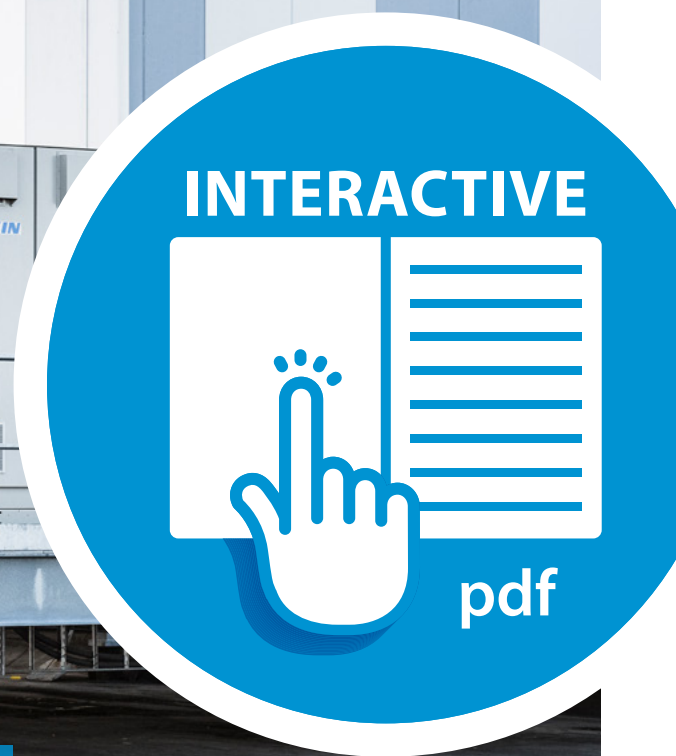




Applied Systems

Product catalogue 2017



NEW

Webbased Chiller Selection Software

High performance and reliability for comfort and process applications

Advantages

With this interactive PDF we want to ensure you quickly find back the information you are looking for. Within this catalogue or via direct links to our business portal.

Focus on your business, we are here to help you.

Navigation

Sidebar links

The different chapters in the catalogue are shown at the side. You will be taken directly to the index page of the with a single click.

All page numbers clickable

Click any page number you see and you will go directly to the page.

Daikin, your partner of choice

Tools and platforms

The best partner for your green project

Seasonal efficiency

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Click to go back

INTRODUCTION

AIRCOOLED CHILLERS

WATERCOOLED CHILLERS

CONDENSERLESS AND
CENTRIFUGAL CHILLERS

FAN COIL UNITS

AIR HANDLING UNITS

CONTROL SYSTEMS

PREVIOUS



Our promise...

... is to ensure that customers can depend on Daikin for the ultimate in comfort, so that they are free to focus on their own working and home lives.

We promise to dedicate ourselves to technological excellence, a design focus and the highest quality standards so that our customers can trust and rely on the comfort we deliver.

Our promise to the planet is absolute. Our products are at the forefront of low energy-usage and we will innovate to further reduce the environmental impact of HVAC-R (Heating, Ventilation, Air conditioning, Refrigeration) solutions. We lead where others follow.

We will continue our global leadership in HVAC-R solutions as our specialist expertise in all market sectors combined with 90 years' experience enable us to deliver added value in long-lasting relationships based on trust, respect and credibility.

We promise to continue our forward-thinking ethos, treating challenges as opportunities to produce ever-better solutions. We will drive innovation and go the extra distance for our customers and our company.

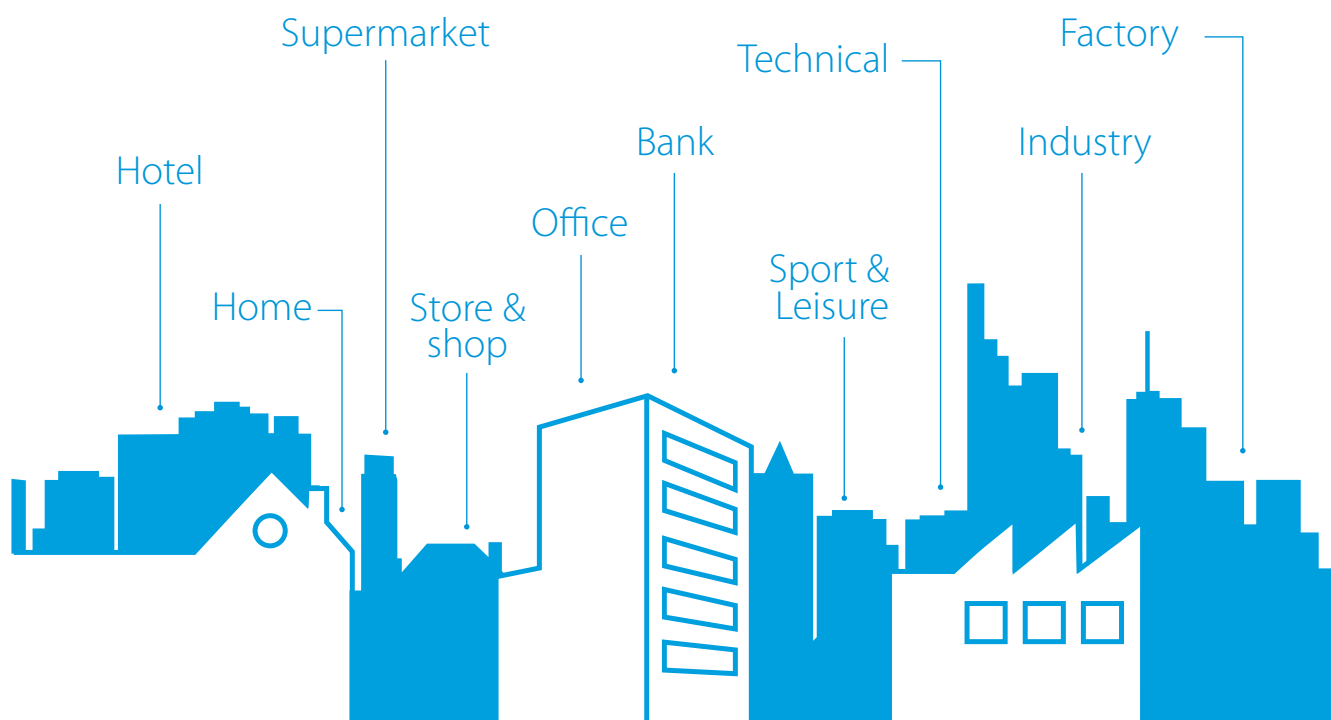
We will be smart and ready to do things differently.

We will deliver on these core values of our brand and enjoy sustainable success with continued growth.

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Daikin world





Forged under severe conditions around the world, Daikin chillers, fan coil units & air handling units provide high quality, operation efficiency and energy savings. Various applications are possible including air conditioning applications, industry-type process cooling and heating, and large-scale district cooling and heating.

A partner of choice

Daikin is Europe's leading manufacturer and global n°1 of highly energy-efficient heating, cooling, ventilation and refrigeration solutions for residential, commercial and industrial applications. Daikin is a leader in using technologies that help preserve the environment, such as those that conserve energy and deliver high reliability to its customers. Daikin's flexible applied systems deliver high efficiency for commercial, institutional and industrial buildings.

The comfort of reliability

Nobody is really looking for complexity in business. Because complexity often leads to mistakes, delays or losses. Unfortunately, the world we are all doing business in, is sometimes quite complex. When looking for further business development, we all expand our national and international operations. And that doesn't make things easy.

As a small scale business or multinational company, you deserve the best partners. Partners that can take away the headaches and make you feel comfortable again. With Daikin, you have found such a partner. Because Daikin would like things to be easy ... for you.

Daikin quality

Daikin's much envied quality quite simply stems from the close attention paid to design, production and testing as well as aftersales support. To this end, every component is carefully selected and rigorously tested to verify its contribution to product quality and reliability.

Staff who understands you

Daikin and its staff of devoted engineers, consultants and analysts are ready to assist you on a daily basis in setting up nationwide or international agreements, providing advice on equipment selection and monitoring regulations. Our goal is to help you carry out your plans with confidence, using custom-designed systems that meet your needs (for comfort, performance levels, support and service).

Daikin Applied Development Center

Opened in May 2009, the Daikin Applied Development Center is the world's most advanced facility for heating, ventilation and air conditioning (HVAC) research and development. The purpose of the center is to develop and test advanced chiller, compressor and other HVAC technologies to reduce energy consumption and, ultimately the carbon footprint of the buildings where they will be used.

Tools and platforms

Have a question, looking for specific software applications, need detailed product information or looking for any other marketing tools? This overview gives you an idea of what we can offer.

Selection software

Daikin Europe offers you a variety of building modelling, selection, simulation and quotation software tools to support your sales.

NEW

Web-based chiller selection software

A user-friendly interface allows users to quickly create new projects, open and change existing projects or simply do a quick selection.

Technical selection reports can be printed or downloaded in several formats.

To make life easier, the tool is accessible everywhere, via any device. No matter where you are, projects can be consulted.

Create now a new account on:

› <http://tools.daikinapplied.eu/>



Online support

Business portal

Experience our new extranet that thinks with you

- › Find information in seconds via a powerful search
- › Customize the options so you see only info relevant for you
- › Access via mobile or desktop via **my.daikin.eu**

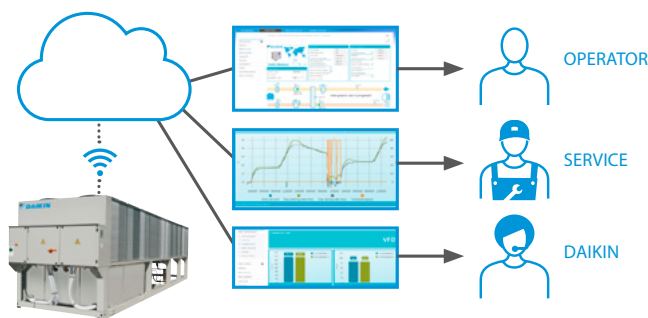
Service on site

NEW

A new remote monitoring and control for chillers and air handling units has been developed by Daikin to give peace of mind to the end-customer.

Using this new tool results in optimum use and costs over the system's entire lifetime:

- › enhanced control and measuring
- › monitors the system
- › reduces risks at the earliest possible moment
- › keeps the system running as it was intended to



Selection software

ASTRA Web

- › Quick AHU selection that will save you precious time, drastically reducing selection time through the new software interface.
- › Very competitive solution available within the Wizard thanks to pre-uploaded parameters.
- › High selection quality, thanks to the intelligence embedded within the software core.



Daikin, the best partner for your green project

From 2015 onwards the majority of new building projects in Europe are expected to be green.

93% percent of developers & investors consider green certification important

BREEAM and LEED green building programmes are the two most important sustainable building certificates in Europe, covering more than 75% of the total sustainable-building certificate market.

Property developers are setting high standards

- › Aiming for a BREEAM Excellent or LEED Gold target is no longer rare
- › The real challenge? Achieving these targets while staying within budget

HVAC-R systems play an important role

- › Within the total green assessment & investment cost
- › They require the alignment of many different parties

BREEAM is a registered trademark of BRE (the Building Research Establishment Ltd. Community Trade Mark E5778551). The BREEAM marks, logos and symbols are the Copyright of BRE and are reproduced by permission.

It is essential to choose an HVAC-R partner with the knowledge and portfolio to achieve your BREEAM or LEED objectives, and other green needs.

Daikin has successfully participated in many green and sustainable projects. Helping builders achieve BREEAM Excellent, LEED Gold, NZEB and similar certificates has become one of our specialities.



We have a team of BREEAM accredited professionals (APs) at your service!

- › Over 17 APs across Europe
- › Assisting you to achieve your BREEAM certificate



You get maximum support in scoring BREEAM credits & LEED points:

- › Daikin Total HVAC-R Solutions
- › High seasonal efficiency technologies
- › Smart energy management with intelligent network
- › Boost your end score with innovative products & technologies

Maximise your BREEAM and LEED green building programme score with Daikin solutions

› Manage up to 70% of your energy consumption with the Daikin Total Solution

› Top seasonal efficiency

Both BREEAM and LEED green building programmes put the strongest focus on energy efficiency. This is exactly why it's so important to choose Daikin.

› Smart air conditioning management with Intelligent Network

To drastically reduce your energy consumption and CO₂ emissions it's not enough to simply make your equipment more efficient.

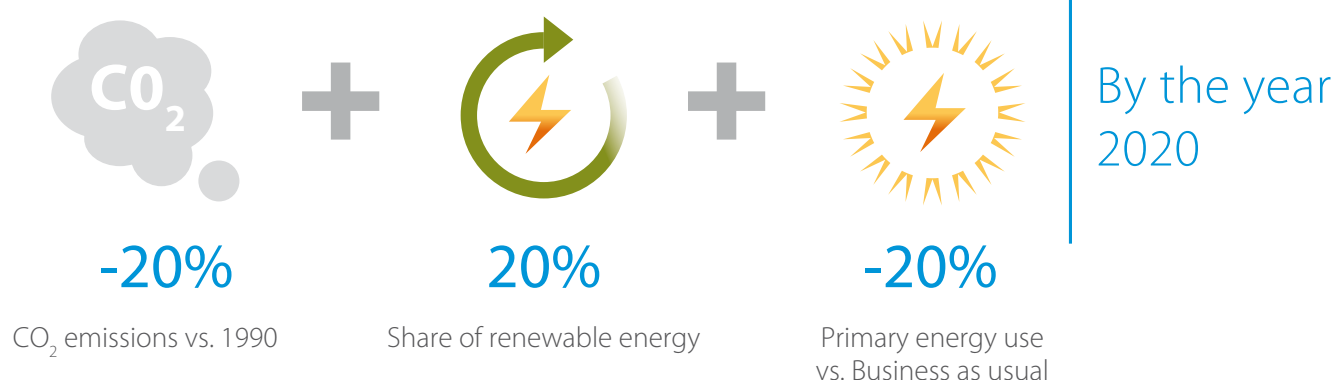
Seasonal efficiency,

Smart use of energy

Challenging 20-20-20 environmental targets

The European Commission has set challenging targets for improving energy efficiency in the EU. These so-called 20-20-20 targets aim at a 20% reduction in CO₂ emissions, 20% share of renewable energy and a 20% reduction in the use of primary energy, all by the year 2020. To realise these objectives, Europe issued the Eco-Design Directive [2009/125/EC]. This sets minimum efficiency requirements for energy related products.

European action plan 20-20-20



Applied systems: products in scope

Since 26 September 2015, heat generators for space heating (LOT 1) also need to comply to these 20-20-20 targets. For the applied systems market it means that all heat pumps below 400 kW need to comply to minimum efficiency requirements. Heat pumps below 70 kW must be marked with a product energy label.

Our service

Daikin helps its partners to meet their obligations regarding the Ecodesign Directive and energy labelling. Labels, product and technical fiches for each individual product are available as downloads at any time from the Energy Label Generator at https://www.daikin.eu/en_us/about/daikin-innovations/seasonal-efficiency.html.

Chiller modernisation

Be smart – replace components, not systems

Our concept

Even if the R-22 chiller has been maintained well and is still in good condition, R-22 is no longer allowed to be used. That's why Daikin offers chiller modernisation packages. Not only is the chiller made compliant with the latest legislation, the technology upgrade also revives your system, increasing reliability and efficiency.

Main benefits

- › Convert R-22 to be compliant with legislation
- › Limit capital
- › Save money for future equipment thanks to the chiller's longer lifetime, increased reliability, and improved maintenance efficiency
- › Enhance energy efficiency up to +20% ESEER by manufacturer pre-engineered upgrade

Benefits for budget and risk management

- › No chiller removal
- › No water pipe work
- › No electrical modifications
- › Low logistic expenses (transport, cramage, permissions ...)
- › Quick delivery
- › Government-sponsored subsidies may be available



Controller box upgrade



Fact: R-22 has been banned in Europe*

If your equipment is more than 15 years old, it probably still uses R-22 refrigerant. Since 31 December 2014 repairs to R-22 systems are prohibited, possibly resulting in unexpected downtime. Keep your business running at all times with Daikin replacement technology.



- Soft starter
- Inverter

Compressor
upgrade



* EU directive: Regulation (EC) No.2037/2000

Day-to-day reliability and efficiency

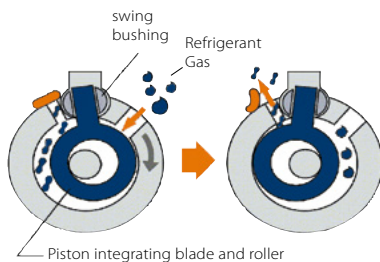
Inhouse development and manufacturing of compressors

Unlike many other air conditioning manufacturers, Daikin manufactures its own compressors.

This is important because the compressor is the very heart of the air conditioning system, increasing the pressure and temperature of the refrigerant vapour, effectively concentrating the heat as it passes around the system. Daikin has always been at the forefront of developing compressor technology and now offers a comprehensive range of swing, scroll, screw and centrifugal compressors. As a result, inverter compressor control is applied throughout our product range, delivering enhanced comfort and system efficiency.



Swing compressor



The mini chiller series EWAQ005-007ADVP & EWYQ005-007ADVP are equipped with a swing inverter compressor. This innovative design by Daikin has fewer moving parts allowing a smoother, more reliable operation with low vibration and low noise levels. The high-efficiency motor reduces energy consumption, resulting in energy cost savings.

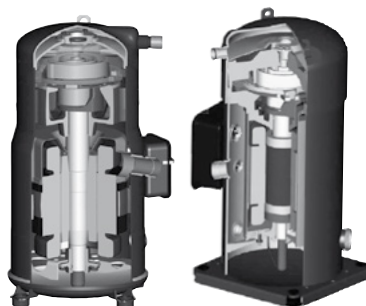


Scroll compressor for controlled capacity

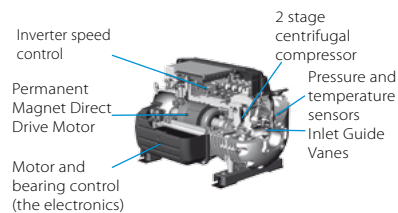
Being compact, the Daikin scroll compressor is used with R-407C and R-410A to provide constant reliability and high efficiency throughout its service life. Designed for small and medium capacities, the scroll compressors are used with air cooled and water cooled chillers.

Characteristics:

- › Compact, simple yet robust design
- › Absence of valves and oscillating connecting mechanisms providing maximum reliability
- › Constant compression guaranteeing low energy consumption
- › Increased compression efficiency thanks to the absence of volumetric re-expansion
- › Low sound level
- › Low starting current



Innovative frictionless centrifugal compressor



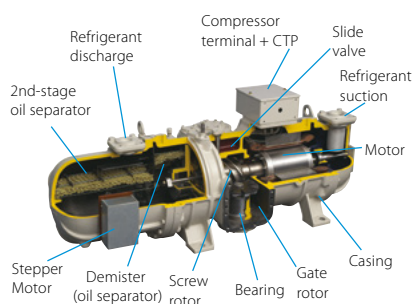
The innovative frictionless centrifugal compressor has an integrated VFD, as well as magnetic bearings, and delivers high levels of unit efficiency and reliability. The compressor's only moving part - the rotor shaft and impellers - are powered by the permanent magnetic direct-drive motor and kept levitated by a digitally controlled magnetic bearing system. This reduction in moving parts significantly increases unit reliability and reduces maintenance costs. As the condensing temperature and/or cooling load reduces, the speed of rotation reduces and movable inlet guide vanes, activated by the step motor, redirect gas flow into the first stage impeller once the compressor has reached its minimum speed. This delivers increased efficiency and cost savings during part-load operations.

Whatever the requirements of the customer - large systems requiring constant capacity or small systems for flexibility - Daikin always provides a reliable and efficient solution.



The single-screw stepless compressor for high capacity

At the heart of the larger Daikin chillers is a semi hermetic single screw compressor, designed, tested and manufactured in Daikin's own factories, in order to meet the highest capacity, performance and maintenance specifications. This compressor has been especially developed for operation with R-410A or R-134a refrigerants, guaranteeing unequalled reliability and many years of efficient operation. The bearing life is 100,000hrs with inspection and maintenance intervals every 40,000hrs.



Characteristics:

- › Optimal performance through stepless capacity control chilled water temperatures. The unit capacity is infinitely variable from 30 - 100% on single circuit units and 15 -100 % on dual circuit units.
- › Compact, simple yet robust construction.
- › Using a main single screw and two gate rotors, axial and radial forces are balanced, thanks to the symmetrical compression guaranteeing low bearing loads.
- › Gate rotors made of polymer material result in closer tolerances with the main screw and reduced friction greatly improves compressor efficiency and lifetime.
- › No oil pump necessary - lubrication based on the differential pressure principle.
- › Easy access to both compressor and safety devices.
- › Star-Delta starter with low starting current as standard.



Screw compressor with integrated inverter (EWAD-TZB)

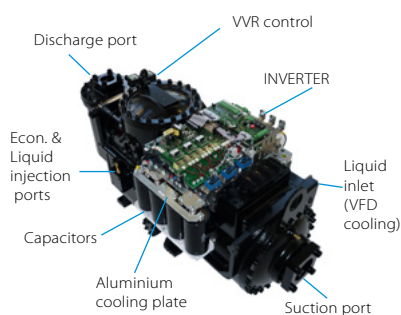
Characteristics:

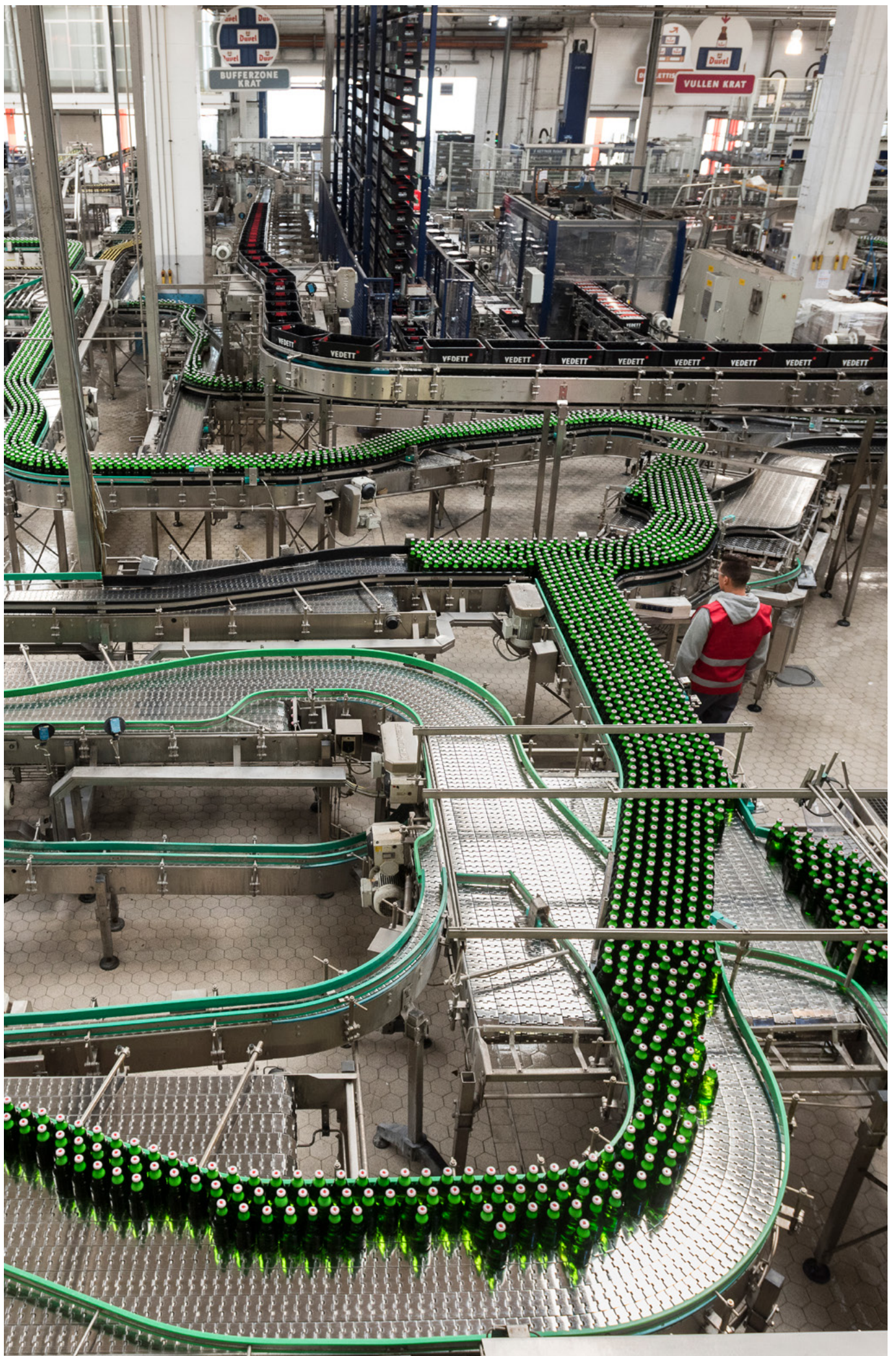
- › Compressor and inverter fully designed by Daikin
- › Inverter integral to the compressor body
- › Inverter refrigerant cooled
- › VVR = Variable Volume Ratio for optimized efficiency
- › Enlarged discharge port and suction side for reduced refrigerant pressure drop
- › New optimized compressor motors

Main benefits:

- › Better ESEER & EER values
- › 30% more compact than single-screw compressor
- › Rapid payback time
- › Silent operations
- › Optimal comfort levels

NEW







Daikin chillers

Why choose Daikin chillers

The widest and most flexible chiller portfolio

- › From the smallest chiller for residential use to the largest chiller for district cooling
- › Tailor made solutions based on the most advanced technologies

Worldwide experience in chiller design and manufacturing

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

Benefits for the installer

- › Plug & play solutions
- › Maximum serviceability
- › Ideal solutions for retrofit projects

Benefits for the consultant

- › Energy efficient solutions without compromising on reliability and performance
- › Latest technology embedded in all our products

Benefits for the end user

- › Remarkable savings on running costs
- › "Green" solutions to preserve the environment
- › Eurovent and AHRI certification

The highest efficiency for every installation

- › 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 chiller is factory run-tested and subjected to quality audit before shipment

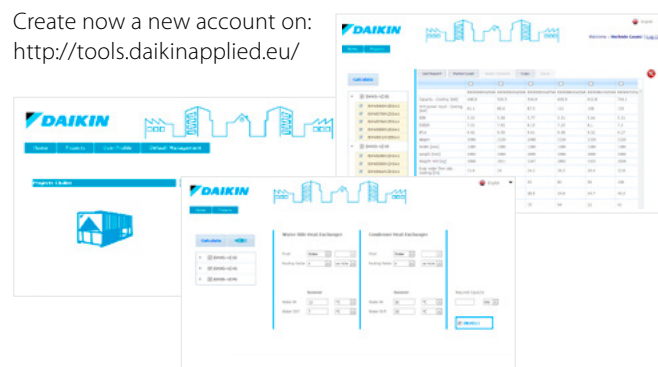
Web-based Chiller selection software

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<http://tools.daikinapplied.eu/>



Lower your running costs

with our energy saving options



Inverter technology

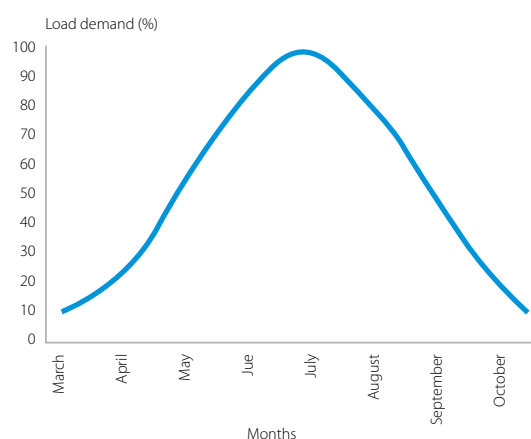
Traditional electric motors run at full load even when not needed (in chiller part load operations), resulting in energy waste.

Since in a building most of the energy consumption comes from HVAC systems and the cooling/heating load varies during the year depending on the application, energy saving becomes vital, especially with the current soaring price of energy and global warming concerns.

VFD (Variable Frequency Drive) allows the use of only the power necessary to perfectly match the real load, a highly efficient and green solution for HVAC applications (compressors, fans and pumps).

During most of the chiller operating time, the cooling capacity required in a building is lower than the peak load conditions, according to the building load profile.

The higher load variations during the year, the more vital is operating efficiency of the machine.



What are your benefits when choosing an inverter chiller ?

- › Energy efficient: displacement power factor always > 0.95

Usually the power factor of a motor progressively worsens with the decrease of the power output. However, thanks to the inverter, there is no need for additional power factor correction capacitors as the power factor is always > 0.95 and there are no power surges so costs are constrained.

- › Quick start-up: start-up time reduced by 1/3
The ability to vary the output power in direct relation to the cooling requirements of the system by allowing compressor boosts gives the inverter chiller a reduced start-up-to-operating-capacity, making it possible to achieve comfort conditions in 1/3 less time than with conventional systems.

- › Less frequent start/stop cycles and low starting current
The inverter technology ensures fewer start/stop cycles as well as ensuring that the start-up current is always lower than the current absorbed maximum operating conditions (FLA). This generates obvious cost savings.

- › Seasonal quietness: reduced sound levels
Low sound levels in partial load conditions are achieved by the variation of compressor frequency, thus ensuring minimum sound levels at all times.

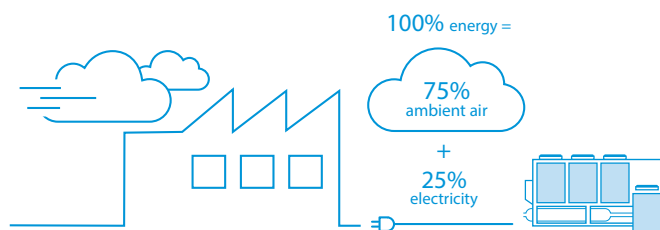
All these benefits will lead to a decrease in the overall running costs, resulting in a rapid return on investment.



Air-to-water heat pump technology

Air-to-air water pumps obtain 75% of their output energy from a renewable source: the ambient air, in summer and winter, even when it is freezing outside; air which is both renewable and inexhaustible.

A heat pump's efficiency is measured in SCOP (Seasonal Coefficient Of Performance) for heating and ESEER (Seasonal Energy Efficiency Ratio) for cooling. Our units deliver maximum energy efficiency and the minimum of operating costs.



Heat recovery (option n°01-03)

For those particular applications where heating and cooling may be required at the same time during operation of the chiller (e.g. hotels, manufacturing, hospitals) partial or total heat recovery options are available. The heat recovery technology extracts heat from the cooling process to ensure free or low-cost heating for other facilities in your company.

Rapid restart (option n°110)

In case of power failure the Daikin chillers can quickly restart and load up to 100 % in a very short time (typically less than 6 minutes versus circa 20 minutes in case of a standard chiller) Rapid restart means lower impact on the customer side especially in critical applications where they cannot afford to lose cooling: e.g. data centers and hospitals



Free cooling (option n°113)

Free cooling uses cold air from outside to assist in chilling water for applications such as data centers that need cooling during cold season. When the ambient air temperature drops below a set point, all or part of the chilled water bypasses the existing chiller and runs through the free cooling system, thus using less power.

When outside temperatures are +2°C or lower, the chiller compressors are fully shut down and cooling is almost for free. This dramatically reduces the load on the system and cuts energy consumption by up to 75%, as well as prolonging the lifespan of the chiller.

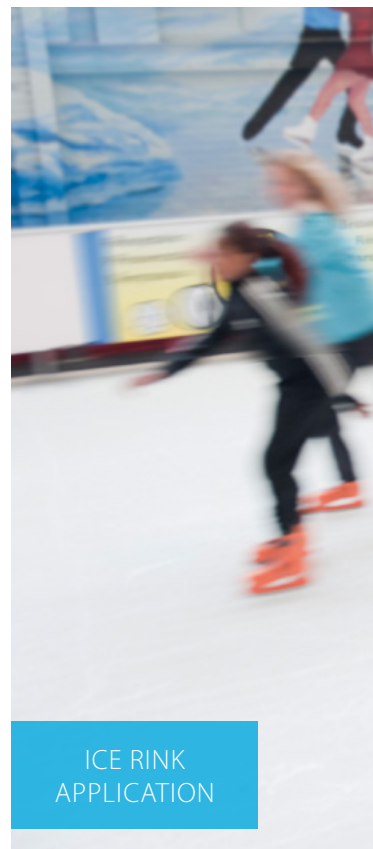
PRINTING COMPANY APPLICATION



AIR COOLED CHILLER INSTALLATION



AIR COOLED CHILLER INSTALLATION



ICE RINK APPLICATION

EWAQ-E-
INSTALLATION



DATA CENTER
APPLICATION



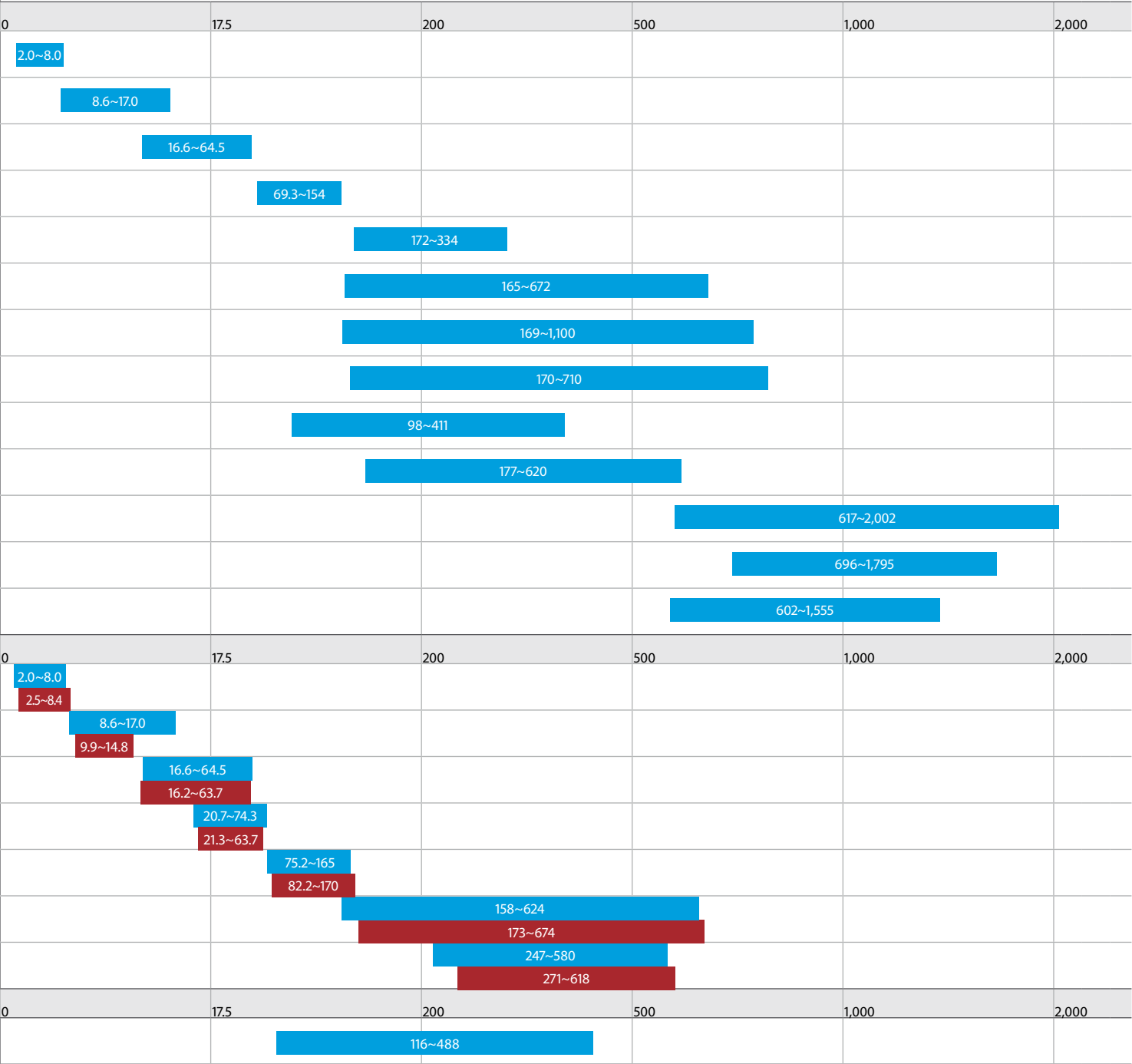
PROCESS COOLING
APPLICATION



Products overview

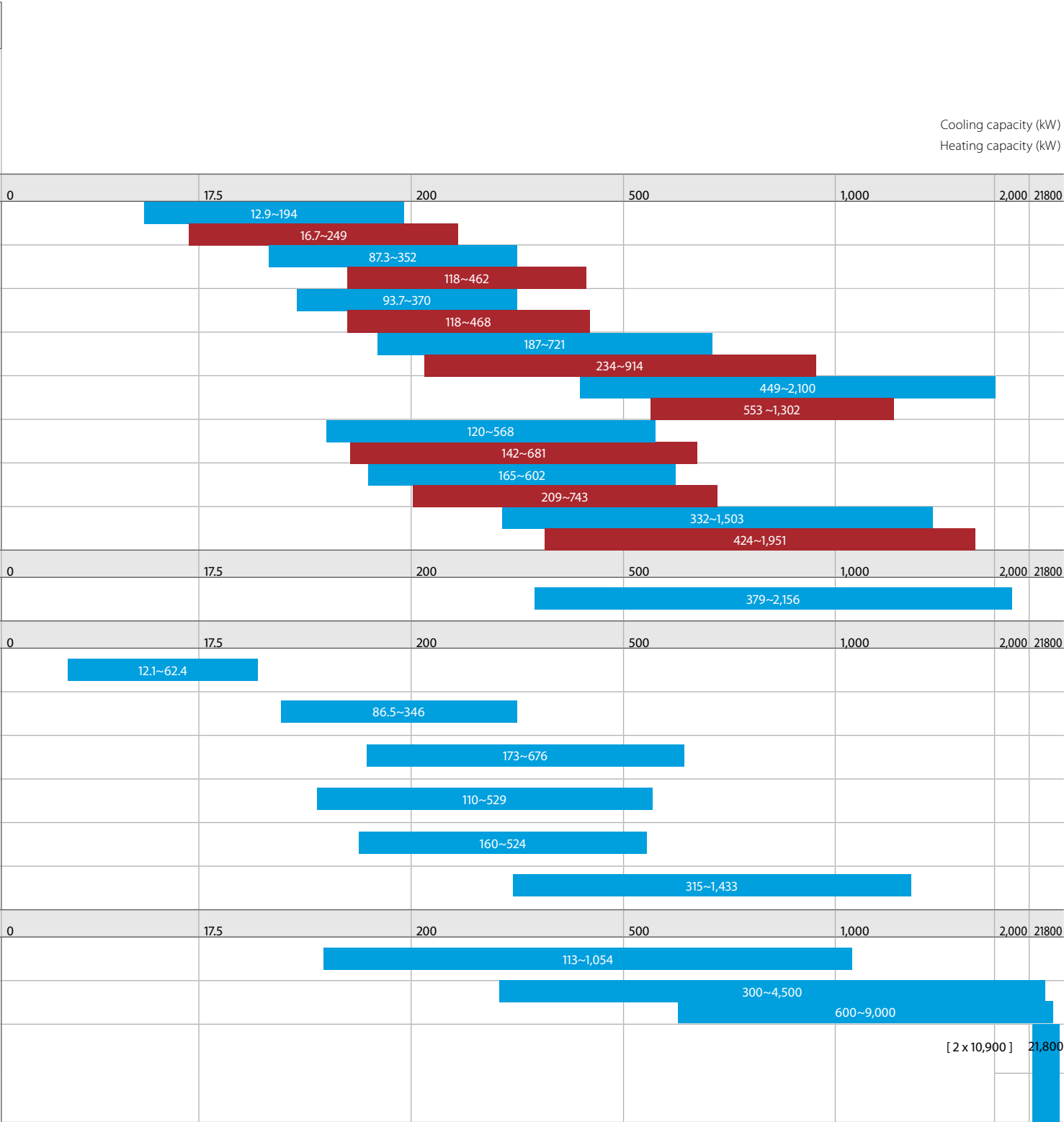
	Refrigerant type *	Refrigerant circuits	Inverter	Free cooling	Compressor			Water heat exchanger		Efficiency version				Sound version				
					Swing	Scroll	Screw	Plate **	Single pass shell and tube	Standard	High	Premium	High ambient	Standard	Low	Reduced	Extra low	
Air cooled chillers - Cooling only																		
EWAQ~BVP	NEW		R-410A	1														
EWAQ~ACV3/ACW1			R-410A	1														
EWAQ~CW*			R-410A	1-2														
EWAQ~G-			R-410A	1														
EWAQ~E-			R-410A	1														
EWAQ~F-			R-410A	2														
EWAD~TZ B	NEW		R-134a	1-2														
EWAD~TZ			R-134a	1-2														
EWAD~E-			R-134a	1														
EWAD~D-			R-134a	2														
EWAD~C-			R-134a	2-3														
EWAD~CZ			R-134a	2-3														
EWAD~CF			R-134a	2														
Air cooled chillers - Heat pump																		
EWYQ~BVP	NEW		R-410A	1														
EWYQ~ACV3/ACW1			R-410A	1														
EWYQ~CW*			R-410A	1-2														
SEHVX-AAW SERHQ-AAW1			R-410A	1														
EWYQ~G-			R-410A	1														
EWYQ~F-			R-410A	1-2														
EWYD~BZ			R-134a	2-3														
Condensing unit																		
ERAD~E-			R-134a	1														

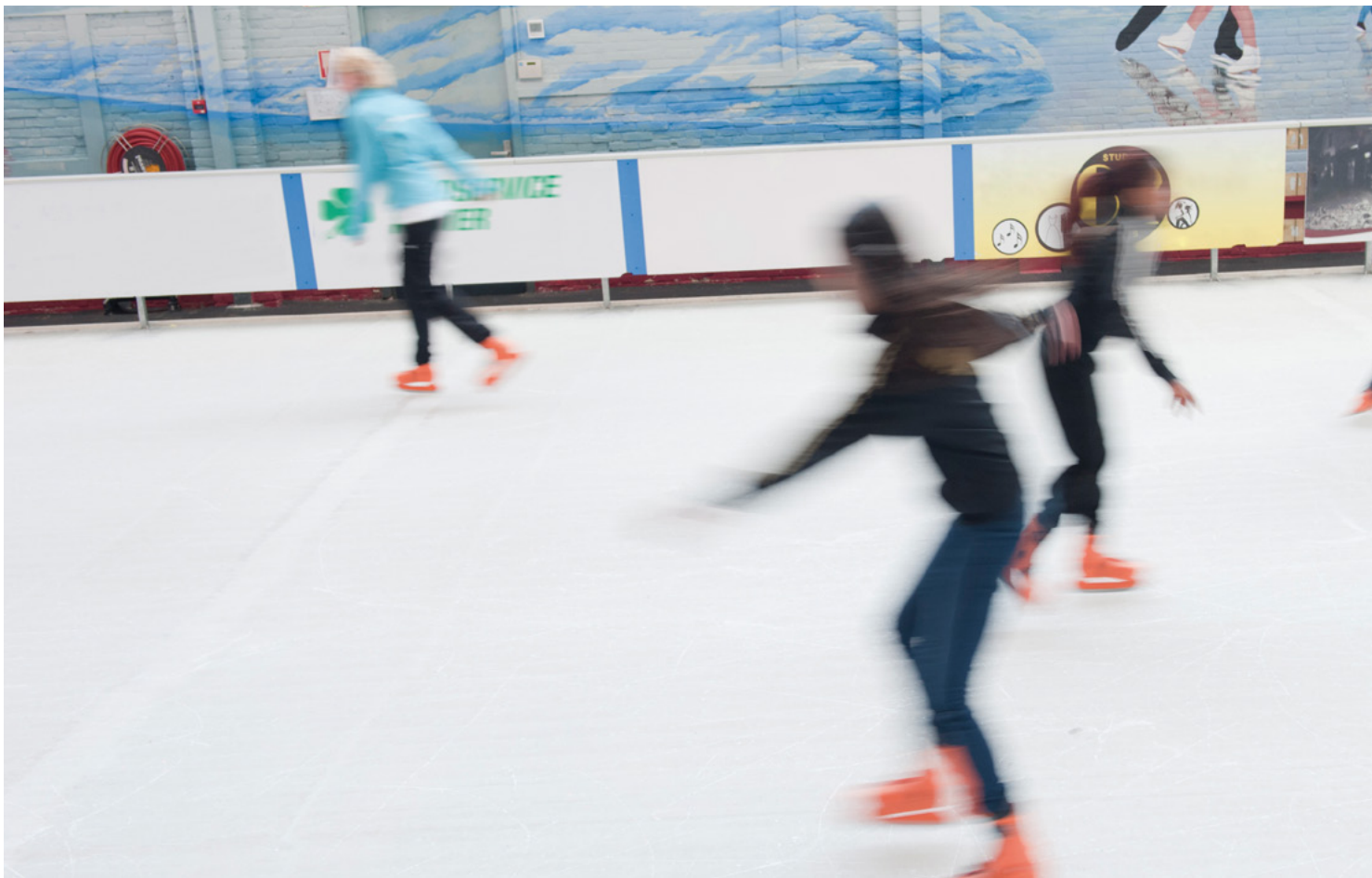
Cooling capacity (kW)
Heating capacity (kW)



Products overview

		Refrigerant Type*	Refrigerant circuits		Compressor			Water heat exchanger			Efficiency version			Sound version
								Plate**	Single pass shell and tube	Shell and tube				
Water cooled chillers (Cooling only & Heating only)														
EWWP~KBW1N		R-407C	1-2-4-6											
EWHQ~G-		R-410A	1											
EWWQ~G-		R-410A	1											
EWWQ~L-		R-410A	2											
EWWD~VZ		R-134a	1											
EWWD~J-		R-134a	1-2											
EWWD~G-		R-134a	1-2											
EWWD~I-		R-134a	1-2-3											
Water cooled chillers (Cooling only)														
EWWQ~B-	NEW 	R-410A	1-2											
Condenserless chillers														
EWLP~KBW1N		R-407C	1-2					BPHE						
EWLQ~G-		R-410A	1											
EWLQ~L-		R-410A	2											
EWLD~J-		R-134a	1-2											
EWLD~G-		R-134a	1-2											
EWLD~I-		R-134a	1-2-3											
Water cooled centrifugal chillers														
EWWD~FZ		R-134a	1						Flooded					
DWSC DWDC		R-134a	1	optional					Flooded					
6,000 RT CENTRIFUGAL		R-134a	2 per chiller						Flooded					





Why choose a Daikin air cooled chiller?

Daikin air cooled chillers are designed for small to large cooling and heating capacities. A wide range of chillers are available to match every building's air conditioning and process cooling needs. Air cooled chillers are available in different versions:

Mini chillers

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 leader-of-class ESEER. Ideal for residential or light commercial applications.

Air cooled scroll chillers

Daikin scroll chillers are designed for small and medium cooling and heating capacities. A wide range to 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.

Wide range of products

Thanks to an extensive product line-up for medium-to large-scale facilities, you can select your optimum model.

Application versatility

Daikin delivers solutions to a wide range for process and comfort climate applications, for all conditions and both cooling or heating requirements.

Energy and cost savings

Utilizing the latest technology, Daikin has achieved industry-leading efficiency and energy-saving operation for outstanding cost saving performance.

Options flexibility

Multiple unique options are available for customizing the chiller to your specific building's needs.



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Air cooled

Air cooled chillers (Cooling only)

R-410A

NEW

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EWAQ-F-XS/XL	36
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R-134a

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Air cooled chillers (Heat pump)

R-410A

NEW

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Air cooled mini inverter chiller

- › Top product in terms of energy efficiency and operation range
- › All capacities available in 2 versions: standard version and version with OP10 option (no freeze up of water when not in operation thanks to the water piping heater tape)
- › Easy,plug and play' installation
- › Amongst the most quiet units in the market (63dBA - sound power)
- › Single phase power supply and low starting currents make the unit ideal for residential applications
- › Weight reduced with 20% compared with the previous models.
- › Built-in Hydraulic kit: no buffer tank required, standard inverter driven pump, main flow sensor and switch included.
- › Standard wired remote control enables setting of different set points (cooling, heating, water leaving temperature) or based on outdoor conditions (weather dependent control). It has an alarm history, night time noise reduction function and is language based.



Cooling only				EWAQ-BVP	004	005	006	008	
Cooling capacity	Min./Nom.			kW	2.0 /4.00 / 4.01	2.0 /4.93 / 5.07	3.0 /5.88 / 6.07	3.0 /7.95 / 8.23	
Power input	Cooling	Nom.		kW	1.27 / 0.840	1.61 / 1.12	1.87 / 1.13	2.57 / 1.65	
Capacity control	Method				Variable (inverter)				
EER					3.14 / 4.80	3.06 / 4.51	3.15 / 5.35	3.10 / 4.99	
ESEER					4.45	4.49	5.25	5.24	
Dimensions	Unit	HeightxWidthxDepth		mm	735x1,090x350		997x1,160x380		
Weight	Unit			kg	83		106		
	Operation weight			kg	-				
Water heat exchanger	Type				Brazen plate				
	Water pressure drop			Cooling Nom.	kPa	-			
	Water volume			l	1		2		
Air heat exchanger	Type				Cross fin coil/Hi-X tubes and chromate coated waffle louvre fins		Cross fin coil/Hi-X tubes and PE coated waffle louvre fins		
Compressor	Type				Hermetically sealed swing compressor				
	Quantity				1				
Fan	Type				Propeller fan				
Fans	Quantity				-				
Sound power level	Cooling	Nom.		dBA	63	64	69		
Sound pressure level	Cooling	Nom.		dBA	48	49	52	53	
Operation range	Air side	Cooling	Min.~Max.	°CDB	10~43		10~46		
	Water side	Cooling	Min.~Max.	°CDB	5~22				
Refrigerant	Type/GWP				R-410A/2,088		R-410A/2,087.5		
	Control				Electronic expansion valve				
	Circuits	Quantity			1				
Refrigerant charge				kg/TCO2Eq	2.10/4.4		2.70/5.6		
Unit	Starting current	Max		A	15.7		19.9		
	Running current	Max		A	15.7		19.9		
Power supply	Phase/Frequency/Voltage			Hz/V	1N~/50/230				

Air cooled mini inverter chiller

- › Excellent part load efficiency
- › Inverter technology to ensure low sound values and leader-of-class ESEER
- › Wide operating range
- › Built-in hydronic module: no buffer tank required and a standard pump and main switch are included
- › Easy,plug and play' installation
- › Single phase power supply for residential applications, three phase power supply model available for light commercial applications



Cooling only		EWAQ-ACV3/ACW1				009		010		011		009		011		013			
Cooling capacity	Nom.				kW	12.2 (1) / 8.6		13.6 (1) / 9.6		15.7 (1) / 11.1		12.9 (1) / 9.1		15.7 (1) / 11.1		17.0 (1) / 13.3			
Power input	Cooling	Nom.			kW	2.85 (1) / 2.83		3.41 (1) / 3.28		4.13 (1) / 3.90		3.08 (1) / 3.05		4.13 (1) / 3.90		5.52 (1) / 5.18			
Capacity control	Method					Inverter controlled													
EER						4.27 (1) / 3.05		4.00 (1) / 2.93		3.79 (1) / 2.85		4.19 (1) / 2.99		3.79 (1) / 2.85		3.08 (1) / 2.57			
ESEER						4.31		4.30		4.33		4.43		4.44		4.36			
Dimensions	Unit	Height			mm	1,435													
		Width			mm	1,418													
		Depth			mm	382													
Weight	Unit				kg	180													
Water heat exchanger	Type					Brazed plate													
	Water flow rate	Cooling	Nom.		l/min	24.7		27.6		31.9		26.1		31.9		38.2			
	Water volume				l	1.01													
Air heat exchanger	Type					Hi-XSS													
Pump Standard	Nominal ESP unit	Cooling			kPa	58.0		54.6		49.1		56.4		49.1		40.9			
Hydraulic components	Expansion vessel	Volume			l	10													
Compressor	Type					Hermetically sealed scroll compressor													
	Quantity					1													
	Type					Propeller fan													
Fan	Quantity					2													
	Air flow rate	Cooling	Nom.		m³/min	96		100		97				-					
	Fan motor	Speed	Cooling	Nom.		rpm	780												
						8													
Sound power level	Cooling	Nom.			dBA	64												66	
Sound pressure level	Cooling	Nom.			dBA	51												52	
	Night quiet mode	Cooling			dBA	45												46	
Operation range	Air side	Cooling	Min.~Max.		°CDB	10~46													
	Water side	Cooling	Min.~Max.		°CDB	5~22													
Refrigerant	Type					R-410A													
	Circuits	Quantity				1													
	Control					Electronic expansion valve													
	GWP					2,087.5													
Refrigerant charge	Per circuit				kg	2.95													
					TCO ₂ eq	6.2													
						5/4"													
Water circuit	Piping				inch	G 5/4" (female)													
	Piping connections diameter				inch														
Power supply	Phase/Frequency/Voltage				Hz/V	1~/50/230												3N~/50/400	

(1) Underfloor program: cooling Ta 35°C - LWE 18°C (Dt: 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (Dt: 5°C)

Air cooled scroll inverter chiller

- › Inverter chiller
- › High part load efficiency for low running cost
- › Minimal starting currents
- › No buffertank required for standard applications
- › Daikin scroll compressor
- › Wide operation range
- › Integrated hydronic module on request



EWAQ-CWN/CWP

BRC21A52

Cooling only				EWAQ-CWN/CWP	016	021	025	032	040	050	064	
Cooling capacity	Nom.			kW	16.8(1)/17.0(2)	21.0(1)/21.2(2)	25.3(1)/25.5(2)	31.6(1)/31.8(2)	42.1(1)/42.3(2)	50.5(1)/50.7(2)	63.2(1)/63.3(2)	
	Max.				20.0(1)/20.2(2)	25.0(1)/25.2(2)	30.1(1)/30.3(2)	37.6(1)/37.8(2)	50.1(1)/50.3(2)	60.1(1)/60.3(2)	75.2(1)/75.3(2)	
Power input	Cooling	Nom.		kW	5.93(1)/5.81(2)	7.61(1)/7.47(2)	9.60(1)/9.45(2)	12.9(1)/12.7(2)	15.1	19.2(1)/19.0(2)	25.7(1)/25.5(2)	
Capacity control	Method	Minimum capacity			Inverter controlled							
					25							
EER					2.84(1)/2.93(2)	2.77(1)/2.84(2)	2.63(1)/2.70(2)	2.45(1)/2.50(2)	2.79(1)/2.80(2)	2.63(1)/2.67(2)	2.46(1)/2.48(2)	
ESEER					4.37(1)/4.85(2)	4.26(1)/4.70(2)	4.17(1)/4.57(2)	3.87(1)/4.10(2)	4.28(1)/4.40(2)	4.18(1)/4.36(2)	3.87(1)/4.05(2)	
Dimensions	Unit	HeightxWidthxDepth			mm	1,684x1,370x774			1,684x1,680x774			1,684x2,360x780
Weight	Unit				kg	268(1)/280(2)	321(1)/332(2)	321(1)/332(2)	403(1)/414(2)	579(1)/604(2)	579(1)/604(2)	741(1)/765(2)
Water heat exchanger	Type				Brazed plate							
	Water flow rate	Cooling	Nom.	l/min	48	60	72	90	120	145	181	
	Water pressure drop	Cooling	Total	kPa	8	10	14	8	10	14	8	
	Water volume				l	3			5			6
Air heat exchanger	Type				Air cooled coil							
Compressor	Type				Hermetically sealed scroll compressor							
	Quantity				1	2		3	4		6	
Fan	Type				Axial							
Sound power level	Cooling	Nom.	dBA		78			80	81		83	
Operation range	Air side	Cooling	Min.~Max.	°CDB	-5~43							
	Water side	Cooling	Min.~Max.	°CDB	-10 ~20							
Refrigerant	Type/GWP				R-410A/2,087.5							
	Control				Electronic expansion valve							
	Circuits	Quantity			1				2			
Refrigerant charge	kg/TCO2Eq				7.60/15.9			9.60/20.0	7.60/15.9		9.60/20.0	
Water circuit	Piping connections diameter				1-1/4" (female)			2" (female)				
	Piping				1-1/4"			1-1/2"				
Unit	Starting current	Max	A		0.0	77.7	78.7	88.7	99.8	101.9	120.7	
	Running current	Max	A		22.2	25.3	26.4	35.2	47.4	49.6	67.2	
Power supply	Phase/Frequency/Voltage				Hz/V	3N~/50/400						

(1) EWAQ-CWN: Version without pump. (2) EWAQ-CWP: Version with pump.



Air cooled multi-scroll chiller, standard efficiency, standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › Compact design
- › Micro channel heat exchanger technology reduces the amount of refrigerant used in the system, lowering environmental impact
- › Partial and total heat recovery option available
- › Stainless steel plate heat exchanger
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAQ-G-SS	075	085	100	110	120	140	155
Cooling capacity	Nom.			kW	74.7	84.2	96.7	107	117	139	154
Power input	Cooling	Nom.		kW	27.7	31.2	35.0	39.5	43.4	51.1	57.2
Capacity control	Method				Step						
	Minimum capacity			%	50	44	50	44	50	43	50
EER					2.70		2.76	2.70		2.73	2.70
ESEER					4.11	4.23	4.04	4.12	3.91	4.20	4.06
IPLV					4.79	4.97	4.78	4.86	4.66	4.92	4.78
Dimensions	Unit	Height		mm	1,800						
		Width		mm	1,195						
		Depth		mm	2,140	2,680			3,200		
Weight	Unit			kg	681	792	923	953	982	1,037	1,066
	Operation weight			kg	692	802	934	963	993	1,054	1,085
Water heat exchanger	Type				Braze plate						
	Water flow rate	Cooling	Nom.	l/s	3.6	4.0	4.6	5.1	5.6	6.7	7.4
	Water pressure drop	Cooling	Nom.	kPa	15.5	27.3	36.9	31.6	36.0	27.5	25.8
	Water volume			l	5.60	4.90			5.60		8.10
Air heat exchanger	Type				Microchannel						
Compressor	Type				Scroll compressor						
	Quantity				2						
Fan	Type				Direct propeller						
	Quantity				4		6			8	
	Air flow rate	Nom.		l/s	6,017	6,444	9,029			12,008	
	Speed			rpm	1,360						
Sound power level	Cooling	Nom.		dBA	83	85	87	89			
Sound pressure level	Cooling	Nom.		dBA	66	68	69	71			
Operation range	Air side	Cooling	Min.~Max.	°CDB	-10~42						
	Water side	Cooling	Min.~Max.	°CDB	-10~15						
Refrigerant	Type / GWP				R-410A / 2,087.5						
	Circuits			Quantity	1						
Refrigerant charge	Per circuit			kg	8.5	10.4	10.7	11.5	12.9	14.1	13.4
				TCO _{2eq}	17.7	21.7	22.3	24.0	26.9	29.4	28.0
Piping connections	Evaporator water inlet/outlet (OD)				2" 1/2						
Unit	Starting current	Max		A	211	262	270	317	325	365	379
	Running current	Cooling	Nom.	A	54	58	62	70	79	89	102
		Max		A	68	74	81	89	97	114	129
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400						

Air cooled multi-scroll chiller, standard efficiency, reduced sound



Cooling only					EWAQ-G-SR	075	085	100	110	120	140	155
Cooling capacity	Nom.			kW	69.3	78.9	91.0	99.7	109	130	143	
Power input	Cooling	Nom.		kW	29.4	33.1	36.8	42.0	46.3	54.0	61.2	
Capacity control	Method				Step							
	Minimum capacity											50
EER					2.36	2.38	2.47	2.38	2.35	2.42	2.34	
ESEER					3.94	4.12	3.94	4.02	3.74	4.12	3.88	
IPLV					4.67	4.85	4.71	4.78	4.50	4.85	4.61	
Dimensions	Unit	Height		mm	1,800							
		Width		mm	1,195							
		Depth		mm	2,140	2,680				3,200		
Weight	Unit			kg	711	822	953	983	1,012	1,067	1,096	
	Operation weight				kg	722	832	964	993	1,023	1,084	1,115
Water heat exchanger	Type				Braze plate							
	Water flow rate	Cooling	Nom.	l/s	3.3	3.8	4.4	4.8	5.2	6.2	6.9	
	Water pressure drop	Cooling	Nom.	kPa	13.3	24.0	32.6	27.6	31.1	24.1	22.2	
	Water volume			l	5.58	4.86			5.60		8.10	9.36
Air heat exchanger	Type				Microchannel							
Compressor	Type				Scroll compressor							
	Quantity				2							
Fan	Type				Direct propeller							
	Quantity				4		6			8		
	Air flow rate	Nom.		l/s	4,523	5,046	6,787			9,023		
	Speed				rpm	1,108						
Sound power level	Cooling	Nom.		dBA	79	82	84	86				
Sound pressure level	Cooling	Nom.		dBA	62	65	66	68				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-10~42							
	Water side	Cooling	Min.~Max.	°CDB	-10~15							
Refrigerant	Type / GWP				R-410A / 2,087.5							
	Circuits				1							
Refrigerant charge	Per circuit			kg	8.5	10.4	10.7	11.5	12.9	14.1	13.4	
				TCO _{2eq}	17.7	21.7	22.3	24.0	26.9	29.4	28.0	
Piping connections	Evaporator water inlet/outlet (OD)				2" 1/2							
Unit	Starting current	Max		A	211	262	270	317	325	365	379	
	Running current	Cooling	Nom.	A	57	61	65	74	84	93	109	
		Max		A	68	74	81	89	97	114	129	
Power supply	Phase/Frequency/Voltage				3~/50/400							

Air cooled multi-scroll chiller, high efficiency, standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › Compact design
- › Micro channel heat exchanger technology reduces the amount of refrigerant used in the system, lowering environmental impact
- › Partial and total heat recovery option available
- › Stainless steel plate heat exchanger
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAQ-G-XS	080	090	105	115	130	150	
Cooling capacity	Nom.			kW	79.8	90.3	105	117	131	149	
Power input	Cooling	Nom.		kW	25.8	29.0	33.8	37.7	42.3	48.1	
Capacity control	Method				Step						
	Minimum capacity				%	50	44	50	44	50	43
EER					3.10	3.11	3.12	3.10			
ESEER					4.20	4.30	4.28	4.34	4.22	4.36	
IPLV					4.82	5.04	4.96	5.02	4.92	5.05	
Dimensions	Unit	Height		mm	1,800				1,820		
		Width		mm	1,195						
		Depth		mm	2,680	3,200			3,800		
Weight	Unit			kg	734	850	987	1,024	1,086	1,123	
	Operation weight			kg	744	860	1,002	1,040	1,102	1,144	
Water heat exchanger	Type				Braze plate						
	Water flow rate	Cooling	Nom.	l/s	3.8	4.3	5.0	5.6	6.3	7.1	
	Water pressure drop	Cooling	Nom.	kPa	25.7	32.7	20.3	19.9	25.4	20.6	
	Water volume			l	5.58	4.86		5.60		8.10	
Air heat exchanger	Type				Microchannel						
Compressor	Type				Scroll compressor						
	Quantity				2						
Fan	Type				Direct propeller						
	Quantity				6		8		10		
	Air flow rate	Nom.		l/s	9,029	9,498	12,008		15,046		
	Speed				rpm	1,360					
Sound power level	Cooling	Nom.		dBA	84	85	87	89		71	
Sound pressure level	Cooling	Nom.		dBA	66	68	69	71			
Operation range	Air side	Cooling	Min.~Max.	°CDB	-10~45						
	Water side	Cooling	Min.~Max.	°CDB	-10~15						
Refrigerant	Type / GWP				R-410A / 2,087.5						
	Circuits				1						
Refrigerant charge	Per circuit			kg	9.1	12.7	13.1	13.2	16.1	15.0	
				TCO _{2eq}	19.0	26.5	27.3	27.6	33.6	31.3	
Piping connections	Evaporator water inlet/outlet (OD)				2" 1/2						
Unit	Starting current	Max		A	213	264	272	319	329	367	
	Running current	Cooling	Nom.	A	52	56	61	69	76	87	
		Max		A	70	75	83	91	101	116	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400						

Air cooled multi-scroll chiller, high efficiency, reduced sound



EWAQ-G-XS/XR

MicroTech III

Cooling only					EWAQ-G-XR	080	090	105	115	130	150	
Cooling capacity	Nom.				kW	76.0	86.0	100	110	125	141	
Power input	Cooling	Nom.			kW	26.4	29.9	34.7	39.0	43.3	49.8	
Capacity control	Method					Step						
	Minimum capacity					50	44	50	44	50	43	
EER						2.88		2.89	2.83	2.88	2.83	
ESEER						4.18	4.29	4.27	4.31	4.21	4.33	
IPLV						4.85	4.99	4.93	4.99	4.89	5.03	
Dimensions	Unit	Height			mm	1,800				1,820		
		Width			mm	1,195						
		Depth			mm	2,680	3,200			3,800		
Weight	Unit				kg	764	880	1,017	1,054	1,116	1,153	
	Operation weight					kg	774	890	1,032	1,070	1,132	1,174
Water heat exchanger	Type					Brazed plate						
	Water flow rate	Cooling	Nom.		l/s	3.6	4.1	4.8	5.3	6.0	6.7	
	Water pressure drop	Cooling	Nom.		kPa	23.3	29.6	18.4	17.8	23.0	18.4	
	Water volume				l	5.58	4.86		5.60		8.10	
Air heat exchanger	Type					Microchannel						
Compressor	Type					Scroll compressor						
	Quantity					2						
Fan	Type					Direct propeller						
	Quantity					6		8		10		
	Air flow rate	Nom.			l/s	6,787	7,356	9,023		11,309		
	Speed					rpm	1,108					
Sound power level	Cooling	Nom.			dBA	80	82	84	86			
Sound pressure level	Cooling	Nom.			dBA	62	65	66	68	67		
Operation range	Air side	Cooling	Min.~Max.		°CDB	-10~45						
	Water side	Cooling	Min.~Max.		°CDB	-10~15						
Refrigerant	Type / GWP					R-410A / 2,087.5						
	Circuits					1						
Refrigerant charge	Per circuit					kg	9.1	12.7	13.1	13.2	16.1	15.0
						TCO _{2eq}	19.0	26.5	27.3	27.6	33.6	31.3
Piping connections	Evaporator water inlet/outlet (OD)					2" 1/2						
Unit	Starting current	Max			A	213	264	272	319	329	367	
	Running current	Cooling	Nom.		A	54	58	63	71	78	90	
		Max			A	70	75	83	91	101	116	
Power supply	Phase/Frequency/Voltage					Hz/V	3~/50/400					

