





# Perfect C°mfort at any time of the year

A pleasant climate and pure air for living, shopping and working

Split Multi Split Sky Air The company



# A climate – like no other A company – like no other

In 2002,

Daikin Industries won the

"Stratospheric
Ozone Protection
Award"

sponsored by the EPA (Environmental Protection Agency).

In 1924, Daikin Industries Ltd. was founded in Osaka, Japan by Mr. Akira Yamada.
Initially, heating systems for the aviation industry were mainly produced. Today, more than 25.000 employees around the world develop, produce and market high quality air conditioning systems for the industrial, commercial and private sectors. In Japan, Daikin Industries Ltd. now occupies a leading position in the commercial and residential markets for direct expansion air conditioning systems.



Ostende

### **DAIKIN EUROPE NV**

In 1972, Daikin established its first European operation, DAIKIN EUROPE NV in Ostende (Belgium). Since then, decades of experience, consistent research, innovative technology, fair prices and excellent customer service have made Daikin the premier player and the most progressive air conditioning manufacturer in both Japan and Europe.

In 2004 the new Daikin factory in Plzen,
Czech Republic was established. Those two
powerful production facilities and a highly
advanced sales network all over Europe make
Daikin a "truly European" company. International
know-how tailor made for the local requirements.
Following the start up of production at its new
manufacturing plant in Plzen, Daikin has opened
in March 2005 of a new 16.000 m² compressor
factory in Brno.



Brunn am Gebirge / Vienna

### DAIKIN AIRCONDITIONING CENTRAL EUROPE

DAIKIN AIR CONDITIONING CENTRAL
EUROPE with its headquarters in Brunn am
Gebirge, south of Vienna, was established in
1999. The entire "Central Europe" region is
supported from this head office and includes
Austria, Albania, Bosnia Herzegovina, Bulgaria,
Croatia, Czech Republic, Hungary, Macedonia,
Moldavia, Romania, Serbia and Montenegro,
Slovakia and Slovenia. Supported through
regional offices and branch offices in many
countries, Daikin is able to satisfy its customers
requirements in every region at any time.



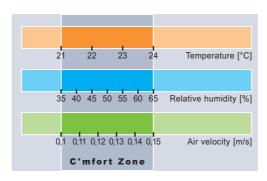


Perfect C°mfort



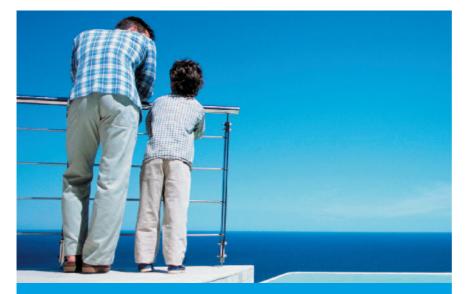


### Perfect C°mfort - welcome to a new dimension in quality of life



#### Tailor-made climate

Three things must be right in order for an indoor climate to suit us when we shop, are in the office or at home: temperature, relative humidity and airflow. Optimum air conditioning technology reflects a clearly defined comfort zone of 21-24 °C (depending on activity and personal preference), 35 - 65 % relative humidity, and 0.1 to 0.15 m/s of airspeed - i.e. less than 0.4 km/h.



### The "C°mfort Zone"

Year round indoor climate for a comfortable feeling: Daikin - number 1 in Europe offers technological solutions at the highest level for this purpose, for individual rooms as well as for entire buildings.

Daikin air conditioning systems convert any room into a pleasant, whisper quiet and dependable "comfort zone" for long periods of time: Pleasant coolness in summer, comfortable warmth in winter as well as pure, healthy air throughout the year. This means: feeling good at home, more concentrated work in the office and a good business atmosphere. Customers prefer to buy when they feel good.



Automatically and almost noiselessly, Daikin air conditioning systems adapt to weather changes and continuously optimise room temperature. In the summer, heat and humid air remain outside. And when the first cool days of autumn arrive, the air conditioning system automatically switches to heating. As a result, optimum air quality and a healthy indoor atmosphere are provided during day and night. Cooling, heating and air purification are always individually and flexibly combined.

