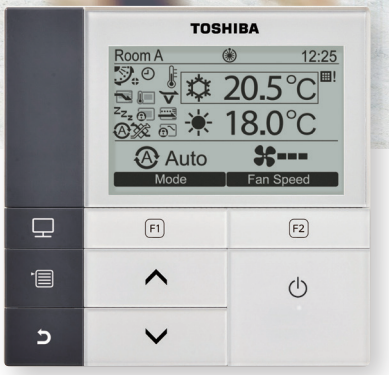
TOSHIBA

TOSHIBA R32 REFRIGERANT

TOSHIBA
LIGHT COMMERCIAL SYSTEMS

Providing endless possibilities



WHY CHOOSE TOSHIBA AIR CONDITIONERS?

Being comfortable in your environment means much more than controlling the temperature. Toshiba air conditioners are designed for flexibility in application with low operating noise and improved air quality, and above all, reliability. So, you get all year-round comfort plus accurate temperature control.

FLEXIBLE RANGE

Whether you are looking to cool a small bedroom or a office boardroom, the range of Toshiba's residential air conditioning solutions are ideal for all areas of your home or office. From wall mounted split systems to inverter ducted systems or under ceiling systems, Toshiba has a wide variety of heating and cooling solutions to suit your requirements.

AFTER SALES SERVICE

Problems tend to happen when you least expect them. Our in-house technical support team is unlike any other and it's easy to know why.

You can count on our in-house technical support to assist you with anything you may need. We take this duty very seriously, so you can rest assured you will have dependable, ongoing support every time.

PEACE OF MIND

At Toshiba, we are confident our heat pumps can withstand any condition of New Zealand climate, which is why we offer a 5-year warranty across our entire range of air conditioning products, New Zealand-wide for all residential applications.

REDUCING GWP WITH R32

Our world is as precious as it is delicate, it's our responsibility to help take care of it.

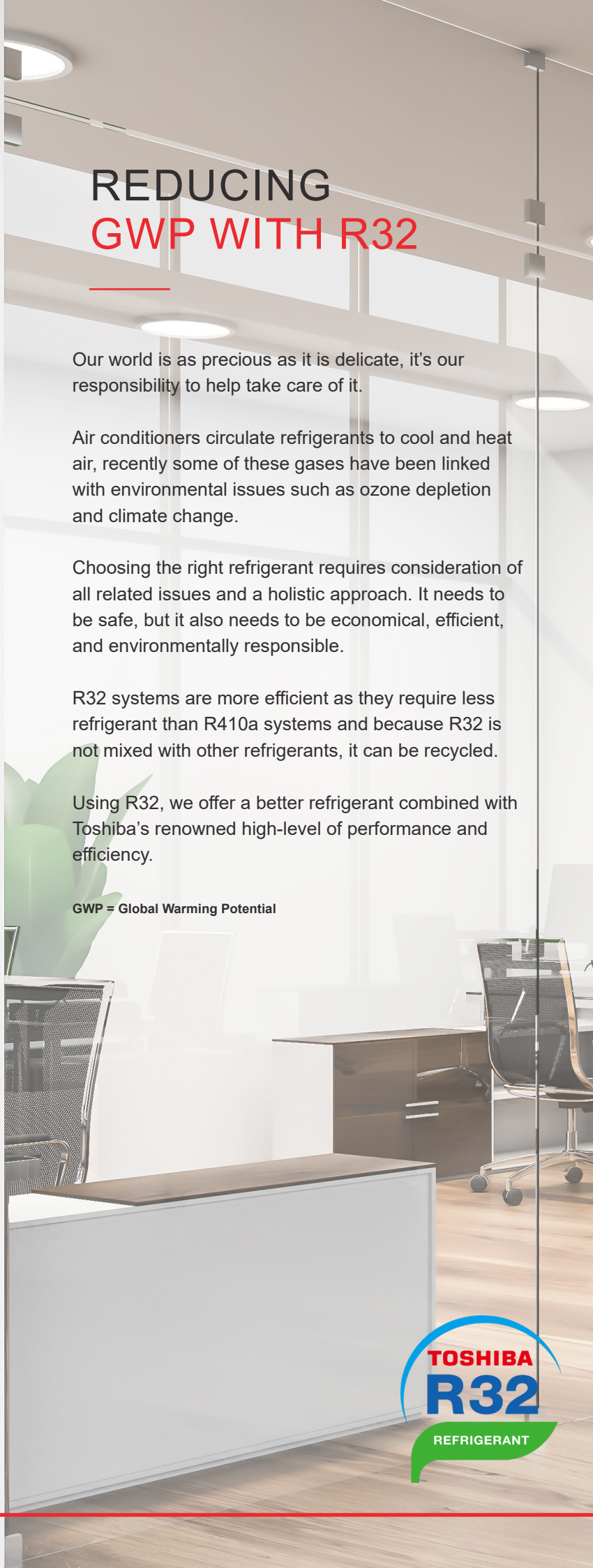
Air conditioners circulate refrigerants to cool and heat air, recently some of these gases have been linked with environmental issues such as ozone depletion and climate change.

