

# Innovations in detail

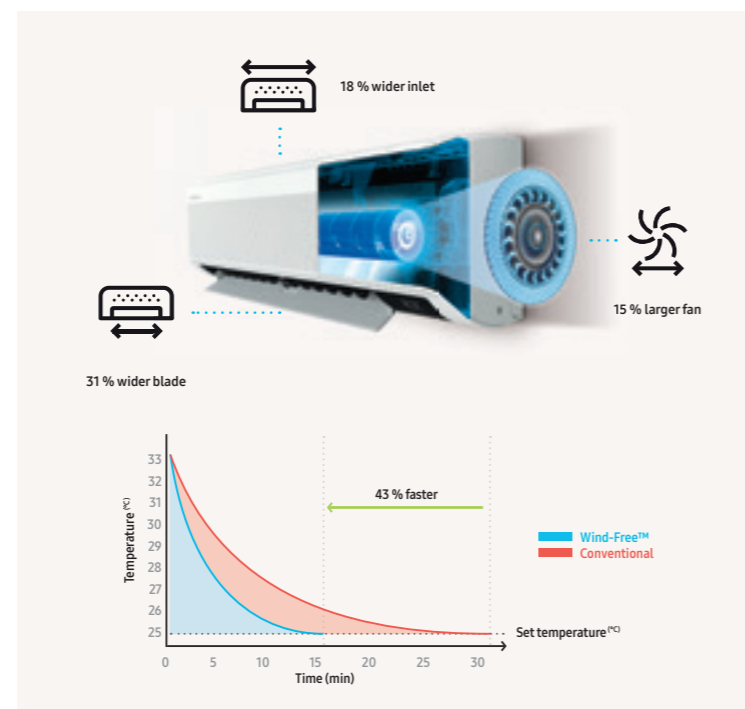
## Wall-Mounted

### Fast Cooling

Samsung wall-mounted air conditioners with Wind-Free™ technology cool quickly from corner to corner, making people comfortable whenever they want and wherever they are. Powerboost with Digital Inverter TT (Twin Tube) technology dramatically shortens the time it takes for the compressor to reach maximum power when it starts operating, so it cools the air 43 % faster<sup>1</sup>. Its advanced design also features a 15 % larger fan, 18 % wider inlet and a 31 % wider blade than conventional models. This means that cool air is dispersed farther and wider into every corner of a room, reaching up to 15 metres<sup>2</sup>.

<sup>1</sup> Tested on the AR12TXCAAWKEU model compared with the Samsung conventional model AQ12EASER under specific testing conditions and may vary depending on environmental factors and use.

<sup>2</sup> Tested on the AR24TXFCAWKNEU model under specific testing conditions and may vary depending on environmental factors and use.

