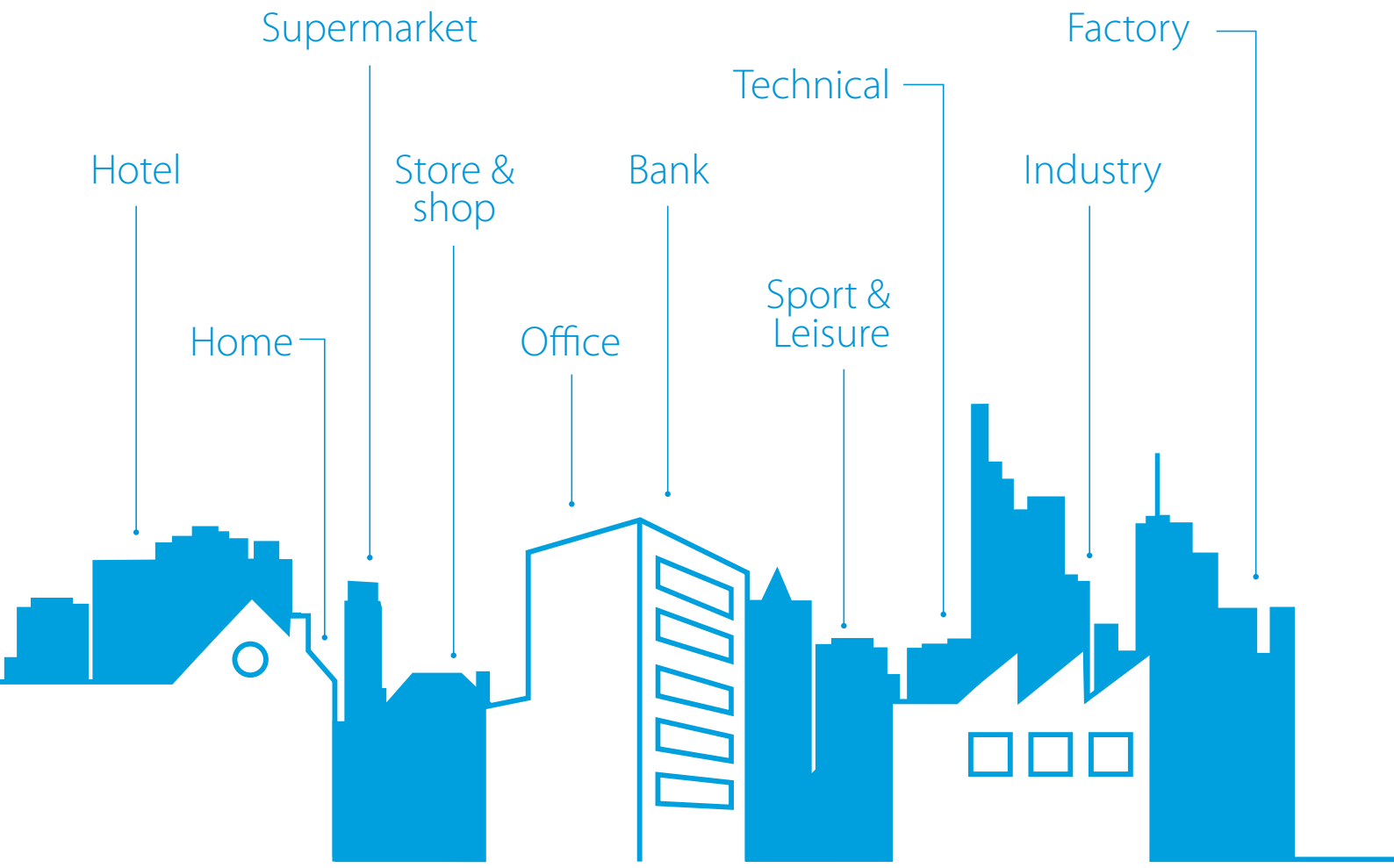
DAIKIN

Applied catalogue

Chillers & air side

High performance and reliability for comfort and process applications

Daikin world



The perfect working environment is essential for all businesses. From supermarkets to offices, from public buildings to hotels, from factories to data centres it is essential that the quality of the air is optimised at all times. But no space is used in exactly the same way and that calls for flexible, tailored and economic solutions. Daikin, the innovation leader for more than 90 years, understands this. Its 'total solution' concept is built around customised solutions for individual clients – whether for cooling, heating, ventilation, air curtains or refrigeration with intelligent control systems.

Daikin has the units, the experience and the solutions for your business.

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 reduce further 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, and we will be smart in our drive to differentiate ourselves and our products.

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

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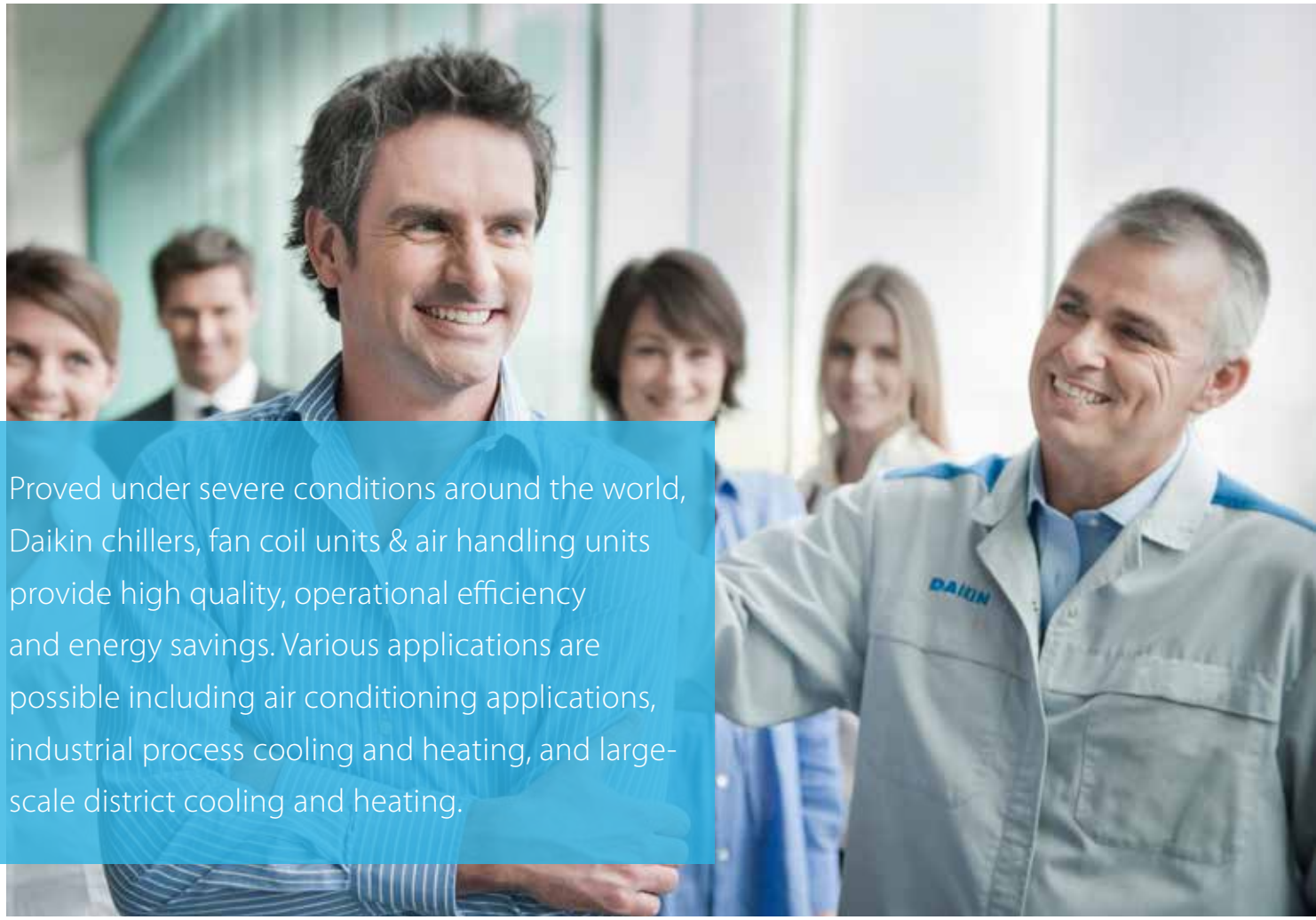


Proved under severe conditions around the world, Daikin chillers, fan coil units & air handling units provide high quality, operational efficiency and energy savings. Various applications are possible including air conditioning applications, industrial process cooling and heating, and large-scale district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

A partner of choice

Daikin is Europe's leading manufacturer and global No1 of highly energy-efficient heating, cooling, ventilation and refrigeration solutions for residential, commercial and industrial applications.

As the industry leader, we will continue creating new values by anticipating the future needs of customers for all environments.

Daikin quality

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

The comfort of reliability

Nobody in business wants complexity, because it 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.

Staff who understand 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, etc.).

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

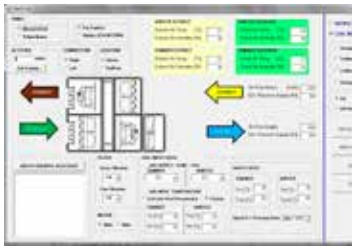
Daikin UK offers a variety of selection reports and simulation tools to support your choices.

Chiller selection software

Our new online chiller selection software will enable you to select proper units based on application type, efficiency level, fans, compressor type, operating mode, required capacity and other various factors. The user can select multiple solutions and generate detailed reports and databooks.

Air handling units selection software (ASTRA)

ASTRA is the powerful software that Daikin has developed to offer a quick and comprehensive service for the customer, to facilitate finding the right balance of performance and cost in an air handling unit.



Online support

New 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 the information that is relevant to you
› Access via mobile or desktop via **my.daikin.co.uk**

Internet

Find our solutions for different applications on **www.daikin.co.uk**

Daikin E–data app for tablet

Find out in your own language which Daikin products are available in your market.

Literature

All literature available can be downloaded via **my.daikin.co.uk**

Low running costs

from reliable and renewable energy to maximise your customers' comfort

Energy from the air

What could be simpler? The air is the ultimate in renewable energy. Taking heat from the air reduces the running costs of the system, is ecologically friendly and totally reliable. What better way to maximise a customers' comfort. By using our advanced air-to-water heat pump technology to extract heat from the surrounding air, the cost of running the system is reduced by up to 75%. It's a truly innovative solution.

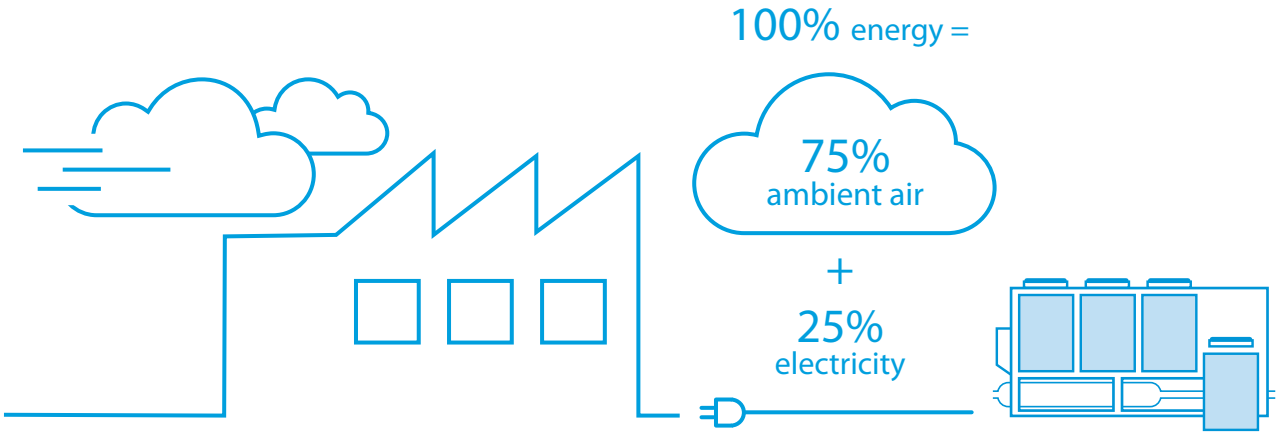
Total solution

Daikin offers a single point of contact for all the design and maintenance requirements for your integrated climate control system. Our equipment has proven reliability built in and so by ensuring that you have the right mix of units we know that you will be able to achieve optimal comfort with low maintenance costs. But what is more, our units deliver maximum energy efficiency and the minimum of operating costs.

Heat pump technology

Air-to-air heat 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 (European Seasonal Energy Efficiency Ratio) for cooling.



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 CO_2 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.

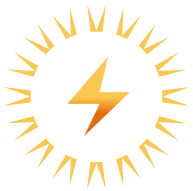
European action plan 20-20-20

-20%

CO_2 emissions vs. 1990

20%

Share of renewable energy



-20%

Primary energy use vs. Business as usual

By the year 2020

Applied systems: products in scope

Since 2013, all air conditioners and air-to-air heat pumps under 12kW are in scope of this Eco-Design directive.

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 400kW need to comply to minimum efficiency requirements. Heat pumps below 70kW must be marked with a product energy label.

Our service

Daikin helps it partners to meet their obligations regarding the Eco-Design 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 **www.daikin.co.uk/energylabel/Lot1-2/daikin**

BREEAM®

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 and 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 and investment cost
› They require the alignment of many different parties

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 sustainable projects. Helping builders achieve BREEAM Excellent 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 and 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**
The BREEAM building program puts strong emphasis on energy efficiency, making Daikin an ideal partner.

› **Smart air conditioning management with Intelligent Network**
To drastically reduce your energy consumption and CO_2 emissions it's not enough to simply make your equipment more efficient.

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 centre 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.

The Daikin Group – Global Leader in HVAC Solutions

Daikin leads in the use of technologies that help preserve the environment, such as those that conserve energy and deliver high reliability to its customers. Daikin flexible applied systems deliver high efficiency for commercial, institutional and industrial buildings. The Applied Development Center allows the Daikin Group to fully leverage these strengths and accelerate the development of applied products that support the environment, energy savings, innovation, leadership and the best customer comfort.

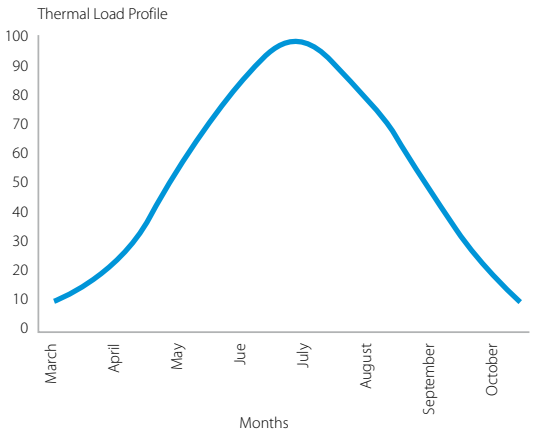
Inverter technology

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) allow compressors, fans and pumps to run most efficiently at partial loads, using only the power necessary to match the load, providing an efficient solution for most HVAC applications.

For the majority of the operation time, the cooling or heating capacity will be lower than the peak design condition. For instance the UK Part L SEER calculation for offices only considers full load operation for 12% of the time. With the remaining 88% of the time spent at partload, maintaining efficiency is vital.



Inverter technology improves energy efficiency and comfort levels

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.

› **Quick start-up**
This feature enables the chiller to restart within 30 seconds of the power being restored and reach full-load cooling capacity in less than 6 minutes. Ideal for applications in which a loss of cooling would be critical to catastrophic, for example data centres, health care facilities, and process cooling applications.

› **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 at maximum operating conditions (FLA). This generates obvious cost savings.

› **Seasonal quietness: reduced sound levels**
Sound levels are minimised whenever possible by varying the compressor speed in partial load conditions.

All the benefits of inverter technology combine to minimise running costs over the life of the system.

The phase-out period for R-22 is over.

Act now!

Chiller modernisation

Our concept

Even if an R-22 chiller has been maintained well and is still in good condition, its refrigerant can no longer be recharged or topped up. 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 systems to be compliant with legislation
- Limited investment
- 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 modifications
- No electrical modifications
- Low logistics (transport, cranage, permissions …)
- Quick delivery
- Government-sponsored subsidies may be available

Controller box upgrade

Fact: R-22 has been banned in UK and Europe*

Since 31 December 2014, repairs to R-22 systems have been prohibited – so a system breakdown now could have a serious impact on your business. Cut your risk with Daikin replacement technology.

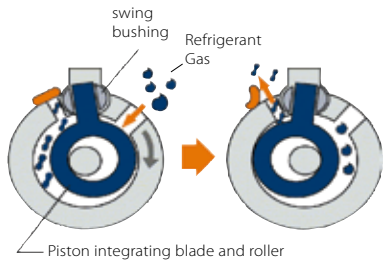
* EU directive: Regulation (EC) No.2037/2000

Day-to-day reliability and efficiency

In-house development and manufacturing of compressors

Unlike many other air conditioning manufacturers, Daikin manufactures its own swing, scroll and screw 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



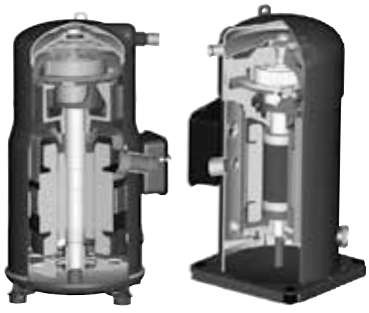
The mini chiller series EWAQ005-007ADVP & EWYQ005-007ADVP are equipped with a swing inverter compressor. This innovative design by Daikin has fewer moving parts allowing a smoother, more reliable operation with low vibration and low noise levels. The high-efficiency motor reduces energy consumption,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

Scroll compressor for controlled capacity

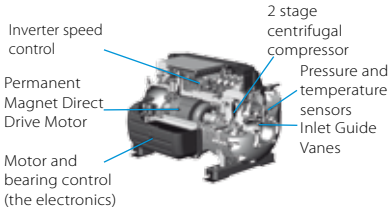
Being compact, the Daikin scroll compressor is used with R-407C and R-410A to provide constant reliability and high efficiency throughout its service life. Designed for small and medium capacities, the scroll compressors are used with air cooled and water cooled chillers.

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

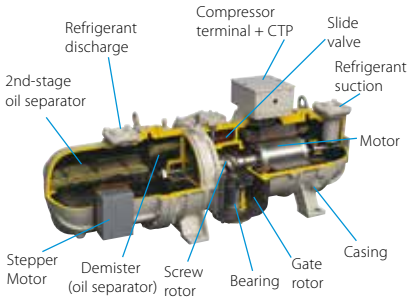


The innovative frictionless centrifugal compressor has an integrated VFD, as well as magnetic bearings, and delivers high levels of unit efficiency and reliability. The compressor's only moving parts - the rotor shaft and impellers - is powered by the permanent magnetic direct-drive motor and kept levitated by a digitally controlled magnetic bearing system. Having so few 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 customer needs - 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 100,000 hours with inspection and maintenance intervals every 40,000 hours.



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-TZ)

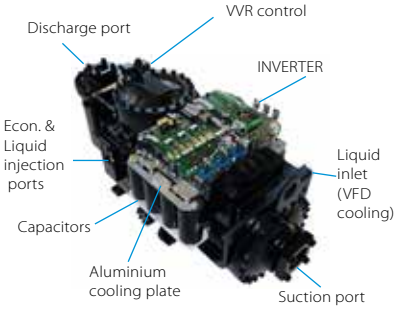
Characteristics:

› Compressor and inverter fully designed by Daikin
› Inverter integral to the compressor body
› Inverter refrigerant cooled
› VVR = Variable Volume Ration 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

Always 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...)

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

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

Chiller selection software

› The new Daikin online chiller selection software will allow consultants and building engineers to select proper units based on application type, efficiency and sound level and required capacity. The tool presents all possible series and generates for selected units a detailed technical data book.

Lower your running costs

with our energy saving options

Heat recovery (option No01-03)

For those particular applications were 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 No110)

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 No113)

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.

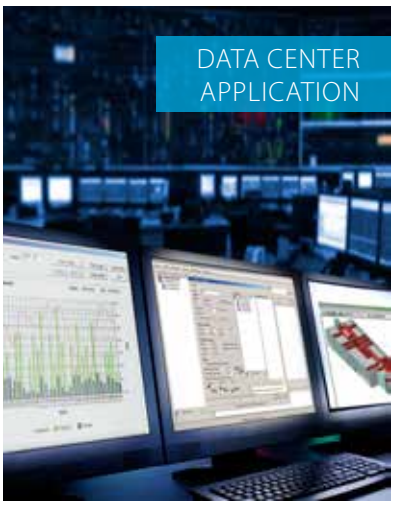
For our complete range of options, please refer to page 162 of this catalogue.

PRINTING COMPANY APPLICATION

AIR COOLED CHILLER INSTALLATION

AIR COOLED CHILLER INSTALLATION


EWAQ-GZXR
INSTALLATION


DATA CENTER
APPLICATION

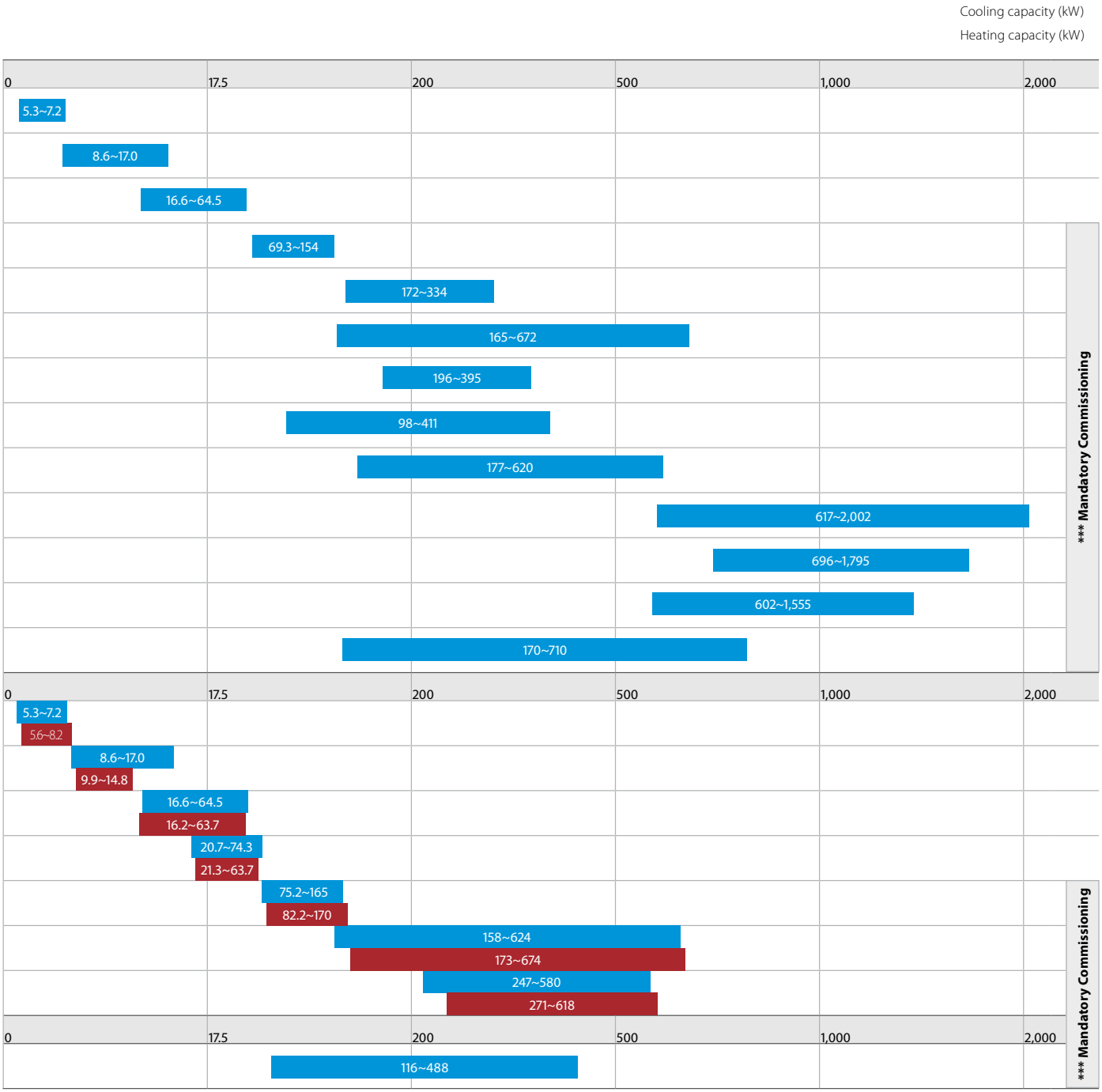

ICE RINK
APPLICATION


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
Cooling only																		
EWAQ~ADVP		R-410A	1	●		●			● BPHE		●				●			
EWAQ~ACV3/ACW1		R-410A	1	●			●		● BPHE		●				●			
EWAQ~BA*		R-410A	1	●			●		● BPHE		●				●			
EWAQ~G- NEW		R-410A	1				●		● BPHE		●	●			●		●	
EWAQ~E-		R-410A	1				●		●			●			●	●	●	
EWAQ~F-		R-410A	2				●		●		●	●			●	●	●	
EWAQ~GZ		R-410A	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		●			●		●		●			●	●	●	
EWAD~TZ		R-134a	1-2	●				●	●	●	●	●			●		●	
Heat pump																		
EWYQ~ADVP		R-410A	1	●		●			● BPHE		●				●			
EWYQ~ACV3/ACW1		R-410A	1	●			●		● BPHE		●				●			
EWYQ~BA*		R-410A	1	●			●		● BPHE		●				●			
SEHVX-AAW SERHQ-AAW1		R-410A	1	●			●		● BPHE		●				●			
EWYQ~G- NEW		R-410A	1				●		● BPHE			●			●		●	
EWYQ~F-		R-410A	1-2				●		●			●			●	●	●	
EWYD~BZ		R-134a	2-3	●				●		●	●				●	●		
Condensing unit																		
ERAD~E-		R-134a	1					●			●				●	●		

* (GWP) : R-410A (2087.5), R-134a (1430)
** BPHE: Brazed plate heat exchanger
*** Mandatory Commissioning by Daikin Airconditioning UK



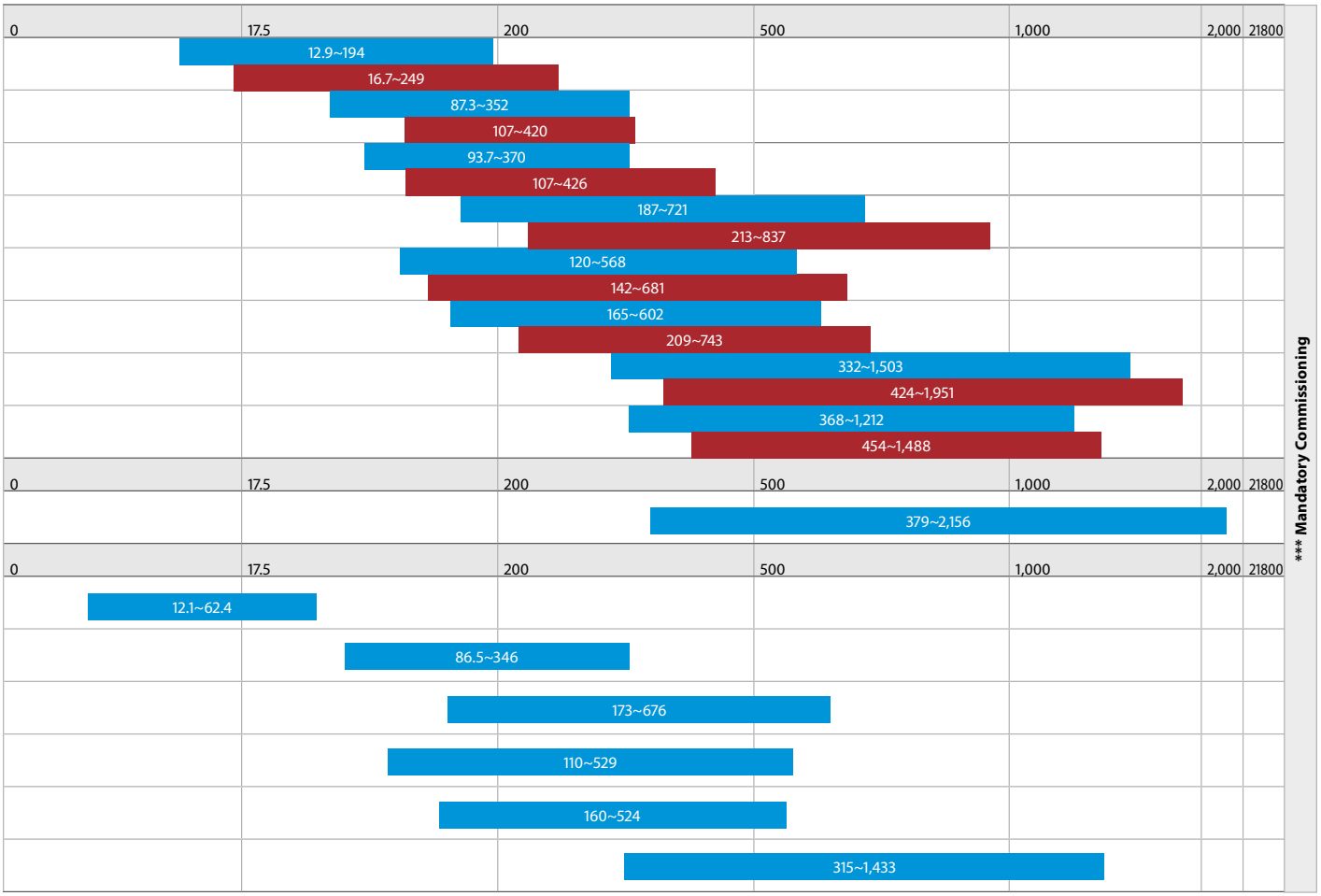
* (GWP) : R-410A (2087.5), R-134a (1430)
** BPHE: Brazed plate heat exchanger
*** Mandatory Commissioning by Daikin Airconditioning UK

Products overview

	Refrigerant Type *	Refrigerant circuits	Inverter	Compressor			Water heat exchanger		Efficiency version		Sound version
				Scroll	Screw	Centrifugal	Plate **	Single pass shell and tube	Standard	High	Standard
Water cooled chillers (Cooling only & Heating only)											
EWWP~KBW1N	R-407C	1-2-4-6		●					●		●
EWHQ~G- NEW	R-410A	1		●			●				
EWWQ~G- NEW	R-410A	1		●			●		●		●
EWWQ~L- NEW	R-410A	2		●			●		●		●
EWWD~J-	R-134a	1-2			●		●		●		●
EWWD~G-	R-134a	1-2			●			●	●	●	●
EWWD~I-	R-134a	1-2-3			●			●	●	●	●
EWWD~H-	R-134a	1			●			● Flooded		●	●
Water cooled chillers (Cooling only)											
EWWQ~B-	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			●			●	●		●

* (GWP) : R-410A (2087.5), R-134a (1430), R-407C (1,773.9)
** BPHE: Brazed plate heat exchanger
*** Mandatory Commissioning by Daikin Airconditioning UK

Cooling capacity (kW)
Heating capacity (kW)



* (GWP) : R-410A (2087.5), R-134a (1430), R-407C (1,773.9)
** BPHE: Brazed plate heat exchanger
*** Mandatory Commissioning by Daikin Airconditioning UK

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.