Air cooled multi-scroll chiller, high efficiency, standard/low sound

- › Reliable and efficient scroll compressors with high EER values
- › A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced weight, clearances around the unit
- › **Reduced footprint thanks to the V-shaped frame**
- › Large operation range: ambient temperatures up to 52°C and down to -18°C
- › Ideal solution for **a broad range of comfort and process applications**
- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAQ-E-XS/XL	180	200	230	260	320	340
Cooling capacity	Nom.			kW	178	200	226	263	315	334
Power input	Cooling	Nom.		kW	58.0	65.4	73.8	86.2	103	110
Capacity control	Method				Step					
	Minimum capacity			%	50.0	43.0	50.0	33.0	27.0	33.0
EER					3.06			3.05		
ESEER					4.02	4.11	3.91	4.18	4.17	4.14
IPLV					4.50	4.68	4.51	4.83	4.76	4.66
Dimensions	Unit	Height		mm	2,271				2,447	
		Width		mm	1,224					
		Depth		mm	4,413			5,313		6,213
Weight (XS)	Unit			kg	1,722	1,807	1,871	2,173	2,304	2,492
	Operation weight			kg	1,734	1,819	1,885	2,188	2,318	2,507
Weight (XL)	Unit			kg	1,876	1,965	2,032	2,370	2,507	2,705
	Operation weight			kg	1,889	1,978	2,047	2,385	2,522	2,719
Water heat exchanger	Type				Plate heat exchanger					
	Water flow rate	Cooling	Nom.	l/s	8.5	9.6	10.8	12.6	15.1	16.0
	Water pressure drop	Cooling	Nom.	kPa	27	34	35	47		54
	Water volume			l	12			14		
Air heat exchanger	Type				High efficiency fin and tube type					
Compressor	Type				Scroll compressor					
	Quantity				2			3		
Fan	Type				Direct propeller					
	Quantity				4		5		6	
	Air flow rate	Nom.		l/s	21,845	21,148	26,874	25,884	32,953	32,065
	Speed			rpm	900					
Sound power level (XS)	Cooling	Nom.		dBA	93	94	96	95	96	97
Sound power level (XL)	Cooling	Nom.		dBA	91	92	93	92	93	94
Sound pressure level (XS)	Cooling	Nom.		dBA	75	76			77	
Sound pressure level (XL)	Cooling	Nom.		dBA	73				74	
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~52					
	Water side	Cooling	Min.~Max.	°CDB	-13~18					
Refrigerant	Type / GWP				R-410A / 2,087.5					
	Circuits	Quantity			1					
Refrigerant charge (XS)	Per circuit			kg	24.0	31.0	27.0	40.0	43.0	53.0
				TCO _{2eq}	50.1	64.7	56.4	83.5	89.8	110.6
Refrigerant charge (XL)	Per circuit			kg	28	31	27	40	43	53
				TCO _{2eq}	58.5	64.7	56.4	83.5	89.8	110.6
Piping connections	Evaporator water inlet/outlet (OD)				3"					
Unit	Starting current	Max		A	445	557	576		639	653
	Running current	Cooling	Nom.	A	103	115	129	151	179	190
		Max		A	137	151	170	200	233	248
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Air cooled multi-scroll chiller, high efficiency, reduced sound



EWAQ-E-XS/XL/XR

MicroTech III

Cooling only					EWAQ-E-XR	170	190	220	260	300	320
Cooling capacity	Nom.				kW	172	186	219	254	302	303
Power input	Cooling	Nom.			kW	56.5	64.4	71.8	85.4	102	109
Capacity control	Method					Step					
	Minimum capacity				%	50.0	43.0	50.0	33.0	27.0	33.0
EER						3.05	2.98	3.05	2.97	2.96	2.78
ESEER						4.45	4.57	4.33	4.65	4.62	4.50
IPLV						5.09	5.00	4.90	5.04	5.07	5.20
Dimensions	Unit	Height			mm	2,271				2,447	
		Width			mm	1,224					
		Depth			mm	4,413		5,313		6,213	
Weight	Unit				kg	1,970	2,064	2,134	2,489	2,632	2,840
	Operation weight				kg	1,982	2,076	2,148	2,503	2,647	2,855
Water heat exchanger	Type					Plate heat exchanger					
	Water flow rate	Cooling	Nom.		l/s	8.2	8.9	10.5	12.1	14.5	
	Water pressure drop	Cooling	Nom.		kPa	26	37	33	44	43	50
	Water volume				l	12		14			
Air heat exchanger	Type					High efficiency fin and tube type					
Compressor	Type					Scroll compressor					
	Quantity					2			3		
Fan	Type					Direct propeller					
	Quantity					4		5		6	
	Air flow rate	Nom.			l/s	16,743	16,285	20,618	20,056	25,243	24,604
	Speed				rpm	705					
Sound power level	Cooling	Nom.			dBA	85	86	87	86	88	89
Sound pressure level	Cooling	Nom.			dBA	66	67	68	67	68	69
Operation range	Air side	Cooling	Min.~Max.		°CDB	-18~52					
	Water side	Cooling	Min.~Max.		°CDB	-13~18					
Refrigerant	Type / GWP					R-410A / 2,087.5					
	Circuits					1					
Refrigerant charge	Per circuit				kg	24.0	31.0	27.0	40.0	43.0	53.0
					TCO _{2eq}	50.1	64.7	56.4	83.5	89.8	110.6
Piping connections	Evaporator water inlet/outlet (OD)					3"					
Unit	Starting current	Max			A	439	551	569		630	644
	Running current	Cooling	Nom.		A	101	113	126	150	178	189
		Max			A	131	145	162	193	224	239
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400					

Air cooled multi-scroll chiller, standard efficiency, standard/low sound

- › Reliable and efficient scroll compressors with high EER values
- › A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced weight, clearances around the unit
- › **2 truly independent refrigerant circuits**
- › Reduced footprint thanks to the **V-shaped frame** (EWAQ210-350/400F-SS/SL & EWAQ200-330/370F-SR)
- › Large operation range: ambient temperatures up to 52°C and down to -18°C
- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost
- › Ideal solution for a broad range of comfort and process applications
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAQ-F-SS/SL	210	230	250	280	320	350	360	400	410	480	550	610	
Cooling capacity	Nom.			kW	206	224	247	283	313	359		423	407	480	551	609	
Power input	Cooling	Nom.		kW	73.3	84.9	93.6	109	122	141		154		187	207	229	
Capacity control	Method				Step												
	Minimum capacity			%	25.0	22.0	25.0	23.0	25.0	21.0		25.0		17.0	14.0	17.0	
EER					2.81	2.64		2.60	2.58	2.55		2.75	2.64	2.57	2.67	2.66	
ESEER					3.79	3.77	3.81	3.74	3.78	3.73	4.02	3.74	4.04	4.13	4.05	4.08	
IPLV					4.50	4.45	4.50	4.44	4.53	4.29	4.41	4.30	4.46	4.55	4.63	4.72	
Dimensions	Unit	Height		mm	2,271						2,221	2,447	2,397	2,221			
		Width		mm	1,224						2,258	1,224	2,258				
		Depth		mm	4,413			5,313		6,213	3,210	6,213	3,210	4,110	5,010		
Weight (SS)	Unit			kg	2,058		2,130	2,202	2,284	2,409	2,509	2,659	2,759	2,990	3,336	3,558	
	Operation weight			kg	2,070		2,142	2,216	2,298	2,424	2,524	2,699	2,799	3,036	3,382	3,604	
Weight (SL)	Unit			kg	2,297		2,373	2,449	2,535	2,666	2,766	2,968	3,068	3,315	3,679	3,912	
	Operation weight			kg	2,309		2,385	2,463	2,549	2,681	2,781	3,008	3,108	3,362	3,725	3,958	
Water heat exchanger	Type				Plate heat exchanger												
	Water volume			l	12			14			40			46			
	Water flow rate	Cooling	Nom.	l/s	9.9	10.7	11.8	13.6	15.0	17.2		20.3	19.5	23.0	26.4	29.2	
	Water pressure drop	Cooling	Nom.	kPa	37	43	53	56	69	30		27	32	35	46	56	
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler												
Compressor	Type				Scroll compressor												
	Quantity				4										6		
Fan	Type				Direct propeller												
	Quantity				4			5		6			8		10		
	Air flow rate	Nom.		l/s	21,845		21,148	27,306	26,435	32,767		36,265	32,513	43,690	54,612	52,870	
	Speed			rpm	900					980			900				
Sound power level (SS)	Cooling	Nom.		dBA	93	94	95			97					99		
Sound power level (SL)	Cooling	Nom.		dBA	91	92		93			94				95	96	
Sound pressure level (SS)	Cooling	Nom.		dBA	75			76			77	78			79		
Sound pressure level (SL)	Cooling	Nom.		dBA	73					74	75	74	75			76	
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~-18												
	Air side	Cooling	Min.~Max.	°CDB	-18~-52												
Refrigerant	Type / GWP				R-410A / 2,087.5												
	Circuits	Quantity			2												
Refrigerant charge	Per circuit			kg	14.0		15.5	16.5	20.0	23.0		27.0	28.0	32.5	40.0		
		TCO ₂ eq	29.2		32.4	34.4	41.8	48.0		56.4	58.5	67.8	83.5				
Piping connections	Evaporator water inlet/outlet (OD)				3"												
Unit	Maximum starting current				A	349	404	419	476	505	621	649	634	768	810		
	Nominal running current (RLA)				Cooling	A	130	147	161	187	208	242	259	262	322	356	391
	Maximum running current				A	160	176	191	225	254	286	314	383	433	474		
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400											

Air cooled multi-scroll chiller, standard efficiency, reduced sound



EWAQ-F-SS/SL/SR

MicroTech III

Cooling only				EWAQ-F-SR	200	220	240	270	300	330	340	370	380	460	530	580
Cooling capacity	Nom.			kW	198	214	235	270	298	341		383		456	527	580
Power input	Cooling	Nom.		kW	73.4	86.0	95.6	110	125	144		159		191	208	233
Capacity control	Method				Step											
	Minimum capacity			%	25.0	22.0	25.0	23.0	25.0	21.0		25.0		17.0	14.0	17.0
EER					2.70	2.49	2.46	2.45	2.38	2.37		2.41		2.39	2.53	2.49
ESEER					4.27	4.20	4.13	4.16	4.08	4.10	4.27	4.03	4.16	4.53	4.49	4.43
IPLV					4.96	4.89	4.82	4.92	4.85	4.71	4.86	4.61	4.73	5.09	5.00	4.93
Dimensions	Unit	Height		mm	2,271						2,221	2,447	2,397	2,221		
		Width		mm	1,224						2,258	1,224	2,258			
		Depth		mm	4,413			5,313		6,213	3,210	6,213	3,210	4,110	5,010	
Weight	Unit			kg	2,412		2,491	2,571	2,661	2,799	2,899	3,116	3,216	3,481	3,863	4,108
	Operation weight			kg	2,424		2,504	2,585	2,676	2,814	2,914	3,156	3,256	3,527	3,909	4,154
Water heat exchanger	Type				Plate heat exchanger											
	Water volume			l	12			14			40			46		
	Water flow rate	Cooling	Nom.	l/s	9.5	10.2	11.3	13.0	14.3	16.3		18.3		21.8	25.2	27.8
	Water pressure drop	Cooling	Nom.	kPa	34	40	48	51	63	27		29		31	42	51
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler											
Compressor	Type				Scroll compressor											
	Quantity				4									6		
Fan	Type				Direct propeller											
	Quantity				4			5		6				8	10	
	Air flow rate	Nom.		l/s	16,743		16,285	20,929	20,356	25,115		24,922		33,487	41,858	40,713
	Speed			rpm	705											
Sound power level	Cooling	Nom.		dBA	85	86	87		89			90		89	91	92
Sound pressure level	Cooling	Nom.		dBA	66	67	68		69			70	71	70	71	72
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~-18											
	Air side	Cooling	Min.~Max.	°CDB	-18~-52											
Refrigerant	Type / GWP				R-410A / 2,087.5											
	Circuits	Quantity			2											
Refrigerant charge	Per circuit			kg	16.0		18.0	19.0	20.0	23.0		27.0		28.0	32.5	40.0
				TCO _{eq}	33.4		37.6	39.7	41.8	48.0		56.4		58.5	67.8	83.5
Piping connections	Evaporator water inlet/outlet (OD)				3"											
Unit	Maximum starting current			A	344	398	414	469	498	613		641		623	754	796
	Nominal running current (RLA)			Cooling	A	129	149	164	189	214	247		270	328	359	398
	Maximum running current			A	155	170	186	218	247	277		305		372	419	460
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Air cooled multi-scroll chiller, high efficiency, standard/low sound

- › Reliable and efficient scroll compressors with **high EER values**
- › A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced weight, clearances around the unit
- › **2 truly independent refrigerant circuits**
- › Reduced footprint thanks to the **V-shaped frame** (EWAQ170-310/350F-XS/XL & EWAQ170-300/330F-XR)
- › Large operation range: ambient temperatures up to 52°C and down to -18°C
- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost
- › Ideal solution for a broad range of comfort and process applications
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAQ-F-XS/XL		170	200	220	250	310	320	350	360	400	430	450	520	610	680	
Cooling capacity	Nom.			kW	170	194	220	244		316	320	356		403	428	457	528	607	672	
Power input	Cooling	Nom.		kW	54.8	62.2	70.6	78.3		102		115	130	137	146	170	198	219		
Capacity control	Method				Step															
	Minimum capacity			%	25.0	21.0	25.0	22.0	23.0			25.0		21.0	20.0	25.0	17.0	14.0	17.0	
EER					3.11	3.13	3.12		3.09				3.10		3.12		3.10	3.07		
ESEER					3.90	4.10	3.95	4.08	4.04	4.30	4.05	4.33	4.24	4.27	4.23	4.35	4.30	4.23		
IPLV					4.56	4.76	4.67	4.70	4.67	4.60	4.64	4.80	4.72	4.65	4.61	4.95	4.82	4.68		
Dimensions	Unit	Height	mm	2,271						2,221	2,271	2,221								
		Width	mm	1,224						2,258	1,224	2,258								
		Depth	mm	4,413				5,313		6,213	3,210	6,213	3,210	4,110		5,010		5,910		
Weight (XS)	Unit		kg	1,688	1,958	2,210	2,339	2,500	2,600	2,632	2,732	2,744	2,845	2,861	3,569	3,667	4,054			
	Operation weight		kg	1,700	1,973	2,225	2,353	2,514		2,672	2,772	2,784	2,891	2,907	3,615	3,727	4,115			
Weight (XL)	Unit		kg	1,909	2,193	2,457	2,592	2,761	2,861	2,900	3,000	3,017	3,124	3,141	3,923	4,026	4,434			
	Operation weight		kg	1,921	2,207	2,472	2,607	2,776	2,876	2,940	3,040	3,057	3,170	3,187	3,970	4,087	4,494			
Water heat exchanger	Type				Plate heat exchanger															
	Water volume		l	12	14						40				46			60		
	Water flow rate	Cooling	Nom.	l/s	8.2	9.3	10.5	11.7	15.1		17.0		19.3	20.5	21.8	25.3	29.0	32.2		
	Water pressure drop	Cooling	Nom.	kPa	25	27	34	42	22		23		31	29	30	41	44	55		
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler															
Compressor	Type				Scroll compressor															
	Quantity				4												6			
Fan	Type				Direct propeller															
	Quantity				4			5		6			8			10		12		
	Air flow rate	Nom.		l/s	21,845	21,148	26,874	25,204	31,722		30,245		42,296	40,326		50,408		60,489		
	Speed				rpm	900														
Sound power level (XS)	Cooling	Nom.		dBA	91	93	94	95	96				97	98			99	100		
Sound power level (XL)	Cooling	Nom.		dBA	90	91	92		93				95			96			97	
Sound pressure level (XS)	Cooling	Nom.		dBA	72	74	75	76		77	76	77	78		79	78	79			
Sound pressure level (XL)	Cooling	Nom.		dBA	71	73			74				75			76				
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18															
	Air side	Cooling	Min.~Max.	°CDB	-18~52															
Refrigerant	Type / GWP				R-410A / 2,087.5															
	Circuits	Quantity				2														
Refrigerant charge	Per circuit			kg	14.0	15.5	16.5	20.0	26.0				31.0			37.0	36.0	41.5		
				TCO _{eq}	29.2	32.4	34.4	41.8	54.3				64.7			77.2	75.2	86.6		
Piping connections	Evaporator water inlet/outlet (OD)				3"															
Unit	Maximum starting current			A	281	338	353	408	480			509		629	643	657	642	768	818	
	Nominal running current (RLA)			Cooling	A	110	117	128	141	181			202		229	240	254	300	343	379
	Maximum running current			A	138	149	164	180	229			258		294	308	322	391	433	482	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															

Air cooled multi-scroll chiller, high efficiency, reduced sound



Cooling only				EWAQ-F-XR	170	190	210	240	300	310	330	340	390	410	430	500	580	650	
Cooling capacity	Nom.			kW	165	188	211	236	304			340	385	407	433	502	579	645	
Power input	Cooling	Nom.		kW	53.0	61.2	68.7	77.3	101			117	128	136	146	170	200	219	
Capacity control	Method				Step														
	Minimum capacity			%	25.0	21.0	25.0	22.0	23.0		25.0		21.0	20.0	25.0	17.0	14.0	17.0	
EER					3.12	3.07	3.08	3.05	3.00		2.92		3.01	2.99	2.96		2.90	2.95	
ESEER					4.53	4.64	4.51	4.60	4.53	4.68	4.44	4.63	4.68	4.64	4.54	4.82	4.69	4.65	
IPLV					5.25	5.04	5.19	5.27	5.04	5.16	5.01	4.89	5.04	4.90	4.99	5.13	5.15	5.18	
Dimensions	Unit	Height	mm	2,271					2,221	2,271	2,221								
		Width	mm	1,224					2,258	1,224	2,258								
		Depth	mm	4,413			5,313		6,213	3,210	4,110			5,010			5,910		
Weight	Unit			kg	2,004	2,303	2,580	2,722	2,900	3,000	3,045	3,145	3,168	3,280	3,298	4,120	4,228	4,655	
	Operation weight			kg	2,017	2,317	2,594	2,736	2,914	3,014	3,085	3,185	3,208	3,326	3,344	4,166	4,288	4,716	
Water heat exchanger	Type				Plate heat exchanger														
	Water volume			l	12	14					40			46			60		
	Water flow rate	Cooling	Nom.	l/s	7.9	9.0	10.1	11.3	14.5		16.3		18.4	19.5	20.7	24.0	27.7	30.9	
	Water pressure drop	Cooling	Nom.	kPa	24	25	31	39	21				28	26	27	38	40	51	
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler														
Compressor	Type				Scroll compressor														
	Quantity				4											6			
Fan	Type				Direct propeller														
	Quantity				4		5		6			8			10			12	
	Air flow rate	Nom.	l/s	16,743	16,285	20,618	19,522	24,428		23,426		32,570	31,235		39,044		46,852		
	Speed			rpm	705														
Sound power level	Cooling	Nom.		dBA	83	84	85	86	87			89		90	89	90	92		
Sound pressure level	Cooling	Nom.		dBA	64	65	66	67		68	67	68	69	70		69	70	71	
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~-18														
	Air side	Cooling	Min.~Max.	°CDB	-18~-52														
Refrigerant	Type / GWP				R-410A / 2,087.5														
	Circuits			Quantity	2														
Refrigerant charge	Per circuit			kg	14.0	15.5	16.5	20.0	24.0	26.0			31.0			35.0	36.0	41.5	
				TCO ₂ eq	29.2	32.4	34.4	41.8	50.1	54.3			64.7			73.1	75.2	86.6	
Piping connections	Evaporator water inlet/outlet (OD)				3"														
Unit	Maximum starting current			A	276	332	346	401	472		501		618	632	646	628	754	801	
	Nominal running current (RLA)			Cooling	A	107	116	125	139	180		204		226	239	255	300	347	380
	Maximum running current			A	132	143	157	173	220		249		283	296	310	377	419	465	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400														

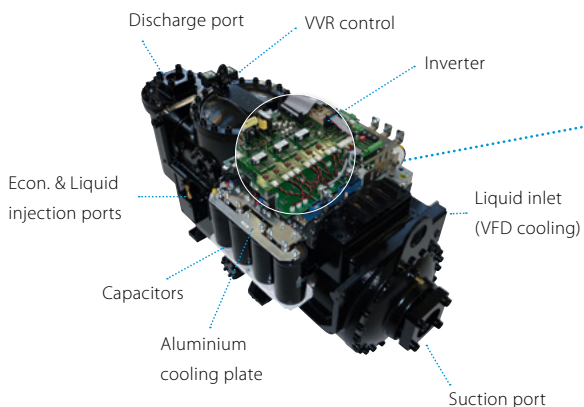
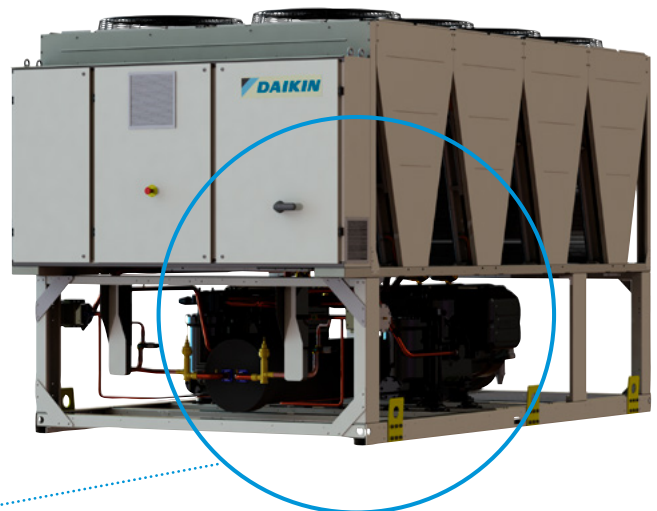
EWAD-TZB screw inverter chiller High efficiency in comfort and process cooling



Over 1,000 sites around the world with screw chillers installed is demonstrating that we will never stop developing the most advanced technology with highest quality level to offer the best chiller experience to our customers.

EWAD-TZB at a glance

- › Full inverter air cooled chiller
- › Capacity range from 170 up to 1,100 kW
- › Daikin single screw compressor with integrated inverter and variable volume ratio
- › Best efficiency at full load and part load conditions



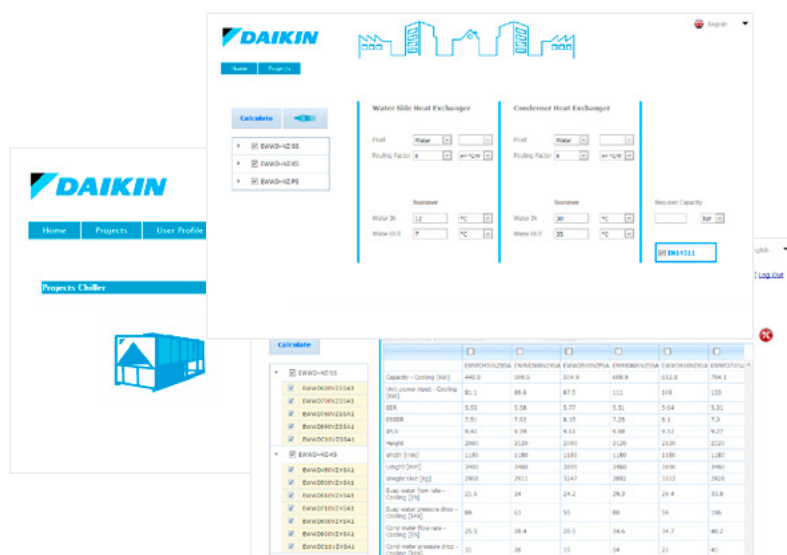
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Why choose EWAD-TZB?

High efficiencies both at full load and part load: ESEER up to 5.5 & EER up to 3.6

- › Daikin compressor with in-built inverter and Variable Volume Ratio (VVR) for optimized efficiency
- › In-house developed software with dynamic condensing pressure management and innovative economizer control logic

Rapid return on investment

- › Payback of three years, compared to a non-inverter unit for comfort cooling applications
- › Less than one year a for process cooling applications

Perfect comfort level

- › Infinitely variable load regulation
- › Precise leaving water temperature control thanks to stepless regulation

Compact design

- › More compact heat exchanger with superior efficiencies
- › Reduced electrical panel dimensions thanks to the inverter compressor mounted

Lowest sound levels

- › Down to 87 dB(A) sound power at full load and even lower at part load thanks to fans and compressors variable speed
- › Quiet compressor thanks to special acoustic executions
- › Unique Daikin fans design with reduced noise impact and vibrations

Unrivalled and proven reliability

- › Extensive testing of chillers and components in laboratories, Daikin factories and selected job sites - even at extreme working conditions
- › Reduced energy demand without compromising on reliability and performance

Extensive option list

More than 60 different options are available to fit the EWAD-TZ B chiller to fit to your requirements:

- › Rapid restart after power failure
- › Variable speed water pumps to optimise the working efficiency
- › Total heat recovery: 80 to 85% of the total heat rejection of the chiller can be recovered
- › Partial heat recovery: 15 to 20% of the total heat rejection of the chiller can be recovered
- › Refrigerant leak detection

Air cooled screw inverter chiller, standard efficiency, standard sound

- › Optimized energy efficiency both at full and part load conditions
- › Inverter stepless single-screw compressor
- › Advanced compressor technology featuring integrated inverter and variable volume ratio (VVR)
- › Compact design for small footprint and minimized installation space
- › Low operating sound levels are achieved by the latest compressor and fan design
- › One or two truly independent refrigerant circuits for outstanding reliability

Cooling only				EWAD-TZSSB/SLB		160	190	240	270	300	360	380	450	495	570	610	660	700	820	900	990	C10	C11						
Cooling capacity	Nom.			kW	169	201	235	269	306	351	395	456	500	570	612	661	701	816	890	987	1,045	1,104							
Power input	Cooling	Nom.		kW	56.5	69.9	83.0	89.9	108	119	139	163	174	198	217	239	249	257.9	296.1	321.3	364.4	366.2							
Capacity control	Method				Stepless																								
	Minimum capacity			%	37	31	34	29	25	24	16	17	16	14	13	12	10												
EER					2.99	2.87	2.83	2.99	2.82	2.95	2.83	2.78	2.86	2.88	2.81	2.76	2.81	3.164	3.005	3.072	3.017	3.015							
ESEER					4.37	4.46	4.30	4.40	4.42	4.50	4.46	4.44	4.49	4.54	4.59	4.63	4.70	4.43	4.44			4.51							
IPLV					5.30	5.27	5.04	5.19	5.37	5.53	5.34	5.30	5.46	5.64	5.62	5.70	5.29	5.26	5.25	5.26	5.27								
Dimensions	Unit	Height	mm	2,483														2,482											
		Width	mm	2,258																									
		Depth	mm	2,283				3,183				4,083				4,983				5,883				6,783				7,783	8,820
Weight (SSB)	Unit			kg	2,066	2,091	2,149	2,375	2,422	2,771	4,044	4,060	4,317	4,603	4,780	4,804	5,074	6,249	6,147	6,542	6,897	7,207							
	Operation weight		kg	2,086	2,117	2,187	2,401	2,460	2,821	4,202	4,224	4,475	4,761	5,050	5,059	5,329	6,532	6,632	7,027	7,382	7,660								
Weight (SLB)	Unit			kg	2,081	2,106	2,164	2,390	2,437	2,786	4,074	4,090	4,347	4,633	4,810	4,834	5,104	6,249	6,147	6,542	6,897	7,207							
	Operation weight		kg	2,101	2,132	2,202	2,416	2,475	2,836	4,232	4,254	4,505	4,791	5,080	5,089	5,359	6,532	6,632	7,027	7,382	7,660								
Water heat exchanger	Type				Plate heat exchanger								Single pass shell & tube																
	Water flow rate	Cooling	Nom.	l/s	8.1	9.6	11.2	12.9	14.6	16.8	18.9	21.8	23.9	27.3	29.3	31.6	33.5	39.1	42.6	47.2	50	52.8							
	Water pressure drop	Cooling	Nom.	kPa	25.0	19.3	15.4	32.6	25.2	25.9		32.4	44.0	55.7	38.8	32.3	36.0	52.6	36.9	42.2	46.6	37.3							
	Water volume				l	20	26	37	26	37	50	158	164	158		270	255	283	485		453								
Air heat exchanger	Type				Microchannel																								
Compressor	Type				Inverter driven single screw compressor																								
	Quantity				1								2																
Fan	Type				Direct propeller																								
	Quantity				4				6				8				10		12				14				16	18	20
	Air flow rate	Cooling	Nom.	l/s	15,109				22,664				30,219				37,774				45,328				52,883	69,177	79,060	88,942	98,825
	Speed				rpm	700																	900						
Sound power level (SSB)	Cooling	Nom.		dBA	96				97	98	99				100	101	102	105	102				103						
Sound pressure level (SSB)	Cooling	Nom.		dBA	77				78				79				80				82	84	81						
Sound power level (SLB)	Cooling	Nom.		dBA	90	90.5		91.5	92.5	93.5				94	94.5	95.5	96.5	98.5	99.0				100.0						
Sound pressure level (SLB)	Cooling	Nom.		dBA	71	72			73	74						75			76	77	78								
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~47																	-18~45							
	Water side	Cooling	Min.~Max.	°CDB	-8~18																	-15~20							
Refrigerant	Type				R-134a																								
	Circuits	Quantity				1								2															
	GWP				1,430																								
Refrigerant charge	Per circuit			kg	27	29	33	38	41	52	29	29.5	34	37.5	38.5	41.5	45	45.5		52	58.5	65							
		TCO _{2eq}	39	41	47	54	59	74	41	42	49	54	55.0	59	64	65.065		74.36	83.655	92.95									
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm		114.3mm				139.7mm				168.3mm				6"	8"									
Unit	Starting current	Max			A	0																		-					
	Running current	Cooling	Nom.	A	102	123	188	177	188	200	246	372	366	361	377	396	414	429	501	528	563	597							
		Max			A	130	149	160	187	220	246	298	320	350	374	439	466	486	537	599	652	708	768						
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																								

Air cooled screw inverter chiller, standard efficiency, reduced sound



Cooling only				EWAD-TZSRB	160	190	240	270	300	360	380	450	495	570	610	660	700	820	900	990	C10	C11									
Cooling capacity	Nom.			kW	169	201	235	269	306	351	394	455	499	569	610	659	700	800	895	956	1,013	1,067									
Power input	Cooling	Nom.		kW	56.5	69.9	83	89.9	108	119	140	164	175	199	218	240	250	247.8	294.1	316	335.6	358.9									
Capacity control	Method			Stepless																											
	Minimum capacity			%	37	31	34	29	25	24	16	17	16	14	13	12		10													
EER					2.99	2.87	2.83	2.99	2.82	2.95	2.81	2.76	2.85	2.86	2.80	2.74	2.80	3.229	3.043	3.016	3.018	2.973									
ESEER					4.37	4.46	4.30	4.40	4.42	4.50	4.44	4.43	4.47	4.53	4.61	4.60	4.68	4.8	4.85	4.83	4.98										
IPLV					5.30	5.27	5.04	5.19	5.37	5.53	5.30	5.26	5.43	5.60	5.61	5.60	5.67	5.92	5.74	5.77	5.75	5.86									
Dimensions	Unit	Height		mm	2,483													2,482													
		Width		mm	2,258																										
		Depth		mm	2,283			3,183			4,083			4,983		5,883		6,783		7,783		8,820		9,591		10,461					
Weight	Unit			kg	2,166	2,191	2,249	2,475	2,522	2,871	4,244	4,260	4,517	4,803	4,980	5,004	5,274	6,964	6,862	7,217	7,495	7,820									
	Operation weight			kg	2,186	2,217	2,287	2,501	2,560	2,921	4,402	4,424	4,675	4,961	5,250	5,259	5,529	7,247	7,347	7,702	7,980	8,273									
Water heat exchanger	Type			Plate heat exchanger																											
	Water flow rate	Cooling	Nom.	l/s	8.1	9.6	11.2	12.9	14.6	16.8	18.8	21.7	23.9	27.2	29.2	31.5	33.5	38.3	42.8	45.7	48.5	51									
	Water pressure drop	Cooling	Nom.	kPa	25.0	19.3	15.4	32.6	25.2	25.9	25.8	32.2	43.9	55.5	38.6	32.2	35.9	52.1	36.3	41	45.6	36.3									
	Water volume			l	20	26	37	26	37	50	158	164	158		270	255		283	485		453										
Air heat exchanger	Type			Microchannel																											
Compressor	Type			Inverter driven single screw compressor																											
	Quantity			1								2																			
Fan	Type			Direct propeller																											
	Quantity			4				6			8			10		12			14		16		18		20		22				
	Air flow rate	Cooling	Nom.	l/s	15,109				22,664			30,219		29,650			36,920		44,475			51,745		59,299		66,570		74,124		81,394	
	Speed			rpm	700																										
Sound power level	Cooling	Nom.		dBA	86	87		88			90				91		92		94			95									
Sound pressure level	Cooling	Nom.		dBA	67	68			69		70	70	70				71		73												
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~47																										
	Water side	Cooling	Min.~Max.	°CDB	-8~18																										
Refrigerant	Type			R-134a																											
	Circuits		Quantity	1								2																			
	GWP			1,430																											
Refrigerant charge	Per circuit			kg	27	29	33	38	41	52	29	29.5	34	37.5	38.5	41.5	45	52	58.5	65	71.5										
				TCO ₂ eq	39	41	47	54	59	74	41	42	49	54	55	59	64	74.36	83.655	92.95	102.245										
Piping connections	Evaporator water inlet/outlet (OD)			88.9mm				114.3mm				139.7mm				168.3mm				6"		8"									
Unit	Starting current		Max	A	0																										
	Running current		Cooling	Nom.	A	102	123	188	177	188	200	247	374	368	363	378	398	416	422	496	530	561	599								
			Max	A	130	149	160	187	220	246	298	320	350	374	439	466	486	523	585	635	688	745									
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																										

Air cooled screw inverter chiller, high efficiency, low sound

- › High energy efficiency both at full and part load conditions
- › Inverter stepless single-screw compressor with DC electrical motor
- › Advanced compressor technology featuring integrated inverter and variable volume ratio (VVR)
- › Continuous fans speed modulation thanks to inverter driven fans to improve part load efficiency
- › Compact design for small footprint and minimized installation space
- › Low operating sound levels are achieved by the latest compressor and fan design
- › One or two truly independent refrigerant circuits for outstanding reliability

Cooling only				EWAD-TZXLB/XSB				190	220	240	290	320	360	420	450	540	570	610	660	680	770	850	910	C10	C11
Cooling capacity	Nom.			kW	180	211	240	277	313	361	417	473	529	563	599	639	678	764	850	912	1,001	1,045			
Power input	Cooling	Nom.		kW	52.1	63.2	72.5	83.9	100	109	132	144	163	181	191	202	219	226.5	266.1	275.8	303.4	320.1			
Capacity control	Method				Stepless																				
	Minimum capacity			%	34	29	34	29	25	17	16	17	16	15	14	13		10							
EER					3.46	3.34	3.30	3.13	3.30	3.16	3.26	3.24	3.11	3.13	3.16	3.09	3.374	3.195	3.306	3.3	3.265				
ESEER					5.11	5.06	4.99	5.09	5.13	5.14	5.09	5.00	5.07	5.11	5.15		5.09		5.13	5.15	5.22				
IPLV					6.26	6.15	6.19	6.17	6.40	6.30	6.22	6.29	6.31	6.25	6.21	6.26	6.08	6.19	6.29	6.24					
Dimensions	Unit	Height		mm	2,483																				
		Width		mm	2,258																				
		Depth		mm	3,183				4,083		4,983		5,883		6,783		7,683		7,783		8,820	9,591	10,461		
Weight (XSB)	Unit			kg	2,377	2,424	2,436	2,785	4,322	4,632	4,830	5,102	5,455	5,626	6,542	6,897	7,175	7,500							
	Operation weight			kg	2,403	2,462	2,474	2,835	4,480	4,790	5,085	5,357	5,710	6,927	7,027	7,382	7,660	7,953							
Weight (XLB)	Unit			kg	2,362	2,409	2,421	2,770	4,292	4,602	4,800	5,072	5,425	6,626	6,542	6,897	7,175	7,500							
	Operation weight			kg	2,388	2,447	2,459	2,820	4,450	4,760	5,055	5,327	5,680	6,927	7,027	7,382	7,660	7,953							
Water heat exchanger	Type				Plate heat exchanger								Single pass shell & tube								Shell and tube				
	Water flow rate	Cooling	Nom.	l/s	8.6	10.1	11.5	13.2	15.0	17.3	20.0	22.6	25.3	27.0	28.7	30.6	32.4	36.6	40.7	43.6	47.9	50			
	Water pressure drop	Cooling	Nom.	kPa	16.4	13.2	16.2	17.1	21.0	34.3	31.2	39.7	36.7	41.1	27.1	30.5	33.3	40.5	33.5	37.5	42.4	34.3			
	Water volume			l	26	37		50		158			255				301		485		453				
Air heat exchanger	Type				Microchannel																				
Compressor	Type				Inverter driven single screw compressor																				
	Quantity				1								2												
Fan	Type				Direct propeller																				
	Quantity				6				8		10		12		14		16				18	20	22		
	Air flow rate	Nom.		l/s	22,664				30,219		37,774		45,328				52,883		60,438				67,993	75,547	83,102
	Speed			rpm	700																				
Sound power level (XSB)	Cooling	Nom.		dBA	91	91.5	91	91.5	92.5	93.5	94		94.5		95	95.5		97							
Sound pressure level (XSB)	Cooling	Nom.		dBA	72				73		74	73		74				75							
Sound power level (XLB)	Cooling	Nom.		dBA	96	97	96	97	98	99				100		101				102					
Sound pressure level (XLB)	Cooling	Nom.		dBA	77				78		79				80				79						
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50																				
	Water side	Cooling	Min.~Max.	°CDB	-8~18													-15~20							
Refrigerant	Type				R-134a																				
	Circuits	Quantity			1								2												
	GWP				1,430																				
Refrigerant charge	Per circuit			kg	36.0	39	40	51	32	37	40	44.5	48	52	58.5	65	71.5								
				TCO _{eq}	51	56	57	73	46	53	57	64	69	74.36	83.655	92.95	102.245								
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm		114.3mm			139.7mm			168.3mm				6"		8"						
Unit	Starting current	Max		A	0																				
	Running current	Cooling	Nom.	A	110	113	186	192	225	231	371.0	383	392	390	387	395	394	451	469	500	537				
		Max		A	130	149	166	198	225	256	292	333	358	385	417	450	478	508	562	590	640	694			
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																				

Air cooled screw inverter chiller, high efficiency, reduced sound



Cooling only				EWAD-TZXR		190	220	240	290	320	360	420	450	540	570	610	660	680	770	850	910	C10	C11		
Cooling capacity	Nom.			kW	180	211	240	277	313	360	417	472	528	562	599	639	677	764	850	912	1,001	1,045			
Power input	Cooling	Nom.		kW	52.1	63.2	72.5	83.9	100	109	132	145	164	181	192	203	220	226.5	266.8	275.4	303.1	320.6			
Capacity control	Method				Stepless																				
	Minimum capacity			%	34	29	34	29	25	17	16	17	16	15	14	13			10						
EER					3.46	3.34	3.30		3.13	3.29	3.16	3.24	3.22	3.09	3.11	3.15	3.07	3.373	3.186	3.311	3.302	3.26			
ESEER					5.11	5.06	4.99	5.09	5.13	5.12	5.09	4.99	5.04	5.05	5.13		5.07	5.09	5.13	5.15	5.22				
IPLV					6.26	6.15	6.19	6.17		6.37	6.30	6.20		6.26	6.27	6.24	6.18	6.26	6.08	6.19	6.29	6.24			
Dimensions	Unit	Height		mm	2,483																2,482				
		Width		mm	2,258																				
		Depth		mm	3,183				4,083		4,983		5,883			6,783		7,683		7,783		8,820	9,591	10,461	
Weight	Unit			kg	2,462	2,509	2,521	2,870		4,492	4,802	5,000		5,272	5,625	6,946	6,862	7,217	7,495	7,820					
	Operation weight		kg	2,488	2,547	2,559	2,920		4,650	4,960	5,255		5,527	5,880	7,247	7,347	7,702	7,980	8,273						
Water heat exchanger	Type				Plate heat exchanger						Single pass shell & tube						Shell and tube								
	Water flow rate		Cooling	Nom.	l/s	8.6	10.1	11.5	13.2	15.0	17.2	20.0	22.6	25.3	26.9	28.6	30.5	32.4	36.6	40.7	43.6	47.9	50.0		
	Water pressure drop		Cooling	Nom.	kPa	16.4	13.2	16.2	17.1	21.0	34.2	31.2	39.7	36.6	41.0	27.1	30.4	33.2	40.3	33.3	37.3	42.3	34.2		
	Water volume			l	26	37		50		158			255			301		485		453					
Air heat exchanger	Type				Microchannel																				
Compressor	Type				Inverter driven single screw compressor																				
Fan	Quantity				1						2														
	Type				Direct propeller																				
	Quantity				6				8		10		12			14		16				18	20	22	
	Air flow rate		Nom.	l/s	22,664				30,219		36,920	37,774	44,475			51,745	59,299				66,570	74,124	81,394		
	Speed			rpm	700																				
Sound power level	Cooling	Nom.		dBA	88				89		90		91				92		94	94	95				
Sound pressure level	Cooling	Nom.		dBA	68				69		70						71		73						
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50																				
	Water side	Cooling	Min.~Max.	°CDB	-8~18																		-15~20		
Refrigerant	Type				R-134a																				
	Circuits	Quantity			1						2														
	GWP				1,430																1,430.0		1,430		
Refrigerant charge	Per circuit			kg	36	39	40	51		32		37	40.0		44.5	48	52.00		58.5	65	71.5				
				TCO2eq	51	56	57	73		46		53	57		64	69	74.36		83.65	92.95	102.245				
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm		114.3mm			139.7mm			168.3mm				6"		8"						
Unit	Starting current		Max	A	0																				
	Running current		Cooling	Nom.	A	110	113	186		192	226	231	373.0	385	393	391	389	396	395	453	471	502	539		
			Max	A	130	149	166	198	225	256	292	333	358	385	417	450	478	508	562	590	640	694			
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																				

Air cooled screw inverter chiller, premium efficiency, standard sound

- › Premium energy efficiency both at full and part load conditions
- › Inverter stepless single-screw compressor with DC electrical motor
- › Advanced compressor technology featuring integrated inverter and variable volume ratio (VVR)
- › Continuous fans speed modulation with EC fans for even higher part load efficiency
- › Compact design for small footprint and minimized installation space
- › Low operating sound levels are achieved by the latest compressor and fan design
- › One or two truly independent refrigerant circuits for outstanding reliability

Cooling only				EWAD-PLB/TZPSB				190	220	240	290	300	350	420	495	550	620	720	820	950
Cooling capacity	Nom.			kW	184	216	244	282	323	379	437	501	543	620	717	833	950			
Power input	Cooling	Nom.		kW	50.5	60.7	68.7	83.4	95.9	104	124	139	151.4	178.8	182.3	220.4	252.5			
Capacity control	Method				Stepless															
	Minimum capacity			%	34	29	34	29	27	19	20	17	10							
EER					3.64	3.56	3.55	3.38	3.37	3.62	3.50	3.60	3.586	3.468	3.933	3.78	3.763			
ESEER					5.54	5.51	5.42	5.40	5.35	5.48	5.49	5.45	5.5	5.42	5.59	5.54	5.55			
IPLV					6.49	6.35	6.41	6.35	6.21	6.52	6.58	6.55	6.51	6.47	6.73	6.6	6.64			
Dimensions	Unit	Height	mm	2,483										2,482						
		Width	mm	2,258																
		Depth	mm	4,083				4,983	5,883	6,783			8,820	9,591		10,461	11,233			
Weight (PLB)	Unit			kg	2,773		2,784	2,785	3,035	4,765	5,099	5,107	6,470	6,498	7,415	7,708	8,037			
	Operation weight			kg	2,823		2,834	2,835	3,085	5,020	5,354	5,362	6,777	6,805	7,900	8,193	8,490			
Weight (PSB)	Unit			kg	2,758		2,769	2,770	3,020	4,735	5,069	5,077	6,470	6,498	7,415	7,708	8,037			
	Operation weight			kg	2,808		2,819	2,820	3,070	4,990	5,324	5,332	6,777	6,805	7,900	8,193	8,490			
Water heat exchanger	Type				Plate heat exchanger						Single pass shell & tube									
	Water flow rate	Cooling	Nom.	l/s	8.8	10.3	11.7	13.5	15.5	18.1	20.9	24.0	26	29.6	34.3	39.8	45.4			
	Water pressure drop	Cooling	Nom.	kPa	10.6	11.0	13.4	17.1	21.5	20.4	26.5	33.3	19.8	25	24.2	31.7	29			
	Water volume			l	50						255			307		485		453		
Air heat exchanger	Type				Microchannel															
Compressor	Type				Inverter driven single screw compressor															
	Quantity				1						2									
Fan	Type				Direct propeller															
	Quantity				8				10	12	14	16	18	20		22	24			
	Air flow rate	Cooling	Nom.	l/s	29,610				37,013	44,415	51,818	59,220	66,623	74,025		81,428	88,830			
	Speed			rpm	700															
Sound power level (PLB)	Cooling	Nom.		dB(A)	91	91.5	91	91.5	92	93.5			94	97						
Sound pressure level (PLB)	Cooling	Nom.		dB(A)	71	72	71	72		73	72	73	75							
Sound power level (PSB)	Cooling	Nom.		dB(A)	97				98	99			100	101						
Sound pressure level (PSB)	Cooling	Nom.		dB(A)	77				78	77	78	79								
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~52												-18~55			
	Water side	Cooling	Min.~Max.	°CDB	-8~18												-15~20			
Refrigerant	Type				R-134a															
	Circuits	Quantity			1					2										
	GWP				1,430															
Refrigerant charge	Per circuit			kg	49		50	51	58	38.5	43	47	52.5	57	65	71.5	78			
				TCO _{eq}	70		72	73	83	55	61	67	75.075	81.51	92.95	102.245	111.54			
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm		114.3mm			168.3mm			6"		8"					
Unit	Starting current	Max		A	0															
	Running current	Cooling	Nom.	A	101	104	172	177		208	211	346	258	298	316	375	424			
		Max		A	126	144	162	188	218	246	285	324	352	436	437	512	577			
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															

Air cooled screw inverter chiller, premium efficiency, reduced sound



Cooling only				EWAD-TZPRB	190	220	240	290	300	350	420	495	550	620	720	820	950	
Cooling capacity	Nom.			kW	187	218	247	279	317	382	437	505	543	620	717	833	950	
Power input	Cooling	Nom.		kW	50.5	60.7	68.7	83.4	95.9	105	125	139	151.3	178.5	182.2	220.2	252.4	
Capacity control	Method				Stepless													
	Minimum capacity			%	34	29	34	29	27	19	20	17	10					
EER					3.71	3.59		3.35		3.31	3.64	3.49	3.62	3.59	3.473	3.935	3.783	3.764
ESEER					5.55	5.52	5.27	5.16	5.20	5.32	5.21	5.38	5.5	5.42	5.59	5.54	5.55	
IPLV					6.49	6.35	6.23	6.07	6.04	6.30	6.27	6.47	6.53	6.47	6.73	6.60	6.64	
Dimensions	Unit	Height		mm	2,483								2,482					
		Width		mm	2,258													
		Depth		mm	4,083				4,983	5,883	6,783			8,820	9,591		10,461	11,233
Weight	Unit			kg	2,858		2,869	2,870	3,120	4,935	5,269	5,277	6,620	6,648	7,735	8,028	8,357	
	Operation weight			kg	2,908		2,919	2,920	3,170	5,190	5,524	5,532	6,927	6,955	8,220	8,513	8,810	
Water heat exchanger	Type				Plate heat exchanger						Single pass shell & tube							
	Water flow rate	Cooling	Nom.	l/s	9.0	10.4	11.8	13.3	15.2	18.3	20.9	24.2	26	29.6	34.3	39.8	45.4	
	Water pressure drop	Cooling	Nom.	kPa	10.6	11.0	13.4	17.1	21.5	20.4	26.4	33.2	19.8	24.9	24.2	31.7	28.9	
	Water volume			l	50						255			307		485		453
Air heat exchanger	Type				Microchannel													
Compressor	Type				Inverter driven single screw compressor													
	Quantity				1					2								
Fan	Type				Direct propeller													
	Quantity				8				10	12	14	16	18	20		22	24	
	Air flow rate	Cooling	Nom.	l/s	29,610				37,013	43,369	50,423	57,826	64,879	72,282		79,336	86,738	
	Speed			rpm	700													
Sound power level	Cooling	Nom.		dBA	87	88	87	88		89	90		94	95				
Sound pressure level	Cooling	Nom.		dBA	67	68	67	68					69	73				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~52										-18~55			
	Water side	Cooling	Min.~Max.	°CDB	-8~18										-15~20			
Refrigerant	Type				R-134a													
	Circuits	Quantity			1					2								
	GWP				1,430													
Refrigerant charge	Per circuit			kg	49		50	51	58	38.5	43	47	52.5	57	65	71.5	78	
				TCO _{eq}	70		72	73	83	55	61	67	75.075	81.51	92.95	102.245	111.54	
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm			114.3mm			168.3mm			6"		8"		
Unit	Starting current	Max		A	0													
	Running current	Cooling	Nom.	A	101	104	172	177		209	212	347	259	300	317	377	426	
		Max		A	126	144	162	188	218	246	285	324	352	436	437	512	577	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

Air cooled screw inverter chiller, standard efficiency, standard/reduced sound

- › **Optimized energy efficiency both at full and part load conditions**
- › Stepless single-screw compressor
- › Advanced compressor technology featuring **integrated inverter** and **variable volume ratio (VVR)**
- › Compact design for small footprint and minimized installation space
- › Low operating sound levels are achieved by the latest compressor and fan design
- › One or two truly independent refrigerant circuits for outstanding reliability

Cooling only				EWAD-TZSS/SR	170	205	235	270	320	365	370	415	465	500	540	590	640	710	
Cooling capacity	Nom.			kW	170	205	229	268	317	365	366	412	463	499	536	589	640	710	
Power input	Cooling	Nom.		kW	62.2	72.5	79.1	96.0	116	133	134	145	164	178	190	217	235	267	
Capacity control	Method				Stepless														
	Minimum capacity			%	33.3	28.6	33.3	28.6	25.0	22.2	15.4	14.3	16.7	15.4	14.3	13.3	12.5	11.1	
EER					2.73	2.83	2.90	2.79		2.74		2.85	2.83	2.80	2.82	2.72	2.73	2.66	
ESEER					4.62	4.61	4.75	4.80	4.82	4.93	4.65	4.81	4.71	4.84	4.83	4.85	4.76	4.92	
IPLV					5.80	5.44	6.02	5.84	5.94	5.78	5.86	6.18	6.16	6.09	6.07	6.09	6.13	6.04	
Dimensions	Unit	Height		mm	2,270							2,222							
		Width		mm	1,224							2,258							
		Depth		mm	3,461	4,361	5,261		3,218			4,117			5,015			5,917	
Weight (SS)	Unit			kg	1,898	1,977	2,083	2,478	2,444	2,756	3,906	4,256	4,426	4,481	4,709	4,892	4,969	5,291	
	Operation weight			kg	1,915	2,077	2,183	2,504	2,596	2,806	3,995	4,426	4,590	4,645	4,873	5,162	5,231	5,553	
Weight (SR)	Unit			kg	1,996	2,075	2,181	2,576	2,541	2,854	4,101	4,452	4,621	4,676	4,904	5,087	5,164	5,486	
	Operation weight			kg	2,013	2,174	2,280	2,602	2,693	2,903	4,190	4,622	4,785	4,840	5,068	5,357	5,426	5,748	
Water heat exchanger	Type				Plate heat exchanger							Single pass shell & tube							
	Water flow rate	Cooling	Nom.	l/s	8.1	9.8	11.0	12.8	15.1	17.4	17.5	19.7	22.1	23.9	25.6	28.2	30.6	34.0	
	Water pressure drop	Cooling	Total	kPa	25	24	29	33	26	27	36	50	33	37	43	36	47	57	
	Water volume			l	17	24		26	39	50	89	170		164		270		262	
Air heat exchanger	Type				High efficiency fin and tube type														
Compressor	Type				Inverter driven single screw compressor														
	Quantity				1							2							
Fan	Type				Direct propeller														
	Quantity				3	4	5		6			8			10			12	
	Air flow rate	Cooling	Nom.	l/s	12,399	16,532	16,015	20,665	20,019	24,023		33,064		32,030	41,330		40,038	48,046	
	Speed			rpm	700														
Sound power level (SS)	Cooling	Nom.		dBA	96	97	96	97	98	101	99	100	99		100		101	104	
Sound power level (SR)	Cooling	Nom.		dBA	89				90	92						93		95	
Sound pressure level (SS)	Cooling	Nom.		dBA	77				78	82	80		79	80		81		84	
Sound pressure level (SR)	Cooling	Nom.		dBA	70	69	70	71	73		72		73		74				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~47														
	Water side	Cooling	Min.~Max.	°CDB	-8~15														
Refrigerant	Type / GWP				R-134a / 1,430														
	Circuits	Quantity			1							2							
Refrigerant charge	Per circuit			kg	29.0	35.0	39.0	46.0	54.0	62.0	31.0	35.0	39.5	42.5	45.5	50.0	54.5	60.5	
		TCO _{eq}			41.5	50.1	55.8	65.8	77.2	88.7	44.3	50.1	56.5	60.8	65.1	71.5	77.9	86.5	
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm							114.3mm		139.7mm			168.3mm		
Unit	Starting current	Max		A	3														
	Running current	Cooling	Nom.	A	105	121	132	159	191	218	223	241	273	294	314	359	385	434	
		Max		A	120	142	156	185	215	246	259	284	313	339	370	402	430	491	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400														

Air cooled screw inverter chiller, high efficiency, standard/reduced sound



Cooling only				EWAD-TZXS/XR				180	220	265	290	330	360	380	410	440	490	540	580	630	690		
Cooling capacity	Nom.			kW	180	216	265	288	332	360	366	407	441	490	536	577	629	682					
Power input	Cooling	Nom.		kW	56.1	68.4	84.6	89.8	106	113	116	128	139	156	169	185	201	216					
Capacity control	Method				Stepless																		
	Minimum capacity			%	33.3	28.6	30.8	28.6	25.0	23.5	16.7	15.4	14.3	16.7	15.4	14.3	13.3	12.5					
EER					3.20	3.16	3.14	3.21	3.14	3.18	3.16	3.17	3.15	3.17	3.12	3.16							
ESEER					5.02	5.09	5.10	5.15	5.22	5.23	4.96	5.10	5.01	4.96	5.18	5.09	5.12	5.07					
IPLV					6.32	6.20	6.33	6.26	6.32	6.37	6.31	6.47	6.39	6.34	6.48	6.44	6.46	6.51					
Dimensions	Unit	Height		mm	2,270										2,222								
		Width		mm	1,224										2,258								
		Depth		mm	4,361	5,261	3,218	4,117					5,015					5,917		6,817			
					kg	2,060	2,304	2,434	2,582	2,986	3,039	4,247	4,321	4,704	4,706	4,882	5,185	5,275	5,588				
Weight (XS)	Operation weight			kg	2,081	2,404	2,586	2,734	3,035	3,088	4,417	4,479	4,864	5,152	5,455	5,537	5,843						
Weight (XR)	Unit			kg	2,158	2,402	2,532	2,679	3,084	3,136	4,442	4,516	4,901	5,077	5,381	5,471	5,783						
	Operation weight			kg	2,178	2,502	2,684	2,831	3,133	3,186	4,612	4,674	5,059	5,347	5,651	5,733	6,038						
Water heat exchanger	Type				Plate heat exchanger										Single pass shell & tube								
	Water flow rate	Cooling	Nom.	l/s	8.6	10.4	12.7	13.8	15.9	17.2	17.5	19.5	21.1	23.5	25.7	27.6	30.1	32.7					
	Water pressure drop	Cooling	Total	kPa	24	25	19	22	23	26	40	41	48	56	30	34	44	57					
	Water volume			l	20	24	39	50	170	158	270	262	255										
Air heat exchanger	Type				High efficiency fin and tube type																		
Compressor	Type				Inverter driven single screw compressor																		
	Quantity				1										2								
Fan	Type				Direct propeller																		
	Quantity				4	5	6	8	10	12	14												
	Air flow rate	Nom.		l/s	16,015	20,665	20,019	24,023	33,064	32,030	33,064	32,030	41,330	40,038	49,597	48,046	56,053						
	Speed			rpm	700																		
Sound power level (XS)	Cooling	Nom.		dBA	96	97	96	97	98	99	100	99	100	101									
Sound power level (XR)	Cooling	Nom.		dBA	89				91	92	93	94											
Sound pressure level (XS)	Cooling	Nom.		dBA	77				78	80	79	80	79	80									
Sound pressure level (XR)	Cooling	Nom.		dBA	69	70	69	70	71	72	73												
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~49																		
	Water side	Cooling	Min.~Max.	°CDB	-8~15																		
Refrigerant	Type / GWP				R-134a / 1,430																		
	Circuits	Quantity			1										2								
Refrigerant charge	Per circuit			kg	31.0	37.0	45.0	49.0	57.0	61.0	31.0	34.5	37.5	42.0	45.5	49.0	53.5	58.0					
		TCO _{eq}	44.3	52.9	64.4	70.1	81.5	87.2	44.3	49.3	53.6	60.1	65.1	70.1	76.5	82.9							
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm										139.7mm							168.3mm	
Unit	Starting current	Max		A	3																		
	Running current	Cooling	Nom.	A	97	116	142	151	179	190	199	217	235	262	284	310	338	361					
		Max		A	122	145	172	188	223	237	245	264	290	318	344	376	408	440					
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																		

Air cooled screw inverter chiller, premium efficiency, standard/reduced sound

- › **Premium energy efficiency both at full and part load conditions**
- › Stepless single-screw compressor
- › Optimised for use with R-134a
- › Advanced compressor technology featuring **integrated inverter** and **variable volume ratio (VVR)**
- › Compact design for small footprint and minimized installation space
- › Low operating sound levels are achieved by the latest compressor and fan design
- › One or two truly independent refrigerant circuits for outstanding reliability



Cooling only					EWAD-TZPS/PR		190	225	250	270	295	320	345	380	415	460	505	560	600	645	
Cooling capacity	Nom.				kW	185	221	247	271	294	316	339	369	418	452	495	554	598	639		
Power input	Cooling	Nom.				kW	52.7	64.9	69.2	77.4	85.1	94.4	102	110	123	134	146	168	183	200	
Capacity control	Method				Stepless																
	Minimum capacity				%	33.3	28.6	33.3	30.8	28.6	26.7	18.2	16.7	15.4	14.3	16.7	15.4	14.3	13.3		
EER						3.52	3.41	3.57	3.50	3.45	3.35	3.34	3.36	3.38	3.39	3.38	3.30	3.28	3.20		
ESEER						5.49	5.45	5.73	5.66	5.65	5.62	5.46	5.40	5.59	5.54	5.67	5.66	5.55	5.47		
IPLV						6.95	6.70	7.22	7.04	7.08	6.81	6.85	6.94	7.05	6.98	7.14	7.13	7.10	6.97		
Dimensions	Unit	Height			mm	2,355															
		Width			mm	2,258															
		Depth			mm	2,258															
Weight (PS)	Unit			kg	2,436	2,565	2,810	2,815	3,026	3,031	4,290	4,517	4,764	5,007	5,241	5,269	5,489	5,591			
	Operation weight			kg	2,536	2,591	2,962	2,967	3,076	3,080	4,460	4,687	5,034	5,277	5,511	5,524	5,744	5,838			
Weight (PR)	Unit			kg	2,533	2,662	2,908	2,913	3,124	3,128	4,485	4,712	4,960	5,203	5,436	5,465	5,685	5,786			
	Operation weight			kg	2,633	2,688	3,060	3,065	3,173	3,178	4,655	4,882	5,230	5,473	5,706	5,720	5,940	6,033			
Water heat exchanger	Type			Plate heat exchanger																	
	Water flow rate	Cooling	Nom.	l/s	8.9	10.6	11.8	13.0	14.0	15.1	16.2	17.7	20.0	21.6	23.7	26.5	28.7	30.6			
	Water pressure drop	Cooling	Total	kPa	20	23	18	20	18	21	34	41	30	35	26	39	44	50			
	Water volume			l	24	26	39			50			170			255					
Air heat exchanger	Type			High efficiency fin and tube type																	
Compressor	Type			Inverter driven single screw compressor																	
	Quantity			12																	
Fan	Type			Direct propeller																	
	Quantity			6814																	
	Air flow rate	Cooling	Nom.	l/s	20,172	19,284	26,896		25,712		33,621		32,140	40,345	38,568		47,069	44,996			
	Speed			rpm	600																
Sound power level (PS)	Cooling	Nom.			96				97		99						100				
Sound power level (PR)	Cooling	Nom.			87				88		89		90						90		
Sound pressure level (PS)	Cooling	Nom.			77		76		77		79				78		79				
Sound pressure level (PR)	Cooling	Nom.			67	68	67		68						69						
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~-51																
	Water side	Cooling	Min.~Max.	°CDB	-8~-15																
Refrigerant	Type / GWP			R-134a / 1,430																	
	Circuits	Quantity		12																	
Refrigerant charge	Per circuit			kg	32.0	38.0	42.0	46.0	50.0	54.0	29.0	31.5	35.5	38.5	42.0	47.0	51.0	54.5			
		TCO _{eq}		45.8	54.3	60.1	65.8	71.5	77.2	41.5	45.0	50.8	55.1	60.1	67.2	72.9	77.9				
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm139.7mm168.3mm																
Unit	Starting current	Max		A	3																
	Running current	Cooling	Nom.	A	87	105	113	125	137	153	168	180	201	215	238	269	290	321			
	Max		A	115	135	151	164	177	193	209	230	249	271	299	325	352	384				
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																



INTRODUCTION

AIRCOOLED CHILLERS

WATERCOOLED CHILLERS

CONDENSERLESS AND CENTRIFUGAL CHILLERS

FAN COIL UNITS

AIR HANDLING UNITS

CONTROL SYSTEMS

PREVIOUS

Air cooled screw chiller, standard efficiency, standard sound

- › One refrigerant circuit with single screw compressor
- › **Compact design** with brazed plate heat exchanger
- › Large operation range (ambient temperature down to -18°C)
- › Water supply down to -15°C

Cooling only				EWAD-E-SS	100	120	140	160	180	210	260	310	360	410		
Cooling capacity	Nom.			kW	101	121	138	163	183	213	255	306	359	411		
Power input	Cooling	Nom.		kW	39.1	47.5	53.9	60.9	69.0	72.4	87.8	112	134	147		
Capacity control	Method				Stepless											
	Minimum capacity														%	25.0
EER					2.58	2.54	2.55	2.67	2.64	2.95	2.90	2.73	2.67	2.80		
ESEER					2.84	2.83	2.66	2.84	2.73	2.93	3.08	2.96	3.13	3.24		
IPLV					3.36	3.25	2.98	3.13	3.25	3.48	3.68	3.56	3.61	3.65		
Dimensions	Unit	Height		mm	2,273						2,223					
		Width		mm	1,292						2,236					
		Depth		mm	2,165		3,065		3,965		3,070					
Weight	Unit			kg	1,684		1,861		2,086		2,919					
	Operation weight			kg	1,699		1,881		2,116		2,963					
Water heat exchanger	Type				Plate heat exchanger											
	Water volume			l	12	15	17	20	24	30	25	30	36	44		
	Water flow rate	Cooling	Nom.	l/s	4.8	5.8	6.6	7.8	8.7	10.2	12.2	14.6	17.2	19.7		
	Water pressure drop	Cooling	Nom.	kPa	24	25	23	24	22	21	47	48		45		
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler											
Compressor	Type				Single screw compressor					Asymmetric single screw compressor						
	Quantity				1											
Fan	Type				Direct propeller											
	Quantity				2		3		4		6					
	Air flow rate	Nom.		l/s	10,924	10,576	16,386	15,865	21,848	21,153	32,772		31,729			
	Speed			rpm	900											
Sound power level	Cooling	Nom.		dBA	92				93		94			95		
Sound pressure level	Cooling	Nom.		dBA	74						75			76		
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~15											
	Air side	Cooling	Min.~Max.	°CDB	-18~48											
Refrigerant	Type / GWP				R-134a / 1,430											
	Circuits			Quantity	1											
Refrigerant charge	Per circuit			kg	18.0	21.0	23.0	28.0	34.0	39.0	46.0		56.0	74.0		
				TCO _{eq}	25.7	30.0	32.9	40.0	48.6	55.8	65.8		80.1	105.8		
Piping connections	Evaporator water inlet/outlet (OD)				3"											
Unit	Maximum starting current			A	151		195		288		330	410				
	Nominal running current (RLA)		Cooling	A	67	81	92	102	116	121	148	185	220	241		
	Maximum running current			A	86	103	119	132	157	164	198	242	284	298		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Air cooled screw chiller, standard efficiency, low sound



Cooling only				EWAD-E-SL	100	120	130	160	180	210	250	300	350	400		
Cooling capacity	Nom.			kW	97.6	116	134	157	177	208	248	295	344	397		
Power input	Cooling	Nom.		kW	39.2	48.3	53.4	60.8	68.3	72.8	85.4	111	135	152		
Capacity control	Method				Stepless											
	Minimum capacity			%	25.0											
EER					2.49	2.39	2.50	2.57	2.59	2.86	2.90	2.65	2.55	2.62		
ESEER					2.92	2.88	2.76	2.91	2.98	3.22	3.44	3.31	3.24	3.35		
IPLV					3.32	3.21	3.30	3.46	3.28	3.48	3.86	3.75	3.63	3.76		
Dimensions	Unit	Height		mm	2,273						2,223					
		Width		mm	1,292						2,236					
		Depth		mm	2,165		3,065		3,965		3,070					
Weight	Unit			kg	1,784		1,961		2,186		3,029					
	Operation weight			kg	1,799		1,981		2,216		3,073					
Water heat exchanger	Type				Plate heat exchanger											
	Water volume			l	12	15	17	20	24	30	25	30	36	44		
	Water flow rate	Cooling	Nom.	l/s	4.7	5.5	6.4	7.5	8.4	10.0	11.9	14.1	16.5	19.0		
	Water pressure drop	Cooling	Nom.	kPa	23		22		21		20		45		44	42
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler											
Compressor	Type				Single screw compressor					Asymmetric single screw compressor						
	Quantity				1											
Fan	Type				Direct propeller											
	Quantity				2		3		4		6					
	Air flow rate	Nom.		l/s	8,373	8,144	12,560	12,216	16,747	16,288	25,120		24,432			
	Speed			rpm	700											
Sound power level	Cooling	Nom.		dBA	89		90				92				93	
Sound pressure level	Cooling	Nom.		dBA	71								73		74	
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~15											
	Air side	Cooling	Min.~Max.	°CDB	-18~48											
Refrigerant	Type / GWP				R-134a / 1,430											
	Circuits	Quantity			1											
Refrigerant charge	Per circuit			kg	18.0	21.0	23.0	28.0	34.0	39.0	46.0		56.0	74.0		
		TCO ₂ eq	25.7	30.0	32.9	40.0	48.6	55.8	65.8		80.1	105.8				
Piping connections	Evaporator water inlet/outlet (OD)				3"											
Unit	Maximum starting current			A	151		195		288		330	410				
	Nominal running current (RLA)			Cooling	A	67	83	92	103	116	122	144	184	223	249	
	Maximum running current			A	83	100	115	128	151	158	189	234	276	290		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Air cooled screw chiller, standard efficiency, standard sound

- › 2 truly independent refrigerant circuits
- › Stepless single-screw compressor
- › Optimised for use with R-134a
- › Large operation range (ambient temperature down to -18°C)
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAD-D-SS	390	440	470	510	530	560	580		
Cooling capacity	Nom.			kW	388	435	463	500	529	553	575		
Power input	Cooling	Nom.		kW	154	165	169	186	196	207	199		
Capacity control	Method				Stepless								
	Minimum capacity			%	12.5								
EER					2.52	2.63	2.74	2.70		2.67	2.89		
ESEER					3.26	3.43	3.44	3.41		3.45	3.29		
IPLV					3.75	3.86	3.89	3.96		4.11	3.96		
Dimensions	Unit	Height		mm	2,223								
		Width		mm	2,234								
		Depth		mm	3,139	4,040							
Weight	Unit			kg	2,960	4,030	4,220		4,230		4,235		
	Operation weight			kg	3,090	4,195	4,395						
Water heat exchanger	Type				Single pass shell & tube								
	Water volume			l	130	165	175	165			160		
	Water flow rate	Cooling	Nom.	l/s	18.6	20.8	22.2	24.0	25.4	26.5	27.6		
	Water pressure drop	Cooling	Nom.	kPa	46	38	67	47	52	57	51		
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler								
Compressor	Type				Single screw compressor	Asymmetric single screw compressor							
	Quantity				2								
Fan	Type				Direct propeller								
	Quantity				6		8						
	Air flow rate	Nom.		l/s	32,772	31,729	43,696				42,306		
	Speed			rpm	890								
Sound power level	Cooling	Nom.		dBA	96	97			98	99			
Sound pressure level	Cooling	Nom.		dBA	77				79				
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~15								
	Air side	Cooling	Min.~Max.	°CDB	-18~48								
Refrigerant	Type / GWP				R-134a / 1,430								
	Circuits	Quantity			2								
Refrigerant charge	Per circuit			kg	28.0	33.0	36.0	38.0	40.0	43.0	47.0		
				TCO ₂ eq	40.0	47.2	51.5	54.3	57.2	61.5	67.2		
Piping connections	Evaporator water inlet/outlet (OD)				5.5"								
Unit	Maximum starting current				A	419	464	485		494			
	Nominal running current (RLA)				Cooling	A	254	274	281	306	321	336	324
	Maximum running current				A	312	330	359	380	391	402		
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400							