Choosing the right refrigerant requires consideration of all related issues and a holistic approach. It needs to be safe, but it also needs to be economical, efficient, and environmentally responsible.

R32 systems are more efficient as they require less refrigerant than R410a systems and because R32 is not mixed with other refrigerants, it can be recycled.

Using R32, we offer a better refrigerant combined with Toshiba's renowned high-level of performance and efficiency.

GWP = Global Warming Potential



TOSHIBA

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TOSHIBA'S TWIN ROTARY COMPRESSOR

Toshiba's Twin Rotary compressor brings outstanding performance without compromising on system reliability.

TWIN ROTARY COMPRESSOR

Our proprietary Toshiba Twin Rotary compressor and inverter provide optimum control for maximising performance efficiency. With a rotor in each compression chamber, Toshiba Twin Rotary compressor systems are compact, lightweight, and low vibration while requiring less space for installation.

DLC TREATMENT

Toshiba's Diamond Like Carbon coating technology is unique to Toshiba's compressors.

It covers the wear surfaces on compression vanes for outstanding hardness and wear resistance, enhancing both the compressor's performance and durability.

Large capacity

Wide operating range

DLC Treatment [Diamond Like Carbon]

TOSHIBA TECHNOLOGY

PAM

Pulse Amplitude Modulation [PAM] is a technology that controls the current waveform so that it resembles the supply voltage wave, thereby reducing loss and realising more efficient use of electricity.

With a PAM inverter, the voltage delivered to the compressor could be increased as needed, resulting in increased rotation speed.

Using PAM control, 98% of the input power supply is used effectively.

PWM

Pulse Width Modulation [PWM] helps to balance the compressor speed revolution, either higher speed when providing fast cooling, or slow speed when maintaining room temperature resulting in significantly reduced consumption.

INVERTER CONTROL

The inverter component allows for the Toshiba outdoor unit to vary its speed and output to match the required capacity of the indoor unit. Thus, the unit can achieve 30% more operating efficiency than conventional models and therefore, is more economical to run.

COMMITTED TO DEVELOPMENT & COMFORT

ABSOLUTE COMFORT

Toshiba's commitment to society drives a company-wide focus on attention to details through every stage of the development process, from design to user field tests, installations using our products and systems therefore featuring higher standard of indoor air quality, sound levels and energy savings when compared to its predecessors.

DIGITAL INVERTER

GM SERIES

A full range of Toshiba R32 light commercial systems are now available with Digital Inverter combinations to suit an array of application types, whether it be for residential or commercial spaces.

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, Toshiba's Digital Inverter brings state-of the art inverter technology to its light commercial range, offering considerable advantages from wide capacity range, energy efficiencies to optimised comfort.

COMPACT CHASSIS

Single fan outdoor units are available from 2.5kw through to 12.5kw with a compact height of less than 900mm, making them an ideal unit for commercial applications where space may be a constraint. Being compact also enables these units to be double stacked without compromising on performance.

