



**LIGHT COMMERCIAL RANGE**

**2009/2010**

We care about better air

**LIGHT COMM**





Light Commercial



## Solutions for professionals, from professionals

Toshiba Digital and Super Digital Inverter systems deliver exceptional operating savings and ecological features in extremely compact units.

With state-of-the-art technologies, flexible controls and improved installation they bring comfort and

convenience to any business or large home installation.

A complete range of indoor units satisfies all commercial applications: ceiling cassette, ducted, ceiling suspended and high-wall units.

The Digital and Super Digital Inverter systems represent the most economical and ecological approach to air conditioning.

## When the inverter becomes digital

The technology of the Digital Inverter control module ensures optimised reproduction of the supply sine wave at the desired frequency, in order to reduce inefficient harmonics that inverters normally emit.

With this innovative control method, the Toshiba Digital Inverter brings state-of-the-art inverter technology to the commercial sector, offering considerable advantages in terms

of capacity, energy savings and optimised comfort.

Compressor operation is practically imperceptible.



TOP PERFORMANCE



## Who says that you must choose between improved performance and minimised consumption?

The Toshiba Digital and Super Digital Inverters are powerful and extremely efficient.

They provide air conditioning with great energy savings. In most applications, these systems can reduce energy consumption by up to 40% compared with traditional fixed speed units.

The variable capacity level of the compressor allows the Digital and Super Digital Inverter to maintain room temperature control and to ensure minimum energy wastage.



## Simplicity and beyond

The Digital Inverter range for business applications provides compact, lightweight units with exceptional performance.

Thanks to the TCC-Link communication system, the systems suit any installation with little business disruption.

In addition, the Super Digital Inverter boasts energy efficiencies of up to COP's of 4.79 while part-load efficiency can meet a COP of 6.5!

The wide range of indoor units is able to satisfy any kind of requirement and the enhanced DC twin-rotary

compressor delivers stable performance with less friction, making this system extremely quiet.

Light Commercial



## IPDU Vectoral

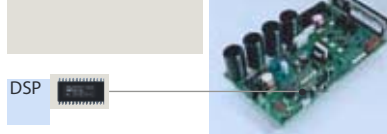
Toshiba's Digital Inverter models use the new, vector controlled, Intelligent Power Drive Unit, which produces a power supply whose frequency and voltage provide superb control and energy efficiency.

The new technology has allowed a much wider range of frequencies and voltages to be achieved.

Performance is further improved by the high-speed converter circuit which calculates the relationship between the compressor's windings and rotor through the currents drawn – allowing instantaneous optimisation of the power supply to the compressor.

### The heart of the system

DC Inverter IC Board



DSP



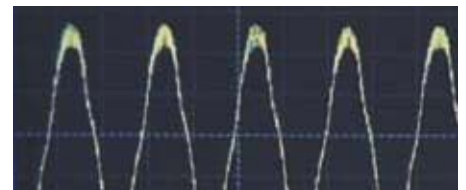
DC Twin Rotary Compressor



Brushless  
DC motor



Wave generated by a traditional inverter.



Wave generated by the new vector IPDU inverter.

## Refrigerant R-410A: respect for the environment

R-410A is a blend of R32 and R125 and is the most energy efficient, non-ozone-depleting refrigerant available for Light Commercial systems.

Using this refrigerant is a clear demonstration of Toshiba's commitment to respect of the environment.





Vectoral control inverter

DC Twin Rotary Compressor

Refrigerant R410A



## DC Twin Rotary Compressor: assured efficiency and energy saving

The Toshiba DC twin-rotary compressor has a large capacity interval, with an effective power limitation system, that allows a considerable reduction in the power consumed.

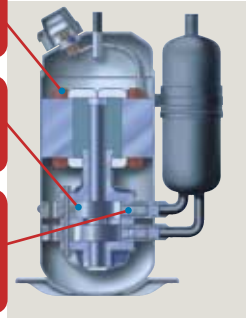
With this type of compressor the desired comfort is reached quickly.

In addition, the inverter technology offers up to 50% more energy saving than conventional models.

Improved motor windings deliver greater motor efficiency

More effective compression thanks to high-precision parts

Flow channels re-designed to deliver more efficient compression



## Easy installation

The outdoor units are designed to satisfy any installation need. They are extremely compact and light. An example: only 77 kg for 14 kW of power!

In addition, the system is very flexible, and the outdoor units can be positioned in difficult installation spaces, thanks to the refrigerant piping length (up to 70 m).



## The importance of the outdoor unit

The outdoor unit is the most important element of an air conditioning system. It contains the compressor and the condensing coil.

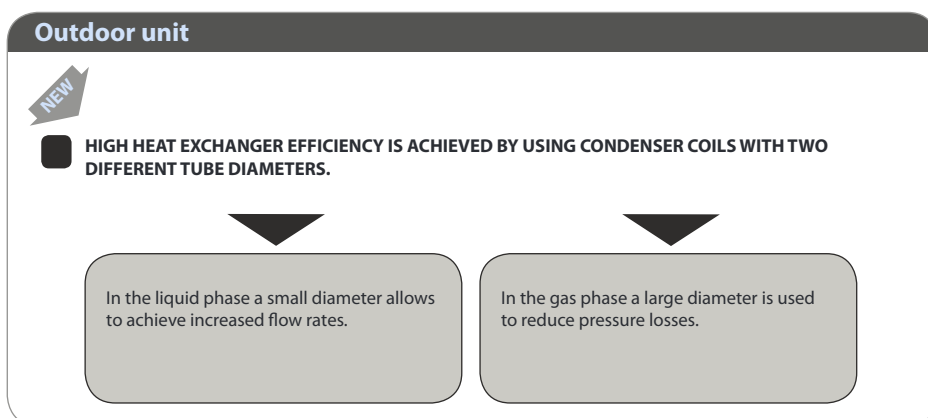
We know that a perfect unit is the sum of perfection in every detail. Solutions that are studied and verified in every tiny element are recognised universally by air conditioning professionals for their total reliability.



## The condensing coil

The condensing coil uses two different pipes to obtain the most efficient heat transfer.

The phase changes from gas to liquid, and the diameter is adapted according to the refrigerant state.

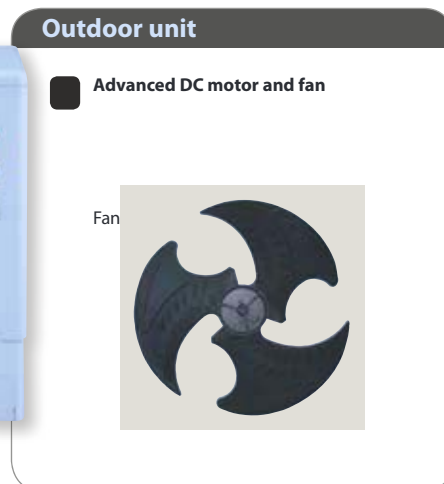


## A powerful breeze

The fan in the outdoor unit has been re-designed to deliver higher static pressure and reduced sound levels to offset a more compact heat exchanger.

New fan blades have been designed to reduce eddy currents and turbulence with "anti-eddy" protuberances and a reverse curved profile.

In this way, despite a more compact coil, air flow has been increased and sound levels decreased.



