

A photograph of a modern glass skyscraper at night. The building's facade is composed of a grid of glass panels, many of which are illuminated from within, creating a warm glow against the dark blue night sky. The building's structure is complex, with multiple levels and a curved section on the left.

# Daikin Applied

## AHU & Chiller Overview

Your leading AHU, Chiller and Service partner

**AHUs**

**CHILLERS**

**PROJECTS**

**SERVICE**

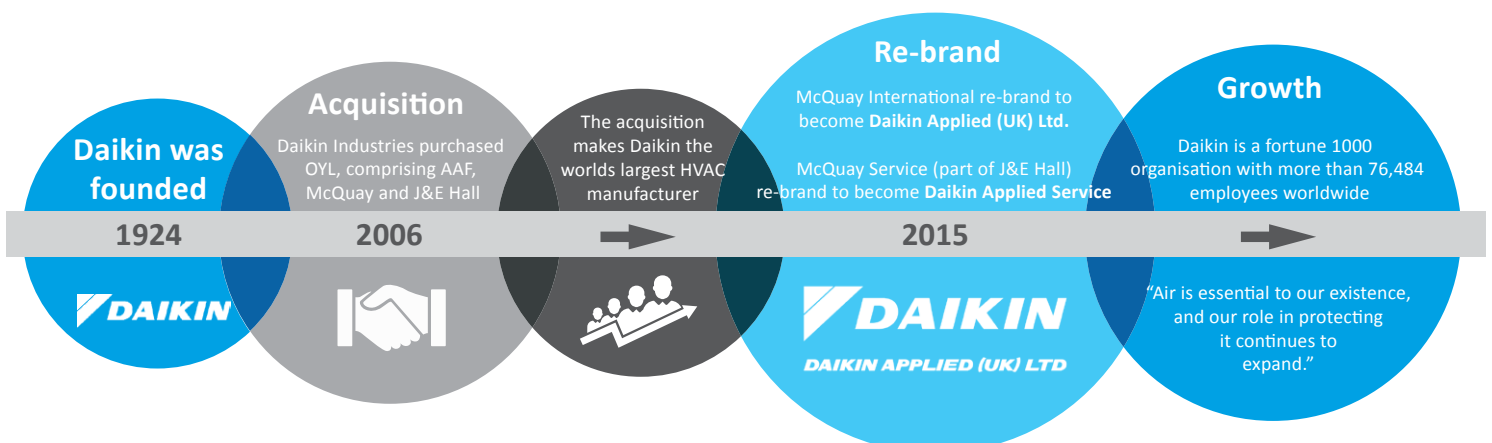
# Daikin Applied

## *Technically better...*

Daikin Applied UK (DAPUK) is the market leader in energy efficient Air Handling Units (AHU) and Chillers, specialising in large scale bespoke projects from data centres and hospitals to pharmaceutical facilities and process cooling.

DAPUK offers world leading end-to-end solutions for facilities managers and engineering professionals within the HVAC community.

As an innovation leader, we aim to achieve net zero emissions of greenhouse gasses, while providing a safe and healthy environment. We guarantee our products and services can help you achieve your perfect climate whilst addressing energy efficiency and climate change.



# Our AHU manufacturing facility

Daikin Applied (UK) Ltd has an extensive AHU manufacturing facility located in Cramlington, Newcastle, where a team of highly skilled engineers design and build a wide range of Air Handling Units. Having recently undergone significant investment, this facility has been able to significantly increase production with new state-of-the-art machinery, a much larger footprint and additional capabilities for factory witness tests.



Our highly innovative and efficient Chillers are manufactured at our European Chiller manufacturing plant in Rome.

