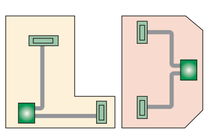
TOSHIBA
AIR CONDITIONING

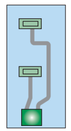
Versatile and clever - high static duct type.

Wide range of applications.

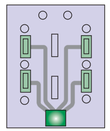
The use of ducts allows air outlets to be conveniently installed anywhere on the ceiling, eliminating the conspicuous presence of the air conditioner in the centre of the room. Not only can this be applied to a wide variety of layouts from narrow spaces to polygonal rooms; it also greatly improves the aesthetics of a room with its unobtrusive presence.



Polygonal rooms



Narrow rooms



Rooms with fixtures and obstacles

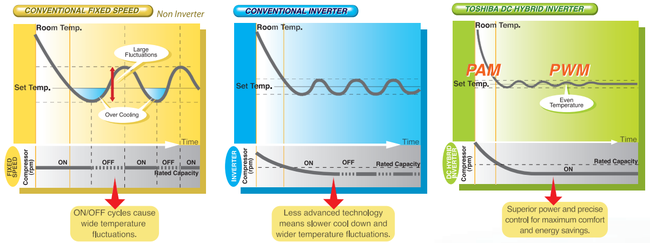
Models

RAV-SM1103DT-A
RAV-SM1403DT-A
RAV-SM1603DT-A

Image above RAV-SM1403DT-A & RAV-SM1603DT-A

Optimum comfort and energy saving.

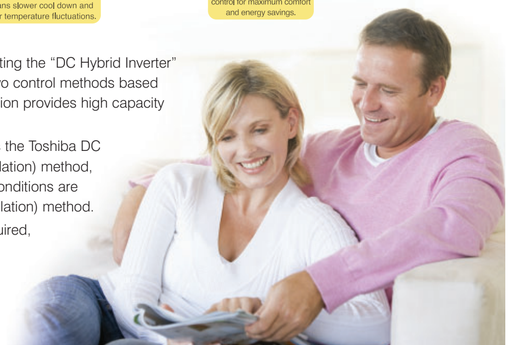
Inverter technology is the latest technology available in air conditioners. The Toshiba DC Hybrid inverter generates more power and has precise control for maximum comfort.



Toshiba has combined two technologies, creating the “DC Hybrid Inverter” that automatically chooses the better of the two control methods based on the actual conditions at the time. This solution provides high capacity only and when it is necssary.

On very cold winter days, or hot summer days the Toshiba DC Inverter uses the PAM (Pulse Amplitude Modulation) method, and for very low energy consumption, when conditions are less severe uses the PWM (Pulse Width Modulation) method.

Given that maximum capacity is not often required, and that high efficiency is always desirable, the result is a greatly reduced annual energy consumption.



TOSHIBA
AIR CONDITIONING

AHI CARRIER (Australia) Pty Ltd
ABN: 471 364 262 14 / AU: 22499
Melbourne - Head Office
Level 1, 195 Chesterville Road Moorabbin Victoria 3189
Phone: 13Cool
www.toshiba-aircon.com.au

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When technology meets comfort

Inverter Ducted Systems

MADE IN JAPAN

TOSHIBA
AIR CONDITIONING

TOSHIBA
AIR CONDITIONING

The brand.

Toshiba Air Conditioning delivers products known for their technological innovation and artistry, leading to comfortable living and greater peace of mind.

Inventor of the inverter.

The Digital Inverter from Toshiba combines economy and efficiency in a smart body. It offers exceptional technology, energy savings, high efficiency, high performance, easy installation and flexible control.

Solution from professionals.

Toshiba Digital Inverter air conditioners combine exceptional energy savings and operational features in an extremely compact unit.

High static pressure.

External static pressure can be raised as high as 250 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.

The flexible piping layout is made possible by an optional drain-pump kit with a vertical lift of up to 330mm.

Remote controllers.

Toshiba Digital Inverters & Super Digital Inverters operate with easy to use remote controller.

Wired remote controller
RBC-AMT32E

Simple wired remote controller
RBC-AS21E2

Wired remote controller with integrated weekly timer
RBC-AMS41E

Backlit Wired remote controller with integrated weekly timer
RBC-AMS51

Other control options available. See your specialist.

The mission – improved air quality

Comfort in home means much more then controlling temperature. Toshiba air conditioners are designed to minimise air pollutants.

Care for users

The benefit of Toshiba's refined design include flexibility in application, low operating sound level, improved air quality and all round comfort which is a result of the precise temperature control by inverter technology.