Air cooled screw chiller, standard efficiency, low sound



EWAD-D-SS/SL

MicroTech III

Cooling only				EWAD-D-SL	180	200	230	250	260	280	300	320	370	400	440	480	510	530
Cooling capacity	Nom.			kW	183	197	224	244	260	274	297	320	368	402	438	475	503	531
Power input	Cooling	Nom.		kW	82.0	80.2	85.6	94.4	102	109	121	125	135	171	172	188	205	197
Capacity control	Method				Stepless													
	Minimum capacity			%	12.5													
EER					2.24	2.46	2.62	2.58	2.54	2.50	2.46	2.56	2.72	2.36	2.55	2.53	2.46	2.70
ESEER					2.91	3.03	3.21	3.11	3.16	3.13	3.10	3.14	3.31	3.54	3.56	3.46	3.56	3.66
IPLV					3.43	3.56	3.73	3.63	3.66	3.63	3.59	3.62	3.84	3.85	4.06	3.96	4.07	4.14
Dimensions	Unit	Height		mm	2,355										2,223			
		Width		mm	2,234										4,040			
		Depth		mm	2,239		3,139				3,187			4,030	4,220	4,230	4,235	
Weight	Unit			kg	2,475		2,470		2,860				3,187		4,030	4,220	4,230	4,235
	Operation weight			kg	2,500		2,960				3,300			4,195	4,395			
Water heat exchanger	Type				Plate heat exchanger		Single pass shell & tube											
	Water volume			l	25	30	100				130		165	170		165	160	
	Water flow rate	Cooling	Nom.	l/s	8.8	9.4	10.7	11.7	12.5	13.1	14.2	15.3	17.7	19.3	21.0	22.8	24.1	25.4
	Water pressure drop	Cooling	Nom.	kPa	29	22	58	49	54	59	60	55	67	48	62	54	48	43
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler													
Compressor	Type				Single screw compressor										Asymmetric single screw compressor			
	Quantity				2													
Fan	Type				Direct propeller													
	Quantity				4		6				8		6	8				
	Air flow rate	Nom.		l/s	15,295	14,868	22,943		22,623		22,302		30,591		24,432	33,493		32,576
	Speed			rpm	900										705			
Sound power level	Cooling	Nom.		dBA	94						95		97	94		96		
Sound pressure level	Cooling	Nom.		dBA	75						78		75		76			77
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~-15													
	Air side	Cooling	Min.~Max.	°CDB	-18~48													
Refrigerant	Type / GWP				R-134a / 1,430													
	Circuits	Quantity			2													
Refrigerant charge	Per circuit			kg	18.0	21.0	23.0	26.0	28.0	29.0			35.0		36.0	34.0	40.0	43.0
		TCO _{2eq}	25.7	30.0	32.9	37.2	40.0	41.5			50.1		51.5	48.6	57.2	61.5		
Piping connections	Evaporator water inlet/outlet (OD)				3"		4"				5"			5"				
Unit	Maximum starting current			A	218		234		277	286	298	300	305	460	480		488	
	Nominal running current (RLA)	Cooling		A	135	133	141	155	166	176	192	200	214	281	285	308	334	323
	Maximum running current			A	165		186	202	213	224	238	258	269	322	348	368	379	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

Air cooled screw chiller, standard efficiency, reduced sound

- › 2 truly independent refrigerant circuits
- › Stepless single-screw compressor
- › Optimised for use with R-134a
- › Large operation range (ambient temperature down to -18°C)
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAD-D-SR	180	190	220	240	250	270	280	310	370	400	440	480	510	530			
Cooling capacity	Nom.			kW	177	190	218	237	251	263	277	310	364	402	438	475	503	531			
Power input	Cooling	Nom.		kW	84.5	83.1	86.2	95.6	104	112	123	127	140	171	172	188	205	197			
Capacity control	Method				Stepless																
	Minimum capacity			%	12.5																
EER					2.09	2.28	2.53	2.48	2.41	2.34	2.25	2.45	2.60	2.36	2.55	2.53	2.46	2.70			
ESEER					2.80	2.91	3.24	3.11	3.13	3.07	3.04	3.15	3.32	3.54	3.56	3.46	3.56	3.66			
IPLV					3.29	3.42	3.74	3.59		3.56	3.53	3.70	3.88	3.90	4.06	3.96	4.07	4.14			
Dimensions	Unit	Height	mm	2,355										2,223							
		Width	mm	2,234																	
		Depth	mm	2,239		3,139								4,040							
Weight	Unit			kg	2,620		2,890				3,335		4,040	4,240							
	Operation weight			kg	2,650		3,100				3,450		4,342	4,542							
Water heat exchanger	Type				Plate heat exchanger				Single pass shell & tube												
	Water volume			l	25	30	100				130		165	170		165	160				
	Water flow rate	Cooling	Nom.	l/s	8.5	9.1	10.4	11.3	12.0	12.6	13.3	14.9	17.4	19.3	21.0	22.8	24.1	25.4			
	Water pressure drop	Cooling	Nom.	kPa	27	20	55	47	51	55		53	65	48	62	54	48	43			
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler																
Compressor	Type				Single screw compressor								Asymmetric single screw compressor								
	Quantity				2																
Fan	Type				Direct propeller																
	Quantity				4		6				8		6	8							
	Air flow rate	Nom.		l/s	12,389	11,928	18,583		18,237	17,892		24,777		24,432	33,493		32,576				
	Speed				rpm								680		705						
Sound power level	Cooling	Nom.		dBA	89						90		92	91		92		93			
Sound pressure level	Cooling	Nom.		dBA	70						73		73	71		73					
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~-15																
	Air side	Cooling	Min.~Max.	°CDB	-18~-48																
Refrigerant	Type / GWP				R-134a / 1,430																
	Circuits	Quantity			2																
Refrigerant charge	Per circuit			kg	18.0	21.0	24.0	25.0		29.0		33.0	35.0	40.0	39.0	40.0	43.0				
				TCO ₂ eq	25.7	30.0	34.3	35.8		41.5		47.2	50.1	57.2	55.8	57.2	61.5				
Piping connections	Evaporator water inlet/outlet (OD)				3"		4"												5"		
Unit	Maximum starting current				A		217		232		275	284	295	297	302	460	488				
	Nominal running current (RLA)		Cooling	A	140	138	143	157	169	181	199	203	219	281	285	308	334	323			
	Maximum running current				A		162		182	198	209	219	234	252	263	322	348	368	379		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																

Air cooled screw chiller. standard efficiency. extra low sound



EWAD-D-SR/SX

MicroTech III

Cooling only				EWAD-D-SX	210	230	250	270	290	300	310	370	410	450	490		
Cooling capacity	Nom.			kW	202	230	252	270	285	298	308	369	412	449	490		
Power input	Cooling	Nom.		kW	80.8	86.0	94.4	105	115	127	137	150	171	175	189		
Capacity control	Method				Stepless												
	Minimum capacity			%	12.5												
EER					2.50	2.68	2.67	2.56	2.47	2.35	2.25	2.46	2.41	2.56	2.60		
ESEER					3.29	3.52	3.41	3.44	3.34	3.29	3.15	3.14	3.39	3.50	3.47		
IPLV					3.82	4.08	3.99	4.01	3.92	3.84	3.69	4.03	3.90	3.98	3.90		
Dimensions	Unit	Height		mm	2.420												
		Width		mm	2.234												
		Depth		mm	3.139	4.040									4.940		
					3.110	3.475		3.425	3.430			3.560	4.302	4.506	4.581		
Weight	Operation weight			kg	3.200	3.590						3.735	4.472	4.676	4.746		
Water heat exchanger	Type				Single pass shell & tube												
	Water volume			l	90	115		165	160		175	170		165			
	Water flow rate	Cooling	Nom.	l/s	9.7	11.0	12.1	12.9	13.7	14.3	14.7	17.7	19.7	21.5	23.5		
	Water pressure drop	Cooling	Nom.	kPa	45	34	38		35	38	41	45	44	50	45		
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler												
Compressor	Type				Single screw compressor												
	Quantity				2												
Fan	Type				Direct propeller												
	Quantity				6	8								9	10		
	Air flow rate	Nom.		l/s	12.876	17.892	17.169					26.496		28.982	33.120		
	Speed			rpm	500												
Sound power level	Cooling	Nom.		dBA	84	85								86			
Sound pressure level	Cooling	Nom.		dBA	65								66				
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~-15												
	Air side	Cooling	Min.~Max.	°CDB	-18~-48												
Refrigerant	Type / GWP				R-134a / 1,430												
	Circuits	Quantity			2												
Refrigerant charge	Per circuit			kg	21.0	24.0	26.0	32.0	33.0	34.0			35.0	38.0	40.0		
		TCO _{2eq}	30.0	34.3	37.2	45.8	47.2	48.6			50.1	54.3	57.2				
Piping connections	Evaporator water inlet/outlet (OD)				4"							5"					
Unit	Maximum starting current				A	218	232		276	284	296		406	457	475		
	Nominal running current (RLA)				Cooling	A	135	143	157	173	188	204	220	231	272	280	298
	Maximum running current				A	164	183	199	210	221	235	250	291	316	338	360	
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400											

Air cooled screw chiller, high efficiency, standard sound

- › 2 truly independent refrigerant circuits
- › Stepless single-screw compressor
- › Optimised for use with R-134a
- › Large operation range (ambient temperature down to -18°C)
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAD-D-XS	250	280	300	330	350	380	400	470	520	580	620	
Cooling capacity	Nom.			kW	246	274	300	326	350	374	399	467	522	573	620	
Power input	Cooling	Nom.		kW	80.1	88.2	95.4	105	114	121	129	152	169	183	196	
Capacity control	Method				Stepless											
	Minimum capacity			%	12.5											
EER					3.07	3.11	3.15	3.10	3.06	3.08	3.10	3.07	3.09	3.12	3.16	
ESEER					3.45	3.49	3.51	3.73	3.56	3.47	3.48	3.72	3.88	3.89	3.75	
IPLV					3.98	4.00		4.08	4.07	4.06	3.98	4.16	4.83		4.61	
Dimensions	Unit	Height		mm	2,355							2,223				
		Width		mm	2,234											
		Depth		mm	3,138	4,040							4,940			
Weight	Unit			kg	2,905	3,285		3,235	3,240			3,510	4,670	4,685		
	Operation weight			kg	3,000	3,400						3,780	4,940			
Water heat exchanger	Type				Single pass shell & tube											
	Water volume			l	95	115		165	160			270		255		
	Water flow rate	Cooling	Nom.	l/s	11.8	13.1	14.4	15.6	16.7	17.9	19.1	22.4	25.0	27.4	29.7	
	Water pressure drop	Cooling	Nom.	kPa	48	45	49	46	51	58	64	47	63	56	38	
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler											
Compressor	Type				Single screw compressor										Asymmetric single screw compressor	
	Quantity				2											
Fan	Type				Direct propeller											
	Quantity				6	8							10			
	Air flow rate	Nom.		l/s	22,302	30,591	29,736			43,001	42,306	43,696	54,620			
	Speed			rpm	900					890						
Sound power level	Cooling	Nom.		dBA	97					99						
Sound pressure level	Cooling	Nom.		dBA	78					79						
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~15											
	Air side	Cooling	Min.~Max.	°CDB	-18~48											
Refrigerant	Type / GWP				R-134a / 1,430											
	Circuits			Quantity	2											
Refrigerant charge	Per circuit			kg	29.0	33.0	35.0	38.0	35.0		39.0	42.0	45.0		50.0	
				TCO _{2eq}	41.5	47.2	50.1	54.3	50.1		55.8	60.1	64.4		71.5	
Piping connections	Evaporator water inlet/outlet (OD)				4"							6"				
Unit	Maximum starting current			A	224	240		283	292	312		423	480	498		
	Nominal running current (RLA)			Cooling	A	132	145	158	172	185	203	213	253	283	305	324
	Maximum running current			A	178	199	216	227	239	268	283	328	365	387	410	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Air cooled screw chiller, high efficiency, reduced sound



EWAD-D-XS/XR

MicroTech III

Cooling only				EWAD-D-XR	240	270	300	320	350	370	390	460	510	560	600		
Cooling capacity	Nom.			kW	242	271	294	321	343	369	393	453	510	559	598		
Power input	Cooling	Nom.		kW	81.6	88.0	96.3	107	117	121	129	154	169	185	200		
Capacity control	Method				Stepless												
	Minimum capacity			%	12.5												
EER					2.96	3.07	3.06	3.00	2.94	3.06	3.05	2.95	3.01	3.02	2.99		
ESEER					3.52	3.59	3.58	3.71	3.60	3.89	3.71	3.77	3.99		3.81		
IPLV					4.03	4.11	4.12	4.17	4.13	4.28	4.25	4.36	4.79	4.78	4.47		
Dimensions	Unit	Height		mm	2,355							2,223					
		Width		mm	2,234												
		Depth		mm	3,138	4,040							4,940				
Weight	Unit			kg	3,005	3,385		3,335	3,340			3,610	4,770	4,785			
	Operation weight			kg	3,100	3,500						3,880	5,040				
Water heat exchanger	Type				Single pass shell & tube												
	Water volume			l	95	115			165	160			270		255		
	Water flow rate	Cooling	Nom.	l/s	11.6	13.0	14.1	15.4	16.4	17.7	18.8	21.7	24.4	26.8	28.6		
	Water pressure drop	Cooling	Nom.	kPa	47	44	48	45	49	56			45	60	54	36	
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler												
Compressor	Type				Single screw compressor												
	Quantity				2												
Fan	Type				Direct propeller												
	Quantity				6	8							10				
	Air flow rate	Nom.		l/s	17,892	24,777	23,856			33,035	32,576	33,493	41,867				
	Speed			rpm	680					705			94				
Sound power level	Cooling	Nom.			92					93			94				
Sound pressure level	Cooling	Nom.			73					74							
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~-15												
	Air side	Cooling	Min.~Max.	°CDB	-18~-48												
Refrigerant	Type / GWP				R-134a / 1,430												
	Circuits	Quantity			2												
Refrigerant charge	Per circuit			kg	30.0	31.0	38.0	39.0	40.0	39.0			34.0	45.0	47.0	50.0	
		TCO _{2eq}		42.9	44.3	54.3	55.8	57.2	55.8			48.6	64.4	67.2	71.5		
Piping connections	Evaporator water inlet/outlet (OD)				4"							6"					
Unit	Maximum starting current				A	222	237		280	289	306			417	473	491	
	Nominal running current (RLA)				Cooling	A	134	144	160	175	188	200	213	256	283	308	330
	Maximum running current				A	173	193	210	222	233	257	272	317	351	373	396	
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400											

Air cooled screw chiller, high ambient, standard sound

› High ambient

- › Stepless single-screw compressor
- › Optimised for use with R-134a
- › Large operation range (ambient temperature down to -18°C)
- › MicroTech III controller with superior control logic and easy interface



EWAD-D-HS

MicroTech III

Cooling only				EWAD-D-HS	200	210	230	260	270	290	310	340	380	420	450	480	510	550	590		
Cooling capacity	Nom.			kW	194	208	233	255	272	288	305	334	379	413	446	476	512	545	585		
Power input	Cooling	Nom.		kW	77.9	76.0	83.9	92.1	98.9	105	114	122	129	143	152	164	177	185	194		
Capacity control	Method				Stepless																
	Minimum capacity			%	12.5																
EER					2.49	2.73	2.77		2.75	2.73	2.68	2.75	2.93	2.90	2.93	2.90	2.89	2.95	3.02		
ESEER					3.02	3.16	3.24	3.11	3.20	3.18	3.17	3.15	3.46	3.50	3.57		3.55	3.60	3.68		
IPLV					3.56	3.74	3.77	3.66	3.74	3.73	3.72	3.64	3.99	4.00	4.05	3.99	4.10	4.18	4.50		
Dimensions	Unit	Height		mm	2,223																
		Width		mm	2,234																
		Depth		mm	2,239		3,339				4,040				4,940						
Weight	Unit			kg	2,475	2,470	2,865		2,870			3,185		3,277	3,942	4,356	4,361		4,366		
	Operation weight			kg	2,500		2,960				3,300		3,447	4,112	4,526						
Water heat exchanger	Type				Plate heat exchanger				Single pass shell & tube												
	Water volume			l	25	30	95		90			115			170			165		160	
	Water flow rate	Cooling	Nom.	l/s	9.3	9.9	11.1	12.2	13.1	13.8	14.6	16.0	18.2	19.8	21.4	22.8	24.5	26.1	28.0		
	Water pressure drop	Cooling	Nom.	kPa	32	24	46	52	54	59	64	58	70	46	53	58	51	56	53		
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler																
Compressor	Type				Single screw compressor												Asymmetric single screw compressor				
	Quantity				2																
Fan	Type				Direct propeller																
	Quantity				4		6				8				10						
	Air flow rate	Nom.		l/s	21,848	21,153	32,772		32,251		31,729		43,696		42,306	54,620					
	Speed	Cooling	Nom.	rpm	890																
Sound power level	Cooling	Nom.		dBA	96										97	99	97	98		99	100
Sound pressure level	Cooling	Nom.		dBA	77										79		77	78		79	80
Operation range	Water side	Cooling	Min.~Max.	°CDB	-15~15																
	Air side	Cooling	Min.~Max.	°CDB	-18~48																
Refrigerant	Type / GWP				R-134a / 1,430																
	Circuits	Quantity			2																
Refrigerant charge	Per circuit			kg	18.0	21.0	22.0	26.0	28.0	31.0	28.0		34.0	30.0	45.0	47.5	46.0		47.0		
		TCO _{2eq}	25.7	30.0	31.5	37.2	40.0	44.3	40.0		48.6	42.9	64.4	67.9	65.8		67.2				
Piping connections	Evaporator water inlet/outlet (OD)				3"			4"						5"							
Unit	Maximum starting current				A	222		239		283	291	303	307	312	423	468	489		498		
	Nominal running current (RLA)		Cooling	A	134	131	145	157	169	180	191	204	214	239	258	275	295	306	320		
	Maximum running current				A	172		197	213	224	234	249	272	283	320	338	367	388	399	410	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																



Air cooled screw chiller, standard efficiency, standard/low sound

- › Stepless single-screw compressor
- › Large operation range (ambient temperature down to -18°C and up to 46°C)
- › 2-3 truly independent refrigerant circuits
- › DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- › Partial and total heat recovery option available
- › Standard electronic expansion valve
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAD-C-SS/SL	650	740	830	910	970	C11	C12	C13	H14	C15	C16	C17	C18	C19	C20		
Cooling capacity	Nom.			kW	645	741	829	908	962	1,059	1,146	1,315	1,412	1,532	1,615	1,706	1,797	1,870	1,917		
Power input	Cooling	Nom.		kW	223	265	302	322	355	382	408	446	479	557	586	627	669	687	721		
Capacity control	Method				Stepless																
	Minimum capacity			%	12.5									7.0							
EER					2.89	2.80	2.74	2.82	2.71	2.77	2.81	2.95		2.75		2.72	2.69	2.72	2.66		
ESEER					3.79	3.69	3.72	3.65	3.60	3.69	3.63	3.88	3.86	3.73	3.68	3.59	3.71	3.68			
IPLV					4.32	4.17	4.18	4.25	4.16	4.17	4.21	4.42		4.28	4.18	4.15	4.24	4.19	4.21		
Dimensions	Unit	Height		mm	2,540																
		Width		mm	2,285																
		Depth		mm	6,285					7,185	8,085	8,985		10,285	11,185			12,085			
Weight (SS)	Unit			kg	5,330	5,740	5,760	6,280	6,560	7,010	7,280	7,900		10,320	10,710	10,770	11,240	11,600			
	Operation weight			kg	5,610	5,990	6,010	6,530	6,810	7,250	7,520	8,280		10,730	11,110	11,260	12,110	12,480			
Weight (SL)	Unit			kg	5,920	6,030	6,050	6,570	6,850	7,300	7,570	8,190		10,770	11,150	11,210	11,680	12,040			
	Operation weight			kg	6,200	6,280	6,300	6,820	7,100	7,540	7,810	8,570		11,170	11,550	11,700	12,560	12,920			
Water heat exchanger	Type				Single pass shell & tube																
	Water flow rate	Cooling	Nom.	l/s	30.9	35.5	39.7	43.5	46.1	50.8	55.0	62.9	67.6	73.4	77.4	81.8	86.0	89.5	91.7		
	Water pressure drop	Cooling	Nom.	kPa	73	54	53	62	69	64	74	54	58	62	68	75	36	39	40		
	Water volume			l	266		251			243			386		408		474	850			
Air heat exchanger	Type				High efficiency fin and tube type																
Compressor	Type				Asymmetric single screw compressor																
	Quantity				2									3							
Fan	Type				Direct propeller																
	Quantity				10			12		14	16	18		20	22			24			
	Air flow rate	Nom.		l/s	53,442			64,131		74,819	85,508	96,196		106,885	117,573			128,262			
	Speed			rpm	900																
Sound power level (SS)	Cooling	Nom.		dBA	102	100		101		102				103			104				
Sound power level (SL)	Cooling	Nom.		dBA	96			98	97	98				99	100			101			
Sound pressure level (SS)	Cooling	Nom.		dBA	81	80			81							82					
Sound pressure level (SL)	Cooling	Nom.		dBA	76			77							78						
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~46																
	Water side	Cooling	Min.~Max.	°CDB	-8~15																
Refrigerant	Type / GWP				R-134a / 1,430																
	Circuits	Quantity			2									3							
Refrigerant charge	Per circuit			kg	64.0			76.5	80.0	91.0	94.0	110.0	130.0	73.3	86.7			91.7	101.7		
				TCO ₂ eq	91.5			109.4	114.4	130.1	134.4	157.3	185.9	104.9	123.9			131.1	145.4		
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm									219.1mm					273mm		
Unit	Starting current	Max		A	604	649		915	962	1,017	1,021	1,068	1,081	1,312	1,363	1,367	1,410	1,456	1,470		
	Running current	Cooling	Nom.	A	366	432	492	524	577	624	667	726	773	909	959.0	1,023	1,092	1,116	1,164		
		Max		A	476	545	589	656	715	787	859	921	974	1,144	1,217	1,281	1,334	1,395	1,449		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																

Air cooled screw chiller, standard efficiency, reduced sound



EWAD-C-SS/SL/SR

MicroTech III

Cooling only				EWAD-C-SR	620	720	790	880	920	C10	C11	C12	H14	C13	C14	C15	C16	C17	C18	C19		
Cooling capacity	Nom.			kW	616	712	786	872	918	1,016	1,107	1,266	1,316	1,363	1,465	1,550	1,616	1,710	1,790	1,828		
Power input	Cooling	Nom.		kW	226	276	317	334	373	398	422	461	499	522	582	609	654	706	722	762		
Capacity control	Method				Stepless																	
	Minimum capacity			%	12.5									7.0								
EER					2.74	2.59	2.48	2.61	2.46	2.55	2.63	2.75	2.63	2.61	2.52	2.54	2.47	2.42	2.48	2.40		
ESEER					3.91	3.78	3.81	3.79	3.98	3.76	3.95	3.92	3.81	3.78	3.70	3.72	3.66	3.70	3.71	3.66		
IPLV					4.39	4.41	4.19	4.29	4.21	4.33	4.52	4.35	4.29	4.27	4.28	4.23	4.24	4.27	4.21			
Dimensions	Unit	Height		mm	2,540																	
		Width		mm	2,285																	
		Depth		mm	6,285				7,185	8,085	10,285		11,185				12,085					
Weight	Unit			kg	5,920	6,030	6,050	6,570	6,850	7,300	7,570	8,190		10,750	10,770	11,150	11,210	11,680	12,040			
	Operation weight			kg	6,200	6,280	6,300	6,820	7,100	7,540	7,810	8,570		11,170		11,550	11,700	12,560	12,920			
Water heat exchanger	Type				Single pass shell & tube																	
	Water flow rate	Cooling	Nom.	l/s	29.5	34.1	37.6	41.8	44.0	48.7	53.1	60.6	63.0	65.2	70.2	74.2	77.3	81.8	85.6	87.5		
	Water pressure drop	Cooling	Nom.	kPa	43	50	48	58	63	60	69	50	54	45	57	63	46	33	36	37		
	Water volume			l	266		251		243		386		421	408		474		850				
Air heat exchanger	Type				High efficiency fin and tube type																	
Compressor	Type				Asymmetric single screw compressor																	
	Quantity				2									3								
Fan	Type				Direct propeller																	
	Quantity				10		12		14	16	18		20		22		24					
	Air flow rate	Nom.		l/s	41,007		49,208		57,410	65,611	73,812		82,014		90,215		98,417					
	Speed			rpm	700																	
Sound power level	Cooling	Nom.		dBA	92		93		94		95		96									
Sound pressure level	Cooling	Nom.		dBA	71	72				73								74				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~46																	
	Water side	Cooling	Min.~Max.	°CDB	-8~15																	
Refrigerant	Type / GWP				R-134a / 1,430																	
	Circuits	Quantity			2									3								
Refrigerant charge	Per circuit			kg	64.0		76.5	80.0	91.0	94.0	110.0		86.7				91.7		101.7			
		TCO _{2eq}	91.5		109.4	114.4	130.1	134.4	157.3		123.9				131.1		145.4					
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm								219.1mm						273mm			
Unit	Starting current	Max		A	597	642		906	953	1,007	1,010	1,055	1,068	1,241	1,292	1,344	1,346	1,389	1,434	1,447		
	Running current	Cooling	Nom.	A	371	450	518	548	609	654	694	755	811	857	954	1,002	1,075	1,158	1,179	1,238		
		Max		A	462	531	575	639	698	767	837	895	949	1,052	1,116	1,186	1,250	1,303	1,362	1,415		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																	

Air cooled screw chiller, high efficiency, standard/low sound

- › Stepless single-screw compressor
- › Large operation range (ambient temperature down to -18°C and up to 50°C)
- › 2-3 truly independent refrigerant circuits
- › DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- › Partial and total heat recovery option available
- › Standard electronic expansion valve
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWAD-C-XS/XL				760	830	890	990	C10	C11	C12	C13	H14	H15	C16	C17	C18	C19	C20	C21	C22		
Cooling capacity	Nom.			kW	752	827	885	997	1,069	1,192	1,276	1,343	1,408	1,517	1,590	1,678	1,760	1,849	1,896	1,947	2,002					
Power input	Cooling	Nom.		kW	237	256	282	311	343	367	404	416	450	483	510	541	569	598	619	648	678					
Capacity control	Method				Stepless																					
	Minimum capacity			%	12.5												7.0									
EER					3.17	3.22	3.14	3.20	3.12	3.25	3.15	3.23	3.13	3.14	3.12	3.10	3.09		3.06	3.00	2.95					
ESEER					3.77	3.92	3.81	3.91	3.84	3.99	3.86	4.05	4.04	4.06	4.00	3.96	3.94	3.93	4.02	3.91	3.89					
IPLV					4.48	4.52	4.50	4.44	4.50	4.47	4.60	4.71	4.81	4.58	4.59	4.51	4.53	4.57	4.42	4.47						
Dimensions	Unit	Height	mm	2,540																						
		Width	mm	2,285																						
		Depth	mm	6,285	7,185	8,085				9,885				12,085	12,985	13,885	14,785									
Weight (XS)	Unit		kg	5,990	6,340	6,360	7,190	7,470	8,220	8,240	8,900				11,570	11,900	12,260	12,600								
	Operation weight		kg	6,240	6,580	6,600	7,600	7,870	8,610	8,630	9,890				12,430	12,760	13,140	13,470								
Weight (XL)	Unit		kg	6,280	6,630	6,650	7,480	7,760	8,510	8,530	9,190				12,010	12,350	12,700	13,040								
	Operation weight		kg	6,520	6,870	6,890	7,880	8,160	8,900	8,920	10,180				12,870	13,200	13,580	13,910								
Water heat exchanger	Type				Single pass shell & tube																					
	Water flow rate	Cooling	Nom.	l/s	36.1	39.6	42.4	47.8	51.2	57.1	61.1	64.4	67.5	72.8	76.1	80.4	84.4	88.6	90.7	93.2	95.8					
	Water pressure drop	Cooling	Nom.	kPa	81	57	64	61	69	45	51	68	77	84	62	68		74	39	41	43					
	Water volume			l	251	243			403			386			979			850		871		850				
Air heat exchanger	Type				High efficiency fin and tube type																					
	Compressor				Asymmetric single screw compressor																					
Fan	Quantity				2										3											
	Type				Direct propeller																					
	Quantity				12	14	16				20						24	26	28	30						
	Air flow rate	Nom.		l/s	64,131	74,819	85,508				106,885						128,262	138,950	149,639	160,327						
	Speed			rpm	900																					
Sound power level (XS)	Cooling	Nom.	dBA	100	101				102				103						104							
Sound power level (XL)	Cooling	Nom.	dBA	97				98				99						100								
Sound pressure level (XS)	Cooling	Nom.	dBA	80				81				80						81								
Sound pressure level (XL)	Cooling	Nom.	dBA	76									77										78			
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50																					
	Water side	Cooling	Min.~Max.	°CDB	-8~15																					
Refrigerant	Type / GWP				R-134a / 1,430																					
	Circuits	Quantity			2										3											
Refrigerant charge	Per circuit		kg	75.0	81.0	91.0	100.0	115.0	117.5	125.0	145.5	125.0	99.0	82.7	103.3	109.0	113.3	120.0								
		TCO _{eq}	107.3	115.8	130.1	143.0	164.5	168.0	178.8	208.1	178.8	141.6	118.2	147.8	155.9	162.1	171.6									
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm				219.1mm								273mm									
Unit	Starting current	Max		A	618	657	923	970	1,029				1,072	1,085	1,268	1,328	1,387	1,430	1,472	1,486						
	Running current	Cooling	Nom.	A	387	423	463	511	559	607	667	686	731	778	835	885	934.0	984	1,018	1,059	1,100					
		Max		A	510	561	605	672	731	811	875				929	982	1,096	1,168	1,241	1,313	1,366	1,419	1,473			
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																					

Air cooled screw chiller, high efficiency, reduced sound



Cooling only				EWAD-C-XR	740	810	870	970	C10	C11	C12	C13	H14	H15	C16	C17	C18	C19	C20	C21	C22	
Cooling capacity	Nom.			kW	732	808	862	970	1,036	1,164	1,243	1,297	1,360	1,460	1,544	1,632	1,715	1,805	1,849	1,897	1,947	
Power input	Cooling	Nom.		kW	238	257	285	313	348	369	409	420	460	498	518	548	574	604	629	662	696	
Capacity control	Method			%	Stepless																	
	Minimum capacity				12.5										7.0							
EER					3.07	3.15	3.03	3.10	2.98	3.16	3.04	3.09	2.96	2.93	2.98		2.99		2.94	2.87	2.80	
ESEER				4.01	4.16	4.01	4.12	4.01	4.21	4.07	4.10		4.12	4.08	4.00	4.05	4.00	4.09	3.96	3.94		
IPLV				4.56	4.62	4.51	4.63	4.59	4.65	4.61	4.63	4.74	4.83	4.67	4.65		4.63	4.69	4.54	4.53		
Dimensions	Unit	Height		mm	2,540																	
		Width		mm	2,285																	
		Depth		mm	6,285	7,185		8,085		9,885				12,085	12,985	13,885	14,785					
Weight	Unit			kg	6,280	6,630	6,650	7,480	7,760	8,510	8,530	9,190		12,010	12,350	12,700	13,040					
	Operation weight			kg	6,520	6,870	6,890	7,880	8,160	8,900	8,920	10,180		12,870	13,200	13,580	13,910					
Water heat exchanger	Type				Single pass shell & tube																	
	Water flow rate	Cooling	Nom.	l/s	35.1	38.7	41.3	46.5	49.7	55.7	59.5	62.1	65.2	70.0	74.0	78.2	82.2	86.5	88.5	90.7	93.1	
	Water pressure drop	Cooling	Nom.	kPa	77	54	61	58	65	43	49	64	73	79	59	65		71	37	39	41	
	Water volume			l	251	243		403		386				979		850		871		850		
Air heat exchanger	Type				High efficiency fin and tube type																	
Compressor	Type				Asymmetric single screw compressor																	
	Quantity				2										3							
Fan	Type				Direct propeller																	
	Quantity				12	14		16		20				24	26	28	30					
	Air flow rate	Nom.		l/s	49,208	57,410		65,611		82,014				98,417	106,618	114,819	123,021					
	Speed			rpm	700																	
Sound power level	Cooling	Nom.		dB(A)	92		94			95				96				97				
Sound pressure level	Cooling	Nom.		dB(A)	72			73		72			73				74					
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50																	
	Water side	Cooling	Min.~Max.	°CDB	-8~15																	
Refrigerant	Type / GWP				R-134a / 1,430																	
	Circuits	Quantity			2										3							
	GWP				1,430																	
Refrigerant charge	Per circuit			kg	75.0	81.0		91.0	100.0	115.0	117.5	125.0	124.0	103.3	109.0	113.3	120.0		125.0			
				TCO _{eq}	107.3	115.8		130.1	143.0	164.5	168.0	178.8	177.3	147.8	155.9	162.1	171.6		178.8			
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm				219.1mm				273mm									
Unit	Starting current	Max		A	610	647		911	959	1,015			1,058	1,071	1,246	1,303	1,359	1,402	1,444	1,458		
	Running current	Cooling	Nom.	A	392	426	470	518	572	613	679	699	753	807	854	903	951	1,000	1,040	1,087	1,136	
		Max		A	493	542	585	649	708	783	847		901	954	1,063	1,132	1,201	1,271	1,324	1,377	1,431	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																	

Air cooled screw chiller, premium efficiency, standard/low sound

- › Stepless single-screw compressor
- › Excellent part load efficiency
- › Large operation range (ambient temperature down to -18°C and up to 52°C)
- › 2 truly independent refrigerant circuits
- › DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- › Partial and total heat recovery option available
- › Standard electronic expansion valve
- › MicroTech III controller with superior control logic and easy interface

Cooling only					EWAD-C-PS/PL		820	890	980	C11	C12	C13	C14	C15	C16	
Cooling capacity	Nom.			kW			818	886	973	1,070	1,153	1,274	1,384	1,467	1,554	
Power input	Cooling	Nom.		kW			229	253	276	306	335	368	402	432	461	
Capacity control	Method						Stepless									
	Minimum capacity			%			12.5									
EER							3.57	3.51	3.52	3.49	3.44	3.46	3.44	3.40	3.37	
ESEER							4.22	4.25	4.30	4.29	4.14	4.23	4.07	4.06	4.03	
IPLV							4.78	4.67	4.79	4.69	4.73	4.68	4.73		4.71	
Dimensions	Unit	Height		mm			2,540									
				mm			2,285									
				Depth	mm			8,985			9,885		11,185	12,085		
					kg	7,530		7,660	8,290	8,550	9,390	9,730				
Weight (PS)	Operation weight			kg			8,130		8,700	9,330	9,590	10,380	10,720			
	Weight (PL)	Unit			kg			7,820		7,950	8,580	8,840	10,380	10,720		
Operation weight			kg			8,420		8,990	9,620	9,880	10,670	11,010				
Water heat exchanger	Type						Single pass shell & tube									
	Water flow rate	Cooling	Nom.	l/s	39.2	42.5	46.5	51.2	55.2	61.0	66.3	70.3	74.5			
	Water pressure drop	Cooling	Nom.	kPa	58	67	31	61	70	60	70	81	88			
	Water volume			l	599		1,043	1,027		995	979					
Air heat exchanger	Type						High efficiency fin and tube type									
Compressor	Type						Asymmetric single screw compressor									
	Quantity						2									
Fan	Type						Direct propeller									
	Quantity						18		20		22	24				
	Air flow rate	Nom.		l/s	96,196			106,885		117,573	128,262					
	Speed				rpm			900								
Sound power level (PS)	Cooling	Nom.		dBA			101		102		103			104		
Sound power level (PL)	Cooling	Nom.		dBA			98		99	100	99	100				
Sound pressure level (PS)	Cooling	Nom.		dBA			80			81	80	81				
Sound pressure level (PL)	Cooling	Nom.		dBA						77			78			
Operation range	Air side	Cooling	Min.~Max.	°CDB			-18~-52									
	Water side	Cooling	Min.~Max.	°CDB			-8~-15									
Refrigerant	Type / GWP						R-134a / 1,430									
	Circuits						2									
Refrigerant charge	Per circuit			kg			102.0		115.0	120.0	137.5	140.0				
				TCO _{eq}			145.9		164.5	171.6	196.6	200.2				
Piping connections	Evaporator water inlet/outlet (OD)						219.1mm		273mm							
Unit	Starting current	Max		A	630	665		702	978	1,037			1,080	1,093		
	Running current	Cooling	Nom.	A	386	424	465	511	555	614	671	711	752			
		Max		A	534	577	621	670	747	819	891	945	998			
Power supply	Phase/Frequency/Voltage				Hz/V			3~/50/400								

Air cooled screw chiller, premium efficiency, reduced sound



EWAD-C-PS/PL/PR

MicroTech III

Cooling only				EWAD-C-PR	810	880	960	C10	C11	C13	C14	C15	C16
Cooling capacity	Nom.			kW	806	871	954	1,049	1,127	1,246	1,353	1,432	1,513
Power input	Cooling	Nom.		kW	222	248	275	303	335	369	402	432	465
Capacity control	Method				Stepless								
	Minimum capacity			%	12.5								
EER					3.63	3.51	3.47	3.46	3.36	3.38	3.36	3.32	3.25
ESEER					4.39	4.33	4.40	4.35	4.25	4.33	4.26	4.23	4.15
IPLV					5.07	4.89		4.92	4.82	4.81	4.85		4.79
Dimensions	Unit	Height		mm	2,540								
		Width		mm	2,285								
		Depth		mm	8,985								
Weight	Unit			kg	7,820		7,950	8,580	8,840	10,380		10,720	
	Operation weight			kg	8,420		8,990	9,620	9,880	10,670		11,010	
Water heat exchanger	Type				Single pass shell & tube								
	Water flow rate	Cooling	Nom.	l/s	38.6	41.7	45.6	50.2	54.0	59.7	64.8	68.7	72.6
	Water pressure drop	Cooling	Nom.	kPa	56	65	30	59	67	58	67	77	84
	Water volume			l	599		1,043	1,027		995		979	
Air heat exchanger	Type				High efficiency fin and tube type								
Compressor	Type				Asymmetric single screw compressor								
	Quantity				2								
Fan	Type				Direct propeller								
	Quantity				18			20	22		24		
	Air flow rate	Nom.		l/s	73,812			82,014	90,215		98,417		
	Speed			rpm	700								
Sound power level	Cooling	Nom.		dBA	93								
Sound pressure level	Cooling	Nom.		dBA	71								
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~-52								
	Water side	Cooling	Min.~Max.	°CDB	-8~-15								
Refrigerant	Type / GWP				R-134a / 1,430								
	Circuits		Quantity		2								
Refrigerant charge	Per circuit			kg	102.0			115.0	120.0	137.5		140.0	
				TCO _{eq}	145.9			164.5	171.6	196.6		200.2	
Piping connections	Evaporator water inlet/outlet (OD)				219.1mm				273mm				
Unit	Starting current	Max		A	618	653		917	964	1,020		1,063	1,076
	Running current	Cooling	Nom.	A	375	416	461	506	555	614	671	717	764
		Max		A	509	552	596	660	719	788	858	911	964
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400								

Air cooled screw inverter chiller, high efficiency, standard/low sound

- › High efficiency with leader-of-class ESEER
- › Inverter stepless single-screw compressor
- › Highly efficient fans with patented blade profile for quiet operation
- › Extensive option list (heat recovery option available)
- › Wide operating range
- › Low starting current
- › MicroTech III controller with superior control logic and easy interface

Cooling only					EWAD-CZXS/XL				740	830	900	C10	C11	C12	C13	C14	C15	C16	C17	C18	
Cooling capacity	Nom.			kW	734	828	898	1,033	1,090	1,232	1,303	1,444	1,538	1,616	1,701	1,795					
Power input	Cooling	Nom.		kW	239	269	309	343	380	404	447	494	538	564	596	619					
Capacity control	Method				Stepless																
	Minimum capacity				20.0												13.0				
EER					3.07		2.90	3.01	2.87	3.05	2.92	2.93	2.86		2.85	2.90					
ESEER					4.72	4.89	4.88	4.91	4.70		4.51	4.73	4.83	4.59	4.62	4.61					
IPLV					5.68	5.72	5.79	5.73	5.56	5.58	5.45	5.61	5.75	5.65	5.46	5.29					
Dimensions	Unit	Height		mm	2,540																
		Width		mm	2,285																
		Depth		mm	6,725	7,625		8,525		10,325		11,625	12,525		13,425	14,325					
Weight (XS)	Unit		kg	6,000	6,620	6,870	7,440		8,570		8,970	9,600	9,940	11,370	12,190	12,920					
	Operation weight		kg	6,250	6,860	7,110	7,880		8,960		9,360	9,980	10,320	12,220	13,040	13,790					
Weight (XL)	Unit		kg	6,280	6,900	7,150	7,720		8,850		9,250	9,880	10,220	11,790	12,610	13,340					
	Operation weight		kg	6,530	7,140	7,390	8,160		9,240		9,640	10,260	10,600	12,640	13,460	14,210					
Water heat exchanger	Type				Single pass shell & tube																
	Water flow rate	Cooling	Nom.	l/s	35.2	39.7	43.0	49.5	52.3	59.0	62.4	69.2	73.7	77.4	81.5	86.0					
	Water pressure drop	Cooling	Nom.	kPa	83	58	65	63	70	47	52	62	72	63	69	65					
	Water volume			l	248	241		441		383		374		850		871					
Air heat exchanger	Type				High efficiency fin and tube type																
	Compressor	Type				Asymmetric single screw compressor															
Fan	Quantity				2												3				
	Type				Direct propeller																
	Quantity				12	14		16		20		22	24		26	28					
	Air flow rate	Nom.		l/s	65,026	75,863		86,701		108,376		119,214	130,051	129,455	140,143	151,130					
	Speed				rpm	900															
Sound power level (XS)	Cooling	Nom.		dBA	102	103				104				106							
Sound power level (XL)	Cooling	Nom.		dBA	99	100				101				103							
Sound pressure level (XS)	Cooling	Nom.		dBA	81										83						
Sound pressure level (XL)	Cooling	Nom.		dBA	78										80						
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50																
	Water side	Cooling	Min.~Max.	°CDB	-8~15																
Refrigerant	Type / GWP				R-134a / 1,430																
	Circuits	Quantity				2												3			
Refrigerant charge	Per circuit			kg	73.0	81.0		100.0		125.0		140.0	106.7	113.3	116.7						
				TCO _{eq}	104.4	115.8		143.0		178.8		200.2	152.5	162.1	166.8						
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm				219.1mm				273mm								
Unit	Starting current	Max		A	377	420	451	501	540	590	626	709	772	848	899	949					
	Running current	Cooling	Nom.	A	406	442	485	537	591	636	698	769	837	881	931	970					
		Max		A	529	584	632	697	755	824	877	979	1,081	1,132	1,193	1,255					
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400															

Air cooled screw inverter chiller, high efficiency, reduced sound



EWAD-CZXS/XL/XR

MicroTech III

Cooling only				EWAD-CZXR	700	790	850	980	C10	C11	C12	C13	C14	C15	C16	C17		
Cooling capacity	Nom.			kW	696	786	849	972	1,027	1,166	1,231	1,327	1,437	1,539	1,624	1,706		
Power input	Cooling	Nom.		kW	246	274	318	351	393	412	459	493	523	585	617	638		
Capacity control	Method				Stepless													
	Minimum capacity			%	20.0										13.0			
EER					2.83	2.86	2.67	2.77	2.61	2.83	2.68	2.69	2.75	2.63		2.67		
ESEER					5.23	5.39	5.36	5.41	5.11	5.15	4.80	5.12	5.22	5.10	4.83	4.77		
IPLV					6.14	6.32	6.37	6.34	6.05	5.96	5.67	6.03	6.21	6.17	5.89	5.85		
Dimensions	Unit	Height		mm	2,540													
		Width		mm	2,285													
		Depth		mm	6,725	7,625		8,525		10,325		11,625		12,525		13,425	14,325	
Weight	Unit			kg	6,470	7,100	7,360	7,950		9,120	9,530	10,180	10,530	12,150	12,990	13,740		
	Operation weight			kg	6,720	7,340	7,600	8,390		9,500	9,920	10,550	10,910	13,000	13,840	14,610		
Water heat exchanger	Type				Single pass shell & tube													
	Water flow rate	Cooling	Nom.	l/s	33.4	37.6	40.7	46.6	49.2	55.8	58.9	63.6	68.8	73.7	77.8	81.7		
	Water pressure drop	Cooling	Nom.	kPa	76	54	59	58	64	43	48	57	66	57	63	60		
	Water volume			l	248	241		441		383		374		850		871		
Air heat exchanger	Type				High efficiency fin and tube type													
Compressor	Type				Asymmetric single screw compressor													
	Quantity				2										3			
Fan	Type				Direct propeller													
	Quantity				12	14		16		20		22	24		26	28		
	Air flow rate	Nom.		l/s	49,843	58,151		66,458		83,072		91,380	99,687		107,994	116,301		
	Speed			rpm	700													
Sound power level	Cooling	Nom.		dBA	95	96				97				99				
Sound pressure level	Cooling	Nom.		dBA	74										76			
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~-50													
	Water side	Cooling	Min.~Max.	°CDB	-8~-15													
Refrigerant	Type / GWP				R-134a / 1,430													
	Circuits	Quantity			2										3			
Refrigerant charge	Per circuit			kg	73.0	81.0		100.0		125.0		140.0	106.7	113.3	116.7			
		TCO _{eq}	104.4	115.8		143.0		178.8		200.2	152.5	162.1	166.8					
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm				219.1mm				273mm					
Unit	Starting current	Max		A	369	410	442	490	528	576	612	693	756	825	873	921		
	Running current	Cooling	Nom.	A	416	449	498	549	610	647	715	789	859	912	960	998		
		Max		A	512	565	612	675	732	796	849	949	1,048	1,098	1,157	1,215		
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400												

Air cooled screw chiller with free cooling, high efficiency, standard/low sound

- › Free cooling chiller for space cooling and industrial processes
- › Stepless single-screw compressor
- › Greater energy savings and reduced CO₂ emissions during cold season
- › Wide operating range
- › MicroTech III controller with superior control logic and easy interface

Cooling only			EWAD-CFXS/XL			640	770	850	900	C10	C11	C12	C13	C14	C15	C16			
Cooling capacity	Nom.		kW	640 (1)	772 (1)	852 (1)	902 (1)	1,027 (1)	1,089 (1)	1,269 (1)	1,349 (1)	1,435 (1)	1,493 (1)	1,555 (1)					
Free cooling capacity	Nom.		kW	415 (2)	510 (2)	583 (2)	612 (2)	701 (2)	734 (2)	902 (2)	957 (2)	963 (2)	1,013 (2)	1,039 (2)					
Mechanical capacity			kW	225 (2)	262 (2)	269 (2)	290 (2)	325 (2)	355 (2)	366 (2)	392 (2)	472 (2)	480 (2)	517 (2)					
Air temperature for free cooling 100%			°C	-0.8	-0.1	1.2	0.4	0.9	0.1	2.9	2.1	1.3	0.7	0.1					
Power input	Cooling	Nom.	kW	257 (1) / 53.7 (2)	272 (1) / 62.0 (2)	293 (1) / 64.7 (2)	324 (1) / 69.8 (2)	360 (1) / 75.7 (2)	399 (1) / 83.4 (2)	397 (1) / 86.4 (2)	439 (1) / 92.8 (2)	454 (1) / 101 (2)	492 (1) / 109 (2)	530 (1) / 115 (2)					
Capacity control	Method			Stepless															
	Minimum capacity		%	12.5															
EER				2.49 (1) / 11.91 (2)	2.84 (1) / 12.44 (2)	2.90 (1) / 13.17 (2)	2.78 (1) / 12.93 (2)	2.85 (1) / 13.56 (2)	2.73 (1) / 13.05 (2)	3.19 (1) / 14.68 (2)	3.08 (1) / 14.55 (2)	3.16 (1) / 14.21 (2)	3.04 (1) / 13.72 (2)	2.93 (1) / 13.50 (2)					
ESEER				3.44	3.52	3.78	3.50	3.74	3.54	3.88	3.78	4.01	3.96	3.85					
IPLV				3.86	4.03	4.10	4.05	4.00	3.95	4.36	4.25	4.36	4.35	4.26					
Dimensions	Unit	Height	mm	2,565															
			mm	2,480															
			mm	6,300	7,200	8,100	9,000					10,800							
Weight (XS)	Unit		kg	7,760	8,340	8,900		10,160	10,420	11,900		12,540	12,620	12,670					
	Operation weight		kg	8,515	9,100	9,705		11,169	11,429	13,276		14,516	14,596	14,646					
Weight (XL)	Unit		kg	8,050	8,620	9,190		10,450	10,710	12,190		12,830	12,910	12,960					
	Operation weight		kg	8,795	9,390	9,995		11,459	11,719	13,566		14,806	14,886	14,936					
Water heat exchanger	Type			Single pass shell & tube															
	Water flow rate	Cooling	Nom.	l/s	27.8 (1) / 27.8 (2)	33.5 (1) / 33.5 (2)	37.0 (1) / 37.0 (2)	39.2 (1) / 39.2 (2)	44.6 (1) / 44.6 (2)	47.3 (1) / 47.3 (2)	55.1 (1) / 55.1 (2)	58.6 (1) / 58.6 (2)	62.4 (1) / 62.4 (2)	64.9 (1) / 64.9 (2)	67.6 (1) / 67.6 (2)				
	Water pressure drop	Cooling	Nom.	kPa	85 (1) / 128 (2)	105 (1) / 172 (2)	90 (1) / 178 (2)	101 (1) / 198 (2)	111 (1) / 245 (2)	124 (1) / 272 (2)	98 (1) / 232 (2)	110 (1) / 259 (2)	139 (1) / 305 (2)	150 (1) / 328 (2)	162 (1) / 354 (2)				
	Water volume		l	741	771	808		1,012		1,372		1,965							
Air heat exchanger	Type			High efficiency fin and tube type															
Compressor	Type			Asymm single screw															
	Quantity			2															
Fan	Type			Direct propeller															
	Quantity			10	12	14		16		20									
	Air flow rate	Nom.	l/s	50,368	60,441	70,515		80,588		95,253									
	Speed		rpm	920															
Sound power level (XS)	Cooling	Nom.	dBA	100		101			102			103							
Sound power level (XL)	Cooling	Nom.	dBA	96	97			98			99								
Sound pressure level (XS)	Cooling	Nom.	dBA	79	80			81			80								
Sound pressure level (XL)	Cooling	Nom.	dBA	76		77													
Operation range	Air side	Cooling	Min.~Max.	°CDB	-20~45														
	Water side	Cooling	Min.~Max.	°CDB	-8~15														
Refrigerant	Type / GWP			R-134a / 1,430															
	Circuits	Quantity		2															
Refrigerant charge	Per circuit		kg	64.0	73.0	81.0		91.0		107.0		112.5		124.0					
		TCO ₂ eq	91.5	104.4	115.8		130.1		153.0		160.9		177.3						
Piping connections	Evaporator water inlet/outlet (OD)			DN150PN16(168.3mm)					DN200PN16(219.1mm)					DN250PN16(273mm)					
Unit	Starting current	Max	A	605	619	658		924		971		1,030		1,073		1,086			
	Running current	Cooling	Nom.	A	404	430	467	515	568	628	636	701	720	773	825				
		Max	A	476	510	561	605	672	731	811	875		929		982				
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400														

(1) Cooling: evaporator 16/10°C, ambient 35°C, unit at full load operation; standard: ISO 3744 (2) Data is calculated at ambient air temperature 5°C, inlet water temperature 16°C.

Air cooled screw chiller with free cooling, high efficiency, reduced sound



EWAD-CF XS/XL/XR

MicroTech III

Cooling only				EWAD-CFXR	600	740	820	870	980	C10	C11	C12	C13	C14	C15	
Cooling capacity	Nom.			kW	602 (1)	739 (1)	821 (1)	866 (1)	981 (1)	1,034 (1)	1,229 (1)	1,302 (1)	1,374 (1)	1,424 (1)	1,476 (1)	
Free cooling capacity	Nom.			kW	374 (2)	468 (2)	539 (2)	562 (2)	644 (2)	670 (2)	825 (2)	866 (2)	889 (2)	909 (2)	929 (2)	
Mechanical capacity				kW	228 (2)	271 (2)	282 (2)	304 (2)	337 (2)	364 (2)	404 (2)	435 (2)	486 (2)	515 (2)	547 (2)	
Air temperature for free cooling 100%				°C	-2.3	-1.9	-0.6	-1.5	-0.9	-1.7	0.7	-0.2	-1.1	-1.6	-2.3	
Power input	Cooling	Nom.		kW	263 (1) / 46.6 (2)	278 (1) / 56.2 (2)	299 (1) / 58.5 (2)	334 (1) / 63.1 (2)	368 (1) / 68.5 (2)	412 (1) / 74.4 (2)	403 (1) / 80.0 (2)	450 (1) / 87.5 (2)	466 (1) / 93.4 (2)	511 (1) / 103 (2)	556 (1) / 109 (2)	
Capacity control	Method				Stepless											
	Minimum capacity			%	12.5											
EER					2.29 (1) / 12.91 (2)	2.66 (1) / 13.17 (2)	2.75 (1) / 14.04 (2)	2.59 (1) / 13.71 (2)	2.67 (1) / 14.33 (2)	2.51 (1) / 13.89 (2)	3.05 (1) / 15.36 (2)	2.90 (1) / 14.87 (2)	2.95 (1) / 14.7 (2)	2.79 (1) / 13.85 (2)	2.66 (1) / 13.56 (2)	
ESEER					3.59	3.66	3.89	3.62	3.83	3.63	4.13	3.89	4.09	4.02	3.92	
IPLV					4.09	4.15	4.16	4.20	4.10	4.08	4.42	4.37	4.42	4.28		
Dimensions	Unit	Height		mm	2,565											
				mm	2,480											
				mm	6,300	7,200	8,100		9,000		10,800					
Weight	Unit			kg	8,050	8,620	9,190		10,450	10,710	12,190		12,830	12,910	12,960	
	Operation weight			kg	8,795	9,390	9,995		11,459	11,719	13,566		14,806	14,886	14,936	
Water heat exchanger	Type				Single pass shell & tube											
	Water flow rate	Cooling	Nom.	l/s	26.2 (1) / 26.2 (2)	32.1 (1) / 32.1 (2)	35.7 (1) / 35.7 (2)	37.6 (1) / 37.6 (2)	42.6 (1) / 42.6 (2)	44.9 (1) / 44.9 (2)	53.4 (1) / 53.4 (2)	56.6 (1) / 56.6 (2)	59.7 (1) / 59.7 (2)	61.9 (1) / 61.9 (2)	64.1 (1) / 64.1 (2)	
	Water pressure drop	Cooling	Nom.	kPa	76 (1) / 115 (2)	97 (1) / 159 (2)	84 (1) / 167 (2)	93 (1) / 184 (2)	102 (1) / 225 (2)	113 (1) / 248 (2)	92 (1) / 219 (2)	103 (1) / 243 (2)	128 (1) / 282 (2)	137 (1) / 301 (2)	146 (1) / 321 (2)	
	Water volume			l	741	771	808		1,012		1,372		1,965			
Air heat exchanger	Type				High efficiency fin and tube type											
Compressor	Type				Asymm single screw											
	Quantity				2											
Fan	Type				Direct propeller											
	Quantity				10	12	14		16		20					
	Air flow rate	Nom.		l/s	38,935	46,722	54,508		62,295		73,011					
	Speed			rpm	715											
Sound power level	Cooling	Nom.		dB(A)	92					94		95				
Sound pressure level	Cooling	Nom.		dB(A)	71	72				73		72		73		
Operation range	Air side	Cooling	Min.~Max.	°CDB	-20~45											
	Water side	Cooling	Min.~Max.	°CDB	-8~15											
Refrigerant	Type / GWP				R-134a / 1,430											
	Circuits	Quantity			2											
Refrigerant charge	Per circuit			kg	64.0	73.0	81.0		91.0		107.0		112.5		124.0	
		TCO _{2eq}	91.5	104.4	115.8		130.1		153.0		160.9		177.3			
Piping connections	Evaporator water inlet/outlet (OD)				DN150PN16(168.3mm)					DN200PN16(219.1mm)			DN250PN16(273mm)			
Unit	Starting current	Max		A	598	611	648		912	960	1,016		1,059		1,072	
	Running current	Cooling	Nom.	A	411	439	473	526	580	647	645	717	738	800	862	
		Max		A	462	493	542	585	649	708	783	847		901	954	
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400										

(1) Cooling: entering evaporator water temp. 16°C; leaving evaporator water temp. 10°C; ambient air temp. 35°C; full load operation. (2) Data is calculated at ambient air temperature 5°C, inlet water temperature 16°C.

Air cooled mini inverter heat pump

- › Top product in terms of energy efficiency and operation range
- › All capacities available in 2 versions: standard version and version with OP10 option (no freeze up of water when not in operation thanks to the water piping heater tape)
- › Easy,plug and play' installation
- › Amongst the most quiet units in the market (63dBA - sound power)
- › Single phase power supply and low starting currents make the unit ideal for residential applications
- › Weight reduced with 20% compared with the previous models.
- › Built-in Hydraulic kit: no buffer tank required, standard inverter driven pump, main flow sensor and switch included.
- › Standard wired remote control enables setting of different set points (cooling, heating, water leaving temperature) or based on outdoor conditions (weather dependent control). It has an alarm history, night time noise reduction function and is language based.



Heating & Cooling					EWYQ-BVP	004	005	006	008
Cooling capacity	Nom.			kW		4.00 / 4.01	4.93 / 5.07	5.88 / 6.07	7.95 / 8.23
Heating capacity	Nom.			kW		4.11 / 3.96	4.99 / 4.99	6.14 / 6.12	8.08 / 8.44
	Max.			kW		5.1	6.0	-	
Power input	Cooling	Nom.		kW		1.27 / 0.840	1.61 / 1.12	1.87 / 1.13	2.57 / 1.65
	Heating	Nom.		kW		1.19 / 0.860	1.46 / 1.09	1.75 / 1.28	2.31 / 1.84
Capacity control	Method					Variable (inverter)			
EER						3.14 / 4.80	3.06 / 4.51	3.15 / 5.35	3.10 / 4.99
COP						3.44 / 4.61	3.41 / 4.58	3.51 / 4.77	3.49 / 4.59
ESEER						4.45	4.49	5.25	5.24
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%		155	159	158	165
					SCOP	3.90	4.03		4.21
					Seasonal space heating eff. class	A++			
Dimensions	Unit	HeightxWidthxDepth			mm	735x1,090x350			997x1,160x380
Weight	Unit				kg	83			106
Water heat exchanger	Type					Braze plate			
	Water flow rate	Cooling	Nom.	l/min		11.5 / 11.5	14.1 / 14.5	16.9 / 17.4	22.8 / 23.6
		Heating	Nom.	l/min		11.8 / 11.4	14.3 / 14.3	17.6 / 17.5	23.2 / 24.2
	Water volume					l	1	2	
Air heat exchanger	Type					Cross fin coil/Hi-X tubes and chromate coated waffle louvre fins			Cross fin coil/Hi-X tubes and PE coated waffle louvre fins
Compressor	Type	Hermetically sealed swing compressor							
	Quantity	1							
Fan	Type	Propeller fan							
	Quantity	1							
	Air flow rate	Cooling	Nom.	m³/min		53			72
		Heating	Nom.	m³/min		47.0			46.6 49.3
Sound power level	Cooling	Nom.		dBA		63	64	69	
	Heating	Nom.		dBA		65			
Sound pressure level	Cooling	Nom.		dBA		48	49	52	53
	Heating	Nom.		dBA		49			47
Operation range	Air side	Cooling	Min.~Max.	°CDB		10~43			10~46
		Heating	Min.~Max.	°CDB		-20~25			-15~25
	Water side	Cooling	Min.~Max.	°CDB		5~22			
		Heating	Min.~Max.	°CDB		15 ~55			
Refrigerant	Type/GWP					R-410A/2,088			R-410A/2,087.5
	Control	Electronic expansion valve							
	Circuits	Quantity	1						
Refrigerant charge	Per circuit				kg	2.10			2.70
	Per circuit				TCO2eq	4.4			5.6
Water circuit	Piping connections diameter				inch	1" MBSP			
Unit	Starting current		Max	A		15.7			19.9
	Running current		Max	A		15.7			19.9
Power supply	Phase/Frequency/Voltage				Hz/V	1N~/50/230			

Air cooled mini inverter heat pump

- › Inverter technology to ensure low sound values and leader-of-class ESEER
- › Wide operating range
- › Built-in hydronic module: no buffer tank required and a standard pump and main switch are included
- › Easy 'plug and play' installation
- › Single phase power supply for residential applications, three phase power supply model available for light commercial applications



Heating & Cooling				EWYQ-ACV3/ACW1	009	010	011	009	011	013	
Cooling capacity	Nom.			kW	12.2 (1) / 8.60	13.6 (1) / 9.60	11.1 / 15.7 (1)	12.9 (1) / 9.10	15.7 (1) / 11.1	17.0 (1) / 13.3	
Heating capacity	Nom.			kW	9.90 / 10.2 (1)	11.7 (1) / 11.4	13.8 (1) / 12.9	10.90 / 11.20 (1)	13.2 (1) / 12.4	14.8 (1) / 13.9	
Power input	Cooling	Nom.		kW	2.83 / 2.85 (1)	3.28 / 3.41 (1)	3.90 / 4.13 (1)	3.05 / 3.08 (1)	4.13 (1) / 3.90	5.18 / 5.52 (1)	
	Heating	Nom.		kW	2.43 (1) / 2.99	2.81 (1) / 3.46	3.20 (1) / 3.94	2.69 (1) / 3.31	3.07 (1) / 3.78	3.47 (1) / 4.27	
Capacity control	Method				Inverter controlled						
EER					3.05 / 4.27 (1)	2.93 / 4.00 (1)	2.85 / 3.79 (1)	2.99 / 4.19 (1)	3.79 (1) / 2.85	2.57 / 3.08 (1)	
COP					3.30 / 4.19 (1)	3.29 / 4.17 (1)	3.27 / 4.30 (1)	3.28 / 4.17 (1)	3.27 / 4.31 (1)	3.25 / 4.28 (1)	
ESEER					4.31	4.30	4.33	4.43	4.44	4.36	
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	126	131	134	126	134	130	
			SCOP		3.22	3.34	3.41	3.22	3.41	3.30	
			Seasonal space heating eff. class	A+							
Dimensions	Unit	Height	mm			1,435					
		Width	mm			1,420					
		Depth	mm			382					
Weight	Unit	kg			180						
Water heat exchanger	Type				Brazen plate						
	Water flow rate	Heating	Nom.	l/min	28.3	32.6	36.9	31.2	35.5	39.8	
	Water volume				1.01						
Air heat exchanger	Type				Hi-XSS						
Pump Standard	Nominal ESP unit	Cooling	kPa			60.5	57.8	53.2	59.2	53.2	40.9 / 45.6
		Heating	kPa			57.1	52.5	47.3	54.1	49.1	36.6 / 43.5
Hydraulic components	Expansion vessel	Volume	l			10					
Compressor	Type				Hermetically sealed scroll compressor						
Fan	Quantity				1						
	Type				Propeller fan						
	Quantity				2						
	Air flow rate	Cooling	Nom.	m³/min	96.0	100	97.0	-			
Heating		Nom.	m³/min	90.0							
Fan motor	Speed	Cooling	Nom.	rpm	780						
		Heating	Nom.	rpm	760						
		Steps				8					
Sound power level	Cooling	Nom.	dBA			64.0				66.0	
	Heating	Nom.	dBA			60	64	60			
Sound pressure level	Cooling	Nom.	dBA			50					
	Heating	Nom.	dBA			50					
	Night quiet mode	Cooling	dBA			45				46	
		Heating	dBA			42				43	
Operation range	Air side	Cooling	Min.~Max.	°CDB	10~46						
		Heating	Min.~Max.	°CDB	-15~35						
	Water side	Cooling	Min.~Max.	°CDB	5~20						
		Heating	Min.~Max.	°CDB	30~50						
Refrigerant	Type				R-410A						
	Circuits	Quantity			1						
	Control				Electronic expansion valve						
	GWP				2,087.5						
Refrigerant charge	Per circuit			kg	2.95						
				TCO ₂ eq	6.16						
					5/4"						
Water circuit	Piping	inch			G 5/4" (female)						
Power supply	Piping connections diameter										
	Phase/Frequency/Voltage				1~/50/230				3N~/50/400		

(1) Underfloor program: cooling Ta 35°C - LWE 18°C (Dt: 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (Dt: 5°C)

Air cooled scroll inverter heat pump

- › Inverter chiller
- › High part load efficiency for low running cost
- › Minimal starting currents
- › No buffertank required for standard applications
- › Daikin scroll compressor
- › Wide operation range
- › Integrated hydronic module on request



Heating & Cooling					EWYQ-CWN/CWP	016	021	025	032	040	050	064	
Cooling capacity	Nom.				kW	16.8(1)/17.0(2)	21.0(1)/21.2(2)	25.3(1)/25.5(2)	31.6(1)/31.8(2)	42.1(1)/42.3(2)	50.5(1)/50.7(2)	63.2(1)/63.3(2)	
	Max.				kW	20.0(1)/20.2(2)	25.0(1)/25.2(2)	30.1(1)/30.3(2)	37.6(1)/37.8(2)	50.1(1)/50.3(2)	60.1(1)/60.3(2)	75.2(1)/75.3(2)	
Heating capacity	Nom.				kW	16.8(1)/16.6(2)	21.0(1)/20.8(2)	25.1(1)/24.9(2)	31.4(1)/31.2(2)	41.9(1)/41.7(2)	50.3(1)/50.1(2)	62.9(1)/62.7(2)	
Power input	Cooling	Nom.			kW	5.93(1)/5.81(2)	7.61(1)/7.47(2)	9.60(1)/9.45(2)	12.9(1)/12.7(2)	15.1	19.2(1)/19.0(2)	25.7(1)/25.5(2)	
	Heating	Nom.			kW	5.60(1)/5.49(2)	6.89(1)/6.76(2)	8.74(1)/8.58(2)	10.8(1)/10.6(2)	13.7	17.5(1)/17.4(2)	21.6(1)/21.4(2)	
Capacity control	Method					Inverter controlled							
	Minimum capacity				%	25							
EER						2.84(1)/2.93(2)	2.77(1)/2.84(2)	2.63(1)/2.70(2)	2.45(1)/2.50(2)	2.79(1)/2.80(2)	2.63(1)/2.67(2)	2.46(1)/2.48(2)	
COP						3.00(1)/3.02(2)	3.05(1)/3.07(2)	2.87(1)/2.91(2)	2.91(1)/2.93(2)	3.06(1)/3.03(2)	2.87(1)/2.88(2)	2.91(1)/2.93(2)	
ESEER						4.37(1)/4.85(2)	4.26(1)/4.70(2)	4.17(1)/4.57(2)	3.87(1)/4.10(2)	4.28(1)/4.40(2)	4.18(1)/4.36(2)	3.87(1)/4.05(2)	
Space heating	 Average climate water outlet 35°C	General	η _s (Seasonal space heating efficiency)		%	147(1)/144(2)	148(1)/154(2)	138(1)/139(2)	135(1)/138(2)	149	139	135(1)/138(2)	
			SCOP			3.75(1)/3.68(2)	3.78(1)/3.93(2)	3.53(1)/3.55(2)	3.45(1)/3.53(2)	3.80	3.55	3.45(1)/3.53(2)	
			Seasonal space heating eff. class			A+	A++			A+			
Dimensions	Unit	HeightxWidthxDepth			mm	1,684x1,370x774			1,684x1,680x774		1,684x2,360x780		
Weight	Unit				kg	268(1)/280(2)		321(1)/332(2)	321(1)/332(2)	403(1)/414(2)	579(1)/604(2)	741(1)/765(2)	
Water heat exchanger	Type					Braze plate							
	Water flow rate	Cooling	Nom.		l/min	48	60	72	90	120	145	181	
	Water pressure drop	Cooling	Total		kPa	8	10	14	8	10	14	8	
	Water volume				l	3			5	6		9	
Air heat exchanger	Type					Air cooled coil							
Compressor	Type					Hermetically sealed scroll compressor							
	Quantity					1	2		3	4		6	
Fan	Type					Axial							
	Quantity					1			2			4	
	Air flow rate	Cooling	Nom.		m³/min	171	185		233	370		466	
		Heating	Nom.		m³/min	171	185		233	370		466	
Sound power level	Cooling	Nom.		dB(A)		78			80	81		83	
Operation range	Air side	Cooling	Min.~Max.		°CDB	-5~43							
		Heating	Min.~Max.		°CDB	-15~35							
	Water side	Cooling	Min.~Max.		°CDB	-10 ~20							
		Heating	Min.~Max.		°CDB	25~50							
Refrigerant	Type/GWP					R-410A/2,087.5							
	Control					Electronic expansion valve							
	Circuits	Quantity				1					2		
Refrigerant charge					kg/TCO2Eq	7.60/15.9			9.60/20.0		7.60/15.9		9.60/20.0
Water circuit	Piping connections diameter				inch	1-1/4" (female)				2" (female)			
	Piping				inch	1-1/4"				1-1/2"			
Unit	Starting current	Max			A	0.0	77.7	78.7	88.7	99.8	101.9	120.7	
	Running current	Max			A	22.2	25.3	26.4	35.2	47.4	49.6	67.2	
Power supply	Phase/Frequency/Voltage				Hz/V	3N~/50/400							

(1) EWYQ-CWN: Version without pump. (2) EWYQ-CWP: Version with pump.

