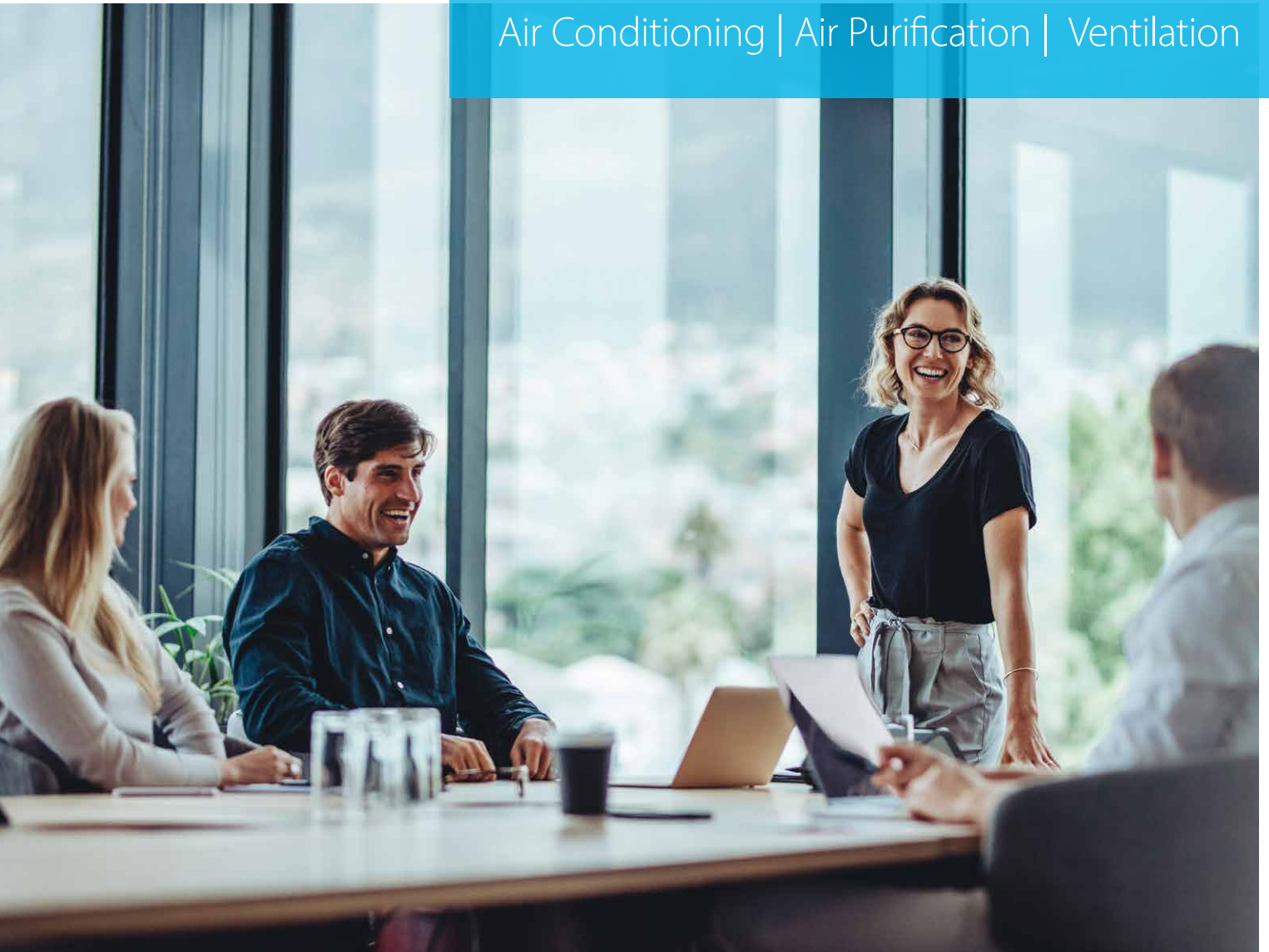


Indoor Air Quality Solutions Handbook

Air Conditioning | Air Purification | Ventilation



Integrated technology for optimum indoor air quality and comfort.

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Perfecting the Air

Clean outside air is vital to our health, comfort, well-being and quality of life. However, with increased outdoor pollution and a trend towards highly insulated, airtight buildings, the quality of our indoor air can often be compromised.

Daikin has been perfecting indoor air for over 50 years with smart technologies and solutions that lead the market in performance, quality and reliability. As 'Air Specialists', we are passionate about creating air conditioning, purification and ventilation solutions that introduce outside air into the indoor environment, extract stale air and purify the indoor air, whilst maintaining temperature and humidity.

The result is the most comfortable, clean and healthy, perfect air possible for occupants of all building types.

Indoor Air Quality and health



According to the World Health Organisation, both indoor and outdoor air pollution causes about 7 million deaths a year¹ around the world.

Put simply, Indoor Air Quality (IAQ) is a measure of how healthy the air is inside buildings. With Australians now spending around 90% of their time indoors, the quality of the inside air is more important than ever. Studies have shown that IAQ can be 2-5 times worse than outdoor air quality, leading to potential health problems for building occupants².

Poor indoor air quality can result in significant adverse impacts on our health and environment. The term 'sick building syndrome' (SBS) is used to describe an excess of chronic symptoms. Some short term symptoms may be described as irritation of the skin, eyes and throat. Headache, drowsiness and general irritancy are also indicators of SBS. Long term symptoms such as cancer and respiratory disease may be caused by long term, periodic exposure to chemicals such as formaldehyde and microscopic fibres such as asbestos³.

Importance of good IAQ

Thankfully, IAQ has become a key consideration in the design of many buildings, including educational, aged care, hospitality, office, healthcare and residential facilities.

A carefully designed HVAC solution can have a positive impact on building's IAQ. Optimal IAQ ensures the building's occupants can live, rest, work and play in an environment that promotes physical and mental well-being, comfort and productivity.

Benefits of optimal IAQ



Health and well-being

Ensuring well-ventilated spaces, tempered outside and clean air.



Comfort

Maintaining comfortable temperatures while monitoring humidity and air flow.



Productivity

Monitoring CO₂, odours and humidity levels whilst maintaining a steady temperature.

¹World Health Organisation Global Air Quality Guidelines aim to save millions of lives from air pollution. www.who.int

²United States Environmental Protection Agency - Report on the Environment. www.epa.gov

³Australian Government - Department of Climate Change, Energy, the Environment and Water: Indoor Air. www.dcccew.gov.au

Causes of poor indoor air quality

Poor IAQ can be caused by contaminants and pollution from both the indoor and outdoor environments.

Indoor air contaminants are generated by a diverse range of sources in buildings, including environmental factors such as dust and mould, Volatile Organic Compounds (VOCs) given off by paint, cleaning products, as well as wall and floor coverings, emissions from equipment and machinery, and the occupants themselves who release carbon dioxide, viruses and bacteria.

Pollutants from the outdoor environment include carbon monoxide, nitrogen dioxide, pollens, dust and other allergens, odours, particulate matter from industrial processes and traffic pollution.



Risks to physical health and well-being

Indoor air pollutant particles can vary from simple pollen grains to germs, bacteria and viruses. The smaller the particles, the higher the health risk. Also, the lighter and smaller the particles are, the longer they stay in the air. The size of particulate matter is measured in microns (μm) - the lower the measurement indicates smaller particles that are more likely to reach sensitive parts of the body such as the lungs and the bloodstream.