AHU manufacturing facility: Cramlington

Office area: 450m<sup>2</sup>

Factory area: 7550m<sup>2</sup>

Employees:120

Product capacity: 1000 units(2019)

## Facility includes:

- › AHU Production
- › Engineering & R&D
- › Conference Facilities
- › AHU Factory Witness Testing
- › Service, Maintenance & Spares
- › Back office support



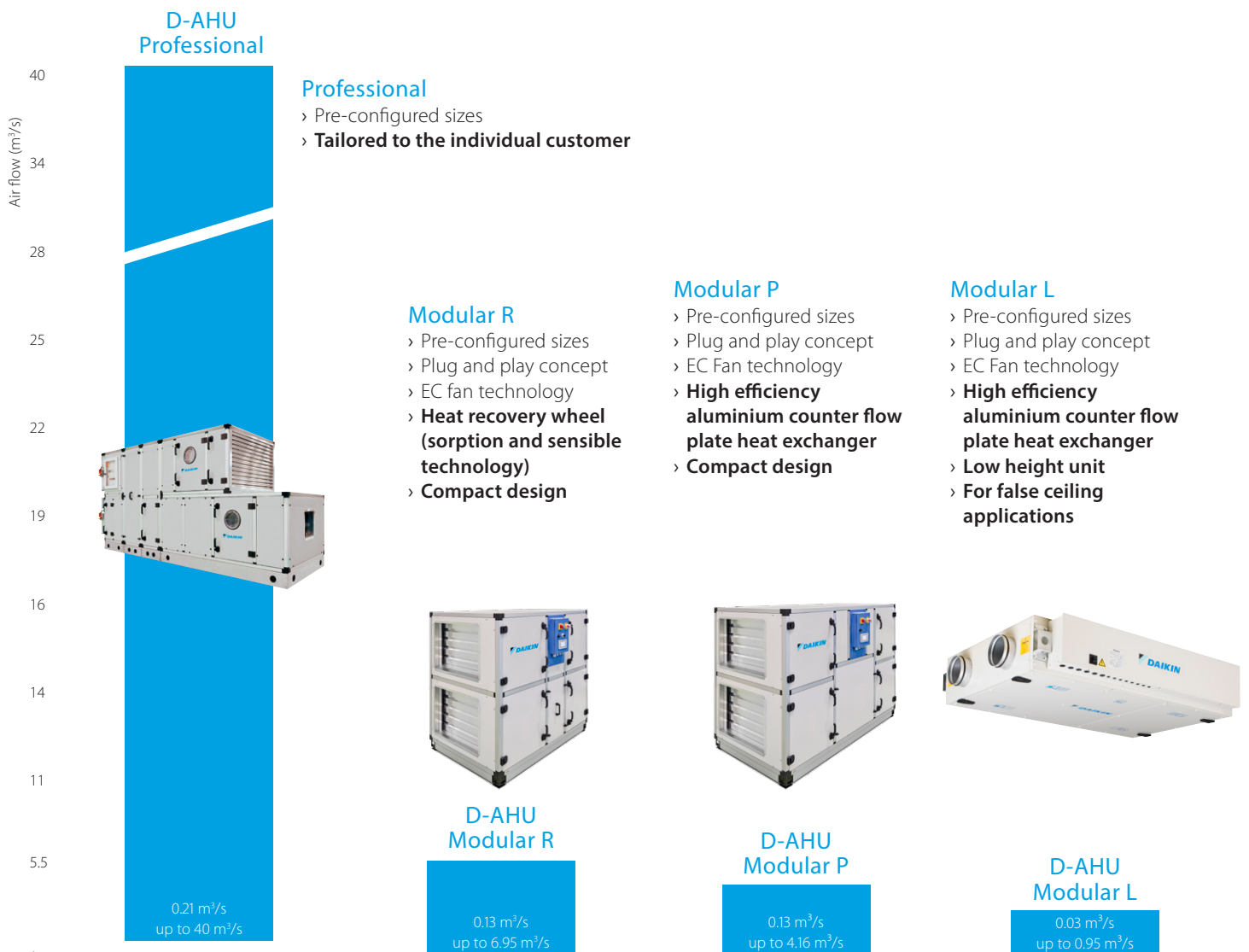
# Air handling units

optimal conditions through tailor made solutions

Daikin Applied Air Handling Units with their plug and play design and inherent flexibility can be configured and combined specifically to meet the exact requirements of any application.

