

TOSHIBA Leading Innovation >>>



“ Do you want style, comfort and efficiency, all wrapped up in an affordable design? ”



MIRAI



TOSHIBA AIR CONDITIONING > RESIDENTIAL SOLUTIONS > **MIRAI**

**whatever
you need**

MIRAI

My new design object,
direct from the future

➤ EVERY DAY EXCELLENCE

The new **MIRAI** was created and developed with the aim of achieving total synergy between the user and the product. Together, its technical features and smart functions, form the foundation for excellence in air conditioning and ease of usability.

➤ SLEEK DESIGN

The new Toshiba highwall unit is a perfect fusion of esthetics and technology. With its discreet look, its flowing lines, simple curves and its backlit finishings, it is truly a high-tech decorative ornament. Whether switched on or off, its harmonious design and highly compact size blend perfectly into any home décor.



MIRAI guarantees well-being at its best – and at its quietest! Throughout its development, the utmost care and attention was paid to keeping sound to an absolute minimum. And that makes the new highwall unit the quietest in its category: down to 22 dB(A).

➤ THE FUTURE IS NOW

Technological, stylish, highly effective and environmentally friendly, the new Toshiba highwall unit proudly upholds the values rooted firmly in its name: in Japanese, **MIRAI** means **FUTURE**.

➤ ENERGY SAVINGS AND ENVIRONMENTAL CARE

• Energy efficiency by design

Toshiba products are designed to optimize energy performance at any time of year. This in turn reduces the amount of indirect CO₂ emissions generated by electricity consumption.

• Lowest level refrigerant charge

Toshiba is committed to minimizing the refrigerant charge of its products and has made this a key performance indicator for all new product development.





High technology now available
with R32 & R410A refrigerants

➤ SUBSTANTIAL ENERGY SAVINGS

In line with the concept of all Toshiba products, the **MIRAI** wall unit boasts low energy consumption. It is A+ energy class in both heating and cooling modes, ensuring exceptional energy savings and unparalleled comfort levels, in either its R410A or R32 refrigerant versions.

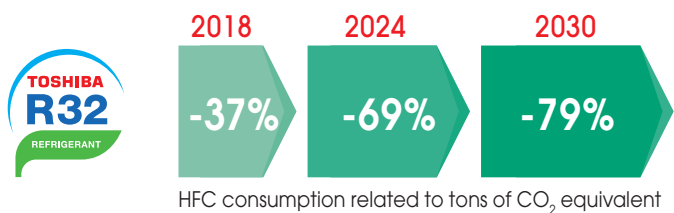
The entire range is A+ / A+ energy class for cooling and heating.



➤ EUROPEAN F-GAS REGULATION: R32 IS THE RIGHT ALTERNATIVE TO R410A

The European F-gas regulation (517/2014) has been in force since January 1 2015 and will progressively phase down the use of hydrofluorocarbons (HFCs) in the heating and cooling systems of the future. Toshiba already offers a new heating and cooling system operating with R32, which will be the alternative to R410A in the years ahead:

- The new R32 refrigerant ensures an ideal balance between energy efficiency and respect for the environment.
- The quantities of HFCs that are placed on the market will be gradually reduced in a step by step approach, until they finally reach a minimum level by 2030.



MIRAI

100% Toshiba quality



> DESIGNED IN JAPAN

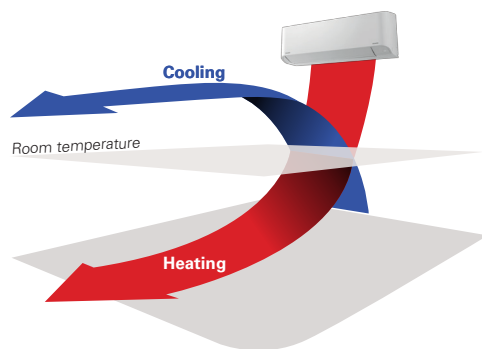
Innovation, efficiency, high reliability, energy savings, environmental respect... These are the powerful values at the heart of Toshiba's DNA. For over 50 years Toshiba has been providing its clients with the guaranteed accuracy and expertise of flawless Japanese quality.

The new **MIRAI** systems, has been developed by class leading engineers, in a facility, that encompasses innovation, with quality. This when combined with Toshiba's world leading manufacturing facilities, provides the end user with a world class leading product, built to exacting standards.

> INVERTER TECHNOLOGY: A TOSHIBA INVENTION

Created by Toshiba, Inverter technology allows the unit to regulate its cooling and heating capacity at all times. It does so by adjusting the compressor speed according to cooling demand.