Choose a Daikin air cooled chiller

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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Cooling only

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Air cooled mini inverter chiller

› Inverter technology to ensure low sound values and **leader-of-class ESEER**
› Wide operating range
› Easy Plug & Play installation
› Single phase power supply and low starting currents make the unit ideal **for residential applications**
› **Built-in hydronic module**: no buffer tank required and a standard pump and main switch are included

EWAQ-ADVP

Digital controller

Cooling only				EWAQ-ADVP	005	006	007
Cooling capacity	Nom.			kW	5.28 (1)	6.08 (1)	7.18 (1)
Power input	Cooling	Nom.		kW	1.94 (1)	2.40 (1)	3.00 (1)
Capacity control	Method				Inverter controlled		
EER					2.72 (1)	2.53 (1)	2.39 (1)
Dimensions	Unit	Height		mm	805		
		Width		mm	1,190		
		Depth		mm	360		
Weight	Unit			kg	100		
	Operation weight			kg	104		
Water heat exchanger	Type				Brazed plate		
	Water flow rate	Cooling	Nom.	l/min	14.9	17.2	20.4
Air heat exchanger	Type				Tube type		
Hydraulic components	Expansion vessel	Volume		l	6		
Compressor	Type				Hermetically sealed swing compressor		
	Quantity				1		
Fan	Type				Propeller fan		
	Quantity				1		
Sound power level	Cooling	Nom.		dBA	62		63
Sound pressure level	Cooling	Nom.		dBA	48		50
Operation range	Water side	Cooling	Min.~Max.	°CDB	5~20		
	Air side	Cooling	Min.~Max.	°CDB	10~43		
Refrigerant	Type / GWP				R-410A / 2,087.5		
	Control				Inverter		
	Circuits	Quantity			1		
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	1.7 / 3.5		
Water circuit	Piping connections diameter			inch	1" MBSP		
Piping connections	Water heat exchanger drain				5/16 SAE flare		
Unit	Maximum running current			A	17.3		
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/230		

(1) Tamb 35°C - LWE 7°C (Dt: 5°C)

Air cooled mini inverter chiller

› 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 & Play installation
› Single phase power supply **for residential applications**, three phase power supply model available **for light commercial applications**

EWAQ-ACV3/ACW1

Digital controller

Cooling only				EWAQ	009ACV3	010ACV3	011ACV3	009ACW1	011ACW1	013ACW1
Cooling capacity	Nom.			kW	12.2 (1) / 8.6 (2)	13.6 (1) / 9.6 (2)	15.7 (1) / 11.1 (2)	12.9 (1) / 9.1 (2)	15.7 (1) / 11.1 (2)	17.0 (1) / 13.3 (2)
Power input	Cooling	Nom.		kW	2.85 (1) / 2.83 (2)	3.41 (1) / 3.28 (2)	4.13 (1) / 3.90 (2)	3.08 (1) / 3.05 (2)	4.13 (1) / 3.90 (2)	5.52 (1) / 5.18 (2)
Capacity control	Method				Inverter controlled					
EER					4.27 (1) / 3.05 (2)	4.00 (1) / 2.93 (2)	3.79 (1) / 2.85 (2)	4.19 (1) / 2.99 (2)	3.79 (1) / 2.85 (2)	3.08 (1) / 2.57 (2)
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					
	Quantity				1					
	Water volume			l	1.01					
	Water flow rate	Cooling	Nom.	l/min	24.7	27.6	31.9	26.1	31.9	38.2
Air heat exchanger	Type				Hi-XSS					
Hydraulic components	Expansion vessel	Volume		l	10					
Compressor	Type				Hermetically sealed scroll compressor					
	Quantity				1					
Fan	Type				Propeller fan					
	Quantity				2					
	Air flow rate	Cooling	Nom.	m^3/min	96	100	97	-		
Fan motor	Speed	Cooling	Nom.	rpm	780					
		Steps			8					
Sound power level	Cooling	Nom.		dBA	64					66
Sound pressure level	Cooling	Nom.		dBA	51					52
		Cooling Night quiet mode		dBA	45					46
Operation range	Water side	Cooling	Min.~Max.	°CDB	5~22					
	Air side	Cooling	Min.~Max.	°CDB	10~46					
Refrigerant	Type / GWP				R-410A / 2,087.5					
	Control				Electronic expansion valve					
	Circuits	Quantity			1					
Refrigerant charge	Per circuit			kg/TCO_2Eq	2.95 / 6.2					
Water circuit	Piping connections diameter			inch	G 5/4" (female)					
	Piping			inch	5/4"					
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) (2) Fan coil program: cooling Ta 35°C - LWE 7°C (Dt: 5°C)

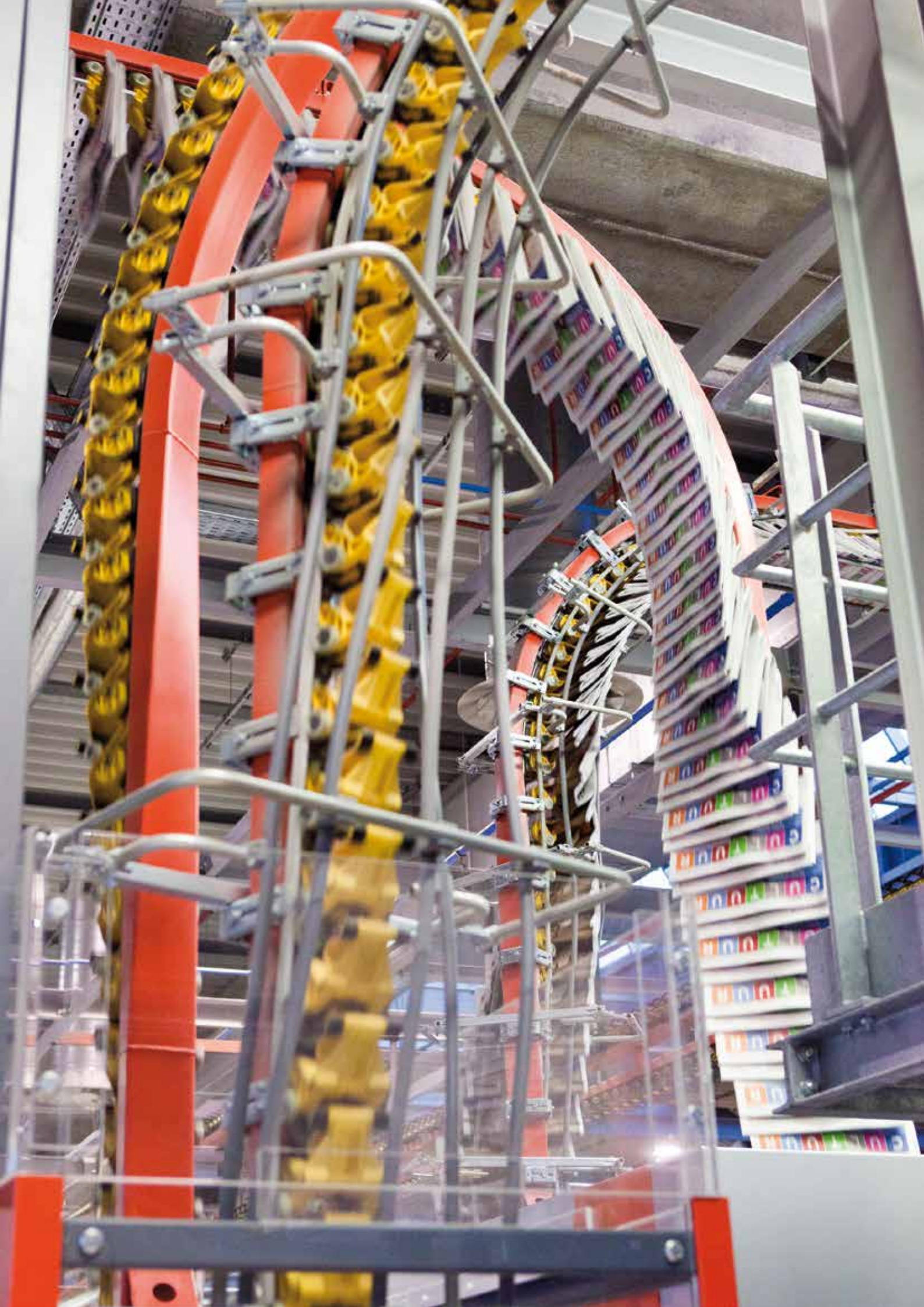
Air cooled scroll inverter chiller

- High efficiency with **leader-of-class ESEER**
- Minimal starting currents and short payback times
- No buffertank required for standard applications
- **Large operation range** (ambient temperature up to 43°C)
- A modbus gateway (RTD-W) can be installed per unit in order allow the control and monitoring by a Daikin controller or a third-party BMS, which will increase further the efficiency of the system
- All systems that are connected with RTD-W can be controlled and **monitored centrally** with the master/slave control kit: the sequencing controller EKCC-W

EWAQ-BAWN/BAWP BRC21A53/54

Cooling only					EWAQ-BAWN/BAWP	016	021	025	032	040	050	064
Cooling capacity	Nom.			kW		17.4 (1) / 16.6 (2)	21.7 (1) / 20.7 (2)	25.8 (1) / 24.7 (2)	32.3 (1) / 30.9 (2)	43.4 (1) / 41.5 (2)	51.8 (1) / 49.7 (2)	64.5 (1) / 62.3 (2)
Power input	Cooling	Nom.		kW		5.60 (1) / 5.80 (2)	7.25 (1) / 7.59 (2)	9.29 (1) / 9.74 (2)	13.0 (1) / 13.5 (2)	14.7 (1) / 15.4 (2)	18.8 (1) / 19.7 (2)	26.4 (1) / 27.4 (2)
Capacity control	Method					Inverter controlled						
	Minimum capacity			%		25						
EER						3.11 (1) / 2.86 (2)	2.99 (1) / 2.73 (2)	2.78 (1) / 2.54 (2)	2.48 (1) / 2.29 (2)	2.95 (1) / 2.69 (2)	2.76 (1) / 2.52 (2)	2.44 (1) / 2.27 (2)
ESEER						4.33 (1) / 4.21 (2)	4.08 (1) / 4.18 (2)	3.85 (1) / 4.04 (2)	3.39 (1) / 3.62 (2)	4.19 (1) / 4.24 (2)	3.96 (1) / 4.12 (2)	3.64 (1) / 3.78 (2)
Dimensions	Unit	Height		mm		1,684						
		Width		mm		1,371			1,684	2,358		2,980
		Depth		mm		774				780		
Weight	Unit			kg		264	317		397	571		730
	Operation weight			kg		267	320		401	577		738
Water heat exchanger	Type					Brazed plate						
	Water volume			l		1.9			2.9	3.8		5.7
	Water flow rate	Cooling	Nom.	l/min		50	62	74	93	124	148	185
	Water pressure drop	Cooling	Total	kPa		20	30	42	30		42	30
Air heat exchanger	Type					Hi-XSS						
Compressor	Type					Hermetically sealed scroll compressor						
	Quantity					1	2		3	4		6
Fan	Type					Axial						
	Quantity					1			2			4
	Air flow rate	Cooling	Nom.	m^3/min		171	185		233	370		466
Sound power level	Cooling	Nom.		dBA		78			80	81		83
Operation range	Water side	Cooling	Min.~Max.	°CDB		-10~20						
	Air side	Cooling	Min.~Max.	°CDB		-5~43						
Refrigerant	Type / GWP					R-410A / 2,087.5						
	Control					Electronic expansion valve						
	Circuits	Quantity				1						
Refrigerant charge	Per circuit			kg/TCO_2Eq		7.6 / 15.9			9.6 / 20.0	15.2 / 31.7		19.2 / 40.1
Water circuit	Piping connections diameter			inch		1-1/4" (female)				2" (female)		
	Piping			inch		1-1/4"				1-1/2"		
Unit	Maximum starting current			A		0	77.7	78.7	88.7	99.8	101.9	120.7
	Maximum running current			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-BAWN: Version without pump (2) EWAQ-BAWP: Version with pump



Air cooled multi-scroll chiller

Standard efficiency

Standard sound

› Single refrigerant circuit (2 scroll compressors) with single evaporator
› Compact design to allow easy indoor installation or retrofit operations
› 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

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
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				Brazed 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	9.40
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/TCO_2Eq	8.0 / 16.7		10.0 / 20.9			12.0 / 25.1	
Piping connections	Evaporator water inlet/outlet (OD)				2" 1/2						
Unit	Starting current	Max		A	208	259	266	313	321	361	374
	Running current	Cooling	Nom.	A	54	58	62	70	79	89	102
		Max		A	64	69	77	84	92	108	122
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400						

Air cooled multi-scroll chiller

Standard efficiency

Reduced sound

EWAQ-G-SS/SR

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	44	50	44	50	43	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
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	963	993	1,023	1,084	1,115
Water heat exchanger	Type				Brazed 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	Quantity			1						
Refrigerant charge	Per circuit			kg/TCO_2Eq	8.0 / 16.7		10.0 / 20.9			12.0 / 25.1	
Piping connections	Evaporator water inlet/outlet (OD)				2" 1/2						
Unit	Starting current	Max		A	207	258	266	313	320	360	374
	Running current	Cooling	Nom.	A	57	61	65	74	84	93	109
		Max		A	63	69	76	84	91	107	121
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400						

Air cooled multi-scroll chiller

High efficiency

Standard sound

› Single refrigerant circuit (2 scroll compressors) with single evaporator
› Compact design to allow easy indoor installation or retrofit operations
› 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

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
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	991	1,020	1,086	1,123
	Operation weight			kg	744	860	1,007	1,035	1,102	1,144
Water heat exchanger	Type				Brazed 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		
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	Quantity			1					
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	8.0 / 16.7		10.0 / 20.9			12.0 / 25.1
Piping connections	Evaporator water inlet/outlet (OD)				2" 1/2					
Unit	Starting current	Max		A	210	261	268	315	324	362
	Running current	Cooling	Nom.	A	52	56	61	69	76	87
		Max		A	65	71	78	86	96	109
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Air cooled multi-scroll chiller

High efficiency

Reduced sound

EWAQ-G-XS/XR

Cooling only					EWAQ-G-XR	080	090	105	130	115	150
Cooling capacity	Nom.				kW	76.0	86.0	100	125	110	141
Power input	Cooling	Nom.			kW	26.4	29.9	34.7	43.3	39.0	49.8
Capacity control	Method					Step					
	Minimum capacity				%	50	44	50		44	43
EER						2.88		2.89	2.88	2.83	
ESEER						4.18	4.29	4.27	4.21	4.31	4.33
Dimensions	Unit	Height			mm	1,800			1,820	1,800	1,820
		Width			mm	1,195					
		Depth			mm	2,680	3,200		3,800	3,200	3,800
Weight	Unit				kg	764	880	1,021	1,116	1,050	1,153
	Operation weight				kg	774	890	1,037	1,132	1,065	1,174
Water heat exchanger	Type					Brazed plate					
	Water flow rate	Cooling	Nom.		l/s	3.6	4.1	4.8	6.0	5.3	6.7
	Water pressure drop	Cooling	Nom.		kPa	23.3	29.6	18.4	23.0	17.8	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	8	10
	Air flow rate	Nom.			l/s	6,787	7,356	9,023	11,309	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	67	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	Quantity				1					
Refrigerant charge	Per circuit				kg/TCO$_2$Eq	8.0 / 16.7		10.0 / 20.9			12.0 / 25.1
Piping connections	Evaporator water inlet/outlet (OD)					2" 1/2					
Unit	Starting current	Max			A	209	260	267	324	314	362
	Running current	Cooling	Nom.		A	54	58	63	78	71	90
		Max			A	65	71	78	95	85	109
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
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 volume			l	12		14			
	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
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler					
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	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			1					
Refrigerant charge	Per circuit			kg/TCO_2Eq	28.0 / 58.5	31.0 / 64.7	34.0 / 71.0	40.0 / 83.5	43.0 / 89.8	53.0 / 110.6
Piping connections	Evaporator water inlet/outlet (OD)				3"					
Unit	Maximum starting current			A	384	482	500	447	563	577
	Nominal running current (RLA)	Cooling		A	103	115	129	151	179	190
	Maximum running current			A	133	147	165	195	227	241
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	190	219	254	302	310
Power input	Cooling	Nom.		kW	56.5	63.6	71.8	85.4	102	107
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	2.89
ESEER					4.45	4.57	4.33	4.65	4.62	4.50
Dimensions	Unit	Height		mm	2,271					
		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 volume			l	12		14			
	Water flow rate	Cooling	Nom.	l/s	8.2	9.1	10.5	12.1	14.5	14.8
	Water pressure drop	Cooling	Nom.	kPa	26	39	33	44	43	52
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler					
Compressor	Type				Scroll compressor					
	Quantity				2			3		
Fan	Type				Direct propeller					
	Quantity				4		5		6	
	Air flow rate	Nom.		l/s	16,743	18,405	20,618	20,056	25,243	28,009
	Speed			rpm	705	784	705			784
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	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			1					
Refrigerant charge	Per circuit			kg/TCO_2Eq	28.0 / 58.5	31.0 / 64.7	27.0 / 56.4	35.0 / 73.1	43.0 / 89.8	53.0 / 110.6
Piping connections	Evaporator water inlet/outlet (OD)				3"					
Unit	Maximum starting current			A	379	482	493	440	554	577
	Nominal running current (RLA)	Cooling		A	101	117	127	151	179	193
	Maximum running current			A	127	147	158	188	219	241
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
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/TCO_2Eq	14.0 / 29.2		15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	23.0 / 48.0		27.0 / 56.4		28.0 / 58.5	32.5 / 67.8	40.0 / 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
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/TCO_2Eq	16.0 / 33.4		18.0 / 37.6	19.0 / 39.7	20.0 / 41.8	23.0 / 48.0		27.0 / 56.4		28.0 / 58.5	32.5 / 67.8	40.0 / 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		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
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/TCO_2Eq	14.0 / 29.2	15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	26.0 / 54.3				31.0 / 64.7			37.0 / 77.2	36.0 / 75.2	41.5 /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

EWAQ-F-XS/XL/XR

MicroTech III

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
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	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/TCO_2Eq	14.0 / 29.2	15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	24.0 / 50.1		26.0 / 54.3		31.0 / 64.7			35.0 / 73.1	36.0 / 75.2	41.5 / 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													

Air cooled multi-scroll inverter chiller

High efficiency

Standard sound

› High efficiency **DC inverter scroll** compressors
› Advanced compressor and fan design resulting in low operating sound levels
› Dual independent refrigerant circuit for built-in redundancy and reliable operation
› Wide operating range in cooling mode
› Reduced footprint thanks to the **V-shaped frame** (EWAQ210GZXS & EWAQ190GZXR)
› MicroTech III controller with superior control logic and easy interface

Cooling only				**EWAQ-GZXS**	**210**	**270**	**320**	**340**	**400**
Cooling capacity	Nom.			kW	201	270	323	340	395
Power input	Cooling	Nom.		kW	72.5	94.0	122	117	144
Capacity control	Method				Stepless				
	Minimum capacity			%	14.4	14.3	14.9	14.3	14.8
EER					2.77	2.87	2.64	2.92	2.75
ESEER					4.79	4.89	4.90	4.77	4.78
Dimensions	Unit	Height		mm	2,270	2,223			
		Width		mm	1,290	2,234			
		Depth		mm	4,450	3,560		4,460	
Weight	Unit			kg	1,600	2,100	2,150	2,400	2,500
	Operation weight			kg	1,677	2,233	2,297	2,575	2,688
Water heat exchanger	Type				Plate heat exchanger				
	Water volume			l	29	61	75	79	92
	Water flow rate	Cooling	Nom.	l/s	9.6	12.9	15.4	16.3	18.9
	Water pressure drop	Cooling	Total	kPa	27	14	15	16	18
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler				
Compressor	Type				DC Inverter Scroll				
	Quantity				6	8	10		12
Fan	Type				Direct propeller				
	Quantity				4	6		8	
	Air flow rate	Nom.		l/s	17,473	26,209		34,946	
	Speed			rpm	920				
Sound power level	Cooling	Nom.		dBA	92	94		96	
Sound pressure level	Cooling	Nom.		dBA	75	78			79
Operation range	Water side	Cooling	Min.~Max.	°CDB	-8~20				
	Air side	Cooling	Min.~Max.	°CDB	-18~43				
Refrigerant	Type / GWP				R-410A / 2,087.5				
	Circuits	Quantity			1	2			
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	48.0 / 100.2	36.0 / 75.2		48.0 / 100.2	
Piping connections	Evaporator water inlet/outlet (OD)				2.5"	4.5"			
Unit	Maximum starting current			A	2				
	Nominal running current (RLA)	Cooling		A	114	155	195	189	227
	Maximum running current			A	155	236	281	286	309
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400				

Air cooled multi-scroll inverter chiller

High efficiency

Reduced sound

EWAQ-GZXS/XR

MicroTech III

Cooling only					EWAQ-GZXR	190	270	320	340	390
Cooling capacity	Nom.				kW	196	264	315	334	386
Power input	Cooling	Nom.			kW	73.3	94.8	124	117	145
Capacity control	Method					Stepless				
	Minimum capacity				%	14.4	14.3	14.9	14.3	14.8
EER						2.68	2.79	2.53	2.86	2.65
ESEER						4.88	4.95	5.05	5.07	
Dimensions	Unit	Height			mm	2,270	2,223			
		Width			mm	1,290	2,234			2,241
		Depth			mm	4,450	3,560		4,460	
Weight	Unit				kg	1,618	2,124	2,180	2,430	2,536
	Operation weight				kg	1,695	2,257	2,327	2,605	2,724
Water heat exchanger	Type					Plate heat exchanger				
	Water volume				l	29	61	75	79	92
	Water flow rate	Cooling	Nom.		l/s	9.4	12.6	15.0	16.0	18.5
	Water pressure drop	Cooling	Total		kPa	26	14	15		17
Air heat exchanger	Type					High efficiency fin and tube type with integral subcooler				
Compressor	Type					DC Inverter Scroll				
	Quantity					6	8	10		12
Fan	Type					Direct propeller				
	Quantity					4	6		8	
	Air flow rate	Nom.			l/s	15,131	22,697		30,263	
	Speed				rpm	715				
Sound power level	Cooling	Nom.			dBA	89	91		92	
Sound pressure level	Cooling	Nom.			dBA	72	74		75	
Operation range	Water side	Cooling	Min.~Max.		°CDB	-8~20				
	Air side	Cooling	Min.~Max.		°CDB	-18~43				
Refrigerant	Type / GWP					R-410A / 2,087.5				
	Circuits	Quantity				1	2			
Refrigerant charge	Per circuit				kg/TCO_2Eq	48.0 / 100.2	36.0 / 75.2		48.0 / 100.2	
Piping connections	Evaporator water inlet/outlet (OD)					2.5"	4.5"			
Unit	Maximum starting current				A	2				
	Nominal running current (RLA)	Cooling			A	116	157	199	190	231
	Maximum running current				A	153	234	279	283	306
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400				

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
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/TCO_2Eq	18.0 / 25.7	21.0 / 30.0	23.0 / 32.9	28.0 / 40.0	34.0 / 48.6	39.0 / 55.8	46.0 / 65.8		56.0 / 80.1	74.0 / 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