PM100

All particles up to 100 μm (0.1mm) such as wood particles, sand and human hair deposit in the nose

PM10

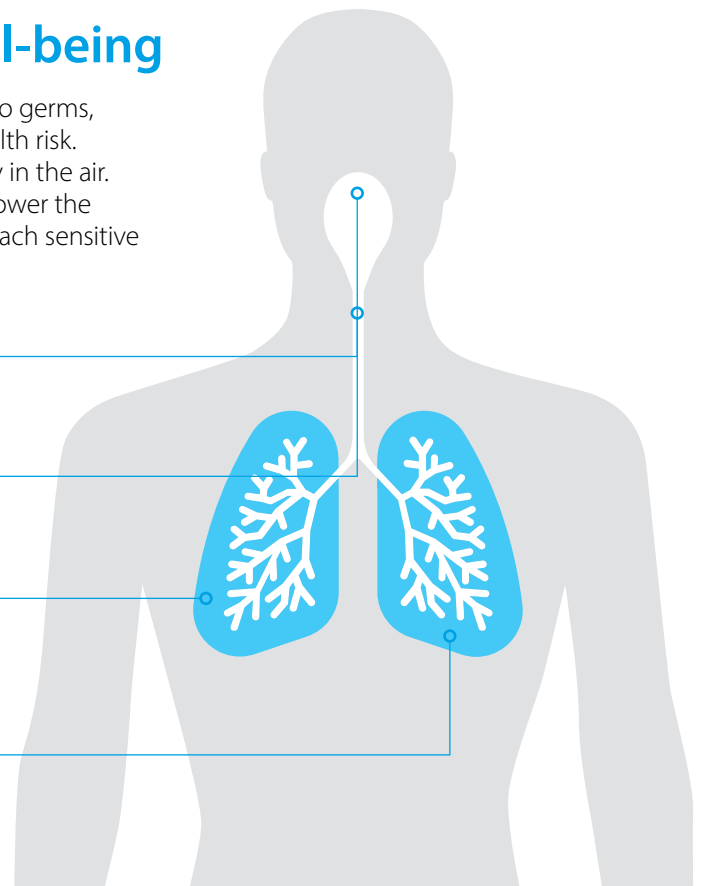
All particles up to 10 μm (0.01mm) such as dust, pollen and mould deposit in the pharynx (throat)

PM2.5

All particles up to 2.5 μm (0.025mm) such as smoke/ash, car exhaust and industrial waste are small enough to reach human lungs

PM1

All particles up to 1 μm (0.001mm = 1 micron) are small enough to find their way through the cell membranes of the alveoli into the bloodstream and cause life-threatening diseases



Key design considerations for optimal IAQ



Ensuring the comfort, well-being and productivity of building occupants is possible when the main considerations for measuring and controlling IAQ are included in the HVAC design.

› **Ventilation**

Extracting stale indoor air and replacing it with tempered outside, purified air

› **Heat recovery**

Recovering heat and moisture from the outgoing air delivering energy savings

› **Air processing**

Heating or cooling tempered outside air, minimising the indoor unit load

› **Humidification**

Ensuring the desired level of moisture inside the building

› **Filtration**

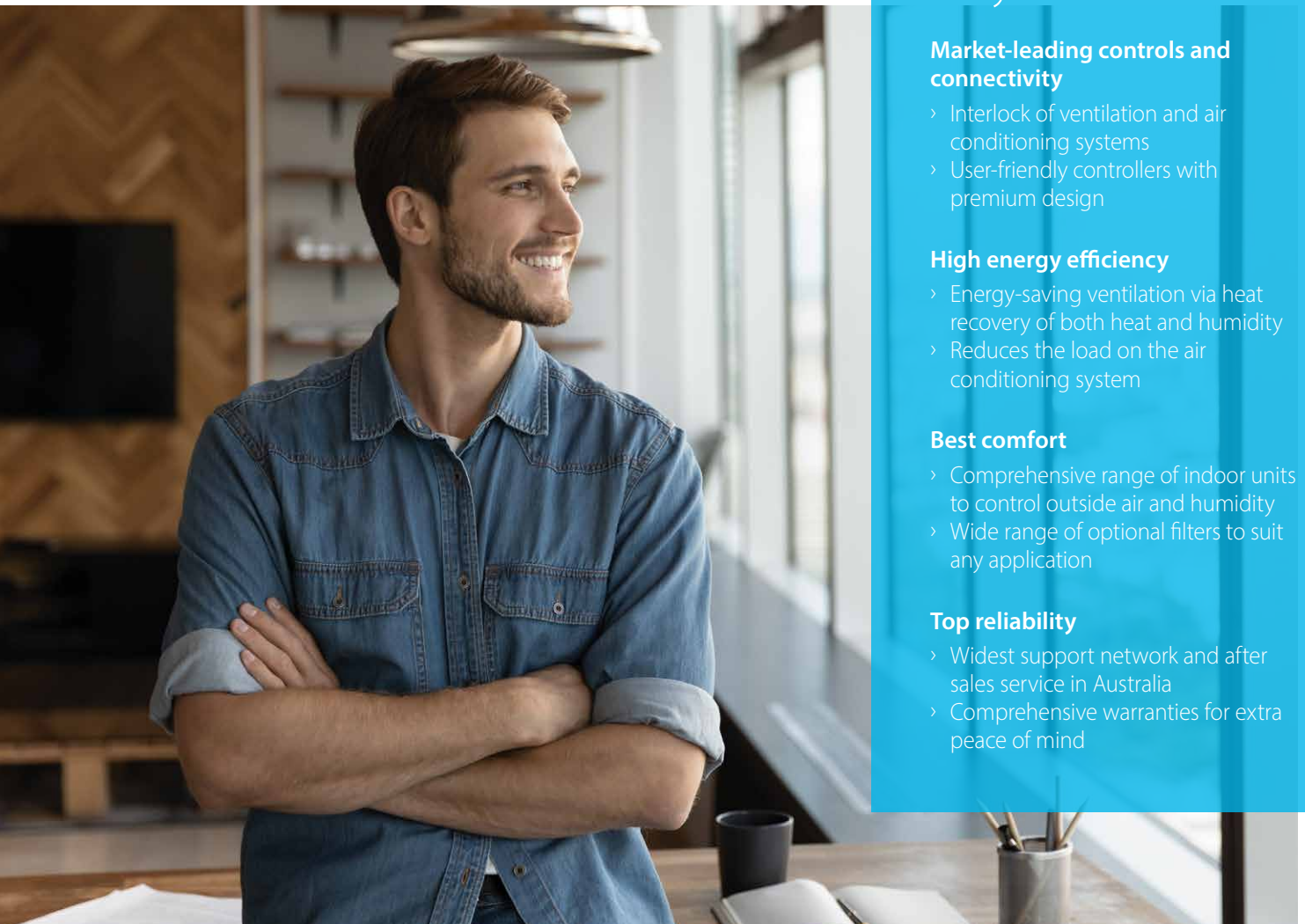
Extracting dust, pollen and odours from the inside air

Designing ventilation

Natural ventilation is an effective strategy for improving indoor air quality. With current building designs and the ever-changing environment, natural ventilation maybe ineffective.

As energy efficiency standards have increased in recent years, buildings have become more airtight and highly insulated. This type of building design can result in a lack of outside air being circulated, low oxygen levels, the build-up of pollutants, allergens and odours and the risk of increased condensation. The consequential need for better IAQ solutions includes mechanical ventilation.

The goal of mechanical ventilation is to introduce outside air into the indoor environment, whilst simultaneously extracting stale inside air. A well-designed mechanical ventilation system, able to maintain an adequate air exchange and equipped with a filtration system, will purify the air by diluting and removing harmful pollutants.



Why Daikin?

Market-leading controls and connectivity

- › Interlock of ventilation and air conditioning systems
- › User-friendly controllers with premium design

High energy efficiency

- › Energy-saving ventilation via heat recovery of both heat and humidity
- › Reduces the load on the air conditioning system

Best comfort

- › Comprehensive range of indoor units to control outside air and humidity
- › Wide range of optional filters to suit any application

Top reliability

- › Widest support network and after sales service in Australia
- › Comprehensive warranties for extra peace of mind

Daikin Indoor Air Quality solutions



Daikin provides a complete range of flexible and economical solutions that can be combined to suit any application.

Benefits for consultants

- › Wide range of units to control the intake of outside air and humidity
- › Interlock of ventilation and air conditioning systems aligns the operation mode between the systems to save energy
- › Seamless integration of all products to provide the best indoor climate
- › Energy-saving technology to help achieve Green Building credentials.

Benefits for building owners

- › Healthy indoor environment can help establish a building as a premium property, making it more attractive to potential tenants
- › Improved indoor air quality provides healthier environment for tenants and can contribute to Green Building credentials.

Benefits for contractors

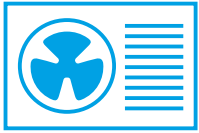
- › Daikin offers a range of inverter condensing units to be used in combination with Daikin Air Handling Units (AHUs) for the processing of outside air
- › Simple interlocking with air conditioning systems, thanks to simplified system control
- › Daikin indoor and outdoor units, IAQ products and AHUs offer factory-mounted controls with easy interlocking opportunities
- › Simplified central controllers enable simple integration between products and IAQ sensors.

Benefits for end users

- › Best comfort and quality indoor air for the building occupants
- › Healthy buildings improve occupant health and reduces absenteeism
- › Improved workplace productivity with clean indoor air

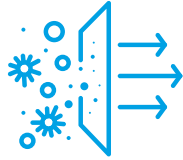
IAQ product pillars

Daikin offers a variety of solutions to deliver improved indoor air quality through an integrated focus on the three key indoor air quality product pillars.



