XL

LARGE WALL MOUNTED SPLIT SYSTEM

FTXV-WVMA

Nomenclature
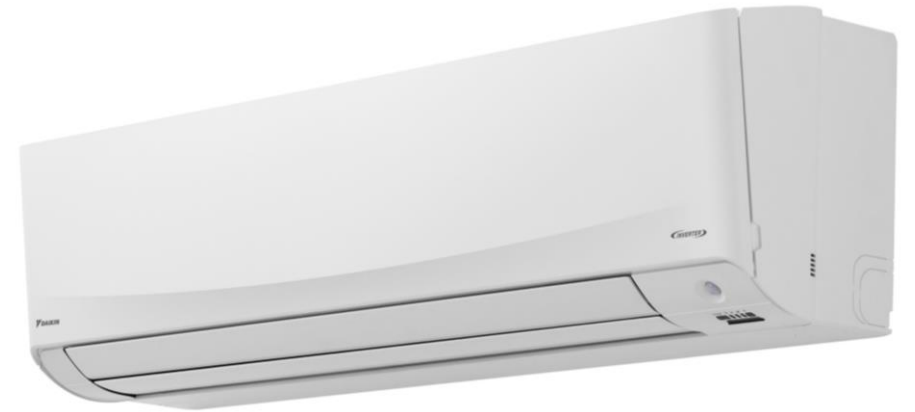
CURRENT					NEW		
	Class	Indoor	Outdoor	Capacity, kW (Cool/Heat)	Indoor	Outdoor	Capacity, kW (Cool/Heat)
Reverse Cycle	85	FTXV85LVMA	RXV85LVMA	8.5/9.0	FTXV80**W**VMA	RXV80**W**VMA	**8.0**/9.0
	95	FTXV95LVMA	RXV95LVMA	9.4/10.3	FTXV90**W**VMA	RXV90**W**VMA	**9.0**/10.3

Appearance & Dimensions

	Indoor Unit	Outdoor Unit	Controller
Reverse Cycle — 85 / 95	329(H) x 1240(W) x 278(D) mm	990(H) x 940(W) x 320(D) mm	188.7(H) x 58.5(W) x 23.4(D) mm

Product Overview

- New XL supersedes FTXV85-95LVMA, available in RC
  - RC: FTXV-**W**VMA: 8.0 – 9.0kW (2 new models)
  - Consistent appearance across entire Cora range "Smile Curve"

- Improved energy efficiency
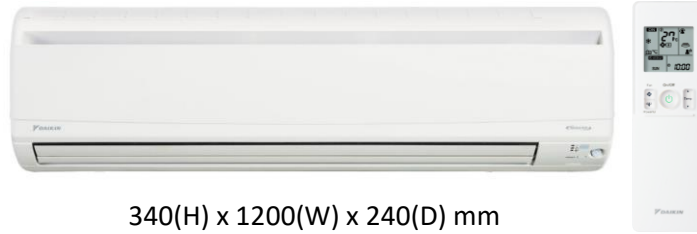 - Up 27% in TCSPF & 1 Star (80 Class, Avg Zone)

FEATURES

- Enzyme Blue Filter – improves IAQ by decomposing odours & bacteria
- Mould Proof Operation → prevents growth of mould on internal components
- Built-in Humidity Sensor for improved dry operation (↑**40%** dehumidification)
- Redesigned Dual Flaps → **longer throws up to 10m**
- Optional Wi-Fi (Mobile Controller) available
- Indoor unit quiet operation (37 dBA, 80 Class)
- Trademark Intelligent Eye infrared human presence sensor

What's New

|		FTXV85LVMA	FTXV80WVMA
	Design	340(H) x 1200(W) x 240(D) mm	**Redesigned Casing** **329(H) x 1240(W) x 278(D) mm**
Capacity	Cool	8.5 kW	**8.0 kW**
	Heat	9.0 kW	9.0 kW
Efficiency	Hot (Cool/Heat)	2.5/2.5★	**3.5**/2.5★
	Average (Cool/Heat)	2.0/2.0★	**3.0**/2.0★
	Cold (Cool/Heat)	2.0/2.0★	**3.5**/**1.5**★
IAQ & Technology	Prefilter	✓	✓
	Enzyme Blue Filter	✓	✓
	Mould Proof Operation	N/A	✓
	Program Dry Function	✓	**Improved** with built-in Humidity Sensor
	Discharge Flap	Dual Flap	**Dual Flap** with Aerodynamic End Vanes
Convenience	Built-in S21 Port	Built-in	**Built-in** (KER087A41 harness required)
	Wi-Fi (Mobile Controller)	Optional (BRP072C42 Externally mounted)	Optional (**BRP084C44 Internally mounted**)
	Countdown hourly On/Off Timer	N/A	✓

What is ZERL?

- In typical Australian climates, the AC will operate at part load capacity for most of the year, Seasonal Performance provides a more realistic view of AC energy efficiency than the current AEER ratings which assume a set temp. & full load conditions all year round
- The Zoned Energy Rating Label (ZERL) displays the seasonal performance (Star Rating) for three distinct climate zones as well as capacity output & sound power levels
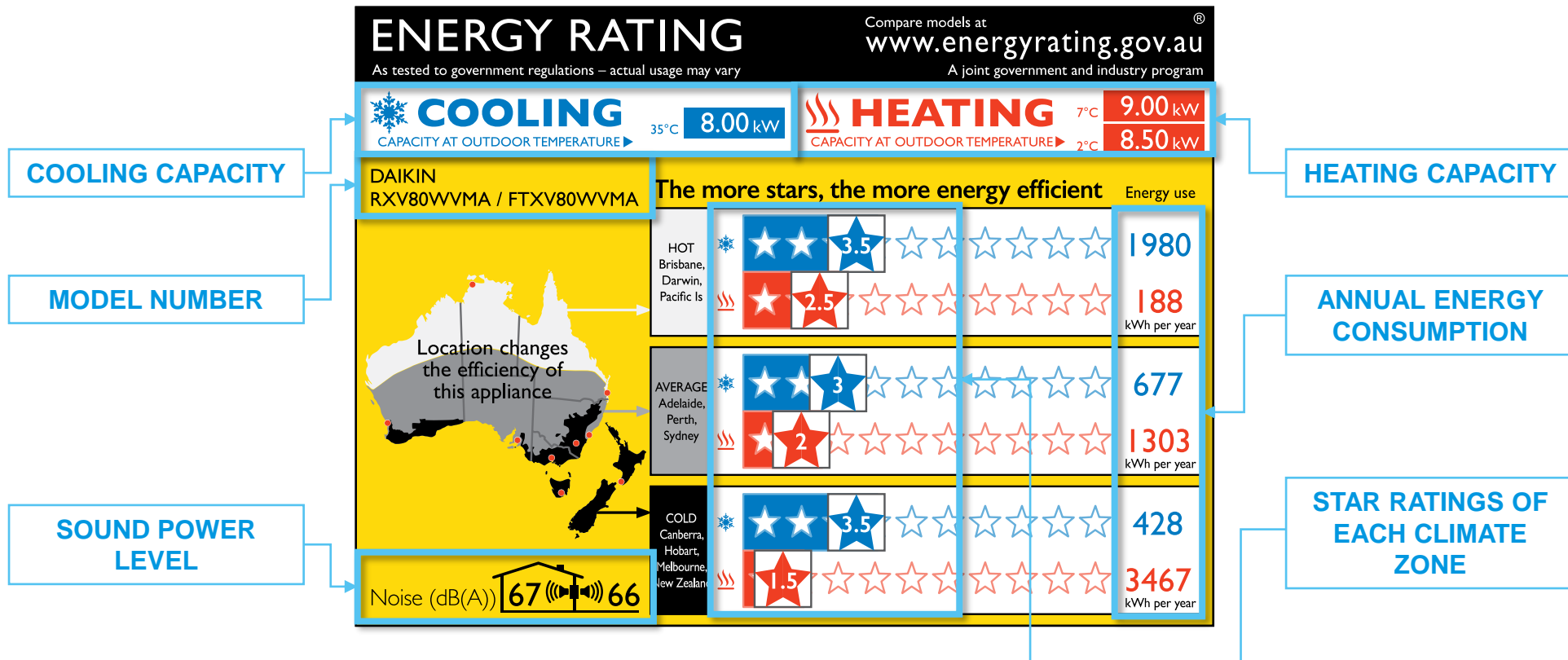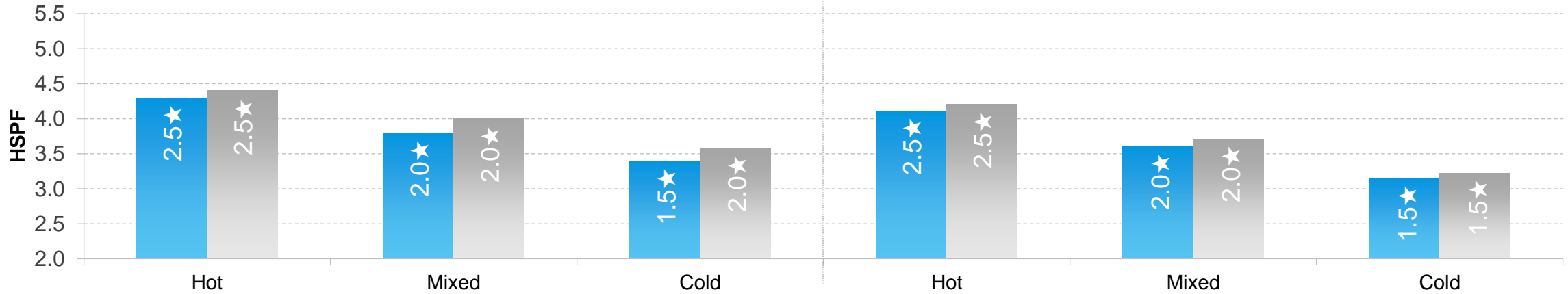
Seasonal Energy Performance
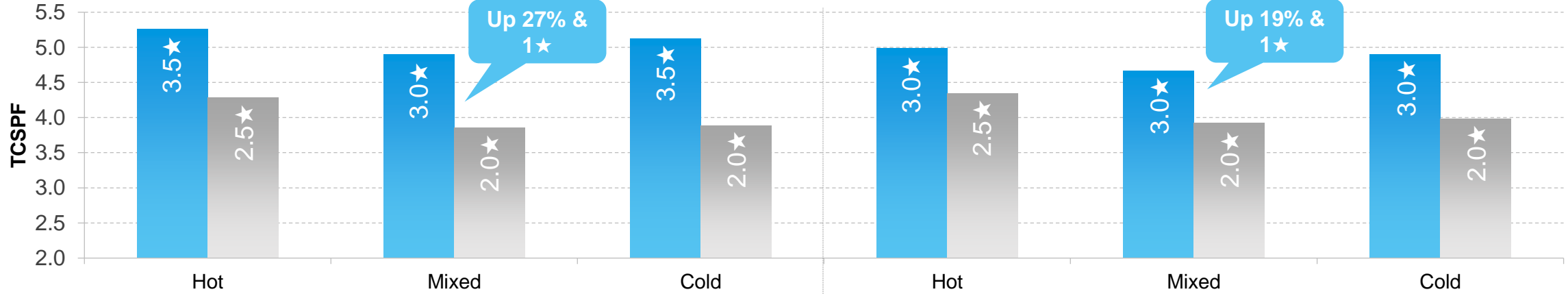
OPERATION

Wireless Controller Design

FEATURES

- Contemporary look
- Backlit LCD Controller
- Large buttons, clearly labeled for ease of use
- Key functions on face of controller
- 0.5 °C increment temperature control
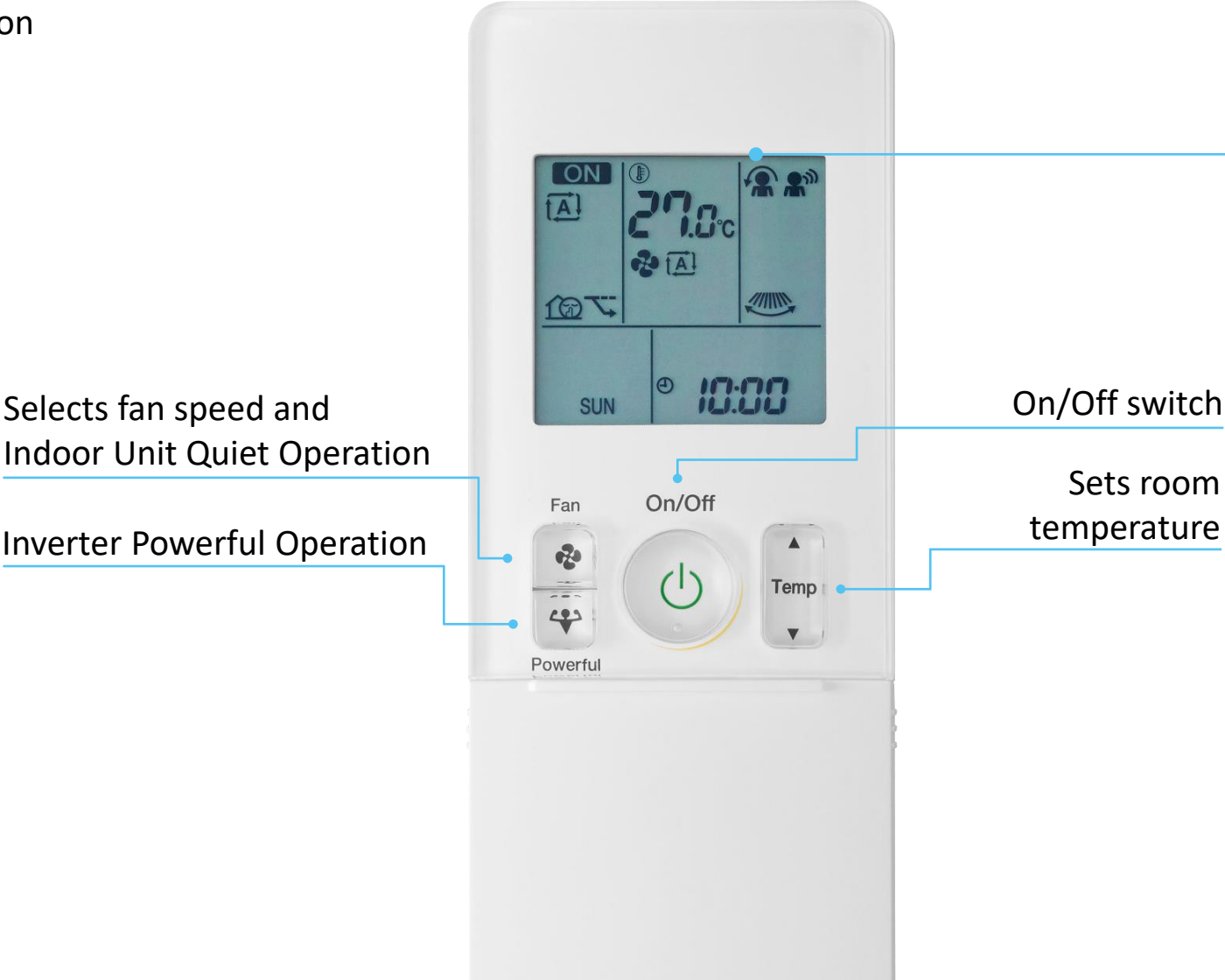- Weekly Timer