EWAD-E-SS/SL

MicroTech III

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
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	23	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/TCO$_2$Eq	18.0 / 25.7	21.0 / 30.0	23.0 / 32.9	28.0 / 40.0	34.0 / 48.6	39.0 / 55.8	46.0 / 65.8		56.0 / 80.1	74.0 / 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
› 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
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/TCO_2Eq	28.0 / 40.0	33.0 / 47.2	36.0 / 51.5	38.0 / 54.3	40.0 / 57.2	43.0 / 61.5	47.0 / 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
Dimensions	Unit	Height		mm	2,355									2,223				
		Width		mm	2,234													
		Depth		mm	2,239		3,139					4,040						
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/TCO_2Eq	18.0 / 25.7	21.0 / 30.0	23.0 / 32.9	26.0 / 37.2	28.0 / 40.0	29.0 / 41.5			35.0 / 50.1	36.0 / 51.5	34.0 / 48.6	40.0 / 57.2		43.0 / 61.5
Piping connections	Evaporator water inlet/outlet (OD)				3"		4"					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
› 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
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	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/TCO_2Eq	18.0 / 25.7	21.0 / 30.0	24.0 / 34.3		25.0 / 35.8		29.0 / 41.5		33.0 / 47.2	35.0 / 50.1	40.0 / 57.2	39.0 / 55.8	40.0 / 57.2	43.0 / 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	480		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
Dimensions	Unit	Height		mm	2,420										
		Width		mm	2,234										
		Depth		mm	3,139	4,040								4,940	
Weight	Unit			kg	3,110	3,475		3,425	3,430			3,560	4,302	4,506	4,581
	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								Asymmetric 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/TCO_2Eq	21.0 / 30.0	24.0 / 34.3	26.0 / 37.2	32.0 / 45.8	33.0 / 47.2	34.0 / 48.6			35.0 / 50.1	38.0 / 54.3	40.0 / 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
› 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
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/TCO_2Eq	29.0 / 41.5	33.0 / 47.2	35.0 / 50.1	38.0 / 54.3	35.0 / 50.1		39.0 / 55.8	42.0 / 60.1	45.0 / 64.4		50.0 / 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
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								Asymmetric 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					
Sound power level	Cooling	Nom.		dBA	92					93			94		
Sound pressure level	Cooling	Nom.		dBA	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/TCO$_2$Eq	30.0 / 42.9	31.0 / 44.3	38.0 / 54.3	39.0 / 55.8	40.0 / 57.2	39.0 / 55.8		34.0 / 48.6	45.0 / 64.4	47.0 / 67.2	50.0 / 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
› 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
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/TCO$_2$Eq	18.0 / 25.7	21.0 / 30.0	22.0 / 31.5	26.0 / 37.2	28.0 / 40.0	31.0 / 44.3		28.0 / 40.0		34.0 / 48.6	30.0 / 42.9	45.0 / 64.4	47.5 / 67.9	46.0 / 65.8	47.0 / 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	
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/TCO_2Eq	64.0 / 91.5			76.5 / 109.4	80.0 / 114.4	91.0 / 130.1	94.0 / 134.4	110.0 / 157.3	130.0 / 185.9	73.3 / 104.9	86.7 / 123.9			91.7 / 131.1	101.7 / 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
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	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/TCO_2Eq	64.0 / 91.5			76.5 / 109.4	80.0 / 114.4	91.0 / 130.1	94.0 / 134.4	110.0 / 157.3		86.7 / 123.9				91.7 / 131.1	101.7 / 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
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	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	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/TCO_2Eq	75.0 / 107.3	81.0 / 115.8		91.0 / 130.1	100.0 / 143.0	115.0 / 164.5	117.5 / 168.0	125.0 / 178.8	145.5 / 208.1	125.0 / 178.8	99.0 / 141.6	82.7 / 118.2	103.3 / 147.8	109.0 / 155.9	113.3 / 162.1	120.0 / 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

EWAD-C-XS/XL/XR

MicroTech III

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
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.		dBA	92			94			95				96					97	
Sound pressure level	Cooling	Nom.		dBA	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						
Refrigerant charge	Per circuit			kg/TCO_2Eq	75.0 / 107.3	81.0 / 115.8		91.0 / v	100.0 / 143.0	115.0 / 164.5	117.5 / 168.0	125.0 / 178.8		124.0 / 177.3	103.3 / 147.8	109.0 / 155.9	113.3 / 162.1	120.0 / 171.6			125.0 / 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
Dimensions	Unit	Height		mm	2,540								
		Width		mm	2,285								
		Depth		mm	8,985			9,885		11,185	12,085		
Weight (PS)	Unit			kg	7,530		7,660	8,290	8,550	9,390	9,730		
	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	Quantity			2								
Refrigerant charge	Per circuit			kg/TCO_2Eq	102.0 / 145.9			115.0 / 164.5	120.0 / 171.6	137.5 /196.6	140.0 / 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
Dimensions	Unit	Height		mm	2,540								
		Width		mm	2,285								
		Depth		mm	8,985			9,885		11,185	12,085		
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				94			95	
Sound pressure level	Cooling	Nom.		dBA	71			72					73
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/TCO_2Eq	102.0 / 145.9			115.0 / 164.5	120.0 / 171.6	137.5 / 196.6	140.0 / 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
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											
	Quantity				2									3		
Fan	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/TCO_2Eq	73.0 / 104.4	81.0 / 115.8		100.0 / 143.0		125.0 / 178.8			140.0 / 200.2	106.7 / 152.5	113.3 / 162.1	116.7 / 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
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/TCO_2Eq	73.0 / 104.4	81.0 / 115.8		100.0 / 143.0		125.0 / 178.8			140.0 / 200.2	106.7 / 152.5	113.3 / 162.1	116.7 / 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 CO_2 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
Dimensions	Unit	Height		mm	2,565										
		Width		mm	2,480										
		Depth		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 volume			l	741	771	808		1,012		1,372		1,965		
	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)
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler										
Compressor	Type				Asymmetric single screw compressor										
	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	Water side	Cooling	Min.~Max.	°CDB	-8~15										
	Air side	Cooling	Min.~Max.	°CDB	-20~45										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits	Quantity			2										
Refrigerant charge	Per circuit			kg/TCO_2Eq	64.0 / 91.5	73.0 / 104.4	81.0 / 115.8		91.0 / 130.1		107.0 / 153.0		112.5 / 160.9	124.0 / 177.3	
Piping connections	Evaporator water inlet/outlet (OD)				DN150PN16(168.3mm)				DN200PN16(219.1mm)				DN250PN16(273mm)		
Unit	Maximum starting current			A	605	619	658		924	971	1,030			1,073	1,086
	Nominal running current (RLA)		Cooling	A	404	430	467	515	568	628	636	701	720	773	825
	Maximum running current			A	476	510	561	605	672	731	811	875		929	982
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 screw chiller with free cooling

High efficiency

Reduced sound

EWAD-CFXS/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
Dimensions	Unit	Height		mm	2,565										
		Width		mm	2,480										
		Depth		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 volume			l	741	771	808		1,012		1,372		1,965		
	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)
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler										
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.		dBA	92				94		95				
Sound pressure level	Cooling	Nom.		dBA	71	72			73		72			73	
Operation range	Water side	Cooling	Min.~Max.	°CDB	-8~15										
	Air side	Cooling	Min.~Max.	°CDB	-20~45										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits	Quantity			2										
Refrigerant charge	Per circuit			kg/TCO_2Eq	64.0 / 91.5	73.0 / 104.4	81.0 / 115.8		91.0 / 130.1		107.0 / 153.0		112.5 / 160.9	124.0 / 177.3	
Piping connections	Evaporator water inlet/outlet (OD)				DN150PN16(168.3mm)				DN200PN16(219.1mm)				DN250PN16(273mm)		
Unit	Maximum starting current			A	598	611	648		912	960	1,016			1,059	1,072
	Nominal running current (RLA)		Cooling	A	411	439	473	526	580	647	645	717	738	800	862
	Maximum running current			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.

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

Why you should choose EWAD-TZ

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.

Benefits for the installer

› Factory leak-tested and pre-charged
› High serviceability
› User-friendly smart controls which can be integrated easily with building management systems

Benefits for the consultant

› Multiple options available, e.g. rapid restart, variable speed water pumps, smart energy meter, EC fans
› Ideal for both new and retrofit projects: same footprints of non-inverter unit with higher efficiencies and performance

Benefits for the end user

› Rapid payback of three years for comfort cooling applications
› 50% reduction of energy consumption
› Designed for sound-sensitive environments

High efficiencies both at full load and part load

› 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

Marketing tools

› The new online chiller selection software will be available from April 16.

› Video: www.youtube.com/DaikinEurope

› Visit the mini-site: www.daikineurope.com/minisite/process-cooling-comfort-cooling-chiller-EWAD-TZ

Lowest sound levels

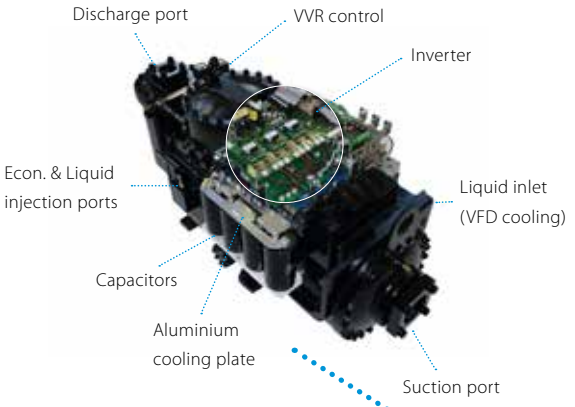
› Down to 86 dB(A) sound power at full load and even lower at part load thanks to fans and compressors variable speed
› Quiet compressor thanks to special acoustic executions
› Unique Daikin fans design with reduced noise impact and vibrations

Unrivalled and proven reliability

› Extensive testing in laboratories, Daikin factories and specific job sites
› Reduced energy demand without compromising on reliability and performance

Extensive option list

› Rapid restart after power failure
› Variable speed water pumps
› Integrated smart energy meter
› EC fans



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
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/TCO_2Eq	29.0 / 41.5	35.0 / 50.1	39.0 / 55.8	46.0 / 65.8	54.0 / 77.2	62.0 / 88.7	31.0 / 44.3	35.0 / 50.1	39.5 / 56.5	42.5 / 60.8	45.5 / 65.1	50.0 / 71.5	54.5 / 77.9	60.5 / 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

EWAD-TZSS/SR/XS/XR

MicroTech III

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
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
Weight (XS)	Unit			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
	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/TCO_2Eq	31.0 / 44.3	37.0 / 52.9	45.0 / 64.4	49.0 / 70.1	57.0 / 81.5	61.0 / 87.2	31.0 / 44.3	34.5 / 49.3	37.5 / 53.6	42.0 / 60.1	45.5 / 65.1	49.0 / 70.1	53.5 / 76.5	58.0 / 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

EWAD-TZPS/PR MicroTech III

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
Dimensions	Unit	Height		mm	2,355													
		Width		mm	2,258													
		Depth		mm	3,218		4,117					5,015			5,917		6,817	
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						Single pass shell & tube							
	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			270			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				6		8					10		12			14	
	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.		dBA	96				97		99						100	
Sound power level (PR)	Cooling	Nom.		dBA	87					88	89		90					
Sound pressure level (PS)	Cooling	Nom.		dBA	77		76		77		79				78	79		
Sound pressure level (PR)	Cooling	Nom.		dBA	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			1						2							
Refrigerant charge	Per circuit			kg/TCO_2Eq	32.0 / 45.8	38.0 / 54.3	42.0 / 60.1	46.0 / 65.8	50.0 / 71.5	54.0 / 77.2	29.0 / 41.5	31.5 / 45.0	35.5 / 50.8	38.5 / 55.1	42.0 / 60.1	47.0 / 67.2	51.0 / 72.9	54.5 / 77.9
Piping connections	Evaporator water inlet/outlet (OD)				88.9mm						139.7mm		168.3mm					
Unit	Starting current	Max		A	3													
	Running current	Cooling	Nom.	A	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													

Air cooled mini inverter heat pump

- Inverter technology to ensure low sound values and leader-of-class ESEER
- Wide operating range
- Easy Plug & Play installation
- Single phase power supply and low starting currents make the unit ideal for residential applications
- Built-in hydronic module: no buffer tank required and a standard pump and main switch are included

EWYQ-ADVP

Digital controller

Heating & Cooling				EWYQ-ADVP	005	006	007
Cooling capacity	Nom.			kW	5.3 (1)	6.1 (1)	7.2 (1)
Heating capacity	Nom.			kW	6.02 (2) / 5.57 (3)	6.72 (2)/ 6.27 (3)	8.18 (2)/ 7.67(3)
Power input	Cooling	Nom.		kW	1.94 (1)	2.40 (1)	3.00 (1)
	Heating	Nom.		kW	1.65 (2)/ 2.02 (3)	1.89 (2)/ 2.29 (3)	2.41 (2)/ 2.88(3)
Capacity control	Method				Inverter controlled		
EER					2.72 (1)	2.53 (1)	2.39 (1)
COP					3.65 (2)/ 2.76 (3)	3.58 (2)/ 2.74 (3)	3.39 (2)/ 2.66 (3)
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	133		134
			SCOP		3.39	3.40	3.41
			Seasonal space heating eff. class		A+		
Dimensions	Unit	Height		mm	805		
		Width		mm	1,190		
		Depth		mm	360		
Weight	Unit			kg	100		
	Operation weight			kg	104		
Water heat exchanger	Type				Brazed plate		
	Water flow rate	Cooling	Nom.	l/min	15	17	20
		Heating	Nom.	l/min	18	20	24
Air heat exchanger	Type				Tube type		
Hydraulic components	Expansion vessel	Volume		l	6		
Compressor	Type				Hermetically sealed swing compressor		
	Quantity				1		
Fan	Type				Propeller fan		
	Quantity				1		
Sound power level	Cooling	Nom.		dBA	62		63
Sound pressure level	Cooling	Nom.		dBA	48		50
	Heating	Nom.		dBA	48		49
Operation range	Air side	Cooling	Min.~Max.	°CDB	10~43		
		Heating	Min.~Max.	°CDB	-15~25		
	Water side	Cooling	Min.~Max.	°CDB	5~20		
		Heating	Min.~Max.	°CDB	25~50		
Refrigerant	Type / GWP				R-410A / 2,087.5		
	Circuits	Quantity			1		
	Control				Inverter		
Refrigerant charge	Per circuit			kg/TCO_2Eq	1.7 / 3.5		
Water circuit	Piping connections diameter			inch	1" MBSP		
Piping connections	Water heat exchanger drain				5/16 SAE flare		
Unit	Running current	Max		A	19.0		
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/230		

(1) Tamb 35°C - LWE 7°C (DT=5°C) (2) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) (3) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

EWYQ-ACV3/ACW1

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 & Play installation
- Single phase power supply for residential applications, three phase power supply model available for light commercial applications

EWYQ-ACV3/ACW1

Digital controller

Heating & Cooling					EWYQ	009ACV3	010ACV3	011ACV3	009ACW1	011ACW1	013ACW1
Cooling capacity	Nom.				kW	12.2 (1)/ 8.60 (2)	13.6 (1)/ 9.60 (2)	15.7 (1)/ 11.1 (2)	12.9 (1)/ 9.10 (2)	15.7 (1)/ 11.1 (2)	17.0 (1)/ 13.3 (2)
Heating capacity	Nom.				kW	10.2 (1)/ 9.90 (2)	11.7 (1)/ 11.4 (2)	13.8 (1)/ 12.9 (2)	11.20 (1)/ 10.90 (2)	13.2 (1)/ 12.4 (2)	14.8 (1)/ 13.9 (2)
Power input	Cooling	Nom.			kW	2.85 (1)/ 2.83 (2)	3.41 (1)/ 3.28 (2)	4.13 (1)/ 3.90 (2)	3.08 (1)/ 3.05 (2)	4.13 (1)/ 3.90 (2)	5.52 (1)/ 5.18 (2)
	Heating	Nom.			kW	2.43 (1)/ 2.99 (2)	2.81 (1)/ 3.46 (2)	3.20 (1)/ 3.94 (2)	2.69 (1)/ 3.31 (2)	3.07 (1)/ 3.78 (2)	3.47 (1)/ 4.27 (2)
Capacity control	Method					Inverter controlled					
EER						4.27 (1)/ 3.05 (2)	4.00 (1)/ 2.93 (2)	3.79 (1)/ 2.85 (2)	4.19 (1)/ 2.99 (2)	3.79 (1)/ 2.85 (2)	3.08 (1)/ 2.57 (2)
ESEER						4.31	4.30	4.33	4.43	4.44	4.36
COP						4.19 (1)/ 3.30 (2)	4.17 / (1) 3.29 (2)	4.30 (1)/ 3.27 (2)	4.17 (1)/ 3.28 (2)	4.31 (1)/ 3.27 (2)	4.28 (1)/ 3.25 (2)
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					Brazed plate					
	Quantity					1					
	Water flow rate	Heating	Nom.		l/min	28.3	32.6	36.9	31.2	35.5	39.8
	Water volume				l	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					
	Quantity					1					
Fan	Type					Propeller fan					
	Quantity					2					
	Air flow rate	Cooling	Nom.		m^3/min	96.0	100	97.0	-		
		Heating	Nom.		m^3/min		90.0		-		
Fan motor	Speed	Cooling	Nom.		rpm	780					
		Heating	Nom.		rpm	760					
		Steps				8					
Sound power level	Cooling	Nom.			dBA		64		64		66
	Heating	Nom.			dBA	60	64	60	60		
Sound pressure level	Cooling	Nom.			dBA	50					
	Heating	Nom.			dBA	50					
	Night quiet mode	Cooling			dBA		45		45		46
		Heating			dBA		42		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/GWP					R-410A/2,087.5					
	Circuits	Quantity				1					
	Control					Electronic expansion valve					
Refrigerant charge	Per circuit				kg/TCO_2Eq	2.95 / 6.16					
Water circuit	Piping				inch	5/4"					
	Piping connections diameter				inch	G 5/4" (female)					
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) (2) Fan coil program: cooling Ta 35°C - LWE 7°C (Dt: 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (Dt: 5°C)

Air cooled scroll inverter heat pump

- High efficiency with **leader-of-class ESEER**
- Minimal starting currents and short payback times
- No buffertank required for standard applications
- **Large operation range** (ambient temperature up to 43°C)
- A modbus gateway (RTD-W) can be installed per unit in order allow the control and monitoring by a Daikin controller or a third-party BMS, which will increase further the efficiency of the system
- All systems that are connected with RTD-W can be controlled and **monitored centrally** with the master/slave control kit: the sequencing controller EKCC-W

EWYQ-BAWN/BAWP BRC21A53/54

Heating & Cooling				EWYQ-BAWN/BAWP	016	021	025	032	040	050	064
Cooling capacity	Nom.			kW	17.4(1)/16.6(2)	21.7(1)/20.7(2)	25.8(1)/24.7(2)	32.3(1)/30.9(2)	43.4(1)/41.5(2)	51.8(1)/49.7(2)	64.5(1)/62.3(2)
Heating capacity	Nom.			kW	16.2(1)/17.00(2)	20.3(1)/21.30(2)	24.6(1)/25.70(2)	30.7(1)/32.10(2)	40.6(1)/42.50(2)	49.0(1)/51.10(2)	61.5(1)/63.70(2)
Power input	Cooling	Nom.		kW	5.60(1)/5.80(2)	7.25(1)/7.59(2)	9.29(1)/9.74(2)	13.0(1)/13.5(2)	14.7(1)/15.4(2)	18.8(1)/19.7(2)	26.4(1)/27.4(2)
	Heating	Nom.		kW	5.53(1)/5.73(2)	7.10(1)/7.44(2)	8.91(1)/9.36(2)	10.6(1)/11.1(2)	14.0(1)/14.7(2)	17.6(1)/18.5(2)	20.7(1)/21.7(2)
Capacity control	Method				Inverter controlled						
	Minimum capacity			%	25						
EER					3.11(1)/2.86(2)	2.99(1)/2.73(2)	2.78(1)/2.54(2)	2.48(1)/2.29(2)	2.95(1)/2.69(2)	2.76(1)/2.52(2)	2.44(1)/2.27(2)
ESEER					4.33(1)/4.21(2)	4.08(1)/4.18(2)	3.85(1)/4.04(2)	3.39(1)/3.62(2)	4.19(1)/4.24(2)	3.96(1)/4.12(2)	3.64(1)/3.78(2)
COP					2.93(1)/2.97(2)	2.86(1)/2.86(2)	2.76(1)/2.75(2)	2.90(1)/2.89(2)		2.78(1)/2.76(2)	2.97(1)/2.94(2)
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	130(1)/133(2)	126(1)/126(2)	130(1)/121(2)	120(1)/119(2)	126(1)/126(2)	138(1)/121(2)	121(1)/119(2)
			SCOP		3.33(1)/3.39(2)	3.22(1)/3.22(2)	3.32(1)/3.09(2)	3.08(1)/3.06(2)	3.22(1)/3.21(2)	3.53(1)/3.08(2)	3.09(1)/3.04(2)
			Seasonal space heating eff. class		A+(1)/A+(2)		A+(1)/A(2)	A(1)/A(2)	A+(1)/A+(2)	A+(1)/A(2)	A(1)/A(2)
Dimensions	Unit	Height		mm	1,684						
		Width		mm	1,370			1,680	2,360		2,980
		Depth		mm	774				780		
Weight	Unit			kg	264	317		397	571		730
	Operation weight			kg	267	320		401	577		738
Water heat exchanger	Type				Brazed plate						
	Water flow rate	Cooling	Nom.	l/min	50.0	62.0	74.0	93.0	124	148	185
		Heating	Nom.	l/min	46.0	58.0	71.0	88.0	116	140	176
	Water pressure drop	Cooling	Total	kPa	20	30	42	30		42	30
	Water volume			l	1.90			2.90	3.80		5.70
Air heat exchanger	Type				Hi-XSS						
Compressor	Type				Hermetically sealed scroll compressor						
	Quantity				1	2		3	4		6
Fan	Type				Axial						
	Quantity				1			2			4
	Air flow rate	Cooling	Nom.	m^3/min	171	185		233	370		466
		Heating	Nom.	m^3/min	171	185		233	370		466
Sound power level	Cooling	Nom.		dBA	78.0			80.0	81.0		83.0
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						
	Circuits	Quantity			1						
	Control				Electronic expansion valve						
Refrigerant charge	Per circuit			kg / TCO_2eq	7.6 / 15.9			9.6 / 20.0	15.2 / 31.7		19.2 / 40.1
Water circuit	Piping			inch	1-1/4"				1-1/2"		
	Piping connections diameter			inch	1-1/4" (female)				2" (female)		
Unit	Starting current	Max		A	0.00	77.7	78.7	88.7	99.8	102	121
	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-BAWN: Version without pump (2) EWYQ-BAWP: 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

SEHVX-AAW+SERHQ-AAW1 BRC21A53/54

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
	Type				Hermetically sealed scroll compressor	
Fan	Type				Propeller fan	
	Quantity				1	2
	Air flow rate	Cooling	Nom.	m^3/min	185	233
		Heating	Nom.	m^3/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 to allow easy indoor installation or retrofit operations
› Partial and total heat recovery option available
› Stainless steel plate heat exchanger

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
ESEER					3.90	3.94	3.97	4.03	3.92	3.96	
COP					3.14	3.12	3.24	3.25	3.20	3.11	3.13
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	131	129	142	140	142	138	140
			SCOP		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				Brazed 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						
	Water side	Cooling	Min.~Max.	°CDB	-10~15						
Refrigerant	Type / GWP				R-410A / 2,087.5						
	Circuits	Quantity			1						
Refrigerant charge	Per circuit			kg/TCO_2Eq	15.0 / 31.3		18.0 / 37.6	23.0 / 48.0		30.0 / 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

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
ESEER					3.85	3.90	3.79	3.92	3.76	3.86	3.79
COP					3.14	3.12	3.24	3.25	3.20	3.11	3.13
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	131	129	142	140	142	138	140
			SCOP		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 with integral subcooler						
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						
	Water side	Cooling	Min.~Max.	°CDB	-10~15						
Refrigerant	Type / GWP				R-410A / 2,087.5						
	Circuits	Quantity			1						
Refrigerant charge	Per circuit			kg/TCO_2Eq	15 / 31.3		18 / 37.6	15 / 48.0		15 / 62.6	
Unit	Starting current	Max		A	210	261	267	316	323.0	363	377
	Running current	Cooling	Nom.	A	54	60	65	71	80	90	103
		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

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
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	128	134	129		143	147	-					
			SCOP		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 (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			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	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/TCO_2Eq	16.0 / 33.4	20.0 / 41.8		24.0 / 50.1	35.0 / 73.1	36.0 / 75.2	35.0 / 73.1	46.0 / 96.0		55.0 / 114.8	52.5 / 109.6	68.0 / 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

EWYQ-F-XS/XL/XR

MicroTech III

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
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	128	134	129		143	147	-					
			SCOP		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.		dBA	83	84	86		88		89	90		92		
Sound pressure level	Cooling	Nom.		dBA	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/TCO$_2$Eq	16.0 / 33.4	18.0 / 37.6	20.0 / 41.8	24.0 / 50.1	35.0 / 73.1	36.0 / 75.2	35.0 / 73.1	46.0 / 96.0		55.0 / 114.8		68.0/142.0
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			Hz/V	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
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	3,410	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/TCO_2Eq	43.0 / 61.5	44.0 / 62.9	43.0 / 61.5	46.0 / 65.8		46.5 / 66.5	47.0 / 67.2	50.0 / 71.5		47.0 / 67.2			49.0 / 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												

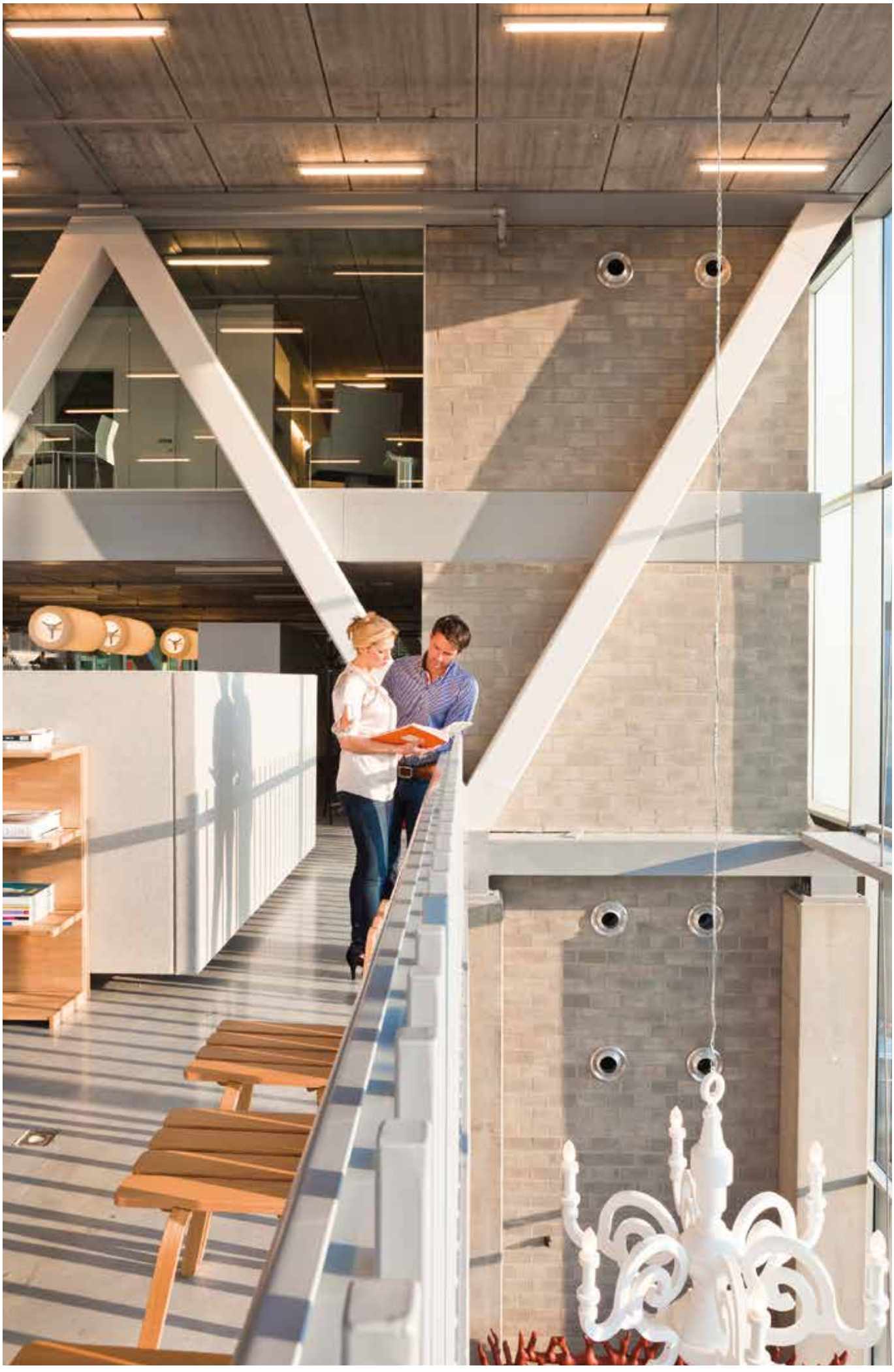
Air cooled screw inverter heat pump

Standard efficiency

Low sound

EWYD-BZSS/SL MicroTech II

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
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.		dBA	94			95						97			
Sound pressure level	Cooling	Nom.		dBA	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/TCO_2Eq	43.0 / 61.5	44.0 / 62.9	43.0 / 61.5	46.0 / 65.8		46.5 / 66.5	47.0 / 67.2	50.0 / 71.5		47.0 / 67.2			49.0 / 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												



Contents

Condensing Unit

ERAD-E-SS	82
ERAD-E-SL	83

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

ERAD-E-SS/SL

MicroTech III

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									

Daikin's efficient, flexible and maintenance-friendly water cooled chillers are especially suitable for critical industrial applications where a temperature control accuracy of ±0.5°C is required. 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 (oil free)

Small footprint, quiet compressor, easy integration with existing HVAC system… This technology offers a good return on investment and provides an ideal solution for large cooling applications.

