



# Industrial yet personal



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APPLIED SYSTEMS  
CATALOGUE

# Table of Contents

About Daikin	04
Product portfolio - air cooled	06
Product portfolio - water cooled	08
Inverter technology	10
Seasonal efficiency	12
Reliable & efficient	14
Option flexibility	16
Air cooled	18
Condensing unit	102
Water cooled	108
Condenserless chiller	134
Fan coil units & Product portfolio	146
Air handling units	168
Control systems, options & accessories	180
Measuring conditions	193



No matter how large your premises and whatever your air conditioning needs in climate control or process chilling and heating, there is a system that has proved worth in a multiplicity of situations - from industrial sites to retail warehouses, hotels and department stores.

The careful development of closely matched compressor/refrigerant combinations, has enabled Daikin to produce complete range of water chillers - genuinely optimised for use with fan coil units and R-134a, R-407C and R-410A refrigerants.

Daikin chillers offer the ultimate in flexibility and control — a reflection of the advanced technology inherent within them. Unique in their precision, power, low operating noise, easy maintenance and low running costs, Daikin chillers represent the sure and safe route to an indoor environment that is comfortable, clean and consistent.

As a manufacturer that makes its own refrigerant and compressors, Daikin has total control at the production stage. Daikin also offers a complete range of air handling units to meet modern-day requirements for better indoor air quality and increased insulation standards.

It is this unique combination of advanced technology, experience and reliability that makes Daikin the obvious choice and long-term solution for the professional.



# About Daikin

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

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 new center is to develop and test advanced chiller, compressor and other HVAC technologies to reduce energy consumption and, ultimately the carbon footprint of the buildings where they will be used.

## THE DAIKIN GROUP – GLOBAL LEADER IN HVAC SOLUTIONS

Daikin is a leader in using technologies that help preserve the environment, such as those that conserve energy and deliver high reliability to its customers. Daikin 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. The Daikin Group is already a leading supplier for building projects pursuing LEED® certification.

# Daikin Applied Development Center

**Putting synergy to work for the environment and  
the best customer comfort**

## THE APPLIED DEVELOPMENT CENTER

The 4,600-square-meter research center, located in Minneapolis, Minnesota, includes six test cells, with space for two additional cells in the future. Included are a worldwide range of electrical voltages, frequencies and a variety of procedures for testing ambient conditions (temperature and humidity). The Applied Development Center can simulate building, electrical and climate conditions of any location throughout the world, allowing the basic design development of new products to be centrally located in the facility. These 'global models' are then arranged into a suitable design to match market requirements at existing regional development centers throughout the world.