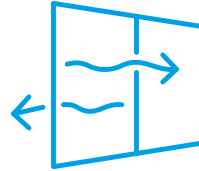
Air conditioning

Air conditioning plays an important role in the management of indoor air quality by maintaining the optimal temperature and humidity levels for occupants.



Air purification

Air purification solutions, including Streamer Technology, air purifiers, filtration units and filters help to reduce airborne pollutants.

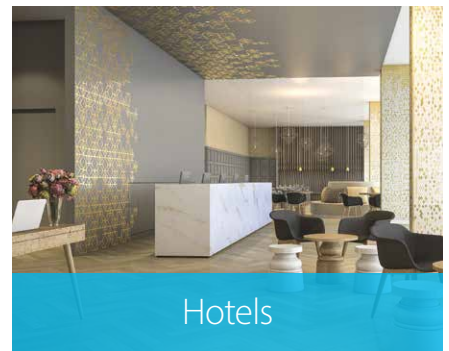


Ventilation

From small heat recovery systems to large-scale air handling units, Daikin provides a variety of ventilation solutions to deliver a clean, healthy and comfortable environment.

Commercial application solutions

Whether it's office, aged care, educational, healthcare, hospitality or residential facilities, optimal indoor air quality is essential. Daikin offers a comprehensive range of ventilation, air conditioning and air purification solutions that can be customised to each of these applications, to deliver a cleaner and healthier environment.





Market-leading Streamer Technology

Daikin Streamer Technology is an advanced air purification technology integrated into a range of Daikin products including including Air Purifiers, Split Systems* and Round Flow Cassettes.*

Pure air thanks to air purification technologies

The Streamer Technology features a high power plasma discharge that generates high speed electrons. These are combined with components in the air to generate active components such as hydroxyl (OH) radicals with strong oxidising power, which attach to the surface of virus, bacteria and allergens and decompose proteins by oxidation.

Pure air with Streamer Technology



Filtering of pollutants

Daikin air conditioners and air purifiers draw the air in. The indoor unit's filter efficiently catches dust and pollutants.



Superior air purification

Streamer Technology decomposes harmful substances trapped in the filter.



Clean air

Once bacteria and allergens are removed from the filters, purified air is recirculated into the living space.



Streamer Technology effectiveness**

Air Purifiers independently tested and verified to remove:



CORONAVIRUS (HCoV-229E)

MORE THAN
99.99%
IN 30 MINUTES



INFLUENZA A (H1N1)

MORE THAN
99.99%
IN 30 MINUTES



MOULD

MORE THAN
99.9%
IN 24 HOURS



POLLEN

MORE THAN
99.6%
IN 2 HOURS



ALLERGENS

MORE THAN
99.6%
IN 24 HOURS



BACTERIA



FORMALDEHYDE



ODOURS

*Selected models

** For more information, visit daikin.com.au/airpurifiers

Air purification solutions for homes and businesses

Daikin's Air Purifiers with 4 layers of filtration including Streamer Technology, offer superior air purification and improved IAQ.

Independently tested and verified

Daikin Air Purifiers with Streamer Technology have been proven to remove more than 99.99% of Coronavirus (HCoV-229E), of the same family as the COVID-19 causing virus SARS-CoV-2, and Influenza A (H1N1), the virus that causes the common flu, in as little as 30 minutes.

Verified by Swiss multi-national testing and certification company,

SGS with the following test condition: Daikin Air Purifier model MC55YPVM operating in a 10m³ chamber in Turbo mode (tested to GB21551.3 standard, test number: SHES220200348271).

The effectiveness of the Daikin Air Purifiers is achieved through a combination of the high performance electrostatic HEPA filter, which traps the virus, followed by an intense exposure to Daikin's patented Streamer Technology, which removes viruses.



Coronavirus (HCoV-229E) and Influenza A (H1N1)
99.99%
inactivation
in 30 mins

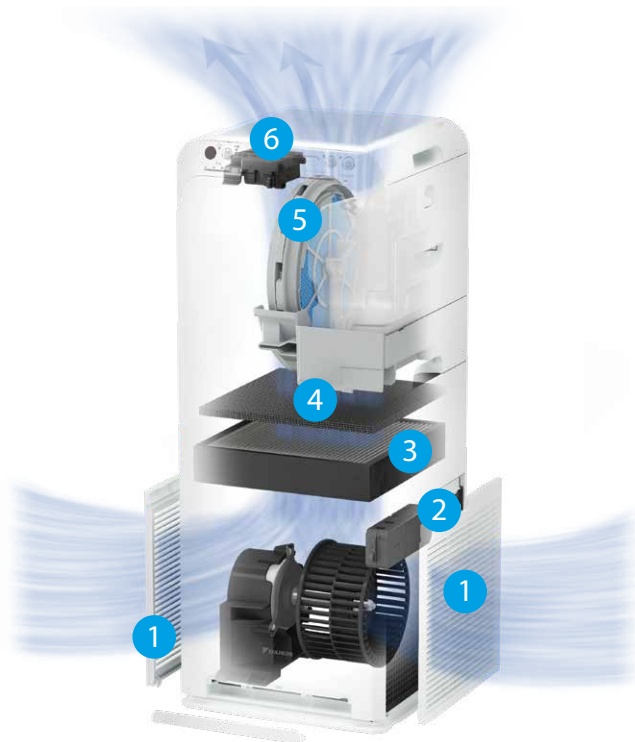
Powerful humidification to protect against air dryness and viruses

Available in the MCK55 model, the water wheel lifts the humidifying water from the tank which is then met by the filtered air coming from below.

This filtered air containing charged electrons from the Streamer unit is blown onto the humidifying filter, removing any residual bacteria and viruses. Humid, clean air is discharged into the room.

Effective humidification and purification in one

- 1 Pre-filter**
catches large particles of dust
- 2 Streamer Unit**
decomposes harmful allergens trapped on the filter
- 3 Electrostatic HEPA Filter**
removes 99.97% of fine particles of 0.3µm
- 4 Deodorising Filter**
absorbs odour
- 5 Humidifying Filter**
double-layer filter for humidification
- 6 Active Plasma Ion Generation Unit**
removes odours, bacteria and indoor air pollutants such as formaldehyde



Daikin IAQ product range

Air conditioning

Daikin air conditioners feature advanced technology to create a more comfortable climate. The units include several filtering techniques, which vary depending on the range.



Alira X

Each model is fitted with three layers of filtration: a prefilter for large particulates, an enzyme blue deodorising filter for odours and Daikin's Streamer Technology. Includes Mould-Proof operation and built-in Wi-Fi.



Zena

Features Streamer Technology and a titanium apatite deodorising air purification filter that traps microscopic particles, decomposes odours and bacteria. During heating operation, its Vertical Flow Function, using the discharge louvres, stream airflow down the wall and towards the floor, for improved temperature distribution and comfort. Includes built-in Wi-Fi.



Round Flow Cassette

An inbuilt sensor detects human presence and floor temperature and helps maintain an even room temperature, whilst enabling energy-saving operation when rooms are unoccupied. Features models with integrated Streamer Technology and compatible with MERV 8 Filter.

Air purification

Daikin filtration systems use highly efficient air filters in air conditioning and ventilation units. Together with air purifiers, Daikin units can help capture airborne pathogens and reduce the risk of transmission of bacteria and viruses through the air.

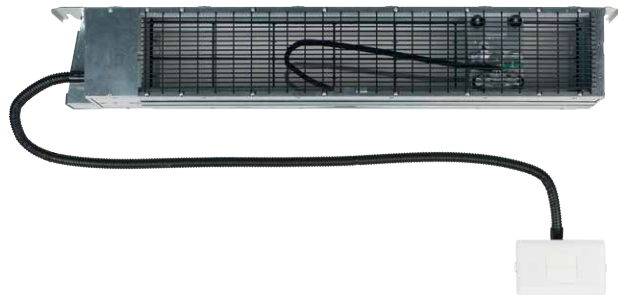
Air Purifiers

Features four layers including Streamer Technology for superior air purification. Ambient air is cleaned inside the air purifier, so purified air is discharged at the top of the unit and can cover an area of up to 82m².



Self-Cleaning Filters

Scheduled automatic filter cleaning enables dust that's collected in a box integrated within the unit, to be easily removed with a vacuum cleaner. Only compatible with compact (450mm deep) bulkhead models.



MERV 8 and 14 Filters

A broad range of filters that remove and control airborne particulates and gaseous contaminants for improved air quality. MERV 8 filters are available for SkyAir Roundflow Cassette. Both MERV 8 and 14 filters are available for FXMQ-AFVM Outdoor Air Processing Unit.