Technology Systems

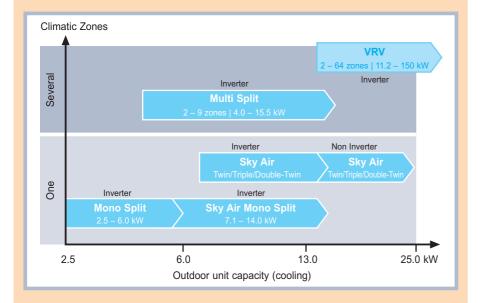


# Daikin – tailor-made for any occasion

Whether it's an individual room or a building complex, Daikin has a suitable solution at hand for all air conditioning demands. Daikin develops and produces the entire unit, including compressors,

heat exchangers and electronics etc and is also the only air conditioning manufacturer in the world to produce refrigerant chemicals! This ensures that all components are always co-ordinated and have a high quality.

### Complete overview – complete programme



Mono Split: One outdoor unit supplies one indoor unit.

**Multi Split:** One outdoor unit supplies up to nine indoor units. A maximum of nine different climatic zones can be generated this way.

**Sky Air:** One outdoor unit supplies up to four indoor units.

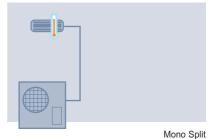
Only one zone can be regulated. All indoor units are either switched on or switched off.

- 1. One outdoor unit and one indoor unit
- 2. One outdoor unit and two indoor units "Double-Application"
- 3. One outdoor unit and three indoor units "Triple-Application"
- 4. One outdoor unit and four indoor units "Double Twin- Application"

VRV: One outdoor unit can supply up to 64 indoor units. A maximum of 64 different climatic zones can be generated this way.
These multi-zone systems are ideal for air conditioning large building complexes.

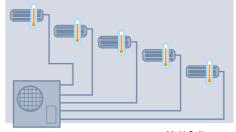
#### Mono Split systems

Mono Split systems are ideal for air conditioning individual rooms, such as an office, study, living room and bedroom. Every system consists of an outdoor unit and an indoor unit.



### Multi Split systems

Multi Split systems can air condition a maximum of nine different rooms with up to nine different climatic zones. Every system consists of an outdoor unit and a maximum of nine indoor units.



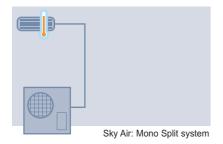
Multi Split

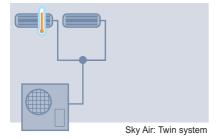


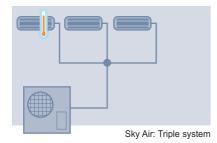


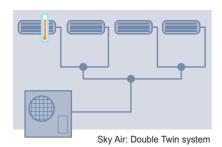
### Sky Air units

Sky Air systems are ideal for bigger surfaces. Every system consists of an outdoor unit and one to four indoor units.









### **VRV Multi-Zone Systems**

VRV Multi-Zone systems are suited for air conditioning large building complexes. A system consists of an outdoor unit supplying, at the most, forty indoor units. Thus a maximum of sixtyfour rooms can be provided with up to sixtyfour different climatic zones.



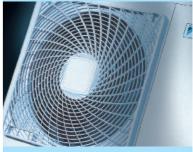
### Optimised design

Daikin is the sole manufacturer of air conditioning systems also to be involved in the extensive development of chlorine free refrigerants.

This enables the ideal refrigerant to be selected for every Daikin system. In addition to R-407C, R-410A refrigerant is now being used in the latest Daikin units.

### Daikin guarantees top quality

High quality standards are maintained in all Daikin products by devoting careful attention to testing, design, production and regular maintenance. Furthermore, all Daikin products are protected



with a special coating against rust and corrosion and are designed for a long working life. Also, no unit leaves the factory without detailed quality and operational inspection. The Daikin name is your assurance of top quality.



Inverter Technology

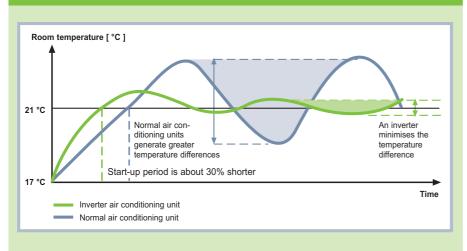


### Inverter technology – standard at Daikin

Unlike conventional units, Daikin air conditioning systems do not "blast away" at full tilt as soon as the target temperature falls short or is exceeded. On the contrary, they ensure that exactly the right amount of thermal energy, necessary to achieve

the required indoor climate, is continuously supplied by electronically adjusting electric motors to match the specific cooling and heating loads. Thanks to Daikin's unsurpassed inverter technology, the motors run as smooth as silk, efficiently and economically and almost noiselessly – without generating draughts and producing the precise output necessary at any one time. As a result, unit life span is prolonged and maintenance and servicing expenditure is reduced.