Choose a Daikin water cooled chiller

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 limited space in a machine room.

Contents

Water cooled

Cooling only

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Cooling & Heating only

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	EWWD-G-XS	91
NEW	EWHQ-G-SS	92
NEW	EWWQ-G-SS	93
NEW	EWWQ-L-SS	94
	EWWD-I-SS	96
	EWWD-I-XS	97
	EWWD-J-SS	98
	EWWD-H-XS	99

Oil-free Centrifugal chillers

	EWWD-FZXS	100

Water cooled screw chiller

Standard efficiency

Standard sound

› 1 or 2 stepless single-screw compressors
› One or two truly independent refrigerant circuits for outstanding reliability
› Shell and tube heat exchanger
› 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		12.5	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
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	16		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/TCO_2Eq	120.0/250.5	100.0/208.8	175.0/365.3	90.0/187.9	80.0/167.0	85.0/177.4	90.0/187.9	45.0/93.9	85.0/177.4	100.0/208.8	160.0/334.0	100.0/208.8	150.0/313.1		130.0/271.4		150.0/313.1	160.0/334.0	130.0/271.4
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
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/TCO_2Eq	120.0 / 250.5	130.0 / 271.4	95.0 / 198.3	135.0 / 281.8	110.0 / 229.6	150.0 / 313.1	120.0 / 250.5	130.0 / 271.4	120.0 / 250.5	150.0 / 313.1	120.0 / 250.5	150.0 / 313.1	130.0 / 271.4		150.0 / 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	734
	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

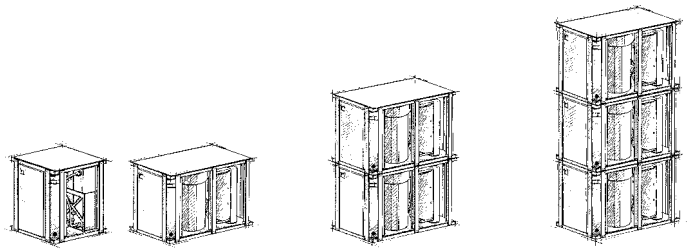
- One of the most compact units on the market: 600mm x 600mm x 600mm
- Low energy consumption
- Low operating sound level
- Low refrigerant volume
- Stainless steel plate heat exchanger
- Extension possible to 195kW
- Easy installation and maintenance
- Remote cooling or heating selection
- Water/water heat pump, with water reversibility
- Compatible with hydraulic module EHMC
- Advanced µC²SE 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
- Advanced pCO³ controller for assembly of 2 or 3 modules

EWWP-KBW1N µC²SE

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	3.59
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
Space heating	Average climate water outlet 55°C	General	ηs (Seasonal space heating efficiency) %		107	106	115	116	102	109	113	-										
			SCOP		2.88	2.86	3.08	3.11	2.75	2.91	3.03	-										
			Seasonal space heating eff. class		A+							-										
	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency) %		132	134	138	143	136	139	142	-										
			SCOP		3.49	3.55	3.66	3.78	3.59	3.66	3.74	-										
			Seasonal space heating eff. class		A+							-										
Dimensions	Unit	Height		mm	600							1,200					1,800					
		Width		mm	600																	
		Depth		mm	600				1,200													
Weight	Unit			kg	118	155	165	172	300	320	334	600	620	640	654	668	920	940	960	974	988	1,000
Water heat exchanger - evaporator	Type				Brazed plate																	
	Minimum water volume in the system			l	62	103	134	155	205	268	311	205	268		311		205		268			311
	Water flow rate	Min.		l/min	31.0	53.0	65.0	76.0	101	131	152	202	232	262	283	304	333	363	393	414	435	456
		Nom.		l/min	37.0	61.0	80.0	93.0	123	160	185	246	283	321	347	373	404	441	479	505	530	556
		Max.		l/min	74.0	123	159	185	245	319	371	491	565	642	694	745	808	883	957	1,010	1,060	1,110
Water heat exchanger - condenser	Type				Brazed plate																	
	Water flow rate	Min.		l/min	24	39	51	59	79	100	120	160	180	210	220	240	260	280	310	320	340	360
		Nom.		l/min	48	78	100	120	160	210	240	310	360	410	440	470	520	570	610	650	680	710
		Max.		l/min	95	160	200	240	310	410	470	630	720	820	880	950	1,000	1,100	1,200	1,300	1,400	
Compressor	Type				Hermetically sealed scroll compressor																	
	Quantity				1				2			4	2	4	2		4		6	4		6
Compressor 2	Quantity				-								2	-	2	-	2		-	2		-
Sound power level	Cooling	Nom.		dBA	64.0			71.0	67.0		74.0	71.0			75.0	77.0	73.0			76.0	78.0	79.0
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-10~20																	
	Condenser	Cooling	Min.~Max.	°CDB	20~55																	
Refrigerant	Type / GWP				R-407C / 1,773.9																	
	Control				Thermostatic expansion valve																	
	Circuits	Quantity			1				2			4					6					
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	1.20 / 2.13	2.00 / 3.55	2.50 / 4.43	3.10 / 5.50	4.60 / 8.16		5.60 / 9.93	9.20 / 16.3			10.2 / 18.1	11.2 / 19.9	13.8 / 24.5			14.8 / 26.3	15.8 / 28.0	16.8 / 29.8
Piping connections	Evaporator water inlet/outlet (OD)				FBSP 25mm				FBSP 40mm			2 x 2 x FBSP 38mm					3 x 2 x FBSP 38mm					
	Evaporator water drain				Field installation																	
	Condenser water inlet/outlet (OD)				FBSP 25mm				FBSP 40mm			2 x 2 x FBSP 38mm					3 x 2 x FBSP 38mm					
Unit	Starting current	Max		A	-							121	155	163	185	189	183	191	199	221	225	229
	Running current	Cooling	Nom.	A	66.0	104	131	15.0	208	262	30.0	416	47.0	524	562	60.0	678	732	786	824	862	90.0
		Max		A	9.00	145	185	22.0	28.0	36.0	40.0	56.0	64.0	72.0	76.0	80.0	92.0	100	108	112	116	120
Power supply	Phase/Frequency/Voltage			Hz/V	3N~/50/400																	

EWWP-KBW1N

Water cooled scroll chiller



Combination table

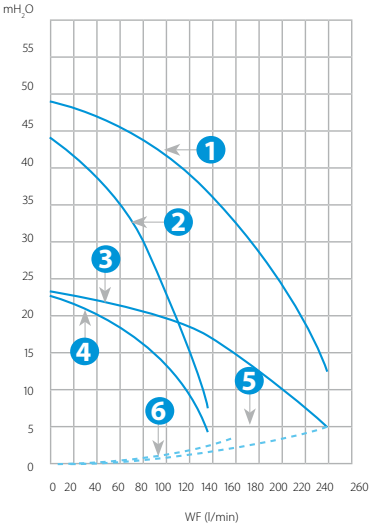
Selection table		1 Module (KB-series)							2 Modules (KB-series)					3 Modules (KB-series)					
Capacity index		**014**	**022**	**028**	**035**	**045**	**055**	**065**	**090**	**100**	**110**	**120**	**130**	**145**	**155**	**165**	**175**	**185**	**195**
Cooling capacity (kW)		**12.9**	**21.4**	**27.8**	**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	-	-	-	-	-	-	-	-	-	-	-	-
	EWWP065KBW1N	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Modular units (Controller available as accessory)	EWWP045KAW1M	-	-	-	-	-	-	-	2	1	-	-	-	2	1	-	-	-	-
	EWWP055KAW1M	-	-	-	-	-	-	-	-	1	2	1	-	1	2	3	2	1	-
	EWWP065KAW1M	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	1	2	3
Control (Kit)	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 litre tank for all sizes
- Freeze up protection
- High static pump (option)
- Standard drain kit (for indoor use)
- Standard dual pressure ports (Pump suction and discharge)



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_2O	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
ESEER					4.50	4.54	4.46	4.25	4.75	4.80	4.76	4.67	4.59	4.44
COP					4.77	4.80	4.74	4.55	4.80	4.84	4.80	4.74	4.68	4.53
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	165	164		159	-					
			SCOP		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 flow rate	Nom.		l/s	7.9	9.6	12.1	13.4	15.9	17.7	19.2	21.4	23.6	26.5
	Water pressure drop	Cooling	Total	kPa	45	61	41	49	58	57	66	50		59
Water heat exchanger - condenser	Type				Single pass shell and tube									
	Water flow rate	Nom.		l/s	10.0	12.1	15.3	17.1	10.1	10.2	12.2	12.4	15.0	17.0
	Water flow rate 2	Nom.		l/s	-				10.1	12.2		14.8	15.0	17.0
	Water pressure drop	Cooling	Nom.	kPa	38	39	60	73	37	38	39	41	57	70
	Water pressure drop 2	Cooling	Nom.	kPa	-				37	39		56	57	70
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	20~55									
Refrigerant	Type / GWP				R-134a / 1,430									
	Circuits	Quantity			1				2					
Refrigerant charge	Per circuit			kg/TCO_2Eq	60.0 / 85.8				55.0 / 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	Cooling	Min.			kW	40.6	49.4	61.0	73.4	81.1	89.0	97.0	107	117	141
	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
ESEER						5.37	5.31	5.33	4.91	5.54	5.62	5.61	5.68	5.67	5.27
COP						5.57	5.50	5.53	5.17	5.50	5.58	5.6	5.61	5.59	5.26
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)		%	187	184	185	175	-					
			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 flow rate	Nom.			l/s	8.9	10.6	13.2	14.6	17.5	19.5	21.2	23.7	25.8	28.8
	Water pressure drop	Cooling	Total		kPa	23	31	30	37	28	21	24	33	39	47
Water heat exchanger - condenser	Type					Single pass shell and tube									
	Water flow rate	Nom.			l/s	10.9	13.1	16.2	18.2	10.7	10.9	13.0	13.2	15.8	17.9
	Water flow rate 2	Nom.			l/s	-				10.7	13.0		15.8		17.9
	Water pressure drop	Cooling	Nom.		kPa	16	18	22	27	15				14	17
	Water pressure drop 2	Cooling	Nom.		kPa	-				15			14		17
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	20~55									
Refrigerant	Type / GWP					R-134a / 1,430									
	Circuits	Quantity				1				2					
Refrigerant charge	Per circuit				kg/TCO_2Eq	60.0 / 85.8		65.0 / 93.0		60.0 / 85.8		65.0 / 93.0	60.0 / 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 heat pump reversing on refrigerant side

Standard efficiency

Standard sound

EWHQ-G-SS

- 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
- Designed 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 head) available for evaporator and condenser

Heating & Cooling				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
ESEER					4.70	4.84	4.65	4.86	4.80	4.89	4.86	4.83	4.79	4.90	4.83
COP					4.15	4.16	4.09	4.12	4.11	4.07	4.11	4.10	4.14	4.16	4.18
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	160		163	167	166			172	171	163	-
			SCOP		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 flow rate	Cooling	Nom.	l/s	4.2	4.8	5.3	6.1	6.7	7.7	8.7	10.0	11.1	13.9	16.9
		Heating	Nom.	l/s	4.1	4.7	5.2	5.9	6.5	7.4	8.5	9.6	10.9	13.7	16.6
	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	42
Water heat exchanger - condenser	Type				Plate heat exchanger										
	Water volume			l	6	8		10	12	13	15	17		27	34
	Water flow rate	Cooling	Nom.	l/s	5.2	6.0	6.7	7.7	8.5	9.7	10.9	13.7	13.9	17.4	21.1
		Heating	Nom.	l/s	5.4	6.2	7.0	7.8	8.7	9.9	11.2	12.5	14.3	18.0	21.8
	Water pressure drop	Cooling	Nom.	kPa	69		55	49	48	51	54	32	39	66	69
		Heating	Nom.	kPa	73		59	51	50	53	57	33	42	70	73
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	-8~15										
	Condenser	Cooling	Min.~Max.	°CDB	25~55										
Refrigerant	Type / GWP				R-410A / 2,087.5										
	Circuits	Quantity			1										
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	9.0 / 18.8		10.0 / 20.9		13.0 / 27.1	11.0 / 23.0	13.0 / 27.1	15.0 / 31.3		19.0 / 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
- Designed 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 head) available for evaporator and condenser

EWWQ-G-SS

Heating only & 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
ESEER					5.51	5.52	5.51	5.53	5.51	5.53			5.52		
COP					4.58	4.56	4.55		4.53	4.52	4.54	4.50	4.54	4.62	4.56
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	168		170		173		172	169	167	171	-
			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 flow rate	Cooling	Nom.	l/s	4.5	5.1	5.7	6.5	7.2	8.2	9.3	10.6	11.8	15.1	17.7
		Heating	Nom.	l/s	4.4	5.0	5.6	6.3	7.0	8.0	9.1	10.3	11.6	14.9	17.5
	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	
Water heat exchanger - condenser	Type				Plate heat exchanger										
	Water volume			l	6	8		10	12	13	15	17		27	34
	Water flow rate	Cooling	Nom.	l/s	5.5	6.2	7.1	8.0	8.9	10.2	11.4	13.0	14.5	18.5	21.8
		Heating	Nom.	l/s	5.7	6.4	7.3	8.2	9.1	10.4	11.8	13.3	15.0	19.1	22.6
	Water pressure drop	Cooling	Nom.	kPa	72	73	60	50		52	56	46	57	69	71
		Heating	Nom.	kPa	76	77	63	52		54	59	48	61	74	76
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	25~55										
Refrigerant	Type / GWP				R-410A / 2,087.5										
	Circuits	Quantity			1										
Refrigerant charge	Per circuit			kg/TCO_2Eq	10.0 / 20.9		11.0 / 23.0		12.0 / 25.1		15.0 / 31.3	16.0 / 33.4	17.0 / 35.5	19.0 / 39.7	20.0 / 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 head) available for evaporator and condenser

EWWQ-L-SS

Heating only & Cooling only				EWWQ-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
ESEER					5.54		5.52	5.53	5.54	5.53	5.54	5.52	5.51	5.55	5.51		5.52
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
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	177	176	178	176	177	-							
			SCOP		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 flow rate	Cooling	Nom.	l/s	9.0	10.3	11.7	13.0	14.5	16.5	18.5	20.6	22.8	26.3	29.3	31.8	34.6
		Heating	Nom.	l/s	8.8	10.1	11.5	12.7	14.1	16.1	18.2	20.1	22.4	26.0	28.9	31.4	34.2
	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
Water heat exchanger - condenser	Type				Plate heat exchanger												
	Water volume			l	19	22	29		35		41	49			62		
	Water flow rate	Cooling	Nom.	l/s	5.5	6.3	7.2	8.1	9.0	10.2	11.4	12.7	14.0	14.5	18.0	17.9	21.3
		Heating	Nom.	l/s	11.3	13.0	14.8	16.5	18.3	20.9	23.5	25.9	28.9	33.4	37.2	40.5	44.2
	Water flow rate 2	Cooling	Nom.	l/s	5.5	6.3	7.2	8.1	9.0	10.2	11.4	12.7	14.0	17.8	18.0	21.3	
	Water pressure drop	Cooling	Nom.	kPa	72	73	61	49	50	51	55	46	57	43	67		68
		Heating	Nom.	kPa	76	77	64	52		53	59	48	60	70	72	73	
	Water pressure drop 2	Cooling	Nom.	kPa	72	73	61	49	50	51	55	46	57	66	67	68	
Compressor	Type				Scroll compressor												
	Quantity				4												
Sound power level	Cooling	Nom.		dBA	83	86	88	90	91			93	95			96	
Sound pressure level	Cooling	Nom.		dBA	65	68	70	72	74		73	76	77		78		
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-10~15												
	Condenser	Cooling	Min.~Max.	°CDB	25~55												
Refrigerant	Type / GWP				R-410A / 2,087.5												
	Circuits	Quantity			2												
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	10.0 / 20.9		11.0 / 23.0		12.0 / 25.1		15.0 / 31.3	16.0 / 33.4	17.0 / 35.5		19.0 / 39.7	20.0 / 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												

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
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
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
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																	
	Water volume			l	193		183	172	271	263	256	248	241	233		472	504	489	472			
	Water flow rate	Nom.		l/s	15.9	18.8	21.9	25.7	30.5	33.6	37.3	40.3	43.4	47.0	49.0	55.1	57.4	60.8	64.2	66.8	69.4	72.0
	Water pressure drop	Cooling	Nom.	kPa	37	50	54	62	55	44	57	53	44	54	39	52	55	46	57	62	66	71
		Heating	Nom.	kPa	37	50	54	62	55	44	57	53	44	54	39	52	55	46	57	62	66	71
Water heat exchanger - condenser	Type				Single pass shell and tube																	
	Water flow rate	Nom.		l/s	19.5	23.1	27.0	31.7	18.8	19.1	23.0	23.2	26.8	27.2	30.5	22.6		22.9	26.4			29.9
	Water flow rate 2	Nom.		l/s	-				18.8	22.4	23.0	26.5	26.8	30.8	30.5	22.6		26.1	26.4		29.9	
	Water flow rate 3	Nom.		l/s	-											22.6	25.6	26.1	26.4	29.9		
	Water pressure drop	Cooling	Nom.	kPa	26	28	30	26	25		27	28	26	22	23	24		25	24			23
		Heating	Nom.	kPa	26	28	30	26	25	26	27	28	26	23		24		25	24			23
	Water pressure drop 2	Cooling	Nom.	kPa	-				25	26	27	26		23		24		23	24		23	
	Water pressure drop 3	Cooling	Nom.	kPa	-											24	22	23	24	23		
Compressor	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	Min.~Max.	°CDB	-8~15																	
	Condenser	Cooling	Min.~Max.	°CDB	20~55																	
Refrigerant	Type / GWP				R-134a / 1,430																	
	Circuits	Quantity			1				2							3						
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	54.0/77.2	52.0/74.4	60.0/85.8	55.0/78.7		60.0/85.8	75.0/107.3	55.0/78.7		50.0/78.7		52.0/74.4	51.7/73.9	51.3/73.4	51.0/72.9	50.7/72.5	50.3/72.0	58.0/82.9
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm											219.1mm						
	Condenser water inlet/outlet (OD)				5"																	
Unit	Maximum starting current			A	330	464			493	627	650	681		703		836	867	898		920	942	
	Nominal running current (RLA)	Cooling		A	119	145	166	196	236	262	288	310	329	355	382	431	450	470	493	520	547	574
	Maximum running current			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
ESEER					4.81	4.74	4.70	4.60	5.52	5.68	5.41	5.53	5.31	5.45	5.10
COP					5.83	5.82		5.50	5.85	5.84	5.85	5.81	5.66	5.53	5.51
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 flow rate	Nom.		l/s	17.3	20.7	24.1	27.3	34.4	37.9	41.3	44.5	46.6	49.5	54.1
	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
Water heat exchanger - condenser	Type				Single pass shell and tube										
	Water flow rate	Nom.		l/s	20.9	25.0	29.2	33.4	20.8	21.0	25.0		28.3		33.1
	Water flow rate 2	Nom.		l/s	-				20.8	24.9	25.0	28.8	28.3	32.3	33.1
	Water pressure drop	Cooling	Nom.	kPa	48	47	51	66	48		47		50	51	65
		Heating	Nom.	kPa	48	47	51	66	48		47	50		65	
	Water pressure drop 2	Cooling	Nom.	kPa	-				48	47		50		65	
Compressor	Type				Single screw compressor										
	Quantity				1				2						
Sound power level	Cooling	Nom.		dBA	94	97					98	99	100		
Sound pressure level	Cooling	Nom.		dBA	75	76	78				79	80	81		
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~15										
	Condenser	Cooling	Min.~Max.	°CDB	20~55										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits	Quantity			1				2						
Refrigerant charge	Per circuit			kg/TCO_2Eq	100.0 / 143.0	87.0 / 124.4	130.0 / 185.9	105.0 / 150.2	90.0 / 128.7	88.5 /126.6	87.0 / 124.4	86.0 / 123.0	85.0 / 121.6		
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm				219.1mm						
	Condenser water inlet/outlet (OD)				5"										
Unit	Maximum starting current			A	330	464			493	627	650	681		703	
	Nominal running current (RLA)	Cooling		A	117	144	164	194	235	261	287	307	327	358	388
	Maximum running current			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
	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
Capacity control	Method				Stepless															
	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
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
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
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	173	171	163		167	175	165	159	-							
			SCOP		4.40	4.34	4.14	4.15	4.24	4.46	4.21	4.04	-							
Dimensions	Unit	Height		mm	1,020							2,000								
		Width		mm	913															
		Depth		mm	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 flow rate	Nom.		l/s	5.7	7.0	7.4	8.5	9.9	12.2	13.6	14.8	15.9	17.0	18.4	19.8	22.1	24.5	25.8	27.2
	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
Water heat exchanger - condenser	Type				Single pass shell and tube															
	Water volume			l	20		23	25	29		32	45	48	51	54	57			61	64
	Water flow rate	Nom.		l/s	7.1	8.6	9.3	10.7	12.4	15.2	17.0	9.3		10.7	11.0	12.4		15.2	15.3	17.0
	Water flow rate 2	Cooling	Nom.	l/s	-							9.3	10.7		12.4		15.2		16.9	17.0
	Water pressure drop	Cooling	Nom.	kPa	19	12			11	16	26	12			11		16		26	
		Heating	Nom.	kPa	19	12			11	16	26	12			11	16		26		
	Water pressure drop 2	Cooling	Nom.	kPa	-							12			11	16		26		
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.~Max.	°CDB	-10~15															
	Condenser	Cooling	Min.~Max.	°CDB	23~60															
Refrigerant	Type / GWP				R-134a / 1,430															
	Circuits	Quantity			1							2								
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	18.0 / 25.7	35.0 / 50.1	34.0 / 48.6	37.0 / 52.9		38.0 / 54.3		33.0 / 47.2	33.5 / 47.9	34.0 / 48.6	35.0 / 50.1	36.0 / 51.5	37.0 / 52.9	38.0 / 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 screw chiller

High efficiency

Standard sound

› High energy efficient units: **full range Eurovent Class A**
› **Heat pump version** available
› **Flooded type heat exchangers**
› MicroTech III controller with superior control logic and easy interface

EWWD-H-XS

MicroTech III

Heating only & Cooling only				EWWD-H-XS	370	450	530	610	750	830	930	980	C10	C11	C12
Cooling capacity	Nom.			kW	368	444	520	606	745	825	930	975	1,047	1,130	1,212
Heating capacity	Nom.			kW	432	520	608	709	873	965	1,083	1,141	1,224	1,321	1,416
Power input	Cooling	Nom.		kW	65.2	77.8	89.8	104	130	143	156	168	179	193	207
	Heating	Nom.		kW	64.0	76.7	88.4	103	128	140	154	166	177	191	204
Capacity control	Method				Stepless										
	Minimum capacity			%	25.0				12.5						
EER					5.64	5.70	5.78	5.81	5.74	5.79	5.95	5.80	5.84		5.85
ESEER					5.80	5.82	5.90	5.91	6.44	6.51	6.59	6.63	6.66	6.69	6.68
COP					6.75	6.79	6.88	6.89	6.84	6.87	7.06	6.89	6.93		6.94
Dimensions	Unit	Height		mm	2,121			2,048					2,161		
		Width		mm	1,353			1,384	1,689				1,711		
		Depth		mm	3,341		3,419	3,417	3,609				3,509		
Weight	Unit			kg	3,089	3,370	3,603	3,781	5,289	5,375	5,654	5,707	6,066	6,105	6,156
	Operation weight			kg	3,250	3,588	3,870	4,163	5,694	5,835	6,174	6,262	6,709	6,773	6,859
Water heat exchanger - evaporator	Type				Single pass shell and tube										
	Water volume			l	78	107	134	160	172	201	261	272	295	310	327
	Water flow rate	Nom.		l/s	17.6	21.2	24.9	29.0	35.7	39.5	44.5	46.7	50.1	54.1	58.0
	Water pressure drop	Cooling	Nom.	kPa	40	33		40	47	38	35	36	33	32	
		Heating	Nom.	kPa	40	33		40	47	38	35	36	33	32	
Water heat exchanger - condenser	Type				Single pass shell and tube										
	Water flow rate	Nom.		l/s	20.8	25.1	29.3	34.2	42.1	46.5	52.2	55.0	59.0	63.7	68.3
	Water pressure drop	Cooling	Nom.	kPa	31	26	28	23	30	28	33	31	29	30	
		Heating	Nom.	kPa	31	26	28	23	30	28	33	31	29	30	
Compressor	Type				Single screw compressor										
	Quantity				1				2						
Sound power level	Cooling	Nom.		dBA	97	98	99		100	101		102		103	
Sound pressure level	Cooling	Nom.		dBA	78	79	80		81	82		83		84	
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~15										
	Condenser	Cooling	Min.~Max.	°CDB	18~60										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits	Quantity			1										
Refrigerant charge	Per circuit			kg/TCO$_2$Eq	180.0 / 257.4	210.0 / 300.3	230.0 / 328.9	250.0 / 357.5	270.0 / 386.1				300.0 / 429.0		320.0 / 457.6
Piping connections	Evaporator water inlet/outlet			mm	168.3			219.1							
	Condenser water inlet/outlet			inch	6			8							
Unit	Maximum starting current			A	330			464	448	471		492		626	646
	Nominal running current (RLA)		Cooling	A	107	124	141	166	213	231	249	266	283	307	330
	Maximum running current			A	148	176	202	228	296	323	351	378	404	430	456
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
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	3,401
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/TCO_2Eq	240.0 / 343.2	220.0 / 314.6	180.0 / 257.4	220.0 / 314.6		300.0 / 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					

Contents

Condenserless chiller

	EWLP-KBW1N	102
NEW	EWLQ-G-SS	103
NEW	EWLQ-L-SS	104
	EWLD-J-SS	105
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Condenserless scroll chiller

- One of the most **compact units** on the market: 600 x 600 x 600mm
- Daikin scroll compressor
- 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^{2}SE controller for direct connection to a Modbus based BMS or to a remote user interface

EWLP012-030KBW1N

µC^{2}SE

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 - evaporator	Minimum water volume in the system			l	62	103	134	155	205	268	311
	Type				Brazed 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					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						3.86	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	Water pressure drop	Cooling	Nom.		kPa	44		35	29		31	33	30	38	41	
	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
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												
		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	Water pressure drop	Cooling	Nom.	kPa	25		20	25	22	29			36	45	44	52	62
	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	Type				Scroll compressor												
	Quantity				4												
Sound power level	Cooling	Nom.		dBA	83	86	88	90	91			93	95			96	
Sound pressure level	Cooling	Nom.		dBA	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
› 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.		dBA	89							94								96
Sound pressure level	Cooling	Nom.		dBA	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
› **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 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			%	25.0				12.5					
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			l	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									

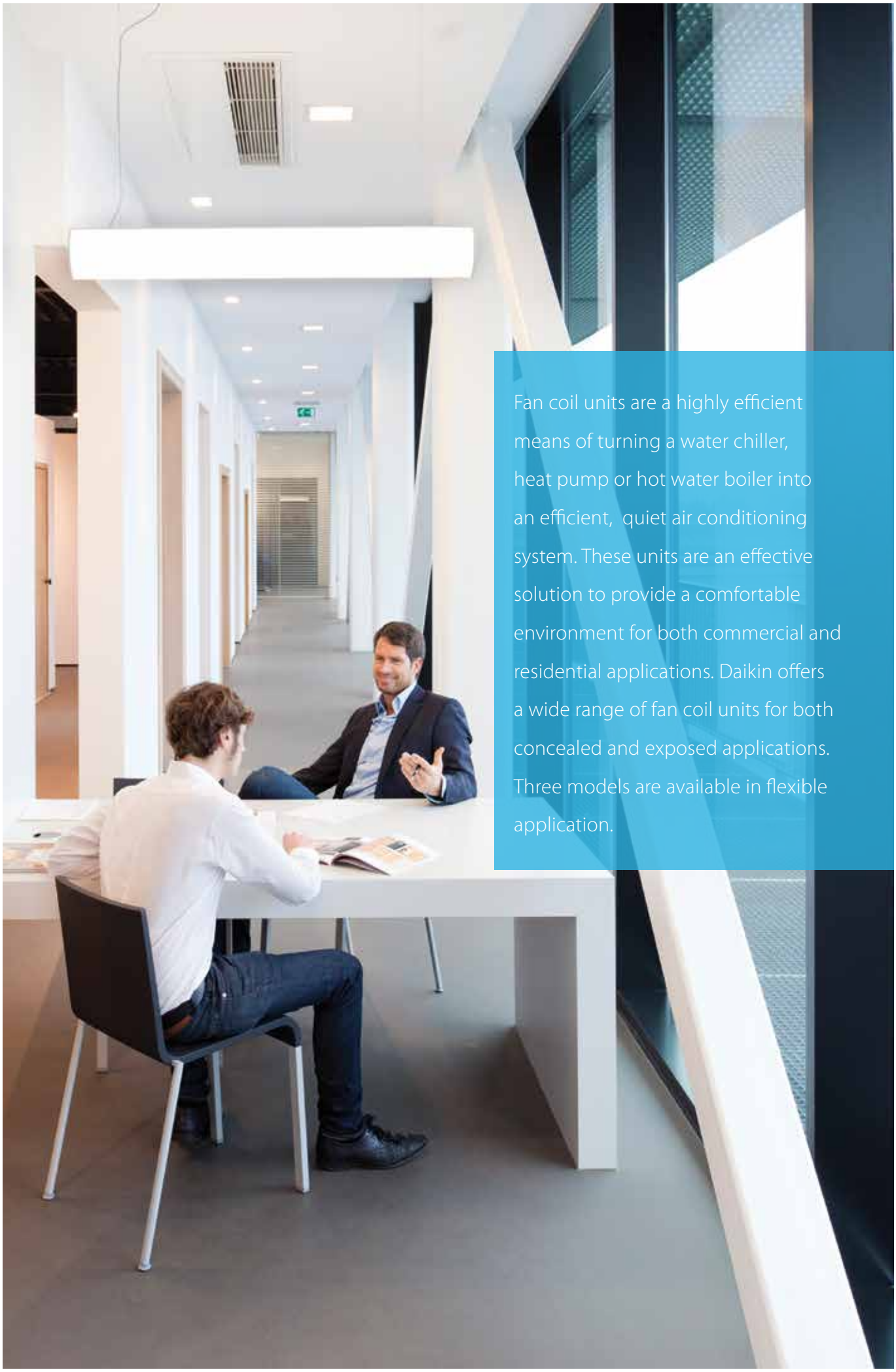
Condenserless screw chiller

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

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.		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	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																		



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.

