

Product overview



Your leading AHU, Chiller and Service partner

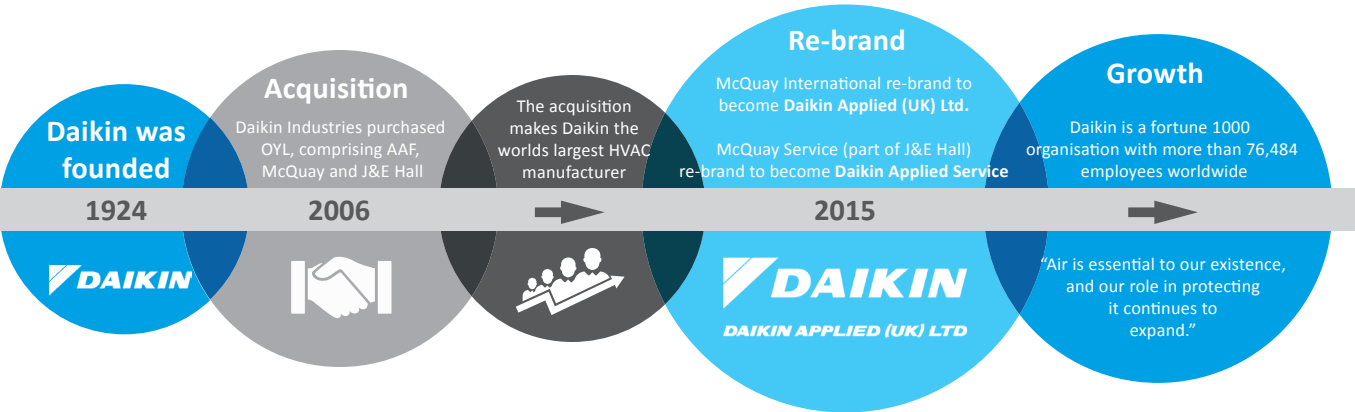
Daikin Applied

Technically better...

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

Daikin Applied UK offer 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.



Manufacture



Daikin Applied (UK) Ltd has over 30,000m2 of manufacturing and testing facilities across our dedicated plant for AHU manufacturing located in Northumberland.

Recent investment of £1.5million into machinery has meant further improvements to the quality of our products and increased production capacity to over 1000 units per year.

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

Factory witness testing

Our new state of the art factory testing facilities are located in Northumberland (AHUs) and Rome (chillers) offering full performance and witness tests, simulating the design conditions of our products. Our performance testing procedures are compliant with industry standards, including ISO 3744/5136 and BS EN1886:2007; offering a comprehensive report of product performance before delivery, ensuring ultimate peace-of-mind.

AHU product overview

centralised and decentralised ventilation

Eurovent

certified performance



Daikin Applied UK Limited participates in the Eurovent Certified Performance programme for Air Handling Units - certified under 14.05.003

Check ongoing validity of certificate: www.eurovent-certification.com or www.certiflash.com

What is Eurovent?

Established in 1993, Eurovent Certita Certification is recognized as a world leader in third-party product performance certification in the Heating, Ventilation, Air Conditioning, and Refrigeration fields.

Eurovent Certita Certification is accredited as a certification body compliant with ISO/IEC 17065:2012 standard by COFRAC (Accreditation Nb 5-5017). This accreditation is internationally recognized by the signatories of the International Accreditation Forum (IAF).