### Superior at any point in time



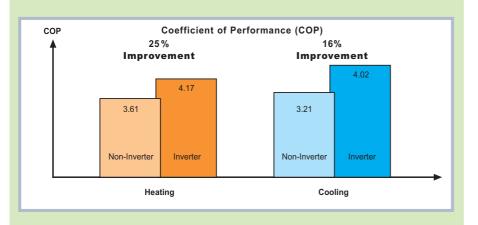
### Electronic climate control

Electronic climate control keeps the room temperature stable, enabling considerable energy savings throughout the year due to super efficient operation.

### Quick start up

Energy output is increased by 10% in order to achieve quickly the desired room temperature. In this way Daikin air conditioning systems require one third less time than conventional air conditioning systems for the adaptation process.

### **Energy savings potential**



#### **Energy savings potential**

Inverter systems can produce around 30% savings in energy consumption based on an increased Coefficient of Performance (COP).

COP is the relation between power input and resulting capacity. The higher the COP the more energy you get per kWh of electricity.







## Comfortable, quiet, clean – Daikin Comfort Systems

### High quality technology – comfortable operation

All Daikin air conditioning systems are furnished with comfortable and easy to use remote controls. They offer a wide range of comfort features, such as day/night function and "home leave" function.



The combination with a motion detector offers additional comfort. In any case they offer climatic comfort at the push of a button!

#### Almost noiseless and discreet

Forget everything that you thought you knew about air conditioning systems until now! The fact is, almost unbelievable developments – particularly in the reduction of operating running noise – have taken place in the last few years. Air conditioning units in the 2.5kW range (usually installed for a bedroom or a smaller living room) lie in the sound pressure range of just 25 dB (A). This is roughly equivalent to the noise level of gentle rain. Also, their discreet design enables them to harmonise in even the most sophisticated indoor environment.

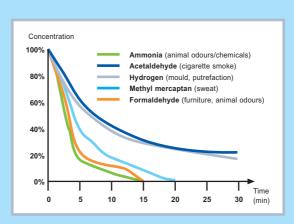
In order to reduce air conditioning system noise to a minimum, some Daikin systems feature an "extra quiet" function. This throttles back the compressor and thus reduces motor noise of the outdoor unit (for instance during night) to an almost imperceptible level, also for your neighbors.



### Clean Air

DAIKIN air conditioning systems do not only cool, they also clean the air. Most indoor units contain air filters that trap dust particles in the air. Some units offer additional comfort by means of a photo-catalytic odour filter, which also filters dust particles, decomposes odours and prevents the regeneration of bacteria, viruses and microbes.

A continuous supply of clean air is thereby guaranteed.





# Comfort climate to suite every wish





### Wall mounted units

High level comfort climate: Daikin wall mounted units are ideal for small rooms, these units are the modern, economic and efficient way to ensure a spring like atmosphere in the dining room, living room, kitchen and bedroom, night and day, all the year round.





### Floor standing units

Stylish, discreet and quiet operating, these units are extremely easy to install and service and are available in a wide selection of sizes. Air flow can automatically be switched between the top and the bottom outlet to ensure optimized air distribution in both cooling and heating mode.







### Flexi type units –

### One system, two solutions



### Flexi type units

The elegant and perfect solution for ceiling or beneath window mounting, whichever suits the room shape or layout. They are easy to clean and simple to operate. The nice and stylish design makes them perfectly fit into any type of interior.



### Automatic airflow regulation

Automatic airflow regulation increases comfort levels by ensuring all round air distribution, even temperature levels and absence of draughts.









# All good things come from above such as Daikin ceiling suspended units



### Climate with a wide range:

Ceiling suspended units are the answer to air conditioning shops, restaurants, offices etc, in which there is neither available wall space nor adequate ceiling void depth for built in units.

A flexible model program enables units to be selected for rooms up to 3.5 meters high without reductions in air conditioning efficiency.