RAV-GM301 - 3.1kW
RAV-GM401 - 4.0kW
RAV-GM561 - 5.3kW

RAV-GM801 - 8.0kW

RAV-GM1101 - 11.2kW
RAV-GM1401 - 14.0kW

RAV-GM1601 - 16.0kW

RAV-GM2241 - 22.4kW
RAV-GM2801 - 27.0kW

DIGITAL INVERTER [DI]
LINE-UP

	DIGITAL INVERTER [DI]						
							
SINGLE PHASE OUTDOOR	RAV-GM301ATP-A	RAV-GM401ATP-A	RAV-GM561ATP-A	RAV-GM801ATP-A	RAV-GM1101ATP-A	RAV-GM1401ATP-A	RAV-GM1601ATP-A
THREE PHASE OUTDOOR	-	-	-	-	-	-	-
	COMPACT 4-WAY CASSETTE						
	RAV-RM301MUT-E	RAV-RM401MUT-E	RAV-RM561MUT-E	N/A	N/A	N/A	N/A
	4-WAY CASSETTE						
	N/A	N/A	RAV-GM561UTP-A	RAV-GM801UTP-A	RAV-GM1101UTP-A	RAV-GM1401UTP-A	RAV-GM1601UTP-A
	HIGH WALLS						
	RAV-GM301KRTP-A	RAV-GM401KRTP-A	RAV-GM561KRTP-A	RAV-GM801KRTP-A	N/A	N/A	N/A
	MID-STATIC DUCTED						
	N/A	N/A	RAV-GM561BTP-A	RAV-GM801BTP-A	RAV-GM1101BTP-A	RAV-GM1401BTP-A	RAV-GM1601BTP-A
	HIGH STATIC DUCTED						
	N/A	N/A	RAV-GM561DTP-A	RAV-GM801DTP-A	RAV-GM1101DTP-A	RAV-GM1401DTP-A	RAV-GM1601DTP-A
	UNDER CEILING						
	N/A	N/A	RAV-GM561CTP-A	RAV-GM801CTP-A	RAV-GM1101CTP-A	RAV-GM1401CTP-A	RAV-GM1601CTP-A

	DIGITAL INVERTER [DI]	
		
THREE PHASE OUTDOOR	RAV-GM2241AT8-A	RAV-GM2801AT8-A
	HIGH STATIC DUCTED	
	RAV-RM2241DTP-E2	RAV-RM2801DTP-E2

SUPER DIGITAL INVERTER

GP SERIES

The expectations of a modern air conditioning system have evolved over the past years. Today, advanced comfort goes hand in hand with reduced energy and maintenance costs, combined with maximised simplicity and true operational flexibility.

The Super Digital Inverter associates all of Toshiba's innovative spirit and outstanding expertise to create highly efficient solutions with maximum end user comfort at its core.

Toshiba Super Digital air conditioners combine economy and ecology in a compact body. They feature Toshiba's state-of-the-art technology, flexible control, and easy installation to bring natural comfort and convenience to any home or business environment.

PIPING FLEXIBILITY

Toshiba's Super Digital Inverter series supports height differences of up to 30 meters on a single system, which is enough height to cover an 8 storey building.

The SDI series also boasts up to 75 meters of allowable pipe run, increasing installation flexibility, making it possible to use in just about any application.

630mm

RAV-GP561 - 5.6kW

890mm

RAV-GP801 - 8.0kW

1340mm

RAV-GP1101 - 11.2kW
RAV-GP1401 - 14.0kW
RAV-GP1601 - 16.0kW

HIGH WALLS

SELF CLEANING FUNCTION

Toshiba's self-cleaning function is designed to reduce the humidity that causes mold to form inside an air-conditioning units. 20 minutes of fan operation after shut down dries the moist air and helps reduce mold formation on the heat exchanger coils.

