

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.

An introduction to Daikin Applied AHU & Chiller Overview

Your leading AHU, Chiller and Service partner

AHUs

CHILLERS

PROJECTS

SERVICE

Daikin Applied

Technically better...

Daikin Applied is the market leader in energy efficient AHU and Chiller products and after sales service. With more than 90 years of experience in air conditioning and climate control solutions, we know what it takes to create the perfect climate.

In 2006 McQuay International was acquired by Daikin Industries the global Applied AHU and Chiller manufacturing, service and spares business.

Following the acquisition, McQuay International was re-branded to Daikin Applied. Now, further strengthened by Daikin Industries we continue to develop leading AHU and Chiller technologies as well as providing market leading service and maintenance programmes.

With McQuay's heritage still at the forefront, our mission is to provide our customer with a total HVAC solution and deliver high-quality AHUs, Chillers and after sales service which is designed and built to achieve maximum comfort, energy efficiency, reliability and value add.

Our fully managed service and maintenance programme is available on all brands of HVAC equipment, making Daikin Applied Service the natural choice to manage your critical HVAC plant to ensure it is running efficiently and to its maximum life-cycle.

Our complete offering is further enhanced by Daikin On Site - remote monitoring, which enables proactive monitoring and diagnosis of AHUs and Chiller at any time, from anywhere. This is topped with access to a reliable network of technical and on-site support services throughout the UK, helping you monitor and manage your system to keep it running seamlessly.

As an innovation leader, we guarantee our products and services can help you achieve your perfect climate.



OUR AHU MANUFACTURING FACILITY



Daikin Applied (UK) Ltd has a large AHU manufacturing facility located in Cramlington, where a team of highly skilled engineers design and build a wide range of Air Handling Units. Our highly innovative and efficient Chillers are manufactured at our European Chiller manufacturing plant in Rome.

Daikin Applied's commitment to innovating beyond today has resulted in proven solutions for commercial, industrial and institutional buildings. Our expertise and continuous investments in advanced technology and sustainability set Daikin Applied apart as a proven partner.

AHU manufacturing facility: Cramlington

Office area: 450m²

Factory area: 5050m²

Total working area: 5500m²

Employees:108

Product capacity: 750 units(2018)



Facility includes:

- › AHU Production
- › Engineering & R&D
- › Project Delivery
- › Service, Maintenance & Spares
- › Sales & Marketing
- › HR & Finance



Applications

- › Hospitals, theatres and laboratories
- › Data centres; server and computer rooms; base stations; low, medium and high density applications
- › Commercial cooling and heating; retail, office and leisure environments