## Digital Inverter (series 3): the ideal solution to replace old units, reusing existing refrigerant lines

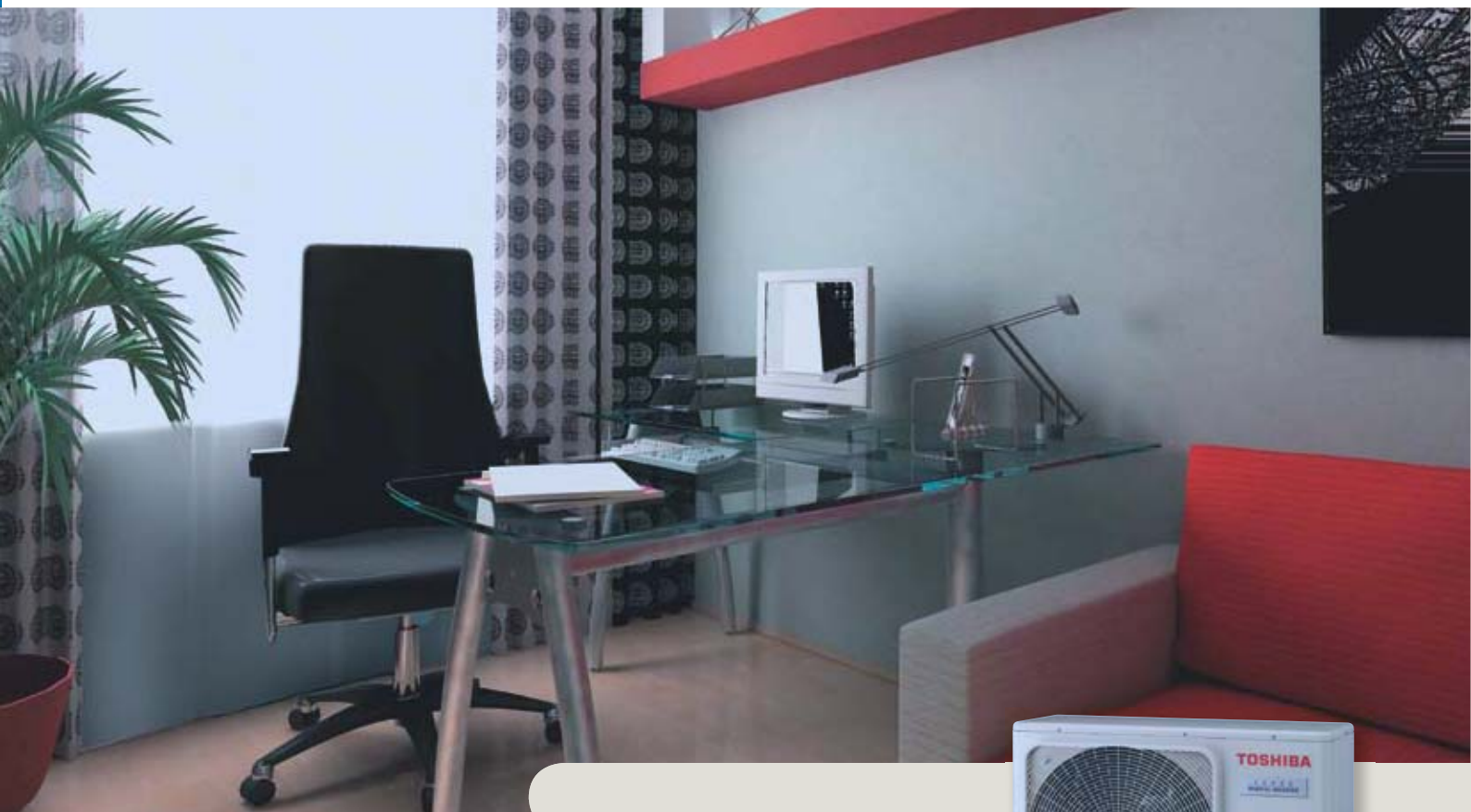
This new system represents the advanced solution that meets the increasing market needs, in terms of comfort and ease of installation.

Thanks to the filter positioned in the refrigerant circuit, the new Digital Inverter system, equipped with R410A refrigerant, can use piping designed for old R22 or R407C refrigerant\*.

Thanks to high-mesh filters and to stable lubricant oil against chloride compounds, the new Digital Inverter – series 3 – enables the existing pipework to be used.

This solution offers significant benefits in terms of performance, acoustic comfort and efficiency.

\* Provided the existing pipework meets current legislation regarding the pressure rating of R410A



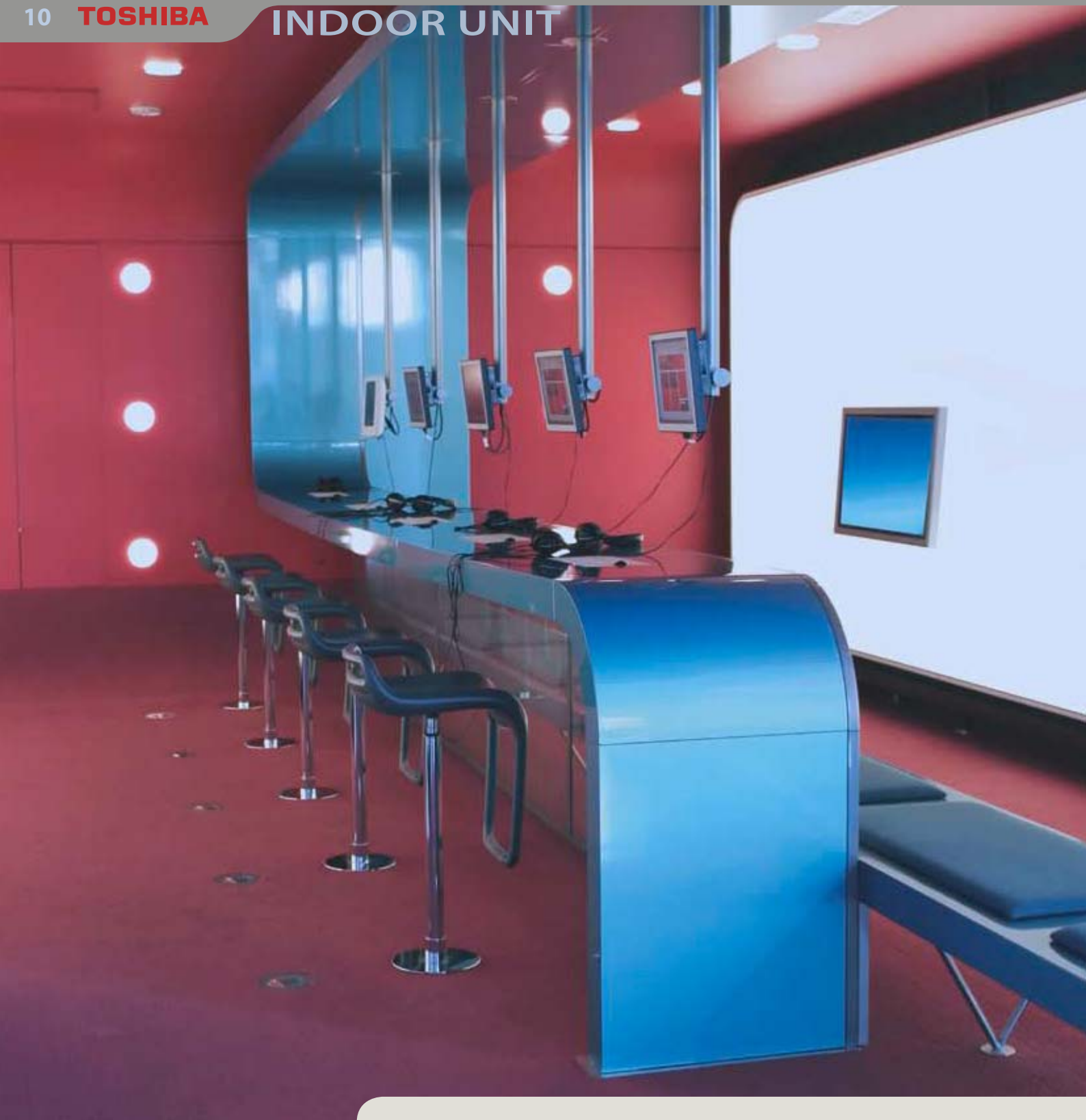
## Super Digital Inverter (series 4): high performance

The new Super Digital Inverter range is dedicated to those who demand the best, without any compromise.

In fact, this system offers all the features of the Digital Inverter, plus

superior characteristics, such as excellent performance, high energy efficiency, wider operating range and lower sound levels.





## Indoor units: an extended range of solutions

Toshiba offers a wide range of systems and indoor units, to satisfy any kind of requirement.

They are ideal for large homes, shops, offices and restaurants.

They are very flexible and easy to install.

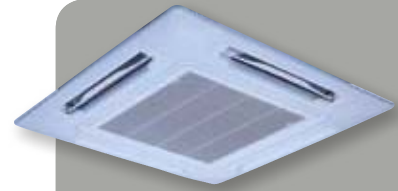
Toshiba's indoor unit range includes discreet cassettes, stylish high-wall and invisible ducted units. Toshiba

can offer the right solution for the most demanding application.

## New four-way cassette

This top class unit (series 4) is easy to install and to maintain, provides high performance and total comfort.

Unobtrusive and flexible, it's ideal for small commercial and residential applications, where space is limited.



## Compact four-way cassette

Fits all the standard 600 × 600 mm grid ceilings. Its compact design blends with any room interior, where appearance is as important as functionality.



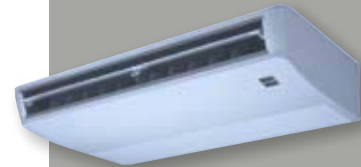
## Ducted

Suitable for a wide range of applications, the ducted unit is completely unobtrusive and ensures uniform air distribution.



## Ceiling

This ceiling suspended unit is the right solution for offices, classrooms and restaurants. It provides high efficiency and very low noise levels.



## High-wall

With its stylish and compact design, this high-wall can easily blend within any room interior.

It's particularly suitable for large living areas, elegant shops and restaurants. In addition, its filtration system improves the indoor air quality.



## Air to Air Heat Exchanger

Used to ventilate and recover energy from the exhaust air, the air to air heat exchanger is an ideal product to complement the Digital and Super Digital range. This model further increases the already superb energy savings available.



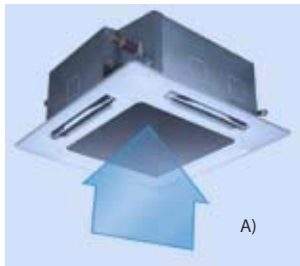
# TCC Link. Flexibility defined

Unlike in conventional units, the return air (room) temperature sensor can be located in different positions.

In fact, it can be located remotely and independently, on the control panel, or even on the infrared remote control.

In a conventional indoor unit that is subject to wide temperature variations (i.e. close to a door in a public building), reacting to these fluctuations can cause overloading. In this case, moving the sensor from the unit to the remote control overcomes the problem.