Main certified characteristics

Mechanical characteristics:

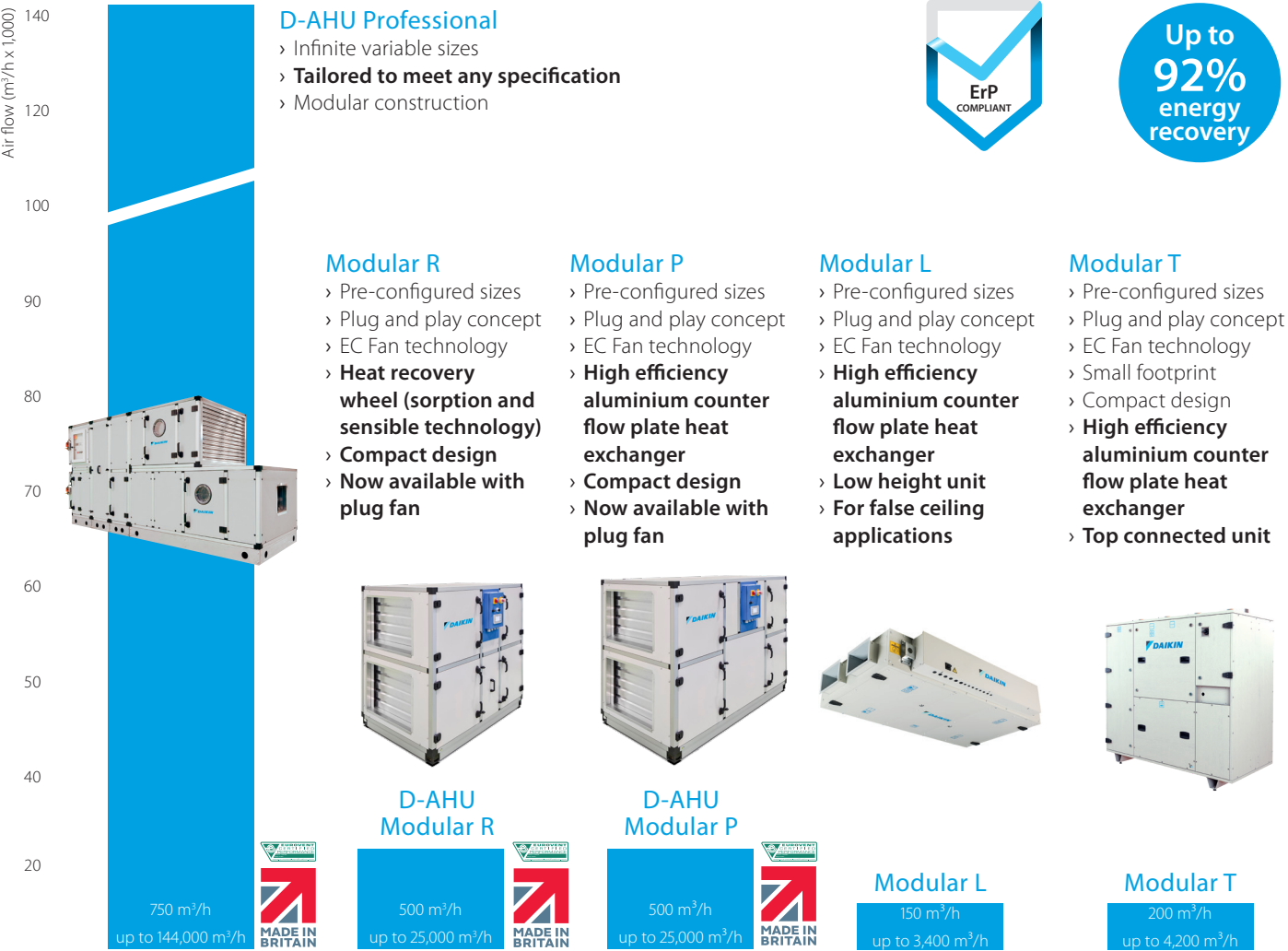
- a - Casing strength (CS)
- b - Casing air leakage (CAL)
- c - Filter bypass leakage (FBL)
- d - Thermal transmittance of the casing (TT)
- e - Thermal bridging factor (TBF)
- f - Acoustical insulation of casing

Performance characteristics:

- a - Air flow - Available static pressure - power input
- b - Octave band in-duct sound power level
- c - Airborne sound power level
- d - Heating capacity*
- e - Cooling capacity*
- f - Heat recovery*
- g - Pressure loss on water side*