#### Perfect climate in four directions

Daikin 4-way blow ceiling suspended units do not require false ceilings and offer flexible airflow distribution with the added benefit of blanking off one or two airflow passages if required. They also enable ceilings to remain clean and free from staining at all times.







### **Ceiling mounted units**



### Cassette units (600 x 600)

With four airflow directions, these cassette units are specially configured to fit standard grid ceilings. Rooms up to 4.2 metres in height can be efficiently supplied with this unit.



### **Cassette units**

These built in, round-flow units are recessed into the suspended ceiling and from there distribute conditioned air in all directions with minimal visibility and noise. The technology remains invisible and concealed in the ceiling.





# Perfect discretion in appearance and noise



### **Built-in units**

The discreet, space saving solution for rooms with suspended ceilings. Built-in duct units are 'architecturally friendly' and release maximum wall and floor area spaces for decorative purposes.





Small built-in duct units are especially suitable for hotel rooms. Since the units are very shallow, a local ceiling bulkhead above the bedroom door is all that is usually necessary.







Large built-in duct units are ideal for large conference rooms and open-plan offices. They are designed for concealed installation and relatively long air supply routes and are also

ideal for use in irregular shaped rooms.







Duct units are ideal for residential and smaller commercial applications such as shops, offices and hotels with low suspended ceilings. They can be installed such that they blow either horizontally or vertically downward. As a result, no limitation is placed on interior decorating freedom.



**Outdoor units** 



### Outdoor units -

### dependable energy bundles



Daikin outdoor units – installed on the roof, terrace or on the outside wall – are efficient, whisper quiet and extremely weather resistant as they are well protected against corrosion. All aluminium elements of the heat exchanger are covered with additional protective layers.

### **Split units**

Split outdoor units are designed for supplying an indoor unit with cooling and heating capacities of 2 to 7 kW. The built-in compressors are specifically developed for split units and their highly efficient operating configuration.

### **Sky Air units**

Sky Air outdoor units with cooling and heating capacities of 7 to 14 kW are designed for the dependable and efficient supply of up four indoor units.

### **Packaged units**

These powerful outdoor units with cooling and heating capacities of 20 to 27 kW are designed for the supply of one to four indoor units.

#### **Multi units**

Multipurpose outdoor units are designed for combination with two to nine indoor units. They are (depending on the number of required indoor units) available with a cooling/heating capacity of up to 15.5 kW.

#### **Inverter units**

Most of the units listed above are available with an inverter or standard in/out compressor. Tip: units with inverters are more efficient, quieter and more energy saving than standard versions.











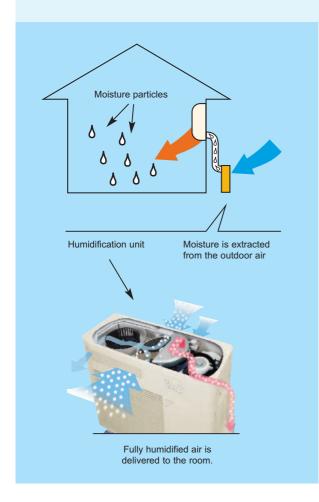
### **URURU SARARA –**

### air conditioners for your home

Heating a room in winter tends to dry the air, which can lead to sore throats, colds and other ailments. During summer a high degree of humidity, even with moderate temperatures, can be very uncomfortable. To enjoy year-round comfort, you need more than just temperature control. The ability to adjust both the level of humidity and a room's ventilation is also essential. However, this has not been possible with conventional air conditioners. Until now... Daikin's new Ururu Sarara, with its unique combination of humidification, dehumidification, ventilation and purification provides exactly the room comfort you want, any time of the year.



### **Ururu** humidification



#### All the moisture in the outdoor air available inside

The Ururu humidification subsystem uses a special built-in humidification element in the outdoor unit to absorb the moisture present in the outdoor air and send it to the indoor unit.

Since moisture is not absorbed from the room's air, quick and effective humidification is possible even with the drier air of winter.

### Ururu humidification evenly heats the entire room

The unit incorporates both an air conditioner and a humidifier, making ideal heating possible. The URURU humidification subsystem effectively supplies up to 450ml/h of water required to fully humidify an entire large living room.