An additional benefit is that the desired temperature is achieved near the remote control, i.e. closer to the occupants who should benefit from the system comfort levels.



A)



B)

A) Temperature sensor in return air  
B) Remote temperature sensor

## DI, SDI Control Options

Model number	Reference	Description	Used with
RBC-AMT32E	Wired Remote Controller	Main wired remote controller	All indoor units
RBC-AS21E2	Simplified Wired Remote Controller	As above but designed for hotel and domestic applications	All indoor units
TCB-EXS21TLE	Schedule timer	Operating in weekly timer mode or schedule timer mode	All indoor units
RBC-AMS41E	Remote controller with schedule timer	Enables to control indoor unit operation with schedule timer (7-days) allowing to program 8 functions/day + clock display	VRF; SDI, DI (except flexi) indoor units
TCB-AX21U(W)-E2	Infra-red Remote Kit	Wireless remote controller	4-way cassette
RBC-AX22CE2	Infra-red Remote Kit	Wireless remote controller	All ceiling units and one-way cassettes (SH2 series)
TCB-AX21E2	Infra-red Remote Kit	Wireless remote controller	All other units (including compact 4-way cassette)
RBC-AX31U(W)-E	Wireless remote unit kit	Wireless remote unit kit for 4-way cassette	MMU-AP***2H & RAV-SM***4UTE with RBC-U31PG(W)-E & RBC-U31PGS(W)-E panels
RBC-AX31U(WS)-E	Wireless remote unit kit	Wireless remote unit kit for 4-way cassette	MMU-AP***2H & RAV-SM***4UTE with RBC-U31PGS(WS)-E panels
TCB-TC21LE2	Remote temperature sensor	Remote temperature sensor for cassette & duct	VRF; DI, SDI
WH-H2UE	Infra-red Remote Controller	Wireless remote unit kit for Flexi units	DI Flexi
TCB-SC642TLE2	Central Remote Controller	Enables the control of up to 64 individual units	SMMS/SHRM, 1:1 model connection interface required for DI/SDI (Excluding high-wall type)
TCB-CC163TLE2	On / Off Controller	Enables On/Off control (Max. 16 units)	All indoor units
TCB-IFCB-4E2	Remote location On/Off Control Box	Enables remote location On/Off control	All indoor units
TCB-PCMO2E	External Master On/Off control	External Master On/Off control board	VRF outdoor units
TCB-PCIN2E	Error Output Control Board	Error output control board	VRF outdoor units
TCB-PCDM2E	Power Peak Cut Control Board	Power Peak Cut Control Board	VRF outdoor units
BMS-CM1280TLE	Compliant Manager	Central controller, 10 times per day operation, operation mode, setting temp, remote ctrl restriction, up to 128 IDUs	VRF outdoor units
BMS-CM1280FTLE	Compliant Manager	As BMS-CM1280TLE with Web connection and energy monitoring function	VRF outdoor units
BMS-WB2561PWE	Web Based Controller	Gateway server. Network Intranet connection, yearly schedule, error message history, up to 256 IDUs	
BMS-WE01GTE	Web Based Controller	Web server. Network Intranet connection, yearly schedule, error message history, up to 512 IDUs	Web control operates with BMS-WB2561PWE (up to 2) & BMS-IFLSV3E
BMS-TP0641ACE	Touch Screen Controller	Enables full control of up to 64 indoor units, ML	VRF; network 1:1 model connection interface required for DI/SDI (Excluding high-wall type)
BMS-TP5121ACE	Touch Screen Controller	Enables full control of up to 512 indoor units, ML	VRF; network 1:1 model connection interface required for DI/SDI (Excluding high-wall type)
BMS-TP0641PW	Touch Screen Controller	Enables full control of up to 64 indoor units with electric billing, ML	VRF; network 1:1 model connection interface required for DI/SDI (Excluding high-wall type)
BMS-TP5121PWE	Touch Screen Controller	Enables full control of up to 512 indoor units with electric billing, ML	VRF; network 1:1 model connection interface required for DI/SDI (Excluding high-wall type)
BMS-IFLSV3E	TCS-Net Relay Interface	Relay for integration to TCS-Net	Bacnet gateway, Touch-screens & web server
BMS-IFWH4E2	Energy monitoring relay interface	Energy monitoring relay interface	Touch screen controller
BMS-IFDD02E2	Digital I/O relay interface	Digital I/O relay interface	Touch screen controller
BMS-LSV6E	Intelligent Server	Bacnet Gateway	Requires software BMS-STBN08E & Interface BMS-IFLSV3E
BMS-STBN08E	BACnet	Server Software	Enables integration with BACnet
BMS-STCC06E	Intelligent Server Software	Software package for the intelligent server	
TCB-IFLN640TLE	Lonworks® Gateway	Allows control of 64 indoor units from a Lonworks based BMS	VRF; network 1:1 model connection interface required for DI/SDI (Excluding high-wall type)
TCB-IFMB640TLE	Modbus interface	Modbus interface	SMMS interface to modbus BMS
TCB-IFCG1TLE	General purpose interface	enables control of A/C by the DI/DO and AI/AO	Daiseikai, DI, SDI, VRF. Combination with TCB-IFCB640TLE
TCB-IFCB640TLE	Analog interface	Control & monitoring up to 64 IU on TCC-link	Combination with TCB-IFCG1TLE
TCB-IFGSM1E	GSM control interface	Allows ON/OFF control, operation status monitoring & alarm monitoring	VRF; DI, SDI (CN61) & Daiseikai (CN08 or 09)
TCB-PCNT20E	Network adapter	to connect LC units to TCC-link network	DI, SDI
TCB-PCNT30TLE2	1:1 model connection interface	Integration with DI, SDI	Allows DI/SDI indoor units to be connected to TCC link network
TCB-PX30MUE	Terminal box	Terminal box to connect to	TCB-PCNT30TLE2
TCB-PCOS1E2	Application control kit	Enables night operation control, demand control, operation monitoring	All DI units
TCB-KBOS1E	Optional connector kit	Connector kit	SDI 4 outdoor units
TCB-KBCN32VEE	Connectors	For CN32	DI, SDI & VRF; except Flexi DI
TCB-KBCN60OPE		For CN60	DI, SDI & VRF; except Flexi DI
TCB-KBCN61HAE		For CN61	DI, SDI & VRF; except Flexi DI
TCB-KBCN70AOE		For CN70	DI, SDI & VRF; except HW & Flexi DI
TCB-KBCN73DEE		For CN73	DI, SDI & VRF; except Flexi DI
TCB-KBCN80EXE		For CN80	DI, SDI & VRF; except Flexi DI

# Toshiba units have everything under control



**NEW**

## Wired Control

RBC-AMT32E

The standard remote controller can control an individual indoor unit or a group of 8 indoor units. The remote control allows the operating parameters to be set for the indoor unit. It also allows faults to be displayed and unit configurations to be set up. The schedule timer can be fitted to this remote control.



## Simplified Control

RBC-AS21E2

The simplified remote controller is connected in the same way as the standard remote controller, but offers reduced functionality. The remote controller does not have the lapse timer and the ability to set up the indoor unit. Unit fault codes are still displayed.



## Central Controller

TCB-SC642TLE2

The central controller can control up to 64 indoor units individually. All their functions can be controlled. Malfunction checks are available for each indoor unit. This controller can also connect to the weekly timer and has volt-free inputs to enable the indoor units and indicate a fault. It has the ability to shut down all units in the event of a fire. Up to four controllers can be connected to the network.



## IR Remote Control

TCB-AX21E2

The wireless remote controller can be used with the appropriate indoor units to give full control of the indoor units. Two remote controllers can be used on the same indoor unit. The sensor on the remote controller can be used to control the system. Fault codes are displayed.



**NEW**

## Remote controller with weekly timer (7-day timer function)

RBC-AMS41E

All the functionality of the RBC-AMT32E as well as a 7-day timer

Clock display

Schedule timer: possible to program schedule timer (7-day timer) function, or to set 8 different functions for each day of the week

Wide range of programs: Operation time, Operation start/stop, Operation mode, Temperature setting, Restriction on button operation



**NEW**

## Schedule Timer

TCB-EXS21TLE

Operating in weekly timer mode and schedule timer mode

6 programming per day

Enabling 8 groups to be programmed

100 hrs max back up power supply

7 types of weekly schedule and 3 programming per day (weekly timer mode): combination of operation ON and OFF with a timer that can be set by a minute unit

Holidays special program

## All the flexibility you have ever dreamt of

If you want high performance, compact units and optimum comfort, Toshiba has the ideal product for your requirements.

With the continuous improvement of the inverter control system, Toshiba offers vector control for its DC hybrid inverter, which enhances system efficiency and reduces noise levels.