BSEN1886 ratings for Daikin Applied UK air handling units

Results for D-AHU Professional, Modular R and Modular P		Eurovent Classification according to EN1886				
D1(M)	Casing strength (CS) Max. relative deflection mm x m ⁻¹	D1 4.00	D2 10.00	D3 EXCEEDING10		
L1(M)	Casing air leakage (CAL) at -400 Pa Max. leakage rate (f ₄₀₀) l x s ⁻¹ x m ⁻²	L1 0.15	L2 0.44	L3 1.32		
L2(M)	Casing air leakage (CAL) at +700 Pa Max. leakage rate (f ₇₀₀) l x s ⁻¹ x m ⁻²	L1 0.22	L2 0.63	L3 1.90		
F9(M)	Filter bypass leakage (FBL) Max. filter bypass leakage rate k in % of the volume flow rate	F9 0.50	F8 1	F7 2	F6 4	G1 TO F5 6
T2	Thermal transmittance of the casing (TT) (U-value) W x m ⁻² x K ⁻¹	T1 U <= 0.5	T2 0.5 < U <= 1	T3 1 < U <= 1.4	T4 1.4 < U <= 2	T5 No require-
TB2	Thermal bridging factor (TBF) (kb)	TB1 5 < K _b <= 1	TB2 0.6 < K _b <=	TB3 0.45 < K _b <=	TB4 0.3 < K _b <=	TB5 No require-



Air Cooled Chillers and Condensing Units

Mini chillers

Ideal for residential applications, Daikin mini chillers are equipped with an inverter swing or scroll compressor allowing a smooth, more reliable and energy-efficient operation with low noise levels and class-leading SEER's.

Air cooled scroll chillers

Daikin scroll chillers are designed for small and medium cooling capacities. Our wide range of models match every building's air conditioning and process cooling needs.

Air cooled screw chillers

Manufactured for large capacities, Daikin screw chillers deliver unparalleled reliability and efficiency, both for comfort and process cooling. Equipped with an inverter, they provide high efficiency at part load.

Ecodesign

Air cooled Applied products indicated are Ecodesign Lot 1 compliant (Heat pumps below 400kW valid from 25 September 2017) or Lot 21-Tier 2 compliant (Chillers below 2MW valid from 01 January 2021).

			Refrigerant type *	Refrigerant circuits	Inverter	Free cooling **	Compressor			Heat exchanger		Efficiency version			Sound version			Ecodesign Compliance *****								
										Water heat exchanger ***	Outdoor heat exchanger ****	Standard	High	Premium	Standard	Low	Reduced		Cooling capacity (kW)							
Cooling only																			0	17.5	200	500	1,000	2,000		
EWAA~DA				R32	1														C	4~14						
EWAT~CZ				R32	1-2														C&P	16~98						
POA	EWAT~B- B			R32	1-2														C&P	81~211	211~700					
	EWAT~B- C			R32	1-2														C&P		252~1.012					
	EWAD~TZ D			R-134a	1-2														C&P		170~2,000					
	EWAH~TZ D			R-1234ze	1-2														C&P		170~1,500					
	EWAS~TZ D			R-513A	1-2														C&P		160~2.000					
	Condensing unit																			0	17.5	200	500	1,000	2,000	
POA	ERAD~E-			R-134a	1														NA		116~488					

* (GWP): R-134a (1430), R32 (675), R1234ze (7), R-513A (631)
** STD: Included as standard, OPT: Available option
*** BPHE: Brazed plate heat exchanger, S&T: Single pass shell and tube exchanger
**** MC: Microchannel exchanger, Cu/Al: Copper tube Aluminium fin exchanger
***** Ecodesign Compliance: C&P = Comfort and Process Applications, C = Comfort Applications, P = Process Applications, NA = Exempt



Heat Pump and Multifunctional Chillers

Air cooled mini heat pump chillers

Ideal for residential applications, Daikin mini chillers are equipped with an inverter swing or scroll compressor allowing a smooth, more reliable and energy-efficient operation with low noise levels and class-leading SEER's.