Air cooled scroll inverter heat pump, split version

- › **Hydronic module for indoor installation** eliminating the need for glycol
- › **Ideal for colder climates** as the lack of glycol will allow for high efficiencies
- › Compact dimensions and limited pipework allow for **installation in very restricted spaces**
- › Easy transportation as separate units will fit in an elevator



Heating & Cooling					SEHVX20AAW/ SERHQ020AAW1	SEHVX32AAW/ SERHQ032AAW1	SEHVX40AAW/ SERHQ020AAW1+SERHQ020AAW1	SEHVX64AAW/ SERHQ032AAW1+SERHQ032AAW1	
Cooling capacity	Nom.			kW	20.7	30.9	41.5	62.3	
Heating capacity	Nom.			kW	21.3 (1)/ 21.3 (2)	32.1 (1)/ 32.1 (2)	42.5 (1)/ 42.5 (2)	63.7 (1)/ 63.7(2)	
Power input	Cooling	Nom.		kW	7.59	13.5	15.4	27.4	
	Heating	Nom.		kW	6.12 (1)/ 7.44 (2)	8.72 (1)/ 11.1 (2)	12.0 (1)/ 14.7 (2)	16.9 (1)/ 21.7 (2)	
EER					2.73	2.29	2.69	2.27	
COP					3.48 (1)/2.86 (2)	3.68 (1)/ 2.89 (2)	3.54 (1)/ 2.89 (2)	3.77 (1)/ 2.94 (2)	
 Space heating	Average climate water outlet 35°C	General	SCOP	%	3.22	3.06	3.22	3.05	
			ηs (Seasonal space heating efficiency)	126	119	126	120		
			Seasonal space heating eff. class	A+	A	A+	A		
Unit for indoor installation					SEHVX-AAW	SEHVX20AAW	SEHVX32AAW	SEHVX40AAW	SEHVX64AAW
Dimensions	Unit	Height	mm			1,573			
		Width	mm			766			
		Depth	mm			396			
Weight	Unit	kg			60	62	64	66	
	Packed unit	kg			70	72	74	76	
Sound power level	Nom.	dBA			63		66		
Operation range	Heating	Ambient	Min.~Max.	°C~°CDB	-15~35				
		Water side	Min.~Max.	°C	25~50				
	Indoor installation	Ambient	Min.	°CDB	5				
			Max.	°CDB	35				
	Cooling	Ambient	Min.~Max.	°CDB	-5~43				
		Water side	Min.~Max.	°C	5~20				
Refrigerant	Type / GWP					R-410A / 2,087.5			
	Circuits	Quantity					1		
	Control				Electronic expansion valve				
Water circuit	Piping connections diameter		inch			G 1 1/4 (female)		G 2" (female)	
	Piping		inch			1-1/4"		1-1/2"	
	Water pressure drop	Cooling	Nom.	kPa	176	151	231	141	
		Heating	Nom.	kPa	174	149	229	139	
	Total water volume		l			3.2	4.2	5.8	7.7
Water side Heat exchanger	Type					Brazed plate			
	Water volume		l			1.9	2.9	3.8	5.7
	Water flow rate	Heating	Nom.	l/min	61	92	122	183	
		Cooling	Nom.	l/min	59	89	119	179	
Current	Maximum running current	Cooling	A			5.54	5.64	7.24	
		Heating	A			5.54	5.64	7.24	
Power supply	Phase/Frequency/Voltage		Hz/V			3N~/50/400			
Outdoor Unit					SERHQ-AAW1	SERHQ020AAW1		SERHQ032AAW1	
Dimensions	Unit	Height	mm			1,680			
		Width	mm			930		1,240	
		Depth	mm			765			
Weight	Unit	kg			240.00		316.00		
	Packed unit	kg			273.00		355.95		
Compressor	Quantity					2		3	
Fan	Type					Hermetically sealed scroll compressor			
						Propeller fan			
	Quantity					1		2	
	Air flow rate	Cooling	Nom.	m³/min			185		233
Heating		Nom.	m³/min			185		233	

(1) Heating Ta DB/WB 7/6°C - LWC 35°C (DT=5°C) (2) Heating Ta DB/WB 7/6°C - LWC 45°C

Air cooled multi-scroll heat pump, high efficiency, standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › Compact design
- › Partial and total heat recovery option available
- › Stainless steel plate heat exchanger
- › MicroTech III controller with superior control logic and easy interface

Heating & Cooling					EWYQ-G-XS		075	085	100	110	120	140	160	
Cooling capacity	Nom.				kW	77.8	88.1	101	117	127	147	165		
Heating capacity	Nom.				kW	82.2	91.2	110	127	138	156	170		
Power input	Cooling	Nom.			kW	27.0	31.5	36.0	39.5	44.7	50.2	57.8		
	Heating	Nom.			kW	26	29	34	39	43	50	54		
Capacity control	Method					Step								
	Minimum capacity				%	50	44	50	44	50	43	50		
EER						2.88	2.80	2.81	2.97	2.84	2.92	2.85		
COP						3.14	3.12	3.24	3.25	3.20	3.11	3.13		
ESEER						3.90	3.94	3.97	4.03	3.92	3.96			
IPLV						4.40	4.47	4.40	4.49	4.40	4.50			
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	SCOP	%	131	129	142	140	142	138	140		
						3.35	3.31	3.62	3.58	3.63	3.53	3.58		
Dimensions	Unit	Height			mm	1,800								
		Width			mm	1,195								
		Depth			mm	2,826			3,426			4,026		
Weight	Unit				kg	850	912	1,077	1,183	1,213	1,333	1,394		
	Operation weight				kg	858	921	1,088	1,194	1,224	1,344	1,411		
Water heat exchanger	Type					Braze plate								
	Water flow rate	Cooling	Nom.		l/s	3.7	4.2	4.8	5.6	6.1	7.0	7.9		
		Heating	Nom.		l/s	4.0	4.4	5.3	6.1	6.7	7.5	8.2		
	Water pressure drop	Cooling	Nom.		kPa	8.40	8.30	8.70	11.6	13.7	18.2	19.9		
		Heating	Nom.		kPa	9.50	9.10	11.20	14.40	17.20	21.70	22.50		
	Water volume				l	8.10	9.40	10.8				16.7		
Air heat exchanger	Type					High efficiency fin and tube type with integral subcooler								
Compressor	Type					Scroll compressor								
	Quantity					2								
Fan	Type					Direct propeller								
	Quantity					6			8			10		
	Air flow rate	Nom.			l/s	10,042		9,861		13,148			16,435	
	Speed				rpm	1,360								
Sound power level	Cooling	Nom.			dBA	84	85	87	89					
Sound pressure level	Cooling	Nom.			dBA	66	68	70	71					
Operation range	Air side	Cooling	Min.~Max.		°CDB	-10~45								
		Heating	Min.~Max.		°CDB	-10~45								
	Water side	Cooling	Min.~Max.		°CDB	-10~15								
		Heating	Min.~Max.		°CDB	-10~15								
	Refrigerant	Type / GWP					R-410A / 2,087.5							
Circuits		Quantity				1								
Refrigerant charge	Per circuit				kg	15.0		18.0		23.0		30.0		
					TCO _{2eq}	31.3		37.6		48.0		62.6		
Piping connections	Evaporator water inlet/outlet (OD)					2" 1/2								
Unit	Starting current	Max			A	210	261	267	316	323	363	377		
	Running current	Cooling	Nom.		A	52	56	60	69	76	88	95		
		Max			A	66	72	78	87	95	111	125		
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400								

Air cooled multi-scroll heat pump, high efficiency, reduced sound



EWYQ-G-XS/XR

MicroTech III

Heating & Cooling					EWYQ-G-XR	075	085	100	110	120	140	160
Cooling capacity	Nom.				kW	75.2	84.5	95.0	111	120	139	155
Heating capacity	Nom.				kW	82.2	91.2	110	127	138	156	170
Power input	Cooling	Nom.			kW	27.7	32.7	38.6	41.5	47.4	52.8	61.5
	Heating	Nom.			kW	26	29	34	39	43	50	54
Capacity control	Method					Step						
	Minimum capacity				%	50	44	50	44	50	43	50
EER						2.71	2.59	2.46	2.68	2.52	2.64	2.51
COP						3.14	3.12	3.24	3.25	3.20	3.11	3.13
ESEER						3.85	3.90	3.79	3.92	3.76	3.86	3.79
IPLV						4.35	4.41	4.29	4.42	4.27	4.40	4.35
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	SCOP	131	129	142	140	142	138	140
						3.35	3.31	3.62	3.58	3.63	3.53	3.58
Dimensions	Unit	Height			mm	1,800						
		Width			mm	1,195						
		Depth			mm	2,826		3,426		4,026		
Weight	Unit				kg	880	942	1,107	1,213	1,243	1,363	1,424
	Operation weight				kg	888	951	1,118	1,224	1,254	1,374	1,441
Water heat exchanger	Type					Brazed plate						
	Water flow rate	Cooling	Nom.		l/s	3.6	4.0	4.5	5.3	5.7	6.7	7.4
		Heating	Nom.		l/s	4.0	4.4	5.3	6.1	6.7	7.5	8.2
	Water pressure drop	Cooling	Nom.		kPa	7.90	7.70	7.60	10.5	12.1	16.4	17.5
		Heating	Nom.		kPa	9.50	9.10	11.2	14.4	17.2	21.7	22.5
	Water volume				l	8.10	9.40		10.8			16.7
Air heat exchanger	Type					High efficiency fin and tube type						
Compressor	Type					Scroll compressor						
	Quantity					2						
Fan	Type					Direct propeller						
	Quantity					6		8		10		-
	Air flow rate	Nom.			l/s	7,859		7,101		9,468		11,835
	Speed				rpm	1,108						
Sound power level	Cooling	Nom.			dBA	80	82	84	86			
Sound pressure level	Cooling	Nom.			dBA	62	65	66	68		67	
Operation range	Air side	Cooling	Min.~Max.		°CDB	-10~45						
		Heating	Min.~Max.		°CDB	-17~20						
	Water side	Cooling	Min.~Max.		°CDB	-10~15						
		Heating	Min.~Max.		°CDB	25~50						
							R-410A / 2,087.5					
Refrigerant	Type / GWP					1						
Refrigerant charge	Per circuit				kg	17.0	17.7	23.5	29.4	28.3	32.0	34.9
					TCO _{2eq}	35.5	36.9	49.1	61.4	59.1	66.8	72.9
Piping connections	Evaporator water inlet/outlet (OD)					2" 1/2						
Unit	Starting current	Max			A	213	264	270	319	327	367	381
	Running current	Cooling	Nom.		A	54	60	65	71	80	90	103
		Max			A	70	75	81	91	99	116	131
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400						

Air cooled multi-scroll heat pump, high efficiency, standard/low sound

› Class A efficiency in heating mode

- › Extended operation range: ambient temperatures from -10°C up to +46°C in cooling mode and down to -17°C in heating mode
- › 2 truly independent refrigerant circuits
- › Reduced footprint thanks to the **V-shaped frame** (EWYQ160-230F-XS/XL & EWYQ160-220F-XR)
- › Reliable and efficient scroll compressors with **high EER values**
- › Chiller series design entirely based on new European directives (EN14511, EN14825)
- › Top serviceability level thanks to reduced weight, compact footprint and optimized components accessibility

- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost

- › Wide range of available options and accessories

- › Inverter fans management for enhanced part load efficiencies

- › Nordic kit option to improve the chiller working conditions in heating mode

- › MicroTech III controller with superior control logic and easy interface

Heating & Cooling					EWYQ-F-XS/XL		160	190	210	230	310	340	380	400	430	510	570	630	
Cooling capacity	Nom.				kW	164	184	205	231	304	335	376	401	427	502	565	624		
Heating capacity	Nom.				kW	173	197	227	254	329	362	404	429	463	535	607	674		
Power input	Cooling	Nom.				kW	57.6	63.3	70.3	79.3	102	114	129	138	145	172	195	214	
	Heating	Nom.				kW	54.0	61.6	70.5	79.2	101	113	126	133	140	167	190	210	
Capacity control	Method					Step													
	Minimum capacity					25.0									17.0				
EER						2.84	2.91	2.92		2.99	2.93	2.91	2.90	2.94	2.92	2.90	2.91		
ESEER						3.73	3.89	3.81	3.71	4.07	4.19	3.99	3.96	4.14	4.20	3.98	4.06		
COP						3.20		3.22	3.21	3.24	3.21		3.23	3.30	3.21	3.20	3.21		
IPLV						4.45	4.47	4.55	4.38	4.56	4.61	4.38	4.50	4.70	4.71	4.56	4.74		
	Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	SCOP	%	128	134	129		143	147	-						
							3.28	3.42	3.31	3.30	3.64	3.75	-						
Dimensions	Unit	Height	Width	Depth	mm	2,270				2,220									
						1,200				2,258									
						4,370		5,270		4,125			5,025			5,925		6,825	
Weight (XS)	Unit				kg	1,430	1,850	2,300	2,350	2,900	2,910	2,920	3,730	3,750	4,250	4,280	4,670		
	Operation weight					kg	1,470	1,890	2,340	2,390	2,980	2,990	3,000	3,840	3,850	4,370	4,400	4,780	
Weight (XL)	Unit				kg	1,520	1,940	2,400	2,440	3,060	3,070	3,080	3,890	3,900	4,400	4,440	4,820		
	Operation weight					kg	1,570	1,980	2,440	2,480	3,130	3,150	3,160	3,990	4,010	4,520	4,550	4,940	
Water heat exchanger	Type					Plate heat exchanger													
	Water flow rate	Cooling	Nom.			l/s	7.8	8.8	9.8	11.1	14.6	16.0	18.0	19.2	20.4	24.0	27.1	29.9	
		Heating	Nom.			l/s	8.3	9.5	10.9	12.2	15.9	17.5	19.5	20.7	22.3	25.8	29.3	32.5	
	Water pressure drop	Cooling	Nom.			kPa	22	28	36	40	21	27	30	29	34	37	42	56	
		Heating	Nom.			kPa	25	32	43	50	25	31	37	33	40	43	50	66	
Water volume						18				44				60		70			
Air heat exchanger	Type					High efficiency fin and tube type with integral subcooler													
	Compressor					Scroll compressor													
	Quantity					4										6			
Fan	Type					Direct propeller													
	Quantity					4		5		8			10			12		14	
	Air flow rate		Nom.			l/s	22,577	21,593	26,992		43,187			55,213	53,983	64,780	75,577		
	Speed					rpm	900												
Sound power level (XS)	Cooling	Nom.			dBA	92	94	95		97		98		99			100		
Sound power level (XL)	Cooling	Nom.			dBA	89	92	93		95			96			97		98	
Sound pressure level (XS)	Cooling	Nom.			dBA	72	74	75	76	77		78			79			80	
Sound pressure level (XL)	Cooling	Nom.			dBA	70	73		74	75				76		77			
Operation range	Air side	Cooling	Min.~Max.			°CDB	-10~-46												
		Heating	Min.~Max.			°CDB	-17~-20												
	Water side	Cooling	Min.~Max.			°CDB	-13~-15												
		Heating	Min.~Max.			°CDB	25~50												
Refrigerant	Type / GWP					R-410A / 2,087.5													
	Circuits	Quantity		2															
Refrigerant charge	Per circuit					kg	16.0	20.0		24.0	35.0	36.0	35.0	46.0		55.0	52.5	68.0	
			TCO _{eq}	33.4	41.8		50.1	73.1	75.2	73.1	96.0		114.8	109.6	142.0				
Piping connections	Evaporator water inlet/outlet (OD)					2.5"				3"									
Unit	Starting current	Max				A	282	536	353	560	600	516	637	659	666	648	787	827	
	Running current	Cooling	Nom.				A	115	140	128	162	193	205	235	251	257	307	353	384
		Max				A	138	165	164	196	246	264	295	316	330	396	442	491	
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400													

Air cooled multi-scroll heat pump, high efficiency, reduced sound



Heating & Cooling					EWYQ-F-XR	160	180	200	220	300	330	360	390	420	490	550	610
Cooling capacity	Nom.				kW	158	178	199	223	296	326	363	389	415	487	546	606
Heating capacity	Nom.				kW	173	197	227	254	329	362	404	429	463	535	607	674
Power input	Cooling	Nom.			kW	56.2	62.3	68.4	77.9	97.4	111	127	134	141	167	191	210
	Heating	Nom.			kW	54.0	61.6	70.5	79.2	101	113	126	133	140	167	190	210
Capacity control	Method					Step											
	Minimum capacity				%	25.0										17.0	
EER						2.81	2.86	2.92	2.87	3.04	2.93	2.86	2.90	2.93	2.91	2.85	2.89
ESEER						4.33	4.39	4.38	4.19	4.63	4.68	4.37	4.44	4.60	4.83	4.50	4.62
COP						3.20		3.22	3.21	3.24	3.21		3.23	3.30	3.21	3.20	3.21
IPLV						5.11	5.18	5.22	4.96	5.25	5.35	4.97	5.08	5.25	5.54	5.13	5.36
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	SCOP	%	128	134	129		143	147	-					
						3.28	3.42	3.31	3.30	3.64	3.75	-					
Dimensions	Unit	Height			mm	2,270					2,220						
		Width			mm	1,200					2,258						
		Depth			mm	4,370		5,270		4,125			5,025		5,925		6,825
Weight	Unit				kg	1,520	1,940	2,400	2,440	3,060	3,070	3,080	3,890	3,900	4,400	4,440	4,820
	Operation weight				kg	1,570	1,980	2,440	2,480	3,130	3,150	3,160	3,990	4,010	4,520	4,550	4,940
Water heat exchanger	Type					Plate heat exchanger											
	Water flow rate	Cooling	Nom.		l/s	7.5	8.5	9.6	10.7	14.2	15.6	17.4	18.6	19.8	23.3	26.1	29.0
		Heating	Nom.		l/s	8.3	9.5	10.9	12.2	15.9	17.5	19.5	20.7	22.3	25.8	29.3	32.5
	Water pressure drop	Cooling	Nom.		kPa	20	26	34	38	20	25	28	27	32	35	39	53
		Heating	Nom.		kPa	25	32	43	50	25	31	37	33	40	43	50	66
	Water volume				l	18				44			60		70		
Air heat exchanger	Type					High efficiency fin and tube type with integral subcooler											
Compressor	Type					Scroll compressor											
	Quantity					4										6	
Fan	Type					Direct propeller											
	Quantity					4		5		8		10		12		14	
	Air flow rate	Nom.			l/s	17,380	16,564	20,706		33,129			42,431	41,411	49,693		57,975
	Speed				rpm	700											
Sound power level	Cooling	Nom.			dB(A)	83	84	86		88		89	90		92		
Sound pressure level	Cooling	Nom.			dB(A)	64	65	66	67	69			70		71		
Operation range	Air side	Cooling	Min.~Max.		°CDB	-10~46											
		Heating	Min.~Max.		°CDB	-17~20											
	Water side	Cooling	Min.~Max.		°CDB	-13~15											
		Heating	Min.~Max.		°CDB	25~50											
Refrigerant	Type / GWP					R-410A / 2,087.5											
	Circuits	Quantity				2											
Refrigerant charge	Per circuit				kg	16.0	18.0	20.0	24.0	35.0	36.0	35.0	46.0		55.0		68.0
					TCO _{2eq}	33.4	37.6	41.8	50.1	73.1	75.2	73.1	96.0		114.8		142.0
Piping connections	Evaporator water inlet/outlet (OD)					2.5"					3"						
Unit	Starting current	Max			A	276	530	346	553	589	505	626	645	652	631	770	807
	Running current	Cooling	Nom.		A	114	138	126	160	187	201	232	245	252	301	350	379
		Max			A	133	160	157	189	235	253	283	302	316	379	425	471
Power supply	Phase/Frequency/Voltage					3~/50/400											

Air cooled screw inverter heat pump, standard efficiency, standard sound

- › Ideal solution for **commercial comfort cooling and/or heating applications**
- › Optimum ESEER values
- › 2-3 truly independent refrigerant circuits
- › Low starting current
- › DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- › Standard electronic expansion valve
- › Optimised defrost cycles
- › Partial and total heat recovery option available
- › Power factor up to 0.95
- › PID microprocessor control

Heating & Cooling					EWYD-BZSS	250	270	290	320	340	370	380	410	440	460	510	520	580			
Cooling capacity	Nom.				kW	253	272	291	323	337	363	380	411	433	455	502	519	580			
Heating capacity	Nom.				kW	271	298	325	334	350	380	412	445	465	477	533	561	618			
Power input	Cooling	Nom.			kW	91.3	101	110	117	125	135	144	154	165	163	182	189	218			
	Heating	Nom.			kW	91.4	100	108	118	126	133	143	157	167	165	178	186	208			
Capacity control	Method					Stepless															
	Minimum capacity			%		13.0									9.0						
EER						2.77	2.70	2.65	2.75	2.69	2.68	2.63	2.66	2.62	2.79	2.76	2.74	2.67			
ESEER						3.93	3.92	3.89	3.95	3.89	3.90	3.82	3.91	3.89	4.18	4.01		3.93			
COP						2.96	2.97	3.00	2.82	2.78	2.85	2.88	2.83	2.79	2.88	2.99	3.01	2.97			
IPLV						4.58	4.62		4.75	4.64	4.71	4.67	4.73	4.69	4.85	4.89	4.85	4.78			
Space heating	Average climate water outlet 35°C	General	η _s (Seasonal space heating efficiency)	SCOP	%	125							-								
						3.21		3.20		3.21		-									
Dimensions	Unit	Height		mm		2,335										2,280					
		Width		mm		2,254															
		Depth		mm		3,547			4,428				5,329			6,659					
Weight	Unit			kg	3,410	3,455	3,500	3,870		3,940	4,010	4,390		5,015	5,495	5,735					
	Operation weight			kg	3,550	3,595	3,640	4,010		4,068	4,138	4,518		5,255	5,724	5,964	5,953				
Water heat exchanger	Type					Single pass shell & tube															
	Water flow rate	Cooling	Nom.	l/s	12.1	13.0	13.9	15.5	16.2	17.4	18.2	19.7	20.8	21.8	24.1	24.9	27.8				
		Heating	Nom.	l/s	13.1	14.4	15.7	16.1	16.9	18.3	19.8	21.4	22.4	23.0	25.6	27.0	29.7				
	Water pressure drop	Cooling	Nom.	kPa	40	46	44	50	55	60	65	74	80	47	85	91	61				
		Heating	Nom.	kPa	30	35	52	37	40	45	51	59	64	42	63	69	59				
	Water volume			l	138			133			128			240		229		218			
Air heat exchanger	Type					High efficiency fin and tube type with integral subcooler															
Compressor	Type					Single screw compressor															
	Quantity					2									3						
Fan	Type					Direct propeller															
	Quantity					6			8			10			12						
	Air flow rate	Nom.		l/s	31,729	31,422	31,115	42,306		42,337	41,487	52,882		63,458	62,640	61,652	62,231				
	Speed			rpm	900																
Sound power level	Cooling	Nom.		dBA	101							102			104						
Sound pressure level	Cooling	Nom.		dBA	82							83			84						
Operation range	Air side	Cooling	Min.~Max.	°CDB	-10~45																
		Heating	Min.~Max.	°CDB	-10~20																
	Water side	Cooling	Min.~Max.	°CDB	-8~15																
		Heating	Min.~Max.	°CDB	35~55																
Refrigerant	Type / GWP				R-134a / 1,430																
	Circuits	Quantity			2										3						
Refrigerant charge	Per circuit			kg	43.0	44.0	43.0	46.0	46.5		47.0	50.0		47.0			49.0				
				TCO _{eq}	61.5	62.9	61.5	65.8	66.5		67.2	71.5		67.2			70.1				
Piping connections	Evaporator water inlet/outlet (OD)					139.7mm									219.1mm						
Unit	Starting current	Max		A	150			181	204			224	238	245	300	323					
	Running current	Cooling	Nom.	A	137	150	164	176	188	202	214	229	244	246	270	281	322				
		Max		A	211			212	254	288			316	336	329	398	432				
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																

Air cooled screw inverter heat pump, standard efficiency, low sound



Heating & Cooling					EWYD-BZSL	250	270	290	320	330	360	370	400	430	450	490	510	570
Cooling capacity	Nom.				kW	247	265	290	315	330	353	370	401	423	446	490	507	565
Heating capacity	Nom.				kW	271	298	325	334	350	380	412	445	465	477	533	561	618
Power input	Cooling	Nom.			kW	89.5	99.5	110	115	123	134	144	151	163	158	177	186	216
	Heating	Nom.			kW	91.4	100	108	118	126	133	143	157	167	165	178	186	208
Capacity control	Method					Stepless												
	Minimum capacity			%		13.0										9.0		
EER						2.76	2.66	2.62	2.75	2.68	2.64	2.57	2.66	2.59	2.83	2.77	2.73	2.61
ESEER						4.06	4.04	4.03	4.17	4.09	4.04	4.01	4.06	4.02	4.18	4.16	4.10	3.98
COP						2.96	2.97	3.00	2.82	2.78	2.85	2.88	2.83	2.79	2.88	2.99	3.01	2.97
IPLV						4.90	4.96	4.91	5.17	5.08	5.12	5.06	5.22	5.13	5.07	5.03	4.99	4.90
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%		125										-		
			SCOP			3.21		3.20		3.21						-		
Dimensions	Unit	Height		mm		2,335										2,280		
		Width		mm		2,254												
		Depth		mm		3,547		4,428		5,329		6,659						
Weight	Unit			kg		3,750	3,795	3,840	4,210		4,280	4,350	4,730		5,525	6,005	6,245	
	Operation weight			kg		3,888	3,933	3,978	4,343		4,408	4,478	4,858		5,765	6,234	6,474	6,463
Water heat exchanger	Type					Single pass shell & tube												
	Water flow rate	Cooling	Nom.	l/s	11.8	12.7	13.9	15.1	15.8	16.9	17.7	19.2	20.3	21.4	23.5	24.3	27.1	
		Heating	Nom.	l/s	13.1	14.4	15.7	16.1	16.9	18.3	19.8	21.4	22.4	23.0	25.6	27.0	29.7	
	Water pressure drop	Cooling	Nom.	kPa	38	44	42	48	53	57	62	71	77	45	82	87	58	
		Heating	Nom.	kPa	30	35	52	37	40	45	51	59	64	42	63	69	59	
	Water volume			l	138		133		128		240		229		218			
Air heat exchanger	Type					High efficiency fin and tube type with integral subcooler												
Compressor	Type					Single screw compressor												
	Quantity					2										3		
Fan	Type					Direct propeller												
	Quantity					6		8		10		12						
	Air flow rate	Cooling	Nom.	l/s	24,432	24,264	24,095	32,576		32,628	32,127	40,720		48,863	48,415	47,732	48,191	
	Speed			rpm	700													
Sound power level	Cooling	Nom.		dB(A)	94		95		97							97		
Sound pressure level	Cooling	Nom.		dB(A)	76										77			
Operation range	Air side	Cooling	Min.~Max.	°CDB	-10~45													
		Heating	Min.~Max.	°CDB	-10~20													
	Water side	Cooling	Min.~Max.	°CDB	-8~15													
		Heating	Min.~Max.	°CDB	35~55													
Refrigerant	Type / GWP					R-134a / 1,430												
	Circuits	Quantity				2										3		
Refrigerant charge	Per circuit			kg	43.0	44.0	43.0	46.0	46.5		47.0	50.0		47.0				49.0
				TCO _{eq}	61.5	62.9	61.5	65.8	66.5		67.2	71.5		67.2				70.1
Piping connections	Evaporator water inlet/outlet (OD)					139.7mm										219.1mm		
Unit	Starting current	Max		A	145	146		176	199			217	231	234	288	311	305	
	Running current	Cooling	Nom.	A	134	148	163	171	184	199	212	224	240	238	263	275	319	
		Max		A	202	203		243	277			302	322	313	381	415	406	
Power supply	Phase/Frequency/Voltage			Hz/V		3~/50/400												



Table of content

Condensing Unit

ERAD-E-SS	82
ERAD-E-SL	83
<u>Options</u>	<u>84</u>

Air cooled screw condensing unit, standard efficiency, standard sound

- › One refrigerant circuit with single screw compressor
- › Compact design
- › Large operation range (ambient temperature down to -18°C)
- › Extensive option list (heat recovery option available)

Cooling only				ERAD-E-SS	120	140	170	200	220	250	310	370	440	490	
Cooling capacity	Nom.			kW	121	144	165	196	219	251	309	370	435	488	
Power input	Cooling	Nom.		kW	42.1	51.2	57.7	65.6	74.2	77.0	93.8	123	148	161	
Capacity control	Method				Stepless										
	Minimum capacity			%	25.0										
EER					2.88	2.82	2.86	2.99	2.95	3.27	3.30	3.02	2.95	3.02	
Dimensions	Unit	Height		mm	2,273						2,223				
		Width		mm	1,292						2,236				
		Depth		mm	2,165		3,065		3,965		3,070				
Weight	Unit			kg	1,584		1,741		1,936		2,679				
	Operation weight			kg	1,617		1,781		1,981		2,756				
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler										
Compressor	Type				Single screw compressor										
	Quantity				1										
Fan	Type				Direct propeller										
	Air flow rate	Nom.		l/s	10,924	10,576	16,386	15,865	21,848	21,153	32,772		31,729		
	Quantity				2		3		4		6				
	Speed	Cooling	Nom.	rpm	900										
Sound power level	Cooling	Nom.		dBA	92				93		94		95		
Sound pressure level	Cooling	Nom.		dBA	74				75				76		
Operation range	Saturated suction temp.			°C	-9~12										
	Condenser inlet temp.			°C	-18~48										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits			Quantity	1										
Piping connections	Evaporator water inlet/outlet (OD)				76mm						139.7mm				
Unit	Maximum starting current			A	151		195		288		330		410		
	Nominal running current (RLA)			Cooling	A	72	88	98	110	125	129	158	204	244	266
	Maximum running current			A	86	103	119	132	157	164	198	242	284	298	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400										

Air cooled screw condensing unit, standard efficiency, low sound



Cooling only				ERAD-E-SL	120	140	160	190	210	240	300	350	410	460	
Cooling capacity	Nom.			kW	116	137	159	187	209	243	298	352	409	462	
Power input	Cooling	Nom.		kW	42.4	52.5	57.7	66.3	73.9	78.1	91.9	122	150	167	
Capacity control	Method				Stepless										
	Minimum capacity			%	25.0										
EER					2.74	2.61	2.75	2.83		3.11	3.24	2.88	2.73	2.76	
Dimensions	Unit	Height	mm		2,273						2,223				
		Width	mm		1,292						2,236				
		Depth	mm		2,165		3,065		3,965		3,070				
Weight	Unit		kg		1,684		1,841		2,036		2,789				
	Operation weight			kg	1,717		1,881		2,081		2,886				
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler										
Compressor	Type				Single screw compressor										
	Quantity				1										
Fan	Type				Direct propeller										
	Air flow rate	Nom.	l/s	8,373	8,144	12,560	12,216	16,747	16,288	25,120		24,432			
	Quantity				2		3		4		6				
	Speed	Cooling	Nom.	rpm	700										
Sound power level	Cooling	Nom.	dBA		89		90		91		92		93		
Sound pressure level	Cooling	Nom.	dBA		71						73		74		
Operation range	Saturated suction temp			°C	-9~12										
	Condenser inlet temp			°C	-18~48										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits			Quantity	1										
Piping connections	Evaporator water inlet/outlet (OD)				76mm						139.7mm				
Unit	Maximum starting current			A	151		195		288		330		410		
	Nominal running current (RLA)			Cooling	A	73	90	98	112	125	131	155	204	249	275
	Maximum running current			A	83	100	115	128	151	158	189	234	276	290	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400										

Options - Chillers

Options - Small chillers

Chiller series	Integrated hydronics		LWE		Electrical
	Single pump		High Glycol	Low Glycol	Evaporator heater tape
	OPSP		OPZH	OPZL	OP10
EWAQ-BVP	STD				STD
EWYQ-BVP	STD				STD
EWAQ-ACV3	STD				STD
EWAQ-ACW1	STD				STD
EWYQ-ACV3	STD				STD
EWYQ-ACW1	STD				STD

(1) Impossible option combination: OPZH+OPZL

Options - Air cooled chillers

Description	Code	EWAQ~BAW EWYQ~BAW	EWAQ-G-	EWYQ-G-	EWAQ-F- SS/XS	EWAQ-E-XS	EWAQ-F-SL/ SR/XL/XR	EWAQ-E- XL/XR	EWYQ-F-XS EWYQ-F-XL	EWYQ-F-XR	EWAD-E-
Total heat recovery	01		Option								Option
Total heat recovery (1 circuit)	02										
Partial heat recovery	03a		Option	Option	Option	Option	Option	Option	CF	CF	Option
Evaporator 1 Pass	03b										
Direct on line starter (DOL)	04		STD	STD	STD	STD	STD	STD	STD	STD	
WyeDelta compressor starter (YD)	05										STD
Soft starter	06		Option	Option	Option	Option	Option	Option	Option	Option	Option
Heat pump version	07										
Heat pump version (including pursuit mode)	07a (15)										
Brine version	08 (1)	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Double setpoint	10		STD	STD	STD	STD	STD	STD	STD	STD	STD
Compressor thermal overload relays	11				Option	Option	Option	Option	Option	Option	Option
Fans thermal relays	12										
Phase monitor	13				Option	Option	Option	Option			STD
Inverter compressor starter	14										
Under / Over voltage control	15		Option	Option	Option	Option	Option	Option	Option	Option	Option
Energy meter	16				Option	Option	Option	Option	Option	Option	Option
Energy meter (including current limit)	16a										
Capacitors for power factor correction	17		Option	Option	Option	Option	Option	Option	Option	Option	Option
Current limit	19										Option
Evaporator victaulic kit	20		STD	STD	STD	STD	STD	STD	STD	STD	
Evaporator flange kit	21										
Evaporator marine waterbox victaulic (2 passes)	22										
Evaporator marine waterbox victaulic (1 pass)	22a										
Evaporator marine waterbox flanged (2 passes)	24										
Evaporator marine waterbox flanged (1 pass)	24a										
Condenser double flanges kit	26										
Evaporator water side design pressure (10 Bar)	27										
Evaporator water side design pressure (16 Bar)	28										
20mm evaporator insulation	29		STD	STD	STD	STD	STD	STD	STD	STD	Option
Axial fans (100 Pa lift)	30										
Axial fans (250 Pa lift)	32				CF	CF					
20mm condenser insulation	33										
Condenser victaulic kit	36										
Condenser marine waterbox victaulic (2 passes)	38										
Condenser marine waterbox victaulic (1 pass)	38a										
Condenser marine waterbox flanged (2 passes)	40										
Condenser marine waterbox flanged (1 pass)	40a										
Speedtrol (fan speed control device ON/OFF up to 18°C)	42				Option	Option	Option	Option			Option
Speedtrol (fan speed control device ON/OFF down to 10°C in cooling)	42a								Option		
Condenser coil guards	43				Option	Option	Option	Option	Option	Option	Option
Evaporator area guards	44				Option	Option	Option	Option	Option	Option	
CuCu condenser coil	45				Option	Option	Option	Option	Option	Option	Option
CuCuSn condenser coil	46				Option	Option	Option	Option	Option	Option	Option
Condenser water side design pressure (16 Bar)	47										
Condenser water side design pressure (10 Bar)	47a										
Alucoat fins coil	49			STD	Option	Option	Option	Option	STD	STD	Option
CuNi 9010 condenser tubes	50										
Condenser 1 pass (ΔT 48 °C)	51										
Condenser 2 passes (ΔT 48 °C)	52										
Condenser 2 passes (ΔT 915 °C)	53										
Condenser 4 passes	54										
Water pressure differential switch on condenser	55										
Water pressure differential switch on evaporator	56										
Evaporator electric heater	57	Option	STD	STD	STD	STD	STD	STD	STD	STD	STD
Evaporator flow switch	58		Option	Option	STD	STD	STD	STD	STD	STD	Option
Condenser flow switch	59										
Electronic expansion valve	60		STD	STD	STD	STD	STD	STD	STD	STD	STD
Discharge line shutoff valve	61				Option	Option	Option	Option	Option	Option	STD
Suction line shutoff valve	62				Option	Option	Option	Option	Option	Option	STD

(1) Option 08 includes option 29 and option 146 - (2) Option 99(a) includes 'Fan overload protection' - (3) Piping between the inertial tank and the unit is not included. Electric heater power supply has to be provided from external source -

(4) The order of inverter compressor will have an impact on the delivery time: please contact the factory - (5) Unit performance will be affected; contact factory for information. It is mandatory to order the option 26 when selecting CU-Ni 90-10 condenser tubes - (6) Sound proof system - compressor enclosure - (7) Compressor enclosure - (8) Soundproof cabinet will be supplied in a separate kit and not assembled. For better performance the cabinet will be integral kind (around the whole chiller, not only around compressors). Cabinet assembly is not included in the supply (9) Special transport is required (flat rack truck and open top when option 01 is selected) for model sizes as follows: EWWD12I-SS - EWWD18I-SS (10) Forklift loading-unloading operations are not allowed when option 01 is selected for model sizes as follows: EWWD12I-SS - EWWD18I-SS - (11) Special Transport is required (flat rack truck and open top) for model sizes as follows: EWLD10I-SS - EWLD17I-SS or EWWD18I-SS - EWWD20B-SS or EWWD10B-XS, EWWD12B-XS - EWWD21B-XS - (12) Forklift loading-unloading operations are not allowed for model sizes as follows: EWLD10I-SS - EWLD17I-SS or EWWD18I-SS - EWWD20B-SS or EWWD10B-XS, EWWD12B-XS - EWWD21B-XS - (13) STD only for single circuit unit (14) STD only for Premium and High efficiency version - (15) Option 07a includes option 33 (20mm condenser insulation) - (16) Option 111 contains option 07a (Heat pump version, including pursuit mode) and option 33 (20mm condenser insulation)

CF = Contact the factory - STD = Standard - SO = Specify at Order entry - NC = No additional cost

Options - Air cooled chillers

EWAD-D-SS	EWAD-D-SL	EWAD-D-SR	EWAD-D-SX	EWAD-D-XS	EWAD-D-XR	EWAD-D-HS	EWAD-C-	EWAD-CZ	EWAD-TZ	EWAD-TZ B	EWAD-CF	EWYD-BZSS	EWYD-BZSL	ERAD-E-
Option Option Option	Option Option Option	Option Option Option	Option Option Option	Option Option Option	Option Option Option	Option Option Option	Option Option Option	Option Option Option	Option Option Option	Option Option Option				Option
												Option	Option	Option
STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option				STD Option			STD Option
Option STD Option	Option STD Option	Option STD Option	Option STD Option	Option STD Option	Option STD Option	Option STD Option	Option STD Option	Option STD STD	Option STD STD	Option STD STD	Option STD Option	Option STD	Option STD	Option STD Option
STD	STD	STD	STD	STD	STD	STD	STD	STD STD	STD STD	STD STD	STD	STD STD	STD STD	STD
Option Option	Option Option	Option Option	Option Option	Option Option	Option Option	Option Option	Option Option	Option Option Option		Option Option	Option Option	Option Option	Option Option	Option Option
Option Option STD Option	Option Option Option	Option Option Option	Option Option STD Option	Option Option STD Option	Option Option STD Option	Option Option Option	Option Option Option	Option STD Option	STD Option	STD Option	Option STD	Option STD	Option STD	Option Option
STD	STD	STD	STD	STD	STD	STD								
Option	STD	STD	Option	Option	Option	STD	STD	STD	STD	STD	STD	Option	Option	
CF	CF	CF	CF	CF	CF	CF								
Option	Option	Option		Option	Option	Option	Option	Option	Option	Option				Option
Option	Option	Option	Option	Option	Option	Option	Option Option	Option Option	Option		Option Option	Option	Option	Option
Option Option	Option Option	Option Option	Option Option	Option Option	Option Option	Option Option	Option Option	Option Option	Option Option		Option Option	Option Option	Option Option	Option Option
Option	Option	Option	Option	Option	Option	Option	Option	Option	Option		Option	Option	Option	Option
STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option	STD Option
STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	
STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
STD	STD	STD	STD	STD	STD	STD	Option	STD	STD	STD	Option	STD	STD	STD

Options - Air cooled chillers

Description	Code	EWAQ~BAW EWYQ~BAW	EWAQ-G-	EWYQ-G-	EWAQ-F-SS/XS	EWAQ-E-XS	EWAQ-F-SL/ XR/XL/XR	EWAQ-E-XL/XR	EWYQ-F-XS EWYQ-F-XL	EWYQ-F-XR	EWAD-E-
High pressure side manometers	63				Option	Option	Option	Option	Option	Option	Option
Low pressure side manometers	64				Option	Option	Option	Option	Option	Option	Option
Ambient outside temperature sensor and setpoint reset	67		STD	STD	STD	STD	STD	STD	STD	STD	STD
Hour run meter	68		STD	STD	STD	STD	STD	STD	STD	STD	STD
General fault contactor	69		STD	STD	STD	STD	STD	STD	STD	STD	STD
Container Kit	71		Option	Option	Option	Option	Option	Option	Option	Option	Option
Rubber anti vibration mounts	75		Option	Option	Option	Option	Option	Option	Option	Option	Option
Sound proof system	76										
Sound proof system (integral)	76-a										
Sound proof system (compressor)	76-b										
Spring anti vibration mounts	77										
One centrifugal pump (low lift)	78	Option	Option	Option							Option
One centrifugal pump --- SPK1	78-a				Option	Option	Option	Option	Option	Option	
One centrifugal pump --- SPK2	78-b				Option	Option	Option	Option	Option	Option	
One centrifugal pump --- SPK3	78-c				Option	Option	Option	Option	Option	Option	
One centrifugal pump --- SPK4	78-d				Option	Option	Option	Option	Option	Option	
One centrifugal pump --- SPK5	78-e					Option		Option			
One centrifugal pump --- SPK6	78-f										
One centrifugal pump --- SPK7	78-g										
One centrifugal pump --- SPK8	78-h										
One centrifugal pump --- SPK9	78-i										
One centrifugal pump --- SPK10	78-j										
One centrifugal pump --- SPK1a	78-l										
One centrifugal pump --- SPK1b	78-m								Option	Option	
One centrifugal pump --- SPK1c	78-n								Option	Option	
One centrifugal pump (high lift)	79	Option	Option	Option							Option
Two centrifugal pump (low lift)	80		Option	Option							
Two centrifugal pump --- DPK1	80-a										
Two centrifugal pump --- DPK2	80-b										
Two centrifugal pump --- DPK3	80-c										
Two centrifugal pump --- DPK4	80-d										
Two centrifugal pump --- DPK5	80-e										
Two centrifugal pump --- DPK6	80-f										
Two centrifugal pump --- DPK7	80-g										
Two centrifugal pump --- DPK8	80-h										
Two centrifugal pump (high lift)	81		Option	Option							
External tank without cabinet (500 L)	83 (3)		Option	Option	Option	Option	Option	Option	Option	Option	Option
External tank without cabinet (1000 L)	84 (3)		Option	Option	Option	Option	Option	Option	Option	Option	Option
External tank with cabinet (500 L)	87 (3)		Option	Option	Option	Option	Option	Option	Option	Option	Option
External tank with cabinet (1000 L)	88 (3)		Option	Option	Option	Option	Option	Option	Option	Option	Option
Acoustic test	89										
Setpoint reset, Demand limit and Alarm from external device	90				Option	Option	Option	Option	Option	Option	STD
Double pressure relief valve with diverter	91		Option	Option	Option	Option	Option	Option	Option	Option	Option
PW COMPRESSOR - PART WINDING START	92										
Low ambient kit for 1 circuit	93										
Low ambient kit for 2 circuits	94										
Compressors circuit breakers	95		Option	Option	Option	Option	Option	Option	Option	Option	Option
Fans circuit breakers	96		Option	Option	Option	Option	Option	Option	Option	Option	STD
Main switch interlock door	97		STD	STD	STD	STD	STD	STD	STD	STD	STD
Emergency stop	98										
Fans speed regulation (+ fan silent mode)	99 (2)				Option	Option	Option	Option			Option
Fans speed regulation (inverter)	99a (2)										
Refrigerant recovery unit	100								Option	STD	
Evaporator right water connections	101										
Ground fault relay	102				Option	Option	Option	Option	Option	Option	
Evaporator 1 pass	103										
Evaporator 2 passes	103a										
Evaporator 3 passes	103b										
Evaporator double flange kit	104										
Liquid receiver	105										
Rapid restart	110										
High temperature kit	111										
Transport kit	112		Option	Option	Option	Option	Option	Option	Option		Option
Optimized free cooling (VFD fans regulation)	113-a										
Optimized free cooling (On/Off fans)	113-b										
Nordic kit	114			Option					Option	Option	
Water filter	115		Option	Option	STD	STD	STD	STD	Option	Option	
Condenser coil protection panels	116				Option	Option	Option	Option	Option	Option	Option
Blygold coil treatment	117			Option	Option	Option	Option	Option	Option	Option	Option
Inverter kit for 1 centr pump low lift	120e		Option								
Inverter kit for 1 centr pump high lift	120f		Option								
Inverter kit for 2 centr pumps low lift	120g										
Inverter kit for 2 centr pumps high lift	120h										
Refrigerant leak detection	121										
Discharge and suction line shut-off valve	126		Option	Option							
High and low pressure side manometers	127		Option	Option							
Master/slave	128		STD	STD	STD	STD	STD	STD	STD	STD	
One centrifugal pump (low lift) + tank	134		Option	Option							
One centrifugal pump (high lift) + tank	135		Option	Option							
Two centrifugal pump (low lift) + tank	136		Option	Option							
Two centrifugal pump (high lift) + tank	137		Option	Option							
Coil guard	138		Option	Option							
E-coating microchannel coils	139		Option								
Unit guards (to cover unit access)	140										
Side panels on coil ends	141										
High ambient kit (operatin 46°C)	142										
Variable primary flow	143										
Diff pressure transd (shipped loose)	144										
EC motor fans	145										
Compressor thermal insulation	146										
Knock-down electrical panel	147										
Automatic transfer switch (free standing)	149										
Inverter EN61800-3 class C2 compliant	150										
Rubber pads	152										
Blue coat	153										
Evaporator Optimized for high delta T	154										
Daikin on site modem (with antenna) d	155										Option
AC 9000 rpm fans	156										
AC 700 rpm fans	157										
Brushless fans up to 900 rpm	158										
Brushless fans up to 700 rpm	159										
100 PA ESP fans	160										
100 PA ESP fans	160			Option							
200 PA ESP fans	161										
Cu-Ni Evaporator tubes	164										
Marine version	167										
120 Pa ESP fans	168								Option		

[illegible]

Accessories - Air cooled chillers

DWSC & DWDC EWWD~FZ

Panels	Air-cooled chillers										
	EWAQ~BVP EWYQ~BVP	EWAQ~AC EWYQ~AC	EWAQ~BA EWYQ~BA	EWAQ~CA EWYQ~CA	EWYQ-F-	EWYD~BZ	EWAD~TZ (&B)	EWAD~T- (B)	EWAD~E-	ERAD~E-	EWAD~D-
EKDICMPAB (a) (b) iCM Primary Basic							•	•	•		•
EKDICMPAL (a) (b) iCM Primary for evaporator peripherals Light							•	•	•		•
EKDICMPAF (a) (b) iCM Primary for evaporator peripherals Full							•	•	•		•
EKPWPROM PlantWatchPRO monitoring system						•					
EKPWPROM PlantWatchPRO monitoring system (modem & webserver included)						•					
EKTSMS Temperature sensor for master/slave configuration					•						
EKRUMCL1 User Interface	•										

Serial Cards & Communication Modules	Air-cooled chillers										
	EWAQ~BVP EWYQ~BVP	EWAQ~AC EWYQ~AC	EWAQ~BA EWYQ~BA	EWAQ~CA EWYQ~CA	EWYQ-F-	EWYD~BZ	EWAD~TZ (&B)	EWAD~T- (B)	EWAD~E-	ERAD~E-	EWAD~D-
EKAC200J Serial Card RS485/Modbus						•					
EKACBAC Ethernet Card BACnet						•					
EKACLONP Serial Card LON FTT10						•					
EKACRS232 Serial Card RS232 Modem Interface (single unit only)						•					
EKACWEB Web Server Card						•					
EKACBACMSTP Serial Card BACnet MSTP						•					
EKACBACCERT Serial Card BACnet pre-loaded (centrifugal chillers)											
EKACMSTPCERT Serial Card BACnet pre-loaded MSTP (centrifugal chillers)											
EKCM200J ModBus RTU communication module					•		•	•	•	•	•
EKCM10N LON communication module					•		•	•	•	•	•
EKCMBACMSTP BACnet/MSTP communication module					•		•	•	•	•	•
EKCMBACIP BACnet/IP communication module					•		•	•	•	•	•
EKACPG Communication cards											

Other Systems & Accessories	Air-cooled chillers										
	EWAQ~BVP EWYQ~BVP	EWAQ~AC EWYQ~AC	EWAQ~BA EWYQ~BA	EWAQ~CA EWYQ~CA	EWYQ-F-	EWYD~BZ	EWAD~TZ (&B)	EWAD~T- (B)	EWAD~E-	ERAD~E-	EWAD~D-
EKCON Converter RS485 to RS232						•					
EKCONUSB Converter RS485 to USB						•					
EKMODEM Fixed modem						•					
EKGSMOD GSM modem						•					
EKRUPCJ Remote display kit						•					
EKRUPCS Local/remote display HMI					•		•	•	•	•	•
EKPWPPOEXT PlantWatchPro I/O extension module for hardwiring and retrofit						•					
EKGWWEB Gateway web (Ethernet LAN SNMP)						•					
EKGWMODEM Gateway for modem						•					
EKRUPG Remote user interface											
EKGN210 European Kit Grouved Nipple (for sizes 080-210)											
EKGN260 European Kit Grouved Nipple (for sizes 230-260)											
EKSS Soft Starter kit 5/8/10/12 Hp-units											
EKAC10C Address card for connection to BMS or Remote user interface											
EKRUMCA Remote installed user interface											
EKBT Buffertank 200 l (for N & P models)											
EHMC10A10 Hydraulic module 5/8/10 and 14/22 Hp-units											
EHMC10A80 Hydraulic module 5/8/10 and 14/22 Hp-units											
EHMC15A10 Hydraulic module 28/35 Hp-units											
EHMC15A80 Hydraulic module 28/35 Hp-units											
EHMC30A10 Hydraulic module 45/55/65 Hp-units											
EHMC30A80 Hydraulic module 45/55/65 Hp-units											
EKLS1 Low noise kit 014 Hp-units											
EKLS2 (d) Low noise kit 22/28/35/45/55/65 Hp-units											
ECB2MUAW (e) Controller kit											
ECB3MUAW (e) Controller kit											
ECB2MUBW (e) Controller kit											
ECB3MUBW (e) Controller kit											
EKRPIHB (f) Digital input/output PCB (remote alarm and ON/OFF signalisation)											
EKRPIAHT Digital input/output PCB			•	•							
EKRUAHTB Remote user interface			•	•							
DTA104A62 External control adapter			•	•							
BHGP26A1 Digital pressure gauge kit			•	•							
EKQDP2M016 (h) Differential Pressure Sensor 4-20 mA 0-160 kPa							•	•	•		•
EKQDP2M020 (h) Differential Pressure Sensor 4-20 mA 0-250 kPa							•	•	•		•
EKQDP2M040 (h) Differential Pressure Sensor 4-20 mA 0-400 kPa							•	•	•		•
EKQDP2M060 (h) Differential Pressure Sensor 4-20 mA 0-600 kPa							•	•	•		•

Notes:

- (a) Price does not include commissioning of panel; if commissioning is required please refer to RN17-041
- (b) iCM panels work in cooling mode only; heat pump versions and total heat recovery options on A/C and W/C chillers are not compatible
- (c) in case you are ordering iCM panels please contact factory
- (d) For 45/55/65 Hp-units 2 pieces are needed
- (e) Only available for modular units (EWWP~KAW1M)
- ((f) For 009/010/011/013 units (price available in SAP system)
- (g) Price available in SAP system
- (h) Differential pressure sensor are specific for iCM panels in variable primary flow management



Why choose for a water cooled chiller?

Daikin's efficient, profitable 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 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 system... 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 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 even both at the same time.

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.

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Water cooled screw chiller, standard efficiency, standard sound

- › All models are PED pressure vessel approved
- › 1 or 2 stepless single-screw compressors
- › One or two truly independent refrigerant circuits for outstanding reliability
- › Shell and tube heat exchanger
- › Optimised for use with **R-410A**
- › Standard electronic expansion valve
- › Compact design
- › Partial heat recovery available
- › MicroTech III controller with superior control logic and easy interface

Cooling only				EWWQ-B-SS		380	460	560	640	730	800	860	870	960	C10	C11	C12	C13	C14	C15	C16	C17	C19	C20
Cooling capacity	Nom.			kW	379	462	560	635	724	793	859	868	956	1,003	1,050	1,181	1,251	1,320	1,452	1,595	1,754	1,896	2,055	
Power input	Cooling	Nom.		kW	89.2	109	133	150	170	179	207	199	218	247	243	268	285	303	337	373	407	441	477	
Capacity control	Method				Stepless																			
	Minimum capacity			%	12.5					25.0	12.5	25.0	25.0											
EER					4.24	4.21	4.22	4.25	4.42	4.15	4.36	4.38	4.07	4.32	4.41	4.38	4.35	4.31	4.28	4.31	4.30	4.31		
ESEER					4.64	4.69	4.70	4.46	5.08	4.35	5.07	5.03	4.28	5.04	5.05	5.06	5.00	4.66	4.76	4.61	4.63	4.54		
IPLV					5.57	5.62	5.63	5.32	5.58	5.15	5.75	5.92	5.08	5.90	5.93	5.85	5.46	5.44	5.34	5.38	5.32			
Dimensions	Unit	Height		mm	1,849	2,001		1,848	2,158	1,848	2,158	1,851	2,378	2,455			2,495							
		Width		mm	1,140	1,276		1,314	1,350	1,327	1,350	1,314	1,350											
		Depth		mm	3,373	3,454		3,535	5,020	3,535	5,020	3,535	4,894	5,070		4,892		4,865						
Weight	Unit			kg	1,933	1,967	2,283	2,332	2,407	3,921	2,427	3,949	3,988	2,457	4,344	4,529	4,536	4,607	4,988	4,999	5,053	5,204	5,289	
	Operation weight			kg	2,135	2,169	2,543	2,628	2,777	4,422	2,795	4,463	4,496	2,812	4,780	5,186	5,200	5,280	5,602	5,615	5,670	5,881	5,970	
Water heat exchanger - evaporator	Type				Single pass shell and tube																			
	Water volume			l	124	118	176	170	274	344	266	344	325	251	325	538			505		495	539	527	
	Water flow rate	Nom.		l/s	18.1	22.1	26.8	30.4	34.7	38.0	41.1	41.6	45.8	48.0	50.3	56.5	59.9	63.2	69.5	76.5	84.1	91.0	98.7	
	Water pressure drop	Cooling	Nom.	kPa	48	63	44	47	54	53	49	62	58	56	69	45	49	54	59	69	88	97	120	
Water heat exchanger - condenser	Type				Single pass shell and tube																			
	Water flow rate	Nom.		l/s	22.4	27.4	33.2	37.7	43.1	23.3	51.3	23.3	28.2	60.1	28.2	34.7	34.8	38.9	43.0	43.4	52.0	52.3	60.9	
	Water flow rate 2	Nom.		l/s	-				23.3	-	27.9	28.2	-	33.8	34.7	38.9	43.0	51.3	52.0	60.1	60.9			
	Water pressure drop	Cooling	Nom.	kPa	59	63	67	65	16	64	20	64	67	26	67	73	69	69	16	19	17	15		
	Water pressure drop 2	Cooling	Nom.	kPa	-				64	-	66	67	-	69	73	69	16	19	17	14	15			
Compressor	Type				Single screw compressor																			
	Quantity				1					2	1	2		1	2									
Sound power level	Cooling	Nom.		dBA	100	101	102			105	102	105		103	105		107		106		107		108	
Sound pressure level	Cooling	Nom.		dBA	82	83	84		83	84	85			86		87		86		87		88		
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-4~10																			
	Condenser	Cooling	Min.~Max.	°CDB	25~45																			
Refrigerant	Type / GWP				R-410A / 2,087.5																			
	Circuits	Quantity			1					2	1	2		1	2									
Refrigerant charge	Per circuit			kg	120.0	100.0	175.0	90.0	80.0	85.0	90.0	45.0	85.0	100.0	160.0	100.0	150.0	130.0		150.0	160.0	130.0		
				TCO ₂ eq	250.5	208.8	365.3	187.9	167.0	177.4	187.9	93.9	177.4	208.8	334.0	208.8	313.1	271.4		313.1	334.0	271.4		
Piping connections	Evaporator water inlet/outlet			mm	152.4				203.2								254							
	Condenser water inlet/outlet			inch	5	6			5					6			5							
Unit	Maximum starting current			A	455				656	599	656	626		656	663		690		902	954		988		
	Nominal running current (RLA)		Cooling	A	149	175	211	237	269	299	329	325	352	391	387	423	449	476	539	596	650	702	755	
	Maximum running current			A	179	214	259	294	308	358	372	393	427	434	473	519	553	587	615	679	744	771	830	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																			

Water cooled screw chiller, high efficiency, standard sound



EWWQ-B-SS/XS

MicroTech III

Cooling only				EWWQ-B-XS		420	520	640	730	800	970	C10	C11	C12	C13	C14	C15	C16	C17	C19	C20	C21	
Cooling capacity	Nom.			kW	420	513	636	722	798	969	1,033	1,111	1,153	1,265	1,363	1,442	1,580	1,740	1,870	2,025	2,156		
Power input	Cooling	Nom.		kW	88.7	107	131	149	166	201	213	239	238	262	281	299	324	361	397	436	474		
Capacity control	Method			Stepless																			
	Minimum capacity			%	12.5							25.0	12.5	25.0									
EER					4.74	4.79	4.84	4.83	4.81		4.86	4.64	4.85	4.83	4.85	4.83	4.88	4.81	4.71	4.64	4.55		
ESEER					5.27	5.29	5.37	5.36	5.30		5.09	5.56	4.99	5.52		5.65	5.61	5.26	5.18	4.98	4.91	4.75	
IPLV					6.36	6.45	6.42	6.35	6.06	6.11	5.92	5.92	6.06	6.07	6.23	6.19	5.82	5.92	6.03	5.81	5.93		
Dimensions	Unit	Height	mm	2,001			2,003			2,001	2,454	2,003	2,454				2,495						
		Width	mm	1,276			1,268		1,314	1,446	1,350	1,446					1,350						
		Depth	mm	3,863			3,878			3,920	5,219	3,919	5,219				4,829			4,865			
Weight	Unit		kg	2,322	2,403	2,464	2,738	2,407	2,427	4,775	2,457	4,831	4,873	4,919	4,969	5,117		5,388	5,408	5,414			
	Operation weight		kg	2,594	2,685	2,745	3,158	2,815	3,056	5,431	3,086	5,479	5,512	5,546	5,606	5,794	5,843	6,110	6,118	6,124			
Water heat exchanger - evaporator	Type			Single pass shell and tube																			
	Water volume			l	220	213	200	334	325	538	587	538	575	563	551		495	484	535	527			
	Water flow rate	Nom.		l/s	20.1	24.6	30.5	34.6	38.2	46.4	49.5	53.2	55.2	60.6	65.3	69.1	75.7	83.5	89.7	97.2	103.6		
	Water pressure drop	Cooling	Nom.	kPa	55	68	71	64	57	53		68	64	55	67	74	69	88	90	111	124		
Water heat exchanger - condenser	Type			Single pass shell and tube																			
	Water flow rate	Nom.		l/s	24.4	29.8	36.8	41.8	46.3	56.2	29.9	64.7	30.2	36.7	37.2	41.8	45.7	46.2	54.4	55.1	63.1		
	Water flow rate 2	Nom.		l/s	-				29.9		-	36.6	36.7	41.8		45.7	54.7	54.4	63.0	63.1			
	Water pressure drop	Cooling	Nom.	kPa	50	39	42	47	59	64	40	82	36	48	49	46	44	45	60	61	78		
	Water pressure drop 2	Cooling	Nom.	kPa	-						40		-	47	48	46		44	60		78		
Compressor	Type			Single screw compressor																			
	Quantity			1							2		1	2									
Sound power level	Cooling	Nom.		dBA	101	102	103		102	103	105	104	106		107		106		107		108		
Sound pressure level	Cooling	Nom.		dBA	82	83	84		83	84	86	85	86	87		86		87		88			
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-4~10																		
	Condenser	Cooling	Min.~Max.	°CDB	25~45																		
Refrigerant	Type / GWP			R-410A / 2,087.5																			
	Circuits	Quantity		1							2		1	2									
Refrigerant charge	Per circuit			kg	120.0	130.0	95.0	135.0	110.0	150.0	120.0	130.0	150.0	120.0	150.0	130.0		150.0					
				TCO _{2eq}	250.5	271.4	198.3	281.8	229.6	313.1	250.5	271.4	250.5	313.1	250.5	313.1	271.4		313.1				
Piping connections	Evaporator water inlet/outlet			mm	152.4			203.2			254	203.2	254	203.2				254					
	Condenser water inlet/outlet			inch	8			6			5	6	5		6		8						
Unit	Maximum starting current			A	455				656		626	656	663		690		902	954	988	998			
	Nominal running current (RLA)			Cooling	A	149	173	208	235	258	313	346	370	381	417	443	469	511	567	621	678		
	Maximum running current			A	179	214	259	294	308	372	427	434	473	519	553	587	615	679	744	771	830		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																		

Water cooled scroll heat pump

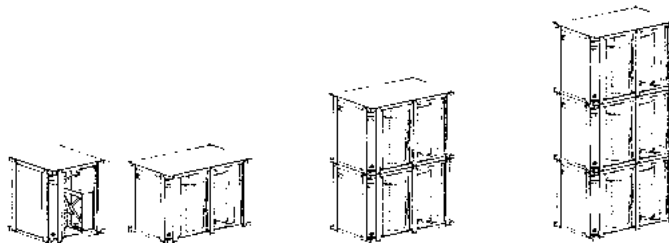
- › One of the most **compact units** on the market: 600mm x 600mm x 600mm
- › Low energy consumption
- › Low operating sound level
- › Low refrigerant volume
- › Stainless steel plate heat exchanger
- › Extension possible to 195kW
- › Easy installation and maintenance
- › Remote cooling or heating selection
- › Water/water heat pump, with water reversibility
- › Compatible with hydraulic module EHMC (see next page)
- › Advanced μC^2SE controller for direct connection to a Modbus based BMS or to a remote user interface
- › Standard integrated: main switch, water filter, flow switch, air purge, pressure ports



Heating only & Cooling only					EWWP-KBW1N		014	022	028	035	045	055	065	090	100	110	120	130	145	155	165	175	185	195																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Cooling capacity	Nom.						kW	12.9	21.4	27.8	32.3	42.8	55.7	64.7	85.7	98.6	112.0	121.0	130.0	141.0	154.0	167.0	176.0	185.0	194.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Heating capacity	Nom.						kW	16.7	27.5	35.6	41.5	55.0	71.7	83.0	110.0	127.0	143.0	155.0	166.0	182.0	198.0	215.0	226.0	237.0	249.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Power input	Cooling	Nom.					kW	3.8	6.1	7.8	9.1	12.2	16.0	18.2	24.2	28.0	31.9	34.0	36.2	40.2	43.9	47.7	49.8	52.0	54.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Heating	Nom.					kW	3.8	6.1	7.8	9.1	12.2	16.0	18.2	24.2	28.0	31.9	34.0	36.2	40.2	43.9	47.7	49.8	52.0	54.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
EER								3.44	3.49	3.54	3.51	3.48	3.55	3.54	3.52	3.51	3.56	3.59	3.51	3.50	3.53	3.56	3.56	3.59	3.59																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
COP								4.45	4.49	4.54	4.55	4.51	4.48	4.56	4.55	4.54	4.48	4.56	4.59	4.53	4.51	4.54	4.56	4.60	4.60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
 Space heating	Average climate water outlet 55°C	General	η _s (Seasonal space heating efficiency)	%				107	106	115	116	102	109	113																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Water cooled scroll chiller