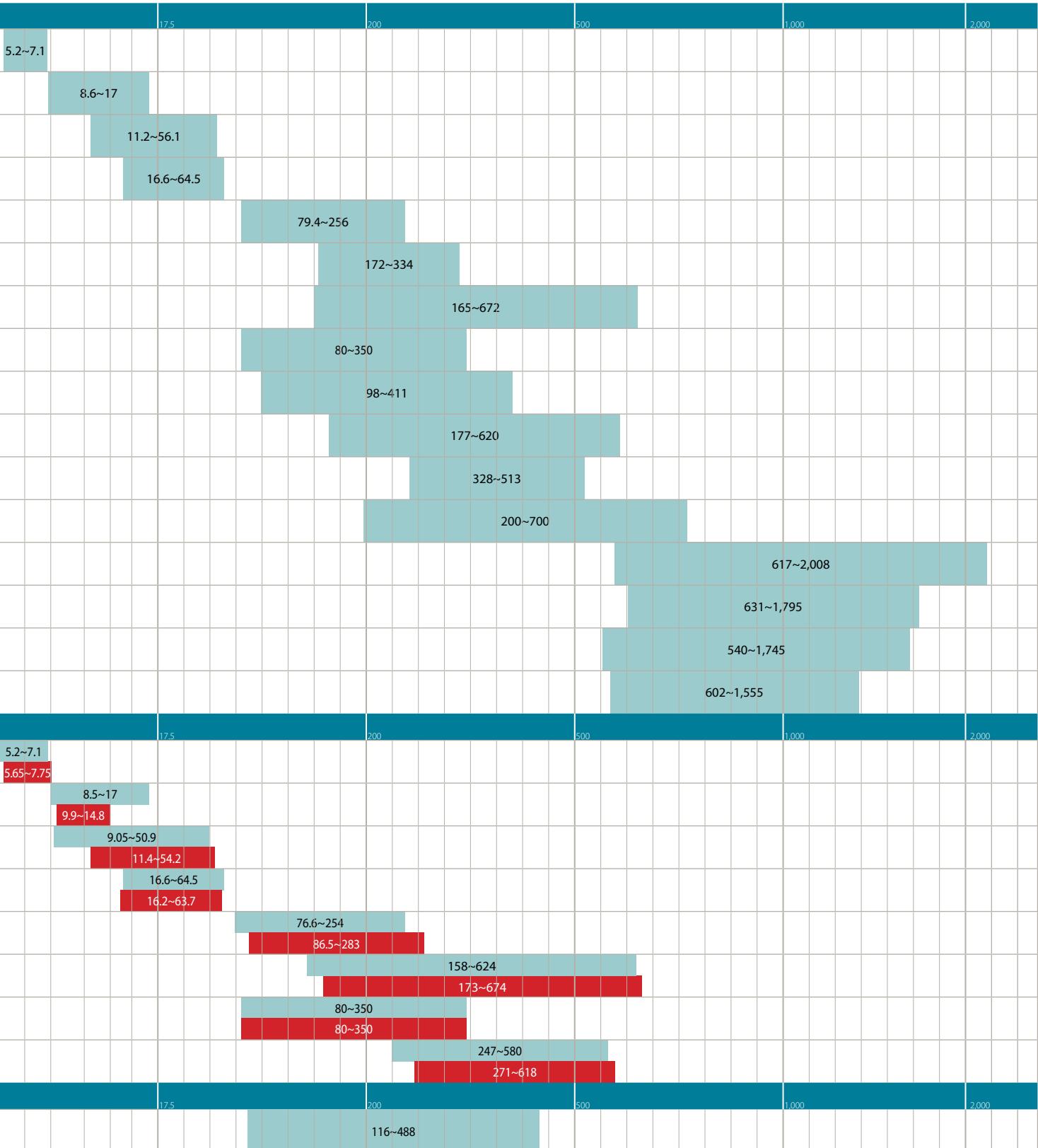
## LEED® GOLD CERTIFICATION

Daikin officials have received Leadership in Energy and Environmental Design (LEED) Gold certification from the U.S. Green Building Council for the Applied Development Center. With more than 90 % of the building's energy generated by process loads (e.g. hot and cold water for chiller and compressor tests), energy savings are realized primarily by recovering 75 % of that energy and diverting it back into the system. Other environmental features include water-efficient landscaping, recycled construction waste, use of recycled content for interior surfaces, low-emitting sealants and locally purchased materials.

Refrigerant	Inverter	Free cooling	Compressor			Efficiency version			Sound version		
			Swing	Scroll	Screw	Standard	High	Premium	High ambient	Standard	Low
<b>Cooling only</b>											
EWAQ~ADVP		R-410A				✓			✓		✓
EWAQ~ACV3/ACW1		R-410A				✓			✓		✓
EUWA*~KBZW1		R-407C				✓			✓		✓
EWAQ~BA*		R-410A				✓			✓		✓
EWAQ~DAYN		R-410A				✓			✓		✓
EWAQ~E-		R-410A				✓			✓	✓	✓
EWAQ~F-		R-410A				✓			✓	✓	✓
EWAQ~GZ NEW preliminary		R-410A				✓			✓	✓	✓
EWAD~E-		R-134a				✓			✓	✓	✓
EWAD~D-		R-134a				✓			✓	✓	✓
EWAD~BZ		R-134a				✓			✓	✓	✓
EWAD~TZ NEW preliminary		R-134a				✓			✓	✓	✓
EWAD~C-		R-134a				✓			✓	✓	✓
EWAD~CZ		R-134a				✓			✓	✓	✓
EWAD~DZ NEW preliminary		R-134a				✓			✓	✓	✓
EWAD~CF		R-134a		✓		✓			✓	✓	✓
<b>Heat pump</b>											
EWYQ~ADVP		R-410A				✓			✓		✓
EWYQ~ACV3/ACW1		R-410A				✓			✓		✓
EUWY*~KBZW1		R-407C				✓			✓		✓
EWYQ~BA*		R-410A				✓			✓		✓
EWYQ~DAYN		R-410A				✓			✓		✓
EWYQ~F NEW		R-410A				✓			✓	✓	✓
EWYQ~GZ NEW preliminary		R-410A				✓			✓	✓	✓
EWYD~BZ		R-134a				✓			✓	✓	✓
<b>Condensing unit</b>											
ERAD~E-		R-134a					✓	✓		✓	✓