Air cooled scroll heat pump chillers

Daikin scroll chillers are designed for small and medium cooling and heating capacities. Our wide range of models match every building's air conditioning needs.

Air cooled screw heat pump chillers

Manufactured for large capacities, Daikin screw chillers deliver unparalleled reliability and efficiency, both for comfort and process cooling. Equipped with an inverter, they provide high efficiency at part load.

Ecodesign

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		Refrigerant type *	Refrigerant circuits	Inverter	Free cooling **	Compressor			Heat exchanger		Efficiency version			Sound version			Ecodesign Compliance *****	Cooling capacity (kW) : Heating capacity (kW)						
						Swing	Scroll	Screw	Water heat exchanger ***	Outdoor heat exchanger ****	Standard	High	Premium	Standard	Low	Reduced		0	17.5	200	500	1,000	2,000	
Heat pump																								
	EWYA~DA		R32	1	●				●	●	●			●			HP		4~14	5~16				
	EWYT~CZI		R32	1-2	●		●		●	●	●	●		●			HP		21~64	20~61				
	EWYT~CZO	NEW																						
	EWYT~CZ		R32	1-2	●		●		●	●	●	●		●			HP		16~98	16~95				
POA	EWYT~B-		R32	1-2			●		●	●		●		●	●	●	HP		75~1220	82~1300				
	EWYD~BZ		R-134a	2-3	●			●	●	●	●			●	●		HP		245~570	270~620				
Multifunctional 4-Pipe simultaneous cooling and heating																		0	17.5	200	500	1,000	2,000	
POA	EWYD~4Z C		R-134a	2	●			●	●	●	●	●		●	●	●	C&P				400~800	400~800		

* (GWP): R-134a (1430), R32 (675)
** STD: Included as standard, OPT: Available option
*** BPHE: Brazed plate heat exchanger, S&T: Single pass shell and tube exchanger
**** Cu/Al: Copper tube Aluminium fin exchanger
***** Ecodesign Compliance: C&P = Comfort and Process Applications, HP = Heat Pump Applications



Water Cooled Chillers

Water cooled scroll chillers

These units are among the most efficient, quiet and reliable chillers available today and can be easily integrated with the HVAC system of your choice. Their compact, modular design makes them ideal for replacement projects.

Water cooled screw chillers

The Daikin water cooled screw chillers provide the ideal solution for sound-sensitive environments. Applications range from comfort cooling to ice making. Operated as a heat pump, the higher leaving water temperatures up to 75°C provides an ideal solution for LPHW or district heating schemes.

Water Cooled Oil Free Centrifugal chiller

Units fitted with centrifugal compressors utilizing frictionless magnetic bearings for oil-free operation, integrated variablefrequency drives, and high-speed direct drive technology. Ideal for extremely low sound sensitive environments requiring highest levels of efficiency.

Ecodesign

Water cooled Applied products indicated are Ecodesign Lot 1 compliant (Heat pumps below 400kW valid from 25 September 2017) or Lot 21-Tier 2 compliant (Chillers below 2MW valid from 01 January 2021).