Our systems are designed to be the most environmentally friendly and the most energy efficient on the market, whilst

keeping costs down through the minimisation of energy consumption. Combined with the small footprint of the system, these features make our air handling units' ideal for all markets.



## D-AHU Modular

Compact ventilation unit is available in standard pre-defined sizes with high efficiency heat recovery options available with both the Modular R (thermal wheel) and Modular P (plate heat exchanger). Also with integrated controls for easy installation 'plug and play' solution. This offers cost saving benefits as well as making everyone's life simpler, safer and more economical.

The new low height Modular L range is an exciting development that will cover the low air volume void application market.

## Wide Range of Air Flows

Daikin Applied's wide range of air handling systems handle air flow rates from 0.1m<sup>3</sup>/s up to 40m<sup>3</sup>/s as standard. The AHU can be adapted to deliver whatever air flow you require, via the specific dimensions of a flow section available at the installation.

## D-AHU Professional

Designed to overcome installation constraints where space requirements of the section "width x height" must adapt to the available space. The system gives the possibility to tailor the unit sizes through increments/decrements of 5cm. The Professional AHU is now supplied with an anodised frame as standard with optional Cold Bridge Free available on request.

## High Efficiency Components

All Daikin Applied air handling units have been designed for optimum energy efficiency. CFC free polyurethane panels guarantee excellent thermal insulation performance. Filters are positioned for maximum effectiveness, being mounted on sealed fixing frames to ensure filtration efficiency.



# Air cooled chillers

the gold standard for reliability & performance

## Why choose Daikin Applied chillers?

Daikin Applied chillers are the perfect bridge between project requirements and customer satisfaction. From the smallest chillers to the very largest, our quality control and attention detail is absolute.

Our systems have the most advanced technologies, deliver the highest energy efficiencies and lowest running costs, and are the gold standard for reliability and performance.

### Flexible chiller portfolio

- › From the smallest mini chiller for residential use to the largest chiller for district cooling
- › Tailor made solutions based on the most advanced technologies
- › Wide range of options and accessories

### Worldwide experience in chiller design and manufacturing





















- › World's most advanced facilities for air conditioning research and development: the Applied Development Centre in Minneapolis, Minnesota
- › In-house development and manufacturing of chiller main components (compressors, fans, condenser coils & software)

### Highest efficiency solutions

- › Inverter technology over the whole capacity range
- › The lowest total cost of ownership and fast payback time

### Quality and reliability

- › Daikin's integrated zero defect policy ensures quality of components and finished products
- › Each Daikin Applied chiller is factory run-tested and subjected to quality audit before shipment