Elegant form harmonises with the interior

Wireless Controller Tour

CONTROLLER INTERFACE

- Key functions are easily accessible for quick configuration

Selects fan speed and Indoor Unit Quiet Operation

Inverter Powerful Operation

On/Off switch

Sets room temperature
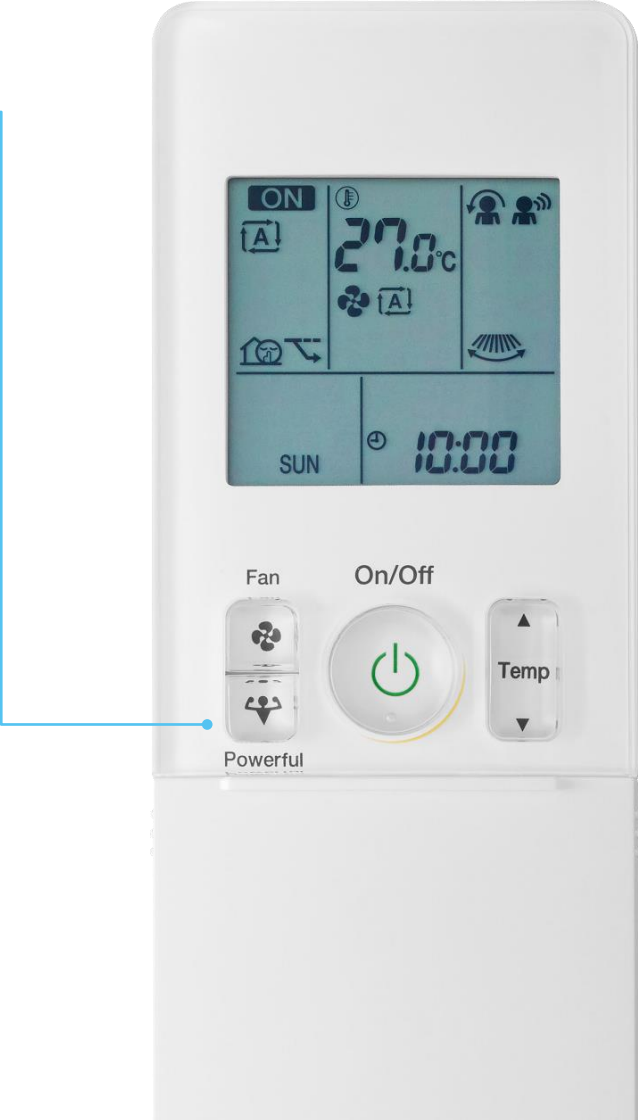
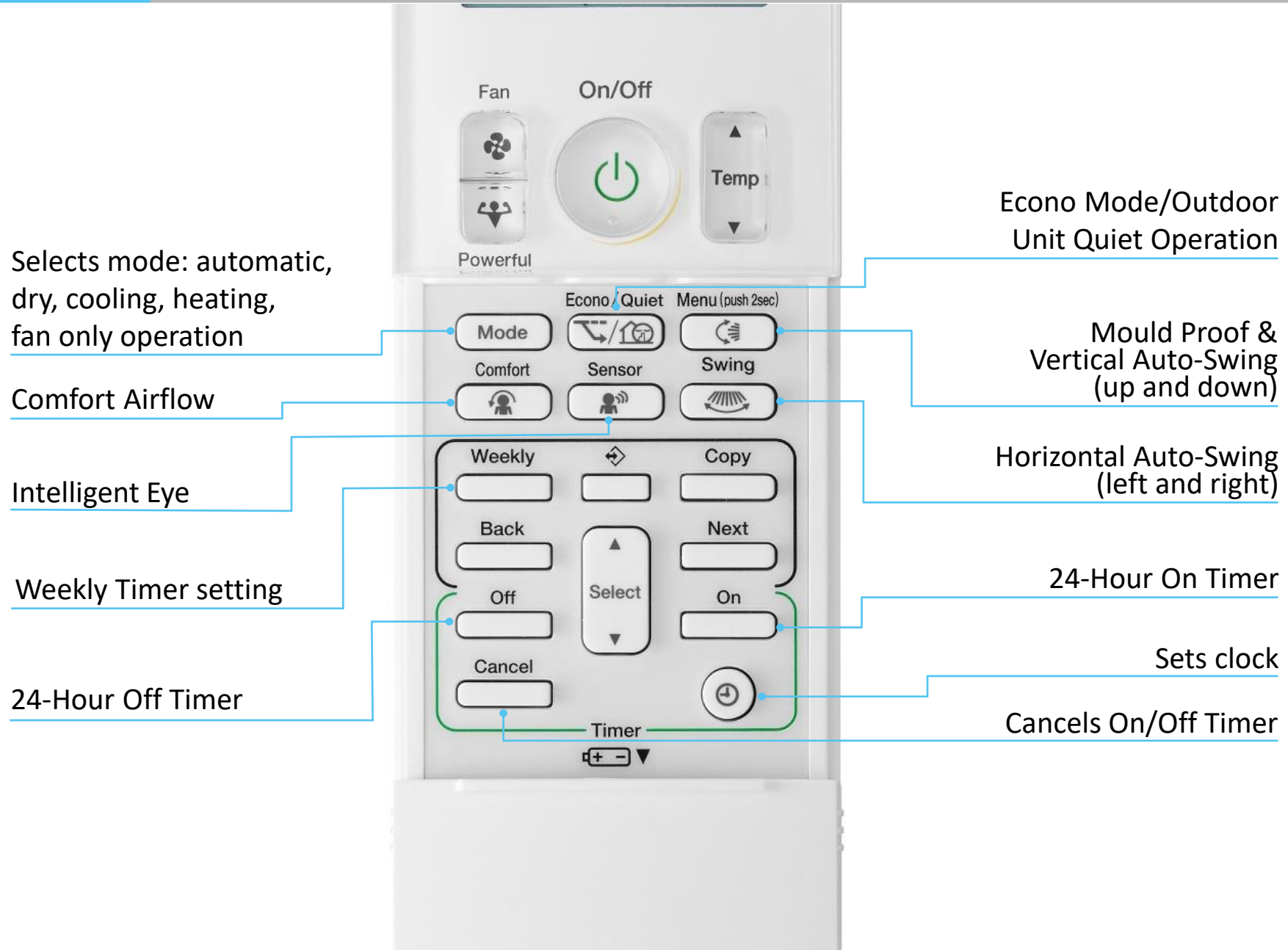**Backlit LCD**

Lights up during use

INVERTER POWERFUL OPERATION

- Operates on all modes (Auto, Heat, Cool, Dry, Fan)
- Airflow is boosted beyond high fan speed for 20min before returning to its initial setting
- Target Setpoint temp. is also adjusted (see table)

Mode	Fan Speed	Target SP
COOL	H + 80rpm	18°C
DRY	Dry Speed + 80rpm	Initial SP – 2.5°C
HEAT	H + 80rpm	31°C
FAN	H + 80rpm	-

Note: In AUTO, Fan Speed & Target SP is as per COOL/HEAT

Wireless Controller Tour

Selects mode: automatic, dry, cooling, heating, fan only operation

Comfort Airflow

Intelligent Eye

Weekly Timer setting

24-Hour Off Timer

Econo Mode/Outdoor Unit Quiet Operation

Mould Proof & Vertical Auto-Swing (up and down)

Horizontal Auto-Swing (left and right)

24-Hour On Timer

Sets clock

Cancels On/Off Timer

Wireless Controller Tour

MODE OPERATIONS

- Toggle mode button to switch between available modes

Modes	AUTO	DRY	COOL	HEAT	FAN
Icon	⒜	◨	❄	☀	❀
Temperature Settings	18 – 30°C	N/A	18 – 32°C	10 – 30°C	N/A

Button Press Cycle

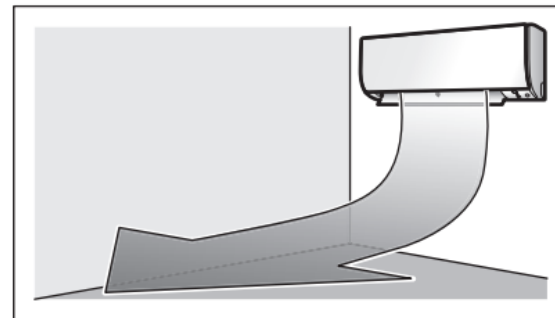AUTO → DRY → COOL → HEAT → FAN

Wireless Controller Tour
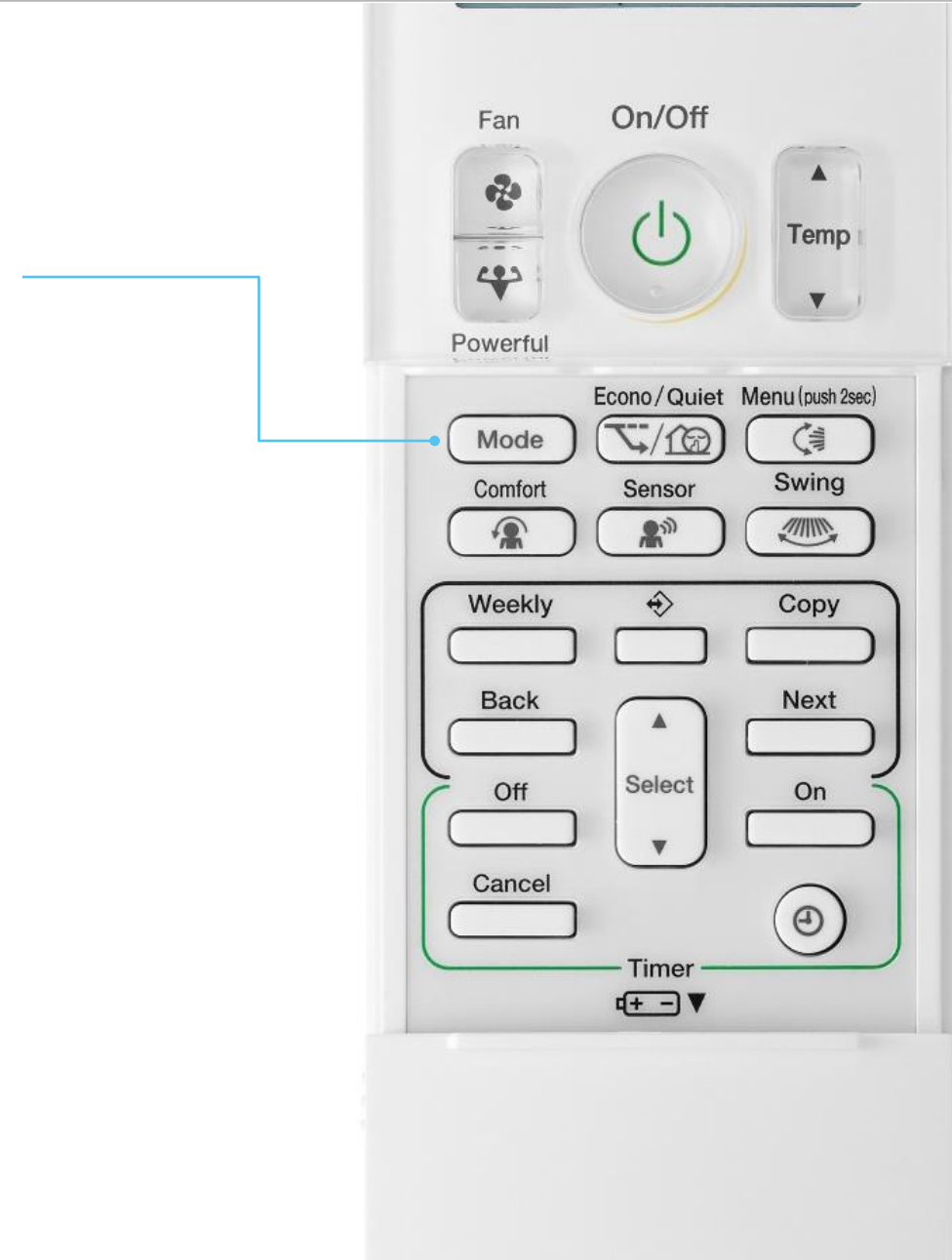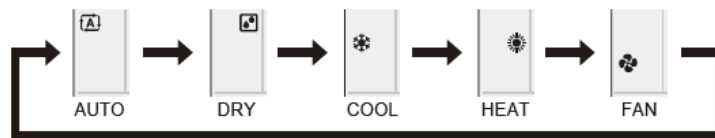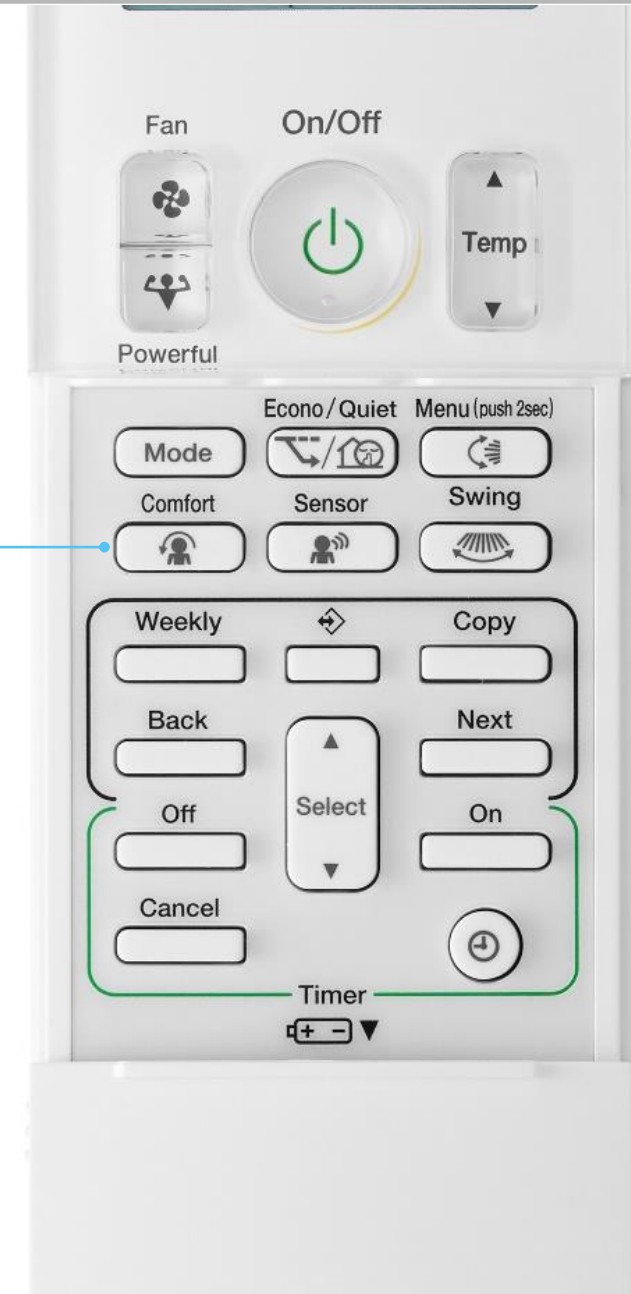
COMFORT AIRFLOW OPERATION