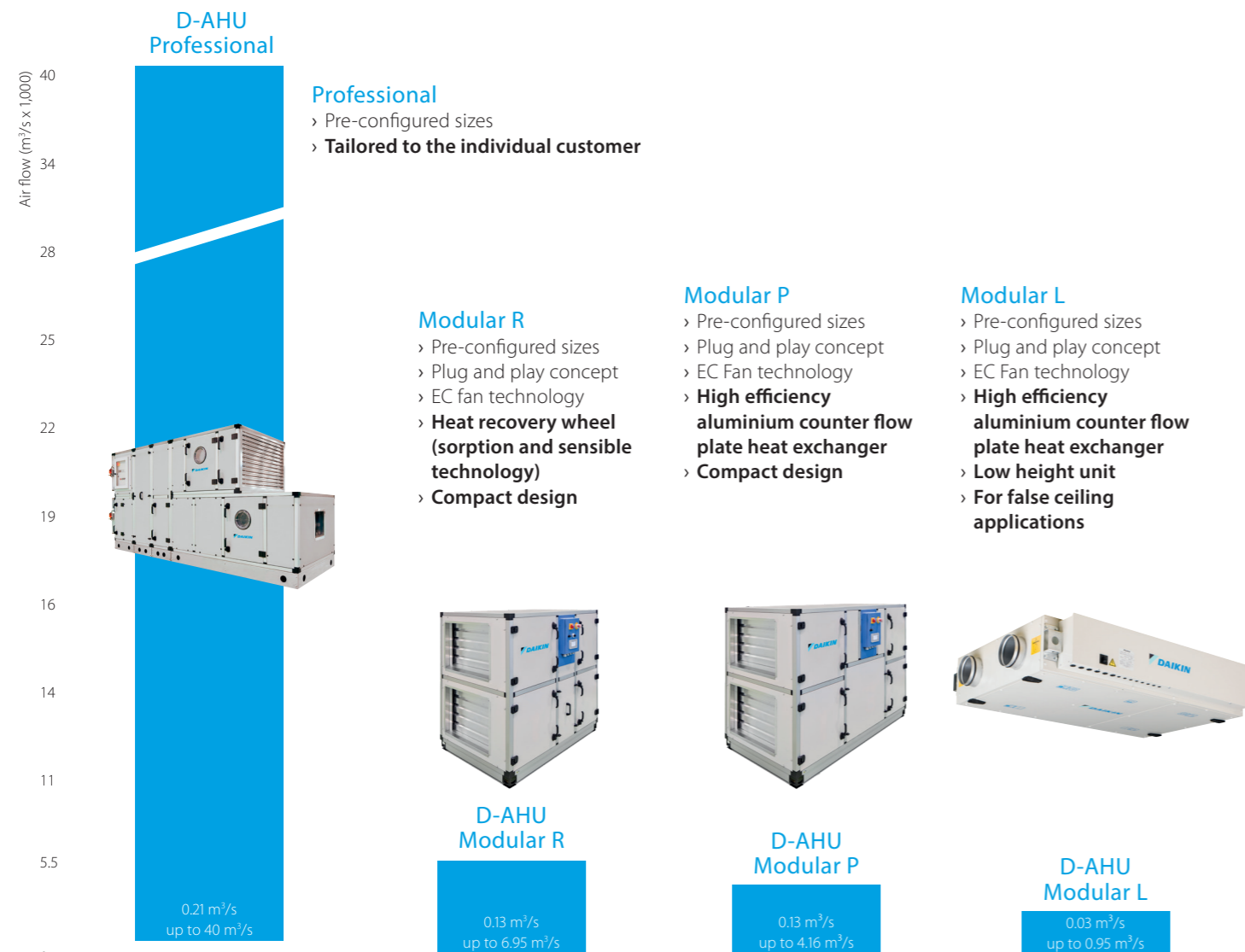
AIR HANDLING UNITS

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 building and application.

Our systems are designed to be the most environmentally friendly and the most energy efficient on the market, thus reducing their ecological impact, whilst, keeping costs down through the minimisation of energy consumption.

When combined with the small physical footprint of the system, these features make our air handling units ideal for all markets.



Professional
 › Pre-configured sizes
 › **Tailored to the individual customer**

Modular R
 › Pre-configured sizes
 › Plug and play concept
 › EC fan technology
 › **Heat recovery wheel (sorption and sensible technology)**
 › Compact design

Modular P
 › Pre-configured sizes
 › Plug and play concept
 › EC Fan technology
 › **High efficiency aluminium counter flow plate heat exchanger**
 › Compact design

Modular L
 › Pre-configured sizes
 › Plug and play concept
 › EC Fan technology
 › **High efficiency aluminium counter flow plate heat exchanger**
 › Low height unit
 › For false ceiling applications

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.

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. With all professional AHU range now supplied as anodised and cold bridge free as standard!

Wide Range of Air Flows

Daikin Applied's wide range of air handling systems handle air flow rates from 0.1m³/s up to 40m³/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.

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.