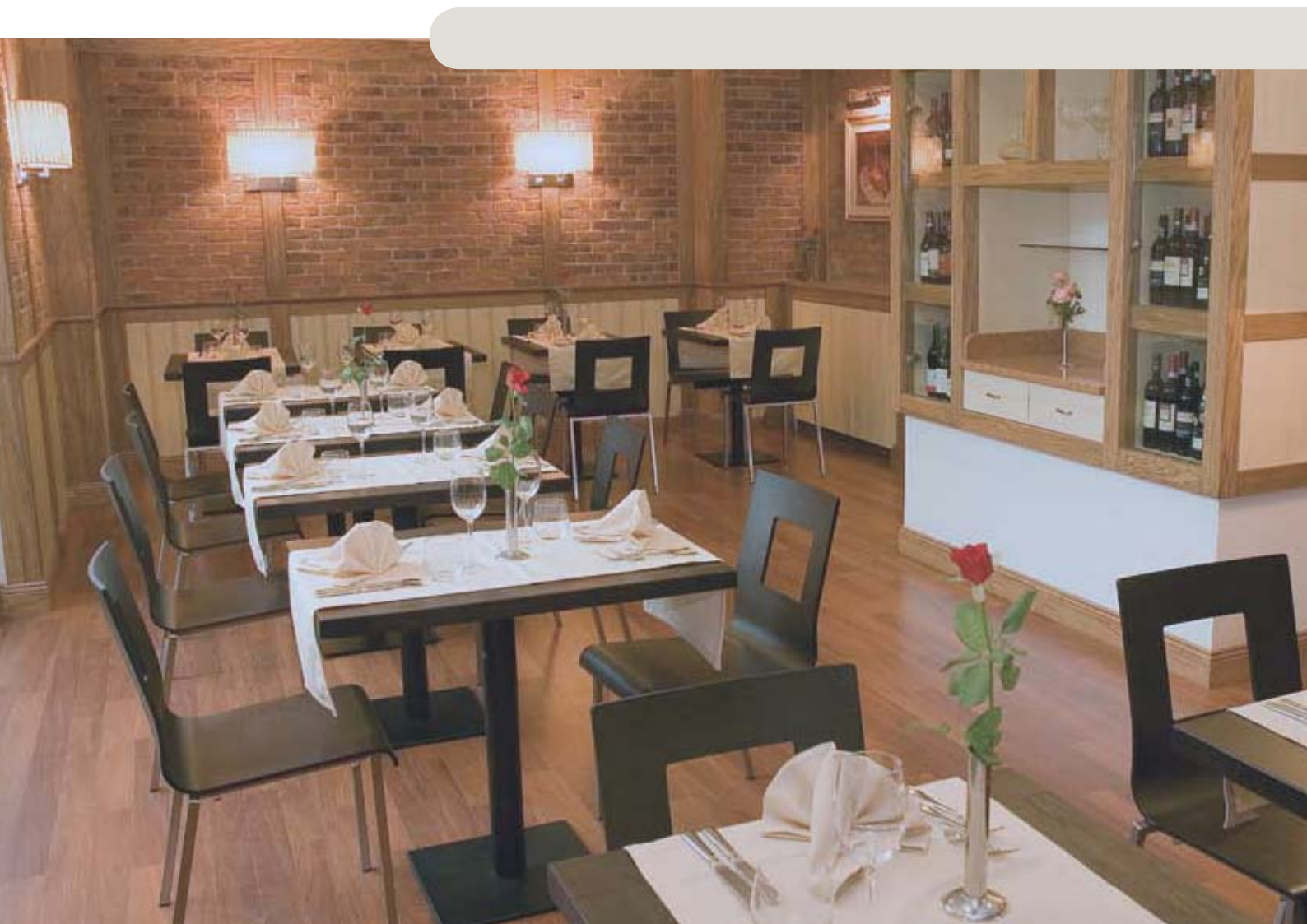
New developments in electronics have been complemented by compressor innovation.

High-tech elements include improved coils, high-precision components and higher refrigerant compression thanks to re-designed compression channels.













This new technology is able to satisfy applications that require cooling at low operating conditions down to  $-15^{\circ}\text{C}$ .

Powerful heating capacities are also possible at the same outdoor temperature or even down to  $-20^{\circ}\text{C}$  for the Super Digital range.

The enhanced DC twin-rotary compressor delivers stable performance with less friction, making it ideal for noise-sensitive applications.



Light Commercial range **Matching table**

Outdoor units						
		Single-split DI RAV-SM563/803AT-E	Single-split DI RAV-SM1103/1403AT-E	Single-split DI RAV-SM1603AT-E	Single-split SDI RAV-SP564/804AT-E	Single-split SDI RAV-SP 1104/1404AT-E
Indoor units		DIGITAL INVERTER			SUPER DIGITAL INVERTER	
HEAT PUMP INVERTER	 <b>Four-way cassette</b> RAV-SMxxx4UT-E	✓	✓	✓	✓	✓
	 <b>Compact Cassette 600 x 600 mm</b> RAV-SM562MUT-E	✓			✓	
	 <b>Ducted</b> RAV-SMxxx2BT-E	✓	✓		✓	✓
	 <b>Slim Ducted</b> RAV-SMxxxSDT-E				✓	
	 <b>High Static Ducted</b> RAV-SMxxx3DT-A			✓		✓
	 <b>Ceiling</b> RAV-SMxxx2CT-E	✓	✓		✓	✓
	 <b>Hi Wall</b> RAV-SMxx2KRT-E				✓	

R-410A HEAT PUMPS

VECTOR IPDU INVERTER

SUPER DIGITAL INVERTER

SDI4: SUITABLE FOR REUSE OF EXISTING PIPES



sizes 1104 - 1404



sizes 564 - 804

## Outdoor Super Digital Inverter Series 4

### Features

The new Super Digital Inverter (SDI) series 4 models, with super high energy efficiency ratings and enhanced technological innovations, offer superior characteristics and performance.

This new system, which uses the environmentally responsible refrigerant R410A, can use piping designed for older R22 or R407C refrigerants.\*

This new solution enables old high-energy consumption air conditioning systems to be replaced by the most advanced inverter units, with significant benefits in terms of performance, acoustic comfort and energy-efficiency.

\* Provided the existing pipework meets current legislation regarding the pressure rating of R410A



### Key features

**Highest COP/EER values:** COP values up to 4.79 in heating mode and 3.5 in cooling mode (3 HP). Part load COP of up to 6.51 in heating mode.

**Increased energy efficiency:**  
 – 93% of the units have 5 star or better energy rating.  
 – 50% energy cost savings, compared with fixed-speed units.

**Vector Intelligent Drive Unit (IPDU):** an increased number of smaller steps for more accurate control.

**Extended pipe runs:** 70 m length for increased installation flexibility.

**Wider operating range:** guaranteed performance down to  $-15^{\circ}\text{C}$  outside temperature in cooling modes and down to  $-20^{\circ}\text{C}$  in heating mode.

COPs up to 4.79

Cooling/heating down to  $-15^{\circ}\text{C}$  outside temperature

Extended pipe runs to 70 m



Inverter Control



Quiet CDU



Guaranteed heating and cooling to  $-15^{\circ}\text{C}$



70m Super long pipe run



Hot Start



Hydrophilic coil protection



6 star energy rating




**Technical specifications heat pump**

Outdoor unit		RAV-SP564AT-E	RAV-SP804AT-E	RAV-SP1104AT-E	RAV-SP1404AT-E
		2 HP	3 HP	4 HP	5 HP
Air flow	m <sup>3</sup> /h – l/s	2400 – 667	3000 – 833	6060 – 1683	6180 – 1716
Sound pressure level (cooling / heating)	dB(A)	47/48	48/49	49/50	51/52
Sound power level (cooling / heating)	dB(A)	64/65	65/66	66/67	68/69
Operating range (cooling)	°C C	-15 ÷ 43	-15 ÷ 43	-15 ÷ 43	-15 ÷ 43
Operating range (heating)	°C H	-20 ÷ 15	-20 ÷ 15	-20 ÷ 15	-20 ÷ 15
Dimensions (h × w × d)	mm	550 × 780 × 290	890 × 900 × 320	1340 × 900 × 320	1340 × 900 × 320
Weight	kg	44	63	93	93
Compressor type		DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Flare connections					
Gas	in	1/2	5/8	5/8	5/8
Liquid	in	1/4	3/8	3/8	3/8
Minimum pipe length	m	5	5	3	3
Maximum pipe length	m	50	50	70	70
Maximum height difference	m	30	30	30	30
Chargeless pipe length	m	20	30	30	30
Circuit breaker	A	25	25	25	25
Power wiring to		outdoor	outdoor	outdoor	outdoor
Power wiring cable size	1-35m mm <sup>2</sup>	4.0	4.0	6.0	6.0
	36-70m mm <sup>2</sup>	6.0	6.0	6.0	6.0
Interconnecting cable cores		4	4	4	4
Interconnecting cable size	mm <sup>2</sup>	1.5	1.5	1.5	1.5
Power supply	V-ph-Hz	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50

R-410A HEAT PUMPS

VECTOR IPDU INVERTER

DIGITAL INVERTER

DI3: SUITABLE FOR REUSE OF EXISTING PIPES



sizes 1103 – 1403



sizes 563 – 803

## Outdoor Digital Inverter Series 3

### Features

Toshiba's new Digital Inverter series 3 is an advanced solution that can meet the growing market need for ease of installation and increased consumer comfort.