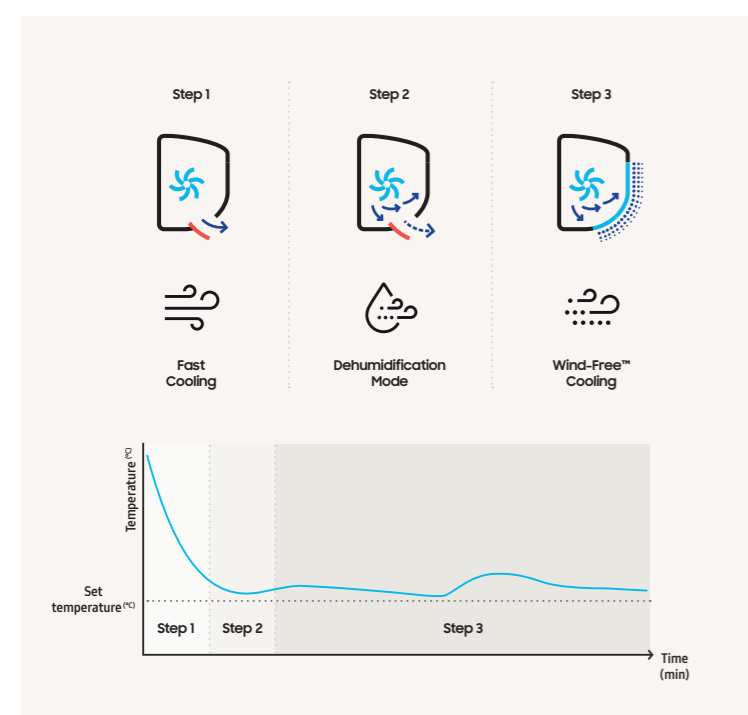
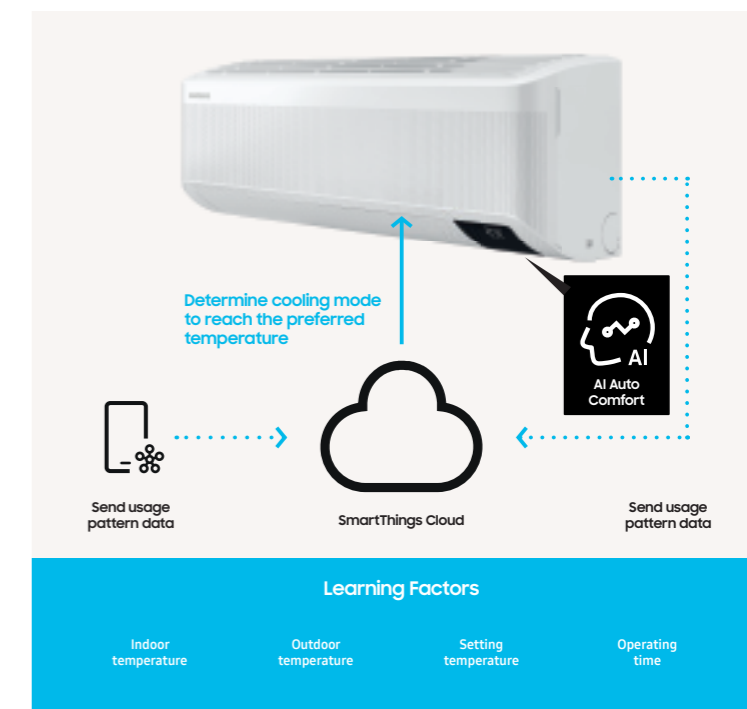


### AI Auto Comfort

AI Auto Comfort introduces residents to the experience of intelligent climate control<sup>1</sup>. To make life simpler and more efficient, it automatically optimises the various modes by analysing room conditions and usage patterns<sup>2</sup>. Based on users' preferred temperature and the outside temperature, it automatically switches to the most appropriate mode, including Wind-Free™, Fast and Normal Cooling, to maintain optimal, comfortable room conditions.

<sup>1</sup> AI = Artificial Intelligence. A Wi-Fi connection and Samsung SmartThings application account are required.

<sup>2</sup> Stores user data, preferences and usage patterns, enabling it to suggest the most useful options.



### Wind-Free™ Cooling

Wind-Free™ Cooling mode keeps the room comfortably cool. It cools gently and quietly, dispersing air through 23,000 micro-holes so that people never have to deal with the unpleasant feeling of a cold draft on their skin. This results in a "Still Air" environment<sup>1</sup> with a very low air speed and limited noise<sup>2</sup>. The advanced airflow structure of this mode also means that it cools a wider and larger area more evenly. And it consumes 77 % less energy than Fast Cooling mode<sup>3</sup> so people can stay comfortably cool while reducing energy costs.

<sup>1</sup> ASHRAE (the American Society of Heating, Refrigerating, and Air-Conditioning Engineers) defines "Still Air" as air currents moving at speeds below 0.15 m/s, with no cold drafts.

<sup>2</sup> Tested on the AR12TXCAAWKNEU model in an anechoic environment. Wind-Free™ mode generates 23 dB(A) of noise, compared to 26 dB(A) produced by the conventional Samsung model. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions.

<sup>3</sup> Tested on the AR12VEAAWKNEU model under specific testing conditions, based on the power consumption of Fast Cooling mode vs. Wind-Free™ Cooling mode.



