

Product overview



Your leading AHU, Chiller and Service partner

AHUs

CHILLERS

PROJECTS

SERVICE

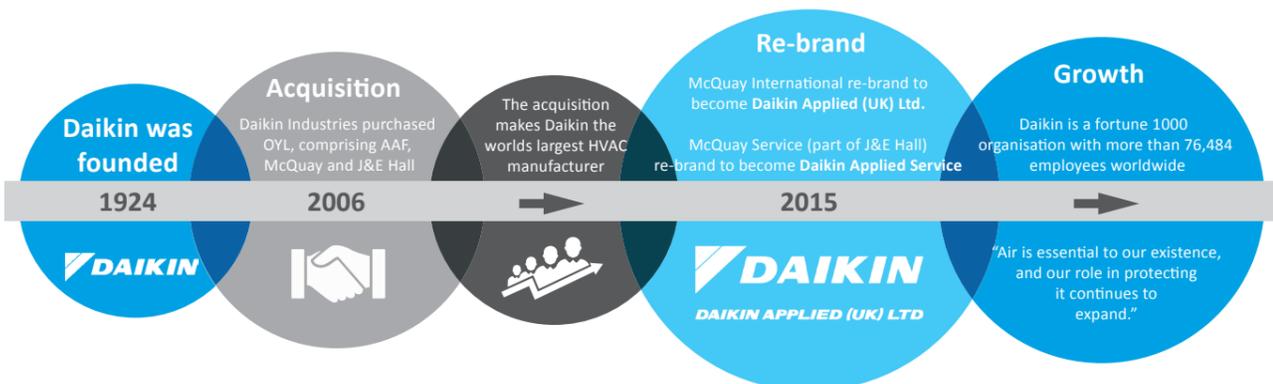
Daikin Applied

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*

D-AHU Professional

- > Infinite variable sizes
- > **Tailored to meet any specification**
- > Modular construction

ErP COMPLIANT

Up to 92% energy recovery

Modular R

- > Pre-configured sizes
- > Plug and play concept
- > EC Fan technology
- > **Heat recovery wheel (sorption and sensible technology)**
- > Compact design
- > Now available with plug fan

Modular P

- > Pre-configured sizes
- > Plug and play concept
- > EC Fan technology
- > **High efficiency aluminium counter flow plate heat exchanger**
- > Compact design
- > Now available with plug fan

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

Modular T

- > Pre-configured sizes
- > Plug and play concept
- > EC Fan technology
- > Small footprint
- > Compact design
- > **High efficiency aluminium counter flow plate heat exchanger**
- > Top connected unit

D-AHU Modular R
750 m³/h up to 144,000 m³/h

D-AHU Modular P
500 m³/h up to 25,000 m³/h

Modular L
150 m³/h up to 3,400 m³/h

Modular T
200 m³/h up to 4,200 m³/h

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 EXCEEDING 10		
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-

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

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 *****					
					Swing	Scroll	Screw	Water heat exchanger ***	Outdoor heat exchanger ****	Standard	High	Premium	Standard	Low	Reduced						
Heat pump																0	17.5	200	500	1,000	2,000
	EWYA~DA	R32	1	●	●			●	●	●					HP	4~14	5~16				
	EWYT~CZI EWYT~CZO	R32	1-2	●		●		●	●	●	●				HP	21~64	20~61				
	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	●			●	●	●	●	●	●	OPT	●	C&P	400~800	400~800				

Cooling capacity (kW) : Heating capacity (kW)

* (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 variable frequency 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 ***							Cooling capacity (kW)	Heating capacity (kW)					
Water cooled chillers (Cooling only and heating only operation)																0	17.5	200	500	1,000	2,000		
POA	EWQ~KC		R-410A	1-2	●			●	●	●				●	HP	13~61	15~70	Maximum 3 modules	Maximum 3 modules				
	EWWT~Q-		R32	1	●			●	●	●				●	HP	90~150	115~195	Maximum 8 modules	Maximum 8 modules				
	EWQ~G-		R-410A	1	●			●	●	●				●	C&P	87~352	118~462						
	EWQ~L-		R-410A	1	●			●	●	●				●	C&P	94~370	118~468						
	EWQ~J-		R-134a	1		●		●		2,4 pass	●			●	HP	120~284	155~374						
	EWQ~VZ		R-134a	1-2	●			●	●	1,2 pass	●	●	●	●	C&P	187~721	234~917						
	EWQ~DZ		R-1234ze	1		●		●		2,4 pass	●			●	HP	85~200	100~235						
	EWQ~VZ		R-513a	1		●		●		2,4 pass	●			●	HP	115~270	135~330						
	EWQ~VZ		R-134a	1-2	●			●	●	Flooded 1, 2, 3 pass	1,2 pass	●	●	●	C&P	450~2,100	550~2,500						
	EWQ~VZ		R-1234ze	1-2	●			●	●	Flooded 1, 2, 3 pass	1,2 pass	●	●	●	C&P	340~1,600	400~1,900						
	EWQ~VZ		R-513a	1-2	●			●	●	Flooded 1, 2, 3 pass	1,2 pass	●	●	●	C&P	320~1,500	380~1,800						
	Water cooled centrifugal chillers																0	17.5	200	500	1,000	2,000	
POA	EWQ~DZ		R-134a	1	●			●	1,2, 3 pass	1,2, 3 pass	●			●	C&P	320~2,170							
	EWQ~DZ		R-1234ze	1	●			●	Flooded 1, 2, 3 pass	Flooded 1, 2, 3 pass	●			●	C&P	230~1,410							
	EWQ~DZ		R-513a	1	●			●	Flooded 1, 2, 3 pass	1, 2, 3 pass	●			●	C&P	300 ~ 2,100							

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

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

** BPHE: Brazed plate heat exchanger

*** S&T: Shell and tube exchanger



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).