- Air is streamed upwards in cooling and downwards in heating
- Improves air distribution
- Provides a comfortable air distribution that is directed away from occupants for draught free comfort
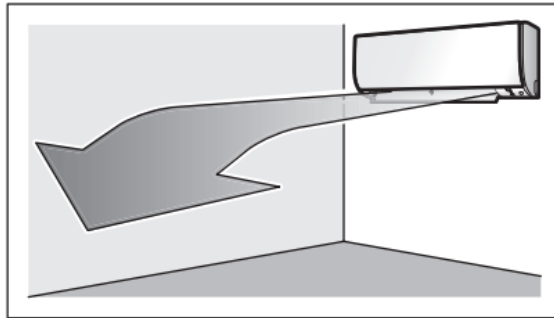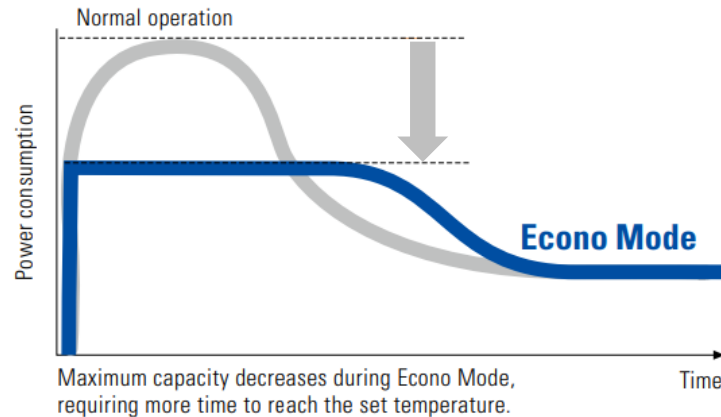

COOL operation

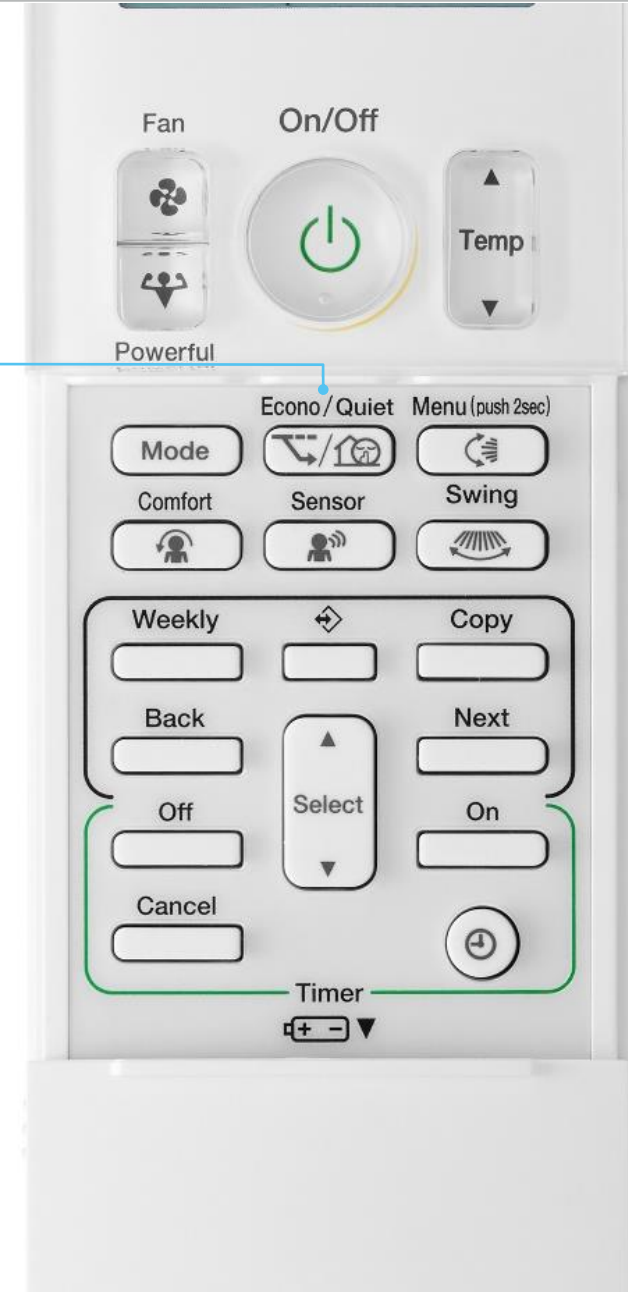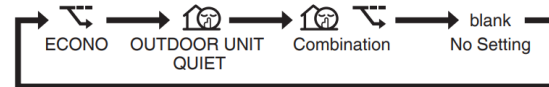HEAT operation

Wireless Controller Tour

ECONO MODE

- Prevents tripping of circuit breaker by limiting start up power consumption
- Useful when there are multiple household appliances in operation
- Not available during 'Inverter Powerful Operation'

Button Press Cycle

ECONO → OUTDOOR UNIT QUIET → Combination → blank No Setting

Normal operation

Econo Mode

Power consumption

Time

Maximum capacity decreases during Econo Mode, requiring more time to reach the set temperature.

Fan

On/Off

Powerful

Temp

Econo/Quiet   Menu (push 2sec)

Mode

Comfort   Sensor   Swing

Weekly   Copy

Back   Next

Off   Select   On

Cancel

Timer

15

Wireless Controller Tour

INDOOR QUIET MODE

- Sound pressure level can be reduced **by up to 4dBA** from Low Fan Speed depending on the model

80 Class Example (Cooling)

Fan speeds	dB(A)
H	51
M	46
L	40
SL	37

3dBA

Button Press Cycle

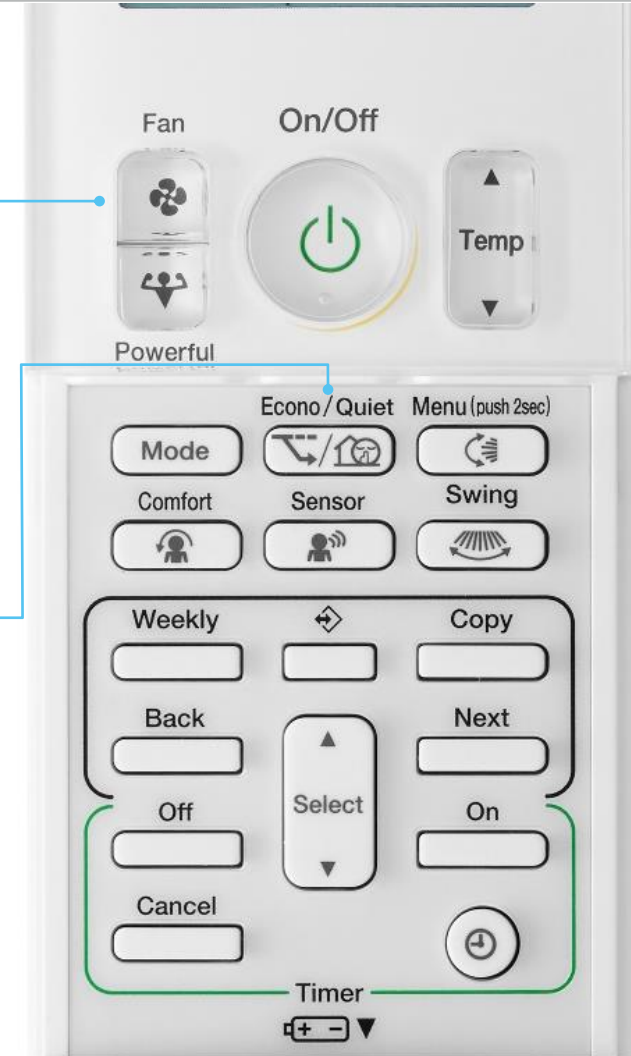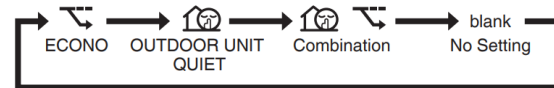AUTO → Indoor unit quiet → ... → Airflow rate 1-5 (Low to High)

OUTDOOR QUIET MODE

- Sound pressure level can be reduced **by up to 3dBA** from High Fan Speed depending on the model
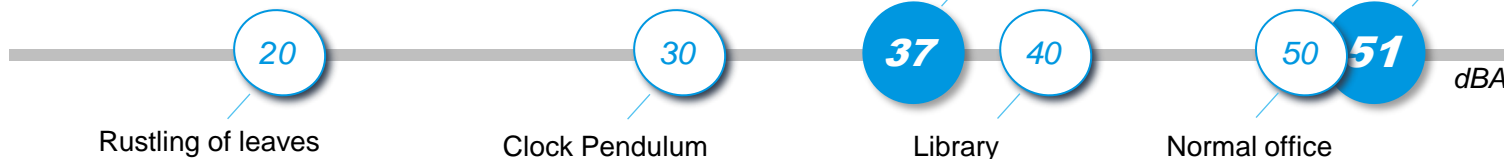
85 Class Example (Cooling)

Fan speeds	dB(A)
H	54
SL	51

3dBA

Button Press Cycle

ECONO → OUTDOOR UNIT QUIET → Combination → blank No Setting

Indoor unit 37 40 **Outdoor unit** 50 51 dBA

20 Rustling of leaves 30 Clock Pendulum 37 Library Normal office

INTELLIGENT EYE SENSOR

- Intelligent Eye operation is designed to
  - Automatically adjust to energy saving operations when no occupant is detected
  - Return to normal operation when occupant is detected
- Human presence sensing max parameters – vertical: 90°, horizontal: 110° & range: 7m
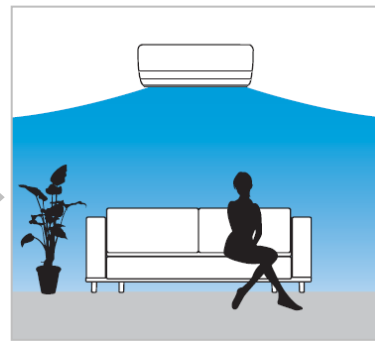
Button Press Cycle

Intelligent eye → blank No Setting
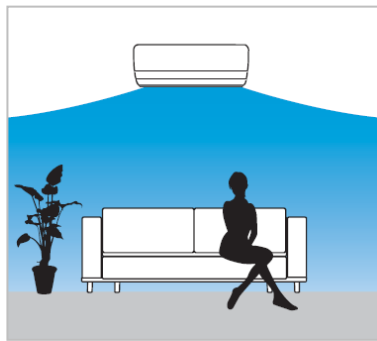
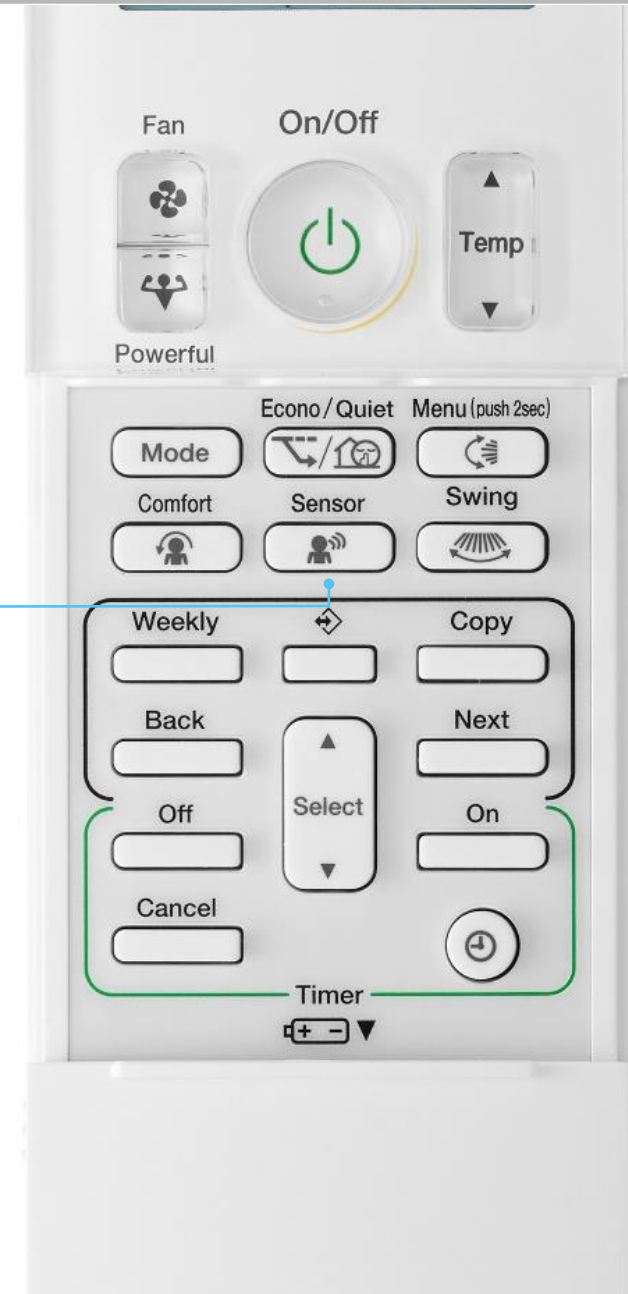If occupants detected, the air conditioner maintains the set temperature.
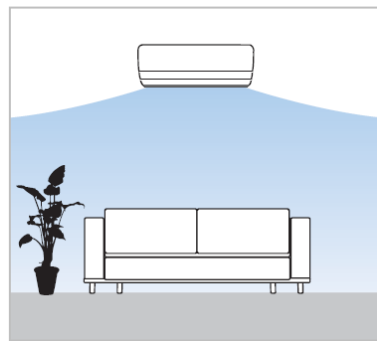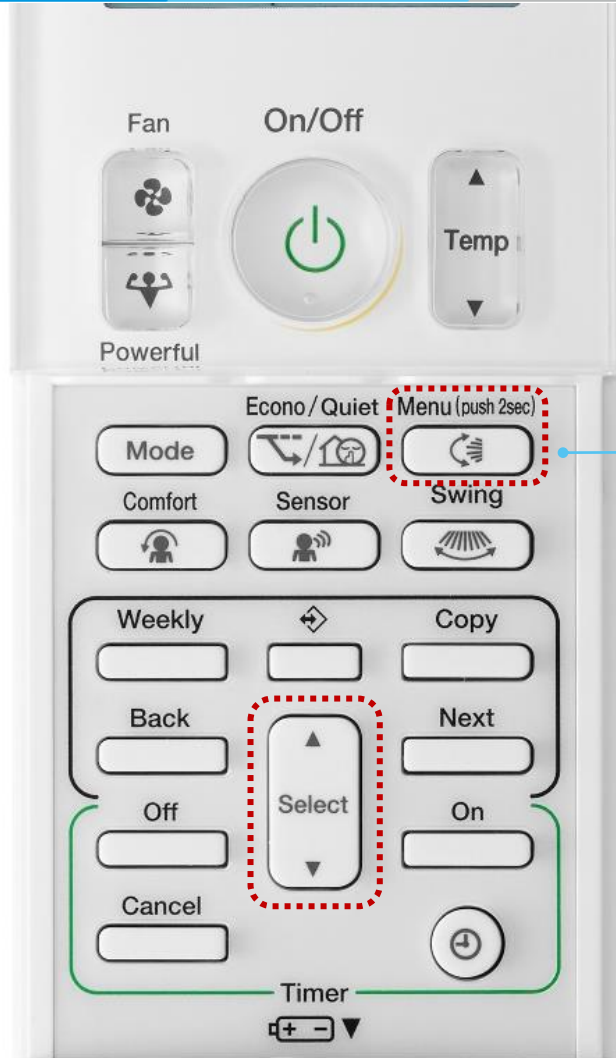
If no movement detected for 20 minutes, the unit will adjust the set temperature by ±2°C.