### Smart Control

Control the temperature at home, anytime and anywhere. The SmartThings App<sup>1</sup> enables people to remotely control their air conditioner. With just the touch of a button, users can turn the air conditioner on or off, select the cooling mode, schedule the air conditioner's operation and monitor its power consumption. And with the Bixby 2.0 Artificial Intelligence (AI) system<sup>1</sup>, a user can simply tell the device what they want<sup>2</sup>, and the device carries out their wishes. It even analyses the environment, preferred mode and temperature and suggests the best settings for inside the home.

<sup>1</sup> Available on Android and iOS devices. A Wi-Fi connection and Samsung SmartThings account are required.

<sup>2</sup> Voice control is supported in English (US, UK, Indian), Chinese, Korean, French, German, Italian and Spanish. Portuguese is scheduled to be supported by the end of 2019.

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## Wall-Mounted

### Motion Detect Sensor

Cool the home efficiently whether someone is there or not. If the Motion Detect Sensor (MDS) detects a lack of movement after 20 minutes<sup>1</sup>, it automatically switches to Wind-Free™ mode to save energy. Subject to conditions, after 40 minutes it increases the temperature by 2 °C in Wind-Free™ mode. And after a further 40 minutes it enters standby (Soft off) mode. But as soon as it detects any activity it returns to working normally. It can also be set to avoid blowing air towards people, or alternatively, to follow them as they move around.

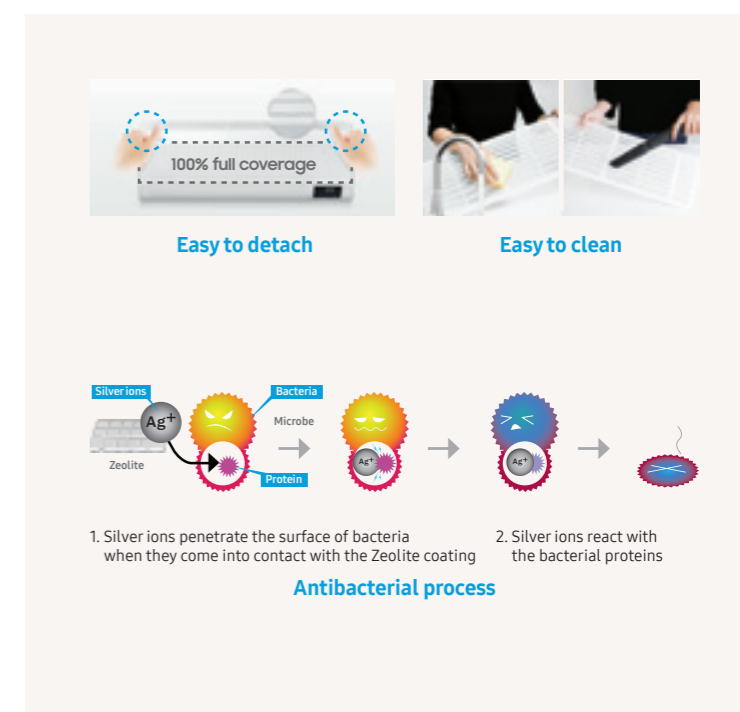
<sup>1</sup> The Motion Detect Sensor (MDS) starts detecting the absence of movement after a minimum of five minutes and up to a maximum of 60 minutes.



### Step 1: Easy Filter Plus

Keep the air conditioner working efficiently with limited effort. Unlike conventional filters that may be difficult to access, the Easy Filter Plus is located externally, on the top of the unit. This means it can be easily removed and cleaned, without needing to open a cover or pull hard on it. Thanks to the filter's dense mesh, it's very effective at capturing dust and therefore keeping the Heat Exchanger clean and working efficiently. The special coating on the filter helps protect residents from airborne contaminants<sup>1</sup>.