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Fan coil units

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FWP-AT	126	medium ESP
FWB-BT	127	medium ESP
FWD-AT/AF	128	high ESP

Fan coil units with BLDC motor

Designed for tomorrow, available today

As more buildings undergo renovation, the need to be able to deliver high indoor air quality in a specific space in an **economic 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.

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.
- Our various factory mounted options or kits provide sufficient flexibility to suit your project needs

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*

* except for FWG-AT/AF range

Benefits for the consultant

› Best solution in the market in order to have top efficiency, best comfort and lowest sound levels

Benefits for the end user

› High comfort level
› Up to 70% savings on running costs
› Controller with timer programmed operating mode

Higher efficiency than AC (alternating 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

FWR-AT/AF

FWS-AT/AF

FWC-BT/BF

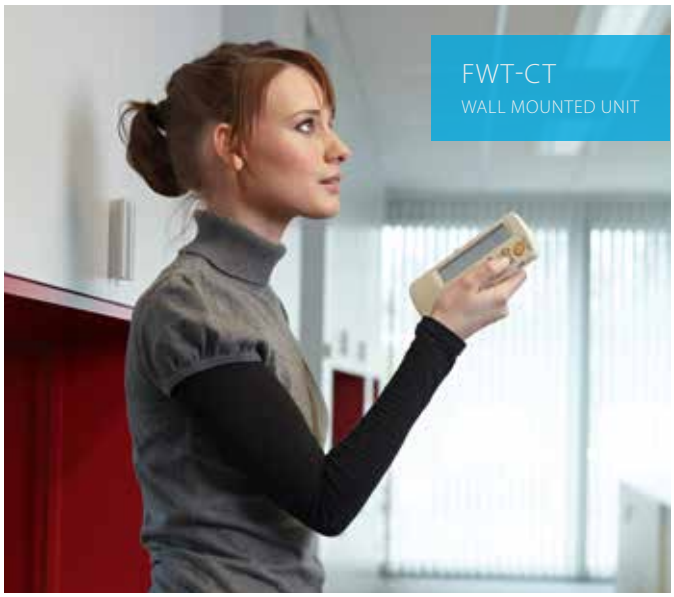
FWP-AT

FWZ-AT/AF

FWS-AT/AF
FLEXI TYPE UNIT

FWF-BT/BF
CEILING MOUNTED CASSETTE

FWC-BT/BF
CEILING MOUNTED CASSETTE


FWT-CT
WALL MOUNTED UNIT


FWR-AT/AF
FLOOR STANDING UNIT

Product overview

Type	Model	Product name		Fan motor type
Ceiling mounted cassette	Round flow cassette - Brushless DC fan motor unit for ceiling mounting - 360° air discharge ensures uniform air flow - Integrated fresh air intake - Easy installation in corners - Standard drain pump with 850 mm head	FWC-BT/BF		BLDC
	4-way blow ceiling mounted cassette - AC fan motor unit for ceiling mounting - Integrated fresh air intake - Horizontal auto swing - Easy installation in corners - Standard drain pump with 750 mm head	FWF-BT/BF		AC
Floor standing unit	Floor standing unit - Brushless DC fan motor for vertical mounting - Continuous air flow regulation and fan speed modulation - Up to 70% energy savings - Low sound levels	FWZ-AT/AF		BLDC
	Floor standing unit - AC fan motor 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
Flexi type unit	Flexi type unit - Brushless DC fan motor unit for horizontal or vertical mouting - Continuous air flow regulation and fan speed modulation - Up to 70% energy savings - Low sound levels	FWR-AT/AF		BLDC
	Flexi type unit - AC fan motor 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
	Concealed flexi type unit - Brushless DC fan motor 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
	Concealed flexi type unit - AC fan motor 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
Wall mounted unit	Wall mounted unit - AC fan motor unit for wall mounting - High aesthetic cabinet design - Optimum air distribution - Easy installation - 3-speed fan motor	FWT-CT		AC
Concealed celining unit	Concealed ceiling unit with medium ESP - Brushless DC fan motor unit for horizontal concealed mounting - Instant adjustment to temperature and relative humidity changes - Available static pressure up to 80 Pa - Low sound levels	FWP-AT		BLDC
	Concealed ceiling unit with medium ESP - AC fan motor unit for horizontal concealed mounting - Available static pressure up to 80 Pa - 7-speed electrical motors (thermal protection on windings) - Easy maintenance	FWB-BT		AC
	Concealed ceiling unit with high ESP - AC fan motor unit for horizontal or vertical concealed mounting - Available static pressure up to 120 Pa - Easy maintenance	FWD-AT/AF		AC

Capacity class (kW)

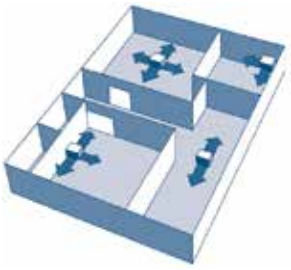
Capacity	1	2	3	4	5	6	7	8	9	10	11	12~	18
Cooling: 2.0 - 5.2 kW Heating: 2.9 - 6.7 kW						●	●	●	●				
Cooling: 2.49 - 4.54 kW Heating: 3.52 - 5.28 kW		●	●	●	●								
Cooling: 2.64 - 10.08 kW Heating: 2.46 - 11.18 kW		●	●			●		●					
Cooling: 1.46 -8.02 kW Heating: 1.90 - 10.03 kW	●	●	●	●			●		●		●		
Cooling: 2.64 - 10.08 kW Heating: 2.46- 11.18 kW		●	●			●		●					
Cooling: 1.46 - 8.02 kW Heating: 1.90 - 10.03 kW	●	●	●	●		●		●		●			
Cooling: 2.64 - 10.08 kW Heating: 2.46 - 11.18 kW		●	●			●		●					
Cooling: 1.46 -8.02 kW Heating: 1.90 - 10.03 kW	●	●	●	●		●		●		●			
Cooling: 2.43 - 5.28 kW Heating: 3.22 - 7.33 kW		●	●	●	●	●							
Cooling: 2.61 - 6.47 kW Heating: 5.47 - 12.28 kW		●	●	●	●	●	●						
Cooling: 2.61 - 10.34 kW Heating: 5.47 - 18.78 kW		●	●	●	●	●	●	●	●	●			
Cooling: 3.90 - 18.30 kW Heating: 4.05 - 21.92 kW				●		●		●		●		●	●

ROUND FLOW

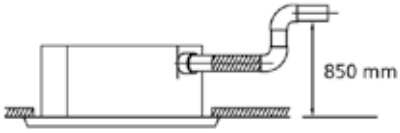
Round flow cassette

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)
› **Fresh air intake integrated** in the same system thus reducing installation cost as no additional ventilation is required
› Comfortable horizontal air discharge ensures **draught free operation** and prevents ceiling soiling
› Possibility to shut 1 or 2 flaps for **easy installation in corners**



› Standard drain pump with **850mm head** increases flexibility and installation speed



FWC-BT/BF

BRC315D7

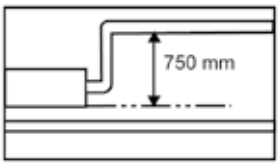
BRC7E532F/533F

			FWC-BT/BF	06	07	08	09	06	07	08	09
				2-pipe				4-pipe			
Cooling capacity	Total capacity	Super high	kW	5.8	6.8	7.7	8.7	5.8	6.6	7.6	8.7
		High	kW	5.0	5.6	6.3	7.2	4.9	5.6	6.3	7.2
		Low	kW	4.1	4.7	4.9	5.7	4.0	4.6	4.8	5.7
	Sensible capacity	Super high	kW	4.1	4.7	5.6	6.5	4.1	4.7	5.6	6.5
		High	kW	3.4	4.0	4.5	5.3	3.4	3.9	4.4	5.2
		Low	kW	2.8	3.3	3.5	4.1	2.7	3.2	3.4	4.0
Heating capacity	2-Pipe	Super high	kW	8.0	8.9	10.6	12.1	-			
		High	kW	6.3	7.1	8.3	9.5	-			
		Low	kW	5.5	5.9	6.9	7.8	-			
	4-Pipe	Super high	kW	-				7.5	8.4	9.7	11.0
		High	kW	-				6.2	6.8	7.8	8.8
		Low	kW	-				5.5	5.9	6.7	7.8
Power input	Super high		W	45	54	77	107	46	55	77	107
	High		W	40	46	58	76	41	47	59	77
	Low		W	34	37	39	45	35	38	40	46
Dimensions	Unit	Height	mm	288							
		Width	mm	840							
		Depth	mm	840							
Weight	Unit		kg	26				29			
Fan	Type			Turbo fan							
	Quantity			1							
	Air flow rate	High	m^3/h	1,062	1,236	1,518	1,776	1,032	1,200	1,476	1,746
		Low	m^3/h	720	840	888	1,044	684	804	852	1,014
Sound power level	Super high		dBA	43	47	53	57	43	47	53	57
	High		dBA	36	39	44	49	36	39	44	49
Sound pressure level	Super high		dBA	29	33	39	43	29	33	39	43
	High		dBA	24	28	32	37	24	28	32	37
Piping connections	Drain	OD	mm	VP25 (External dia.32 / internal dia. 25)							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240							
Control systems	Infrared remote control			BRC7E532F / BRC7E533F							
	Wired remote control			BRC315D7							

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 enables unit to fit flush into ceilings and match standard architectural modules
› Comfortable horizontal auto swing ensures **draught free operation** and prevents ceiling soiling
› **Fresh air intake integrated** in the same system thus reducing installation cost as no additional ventilation is required
› Standard drain pump with **750mm head**




FWF-BT/BF


BRC315D7


BRC7E530/531

			FWF-BT/BF	02	03	04	05	02	03	04	05
				2-pipe				4-pipe			
Cooling capacity	Total capacity	Super high	kW	2.0	3.2	4.2	5.2	2.0	2.7	3.5	4.5
		High	kW	1.7	2.8	3.3	4.0	1.7	2.3	2.8	3.5
		Low	kW	1.5	2.5		2.9	1.4	1.8		2.6
	Sensible capacity	Super high	kW	1.5	2.0	2.8	3.5	1.5	1.7	2.4	3.3
		High	kW	1.3	1.7	2.1	2.7	1.3		1.7	2.3
		Low	kW	1.1	1.4		1.8	1.1	1.0		1.5
Heating capacity	2-Pipe	Super high	kW	2.9	4.0	5.4	6.7	-			
		High	kW	2.6	3.4	4.1	5.3	-			
		Low	kW	2.3	2.8		3.6	-			
	4-Pipe	Super high	kW	-				3.9	3.8	4.9	6.1
		High	kW	-				3.1	3.3	3.9	4.8
		Low	kW	-				2.3	2.8		3.5
Power input	Super high		W	74		90	118	74		94	121
	High		W	67		70	89	67	62	74	93
	Low		W	60		55	62	60	55		66
Dimensions	Unit	Height	mm	285							
		Width	mm	575							
		Depth	mm	575							
Weight	Unit		kg	19				20			
Fan	Type			Turbo fan							
	Quantity			1							
	Air flow rate	High	m^3/h	468		660	876	468	438	618	822
		Low	m^3/h	318			420	318	300		390
Sound power level	Super high		dBA	44		50	55	44	46	52	57
	High		dBA	40		44	49	40	42	46	51
Sound pressure level	Super high		dBA	31		40	45	31	33	42	47
	High		dBA	27		33	39	27	29	35	41
Piping connections	Drain	OD	mm	VP20 (External dia.26 / Internal dia. 20)							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-440							
Control systems	Infrared remote control			BRC7E530 / BRC7E531							
	Wired remote control			BRC315D7							

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	08	02	03	06	08
				2-pipe				4-pipe			
Cooling capacity	Total capacity	Min.	kW	0.61	0.88	1.19	1.79	0.60	0.88	1.19	1.79
		Max.	kW	2.64	4.96	6.32	10.08	2.64	4.96	6.32	10.08
	Sensible capacity	Min.	kW	0.41	0.58	0.79	1.20	0.40	0.58	0.79	1.20
		Max.	kW	1.95	3.60	4.80	7.43	1.95	3.60	4.80	7.43
Heating capacity	2-Pipe	Min.	kW	0.69	0.95	1.29	1.92	-			
		Max.	kW	3.47	6.40	7.51	11.18	-			
	4-Pipe	Min.	kW	-				0.82	1.18	1.76	2.83
		Max.	kW	-				2.46	4.19	6.45	10.06
Power input	Min.		W	2.2		3.4	4.2	2.2		3.24	4.2
	Max.		W	57.4	82.7	101.4	147	57.4	82.7	101.4	147
Dimensions	Unit	Height	mm	564							
		Width	mm	774	987	1,194	1,404	774	987	1,194	1,404
		Depth	mm	226			251	226			251
Weight	Unit		kg	20	25	31	41	21	26	33	44
Heat exchanger	Water volume		l	0.7	1	1.4	2.1	0.7	1	1.4	2.1
Additional heat exchanger	Water volume		l	-				0.2	0.3	0.4	0.6
Water flow	Cooling		l/h	454	853	1,084	1,728	454	853	1,084	1,728
	Heating		l/h	454	853	1,084	1,728	216	367	565	882
Fan	Type			Centrifugal multi-blade, double suction							
	Quantity			1	2			1	2		
	Air flow rate	Max.	m^3/h	560	900	1,200	1,660	560	900	1,200	1,660
		Min.	m^3/h	70	95	130	200	70	95	130	200
Sound power level	Max.		dBA	62	70	64	71	62	70	64	71
Piping connections	Drain	OD	mm	16							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230							
Current input	Max.		A	0.50	0.72	0.88	1.27	0.50	0.72	0.88	1.27
	Min.		A	0.05		0.07	0.09	0.05		0.07	0.09
Control systems	Wired remote control			FWEC3A / FWECSA							

Floor standing unit

AC fan motor unit for vertical mounting

- **Pre-assembled 3-way/4-port on/off valves** are available
- **High efficiency** heat exchanger
- 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
- **Washable air filter,** easily removable for maintenance
- Electric heater: no relay up to 2kW capacity
- Electric heater: equipped with two overheat cut-out thermostats

FWV-DAT/DAF

FWEC1,2,3A

FWECSA

ECFWMB6

			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	Total capacity	High	kW	1.54	1.74	1.96	2.42	2.93	3.51	4.33	4.77	6.71	8.02	1.46	1.69	1.79	2.38	2.87	3.46	4.26	4.67	6.64	7.88
		Low	kW	1.04	1.26	1.36	1.60	1.76	1.98	2.51	3.17	3.97	4.11	0.99	1.24	1.26	1.58	1.73	1.96	2.48	3.11	3.93	4.07
	Sensible capacity	High	kW	1.20	1.30	1.42	1.88	2.11	2.72	3.15	3.65	4.91	5.96	1.14	1.27	1.46	1.85	2.07	2.71	3.09	3.57	4.85	5.85
		Low	kW	0.79	0.95	1.00	1.18	1.26	1.45	1.80	2.32	2.84	3.05	0.75	0.93	0.98	1.17	1.24	1.44	1.78	2.28	2.82	3.02
Heating capacity	2-Pipe	High	kW	2.14	2.20	2.57	3.20	3.81	4.78	5.10	5.95	7.83	10.03	-									
		Low	kW	1.43	1.71	1.79	2.07	2.28	2.81	2.98	3.96	4.77	5.24	-									
	4-Pipe	High	kW	-										1.90	2.02	2.01	2.92	3.08	4.80	5.05	5.30	7.91	8.35
		Low	kW	-										1.50	1.56		2.06	2.18	3.21	3.60	4.04	5.69	5.50
Power input	High		W	37	53		57	56	98			182	244	37	53		57	56	98			182	244
	Low		W	21	25	24	29		37	38	47	86	109	21	25	24	29		37	38	47	86	109
Dimensions	Unit	Height	mm	564																			
		Width	mm	774			987		1,194			1,404		774			987		1,194			1,404	
		Depth	mm	226								251		226								251	
Weight	Unit		kg	19	20		25		30		31	41		20	21		26		32		33	44	
Heat exchanger	Water volume		l	0.5		0.7		1		1.4		2.1		0.5		0.7		1		1.4		2.1	
Additional heat exchanger	Water volume		l	-										0.2			0.3		0.4			0.6	
Water flow	Cooling		l/h	264	298	337	415	504	602	743	818	1,152	1,376	250	291	176	409	494	594	730	803	1,138	1,362
	Heating		l/h	264	298	337	415	504	602	743	818	1,152	1,376	167	177	182	257	270	421	443	465	694	733
Fan	Type			Centrifugal multi-blade, double suction																			
	Quantity			1			2							1			2						
	Air flow rate	High	m^3/h	319	344		442		640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362
		Low	m^3/h	178	211		241		320	361	470	570	642	174	205		238		316	356	460	565	636
Sound power level	High		dBA	47	49	50	48		52	53	56	61	67	45	49	50	48	47	51	56	59	60	66
Piping connections	Drain	OD	mm	16																			
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230																			
Current input	High		A	0.17	0.24		0.26	0.25	0.44		0.43	0.82	1.10	0.17	0.24		0.26	0.25	0.44		0.43	0.82	1.10
	Medium		A	0.13	0.16		0.21	0.20	0.29		0.31	0.57	0.76	0.13	0.16		0.21	0.20	0.29		0.31	0.57	0.76
	Low		A	0.10	0.12	0.11	0.14		0.19		0.22	0.39	0.50	0.10	0.12	0.11	0.14		0.19		0.22	0.39	0.50
Control systems	Wired remote control			FWEC1A / FWEC2A / FWEC3A / FWECSA / ECFWMB6																			

Flexi type unit with cabinet

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
- Requires very **little installation space**

FWR-AT/AF

FWEC3A

FWECSA

				FWR-AT/AF	02	03	06	08	02	03	06	08
					2-pipe				4-pipe			
Cooling capacity	Total capacity	Min.	kW		0.61	0.88	1.19	1.79	0.60	0.88	1.19	1.79
		Max.	kW		2.64	4.96	6.32	10.08	2.64	4.96	6.32	10.08
	Sensible capacity	Min.	kW		0.41	0.58	0.79	1.20	0.40	0.58	0.79	1.20
		Max.	kW		1.95	3.60	4.80	7.43	1.95	3.60	4.80	7.43
Heating capacity	2-Pipe	Min.	kW		0.69	0.95	1.29	1.92	-			
		Max.	kW		3.47	6.40	7.51	11.18	-			
	4-Pipe	Min.	kW		-				0.82	1.18	1.76	2.83
		Max.	kW		-				2.46	4.19	6.45	10.06
Power input	Min.		W		2.2		3.4	4.2	2.2		3.24	4.2
	Max.		W		57.4	82.7	101.4	147	57.4	82.7	101.4	147
Dimensions	Unit	Height	mm		564							
		Width	mm		774	987	1,194	1,404	774	987	1,194	1,404
		Depth	mm		226			251	226			251
Weight	Unit		kg		21	27	33	44	22	28	35	46
Heat exchanger	Water volume		l		0.7	1	1.4	2.1	0.7	1	1.4	2.1
Additional heat exchanger	Water volume		l		-				0.2	0.3	0.4	0.6
Water flow	Cooling		l/h		454	853	1,084	1,728	454	853	1,084	1,728
	Heating		l/h		454	853	1,084	1,728	216	367	565	882
Fan	Type				Centrifugal multi-blade, double suction							
	Quantity				1	2			1	2		
	Air flow rate	Max.	m^3/h		560	900	1,200	1,660	560	900	1,200	1,660
		Min.	m^3/h		70	95	130	200	70	95	130	200
Sound power level	Max.		dBA		62	70	64	71	62	70	64	71
Power supply	Phase/Frequency/Voltage		Hz/V		1~/50/230							
Current input	Max.		A		0.50	0.72	0.88	1.27	0.50	0.72	0.88	1.27
	Min.		A		0.05		0.07	0.09	0.05		0.07	0.09
Control systems	Wired remote control				FWEC3A / FWECSA							

Flexi type unit with cabinet

AC fan motor unit for horizontal or vertical mounting

- **Pre-assembled 3-way/4-port on/off valves** are available
- **High efficiency** heat exchanger
- 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
- **Washable air filter**, easily removable for maintenance
- Electric heater: no relay up to 2kW capacity
- Electric heater: equipped with two overheat cut-out thermostats

FWL-DAT/DAF

FWEC1,2,3A

FWECSA

ECFWMB6

			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	Total capacity	High	kW	1.54	1.74	1.96	2.42	2.93	3.51	4.33	4.77	6.71	8.02	1.46	1.69	1.79	2.38	2.87	3.46	4.26	4.67	6.64	7.88
		Low	kW	1.04	1.26	1.36	1.60	1.76	1.98	2.51	3.17	3.97	4.11	0.99	1.24	1.26	1.58	1.73	1.96	2.48	3.11	3.93	4.07
	Sensible capacity	High	kW	1.20	1.30	1.42	1.88	2.11	2.72	3.15	3.65	4.91	5.96	1.14	1.27	1.46	1.85	2.07	2.71	3.09	3.57	4.85	5.85
		Low	kW	0.79	0.95	1.00	1.18	1.26	1.45	1.80	2.32	2.84	3.05	0.75	0.93	0.98	1.17	1.24	1.44	1.78	2.28	2.82	3.02
Heating capacity	2-Pipe	High	kW	2.14	2.20	2.57	3.20	3.81	4.78	5.10	5.95	7.83	10.03	-									
		Low	kW	1.43	1.71	1.79	2.07	2.28	2.81	2.98	3.96	4.77	5.24	-									
	4-Pipe	High	kW	-										1.90	2.02	2.01	2.92	3.08	4.80	5.05	5.30	7.91	8.35
		Low	kW	-										1.50	1.56		2.06	2.18	3.21	3.60	4.04	5.69	5.50
Power input	High		W	37	53		57	56	98			182	244	37	53		57	56	98			182	244
	Low		W	21	25	24	29		37	38	47	86	109	21	25	24	29		37	38	47	86	109
Dimensions	Unit	Height	mm	564																			
		Width	mm	774			987		1,194			1,404		774			987		1,194			1,404	
		Depth	mm	226								251		226								251	
Weight	Unit		kg	20	21		27		32		33	44		21	22		28		24	34	35	46	
Heat exchanger	Water volume		l	0.5		0.7		1		1.4		2.1		0.5		0.7		1		1.4		2.1	
Additional heat exchanger	Water volume		l	-										0.2			0.3		0.4			0.6	
Water flow	Cooling		l/h	264	298	337	415	504	602	743	818	1,152	1,376	250	291	176	409	494	594	730	803	1,138	1,362
	Heating		l/h	264	298	337	415	504	602	743	818	1,152	1,376	167	177	182	257	270	421	443	465	694	733
Fan	Type			Centrifugal multi-blade, double suction																			
	Quantity			1			2							1			2						
	Air flow rate	High	m^3/h	319	344		442		640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362
		Low	m^3/h	178	211		241		320	361	470	570	642	174	205		238		316	356	460	565	636
Sound power level	High		dBA	47	49	50	48		52	53	56	61	67	45	49	50	48	47	51	56	59	60	66
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230																			
Current input	High		A	0.17	0.24		0.26	0.25	0.44		0.43	0.82	1.10	0.17	0.24		0.26	0.25	0.44		0.43	0.82	1.10
	Medium		A	0.13	0.16		0.21	0.20	0.29		0.31	0.57	0.76	0.13	0.16		0.21	0.20	0.29		0.31	0.57	0.76
	Low		A	0.10	0.12	0.11	0.14		0.19		0.22	0.39	0.50	0.10	0.12	0.11	0.14		0.19		0.22	0.39	0.50
Control systems	Wired remote control			FWEC1A / FWEC2A / FWEC3A / FWECSA / ECFWMB6																			

Flexi type unit without cabinet

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

FWEC3A

FWECSA

				FWS-AT/AF	02	03	06	08	02	03	06	08
					2-pipe				4-pipe			
Cooling capacity	Total capacity	Min.	kW		0.61	0.88	1.19	1.79	0.60	0.88	1.19	1.79
		Max.	kW		2.64	4.96	6.32	10.08	2.64	4.96	6.32	10.08
	Sensible capacity	Min.	kW		0.41	0.58	0.79	1.20	0.40	0.58	0.79	1.20
		Max.	kW		1.95	3.60	4.80	7.43	1.95	3.60	4.80	7.43
Heating capacity	2-Pipe	Min.	kW		0.69	0.95	1.29	1.92	-			
		Max.	kW		3.47	6.40	7.51	11.18	-			
	4-Pipe	Min.	kW		-				0.82	1.18	1.76	2.83
		Max.	kW		-				2.46	4.19	6.45	10.06
Power input	Min.		W		2.2		3.4	4.2	2.2		3.24	4.2
	Max.		W		57.4	82.7	101.4	147	57.4	82.7	101.4	147
Dimensions	Unit	Height	mm		535							
		Width	mm		584	794	1,004	1,214	584	794	1,004	1,214
		Depth	mm		224			249	224			249
Weight	Unit		kg		15	19	23	32	16	20	25	34
Heat exchanger	Water volume		l		0.7	1	1.4	2.1	0.7	1	1.4	2.1
Additional heat exchanger	Water volume		l		-				0.2	0.3	0.4	0.6
Water flow	Cooling		l/h		454	853	1,084	1,728	454	853	1,084	1,728
	Heating		l/h		454	853	1,084	1,728	216	367	565	882
Fan	Type				Centrifugal multi-blade, double suction							
	Quantity				1	2			1	2		
	Air flow rate	Max.	m^3/h		560	900	1,200	1,660	560	900	1,200	1,660
		Min.	m^3/h		70	95	130	200	70	95	130	200
Sound power level	Max.		dBA		62	70	64	71	62	70	64	71
Piping connections	Drain	OD	mm		17							
Power supply	Phase/Frequency/Voltage		Hz/V		1~/50/230							
Current input	Max.		A		0.50	0.72	0.88	1.27	0.50	0.72	0.88	1.27
	Min.		A		0.05		0.07	0.09	0.05		0.07	0.09
Control systems	Wired remote control				FWEC3A / FWECSA							