This new system, which uses the environmentally responsible refrigerant R410A, can use piping designed for older R22 or R407C refrigerants.\*

This new solution enables old high-energy consumption air conditioning systems to be replaced by the most advanced inverter units, with significant benefits in terms of performance, acoustic comfort and energy-efficiency.

\* Provided the existing pipework meets current legislation regarding the pressure rating of R410A

### Key features

Excellent EER with significant savings in annual power consumption.

**Compatible with a wide choice of indoor units:** ceiling, four-way cassette, compact four-way cassette, ducted and high-wall units.

**Light, compact units:** up to 40% height reduction and up to 35% lighter than conventional models (sizes 4 HP and 5 HP) for easier installation.

The Vector Intelligent Drive Unit (IPDU) technology ensures high performance.

Simplified maintenance using the new TCC-Link wired remote control panel.

### Extremely light

Cooling/heating down to **-15 °C outside temperature**

### Compact size

### TCC Link



Inverter Control



small

Compact dimensions



Guaranteed heating and cooling to **-15°C**



50m

Long pipe run



Hot Start



Hydrophilic coil protection



6 star energy rating



**MADE IN  
JAPAN**

### Technical specifications heat pump

Outdoor unit			RAV-SM563AT-E	RAV-SM803AT-E	RAV-SM1103AT-E	RAV-SM1403AT-E	RAV-SM1603AT-E
			2 HP	3 HP	4 HP	5 HP	6 HP
Air flow	m <sup>3</sup> /h – l/s		2400 – 667	2700 – 750	4500 – 1250	4500 – 1250	6180 – 1717
Sound pressure level (cooling/heating)	dB(A)		46/48	47/50	53/54	54/54	51/53
Sound power level (cooling/heating)	dB(A)		63/65	64/67	70/71	71/71	68/70
Operating range (cooling)	°C		-15 ÷ 43	-15 ÷ 43	-15 ÷ 43	-15 ÷ 43	-15 ÷ 43
Operating range (heating)	°C		-15 ÷ 15	-15 ÷ 15	-15 ÷ 15	-15 ÷ 15	-15 ÷ 15
Dimensions (h × w × d)	mm		550 × 780 × 290	550 × 780 × 290	795 × 900 × 320	795 × 900 × 320	1340 × 900 × 320
Weight	kg		38	42	77	77	99
Compressor type			DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Flare connections gas-liquid	in		1/2 – 1/4	5/8 – 3/8	5/8 – 3/8	5/8 – 3/8	5/8 – 3/8
Minimum pipe length	m		5	5	5	5	5
Maximum pipe length	m		30	30	50	50	50
Maximum height difference	m		30	30	30	30	30
Chargeless pipe length	m		20	20	30	30	30
Circuit breaker	A		25	25	25	25	25
Power wiring to			outdoor	outdoor	outdoor	outdoor	outdoor
Power wiring cable size	1-35m	mm <sup>2</sup>	4.0	4.0	6.0	6.0	6.0
	36-50m	mm <sup>2</sup>	6.0	6.0	6.0	6.0	6.0
Interconnecting cable cores			4	4	4	4	4
Interconnecting cable size	mm <sup>2</sup>		1.5	1.5	1.5	1.5	1.5
Power supply	V-ph-Hz		220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50



# Four-way cassette

## Features

Unobtrusive and flexible, it blends in with any room interior and offers the ideal solution for small commercial applications where space is limited.

The new 4-way cassette – series 4–, designed for the new SDI4, has improved efficiency and sound levels - to provide a better overall solution for your home or workplace as well as individual control of all the louvres.

## Key features

**Clean Ceiling:** the innovative air flow control and the new panel design prevent dust from accumulating around the air outlet in the ceiling.

**Easy installation:** ideal for sites with restriction on the space above ceiling level, the unit features a high-lift drain pump (850 mm).

**Easy maintenance:** corner pockets in all four panel corners allow convenient access to the adjustment controls behind the panel.

**Energy efficiency:** a high performance turbo fan improves the air throw distance and the optimum distance from the fan for improved heat transfer from the pentagonal heat exchanger

**All of the capacity sizes have the same physical dimensions so the installation looks much smarter and consistent regardless of the room size..**

R-410A HEAT PUMPS

NEW DESIGN CEILING PANEL

Easy control access via corner pockets

High ceiling temperature sensor control

Uniform air distribution

Built-in lift pump

- Inverter Control
- Auto fan control
- Guaranteed heating and cooling to -15°C
- Auto heat-cool changeover
- Individual louvre control
- Long life filter
- Auto louvre
- Filter clean warning
- Hot Start
- Built in drain pump

### Super Digital Inverter (Series 4) - Technical specifications heat pump

Indoor unit Outdoor unit		SM564UT-E SP564AT-E 2 HP	SM804UT-E SP804AT-E 3 HP	SM1104UT-E SP1104AT-E 4 HP	SM1404UT-E SP1404AT-E 5 HP
Cooling capacity (range)	kW	5.3 (1.2 – 5.6)	7.1 (1.9 – 8.0)	10.0 (2.6 – 12.0)	12.5 (2.6 - 14.0)
EER	W/W	3.61	3.82	4.52	3.96
Heating capacity (range)	kW	5.6 (0.9 – 8.1)	8.0 (1.3 – 11.3)	11.2 (3.0 – 13.0)	14.0 (2.4 – 16.5)
COP	W/W	4.63	4.19	4.79	4.36
Energy star rating (Cooling/Heating)	Star	5 / 6	5.5 / 5	6 / 6	6 / 6

### Digital Inverter (Series 3) - Technical specifications heat pump

Indoor unit Outdoor unit		SM564UT-E SM563AT-E 2 HP	SM804UT-E SM803AT-E 3 HP	SM1104UT-E SM1103AT-E 4 HP	SM1404UT-E SM1403AT-E 5 HP	SM1604UT-E SM1603AT-E 6 HP
Cooling capacity (min. – nom. – max.)	kW	5.3 (1.5 – 5.6)	6.7 (1.5 – 7.4)	10.0 (3.0 – 11.2)	12.1 (3.0 - 13.2)	14.0 (3.0 – 16.0)
EER	W/W	3.21	3.21	3.22	3.21	3.12
Heating capacity (min. – nom. – max.)	kW	5.6 (1.5 – 6.3)	8.0 (1.5 - 9.0)	11.2 (3.0 – 13.0)	14.0 (3.0 - 16.0)	16.0 (3.0 - 18.0)
COP	W/W	3.89	3.62	3.82	3.61	3.61
Energy star rating (Cooling/Heating)	Star	5 / 6	5 / 5	5 / 6	4 / 4.5	4.5 / 5
Sound pressure level (h/l)	dB(A)	32/28	35/28	43/33	44/34	45/36
Sound power level (h/l)	dB(A)	47/43	50/43	58/48	59/49	60/51
Dimensions (h × w × d)	mm	256 × 840 × 840	256 × 840 × 840	319 × 840 × 840	319 × 840 × 840	319 × 840 × 840
Weight Indoor Unit including panel	kg	24	24	28	28	28

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R-410A HEAT PUMPS

COMPACT CASSETTE

INVERTER

Standard 600 × 600 mm  
grid

New louvre design

Easy maintenance

TCC Link

## Compact four-way cassette

### Features

The compact four-way cassette has been designed to suit all standard 600 × 600 mm grid ceilings, to allow simple and easy installation and maintenance.

Its sophisticated design fits with any room interior, where appearance is as important as functionality.

Draft prevention and clean ceiling functions make this unit ideal for the most demanding of applications.

Inverter  
ControlAuto fan  
controlGuaranteed  
heating and  
cooling to  
-15°CAuto  
heat-cool  
changeover

Dry function

Long life  
filter

Auto louvre

Filter clean  
warning

Hot Start

Built in drain  
pump

### Key features

**Slimline dimensions** make this cassette suitable for the most demanding installations where ceiling height restrictions apply.

**Easy maintenance:** access to the corner pockets is easy and enables convenient installation and adjustment for perfect ceiling fitting.

The depth of the panel is less than 30 mm making sleek and unobtrusive in any architectural condition.

**The TCC Link** control panel makes the control of the system both flexible and easy for maintenance and servicing.

### Super Digital Inverter (Series 4) - Technical specifications **heat pump**

Indoor unit			SM562MUT
Outdoor unit			SP564AT-E
			2 HP
Cooling capacity (min. – nom. – max.)	kW		5.0 (1.2 – 5.6)
EER	W/W		3.21
Heating capacity (min. – nom. – max.)	kW		5.6 (0.9 – 7.4)
COP	W/W		3.64
Energy star rating (cooling/heating)	Star		4.5 / 4.5

### Digital Inverter (Series 3) - Technical specifications **heat pump**

Indoor unit			SM562MUT
Outdoor unit			SM563AT-E
			2 HP
Cooling capacity (min. – nom. – max.)	kW		5.0 (1.5 – 5.6)
EER	W/W		3.11
Heating capacity (min. – nom. – max.)	kW		5.6 (1.5 – 6.3)
COP	W/W		3.48
Energy star rating (cooling/heating)	Star		4 / 4.5
Sound pressure level (h/l)	dB(A)		43/34
Sound power level (h/l)	dB(A)		58/49
Dimensions (h × w × d)	mm		268 × 575 × 575
Weight	kg		20



# Standard Ducted

R-410A HEAT PUMPS

DISCREET DUCTED UNITS

Infra-red control option

Discharge spigots as standard

High static pressure up to 100 Pa

## Features

Whatever the shape of the room, ducted units ensure uniform temperatures throughout.