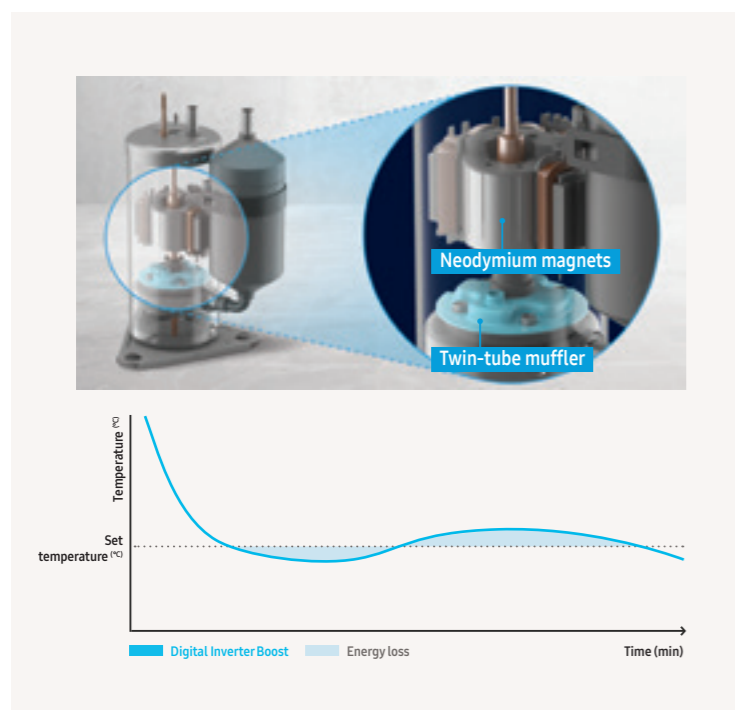
<sup>1</sup> Tested in Korean test lab (FITI). Data has been measured under specific testing conditions and may vary depending on environmental factors and individual use.



### Digital Inverter Boost

Samsung's compressor with Digital Inverter Boost technology helps to save on energy consumption. Unlike conventional fixed-speed compressors, it maintains the desired temperature without frequently turning off and on, resulting in less fluctuation. As it's equipped with strong neodymium magnets and a muffler, it works efficiently and produces less noise and vibration than conventional models. When cooling, it optimises power usage and therefore reduces energy consumption by up to 5 %<sup>1</sup>.

<sup>1</sup> Tested on the AR09TXCAAWKNEU model compared with the previous Samsung Wind-Free™ model AR09NXXCAWKNEU.



### Step 2: Tri-Care Filter

The Tri-Care Filter keeps the air hygienic and sustains the performance of the Heat Exchanger. Its three layers include a high-density filter that extracts large household dust particles, fibres and animal hairs. It also has a filter with Zeolite coating that captures fine dust, and helps to reduce potentially dangerous viruses, bacteria and allergens in the air<sup>1</sup>.

<sup>1</sup> Tested by Korean test lab (FITI/KRICT) for anti-bacteria and anti-virus properties, and by Japanese test lab (ITEA) for anti-allergy properties. Data has been measured under specific testing conditions and may vary depending on environmental factors and individual use. Tested on AR13TYCABWKNST model.

# Specifications

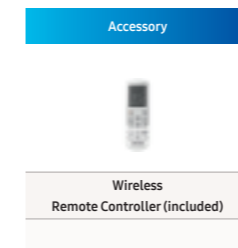
Cebu **R32**

- AI Auto Comfort.
- Wi-Fi Control with Samsung SmartThings and Bixby voice controls.
- Compressor with Digital Inverter Boost technology.
- Equipped with NASA communication protocol.
- Direct drive fan powered by a BLDC motor.
- Triple Protector Plus to protect compressor, fan and controller from power surges.