Combination table



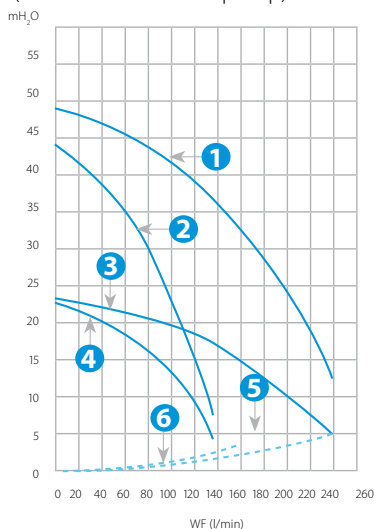
Selection table		1 Module (KB-series)						2 Modules (KB-series)						3 Modules (KB-series)					
Capacity index		014	022	028	035	045	055	065	090	100	110	120	130	145	155	165	175	185	195
Cooling capacity (kW)		12.9	21.4	27.8	32.3	42.8	55.7	64.7	85.7	98.6	112	121	130	141	154	167	176	185	194
Heating capacity (kW)		16.7	27.5	35.6	41.5	55.0	71.7	83.0	110	127	143	155	166	182	198	215	226	237	249
Unit + Control (Factory mounted)	EWWP014KBW1N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EWWP022KBW1N	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EWWP028KBW1N	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EWWP035KBW1N	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EWWP045KBW1N	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	EWWP055KBW1N	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Modular units (Controller available as accessory)	EWWP065KBW1N	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	EWWP045KAW1M	-	-	-	-	-	-	-	2	1	-	-	-	2	1	-	-	-	-
	EWWP055KAW1M	-	-	-	-	-	-	-	-	1	2	1	-	1	2	3	2	1	-
Control (Kit)	EWWP065KAW1M	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	1	2	3
	ECB2MUAW	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-
	ECB3MUAW	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1

For example: for a 121 kW HP system, select : EWWP055KBW1N + EWWP065KBW1N

EHMC

Hydraulic Module

- › Accessory for EWWP-KBW1N chillers
- › 3 models available
- › 100 l tank for all sizes
- › Freeze up protection
- › High static pump (option)
- › Standard drain kit (for indoor use)
- › Standard dual pressure ports (before & behind the pump)



Legends

Pump characteristics

1. EHMC30AV1080
2. EHMC10AV1080 & EHMC15AV1080
3. EHMC30AV1010
4. EHMC10AV1010 & EHMC15AV1010

Hydraulic module

+ filter pressures losses

5. EHMC15/30AV1010 & EHMC15/30AV1080
6. EHMC10AV1010 & EHMC10AV1080



EHMC-AV

EHMC-AV			10		15		30	
			1010	1080	1010	1080	1010	1080
Nominal flow		l/min	62		88		187	
Nominal ESP		mH ₂ O	17	34	15	27	10	27
Nominal input		W	630	1,050	650	1,070	1,070	2,090
Dimensions (HxWxD)		mm	1,284x635x688		1,284x635x688		1,284x635x688	
Machine weight		kg	99	101	102	104	105	111
Sound power		dBA	63		63		63	
Sound pressure		dBA	52		52		52	
Power supply		V1	1~/230V/50Hz					
Operation range	Water side	°C	-10°C ~ 55°C					
	Air side	°CDB	-10°C ~ 43°C					
Piping connections	Water inlet/outlet		1" BSPF		2" BSPF		2-1/2" BSPF	
	Drain connection		1/2"					

Water cooled screw chiller, standard efficiency, standard sound

- › Stepless single-screw compressor
- › 1-2 truly independent refrigerant circuits
- › Standard electronic expansion valve
- › DX shell and tube evaporator – one pass refrigerant side for easy oil circulation and return
- › Partial and total heat recovery option available
- › MicroTech III controller with superior control logic and easy interface

Heating only & Cooling only				EWWD-G-SS	170	210	260	300	320	380	420	460	500	600	
Cooling capacity	Nom.			kW	165	200	252	279	332	370	401	446	492	554	
Heating capacity	Nom.			kW	209	253	319	357	420	467	506	566	626	710	
Power input	Cooling	Nom.		kW	43.8	52.6	67.4	78.5	87.5	96.4	105	119	134	157	
	Heating	Nom.		kW	43.8	52.6	67.4	78.5	87.5	96.4	105	119	134	157	
Capacity control	Method				Stepless										
	Minimum capacity			%	25.0				12.5						
EER					3.77	3.80	3.74	3.55	3.80	3.84	3.80	3.74	3.68	3.53	
COP					4.77	4.80	4.74	4.55	4.80	4.84	4.80	4.74	4.68	4.53	
ESEER					4.50	4.54	4.46	4.25	4.75	4.80	4.76	4.67	4.59	4.44	
IPLV					5.36	5.35	5.30	5.04	5.52	5.55		5.60	5.31	5.16	
Space heating	Average climate water outlet 35°C	General	ns (Seasonal space heating efficiency)	SCOP	%	160	159		154	-					
						4.20	4.17	4.18	4.06	-					
Dimensions	Unit	Height			mm	1,860				1,880					
		Width			mm	920				860					
		Depth			mm	3,435				4,305					
Weight	Unit			kg	1,393	1,410	1,503		2,687	2,697	2,702	2,757	2,762		
	Operation weight			kg	1,470	1,480	1,650		2,840	2,850	2,860	2,970			
Water heat exchanger - evaporator	Type					Single pass shell and tube									
	Water volume			l	60	56	123		118	113		173	168		
	Water pressure drop	Cooling	Total	kPa	45	61	41	49	58	57	66	50		59	
Compressor	Type					Single screw compressor									
	Quantity					1				2					
Sound power level	Cooling	Nom.		dBA	88				90						
Sound pressure level	Cooling	Nom.		dBA	70				72						
Operation range	Evaporator	Cooling	Min.	°CDB	-8										
			Max.	°CDB	15										
	Condenser	Cooling	Min.	°CDB	20										
			Max.	°CDB	55										
Refrigerant	Type					R-134a									
	GWP					1,430									
	Circuits	Quantity				1				2					
Refrigerant charge	Per circuit			kg	60.0				55.0						
				TCO ₂ eq	85.8				78.7						
Piping connections	Evaporator water inlet/outlet (OD)				88.9		114.3				139.7mm				
	Condenser water inlet/outlet (OD)				5"										
Unit	Starting current	Max			A	288				380	397		420	438	
	Running current	Cooling	Nom.		A	75	85	105	122	149	160	171	190	209	242
			Max		A	114	136	165	186	229	250	272	301	330	373
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400										

Water cooled screw chiller, high efficiency, standard sound



EWWD-G-SS/XS

MicroTech III

Heating only & Cooling only				EWWD-G-XS	190	230	280	320	380	400	460	500	550	650
Cooling capacity	Nom.			kW	185	222	276	306	365	407	443	495	539	602
Heating capacity	Nom.			kW	226	272	337	379	446	496	540	602	657	743
Power input	Heating	Nom.		kW	40.6	49.4	61.0	73.4	81.1	89.0	97.0	107	117	141
Capacity control	Method				Stepless									
	Minimum capacity			%	25.0					12.5				
EER					4.57	4.50	4.53	4.17	4.50	4.58	4.57	4.61	4.59	4.26
COP					5.57	5.50	5.53	5.17	5.50	5.58	5.6	5.61	5.59	5.26
ESEER					5.37	5.31	5.33	4.91	5.54	5.62	5.61	5.68	5.67	5.27
IPLV					6.45	6.36	6.35	5.80	6.47	6.57	6.55	6.65	6.64	6.17
Space heating	Average climate water outlet 35°C	General	η _s (Seasonal space heating efficiency)	%	182	179	180	170	-					
			SCOP		4.75	4.68	4.69	4.44	-					
Dimensions	Unit	Height		mm	1,860					1,880				
		Width		mm	920					860				
		Depth		mm	3,435					4,305				
Weight	Unit			kg	1,650	1,665	1,680		2,800	2,945	2,955	2,975	2,990	
	Operation weight			kg	1,800	1,810	1,820		3,020	3,280	3,290	3,315	3,340	
Water heat exchanger - evaporator	Type				Single pass shell and tube									
	Water volume			l	125	120	110		170	285		280		
	Water pressure drop	Cooling	Total	kPa	23	31	30	37	28	21	24	33	39	47
Compressor	Type				Single screw compressor									
	Quantity				1					2				
Sound power level	Cooling	Nom.		dBA	88					90				
Sound pressure level	Cooling	Nom.		dBA	70					72				
Operation range	Evaporator	Cooling	Min.	°CDB	-8									
			Max.	°CDB	15									
	Condenser	Cooling	Min.	°CDB	20									
			Max.	°CDB	55									
Refrigerant	Type				R-134a									
	GWP				1,430									
	Circuits	Quantity			1					2				
Refrigerant charge	Per circuit			kg	60.0					60.0	65.0		60.0	
				TCO _{2eq}	85.8					85.8	93.0		85.8	
Piping connections	Evaporator water inlet/outlet (OD)				114.3					139.7	168.3mm			
	Condenser water inlet/outlet (OD)				5"									
Unit	Starting current	Max		A	288					380	397		420	438
	Running current	Cooling	Nom.	A	71	81	96	109	142	152	161	174	186	210
		Max		A	114	136	165	186	229	250	272	301	330	373
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400									

Water cooled multi-scroll chiller reversing on refrigerant side, standard efficiency, standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › Heat pump version with reversibility on refrigerant side available, ideal for geothermal applications
- › Compact design to allow easy indoor installation or retrofit operations
- › Conceived for stacked installation of two single circuit units to reduce the footprint
- › High efficiency and reliable scroll compressor
- › High flexibility for a wide variety of applications
- › Allows sequencing control (up to 4 units) without any external device
- › Stainless steel plate heat exchanger
- › Pump (low 100 kPa and high 200 kPa lift) available for evaporator and condenser
- › MicroTech III controller with superior control logic and easy interface



Heating only & Cooling only				EWHQ-G-SS	100	120	130	150	160	190	210	240	270	340	400	
Cooling capacity	Nom.			kW	87.3	100.0	111	127	141	160	181	208	232	291	352	
Heating capacity	Nom.			kW	112	128	144	162	179	205	233	266	299	375	454	
Power input	Cooling	Nom.		kW	22.4	25.3	28.5	32.0	35.6	41.1	46.0	53.3	59.1	73.7	88.4	
	Heating	Nom.		kW	27.0	30.9	35.2	39.3	43.6	50.4	56.6	64.7	72.2	90.3	109	
Capacity control	Method				Step											
	Minimum capacity			%	50.0	43.0	50.0	44.0	50.0	45.0	50.0	43.0	50.0	40.0	50.0	
EER					3.90	3.95	3.91	3.96	3.95	3.90	3.93	3.90	3.92	3.95	3.98	
COP					4.15	4.16	4.09	4.12	4.11	4.07	4.11	4.10	4.14	4.16	4.18	
ESEER					4.70	4.84	4.65	4.86	4.80	4.89	4.86	4.83	4.79	4.90	4.83	
IPLV					6.02	6.14	5.66	5.84	5.73	5.84	5.81	5.87	5.71	5.86	5.79	
 Space heating	Average climate water outlet 35°C	General	ns (Seasonal space heating efficiency) SCOP	%	155	160	163	167	166			172	171	163	-	
					4.08		4.14	4.24	4.23		4.22	4.37	4.35	4.16	-	
Dimensions	Unit	Height	mm	1,066											1,186	
		Width	mm	928												
		Depth	mm	2,432		2,264			2,432							
Weight	Unit		kg	519	608	728	770	808	838	880	930	941	1,090	1,203		
	Operation weight			kg	558	654	782	830	873	908	995	1,019	1,031	1,202	1,334	
Water heat exchanger - evaporator	Type				Plate heat exchanger											
	Water volume			l	6	8		10	12	13	15	17		27	34	
	Water pressure drop	Cooling	Nom.	kPa	44		35	30	29	31	33	31	38	42	43	
		Heating			Nom.	kPa	42		33	28	27	29	32	29	37	41
Compressor	Type				Scroll compressor											
	Quantity				2											
Sound power level	Cooling	Nom.	dBA	80	83	85	87	88			90		92	93		
Sound pressure level	Cooling	Nom.	dBA	64	67	69	70	72			74		76		77	
Operation range	Evaporator	Cooling	Min.	°CDB	-8											
		Max.			°CDB	15										
	Condenser	Cooling	Min.	°CDB	25											
		Max.			°CDB	55										
Refrigerant	Type				R-410A											
	GWP				2,087.5											
	Circuits	Quantity			1											
Refrigerant charge	Per circuit				kg	9.0		10.0		13.0	11.0	13.0	15.0		19.0	
					TCO ₂ eq	18.8		20.9		27.1	23.0	27.1	31.3		39.7	
Piping connections	Evaporator water inlet/outlet (OD)				1" 1/2			2" 1/2							3"	
	Condenser water inlet/outlet (OD)				1" 1/2			2" 1/2							3"	
Unit	Starting current	Max		A	204	255	261	308	316	354	368	466	481	640	677	
	Running current	Cooling	Nom.	A	43	46	50	56	63	71	78	88	97	123	148	
		Max			A	59	66	72	80	88	102	116	131	145	183	221
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Water cooled multi-scroll chiller, standard efficiency, standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › Heat pump version available
- › Compact design to allow easy indoor installation or retrofit operations
- › Conceived for stacked installation of two single circuit units to reduce the footprint
- › High efficiency and reliable scroll compressor
- › High flexibility for a wide variety of applications
- › Allows sequencing control (up to 4 units) without any external device
- › Stainless steel plate heat exchanger
- › Pump (low 100 kPa and high 200 kPa lift) available for evaporator and condenser
- › MicroTech III controller with superior control logic and easy interface



EWWQ-G-SS

MicroTech III

Cooling only				EWWQ-G-SS		090	100	120	130	150	170	190	210	240	300	360
Cooling capacity	Nom.			kW	93.7	106	119	136	150	172	194	221	246	314	370	
Heating capacity	Nom.			kW	118	133	150	169	187	215	244	276	310.00	396	468	
Power input	Cooling	Nom.		kW	21.3	24.0	26.9	30.5	33.9	38.9	43.8	50.7	56.1	70.2	84.0	
	Heating	Nom.		kW	25.7	29.2	32.9	37.2	41.4	47.6	53.7	61.3	68.3	85.6	103	
Capacity control	Method				Step											
	Minimum capacity			%	50.0	43.0	50.0	44.0	50.0	45.0	50.0	43.0	50.0	40.0	50.0	
EER					4.40		4.42	4.46	4.42		4.35		4.39	4.48	4.41	
COP					4.58	4.56	4.55		4.53	4.52	4.54	4.50	4.54	4.62	4.56	
ESEER					5.51	5.52	5.51	5.53	5.51	5.53	5.52					
IPLV					6.71	6.79	6.22	6.36	6.22	6.32	6.30	6.31	6.10	6.28	6.16	
 Space heating	Average climate water outlet 35°C	General		ns (Seasonal space heating efficiency)	%	163		165	168		167	164	162	166	-	
		SCOP			4.28		4.33	4.40	4.39	4.40	4.38	4.29	4.25	4.34	-	
Dimensions	Unit	Height	mm			1,066									1,186	
		Width	mm			928										
		Depth	mm			2,432		2,264			2,432					
Weight	Unit	kg			516	606	728	762	795	832	871	921	934	1,083	1,181	
	Operation weight			kg	555	652	782	821	859	901	946	1,010	1,023	1,195	1,311	
Water heat exchanger - evaporator	Type				Plate heat exchanger											
	Water volume			l	6	8		10	12	13	15	17		27	34	
	Water pressure drop	Cooling	Nom.	kPa	49		39	33		35	37	34	42	47		
		Heating	Nom.	kPa	47		38	31		33	35	32	41	46		
Compressor	Type				Scroll compressor											
	Quantity				2											
Sound power level	Cooling	Nom.		dBA	80	83	85	87	88			90	92	93		
Sound pressure level	Cooling	Nom.		dBA	64	67	69	70	72			74	76		77	
Operation range	Evaporator	Cooling	Min.	°CDB	-10											
		Max.	°CDB	15												
	Condenser	Cooling	Min.													°CDB
		Max.	°CDB	55												
Refrigerant	Type															R-410A
	GWP				2,087.5											
	Circuits	Quantity			1											
Refrigerant charge	Per circuit	kg			10.0		11.0		12.0		15.0	16.0	17.0	19.0	20.0	
		TCO ₂ eq			20.9		23.0		25.1		31.3	33.4	35.5	39.7	41.8	
Piping connections	Evaporator water inlet/outlet (OD)				1" 1/2		2" 1/2								3"	
	Condenser water inlet/outlet (OD)				1" 1/2		2" 1/2								3"	
Unit	Starting current	Max		A	204	255	261	308	316	354	368	466	481	640	677	
	Running current	Cooling	Nom.	A	42	45	48	54	61	68	76	86	95	118	143	
		Max		A	59	66	72	80	88	102	116	131	145	183	221	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Water cooled multi-scroll chiller, standard efficiency, standard sound

- › Dual refrigerant circuit (4 scroll compressors) with single evaporator
- › Heat pump version available
- › Compact design to allow easy indoor installation or retrofit operations
- › High efficiency and reliable scroll compressor
- › Stainless steel plate heat exchanger
- › High flexibility for a wide variety of applications
- › Allows sequencing control (up to 4 units) without any external device
- › Pump (low 100 kPa and high 200 kPa lift) available for evaporator and condenser
- › MicroTech III controller with superior control logic and easy interface



Heating only & Cooling only				EWQ-L-SS	180	205	230	260	290	330	380	430	480	540	600	660	720			
Cooling capacity	Nom.			kW	187	215	244	273	303	345	387	430	476	549	611	663	721			
Heating capacity	Nom.			kW	234	269	305	339	377	430	486	537	601	692	773	843	917			
Power input	Cooling	Nom.		kW	41.7	47.3	53.1	60.2	67.1	77.1	87.0	97.9	110	124	140	154	167			
	Heating	Nom.		kW	50.5	57.5	65.0	73.6	82.0	94.4	107	118	133	150	171	188	204			
Capacity control	Method				Step															
	Minimum capacity			%	25.0	21.0	25.0	22.0	25.0	23.0	25.0	21.0	25.0	22.0	20.0	18.0	25.0			
EER					4.49	4.55	4.60	4.53	4.52	4.47	4.45	4.39	4.34	4.44	4.37	4.31	4.32			
COP					4.64	4.67	4.68	4.60		4.56	4.55	4.54	4.51	4.60	4.53	4.48	4.49			
ESEER					5.54		5.52	5.53	5.54	5.53	5.54	5.52	5.51	5.55	5.51		5.52			
IPLV					6.77	6.84	6.35	6.38	6.31	6.32	6.36	6.37	6.16	6.29	6.23	6.20	6.18			
Space heating	Average climate water outlet 35℃	General		ns (Seasonal space heating efficiency) SCOP	%	172	171	173	170			-								
						4.08	4.14	4.24	4.23	-										
Dimensions	Unit	Height	mm	1,970										2,090	2,210					
		Width	mm	928																
		Depth	mm	2,801																
Weight	Unit			kg	877	1,062	1,285	1,347	1,439	1,498	1,559	1,673	1,722	1,842	1,926	2,105	2,229			
	Operation weight			kg	957	1,156	1,401	1,469	1,575	1,641	1,723	1,851	1,918	2,044	2,145	2,346	2,405			
Water heat exchanger - evaporator	Type				Plate heat exchanger															
	Water volume			l	35	41	53		65		76		92		115					
	Water pressure drop	Cooling	Nom.	kPa	28		23	28	25	32		33		40	51	50	59	69		
		Heating	Nom.	kPa	27		22	27	24	31			39		50	48	58	68		
Compressor	Type				Scroll compressor															
	Quantity				4															
Sound power level	Cooling	Nom.	dB(A)	83	86	88	90	91			93		95			96				
Sound pressure level	Cooling	Nom.	dB(A)	65	68	70	72	74		73		76		77			78			
Operation range	Evaporator	Cooling	Min.	℃CDB	-10															
		Max.	℃CDB	15																
	Condenser	Cooling	Min.	℃CDB	25															
		Max.	℃CDB	55																
Refrigerant	Type				R-410A															
	GWP				2,087.5															
	Circuits			Quantity	2															
Refrigerant charge	Per circuit			kg	10.0		11.0		12.0		15.0		16.0		17.0		19.0		20.0	
				TCO ₂ eq	20.9		23.0		25.1		31.3		33.4		35.5		39.7		41.8	
Piping connections	Evaporator water inlet/outlet (OD)				3"															
	Condenser water inlet/outlet (OD)				1" 1/2		2" 1/2						3"							
Unit	Starting current	Max		A	263	320	333	388	403	456	484	597	626	785	822	860	898			
	Running current	Cooling	Nom.	A	83	89	96	109	121	137	151	171	189	210	236	260	284			
		Max		A	118	131	144	160	175	205	232	262	290	328	366	403	441			
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															



The highest peak in chiller technology

The EWWD-VZ chiller series were developed and manufactured to answer the growing market demands on high efficient chiller series. Thanks to the continuous evolution in components' technology, we are the first to reach the highest peak in chiller efficiency and technology.

EWWD-VZ at a glance

Single compressor

450 kW - 1,053 kW



Full inverter water cooled chiller



Dual compressor & dual circuit unit

1,200 kW - 2,100 kW

of everything:
2 compressors,
2 expansion valves,
2 condensers,...



New condenser design with integral oil separator

High efficient flooded heat exchangers

Highest efficiency in the market in its category



TOP CLASS EFFICIENCY

Unique Daikin single screw compressor technology



UNIQUE
SOLUTION



Why choose EWWD-VZ chiller series?

- 1 Top class efficiency: ESEER up to 8.5 – EER up to 5.8**
Thanks to:
New generation Daikin inverter screw compressors
New generation high efficiency heat exchangers
Variable volume ratio technology
Optimized refrigerant circuit design
- 2 Compact unit : 40% footprint reduction**
Thanks to:
New single pass condenser technology
New integrated oil separator technology
Optional knock down panel which reduces the unit width
- 3 Application flexibility : widest operating envelope in its range**
- 4 Connectivity : Daikin on site cloud platform**
- 5 Future readiness: Choose for today's best solution and be ready for the future!**

Supporting tools

Product video



Check on

You Tube
www.youtube.com/DaikinEurope



Marketing material

All marketing material can be downloaded from the business portal.
Asset finder > Campaign > VZ chiller series



Product profile

Want to know more about this product?
Have a look at our website and download the product profile:

Water cooled screw inverter chiller, standard efficiency, standard sound

- › Optimized energy efficiency both at full and part load conditions
- › Compact footprint through stacked heat exchanger lay-out
- › Heat pump version with reversibility on water side (up to 65°C hot water production)
- › Multiple options available: sound proof cabinet, rapid restart, removable electrical panel, etc. to adapt the unit to your specific application and need
- › Thanks to a large operating envelope, the unit is suitable for all possible process and comfort applications
- › High efficient flooded type heat exchanger allowing maximum unit performances
- › One or two truly independent refrigerant circuits for outstanding reliability



Cooling only/Heating only					EWWD-VZSS	600	700	760	890	C10
Cooling capacity	Nom.			kW	609.9	704.1	756.5	894.2	1,039	
Heating capacity	Nom.			kW	756.7	877.8	943.2	1,107	1,292	
Power input	Cooling	Nom.		kW	110	132	142	162	196	
	Heating	Nom.		kW	140	166	179	201	244	
Capacity control	Method				Stepless					
	Minimum capacity			%	20					
EER					5.51	5.31		5.52	5.28	
COP					5.42	5.27	5.28	5.5	5.3	
ESEER					7.62	7.50	7.63	7.54	7.52	
IPLV					9.08	9.27	9.20	9.22	9.40	
Dimensions	Unit	Height		mm	2,120			2,290	2,480	
		Width		mm	1,180			1,240	1,340	
		Depth		mm	3,460	3,690			3,830	
Weight	Unit			kg	2,892	2,928	2,941	3,451	4,237	
	Operation weight			kg	2,977	3,033	3,053	3,611	4,488	
Water heat exchanger - evaporator	Type				Flooded single pass shell and tube					
	Water volume			l	88		96	134	156	
	Water flow rate	Cooling	Nom.	l/s	29.3	33.8	36.3	42.9	49.9	
		Heating	Nom.	l/s	29.6	34.2	36.7	43.5	50.4	
	Water pressure drop	Cooling	Nom.	kPa	80.0	106	89.0	98.0	104	
		Heating	Nom.	kPa	82	108	90	100	106	
Water heat exchanger - condenser	Type				Single pass shell and tube					
	Water volume			l	81	102		126	217	
	Water flow rate	Cooling	Nom.	l/s	34.5	40.2	43.1	50.7	59.4	
		Heating	Nom.	l/s	36.46	42.33	45.47	53.38	62.35	
	Water pressure drop	Cooling	Nom.	kPa	31	29	32	30	33.0	
		Heating	Nom.	kPa	60	44	51	48	36	
Compressor	Type				Inverter driven single screw compressor					
	Quantity				1					
Sound power level	Cooling	Nom.		dB(A)	101	105			108	
Sound pressure level	Cooling	Nom.		dB(A)	82	86			89	
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-3~20					
	Condenser	Cooling	Min.~Max.	°CDB	16~63					
Refrigerant	Type / GWP				R-134a / 1,430					
	Circuits		Quantity		1					
Refrigerant charge	Per circuit			kg	100	110		170	180	
				TCO ₂ eq	143	157		243	257	
Piping connections	Evaporator water inlet/outlet			mm	141.3			168.3	219.1	
	Condenser water inlet/outlet			mm	168.3			219.1		
Unit	Starting current	Max		A	179	214	245	295	344	
	Running current	Cooling	Nom.	A	171	202	220	249	300	
		Max		A	256	306	350	421	491	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Water cooled screw inverter chiller, high efficiency, standard sound

- › High energy efficiency both at full and part load conditions
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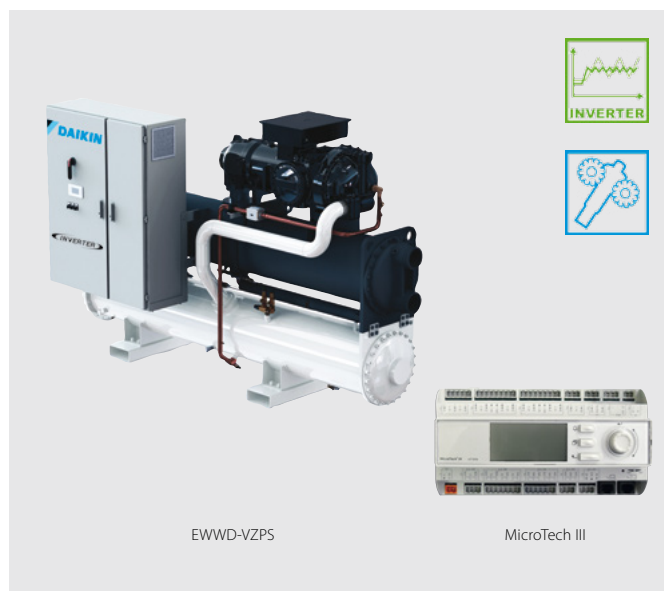
EWWD-VZXS

MicroTech III

Cooling only/Heating only				EWWD-VZXS	450	500	610	710	800	900	C11
Cooling capacity	Nom.			kW	448.8	500.5	612.8	713	793.5	901.2	1,053
Heating capacity	Nom.			kW	553	617.2	756.7	882.2	984.6	1,110	1,302
Power input	Cooling	Nom.		kW	81.1	89.6	108	128	146	158	192
	Heating	Nom.		kW	102	112	138	163	185	199	240
Capacity control	Method				Stepless						
	Minimum capacity			%	20						
EER					5.53	5.58	5.64	5.54	5.43	5.67	5.46
COP					5.45	5.49	5.48	5.42	5.33	5.58	5.43
ESEER					7.51	7.92	8.10	8.20	8.22	7.92	8.17
IPLV					9.42	9.59	9.52	9.66	9.64	9.48	9.58
Dimensions	Unit	Height		mm	2,090	2,120		2,230	2,290	2,480	
		Width		mm	1,180			1,220	1,240	1,340	
		Depth		mm	3,460		3,690				3,830
Weight	Unit			kg	2,968	2,911	3,102	3,470	3,451	4,257	4,552
	Operation weight			kg	3,098	3,006	3,274	3,648	3,611	4,518	4,860
Water heat exchanger - evaporator	Type				Flooded single pass shell and tube						
	Water volume			l	70	88	136	134		168	199
	Water flow rate	Cooling	Nom.	l/s	21.6	24.0	29.4	34.2	38.0	43.2	50.4
		Heating	Nom.	l/s	21.7	24.2	29.7	34.5	38.4	43.7	50.9
	Water pressure drop	Cooling	Nom.	kPa	89.0	63.0	59.0	63.0	55.0	67.0	58.0
Heating		Nom.	kPa	90	64	60	64	56	68	59	
Water heat exchanger - condenser	Type				Single pass shell and tube						
	Water volume			l	81	92	126	145	126	217	241
	Water flow rate	Cooling	Nom.	l/s	25.4	28.3	34.7	40.4	45.2	50.9	59.9
		Heating	Nom.	l/s	26.68	29.78	36.53	42.6	47.53	53.59	62.85
	Water pressure drop	Cooling	Nom.	kPa	31.0	28.0	22.0	20.0	24.0	25.0	
Heating		Nom.	kPa	34	31	24	22	27	28	27	
Compressor	Type				Inverter driven single screw compressor						
	Quantity				1						
Sound power level	Cooling	Nom.		dBA	97	99	101	105		108	
Sound pressure level	Cooling	Nom.		dBA	78	80	82	86		89	
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-3~20						
	Condenser	Cooling	Min.~Max.	°CDB	16~65						
Refrigerant	Type / GWP				R-134a / 1,430						
	Circuits		Quantity		1						
Refrigerant charge	Per circuit			kg	95		100	110	170		180
				TCO ₂ eq	136		143	157	243		257
Piping connections	Evaporator water inlet/outlet			mm	141.3			168.3		219.1	
	Condenser water inlet/outlet			mm	168.3			219.1			
Unit	Starting current	Max		A	155	173	179	214	256	295	344
	Running current	Cooling	Nom.	A	126	140	171	201	229	249	299
		Max		A	222	247	256	306	366	421	491
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400						

Water cooled screw inverter chiller, premium efficiency, standard sound

- › Premium energy efficiency both at full and part load conditions
- › Compact footprint through stacked heat exchanger lay-out
- › Heat pump version with reversibility on water side (up to 65°C hot water production)
- › Multiple options available: sound proof cabinet, rapid restart, removable electrical panel, etc. to adapt the unit to your specific application and need
- › Thanks to a large operating envelope, the unit is suitable for all possible process and comfort applications
- › High efficient flooded type heat exchanger allowing maximum unit performances
- › One or two truly independent refrigerant circuits for outstanding reliability



EWWD-VZPS

MicroTech III

Cooling only/Heating only					EWWD-VZPS	505	715	910
Cooling capacity	Nom.			kW		504.9	717.7	908.1
Heating capacity	Nom.			kW		619.7	885.3	1,115
Power input	Cooling	Nom.		kW		87.5	126	156
	Heating	Nom.		kW		110	161	196
Capacity control	Method					Stepless		
	Minimum capacity				%	20		
EER						5.77	5.66	5.81
COP						5.62	5.49	5.68
ESEER						8.15	8.48	8.25
IPLV						9.61	9.68	9.57
Dimensions	Unit	Height		mm		2,090	2,430	2,480
		Width		mm		1,180	1,330	1,340
		Depth		mm		3,690		3,830
Weight	Unit			kg		3,247	4,082	4,346
	Operation weight				kg	3,375	4,349	4,660
Water heat exchanger - evaporator	Type					Flooded single pass shell and tube		
	Water volume				l	96	168	199
	Water flow rate	Cooling	Nom.	l/s	24.2	34.4	43.5	
		Heating	Nom.	l/s	24.4	34.7	44	
	Water pressure drop	Cooling	Nom.	kPa	55.0	42.0	44.0	
Heating		Nom.	kPa	56	43	45		
Water heat exchanger - condenser	Type					Single pass shell and tube		
	Water volume				l	126	217	241
	Water flow rate	Cooling	Nom.	l/s	28.5	40.6	51.2	
		Heating	Nom.	l/s	29.93	42.76	53.83	
	Water pressure drop	Cooling	Nom.	kPa	15.0	17.0	19.0	
Heating		Nom.	kPa	17	18	21		
Compressor	Type					Inverter driven single screw compressor		
	Quantity					1		
Sound power level	Cooling	Nom.		dBA		99	105	
Sound pressure level	Cooling	Nom.		dBA		80	86	
Operation range	Evaporator	Cooling	Min.~Max.	°CDB		-3~-20		
	Condenser	Cooling	Min.~Max.	°CDB		16~65		
Refrigerant	Type / GWP					R-134a / 1,430		
	Circuits	Quantity				1		
Refrigerant charge	Per circuit			kg		100	150	180
				TCO ₂ eq		143	215	257
Piping connections	Evaporator water inlet/outlet				mm	141.3	219.1	
	Condenser water inlet/outlet				mm	219.1		
Unit	Starting current	Max		A		173	214	295
	Running current	Cooling	Nom.	A		138	200	247
		Max			A		247	306
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400		



Water cooled screw chiller, standard efficiency, standard sound

- › Stepless single-screw compressor
- › **one, two or three** truly independent **refrigerant circuits**
- › Standard electronic expansion valve
- › DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- › Partial and total heat recovery option available
- › MicroTech III controller with superior control logic and easy interface

Heating only & Cooling only			EWWD-I-SS	340	400	460	550	650	700	800	850	900	950	C10	C12	C13	C14	C15	C16	C17	C18		
Cooling capacity	Nom.		kW	332	392	458	536	637	703	779	841	907	982	1,024	1,151	1,200	1,270	1,341	1,395	1,449	1,503		
Heating capacity	Nom.		kW	405	481	562	660	783	863	955	1,032	1,112	1,207	1,267	1,412	1,475	1,560	1,648	1,721	1,793	1,866		
Power input	Cooling	Nom.	kW	73.5	88.6	104	124	146	160	176	191	205	225	243	262	275	290	307	325	344	363		
	Heating	Nom.	kW	73.5	88.6	104	124	146	160	176	191	205	225	243	262	275	290	307	325	344	363		
Capacity control	Method			Stepless																			
	Minimum capacity		%	25.0				12.5				8.3											
EER				4.51	4.43	4.39	4.31	4.37	4.38	4.41	4.40	4.42	4.37	4.22	4.40	4.36	4.38	4.37	4.29	4.21	4.14		
COP				5.51	5.43	5.39	5.31	5.37	5.38	5.41	5.40	5.42	5.37	5.22	5.40	5.36	5.38	5.37	5.29	5.21	5.14		
ESEER				4.55	4.46	4.44	4.37	4.99	5.18	5.00	5.13	4.92	5.05	4.82	4.96	5.00		4.99	5.00	4.91	4.79		
IPLV				5.41	5.28	5.26	5.19	5.83	6.27	5.81	6.16	5.76	5.90	5.64	5.71	5.74	5.76	5.74		5.65	5.45		
Dimensions	Unit	Height	mm	1,821				2,103				2,323											
		Width	mm	1,466				1,350				2,130											
		Depth	mm	3,298				4,116				4,439											
Weight	Unit		kg	2,150	2,160	2,179	2,224	3,909	3,927	3,945	3,971	3,996	4,080	4,092	6,079	6,097	6,136	6,174	6,192	6,210	6,228		
	Operation weight		kg	2,380	2,396	2,410	2,457	4,217	4,228	4,243	4,262	4,288	4,369	4,386	6,628	6,646	6,670	6,699	6,717	6,735	6,761		
Water heat exchanger - evaporator	Type			Single pass shell and tube																			
Compressor	Water volume		l	193	183	172	271	263	256	248	241	233	472	504	489	472							
	Type			Single screw compressor																			
	Quantity			1				2				3											
Sound power level	Cooling	Nom.	dBA	94	97				98	99	100				101		103						
Sound pressure level	Cooling	Nom.	dBA	75	76	78				79	80	81				80	81	83					
Operation range	Evaporator	Cooling		1				2								3							
Refrigerant	Type			R-134a																			
	GWP			1,430																			
Refrigerant charge	Per circuit		kg	54.0	52.0	60.0	55.0	60.0	75.0	55.0	50.0	52.0	51.7	51.3	51.0	50.7	50.3	58.0					
		TCO _{2eq}	77.2	74.4	85.8	78.7	85.8	107.3	78.7	71.5	74.4	73.9	73.4	72.9	72.5	72.0	82.9						
Piping connections	Evaporator water inlet/outlet (OD)			168.3mm										219.1mm									
	Condenser water inlet/outlet (OD)			5"																			
Unit	Starting current	Max	A	330	464				493	627	650	681	703	836	867	898			920	942			
	Running current	Cooling	Nom.	A	119	145	166	196	236	262	288	310	329	355	382	431	450	470	493	520	547		
		Max	A	204	233	271	299	407	436	465	504	542	570	597	698	737	775	814	841	868	896		
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/400																			

Water cooled screw chiller, high efficiency, standard sound



EWWD-I-SS/XS

MicroTech III

Heating only & Cooling only				EWWD-I-XS	360	440	500	600	750	800	850	950	C10	C11	C12	
Cooling capacity	Nom.			kW	360	431	504	570	717	791	863	929	971	1,035	1,130	
Heating capacity	Nom.			kW	435	520	608	697	865	995	1,040	1,122	1,180	1,263	1,380	
Power input	Cooling	Nom.		kW	74.5	89.5	104	127	148	163	178	193	208	228	250	
	Heating	Nom.		kW	74.5	89.5	104	127	148	163	178	193	208	228	250	
Capacity control	Method				Stepless											
	Minimum capacity			%	25.0				12.5							
EER					4.83	4.82		4.50	4.85	4.84	4.85	4.81	4.66	4.53	4.51	
COP					5.83	5.82		5.50	5.85	5.84	5.85	5.81	5.66	5.53	5.51	
ESEER					4.81	4.74	4.70	4.60	5.52	5.68	5.41	5.53	5.31	5.45	5.10	
IPLV					5.72	5.63	5.57	5.47	6.45	6.89	6.33	6.63	6.19	6.35	5.97	
Dimensions	Unit	Height		mm	1,883				2,245							
		Width		mm	1,430				1,350							
		Depth		mm	4,012				4,782							
Weight	Unit			kg	2,594	2,667	2,704		4,964	4,997	5,049	5,073	5,097	5,132		
	Operation weight			kg	2,998	3,078	3,116		5,582	5,615	5,671	5,695	5,729	5,741		
Water heat exchanger - evaporator	Type				Single pass shell and tube											
	Water volume			l	326	317	308		539		528			504		
	Water pressure drop	Cooling	Nom.	kPa	64		54	68	58	68	56	64	72	46	52	
Heating		Nom.	kPa	64		54	68	58	68	56	64	72	46	52		
Compressor	Type				Single screw compressor											
	Quantity				1				2							
Sound power level	Cooling	Nom.		dB(A)	94	97				98		99	100			
Sound pressure level	Cooling	Nom.		dB(A)	75	76	78				79		80	81		
Operation range	Evaporator	Cooling	Min.	°CDB	-8											
			Max.	°CDB	15											
	Condenser	Cooling	Min.	°CDB	20											
			Max.	°CDB	55											
Refrigerant	Type				R-134a											
	GWP				1,430											
	Circuits	Quantity			1				2							
Refrigerant charge	Per circuit			kg	100.0	87.0	130.0	105.0	90.0	88.5	87.0	86.0	85.0			
				TCO _{2eq}	143.0	124.4	185.9	150.2	128.7	126.6	124.4	123.0	121.6			
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm				219.1mm							
	Condenser water inlet/outlet (OD)				5"											
Unit	Starting current	Max		A	330	464			493	627	650	681		703		
	Running current	Cooling	Nom.	A	117	144	164	194	235	261	287	307	327	358	388	
		Max		A	204	233	271	299	407	436	465	504	542	570	597	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Water cooled screw chiller, standard efficiency, standard sound

- › Compact design to allow easy indoor installation or retrofit operations
- › Daikin semi-hermetic single screw stepless compressor
- › High energy efficiency both at full and part load conditions
- › Chilled water temperatures down to -10°C on standard unit
- › Optimised for use with R-134a
- › MicroTech III controller with superior control logic and easy interface



EWWD-J-SS

MicroTech III

Heating only & Cooling only				EWWD-J-SS	120	140	150	180	210	250	280	310	330	360	380	400	450	500	530	560				
Cooling capacity	Nom.			kW	120	146	154	177	207	255	284	309	333	356	385	415	463	512	540	568				
Heating capacity	Nom.			kW	148	180	194	223	258	315	354	388	417	446	486	515	573	631	669	709				
Power input	Cooling	Nom.		kW	28.0	34.0	39.5	45.3	50.4	59.9	70.0	78.8	84.6	90.3	101	110	120	130	140	140				
	Heating	Nom.		kW	28.0	34.0	39.5	45.3	50.4	59.9	70.0	78.8	84.6	90.3	101	110	120	130	140	140				
Capacity control	Method																							
	Minimum capacity			%	25.0								12.5											
EER					4.28	4.29	3.90	3.91	4.11	4.26	4.06	3.92	3.94		3.82	4.12	4.20	4.28	4.16	4.05				
COP					5.28	5.29	4.90	4.91	5.11	5.26	5.06	4.92	4.94		4.82	5.12	5.20	5.28	5.16	5.05				
ESEER					4.51	4.20			4.28	4.68	4.01	4.32	4.35	4.50	4.31	4.65	4.74	4.83	4.73	4.33				
IPLV					5.18	5.06		5.05	5.16	5.70	4.88	5.06	5.13	5.29	5.03	5.48	5.59	5.71	5.55	5.09				
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	SCOP	%	168	166	158		162	170	160	154											
						4.40	4.34	4.14	4.15	4.24	4.46	4.21	4.04											
Dimensions	Unit	Height		mm	1,020										2,000									
															913									
															2,684									
Weight	Unit			kg	1,177	1,233	1,334	1,366	1,416	1,600	1,607	2,668	2,700	2,732	2,782	2,832	3,016	3,200	3,207	3,215				
	Operation weight			kg	1,211	1,276	1,378	1,415	1,473	1,663	1,675	2,755	2,792	2,830	2,888	2,946	3,136	3,327	3,338	3,350				
Water heat exchanger evaporator	Type				Plate heat exchanger																			
	Water volume			l	14	18	14	17	20	26		29	31	33	37	41	46	52						
	Water pressure drop	Cooling	Nom.	kPa	15	14	43	40	35	28	34	43	40		37	35	31	28	31	34				
Heating		Nom.	kPa	15	14	43	40	35	28	34	43	40		37	35	31	28	31	34					
Compressor	Type				Single screw compressor																			
	Quantity				1								2											
Sound power level	Cooling	Nom.		dBA	89								94											
Sound pressure level	Cooling	Nom.		dBA	79								82											
Operation range	Evaporator	Cooling	Min.	°CDB											-10									
			Max.	°CDB											15									
	Condenser	Cooling	Min.	°CDB											23									
			Max.	°CDB											60									
Refrigerant	Type				R-134a																			
	GWP				1,430																			
	Circuits	Quantity			1								2											
Refrigerant charge	Per circuit			kg	18.0	35.0	34.0	37.0		38.0		33.0	33.5	34.0	35.0	36.0	37.0	38.0						
				TCO _{eq}	25.7	50.1	48.6	52.9		54.3		47.2	47.9	48.6	50.1	51.5	52.9	54.3						
Piping connections	Evaporator water inlet/outlet			mm	76.2																			
	Condenser water inlet/outlet (OD)				2" 1/2	4"																		
Unit	Starting current	Max		A	151		195			288		281	293		310		403	422	440					
	Running current	Cooling	Nom.	A	48	57	67	74	83	97	109	134	141	149	157	165	180	195	206	218				
		Max		A	76	97	107	122	143	167	189	215	230	245	265	286	311	335	357	378				
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																			



Water cooled centrifugal chiller, high efficiency, standard sound

- › Totally oil-free operation resulting in reduced maintenance costs and increased reliability
- › An inverter driven compressor allows the capacity to be adjusted precisely to match variations in room and outside temperatures
- › Onboard digital electronics provide smart controls



EWWD-FZXS

MicroTech II

Cooling only				EWWD-FZXS	320	430	520	640	860	C10
Cooling capacity	Min.			kW	113	133	170	113	133	169
	Max.			kW	316	439	520	639	887	1,054
Power input	Cooling	Min.		kW	20.6	25.5	32.7	20.5	25.5	32.6
		Max.		kW	65.1	90.4	106	129	179	208
Capacity control	Method				Stepless					
EER					4.85	4.86	4.93	4.97	4.95	5.06
ESEER					8.11	8.39	8.66	8.83	8.52	8.88
IPLV					9.25	9.64	9.89	9.50	9.74	10.06
Dimensions	Unit	Height		mm	1,823			1,755	1,748	1,794
		Width		mm	1,276			1,790	1,853	1,904
		Depth		mm	3,254			3,419	3,441	3,289
Weight	Unit			kg	2,360	2,416	2,546	3,709	4,095	4,765
	Operation weight			kg	2,520	2,634	2,812	4,074	4,548	5,330
Water heat exchanger - evaporator	Type				Flooded shell and tube					
	Water volume			l	78	107	134	184	210	302
	Water flow rate	Nom.		l/s	15.1	21.0	24.9	30.6	42.4	50.4
	Water pressure drop	Cooling	Nom.	kPa	30	32	33	35	33	31
Water heat exchanger - condenser	Type				Flooded shell and tube					
	Water flow rate	Nom.		l/s	18.3	25.5	30.1	36.9	51.3	60.7
	Water pressure drop	Cooling	Nom.	kPa	24	26	29	23	32	29
Compressor	Type				Oil free centrifugal compressor					
	Quantity				1			2		
Sound power level	Cooling	Nom.		dBA	89	90	91	92	94	95
Sound pressure level	Cooling	Nom.		dBA	71	72	73	74	75	76
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	2~15					
	Condenser	Cooling	Min.~Max.	°CDB	18~46					
Refrigerant	Type / GWP				R-134a / 1,430					
	Circuits	Quantity				1				
Refrigerant charge	Per circuit			kg	240.0	220.0	180.0	220.0		300.0
				TCO _{2eq}	343.2	314.6	257.4	314.6		429.0
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm			219.1mm		273mm
	Condenser water inlet/outlet (OD)				168.3mm			219.1mm		
Unit	Maximum starting current			A	2					
	Nominal running current (RLA)	Cooling		A	104	142	168	207	285	335
	Maximum running current			A	135	210	176	270	420	352
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Water cooled centrifugal chiller, high efficiency, standard sound

- › Optional Variable Frequency Drive (VFD) to improve the part load efficiency
- › High efficiency flooded type shell and tube evaporator/condensers
- › Lower equipment, installation and annual operating costs than two single compressor chillers (DWDC)
- › Main components can be removed or repaired without shutting down the unit as the chiller has two of everything (compressors, lubrication systems, control systems and starters) (DWDC)
- › Unloading to 5% (DWSC) or 10% (DWDC) of full load provides improved stability of the chilled water temperature and less harmful cycling of compressors
- › Single stage centrifugal compressor (DWSC)



DWSC-DWDC

MicroTech II

Cooling only		DWDC/DWSC	DWDC	DWSC
Cooling capacity	Min.	kW	600	300
	Max.	kW	9,000	4,500
Compressor	Type		Single stage centrifugal compressor	
Refrigerant	Type / GWP		R-134a / 1,430	
	Charge	kg	700 - 1,400	300 - 1,000
		TCO ₂ Eq	1,001 - 2,002	429 - 1,430

* not Eurovent certified

Options - Water cooled chillers

Description	Code	EWQ-B-	EWJ-SS	EWG-	EWI-SS	EWI-XS	EWV-Z	EWJ-SS	EWG-SS	EWI-SS	EWV-FZXS
Total heat recovery	01			Option	Option		Option				
Total heat recovery (1 circuit)	02										
Partial heat recovery	03a	Option		Option	Option	Option		Option			
Evaporator 1 Pass	03b						Option				
Direct on line starter (DOL)	04										
WyeDelta compressor starter (YD)	05	STD	STD	STD	STD	STD		STD	STD	STD	
Soft starter	06	Option	Option(4)	Option	Option	Option		Option(4)	Option	Option	
Heat pump version	07										
Heat pump version (including pursuit mode)	07a (15)		Option	Option	Option	Option	Option				
Brine version	08 (1)	Option	Option	Option	Option	Option	Option	Option	Option	Option	
Double setpoint	10	STD	STD	STD	STD	STD	STD		STD	STD	
Compressor thermal overload relays	11	Option	Option	Option	Option	Option	STD		Option	Option	
Fans thermal relays	12										
Phase monitor	13	STD	STD	STD	STD	STD	STD	STD	STD	STD	
Inverter compressor starter	14						STD				STD
Under / Over voltage control	15	Option	Option	Option	Option	Option	STD	Option	Option	Option	
Energy meter	16	Option	Option	Option	Option	Option		Option	Option	Option	Option
Energy meter (including current limit)	16a						Option				
Capacitors for power factor correction	17	Option	Option	Option	Option	Option			Option	Option	
Current limit	19	Option	Option	Option	Option	Option		Option	Option	Option	STD
Evaporator victaulic kit	20	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Evaporator flange kit	21										
Evaporator marine waterbox victaulic (2 passes)	22										
Evaporator marine waterbox victaulic (1 pass)	22a										CF
Evaporator marine waterbox flanged (2 passes)	24										
Evaporator marine waterbox flanged (1 pass)	24a										
Condenser double flanges kit	26	Option	Option	Option	Option	Option	Option				Option
Evaporator water side design pressure (10 Bar)	27	STD		STD	STD	STD	STD		STD	STD	STD
Evaporator water side design pressure (16 Bar)	28										
20mm evaporator insulation	29	Option	STD	Option	Option	Option	STD	STD	Option	Option	STD
Axial fans (100 Pa lift)	30										
Axial fans (250 Pa lift)	32										
20mm condenser insulation	33	Option	Option	Option	Option	Option	Option				Option
Condenser victaulic kit	36	Option	STD	Option	Option	Option	STD				STD
Condenser marine waterbox victaulic (2 passes)	38										CF
Condenser marine waterbox victaulic (1 pass)	38a										
Condenser marine waterbox flanged (2 passes)	40										
Condenser marine waterbox flanged (1 pass)	40a										
Speedtrol (fan speed control device ON/OFF up to 18°C)	42										
Speedtrol (fan speed control device ON/OFF down to 10°C in cooling)	42a										
Condenser coil guards	43										
Evaporator area guards	44										
CuCu condenser coil	45										
CuCuSn condenser coil	46										
Condenser water side design pressure (16 Bar)	47	STD	STD	STD	STD	STD					
Condenser water side design pressure (10 Bar)	47a						STD				STD
Alucoat fins coil	49										
CuNi 9010 condenser tubes	50	Option	Option(5)	Option (5)	Option (5)	Option (5)	Option		Option (5)		Option (5)
Condenser 1 pass (ΔT 48 °C)	51			STD	STD		STD		STD		
Condenser 2 passes (ΔT 48 °C)	52		STD			STD					STD
Condenser 2 passes (ΔT 915 °C)	53				NCSO						
Condenser 4 passes	54					NCSO					
Water pressure differential switch on condenser	55										STD
Water pressure differential switch on evaporator	56										STD
Evaporator electric heater	57	Option									
Evaporator flow switch	58	Option	STD	Option	Option	Option	Option	STD	Option	Option	Option
Condenser flow switch	59						Option				Option
Electronic expansion valve	60	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Discharge line shutoff valve	61	Option	STD	STD	Option	Option	Option	STD	STD	Option	
Suction line shutoff valve	62	Option	STD	STD	Option	Option	Option	STD	STD	Option	Option

(1) Option 08 includes option 29 and option 146 - (2) Option 99(a) includes 'Fan overload protection' - (3) Piping between the inertial tank and the unit is not included. Electric heater power supply has to be provided from external source -

(4) The order of inverter compressor will have an impact on the delivery time: please contact the factory - (5) Unit performance will be affected; contact factory for information. It is mandatory to order the option 26 when selecting CU-Ni 90-10 condenser tubes - (6) Sound proof system - compressor enclosure - (7) Compressor enclosure - (8) Soundproof cabinet will be supplied in a separate kit and not assembled. For better performance the cabinet will be integral kind (around the whole chiller, not only around compressors). Cabinet assembly is not included in the supply (9) Special transport is required (flat rack truck and open top when option 01 is selected) for model sizes as follows: EWWD121-SS - EWWD181-SS (10) Forklift loading-unloading operations are not allowed when option 01 is selected for model sizes as follows: EWWD121-SS - EWWD181-SS - (11) Special Transport is required (flat rack truck and open top) for model sizes as follows: EWLD101-SS - EWLD171-SS or EWWD118-SS - EWWD208-SS or EWWD108-XS, EWWD128-XS - EWWD218-XS - (12) Forklift loading-unloading operations are not allowed for model sizes as follows: EWLD101-SS - EWLD171-SS or EWWD118-SS - EWWD208-SS or EWWD108-XS, EWWD128-XS - EWWD218-XS - (13) STD only for single circuit unit (14) STD only for Premium and High efficiency version - (15) Option 07a includes option 33 (20mm condenser insulation) - (16) Option 111 contains option 07a (Heat pump version, including pursuit mode) and option 33 (20mm condenser insulation)

CF = Contact the factory - STD = Standard - SO = Specify at Order entry - NC = No additional cost

Description	Code	EWQ-B-	EWQ-J-SS	EWQ-G-	EWQ-I-SS	EWQ-I-XS	EWQ-VZ	EWQ-J-SS	EWQ-G-SS	EWQ-I-SS	EWQ-FZXS
High pressure side manometers	63	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Low pressure side manometers	64	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Ambient outside temperature sensor and setpoint reset	67										
Hour run meter	68	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
General fault contactor	69	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Container Kit	71	Option(11)	Option	Option	Option (9)	Option	Option	Option	Option	Option(11)	Option
Rubber anti vibration mounts	75	Option	Option	Option	Option	Option		Option	Option	Option	Option
Sound proof system	76										
Sound proof system (integral)	76-a	Option (8)			Option (8)	Option (8)				Option (8)	Option (8)
Sound proof system (compressor)	76-b		Option (6)	Option (7)			Option	Option (6)	Option (7)		
Spring anti vibration mounts	77										
One centrifugal pump (low lift)	78										
One centrifugal pump --- SPK1	78-a										
One centrifugal pump --- SPK2	78-b										
One centrifugal pump --- SPK3	78-c										
One centrifugal pump --- SPK4	78-d										
One centrifugal pump --- SPK5	78-e										
One centrifugal pump --- SPK6	78-f										
One centrifugal pump --- SPK7	78-g										
One centrifugal pump --- SPK8	78-h										
One centrifugal pump --- SPK9	78-i										
One centrifugal pump --- SPK10	78-j										
One centrifugal pump --- SPK1a	78-l										
One centrifugal pump --- SPK1b	78-m										
One centrifugal pump --- SPK1c	78-n										
One centrifugal pump (high lift)	79										
Two centrifugal pump (low lift)	80										
Two centrifugal pump --- DPK1	80-a										
Two centrifugal pump --- DPK2	80-b										
Two centrifugal pump --- DPK3	80-c										
Two centrifugal pump --- DPK4	80-d										
Two centrifugal pump --- DPK5	80-e										
Two centrifugal pump --- DPK6	80-f										
Two centrifugal pump --- DPK7	80-g										
Two centrifugal pump --- DPK8	80-h										
Two centrifugal pump (high lift)	81										
External tank without cabinet (500 L)	83 (3)										
External tank without cabinet (1000 L)	84 (3)										
External tank with cabinet (500 L)	87 (3)										
External tank with cabinet (1000 L)	88 (3)										
Acoustic test	89										
Setpoint reset, Demand limit and Alarm from external device	90	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Double pressure relief valve with diverter	91	Option	Option	Option	Option	Option	STD	Option	Option	Option	STD
PW COMPRESSOR - PART WINDING START	92										
Low ambient kit for 1 circuit	93										
Low ambient kit for 2 circuits	94						Option				
Compressors circuit breakers	95										
Fans circuit breakers	96										
Main switch interlock door	97	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Emergency stop	98	STD	STD	STD	STD	STD					
Fans speed regulation (+ fan silent mode)	99 (2)										
Fans speed regulation (inverter)	99a (2)										
Refrigerant recovery unit	100										
Evaporator right water connections	101										
Ground fault relay	102	Option	Option	Option	Option	Option	Option	Option	Option	Option	
Evaporator 1 pass	103						Option	Option	Option	Option	NCSO
Evaporator 2 passes	103a						STD				STD
Evaporator 3 passes	103b						Option				
Evaporator double flange kit	104	Option		Option	Option	Option	Option		Option	Option	Option
Liquid receiver	105							Option	Option	Option	
Rapid restart	110						Option				
High temperature kit	111						Option				
Transport kit	112	Option(12)	Option	Option	Option(10)	Option	Option	Option	Option	Option(12)	Option
Optimized free cooling (VFD fans regulation)	113-a										
Optimized free cooling (On/Off fans)	113-b										
Nordic kit	114										
Water filter	115										
Condenser coil protection panels	116										
Blygold coil treatment	117										
Inverter kit for 1 centr pump low lift	120e										
Inverter kit for 1 centr pump high lift	120f										
Inverter kit for 2 centr pumps low lift	120g										
Inverter kit for 2 centr pumps high lift	120h										
Refrigerant leak detection	121						Option				
Discharge and suction line shut-off valve	126										
High and low pressure side manometers	127										
Master/slave	128						STD				
One centrifugal pump (low lift) + tank	134										
One centrifugal pump (high lift) + tank	135										
Two centrifugal pump (low lift) + tank	136										
Two centrifugal pump (high lift) + tank	137										
Coil guard	138										
E-coating microchannel coils	139										
Unit guards (to cover unit access)	140										
Side panels on coil ends	141										
High ambient kit (operatin 46°C)	142										
Variable primary flow	143										
Diff pressure transd (shipped loose)	144										
EC motor fans	145										
Compressor thermal insulation	146						Option				
Knock-down electrical panel	147						Option				
Automatic transfer switch (free standing)	149						Option				
Inverter EN61800-3 class C2 compliant	150						Option				
Rubber pads	152						Option				
Blue coat	153										
Evaporator Optimized for high delta T	154										
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Accessories - Water cooled chillers

DWSC & DWDC EWWD~FZ	Water-cooled chillers									Centrifugals
Panels	EWWP~KB EWLP~KB	EWVQ~KB	EWLQ~KB	EW_Q-G EW_Q-L	EWWD~G- EWLD~G-	EWWD~I- EWLD~I-	EWWD~J- EWLD~J-	EWVQ~B-	EWWD~VZA	DWSC & DWDC EWWD~FZ
EKDICMPAB (a) (b) iCM Primary Basic				•	•	•	•	•	•	•
EKDICMPAL (a) (b) iCM Primary for evaporator peripherals Light				•	•	•	•	•	•	•
EKDICMPAF (a) (b) iCM Primary for evaporator peripherals Full				•	•	•	•	•	•	•
EKPWPPO PlantWatchPRO monitoring system										•
EKPWPROM PlantWatchPRO monitoring system (modem & webserver included)										•
EKTSMST Temperature sensor for master/slave configuration				•						
EKRUMCL1 User Interface										

Serial Cards & Communication Modules	EWWP~KB EWLP~KB	EWVQ~KB	EWLQ~KB	EW_Q-G EW_Q-L	EWWD~G- EWLD~G-	EWWD~I- EWLD~I-	EWWD~J- EWLD~J-	EWVQ~B-	EWWD~VZA	DWSC & DWDC EWWD~FZ
EKAC200J Serial Card RS485/Modbus										•
EKACBAC Ethernet Card BACnet										
EKACLONP Serial Card LON FTT10										
EKACRS232 Serial Card RS232 Modem Interface (single unit only)										•
EKACWEB Web Server Card										•
EKACBACMSTP Serial Card BACnet MSTP										
EKACBACCERT Serial Card BACnet pre-loaded (centrifugal chillers)										•
EKACMSTPCERT Serial Card BACnet pre-loaded MSTP (centrifugal chillers)										•
EKCM200J ModBus RTU communication module				•	•	•	•	•	•	
EKCMLOL LON communication module				•	•	•	•	•	•	
EKCMBACMSTP BACnet/MSTP communication module				•	•	•	•	•	•	
EKCMBACIP BACnet/IP communication module				•	•	•	•	•	•	
EKACPG Communication cards										

Other Systems & Accessories	EWWP~KB EWLP~KB	EWVQ~KB	EWLQ~KB	EW_Q-G EW_Q-L	EWWD~G- EWLD~G-	EWWD~I- EWLD~I-	EWWD~J- EWLD~J-	EWVQ~B-	EWWD~VZA	Centrifugals DWSC & DWDC EWWD~FZ
EKCON Converter RS485 to RS232										•
EKCONUSB Converter RS485 to USB										•
EKMODEM Fixed modem										•
EKGSMOD GSM modem										•
EKRUPCJ Remote display kit										•
EKRUPCS Local/remote display HMI				•	•	•	•	•	•	
EKPWPPOEXT PlantWatchPro I/O extension module for hardwiring and retrofit										•
EKGWWEB Gateway web (Ethernet LAN SNMP)										•
EKGWMODEM Gateway for modem										•
EKRUPG Remote user interface										
EKGN210 European Kit Grouved Nipple (for sizes 080-210)										
EKGN260 European Kit Grouved Nipple (for sizes 230-260)										
EKSS Soft Starter kit 5/8/10/12 Hp-units										
EKAC10C Address card for connection to BMS or Remote user interface	•	•	•							
EKRUMCA Remote installed user interface	•	•	•							
EKBT Buffertank 200 l (for N & P models										
EHMC10A10 Hydraulic module 5/8/10 and 14/22 Hp-units	•									
EHMC10A80 Hydraulic module 5/8/10 and 14/22 Hp-units	•									
EHMC15A10 Hydraulic module 28/35 Hp-units	•									
EHMC15A80 Hydraulic module 28/35 Hp-units	•									
EHMC30A10 Hydraulic module 45/55/65 Hp-units	•									
EHMC30A80 Hydraulic module 45/55/65 Hp-units	•									
EKLS1 Low noise kit 014 Hp-units	•									
EKLS2 (d) Low noise kit 22/28/35/45/55/65 Hp-units	•	•	•							
ECB2MUAW (e) Controller kit	•									
ECB3MUAW (e) Controller kit	•									
ECB2MUBW (e) Controller kit		•								
ECB3MUBW (e) Controller kit		•								
EKRPIHB (f) Digital input/output PCB (remote alarm and ON/OFF signalisation)										
EKRPIAHT Digital input/output PCB										
EKRUAHTB Remote user interface										
DTA104A62 External control adapter										
BHGP26A1 Digital pressure gauge kit										
EKQDP2M016 (h) Differential Pressure Sensor 4-20 mA 0-160 kPa				•	•	•	•	•	•	•
EKQDP2M020 (h) Differential Pressure Sensor 4-20 mA 0-250 kPa				•	•	•	•	•	•	•
EKQDP2M040 (h) Differential Pressure Sensor 4-20 mA 0-400 kPa				•	•	•	•	•	•	•
EKQDP2M060 (h) Differential Pressure Sensor 4-20 mA 0-600 kPa				•	•	•	•	•	•	•

Notes:

(a) Price does not include commissioning of panel; if commissioning is required please refer to RN17-041

(b) iCM panels work in cooling mode only; heat pump versions and total heat recovery options on A/C and W/C chillers are not compatible

(c) in case you are ordering iCM panels please contact factory

(d) For 45/55/65 Hp-units 2 pieces are needed

(e) Only available for modulare units (EWWP~KAW1M)

(f) For 009/010/011/013 units (price available in SAP system)

(g) Price available in SAP system

(h) Differential pressure sensor are specific for iCM panels in variable primary flow management



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Condenserless scroll chiller

- › One of the most **compact units** on the market:
600mmx600mmx600mm
- › Daikin scroll compressor
- › Electronic DDC controller
- › Low operating sound level
- › Low energy consumption
- › Low refrigerant volume
- › Easy installation and maintenance
- › Stainless steel plate heat exchanger
- › Compatible with hydraulic module EHMC
- › Standard integrated: main switch, pressure ports, flow switch, filter, shut-off valves and air purge
- › Advanced μC^2SE controller for direct connection to a Modbus based BMS or to a remote user interface.