If occupants detected, the air conditioner returns to the original set temperature level.

Fan

On/Off

Temp

Powerful

Econo/Quiet   Menu (push 2sec)

Mode

Comfort   Sensor   Swing

Weekly   Copy

Back   Next

Off   Select   On

Cancel

Timer

17

DAIKIN

MOULD PROOF OPERATION

- Activates at the end of Cooling or Drying operation
- Dries the unit for 1 hour before powering off
- Drying of internal components prevents build-up of mould & odour

Mould proof Mode Active
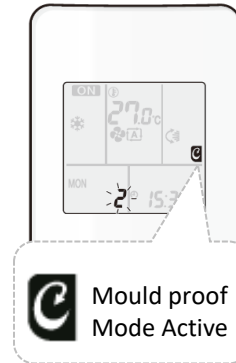
Hold **MENU** button for 2 seconds to enter Menu

Use **SELECT** button arrows to choose menu number 2, press **MENU** button to confirm

Use **SELECT** button arrows to select ON or OFF, press **MENU** button to confirm

While Mould Proof Operation is Enabled

After DRY/COOL operation is stopped by Remote Controller*
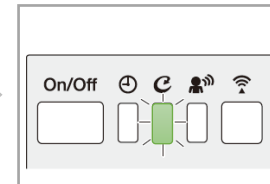
Mould Proof Operation activates, indicated by the LED status panel

After 1 hour^ the unit will power off Automatically

*Mould Proof Operation does not activate when the unit is turned off using Mobile Controller App, OFF TIMER or when COOL/DRY operation is short
^To exit Mould Proof Operation early, double press On/Off button
Note: the flaps may sometimes close to increase the drying effect inside the air conditioner

Wireless Controller Tour
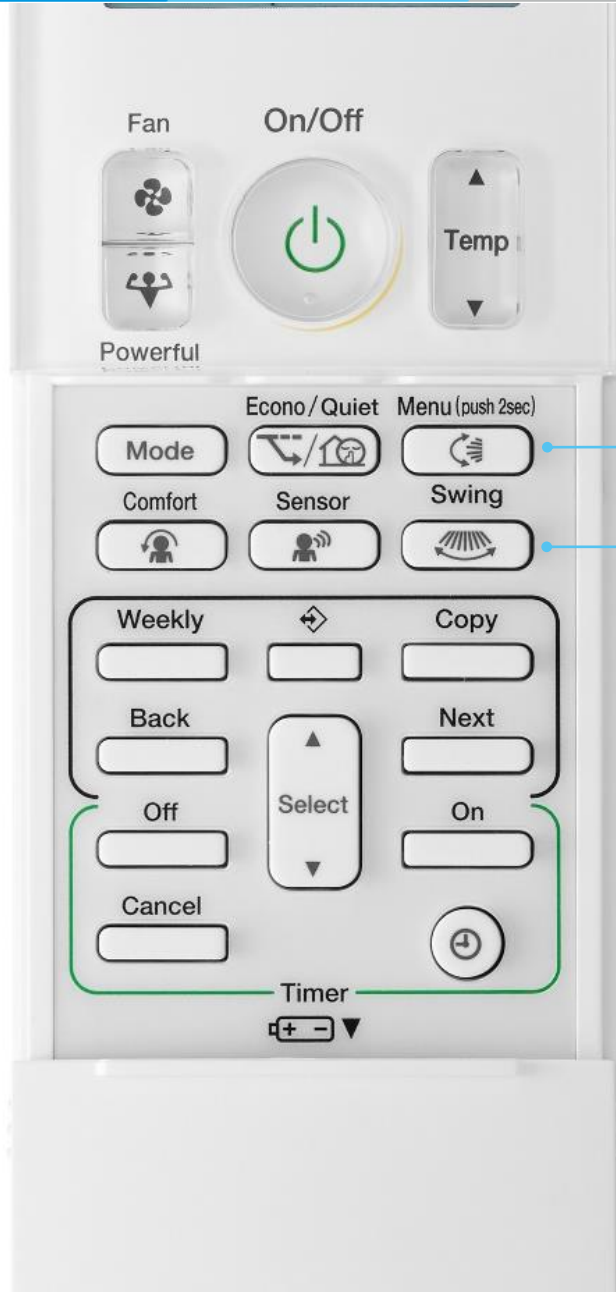
3-D AIRFLOW

- Reduces indoor temperature fluctuation
- Improves air circulation
- More uniform temperatures in the space

Toggle Horizontal Louvres

Toggle Vertical Louvres

Toggle for 3-D Airflow
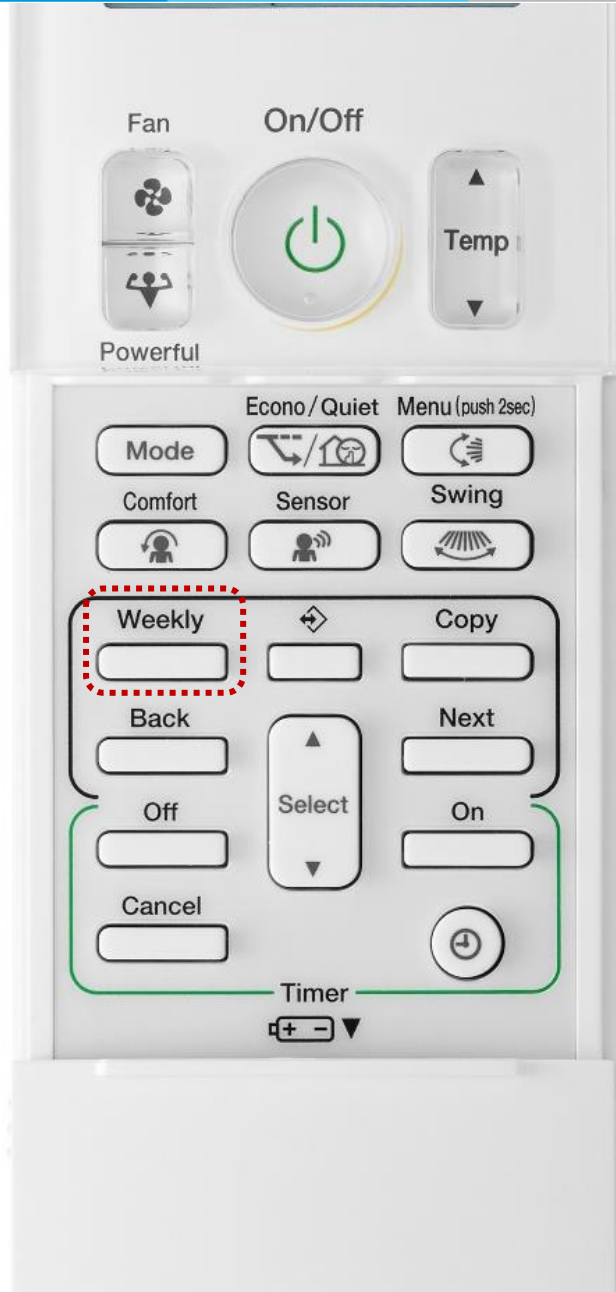
WEEKLY TIMER

- Program precise ON/OFF times for the week
- Up to 4 timer settings can be set for each day of the week

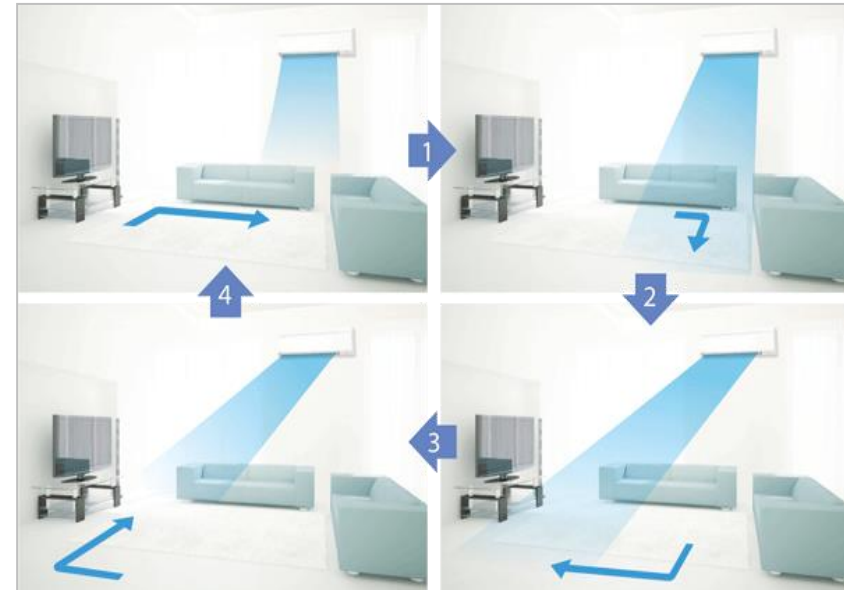| Day	Example Setting
Mon-Fri	
Sat-Sun	

Wireless Controller Tour
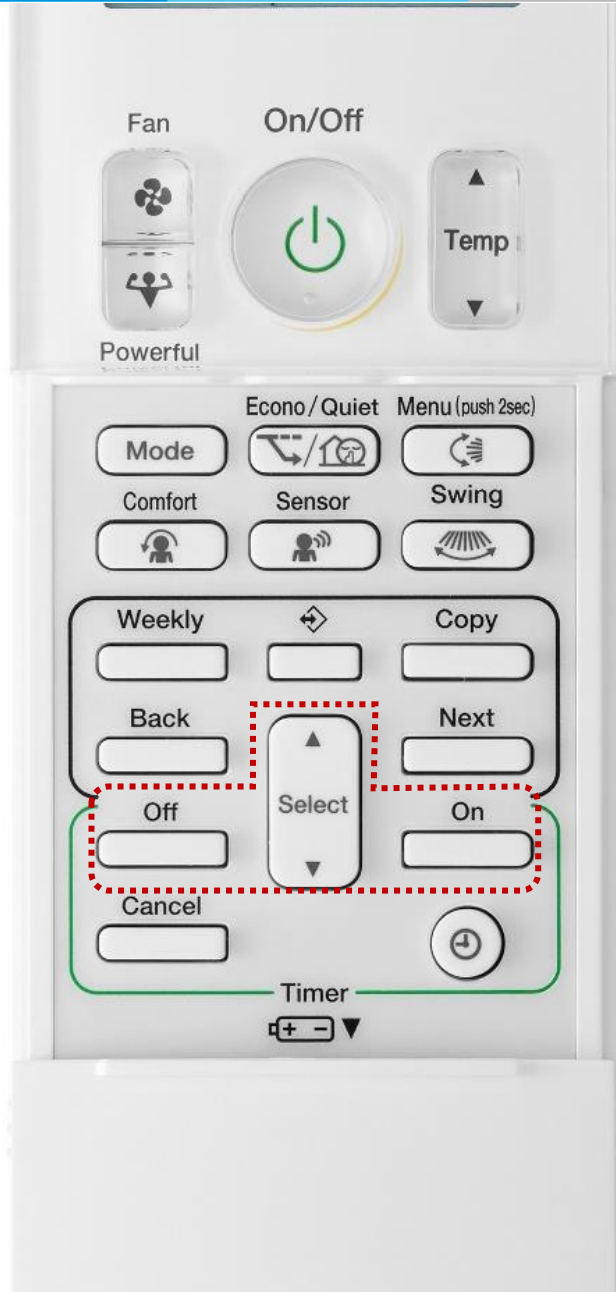
24 HOUR ON/OFF TIMER

- Pre-Set ON/OFF times within a 24-hour period

Example: turn OFF at 12pm & back ON at 2pm

OFF 0:00
ON 14:00
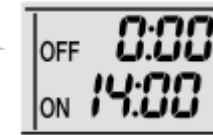
NIGHT SET MODE

- Night Set Mode auto activates during OFF Timer
  - Prevents over-cooling/heating by shifting setpoint temperature after one hour until shutoff

Cooling Operation

Target temperature — 0.5°C — Operation stops at the set hours
1 hour
TIMER operation NIGHT SET Mode ON | +0.5°C temperature shift

Heating Operation

Target temperature — 2°C
1 hour
TIMER operation NIGHT SET Mode ON | −2°C temperature shift
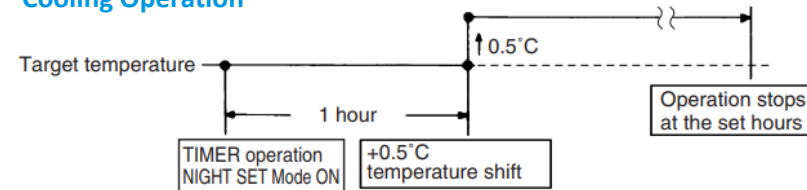
Optional Wi-Fi Control
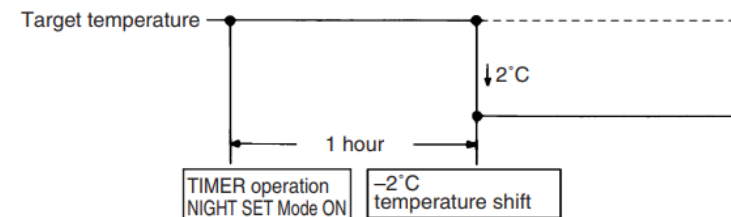
- **Optional WLAN module** (BRP084C44) allows the XL series to be conveniently operated through your smartphone or tablet via the 'Mobile Controller' app