TOSHIBA
AIR CONDITIONING

Technical specifications **sumo digital inverter ducted**

INDOOR			RAV-SM2242DT-E	RAV-SM2802DT-E
OUTDOOR			RAV-SM2244AT8-A	RAV-SM2804AT8-A
REFRIGERANT TYPE			R410A	
POWER SUPPLY INDOOR UNITS		Volts - Phase - Hz	220 - 240V - 1 - 50Hz	
POWER SUPPLY OUTDOOR UNITS	POWER EXCLUSIVE TO OUTDOOR IS REQUIRED	Volts - Phase - Hz	380 - 415V - 3 - 50Hz	
COOLING	**Capacity - Rated**	kW	16.7	20.0
	Capacity - Range (min ~ max)	kW	9.8 ~ 22.4	9.8 ~ 27.0
	Efficiency - Rated	EER	3.27	3.23
	Efficiency - Range (min ~ max)	EER	3.01 ~ 2.46	2.92 ~ 2.12
	Indoor Power Input - Rated	kW	1.12	
	Outdoor Power Input- Rated	kW	3.98	5.08
	Outdoor Power Input - Range (min ~ max)	kW	2.14 ~ 7.97	2.24 ~ 11.64
	Total Power Input - Rated	kW	5.10	6.20
	Total Power Input - Range (min ~ max)	kW	3.26 ~ 9.09	3.36 ~ 12.76
	Indoor Operating Current - Rated	A	4.81	
	Outdoor Operating Current - Rated	A	6.08	7.60
HEATING	**Capacity - Rated**	kW	22.4	27.0
	Capacity - Range (min ~ max)	kW	9.8 ~ 25.0	9.8 ~ 31.5
	Efficiency - Rated	COP	3.45	3.31
	Efficiency - Range (min ~ max)	COP	3.36 ~ 3.81	2.86 ~ 3.81
	Indoor Power Input - Rated	kW	1.12	
	Outdoor Power Input - Rated	kW	5.37	7.03
	Outdoor Power Input - Range (min ~ max)	kW	1.45 ~ 6.33	1.45 ~ 9.89
	Total Power Input - Rated	kW	6.49	8.15
	Total Power Input - Range (min ~ max)	kW	2.57 ~ 7.45	2.57 ~ 11.01
	Indoor Operating Current - Rated	A	4.81	
	Outdoor Operating Current - Rated	A	7.95	10.40
INDOOR UNIT	**Dimension (H x W x D)**	mm	470 x 1380 x 1250	
	Net Weight	kg	160	
	Cooling Airflow Volume	L/s	1000	1167
	Heating Airflow Volume	L/s	1000	1167
	Fan Motor Output	W	370 x 3	
	Cooling Operating Noise (Sound Pressure) at 1m Distance	dBA (@spl)	54	55
	Cooling Operating Noise (Sound Power)	dBA (@swl)	74	75
	Heating Operating Noise (Sound Pressure) at 1m Distance	dBA (@spl)	54	55
	Heating Operating Noise (Sound Power)	dBA (@swl)	74	75
	Cooling Usable Temperature Range	°C	21 ~ 32 DB	
	Heating Usable Temperature Range	°C	15 ~ 30 DB	
OUTDOOR UNIT	**Dimension (H x W x D)**	mm	1540 x 900 x 320	
	Net Weight	kg	134	
	Compressor Type		DC Twin Rotary	
	Fan Motor Output	W	100+100	
	Cooling Operating Noise (Sound Pressure) at 1m Distance	dBA (@spl)	56	57
	Cooling Operating Noise (Sound Power)	dBA (@swl)	72	74
	Heating Operating Noise (Sound Pressure) at 1m Distance	dBA (@spl)	57	58
	Heating Operating Noise (Sound Power)	dBA (@swl)	74	75
	Cooling Usable Temperature Range	°C	-15 ~ 46 DB	
	Heating Usable Temperature Range	°C	-20 ~ 15 WB	
PIPE SIZE	**Indoor Unit Liquid Line Ø**	mm/inch	12.7	
	Indoor Unit Gas Line Ø	mm/inch	28.6	
	Outdoor Unit Liquid Line Ø	mm/inch	12.7	
	Outdoor Unit Gas Line Ø	mm/inch	19.1	
	Coupler Style (Gas side / Liquid side)		Brazing / Flaring	
	Indoor Drain (Inside Diameter) Ø	mm	32	
	Maximum Total Length	m	70	
	Chargeless Length	m	30	
	Maximum Height Difference	m	30	
ELECTRICAL	**Indoor / Outdoor Cable Sizes**	mm^2	2.5 or more, 3 core + earth	
	Interconnecting wires	mm^2	1.5 or more, 4 core + earth	
	Recommended Circuit Breaker Size for Indoor Unit	A	25	25
	Recommended Circuit Breaker Size for Outdoor Unit	A	25	32
	Maximum Peak Current	A	23.81	28.25
	Running Current	A	12.76	15.21