Flexi type unit without cabinet

AC fan motor unit for horizontal or vertical concealed mounting

- **Pre-assembled 3-way/4-port on/off valves** are available
- **High efficiency** heat exchanger
- 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
- **Washable air filter,** easily removable for maintenance
- Electric heater: no relay up to 2kW capacity
- Electric heater: equipped with two overheat cut-out thermostats

FWM-DAT/DAF

FWEC1,2,3A

FWECSA

			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	Total capacity	High	kW	1.54	1.74	1.96	2.42	2.93	3.51	4.33	4.77	6.71	8.02	1.46	1.69	1.79	2.38	2.87	3.46	4.26	4.67	6.64	7.88
		Low	kW	1.04	1.26	1.36	1.60	1.76	1.98	2.51	3.17	3.97	4.11	0.99	1.24	1.26	1.58	1.73	1.96	2.48	3.11	3.93	4.07
	Sensible capacity	High	kW	1.20	1.30	1.42	1.88	2.11	2.72	3.15	3.65	4.91	5.96	1.14	1.27	1.46	1.85	2.07	2.71	3.09	3.57	4.85	5.85
		Low	kW	0.79	0.95	1.00	1.18	1.26	1.45	1.80	2.32	2.84	3.05	0.75	0.93	0.98	1.17	1.24	1.44	1.78	2.28	2.82	3.02
Heating capacity	2-Pipe	High	kW	2.14	2.20	2.57	3.20	3.81	4.78	5.10	5.95	7.83	10.03	-									
		Low	kW	1.43	1.71	1.79	2.07	2.28	2.81	2.98	3.96	4.77	5.24	-									
	4-Pipe	High	kW	-										1.90	2.02	2.01	2.92	3.08	4.80	5.05	5.30	7.91	8.35
		Low	kW	-										1.50	1.56		2.06	2.18	3.21	3.60	4.04	5.69	5.50
Power input	High		W	37	53		57	56	98			182	244	37	53		57	56	98			182	244
	Low		W	21	25	24	29		37	38	47	86	109	21	25	24	29		37	38	47	86	109
Dimensions	Unit	Height	mm	535																			
		Width	mm	584			794		1,004			1,214		584			794		1,004			1,214	
		Depth	mm	224								249		224								249	
Weight	Unit		kg	14	15		19		23			32		15	16		20		25			34	
Heat exchanger	Water volume		l	0.5		0.7		1		1.4		2.1		0.5		0.7		1		1.4		2.1	
Additional heat exchanger	Water volume		l	-										0.2			0.3		0.4			0.6	
Water flow	Cooling		l/h	264	298	337	415	504	602	743	818	1,152	1,376	250	291	176	409	494	594	730	803	1,138	1,362
	Heating		l/h	264	298	337	415	504	602	743	818	1,152	1,376	167	177	182	257	270	421	443	465	694	733
Fan	Type			Centrifugal multi-blade, double suction																			
	Quantity			1			2							1			2						
	Air flow rate	High	m^3/h	319	344		442		640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362
		Low	m^3/h	178	211		241		320	361	470	570	642	174	205		238		316	356	460	565	636
Sound power level	High		dBA	47	49	50	48		52	53	56	61	67	45	49	50	48	47	51	56	59	60	66
Piping connections	Drain	OD	mm	17																			
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230																			
Current input	High		A	0.17	0.24		0.26	0.25	0.44		0.43	0.82	1.10	0.17	0.24		0.26	0.25	0.44		0.43	0.82	1.10
	Medium		A	0.13	0.16		0.21	0.20	0.29		0.31	0.57	0.76	0.13	0.16		0.21	0.20	0.29		0.31	0.57	0.76
	Low		A	0.10	0.12	0.11	0.14		0.19		0.22	0.39	0.50	0.10	0.12	0.11	0.14		0.19		0.22	0.39	0.50
Control systems	Wired remote control			FWEC1A / FWEC2A / FWEC3A / FWECSA																			

Wall mounted unit

AC fan motor unit for wall mounting

› High **aesthetic cabinet design**
› **Optimum air distribution**
› Easy to install
› 3-speed fan motor
› **Low operating sound level** thanks to tangential fan
› Insulated with self-extinguishing class 1 heat insulation
› Removable washable air filter (self-extinguishing class 1)

FWT-CT

MERCA / SRC-HPA

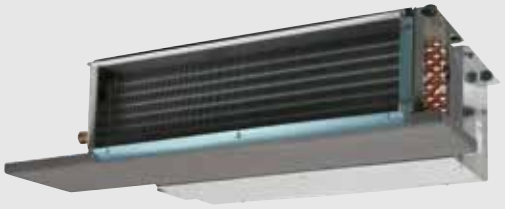
WRC-HPC

			FWT-CT	02	03	04	05	06
				2-pipe				
Cooling capacity	Total capacity	High	kW	2.43	2.70	3.31	4.54	5.28
		Low	kW	2.11	2.23	2.78	3.81	4.40
	Sensible capacity	High	kW	1.85	2.02	2.64	3.43	4.10
		Low	kW	1.49	1.61	2.05	2.81	3.28
Heating capacity	2-Pipe	High	kW	3.22	3.52	4.40	6.01	7.33
		Low	kW	2.49	2.70	3.37	4.84	5.86
Power input	High		W	31	32	42	53	72
	Low		W	25	29	33	42	60
Dimensions	Unit	Height	mm	288			310	
		Width	mm	800			1,065	
		Depth	mm	206			224	
Weight	Unit		kg	9			14	
	Operation weight		kg	9.5	9.6		15	
Heat exchanger	Water volume		l	0.52	0.58		0.95	
Water flow	Cooling		l/h	420	460	570	780	910
	Heating		l/h	420	460	570	780	910
Fan	Type			Cross flow fan				
	Quantity			1				
	Air flow rate	High	m^3/h	442	476	629	866	1,053
		Low	m^3/h	340	374	442	663	782
Sound power level	High		dBA	45	48	55		59
Sound pressure level	High		dBA	34	35	42		46
Piping connections	Drain	OD	mm	19				
Water connections	Std. heat exchanger		inch	1/2				
Power supply	Phase/Frequency/Voltage		Hz/V	/-/-				
Current input	High		A	0.19	0.20	0.21	0.29	0.34
	Medium		A	0.18	0.20		0.26	0.32
	Low		A	0.17	0.19		0.25	0.31
Control systems	Infrared remote control			WRC-HPC				
	Wired remote control			MERCA / SRC-HPA				

Medium ESP ducted unit

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

FWEC3A

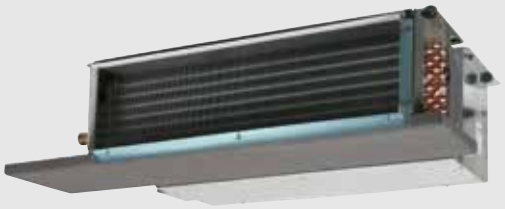
FWECSA

			FWP-AT	02	03	04	05	06	07
				2-pipe					
Cooling capacity	Total capacity	High	kW	2.61	3.14	3.49	5.08	5.45	6.47
		Low	kW	1.34	1.5	1.67	2.12	2.43	2.67
	Sensible capacity	High	kW	1.88	2.16	2.34	3.6	3.87	4.4
		Low	kW	0.95	1.02	1.1	1.52	1.67	1.78
Heating capacity	2-Pipe	High	kW	5.47	6.01	6.47	10.31	11.39	12.28
		Low	kW	2.77	2.91	3.00	4.56	4.77	4.94
	4-Pipe	High	kW		3.14			5.99	
		Low	kW		1.95			3.38	
Power input	High		W		46.4			80	
	Low		W		12.2			17.5	
Dimensions	Unit	Height	mm			239			
		Width	mm		1,039			1,389	
		Depth	mm			609			
Weight	Unit		kg	23	24	26	31	33	35
	Operation weight		kg	24	26	28	33	35	38
Heat exchanger	Water volume		l	1.1	1.5	2.2	1.6	2.1	3.2
Additional heat exchanger	Water volume		l		0.4			0.6	
Water flow	Cooling		l/h	448	539	598	873	936	1,111
	Heating		l/h	480	527	567	904	999	1,077
	Additional heat exchanger		l/h		275			526	
Water pressure drop	Additional heat exchanger		kPa		3			5	
Fan	Type					Centrifugal - forward blades - directly coupled on fan motor			
	Quantity					1			
	Air flow rate	High	m^3/h		400			800	
		Low	m^3/h		180			300	
	Available pressure	High	Pa		71			65	
Sound power level	High		dBA		55.6			60.6	
Sound pressure level	High		dBA		44.1			49.1	
Electric heater	Power input		kW		2			2.5	
Piping connections	Drain	OD	mm			16			
Water connections	Std. heat exchanger		inch			3/4			
	Add. heat exchanger		inch			3/4			
Power supply	Phase/Frequency/Voltage		Hz/V			1~/50/230			
Control systems	Wired remote control					FWEC3A / FWECSA			

Medium ESP ducted unit

AC fan motor unit for horizontal concealed mounting

- **Compact dimensions**, can easily be mounted in a narrow ceiling void
- 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
- **Washable air filter**, easily removable for maintenance



FWB-BT

FWEC1,2,3A

FWECSA

			FWB-BT	02	03	04	05	06	07	08	09	10
				2-pipe								
Cooling capacity	Total capacity	High	kW	2.61	3.14	3.49	5.08	5.45	6.47	7.57	8.67	10.34
		Low	kW	1.34	1.50	1.67	2.12	2.43	2.67	4.18	4.64	5.35
	Sensible capacity	High	kW	1.88	2.16	2.34	3.6	3.87	4.4	5.23	5.96	6.9
		Low	kW	0.95	1.02	1.1	1.52	1.67	1.78	2.95	3.21	3.57
Heating capacity	2-Pipe	High	kW	5.47	6.01	6.47	10.31	11.39	12.28	15.05	16.85	18.78
		Low	kW	2.77	2.91	3.00	4.56	4.77	4.94	8.63	9.29	9.85
	4-Pipe	High	kW		3.14			5.99			12.8	
		Low	kW		1.95			3.38			7.67	
Power input	High		W		79			154			294	
	Low		W		28			64			155	
Dimensions	Unit	Height	mm					239				
		Width	mm		1,039			1,389			1,739	
		Depth	mm					609				
Weight	Unit		kg	23	24	26	31	33	35	43	45	48
	Operation weight		kg	24	26	28	33	35	38	45	48	52
Heat exchanger	Water volume		l	1.1	1.5	2.2	1.6	2.1	3.2	2.1	2.8	4.2
Additional heat exchanger	Water volume		l		0.4			0.6			1.7	
Water flow	Cooling		l/h	448	539	598	873	936	1,111	1,299	1,488	1,774
	Heating		l/h	480	527	567	904	999	1,077	1,319	1,479	1,647
	Additional heat exchanger		l/h		275			526			1,123	
Water pressure drop	Additional heat exchanger		kPa		3			5			8	
Fan	Type			Centrifugal - forward blades - directly coupled on fan motor								
	Quantity				1			2			3	
	Air flow rate	High	m^3/h		400			800			1,200	
		Low	m^3/h		180			300			600	
	Available pressure	High	Pa		71			65			59	
Sound power level	High		dBA		56			59			69	
Sound pressure level	High		dBA		44.5			47.5			57.5	
Electric heater	Power input		kW		2			2.5			3	
Piping connections	Drain	OD	mm					16				
Water connections	Std. heat exchanger		inch					3/4				
	Add. heat exchanger		inch			3/4					1	
Power supply	Phase/Frequency/Voltage		Hz/V					1~/50/230				
Current input	High		A		0.36			0.73			1.28	
	Medium		A		0.21			0.60			0.90	
	Low		A		0.14			0.33			0.70	
Control systems	Wired remote control							FWEC1A / FWEC2A / FWEC3A / FWECSA				

High ESP ducted unit

AC fan motor unit for horizontal or vertical concealed mounting

› Straight duct connector mounted to discharge side
› **Washable air filter**, easily removable for maintenance

FWD-AT/AF

FWEC1,2,3A

FWECSA

			FWD-AT/AF	04	06	08	10	12	16	18	04	06	08	10	12	16	18
				2-pipe							4-pipe						
Cooling capacity	Total capacity	High	kW	3.90	6.20	7.80	8.82	11.90	16.40	18.30	3.90	6.20	7.80	8.82	11.90	16.40	18.30
	Sensible capacity	High	kW	3.08	4.65	6.52	7.16	9.36	12.80	14.10	3.08	4.65	6.52	7.16	9.36	12.80	14.10
Heating capacity	2-Pipe	High	kW	4.05	7.71	9.43	10.79	14.45	19.81	21.92	-						
	4-Pipe	High	kW	-							4.49	6.62	9.21		15.86	21.15	
Power input	High		W	234	349	443		714	1,197		234	349	443		714	1,197	
	Low		W	130	247	261		328	704		130	247	261		328	704	
Dimensions	Unit	Height	mm	280				352			280				352		
		Width	mm	754	964	1,174			1,384		754	964	1,174			1,384	
		Depth	mm	559				718			559				718		
Weight	Unit		kg	33	41	47	49	65	77	80	35	43	50	52	71	83	86
Heat exchanger	Water volume		l	1.06	1.42	1.79	2.38	2.5	4.02	5.03	1.06	1.42	1.79	2.38	2.50	4.02	5.03
Additional heat exchanger	Water volume		l	-							0.35	0.47	0.59		1.42	1.72	
Water flow	Cooling		l/h	674	1,064	1,339	1,514	2,056	2,833	3,140	674	1,064	1,339	1,514	2,056	2,833	3,140
	Heating		l/h	674	1,064	1,339	1,514	2,056	2,833	3,140	349	581	808		1,392	1,856	
Fan	Type			Centrifugal multi-blade, double suction													
	Quantity			1	2						1	2					
	Air flow rate	High	m^3/h	800	1,250	1,600		2,200	3,000		800	1,250	1,600		2,200	3,000	
	Available pressure	High	Pa	66	58	68	64	97	145	134	63	53	63	59	92	138	128
Sound power level	High		dBA	66	69	72		74	78		66	69	72		74	78	
Piping connections	Drain	OD	mm	16													
Water connections	Std. heat exchanger		inch	3/4				1			3/4				1		
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230													
Current input	High		A	0.95	1.58	1.97		3.21	5.37		0.95	1.58	1.97		3.21	5.37	
	Medium		A	0.74	1.39	1.52		2.08	4.38		0.74	1.39	1.52		2.08	4.38	
	Low		A	0.57	1.18	1.20		1.50	3.26		0.57	1.18	1.20		1.50	3.26	
Control systems	Wired remote control			FWEC1A / FWEC2A / FWEC3A / FWECSA													

Daikin air handling units, with their Plug & 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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Daikin air handling units

Always choose Daikin air handling units

- Energy efficiency and indoor air quality
- Wide range of air handling units
- **High quality** in component selection
- **Innovative** technology
- 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.

Benefits for the installer

› Easy commissioning through pre-programmed DDC controller and external terminal connection avoiding drilling into unit panels
› Internal electrical wiring saves installation time
› Flush mounted electrical control panel avoids risk of damage during transportation and installation

Benefits for the consultant

› In-house developed ASTRA software with improved user interface allowing for a professional report in a few clicks

Benefits for the end user

› Higher degree of control than ever before, allowing the user to determine a wide range of settings, resulting in excellent operational flexibility
› Fully integrated electrical panel for units taller than 80cm

Marketing tools

› Watch the time-lapse video of a Daikin AHU construction on www.youtube.com/daikineurope

› Brochure on air handling units as a combined solution with refrigeration and chillers on commercial applications

Packaged control solution for Daikin AHU

› Electrical control panel complete with Direct Digital Control (DDC) controller
› Internal fitting of all sensors & pressure measurements devices
› Built-in temperature, humidity and CO_2 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
› 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 & 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

SMART CONTROLS

DAMPER AND EC FAN

HEAT RECOVERY
WHEEL AND FILTER

COMMERCIAL AND
INDUSTRIAL APPLICATIONS

COMFORTABLE
INDOOR CLIMATE

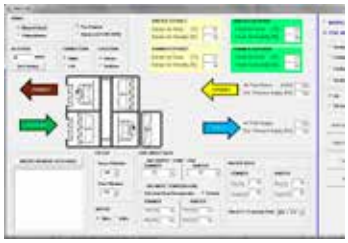
Software

ASTRA Pro

ASTRA is the powerful software that Daikin has developed to offer a **quick** and **comprehensive service** for the customer, to facilitate finding the right balance of **performance and cost** in an air handling unit. It is a complete tool that can configure any type of product and respond exactly to the strictest design needs. The result is a comprehensive **economic** offer including all the technical data and drawings, the psychrometric diagram with the relative air treatment and the fans' performance curves. However, Daikin didn't stop there, they went further.

MECCANO is the other powerful software developed and designed to quickly **convert the offer in the executive order**. Technical drawings to be sent and approved by the client, executive drawings for the production, bill of material, code generation for each component used are just a few of the many functions of the instrument.

The ASTRA-MECCANO integration has therefore made possible the complete automated management of the process by **reducing the time of the offer** and of the delivery and improving the service to our customers.



ASTRA Xpress

› 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 huge number of the pre-engineered units embedded within the software.

4 steps to configure an air handler in just 2 minutes

1. Select a configuration
2. Select coils
3. Select other components
4. Design conditions ----> Print report

Eurovent certification

Daikin is participating in the Eurovent Certification Programme for Air Handling Units. They are certified under the number 11.05.003 and presented on www.eurovent-certification.com

Daikin air handling units	Result sp65	Eurovent Classification according to EN1886					
		Casing mechanical strength					
Casing mechanical strength	D1	Casing Class	D1	D2	D3		
		Maximum relative deflection mm x m^{-1}	4.00	10.00	EXCEEDING10		
		Casing air leakage Negative pressure -400 Pa					
Casing air leakage Negative pressure -400 Pa	L1	Leakage Class	L1	L2	L3		
		Maximum leakage rate (f_{400}) l x s^{-1} x m^{-2}	0.15	0.44	1.32		
		Casing air leakage Positive pressure +700 Pa					
Casing air leakage Positive pressure +700 Pa	L1	Leakage Class	L1	L2	L3		
		Maximum leakage rate (f_{700}) l x s^{-1} x m^{-2}	0.22	0.63	1.90		
		Filter bypass leakage					
Filter bypass leakage	F9	Filter Class	F9	F8	F7	F6	G1 TO F5
		Maximum filter bypass leakage rate k in % of the volume flow rate	0.50	1	2	4	6
		Thermal transmittance					
Thermal transmittance	T2	Class	T1	T2	T3	T4	T5
		Thermal transmittance (U) W/m^2 x K	U <= 0.5	0.5 < U <= 1	1 < U <= 1.4	1.4 < U <= 2	No requirements
		Thermal Bridging of the casing					
Thermal bridging of the casing	TB2	Class	TB1	TB2	TB3	TB4	TB5
		Thermal bridging facto (kb) 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

Modular

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
- Quiet operation

Simple, quick installation

The Modular series' Plug & 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 & Play makes everyone's life simpler, safer and more economical.

		ADT-F/B	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		%	81.3	81.1	81.2	81.6	80.7	81.2	82.7	81.8	81.5	81.9
External static pressure	Nom.	Pa	200	200	200	200	200	200	200	200	200	200
Current	Nom.	A	2.66	3.90	6.30	2.98	4.00	4.74	4.76	6.34	8.72	10.2
Power input	Nom.	kW	0.62	0.89	1.50	1.98	2.68	2.96	3.30	4.28	5.48	7.04
SFPv		$kW/m^3/s$	1.87	1.89	1.99	1.74	1.75	1.75	1.70	1.69	1.72	1.69
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	230	400	400	400	400	400	400	400
Dimensions unit	Length	mm	1,700	1,700	1,800	1,920	2,080	2,280	2,400	2,450	2,280	2,400
	Depth	mm	720	820	990	1,200	1,400	1,400	1,600	1,940	1,940	2,300
	Height overall	mm	1,320	1,320	1,540	1740	1740	1920	1920	2,180	2,460	2,570
Weight unit		kg	325	350	475	575	750	790	950	1,330	1,410	1,750
Sound level		Lp dB(A)*	40	42	42	45	46	44	43	43	45	45

* Sound pressure level radiated from unit at 1 meter and according to ISO 3744 (supply outlet ducted)

Air handling unit application

Daikin Fresh Air package

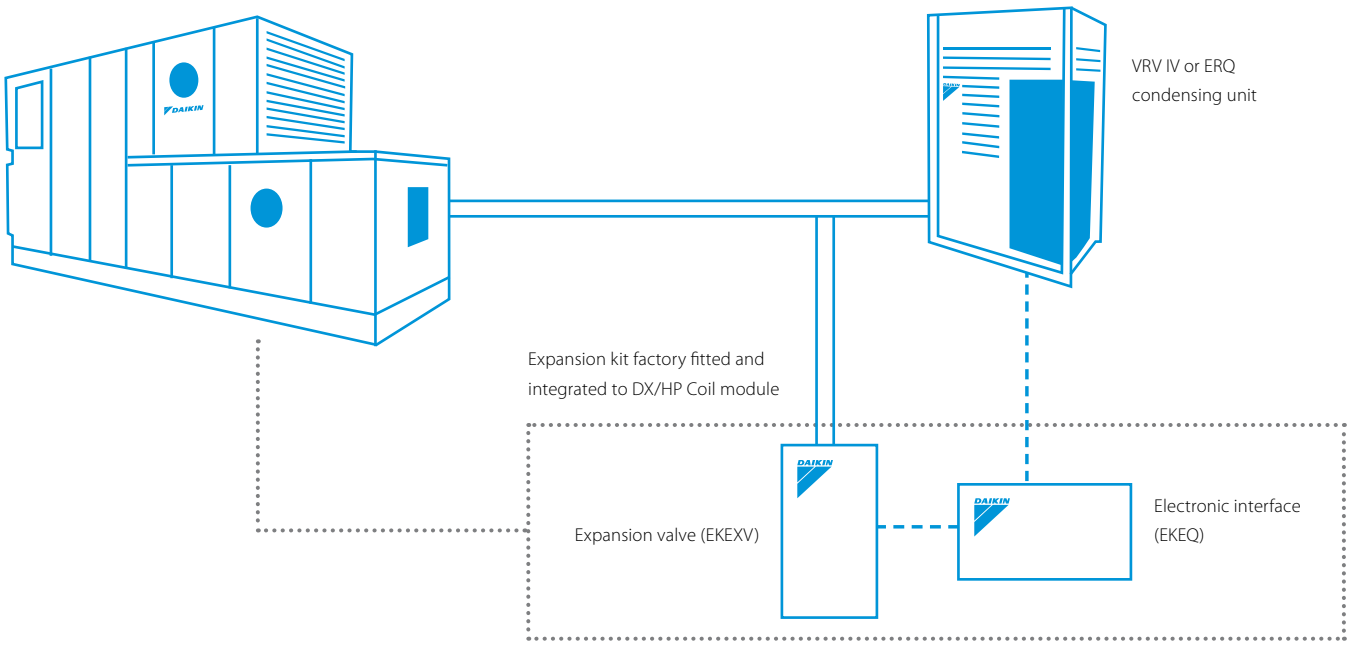
The Daikin fresh air package provides a complete solution, including all unit controls (expansion valve, control box and an AHU controller) and sensors factory mounted and configured. This unique solution allows for Plug & Play connection of our AHU series to Daikin ERQ and VRV condensing units.

High 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 resultant 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.



Please refer to our VRVIV and ERQ inverter driven condensing unit ranges which are fully compatible with the Modular AHU

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Control Systems

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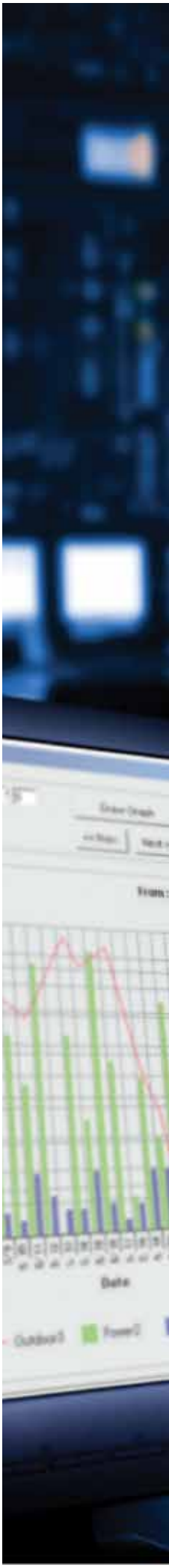



Print Graph
Export Data
Setup Graph
Exit
To:
60
50
40
30
20
10
0
-10
deg

NEW Mini Building Management System

intelligent touch Manager

DCM601A51

Mini BMS

with full integration across all product pillars

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

System overview

Web Access

Internet
Extranet
LAN
3G
http interface

Integration of third party equiqment

Fire alarm

kWh meter

Di/Pi line
Max. 200m

intelligent touch Manager

DCM601A51

Full control of Daikin HVAC-R portfolio

ITM plus adaptor line

Max. 7 adapters

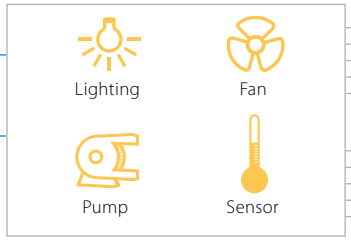
DCM601A52

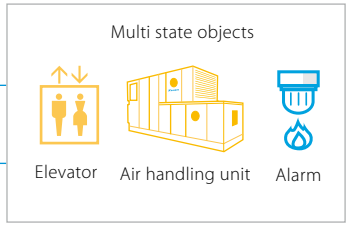
Di/Pi port

Direct Plug & Play connection!