- The module is designed for internal mounting

- Compatible with **Android (≥ 4.0.3) & iOS (≥ 7.0) devices^**

MOBILE CONTROLLER
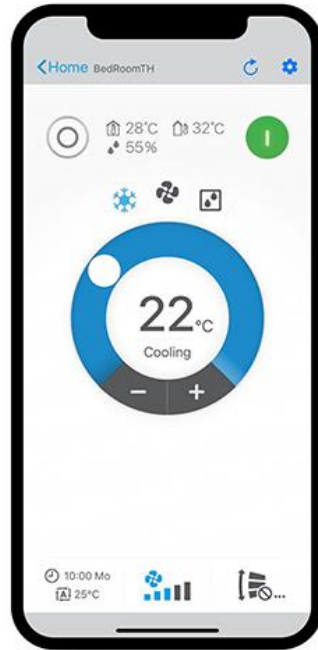
Function	XL Series
Start/stop operation	✓
Set operation mode	✓
Set fan speed	✓
Set temperature operation	✓
Show room temperature	✓
Show outdoor temperature	✓
Error notification	✓
Password setting	✓
Set weekly schedule • Start/stop operation • Select operation mode • Set temperature Maximum 6 actions per day	✓

^Portrait orientation only

Mobile Controller Voice Assistant

- 'Mobile Controller' app is compatible with Google Assistant & Amazon Alexa, operations of the Daikin AC unit can be done via their voice control hub (Google Home, Amazon Echo etc.) and from their respective companion Android/iOS app
- Daikin AC is now part of the Google & Amazon home automation ecosystem along side lights, garage doors, security systems etc. that can be controlled via their hub/app

Connecting to S21 Accessories

- The S21 port on the FTX(K)M-WVMA indoor unit PCB has a non standard terminal block
- A 'S21 Conversion Connector', **KER087A41** is required when connecting S21 accessories such as a wired controller (BRC073A4) with the remote controller harness (BRCW901A03/08)
- KER087A41 can be installed within the electrical box

S21 Port (non-standardised)

KER087A41

IDU PCB

Wire Harness (S21→S19)
Included with BRC073A4

BRC073A4

Side View

BRCW901A03/08
(S19→S1)

FEATURES & TECHNOLOGY

Indoor Unit Technology

2. MULTI SLIT FIN HEAT EXCHANGER

3. CROSS FLOW FAN

8. OPTIONAL WI-FI

4. IMPROVED ODM MOTOR

1. ENZYME BLUE DEODORISING FILTER

5. REDESIGNED DUAL FLAPS

6. INTELLIGENT EYE TECHNOLOGY

7. HUMIDITY SENSOR

Indoor Unit Technology Tour
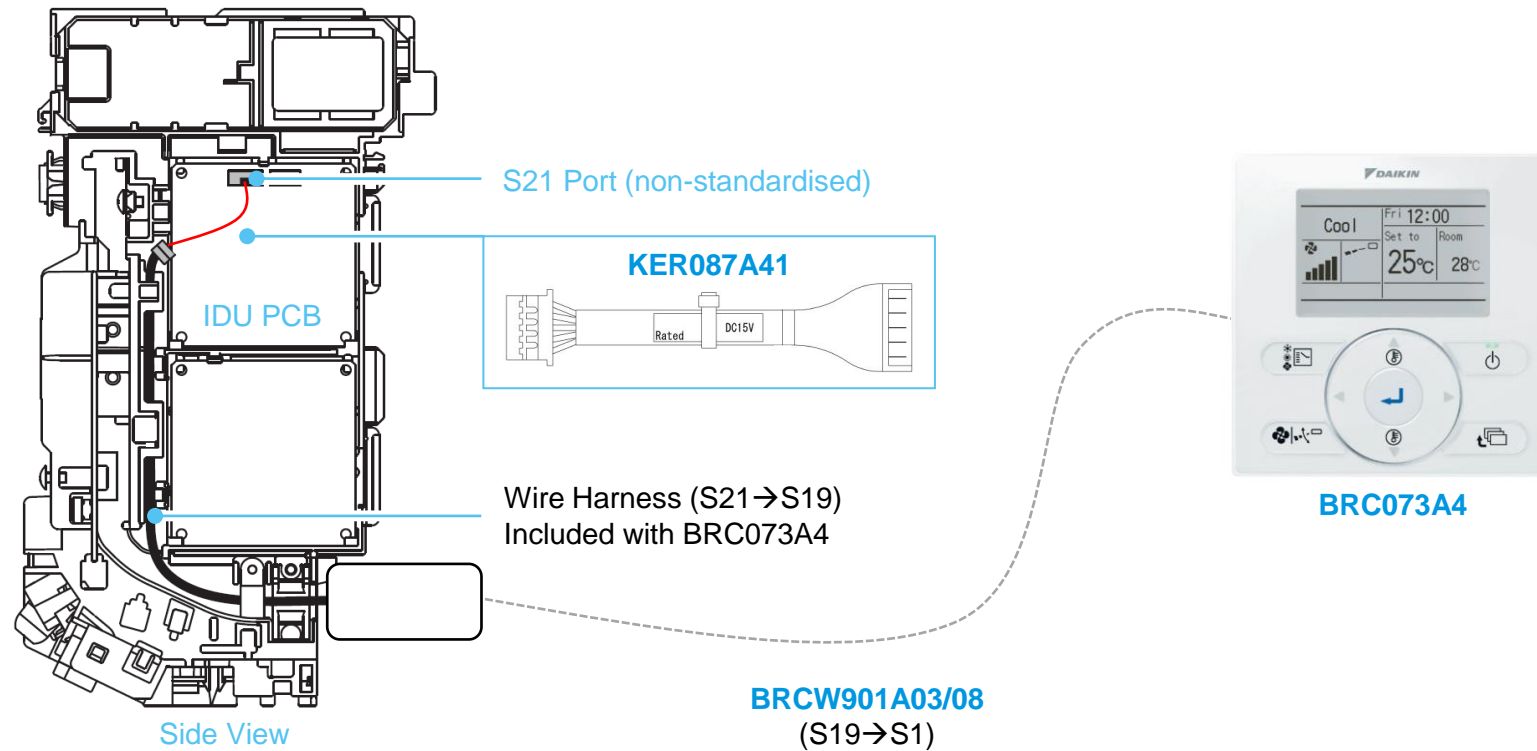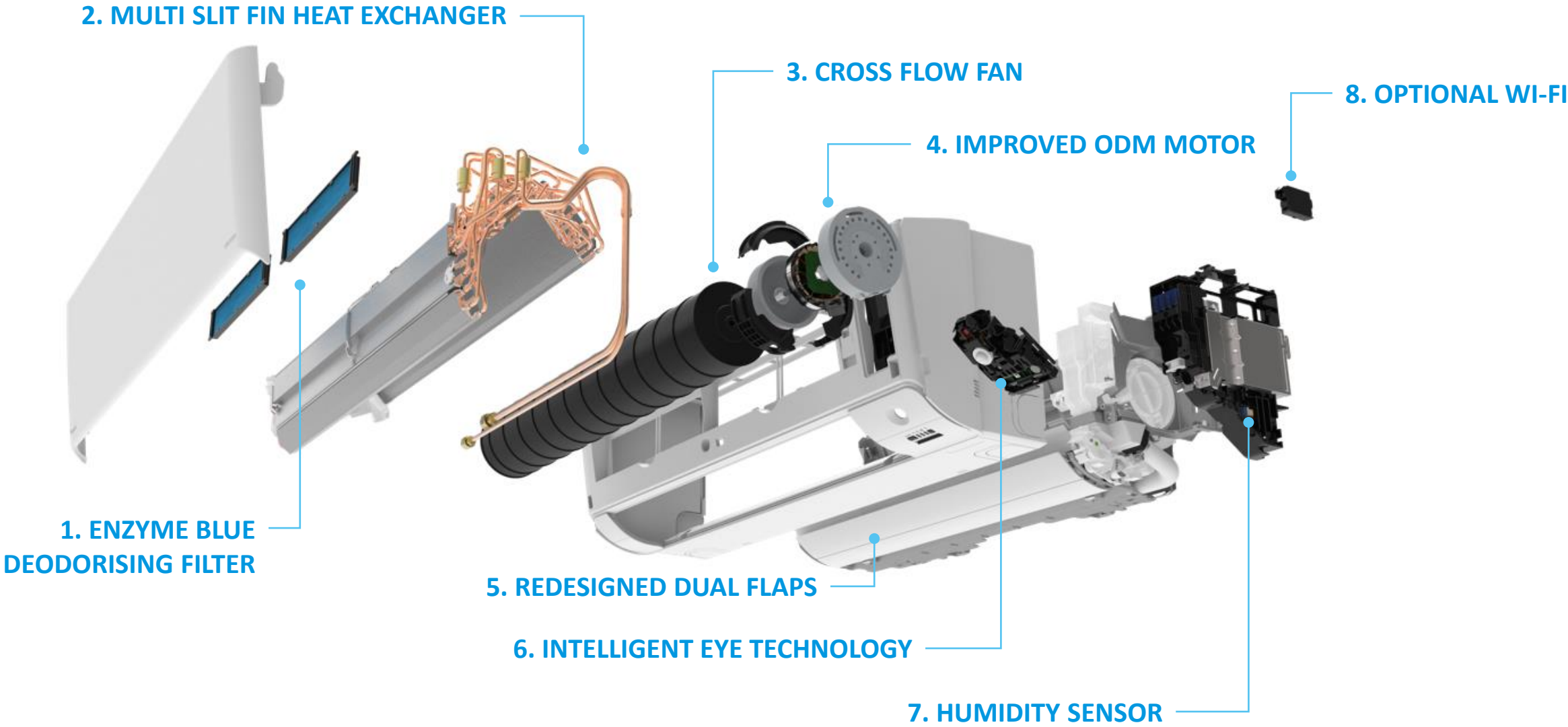
1. ENZYME BLUE DEODORISING FILTER

Features synthetic enzymes that decomposes odours & deactivates allergy causing bacteria

- Sensitive Choice approved
- All models features a 3-piece set*

Step 1	Step 2	Step 3
Filter Fiber — Bacteria / Enzyme	Active site of breakdown	Simple By-Products
Bacteria is adsorbed onto the surface of Enzyme Filter	Bacteria cell wall is hydrolysed by the enzymes (broken down)	Bacteria is inactivated with only simple by-products produced
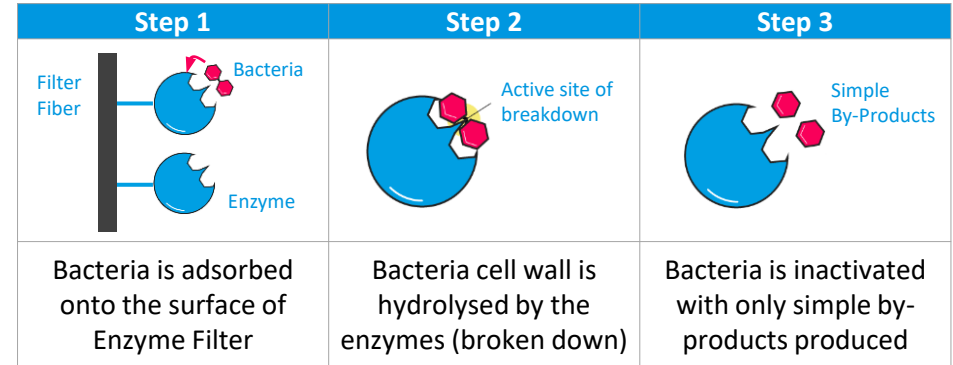
*Replacement Filters are available for separate purchase, refer to Operation Manual for details
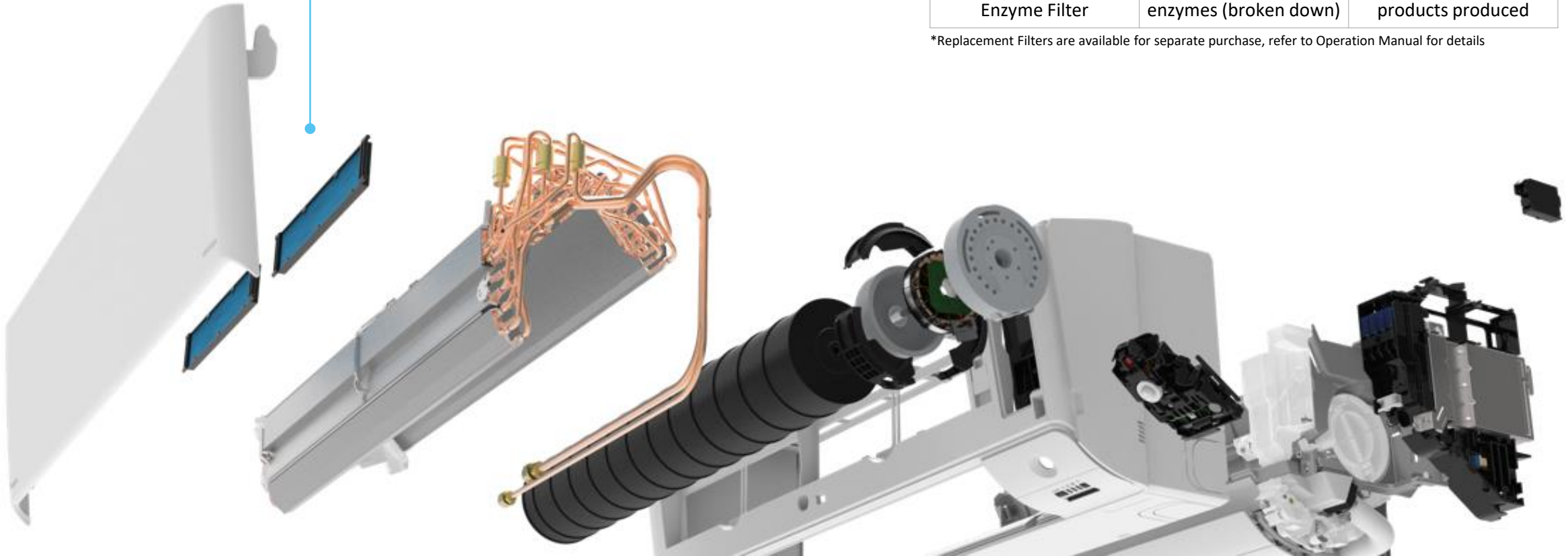
2. MULTI SLIT FIN HEAT EXCHANGER

3-row heat exchanger with multi slit fins

- Ø5mm copper pipes (2 rows x 18 stages & 1 row x 12 stages)
- Slits maximises surface area for greater heat exchange, COP & reduced airflow resistance
- Hydrophilic treated for corrosion resistance