Cool or warm air is ducted into the room through diffusers, discreetly positioned in the walls or ceiling.

These units are ideal for hotels, banks and similar applications, where very low sound levels are needed.

- Inverter Control
- Auto fan control
- Guaranteed heating and cooling to -15°C
- Auto heat-cool changeover
- Dry function
- Long life filter
- Hot Start
- Filter clean warning
- Built in drain pump

## Key features

**Wide range of applications:** the use of ducts allows air outlets to be conveniently installed anywhere in the ceiling.

Improved room aesthetic, with its unobtrusive presence.

**High static pressure:** can be raised as high as 98 Pa, so that all areas of the room can be reached for even temperature distribution, no matter how complex the layout.

**High-lift drain pump kit:** raises drain up to 290 mm for flexible condensate piping layout.

### Super Digital Inverter Technical specifications heat pump

Indoor unit Outdoor unit		SM562BT-E SP564AT-E 2 HP	SM802BT-E SP804AT-E 3 HP	SM1102BT-E SP1104AT-E 4 HP	SM1402BT-E SP1404AT-E 5 HP
Cooling capacity (range)	kW	5.3 (2.2 – 5.6)	7.1 (2.2 – 8.0)	10.0 (3.0 – 12.0)	12.5 (3.0 – 13.2)
EER	W/W	3.60	3.38	4.00	3.21
Heating capacity (range)	kW	5.6 (2.2 – 7.1)	8.0 (2.2 – 10.0)	11.2 (3.0 – 13.0)	14.0 (3.0 – 16.5)
COP	W/W	3.61	3.81	4.48	3.89
Energy star rating (cooling/heating)	Star	5 / 4	4.5 / 5	6 / 6	4 / 5

### Digital Inverter Technical specifications heat pump

Indoor unit Outdoor unit		SM562BT-E SM563AT-E 2 HP	SM802BT-E SM803AT-E 3 HP	SM1102BT-E SM1103AT-E 4 HP	SM1402BT-E SM1403AT-E 5 HP
Cooling capacity (range)	kW	5.3 (1.5 – 5.6)	7.1 (1.5 – 8.0)	10.0 (3.0 – 11.2)	12.5 (3.0 – 13.2)
EER	W/W	2.81	2.81	2.81	2.83
Heating capacity (range)	kW	5.6 (1.5 – 6.3)	8.0 (1.5 – 9.0)	11.2 (3.0 – 13.0)	14.0 (3.0 – 16.0)
COP	W/W	3.27	3.32	3.57	3.47
Energy star rating (cooling/heating)	Star	3 / 3	3 / 3.5	3.5 / 5	3 / 4
Sound pressure level (h/l)	dB(A)	40/33	40/34	42/36	44/38
Sound power level (h/l)	dB(A)	55/48	55/49	57/51	59/53
Airflow (h/l)	l/s	217/163	317/222	450/315	550/385
Static Pressure (min - max)	Pa	40-100	40-100	40-100	40-100
Dimensions (h x w x d)	mm	320 x 700 x 800	320 x 1000 x 800	320 x 1350 x 800	320 x 1350 x 800
Weight	kg	30	39	54	54

**MADE IN JAPAN**



**R-410A HEAT PUMPS**

**SLIM 210MM DUCTED UNITS**

**Infra-red control option**

**Super slim profile for bulkhead mounting**

**Static pressure 25Pa**

## Slim Ducted

### Features

For bulkhead and low pressure applications, slim ducted units ensure uniform temperatures throughout.

Cool or warm air is ducted into the room through diffusers, discreetly positioned in the walls or ceiling.

These units are ideal for bulkhead mounting because of their low height.



Inverter Control



Auto fan control



Guaranteed heating and cooling to -15°C



Auto heat-cool changeover



Dry function



Long life filter



Hot Start



Filter clean warning



Built in drain pump

### Key features

**Wide range of applications:** the use of ducts allows air outlets to be conveniently installed anywhere in the ceiling.

Improved room aesthetic, with its unobtrusive presence.

**Static pressure:** can be raised as high as 45 Pa, so that all areas of the room can be reached for even temperature distribution.

**High-lift drain pump kit:** raises drain up to 850 mm for flexible condensate piping layout.

### Super Digital Inverter Technical specifications **heat pump**

Indoor unit Outdoor unit		SM564SDT-E SP564AT-E 2 HP
Cooling capacity (range)	kW	5.0 (1.2 – 5.6)
EER	W/W	3.21
Heating capacity (range)	kW	5.6 (0.9 – 7.4)
COP	W/W	3.89
Energy star rating (cooling/heating)	Star	4 / 5

### Digital Inverter Technical specifications **heat pump**

Indoor unit Outdoor unit		SM564SDT-E SM563AT-E 2 HP
Cooling capacity (range)	kW	5.0 (1.2 – 5.6)
EER	W/W	3.01
Heating capacity (range)	kW	5.6 (0.9 – 7.4)
COP	W/W	3.52
Energy star rating (cooling/heating)	Star	3 / 5
Sound pressure level (h/m/l)	dB(A)	44/40/36
Sound power level (h/l)	dB(A)	59/55/51
Airflow (h/l)	l/s	217 / 162
Static Pressure (low - std - max)	Pa	5 / 25 / 45
Dimensions (h x w x d)	mm	210 x 845 x 645
Weight	kg	22



R-410A HEAT PUMPS

DISCREET DUCTED UNITS

High static pressure up to 250 Pa

Compact dimensions for easy installation

Built in drain pump

## High Static Ducted

### Features

Whatever the shape of the room, ducted units ensure uniform temperatures throughout.

Cool or warm air is ducted into the room through diffusers, discreetly positioned in the walls or ceiling.

These units are ideal for any application with a long duct run where high external static pressures are required.



Inverter Control



Auto fan control



Guaranteed heating and cooling to -15°C



Auto heat-cool changeover



Dry function



Long life filter



Hot Start



Filter clean warning

### Key features

**Wide range of applications:** the use of ducts allows air outlets to be conveniently installed anywhere in the ceiling.

**Improved** room aesthetic, with its unobtrusive presence.

**High static pressure:** can be raised as high as 200Pa, so that all areas of the room can be reached for even temperature distribution, no matter how complex the layout.

**High-lift drain pump kit accessory:** raises drain up to 290 mm for flexible condensate piping layout.

### Super Digital and Digital Inverter Technical specifications heat pump

Indoor unit Outdoor unit		SM1403DT-A SP1104AT-E 4 HP	SM1403DT-A SP1404AT-E 5 HP	SM1603DT-A SM1603AT-E 6 HP
Cooling capacity (range)	kW	10.4 (3.3 – 12.1)	13.0 (3.3 – 14.1)	14.3 (3.6 – 16.0)
EER	W/W	3.30	3.01	2.77
Heating capacity (range)	kW	11.3 (4.2 – 15.0)	14.0 (4.2 – 18.0)	16.0 (4.6 – 18.0)
COP	W/W	4.38	4.14	3.50
Energy star rating (cooling/heating)	Star	5 / 6	4 / 6	3.5 / 4.5
Sound pressure level (h)	dB(A)	49	49	50
Sound power level (h)	dB(A)	64	64	65
Airflow (std)	l/s	694	916	974
Static Pressure (std - max)	Pa	100 - 225	100 - 225	100 - 250
Dimensions (h x w x d)	mm	380 x 1050 x 600	380 x 1050 x 600	380 x 1050 x 600
Weight	kg	57	57	57

MADE IN JAPAN



R-410A HEAT PUMPS

CEILING-SUSPENDED UNITS

Low sound levels

Slim-line design

Automatic louvre control plus auto-swing

## Ceiling

### Features

The SDI and DI ceiling-suspended units meet a wide range of needs, being the ideal solution for offices, classrooms and restaurants.

The automatic louvre control and low noise level are the key characteristics of this state-of-the-art unit.

In addition, the drain pan inside the unit is mould-proof for maximum hygiene.



Inverter Control



Auto fan control



Guaranteed heating and cooling to -15°C



Auto heat-cool changeover



Dry function



Long life filter



Auto louvre



Filter clean warning



Hot Start



Built in drain pump

### Key features

**Low noise level:** it operates at only 30 dB(A) (in 2 HP) – half of conventional units, thanks to a new design.

**Optimum louvre control:** air flow angle is automatically set to the most suitable setting according to your cooling or heating needs, and an automatic swing mode enables air flow to reach all areas of the room.

**Installation efficiency:** with the fully redesigned ceiling-mounted system, the unit can be suspended simply by adjusting two screws on the intake grille (compared to a dozen screws for conventional models).

**Fresh Air:** with an internal knockout connection to introduce fresh air into the unit, the ceiling unit keeps the space fresh and clean at all times.