Cooling only					EWLP-KBW1N	012	020	026	030	040	055	065
Cooling capacity	Nom.				kW	12.1	20.0	26.8	31.2	40.0	53.7	62.4
Power input	Cooling	Nom.			kW	4.2	6.6	8.5	10.1	13.4	17.8	20.3
Capacity steps number						1				2		
EER						2.88	3.03	3.15	3.09	2.99	3.02	3.07
Dimensions	Unit	HeightxWidthxDepth			mm	600x600x600				600x600x1,200		
Weight	Unit				kg	108	141	147	151	252	265	274
Water heat exchanger	Minimum water volume in the system				l	62	103	134	155	205	268	311
- evaporator	Type					Brazen plate						
	Water flow rate	Min.			l/min	31	53	65	76	101	131	152
		Nom.			l/min	35	57	77	89	115	154	179
		Max.			l/min	69	115	154	179	229	308	357
	Model	Quantity				1						
Compressor	Type					Hermetically sealed scroll compressor						
	Quantity					1				2		
Sound power level	Cooling	Nom.			dBA	64			71	67		74
Operation range	Evaporator	Cooling	Min.~Max.		°CDB	-10~20						
	Condenser	Cooling	Min.~Max.		°CDB	25~60						
Refrigerant	Type / GWP					R-407C / 1,773.9						
	Control					Thermostatic expansion valve						
	Circuits	Quantity				1				2		
Piping connections	Evaporator water inlet/outlet (OD)					FBSP 25mm				FBSP 40mm		
	Evaporator water drain					Field installation						
Power supply	Phase/Frequency/Voltage				Hz/V	3N~/50/400						

Condenserless multi-scroll chiller, standard efficiency, standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › For chilled water production, to be combined with a remote condensing unit
- › Compact design to allow easy indoor installation or retrofit operations
- › Conceived for stacked installation of two single circuit units to reduce the footprint
- › High efficiency and reliable scroll compressor
- › Stainless steel plate heat exchanger



EWLQ-G-SS

Cooling only				EWLQ-G-SS	090	100	120	130	150	170	190	210	240	300	360	
Cooling capacity	Nom.			kW	86.5	98.4	110	125	139	160	181	206	231	290	346	
Power input	Cooling	Nom.		kW	22.4	25.8	29.2	33.0	36.8	42.0	47.0	54.2	59.9	75.6	91.8	
Capacity control	Method															
	Minimum capacity			%	50.0	43.0	50.0	44.0	50.0	45.0	50.0	43.0	50.0	40.0	50.0	
EER					3.86	3.81	3.78	3.79		3.80	3.86	3.80	3.85	3.84	3.77	
Dimensions	Unit	Height		mm	1,066									1,186		
		Width		mm	928											
		Depth		mm	2,743											
Weight	Unit			kg	494	578	686	714	742	773	807	838	852	967	1,046	
	Operation weight			kg	525	615	729	760	791	826	863	901	916	1,044	1,134	
Water heat exchanger - evaporator	Type				Plate heat exchanger											
	Water volume			l	6	8		10	12	13	15	17		27	34	
	Water flow rate			Nom. l/s	4.2	4.7	5.3	6.0	6.7	7.7	8.7	9.8	11.1	13.9	16.6	
	Water pressure drop			Cooling Nom. kPa	44		35	29		31	33	30	38	41		
Compressor	Type				Scroll compressor											
	Quantity				2											
Sound power level	Cooling	Nom.		dBA	80	83	85	87	88			90	92	93		
Sound pressure level	Cooling	Nom.		dBA	64	67	69	70	72			74	76		77	
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-10~15											
	Condenser	Cooling	Min.~Max.	°CDB	30~60											
Refrigerant	Type / GWP				R-410A / 2,087.5											
	Circuits			Quantity	1											
Piping connections	Evaporator water inlet/outlet (OD)				1" 1/2			2" 1/2						3"		
Unit	Starting current			Max A	204	255	261	308	316	354	368	466	481.0	640	677	
	Running current			Cooling Nom. A	39	42	45	51	57	64	70	81	88	111	135	
				Max A	59	66	72	80	88	102	116	131	145	183	221	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Condenserless multi-scroll chiller, standard efficiency, standard sound

- › Dual refrigerant circuit (4 scroll compressors) with single evaporator
- › For chilled water production, to be combined with a remote condensing unit
- › Compact design to allow easy indoor installation or retrofit operations
- › High efficiency and reliable scroll compressor
- › Stainless steel plate heat exchanger

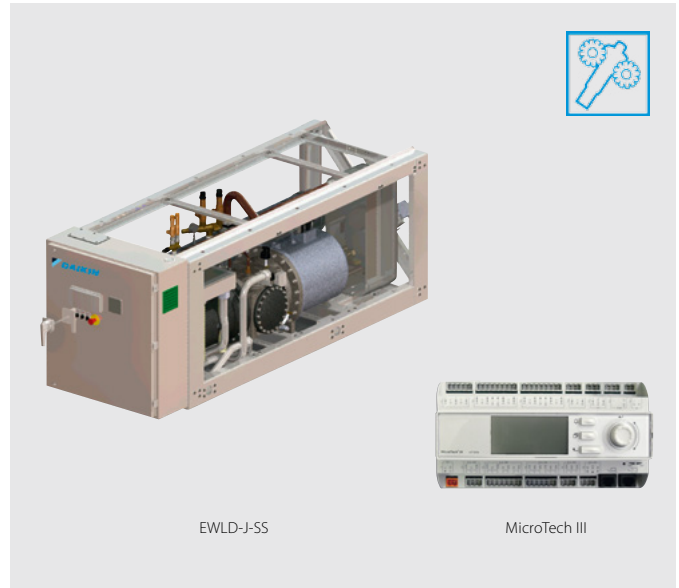


EWLQ-L-SS

Cooling only				EWLQ-L-SS	180	205	230	260	290	330	380	430	480	540	600	660	720
Cooling capacity	Nom.			kW	173	197	224	249	279	317	361	409	459	511	571	624	676
Power input	Cooling	Nom.		kW	44.3	51.1	57.9	65.6	73.2	83.8	93.5	108	119	135	152	168	184
Capacity control	Method				Step												
	Minimum capacity			%	25.0	21.0	25.0	22.0	25.0	23.0	25.0	21.0	25.0	22.0	20.0	18.0	25.0
EER					3.91	3.86	3.87	3.79	3.81	3.78	3.86	3.79	3.84	3.78	3.76	3.71	3.67
Dimensions	Unit	Height		mm	1,970										2,090	2,210	
		Width		mm	928												
		Depth		mm	2,801												
Weight	Unit			kg	832	1,007	1,202	1,252	1,333	1,380	1,432	1,511	1,560	1,609	1,694	1,833	1,957
	Operation weight			kg	894	1,081	1,292	1,345	1,436	1,486	1,547	1,638	1,690	1,741	1,844	1,990	2,120
Water heat exchanger - evaporator	Type				Plate heat exchanger												
	Water volume			l	19	22	29		35		41	49		62			
	Water flow rate	Nom.		l/s	8.3	9.5	10.7	11.9	13.4	15.2	17.3	19.6	21.9	24.5	27.3	29.9	32.4
Compressor	Water pressure drop	Cooling	Nom.	kPa	25		20	25	22	29			36	45	44	52	62
	Type				Scroll compressor												
Sound power level	Quantity				4												
	Cooling	Nom.		dB(A)	83	86	88	90	91			93	95		96		
Sound pressure level	Cooling	Nom.		dB(A)	65	68	70	72	74		73	76	77		78		
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-10~15												
	Condenser	Cooling	Min.~Max.	°CDB	30~60												
Refrigerant	Type / GWP				R-410A / 2,087.5												
	Circuits	Quantity			2												
Piping connections	Evaporator water inlet/outlet (OD)				3"												
Unit	Starting current	Max		A	263	320	333	388	403	456	484	597	626	785	822	860	898
	Running current	Cooling	Nom.	A	78	84	90	102	114	128	141	161	176	199	223	246	269
		Max		A	118	131	144	160	175	205	232	262	290	328	366	403	441
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400												

Condenserless screw chiller, standard efficiency, standard sound

- › Compact design to allow **easy indoor installation or retrofit operations**
- › Daikin semi-hermetic single screw stepless compressor
- › **High energy efficiency both at full and part load conditions**
- › Chilled water temperatures **down to -10°C** on standard unit
- › Optimised for use with **R-134a**
- › MicroTech III controller with superior control logic and easy interface



EWLD-J-SS

MicroTech III

Cooling only				EWLD-J-SS	110	130	145	165	235	195	265	290	310	330	360	390	430	470	500	530		
Cooling capacity	Nom.			kW	110	128	142	163	236	191	264	285	306	327	355	382	428	473	501	529		
Power input	Cooling	Nom.		kW	31.2	38.4	43.8	50.4	66.0	56.0	75.3	87.4	94.0	100	106	111	122	132	141	150		
Capacity control	Method				Stepless																	
	Minimum capacity			%	25.0							12.5										
EER					3.51	3.33	3.25	3.24	3.58	3.42	3.51	3.26	3.25	3.35	3.43	3.52	3.59	3.55	3.52			
Dimensions	Unit	Height		mm	1,020							2,000										
		Width		mm	913																	
		Depth		mm	2,684																	
Weight	Unit			kg	1,124	1,141	1,237	1,263	1,489	1,305	1,489	2,474	2,500	2,526	2,568	2,611	2,795	2,979				
	Operation weight			kg	1,138	1,159	1,253	1,281	1,518	1,327	1,518	2,505	2,533	2,562	2,608	2,655	2,845	3,036				
Water heat exchanger - evaporator	Type				Plate heat exchanger																	
	Water volume			l	14	18	14	17	26	20	26	29	31	33	37	41	46	52				
	Water flow rate	Nom.		l/s	5.2	6.1	6.8	7.8	11.3	9.2	12.6	13.6	14.6	15.6	17.0	18.3	20.5	22.6	24.0	25.3		
	Water pressure drop	Cooling	Nom.	kPa	14	13	39	37	26	33	32	39	37			34	33	29	26	29	32	
Compressor	Type				Single screw compressor																	
	Quantity				1							2										
Sound power level	Cooling	Nom.		dB(A)	89							94								96		
Sound pressure level	Cooling	Nom.		dB(A)	79							82								83		
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-10~15																	
	Condenser	Cooling	Min.~Max.	°CDB	25~60																	
Refrigerant	Type / GWP				R-134a / 1,430																	
	Circuits	Quantity			1							2										
Piping connections	Evaporator water inlet/outlet (OD)				76.2 mm																	
Unit	Maximum starting current			A	151		195		288	195	288	281	293	310		403	422	440				
	Nominal running current (RLA)	Cooling		A	52	62	72	81	107	91	120	145	153	162	171	181	197	214	227	241		
	Maximum running current			A	76	97	107	122	167	143	189	215	230	245	265	286	311	335	357	378		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																	

Condenserless screw chiller, standard efficiency, standard sound

- › Stepless single-screw compressor
- › Optimised for use with **R-134a**
- › **1-2 truly independent refrigerant circuits**
- › Standard electronic expansion valve
- › DX shell and tube evaporator – one pass refrigerant side for easy oil circulation and return
- › All models are PED pressure vessel approved
- › Partial heat recovery available
- › MicroTech III controller with superior control logic and easy interface



EWLD-G-SS

MicroTech III

Cooling only				EWLD-G-SS	160	190	240	280	320	360	380	420	480	550	
Cooling capacity	Nom.			kW	160	188	243	269	315	350	379	426	474	524	
Power input	Cooling	Nom.		kW	46.2	55.3	66.9	75.7	92.3	101	110	122	133	151	
Capacity control	Method				Stepless										
	Minimum capacity			%											
EER					3.47	3.40	3.64	3.55	3.41	3.46	3.43	3.51	3.56	3.48	
	Dimensions	Unit	Height	mm	1,860				1,880		1,942				
			Width	mm	1,000				1,100						
			Depth	mm	3,700				4,400						
Weight	Unit			kg	1,280		1,398		2,442		2,446		2,501	2,506	
	Operation weight			kg	1,337		1,516		2,560			2,670			
Water heat exchanger - evaporator	Type				Single pass shell and tube										
	Water volume			I	60	56	123		118		113		173	168	
	Water flow rate			Nom. l/s	7.7	9.0	11.6	12.9	15.1		16.8	18.2	20.4	22.7	25.1
	Water pressure drop			Cooling Nom. kPa	42	58	40	49	55		54	63	48	49	59
Compressor	Type				Single screw compressor										
	Quantity				1					2					
Sound power level	Cooling	Nom.		dBA	88					90					
Sound pressure level	Cooling	Nom.		dBA	70					72					
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~15										
	Condenser	Cooling	Min.~Max.	°CDB	25~60										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits			Quantity	1					2					
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm				114.3mm			139.7mm			
Unit	Maximum starting current			A	288				380		397		420		438
	Nominal running current (RLA)			Cooling A	79	90	107	120	157	169	181	197	213	240	
	Maximum running current			A	114	136	165	186	229	250	272	301	330	373	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400										

Condenserless screw chiller, standard efficiency, standard sound

- › DX shell and tube evaporator – one pass refrigerant side for easy oil circulation and return
- › Stepless single-screw compressor
- › Standard electronic expansion valve
- › Optimised for use with R-134a



EWLD-I-SS

MicroTech III

Cooling only				EWLD-I-SS	320	400	420	500	600	650	750	800	850	900	950	C10	C11	C12	C13	C14	C15	C16	C17	
Cooling capacity	Nom.			kW	315	374	437	509	607	670	740	802	865	935	975	1,029	1,097	1,144	1,210	1,278	1,330	1,381	1,433	
Power input	Cooling	Nom.		kW	80.3	96.0	113	134	160	175	192	208	224	246	264	283	286	302	318	336	356	375	395	
Capacity control	Method				Stepless																			
	Minimum capacity			%	25.0				12.5						8.3									
EER					3.93	3.89	3.88	3.79	3.80	3.82	3.86			3.81	3.69	3.64	3.83	3.79	3.80		3.74	3.68	3.63	
Dimensions	Unit	Height		mm	1,899				2,325						2,415									
		Width		mm	1,464						2,135													
		Depth		mm	3,114				4,391						4,426									
Weight	Unit			kg	1,861	1,869	1,884	3,331	3,339	3,347	3,356	3,364	3,412	5,146		5,167		5,188		5,208				
	Operation weight			kg	2,054	2,052	2,056	3,602	3,603	3,604	3,605	3,645	5,667		5,671		5,677		5,680					
Water heat exchanger - evaporator	Type				Single pass shell and tube																			
	Water volume			l	193	183	172	271	263	256	248	241	233		504		489	472	504		489	472		
	Water flow rate	Nom.		l/s	15.1	17.9	20.9	24.4	29.1	32.1	35.4	38.4	41.4	44.8	46.7	49.3	52.5	54.8	57.9	61.2	63.7	66.1	68.6	
	Water pressure drop	Cooling	Total	kPa	34	46	49	56	50	40	52	49	40	49	36	54	47	51	43	53	57	61	65	
Compressor	Type				Single screw compressor																			
	Quantity				1				2											3				
Sound power level	Cooling	Nom.		dB(A)	94	97				98	99	100				101		103						
Sound pressure level	Cooling	Nom.		dB(A)	75	76	78				79	80	81				80		81		83			
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~15																			
	Condenser	Cooling	Min.~Max.	°CDB	25~60																			
Refrigerant	Type / GWP				R-134a / 1,430																			
	Circuits	Quantity			1				2						3									
Piping connections	Evaporator water inlet/outlet (OD)				42mm																			
Unit	Maximum starting current			A	330	464		493	627	650	681		703		836		867	898		920	942			
	Nominal running current (RLA)	Cooling		A	131	157	181	214	260	287	313	338	361	391	420	448	470	493	517	542	571	601	631	
	Maximum running current			A	204	233	271	299	407	436	465	504	542	570	597	670	698	737	775	814	841	868	896	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																			

Options - Condenserless chillers

Options - Small condenserless chillers

Chiller series	LWE	
	High Glycol	Low Glycol
	OPZH	OPZL
EWLP-KBW1N	Option	Option

(!) Impossible option combination: OPZH+OPZL





Fan Coil Units are a highly efficient means of turning a water chiller, heat pump or hot water boiler into an efficient, quiet air conditioning system. These units are an effective solution to provide a comfortable environment for both commercial and residential applications. Daikin offers a wide range of Fan Coil Units for both concealed and exposed applications. Three models are available in flexible application. The only moving part in the units is the fan, making them ideal for use in offices, hotels and at home. The goal is to obtain the right solution, both technically and aesthetically.

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Fan coil units with BLDC motor

As more buildings undergo renovation, the need to be able to deliver high indoor air quality in a specific space in an **efficient and cost-effective way** without having to do a radical re-fit of the entire HVAC system has made fan coil technology an obvious solution.

Daikin has a full capacity range of **aesthetically pleasing** fan coil units with advanced controls that reliably deliver **excellent comfort levels**. And by using a refined range of advanced DC fan motors, we are able to offer flexibility while maintaining very low noise levels.

Why choose Daikin fan coil units?

- The new brushless DC ranges reflect Daikin's commitment to developing highly efficient fan coil units that help to reduce energy consumption, without compromising on reliability and performance.
- High level quality is written large for us and we are pleased to offer high technology solutions to the market.

Benefits for the installer

- › Reduced amount of sizes: less stock space needed
- › Modular designs for multiple configurations
- › Easy integration in BMS system via modbus protocol

Benefits for the consultant

- › Best solution in the market in order to have top efficiency, best comfort and lowest sound levels
- › Product flexibility: wide range of options, accessories and controls

Benefits for the end user

- › High comfort level
- › Up to 70% savings on running costs with a BLDC fan motor
- › Controller with timer programmed operating mode
- › FWECSA controller that can satisfy all customer requirements in terms of FCU management

Fan coil unit software

- Select your unit via our selection software
- › Selection logic is based on cooling and/or heating mode conditions entered by the user
 - › A detailed report including technical specifications and wiring diagram can be printed.

Download the software from the business portal. Fan coil selection is available in the software finder.

Payback tool

Prove quickly the saving in electric costs using the new BLDC motor technology compared to the AC motor technology via our payback tool. The tool can be downloaded from the business portal. Search for: BLDC payback tool

BLDC fan motors Video

Learn more on the advantages of BLDC fan motors in Fan coil units:



Check on
You Tube
www.youtube.com/
DaikinEurope



Benefits of brushless inverter technology on fan coil units:

Higher efficiency than AC (Alternative Current) motor

- › Up to 70% energy savings
- › No heat generation
- › No power losses
- › Higher efficiency than AC motors to reach set point

High comfort level

- › Less fluctuation of air temperature and relative humidity
- › More consistent output level
- › Stepless speed change for gradual air output
- › More accurate adjustments to reach set point

Low sound levels

- › Lower minimum rotation speed
- › No start-stop sequence
- › Gradual air output

High flexibility level

- › Multiple configurations: cassettes, floorstanding units, flexi type units with or without cabinet and ducted units
- › Wide capacity range in heating and cooling
- › Different piping topologies and connection valves



FWN-AT/AF



FWG-AT/AF



FWR-AT/AF



FWS-AT/AF



FWC-BT/BF



FWP-AT



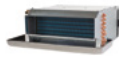
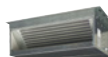
FWZ-AT/AF

Fan coil units





Products overview

Type	Model		Product name		Fan motor type	2-pipe	4-pipe	Inverter	Capacity
Round flow cassette	Round flow cassette - 900 x 900 cassette - 360° air discharge ensures uniform air flow - Integrated fresh air intake - Easy installation in corners - Standard drain pump with 850 mm lift		FWC-BT/BF		BLDC				Cooling: 4.0 - 8.7 kW Heating: 5.5 - 12.1 kW
4-way blow ceiling mounted cassette	4-way blow ceiling mounted cassette - 900 x 900 cassette - High efficiency, continuous air flow regulation and fan speed modulation - Reduced sound emissions - Easy installation and maintenance		FWG-AT/AF		BLDC				Cooling: 2.0~ 11.75 kW Heating: 3.3~ 15.65 kW
	4-way blow ceiling mounted cassette - 600 x 600 cassette - Integrated fresh air intake - Horizontal auto swing - Easy installation in corners - Standard drain pump with 750 mm lift		FWF-BT/BF		AC				Cooling: 1.4 - 5.2 kW Heating: 2.3 - 6.7 kW
	4-way blow ceiling mounted cassette - 600 x 600 cassette - Easy installation and maintenance - High power air flow - Standard drain pump with 700 mm lift		FWF-CT		AC				Cooling: 1.91 - 4.54 kW Heating: 2.64 - 5.28 kW
Floor standing units	Floor standing unit - For vertical mounting - Continuous air flow regulation and fan speed modulation - Up to 70% energy savings - Low sound levels		FWZ-AT/AF		BLDC				Cooling: 2.64 - 10.08 kW Heating: 2.46 - 11.18 kW
	Floor standing unit - For horizontal or vertical concealed mounting - Insulated valve packages, no extra drain pan required - Fast-on connections for electrical options: no tools needed - Easy maintenance		FWV-DAT/DAF		AC				Cooling: 1.46 - 8.02 kW Heating: 1.90 - 10.03 kW
Flexi type units	Flexi type unit - For horizontal or vertical mounting - Continuous air flow regulation and fan speed modulation - Up to 70% energy savings - Low sound levels		FWR-AT/AF		BLDC				Cooling: 2.64 - 10.08 kW Heating: 2.46 - 11.18 kW
	Flexi type unit - For horizontal or vertical concealed mounting - Insulated valve packages, no extra drain pan required - Fast-on connections for electrical options: no tools needed - Easy maintenance		FWL-DAT/DAF		AC				Cooling: 1.46 - 8.02 kW Heating: 1.90 - 10.03 kW
	Concealed flexi type unit - For horizontal or vertical concealed mounting - Continuous air flow regulation and fan speed modulation - Up to 70% energy savings - Low sound levels		FWS-AT/AF		BLDC				Cooling: 2.64 - 10.08 kW Heating: 2.46 - 11.18 kW
	Concealed flexi type unit - For horizontal or vertical concealed mounting - Insulated valve packages, no extra drain pan required - Fast-on connections for electrical options: no tools needed - Easy maintenance		FWM-DAT/DAF		AC				Cooling: 1.46 - 8.02 kW Heating: 1.90 - 10.03 kW
Wall mounted unit	Wall mounted unit - High aesthetic cabinet design - Optimum air distribution - Easy installation - 3-speed fan motor		FWT-CT		AC				Cooling: 2.43 - 5.28 kW Heating: 3.22 - 7.33 kW
Ducted units	Ducted unit with low ESP - For horizontal concealed mounting - Available static pressure up to 30 Pa - Easy installation and maintenance - 4-speed fan motor - High power air flow		FWE-CT/CF		AC				Cooling: 2.10 - 9.96 kW Heating: 2.3 - 13.00 kW
	Ducted unit with medium ESP - For horizontal concealed mounting - Instant adjustment to temperature and relative humidity changes - Available static pressure up to 70 Pa - Low sound levels		FWP-AT		BLDC				Cooling: 2.61 - 6.47 kW Heating: 5.47 - 12.28 kW
	Ducted unit with medium ESP - For horizontal concealed mounting - Available static pressure up to 60 Pa - 7-speed electrical motors (thermal protection on windings) - Easy maintenance		FWB-BT		AC				Cooling: 2.61 - 10.34 kW Heating: 5.47 - 18.78 kW
	Ducted unit with medium ESP - For horizontal or vertical concealed mounting - Available static pressure up to 70 Pa - Easy maintenance		FWN-AT/AF		BLDC				Cooling: 2.83 - 8.75 kW Heating: 3.63 - 18.10 kW
	Ducted unit with high ESP - For horizontal or vertical concealed mounting - Available static pressure from 60 up to 145 Pa - Easy maintenance		FWD-AT/AF		AC				Cooling: 3.90 - 18.30 kW Heating: 4.05 - 21.92 kW

AIRCOOLED CHILLERS

WATERCOOLED CHILLERS

CONDENSERLESS AND CENTRIFUGAL CHILLERS

FAN COIL UNITS

AIR HANDLING UNITS

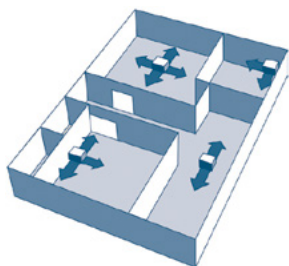
CONTROL SYSTEMS

PREVIOUS

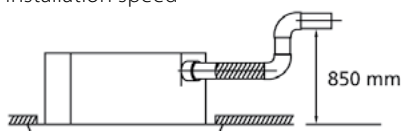
Round flow cassette

BLDC fan motor unit for ceiling mounting.
360° air discharge

- › 360° air discharge ensures uniform air flow and temperature distribution
- › Modern style decoration panel in white (RAL9010)
- › Optional fresh air intake
- › Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling
- › Possibility to shut 1 or 2 flaps for easy installation in corners



- › Standard drain pump with 675mm lift increases flexibility and installation speed



FWC-BT/BF				06	07	08	09	06	07	08	09
				2-pipe				4-pipe			
Cooling capacity (standard conditions)	Latent capacity	High	kW	1.3	1.4	1.5	1.6	1.7		1.8	1.9
		Low	kW	2.8	3.3	3.5	4.1	3.1	3.3	3.5	4.0
	Sensible capacity	Medium	kW	3.5	4.0	4.5	5.3	3.6	4.0	4.5	5.2
		High	kW	4.2	4.7	5.7	6.5	4.2	4.6	5.4	6.4
		Low	kW	3.9	4.5	4.8	5.4	4.3	4.6	4.8	5.7
		Medium	kW	4.7	5.3	5.9	6.8	5.1	5.6	6.2	6.9
		High	kW	5.5	6.1	7.2	8.1	5.9	6.3	7.2	8.3
Heating capacity (standard conditions)	Capacity	Low	kW	4.8	5.5	5.8	7.0	5.2	5.5	5.8	6.8
		Medium	kW	5.8	6.6	7.6	8.8	6.1	6.7	7.6	8.7
		High	kW	6.8	7.7	9.2	10.6	6.9	7.8	9.2	10.4
Power input			kW	0.034	0.037	0.039	0.045	0.035	0.038	0.040	0.046
			kW	0.040	0.046	0.058	0.076	0.041	0.047	0.059	0.077
			kW	0.045	0.054	0.077	0.107	0.046	0.055	0.077	0.107
FCEER				116	119	113	104	124	120	112	106
FCCOP				143	147	141	137	149	144	138	131
Dimensions	Unit	HeightxWidthxDepth	mm	288x840x840							
Weight	Unit		kg	26				29			
Fan	Type			Turbo fan							
	Quantity			1							
	Air flow rate	Low	m³/h	720	834	888	1,044	708	804	852	1,014
		Medium	m³/h	894	1,038	1,200	1,410	864	1,002	1,164	1,374
	High	m³/h	1,068	1,236	1,518	1,776	1,032	1,200	1,476	1,746	
Total sound power level	Low		dBA	31.0	33.0	36.0	40.0	33.0	36.0		40.0
	Medium		dBA	36.0	39.0	44.0	49.0	36.0	39.0	44.0	49.0
	High		dBA	43.0	47.0	53.0	57.0	43.0	47.0	53.0	57.0
Sound pressure level	Low		dBA	21.0	22.0	24.0	28.0	21.0	22.0	24.0	28.0
	Medium		dBA	24.0	28.0	32.0	37.0	24.0	28.0	32.0	37.0
	High		dBA	29.0	33.0	39.0	43.0	29.0	33.0	39.0	43.0
Piping connections	Drain	OD	mm	VP25 (External dia.32 / internal dia. 25)							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240							

4-way blow ceiling mounted cassette

BLDC fan motor unit for ceiling mounting. High efficiency, continuous air flow regulation and fan speed modulation

- › Up to 70% energy savings with brushless DC motor technology compared to traditional technology
- › Instant adjustment to temperature and relative humidity changes
- › Continuous modulation of fan speed resulting in reduced sound emissions, in comparison with fixed speed AC motor fan coil units
- › Easy installation and maintenance

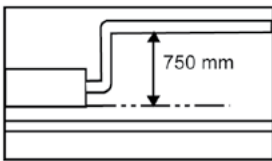


FWG-AT/AF				05	08	11	05	08	11
				2-pipe			4-pipe		
Cooling capacity (standard conditions)	Sensible capacity	Low	kW	2.53	4.23	5.50	2.23	3.78	4.86
		Medium	kW	3.42	5.36	6.89	2.97	4.80	5.98
		High	kW	4.47	6.34	8.25	3.81	5.66	7.05
	Total capacity	Low	kW	3.49	5.77	7.81	2.79	4.97	6.46
		Medium	kW	4.63	7.20	9.62	3.58	6.05	7.67
		High	kW	5.86	8.71	11.63	4.36	7.11	8.88
Heating capacity (standard conditions)	Low	kW	4.75	7.60	9.65	4.45	7.09	10.09	
	Medium	kW	5.95	9.45	11.75	5.47	8.51	11.82	
	High	kW	7.10	11.20	13.70	6.74	9.86	13.79	
Power input	Low	kW	0.02	0.03	0.05	0.02	0.04	0.05	
	Medium	kW	0.04	0.06	0.10	0.03	0.06	0.09	
	High	kW	0.049	0.093	0.130	0.047	0.100	0.130	
FCEER				B			A		
FCCOP				B			A		
Dimensions	Unit	Height x Width x Depth	mm	265 x 820 x 820			265 x 820 x 820	268 x 820 x 820	300 x 820 x 820
Weight	Unit		kg	26.0	28.0	32.0	26.0	28.0	32.0
	Operation weight		kg	32	34	39	35	34	39
Casing	Colour	Without powder paint							
Decoration panel	Dimensions	Unit	Height x Width x Depth	85 x 990 x 990					
	Weight		kg	4.0					
Heat exchanger	Water volume		l	1	2	1	2		
Water flow	Cooling	Low	l/h	1,030	1,530	2,040	770	1,250	1,570
		Medium	l/h	1,030	1,530	2,040	770	1,250	1,570
		High	l/h	1,030	1,530	2,040	770	1,250	1,570
	Heating	Low	l/h	1,030	1,530	2,040	670	970	1,360
		Medium	l/h	1,030	1,530	2,040	670	970	1,360
		High	l/h	1,030	1,530	2,040	670	970	1,360
Fan	Type	Turbo fan							
	Quantity	1							
	Air flow rate	Low	m³/h	595	951	1,155	595	951	1,155
		Medium	m³/h	799	1,223	1,478	799	1,223	1,478
		High	m³/h	1,053	1,512	1,801	1,053	1,512	1,801
Air filter	Type	Washable Saranet							
Total sound power level	Low	dBA	34	49	34	49			
	Medium	dBA	40	52	55	40	52	55	
	High	dBA	46	57	59	46	57	59	
Sound pressure level	Low	dBA	23	37	41	23	37	41	
	Medium	dBA	31	42	46	31	42	46	
	High	dBA	37	47	51	37	47	51	
Piping connections	Drain	OD	mm	19					
Power supply	Phase/Frequency/Voltage		Hz/V	1N~/50/220-240					
Current input	Low	A	0.13	0.28	0.35	0.13	0.28	0.35	
	Medium	A	0.19	0.43	0.55	0.19	0.43	0.55	
	High	A	0.26	0.74	0.95	0.26	0.74	0.95	

4-way blow ceiling mounted cassette

AC fan motor unit for ceiling mounting.
Possibility to shut 1 or 2 flaps

- › Modern style decoration panel in white (RAL9010)
- › Compact casing (570mm in width and depth) enables unit to fit flush into ceilings and match standard architectural modules, without cutting ceiling tiles
- › Comfortable horizontal auto swing ensures draughtfree operation and prevents ceiling soiling
- › Optional fresh air intake
- › Possibility to shut 1 or 2 flaps for easy installation in corners
- › Standard drain pump with 750mm lift increases flexibility and installation speed



FWF-BT/BF				02	03	04	05	02	03	04	05
				2-pipe				4-pipe			
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.3	1.0	1.3	1.4	0.3	1.1	1.3	1.4
	Sensible capacity	Low	kW	1.0	1.4		1.8	1.0		1.6	
		Medium	kW	1.2	1.7	2.0	2.7	1.2	1.5	1.9	2.5
		High	kW	1.4	2.0	2.7	3.5	1.5	1.8	2.5	3.2
		Total capacity	Low	kW	1.3	2.4		2.8	1.3	1.6	
	Medium		kW	1.5	2.7	3.1	4.0	1.5	2.4	3.1	3.8
	High		kW	1.7	3.0	4.0	4.9	1.8	2.9	3.8	4.6
Heating capacity (standard conditions)	Capacity	Low	kW	1.9	2.7		3.0	2.4	2.6		3.2
		Medium	kW	2.1	2.9	3.5	4.4	2.9	3.1	3.7	4.7
		High	kW	2.4	3.3	4.5	5.6	3.3	3.6	4.7	5.7
Power input			kW	0.060		0.055	0.062	0.060	0.055		0.066
			kW	0.067		0.070	0.089	0.067	0.062	0.074	0.093
			kW	0.074		0.090	0.118	0.074		0.094	0.121
FCEER				22	40	44	45	22	33	34	40
FCCOP				32	45	49		41	48		49
Dimensions	Unit	HeightxWidthxDepth	mm	285 x575x575							
Weight	Unit		kg	19				20			
Fan	Type			Turbo fan							
	Quantity			1							
	Air flow rate	Low	m³/h	300	318		420	318	300		390
		Medium	m³/h	384	390	486	648	390	366	456	612
Total sound power level		High	m³/h	456	468	660	876	468	438	618	822
	Low		dBA	36.0	38.0		42.0	36.0	38.0	41.0	44.0
	Medium		dBA	40.0		44.0	49.0	40.0	42.0	46.0	51.0
Sound pressure level		High	dBA	44.0		50.0	55.0	44.0	46.0	52.0	57.0
	Low		dBA	26.0			30.0	26.0	27.0		32.0
	Medium		dBA	27.0		33.0	39.0	27.0	29.0	35.0	41.0
	High		dBA	31.0		40.0	45.0	31.0	33.0	42.0	47.0
Piping connections	Drain	OD	mm	VP20 (External dia.26 / Internal dia. 20)							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-440							

4-way blow ceiling mounted cassette

AC fan motor unit for ceiling mounting

- › 4 way air discharge and air swing
- › Compact casing (570mm in width and depth) enables unit to fit flush into ceilings and match standard architectural modules, without cutting ceiling tiles
- › Wide operating range
- › Air suction from underneath
- › Easy installation and maintenance
- › Built-in high pressure drain pump with 700mm lift
- › Double-intake centrifugal fans
- › High power air flow
- › 3-speed fan motor
- › Infrared remote control as standard with decoration panel kit



FWF-CT				02	03	04
				2-pipe		
Cooling capacity (standard conditions)	Sensible capacity	Low	kW	1.39	1.83	2.36
		Medium	kW	1.62	2.37	2.71
		High	kW	1.85	2.87	3.29
	Total capacity	Low	kW	1.86	2.73	3.30
		Medium	kW	2.15	3.46	3.74
		High	kW	2.43	4.04	4.46
Heating capacity (standard conditions)	Low	kW	2.08	2.18	2.91	
	Medium	kW	2.50	3.08	3.40	
	High	kW	3.03	3.88	4.37	
Power input	Low	kW	0.05			0.07
	Medium	kW	0.05	0.06	0.07	
	High	kW	0.063	0.064	0.079	
FCEER				E	D	E
FCCOP				E		
Dimensions	Unit	Height x Width x Depth	mm	250 x 570 x 570		
Weight	Unit		kg	15.0	17.0	
	Operation weight		kg	19	21	
Decoration panel	Dimensions	Unit	Height x Width x Depth	45 x 460 x 460		
	Weight		kg	3.0		
Heat exchanger	Water volume		l	0	1	
Water flow	Cooling	Low	l/h	460	780	810
		Medium	l/h	460	780	810
		High	l/h	460	780	810
	Heating	Low	l/h	460	780	810
		Medium	l/h	460	780	810
		High	l/h	460	780	810
Fan	Type			Turbo fan		
	Quantity			1		
	Air flow rate	Low	m³/h	391	374	476
		Medium	m³/h	493	527	561
		High	m³/h	646	680	748
Air filter	Type			Washable Saranet		
Total sound power level	Low	dBA	39	41	45	
	Medium	dBA	45	47	49	
	High	dBA	52	54	56	
Sound pressure level	Low	dBA	29	30	36	
	Medium	dBA	35	38	40	
	High	dBA	42	45	48	
Piping connections	Drain	OD	mm	19.05		
Power supply	Phase/Frequency/Voltage			1N~/50/220-240		
Current input	Low	A	0.21	0.24	0.31	
	Medium	A	0.23	0.25	0.32	
	High	A	0.28			0.35

Floor standing unit

BLDC fan motor unit for vertical mounting. Continuous air flow regulation and fan speed modulation

- › Up to 70% energy savings with brushless DC motor technology compared to traditional technology
- › Instant adjustment to temperature and relative humidity changes
- › Low operating sound level
- › Highly flexible solutions: multiple sizes, piping topologies and connection valves
- › Requires very little installation space



FWZ-AT/AF				02	03	06	02	03	06		
				2-pipe			4-pipe				
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.54	0.82	0.98	0.33	0.80	1.19		
		Low	kW	1.04	1.25	2.31	0.97	1.23	2.27		
		Medium	kW	1.30	1.69	2.90	1.21	1.65	2.85		
	Total capacity	High	kW	1.49	2.09	3.62	1.44	2.06	3.54		
		Low	kW	1.35	1.75	2.99	1.25	1.72	3.10		
		Medium	kW	1.69	2.37	3.64	1.55	2.32	3.79		
		High	kW	1.94	2.91	4.48	1.77	2.86	4.64		
Heating capacity (standard conditions)	Capacity	Low	kW	1.50	1.76	3.36	1.36	1.88	3.55		
		Medium	kW	1.81	2.37	4.11	1.56	2.31	4.07		
		High	kW	2.15	2.94	4.88	1.76	2.68	4.64		
Power input	Low		kW	0.01							
	Medium		kW	0.01			0.02		0.01		0.02
	High		kW	0.019	0.016	0.033	0.019	0.016	0.033		
FCEER				B	A		B	A			
FCCOP				B	A		B	A			
Dimensions	Unit	Height x Width x Depth	mm	564 x 774 x 226	564 x 984 x 226	564 x 1,190 x 226	564 x 774 x 226	564 x 984 x 226	564 x 1,190 x 226		
Weight	Unit		kg	20.6	26.7	32.3	20.6	26.7	32.3		
Casing	Colour			White - RAL9010							
Heat exchanger	Water volume		l	1							
Additional heat exchanger	Water volume		l	-			0				
Water flow	Cooling	Low	l/h	234	302	515	216	297	535		
		Medium	l/h	292	408	628	267	400	654		
		High	l/h	337	503	774	307	493	802		
	Heating	Low	l/h	260	301	575	119	165	311		
		Medium	l/h	315	408	709	136	202	357		
		High	l/h	373	506	866	154	234	406		
Fan	Type			Centrifugal							
	Quantity			1	2		1	2			
	Air flow rate	Low	m³/h	211	241	470	205	237	460		
		Medium	m³/h	271	341	605	261	332	593		
		High	m³/h	344	442	785	327	431	763		
Air filter	Type			Polypropylene net							
Total sound power level	Low		dBA	40	36	43	38	33	48		
	Medium		dBA	44	42	49	44	41	53		
	High		dBA	50	48	56	50	47	58		
Sound pressure level	Low		dBA	35	31	38	33	28	43		
	Medium		dBA	39	37	44	39	36	48		
	High		dBA	45	43	51	45	42	54		
Electric heater	Power input		kW	1.5	1.6	2.0	1.5	1.6	2.0		
Piping connections	Drain	OD	mm	16							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230							

Floor standing unit

AC fan motor unit for vertical mounting

- › Quick fixing system for wall mounted installation
- › Pre-assembled 3-way/4-port on/off valves are available
- › Valve packages are insulated, no extra drain pan required
- › Valve packages contain balancing valves and sensor pocket
- › Fast-on connections for electrical options: no tools needed
- › The air filter can easily be removed for cleaning
- › Electric heater: no relay up to 2kW capacity
- › Electric heater: equipped with two overheat cut-out thermostats



FWV-DAT/DAF				01	15	02	25	03	35	04	06	08	10	01	15	02	25	03	35	04	06	08	10	
				2-pipe										4-pipe										
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.34	0.44	0.54		0.82	0.76	1.18	0.98	1.80	2.06	0.32	0.42	0.33	0.53	0.80	0.75	1.17	1.19	1.79	2.03	
		Low	kW	0.77	0.93	0.98	1.15	1.23	1.41	1.76	2.27	2.75	2.94	0.73	0.91	0.96	1.14	1.21	1.40	1.74	2.23	2.73	2.91	
	Sensible capacity	Medium	kW	0.94	1.10	1.20	1.53	1.66	1.99	2.39	2.85	3.70	4.46	0.87	1.07	1.18	1.50	1.62	1.96	2.36	2.80	3.67	4.40	
		High	kW	1.16	1.25	1.37	1.82	2.05	2.69	3.05	3.55	4.73	5.72	1.10	1.22	1.41	1.79	2.01	2.61	2.99	3.47	4.67	5.61	
		Total capacity	Low	kW	1.02	1.24	1.34	1.57	1.73	1.94	2.47	2.95	3.88	4.00	0.97	1.22	1.24	1.55	1.70	1.92	2.44	3.06	3.84	3.96
			Medium	kW	1.21	1.48	1.66	1.99	2.34	2.58	3.21	3.59	5.14	6.07	1.11	1.44	1.52	1.96	2.29	2.54	3.17	3.74	5.10	5.99
		High	kW	1.50	1.69	1.91	2.36	2.87	3.45	4.23	4.41	6.53	7.78	1.42	1.64	1.74	2.32	2.81	3.36	4.16	4.57	6.46	7.64	
		Capacity	Low	kW	1.21	1.45	1.50	1.74	1.76	2.39	2.47	3.31	3.97	4.39	1.31	1.36	1.78	1.88	2.82	2.73	3.55	5.02	4.85	
			Medium	kW	1.48	1.72	1.81	2.26	2.37	3.13	3.24	4.08	5.17	6.53	1.49	1.56	2.18	2.31	3.47	3.22	4.07	6.02	6.29	
			High	kW	1.82	1.84	2.15	2.70	2.94	4.05	4.24	4.98	6.49	8.37	1.66	1.76	2.53	2.68	4.20	3.82	4.64	6.97	7.35	
Power input	Low	kW	0.02	0.03	0.02	0.03		0.04		0.05	0.09	0.11	0.02	0.03	0.02	0.03		0.04		0.05	0.09	0.11		
	Medium	kW	0.03	0.04			0.05		0.06	0.07	0.13	0.17	0.03	0.04			0.05		0.06	0.07	0.13	0.17		
	High	kW	0.037	0.053	0.057	0.056	0.065	0.098		0.182	0.244	0.037	0.053	0.057	0.056	0.065	0.098		0.182	0.244				
FCEER				E				D	E	D		E						D	E	D		E		
FCCOP				E				D		E						D		E						
Dimensions	Unit	Height x Width x Depth	mm	564 x 774 x 226			564 x 984 x 226		564 x 1,190 x 226			564 x 1,400 x 251		564 x 774 x 226			564 x 984 x 226			564 x 1,190 x 226			564 x 1,400 x 251	
Weight	Unit		kg	19.7	20.6	25.5	26.7	31.0	30.4	32.3	41.4	41.6	19.7	20.6	25.5	26.7	31.0	30.4	32.3	41.4	41.6			
Casing	Colour			White - RAL9010																				
Heat exchanger	Water volume		l	0	1				2				0	1				2						
Additional heat exchanger	Water volume		l	-				0				0				1								
Water flow	Cooling	Low	l/h	179	216	234	275	302	340	431	515	682	706	169	212	216	272	297	336	425	535	676	699	
		Medium	l/h	213	261	292	348	408	451	561	628	905	1,071	196	254	267	343	400	447	554	654	898	1,058	
		High	l/h	264	299	337	415	503	602	743	774	1,152	1,376	250	291	307	409	493	594	730	802	1,138	1,352	
	Heating	Low	l/h	211	252	260	302	301	415	430	575	690	764	115	120	119	156	165	247	238	311	440	425	
		Medium	l/h	256	300	315	393	408	545	563	709	898	1,135	130	137	136	191	202	304	281	357	527	551	
		High	l/h	317	320	373	469	506	704	736	866	1,129	1,455	146	154	222	234	368	334	406	610	643		
Fan	Type		Centrifugal																					
	Quantity		1				2				1				2									
	Air flow rate	Low	m³/h	178	211	241		320	361	470	570	642	174	205	238	237	316	356	460	565	636			
		Medium	m³/h	233	271	341		450	497	605	771	1,022	225	261	334	332	444	490	593	765	1,007			
High		m³/h	319	344	442		640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362			
Air filter	Type		Polypropylene net																					
Total sound power level	Low		dBA	37	38	40	35	36	35	43	47	49	33	40	38	34	33	36	39	48	46	48		
	Medium		dBA	42	44	43	42	43	49	54	60	39	44	43	41	45	46	53	54	58				
	High		dBA	47	49	50	48	52	53	56	61	67	45	49	50	48	47	53	56	58	60	66		
Sound pressure level	Low		dBA	32	33	35	30	31	30	38	42	44	28	33	29	28	29	32	43	41	43			
	Medium		dBA	37	39	38	37	38	44	49	55	34	39	38	36	38	41	48	49	53				
	High		dBA	42	44	45	43	47	48	51	56	62	40	44	45	43	42	46	51	54	55	61		
Electric heater	Power input		kW	1.0	1.5	1.6		2.0		3.0		1.0	1.5	1.6		2.0		3.0						
Piping connections	Drain	OD	mm	16																				
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230																				
Current input	Low		A	0.09	0.11	0.14		0.19		0.39		0.54	0.09	0.11	0.14		0.19		0.39		0.54			
	Medium		A	0.11	0.14	0.20		0.29		0.28	0.57	0.78	0.11	0.14	0.20		0.29		0.28	0.57	0.78			
	High		A	0.16	0.20	0.27		0.40		0.39	0.80	1.07	0.16	0.20	0.27		0.40		0.39	0.80	1.07			

Flexi type unit

BLDC fan motor unit for horizontal or vertical mounting.
Continuous air flow regulation and fan speed modulation

- › For wall or ceiling mounted installation: ideal solution for spaces with no false ceilings
- › Up to 70% energy savings with brushless DC motor technology compared to traditional technology
- › Instant adjustment to temperature and relative humidity changes
- › Low operating sound level
- › Highly flexible solutions: multiple sizes, piping topologies and connection valves
- › Requires very little installation space



FWR-AT/AF				02	03	06	02	03	06		
				2-pipe			4-pipe				
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.54	0.82	0.98	0.33	0.80	1.19		
	Sensible capacity	Low	kW	1.04	1.25	2.31	0.97	1.23	2.27		
		Medium	kW	1.30	1.69	2.90	1.21	1.65	2.85		
		High	kW	1.49	2.09	3.62	1.44	2.06	3.54		
	Total capacity	Low	kW	1.35	1.75	2.99	1.25	1.72	3.10		
		Medium	kW	1.69	2.37	3.64	1.55	2.32	3.79		
		High	kW	1.94	2.91	4.48	1.77	2.86	4.64		
Heating capacity (standard conditions)	Capacity	Low	kW	1.50	1.76	3.36	1.36	1.88	3.55		
		Medium	kW	1.81	2.37	4.11	1.56	2.31	4.07		
		High	kW	2.15	2.94	4.88	1.76	2.68	4.64		
Power input	Low		kW	0.01							
	Medium		kW	0.01			0.02		0.01		0.02
	High		kW	0.019	0.016	0.033	0.019	0.016	0.033		
FCEER				B	A		B	A			
FCCOP				B	A		B	A			
Dimensions	Unit	Height x Width x Depth	mm	564 x 774 x 246	564 x 984 x 246	564 x 1,190 x 246	564 x 774 x 246	564 x 984 x 246	564 x 1,190 x 246		
Weight	Unit		kg	21.2	27.5	33.6	21.2	27.5	33.6		
Casing	Colour			White - RAL9010							
Heat exchanger	Water volume		l	1							
Additional heat exchanger	Water volume		l	0							
Water flow	Cooling	Low	l/h	234	302	515	216	297	535		
		Medium	l/h	292	408	628	267	400	654		
		High	l/h	337	503	774	307	493	802		
	Heating	Low	l/h	260	301	575	119	165	311		
		Medium	l/h	315	408	709	136	202	357		
		High	l/h	373	506	866	154	234	406		
Fan	Type			Centrifugal							
	Quantity			1	2		1	2			
	Air flow rate	Low	m³/h	211	241	470	205	237	460		
		Medium	m³/h	271	341	605	261	332	593		
		High	m³/h	344	442	785	327	431	763		
Air filter	Type			Polypropylene net							
Total sound power level	Low		dBA	40	36	43	38	33	48		
	Medium		dBA	44	42	49	44	41	53		
	High		dBA	50	48	56	50	47	58		
Sound pressure level	Low		dBA	35	31	38	33	28	43		
	Medium		dBA	39	37	44	39	36	48		
	High		dBA	45	43	51	45	42	54		
Electric heater	Power input		kW	1.5	1.6	2.0	1.5	1.6	2.0		
Piping connections	Drain	OD	mm	16							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230							

Flexi type unit

AC fan motor unit for horizontal or vertical mounting

- › Quick fixing system for wall or ceiling mounted installation
- › Pre-assembled 3-way/4-port on/off valves are available
- › Valve packages are insulated, no extra drain pan required
- › Valve packages contain balancing valves and sensor pocket
- › Fast-on connections for electrical options: no tools needed
- › The air filter can easily be removed for cleaning
- › Electric heater: no relay up to 2kW capacity
- › Electric heater: equipped with two overheat cut-out thermostats



FWL-DAT/DAF				01	15	02	25	03	35	04	06	08	10	01	15	02	25	03	35	04	06	08	10				
				2-pipe										4-pipe													
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.34	0.44	0.54		0.82	0.76	1.18	0.98	1.80	2.06	0.32	0.42	0.33	0.53	0.80	0.75	1.17	1.19	1.79	2.03				
		Low	kW	0.77	0.93	0.98	1.15	1.23	1.41	1.76	2.27	2.75	2.94	0.73	0.91	0.96	1.14	1.21	1.40	1.74	2.23	2.73	2.91				
	Sensible capacity	Medium	kW	0.94	1.10	1.20	1.53	1.66	1.99	2.39	2.85	3.70	4.46	0.87	1.07	1.18	1.50	1.62	1.96	2.36	2.80	3.67	4.40				
		High	kW	1.16	1.25	1.37	1.82	2.05	2.69	3.05	3.55	4.73	5.72	1.10	1.22	1.41	1.79	2.01	2.61	2.99	3.47	4.67	5.61				
		Total capacity	Low	kW	1.02	1.24	1.34	1.57	1.73	1.94	2.47	2.95	3.88	4.00	0.97	1.22	1.24	1.55	1.70	1.92	2.44	3.06	3.84	3.96			
			Medium	kW	1.21	1.48	1.66	1.99	2.34	2.58	3.21	3.59	5.14	6.07	1.11	1.44	1.52	1.96	2.29	2.54	3.17	3.74	5.10	5.99			
Heating capacity (standard conditions)	Capacity	High	kW	1.50	1.69	1.91	2.36	2.87	3.45	4.23	4.41	6.53	7.78	1.42	1.64	1.74	2.32	2.81	3.36	4.16	4.57	6.46	7.64				
		Low	kW	1.21	1.45	1.50	1.74	1.76	2.39	2.47	3.31	3.97	4.39	1.31	1.36	1.78	1.88	2.82	2.73	3.55	5.02	4.85					
		Medium	kW	1.48	1.72	1.81	2.26	2.37	3.13	3.24	4.08	5.17	6.53	1.49	1.56	2.18	2.31	3.47	3.22	4.07	6.02	6.29					
		High	kW	1.82	1.84	2.15	2.70	2.94	4.05	4.24	4.98	6.49	8.37	1.66	1.76	2.53	2.68	4.20	3.82	4.64	6.97	7.35					
	Power input	Low	kW	0.02	0.03	0.02	0.03		0.04	0.05	0.09	0.11	0.02	0.03	0.02	0.03		0.04	0.05	0.09	0.11						
		Medium	kW	0.03		0.04			0.05	0.06	0.07	0.13	0.17	0.03		0.04		0.05	0.06	0.07	0.13	0.17					
High		kW	0.037	0.053	0.057	0.056	0.065	0.098	0.182	0.244	0.037	0.053	0.057	0.056	0.065	0.098	0.182	0.244									
FCEER				E			D	E	D	E						D	E	D	E								
FCCOP				E			D			E						D			E								
Dimensions	Unit	Height x Width x Depth	mm	564 x 774 x 246			564 x 984 x 246			564 x 1,190 x 246			564 x 1,400 x 271			564 x 774 x 246			564 x 984 x 246			564 x 1,190 x 246			564 x 1,400 x 271		
Weight	Unit		kg	20.6			21.2			26.5			27.5			32.5			33.5			33.6			43.1		
Casing	Colour			White - RAL9010																							
Heat exchanger	Water volume		l	0			1			2			0			1			2								
Additional heat exchanger	Water volume		l	-			-			-			0			1			2								
Water flow	Cooling	Low	l/h	179	216	234	275	302	340	431	515	682	706	169	212	216	272	297	336	425	535	676	699				
		Medium	l/h	213	261	292	348	408	451	561	628	905	1,071	196	254	267	343	400	447	554	654	898	1,058				
		High	l/h	264	299	337	415	503	602	743	774	1,152	1,376	250	291	307	409	493	594	730	802	1,138	1,352				
	Heating	Low	l/h	211	252	260	302	301	415	430	575	690	764	115	120	119	156	165	247	238	311	440	425				
		Medium	l/h	256	300	315	393	408	545	563	709	898	1,135	130	137	136	191	202	304	281	357	527	551				
		High	l/h	317	320	373	469	506	704	736	866	1,129	1,455	146	154	222	234	368	334	406	610	643					
Fan	Type		Centrifugal																								
	Quantity		1			2			1			2															
	Air flow rate	Low	m³/h	178	211	241	320	361	470	570	642	174	205	238	237	316	356	460	565	636							
		Medium	m³/h	233	271	341	450	497	605	771	1,022	225	261	334	332	444	490	593	765	1,007							
High		m³/h	319	344	442	640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362							
Air filter	Type		Polypropylene net																								
Total sound power level	Low	dBA	37	38	40	35	36	35	43	47	49	33	40	38	34	33	36	39	48	46	48						
	Medium	dBA	42	44	43	42	43	49	54	60	39	44	43	41	45	46	53	54	58								
	High	dBA	47	49	50	48	52	53	56	61	67	45	49	50	48	47	53	56	58	60	66						
Sound pressure level	Low	dBA	32	33	35	30	31	30	38	42	44	28	33	29	28	29	32	43	41	43							
	Medium	dBA	37	39	38	37	38	44	49	55	34	39	38	36	38	41	48	49	53								
	High	dBA	42	44	45	43	47	48	51	56	62	40	44	45	43	42	46	51	54	55	61						
Electric heater	Power input		kW	1.0	1.5	1.6	2.0	3.0	1.0	1.5	1.6	2.0	3.0	1.0	1.5	1.6	2.0	3.0									
Piping connections	Drain	OD	mm	16																							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230																							
Current input	Low	A	0.09	0.11	0.14	0.19	0.39	0.54	0.09	0.11	0.14	0.19	0.39	0.54	0.09	0.11	0.14	0.19	0.39	0.54							
	Medium	A	0.11	0.14	0.20	0.29	0.28	0.57	0.78	0.11	0.14	0.20	0.29	0.28	0.57	0.78	0.11	0.14	0.20	0.29	0.28	0.57					
	High	A	0.16	0.20	0.27	0.40	0.39	0.80	1.07	0.16	0.20	0.27	0.40	0.39	0.80	1.07	0.16	0.20	0.27	0.40	0.39	0.80					

Concealed flexi type unit

BLDC fan motor unit for horizontal or vertical concealed mounting. Continuous air flow regulation and fan speed modulation

- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › Up to 70% energy savings with brushless DC motor technology compared to traditional technology
- › Instant adjustment to temperature and relative humidity changes
- › Low operating sound level
- › Highly flexible solutions: multiple sizes, piping topologies and connection valves



FWS-AT/AF				02	03	06	02	03	06
				2-pipe			4-pipe		
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.54	0.82	0.98	0.33	0.80	1.19
		Low	kW	1.04	1.25	2.31	0.97	1.23	2.27
		Medium	kW	1.30	1.69	2.90	1.21	1.65	2.85
	Total capacity	High	kW	1.49	2.09	3.62	1.44	2.06	3.54
		Low	kW	1.35	1.75	2.99	1.25	1.72	3.10
		Medium	kW	1.69	2.37	3.64	1.55	2.32	3.79
	Heating capacity (standard conditions)	High	kW	1.94	2.91	4.48	1.77	2.86	4.64
		Low	kW	1.50	1.76	3.36	1.36	1.88	3.55
		Medium	kW	1.81	2.37	4.11	1.56	2.31	4.07
Power input	High	kW	2.15	2.94	4.88	1.76	2.68	4.64	
	Low	kW	0.01						
	Medium	kW	0.01			0.02		0.01	
				0.019	0.016	0.033	0.019	0.016	0.033
FCEER				B	A		B	A	
FCCOP				B	A		B	A	
Dimensions	Unit	Height x Width x Depth	mm	535 x 584 x 224	535 x 794 x 224	535 x 1,000 x 224	535 x 584 x 224	535 x 794 x 224	535 x 1,000 x 224
Weight	Unit		kg	16.9	22.1	26.6	16.9	22.1	26.6
Heat exchanger	Water volume		l	1					
Additional heat exchanger	Water volume		l	-			0		
Water flow	Cooling	Low	l/h	234	302	515	216	297	535
		Medium	l/h	292	408	628	267	400	654
		High	l/h	337	503	774	307	493	802
	Heating	Low	l/h	260	301	575	119	165	311
		Medium	l/h	315	408	709	136	202	357
		High	l/h	373	506	866	154	234	406
Fan	Type		Centrifugal						
	Quantity		1	2		1	2		
	Air flow rate	Low	m³/h	211	241	470	205	237	460
		Medium	m³/h	271	341	605	261	332	593
				344	442	785	327	431	763
Air filter	Type		Polypropylene net						
Total sound power level	Low	dBA	40	36	43	38	33	48	
	Medium	dBA	44	42	49	44	41	53	
	High	dBA	50	48	56	50	47	58	
Sound pressure level	Low	dBA	35	31	38	33	28	43	
	Medium	dBA	39	37	44	39	36	48	
	High	dBA	45	43	51	45	42	54	
Electric heater	Power input		kW	1.5	1.6	2.0	1.5	1.6	2.0
Piping connections	Drain	OD	mm	16					
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230					

Concealed flexi type unit

AC fan motor unit for horizontal or vertical concealed mounting

- › Quick fixing system for wall or ceiling mounted installation
- › Pre-assembled 3-way/4-port on/off valves are available
- › Valve packages are insulated, no extra drain pan required
- › Valve packages contain balancing valves and sensor pocket
- › Fast-on connections for electrical options: no tools needed
- › The air filter can easily be removed for cleaning
- › Electric heater: no relay up to 2kW capacity
- › Electric heater: equipped with two overheat cut-out thermostats



FWM-DAT/DAF				01	15	02	25	03	35	04	06	08	10	01	15	02	25	03	35	04	06	08	10				
				2-pipe										4-pipe													
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.34	0.44	0.54		0.82	0.76	1.18	0.98	1.80	2.06	0.32	0.42	0.33	0.53	0.80	0.75	1.17	1.19	1.79	2.03				
		Sensible capacity	Low	kW	0.77	0.93	0.98	1.15	1.23	1.41	1.76	2.27	2.75	2.94	0.73	0.91	0.96	1.14	1.21	1.40	1.74	2.23	2.73	2.91			
		Medium	kW	0.94	1.10	1.20	1.53	1.66	1.99	2.39	2.85	3.70	4.46	0.87	1.07	1.18	1.50	1.62	1.96	2.36	2.80	3.67	4.40				
		High	kW	1.16	1.25	1.37	1.82	2.05	2.69	3.05	3.55	4.73	5.72	1.10	1.22	1.41	1.79	2.01	2.61	2.99	3.47	4.67	5.61				
	Total capacity	Low	kW	1.02	1.24	1.34	1.57	1.73	1.94	2.47	2.95	3.88	4.00	0.97	1.22	1.24	1.55	1.70	1.92	2.44	3.06	3.84	3.96				
		Medium	kW	1.21	1.48	1.66	1.99	2.34	2.58	3.21	3.59	5.14	6.07	1.11	1.44	1.52	1.96	2.29	2.54	3.17	3.74	5.10	5.99				
High		kW	1.50	1.69	1.91	2.36	2.87	3.45	4.23	4.41	6.53	7.78	1.42	1.64	1.74	2.32	2.81	3.36	4.16	4.57	6.46	7.64					
Heating capacity (standard conditions)	Capacity	Low	kW	1.21	1.45	1.50	1.74	1.76	2.39	2.47	3.31	3.97	4.39	1.31	1.36	1.78	1.88	2.82	2.73	3.55	5.02	4.85					
		Medium	kW	1.48	1.72	1.81	2.26	2.37	3.13	3.24	4.08	5.17	6.53	1.49	1.56	2.18	2.31	3.47	3.22	4.07	6.02	6.29					
		High	kW	1.82	1.84	2.15	2.70	2.94	4.05	4.24	4.98	6.49	8.37	1.66	1.76	2.53	2.68	4.20	3.82	4.64	6.97	7.35					
Power input	Low	kW	0.02	0.03		0.03		0.04	0.05	0.09	0.11	0.02	0.03	0.02		0.03	0.04	0.04	0.05	0.09	0.11						
	Medium	kW	0.03	0.04		0.04		0.05	0.06	0.07	0.13	0.17	0.03		0.04		0.05	0.06	0.07	0.13	0.17						
	High	kW	0.037	0.053	0.053	0.057	0.056	0.065	0.098	0.182	0.244	0.037	0.053	0.057	0.056	0.065	0.098	0.182	0.244								
FCEER				E			D	E	D			E				D	E	D			E						
FCCOP				E				D			E			D				D	E	E							
Dimensions	Unit	Height x Width x Depth	mm	535 x 584 x 224			535 x 794 x 224			535 x 1,000 x 224			535 x 1,210 x 249			535 x 584 x 224			535 x 794 x 224			535 x 1,000 x 224			535 x 1,210 x 249		
Weight	Unit		kg	16.5			16.9			21.4			22.1			26.3			26.4			26.6			35.4		
Heat exchanger	Water volume		l	0			1			2			0			1			2			1					
Additional heat exchanger	Water volume		l				-						0						1			2					
Water flow	Cooling	Low	l/h	179	216	234	275	302	340	431	515	682	706	169	212	216	272	297	336	425	535	676	699				
		Medium	l/h	213	261	292	348	408	451	561	628	905	1,071	196	254	267	343	400	447	554	654	898	1,058				
		High	l/h	264	299	337	415	503	602	743	774	1,152	1,376	250	291	307	409	493	594	730	802	1,138	1,352				
	Heating	Low	l/h	211	252	260	302	301	415	430	575	690	764	115	120	119	156	165	247	238	311	440	425				
		Medium	l/h	256	300	315	393	408	545	563	709	898	1,135	130	137	136	191	202	304	281	357	527	551				
High		l/h	317	320	373	469	506	704	736	866	1,129	1,455	146	154	222	234	368	334	406	610	643						
Fan	Type	Centrifugal																									
	Quantity	1		2		1		2		1		2		1		2		1		2							
	Air flow rate	Low	m³/h	178	211	211	241	320	361	470	570	642	174	205	238	237	316	356	460	565	636						
		Medium	m³/h	233	271	271	341	450	497	605	771	1,022	225	261	334	332	444	490	593	765	1,007						
High		m³/h	319	344	344	442	640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362						
Air filter	Type	Polypropylene net																									
Total sound power level	Low	dBA	37	38	40	35	36	35	43	47	49	33	40	38	34	33	36	39	48	46	48						
	Medium	dBA	42	44	44	43	42	43	49	54	60	39	44	43	43	41	45	46	53	54	58						
	High	dBA	47	49	50	48	52	53	56	61	67	45	49	50	48	47	53	56	58	60	66						
Sound pressure level	Low	dBA	32	33	35	30	31	30	38	42	44	28	33	29	28	29	32	43	41	43							
	Medium	dBA	37	39	39	38	37	38	44	49	55	34	39	38	36	38	41	48	49	53							
	High	dBA	42	44	45	43	47	48	51	56	62	40	44	45	43	42	46	51	54	55	61						
Electric heater	Power input	kW	1.0	1.5	1.5	1.6	2.0	3.0	1.0	1.5	1.6	2.0	3.0														
Piping connections	Drain	OD	mm	16																							
Power supply	Phase/Frequency/Voltage	Hz/V	1~/50/230																			/-/-	1~/50/230				
Current input	Low	A	0.09	0.11	0.11	0.14	0.19	0.39	0.54	0.09	0.11	0.14	0.19	0.39	0.54												
	Medium	A	0.11	0.14	0.14	0.20	0.29	0.28	0.57	0.78	0.11	0.14	0.20	0.29	0.28	0.57	0.78										
	High	A	0.16	0.20	0.20	0.27	0.40	0.39	0.80	1.07	0.16	0.20	0.27	0.40	0.40	0.39	0.80	1.07									

Wall mounted unit

AC fan motor unit for wall mounting

- › High aesthetic cabinet design
- › Optimum air distribution
- › Easy to install
- › Wireless remote control up to 9 m distance
- › 3-speed fan motor
- › Wide operating range
- › Low operating sound level thanks to tangential fan
- › Insulated with self-extinguishing class 1 heat insulation
- › Removable washable air filter (self-extinguishing class 1)



Indoor unit				FWT-CT	02	03	04	05	06
					2-pipe				
Cooling capacity (standard conditions)	Sensible capacity	Low	kW	1.50	1.49		1.91	2.77	3.22
		Medium	kW	1.73	1.69		2.21	3.00	3.52
		High	kW	1.82	1.99		2.60	3.38	4.03
	Total capacity	Low	kW	1.94	2.02		2.52	3.76	4.04
		Medium	kW	2.20	2.23		2.79	4.02	4.32
		High	kW	2.40	2.67		3.27	4.49	5.21
Heating capacity (standard conditions)	Capacity	Low	kW	2.06	2.25		2.75	4.03	4.83
		Medium	kW	2.41	2.62		3.29	4.51	5.38
		High	kW	2.71	2.96		3.71	5.07	6.23
Power input			kW	0.03			0.04	0.06	
			kW	0.03		0.04	0.05	0.07	
			kW	0.031	0.032	0.042	0.053	0.072	
FCEER				D					
FCCOP				C					
Dimensions	Unit	HeightxWidthxDepth		mm	288x800x206			310x1,070x224	
Weight	Unit			kg	9.00			14.0	
	Operation weight			kg	10			15	
Casing	Colour			White					
Heat exchanger	Water volume		l	1					
Air filter	Type			Washable Saranet					
Fan	Type			Cross flow fan					
	Quantity			1					
	Air flow rate	Low	m³/h	340	374	442	663	782	
		Medium	m³/h	391	425	544	765	883	
		High	m³/h	442	476	629	866	1,053	
Total sound power level	Low	dBA	36	39	45	47	51		
	Medium	dBA	41	44	50	51	54		
	High	dBA	45	48	55		59		
Sound pressure level	Low	dBA	25		32	34	39		
	Medium	dBA	29	30	39	38	42		
	High	dBA	34	35	42		46		
Water flow	Cooling	Low	l/h	420	460	570	780	910	
		Medium	l/h	420	460	570	780	910	
		High	l/h	420	460	570	780	910	
	Heating	Low	l/h	420	460	570	780	910	
		Medium	l/h	420	460	570	780	910	
		High	l/h	420	460	570	780	910	
Piping connections	Drain	OD	mm	19					
Power supply	Phase/Frequency/Voltage		Hz/V	1N~/50/220-240					
Current input	Low	A	0.17	0.19		0.25	0.31		
	Medium	A	0.18	0.20		0.26	0.32		
	High	A	0.19	0.20	0.21	0.29	0.34		
Control systems	Infrared remote control			WRC-HPC					
	Wired remote control			MERCA / SRC-HPA					

Concealed ceiling unit with low ESP

AC fan motor unit for horizontal concealed mounting

- › Easy installation and maintenance
- › 4-speed fan motor
- › High power air flow
- › Wired electronic controllers range
- › Available static pressure up to 50Pa
- › Wide operating range
- › Standard left and right side water connection
- › Extended drain pan as standard
- › Factory mounted valve (both left and right side)
- › Nylon filter G2 class
- › Polyethylene insulation