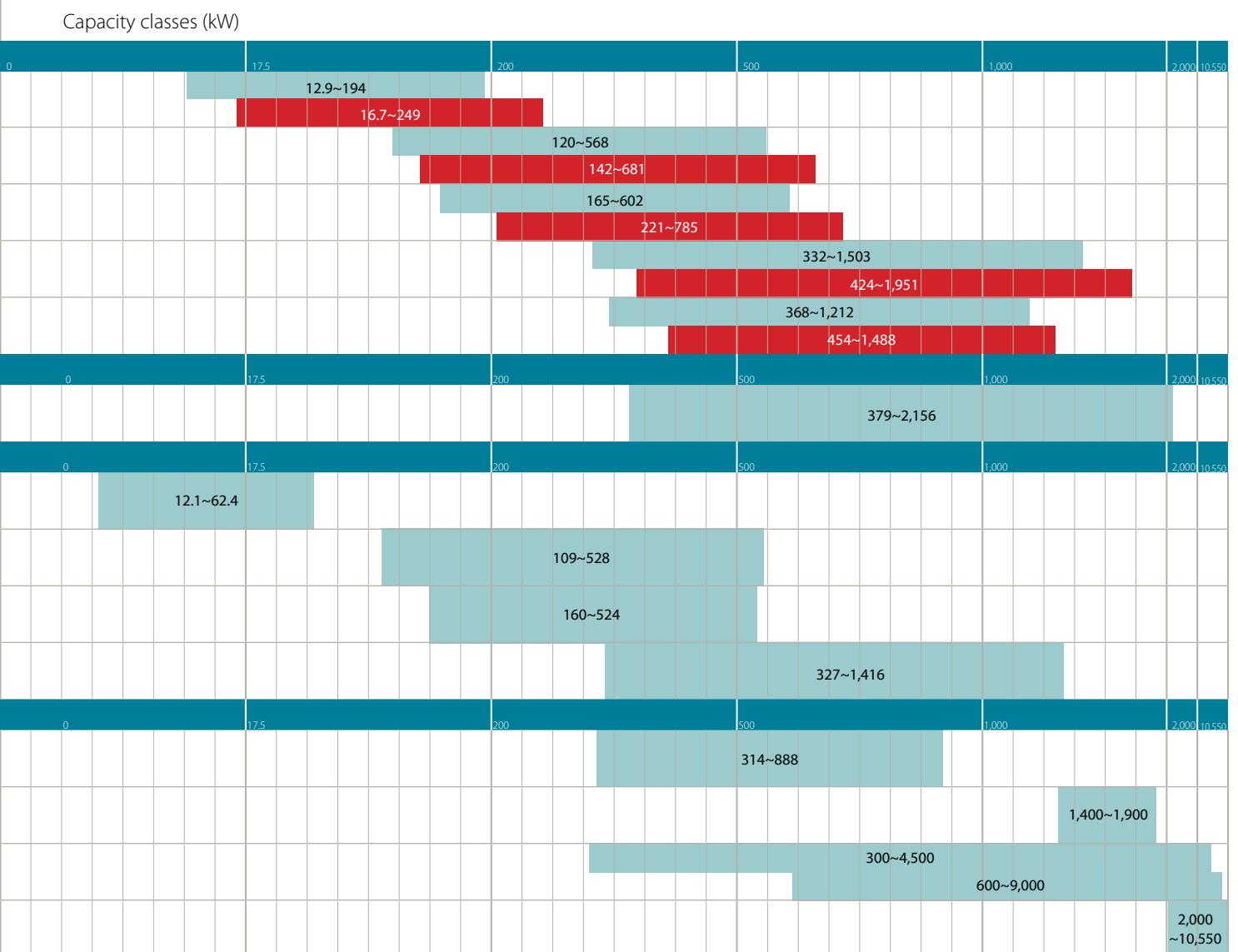
# Product portfolio air cooled

Capacity classes (kW)