Ventilation

Daikin ventilation systems can be seamlessly integrated in a heat pump solution to reduce the capacity of individual systems required, to ensure optimal climate conditions by providing a clean and comfortable environment. Daikin offers a wide range of filtration options to suit any application.



Outdoor Air Processing Unit

Provides a combined ventilation and air conditioning solution in a single system to ensure tempered outside, clean, comfortable air.

Available in two operation types, supply air control (FXMQ-MFV1) for combatting high outdoor air humidity or return air control (FXMQ-AFVM) for greater energy savings and optional MERV 8 and 14 filters.



Heat Reclaim Ventilator

This energy recovery ventilation system introduces outside air into the indoor space, while maintaining the indoor temperature set by the air conditioning.

Compatible with optional CO₂ sensor for interlocking the ventilation rate with CO₂ concentration (PPM).



Air Handling Units

Engineered with leading technologies, Daikin AHUs offer flexible solutions for custom applications. The range includes a 100% outside air option, optional heat exchangers and a comprehensive choice of AAF filters.

Controls

Daikin offers various control solutions adaptable to the requirements of even the most demanding commercial application.

Stylish Controller

Offers intuitive touch control, energy efficiency optimisation and CO₂ monitoring when connected to Heat Ventilator Unit VAM-HVE in an attractive and compact unit.



Central Controllers

Reiri

Reiri controller with Wago allows control via Android and iOS apps for the operation and monitoring of Daikin and third-party HVAC equipment. IAQ sensors can be connected to monitor PM2.5, CO₂, TVOC, temperature and humidity levels. Available with or without touchscreen.



Intelligent Touch Manager

iTouch Manager (with Wago) controls all Daikin VRV, SkyAir and RA products simply and conveniently. The Wago I/O system complements the Intelligent Touch Manager for comprehensive control of a building's air conditioning requirements.

ITouch Manager can control the BACNet(R) service via the BacNet(R) client software.





IAQ solutions for Education

With Australia's extreme climate, many schools struggle to ventilate classrooms while also keeping students and teachers comfortable and healthy.

Traditionally, many older schools were not designed to include air conditioning; instead relying on open windows to ventilate classrooms. This is not ideal on days when it's too hot or cold to open the windows. Opening windows also doesn't prevent contaminants or noise entering the classroom.

Negative impacts of poor IAQ

Poor IAQ has been linked to:

- › Reduced cognitive performance
- › Hyperactivity and lack of concentration
- › Higher chances of the spread of illness resulting in increased absenteeism
- › Exacerbation of respiratory conditions such as asthma and allergies

Importance of good IAQ in schools

Learning environments with controlled HVAC and purified air provide students and teachers with:

- › Optimal thermal comfort
- › Increased productivity levels
- › Improved health and well-being

Improving classroom air quality

The most simple ventilation method is to open windows to allow air to circulate inside classrooms. However, this can become problematic with noise, extreme temperatures and the risk of outdoor air pollutants entering the space. Various elements of an effective HVAC solution can help to provide comfortable and clean indoor environments. These include:

- › Sensors to monitor the build up of CO₂ which can affect concentration levels
- › The introduction of more outside air into the classroom by using mechanical ventilation
- › HVAC systems that include air purification and filtration technology to remove dust and allergens from the air inside the classroom

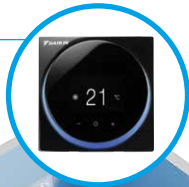
Product solutions

Daikin's range of ventilation, air conditioning and air purification solutions can be tailored to specific educational building configurations to provide thermal comfort and humidity control with optimal IAQ; fully integrated to reduce running costs.

Whether for small or large educational settings, Daikin's HVAC solutions can be designed to offer individual room control, providing effective management of standby and comfort settings. Entire buildings and campuses can be scheduled and monitored remotely from one central location to minimise energy use.

Stylish Controller

monitors CO₂ level and measures the air quality in classrooms, while maintaining thermal comfort.



OPTIMAL SOLUTION Heat Reclaim Ventilator

is a mechanical ventilation system interlocking with cassette maintains healthy levels of outside air in the classroom, whilst minimising energy costs.



OPTIMAL SOLUTION Streamer Cassette with MERV 8

FEATURES advanced sensors for superior air purification and thermal comfort. The unit creates better air quality in the classroom.



Air Purifier

with Streamer Technology and HEPA filter unit effectively captures and decomposes pollutants including those that cause asthma and allergies.



Alira X with Split System with Streamer Technology

is fitted with three layers of filtration and Daikin's Streamer Technology.



IAQ solutions for Aged Care

Aged Care facilities must provide a clean, healthy, comfortable environment for their residents' well-being.

It's important the vulnerable occupants of aged care facilities are looked after in an environment, where they can maintain a good quality of life.

Considerations for protecting the elderly

Getting natural ventilation into a building the old-fashioned way by opening windows has limited benefits in aged care. With extremes of temperature, bushfires and the hay fever season Australia can experience, facilities are often required to keep their windows closed to protect the health of their residents. Limited ventilation indoors within high traffic areas will expose residents and their caregivers to airborne pathogens, moulds, cleaning chemicals, dust and dirt.

Maintaining high standard IAQ

Investing in Daikin's HVAC systems and air purifiers, will help enhance aged care IAQ. An outside air processing unit with advanced filtration, delivers tempered outside air and filters particles for ventilated, clean air. Air purifiers can help decompose odours and bacteria to enhance a germ-free environment. Daikin units have user friendly controls which enable residents to have complete control of the environment in their personal living spaces, while facility managers can control IAQ in communal areas.

Daikin IAQ solutions can improve IAQ providing a safe, clean, odour-free environment for both residents and their caregivers.

Product solutions

Daikin's Aged Care IAQ solutions provide options for all aged care spaces: from high traffic to residents' private rooms, for thermal, germ-free comfort.

Whether needing a complete solution for a new aged care facility or air purifiers to purify individual zones, Daikin has the answer.

Round Flow Cassette with MERV 8 filter

attracts and captures airborne particles/allergens from 3 to 10 microns such as pollen, fine dust and pet dander. This gives improved filtration compared with a standard filter.



Bulkhead Unit with Self-Cleaning Filter

captures and collects dust into the onboard dust box during the pre-programmed cleaning cycle. Once the dust box is almost full, it can be quickly and easily emptied using a vacuum cleaner hose, reducing maintenance and without disturbing room occupants.



Air Purifiers in communal areas and bedrooms

will assist with minimising dust, odours and pathogens from high traffic areas.