Unlike a standard humidifier, this indoor unit has no water tank. Thus



no need for a water supply and no time-consuming cleaning.

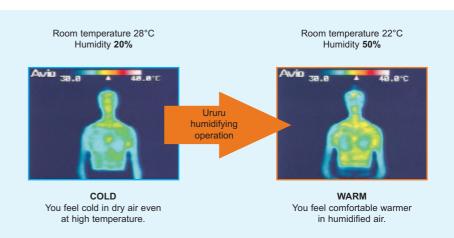
This feature also eliminates the worrisome growth of bacteria and other micro-organisms.



## Humidification, Dehumidification, Ventilation, Heating and Cooling – all in one system

#### Humidified air feels warmer

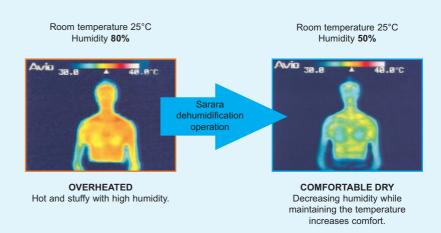
Dry air actually makes your body feel cooler. Ururu humidification at moderate levels and a relatively low temperature will probably leave you feeling warmer. This also prevents dry skin and sore throats, and maintains a humidity level in which viruses cannot survive.



### Sarara dehumidification

In as much as humidification has beneficial effects on comfort levels, so does dehumidification.

During the summer a high degree of ambient air humidity, even at moderate temperatures, can make a room feel hot and stuffy. Ururu Sarara however, reduces indoor humidity without affecting the room temperature, by mixing dry cool air with warm air to produce comfortable dry air (Sarara Drying Operation, also called reheating humidification). This feature prevents overcooling, which is particularly appreciated by people who are sensitive to cold. If the indoor temperature becomes too high, Ururu Sarara reduces the humidity level by reducing also temperature (cooling dehumidification).



Lower humidity creates comfortable dryness, even at a constant temperature.

Decreasing the level of humidity will increase your feeling of comfort, even while maintaining the same room temperature. This feature prevents overcooling, which is especially good for people who are sensitive to cold.

Humidification and dehumidification operations can be used under specific indoor and outdoor temperature and humidity conditions (similar to cooling and heating operation range). Please refer to the technical databooks for more details.

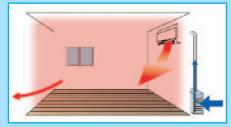




# Powerful ventilation and powerful air purification

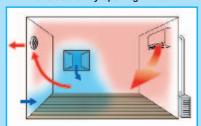
With a powerful ventilation capacity of 32 m3/h, the Ururu Sarara is the first residential unit which can fill an average sized room (26 m²) with fresh air within 2 hours.

#### **New: Supply ventilation**



The cold outdoor air is heated before being taken in while operating in air-conditioning heating mode.

### Conventional: Ventilation with ventilator or by opening window



The temperature in the room drops as cold outdoor air enters.

# The supply ventilation function can refresh the air in a room with the window closed.

### Increased indoor air quality with Daikin Flash Streamer technology

Incoming outdoor air is purified in two stages: first in the outdoor unit and second in the indoor unit. In the outdoor unit, exhaust gases and unpleasant odours will be decomposed (during ventilation operation).

Once in the indoor unit, the air will be filtered out of dust and pollen and the photocatalytic air purification filter will further decompose odours. Finally, the Flash Streamer technology, already implemented in last generation Daikin Air Purifiers, allows breaking down formaldehyde, viruses, moulds, etc.



# Flash Streamer: releases streams of high-speed electrons with strong oxidation power Pre-filter: catches dust Pre-filter: catches dust Deodorising filter: odours are adsorbed and broken down before the air is returned into the room





# Designed for demanding connoisseurs!



#### In the clouds: Market-leading quality

The Ururu Sarara has achieved energy performance figures of more than 5.0 by applying special techniques. In real terms, this means that it supplies five kilowatts of cooling or heating capacity while it uses only one kilowatt of electricity. All the units of this range have been accorded an "A" label in the European energy classification, which has resulted in a reduction of CO<sub>2</sub> emissions.

### Inverter technology 30% less energy consumption

Daikin's inverter technology is one of the most recent innovations in climate control. The principle is simple: the consumed energy is in keeping with the actual need. Or, more simply: more energy consumption at the start-up and less when you are not there. This system's energy consumption is lower by no less than 30% than that of the conventional on/off systems.