# Product portfolio water cooled

Refrigerant	Inverter	Compressor			Efficiency version	Sound version
		Scroll	Screw	Centrifugal		
<b>Water cooled chillers (Cooling only &amp; Heating only)</b>						
EWWP~KBW1N		R-407C		✓		✓
EWWD~J-		R-134a		✓	✓	✓
EWWD~G-		R-134a		✓	✓	✓
EWWD~I-		R-134a		✓	✓	✓
EWWD~H-		R-134a		✓		✓
<b>Water cooled chillers (Cooling only)</b>						
EWWQ~B-		R-410A		✓	✓	✓
<b>Condenserless chillers</b>						
EWLP~KBW1N		R-407C		✓		✓
EWLD~J-		R-134a		✓	✓	✓
EWLD~G-		R-134a		✓	✓	✓
EWLD~I-		R-134a		✓	✓	✓
<b>Water cooled centrifugal chillers</b>						
EWWD~FZ		R-134a	✓		✓	✓
DWME		R-134a	✓		✓	✓
DWSC DWDC		R-134a	✓		✓	✓
3,000 TON CENTRIFUGAL NEW		R-134a			✓	✓



# Inverter technology

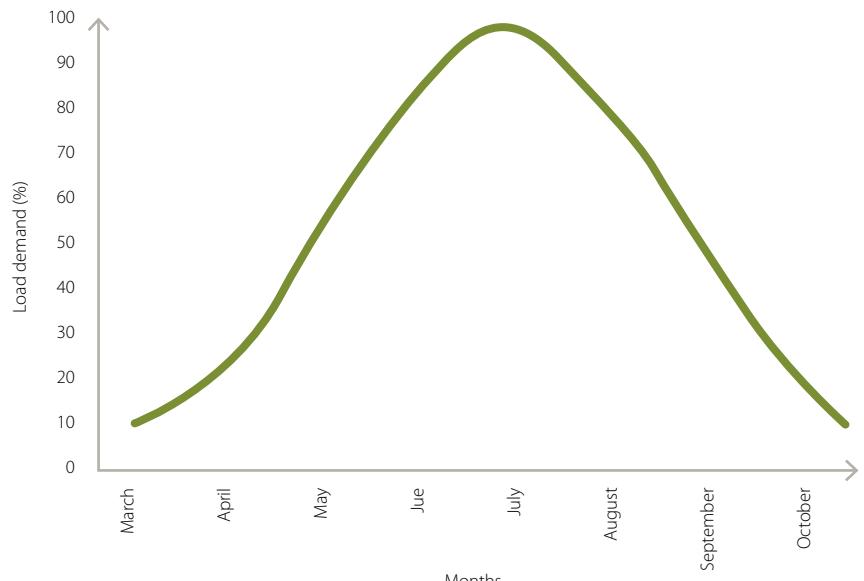
Traditional electric motors also run at full load when not needed (in chiller part load operations), resulting in energy waste.

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

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

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

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

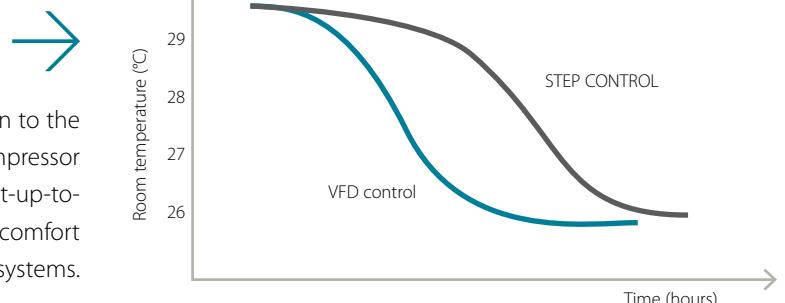




## Inverter technology leading to higher energy efficiency and quicker comfort levels

### PRINCIPAL BENEFITS

- Energy efficient: displacement power factor always  $> 0.95$   
Usually the power factor of a motor progressively worsens with the decrease of the power output. However, thanks to the inverter, there is no need for additional power factor correction capacitors as the power factor is always  $> 0.95$  and there are no power surges so costs are constrained.
- Less frequent start/stop cycles and low starting current  
The inverter technology ensures fewer start/stop cycles as well as ensuring that the start-up current is always lower than the current absorbed maximum operating conditions (FLA). This generates obvious cost savings.
- Seasonal quietness: reduced sound levels  
Low sound levels in partial load conditions are achieved by the variation of compressor frequency, thus ensuring minimum sound levels at all times.
- Quick start-up: start-up time reduced by 1/3  
The ability to vary the output power in direct relation to the cooling requirements of the system by allowing compressor boosts gives the inverter chiller a reduced start-up-to-operating-capacity, making it possible to achieve comfort conditions in 1/3 less time than with conventional systems.