		Refrigerant Type *	Refrigerant circuits	Inverter	Compressor			Water heat exchangers				Efficiency version			Sound version	Ecodesign Compliance ***												
					Scroll	Screw	Centrifugal	Evaporator		Condenser		Standard	High	Premium	Standard													
								BPHE **	S&T ***	BPHE **	S&T ***																	
Water cooled chillers (Cooling only and heating only operation)																0	17.5	200	500	1,000	2,000							
		EWQ~KC		R-410A	1-2										HP			13~61	Maximum 3 modules									
POA		EWWT~Q-		R32	1													15~70	Maximum 3 modules									
		EWQ~G-		R-410A	1										C&P			90~150	Maximum 8 modules									
		EWQ~G-		R-410A	1										C&P			115~195	Maximum 8 modules									
		EWQ~L-		R-410A	2										C&P			87~352										
		EWQ~L-		R-410A	2										C&P			118~462										
		EWWD~J-		R-134a	1										HP			94~370										
		EWWD~J-		R-134a	1										HP			118~468										
		EWWH~J-		R-1234ze	1										HP			187~721										
		EWWH~J-		R-1234ze	1										HP			234~917										
		EWWS~J-		R-513a	1										HP			120~284										
		EWWS~J-		R-513a	1										HP			155~374										
		EWWD~VZ		R-134a	1-2										C&P			85~200										
	EWWD~VZ		R-134a	1-2										C&P			100~235											
	EWWH~VZ		R-1234ze	1-2										C&P			115~270											
	EWWH~VZ		R-1234ze	1-2										C&P			135~330											
	EWWS~VZ		R-513a	1-2										C&P			450~2,100											
	EWWS~VZ		R-513a	1-2										C&P			550~2,500											
	EWWD~VZ		R-134a	1-2										C&P			340~1,600											
	EWWD~VZ		R-134a	1-2										C&P			400~1,900											
	EWWS~VZ		R-513a	1-2										C&P			320~1,500											
	EWWS~VZ		R-513a	1-2										C&P			380~1,800											
Water cooled centrifugal chillers																0	17.5	200	500	1,000	2,000							
POA		EWWD~DZ		R-134a	1									C&P			320~2,170											
		EWWH~DZ		R-1234ze	1									C&P			230~1,410											
		EWWS~DZ		R-513a	1									C&P			300 ~ 2,100											

* (GWP) : R-410A (2087.5), R-134a (1430), R1234ze (7), R-513A (631)

** BPHE: Brazed plate heat exchanger

*** S&T: Shell and tube exchanger

**** Ecodesign Compliance: C&P = Comfort and Process Applications, HP = Heat Pump Applications



Condenserless Chillers

Condenserless Scroll Chillers

These units are among the most efficient, quiet and reliable chillers available today and can be easily integrated with the HVAC system of your choice. Their compact, modular design makes them ideal for replacement projects.

Condenserless Screw Chillers

The Daikin condenserless screw chillers provide the ideal solution for sound-sensitive environments. Suitable for any kind of remote condenser application ranging from comfort cooling to ice making.

Ecodesign

Condenserless Applied products indicated are Ecodesign Lot 1 compliant (Heat pumps below 400kW valid from 25 September 2017) or Lot 21-Tier 2 compliant (Chillers below 2MW valid from 01 January 2021).

																	Cooling capacity (kW) : Heating capacity (kW)									
																	0	17.5	200	500	1,000	2,000				
Condenserless chillers																										
	Refrigerant Type *	Refrigerant circuits		Compressor			Water heat exchangers				Efficiency version			Sound version	Ecodesign Compliance ****											
							Evaporator		Condenser		Standard	High	Premium			Standard										
							BPHE **	S&T ***	BPHE **	S&T ***																
EWLQ~KC			R-410A	1-2													NA		12~58							
POA	EWLQ~G-		R-410A	1														NA			87~346					
	EWLQ~L-		R-410A	2														NA			173~676					
	EWLD~J-		R-134a	1															NA		110~265					
	EWLH~J-		R-1234ze	1															NA		85~193					
	EWLS ~J-		R-513a	1															NA		110~268					
	EWLD~I-		R-134a	1-2-3						1 pass									NA			315~1,433				

* (GWP) : R-410A (2087.5), R-134a (1430), R1234ze (7), R-513A (631)
** BPHE: Brazed plate heat exchanger
*** S&T: Shell and tube exchanger
**** Ecodesign Compliance: NA = Exempt



Other services

from Daikin Applied UK...