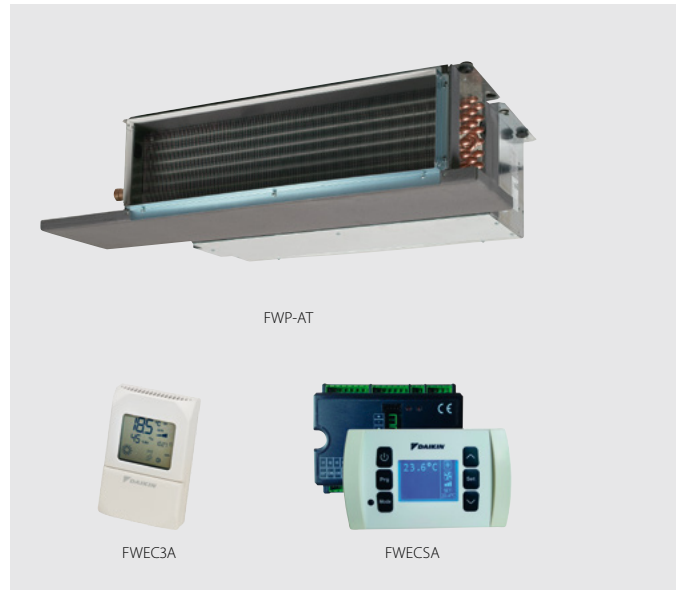


FWE-CT/CF				02	03	04	06	07	08	10	02	03	04	06	07	08	10	
				2-pipe						4-pipe								
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.48	0.70	0.91	1.38		1.67	2.16	0.48	0.70	0.69	1.39	1.41	1.70	2.22	
		Super high	kW	0.56	0.78	1.07	1.51	2.00	1.82	2.38	0.55	0.79		1.56	1.62	1.88	2.46	
	Sensible capacity	Low	kW	0.70	1.20	1.40	2.10	2.50	3.10	3.70	0.66	1.18	1.35	2.02	2.47	3.05	3.65	
		Medium	kW	1.16	1.82	2.16	3.34	3.71	4.56	5.57	1.13	1.73	2.10	3.23	3.64	4.44	5.49	
		High	kW	1.33	2.08	2.58	3.94	4.30	5.25	6.48	1.28	1.99	2.53	3.81	4.20	5.09	6.39	
		Super high	kW	1.61	2.44	3.27	4.55	4.83	6.02	7.58	1.55	2.37	3.19	4.49	5.16	5.91	7.45	
	Total capacity	Low	kW	0.90	1.40	1.80	2.80	3.10	3.90	4.90	0.85	1.40	1.63	2.72	3.10	3.88	4.88	
		Medium	kW	1.60	2.45	2.96	4.56	4.94	6.07	7.51	1.56	2.36	2.70	4.47	4.91	5.98	7.49	
		High	kW	1.81	2.78	3.49	5.32	5.68	6.92	8.64	1.76	2.69	3.22	5.20	5.61	6.79	8.61	
	Super high	kW	2.17	3.22	4.34	6.06	6.83	7.84	9.96	2.10	3.16	3.98	6.05	6.78	7.79	9.91		
	Capacity	Low	kW	1.02	1.70	1.93	2.85	3.75	4.49	5.30	0.90	1.51	1.79	2.53	3.45	4.04	4.77	
		Medium	kW	1.72	2.74	2.81	4.73	5.62	6.78	8.08	1.54	2.41	2.83	4.13	5.03	5.91	7.10	
		High	kW	1.96	3.13	3.76	5.61	6.53	7.84	9.43	1.71	2.69	3.31	4.73	5.65	6.62	8.06	
Super high		kW	2.38	3.66	4.77	6.48	7.96	9.00	11.08	2.02	3.11	4.01	5.43	6.69	7.50	9.15		
Power input	Low	kW	0.03	0.04		0.06	0.09	0.10	0.12	0.03	0.04		0.06	0.09	0.10	0.12		
	Medium	kW	0.03	0.05		0.07	0.11	0.12	0.15	0.03	0.05		0.07	0.11	0.12	0.15		
	High	kW	0.039	0.054	0.059	0.093	0.128	0.145	0.180	0.039	0.054	0.059	0.093	0.128	0.145	0.180		
	Super high	kW	0.046	0.069	0.083	0.119	0.163	0.181	0.230	0.046	0.069	0.083	0.119	0.163	0.181	0.230		
Dimensions	Unit	Height x Width x Depth	mm	253x 590x705	253x 590x875	253x 590x1,010	253x 590x1,210	253x 590x1,460	253x 590x1,560	253x 90x1,820	253x 590x705	253x 590x875	253x 590x1,010	253x 590x1,210	253x 590x1,460	253x 590x1,560	253x 590x1,820	
Weight	Unit		kg	17.0	20.2	23.7	28.4	36.7	39.1	45.5	18.1	21.6	25.3	30.1	39.7	41.4	48.9	
	Operation weight		kg	17	20	24	28	37	39	46	18	22	25	30	40	41	49	
Casing	Colour			Metal														
Water flow	Cooling	Low	l/h	115	184	209	327	388	497	565	109	184	193	319	388	459	563	
		Medium	l/h	191	294	343	559	631	784	870	188	284	313	547	628	705	866	
		High	l/h	212	331	404	668	733	899	1,050	206	320	373	653	724	800	1,046	
		Super high	l/h	254	382	526	768	886	1,023	1,229	246	374	478	767	879	918	1,223	
	Heating	Low	l/h	192	322	364	530	650	780	995	148	250	290	406	589	665	773	
		Medium	l/h	326	518	593	821	970	1,172	1,520	253	398	460	664	861	974	1,156	
		High	l/h	370	592	707	1,051	1,279	1,531	1,773	280	445	540	764	970	1,094	1,318	
		Super high	l/h	449	692	899	1,216	1,562	1,757	2,085	334	515	658	881	1,153	1,243	1,501	
Fan	Type		Centrifugal (Blade: Forward - curve)															
	Quantity		1		2		3		4		1		2		3		4	
	Air flow rate	Low	m³/h	150	256	284	426	569	688	808	142	256	257	414	569	684	804	
		Medium	m³/h	238	385	413	630	851	1,016	1,202	232	371	377	618	846	1,001	1,199	
		High	m³/h	311	518	619	926	1,188	1,413	1,735	302	501	571	905	1,173	1,386	1,729	
	Super high	m³/h	430	638	910	1,195	1,559	1,753	2,177	416	626	835	1,193	1,548	1,742	2,166		
Air filter	Type		Aluminium Frame PP Filter Net G2 Class															
Total sound power level	Low	dB(A)	31	38	32	39	38	41	40	31	38	32	39	38	41	40		
	Medium	dB(A)	37	49	40	48	47	50		37	49	40	48	47	50			
	High	dB(A)	49	56	50	55	57	58	60	49	56	50	55	57	58	60		
	Super high	dB(A)	51	61	58	62		64	65	51	61	58	62		64	65		
Sound pressure level	Low	dB(A)	21	28	22	29	27	31	29	21	28	22	29	27	31	29		
	Medium	dB(A)	26	39	28	36	37	40	39	26	39	28	36	37	40	39		
	High	dB(A)	39	46	38	45	47	48	49	39	46	38	45	47	48	49		
	Super high	dB(A)	41	51	48	52		54	55	41	51	48	52		54	55		
Piping connections	Drain	OD	mm	R 3/4"														
Power supply	Phase/Frequency/Voltage			Hz/V														
Current input	Low	A	0.13	0.18	0.19	0.27	0.40	0.46	0.54	0.13	0.18	0.19	0.27	0.40	0.46	0.54		
	Medium	A	0.15	0.21	0.22	0.33	0.47	0.52	0.65	0.15	0.21	0.22	0.33	0.47	0.52	0.65		
	High	A	0.17	0.24	0.26	0.43	0.58	0.65	0.78	0.17	0.24	0.26	0.43	0.58	0.65	0.78		
	Super high	A	0.21	0.31	0.37	0.53	0.73	0.81	1.03	0.21	0.31	0.37	0.53	0.73	0.81	1.03		

Concealed ceiling unit with medium ESP

BLDC fan motor unit for horizontal concealed mounting.
Continuous air flow regulation and fan speed modulation

- › Blends unobtrusively with any interior décor: only the suction and discharge grills are visible
- › Up to 50% energy savings with brushless DC motor technology compared to traditional technology
- › Instant adjustment to temperature and relative humidity changes
- › Low operating sound level
- › Highly flexible solutions: multiple sizes, piping topologies and connection valves



FWP-AT				02	03	04	05	06	07	
Cooling capacity (standard conditions)	Latent capacity 2-pipe	Fan speed 7	kW	0.67	0.92	1.06	1.35	1.41	1.87	
		Fan speed 1	kW	0.95	1.03	1.11	1.62	1.79	1.92	
		Fan speed 2	kW	1.02	1.17	1.23	1.82	1.88	2.15	
		Fan speed 3	kW	1.10	1.25	1.32	2.20	2.22	2.55	
		Fan speed 4	kW	1.29	1.47	1.56	2.69	2.79	3.19	
		Fan speed 5	kW	1.41	1.61	1.72	2.82	2.94	3.36	
		Fan speed 6	kW	1.53	1.85	1.99	2.91	3.06	3.49	
		Fan speed 7	kW	1.71	1.96	2.13	3.23	3.44	3.93	
	Total capacity 2-pipe	Fan speed 1	kW	1.35	1.51	1.69	2.23	2.58	2.86	
		Fan speed 2	kW	1.38	1.70	1.83	2.52	2.55	3.15	
		Fan speed 3	kW	1.50	1.83	1.97	3.07	2.97	3.75	
		Fan speed 4	kW	1.77	2.14	2.33	3.79	3.87	4.71	
		Fan speed 5	kW	1.95	2.35	2.57	3.97	4.10	4.96	
		Fan speed 6	kW	2.12	2.70	2.98	4.11	4.28	5.15	
		Fan speed 7	kW	2.38	2.88	3.19	4.58	4.85	5.80	
Heating capacity (standard conditions)	Capacity 2-pipe	Fan speed 1	kW	1.40	1.48	1.53	2.46	2.59	2.74	
		Fan speed 2	kW	1.56	1.67	1.74	2.71	2.96	3.12	
		Fan speed 3	kW	1.68	1.80	1.88	3.23	3.45	3.64	
		Fan speed 4	kW	1.93	2.08	2.19	3.93	4.25	4.53	
		Fan speed 5	kW	2.11	2.29	2.42	4.10	4.45	4.76	
		Fan speed 6	kW	2.27	2.62	2.80	4.24	4.61	4.95	
		Fan speed 7	kW	2.54	2.80	3.00	4.71	5.15	5.56	
		Power input	Fan speed 1	kW		0.01			0.02	
Fan speed 2	kW			0.01			0.02			
Fan speed 3	kW			0.02			0.03			
Fan speed 4	kW			0.02			0.05			
Fan speed 5	kW			0.03			0.05			
Fan speed 6	kW			0.033			0.065			
Fan speed 7	kW			0.046			0.076			
FCEER				A						
FCCOP				A						
Dimensions	Unit	Height x Width x Depth	mm	551 x 1,040 x 239			551 x 1,390 x 239			
Weight	Unit		kg	26.0	27.0	29.0	35.0	37.0	39.0	
Heat exchanger	Water volume		l	1			2		3	
Water flow	Cooling	Fan speed 1	l/h	219	256	283	318	400	465	
		Fan speed 2	l/h	238	294	316	436	440	544	
		Fan speed 3	l/h	259	318	342	533	516	649	
		Fan speed 4	l/h	307	372	403	659	647	817	
		Fan speed 5	l/h	340	410	448	690	712	859	
		Fan speed 6	l/h	369	471	519	715	744	894	
		Fan speed 7	l/h	418	502	555	799	847	1,009	
	Heating	Fan speed 1	l/h	242	256	265	372	448	469	
		Fan speed 2	l/h	272	290	302	472	515	542	
		Fan speed 3	l/h	292	313	327	562	600	634	
		Fan speed 4	l/h	335	362	381	684	739	789	
		Fan speed 5	l/h	367	399	422	713	774	828	
		Fan speed 6	l/h	395	456	487	738	802	860	
		Fan speed 7	l/h	442	486	521	819	898	969	
Fan	Type			Centrifugal						
	Quantity			1			2			
	Air flow rate	Fan speed 1	m³/h		184		283		331	
		Fan speed 2	m³/h		210		371		385	
		Fan speed 3	m³/h		228			455		
		Fan speed 4	m³/h		267			576		
		Fan speed 5	m³/h		297			607		
		Fan speed 6	m³/h	324		345		633		
Fan speed 7	m³/h		371			722				
				Acrylic fiber - Filtering class G2 (G3 on request)						
Air filter	Type	Fan speed 1	dBA	36			38			39
		Fan speed 2	dBA				40			43
		Fan speed 3	dBA				43			47
		Fan speed 4	dBA				46			52
		Fan speed 5	dBA				50			54
		Fan speed 6	dBA				52			56
		Fan speed 7	dBA				58			60
		Fan speed 1	dBA	31				33	34	
Sound pressure level		Fan speed 2	dBA				35			38
		Fan speed 3	dBA				38			42
		Fan speed 4	dBA				41			47
		Fan speed 5	dBA				45			49
		Fan speed 6	dBA				47			51
		Fan speed 7	dBA				53			55
		Power input	kW				2.0			2.5
		Electric heater	Power input		kW				2.0	
Piping connections	Drain	OD	mm	17						
Power supply	Phase/Frequency		Hz/V	1~/50						

Concealed ceiling unit with medium ESP

AC fan motor unit for horizontal concealed mounting

- › Compact dimensions, can easily be mounted in a narrow ceiling void (unit height: 240mm)
- › 3, 4 or 6 stage row cooling coil
- › Drain pan to collect the condensate from: heat exchanger and regulating valves
- › 7-speed electrical motors (with thermal protection on windings)
- › All 7 speeds pre-wired in the factory in the terminal block of the switch box
- › The air filter can easily be removed for cleaning



FWB-BT				02	03	04	05	06	07	08	09	10							
Cooling capacity (standard conditions)	Latent capacity 2-pipe	Fan speed 7	kW	0.67	0.92	1.06	1.35	1.41	1.87	1.80	2.09	2.63							
		Fan speed 1	kW	0.93	1.01	1.09	1.56	1.73	1.86	2.67	2.92	3.25							
		Fan speed 2	kW	0.99	1.14	1.20	1.75	1.81	2.08	2.80	3.06	3.42							
		Fan speed 3	kW	1.06	1.22	1.29	2.12	2.14	2.47	2.99	3.30	3.70							
		Fan speed 4	kW	1.25	1.43	1.53	2.60	2.70	3.10	3.25	3.60	4.05							
		Fan speed 5	kW	1.37	1.57	1.68	2.72	2.84	3.26	3.50	3.90	4.42							
		Fan speed 6	kW	1.48	1.81	1.95	2.80	2.95	3.38	3.89	4.37	4.99							
	Sensible capacity 2-pipe	Fan speed 7	kW	1.65	1.90	2.07	3.12	3.33	3.82	3.90	4.39	5.02							
		Fan speed 1	kW	1.33	1.49	1.67	2.17	2.52	2.80	3.83	4.26	4.94							
		Fan speed 2	kW	1.35	1.67	1.80	2.45	2.48	3.08	4.02	4.48	5.20							
		Fan speed 3	kW	1.46	1.80	1.94	2.99	2.89	3.67	4.32	4.84	5.62							
		Fan speed 4	kW	1.73	2.10	2.29	3.70	3.78	4.62	4.69	5.28	6.15							
		Fan speed 5	kW	1.91	2.31	2.53	3.87	4.00	4.86	5.08	5.74	6.72							
		Fan speed 6	kW	2.07	2.66	2.94	4.00	4.17	5.04	5.67	6.43	7.58							
Heating capacity (standard conditions)	Capacity 2-pipe	Fan speed 7	kW	2.32	2.82	3.13	4.47	4.74	5.69	5.70	6.48	7.65							
		Fan speed 1	kW	1.39	1.48	1.53	2.14	2.81	2.71	4.11	4.42	4.69							
		Fan speed 2	kW	1.56	1.67	1.74	2.71	2.96	3.12	4.29	4.62	5.15							
		Fan speed 3	kW	1.68	1.80	1.88	3.23	3.45	3.64	4.59	4.96	5.31							
		Fan speed 4	kW	1.93	2.08	2.19	3.93	4.25	4.53	4.95	5.39	5.80							
		Fan speed 5	kW	2.11	2.29	2.42	4.10	4.45	4.76	5.34	5.85	6.33							
		Fan speed 6	kW	2.27	2.62	2.80	4.24	4.61	4.95	5.91	6.53	7.31							
		Fan speed 7	kW	2.54	2.80	3.00	4.70	5.15	5.56	5.95	6.57	7.18							
Power input	Fan speed 1	kW		0.03			0.08			0.16									
	Fan speed 2	kW		0.04			0.09			0.16									
	Fan speed 3	kW		0.05			0.12			0.18									
	Fan speed 4	kW		0.06			0.14			0.19									
	Fan speed 5	kW		0.07			0.16			0.22									
	Fan speed 6	kW		0.085			0.167			0.252									
	Fan speed 7	kW		0.106			0.192			0.294									
	FCEER				D		C		D		C	D							
FCCOP				C			D		C		D								
Dimensions	Unit	Height x Width x Depth	mm	551 x 1,040 x 239			551 x 1,390 x 239			551 x 1,740 x 239									
Weight	Unit		kg	26.0	27.0	29.0	35.0	37.0	39.0	47.0	49.0	53.0							
Heat exchanger	Water volume		l	1			2		3	2	3	4							
Water flow	Cooling	Fan speed 1	l/h	219	256	283	318	400	465	683	758	874							
		Fan speed 2	l/h	238	294	316	436	440	544	717	797	920							
		Fan speed 3	l/h	259	318	342	533	516	649	772	861	996							
		Fan speed 4	l/h	307	372	403	659	647	817	839	938	1,089							
		Fan speed 5	l/h	340	410	448	690	712	859	910	1,023	1,191							
		Fan speed 6	l/h	369	471	519	715	744	894	1,015	1,147	1,344							
		Fan speed 7	l/h	418	502	555	799	847	1,009	1,028	1,162	1,363							
	Heating	Fan speed 1	l/h	242	256	265	372	448	469	714	768	815							
		Fan speed 2	l/h	272	290	302	472	515	542	746	804	895							
		Fan speed 3	l/h	292	313	327	562	600	634	797	863	923							
		Fan speed 4	l/h	335	362	381	684	739	789	861	937	1,008							
		Fan speed 5	l/h	367	399	422	713	774	828	929	1,017	1,100							
		Fan speed 6	l/h	395	456	487	738	802	860	1,028	1,134	1,240							
		Fan speed 7	l/h	442	486	521	819	898	969	1,040	1,148	1,256							
Fan	Type			Centrifugal															
	Quantity			1			2			3									
	Air flow rate	Fan speed 1	m³/h	184			283			331									
		Fan speed 2	m³/h	210			371			385									
		Fan speed 3	m³/h	228						602									
		Fan speed 4	m³/h	267						652									
		Fan speed 5	m³/h	297						715									
		Fan speed 6	m³/h	324			345			607									
		Fan speed 7	m³/h	371						633									
Air filter				Acrylic fiber - Filtering class G2 (G3 on request)															
Total sound power level	Type	Fan speed 1	dBA	36			38			39									
		Fan speed 2	dBA	40						43									
		Fan speed 3	dBA	43						47									
		Fan speed 4	dBA	46						52									
		Fan speed 5	dBA	50						54									
		Fan speed 6	dBA	52						56									
		Fan speed 7	dBA	58						60									
		Fan speed 1	dBA	31			33			34									
Sound pressure level	Type	Fan speed 2	dBA	35						38									
		Fan speed 3	dBA	38						42									
		Fan speed 4	dBA	41						47									
		Fan speed 5	dBA	45						49									
		Fan speed 6	dBA	47						51									
		Fan speed 7	dBA	53						55									
		Power input	kW	2.0						2.5									
		Drain	mm							17									
Piping connections			OD																
Power supply			Phase/Frequency	Hz/V															
				1~/50															

Ducted unit with medium ESP

BLDC fan motor unit for horizontal or vertical mounting.
Continuous air flow regulation and fan speed modulation

- › Up to 70% energy savings with brushless DC motor technology compared to traditional technology
- › Instant adjustment to temperature and relative humidity changes
- › Low operating sound level
- › Highly flexible solutions: multiple sizes, piping topologies and connection valves
- › Available static pressure up to 70 Pa
- › The air filter can easily be removed for cleaning
- › Straight duct connector mounted to discharge side



FWN-AT/AF				04	05	06	07	08	10	04	05	06	07	08	10		
				2-pipe						4-pipe							
Cooling capacity	Total capacity	High	kW	3.91 (1) / 3.80 (2)	4.76 (1) / 4.65 (2)	6.17 (1) / 6.02 (2)	6.81 (1) / 6.66 (2)	7.83 (1) / 7.58 (2)	8.75 (1) / 8.50 (2)	3.88 (1) / 2.76 (3)	4.72 (1) / 3.60 (3)	6.06 (1) / 4.54 (3)	6.69 (1) / 5.17 (3)	7.70 (1) / 5.22 (3)	8.60 (1) / 6.12 (3)		
				Medium	kW	3.54 (1) / 3.47 (2)	4.27 (1) / 4.20 (2)	5.77 (1) / 5.65 (2)	6.37 (1) / 6.25 (2)	7.01 (1) / 6.84 (2)	7.79 (1) / 7.62 (2)	3.51 (1) / 2.78 (3)	4.24 (1) / 3.51 (3)	5.70 (1) / 4.45 (3)	6.29 (1) / 5.04 (3)	6.92 (1) / 5.22 (3)	7.69 (1) / 5.99 (3)
						Low	kW	2.87 (1) / 2.83 (2)	3.42 (1) / 3.38 (2)	5.33 (1) / 5.23 (2)	5.87 (1) / 5.77 (2)	6.32 (1) / 6.20 (2)	6.97 (1) / 6.85 (2)	2.86 (1) / 2.46 (3)	3.40 (1) / 3.00 (3)	5.26 (1) / 4.24 (3)	5.81 (1) / 4.79 (3)
	Sensible capacity	High	kW	3.09 (1) / 2.98 (2)	3.68 (1) / 3.57 (2)			4.63 (1) / 4.48 (2)	5.21 (1) / 5.06 (2)	6.55 (1) / 6.30 (2)	7.10 (1) / 6.85 (2)	3.06 (1) / 1.94 (3)	3.64 (1) / 2.52 (3)	4.54 (1) / 3.02 (3)	5.11 (1) / 3.59 (3)	6.43 (1) / 3.95 (3)	6.96 (1) / 4.48 (3)
				Medium	kW	2.77 (1) / 2.70 (2)	3.26 (1) / 3.19 (2)	4.32 (1) / 4.20 (2)	4.85 (1) / 4.73 (2)	5.77 (1) / 5.60 (2)	6.24 (1) / 6.07 (2)	2.75 (1) / 2.02 (3)	3.24 (1) / 2.51 (3)	4.27 (1) / 3.02 (3)	4.78 (1) / 3.53 (3)	5.69 (1) / 3.99 (3)	6.15 (1) / 4.45 (3)
						Low	kW	2.23 (1) / 2.19 (2)	2.58 (1) / 2.54 (2)	3.99 (1) / 3.89 (2)	4.45 (1) / 4.35 (2)	5.14 (1) / 5.02 (2)	5.53 (1) / 5.41 (2)	2.22 (1) / 1.82 (3)	2.56 (1) / 2.16 (3)	3.94 (1) / 2.92 (3)	4.40 (1) / 3.38 (3)
Heating capacity	High	kW	4.85 (4) / 8.22 (5)	5.79 (4) / 9.78 (5)	7.67 (4) / 13.02 (5)			8.65 (4) / 14.68 (5)	9.46 (4) / 15.98 (5)	10.70 (4) / 18.10 (5)	4.48 (4) / 3.70 (4)	4.45 (4) / 3.69 (4)	6.53 (4) / 5.98 (4)	6.44 (4) / 5.93 (4)	9.13 (4) / 8.01 (4)	9.07 (4) / 7.98 (4)	
			Low	kW	3.63 (4) / 6.16 (5)	4.24 (4) / 7.17 (5)	6.68 (4) / 11.31 (5)	7.49 (4) / 12.71 (5)	7.74 (4) / 13.10 (5)	8.70 (4) / 14.74 (5)	3.70 (4) / 3.69 (4)	3.69 (4) / 3.69 (4)	5.98 (4) / 5.98 (4)	5.93 (4) / 5.93 (4)	8.01 (4) / 8.01 (4)	7.98 (4) / 7.98 (4)	
Power input	High	W			112 (6)		152 (6)		248 (6)		112 (2)		152 (2)		248 (2)		
	Medium	W	73 (6)		125 (6)		170 (6)		73 (2)		125 (2)		170 (2)				
	Low	W	40 (6)		102 (6)		124 (6)		40 (2)		102 (2)		124 (2)				
FCEER				C	B	C				B		C					
FCCOP				B	A	B		C	B			C					
Weight	Unit	kg		32.5	33.3	40.6	41.7	47.3	48.7	-							
	2-pipe Unit	kg		-						32.5	33.3	40.6	41.7	47.3	48.7		
	4-pipe Unit	kg		-						34.7	35.5	43.2	44.3	50.3	51.7		
Water pressure drop	Cooling	High	kPa	17 (6) / 17 (1)	14 (6) / 14 (1)	24 (6) / 24 (1)	19 (6) / 19 (1)	24 (6) / 24 (1)	16 (6) / 16 (1)	17 (1)	14 (1)	23 (1)	19 (1)	23 (1)	15 (1)		
	Heating	High	kPa	14 (4) / 15 (5)	12 (4) / 12 (5)	19 (4) / 21 (5)	15 (4) / 17 (5)	20 (4) / 20 (5)	13 (4) / 13 (5)	9 (4)		17 (4)	14 (4)	13 (4)	30 (4)		
Water heat exchanger	Water flow rate	Cooling	High	l/min	11.19 (1)	13.62 (1)	17.65 (1)	19.48 (1)	22.40 (1)	25.02 (1)	11.10 (1)	13.50 (1)	17.33 (1)	19.13 (1)	22.03 (1)	24.60 (1)	
			Medium	l/min	10.12 (1)	12.20 (1)	16.50 (1)	18.22 (1)	20.03 (1)	22.27 (1)	10.03 (1)	12.12 (1)	16.30 (1)	17.98 (1)	19.78 (1)	21.98 (1)	
			Low	l/min	8.22 (1)	9.78 (1)	15.25 (1)	16.80 (1)	17.92 (1)	19.95 (1)	8.18 (1)	9.73 (1)	15.07 (1)	16.63 (1)	17.92 (1)	19.75 (1)	
		Heating	High	l/min	12.02 (5)	14.32 (5)	19.03 (5)	21.48 (5)	23.37 (5)	26.47 (5)	6.55 (4)	6.52 (4)	9.55 (4)	9.43 (4)	13.35 (4)	13.27 (4)	
			Medium	l/min	10.93 (5)	12.90 (5)	17.87 (5)	20.13 (5)	21.07 (5)	23.80 (5)	6.15 (4)	6.12 (4)	9.18 (4)	9.08 (4)	12.48 (4)	12.43 (4)	
			Low	l/min	9.00 (5)	10.48 (5)	16.53 (5)	18.58 (5)	19.15 (5)	21.55 (5)	5.40 (4)		8.75 (4)	8.68 (4)	11.72 (4)	11.68 (4)	
Fan	Air flow rate	High	m³/h	802 (6)	792 (6)	1,241 (6)	1,206 (6)	1,609 (6)	1,584 (6)	794 (2)	784 (2)	1,212 (2)	1,179 (2)	1,573 (2)	1,550 (2)		
		Low	m³/h	534 (6)	531 (6)	1,021 (6)	998 (6)	1,208 (6)	1,200 (6)	532 (2)	529 (2)	1,004 (2)	985 (2)	1,194 (2)	1,186 (2)		
Sound power level	Total	High	dBA	66 (3)		69 (3)		72 (3)		66 (5)		69 (5)		72 (5)			
		Medium	dBA	61 (3)		63 (3)		67 (3)		61 (5)		63 (5)		67 (5)			
		Low	dBA	54 (3)		59 (3)		62 (3)		54 (5)		59 (5)		62 (5)			
	Inlet section + radiated	High	dBA	64 (3) / 64 (6)		66 (3) / 66 (6)		70 (3) / 70 (6)		64 (5) / 64 (2)		66 (5) / 66 (2)		70 (5) / 70 (2)			
		Medium	dBA	59 (3) / 59 (6)		60 (3) / 60 (6)		64 (3) / 64 (6)		59 (5) / 59 (2)		60 (5) / 60 (2)		64 (5) / 64 (2)			
		Low	dBA	52 (3) / 52 (6)		56 (3) / 56 (6)		60 (3) / 60 (6)		52 (5) / 52 (2)		56 (5) / 56 (2)		60 (5) / 60 (2)			
	Outlet section	High	dBA	63 (3) / 63 (6)		65 (3) / 65 (6)		69 (3) / 69 (6)		63 (5) / 63 (2)		65 (5) / 65 (2)		69 (5) / 69 (2)			
		Medium	dBA	58 (3) / 58 (6)		59 (3) / 59 (6)		63 (3) / 63 (6)		58 (5) / 58 (2)		62 (5) / 62 (2)		63 (5) / 63 (2)			
		Low	dBA	51 (3) / 51 (6)		55 (3) / 55 (6)		58 (3) / 58 (6)		51 (5) / 51 (2)		59 (5) / 59 (2)		55 (5) / 55 (2)			
Water connections	Primary coil	inch	3/4 _n														
	Additional coil	inch	3/4 _n														
Water content	Primary coil	dm³	1.29	1.64	1.65	2.13	2.16	2.75	1.29	1.64	1.65	2.13	2.16	2.75			
	Additional coil	dm³	-						0.93		1.05		1.17				
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/230												
Control systems	Wired remote control				FWEC3A / FWEC3A												

(1) Inlet/outlet water temperature 7/12 °C; inlet air temperature 27°C DB 19°C WB (2) Reference: EN 1397; Eurovent certified data (3) Reference: UNI EN 3741 (4) Inlet water temperature 50 °C; same water flow as in cooling mode; inlet air temperature 20°C DB; Eurovent certified data (5) Inlet/outlet water temperature 70/60 °C; inlet air temperature 20°C DB (6) Eurovent certified data | FCEER and FCCOP are Eurovent certified data

Concealed ceiling unit with high ESP

AC fan motor unit for horizontal concealed mounting

- › Quick fixing system for wall or ceiling mounted installation
- › Straight duct connector mounted to discharge side
- › The air filter can easily be removed for cleaning



FWD-AT/AF				04	06	08	10	12	16	18	04	06	08	10	12	16	18						
				2-pipe							4-pipe												
Cooling capacity (standard conditions)	Latent capacity	High	kW	0.82	1.54	1.28	1.65	2.63	3.71	4.25	0.82	1.52	1.27	1.64	2.60	3.70	4.25						
		Low	kW	2.10	3.66	4.84	5.23	6.35	8.61	9.37	2.09	3.60	4.79	5.17	6.29	8.58	9.34						
	Sensible capacity	Medium	kW	2.59	3.94	5.39	5.86	7.75	10.43	11.40	2.57	3.89	5.31	5.77	7.66	10.38	11.34						
		High	kW	2.83	4.16	6.04	6.58	9.22	12.21	13.49	2.80	4.08	5.94	6.46	9.06	12.14	13.41						
	Total capacity	Low	kW	2.74	4.99	6.03	6.68	8.42	11.63	12.92	2.73	4.92	5.97	6.61	8.33	11.59	12.87						
		Medium	kW	3.36	5.39	6.63	7.41	10.12	13.83	15.36	3.33	5.32	6.54	7.31	10.00	13.77	15.29						
High		kW	3.65	5.71	7.33	8.25	11.86	15.92	17.74	3.62	5.60	7.20	8.10	11.66	15.84	17.66							
Heating capacity (standard conditions)	Capacity	Low	kW	3.04	5.59	6.47	7.28	9.06	12.68	13.73	3.23	5.25	7.02	6.99	10.86	14.88	14.79						
		Medium	kW	3.69	6.03	7.11	8.04	10.84	15.05	16.40	3.68	5.51	7.47	7.44	12.63	17.17	17.03						
		High	kW	4.05	6.42	7.88	8.93	12.72	17.29	19.05	3.91	5.72	7.99	7.94	14.43	19.30	19.20						
Power input	Low	kW	0.14	0.35	0.29		0.37		0.87		0.14	0.35	0.29		0.37		0.87						
	Medium	kW	0.19	0.39	0.38		0.54		1.09		0.19	0.39	0.38		0.54		1.09						
	High	kW	0.265	0.460	0.505		0.750		1.300		0.265	0.460	0.505		0.750		1.300						
FCEER				E												D		E					
FCCOP				D		E						D		E		D		E					
Dimensions	Unit	Height x Width x Depth	mm	559 x 754 x 280		559 x 964 x 280		559 x 1,170 x 280		718 x 1,170 x 353		718 x 1,380 x 353		559 x 754 x 280		559 x 964 x 280		559 x 1,170 x 280		718 x 1,170 x 353		718 x 1,380 x 353	
Weight	Unit		kg	32.5	40.6	47.3	48.7	65.3	77.0	79.5	34.7	43.2	50.3	51.7	70.9	83.4	85.9						
Heat exchanger	Water volume		l	1		2		3		5		6		1		2		3		5		6	
Additional heat exchanger	Water volume		l	-												1				2			
Water flow	Cooling	Low	l/h	493	915	1,085	1,197	1,509	2,145	2,365	491	904	1,075	1,185	1,493	2,138	2,358						
		Medium	l/h	607	990	1,202	1,336	1,827	2,561	2,823	602	978	1,187	1,319	1,808	2,550	2,811						
		High	l/h	671	1,059	1,344	1,501	2,163	2,953	3,270	666	1,040	1,322	1,476	2,130	2,940	3,254						
	Heating	Low	l/h	529	972	1,124	1,264	1,573	2,203	2,389	283	460	614	612	950	1,302	1,295						
		Medium	l/h	641	1,048	1,236	1,397	1,884	2,617	2,852	322	483	654	651	1,105	1,503	1,490						
		High	l/h	705	1,114	1,369	1,551	2,209	3,008	3,311	342	501	700	695	1,264	1,690	1,680						
Fan	Type		Centrifugal																				
	Quantity		1	2							1	2											
	Air flow rate	Low	m³/h	534	1,021	1,208	1,200	1,485	2,092	2,073	532	1,004	1,194	1,186	1,466	2,084	2,065						
		Medium	m³/h	700	1,134	1,384	1,371	1,898	2,641	2,604	694	1,115	1,362	1,349	1,871	2,626	2,590						
		High	m³/h	802	1,241	1,609	1,584	2,380	3,206	3,175	794	1,212	1,573	1,550	2,328	3,186	3,155						
Air filter	Type		Acrylic fiber - Filtering class G2 (G4 on request)																				
Total sound power level	Low	dB(A)	54	59	62		60		69		54	61	62		60		69						
	Medium	dB(A)	61	63	67			73			61	64	67			73							
	High	dB(A)	66	69	72		74		78		66	69	72		74		78						
Sound pressure level	Low	dB(A)	49	54	57		55		64		49	56	57		55		64						
	Medium	dB(A)	56	58	62			68			56	59	62			68							
	High	dB(A)	61	64	67		69		73		61	64	67		69		73						
Electric heater	Power input	kW	2.0	6.0	9.0				12.0				2.0	6.0	9.0				12.0				
Piping connections	Drain	OD	mm	17																			
Power supply	Phase/Frequency/Voltage	Hz/V		1~/50/230																			

Options & accessories - Fan coil units

INDOOR UNITS		FWG-AT/AF	FWC-BT/BF	FWF-BT/BF	FWF-CT	FWZ-AT/AF	FWV-DAT/DAF	FWR-AT/AF
Panels	Decoration panel 600x600 (2-pipe)			BYFQ60B3	DCP600TC ⁽¹⁾			
	Decoration panel 900x900 (2-pipe)	DCP900BTA ⁽¹⁾	BYCQ140C					
	Decoration panel 900x900 (4-pipe)	DCP900BFA ⁽¹⁾	BYCQ140C					
	Panel spacer for reducing required installation height		KDBQ44B60					
	Sealing member of air discharge outlet		KDBHQ55C140	KDBH44BA60				
	Rear panel					ERPVO2A6 (2 class) ERPVO3A6 (3 class) ERPVO6A6 (6 class) ERPVI0A6 (8 class)	ERPVO2A6 (1, 15 & 2 class) ERPVO3A6 (25 & 3 class) ERPVO6A6 (35, 4 & 6 class) ERPVI0A6 (8 & 10 class)	ERPVO2A6 (2 class) ERPVO3A6 (3 class) ERPVO6A6 (6 class) ERPVI0A6 (8 class)
	Air intake & discharge grille					EAIDF02A6 (2 class) EAIDF03A6 (3 class) EAIDF06A6 (6 class) EAIDF10A6 (10 class)	EAIDF02A6 (1, 15 & 2 class) EAIDF03A6 (25 & 3 class) EAIDF06A6 (35, 4 & 6 class) EAIDF10A6 (8 & 10 class)	EAIDF02A6 (2 class) EAIDF03A6 (3 class) EAIDF06A6 (6 class) EAIDF10A6 (10 class)
Individual control systems & network	Wired remote controller (standard)	BRC51A61	BRC315D	BRC315D	MERCA		FWEC1A	
	FWEC2A Wired remote controller (advanced)						•	
	FWEC3A Wired remote controller (advanced Plus)					•	•	•
	SRC-HPA Wired remote controller (heat pump)				•			
	Wireless controller (heat pump)		BRC7F530	BRC7F532F				
	ECFWMB6 Controller electromechanical						•	
	FWEC5AP Split controller - power control board					•	•	•
	FWEC5AC Split controller - control panel					•	•	•
	FWECKA On-board mounting kit					•	•	•
	FWFCKA Wall-mounting kit					•	•	•
Centralised control systems	DCS302CA51 Central remote control		•	•				
	DCS301BA51 Unified ON/OFF control		•	•				
	DST301BA51 Schedule timer		•	•				
Building Management System & Standard protocol interface	DCM601A5A Intelligent Touch Manager		•	•				
	DCS601C51C Intelligent Touch Controller		•	•				

1. Decoration panel code includes wireless controller

FWL-DAT/DAF	FWS-AT/AF	FWM-DAT/DAF	FWT-CT	FWE-CT/CF	FWP-AT	FWB-BT	FWD-AT/AF	FWN-AT/AF
ERPVO2A6 (1,15 & 2 class) ERPVO3A6 (25 & 3 class) ERPVO6A6 (35, 4 & 6 class) ERPVI0A6 (8 & 10 class)	ERPVO2A6 (2 class) ERPVO3A6 (3 class) ERPVO6A6 (6 class) ERPVI0A6 (8 class)	ERPVO2A6 (1,15 & 2 class) ERPVO3A6 (25 & 3 class) ERPVO6A6 (35,4 & 6 class) ERPVI0A6 (8&10 class)						
EAIDF02A6 (1, 15 & 2 class) EAIDF03A6 (25 & 3 class) EAIDF06A6 (35, 4 & 6 class) EAIDF10A6 (8 & 10 class)	EAIDF02A6 (2 class) EAIDF03A6 (3 class) EAIDF06A6 (6 class) EAIDF10A6 (10 class)	EAIDF02A6 (1, 15 & 2 class) EAIDF03A6 (25 & 3 class) EAIDF06A6 (35, 4 & 6 class) EAIDF10A6 (8 & 10 class)						
FWEC1A		FWEC1A	MERCA	FWEC1A		FWEC1A	FWEC1A	FWEC1A
•		•		•		•	•	•
•	•	•		•	•	•	•	•
			•					
			WRC-HPC					
•		•						
•	•	•		•	•	•	•	•
•	•	•		•	•	•	•	•
•	•	•						
•	•	•		•	•	•	•	•

Options & accessories - Fan coil units

INDOOR UNITS		FWG-AT/AF	FWC-BT/BF	FWF-BT/BF	FWF-CT	FWZ-AT/AF	FWV-DAT/DAF	FWR-AT/AF
Filters	Long-life filter		KAFP551K160	KAFQ441BA60				
ON/OFF valves 230V	3-ways 230V ON/OFF valve kit (2-pipe)	VKFWGA012T3V (5 & 8 class) VKFWGA022T3V (11 class)	EKMV3C09B	EKMV3C09B	MCKCW2T3VN	E2MV03A6 (2, 3 & 6 class) E2MV10A6 (8 class)	E2MV03A6 (1 up to 35 class) E2MV06A6 (4 & 6 class) E2MV10A6 (8 & 10 class)	E2MV03A6 (2, 3 & 6 class) E2MV10A6 (8 class)
	3-ways 230V ON/OFF valve kit (4-pipe)	VKFWGA014T3V (5 & 8 class) VKFWGA024T3V (11 class)	EKMV3C09B x2	EKMV3C09B x2		E4MV03A6 (2, 3 & 6 class) E4MV10A6 (8 class)	E4MV03A6 (1 up to 35 class) E4MV06A6 (4 & 6 class) E4MV10A6 (8 & 10 class)	E4MV03A6 (2, 3 & 6 class) E4MV10A6 (8 class)
	2-ways 230V ON/OFF valve kit (2-pipe)		EKMV2C09B	EKMV2C09B				
	2-ways 230V ON/OFF valve kit (4-pipe)		EKMV2C09B x2	EKMV2C09B x2				
	2-ways 230V ON/OFF valve kit (cooling heat exchanger)					E2MV2B07A6 (2 up to 6 class) E2MV2B10A6 (8 class)	E2MV2B07A6 (1 up to 6 class) E2MV2B10A6 (8 & 10 class)	E2MV2B07A6 (2 up to 6 class) E2MV2B10A6 (8 class)
	2-ways 230V ON/OFF valve kit (additional heat exchanger)					E2MV2B07A6	E2MV2B07A6	E2MV2B07A6
	Simplified 3-ways 230V ON/OFF valve kit (2-pipe)					E2MVD03A6 (2 & 3 class) E2MVD06A6 (6 class) E2MVD10A6 (8 class)	E2MVD03A6 (1 up to 35 class) E2MVD06A6 (4 & 6 class) E2MVD10A6 (8 & 10 class)	E2MVD03A6 (2 & 3 class) E2MVD06A6 (6 class) E2MVD10A6 (8 class)
	Simplified 3-ways 230V ON/OFF valve kit (4-pipe)					E4MVD03A6 (2 & 3 class) E4MVD06A6 (4 & 6 class) E4MVD10A6 (8 & 10 class)	E4MVD03A6 (1 up to 35 class) E4MVD06A6 (4 & 6 class) E4MVD10A6 (8 & 10 class)	E4MVD03A6 (2 & 3 class) E4MVD06A6 (4 & 6 class) E4MVD10A6 (8 & 10 class)
ON/OFF valves 24V	3-ways 24V ON/OFF valve kit (2-pipe)					E2M2V03A6 (2 & 3 class) E2M2V06A6 (6 class) E2M2V10A6 (8 class)	E2M2V03A6 (1 up to 35 class) E2M2V06A6 (4 & 6 class) E2M2V10A6 (8 & 10 class)	E2M2V03A6 (2 & 3 class) E2M2V06A6 (6 class) E2M2V10A6 (8 class)
	3-ways 24V ON/OFF valve kit (4-pipe)					E4M2V03A6 (2 & 3 class) E4M2V06A6 (6 class) E4M2V10A6 (8 class)	E4M2V03A6 (1 up to 35 class) E4M2V06A6 (4 & 6 class) E4M2V10A6 (8 & 10 class)	E4M2V03A6 (2 & 3 class) E4M2V06A6 (6 class) E4M2V10A6 (8 class)
	2-ways 24V ON/OFF valve kit (cooling heat exchanger)					E2M2V207A6 (2, 3 & 6 class) E2M2V210A6 (8 class)	E2M2V207A6 (1 up to 35 class) E2M2V210A6 (8 & 10 class)	E2M2V207A6 (2, 3 & 6 class) E2M2V210A6 (8 class)
	E2M2V207A6 2-ways 24V ON/OFF valve kit (additional heat exchanger)					●	●	●
Proportional valves	3-ways proportional valve kit (2-pipe)						E2MPV03A6 (1 up to 35 class) E2MPV06A6 (4 & 6 class) E2MPV10A6 (8 & 10 class)	
	3-ways proportional valve kit (4-pipe)						E4MPV03A6 (1 up to 35 class) E4MPV06A6 (4 & 6 class) E4MPV10A6 (8 & 10 class)	
	2-ways proportional valve kit (cooling heat exchanger)						E2MPV207A6 (1 up to 6 class) E2MPV210A6 (8 & 10 class)	
	E2MPV207A6 2-ways proportional valve kit (additional heat exchanger)						●	

FWL-DAT/DAF	FWS-AT/AF	FWM-DAT/DAF	FWT-CT	FWE-CT/CF	FWP-AT	FWB-BT	FWD-AT/AF	FWN-AT/AF
E2MV03A6 (1 up to 35 class) E2MV06A6 (4 & 6 class) E2MV10A6 (8 & 10 class)	E2MV03A6 (2, 3 & 6 class) E2MV10A6 (8 class)	E2MV03A6 (1 up to 35 class) E2MV06A6 (4 & 6 class) E2MV10A6 (8 & 10 class)		EK2MV3B10C5		E2MV107A6	ED2MV04A6 (4 class) ED2MV10A6 (6, 8 & 10 class) ED2MV12A6 (12 class) ED2MV18A6 (16 & 18 class)	ED2MV04A6 (4 & 5 class) ED2MV10A6 (6 up 10 class)
E4MV03A6 (1 up to 35 class) E4MV06A6 (4 & 6 class) E4MV10A6 (8 & 10 class)	E4MV03A6 (2, 3 & 6 class) E4MV10A6 (8 class)	E4MV03A6 (1 up to 35 class) E4MV06A6 (4 & 6 class) E4MV10A6 (8 & 10 class)		EK2MV3B10C5			ED4MV04A6 (4 class) ED4MV10A6 (6, 8 & 10 class) ED4MV12A6 x 2 (12 class) ED4MV18A6 x 2 (16 & 18 class)	ED4MV04A6 (4 & 5 class) ED4MV10A6 (6 up 10 class)
				EK2MV2B10C5				
				EK4MV2B10C5				
E2MV2B07A6 (1 up to 6 class) E2MV2B10A6 (8 & 10 class)	E2MV2B07A6 (2 up to 6 class) E2MV2B10A6 (8 class)	E2MV2B07A6 (1 up to 6 class) E2MV2B10A6 (8 & 10 class)				E2MV207A6 (2 up to 7 class) E2MV210A6 (8 & 10 class)		
E2MV2B07A6	E2MV2B07A6	E2MV2B07A6			E2MV207A6	E2MV207A0 (2 up to 7 class) E2MV210A6 (8 & 10 class)		
E2MVD03A6 (1 up to 35 class) E2MVD06A6 (4 & 6 class) E2MVD10A6 (8 & 10 class)	E2MVD03A6 (2 & 3 class) E2MVD06A6 (6 class) E2MVD10A6 (8 class)	E2MVD03A6 (1 up to 35 class) E2MVD06A6 (4 & 6 class) E2MVD10A6 (8 & 10 class)						
E4MVD03A6 (1 up to 35 class) E4MVD06A6 (4 & 6 class) E4MVD10A6 (8 & 10 class)	E4MVD03A6 (2 & 3 class) E4MVD06A6 (4 & 6 class) E4MVD10A6 (8 & 10 class)	E4MVD03A6 (1 up to 35 class) E4MVD06A6 (4 & 6 class) E4MVD10A6 (8 & 10 class)						
E2M2V03A6 (1 up to 35 class) E2M2V06A6 (4 & 6 class) E2M2V10A6 (8 & 10 class)	E2M2V03A6 (2 & 3 class) E2M2V06A6 (6 class) E2M2V10A6 (8 class)	E2M2V03A6 (1 up to 35 class) E2M2V06A6 (4 & 6 class) E2M2V10A6 (8 & 10 class)						
E4M2V03A6 (1 up to 35 class) E4M2V06A6 (4 & 6 class) E4M2V10A6 (8 & 10 class)	E4M2V03A6 (2 & 3 class) E4M2V06A6 (6 class) E4M2V10A6 (8 class)	E4M2V03A6 (1 up to 35 class) E4M2V06A6 (4 & 6 class) E4M2V10A6 (8 & 10 class)						
E2M2V207A6 (1 up to 35 class) E2M2V210A6 (8 & 10 class)	E2M2V207A6 (2,3&6 class) E2M2V210A6 (8 class)	E2M2V207A6 (1 up to 35 class) E2M2V210A6 (8 & 10 class)						
•	•	•						
E2MPV03A6 (1 up to 35 class) E2MPV06A6 (4 & 6 class) E2MPV10A6 (8 & 10 class)		E2MPV03A6 (1 up to 35 class) E2MPV06A6 (4 & 6 class) E2MPV10A6 (8 & 10 class)						
E4MPV03A6 (1 up to 35 class) E4MPV06A6 (4 & 6 class) E4MPV10A6 (8 & 10 class)		E4MPV03A6 (1 up to 35 class) E4MPV06A6 (4 & 6 class) E4MPV10A6 (8 & 10 class)						
E2MPV207A6 (1 up to 6 class) E2MPV210A6 (8 & 10 class)		E2MPV207A6 (1 up to 6 class) E2MPV210A6 (8 & 10 class)						
•		•						

Options & accessories - Fan coil units

INDOOR UNITS		FWG-AT/AF	FWC-BT/BF	FWF-BT/BF	FWF-CT	FWZ-AT/AF	FWV-DAT/DAF	FWR-AT/AF
Adapters	Installation box/Mounting plate for adapter PCBs (when there is no space in the switchbox)		KRP1H98	KRP1BA101				
	Wiring adapter for electrical appendices		KRP2A52 ⁽²⁾ KRP4AA53 ⁽²⁾	KRP2A52 ⁽²⁾ KRP4AA53 ⁽²⁾				
	EKROROA Remote ON/OFF			•				
	Remote sensor		KRCS01-4	KRCS01-1				
	EKFCMBCB Optional PCB for MODBUS connection		•	•				
	EKRPICT1 Wiring adapter with 4 output signals for valve control PDB		•					
	FWTSKA Temperature sensor kit					•	•	•
	FWHSKA Relative humidity sensor kit					•	•	•
	YFSTA6 Fan stop thermostat						•	
	EPIMSA6 Master-slave interface						•	
	EPIB6 Power interface							
Others	KDDQ44XA60 Fresh air intake kit (direct installation type)			•				
	KDDQ55C140 Fresh air intake kit - 20% fresh air (direct installation type)		•					
	Fresh air intake					EFA02A6 (2 class) EFA03A6 (3 class) EFA06A6 (6 class) EFA10A6 (8 class)	EFA02A6 (1, 15 & 2 class) EFA03A6 (25 & 3 class) EFA06A6 (35, 4 & 6 class) EFA10A6 (8 & 10 class)	EFA02A6 (2 class) EFA03A6 (3 class) EFA06A6 (6 class) EFA10A6 (8 class)
	KJB212A Electrical box with earth terminal (2 blocks)		•	•				
	KJB311A Electrical box with earth terminal (3 blocks)		•	•				
	KJB411A Electrical box with earth terminal		•	•				
	Electric heater (standard)					EEH02A6 (2 class) EEH03A6 (3 class) EEH06A6 (6 class) EEH10A6 (8 class)	EEH01A6 (1 class) EEH02A6 (15 & 2 class) EEH03A6 (25 & 3 class) EEH06A6 (35, 4 & 6 class) EEH10A6 (8 & 10 class)	EEH02A6 (2 class) EEH03A6 (3 class) EEH06A6 (6 class) EEH10A6 (8 class)
	Electric heater (big)							
	Additional heat exchanger					ESRH02A6 (2 class) ESRH03A6 (3 class) ESRH06A6 (6 class) ESRH10A6 (8 class)	ESRH02A6 (1, 15 & 2 class) ESRH03A6 (25 & 3 class) ESRH06A6 (35, 4 & 6 class) ESRH10A6 (8 & 10 class)	ESRH02A6 (2 class) ESRH03A6 (3 class) ESRH06A6 (6 class) ESRH10A6 (8 class)
	Supporting feet					ESFV06A6 (2, 3 and 6 class) ESFV10A6 (8 class)	ESFV06A6 (1 up to 6 class) ESFV10A6 (8 & 10 class)	ESFV06A6 (2, 3 and 6 class) ESFV10A6 (8 class)
	Supporting feet and grille					ESFVG02A6 (2 class) ESFVG03A6 (3 class) ESFVG06A6 (6 class) ESFVG10A6 (8 class)	ESFVG02A6 (1, 15 & 2 class) ESFVG03A6 (25 & 3 class) ESFVG06A6 (35, 4 & 6 class) ESFVG10A6 (8 & 10 class)	ESFVG02A6 (2 class) ESFVG03A6 (3 class) ESFVG06A6 (6 class) ESFVG10A6 (8 class)
	Plenum box with circular connections							
	Vertical auxiliary drain pan					EDPVB6	EDPVB6	EDPVB6
	Horizontal auxiliary drain pan					EDPHB6	EDPHB6	EDPHB6

2. Requires KRP1H98

FWL-DAT/DAF	FWS-AT/AF	FWM-DAT/DAF	FWT-CT	FWE-CT/CF	FWP-AT	FWB-BT	FWD-AT/AF	FWN-AT/AF
•	•	•		•	•	•		•
•	•	•		•	•	•	•	•
•		•				•	•	•
•		•		•		•	•	•
							• (only 12, 16 & 18 class)	
EFA02A6 (1, 15 & 2 class) EFA03A6 (25 & 3 class) EFA06A6 (35, 4 & 6 class) EFA10A6 (8 & 10 class)	EFA02A6 (2 class) EFA03A6 (3 class) EFA06A6 (6 class) EFA10A6 (8 class)	EFA02A6 (1, 15 & 2 class) EFA03A6 (25 & 3 class) EFA06A6 (35, 4 & 6 class) EFA10A6 (8 & 10 class)					EDMFA04A6 (4 class) EDMFA06A6 (6 class) EDMFA10A6 (8 & 10 class) EDMFA12A6 (12 class) EDMFA18A6 (16 & 18 class)	EDMFA04A6 (4 & 5 class) EDMFA06A6 (6 & 7 class) EDMFA10A6 (8 & 10 class)
EEH01A6 (1 class) EEH02A6 (15 & 2 class) EEH03A6 (25 & 3 class) EEH06A6 (35, 4 & 6 class) EEH10A6 (8 & 10 class)	EEH02A6 (2 class) EEH03A6 (3 class) EEH06A6 (6 class) EEH10A6 (8 class)	EEH01A6 (1 class) EEH02A6 (15 & 2 class) EEH03A6 (25 & 3 class) EEH06A6 (35, 4 & 6 class) EEH10A6 (8 & 10 class)			Factory mounted	Factory mounted	EDEH04A6 (4 class) EDEHS06A6 (6 class) EDEHS10A6 (8 & 10 class) EDEHS12A6 (12 class) EDEHS18A6 (16 & 18 class)	EDEH04A6 (4 & 5 class) EDEHS06A6 (6 & 7 class) EDEHS10A6 (8 & 10 class)
							EDEH04A6 (4 class) EDEHB06A6 (6 class) EDEHB10A6 (8 & 10 class) EDEHB12A6 (12 class) EDEHB18A6 (16 & 18 class)	EDEH04A6 (4 & 5 class) EDEHB06A6 (6 & 7 class) EDEHB10A6 (8 & 10 class)
ESRH02A6 (1, 15 & 2 class) ESRH03A6 (25 & 3 class) ESRH06A6 (35, 4 & 6 class) ESRH10A6 (8 & 10 class)	ESRH02A6 (2 class) ESRH03A6 (3 class) ESRH06A6 (6 class) ESRH10A6 (8 class)	ESRH02A6 (1, 15 & 2 class) ESRH03A6 (25 & 3 class) ESRH06A6 (35, 4 & 6 class) ESRH10A6 (8 & 10 class)			EAH04A6 (2-4 class) EAH07A6 (5-7 class) EAH10A6 (8-10 class)	EAH04A6 (2-4 class) EAH07A6 (5-7 class) EAH10A6 (8-10 class)		
ESFV06A6 (1 up to 6 class) ESFV10A6 (8 & 10 class)	ESFV06A6 (2, 3 & 6 class) ESFV10A6 (8 class)	ESFV06A6 (1 up to 6 class) ESFV10A6 (8 & 10 class)						
ESFVG02A6 (1, 15 & 2 class) ESFVG03A6 (25 & 3 class) ESFVG06A6 (35, 4 & 6 class) ESFVG10A6 (8 & 10 class)	ESFVG02A6 (2 class) ESFVG03A6 (3 class) ESFVG06A6 (6 class) ESFVG10A6 (8 class)	ESFVG02A6 (1, 15 & 2 class) ESFVG03A6 (25 & 3 class) ESFVG06A6 (35, 4 & 6 class) ESFVG10A6 (8 & 10 class)						
	EPCC02A6 (2 class) EPCC03A6 (3 class) EPCC06A6 (6 class) EPCC10A6 (8 class)	EPCC02A6 (1, 15 & 2 class) EPCC03A6 (25 & 3 class) EPCC06A6 (35, 4 & 6 class) EPCC10A6 (8 & 10 class)						
EDPVB6	EDPVB6	EDPVB6					EDDPV10A6 (4, 6, 8, 10 class) EDDPV18A6 (12, 16 & 18 class)	EDDPV10A6
EDPHB6	EDPHB6	EDPHB6					EDDPH10A6 (4, 6, 8, 10 class) EDDPH18A6 (12, 16 & 18 class)	EDDPH10A6



Daikin 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, no matter what it is used for or who is to work there. Our systems are designed to be the most environmentally friendly and the most energy efficient on the market, thus reducing their ecological impact, while, at the same time, 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.

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NEW D-AHU Modular P 168

NEW D-AHU Modular L 169

UNIQUE Daikin fresh air package 170

Options 171



Daikin air handling units

Why choose Daikin air handling units?

- Maximum energy efficiency and indoor air quality
- Wide range of functions and options
- **High quality** components
- **Innovative** technology: Unique features and state of the art technology for short payback
- Operation **efficiency** and energy **savings**
- Outstanding **reliability** and **performance**
- Various applications are possible including air conditioning applications, industry-type process cooling, and large-scale district heat source systems.
- Plug and play concept for easy installation and commissioning
- Unique Daikin fresh air package available for connection of AHU to VRV or ERQ

Benefits for the installer

- › Simple precise commissioning through pre-programmed DDC controller
- › Reduced installation time thanks to internal electrical wiring and external terminal connections avoiding drilling into unit panels
- › Flush mounted electrical control panel avoiding risk of damage during transport and installation

Benefits for the consultant

- › Quick selection tool - in-house developed web software with improved user interface allowing for a professional report in a few clicks
- › Unlimited configuration options

Benefits for the end user

- › Energy efficient controls, allowing the user to determine a wide range of settings, resulting in excellent operational flexibility
- › Safe operation - fully integrated electrical panel for units taller than 80cm
- › Amazing tailor made capability to meet the specific customer needs

Marketing tools

- › Watch the time-lapse video of a Daikin AHU construction on www.youtube.com/daikineurope
- › Download our brochure on air handling units from my.daikin.eu
- › Follow the wizard and select or modify your Modular or Professional AHU in a few clicks!



Packaged control solution for Daikin AHU

- › Electrical control panel complete with Direct Digital Control (DDC) controller
- › Internal fitting of all sensors and pressure measurement devices
- › Built-in temperature, humidity and CO₂ sensors
- › Internal electrical wiring for all components

Energy efficient while focusing on maximum comfort

- › Set points can be specified for supply, return or room temperature
- › Precise control of all AHU components such as mixing dampers, heat recovery wheels, water valves, pressure switches for filters and fans, fan motors and inverters

Plug and play design

- › Low voltage fast connectors in between AHU sections

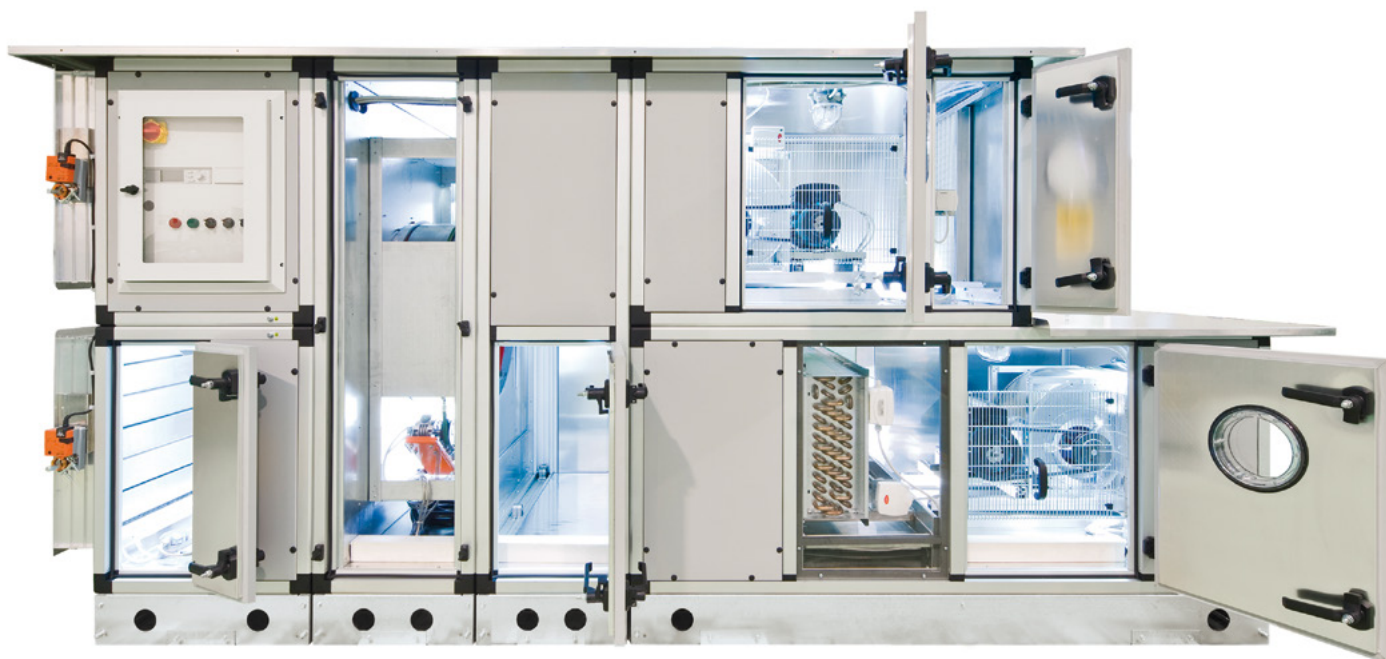
Easy start-up and commissioning

- › Pre-programmed and factory-tested controls ensuring all wiring is installed correctly
- › Reduced energy and operating costs

Daikin Fresh air package



- › Plug and play connection of Professional or Modular R AHU to Daikin VRV and ERQ
- › Factory mounted package contains a.o. expansion valve, electronic interface and sensors
- › Ensuring high efficiency and comfort



Air handling units



SMART CONTROLS



DAMPER AND EC FAN



HEAT RECOVERY
WHEEL AND FILTER



D-AHU MODULAR R
INSTALLATION

Air handling units

INTRODUCTION

AIRCOOLED CHILLERS

WATERCOOLED CHILLERS

CONDENSERLESS AND
CENTRIFUGAL CHILLERS

FAN COIL UNITS

AIR HANDLING UNITS

CONTROL SYSTEMS

PREVIOUS



COMFORTABLE
INDOOR CLIMATE

Products overview



D-AHU Professional

Air flow (m³/h x 1,000)

140

120

100

90

80

70

60

50

40

20

0



Professional

- › Pre-configured sizes
- › **Tailored to the individual customer**
- › Modular construction

Modular R

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



D-AHU
Modular R

500 m³/h
up to 25,000 m³/h

Modular P

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

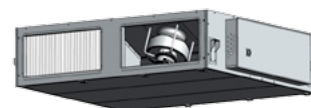


D-AHU
Modular P

500 m³/h
up to 15,000 m³/h

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 L

250 m³/h
up to 2,500 m³/h

Selection software

ASTRA Web

- › Quick AHU selection that will save you precious time, drastically reducing selection time through the new software interface.
- › Very competitive solution available within the Wizard thanks to pre-uploaded parameters.
- › High selection quality, thanks to the intelligence embedded within the software core.

Quickly select your air handling unit by following the wizard:

- 1 Select the series: D-AHU Professional or D-AHU Modular R
- 2 Insert the air flow supply and return
- 3 Insert the summer/winter air supply setpoint
- 4 Insert the summer/winter outdoor and extract temperature

You will get immediately your 3D result and it's ready to customize!

Adding or changing the components: coils for the Modular R or filters, recuperators etc for the Professional range. Options as insulation type and metal sheet can be selected.

When finished a technical report, price list, fan curve chart and psychrometric chart can be generated. These final reports can be downloaded in different formats.



Eurovent certification

Daikin Applied Europe S.p.A. participates in the Eurovent Certified Performance programme for Air Handling Units.

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



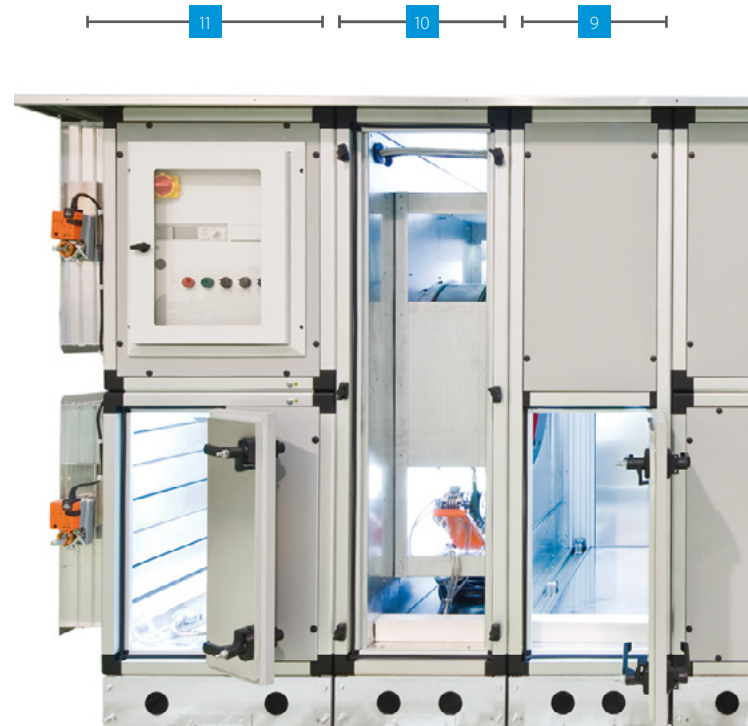
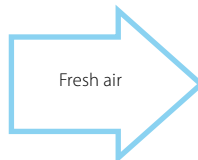
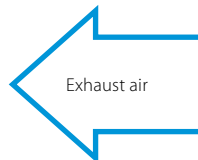
Result sp65		Eurovent Classification according to EN1886				
D1	Casing strength class	D1	D2	D3		
	Max. relative deflection mm x m ⁻¹	4.00	10.00	EXCEEDING10		
L1	Casing air leakage class at -400 Pa	L1	L2	L3		
	Max. leakage rate (f ₄₀₀) l x s ⁻¹ x m ⁻²	0.15	0.44	1.32		
L1	Casing air leakage class	L1	L2	L3		
	Max. leakage rate (f ₇₀₀) l x s ⁻¹ x m ⁻²	0.22	0.63	1.90		
F9	Filter bypass leakage class	F9	F8	F7	F6	G1 TO F5
	Max. filter bypass leakage rate k in % of the volume flow rate	0.50	1	2	4	6
T2	Thermal transmittance	T1	T2	T3	T4	T5
	(U) W/m ² x K	U ≤ 0.5	0.5 < U ≤ 1	1 < U ≤ 1.4	1.4 < U ≤ 2	No requirements
TB2	Thermal bridging factor	TB1	TB2	TB3	TB4	TB5
	(k _b) W x m ⁻² x K-1	0.75 < K _b ≤ 1	0.6 < K _b ≤ 0.75	0.45 < K _b ≤ 0.6	0.3 < K _b ≤ 0.45	No requirements

The working principle at a glance

Typical configurations for Daikin air handling units provide a versatile range of functions. Our system offers numerous options for customisation through an extensive range of variations and added functionality.

Supply side

- 1 Damper section including ventilation grilles, factory-mounted actuators
- 2 Bag filter with factory-mounted differential pressure manometer and hinged door
- 3 Heat recovery system (plate heat exchanger or rotation heat exchanger)
- 4 Mixing box with damper and factory-mounted actuators
- 5 R-410A with heat recovery system with galvanised condensate tray and drip protection
- 6 Supply air fan (with hinged door, opening, drive monitoring, mounted and cabled lighting and ON/OFF switch)



Fans

- › EC plug fan
- › Forward curved fan
- › Backward curved fan
- › Backward airfoil blades fan
- › Plug fan

Exchangers

- › Water coils
- › Steam coils
- › Direct expansion coil
- › Superheated water coils
- › Electric coils

Humidifiers

- › Evaporative humidifier without pump (loss water)
- › Evaporative humidifier with re-circulating pump
- › Air washer without pump (loss water)
- › Air washer with re-circulating pump
- › Steam humidifier with direct steam production
- › Steam humidifier with local distributor
- › Atomized water spray humidifier

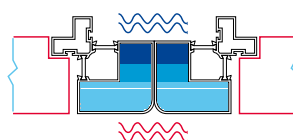
Control system on plug and play solution basis

- › Air temperature control
- › Chilled water and DX cooling system control
- › Free cooling
- › CO₂ automatic control

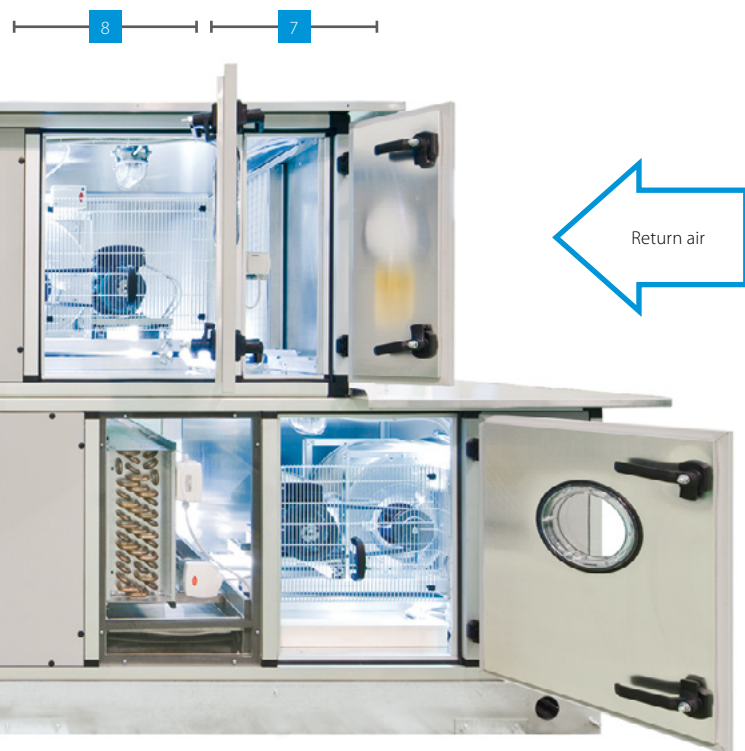
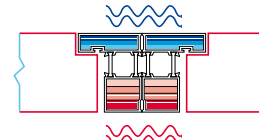
Unique section to section thermal break profile

- › Thermal bridge free for the entire AHU
- › Smooth interior surface with improved IAQ (Indoor Air Quality)

Conventional design



Daikin design



Return side

- 7 Bag filter with factory-mounted differential pressure manometer and hinged door.
- 8 Exhaust air fan (with hinged door, opening, drive monitoring, mounted and cabled lighting and ON/OFF switch)
- 9 Mixing box with damper and factory-mounted actuators
- 10 Heat recovery system (plate heat exchanger or rotation exchanger)
- 11 Damper section including ventilation grilles, factory-mounted actuators

Heat recovery systems

- › Heat wheel, sensible or sorption
- › Plate heat exchanger (optional bypass)
- › Run-around coils

Other section

- › Attenuator section
- › Mixing box section with actuators or manual controlled dampers
- › Empty section

Filters

- › Synthetic pleated filter
- › Flat filter aluminium mesh
- › Rigid bag filter
- › Soft bag filter
- › High efficiency filter
- › Carbon absorption filter
- › Carbon deodorizing filter

Accessories

- › Control features
- › Frost protection
- › Manometers
- › Drive guard
- › Roof
- › ...

