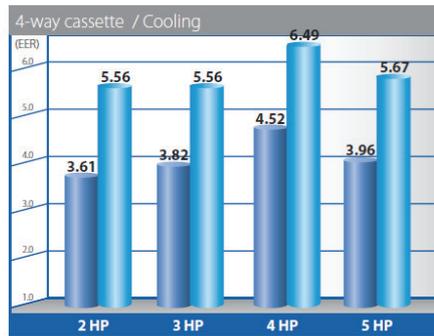
Inverter Air Conditioning For Light Commercial Use

Toshiba's Super Digital Inverter split-system series of air conditioners combines remarkable energy-efficiency and performance in a compact body, making it well-suited for shops and small offices where longer pipe runs are essential. SDI features state-of-the-art vector-controlled inverter and DC twin-rotary technologies, flexible heating and cooling temperature control, and easy installation to bring natural comfort and convenience to any business environment. A complete range of indoor units is available: high-wall, cassette, ducted and ceiling-suspended types. This flexible outdoor unit delivers high performance in a wide range of operating ambient temperatures. One outdoor unit can be connected to 2, 3 or 4 indoor units to provide simultaneous operation of heating or cooling for twin, triple or quad installations.

FEATURES

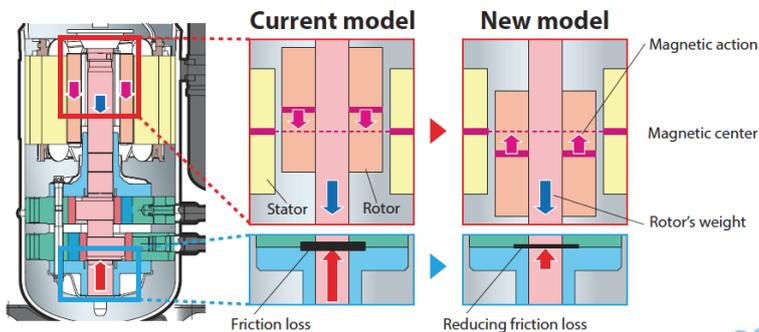
Superior EER

Very efficient energy consumption keeps down operating costs. EER of 4.52 and COP of 4.79 (for 4 hp outdoor unit) achieved by Toshiba's unrivalled Super Digital Inverter technologies and newly developed components.



Rated 50% load

The industry's first magnetic-action control



The new structure allows a huge reduction in energy loss. The balanced magnetic-action force and minimised rotor weight reduces the friction on the axis to provide excellent operating efficiency.



R410A refrigerant

An ozone layer depletion coefficient of zero has become absolutely essential for an advanced air conditioning system.

A low minimum speed of 10 rps has been achieved. This has further improved the operating efficiency when the load is low (the minimum in Series 2 was 15 rps).

ECO-driving DC twin rotary

Vector-controlled inverter

Vector IPDU control changes the motor current wave to a smooth sine pattern so that noise emitted from the drive units is greatly reduced.

High-efficiency heat transfer (flat fin)

Heat transfer tube with improved heat transfer coefficient.

DC fan motor

Highly efficient DC motor.

Bat wing fan

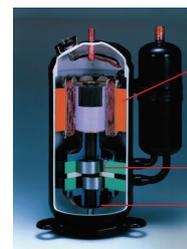
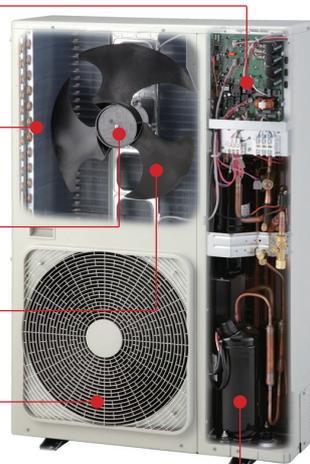
New development for high-pressure low-volume fan.

Wide-flow grille

Optimising ventilation performance, bringing out the full effect of fan and motor.

DC twin-rotary compressor

A low minimum speed of 10 rps has been achieved.



High power motor

Newly-designed compression path

More precise components

Rotor with slit

The structure and shape of each compressor component has been optimised. The area of the rotor magnet has been increased and a slit introduced to the design. These improvements have further enhanced efficiency and reduced noise.



Large-area magnet

Note: Actual components may vary considerably depending on unit model.

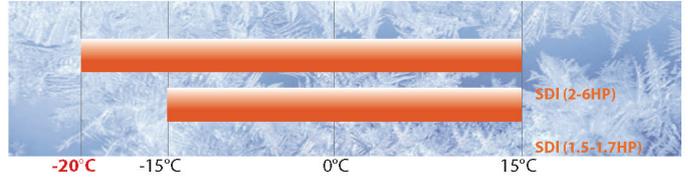
TOSHIBA



Operating temperature range

Heating operation is possible from an outdoor temperature of -20°C to create a comfortable space even during cold winters, while cooling operation is possible at -15°C outdoor temperature. This enables wider applications and use of the system in colder regions.