### Super Digital Inverter Technical specifications heat pump

Indoor unit Outdoor unit		SM562CT-E SP564AT-E 2 HP	SM802CT-E SP804AT-E 3 HP	SM1102CT-E SP1104AT-E 4 HP	SM1402CT-E SP1404AT-E 5 HP
Cooling capacity (range)	kW	5.0 (1.5 – 5.6)	7.0 (1.9 – 8.0)	10.0 (3.0 – 12.0)	12.5 (3.0 – 14.0)
EER	W/W	3.21	3.21	3.75	3.35
Heating capacity (range)	kW	5.6 (2.2 – 7.0)	8.0 (2.2 – 10.0)	11.0 (3.0 – 13.0)	14.0 (3.0 – 16.5)
COP	W/W	3.81	3.70	4.27	3.84
Energy star rating (cooling/heating)	Star	5 / 4.5	4.5 / 4.5	6 / 6	4 / 4.5
Sound pressure level (h/l)	dB(A)	38/30	38/30	41/35	43/37
Sound power level (h/l)	dB(A)	51/45	51/45	56/50	58/52
Airflow (h/l)	l/s	217/167	308/243	458/353	500/385
Dimensions (h x w x d)	mm	210 x 910 x 680	210 x 1180 x 680	210 x 1595 x 680	210 x 1595 x 680
Weight	kg	21	25	33	33



R-410A HEAT PUMPS

STYLISH HIGH-WALL UNITS

Zeolite Plus filter

Bio Enzyme filter

Sasa filter  
(virus deactivation)










Ginkgo filter  
(allergy relieving)

# High-wall

## Features

With the KRT High-wall Inverter unit, Toshiba offers an attractive and slim-line design for large living spaces, offices, restaurants and other applications where a light, compact and elegant solution is needed.

Moreover the latest filters designed by Toshiba improve the indoor air quality benefits of this high-wall unit.

	Inverter Control		Auto fan control
	Guaranteed heating and cooling to -15°C		Auto heat-cool changeover
	Dry Function		Long life filter
	Auto louvre		Filter sign
	Hot Start		

## Key features

**Enhanced aesthetic:** with its slim design, the compact and stylish unit blends in with any room setting.

**New enhanced filtration system:** Zeolite Plus + Sasa filter to deodorise, Bio-Enzyme filter + Ginkgo filter to purify and new anti-oxidant Vitamin C filter.

**Auto louvre mode:** to allow optimum distribution of the air throughout the room.

TCC Link remote control (optional).

Wireless controller included.

## Super Digital Inverter Technical specifications heat pump

Indoor unit		SM562KRT-E	SM802KRT-E
Outdoor unit		SP564AT-E	SP804AT-E
		2 HP	3 HP
Cooling capacity (range)	kW	5.1 (2.2 – 5.6)	6.9 (2.2 – 8.0)
EER	W/W	3.60	2.88
Heating capacity (range)	kW	5.6 (2.2 – 7.0)	8.0 (2.2 – 9.5)
COP	W/W	3.61	3.33
Energy star rating (cooling/heating)	Star	5 / 4.5	3.5 / 3.5
Sound pressure level (h/l)	dB(A)	39/33	45/36
Sound power level (h/l)	dB(A)	54/48	60/51
Dimensions (h x w x d)	mm	298 x 998 x 221	298 x 998 x 221
Weight	kg	12	12



FRESH AIR VENTILATION  
AND HEAT RECOVERY UNIT

COMPATIBLE WITH LIGHT  
COMMERCIAL AND VRF  
SYSTEMS

## Air-to-Air Heat Exchangers

### Features

The air-to-air heat exchangers can be integrated with the air conditioning system.

They use exhaust air to pre-condition the incoming air, thus reducing the cooling or heating load and the overall size of the required air conditioning system.

A range of electric heaters is available, together with controls that enable integration with both Light Commercial and VRF indoor units.

### Key features

5 models available with air flow ranges from 70 to 280 l/s .

Fresh air ventilation and heat recovery for green star buildings

Temperature and humidity: changed by the entering fresh air.

Improved energy efficiency, particularly during extremes of heat and cold.

Recovers up to 75% heat from exhaust air.

High Efficiency

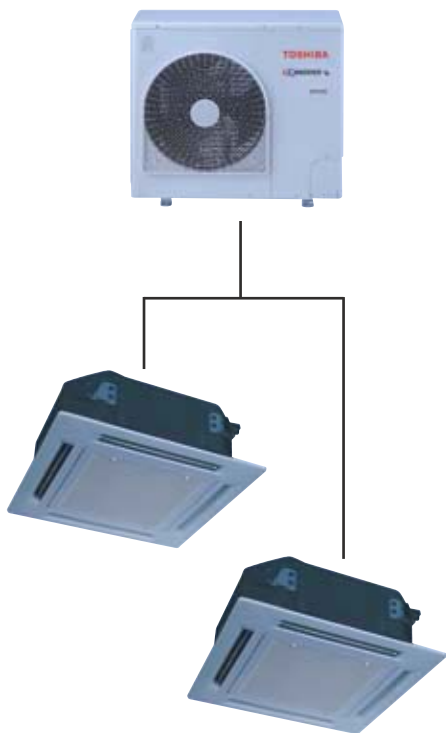
Wide Range

Electric heaters (optional)

### Technical specifications heat pump

Model		VN-250TE	VN-350TE	VN-500TE	VN-800TE	VN-1KTAE
Air flow (h/l)	m <sup>3</sup> /h – l/s	250/170 – 70/48	350/280 – 98/78	500/370 – 140/104	800/650 – 224/182	1000/810 – 218/227
Temperature exchange efficiency (h/l)	%	75/77	75/77	75/77	75/77	75/77
Heat reclaim mode (h/l)	dB(A)	28/21	32/26	34/25	39/32	38.5/31
Bypass mode (h/l)	dB(A)	28/22.5	32/26	34/26.5	38.5/33	39/31.5
Operating range	°C	-10 ÷ 40	-10 ÷ 40	-10 ÷ 40	-10 ÷ 40	-10 ÷ 40
Power Input (h/l)						
Heat reclaim mode	W	119/79	154/117	214/151	347/302	445/332
Bypass mode	W	119/79	151/113	210/145	337/297	438/326
Enthalpy exchange efficiency (h/l)						
Heating	%	70/73	69/71	67/71	71/74	71/73
Cooling	%	66/63	69/66	67/62	68/65	68/65
Max. external static pressure (h/l)	Pa	90/37	95/42	105/38	140/70	90/35
Dimensions (h × w × d)	mm	270 × 599 × 882	270 × 804 × 882	270 × 904 × 962	388 × 884 × 1322	388 × 1134 × 1322
Weight	kg	29	37	43	71	83
Duct diameter	mm	150	150	200	250	250
Filtration efficiency grade (EU3)	%	82	82	82	82	82
Power supply	V-ph-Hz	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50
Maximum relative humidity	%	85	85	85	85	85

## R-410A TWIN-SPLIT



## Twin Split Light Commercial

### Features

The Twin Split system connects two indoor units of the same type and capacity to one outdoor unit in order to ensure more air distribution in a large zone.

One of the units is designated the master unit and it measures the temperature for both indoor units.

These should be installed in the same room, operate simultaneously and share a single controller.

### Key features

Twin operation is possible with all Light Commercial indoor units.

Precise capacity control at all conditions.

Ideal for large shops, open-plan offices and other similar applications.

User-friendly controls.

Compact outdoor unit for easy installation.

Twinning requires a connection kit that includes an electromagnetic noise suppressor and pipe joint.

SDI – Technical specifications **heat pump - twin system**

Outdoor unit	RAV-	SP1104AT-E	SP1104AT-E	SP1404AT-E	SP1104AT-E	SP1404AT-E	SP1104AT-E	SP1404AT-E	SP1104AT-E	SP1404AT-E
Indoor unit	(2x)	600x600 4-Way Cassette	4-Way cassette		Ducted		Ceiling		High-Wall	
	RAV-	SM562MUT-E	SM564UT-E	SM804UT-E	SM562BT-E	SM802BT-E	SM562CT-E	SM802CT-E	SM562KRT-E	SM802KRT-E
Cooling capacity	kW	10.0	10.0	12.5	10.0	12.5	10.0	12.5	10.0	12.3
Cooling capacity (min. – max.)	kW	3.0 – 12.0	3.0 – 12.0	3.0 – 14.0	3.0 – 12.0	3.0 – 14.0	3.0 – 12.0	3.0 – 14.0	3.0 – 12.0	3.0 – 13.5
Power input	kW C	2.4	2.4	3.56	2.5	3.9	2.4	3.9	2.4	4
EER	W/W	4.17	4.17	3.51	4.00	3.21	4.17	3.21	4.17	3.08
Heating capacity	kW	11.2	11.2	14.0	11.2	14.0	11.2	14.0	11.2	14.0
Heating range (min. – max.)	kW	3.0 – 13.0	3.0 – 13.0	3.0 – 16.5	3.0 – 13.0	3.0 – 16.5	3.0 – 13.0	3.0 – 16.5	3.0 – 13.0	3.0 – 16.5
Power input	kW H	2.55	2.55	3.58	2.55	3.6	2.55	3.75	2.55	3.85
COP	W/W	4.39	4.39	3.91	4.39	3.89	4.39	3.73	4.39	3.64