Normal Operation

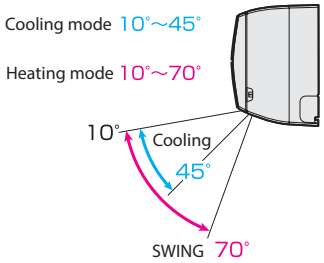
Moisture stays trapped inside

Self-cleaning Function

20 minutes of fan operation after shut down dries the moist air and helps reduce mold formation on heat exchanger coils.

OPTIMUM AIR DISTRIBUTION

70° directional Auto-swing louver mode allows optimum air distribution throughout the room. Total comfort is granted, thanks also to Automatic air volume control and Automatic cooling/heating.

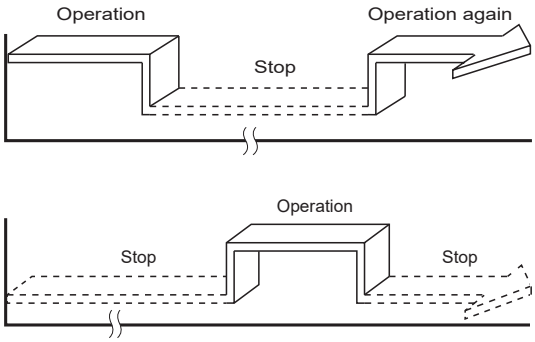


(Approximate Data)

ON AND OFF TIMER

Schedule the unit to turn ON / OFF at designated times using the wireless controller.

Start the air conditioner when you enter your office and stop it when its time to head home, this setting can be applied for the same time, every day.



HI POWER MODE

The HI POWER mode automatically controls room temperature, airflow and operation mode so that, the room is quickly cooled in summer and warmed in winter.

ENJOY COMFORT IN SILENCE

Get quiet system operation by selecting the "QUIET" mode to automatically set the fan speed to the lowest speed.

HIGH WALLS SPECIFICATIONS

DIGITAL INVERTER [DI]

INDOOR UNIT		RAV-GM301KRTP-A	RAV-GM401KRTP-A	RAV-GM561KRTP-A	RAV-GM801KRTP-A
OUTDOOR UNIT		RAV-GM301ATP-A	RAV-GM401ATP-A	RAV-GM561ATP-A	RAV-GM801ATP-A
Cooling Capacity Range	kW	2.5 [0.9 - 3.0]	3.6 [0.9 - 4.0]	5.0 [1.5 - 5.6]	7.1 [1.5 - 8.0]
Heating Capacity Range	kW	3.4 [0.8 - 4.5]	4.0 [0.8 - 5.0]	5.3 [1.5 - 6.3]	8.0 [1.5 - 9.0]
EER		4.24	3.71	3.31	3.35
COP		4.00	4.00	3.90	3.40
Maximum Operating Current	A	7.90	9.20	15.50	17.00
Dimensions - Indoor [H x W x D]	mm	293 x 798 x 230	293 x 798 x 230	320 x 1050 x 250	320 x 1050 x 250
Dimensions - Outdoor [H x W x D]		550 x 780 x 290	550 x 780 x 290	550 x 780 x 290	630 x 800 x 300
Weight - Indoor / Outdoor	kg	10 / 29	10 / 34	14 / 40	14 / 47
Airflow [H / M / L]	l/s	186 / 150 / 125	194 / 161 / 125	266 / 230 / 188	288 / 252 / 188
Sound Pressure Level Indoor / Outdoor	dB(A)	40 / 47	41 / 50	42 / 48	45 / 51
Operating Range Cooling	°C db	-15 to 46	-15 to 46	-15 to 46	-15 to 46
Operating Range Heating		-15 to 15	-15 to 15	-15 to 15	-15 to 15
Pipe Sizes (Liquid / Gas)	mm	6.35 / 9.52	6.35 / 12.70	6.35 / 12.70	9.52 / 15.88
Maximum Pipe Length / Lift	m	20 / 10	20 / 10	30 / 30	50 / 30
Maximum Pre-charged Length		15	15	20	20
Power Supply	Ph / V / Hz	1ph / 220-240V / 50Hz	1ph / 220-240V / 50Hz	1ph / 220-240V / 50Hz	1ph / 220-240V / 50Hz