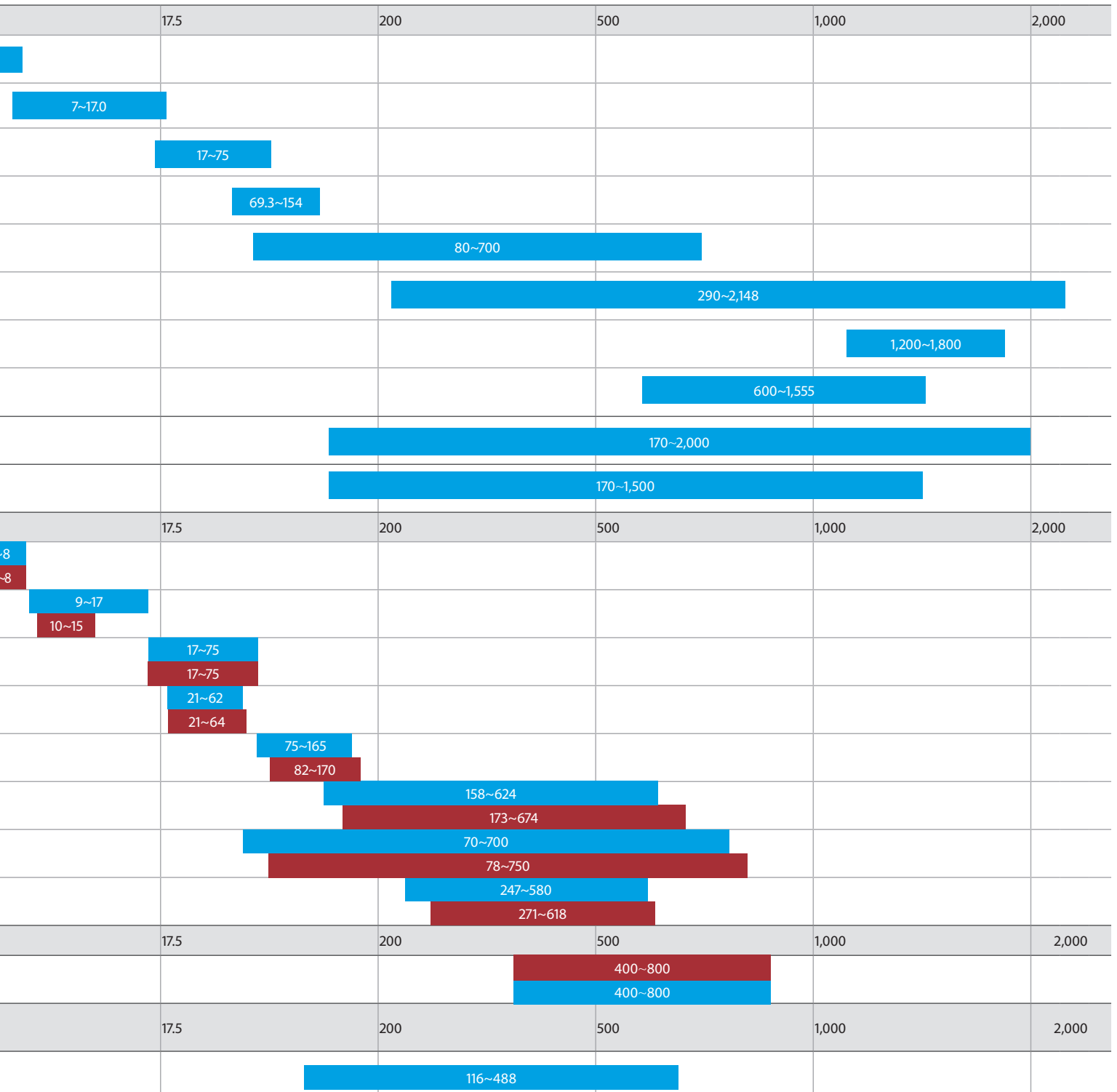
		Refrigerant type	Inverter	
<b>Cooling only</b>				0
EWAQ~BAVP		R-410A	●	2~8
EWAQ~ACV3/ACW1		R-410A	●	
EWAQ~CW		R-410A	●	
EWAQ~G		R-410a		
EWAT- B-	<b>NEW</b> 	R-32		
EWAD~T-B		R134a		
EWAD~CZ-		R-134a	●	
EWAD~CF-		R-134a		
EWAD-TZ B/C-	<b>NEW</b> 	R-134a	●	
EWAH-TZ B/C	<b>NEW</b> 	R-1234ze	●	
<b>Heat pump</b>				0
EWYQ~BAVP		R-410A	●	2~3
EWYQ~ACV3/ACW1		R-410A	●	
EWYQ~CW		R-410A	●	
SEHVX-BW SERHQ-BW1		R-410A	●	
EWYQ~G-		R-410A		
EWYQ~F-		R-410A		
EWYT-B	<b>NEW</b> 	R32		
EWYD~BZ		R-134a	●	
<b>Multipurpose 4-pipe cooling and heating</b>				0
EWYD-4Z B	<b>NEW</b> 	R-134a	●	
<b>Condensing unit</b>				0
ERAD~E-		R-134a		