Heating operation range

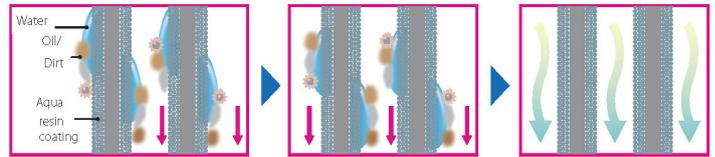


Heating: °CWB

Self-cleaning operation - continuing high performance for energy saving

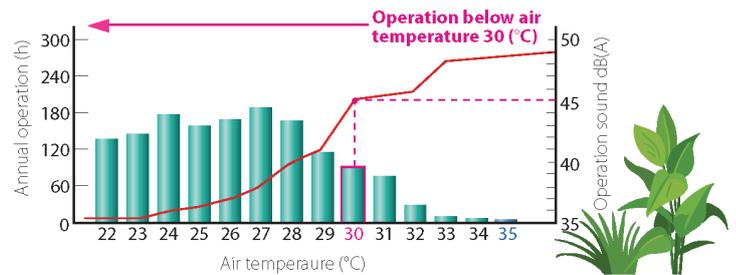
This enables indoor units to maintain the same energy efficiency at the time of purchase for a long time. The self-cleaning function features:

1. Toshiba's Aqua-Resin coating to prevent dirt from sticking to the fins.
2. Condensation water flowing through and washing away dirt.
3. After washing, a drying operation to suppress the formation of mould.



Quiet operation

Low-noise design. If the outdoor temperature is 30°C or lower, the unit operates at under 45 dB(A). It is possible to operate the quiet operation mode automatically below 35°C air temperature.

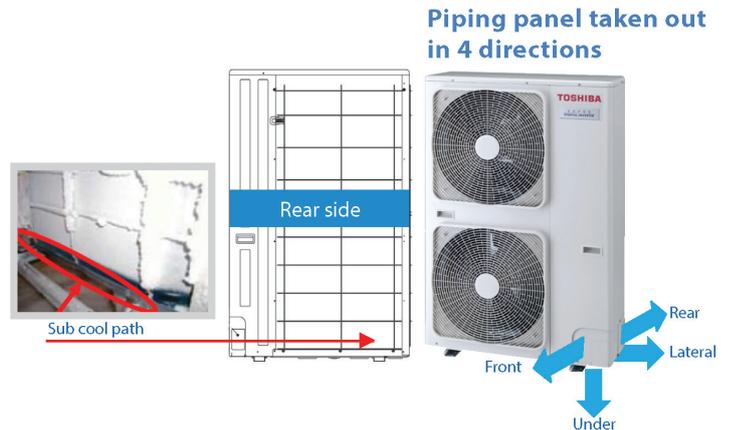


Frost protection

8°C operation for frost protection is possible for the combination with Super Digital Inverter (series 4 and above).

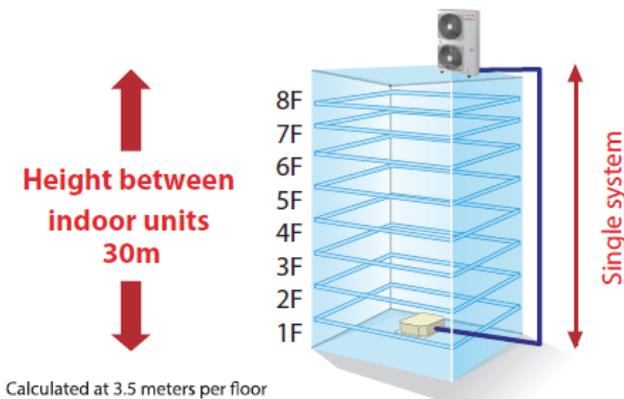
Sub-cool path

Improve reliability for smooth drainage. The outdoor unit of the Super Digital Inverter range is equipped with "sub-cool path" preventing freezing under a heat exchanger (3 hp to 6 hp only).



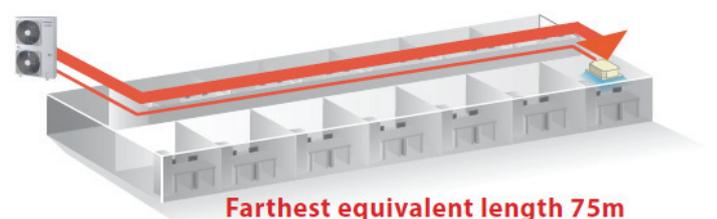
Height difference

Super Digital Inverter leads the industry with support for height differences of up to 30 m on a single system. That is enough height to cover an 8-storey building.



Compatible with pipes up to 75 m long

This enables the outdoor unit to be installed out of sight and increases installation flexibility (4 hp to 6 hp only).



DIGITAL INVERTER



Totally redesigned for ever better performances, the highly compact Toshiba Digital Inverter is now using R32, an environmental-oriented refrigerant with low global warming potential.

Rapid return on investment, guaranteed flexibility and maximum part-load efficiency. All you would expect and more.



A concentrate of efficiency

With capacity outputs up to 13 kW concentrated in a package that is only 890 mm in height and weighs just 69 kg, our Digital Inverter is an ideal solution for limited space configurations without any compromises in efficiency.

Superior adaptability anytime

DI is compatible with a wide choice of indoor units in 1:1 or twin configurations, to answer your expectations from 15 m² up to 160 m² commercial spaces, both in new buildings and renovations.



Efficiency

- A++/A++ energy label
- Top class part-load efficiency
- Operation down to 20% load

High connectivity

- Up to 50 m piping length
- 30 m height difference between the outdoor and the indoor units for perfect integration

Advanced functionalities

- System noise level down to 33 dB(A) with Night Time Operation mode
- Benefit from a power limitation by 1% step between 50% and 100% load for a profitable management of your installation

So convenient

- Self-diagnosis function
- Easy maintenance of the components located just behind the removable corner panel