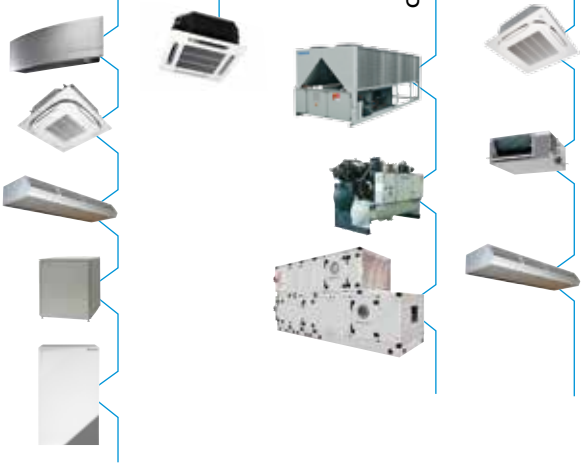
BACnet protocol

WAGO interface





Split
Sky Air
VRV
indoor units,
air curtain,
hydrobox,
air handling units



Fan coil units

Chillers and AHU

Refrigeration

touch intelligent Manager

User friendliness

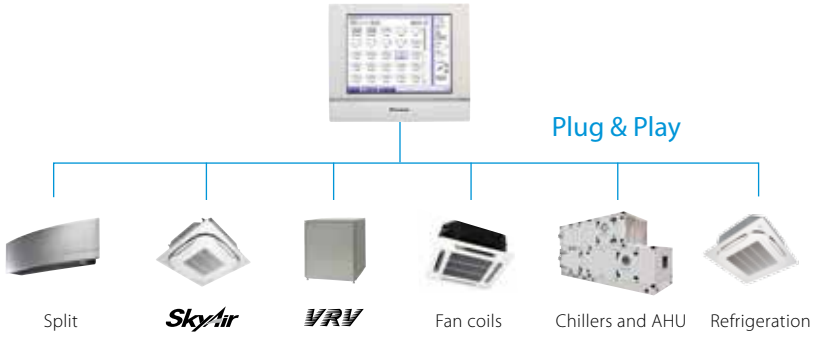
› Intuitive user interface
› Visual lay out view and direct access to indoor unit main funtions
› All functions direct accessible via touch screen or via web interface

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 equiment such as heating

Flexibility

NEW › Cross-pillar integration (heating, air conditioning, applied systems, refrigeration, air handling units)
NEW › 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 2,560 indoor unit groups



Easy servicing and commissioning

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

Functions overview

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

System layout
› Up to 2,560 unit groups can be controlled (ITM plus Integrator + 7 iPU (incl. iTM adaptor)
› Ethernet TCPIP

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

Control
› Individual control (2,560 groups)
› Schedule setting (Weekly schedule, yearly calender, seasonal schedule)
› Interlock control
› Setpoint limitation
› Temperature limit

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

Connectable to
- DX Split, Sky Air, VRV
- Chillers (via POL638.70 controller)
NEW - Daikin AHU
- Fan coils
- Daikin Altherma Flex type
- LT and HT hydroboxes
- Air curtains
- WAGO I/O
NEW - BACnet protocol

Modbus Interface

RTD-W

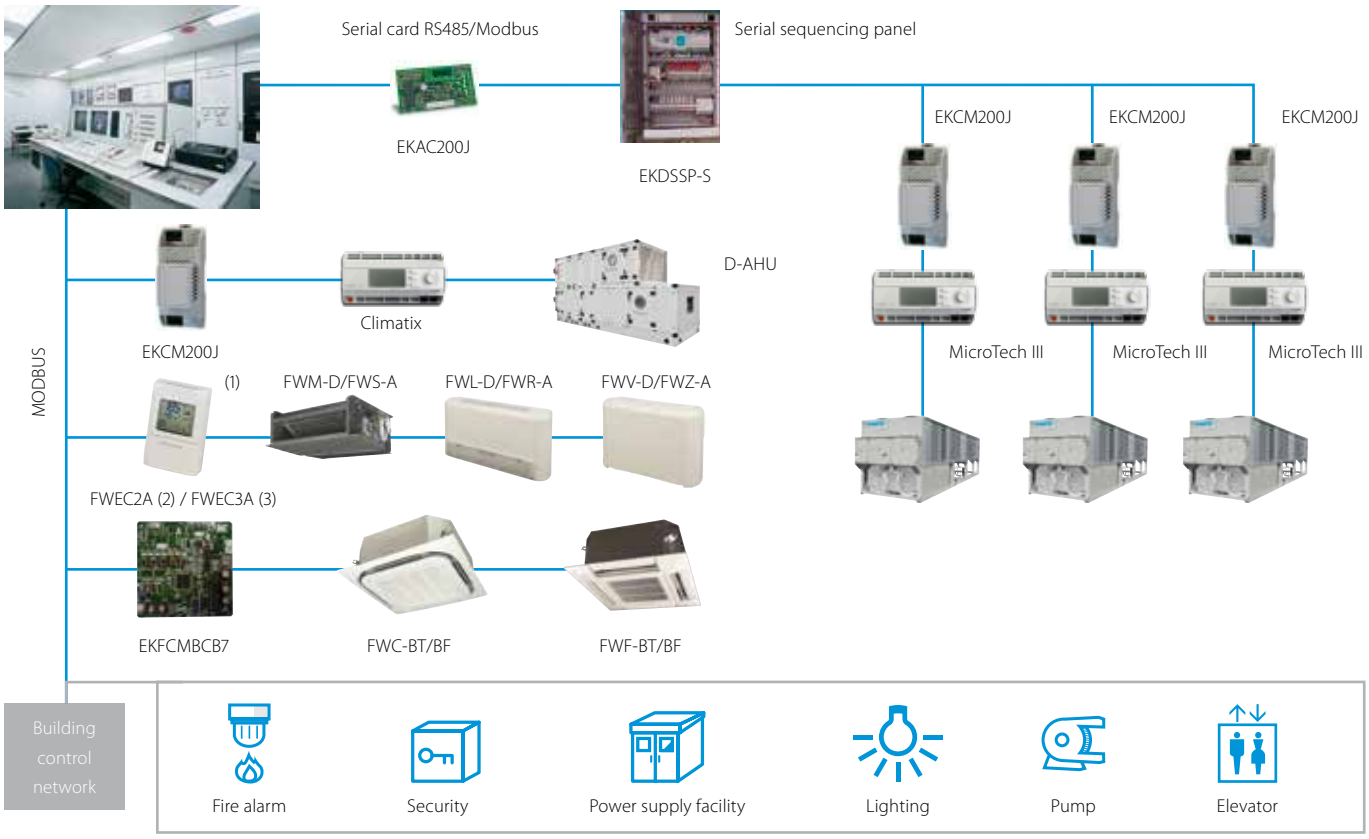
Modbus interface for monitoring and control of Daikin Altherma Flex Type, VRV HT hydrobox and **small inverter chiller**.

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



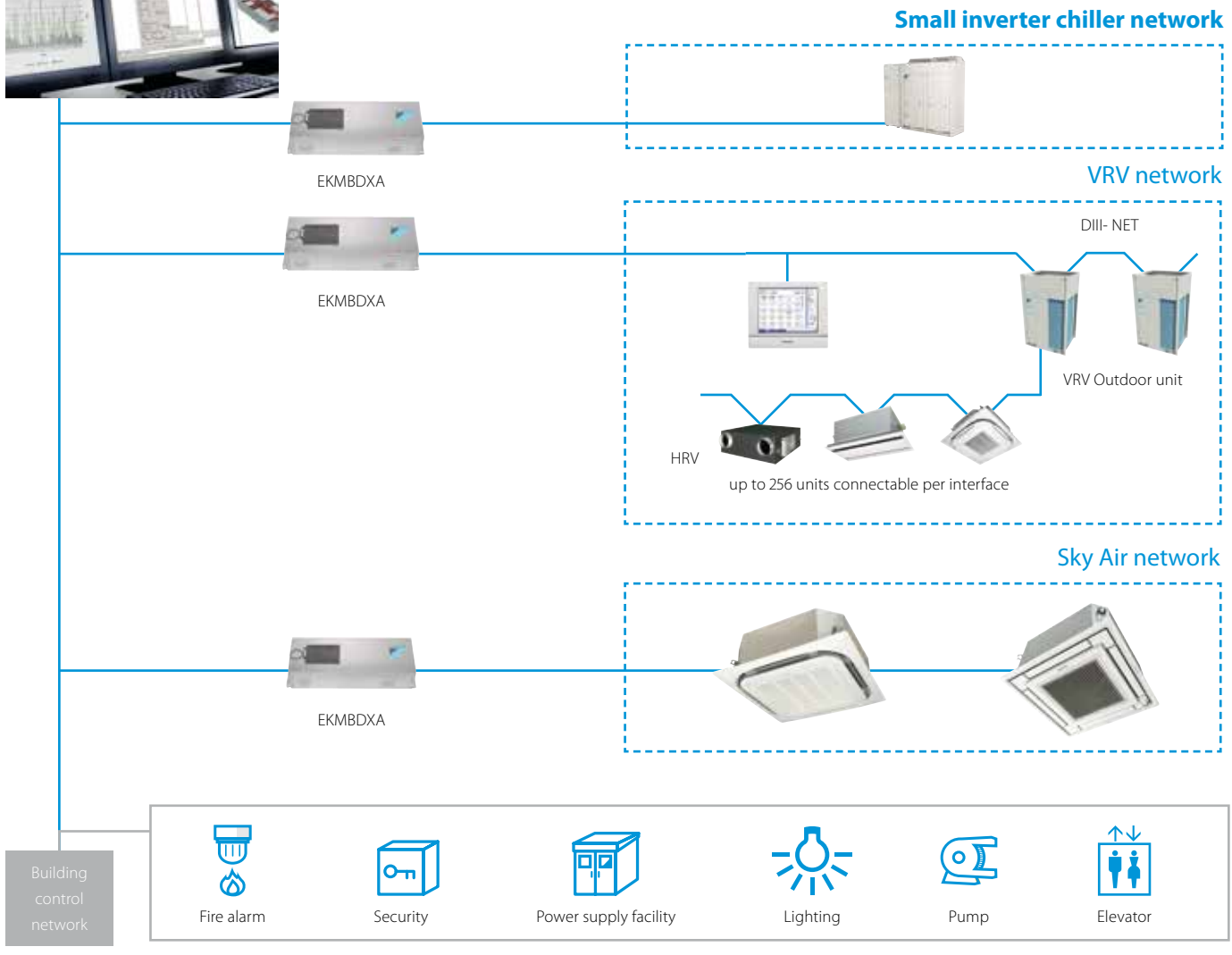
(1) The communication module is integrated in the controller (2) Connection to FWV-D, FWL-D & FWM-D (3) Connection to FWV-D, FWL-D, FWM-D and to FWZ-A, FWR-A, FWS-A

DIII-net Modbus interface

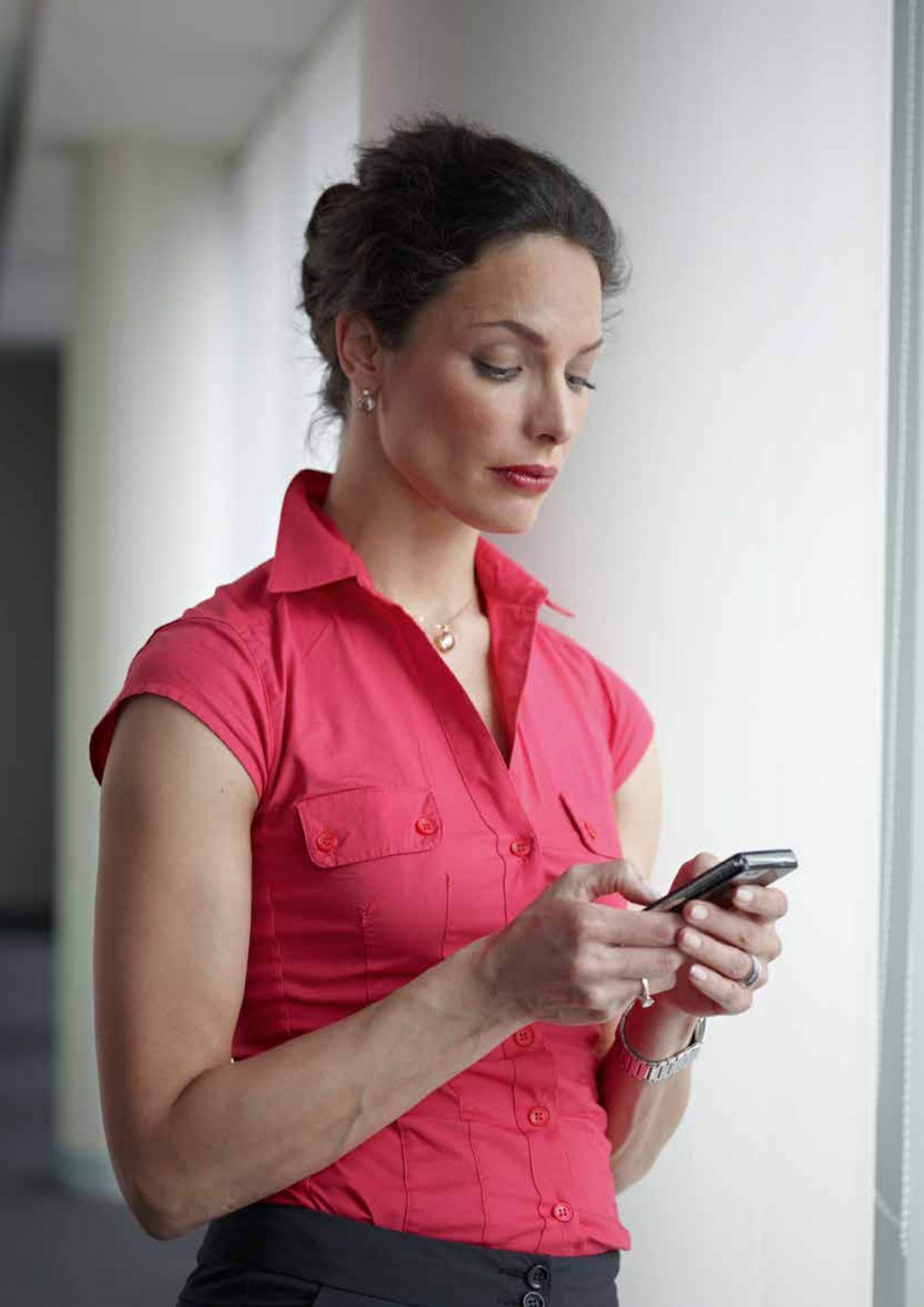
EKMBDXA

Integrated control system for seamless connection between **small inverter chiller**, Sky Air or VRV and BMS systems

› Communication via Modbus RS485 protocol
› Easy and fast installation via DIII-net protocol
› As the Daikin DIII-net protocol is used only one modbus interface is needed per Daikin



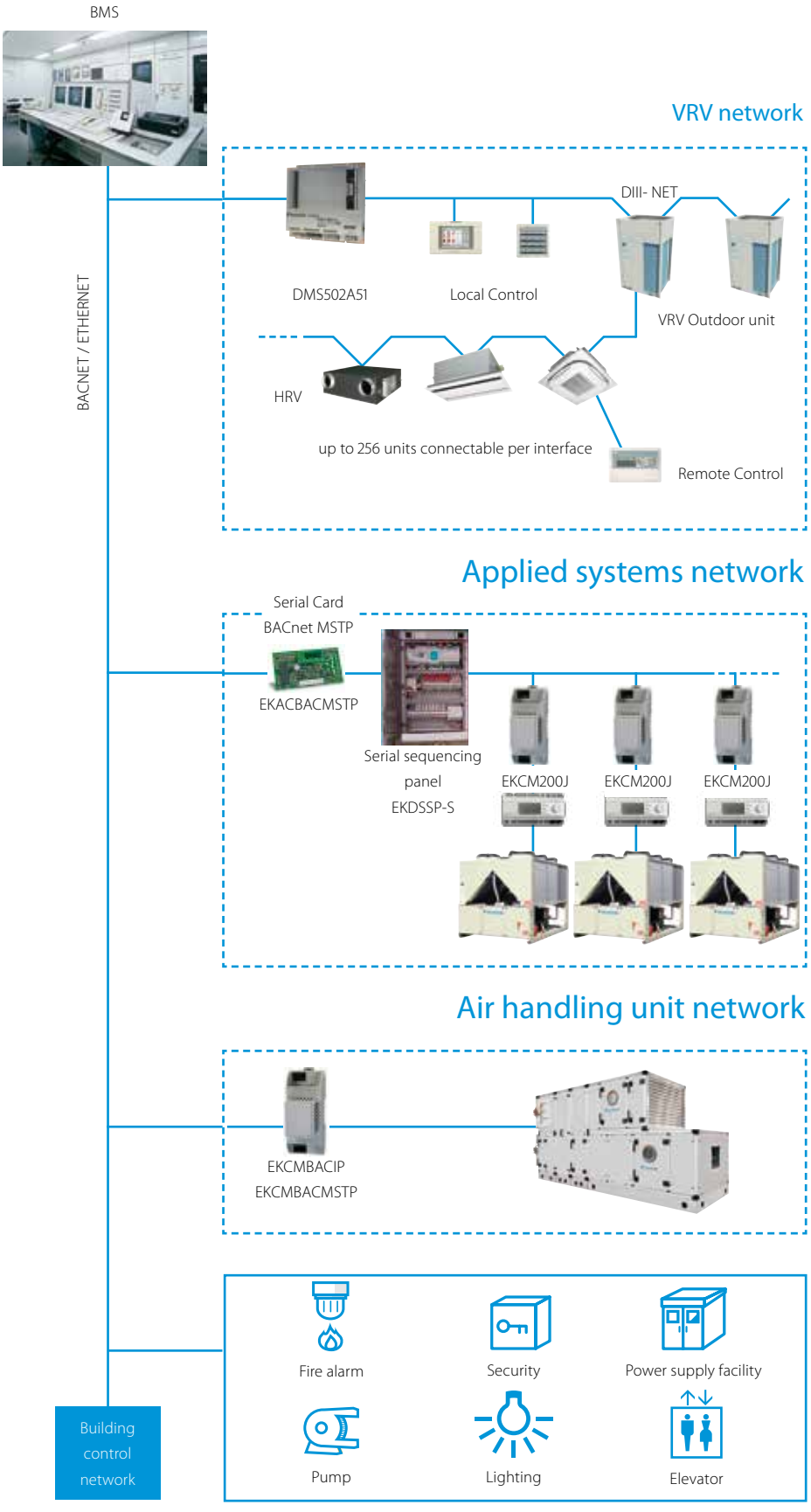
			EKMBDXA7V1
Maximum number of connectable indoor units			64
Maximum number of connectable outdoor units			10
Communication	DIII-NET - Remark		DIII-NET (F1F2)
	Protocol - Remark		2 wire; communication speed: 9600 bps or 19200 bps
	Protocol - Type		RS485 (modbus)
	Protocol - Max. Wiring length	m	500
Dimensions	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

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

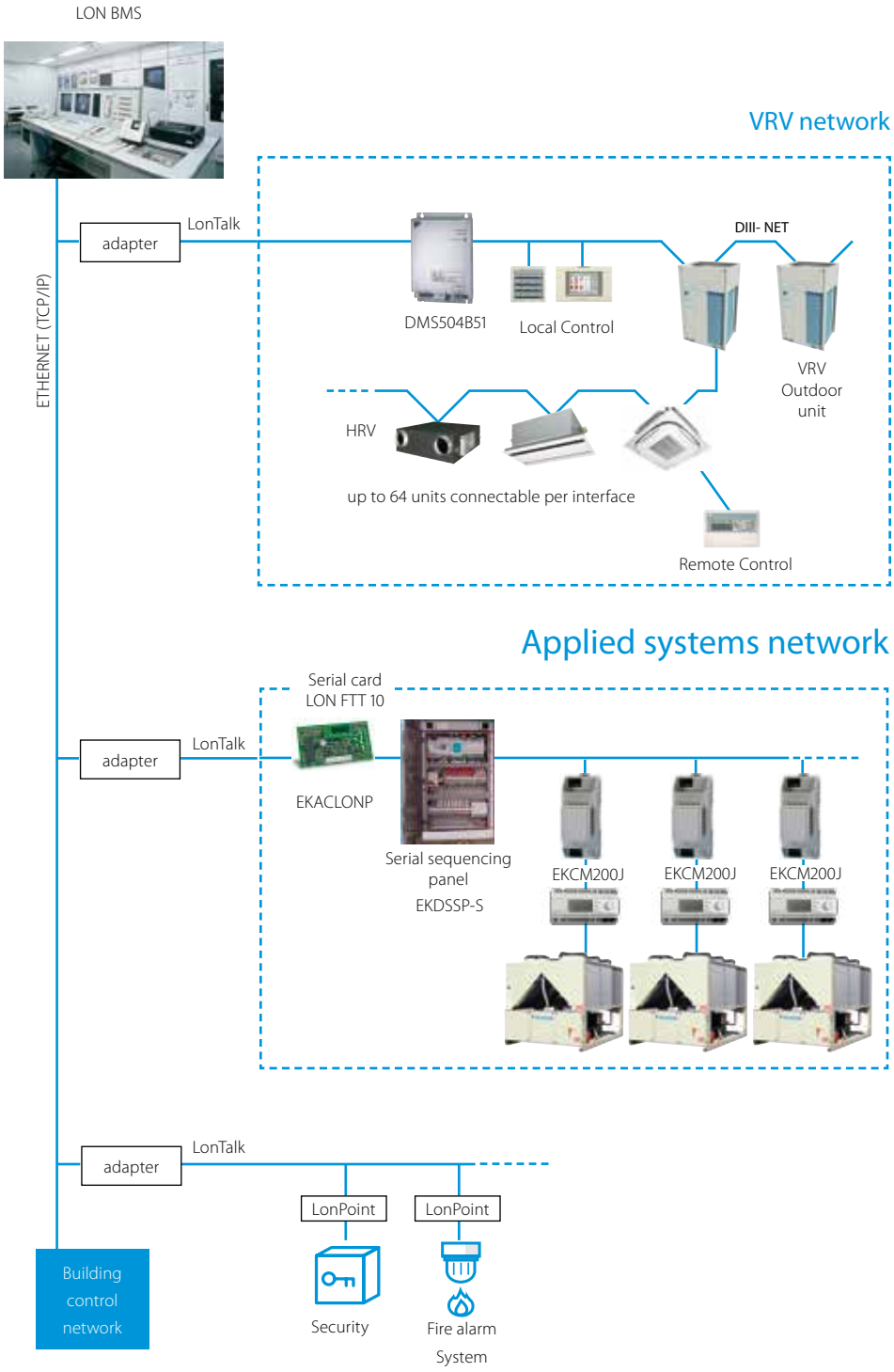
› Interface for BMS system
› Communication via BACnet protocol (connection via Ethernet)
› Unlimited sitesize
› Easy and fast installation



LonWorks Interface

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



Contents

Options & accessories

Chillers	152
Fan coil units	158

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-ADVP	STD			STD
EWYQ-ADVP	STD			STD
EWAQ-ACV3	STD			STD
EWAQ-ACW1	STD			STD
EWYQ-ACV3	STD			STD
EWYQ-ACW1	STD			STD
EWWP-KBW1N		OPT	OPT	
EWLP-KBW1N		OPT	OPT	

(s) OP12 & OP03 need to be added to meet Swedish national law 1992: 16 (1) Impossible option combination: OPZH+OPZL

STD = Standard , OPT = Option

OPTs - Medium and large chillers (Part 1)

Description	Code	EWAQ~BAW EWYQ~BAW	EWAQ-E-XS EWAQ-F-SS/XS	EWAQ-E-XL/XR EWAQ-F-SL/SR/XL/XR	EWYQ-F-XS	EWYQ-F-XL	EWYQ-F-XR	EWAD-E-	EWAD-D-SS	EWAD-D-SL	EWAD-D-SR	EWAD-D-SX	EWAD-D-XS	EWAD-D-XR	EWAD-D-HS
Total heat recovery	01							OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Total heat recovery (1 circuit)	02								OPT	OPT	OPT	OPT	OPT	OPT	OPT
Partial heat recovery	03		OPT	OPT	CF	CF	CF	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Direct on line starter (DOL)	04		STD	STD	STD	STD	STD								
Wye-Delta compressor starter (Y-D)	05							STD	STD	STD	STD	STD	STD	STD	STD
Soft starter	06		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Heat pump version	07														
Heat pump version (including pursuit mode)	07a														
Brine version (down -8°C)	08a (1)														
Brine version (down -10°C)	08b (1)	REC													
Brine version (down -15°C)	08c (1)		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Double setpoint	10		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Compressor thermal overload relays	11		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Fans thermal relays	12														
Phase monitor	13		REC	REC	REC	REC	REC	STD	STD	STD	STD	STD	STD	STD	STD
Inverter compressor starter	14								OPT(4)	OPT(4)	OPT(4)	OPT(4)	OPT(4)	OPT(4)	OPT(4)
Under / Over voltage control	15		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Energy meter	16		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Energy meter (including current limit)	16a														
Capacitors for power factor correction	17		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Auxiliary relay	18														
Current limit	19							OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Evaporator victaulic kit	20		STD	STD	STD	STD	STD		STD			STD	STD	STD	
Evaporator flange kit	21								OPT			OPT	OPT	OPT	
Evaporator marine waterbox victaulic (2 passes)	22														
Evaporator marine waterbox victaulic (1 pass)	22a														
Evaporator marine waterbox victaulic (3 passes)	23														
Evaporator marine waterbox flanged (2 passes)	24														
Evaporator marine waterbox flanged (1 pass)	24a														
Evaporator marine waterbox flanged (3 passes)	25														
Condenser double flanges kit	26														
Evaporator water side design pressure (10 Bar)	27								STD	STD	STD	STD	STD	STD	STD
Evaporator water side design pressure (16 Bar)	28														
20mm evaporator insulation	29		STD	STD	STD	STD	STD	OPT	OPT	STD	STD	OPT	OPT	OPT	STD
Axial fans (100 Pa ESP)	30														
McQuiet	31														
Axial fans (250 Pa ESP)	32		CF						CF	CF	CF	CF	CF	CF	CF
20mm condenser insulation	33														
Fan silent mode	34														
Fans Speed Control Device (Phase Cut)	35														
Condenser victaulic kit	36														
Condenser flange kit	37														
Condenser marine waterbox victaulic (2 passes)	38														
Condenser marine waterbox victaulic (1 pass)	38a														
Condenser marine waterbox victaulic (3 passes)	39														
Condenser marine waterbox flanged (2 passes)	40														
Condenser marine waterbox flanged (1 pass)	40a														
Condenser marine waterbox flanged (3 passes)	41														
Speedtrol (fan speed control device - ON/OFF - up to -18°C)	42		REC	REC				REC	REC	REC	REC		REC	REC	REC
Speedtrol (fan speed control device - ON/OFF - down to -10°C in cooling)	42a				OPT	OPT									
Condenser coil guards	43		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Evaporator area guards	44		OPT	OPT	OPT	OPT	OPT								
Cu-Cu condenser coil	45		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Cu-Cu-Sn condenser coil	46		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT

STD = Standard
REC = Recommended
OPT = Option
CF = Contact factory

EWAD-C-	EWAD-CZ	EWAD-TZ	EWAQ-GZ	EWAD-CF	EWYD-BZSS	EWYD-BZSL	ERAD-E-	EWWQ-B-	EWWD-J-SS	EWWD-G-	EWWD-I-SS	EWWD-I-XS	EWWD-H-XS	EWLD-J-SS	EWLD-G-SS	EWLD-I-SS	EWWD-FZXS
OPT	OPT	OPT					OPT			OPT	OPT						
OPT	OPT	OPT			OPT	OPT	OPT	OPT		OPT	OPT	OPT			OPT		
STD				STD			STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	
OPT				OPT			OPT	OPT	OPT(4)	OPT	OPT	OPT	OPT	OPT(4)	OPT	OPT	
													OPT				
									OPT	OPT	OPT	OPT					
OPT	OPT	OPT		OPT	OPT	OPT		OPT	OPT	OPT	OPT	OPT	NC-SO	OPT	OPT	OPT	
			REC														
STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD		STD	STD	
OPT	STD	STD		OPT			OPT	OPT	OPT	OPT	OPT	OPT	OPT		OPT	OPT	
STD	STD	STD	REC	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	
	STD	STD			STD	STD											STD
OPT	OPT	STD	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	
OPT	OPT		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
		OPT															
OPT				OPT			OPT	OPT	OPT	OPT	OPT	OPT	OPT		OPT	OPT	
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STD	STD	STD	STD		STD	STD		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
OPT	OPT	OPT		STD													
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								STD		STD	STD	STD	STD		STD	STD	STD
STD	STD	STD	STD	STD	OPT	OPT		OPT	STD	OPT	OPT	OPT	STD	STD	OPT	OPT	STD
								OPT	OPT	OPT	OPT	OPT	OPT				OPT
								OPT	STD	OPT	OPT	OPT	STD				STD
													OPT				CF
													OPT				
													OPT				
													OPT				
REC	REC	REC	REC				REC										
OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT										
OPT	OPT		OPT	OPT													
OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT										
OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT										

Options - Medium and large chillers (Part 2)