Inverter technology maintains the local environment at precisely the selected temperature. Its high levels of performance and efficiency are able to meet the most demanding requirements.



The new Hybrid Inverter features PAM (Pulse Amplitude Modulation) for the highest levels of power and PWM (Pulse With Modulation) for energy efficiency. The Toshiba Inverter System offers a hybrid approach to provide the best of both.



Self-cleaning function keep comfort simple

MIRAI is equipped with a self-cleaning function that reduces damp and mold in the indoor unit coil, thanks to the combination of special coated aluminum fins, which stops the condensate water adhering to the coil and the internal fan control, which continues to run before shutting down automatically when **MIRAI** is switched off. This ensures long-lasting performance and high quality air circulation.

MIRAI

Superior comfort

➤ CHOOSE YOUR MODE

MIRAI is available with heating only or cooling only mode options, to minimize energy bills.

• Heating only option

The Heating Only mode is ideal for residential applications where cooling is not required. It is compliant with specific applications and some local building regulations (France RT2012 Zone CE1).

• Cooling only option

The Cooling Only mode is a good choice for residential applications offering central heating solutions.

➤ ADVANCED CONTROL

• Well-being on demand

Toshiba offers a home automation solution that gives the user full at-home or remote control of the ambient temperature of every room.

They can achieve bespoke comfort through high-precision management and programming of air conditioning or heating, and that means exceptional energy consumption control. In short, comfort and quality of life that are fully in line with individual requirements.



Standard remote control

Combining all essential functions, it offers rapid access to economy and High Power modes and includes mode adjustments, fan speed, set point and air flow direction as standard.



Weekly remote control

This optional high-end remote control ensures total control of the temperature of each living space. Its backlit screen displays all data via simple and user-friendly navigation. Three basic function keys – start, command change, favorite settings – are accessible directly below the screen, while advanced functions can be accessed by lifting the protective cover. The timer function allows up to 4 daily settings, or 28 programs per 7 day period.



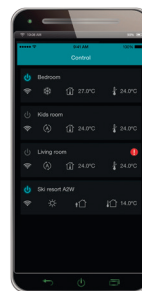
Anytime, anywhere

With the comfort of its users in mind, Toshiba offers remote functions that make everyday life simpler. As a truly connected object, **MIRAI** can be utilized anytime, anywhere, thanks to a series of SMS or WiFi remote control solutions that offer maximum wellbeing and optimized energy savings.



Remote control via GSM and SMS

Remote control via an IOS or Android smartphone is possible by downloading the dedicated "Combi Control" app. This then uses SMS to send standard commands directly to the Combi Control box installed at home. The result is made-to-measure comfort in just a few secure clicks.



Remote control via Wi-Fi

Remote control uses INTESIS HOME, an infrared box installed close to the Interior Unit. Settings are simple to control from an IOS or Android Smartphone or tablet with a Wi-Fi connection. Its sleek design blends harmoniously into any home décor.



MIRAI Performance data

R32

Outdoor unit		RAS-05BAVG-E	RAS-07BAVG-E	RAS-10BAVG-E1	RAS-13BAVG-E1	RAS-16BAVG-E	RAS-18BAVG-E1*	RAS-24BAVG-E1*
Indoor unit		RAS-B05KVG-E	RAS-B07KVG-E	RAS-B10KVG-E1	RAS-B13KVG-E1	RAS-B16KVG-E	RAS-18BAVG-E1*	RAS-24KVG-E1*
Cooling capacity	kW	1.50	2.00	2.50	3.30	4.60	5.00	6.50
Cooling range (min. - max.)	kW	(0.66 - 2.00)	(0.67 - 2.60)	(0.68 - 3.00)	(0.75 - 3.60)	(1.20 - 5.30)	(1.3 - 5.5)	(1.6 - 7.2)
Pdesignc	kW	1.5	2.0	2.5	3.3	4.6	5.0	6.5
EER	W/W	3.85	3.45	3.25	2.92	3.01	3.01	2.88
SEER		5.6	5.6	5.7	5.6	6.2	5.6	5.6
Energy efficiency class		A+	A+	A+	A+	A++	A+	A+
Seasonal electricity consumption	kWh/a	94	125	153	206	260	-	-
Heating capacity	kW	2.00	2.50	3.20	3.60	5.40	5.4	7.0
Heating range (min. - max.)	kW	(0.54 - 2.80)	(0.55 - 3.30)	(0.71 - 3.90)	(0.72 - 4.50)	(0.93 - 6.40)	(1.0 - 6.0)	(1.6 - 8.1)
Pdesignh (Tbiv-7°C)	kW	1.60	2.00	2.40	2.80	4.00	3.8	5.4
COP	W/W	4.26	3.91	3.76	3.75	3.48	3.42	3.00
SCOP		4.0	4.0	4.0	4.0	4.2	4.0	4.0
Energy efficiency class		A+	A+	A+	A+	A+	A+	A+
Seasonal electricity consumption	kWh/a	560	700	839	980	1334	-	-