## Ecodesign

Air cooled Applied products indicated are  
Ecodesign Lot 1 and Lot 21 compliant



Cooling capacity (kW)  
Heating capacity (kW)



# Water cooled chillers

## efficient & maintenance-friendly

Daikin Applied's water cooled chillers are especially suitable for critical industrial applications where a temperature control accuracy of  $\pm 0.5^{\circ}\text{C}$  is required. Water cooled chillers are typically intended for indoor installation and operation and are available with different compressor types:

### Water cooled scroll chillers

These units are among the most efficient, quiet and reliable chillers available today. Units can be easily integrated with the HVAC system of your choice.

### Water cooled screw chillers

The Daikin Applied water cooled screw chillers provide the ideal solution for sound sensitive environments. Applications range from comfort cooling to ice making.

### Water cooled centrifugal chillers

Small footprint, quiet compressor, easy integration with existing HVAC systems. This chiller offers you a return on investment throughout its life cycle. Ideal solution for large cooling requirements (e.g. district cooling).

### Large product line-up

Thanks to an extensive product line-up in medium- to large-scale facilities (from 13 kW up to 10,900 kW), you can select the optimum model for your application.

### Application versatility


These chillers generate cold and hot water, which can be used for chilling, heating or simultaneous cooling and heating.

### Outstanding durability

The latest technology for magnetic bearings is used in the compressor, the heart of the centrifugal chiller. Result? Outstanding durability for lower maintenance costs.

### Installation flexibility

Water cooled chillers can be installed indoors and require only very limited space in a machine room.

		Refrigerant type*	Inverter	
<b>Water cooled chillers (Cooling only &amp; Heating only)</b>				0
EWQK-K		R-410a		
EWQK~G-		R-410A		
EWQK~G-		R-410A		
EWQK~L-		R-410A		
EWQD~J-		R-134a		
EWQD-VZ		R-134a	●	
EWQH-VZ		R1234ze	●	
<b>Condenserless chillers</b>				0
EWLQ-K		R-410A		
EWLQ~G-		R-410A		
EWLQ~L-		R-410A		
EWLD~J-		R134a		
EWLD~I-		R134a		
<b>Water cooled centrifugal chillers</b>				0
EWQD-DZ	 <b>NEW</b>	R134a	●	
EWQH-DZ	 <b>NEW</b>	R-1234ze	●	
DWSC		R134a		
DWDC		R134a		