Indoor Unit		AR09TFYAWKNEU	AR12TFYAWKNEU	AR18TFYAWKNEU	AR24TFYAWKNEU	
Outdoor Unit		AR09TFYAWKXEU	AR12TFYAWKXEU	AR18TFYAWKXEU	AR24TFYAWKXEU	
<b>Capacity</b>						
Capacity	Cooling (Nominal)	kW	2.5	3.5	5.0	6.5
	Cooling (Min-Max)	kW	0.9-3.4	0.9-4.0	1.6-6.7	1.4-7.6
	Heating @ +7 °C	kW	3.2	3.5	6.0	7.4
	Heating (Min-Max)	kW	0.9-4.5	0.9-5.0	1.3-8.0	1.2-9.4
	Heating @ -5 °C	kW	2.74	3.09	4.84	6.00
	Heating @ -10 °C	kW	2.48	2.87	4.57	5.55
	Heating @ -15 °C	kW	2.29	2.58	4.58	5.66
<b>Performance</b>						
Energy Efficiency Cooling	SEER <sup>1</sup>	W/W	6.7/ <b>A++</b>	6.5/ <b>A++</b>	6.8/ <b>A++</b>	6.4/ <b>A++</b>
	Power Consumption	kWh/a	131	188	257	355
	Pdesignc	kW	2.5	3.5	5.0	6.5
	EER	W/W	3.57	2.87	3.60	3.33
	Energy Efficiency Heating	SCOP <sup>1</sup>	W/W	4.0/ <b>A+</b>	4.0/ <b>A+</b>	3.8/ <b>A</b>
	Power Consumption	kWh/a	735	770	1,400	1,511
	Pdesignh (average)	kW	2.1	2.2	3.8	4.1
	COP <sup>1</sup>	W/W	3.81	3.72	3.53	3.15
Moisture Removal	L/h		1.0	1.5	2.0	2.5
Maximum Airflow (Cooling)	Indoor Unit	m <sup>3</sup> /min	10.5	10.9	16.5	17.2
	Outdoor Unit	m <sup>3</sup> /min	28.0	28.0	50.0	50.0
Sound Power	Indoor Unit (Cooling)	dB(A)	54	56	58	62
	Outdoor Unit (Cooling)	dB(A)	63	64	65	68
Sound Pressure	Indoor Unit High/Silent Mode	dB(A)	37/19	38/19	41/25	45/26
	Outdoor Unit High	dB(A)	46	47	51	54
Operating Temperature Range	Cooling	°C	-10-46	-10-46	-10-46	-10-46
	Heating	°C	-15-24	-15-24	-15-24	-15-24
<b>Electrical Data</b>						
Power Source	Φ, V, Hz		1Φ, 220-240 V, 50 Hz	1Φ, 220-240 V, 50 Hz	1Φ, 220-240 V, 50 Hz	1Φ, 220-240 V, 50 Hz
Compressor Type	Outdoor Unit	Type	BLDC Rotary	BLDC Rotary	BLDC Rotary	BLDC Rotary
Power Consumption	Cooling	W	700	1,220	1,390	1,950
	Heating	W	840	940	1,700	2,350
Operating Current	Cooling	A	3.6	5.6	6.4	8.8
	Heating	A	4.0	4.5	7.8	10.5
<b>Dimensions</b>						
Net Dimensions (W x H x D)	Indoor Unit	mm	820 x 299 x 215	820 x 299 x 215	1,055 x 299 x 215	1,055 x 299 x 215
	Outdoor Unit	mm	660 x 475 x 242	660 x 475 x 242	880 x 638 x 310	880 x 638 x 310
Net Weight	Indoor Unit	kg	9.1	9.1	11.5	11.6
	Outdoor Unit	kg	22.6	22.6	39.7	43.2
<b>Refrigerant</b>						
Refrigerant	Type		R32 (contains fluorinated greenhouse gases. GWP = 675)			
	Charging (for 5 m)	kg	0.70	0.70	1.30	1.30
	Charging Ton Equivalent CO <sub>2</sub>	tCO <sub>2</sub> e	0.47	0.47	0.88	0.88
	Additional Refrigerant Charging	g/m	15	15	15	15
Piping Connections	Liquid Pipe	ø, mm (inch)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)
	Gas Pipe	ø, mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
Piping Length	Min/Max (ODU to IDU)	m	3/15	3/15	3/15	3/15
Piping Height	Max	m	8	8	8	8
Piping Connections	Drain Pipe	ø, mm	ø16.3, 550 mm	ø16.3, 550 mm	ø16.3, 550 mm	ø16.3, 550 mm