SUPER DIGITAL INVERTER [SDI]

INDOOR UNIT		RAV-GM561KRTP-A	RAV-GM801KRTP-A
OUTDOOR UNIT		RAV-GP561ATP-A	RAV-GP801ATP-A
Cooling Capacity Range	kW	5.0 [1.2 - 6.0]	7.1 [1.9 - 8.0]
Heating Capacity Range	kW	5..6 [0.9 - 7.4]	8.0 [1.5 - 10.6]
EER		3.97	3.90
COP		4.00	3.60
Maximum Operating Current	A	13.10	15.80
Dimensions - Indoor [H x W x D]	mm	320 x 1050 x 250	320 x 1050 x 250
Dimensions - Outdoor [H x W x D]		630 x 800 x 300	890 x 900 x 320
Weight - Indoor / Outdoor	kg	14 / 43	14 / 67
Airflow [H / M / L]	l/s	266 / 230 / 188	288 / 252 / 188
Sound Pressure Level Indoor / Outdoor	dB(A)	42 / 48	45 / 52
Operating Range Cooling	°C db	-15 to 52	-15 to 52
Operating Range Heating		-20 to 24	-20 to 24
Pipe Sizes (Liquid / Gas)	mm	6.35 / 12.70	9.52 / 15.88
Maximum Pipe Length / Lift	m	50 / 30	50 / 30
Maximum Pre-charged Length		20	30
Power Supply	Ph / V / Hz	1ph / 220-240V / 50Hz	1ph / 220-240V / 50Hz

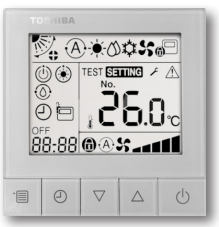
Refer to the Engineering Databook for details on these conditions and requirements.

Rate conditions: Cooling: Indoor 27 °C Dry Bulb / 19 °C Wet Bulb, Outdoor 35 °C Dry Bulb.
Heating: Indoor 20 °C Dry Bulb, Outdoor 7 °C Dry Bulb / 6 °C Wet Bulb.
Base on equivalent piping length of 7.5m and piping height difference of 0m.

CONTROLS OPTIONS

BACKLIT WIRED CONTROLLER

RBC-AMSU51-ES



COMPACT WIRED CONTROLLER

RBC-ASC11E / RBC-ASCU11-E

ADVANCED CONTROLS

128 SMART MANAGER

BMS-SM1281ETLE

This Smart Manager has the ability to control from a local area network with dedicated interface accessible from every web browser.

FUNCTIONS:

- On / Off
- Temperature setting
- Error display
- Schedule timer
- Web connection
- Energy monitoring
- Error information transfer function by E-mail

256 TOUCH SCREEN CONTROLLER

BMS-CT2560U-E

This controller is ideally suited to any small or large installation where energy monitoring functions are required.

FUNCTIONS:

- Full control of maximum 256 units
- 7' Colour touch screen
- Intuitive navigation
- Advanced scheduling of indoor and outdoor units
- Energy monitoring with or without power meter
- Embedded input and output
- Dedicated fault code menu with email transfer capability

ZONING WITH T-ZONE

For times when you only want to condition certain spaces, zoning can be the answer. Whether you are looking at installing a new Toshiba ducted system or have an existing system retrofitted, zoning can save energy, and reduce wear and tear of your system.

T-Zone gives you total temperature control of each space individually. With up to 14 zones capability, every space can be at the perfect temperature at all times.

SMART DEVICE CONTROL [WIFI]

BMS-IWF0320E

A versatile interface for Toshiba light commercial and VRF air conditioning units that enables WiFi connection.

FUNCTIONS:

- Remote access via app on a smart device
- On / Off
- Temperature setting
- Fan speed
- Timer function
- Schedule function
- Energy save function
- Permit / Prohibit function
- Error display
- Room temperature monitoring