Description	Code	EWAQ~BAW EWYQ~BAW	EWAQ-E-XS EWAQ-F-SS/XS	EWAQ-E-XL/XR EWAQ-F-SL/ XR/XL/XR	EWYQ-F-XS	EWYQ-F-XL	EWYQ-F-XR	EWAD-E-	EWAD-D-SS	EWAD-D-SL	EWAD-D-SR	EWAD-D-SX	EWAD-D-XS	EWAD-D-XR
Condenser water side design pressure (16 Bar)	47													
Condenser water side design pressure (10 Bar)	47a													
Alucoat fins coil	49		REC	REC	STD	STD	STD	REC	REC	REC	REC	REC	REC	REC
Cu-Ni 90-10 condenser tubes	50													
Condenser 1 pass (ΔT 4-8 °C)	51													
Condenser 2 passes (ΔT 4-8 °C)	52													
Condenser 2 passes (ΔT 9-15 °C)	53													
Condenser 4 passes	54													
Water pressure differential switch on condenser	55													
Water pressure differential switch on evaporator	56									STD	STD			
Evaporator electric heater	57	REC	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Evaporator flow switch	58		STD	STD	STD	STD	STD	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Condenser flow switch	59													
Electronic expansion valve	60		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Discharge line shut-off valve	61		OPT	OPT	OPT	OPT	OPT	STD	STD	STD	STD	STD	STD	STD
Suction line shut-off valve	62		OPT	OPT	OPT	OPT	OPT	STD	STD	STD	STD	STD	STD	STD
High pressure side manometers	63		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Low pressure side manometers	64		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Ambient outside temperature sensor and setpoint reset	67		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Hour run meter	68		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
General fault contactor	69		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Container Kit	71		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Rubber anti vibration mounts	75		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Sound proof system	76													
Sound proof system (integral)	76-a													
Sound proof system (compressor)	76-b													
Spring anti vibration mounts	77		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
One centrifugal pump (low head)	78	OPT						OPT						
One centrifugal pump --- SPK1	78-a		OPT	OPT	OPT	OPT	OPT			OPT	OPT			
One centrifugal pump --- SPK2	78-b		OPT	OPT	OPT	OPT	OPT			OPT	OPT			
One centrifugal pump --- SPK3	78-c		OPT	OPT	OPT	OPT	OPT			OPT	OPT			
One centrifugal pump --- SPK4	78-d		OPT	OPT	OPT	OPT	OPT			OPT	OPT			
One centrifugal pump --- SPK5	78-e								OPT				OPT	OPT
One centrifugal pump --- SPK6	78-f								OPT				OPT	OPT
One centrifugal pump --- SPK7	78-g								OPT				OPT	OPT
One centrifugal pump --- SPK8	78-h								OPT				OPT	OPT
One centrifugal pump --- SPK9	78-i												OPT	
One centrifugal pump --- SPK10	78-j												OPT	
One centrifugal pump --- SPK1a	78-l				OPT	OPT	OPT							
One centrifugal pump --- SPK1b	78-m				OPT	OPT	OPT							
One centrifugal pump --- SPK1c	78-n				OPT	OPT	OPT							
One centrifugal pump (high head)	79	OPT						OPT						
Two centrifugal pump (low head)	80													
Two centrifugal pump --- DPK1	80-a									OPT	OPT			
Two centrifugal pump --- DPK2	80-b									OPT	OPT			
Two centrifugal pump --- DPK3	80-c									OPT	OPT			
Two centrifugal pump --- DPK4	80-d									OPT	OPT			
Two centrifugal pump --- DPK5	80-e								OPT				OPT	OPT
Two centrifugal pump --- DPK6	80-f								OPT				OPT	OPT
Two centrifugal pump --- DPK7	80-g								OPT				OPT	OPT
Two centrifugal pump --- DPK8	80-h								OPT				OPT	OPT
Two centrifugal pump (high head)	81													
Witness test	82													
External tank without cabinet (500 L)	83 (3)		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
External tank without cabinet (1000 L)	84 (3)		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
External Tank (500 L) With CABINET RAL 7042	85													
External Tank (1000 L) With CABINET RAL 7042	86													
External tank with cabinet (500 L)	87 (3)		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
External tank with cabinet (1000 L)	88 (3)		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Acoustic test	89													
Setpoint reset, Demand limit and Alarm from external device	90		OPT	OPT	OPT	OPT	OPT	STD	STD	STD	STD	STD	STD	STD
Double pressure relief valve with diverter	91		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
PW COMPRESSOR - PART WINDING START	92													
Low ambient kit for 1 circuit	93													
Low ambient kit for 2 circuits	94													
Compressors circuit breakers	95		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Fans circuit breakers	96		OPT	OPT	OPT	OPT	OPT	STD	STD	STD	STD	STD	STD	STD
Main switch interlock door	97		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Emergency stop	98													
Fans speed regulation (+ fan silent mode)	99 (2)		OPT	OPT				OPT	OPT	OPT	OPT	STD	OPT	OPT
Fans speed regulation (inverter)	99a (2)				OPT	OPT	STD							
Refrigerant recovery unit	100													
Evaporator right water connections	101								SO	SO	SO	SO	SO	SO
Ground fault relay	102		OPT	OPT	OPT	OPT	OPT							
Evaporator 1 pass	103													
Evaporator 2 passes	103a													
Evaporator double flange kit	104													
Liquid receiver	105													
Evaporator right water connections	106													
Rapid restart	110													
High temperature kit	111													
Transport kit	112		OPT	OPT	OPT	OPT		OPT	OPT	OPT	OPT	OPT	OPT	OPT
Optimized free cooling (VFD fans regulation)	113-a													
Optimized free cooling (On/Off fans)	113-b													
Nordic kit	114				OPT	OPT	OPT							
Water filter	115		STD	STD	STD	STD	STD							
Condenser coil protection panels	116		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Blygold coil treatment	117		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Inverter kit for pump (SPK1-SPK6)	120a													
Inverter kit for pump (SPK7-SPK10)	120b													
Inverter kit for pumps (DPK2-DPK6)	120c													
Inverter kit for pumps (DPK7-DPK10)	120d													
Refrigerant leak detection	121													

(1) Option 08 includes option 29 - (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).

STD = Standard
OPT = Option
CF = Contact factory
SO = Specify at Order entry
NC = No additional cost

EWAD-D-HS	EWAD-C-	EWAD-CZ	EWAD-TZ	EWAQ-GZ	EWAD-CF	EWYD-BZSS	EWYD-BZSL	ERAD-E-	EWWQ-B-	EWWD-J-SS	EWWD-G-	EWWD-I-SS	EWWD-I-XS	EWWD-H-XS	EWLD-J-SS	EWLD-G-SS	EWLD-I-SS	EWWD-FZXS
									STD	STD	STD	STD	STD					
														STD				STD
REC	REC	REC	REC		REC	REC	REC	REC										
									OPT	OPT(5)	OPT (5)	OPT (5)	OPT (5)	OPT (5)		OPT (5)		OPT (5)
											STD	STD		NC-SO		STD		
										STD			STD	STD				STD
												NC-SO						
													NC-SO					
														OPT				STD
STD				STD										OPT				STD
STD	STD	STD	STD	STD	STD	STD	STD		REC									
OPT	OPT	OPT	OPT		OPT	OPT	OPT		OPT	STD	OPT	OPT	OPT	OPT	STD	OPT	OPT	OPT
														OPT				OPT
STD	STD	STD	STD	STD	STD	STD	STD		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
STD	STD	STD	STD	OPT	STD	STD	STD	STD	OPT	STD	STD	OPT	OPT	STD	STD	STD	OPT	
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STD	STD	STD	STD	STD	STD	STD	STD	STD										
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OPT	OPT	OPT	OPT	OPT		OPT	OPT	OPT	OPT(11)	OPT	OPT	OPT (9)	OPT	OPT	OPT	OPT	OPT(11)	OPT
OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT
									OPT (8)			OPT (8)	OPT (8)	OPT (8)			OPT (8)	OPT (8)
										OPT (6)	OPT (7)				OPT (6)	OPT (7)		
OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT										
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STD	STD	STD	STD	OPT	STD	OPT	OPT	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
OPT	OPT	OPT	OPT		OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	STD	OPT	OPT	OPT	STD
OPT	OPT	OPT	OPT	OPT	OPT			OPT						OPT				
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	STD	
OPT	OPT	OPT	STD (14)		STD	REC	STD	OPT										
	CF	CF																
SO	SO	SO	OPT		SO	OPT	SO											
	OPT	OPT		OPT	OPT				OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	OPT	
														NC-SO				NC-SO
														STD				STD
									OPT		OPT	OPT	OPT	OPT		OPT	OPT	OPT
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	OPT	OPT	OPT		OPT													
														OPT				
OPT	OPT	OPT	OPT	OPT		OPT	OPT	OPT	OPT(12)	OPT	OPT	OPT(10)	OPT	OPT	OPT	OPT	OPT(12)	OPT
					OPT													
					OPT													
				STD		OPT	OPT											
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			OPT															

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: EWWDC12I-SS - EWWDC18I-SS (10) Forklift loading-unloading operations are not allowed when option 01 is selected for model sizes as follows: EWWDC12I-SS - EWWDC18I-SS - (11) Special Transport is required (flat rack truck and open top) for model sizes as follows: EWLDC10I-SS - EWLDC17I-SS or EWWQC11B-SS - EWWQC20B-SS or EWWQC10B-XS, EWWQC12B-XS - EWWQC21B-XS - (12) Forklift loading-unloading operations are not allowed for model sizes as follows: EWLDC10I-SS - EWLDC17I-SS or EWWQC11B-SS - EWWQC20B-SS or EWWQC10B-XS, EWWQC12B-XS - EWWQC21B-XS - (13) STD only for single circuit unit (14) STD only for Premium and High efficiency version

Accessories - Chillers

	Air-cooled chillers						
Panels	**EWA/YQ~ADVP/ACV3/ ACW1**	**EWA/YQ-BA SEHVX+SERHQ**	**EWAQ-E- EWA/YQ-F-**	**EWYD~BZ**	**EWAQ~GZ**	**EWAD~E- ERAD~E-**	**EWAD~D-**
EKDSSP*** (a) Serial Sequencing Panel				●			
EKDSSP-S*** Serial Sequencing Panel (Siemens)			●		●	●	●
EKDDSP Digital Sequencing Panel			●	●	●	●	●
EKPWPRO PlantWatchPRO monitoring system				●			
EKPWPROM PlantWatchPRO monitoring system (modem & webserver included)				●			

	Air-cooled chillers						
Serial Cards & Communication Modules	**EWA/YQ~ADVP/ACV3/ ACW1**	**EWAQ~BA EWYQ~BA**	**EWAQ-E- EWA/YQ-F-**	**EWYD~BZ**	**EWAQ~GZ**	**EWAD~E- ERAD~E-**	**EWAD~D-**
EKAC200J Serial Card RS485/Modbus				●			
EKACBAC Ethernet Card BACnet				●			
EKACLONP Serial Card LON FTT 10				●			
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)							
EKCM200J ModBus RTU communication module			●		●	●	●
EKMBDXA7V1 ModBus Interface DIII		●					
EKCMLON LON communication module			●		●	●	●
EKCMBACMSTP BACnet/MSTP communication module			●		●	●	●
EKCMBACIP BACnet/IP communication module			●		●	●	●

	Air-cooled chillers						
Other Systems & Accessories	**EWA/YQ~ADVP/ACV3/ ACW1**	**EWAQ~BA EWYQ~BA**	**EWAQ-E- EWA/YQ-F-**	**EWYD~BZ**	**EWAQ~GZ**	**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			●		●	●	●
EKPWPROEXT PlantWatchPro I/O extension module for hardwiring and retrofit				●			
EKGWWEB Gateway web (Ethernet LAN SNMP)				●			
EKAC10C (c) Address card for connection to BMS or Remote user interface							
EKRUMCA (b) Remote installed user interface							
EHMC* Hydraulic module							
EKLS1 Low noise kit - 014 version							
EKLS2 Low noise kit - 022-195 version							
ECB2MUAW Controller kit (for modular units)							
ECB3MUAW Controller kit (for modular units)							
EKRP1AHT Digital input/output PCB		●					
EKRUAHTB Remote user interface		●					
DTA104A62 External control adapter		●					
BHGP26A1 Digital pressure gauge kit		●					
RTD-W BMS integration		●					
EKCC8-W Universal centralised controller		●					

Notes:
(a) Serial Sequencing Panel working in cooling mode only with EWYD~BZ and EWYQ~F-ranges
(b) To install EKRUMCA -> EKAC10C needs to be installed
(c) EKAC10C allows direct connection to MODBUS BMS system

Air-cooled chillers				Water-cooled chillers						
EWAD~C-	EWAD~CZ	EWAD~CF	EWAD~TZ	EWWP~KB EWLP~KB	EW_Q-G EW_Q_-L	EWWD~G- EWLD~G-	EWWD~I- EWLD~I-	EWWD~J- EWLD~J-	EWWQ~B-	EWWD~H-
•	•	•	•		•	•	•	•	•	•
•	•	•	•		•	•	•	•	•	•

Air-cooled chillers				Water-cooled chillers						
EWAD~C-	EWAD~CZ	EWAD~CF	EWAD~TZ	EWWP~KB EWLP~KB	EW_Q-G EW_Q_-L	EWWD~G- EWLD~G-	EWWD~I- EWLD~I-	EWWD~J- EWLD~J-	EWWQ~B-	EWWD~H-
•	•	•	•		•	•	•	•	•	•
•	•	•	•		•	•	•	•	•	•
•	•	•	•		•	•	•	•	•	•
•	•	•	•		•	•	•	•	•	•

Air-cooled chillers				Water-cooled chillers						
EWAD~C-	EWAD~CZ	EWAD~CF	EWAD~TZ	EWWP~KB EWLP~KB	EW_Q-G EW_Q_-L	EWWD~G- EWLD~G-	EWWD~I- EWLD~I-	EWWD~J- EWLD~J-	EWWQ~B-	EWWD~H-
•	•	•	•		•	•	•	•	•	•
				•						
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Notes:
(a) Serial Sequencing Panel working in cooling mode only with EWYD~BZ and EWYQ~F-ranges
(b) To install EKRUMCA -> EKAC10C needs to be installed
(c) EKAC10C allows direct connection to MODBUS BMS system

		FWM~D / FWL~D / FWV~D										FWS~A / FWR~A / FWZ~A			
Network & control systems		**1**	**15**	**2**	**25**	**3**	**35**	**4**	**6**	**8**	**10**	**2**	**3**	**6**	**8**
Wired remote controller	(Standard)	FWEC1A										-			
Wired remote controller	(Advanced)	FWEC2A										-			
Wired remote controller	(Advanced Plus)	FWEC3A										FWEC3A			
Split controller - power control board		FWECSAP										FWECSAP			
Split controller - control panel		FWECSAC										FWECSAC			
Controller electromechanical		ECFWMB6										-			
On board mounting kit		FWECKA										FWECKA			
Wall mounting kit		FWFCKA										FWFCKA			
Wired remote controller	(Cooling only)	-										-			
Wired remote controller	(Heat pump)	-										-			
Wireless controller	(Cooling only)	-										-			
Wireless controller	(Heat pump)	-										-			
Temperature sensor kit		FWTSKA										FWTSKA			
Relative humidity sensor kit		FWHSKA										FWHSKA			
Fan stop thermostat		YFSTA6										-			
Master slave interface		EPIMSA6										-			
Power interface		-										-			
Optional PCB for MOD-bus connection		-										-			

		FWM~D / FWL~D / FWV~D										FWS~A / FWR~A / FWZ~A			
Valves		**1**	**15**	**2**	**25**	**3**	**35**	**4**	**6**	**8**	**10**	**2**	**3**	**6**	**8**
3-ways 230V on/off valve kit	(2-pipe)	E2MV03A6						E2MV06A6		E2MV10A6		E2MV03A6			E2MV10A6
3-ways 230V on/off valve kit	(4-pipe)	E4MV03A6						E4MV06A6		E4MV10A6		E4MV03A6			E4MV10A6
2-ways 230V on/off valve kit (cooling heat exchanger)		E2MV2B07A6								E2MV2B10A6		E2MV2B07A6			E2MV2B10A6
2-ways 230V on/off valve kit (additional heat exchanger)		E2MV2B07A6										E2MV2B07A6			
Simplified 3-ways 230V on/off valve kit	(2-pipe)	E2MVD03A6						E2MVD06A6		E2MVD10A6		E2MVD03A6	E2MVD06A6		E2MVD10A6
Simplified 3-ways 230V on/off valve kit	(4-pipe)	E4MVD03A6						E4MVD06A6		E4MVD10A6		E4MVD03A6	E4MVD06A6		E4MVD10A6
3-ways 24V on/off valve kit	(2-pipe)	E2M2V03A6						E2M2V06A6		E2M2V10A6		E2M2V03A6	E2M2V06A6		E2M2V10A6
3-ways 24V on/off valve kit	(4-pipe)	E4M2V03A6						E4M2V06A6		E4M2V10A6		E4M2V03A6	E4M2V06A6		E4M2V10A6
3-ways proportional valve kit	(2-pipe)	E2MPV03A6						E2MPV06A6		E2MPV10A6		-			
3-ways proportional valve kit	(4-pipe)	E4MPV03A6						E4MPV06A6		E4MPV10A6		-			
2-ways 24V on/off valve kit (cooling heat exchanger)		E2M2V207A6								E2M2V210A6		E2M2V207A6			E2M2V210A6
2-ways 24V on/off valve kit (additional heat exchanger)		E2M2V207A6										E2M2V207A6			
2-ways proportional valve kit (cooling heat exchanger)		E2MPV207A6								E2MPV210A6		-			
2-ways proportional valve kit (additional heat exchanger)		E2MPV207A6										-			
3-ways 230V on/off valve kit (additional heat exchanger)		-										-			
2-ways 230V on/off valve kit	(2-pipe)	-										-			
2-ways 230V on/off valve kit	(4-pipe)	-										-			

		FWM~D / FWL~D / FWV~D										FWS~A / FWR~A / FWZ~A			
Panels		**1**	**15**	**2**	**25**	**3**	**35**	**4**	**6**	**8**	**10**	**2**	**3**	**6**	**8**
Decoration panel 600x600	(2-pipe)	-										-			
Decoration panel 900x900	(2-pipe)	-										-			
Decoration panel 900x900	(4-pipe)	-										-			

In case of FWF-C and FWG-A ranges, decoration panel code includes also wireless controller

FWD~A							FWB~B			FWP~A		FWT~C	FWC~B	FWF~B
4	6	8	10	12	16	18	2-4	5-7	8-10	2-4	5-7	All sizes	All sizes	All sizes
FWEC1A							FWEC1A			-		MERCA	BRC315D	BRC315D
FWEC2A							FWEC2A			-		-	-	-
FWEC3A							FWEC3A			FWEC3A		-	-	-
FWECSAP							FWECSAP			FWECSAP		-	-	-
FWECSAC							FWECSAC			FWECSAC		-	-	-
-							-			-		-	-	-
-							-			-		-	-	-
FWFCKA							FWFCKA			FWFCKA		-	-	-
-							-			-		-	-	-
-							-			-		SRC-HPA	-	-
-							-			-		-	-	-
-							-			-		WRC-HPC	BRC7F532F	BRC7F530
FWTSKA							FWTSKA			FWTSKA		-	-	-
FWHSKA							FWHSKA			FWHSKA		-	-	-
YFSTA6							YFSTA6			-		-	-	-
EPIMSA6							EPIMSA6			-		-	-	-
-				EPIB6			-			-		-	-	-
-							-			-		-	EKFCMBCB	EKFCMBCB

FWD~A							FWB~B			FWP~A		FWT~C	FWC~B	FWF~B
4	6	8	10	12	16	18	2-4	5-7	8-10	2-4	5-7	All sizes	All sizes	All sizes
ED2MV04A6	ED2MV10A6			ED2MV12A6	ED2MV18A6		-			-		-	EKMV3C09B	EKMV3C09B
ED4MV04A6	ED4MV10A6			2 x ED2MV12A6	2 x ED2MV18A6		-			-		-	2 x EKMV3C09B	2 x EKMV3C09B
-							E2MV207A6		E2MV210A6	-		-	-	-
-							E2MV207A6		E2MV210A6	E2MV207A6		-	-	-
-							-			-		-	-	-
-							-			-		-	-	-
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-							-			-		-	-	-
-							-			-		-	-	-
-							-			-		-	-	-
-							E2MV307A6		E2MV310A6	E2MV307A6		-	-	-
-							-			-		-	EKMV2C09B	EKMV2C09B
-							-			-		-	2 x EKMV2C09B	2 x EKMV2C09B

FWD~A							FWB~B			FWP~A		FWT~C	FWC~B	FWF~B
4	6	8	10	12	16	18	2-4	5-7	8-10	2-4	5-7	All sizes	All sizes	All sizes
-							-			-		-	-	BYFQ60B
-							-			-		-	BYCQ140C	-
-							-			-		-	BYCQ140C	-

In case of FWF-C and FWG-A ranges, decoration panel code includes also wireless controller

Accessories - Fan coil units and air handling units

	FWM~D / FWL~D / FWV~D										FWS~A / FWR~A / FWZ~A			
Other accessories	**1**	**15**	**2**	**25**	**3**	**35**	**4**	**6**	**8**	**10**	**2**	**3**	**6**	**8**
Electric heater (Standard)	EEH01A6	EEH02A6		EEH03A6		EEH06A6			EEH10A6		EEH02A6	EEH03A6	EEH06A6	EEH10A6
Electric heater (Big)	-										-			
Fresh air intake	EFA02A6			EFA03A6		EFA06A6			EFA10A6		EFA02A6	EFA03A6	EFA06A6	EFA10A6
Additional heat exchanger	ESRH02A6			ESRH03A6		ESRH06A6			ESRH10A6		ESRH02A6	ESRH03A6	ESRH06A6	ESRH10A6
Air intake & discharge grille	EAIDF02A6			EAIDF03A6		EAIDF06A6			EAIDF10A6		EAIDF02A6	EAIDF03A6	EAIDF06A6	EAIDF10A6
Rear panel	ERPV02A6			ERPV03A6		ERPV06A6			ERPV10A6		ERPV02A6	ERPV03A6	ERPV06A6	ERPV10A6
Supporting feet	ESFV06A6								ESFV10A6		ESFV06A6			ESFV10A6
Supporting feet & grille	ESFVG02A6			ESFVG03A6		ESFVG06A6			ESFVG10A6		ESFVG02A6	ESFVG03A6	ESFVG06A6	ESFVG10A6
Plenum box with circular connections	EPCC02A6 (only for FWM-D)			EPCC03A6 (only for FWM-D)		EPCC06A6 (only for FWM-D)			EPCC10A6 (only for FWM-D)		EPCC02A6 (only for FWS-A)	EPCC03A6 (only for FWS-A)	EPCC06A6 (only for FWS-A)	EPCC10A6 (only for FWS-A)
Vertical auxiliary drainpan	EDPVB6										EDPVB6			
Horizontal auxiliary drainpan	EDPHB6										EDPHB6			

Mechanical options	**FWC~BT/BF**	**FWF~BT/BF**
Sealing member of air discharge outlet	KDBHQ55C140	KDBH44BA60
Long-life filter	KAFP551K160	KAFQ441BA60
Fresh air intake kit (20% fresh air) (Direct installation)	KDDQ55C140	-
Fresh air intake kit (Direct installation)	-	KDDQ44XA60
Panel spacer	KDBQ44B60	-

Control options	**FWF~BT/BF**	**FWC~BT/BF**
Remote sensor	KRCS01-1	KRCS01-4
Remote ON / OFF	EKROROA	-
Installation box for adaptor PCB	KRP1BA101	KRP1H98

Control options	**FWF~BT/BF - FWC~BT/BF**
Central remote control	DCS302CA51
Intelligent touch controller	DCS601C51C
Unified ON/OFF controller	DCS301BA51
Electrical installation box with earth terminal (2 blocks)	KJB212A
Electrical installation box with earth terminal (3 blocks)	KJB311A
Electrical installation box	KJB411A
Schedule timer	DST301BA51
Wiring adapter for electrical appendices	KRP4AA53
Wiring adapter for electrical appendices	KRP2A52

FWD~A							FWB~B			FWP~A		FWT~C	FWC~B	FWF~B
4	6	8	10	12	16	18	2-4	5-7	8-10	2-4	5-7	All sizes	All sizes	All sizes
EDEH04A6	EDEHS06A6	EDEHS10A6		EDEHS12A6	EDEHS18A6		Factory mounted			Factory mounted		-	-	-
EDEH04A6	EDEHB06A6	EDEHB10A6		EDEHB12A6	EDEHB18A6		-			-		-	-	-
EDMFA04A6	EDMFA06A6	EDMFA10A6		EDMFA12A6	EDMFA18A6		-			-		-	-	-
-							EAH04A6	EAH07A6	EAH10A6	EAH04A6	EAH07A6	-	-	-
-							-			-		-	-	-
-							-			-		-	-	-
-							-			-		-	-	-
-							-			-		-	-	-
-							-			-		-	-	-
EDDPV10A6				EDDPV18A6			-			-		-	-	-
EDDPH10A6				EDDPH18A6			-			-		-	-	-

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	Ambient: 35°C
		Condenser: 40°C/45°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.

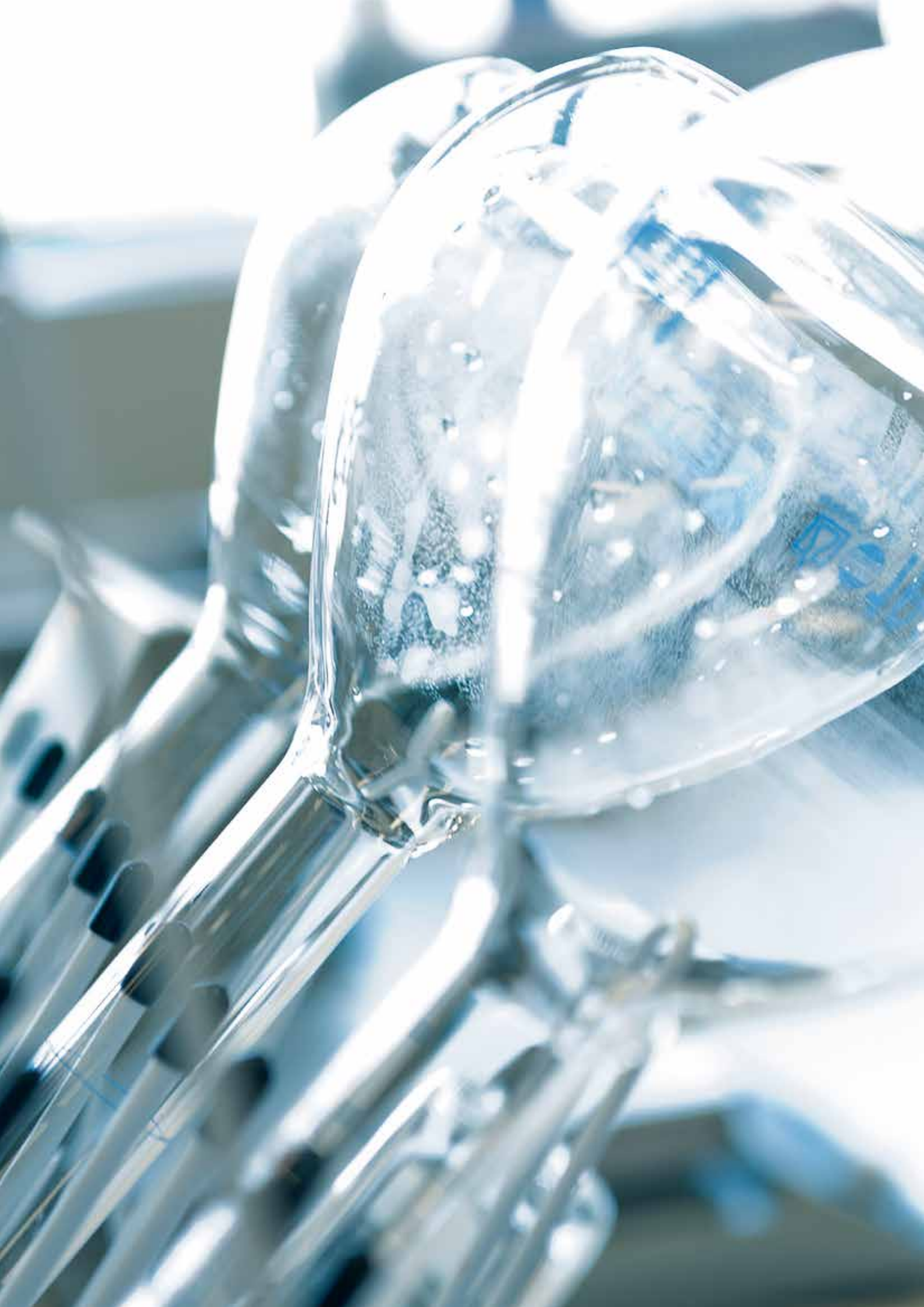
Energy efficiency Ratio (EER)
Describes the efficiency of a heat pump machine in cooling mode. The rated capacity is divided by the rated total power input.

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 (generally at 1m) 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.



EWAD-TZ

Unique
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The inverter chiller features a screw compressor with in-built inverter and variable volume ratio.

These new technologies result in a high seasonal efficiency and a rapid payback combined with an extensive option list and a compact design.

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