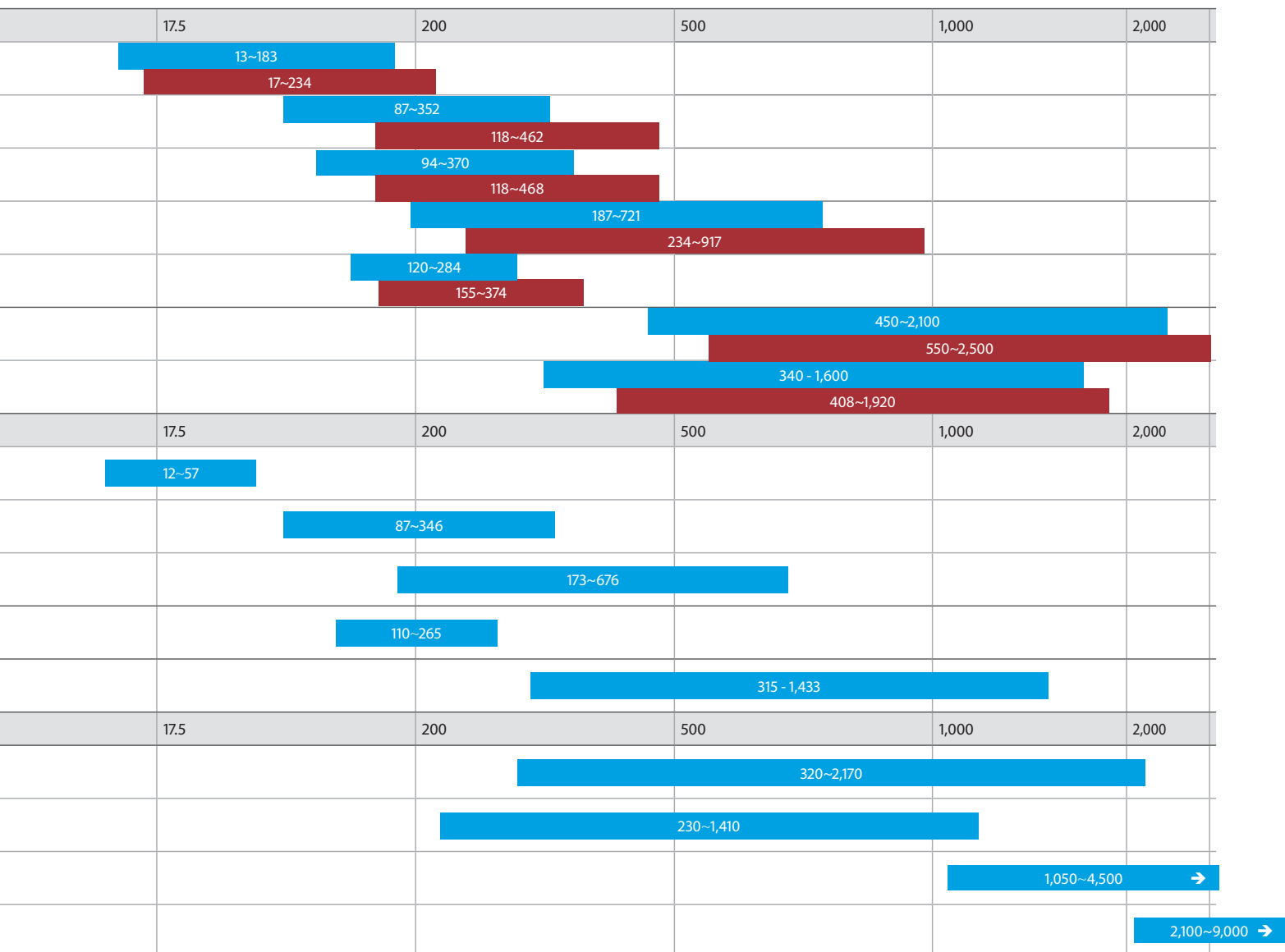


## Ecodesign

Water cooled Applied products indicated are Ecodesign Lot1 and Lot 21 compliant



Cooling capacity (kW)  
Heating capacity (kW)



# Service & Maintenance

## with Daikin Applied Service

Daikin Applied Service offers maintenance, repairs and support on ALL brands of HVAC systems and applied system solutions; covering air handling units, chillers, split air conditioning, VRV and heat pumps.

### Service capabilities

- › Flexible maintenance contracts tailored to your business needs
- › Maintenance of ALL brands of HVAC equipment
- › 24/7 emergency call out service
- › Up to four hour response time
- › Qualified site service engineers (F-Gas Registered)
- › Remote monitoring with Daikin On Site (DOS)
- › On site training for front-line personnel
- › Tailored Service Level Agreement (SLA)
- › Full chiller running logs taken on every service visit
- › Comprehensive spare parts availability & support on all brands
- › Retrofitting & refurbishment

### Benefits of a maintained system

- › Lower operation costs and energy usage
- › Extended life-cycle of assets
- › Fast and reliable remote diagnostics with Daikin On Site
- › Reduced equipment downtime and costly repairs
- › Improved indoor air quality



	Service Packages BUSINESS Saver	BUSINESS Standard	BUSINESS Plus
Conforms to SFG20 maintenance standard	✓	✓	✓
F-Gas leak test	✓	✓	✓
Unit controller set points, safeties and running conditions logged	✓	✓	✓
Equipment condition report	✓	✓	✓
Four visits per annum (1 major / 3 minor)		✓	
Calibration of all sensors, probes and safety switches		✓	✓
System Diagnostics		✓	✓
Oil Analysis		●	✓
Thermography	✓	●	●
Multi-site visits & bespoke offering			●
Daikin on Site remote monitoring			●
1 point vibration analysis			●
System water analysis			●
Condenser coil cleaning			●

● Optional extras that can be tailored to your needs.