Return Air

Heat Exchanger Fin with Slits

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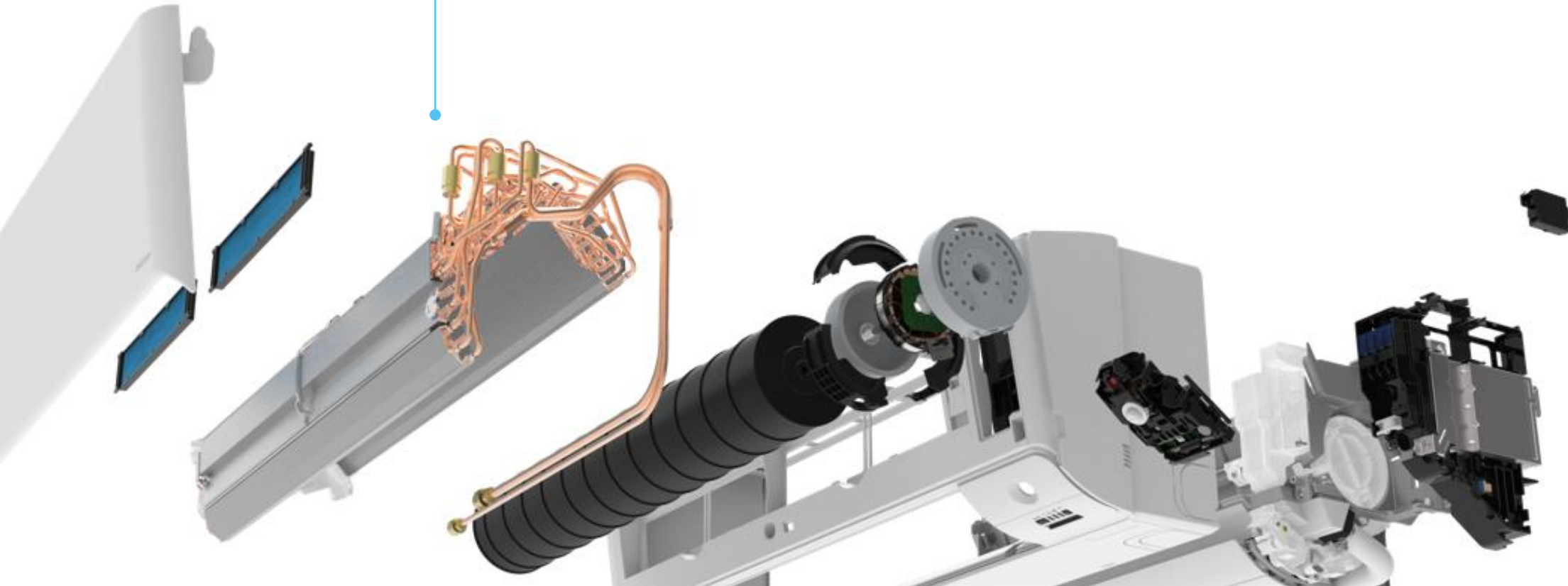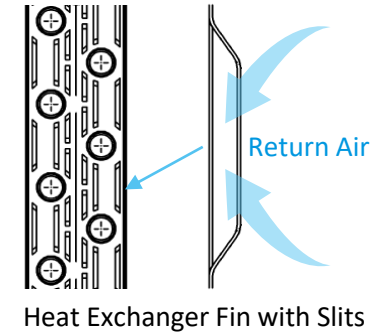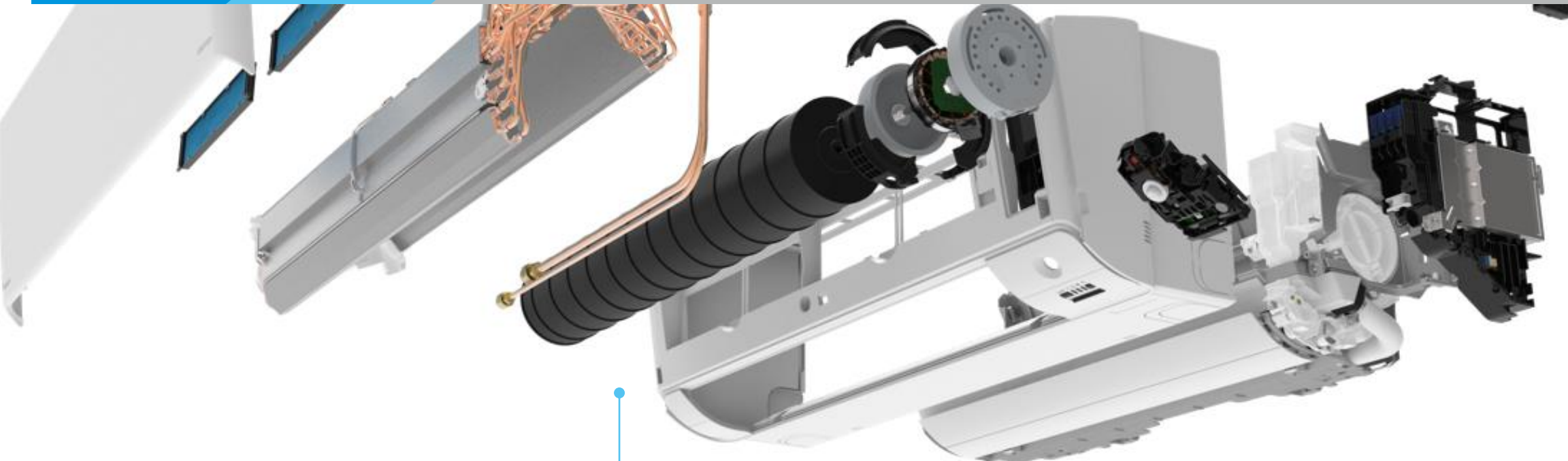
3. CROSS FLOW FAN

Large diameter rotor with aerofoil design

- Blade edges are optimised to reduce turbulence & minimise operating sound levels
- Large rotor allows for greater airflow delivery

Ø115 → **118mm**

Direction of Rotation
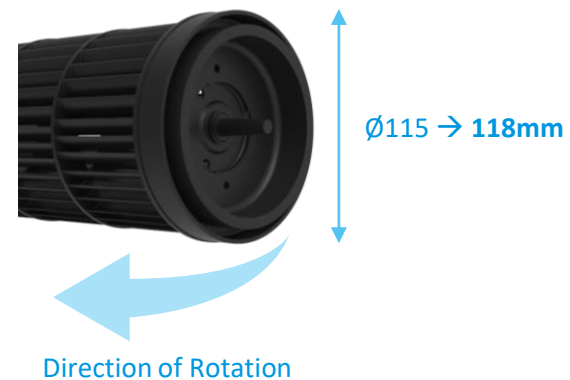
4. IMPROVED ODM MOTOR

- 10 → 14 pole DC outer diameter rotor motor for improved torque delivery
- Encased with rubber vibration dampeners
- 5 Step Fan Speed, Quiet & Auto

DC FAN MOTOR EFFICIENCY
(Comparison with a conventional AC motor)

DC Motor

Approx. 40%↑

Approx. 20%↑

AC Motor

Efficiency (%)

Motor Speed (rpm)

Indoor Unit Technology Tour
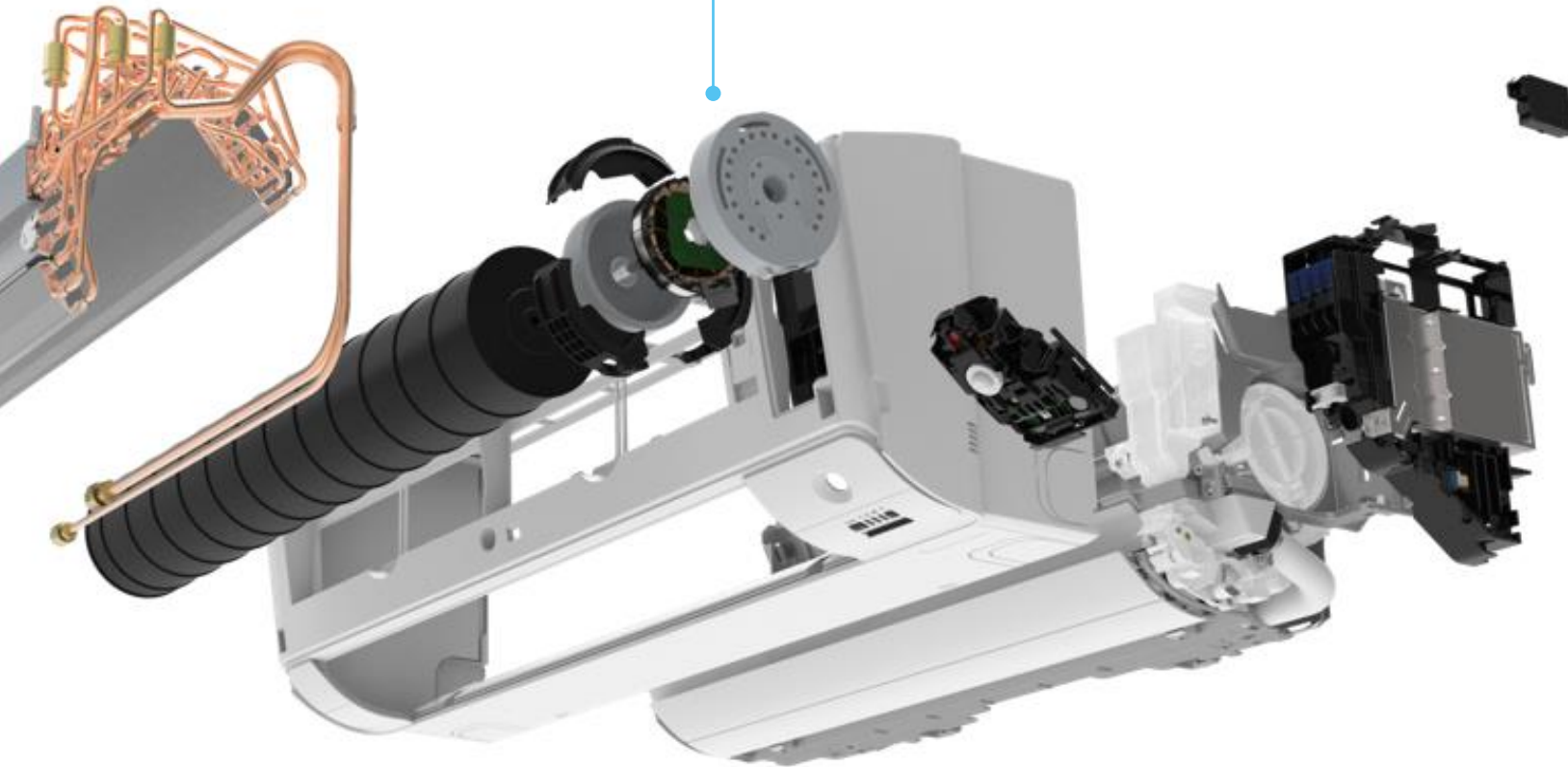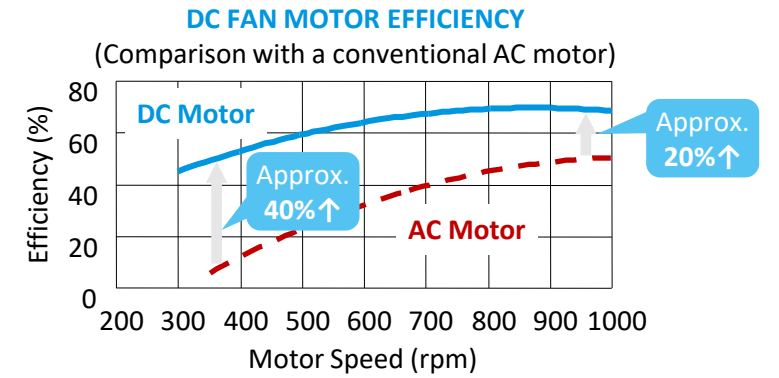
5. REDESIGNED DUAL FLAPS

All models feature new power-airflow dual flaps

- Redesigned main discharge louvre with aerodynamic end vanes
- Reduced turbulence & longer throw distances
- Enables large air volumes at low velocities for draught free comfort (Comfort Mode operation)

Aerodynamic End Vanes

COOLING (coanda airflow)   30mm

0.4m/s or more
air speed

10m
(all models)