Professional

Flexible solution for custom applications

Flexible design

Daikin Professional air handlers are tailored to your needs, optimizing always the unit for the most cost-effective selection and manufacturing standardization.

- › Air flow from 500 m³/h up to 144,000 m³/h.
- › All the units can be modularly designed to facilitate the transport and the assembly on site.



Variable dimensioning

Size	Airflow (m ³ /h)	Height - mm	Width - mm
1	1,800	640	720
2	2,200	640	810
3	3,500	740	980
4	5,400	840	1,190
5	6,600	840	1,390
6	7,600	940	1,390
7	9,000	1,090	1,380
8	11,000	1,150	1,550
9	14,000	1,270	1,720
10	18,300	1,390	1,970
11	23,800	1,570	2,190

Size	Airflow (m ³ /h)	Height - mm	Width - mm
12	29,800	1,690	2,480
13	33,800	1,870	2,510
14	43,200	1,990	2,940
15	51,000	2,110	3,230
16	63,000	2,290	3,620
17	68,000	2,290	3,890
18	77,000	2,290	4,410
19	87,000	2,410	4,660
20	95,400	2,470	4,960
21	111,200	2,590	5,460
22	127,000	2,650	6,060

- ┌ 1 cm increment for width & height dimensions
- ┌ No additional cost for customized unit size
- ┌ No additional lead time

Example

Airflow (m ³ /h)	Unit Size	Height (mm)	Width (mm)	Face Velocity (m/s)
47,000	Size 15	2,110	3,230	2.27
	1,920x2,720	2,110	2,950	2.5

Plug and play: More control, more flexibility

The plug and play control system allows for more precise control than ever before, allowing the user to determine a wide range of settings, resulting in excellent operational flexibility.

The factory-fitted electrical control panel, complete with Direct Digital Control (DDC) is combined with in-built temperature, humidity and CO₂ sensors to control mixing dampers, heat recovery wheels, water valves, pressure switches

for filters and fans, fan motors and inverters.

All these components are wired internally and individual AHU modules are linked by fast connectors.

The AHU control system can manage the chilled water coil, hot water coil, DX cooling and/or heating coil(s) (in conjunction with ERQ/VRV) of single or multiple refrigerant circuits (up to a maximum of four circuits per DX coil).

Modular R

High-end solution with heat recovery

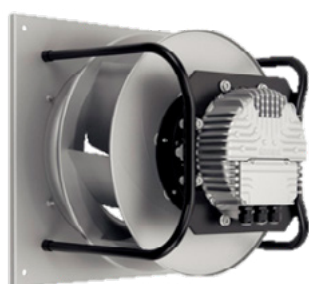
Energy efficiency and indoor air quality

- › Predefined sizes
- › IE4 premium efficiency motor
- › High efficiency heat wheel (heat recovery)
- › Compact design
- › Advanced control features
- › Easy installation
- › Indoor air quality compliant with VDI 6022 hygiene guideline
- › Operating limits from -25 °C, -40 °C with electric heaters, up to +46 °C ambient temperature
- › VRV IV and ERQ coupling capability
- › Indoor and outdoor versions
- › Free cooling capability
- › Economy and Night mode operation
- › Monitoring and control through Daikin ITM



EC Fan

- › Air flow or pressure control (Variable Air Volume - Constant Air Volume)
- › Nominal air flow programmed at factory
- › Silent operation



Simple, quick installation

The Modular series' Plug and play design is more than just a convenient feature for installers. It offers cost-saving benefits as there is no need for expensive adjustments before the unit is commissioned. Plug and play makes everyone's life simpler, safer and more economical.

D-AHU Modular R			1	2	3	4	5	6	7	8	9	10
Airflow		m ³ /h	1,200	1,700	2,700	4,100	5,500	6,100	7,000	9,100	11,500	15,000
Temp. efficiency winter		%	81.30	76.60	76.90	77.20	76.80	77.10	78.10	77.20	77.20	77.90
External static pressure	Nom.	Pa	200	200	200	200	200	200	200	200	200	200
Current	Nom.	A	2.64	3.98	2.20	3.3	4.10	4.60	4.98	6.48	8.52	10.68
Power input	Nom.	kW	0.59	0.89	1.40	2.03	2.60	2.84	3.10	4.14	5.20	6.68
SFPv		kW/m ³ /s	1.78	1.88	1.86	1.78	1.70	1.68	1.60	1.64	1.63	1.60
Electrical supply	Phase	ph	1	1	1	3+N	3+N	3+N	3+N	3+N	3+N	3+N
	Frequency	Hz	50	50	50	50	50	50	50	50	50	50
	Voltage	V	230	230	400	400	400	400	400	400	400	400
Dimensions unit	Length	mm	1,320	1,320	1,540	1,740	1,740	1,920	1,920	2,180	2,460	2,570
	Depth	mm	1,700	1,700	1,800	1,920	2,080	2,280	2,400	2,450	2,280	2,400
	Height overall	mm	720	820	990	1,200	1,400	1,400	1,600	1,940	1,940	2,300
Weight unit		kg	325	350	475	575	750	790	950	1,330	1,410	1,750
Sound level at 1m		Lp dB(A)*	36	43	38	41	42	41	41	39	42	40

Modular P

AHU with plate heat exchanger

Highlights

- › 10 Predefined sizes
- › Compliant with VDI 6022
- › Operating limits from -25 C, -40C with electric heaters
- › Plug & Play Controls
- › Monitoring and control through Daikin ITM
- › Easy installation and commissioning



EC Fan

- › Inverter driven with IE4 premium efficiency motor
- › High-efficient blade profiling
- › Reduced energy consumption
- › Optimized SFP (Specific Fan Power) for an efficient unit operation

Heat exchanger

- › Premium quality counter flow plate heat exchanger
- › Up to 92% of the thermal energy recovered
- › No cross contamination

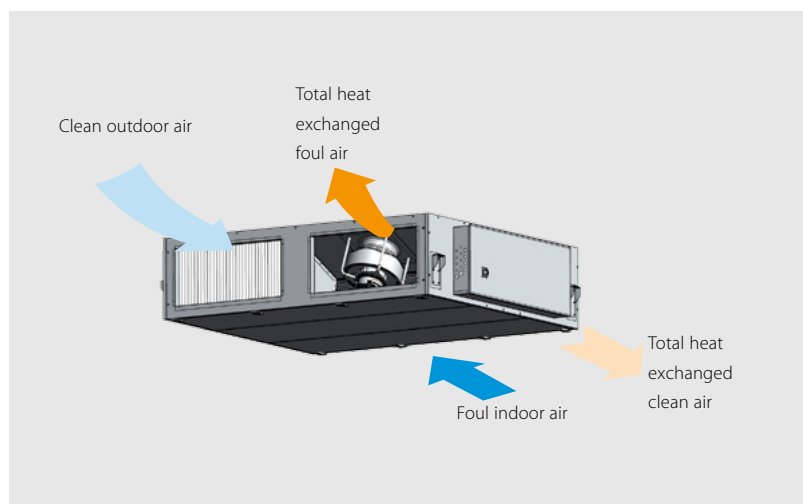
D-AHU Modular P			1	2	3	4	5	6	7	8	9	10
Airflow	m³/h		1,100	1,600	2,400	3,100	3,700	4,750	5,500	8,000	10,400	12,500
Thermal efficiency	%		90.4	90.6	90	89.9	89.8	89.9	89.9	90.1	89.9	89.9
External static pressure	Nom.	Pa	200	200	200	200	200	200	200	200	200	200
Current	Nom.	A	1.952	3.12	1.576	2.26	2.56	3.3	3.8	4.86	7.32	8.24
Power input	Nom.	kW	0.44	0.676	0.956	1.286	1.504	1.92	2.27	3.02	4.36	5
SFPv		kW/m³/s	1.44	1.52	1.43	1.49	1.46	1.46	1.49	1.36	1.51	1.44
Electrical supply	Phase	ph	1	1	3	3	3	3	3	3	3	3
	Frequency	Hz	50	50	50	50	50	50	50	50	50	50
	Voltage	V	230	230	400	400	400	400	400	400	400	400
Dimensions unit	Width	mm	720	820	990	1,200	1,400	1,400	1,600	1,940	1,940	2,300
	Height	mm	1,320	1,320	1,540	1,740	1,740	1,920	1,920	2,180	2,460	2,570
	Length	mm	2,030	2,200	2,610	2,660	2,800	3,210	3,340	3,840	4,060	4,190
Weight unit		kg	343	358	512	604	785	852	964	1,449	1,700	2,071

Modular L

Premium efficiency heat recovery unit

Highlights

- › 6 Predefined sizes
- › Compliant with VDI 6022
- › Exceeding ERP 2018 requirement
- › Plug & Play Controls
- › Best choice when Compactness is needed (only 280 mm height up to 550 m³/h)
- › Easy installation and commissioning



EC centrifugal fan

- › Inverter driven with IE4 premium efficiency motor
- › High-efficient blade profiling
- › Reduced energy consumption
- › Optimized SFP (Specific Fan Power) for an efficient unit operation
- › Maximum ESP available 300 Pa (at nominal conditions)

Heat exchanger

- › Premium quality counter flow plate heat exchanger
- › Up to 93% of the thermal energy recovered
- › High grade aluminum allowing high grade corrosion protection

D-AHU Modular L			2	3	4	5	6	7
Airflow		m ³ /h	300	600	1,200	1,500	2,500	3,000
Thermal efficiency		%	90.7	90.2	90.5	89.7	90.1	89.5
External static pressure	Nom.	Pa	100	100	100	100	100	100
Current	Nom.	A	0.60	1.21	2.28	2.89	4.30	2.13
Power input	Nom.	kW	0.14	0.28	0.53	0.66	0.99	1.40
SFPv		kW/m ³ /s	1.40	1.55	1.50	1.55	1.40	1.65
Electrical supply	Phase	ph	1	1	1	1	1	3
	Frequency	Hz	50	50	50	50	50	50
	Voltage	V	230	230	230	230	230	380
Dimensions unit	Width	mm	870	980	1,335	1,335	2,000	2,000
	Height	mm	280	350	415	415	500	500
	Length	mm	1,410	1,470	1,550	1,550	1,800	1,800
Weight unit		kg	109	142	202	209	335	337

Daikin fresh air package



Plug and play connection of AHU to Daikin VRV and ERQ

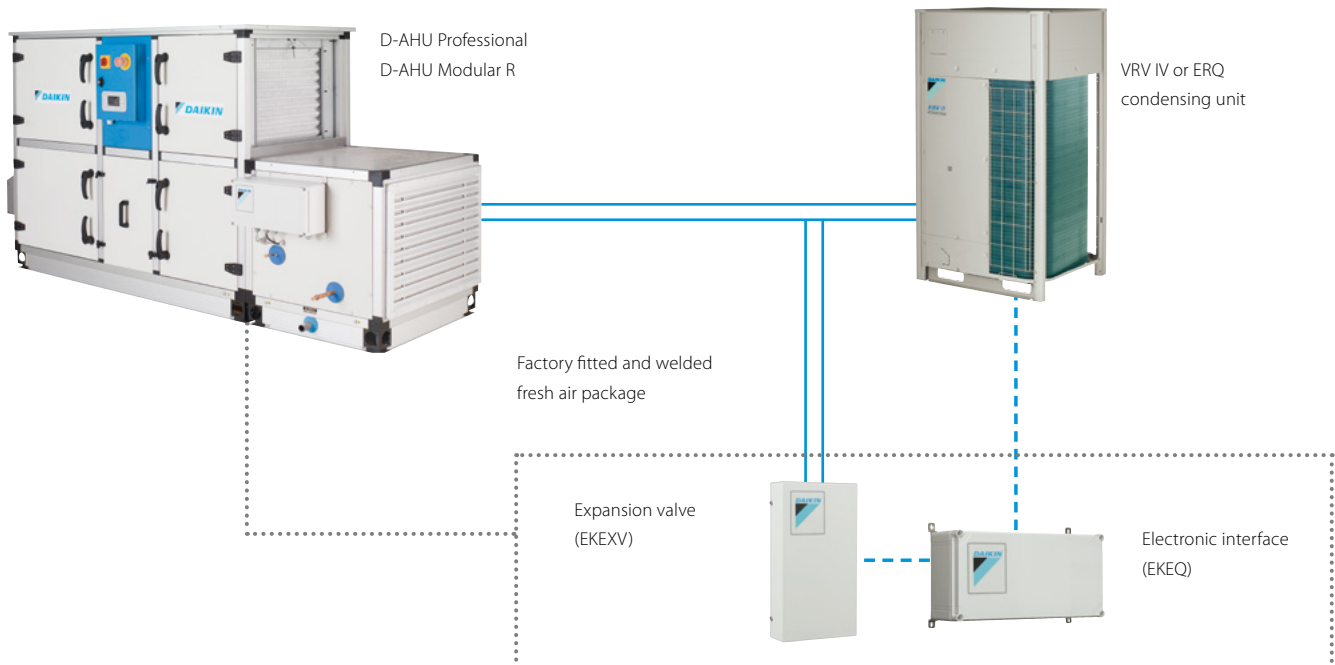
The Daikin fresh air package provides a complete solution, including all unit controls (expansion valve, control box and AHU controller) and sensors factory mounted and configured.

Higher efficiency

Daikin heat pumps are renowned for their high energy efficiency. Integrating the AHU with a heat recovery system is even more effective since an office system can frequently be in cooling mode while the outdoor air is too cold to be brought inside in an unconditioned state. In this case heat from the offices is merely transferred to heat up the cold incoming fresh air.

High comfort levels

Daikin ERQ and VRV units respond rapidly to fluctuations in supply air temperature, resulting in a steady indoor temperature and resulting in high comfort levels for the end user. The ultimate is the VRV range which improves comfort even more by offering continuous heating, also during defrost.



For more information on the connection of VRV or ERQ DX units with air handling units refer to the chapter Ventilation & Biddle air curtains of this catalogue

Options - D-AHU Professional

Construction type		SP 65	SP 45
Profile	Anodized aluminium	option	option
	Anodized aluminium with thermal break	option	option
Corner	Glass fibre reinforced nylon	standard	standard
Panel insulation	Polyurethane foam density 40 kg/m ³ thermal conductivity 0.022 W/m*K fire reaction class b-s2, diam. as per EN13501-1	standard	standard
	Mineral wool density 120 kg/m ³ thermal conductivity 0.036 W/m*K (referred to 20°C) fire reaction class A1 as per EN 135011	option	option
External sheet material	Pre-coated galvanized steel	option	option
	Aluzinc	standard	standard
	Galvanized steel	option	option
	Aluminium	option	option
	AISI 304 stainless steel	option	option
Internal sheet material	Pre-coated galvanized steel	option	option
	Aluzinc	standard	standard
	Aluminium	option	option
	AISI 304 stainless steel	option	option
Base frame	Aluminium up to 35,000 m ³ /h	standard	standard
	Galvanized steel from 35,000 m ³ /h	standard	standard
Handle	Glass fibre reinforced nylon	standard	standard
Type	Compression type	standard	standard
	Hinge function type (possibility to remove door)	option	option

Table of content

Control Systems

Mini building management system

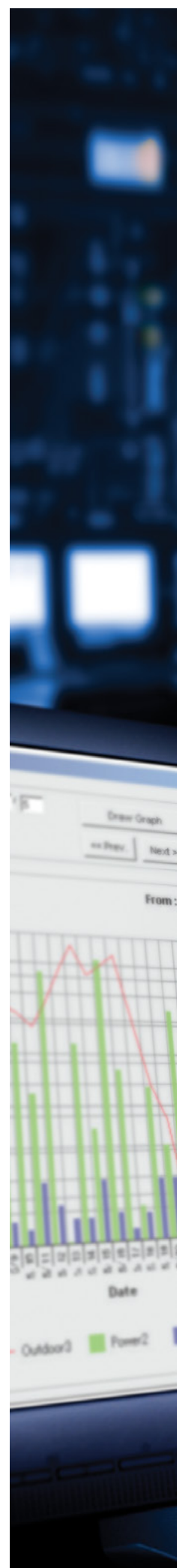
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Centralised control systems

NEW Daikin's remote monitoring	186
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Mini BMS

with full integration
across all product pillars

DCM601A51



- Price competitive mini BMS
- Cross-pillar integration of Daikin products
- Integration of third party equipment



NEW

Download the WAGO
selection tool from
my.daikin.eu

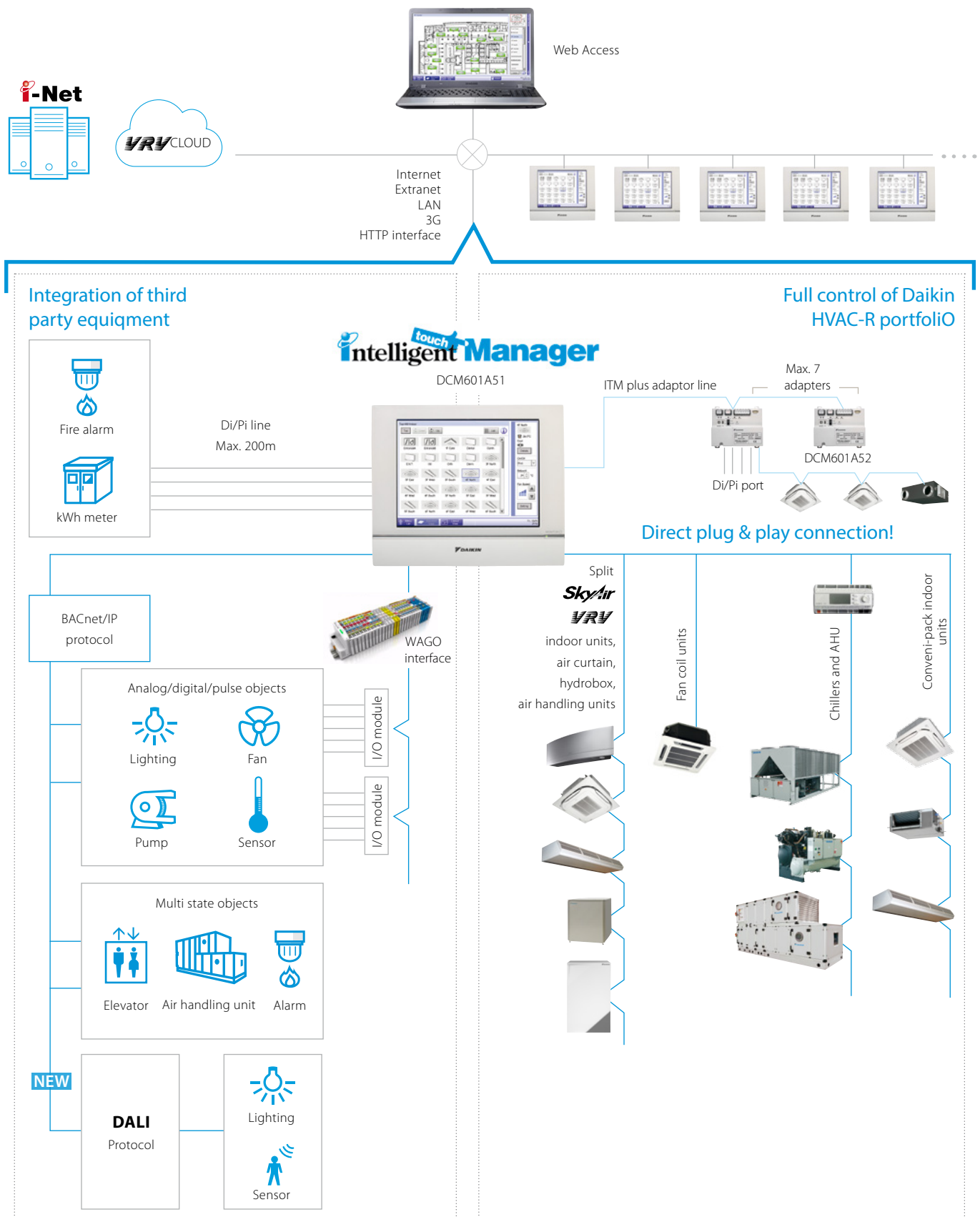
- › Easy selection of WAGO materials
- › Material list creation
- › Time saving
 - Includes wiring schemes
 - Contains commissioning/preset data for iTM



Check on
You Tube

<https://www.youtube.com/DaikinEurope>

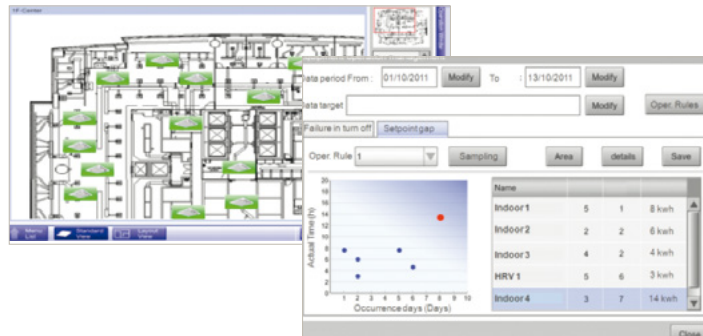
System overview





User friendliness

- › Intuitive user interface
- › Visual lay out view and direct access to indoor unit main funtions
- › All functions direct accessible via touch screen or via web interface



Smart energy management

- › Monitoring if energy use is according to plan
- › Helps to detect origins of energy waste
- › Powerful schedules guarantee correct operation throughout the year
- › Save energy by interlocking A/C operation with other equipment such as heating

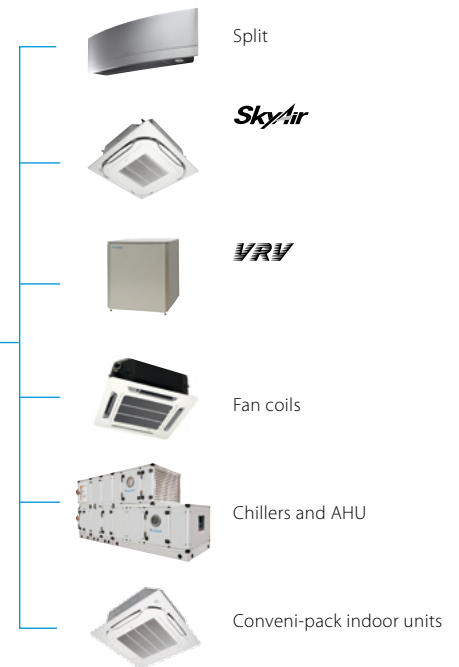
Flexibility

- › Cross-pillar integration (heating, air conditioning, applied systems, refrigeration, air handling units)
- › BACnet protocol for 3rd party products integration
- › I/O for integration of equipment such as lights, pumps... on WAGO modules
- › Modular concept for small to large applications
- › Control up to 512 indoor unit groups via one ITM and combine multiple ITM via web interface

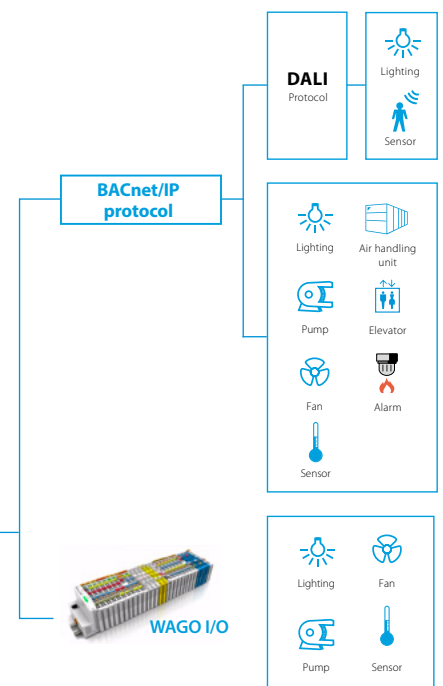
Easy servicing and commissioning

- › Remote refrigerant containment check reducing on site visit
- › Simplified troubleshooting
- › Save time on commissioning thanks to the pre-commissioning tool
- › Auto registration of indoor units

Plug & play



Flexibility in size
64 up to 512 groups



Functions overview

Languages

- › English
- › French
- › German
- › Italian
- › Spanish
- › Dutch
- › Portuguese

Management

- › Web access
- › Power Proportional Distribution (option)
- › Operational history (malfunctions, ...)
- › Smart energy management
 - monitor if energy use is according to plan
 - detect origins of energy waste
- › Setback function
- › Sliding temperature

WAGO Interface

- › Modular integration of 3rd party equipment
 - WAGO coupler (interface between WAGO and iTM)
 - Di module
 - Do module
 - Ai module
 - Ao module
 - Thermistor module
 - Pi module

Open http interface

- › Communication to any third party controller (domotics, BMS, etc.) is possible via http open interface (http option DCM007A51)

System layout

- › Up to 512 unit groups can be controlled (ITM + 7 iTM Plus adapters)

Control

- › Individual control (512 groups)
- › Schedule setting (Weekly schedule, yearly calendar, seasonal schedule)
- › Interlock control
- › Setpoint limitation
- › Temperature limit

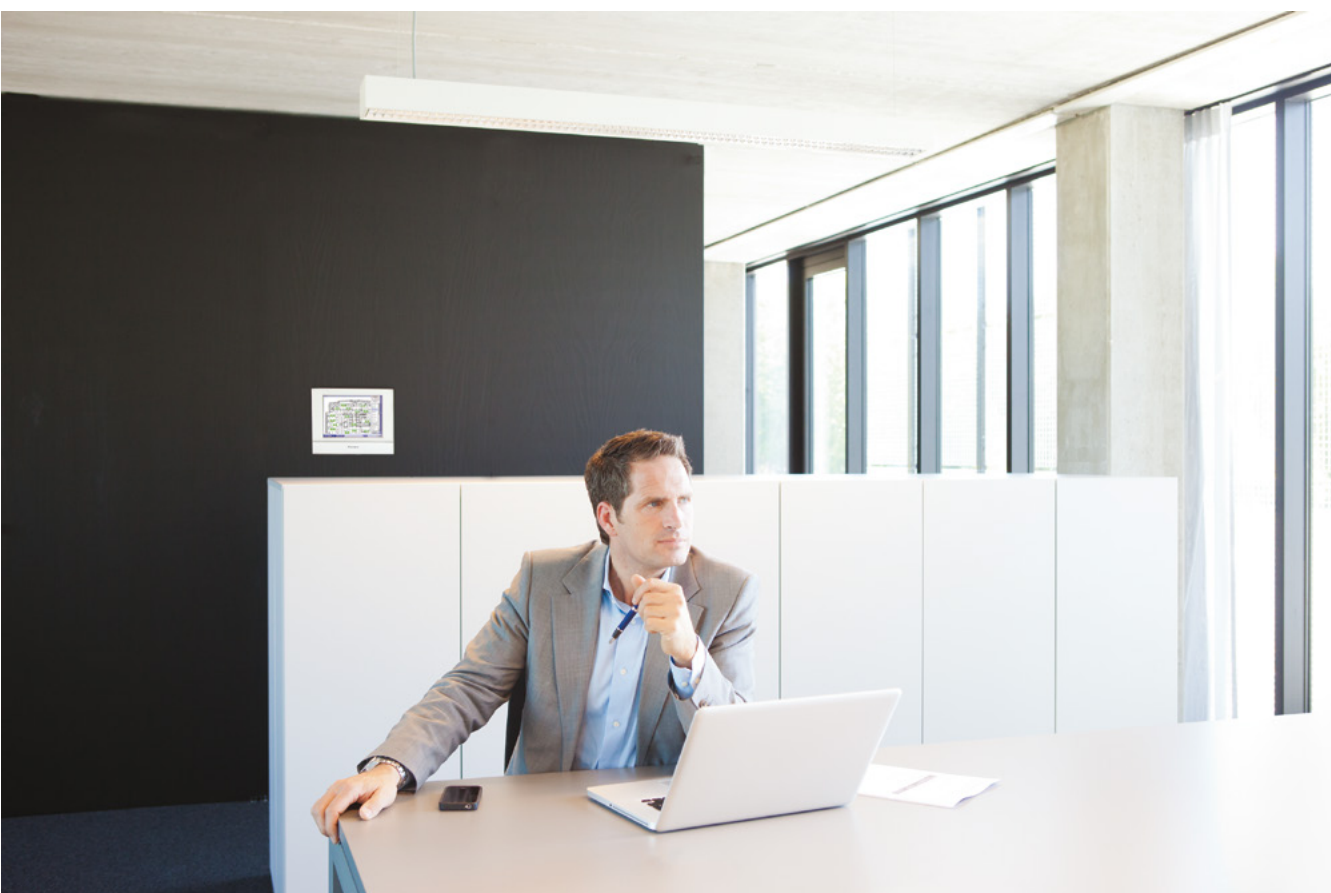
NEW

DALI integration

- › Control and monitor the lights
- › Easier facility management: receive error signal when light or light controller has a malfunction
- › Flexible approach and less wiring needed, compared to classic light scheme
- › Easier to make groups and control scenes
- › Connection between intelligent Touch Manager and DALI through WAGO BACnet IP interface

Connectable to

- DX Split, Sky Air, VRV
- Chillers (via MT3-EKMBACIP controller)
- Daikin AHU
- Fan coils
- Daikin Altherma Flex type
- LT and HT hydroboxes
- Biddle Air curtains
- WAGO I/O
- BACnet/IP protocol





Factory-engineered system control to manage a chiller plant room

Thus optimising its performance and increasing its reliability by:

- › Optimal start-up, sequencing & staging of chillers
- › Matching chiller capacity to load demand

iCM's main functionalities:

Availability

Determines whether chillers are available or not, based on:

- › Inputs from the chiller unit controllers
- › Modbus communication status
- › Pump status

Sequencing

Optimises the order in which available chillers are turned on and off depending on operating hours, energy efficiency, etc.

Staging

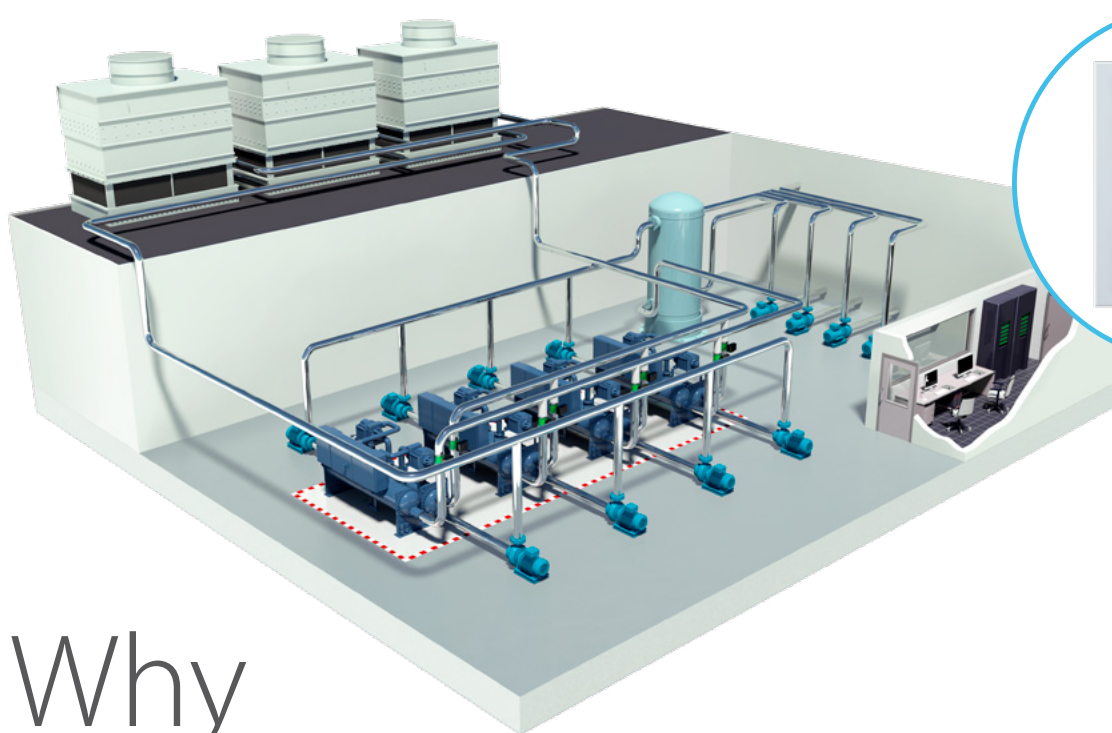
Calculates **energy-optimal stage-up/stage-down** of the chiller by determining the increased capacity demand by capacity control, compensation of temperature and rotation. This function aims at providing the most energy-efficient combination of chillers on a continuous basis.

Stopping Last Chiller/Recycling

Captures a rise in demand when the **last chiller is staged down**, by operating the pump dedicated to the next ON chiller at a minimum VFD frequency.

Min/Max Operating Chiller Setting

Ensures that the number of operating chillers always **stays within a certain range**, regardless of changes in demand.



Why choose iCM?

- › Optimise performance
- › Increase reliability
- › Reduce energy costs
- › Reduce maintenance costs
- › Factory-engineered and tested
- › Remote control and monitoring. From one-time commissioning to real-time commissioning

Daikin is the best qualified partner to optimise the operation of a Daikin chiller plant room.

Product line-up

and specifications

iCM is available in two versions:

Standard

(Configuration)



(Basic)
(≤4 MT3 chillers)



(Light/Full)
(≤4/≤8 MT3 chillers
& peripherals)

Customised

(Free-programmable)



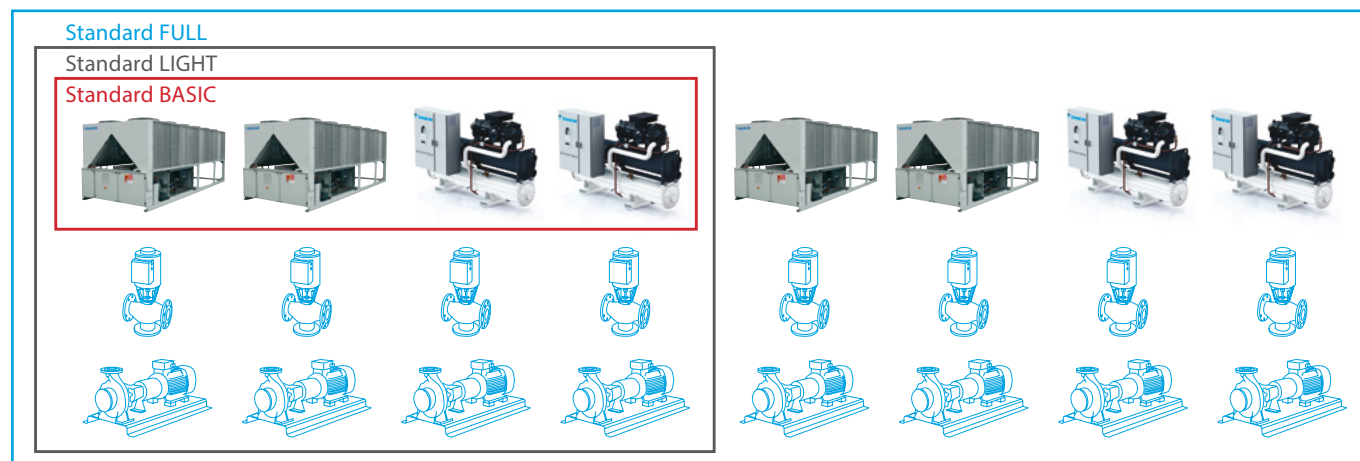
(Customised)

Standard version

Configurable controller with a pre-set library of applications. The standard system is divided into three configurations according to how many chillers and peripherals it can manage.

Standard is the right solution for you when you have:

- › Up to 8 x (Air-cooled/Water-cooled chillers + shut-off valves + pumps)
- › Only a primary, or a primary-secondary system
- › Constant or variable primary flow



Customised version:

Free-programmable controller for those applications not covered by the Standard version.

Remote control and monitoring possibilities

(valid for both Standard and Customised versions)

- › **Connectivity to Daikin's remote monitoring and control system (www.daikinonsite.com)** for remote monitoring and service providing Internet connection to the main controller
- › **Integration with general BAS/BMS** offered through BACnet or Modbus Modules based on BACnet/IP or Modbus RTU/RS-485 protocols
- › **Built-in HMI, Remote HMI, Web HMI and daikinonsite.com** are available for control and configuration

Modbus Interface

RTD-W

Modbus interface for monitoring and control of Daikin Altherma Flex Type, VRV HT hydrobox and **small inverter chiller**.



Main functions		RTD-W
Dimensions	H x W x D mm	100x100x22
On/off prohibition		✓
Modbus RS485		✓
Dry contact control		✓
Output signal (operation error)		✓
Space heating / cooling operation		✓
Domestic hot water control		✓
Smart Grid control		
Control functions		
On/Off Space heating/cooling		M,C
Set point leaving water temperature (heating / cooling)		M,V
Room temperature setpoint		M
Operation mode		M
Domestic Hot water ON		
Domestic Hot Water reheat		M,C
Domestic Hot Water reheat setpoint		
Domestic Hot Water storage		M
Domestic Hot Water Booster setpoint		
Quiet mode		M,C
Weather dependent setpoint enable		M
Weather dependent curve shift		M
Fault/pump info relay choice		
Control source prohibition		M
Smart grid mode control		
Prohibit Space heating/cooling		
Prohibit DHW		
Prohibit Electric heaters		
Prohibit All operation		
PV available for storage		
Powerful boost		
Monitoring functions		
On/Off Space heating/cooling		M,C
Set point leaving water temperature (H/C)		M
Room temperature setpoint		M
Operation mode		M
Domestic Hot Water reheat		M
Domestic Hot Water storage		M
Number of units in the group		M
Average leaving water temperature		M
Remocon room temperature		M
Fault		M,C
Fault code		M
Circulation pump operation		M
Flow rate		
Solar pump operation		
Compressor status		M
Desinfection operation		M
Setback operation		M
Defrost/ start up		M
Hot start		
Booster Heater operation		
3-Way valve status		
Pump running hours accumulated		M
Compressor running hours accumulated		
Actual leaving water temperature		M
Actual return water temperature		M
Actual DHW tank temperature (*)		M
Actual refrigerant temperature		
Actual outdoor temperature		M

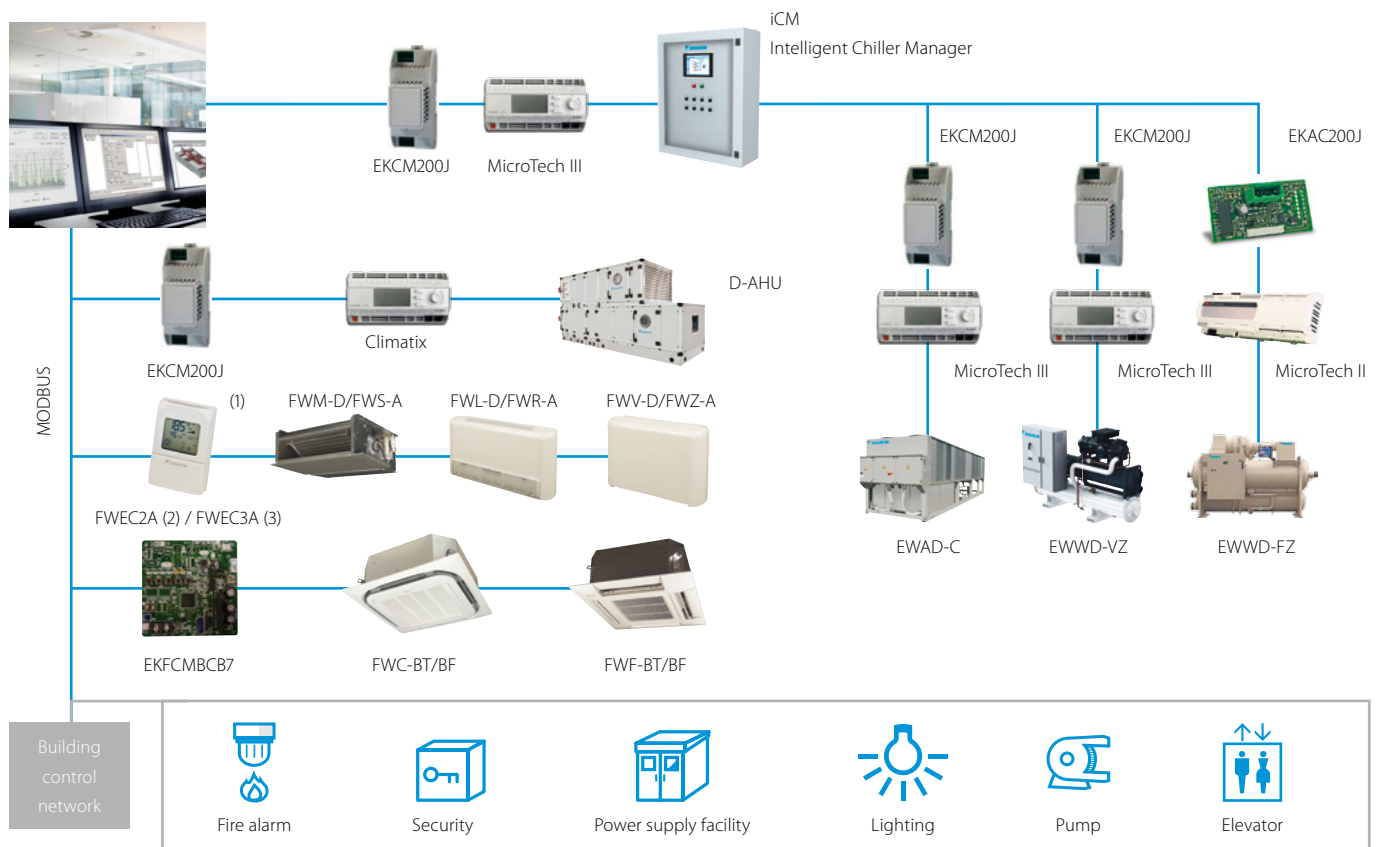
M : Modbus / R: Resistance / V : Voltage / C: control

* : only when room is occupied / ** : setpoint limitation / (*) if available

*** : no fan speed control on the CYV air curtain / **** : run & fault

Modbus interface

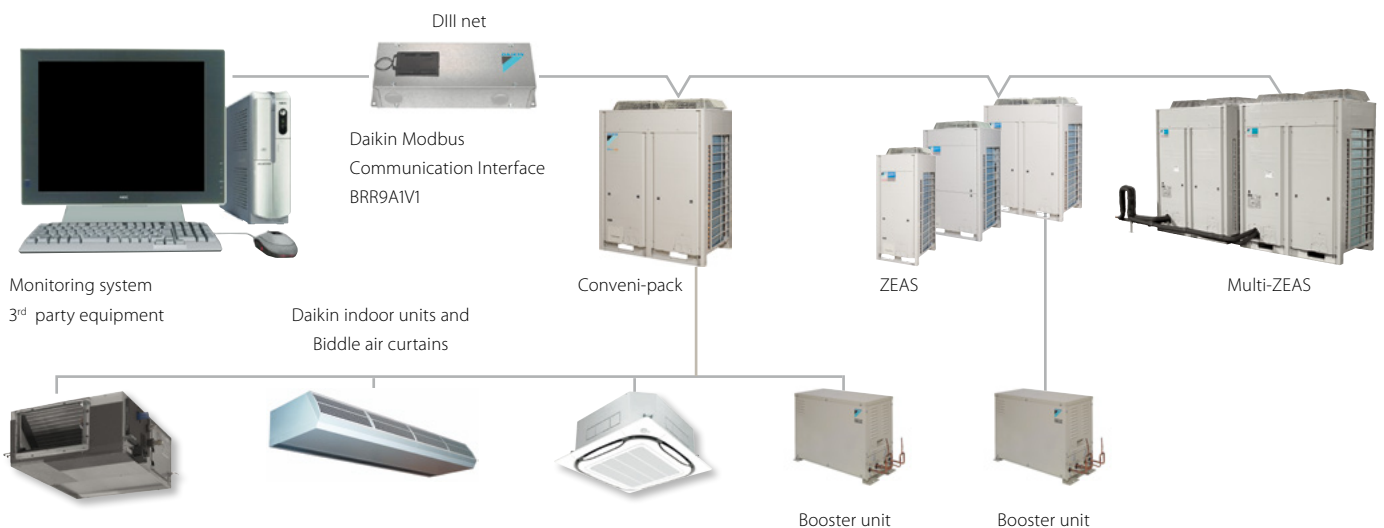
Integrate chillers, fan coil units and air handling units in BMS systems via modbus protocol



(1) The communication module is integrated in the controller (2) Connection to FWV-D, FWL-D & FWM-D (3) Connection to FWV-D, FWL-D, FWM-D and to FWZ-A, FWR-A, FWS-A

Integrate Refrigeration units in BMS systems via modbus protocol

BRR9A1V1



* For all connectable indoor units and Biddle air curtains please refer to the Conveni-pack pages in this catalogue

DIII-net Modbus interface

EKMBDXA

Integrated control system for seamless connection between Split, Sky Air, VRV and small inverter chillers and BMS systems

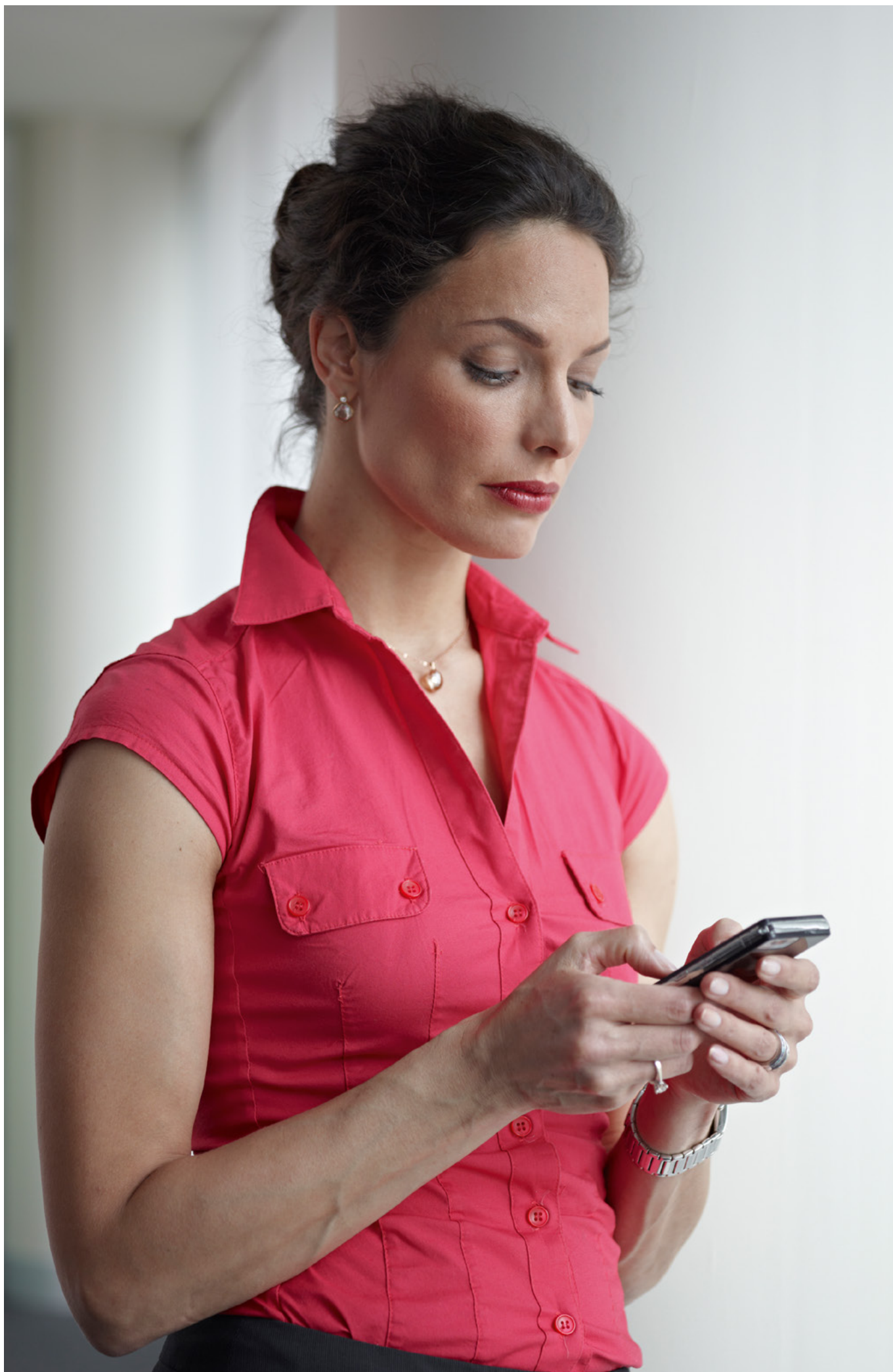


- › Communication via Modbus RS485 protocol
- › Detailed monitoring and control of the VRV total solution
- › Easy and fast installation via DIII-net protocol
- › As the Daikin DIII-net protocol is being used, only one modbus interface is needed for a group of Daikin systems (up to 10 outdoor unit systems).



* Additional centralized controller might be required. For more information contact your local dealer.

			EKMBDXA7V1
Maximum number of connectable indoor units			64
Maximum number of connectable outdoor units			10
Communication	DIII-NET - Remark		DIII-NET (F1F2)
	Protocol - Remark		2 wire; communication speed: 9600 bps or 19200 bps
	Protocol - Type		RS485 (modbus)
	Protocol - Max. Wiring length	m	500
Dimensions	HeightxWidthxDepth	mm	124x379x87
Weight		kg	2.1
Ambient temperature - operation	Max.	°C	60
	Min.	°C	0
Installation	Indoor installation		
Power supply	Frequency	Hz	50
	Voltage	V	220-240

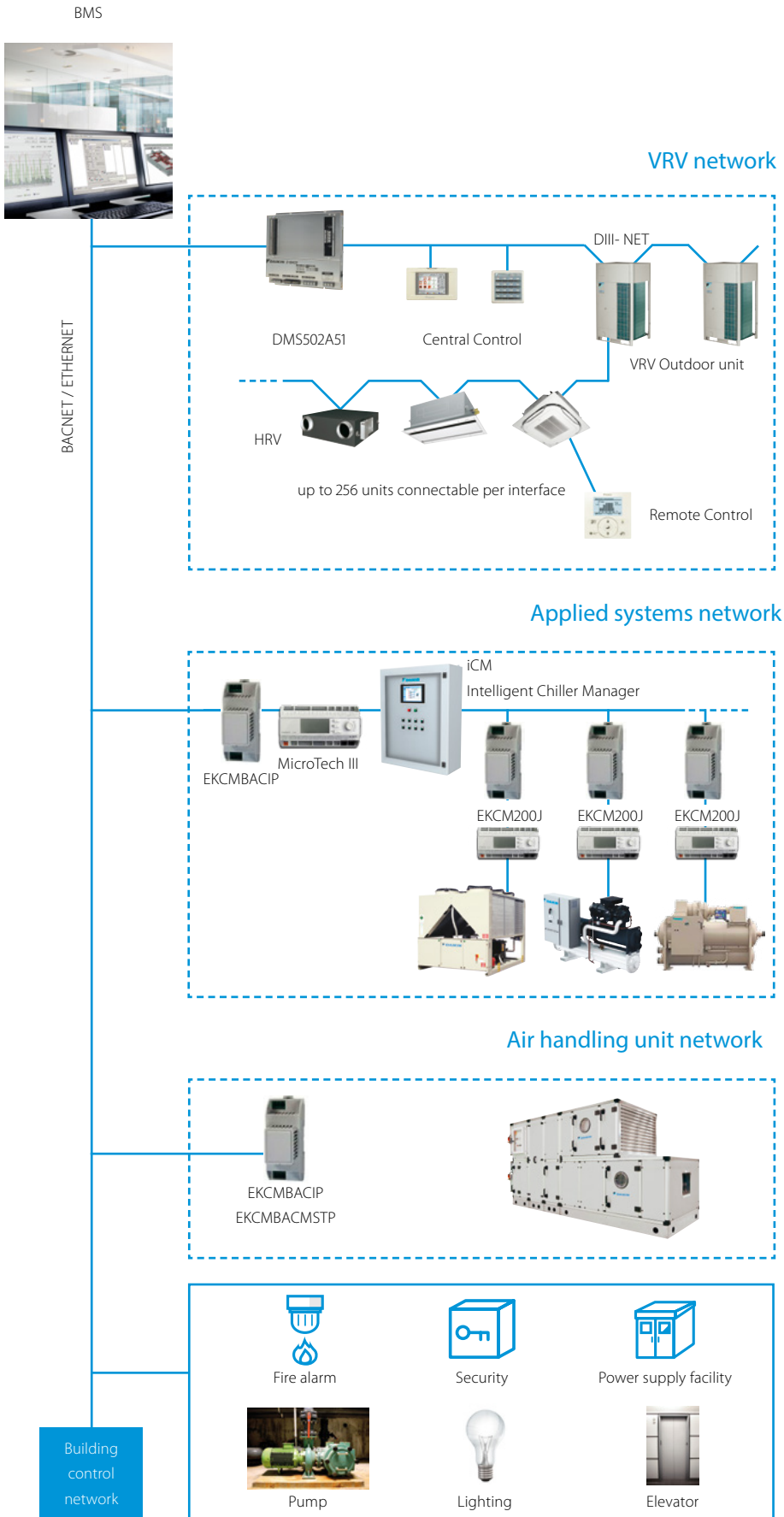


BACnet Interface

DMS502A51 / EKACBACMSTP / EKCMBACIP / EKCMBACMSTP

Integrated control system for seamless connection between VRV, applied systems, air handling units and BMS systems

- › Interface for BMS system
- › Communication via BACnet protocol (connection via Ethernet)
- › Unlimited site size
- › Easy and fast installation
- › PPD data is available on BMS system (only for VRV)



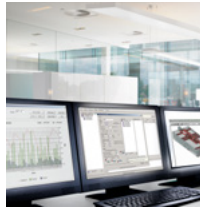
LonWorks Interface

DMS504B51 / EKACLONP

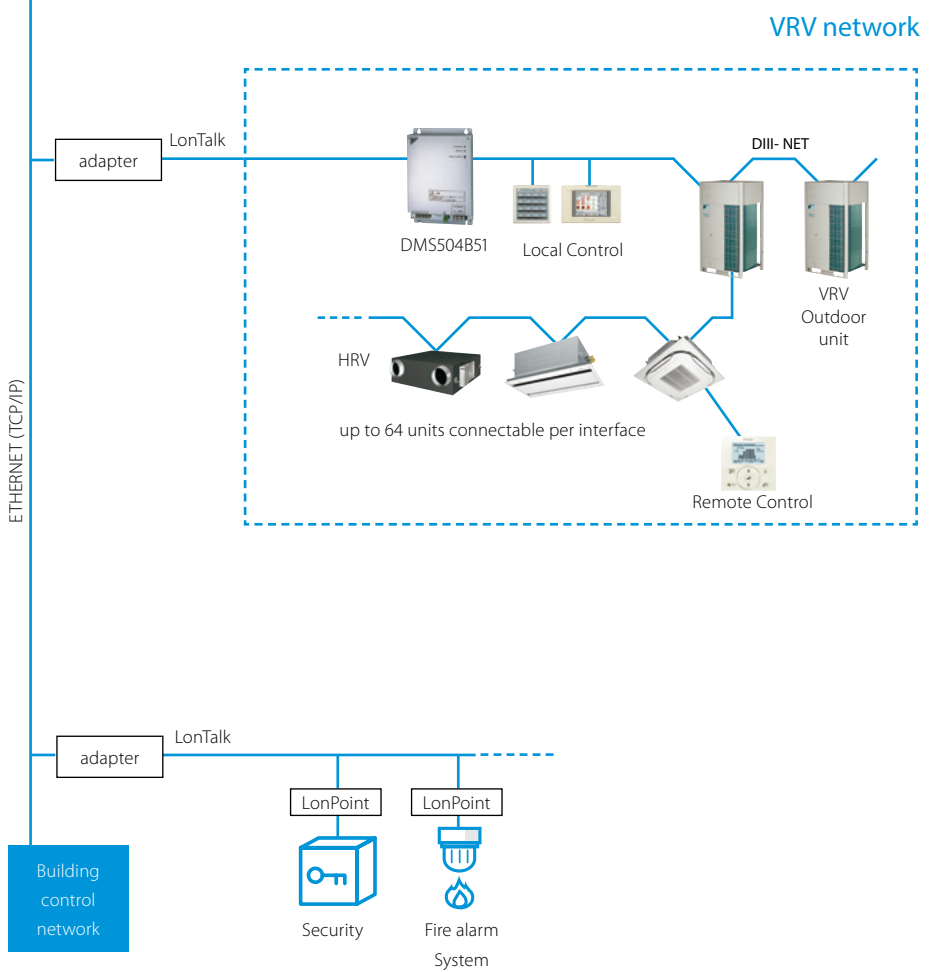
Open network integration of VRV and applied systems monitoring and control functions into LonWorks networks

- › Interface for Lon connection to LonWorks networks
- › Communication via Lon protocol (twisted pair wire)
- › Unlimited sitesize
- › Quick and easy installation

LON BMS



ETHERNET (TCP/IP)



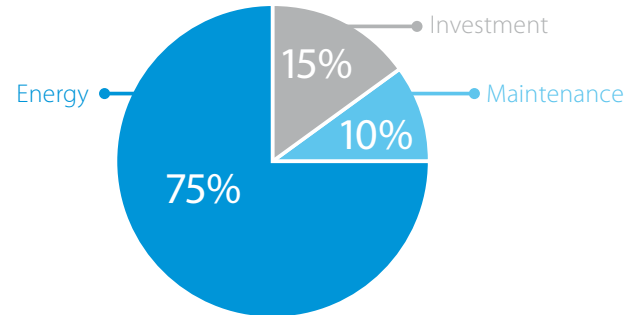
Why

having Daikin's remote monitoring?

Operating costs like energy and maintenance typically account for 85% of the system's total lifetime cost. Undiscovered energy waste and incorrect operation will increase costs and can even lead to unscheduled interruptions.

Using Daikin's remote monitoring results in optimum use and costs over the system's entire lifetime:

- › Enhanced control and measuring
- › Monitors the system
- › Reduces risks at the earliest possible moment
- › Keeps the system running as it was intended to



Typical Life cycle Cost of a chiller (15 years)

What

is Daikin's remote monitoring?

A solution for customer specific needs

Daikin's remote cloud server collects operational data from the control system of a Daikin chiller or air handling unit plant.

Daikin's Smartcentre then turns this data into useful information on a web user interface.

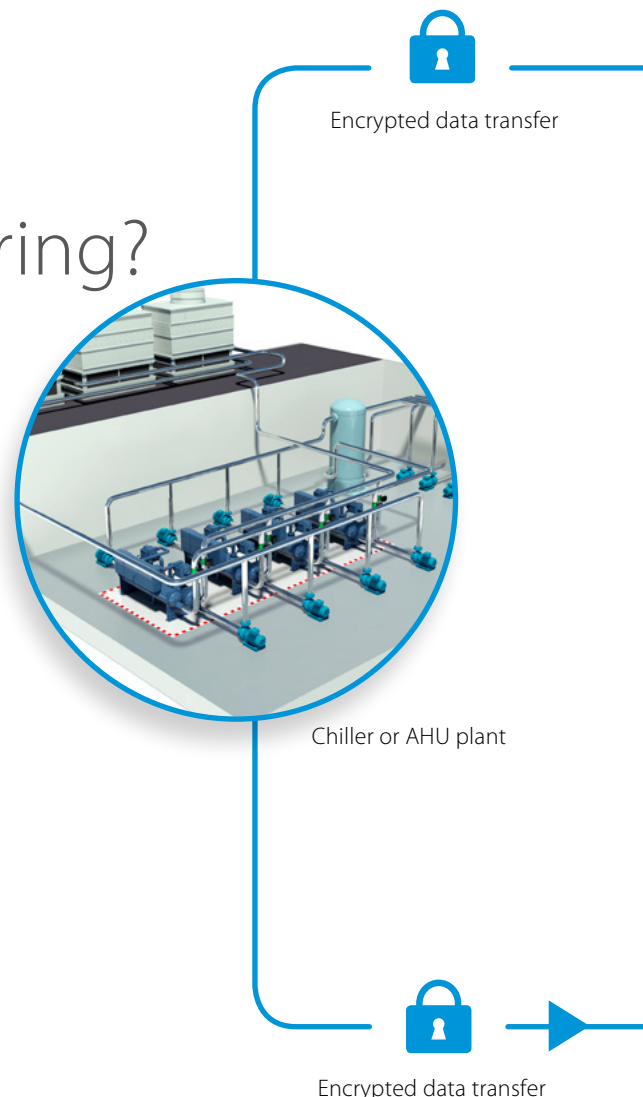
Daikin's remote monitoring has predefined user roles like:

- › operator
- › service provider
- › Daikin specialists

The features of Daikin's remote monitoring are designed to:

- › Increase uptime, reduce unscheduled interruptions
- › Optimise efficiency and reduce energy waste
- › Increase lifetime and avoid wear by misuse
- › Give insight into the optimum use of equipment, including advice from a Daikin expert

We will combine Daikin's remote monitoring with the complementary service programme best suited to your needs.



The remote monitoring of Daikin products

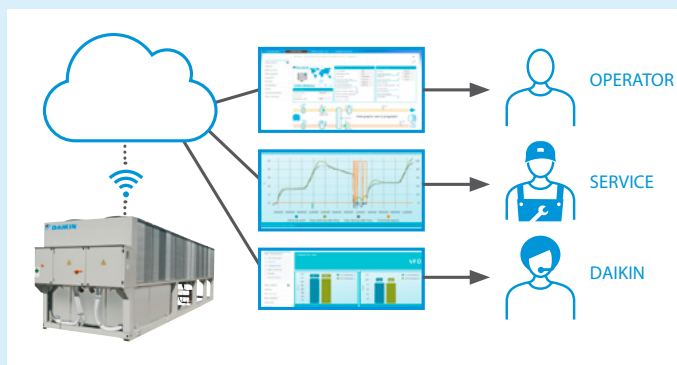
1 Insight wherever and whenever required, full visibility and traceability of the HVAC installation.

- › Real-time information and trend insights
- › No local software required
- › Personal access to the web-based user interface
- › Reports

2 With Daikin's remote monitoring, we team up operators and specialists.

- › User-friendly operator information
- › State-of-the art tool providing best-in-class service
- › Remote solutions when possible, avoiding onsite interventions

3 Converting all expertise to maintain highest energy efficiency and uptime.



ACTION
TAKEN



You can hand it to us



Alerts & web application

- › 24/7 year-round alarm and event monitoring
- › Automated alarm system
- › Receive service updates or notifications via email
- › Access to Daikin's remote web application



Active monitoring

- › Remote alarm analysis and diagnostics provided by Daikin Experts
- › Fast and reliable remote service



Connected Service Plan

- › Remote alarm analysis and diagnostics provided by Daikin Experts
- › Fast and reliable remote service
- › All initiatives are combined with the most suitable Daikin Service Plan

CLOUD DATA
WAREHOUSE

SMARTCENTRE

Turns data into actions



Encrypted data transfer



Power supply

T1	=	3~, 220V, 50Hz
V1	=	1~, 220-240V, 50Hz
VE	=	1~, 220-240V/220V, 50Hz/60Hz*
V3	=	1~, 230V, 50Hz
VM	=	1~, 220~240V/220~230V, 50Hz/60Hz
W1	=	3N~, 400V, 50Hz
Y1	=	3~, 400V, 50Hz

* For VE power supply only 1~, 220-240V, 50Hz data is displayed in this catalogue.

Conversion table refrigerant piping

inch	mm
1/4"	6.4 mm
3/8"	9.5 mm
1/2"	12.7 mm
5/8"	15.9 mm
3/4"	19.1 mm
7/8"	22.2 mm
1 1/8"	28.5 mm
1 3/8"	34.9 mm
1 5/8"	41.3 mm
1 3/4"	44.5 mm
2"	50.8 mm
2 1/8"	54 mm
2 5/8"	66.7 mm

F-gas regulation

For fully/partially charged equipment: contains fluorinated greenhouse gases. Actual refrigerant charge depends on the final unit construction, details can be found on the unit labels.

For non pre-charged equipment (Chillers: split chiller (SEHVX/SERHQ), condensing units and condenserless chillers): Its functioning relies on fluorinated greenhouse gases.

Measuring conditions

Air cooled chiller	Cooling only	Evaporator: 12°C/7°C	Ambient: 35°CDB
	Heat pump	Evaporator: 12°C/7°C Condenser: 40°C/45°C	Ambient: 35°C Ambient: 7°CDB/6°CWB
Water cooled chiller	Cooling only	Evaporator: 12°C/7°C Condenser: 30°C/35°C	
	Heating only	Evaporator: 12°C/7°C Condenser: 40°C/45°C	
Condenserless chiller		Evaporator: 12°C/7°C Condensing temperature: 45°C / liquid temperature: 40°C	
Fan coil units	Cooling	Room temperature: 27°CDB /19°CWB Water inlet/outlet temperature: 7°C/12°C	
	Heating	Room temperature: 20°C 2 pipe: Water inlet temperature: 50°C (same water flow as in cooling mode) 4 pipe: Water inlet/outlet temperature: 70°C/60°C	

All performance data in this catalogue is in compliance with the Eurovent EN14511 standard.

Energy efficiency Ratio (EER)

Describes the efficiency of a heat pump machine in cooling mode. The rated capacity is divided by the rated total power input.

European Seasonal Energy Efficiency Ratio (ESEER)

An efficiency metric of heat pumps which describes performance of the unit over a typical season where the source temperature varies.

Coefficient of Performance (COP)

Ratio of the heating capacity to the power input of the unit.

Seasonal Coefficient of Performance (SCOP)

SCOP describes the heat pump's average annual efficiency performance. SCOP is therefore an expression for how efficient a specific heat pump will be for a given heating demand profile.

The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment (for measuring conditions: please refer to the technical databooks).

The sound power level is an absolute value indicating the "power" which a sound source generates.

For more detailed information please consult our technical databooks.



Notes

Notes

The highest peak in chiller technology



The new Daikin water cooled chiller delivers the highest efficiency in its range. With its small footprint, low noise level and wide operation range, the VZ chiller can be used for a variety of applications. In addition to this, the VZ chiller is future ready, using the best refrigerant today and ready for the new refrigerants of tomorrow.



Find out more on www.daikin.eu

EWWD-VZ chiller series

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ECPEN17-400

11/17



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



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