	Refrigerant Type *	Refrigerant circuits	Inverter	Compressor			Water heat exchangers				Efficiency version			Sound version	Ecodesign Compliance ****	Cooling capacity (kW) : Heating capacity (kW)							
				Scroll	Screw	Centrifugal	Evaporator		Condenser		Standard	High	Premium	Standard		0	17.5	200	500	1,000	2,000		
							BPHE **	S&T ***	BPHE **	S&T ***													
Condenserless chillers																							
POA	EWLQ~KC NEW	R-410A	1-2		●		●					●			●	NA		12~58					
	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

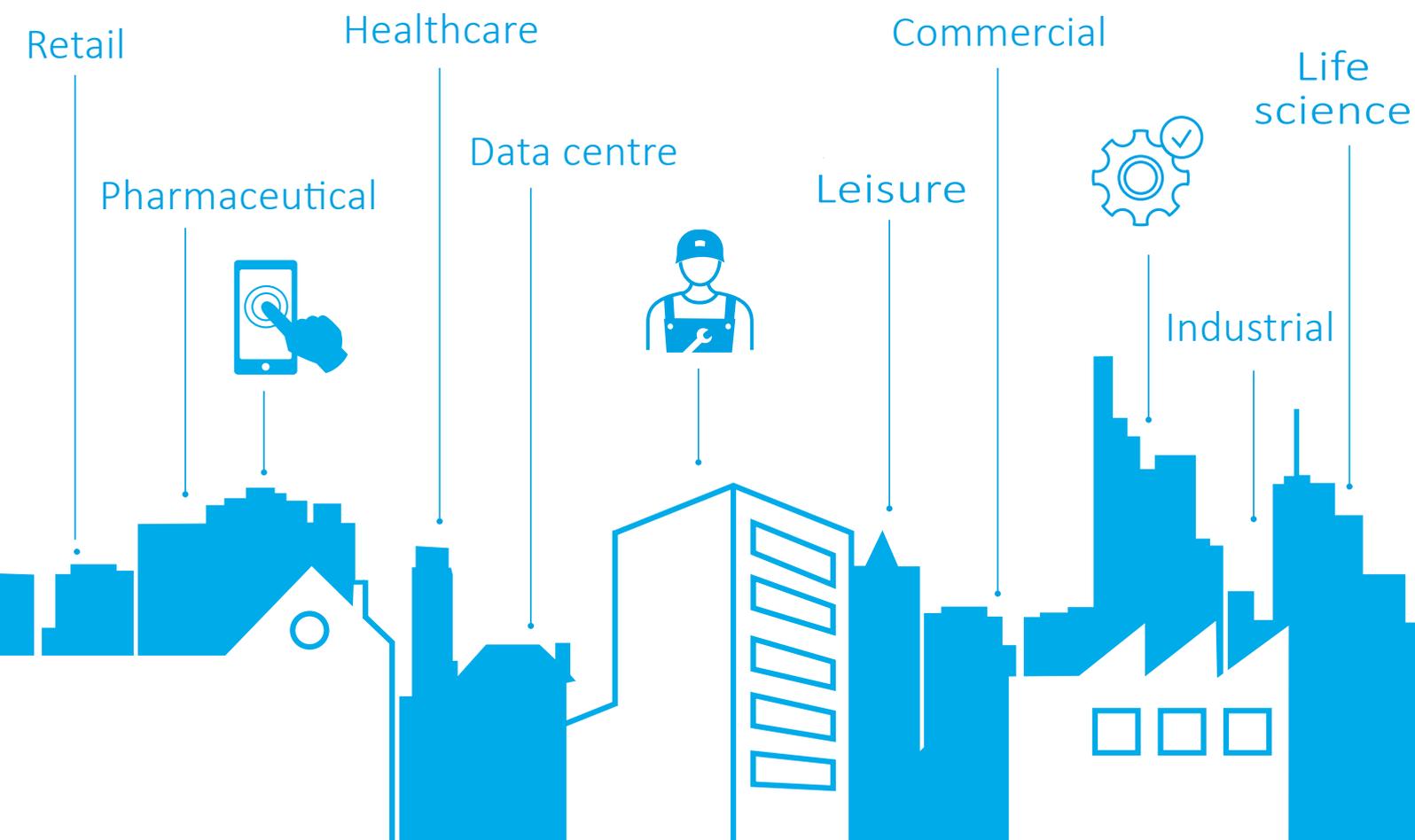
Pre-planned rentals

- ✓ 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

 <p>Active monitoring and assistance</p> <ul style="list-style-type: none"> › 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 	 <p>User friendly</p> <ul style="list-style-type: none"> › Access to DoS web app › Remote software upgrades › Interactive personalised dashboards
 <p>Control and measuring</p> <ul style="list-style-type: none"> › Master / slave functionality › Real time operational data and trend insights 24/7/365 › Life-cycle data log › Automated and tailored reports 	 <p>Efficiency and reliability</p> <ul style="list-style-type: none"> › Reduced operational costs › Optimised energy efficiency › Reduced waste › Reduced carbon footprint › Enhanced system reliability › Reduced system downtime



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 Certified Performance programme for Liquid Chilling Packages and Hydronic Heat Pumps, Fan Coil Units and Variable Refrigerant Flow systems. Check ongoing validity of certificate: www.eurovent-certification.com

The present publication is drawn up by way of information only and does not constitute an offer binding upon Daikin Europe N.V. Daikin Europe N.V. has compiled the content of this publication to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein. Specifications are subject to change without prior notice. Daikin Europe N.V. explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this publication. All content is copyrighted by Daikin Europe N.V.