# Daikin on Site

## Standard on all new installations

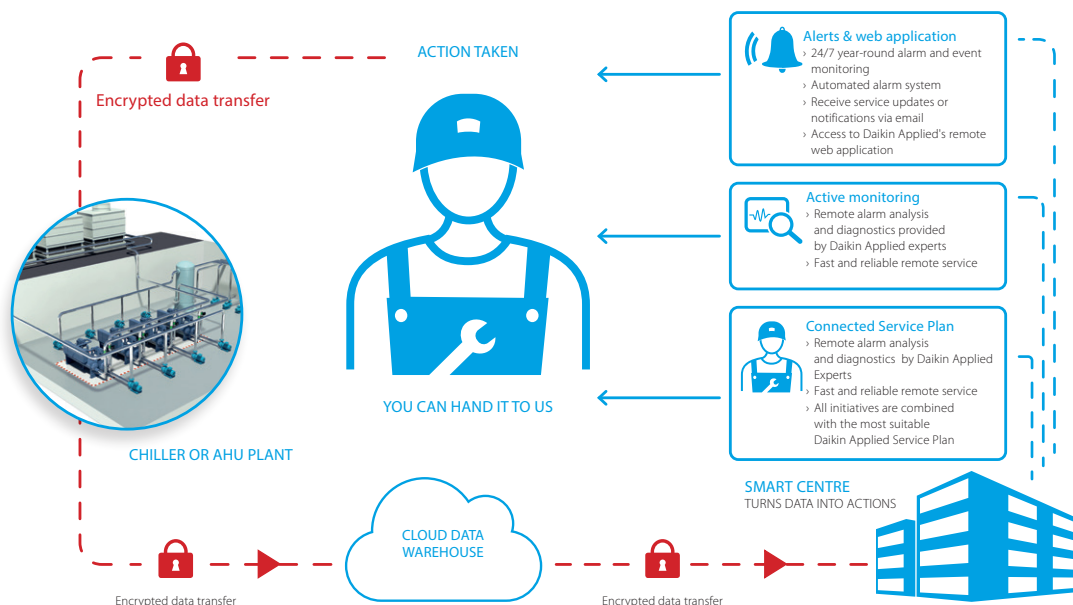
### What is Daikin on Site?

Daikin on Site (DOS) is a web-based 24/7 remote monitoring system that collects complex operational data from the AHU or chiller control system.

Daikin's Smart Centre turns the operational data into useful information that allows the user to remotely monitor performance. It also allows Daikin professionals to remotely optimise and maintain the equipment.

### Main benefits of DOS

- › Remote diagnostic support from Daikin experts
- › Enhanced reliability and reduced system downtime
- › Optimised energy efficiency and reduced operational costs over the systems lifetime
- › Insight into operational data to optimise the use of equipment via Trend Analysis



#### Cloud technology to hand

Remote maintenance allows your system to be accessed using any web-compatible devices any time and anywhere using cloud technology. Process data is collected automatically in real time and stored centrally.



#### Simple, effective connection

Most Daikin Applied Chiller and AHU controllers have a built-in IP interface. This allows connection for remote monitoring either through LAN or with wireless modem communication.