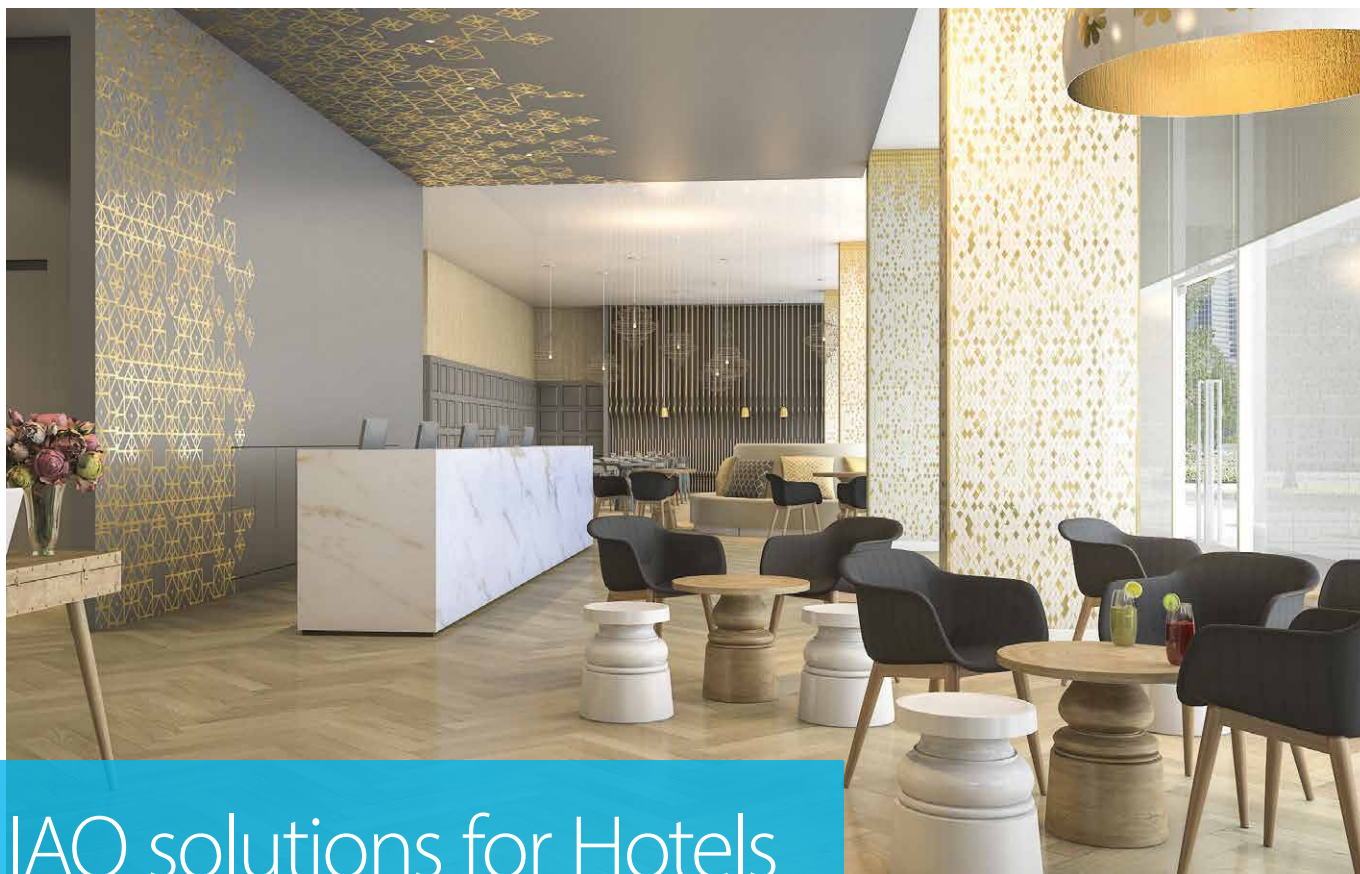
Stylish Controller

allows residents perfect control over their individual climate.



Outside Air Processing Unit

whilst meeting ventilation requirements, pressurizes the hallway with tempered air for better thermal comfort.



IAQ solutions for Hotels

Hotels should consider the ventilation requirements in various areas of their facility to provide a pleasant and safe environment for guests and staff alike.

Whether guests are there for work or play, they have high expectations for their hotel experience. Hotel managers need to ensure the hotel climate and indoor air quality are conducive to guests having a positive memorable stay.

The key to making guests happy

From the moment a guest walks into reception, it's important they feel comfortable and at ease in their environment; from check in, to when they're in their own guest room or in an entertainment or business area. It's critical too, that staff are able to perform at their best.

Purifying the air in all hospitality zones

Hotel facility managers need to be mindful of the environments where many people are constantly circulating, such as the reception area, dining halls, conference rooms or fitness areas.

Keeping guests and staff comfortable

Daikin climate solutions can introduce tempered outside air into multiple spaces, controlling temperature and humidity with minimal installation and maintenance requirements. The climate can be controlled on a micro level in individual guests rooms, or in large open spaces for 100s of occupants. Filtration will keep the air clean and minimise the occurrence of mould, odours or unwelcome dust or particles entering the environment.

Making guests as comfortable as possible during their stay with optimal IAQ, will hopefully enhance guests' hotel experience and lead to return business.

Product solutions

In hospitality, comfort is key. Daikin delivers a perfect ambiance with a 'total solution' that integrates heating, cooling, ventilation and air purification for quiet and draft-free operation. Daikin's tailored solutions enable hotels to provide air comfort and low running costs without sacrificing style.

Solutions that help hotel facility managers to have an ideal indoor environmental quality with smart energy management options.

Bulkhead Unit with Self-Cleaning Filter

captures and collects dust into the onboard dust box during the pre-programmed cleaning cycle. Once the dust box is almost full, it can be quickly and easily emptied using a vacuum cleaner hose, reducing overall maintenance.

Stylish Controller

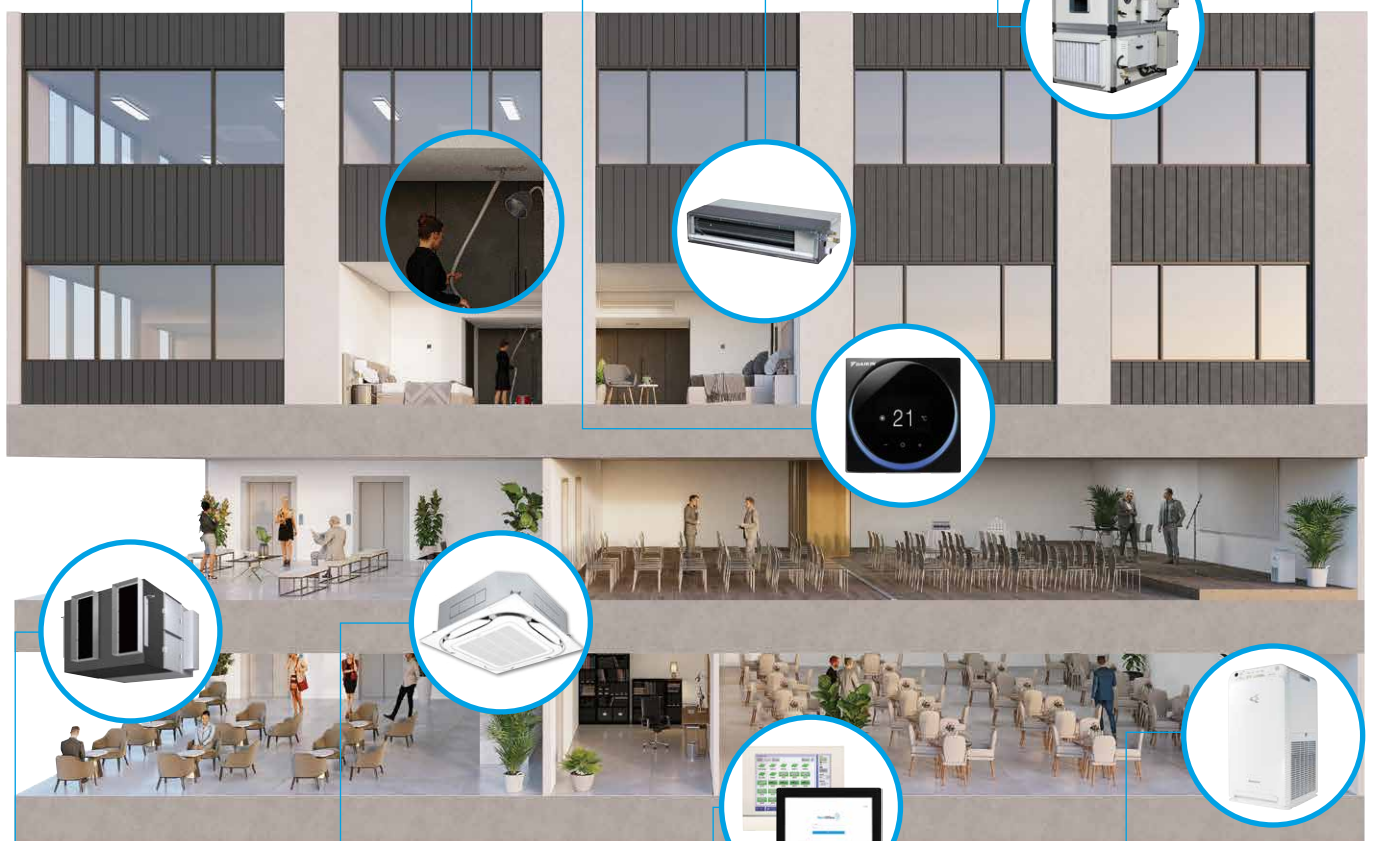
enables guests to manage their own comfort.

Bulkhead Unit

can fit neatly above wardrobe or entrance bulkhead, allowing various filter or grille types.

Air Handling Unit

is an ideal solution in large open spaces, such as conference rooms or dining halls. These units can provide large outside air volumes (>500 m³/h) and high ESPs enabling the use of extensive ductwork runs.



Heat Reclaim Ventilator in common areas

with VAM units maintain air flow using tempered outside air, whilst minimising energy consumption.

Streamer Cassette in common areas and conference rooms

will further assist with air purification when combined with adequate mechanical ventilation. Its sensing function will direct the air where it's needed.

Daikin Central Controllers

monitor the conditions of each guest room and large, open spaces and adjust to the guests' needs.

- > a Reiri Controller can monitor IAQ conditions, simply from a smartphone app
- > an iTM Controller can monitor and operate VRV and AHU equipment.

Air Purifiers in common areas

remove virus particles from the air.