HEATING

30°

0.3m/s or less
air speed

1m

3m
(all models)
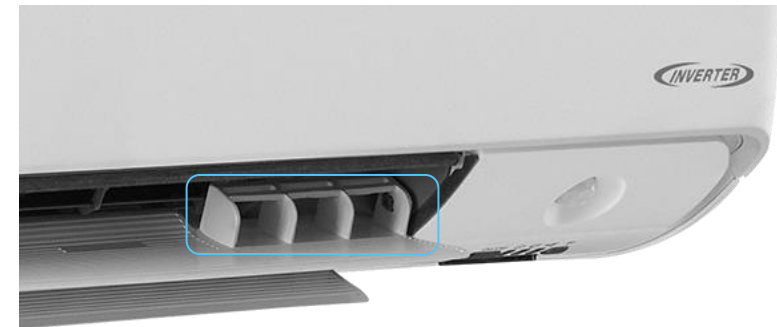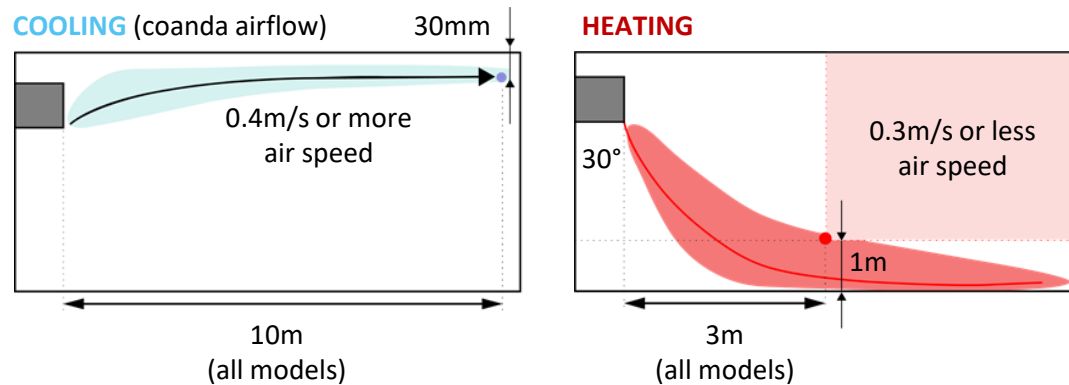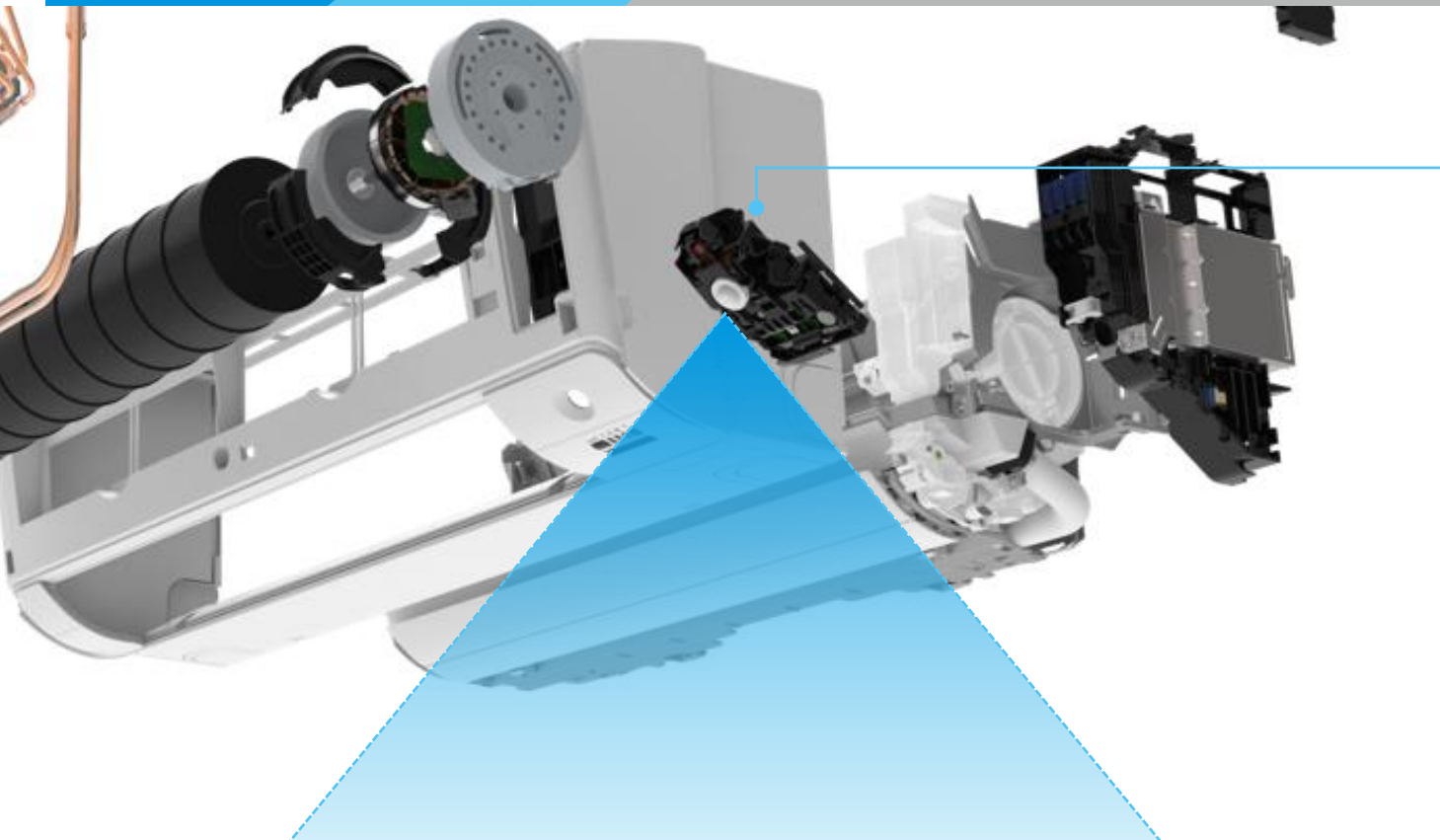
6. INTELLIGENT EYE

Enables energy saving operation by adjusting set temperature (±2°C) when no occupants detected

Vertical angle 90°
(Side view)

L

90°

Horizontal angle 110°
(Top view)

55° 55°

L
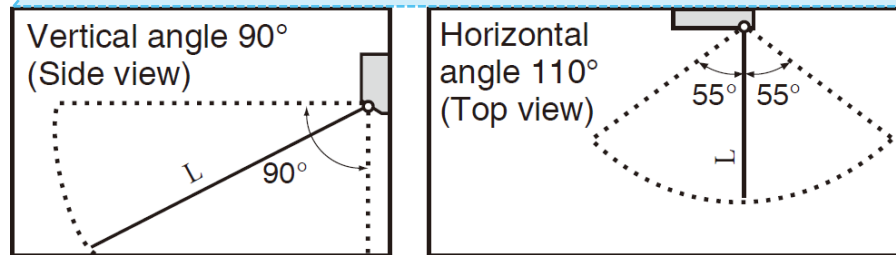
L= 7m
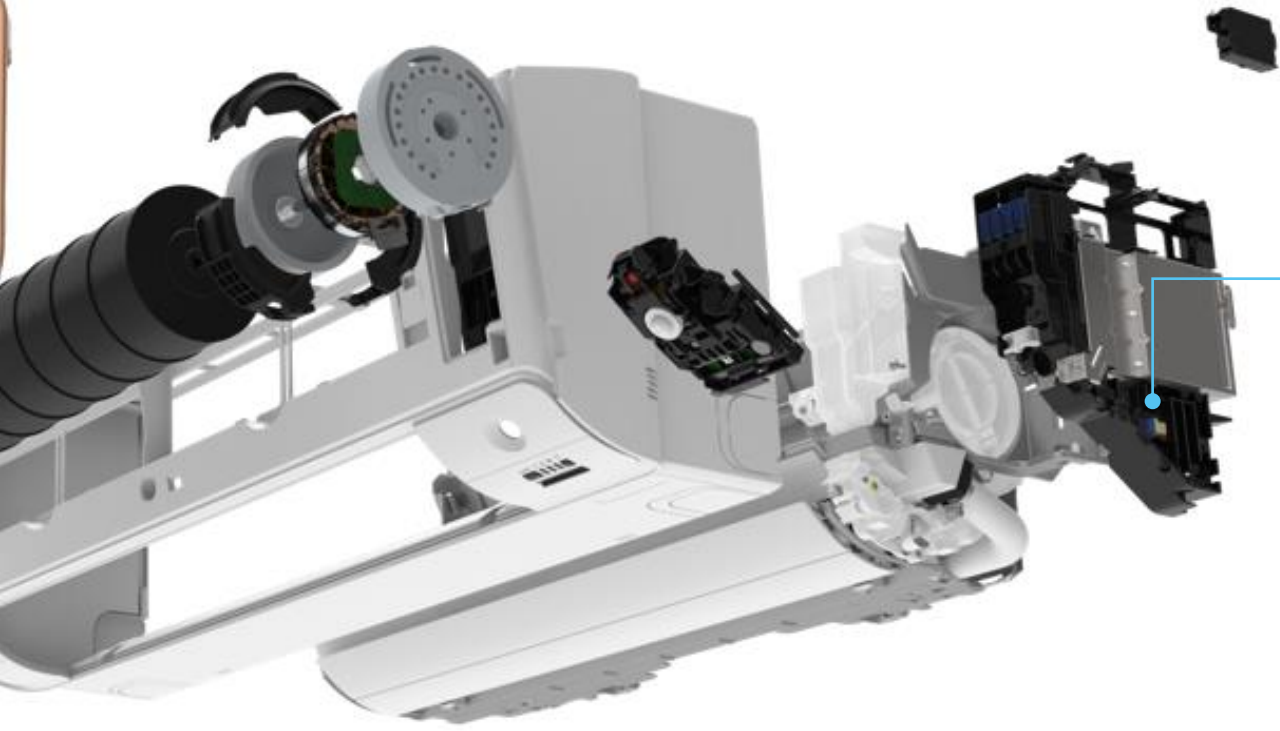
7. HUMIDITY SENSOR

Features a built-in humidity sensor for improved Program Dry Function operation.

1. Humidity is monitored
2. SA temp. can be accurately controlled to effectively remove moisture (dehumidify)
3. Capacity loss is minimised as much as possible

With Sensor (4600mL/h removal)
20%↑ Capacity
40% ↑ Dehumidification

Without Sensor (3300mL/h removal)

Capacity (kW)

0   10   20
Time (Min)

85 Class
Indoor 24°C/60% humidity
Outdoor 24°C

Indoor Unit Technology Tour
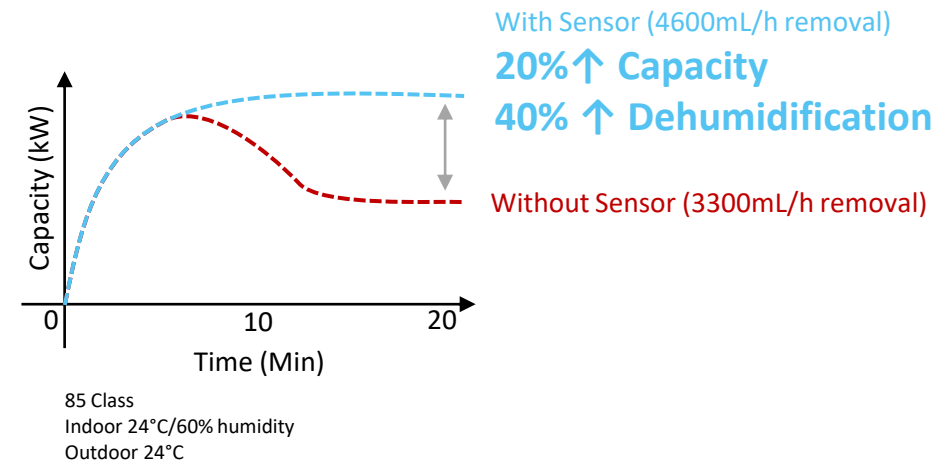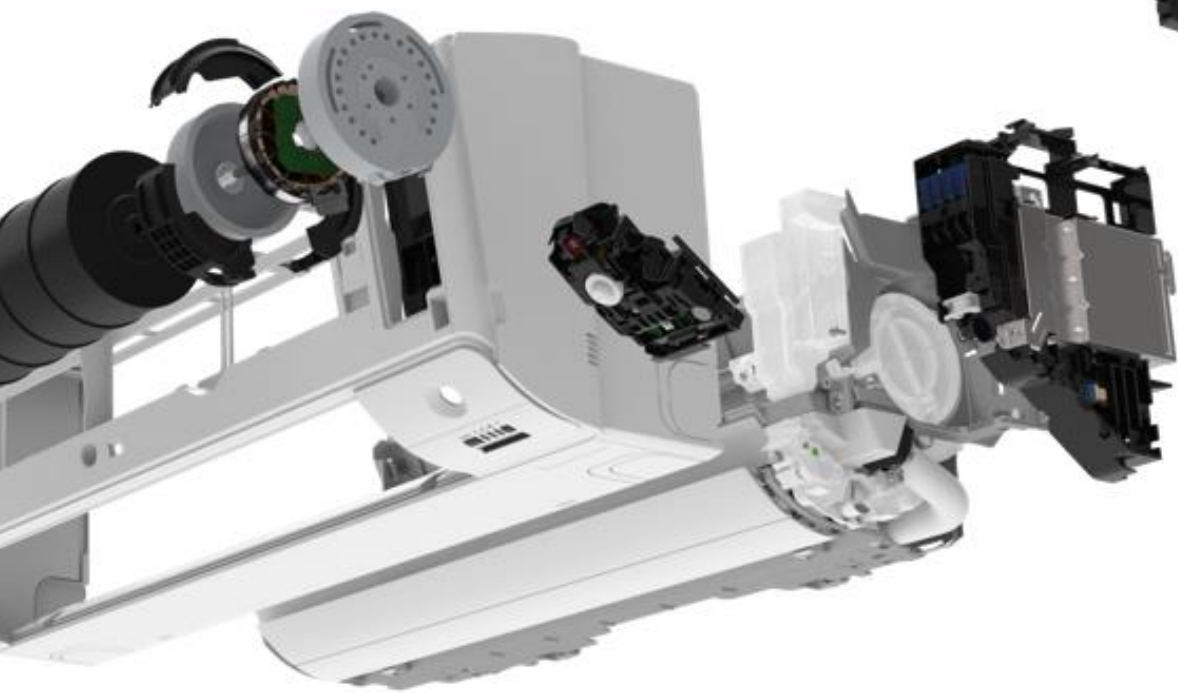
8. OPTIONAL WI-FI

BRP084C44 module provides Daikin Mobile
Controller app compatibility.

- Wi-Fi standard: IEEE802.11 b/g/n @ 2.4GHz only
- AP channel: 1-13
- Data transmission security (server): SHA-256

MOBILE
CONTROLLER

R32 refrigerant has zero ozone depletion potential and substantially lower 'Global Warming Potential Factor' than R410A, providing less risk of harm to the environment

GLOBAL WARMING POTENTIAL

2,090	1,810	675
R-410A	R-22	R-32

GWP IMPACT OF R32

In the case of utilising R-32 in emerging countries, CO_2 will be reduced approx. **46%**

As it stands

In the case of conversion to R-32

The global warming impact of emerging countries (1 billion CO_2- tons)

2000 2010 2020 2030 2040 2050 (Year)
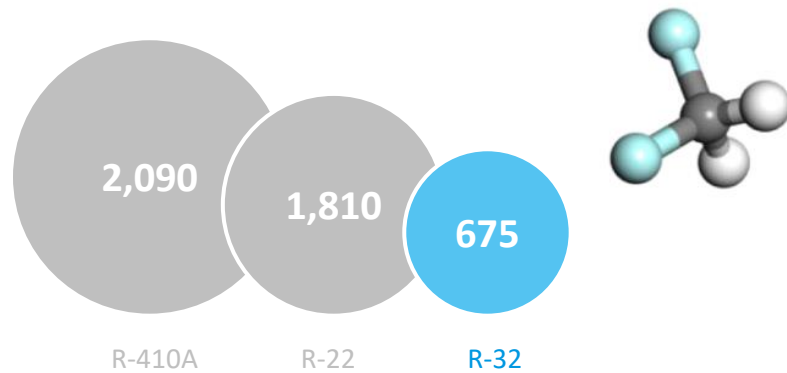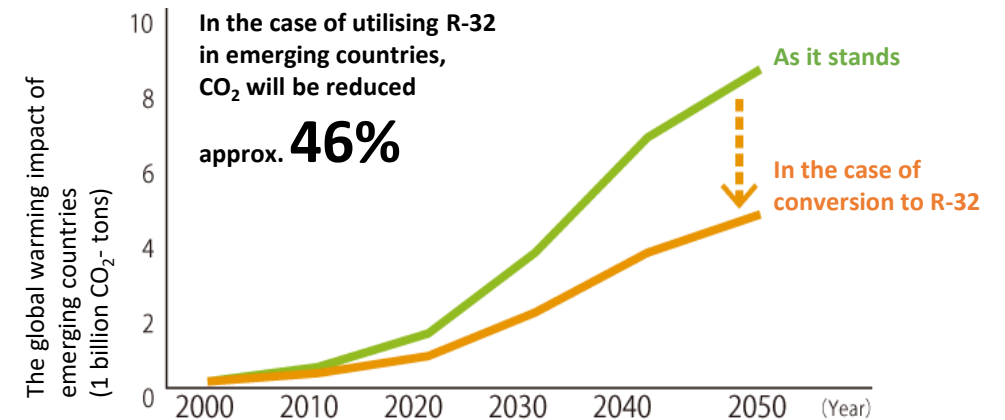
Notes:
- Global Warming Potential (GWP) is a relative measure of how much heat a greenhouse gas traps in the atmosphere.
- Global Warming Potential values are based on the Fourth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC).