CHILLERS

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

Air Cooled Chillers

		Refrigerant type *	Inverter	Ecodesign						
				Air cooled Applied products indicated are Ecodesign Lot1 and Lot 21 compliant						
				ErP compliant 2018						
				Cooling capacity (kW)						
				Heating capacity (kW)						
				0	17.5	200	500	1,000	2,000	
Cooling only										
EWAQ~BVP	NEW	R-410A	●	5.3~7.2						
EWAQ~ACV3/ACW1		R-410A	●	8.6~17.0						
EWAQ~CWN/P	NEW	R-410A	●	16.6~64.5						
EWAD~CZ		R-134a	●				696~1,795			
EWAD~TZ B		R-134a	●			169~1,100				
EWAH~TZ B	NEW	R1234ze	●			171 - 1,063				
EWAD~T-	NEW	R-134a	●				291~2198			
EWAT~B-	NEW	R-32	●			76-701				
Heat pump										
EWYQ~BVP	NEW	R-410A	●	5.3~7.2 5.6~8.2						
EWYQ~ACV3/ACW1		R-410A	●	8.6~17.0 9.9~14.8						
EWYQ~CWN/P	NEW	R-410A	●	16.6~64.5 16.2~63.7						
SEHVX~BW SERHQ~BW1	NEW	R-410A	●	20.7~74.3 21.3~63.7						
EWYQ~G-		R-410A	●			75.2~165 82.2~170				
EWYQ~F-		R-410A	●				158~624 173~674			
EWYD~BZ		R-134a	●				247~580 271~618			
Condensing unit										
ERAD~E-		R-134a	●			116~488				
Multipurpose unit										
EWYD~4Z	NEW	R-134a	●				357.9~1422			



Daikin Applied's efficient and maintenance-friendly 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. Water cooled chillers 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

Daikin Applied delivers energy efficiency to a wide range of process and comfort climate applications, for all conditions and cooling or heating requirements. 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.

Water Cooled Chillers

Refrigerant type *

Inverter

Ecodesign

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



Cooling capacity (kW)
Heating capacity (kW)

Water cooled chillers (Cooling only & Heating only)				0	17.5	200	500	1,000	2,000	21800
EWQK-BW1N NEW		R-410a			12~183					
EWHQ~G-		R-410A				87.3~352				
EWQ~G-		R-410A					93.7~370			
EWQ~L-		R-410A						187~721		
EWWD~J-		R-134a							120~568	
										142~681
Water cooled chillers (Cooling & Heating Inverter Driven)				0	17.5	200	500	1,000	2,000	21800
EWWD-VZ		R-134a	●						449~2,100	
EWWH-VZ NEW		R1234ze	●						443 - 1,525	
Condenserless chillers				0	17.5	200	500	1,000	2,000	21800
EWLQ-KBW1N NEW		R-410a			13.25~61					
EWLQ~G-		R-410A				86.5~346				
EWLQ~L-		R-410A					173~676			
Water cooled centrifugal chillers				0	17.5	200	500	1,000	2,000	21800
EWWH~DZ NEW		R1234ze	●					230~1,400		
EWWD-DZ NEW		R-134a	●						320 - 2,200	
DWSC		R-134a	optional						300~4,500	
DWDC										600~9,000

ECONOMICAL SOLUTIONS

Bespoke Service & Maintenance Packages

Daikin Applied Service offers full after-sales support for the maintenance and repair of ALL brands of HVAC systems including, chillers, Air Handling Units and split Air Conditioning and VRV, as well as remote monitoring and management even for the most critical installations.

Operating 24/7 throughout the UK, Daikin Applied Service offers world leading end-to-end service solutions for Facilities Managers and engineering professionals within the HVAC community. Daikin Applied Service are also well positioned to assist commercial clients with any Ground or Air Source Heat Pump service and maintenance requirements.

Service capabilities

- › Flexible maintenance contracts
- › 24/7 Emergency call out service
- › 4 hour response time
- › Site dedicated service engineers
- › F-Gas Register
- › Daikin on Site remote monitoring
- › On site training for 'front line' service requirements
- › Agreed service level requirements
- › Full chiller running logs taken on every service visit
- › Full spares availability & management
- › Retrofitting & refurbishments

Benefits

- › ALL manufacturers HVAC equipment maintained
- › Lower energy use for maintained systems
- › Reduce breakdown costs and business impact
- › Tailor made packages to suit your business needs
- › Extends the useful life-cycle of assets decreasing the need for capital replacements
- › Equipment downtime is decreased and the number of major repairs are reduced