DI – Technical specifications **heat pump - twin system**

Outdoor unit	RAV-	SM1103AT-E	SM1103AT-E	SM1403AT-E	SM1103AT-E	SM1403AT-E	SM1103AT-E	SM1403AT-E	SM1103AT-E	SM1403AT-E
Indoor unit	(2x)	600x600 4-Way Cassette	4-Way cassette		Ducted		Ceiling		High-Wall	
	RAV-	SM562MUT-E	SM564UT-E	SM804UT-E	SM562BT-E	SM802BT-E	SM562CT-E	SM802CT-E	SM562KRT-E	SM802KRT-E
Cooling capacity	kW	10.0	10.0	12.5	10.0	12.5	10.0	12.3	10.0	12.0
Cooling range (min – max.)	kW	3.0 – 11.2	3.0 – 11.2	3.0 – 13.2	3.0 – 11.2	3.0 – 13.2	3.0 – 11.2	3.0 – 13.2	3.0 – 11.2	3.0 – 13.0
Power input	kW C	3.52	3.52	4.09	3.56	4.42	3.51	4.52	3.48	4.52
EER	W/W	2.84	2.84	3.06	2.81	2.83	2.85	2.72	2.87	2.65
Heating capacity	kW	11.2	11.2	14.0	11.2	14.0	11.2	14.0	11.2	14.0
Heating range (min. – max.)	kW	3.0 – 13.0	3.0 – 13.0	3.0 – 16.0	3.0 – 12.5	3.0 – 16.0	3.0 – 12.5	3.0 – 16.0	3.0 – 12.5	3.0 – 16.0
Power input	kW H	3.14	3.14	4.00	3.14	4.03	3.20	4.14	3.14	4.24
COP	W/W	3.57	3.57	3.57	3.57	3.47	3.50	3.38	3.57	3.30

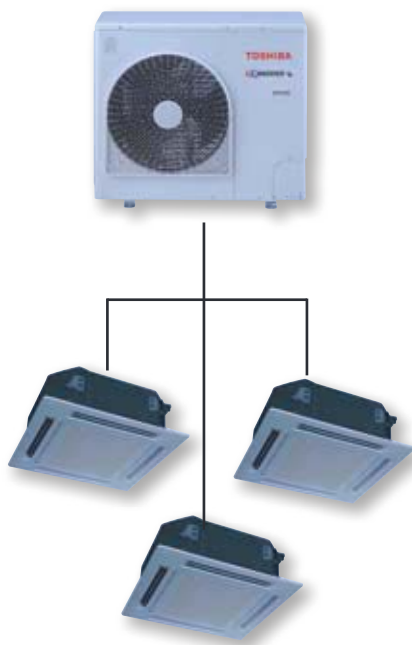
Indoor unit		600x600 4-Way Cassette	4-Way Cassette		Ducted		Ceiling		High-Wall	
	RAV-	SM562MUT-E	SM564UT-E	SM804UT-E	SM562BT-E	SM802BT-E	SM562CT-E	SM802CT-E	SM562KRT-E	SM802KRT-E
Air flow (h/l)	m <sup>3</sup> /h – l/s	546/798	1050/726 – 294/203	1200/816 – 336/228	780/588 – 218/165	1140/798 – 319/223	780/600 – 218/168	1110/876 – 310/245	840/642 – 235/180	1110/732 – 310/205
Sound pressure level (h/l)	dB(A)	43/34	32/27	34/28	40/33	40/34	36/30	38/33	39/33	45/36
Sound power level (h/l)	dB(A)	58/49	47/42	49/43	55/48	59/49	51/45	53/48	54/48	60/51
Dimensions (h x w x d)	mm	268 x 575 x 575	256 x 840 x 840		320 x 700 x 800	320 x 1000 x 800	210 x 910 x 680	210 x 1180 x 680		298 x 998 x 221
Weight	kg	17	21	22	30	39	21	25	12	12

Outdoor unit		SDI	SDI	DI	DI
	RAV-	SP1104AT-E	SP1404AT-E	RAV-SM1103AT-E	RAV-SM1403AT-E
Air flow	m <sup>3</sup> /h – l/s	7500 – 2083	7500 – 2083	4500 – 1250	4500 – 1250
Sound pressure level	dB(A) C (H)	49 (51)	53 (54)	53 (54)	53 (54)
Sound power level	dB(A) C (H)	66 (68)	70 (71)	70 (71)	70 (71)
Operating range	°C C (H)	-15 ÷ 43 (-15 ÷ 15)	-15 ÷ 43 (-15 ÷ 15)	-15 ÷ 43 (-15 ÷ 15)	-15 ÷ 43 (-15 ÷ 15)
Dimensions (h x w x d)	mm	1340 x 900 x 320	1340 x 900 x 320	795 x 900 x 320	795 x 900 x 320
Weight	kg	95	95	77	77
Compressor type		DC Twin Rotary	DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
Flare connections - gas (main – sub.)	in	5/8 – 1/2	5/8 – 5/8	5/8 – 1/2	5/8 – 5/8
Flare connections - liquid (main – sub.)	in	3/8 – 1/4	3/8 – 3/8	3/8 – 1/4	3/8 – 3/8
Minimum pipe length	m	5	5	5	5
Maximum pipe length	m	50	50	50	50
Maximum height difference	m	30	30	30	30
Chargeless pipe length	m	30	30	30	30
Power supply	V-ph-Hz	220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50

R-410A TRIPLE SPLIT

DIGITAL INVERTER

MORE COMBINATIONS  
POSSIBLE



## Triple Split Light Commercial

### Features

The Triple Combination system connects three indoor units of the same type and capacity to one outdoor unit in order to ensure more air distribution in a large zone. One of the units is designated the master unit and it is managing the room temperature reference for the other indoor units. These should be installed in the same room, operate simultaneously and share a single controller.

### Key features

Triple operation is possible with DI Light Commercial indoor units.

Precise capacity control at all conditions.

Ideal for large shops, open-plan offices and other similar applications.

User-friendly controls.

Compact outdoor unit for easy installation.

Triple combination requires a piping connection kit to optimize refrigerant flow.

Digital Inverter (series 3): RAV-SM1603AT-E – Technical specifications **heat pump - triple system**

Outdoor unit	RAV-	SM1603AT-E	SM1603AT-E	SM1603AT-E	SM1603AT-E	SM1603AT-E	SM1603AT-E
Indoor unit	RAV-	SM564UT-E	SM562MUT-E	SM562BT-E	SM564SDT-E	SM562CT-E	SM562KRT-E
	Indoor unit model	4-way cassette	Compact 4-way cassette	Ducted	Slim duct	Ceiling	High-wall
Cooling capacity	kW	14.0	14.0	14.0	14.0	14.0	14.0
Cooling capacity (min. – max.)	kW	3.0 – 16.0	3.0 – 16.0	3.0 – 16.0	3.0 – 16.0	3.0 – 16.0	3.0 – 16.0
Power input	kW	C	4.49	4.99	5.12	4.99	5.10
EER	W/W		3.12	2.81	2.73	2.81	2.75
Annual energy consumption	kWh		2245	2495	2560	2495	2550
Heating capacity	kW		16.0	16.0	16.0	16.0	16.0
Heating range (min. – max.)	kW		3.0 – 18.0	3.0 – 18.0	3.0 – 18.0	3.0 – 18.0	3.0 – 18.0
Power input	kW	H	4.43	4.69	4.69	4.69	4.98
COP	W/W		3.61	3.41	3.41	3.41	3.21

C = cooling mode

H = heating mode

## Icon Information



**Inverter.**  
DC Hybrid Inverter stepless control of the compressor. Allows step-less regulation of the air conditioner's power, which reduces energy consumption and improves comfort.



**Guaranteed** heating and cooling to  $-15^{\circ}\text{C}$  outside air temperature ( $-20^{\circ}\text{C}$  SDI).



**Dry**  
Gradually dehumidifies the room to create even greater comfort.



**Auto turn louvres.** Air outlet grilles move automatically to fill every corner of the room with warm or cool air.



**Individual louvre control**  
Enables airflows to be chosen according to user preferences.



**Hot Start** preheats the indoor coil before switching the indoor fan on to prevent cold air being blown in heating mode.



**Compact Dimensions**  
Reduced dimensions for easier installation into small areas.



**Quiet**  
Designed with multiple sound reduction technologies for the quietest solution possible.



**Automatic Air Volume Control**  
Depending on the difference between the room temperature and the set temperature, switches automatically between High, Low and Very Low.



**Automatic Cooling/Heating**  
Automatically switches between cooling and heating mode.



**Long-life Filter**  
Built-in long-life filter makes maintenance easier.



**Filter Sign**  
Automatic displays on the remote controller say when to perform maintenance for the indoor unit filter.



**Built in Drain Pump**  
The built in drain pump makes installing the units easier.



**On/Off Timer**  
The operation start and stop times can be set with a digital clock on the infra-red controller..



**70m Super long pipe run**  
Longer pipe run for greater installation flexibility



**Coil Protection**  
Hydrophilic coil protection to protect the heat exchanger from corrosion, extending the life of the unit

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