IAQ solutions for Office Buildings

Office buildings in Australia need to comply with HVAC construction and maintenance standards. A specialised IAQ equipment is required to provide a healthy working environment whilst balancing energy efficiency.

It's important to design office buildings to provide as healthy an environment as possible to enhance workers' productivity and health.

Eradicating Sick Building Syndrome

Building HVAC standards were introduced to counteract the detrimental effects of Sick Building Syndrome (SBS). Symptoms included blocked or runny noses, scratchy throats, headaches, nausea, dry skin and fatigue. Causes were poorly maintained air conditioning systems or poor ventilation, which resulted in the circulation of dust, smoke, fumes and pathogens.

The significance of HVAC flexibility

Facility managers have a number of factors to consider. On a day-to-day basis they have to meet IAQ targets; managing the tempered outside air load requirements of different spaces within a company's office; alternating from high traffic areas to areas that are empty.

Filtering and purifying the air for a healthy workplace

Daikin climate solutions can help managers maintain IAQ targets. Units can monitor the levels of CO₂, filter and purify the air to help keep the environment free of mould spores, dust, particles and airborne pathogens. Streamer Technology will help eliminate viruses.

Creating better IAQ will help businesses attain HVAC construction and maintenance standards. The National Construction Code (NCC) and Green Star ratings stipulate the amount of tempered outside air in an office, which is a positive requirement for healthy IAQ.

An office environment with good IAQ may improve staff concentration, which will result in better output and less sick leave.

Product solutions

Daikin climate solutions for office buildings enable property owners to consider how they can improve their building's IAQ. Critical to this is the exchange of outdoor and indoor air, filtration and air purification.

From energy efficient HVAC, air purification to centralised controllers, Daikin systems are designed to easily upgrade or replace an existing climate system to enable a healthy indoor environment, which enhances staff concentration levels, whilst minimising energy costs.

Ducted Unit
ideal where ceiling space is available and allows the addition of various filtration options

Streamer Cassette in workspaces and meeting rooms
interlocking with a mechanical ventilation system that ensures adequate ventilation and provides an energy efficient IAQ solution.

Heat Reclaim Ventilator in workspaces
recovers energy from the exhaust air and keeps tempered outside air circulating throughout the building

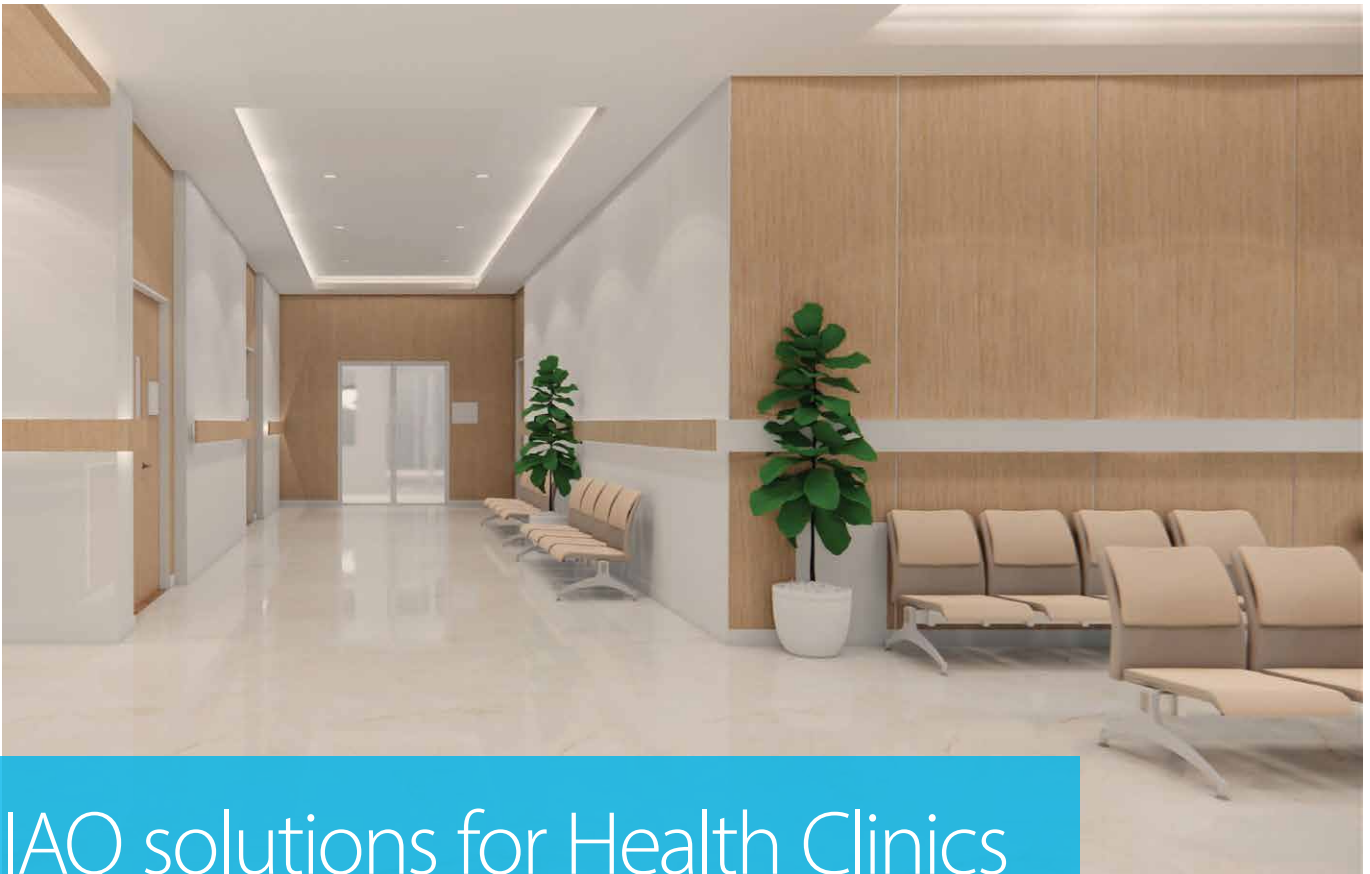


Stylish Controller
allows staff to manage their own comfort.

Air Purifiers in common areas
remove virus particles from the air.

Round Flow Cassette with MERV 8 Filter
attracts and captures airborne particles/allergens from 3 to 10 microns such as pollen and fine dust, resulting in improved filtration over a standard filter.

Daikin Central Controllers
enable the monitoring and operation of all Daikin and third-party HVAC equipment. Reiri Controller can monitor IAQ conditions like PM2.5, CO₂, TVOC, temperature and humidity levels.



IAQ solutions for Health Clinics

Healthcare facilities managers have a duty of care to their patients, contractors and suppliers who enter their premises, as well as staff. Providing clean, ventilated and well managed indoor air promotes health, productivity, comfort, and peace of mind.

Keeping Health Clinics healthy

Indoor air quality in health clinics needs to be regulated in large traffic areas such as waiting rooms, as well as in individual doctors' consulting or examination rooms. Tempered outside air needs to circulate in all areas; in high traffic areas and ideally to minimise the transfer of air between rooms which are occupied by sick people. A comprehensive and reliable filtration system will help keep the environment free of mould spores, harmful dust or particles, particularly important for patients who suffer from asthma or other respiratory conditions.