### Comfort: A breath of fresh air – standard provisions

Under the "Hydration" mode, a particularly skin-friendly environment is created. This is made possible by combining a high and controlled relative humidity level with a comfortable airflow and the emission of vitamins and hyaluronic acid.

Thanks to the "Cooling breeze" airflow, the room will feel cool, even with a rather high temperature setting. By oscillating the direction of the airflow, the feeling of a pleasantly cool breeze is emulated.

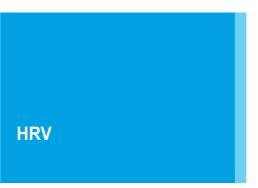
The "Comfort sleep" mode adapts the temperature fluctuations to those that the body experiences at night. This means that the room temperature will be decreased by 2 °C for 3 hours and will gradually begin to increase thereafter to the original setting, which is reached 1 hour before waking up.

The "Mould shock" operation is unique in the air conditioning industry.

Mould formation is prevented by a sudden drop in room humidity that is sustained for 3 hours.

You can adjust the Ururu Sarara with a userfriendly remote control that clearly and legibly displays, according to the various functions, the room humidity level and temperature setting.

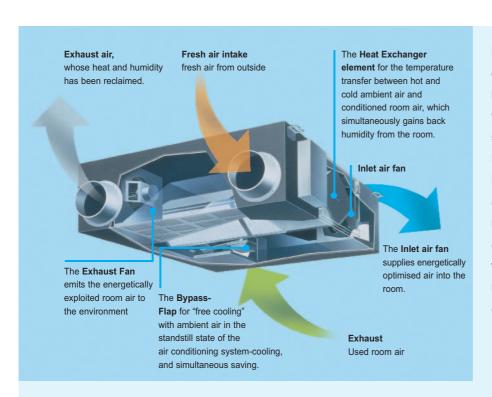






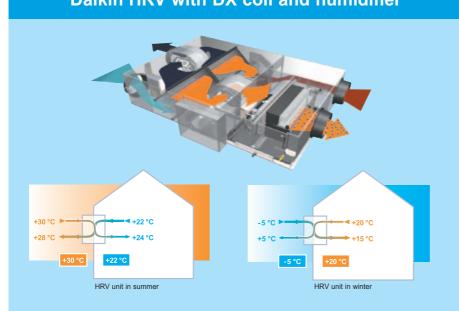
### **Daikin HRV**

### Air conditioning concept for highest demand



Daikin HRV is the perfectly matched system complement to Daikin VRV. A technology, which helps to reduce the energy consumption and therefore the operating costs of a Daikin VRV system even more noticeably. The abbreviation HRV stands for Heat Reclaim Ventilation. Differently expressed: HRV is an inlet and outlet air ventilation System with integrated heat reclamation. It is always employed, if the outside air cannot (or may not) be supplied in the natural way. The advantage of the heat and humidity reclamation: Big differences between the ambient air and room air are balanced.

### Daikin HRV with DX coil and humidifier



### The new HRV lineup

**Humidifier** – The HRV-Series now includes models with a humidifier, in response to diversifying customers requirements.

DX-coil – The HRV features DX-coil that contributes to the prevention of cold airflow hitting people directly during heating operation, due to the after-cool, after-heat operations done beforehand. The DX-coil must be connected to the VRV System.



Your Daikin technical adviser will advise you professionally and comprehensively and an on site, non binding consultation will enable a tailor-made solution to be developed for you.



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of environmental friendly products. This challenge demands the eco design and development of a wide range of products and an energy management system; which involves energy conservation and reduction of waste.



All Daikin units comply with the European Union regulations concerning the safety of appliances.



Daikin Europe N.V. participates in the Eurovent Certification Programme. The products comply with those listed in the Eurovent directory.



The ISO 14001 standard guarantees an effective environmental management system and contributes to the protection of human health and the environment against any possible repercussions of Daikin activities, products and services as well as the retention and enhancement of environmental quality.



The quality management system of Daikin Europe N.V. is recognised by the LRQA in conformity with the ISO 9001 standard. ISO 9001 relates to quality assurance pertaining to the planning, development and construction of products as well as the services offered in connection with these products.

Daikin products are available at:		