Source information:
"The large contribution of projected HFC emissions to future climate forcing"
Daikin estimated according to [Supporting Information of Guus J. M. Velders et al.]

Outdoor Unit Technology

INVERTER CONTROL

- Inverter control modulates the system capacity in response to load
- Delivers stable temperature whilst keeping power consumption down
- Non-inverter systems cause large temperature fluctuations through repeated switching (ON/OFF)

SAW EDGE FAN

- Large diameter (510mm) with Saw Tooth trailing edge
- Turbulence is reduced, resulting in both energy savings and quieter operation

Non-Inverter Type: Large temperature difference

Inverter Type

Temp.

Not cool

Comfortable

Too cool

Set temp.

Start.

Inverter Type: Small temperature difference

Non-Inverter Type

Time

Saw Edge Wing fan
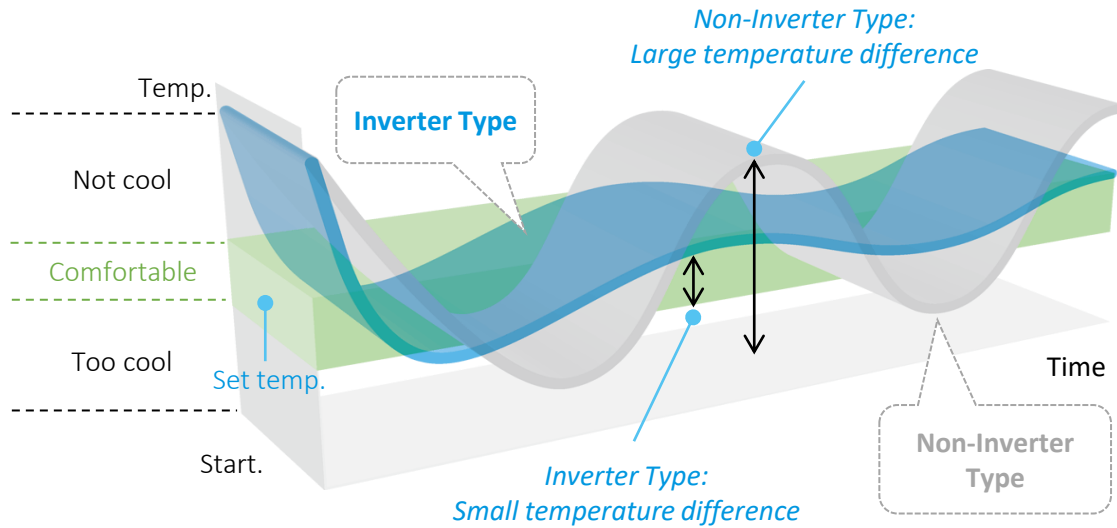
Time	Operation
Start Up	Inverter ramps up to deliver maximum capacity to achieve set temp. rapidly
Set Point	Inverter adjusts capacity output in response to outdoor temp. & indoor load

Outdoor Unit Technology

RELUCTANCE DC COMPRESSOR MOTOR

- Higher efficiencies with 2 different torques
  - Magnetic torque of Neodymium magnet
  - Reluctance torque
- Lower energy consumption especially at lower operation frequencies

SWING COMPRESSOR

- Large Energy Savings – smooth rotation with low friction & refrigerant gas compression
- Low Vibration & Noise – smooth piston motion works as if sliding along a 'groove'
- High Durability – fewer moving parts in contact during operation increases reliability

Reluctance DC Motor

Neodymium Magnets   Ferrite Magnets

10x Stronger!!

Swing Compressor

Outdoor Unit Technology
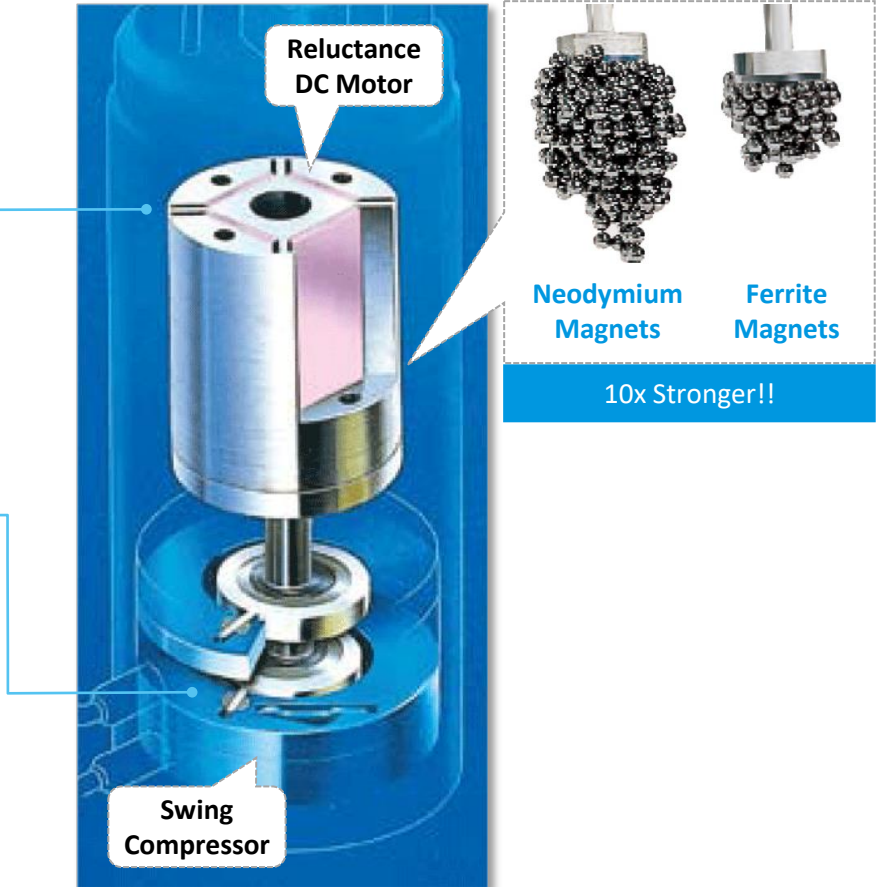
DEMAND RESPONSE "DRED"

- DRED is an acronym for Demand Response Enabling Device
- Designed to enable Electricity providers to reduce peak demand when necessary
- XL models feature **Built-In** demand adaptors

Stops power consumption from exceeding the set limit

Set power consumption limit

Power consumption

Maintains maximum capacity within the set limit

Morning   Daytime   Night

Operating time
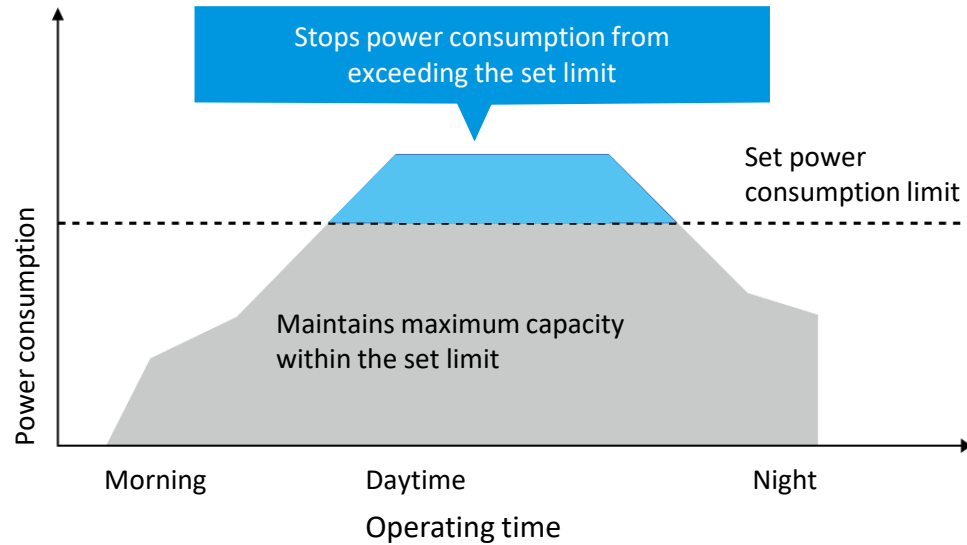
Modes	Limit	Details
DRM1	0%	Compressor Off
DRM2	40%	Limited to 40%
DRM3	60%, 70%, 80%, 90%	Dip Switch Settings

DRED Connection from Electricity Provider

Power Supply

Outdoor Unit PCB

Built-In Demand Adaptor
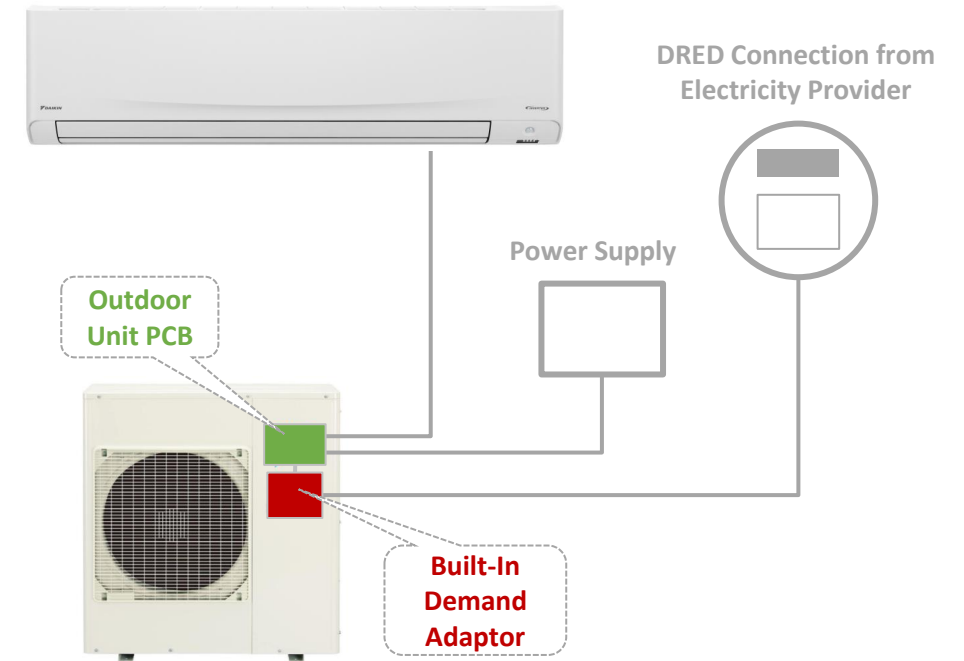
FEATURES CHECKLIST & SPECIFICATIONS

Feature Overview

Category	Features	FTXV-WVMA
Comfortable Airflow	Power-Airflow Dual Flaps 🔴NEW	✓
	Power-Airflow Flap	✗
	Wide-Angle Louvers	✓
	3-D Airflow (up/down & left/right)	✓
	Comfort Airflow Mode	✓
Comfort Control	Indoor Unit Quiet Operation	✓
	Outdoor Unit Quiet Operation	✓
	2-Area Intelligent Eye	✗
	Intelligent Eye	✓
	Hot-Start Function	✓
	Program Dry Function	✓
	Auto Fan Speed	✓
	0.5°C increment temperature control 🔴NEW	✓
Lifestyle Convenience	Econo Mode	✓
	Inverter Powerful Operation	✓
	Wireless Remote Controller with Backlight	✓
	Wireless LAN Adaptor	Optional
	Indoor Unit On/Off Switch	✓
Health & Cleanliness	Streamer Technology	✗
	Enzyme Blue Deodorising Air-Purifying Filter	✓
	Mould Proof Operation 🔴NEW	✓
	Optional Dust Collection Filter	✓
	Mould-Proof Air Filter (Pre-Filter)	✓
Timers	Count Up-Down On/Off Timer	✓
	24 Hour On/Off Timer	✓
	Weekly Timer	✓
	Night Set Mode	✓
Worry Free	Auto-Restart after Power Failure	✓
	Self-Diagnosis with Digital Display	✓

Specifications

Indoor Unit		FTXV80WVMA	FTXV90WVMA
Outdoor Unit		**RXV80WVMA**	**RXV90WVMA**
Rated Capacity	Cool (kW)	8.0	9.0
	Heat (kW)	9.0	10.3
Capacity Range	Cool (kW)	2.0-10.5	2.0-11.2
	Heat (kW)	1.9-11.6	1.9-12.0
Indoor Airflow Rate (H)	Cool (l/s)	410	440
	Heat (l/s)	403	425
Indoor Fan Speeds		5 steps, quiet and automatic	
Star Rating (Hot/Avg/Cold)	Cool	3.5/3.0/3.5	3.0/3.0/3.0
ZERL (Residential)	Heat	2.5/2.0/1.5	2.5/2.0/1.5
Front Panel Colour		Ivory White	
Power Supply		1 phase, 220-240V, 50Hz	
Power Input (Rated)	Cool (kW)	2.17	2.65
	Heat (kW)	2.75	3.15
E.E.R/C.O.P	Cool/Heat	3.69/3.27	3.40/3.27
TCSPF (Residential)	Hot/Avg/Cold	5.26/4.90/5.12	4.99/4.66/4.90
HSPF (Residential)	Hot/Avg/Cold	4.29/3.79/3.40	4.10/3.61/3.15
A.E.E.R/A.C.O.P	Cool/Heat	3.66/3.25	3.38/3.25
Dimensions (HxWxD)	Indoor (mm)	329x1240x278	
	Outdoor (mm)	990x940x320	
Weight	Indoor (kg)	19	19
	Outdoor (kg)	77	77
Compressor Type		Hermetically Sealed Swing Type	
Refrigerant Type		R32	
Max Pipe Length	(m)	30	30
Max Level Difference	(m)	20	20
Pipe Sizes	Liquid (mm)	6.4	6.4
	Gas (mm)	15.9	15.9
Outdoor Operating Range	Cool (°CDB)	-10 to 46	
	Heat (°CWB)	-15 to 18	
Indoor Sound Level (H/SL)	Cool (dBA)	51/37	53/38
	Heat (dBA)	51/35	52/35
Outdoor Sound Level (H/SL)	Cool (dBA)	54/51	54/51
	Heat (dBA)	55/51	55/51
Outdoor EPA Sound Power Level (H)	Cool (dBA)	66	66
	Heat (dBA)	67	67

THANK YOU.

Any questions?