Purifying the air for everyone in health clinics

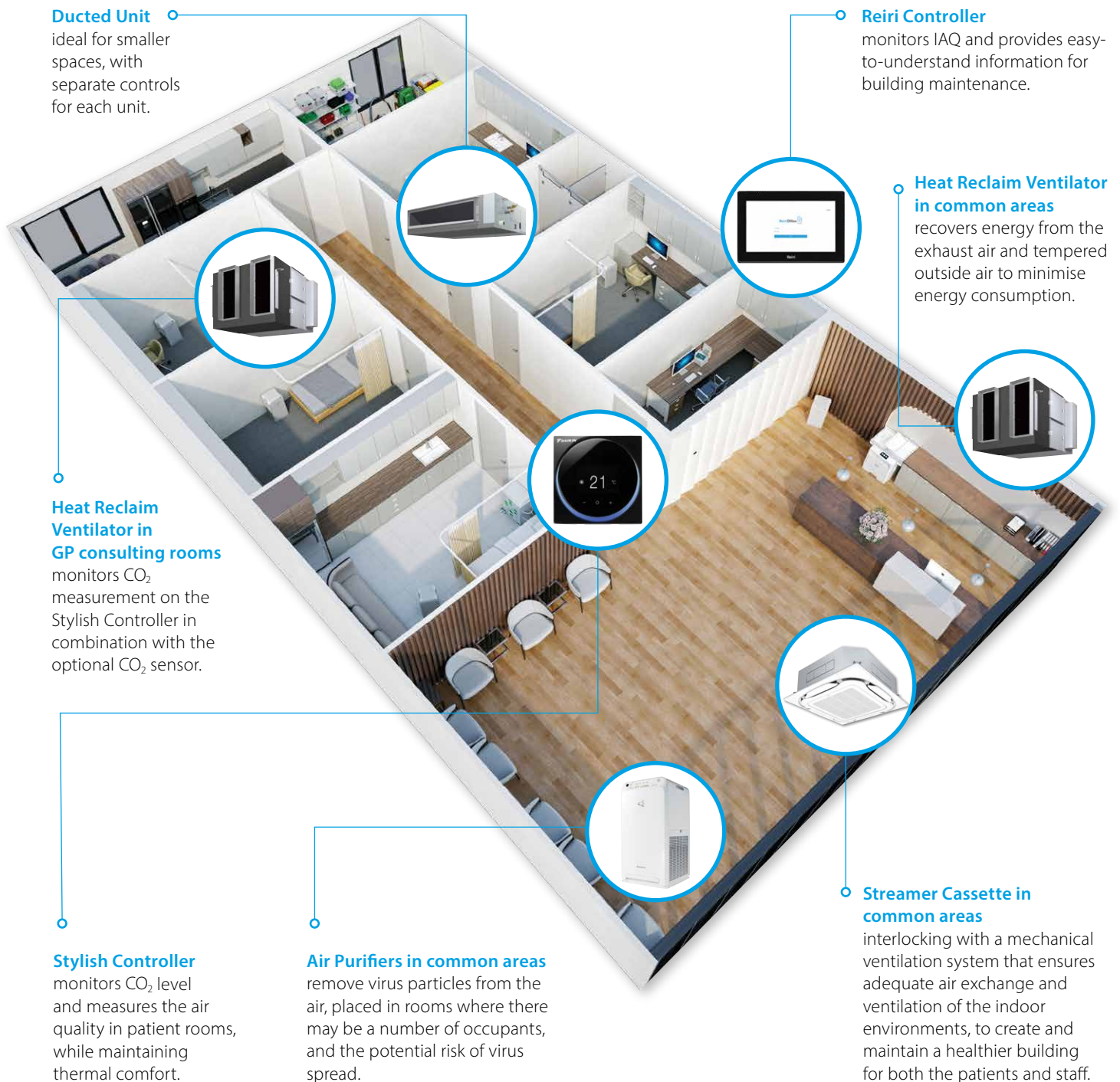
Providing clean, ventilated and well managed indoor air promotes health, productivity, comfort, and peace of mind. Importantly, airborne pathogens can be filtered out and the air purified to minimise the spread of viruses and bacteria. This helps reassure staff looking after patients feel they are working in a germ-free space.

High levels of IAQ in health clinics will help sick patients feel as comfortable as possible, whilst enhancing the environment for health care workers to make their patients get better.

Product solutions

Daikin offers precise control of temperature and humidity settings within multiple zones, ideal for health care environments with smart management solutions that ensure HVAC is only used where and when required, to minimise energy costs.

Daikin's customised solutions can help health clinic facility managers provide the stringent hygienic, comfortable environment required for staff to perform at their best and patients to feel safe and well treated.





IAQ solutions for Apartment Buildings

Since the onset of COVID-19, people have been spending more time in their apartments, working from home. This has increased the need for good indoor air quality. Controlling humidity, keeping the apartment clean and dry, and promoting air circulation are simple ways of improving air quality.

In recent years, Australians have also had to deal with hotter temperatures, more bushfires and higher than average rainfalls. With people now spending 90% of their time indoors, good IAQ is increasingly a pre-requisite for healthy living.

Understanding the indoor air pollution problem

It's easy to imagine how dust and dirt can enter the home through an open window, but there are also many everyday pollutants that can have an impact, such as mould, dust mites, house paint, cleaning products and disinfectants. Even household appliances can detract from good IAQ – stoves, heaters and fireplaces emit carbon monoxide and nitrogen dioxide, without residents realising it.

How to improve an apartment's IAQ

Daikin has a range of innovative air purification solutions. Air conditioning systems come with features that specifically target indoor air pollutants. They may include functions that decompose bacteria and mould, and remove carbon monoxide and other allergens. Streamer Technology deactivates bacteria and decomposes odours. For those with allergies and asthma, Daikin Split Systems are the only split systems on the market to carry the Sensitive Choice logo which indicates a standard of top notch air purification capability.

Daikin's solutions promote good IAQ, enabling apartment residents to live, work and play in an environment that enhances well-being and comfort.

Product solutions

Daikin split systems and air purifiers carry the Sensitive Choice symbol, used to more easily identify asthma and allergy-friendly products. Our split systems regulate temperature, ventilation and humidity levels, providing ideal conditions all year round.

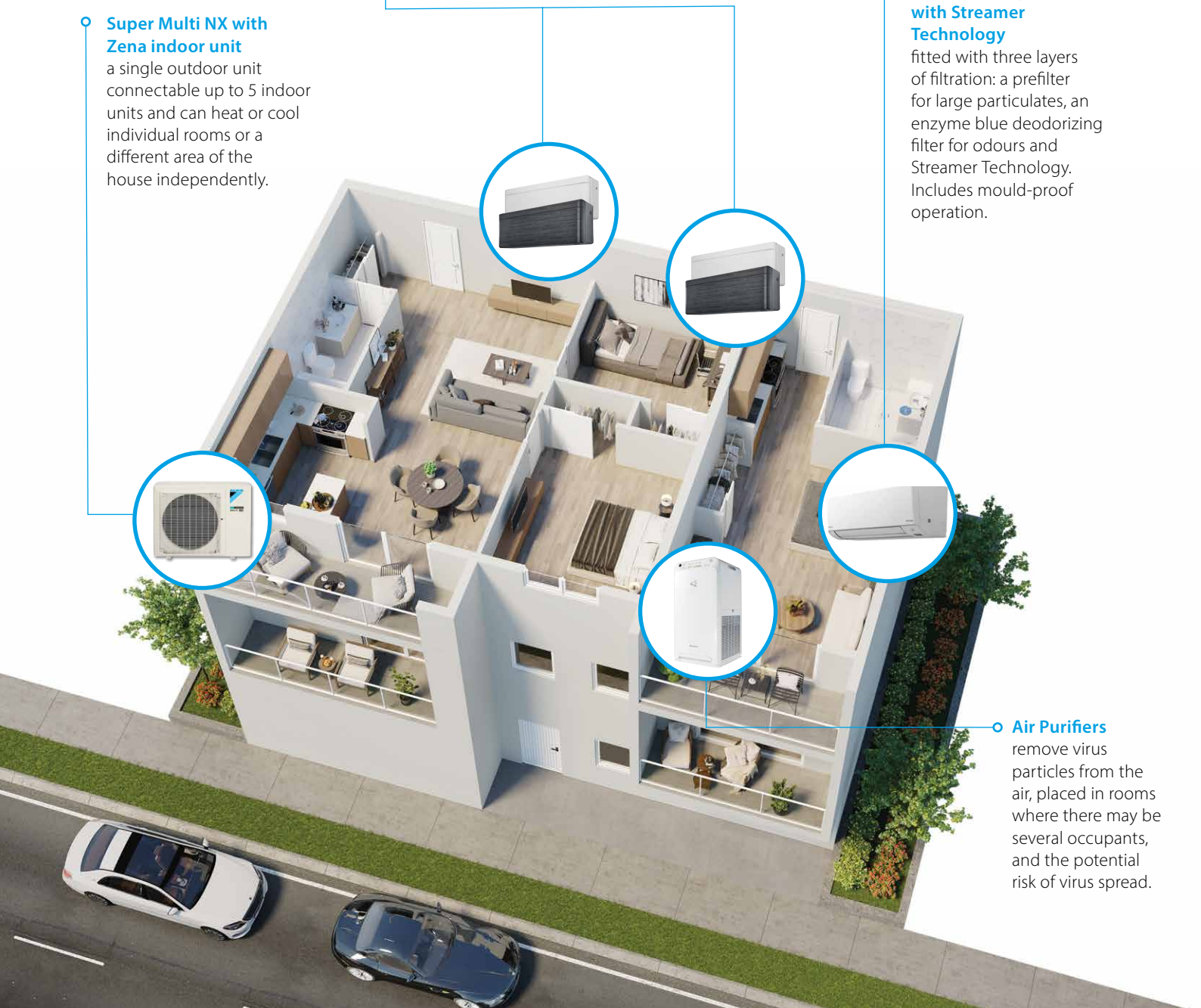
Choosing the best air conditioning system for their space and choosing air conditioning with air purification capability will provide a clean and comfortable environment for residents.