Technical specifications - Concealed Duct High Static Pressure

Indoor Outdoor			RAV-SM1103DT-A RAV-SP1104AT-E	RAV-SM1403DT-A RAV-SP1404AT-E	RAV-SM1603DT-A RAV-SM1603AT-E
Refrigerant Type			R410A	R410A	R410A
Power Supply		Volts-Phase-Hz	240 / 1 / 50	240 / 1 / 50	240 / 1 / 50
Cooling	Capacity - Rated (min ~ max)	kW	10.40 (3.30 ~ 12.10)	13.00 (3.30 ~ 14.10)	14.30 (3.60 ~ 16.00)
	Efficiency - Rated (min ~ max)	EER	3.30 (3.03 ~ 3.66)	3.01 (2.83 ~ 3.67)	2.77 (2.66 ~ 2.85)
	Power input - Rated (min ~ max)	kW	3.15 (0.90 ~ 3.99)	4.32 (0.90 ~ 4.98)	5.01 (1.30 ~ 6.01)
	Operating Current - Rated (min ~ max)	A	13.50 (4.00 ~ 17.10)	18.60 (4.00 ~ 21.40)	21.50 (5.70 ~ 25.80)
Heating	Capacity - Rated (min ~ max)	kW	11.30 (4.20 ~ 15.00)	14.00 (4.20 ~ 18.00)	16.00 (4.60 ~ 18.00)
	Efficiency - Rated (min ~ max)	COP	4.38 (3.51 ~ 5.25)	4.14 (3.67 ~ 5.25)	3.50 (2.54 ~ 3.65)
	Power Input - Rated (min ~ max)	kW	2.58 (0.80 ~ 4.84)	3.38 (0.80 ~ 4.91)	4.57 (1.26 ~ 7.08)
	Operating Current - Rated (min ~ max)	A	11.10 (3.50 ~ 21.50)	14.50 (3.50 ~ 21.10)	19.60 (5.60 ~ 30.4)
Indoor Unit	Dimension (HxWxD)	mm	380 x 1050 x 600	380 x 1050 x 600	380 x 1050 x 600
	Net Weight	kg	57	57	57
	Airflow Volume	L/s	694 (1)	916	972
	Static Pressure - Std (Max)	Pa	100 (225)	100 (250)	100 (250)
	Moisture Removal (Cooling)	L/hr	2.00	3.10	3.80
	Fan Motor Output	W	400	400	400
	Cooling - (Sound Pressure) (H) at 1m distance	dBA (@spl)	49	49	50
	Cooling - (Sound Power) (H)	dBA (@swl)	64	64	65
	Heating - (Sound Pressure) (H) at 1m distance	dBA (@spl)	49	49	50
	Heating - (Sound Power) (H)	dBA (@swl)	64	64	65
	Cooling Usable Temperature Range	°C	21 ~ 32	21 ~ 32	21 ~ 32
	Heating Usable Temperature Range	°C	15 ~ 28	15 ~ 28	15 ~ 28
Outdoor Unit	Dimension (HxWxD)	mm	1340 × 900 × 320	1340 x 900 x 320	1340 x 900 x 320
	Net Weight	kg	93	93	99
	Compressor Type		DC Twin Rotary	DC Twin Rotary	DC Twin Rotary
	Fan Motor Output	W	100+100	100+100	100+100
	Cooling - (Sound Pressure) (H) at 1m distance	dBA (@spl)	49	51	51
	Cooling - (Sound Power) (H)	dBA (@swl)	66	68	68
	Heating - (Sound Pressure) (H) at 1m distance	dBA (@spl)	50	52	53
	Heating Operating Noise (Sound Power) (H)	dBA (@swl)	67	69	70
	Cooling Usable Temperature Range	°C	-15 ~ 43	-15 ~ 43	-15 ~ 43
	Heating Usable Temperature Range	°C	-20 ~ 15	-20 ~ 15	-15 ~ 15
Pipe Size	Liquid Line Ø	mm/inch	9.52 / 3/8"	9.52 / 3/8"	9.52 / 3/8"
	Gas Line Ø	mm/inch	15.87 / 5/8"	15.87 / 5/8"	15.87 / 5/8"
	Coupler Style		Flare	Flare	Flare
	Drain (Inside Diameter) Ø	mm	25	25	25
	Maximum Length	m	75	75	50
	Chargeless Length	m	30	30	30
	Maximum Height Difference	m	30	30	30
Outdoor	Power Cable *	mm	H07 RN-F or 60245IEC 66	H07 RN-F or 60245IEC 66	H07 RN-F or 60245IEC 66
	Indoor /Outdoor connecting Cables *	mm	H07 RN-F or 60245IEC 66	H07 RN-F or 60245IEC 66	H07 RN-F or 60245IEC 66
	Earth Cable	mm			H07 RN-F or 60245IEC 66
	Maximum Running Current		22.8 A	22.8 A	32 A
	Installation Fuse Rating		25 A (all types can be used)	25 A (all types can be used)	40 A (all types can be used)

(1) using Med fan tap (High static pressure tap can not be available.)
Note * Electrican should select depending upon the length of wire.