Indoor Unit		AR09TFYAWKNEU	AR12TFYAWKNEU	AR18TFYAWKNEU	AR24TFYAWKNEU
Outdoor Unit		AR09TFYAWKXEU	AR12TFYAWKXEU	AR18TFYAWKXEU	AR24TFYAWKXEU
<b>Functions</b>					
Airflow	Wind-Free™ Cooling				
	Air Direction Control (Up/Down)	Auto	Auto	Auto	Auto
	Air Direction Control (Left/Right)	Manual	Manual	Manual	Manual
	Auto Fan Speed	●	●	●	●
Air Purification	Tri-Care Filter				
	Easy Filter Plus	●	●	●	●
	Auto Clean (Self-Cleaning)	●	●	●	●
Operating Mode	AI Auto Comfort with Wi-Fi & MDS (direct/indirect)				
	AI Auto Comfort with Wi-Fi	●	●	●	●
	Auto Mode (without Wi-Fi)				
	Fast Cooling	●	●		
	Good Sleep	●	●	●	●
	Eco	●	●	●	●
	Dehumidification	●	●	●	●
	Fan	●	●	●	●
	Quiet			●	●
	Other Functions	Samsung SmartThings	●	●	●
MDS (Motion Detect Sensor)					
Indoor Temperature Display			●	●	●
Display On/Off		88 Display	●	●	●
Beep On/Off			●	●	●
Auto Changeover			●	●	●
Auto Restart			●	●	●

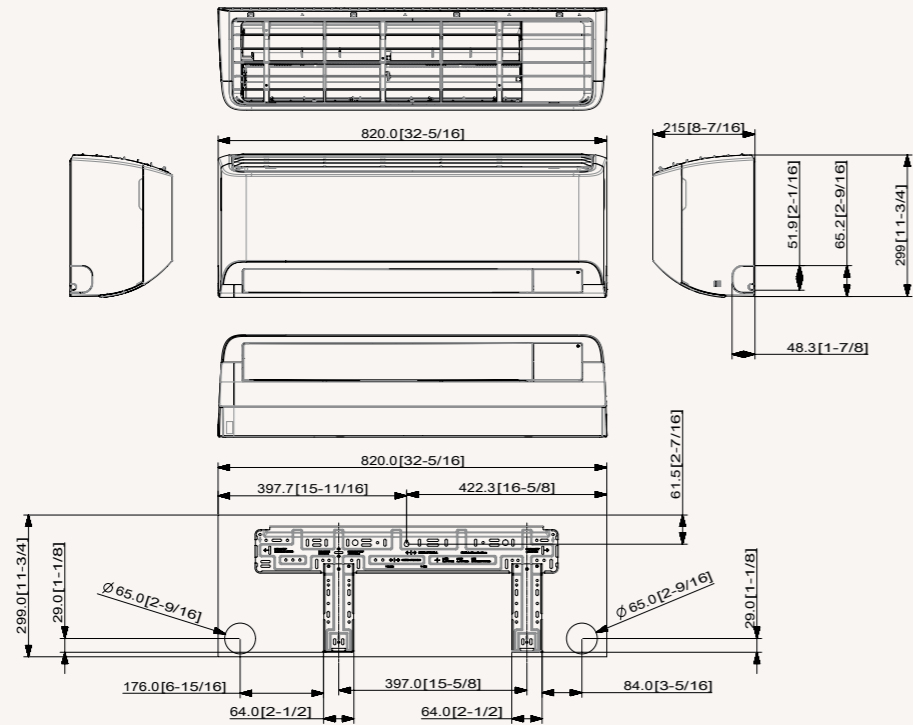


<sup>1</sup>Energy labels as shown are according to EU No 626/2011 (LOT10) label classification 2019, on a scale from D to A+++.