SERVICE PACKAGES



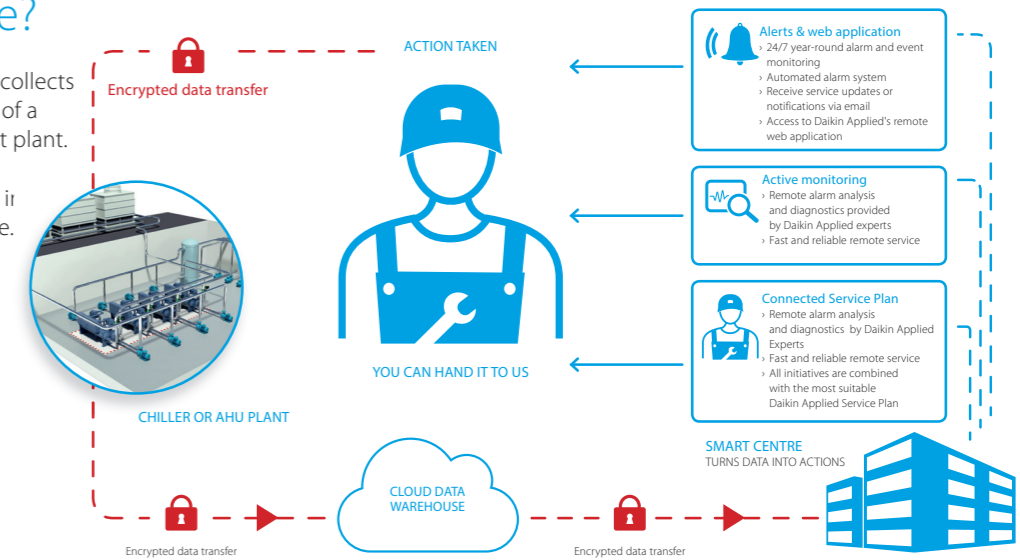
	BUSINESS Saver	BUSINESS Standard	BUSINESS Plus
Conforms to SFG20 maintenance standard	✓	✓	✓
F-Gas leak test	✓	✓	✓
Unit controller set points, safeties and running conditions logged	✓	✓	✓
Equipment condition report	✓	✓	✓
Four visits per annum (1 major / 3 minor)		✓	✓
Calibration of all sensors, probes 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			✓

DAIKIN ON SITE

What is Daikin on Site?

Daikin on Site (DOS) remote cloud server collects operational data from the control system of a Daikin Applied Chiller or Air Handling Unit plant.

Daikin's Smart Centre then turns this data in useful information on a web user interface.



Main features

- › Increase uptime, reduce unscheduled interpretations with real time information
- › Optimise efficiency and reduce energy waste
- › Insight into the optimum use of equipment via trend analysis



Cloud technology to hand

Remote maintenance allows your system to be accessed any time, anywhere. All important process data collected constantly and automatically stored centrally. This gives you a decisive lead in know-how, ideal for building a sustainable business.



Always up-to-date and in control

Standard web browsers, so it's suitable for any web-compatible devices and it operates in real time.



Insight into operational data for enhanced control and reliability

Daikin Applied's remote monitoring enhances control and maintenance programmes. Diagnostics, system upgrades and settings optimisation are carried out remotely where possible. If a visit is required, the service engineer will arrive already prepared, boosting your efficiency.



Available as part of the Daikin Applied Service Business Plus package

Daikin Applied Service can adopt DoS as part of their condition based maintenance packages, offering tailored monitoring programs within the Business Plus package, refer to our service brochure for more information.



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.