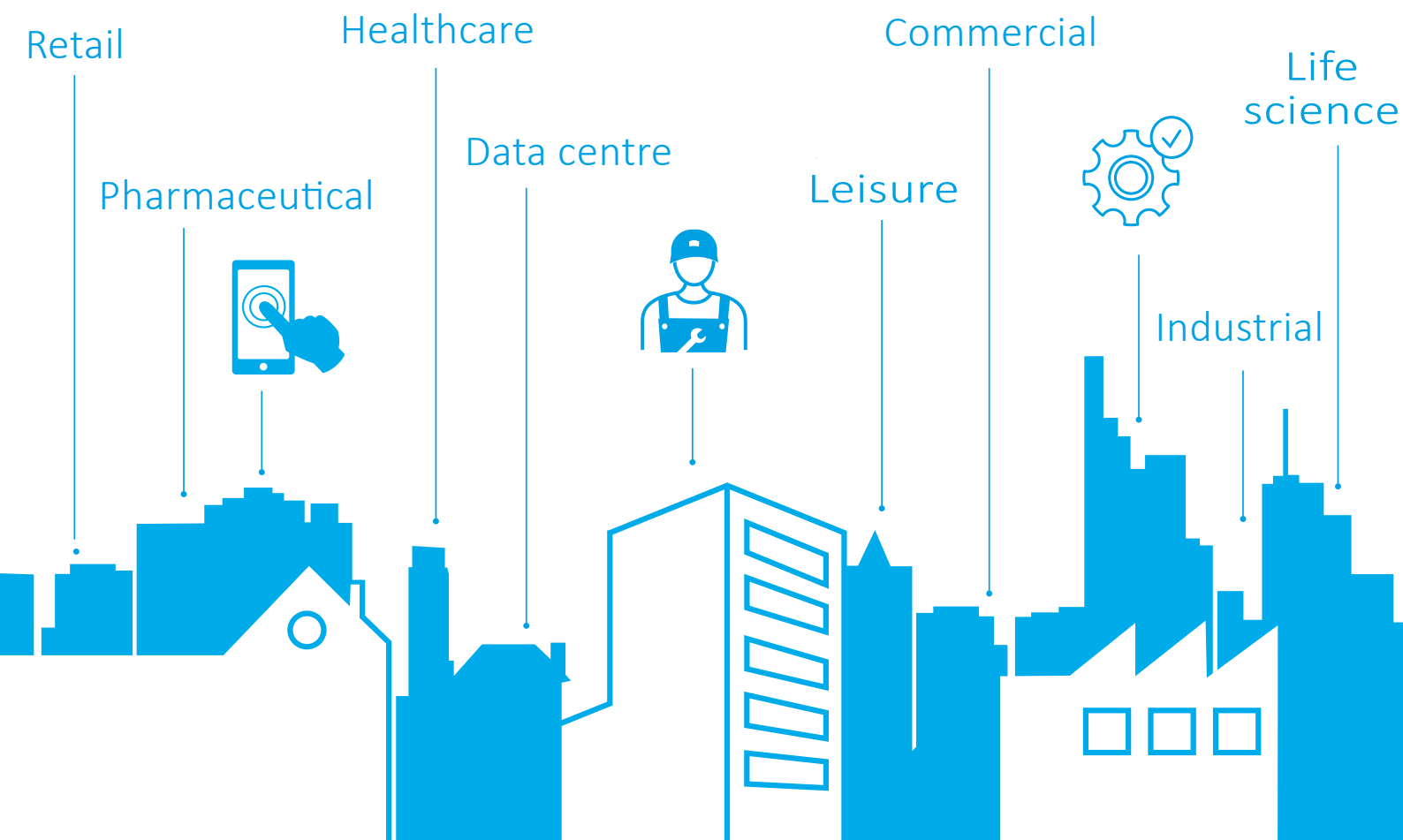
#### Insight into operational data for enhanced control and reliability

Through enhanced operational data, Daikin engineers are able to remotely monitor system performance, run diagnostics and software upgrades. If an on-site visit is required, the service engineer will arrive already informed of the issue, reducing system downtime.



#### High security

- Secure in all aspects such as data privacy, data storage security and data transport.
- › All connections are encrypted (HTTPS) to prevent wiretapping and man-in-the-middle (MITM) attacks
  - › CSA security attestation
  - › Data privacy conforming to EU data privacy regulations
  - › Geo-redundant data storage in Northern Europe



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