Daikin Applied (UK) in association with our service division, Daikin Applied Service are the UK's leading provider of service and maintenance solutions for a wide temperature range of products covering refrigeration, process cooling, commercial and industrial applications, comfort cooling and air conditioning. Here is what we offer:

AHU Refurbishment



Fan upgrades to EC fan arrays

- › Higher efficiencies
- › Significant energy & CO2 savings
- › Additional redundancy



Filter replacement

- › More effective filter solutions
- › Significant impact on IAQ and system pressure drop



Coil replacement

- › Re-established optimal performance
- › Address set point parameters changes
- › Significant cost savings with DX coils



Damper replacement

- › Re-established airflow set-points are at the lowest pressure drop



Panel replacement

- › Improve casing leakage and thermal performance
- › Align to the latest specifications such as HTM-03-01, BS EN 1886 T2/TB2 and Euroclass A insulation



Other

- › Controls
- › Individual component or full system upgrades
- › Re-commissioning
- › Reduce overall energy consumption

Prolong the life-cycle of your AHU by a further 10-15 years with Daikin Applied turn-key solutions for ALL BRANDS of HVAC equipment

Maintenance solutions with Daikin PROtect

Daikin PROtect is a three year maintenance package (option to extend to five years) designed to protect and optimise your HVAC equipment. Because your maintenance is directly from the manufacturer, you can have peace of mind knowing that your assets are in the hands of the experts. We offer:

- ✓ Rapid fault identification and resolution
- ✓ Protected three year parts warranty (option to extend to five years) plus labour in the first year
- ✓ Up to four hour response time for emergency call-outs
- ✓ Factory trained technicians (F-gas registered)

Conforms to SFG20 maintenance standard	✓
F-Gas leak test	✓
Oil Analysis	✓
Daikin on Site active monitoring	✓
Four visits per annum (1 major / 3 minor)	✓
3 years parts warranty	✓
1 point vibration analysis	Optional extra

Rental turnkey solutions

Whether you have long or short-term cooling needs, Daikin Rental Solutions delivers reliable rental solutions, applications expertise, and responsive support. Daikin Rental Solutions equipment and temporary heating/cooling capabilities are at your service 24/7 throughout the UK. We offer complete support that includes everything you need – from chillers and Air Handling units to heat and power. Our Rental Solutions experts can specify the supplemental cooling system required to support any situation you're experiencing.

Emergency rentals

- ✓ Industry-leading efficiency and proven technology
- ✓ 24-hour turnaround on available inventory
- ✓ 8-hour average set up with on-site experts
- ✓ Comprehensive package, including pumps, flexible water piping connections, and electrical hookups

Pre-planned rentals

- ✓ System maintenance
- ✓ Building expansion
- ✓ Heat generation from server rooms and IT equipment
- ✓ Seasonal load swings from weather or staff changes
- ✓ Contingency plans



Active remote monitoring with Daikin on Site



Active monitoring and assistance

- › 24/7/365 automated alarm via email
- › Remote diagnostic support from Daikin experts
- › Quick site assessment
- › Smart mobilisation of service personnel to site if necessary



User friendly

- › Access to DoS web app
- › Remote software upgrades
- › Interactive personalised dashboards