High security

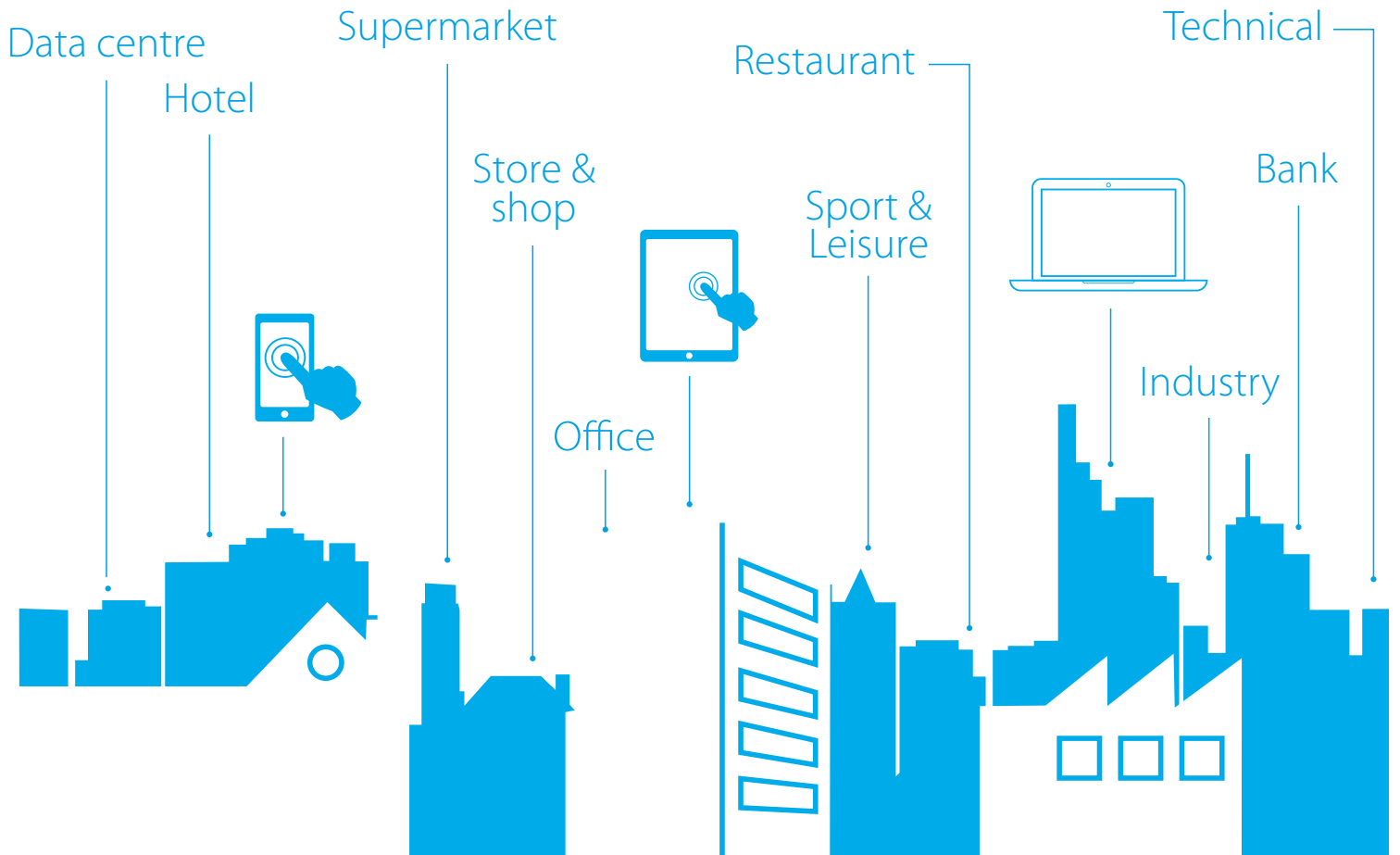
You can trust Daikin Applied's remote monitoring to be secure in all aspects such as data privacy, data storage security and data transport.

- › All connections are encrypted (HTTPS) to prevent wiretapping and man-in-the-middle attacks
- › CSA security attestation
- › Data privacy conforming to EU data privacy Chapter 5
- › Geo-redundant data storage in Northern Europe



Operational data insights deliver long-term savings

Daikin Applied's remote monitoring is the ideal tool for optimising maintenance and operating costs long term, and for giving you a documented view of your system's capacity requirements.



For more information email info@daikinapplied.uk or visit www.daikinapplied.uk

For all Daikin Applied UK,
 Daikin Applied Service &
 Spares enquiries call us on:
0345 565 2700



Daikin Europe N.V. participates in the Eurovent Certification programme for Liquid Chilling Packages (LCP), Air handling units (AHU), Fan coil units (FCU) and variable refrigerant flow systems (VRF) Check ongoing validity of certificate online: www.eurovent-certification.com or using: www.certiflash.com

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