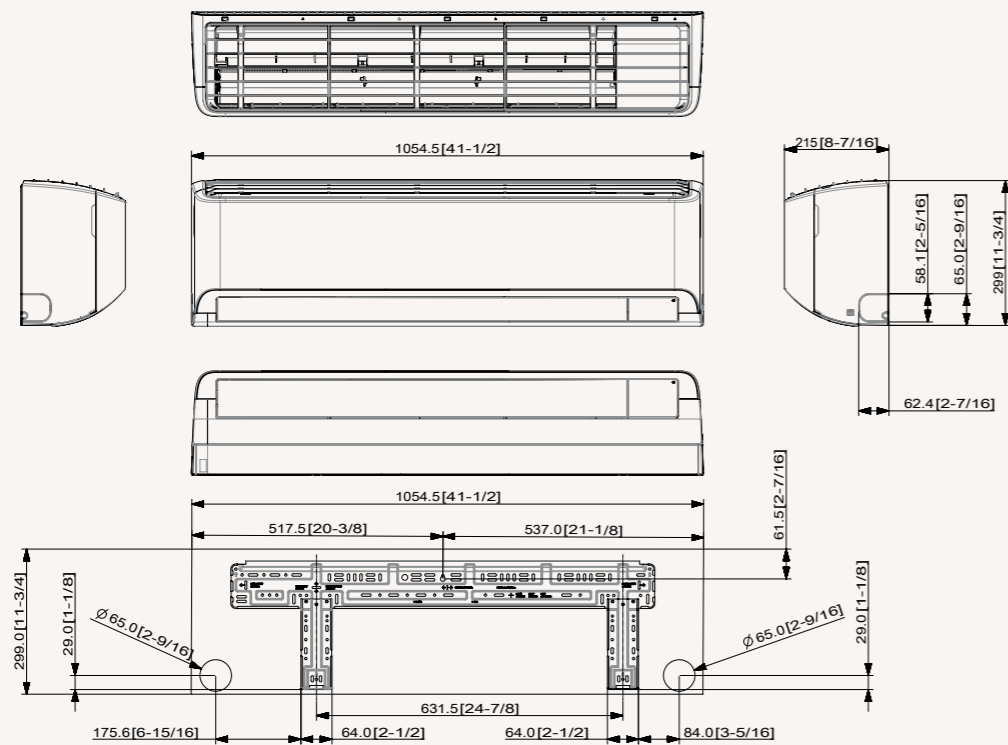
# Dimensional drawings

## Cebu - Indoor

AR09/12TXFYAWKNEU

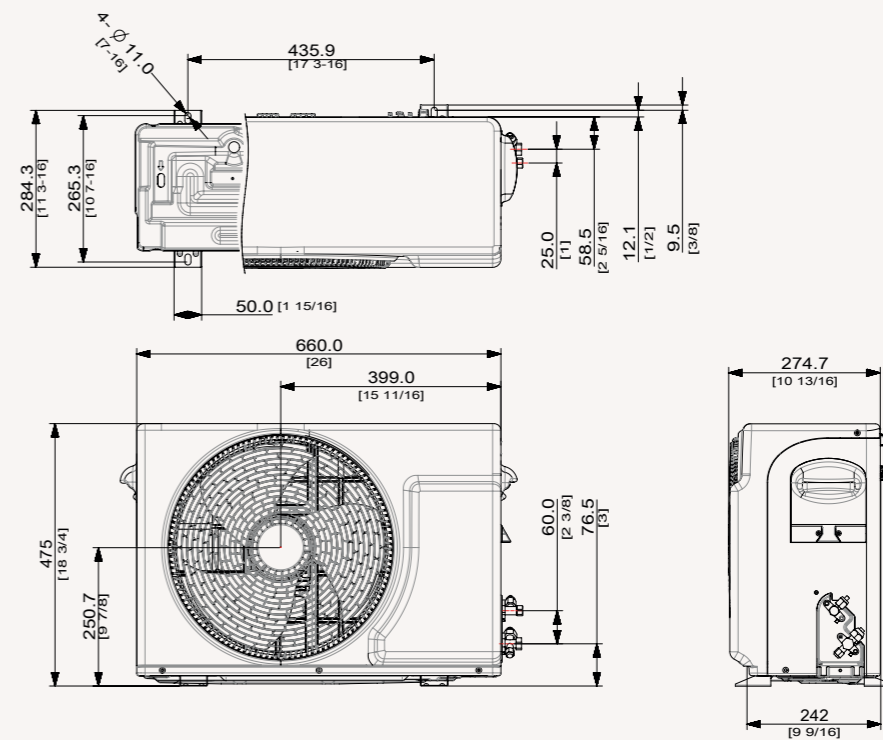


AR18/24TXFYAWKNEU



## Cebu - Outdoor

AR09/12TXFYAWKXEU



AR18/24TXFYAWKXEU