MIRAI Performance data

R410A

Outdoor unit		RAS-05BAV-E	RAS-07BAV-E	RAS-10BAV-E1	RAS-13BAV-E1	RAS-16BAV-E	-	-
Indoor unit		RAS-05BKV-E	RAS-07BKV-E	RAS-10BKV-E1	RAS-13BKV-E1	RAS-16BKV-E	-	-
Cooling capacity	kW	1.50	2.00	2.50	3.10	4.40	-	-
Cooling range (min. - max.)	kW	(0.62 - 2.00)	(0.64 - 2.50)	(0.67 - 3.10)	(0.75 - 3.50)	(1.10 - 4.80)	-	-
Pdesignc	kW	1.50	2.00	2.50	3.10	4.40	-	-
EER	W/W	4.55	3.33	2.94	2.70	2.82	-	-
SEER		5.7	5.7	5.6	5.7	5.9	-	-
Energy efficiency class		A+	A+	A+	A+	A+	-	-
Seasonal electricity consumption	kWh/a	92	123	156	190	261	-	-
Heating capacity	kW	2.00	2.50	3.20	3.60	5.20	-	-
Heating range (min. - max.)	kW	(0.52 - 2.80)	(0.55 - 3.20)	(0.70 - 3.90)	(0.70 - 4.50)	(0.80 - 6.10)	-	-
Pdesignh (Tbiv-7°C)	kW	1.60	1.80	2.40	2.80	4.00	-	-
COP	W/W	4.55	4.03	3.81	3.75	3.42	-	-
SCOP		4.0	4.0	4.0	4.0	4.2	-	-
Energy efficiency class		A+	A+	A+	A+	A+	-	-
Seasonal electricity consumption	kWh/a	560	630	840	980	1333	-	-

MIRAI Physical data indoor

Indoor unit R32		RAS-B05BKVG-E	RAS-B07BKVG-E	RAS-B10BKVG-E1	RAS-B13BKVG-E1	RAS-B16BKVG-E	RAS-18BKVG-E1	RAS-24BKVG-E1
Indoor unit R410A		RAS-05BKV-E	RAS-07BKV-E	RAS-10BKV-E	RAS-13BKV-E	RAS-16BKV-E	-	-
Sound pressure level (h/l)	dB(A)	38/22	38/22	40/23	41/24	44/25	46/31	50/35
Sound pressure level (h/l)	dB(A)	39/22	40/22	41/23	42/24	43/26	47/31	49/35
Dimensions (hwxwd)	mm	293x798x230	293x798x230	293x798x230	293x798x230	293x798x230	293x798x230	320x1050x243
Weight	kg	9	9	9	9	10	14	14

MIRAI Physical data outdoor

Outdoor unit R32		RAS-05BAVG-E	RAS-07BAVG-E	RAS-10BAVG-E1	RAS-13BAVG-E1	RAS-16BAVG-E	RAS-18BAVG-E1	RAS-24BAVG-E1
Outdoor unit R410		RAS-05BAV-E	RAS-07BAV-E	RAS-10BAV-E1	RAS-13BAV-E1	RAS-16BAV-E	-	-
Sound pressure level (h)	dB(A)	48	48	48	48	49	50	55
Operating range	°C	-15 ~ 46	-15 ~ 46	-15 ~ 46	-15 ~ 46	-15~46	-15 ~ 46	-15 ~ 46
Sound pressure level (h)	dB(A)	50	50	51	51	52	51	55
Operating range	°C	-15 ~ 24	-15 ~ 24	-15 ~ 24	-15 ~ 24	-15~24	-15~24	-15~24
Dimensions (hwxwd)		530x660x240	530x660x240	530x660x240	530x660x240	550x780x290	550x780x290	550x780x290
Weight		21	21	21	22	34	34	34
Power supply		220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50

*Preliminary data



R410A
with TOSHIBA



TOSHIBA Air Conditioning participates in the ECP program for Comfort Air Conditioners (AC). Check ongoing validity of certificate: www.eurovent-certification.com



Better Air Solutions