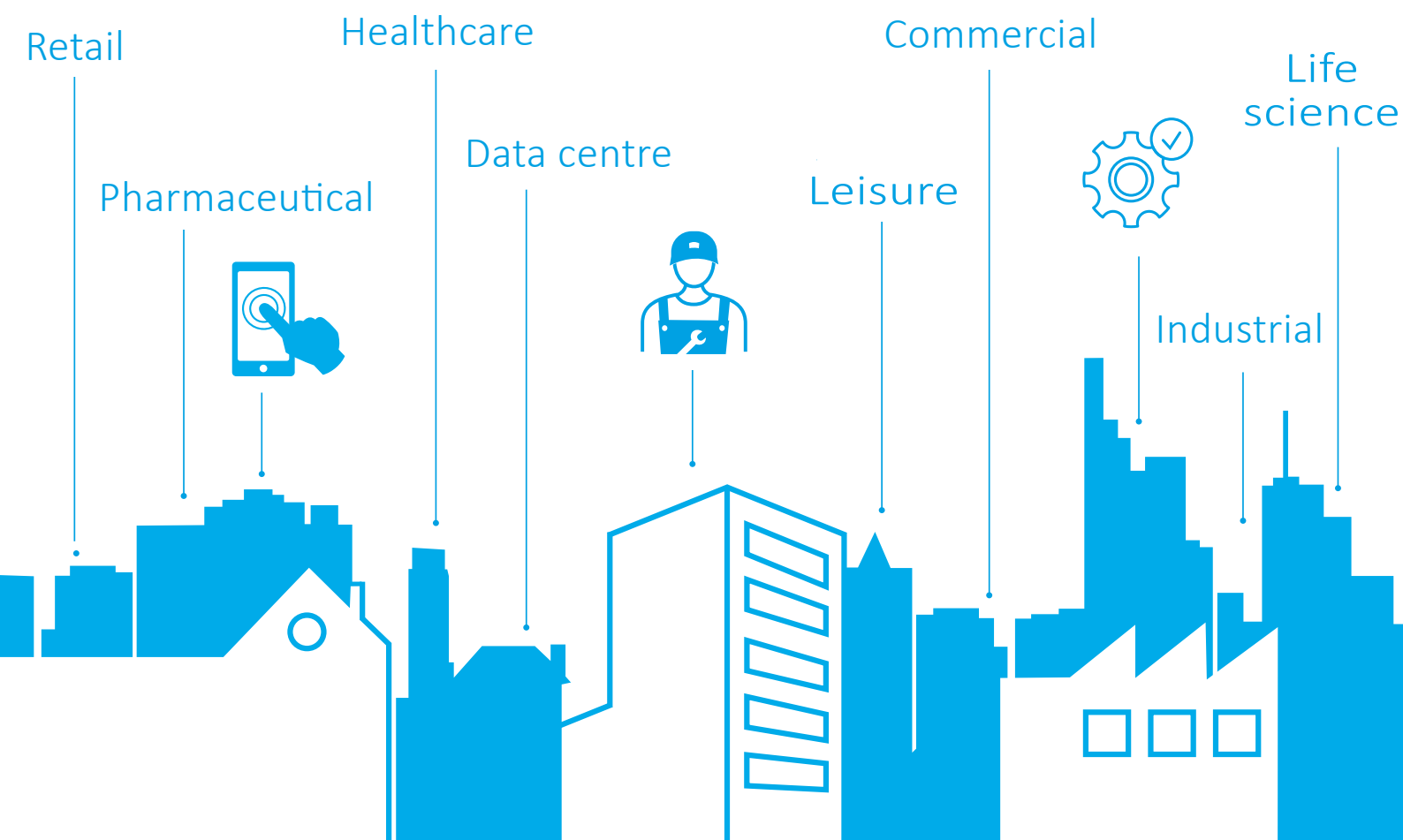
Control and measuring

- › Master / slave functionality
- › Real time operational data and trend insights 24/7/365
- › Life-cycle data log
- › Automated and tailored reports



Efficiency and reliability

- › Reduced operational costs
- › Optimised energy efficiency
- › Reduced waste
- › Reduced carbon footprint
- › Enhanced system reliability
- › Reduced system downtime



For Product, Service & Maintenance,
Rental and Spares enquiries:



0345 565 2700



www.daikinapplied.uk



www.daikinrentalsolutions.uk



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Daikin Europe N.V. participates in the Eurovent Certified Performance programme for Fan Coil Units and Variable Refrigerant Flow systems. Daikin Applied Europe S.p.A. participates in the Eurovent Certified performance programme for Liquid Chilling Packages, Hydronic Heat Pumps and Air handling Units. Check ongoing validity of certificate: www.eurovent-certification.com



Daikin Applied (UK) Ltd is certified to ISO 9001 Quality Management System (QMS), ISO 14001 Environmental Management System (EMS), and ISO 45001 Occupational Health and Safety (OH&S) management systems. For the latest certificates, visit: www.daikinapplied.uk/documents-download