Super Multi NX with Zena indoor unit
a single outdoor unit connectable up to 5 indoor units and can heat or cool individual rooms or a different area of the house independently.

Zena Split System with Streamer Technology
with their designer look, these models blend seamlessly into any modern home. Includes titanium apatite deodorising air purification filter and Streamer Technology that traps microscopic particles, decomposes odours and deactivates bacteria.

Alira X Split System with Streamer Technology
fitted with three layers of filtration: a prefilter for large particulates, an enzyme blue deodorizing filter for odours and Streamer Technology. Includes mould-proof operation.

Air Purifiers
remove virus particles from the air, placed in rooms where there may be several occupants, and the potential risk of virus spread.



How Daikin provides total support



From project design and specification through to completion and future maintenance, Daikin offers the highest standards of service for all our customers: engineers and consultants, installers and contractors, and building owners.

System design assistance

Daikin Australia can offer advanced software tools and apps to help select and accurately evaluate different system options within a building. These enable identification and validation of each tailored solution.

Best practice training

We offer customized training and hands-on instruction to raise standards and expertise in installation, servicing, and general maintenance of Daikin systems.

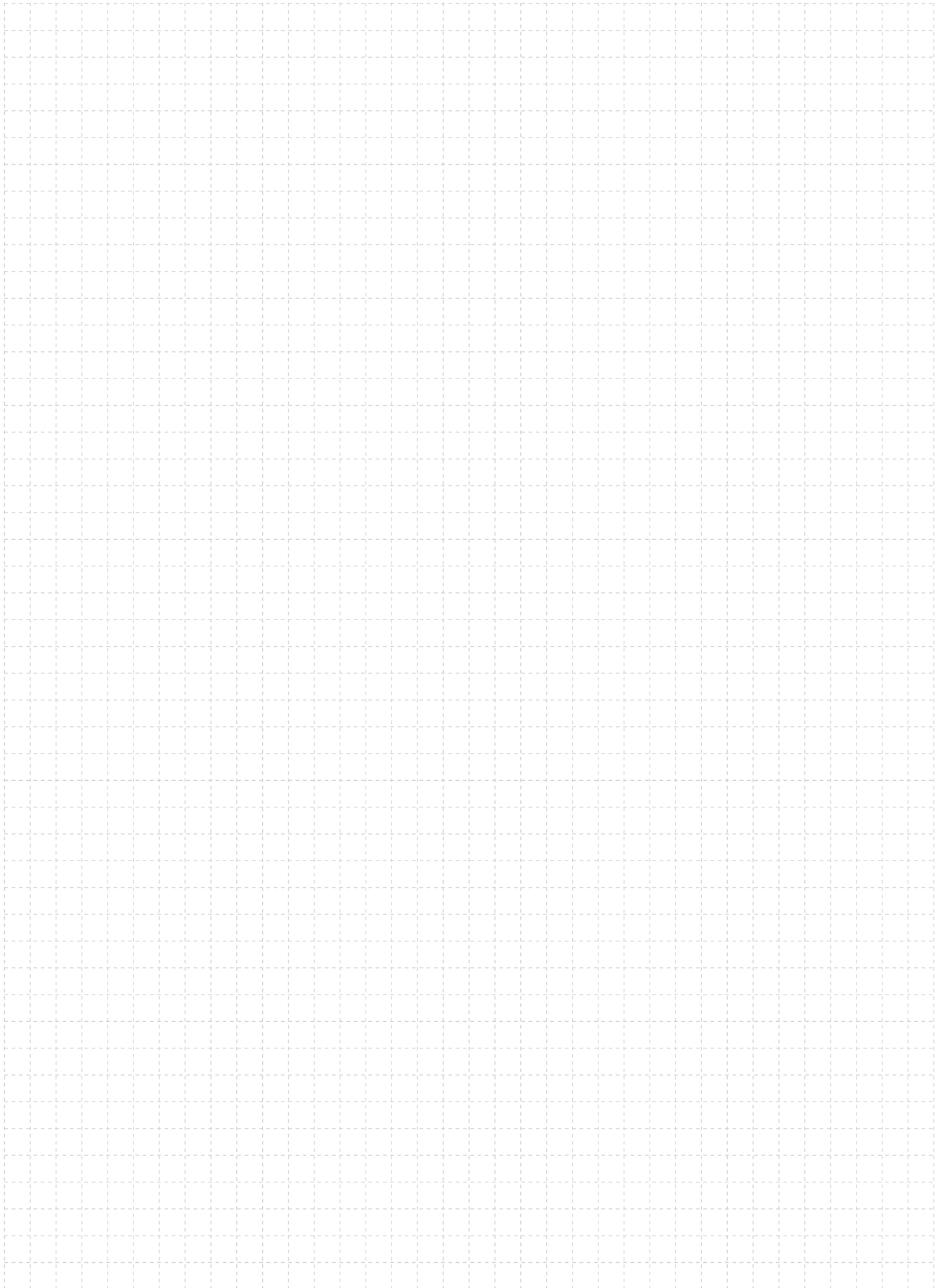
Dedicated after sales support

Our nationwide team of expert service engineers ensure fast, local response and on-site support and advice whenever, and wherever it is needed.

Extensive warranties

As part of our commitment to ongoing service and quality, Daikin provides pre-sales and after-sales support and advice to all our customers nationwide. Daikin has service centres based in all regional offices nationwide to ensure satisfaction for our customers.

Notes



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ASSUMPTIONS

All representations made in Daikin marketing and promotional material are based on the assumptions that the correct equipment has been selected, appropriately sized and installed in accordance with Daikin's installation instructions and standard industry practices.

QUALITY CERTIFICATIONS

Daikin Industries Limited was the first air conditioning equipment manufacturer in Japan to receive ISO 9001 certification. All Daikin manufacturing facilities have been certified to ISO 9001 Quality Management System requirements. ISO 9001 is a certificate for quality assurance concerning 'design, development, manufacturing, installation and related service' of products manufactured at that factory.

Residential Air Conditioning

Manufacturing Div (ISO 9001)
JQA-0486 May 2, 1994
(Shiga Plant)

Commercial Air Conditioning and Refrigeration

Manufacturing Div (ISO 9001)
JMI0107 December 28, 1992
(Kanaoka Factory and Rinkai Factory at Sakai Plant)

ENVIRONMENTAL CERTIFICATIONS

Daikin Industries Limited has received ISO 14001 Environmental Certification for the Daikin production facilities listed below. ISO 14001 is an international standard specifying requirement for an environmental management system, enabling an organisation to formulate policy and objectives, taking into account legislative requirements and information about significant environmental impacts. It applies to those environmental aspects within the organisation's control and over which it can be expected to have an influence.

The certification relates only to the environmental management system and does not constitute any endorsement of the products shipped from the facility by the International Organisation for Standardisation.

Head Office / Tokyo Office	Certificate number: EC02J0355
Shiga Plant (Japan)	Certificate number: EC99J2044
Sakai Plant (Japan)	Certificate number: JQA-E-80009
Daikin Industries Ltd (Thailand)	Certificate number: JQA-E-90108
Yodogawa Plant (Japan)	Certificate number: EC99J2057
Daikin Australia Pty. Ltd.	Certificate number: CEM20437

Daikin Australia Pty Limited (ISO 9001)

QEC 23256
May 12, 2006
Sydney, Brisbane, Adelaide, Melbourne, Newcastle, Townsville, Perth



Daikin Australia Pty Limited (ISO 45001)

OHS 20939 17
February 2021
Sydney



Daikin Australia Pty Limited (ISO 14001)

CEM 20437
October 27, 2006
Sydney, Brisbane, Adelaide, Melbourne, Perth



Industrial System and Chiller Products Manufacturing Div (ISO 9001)

JQA-0495 May 16, 1994
(Yodogawa Plant and Kanaoka Factory and Kishiwada Factory)

Daikin Europe N.V (ISO 9001)

Lloyd 928589.1 June 2, 1993

Daikin Industries (Thailand) Ltd
JQA-1452 September 13, 2002
(ISO 9001)



CONTACT

Learn more how we can help improve Indoor Air Quality levels in your next project. Book a consultation with our Daikin Air Specialists.



Daikin Australia Pty Limited ABN 62 000 172 967

For all Sales enquiries, email: commercial@daikin.com.au

For Customer Service or Technical Support, call: 1300 368 300

Scan the QR code to learn more about Daikin IAQ solutions for various applications