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

# Seasonal efficiency





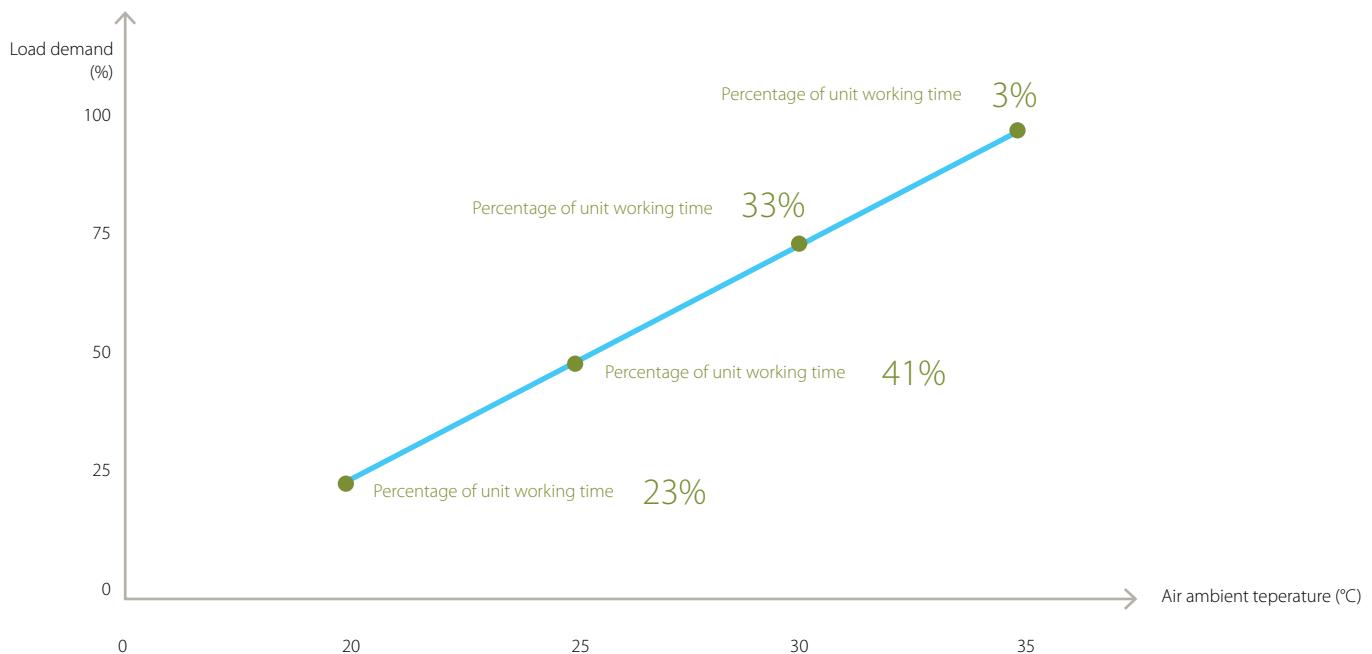
Today, Daikin is leading the way towards more efficient and cost-effective comfort solutions. All Daikin products - residential and commercial as well as industrial - are seasonal efficient: they all reduce energy and costs in a smart way.

## SEASONAL EFFICIENCY

The European Seasonal Energy Efficiency Ratio (ESEER) is the parameter fully recognized in Europe for evaluating the product's annual performance.

It is calculated through a weighed formula that takes into account the variation of EER with the load rate and the variation of air inlet condenser temperature.

$$\text{ESEER} = A \cdot \text{EER100\%} + B \cdot \text{EER75\%} + C \cdot \text{EER50\%} + D \cdot \text{EER25\%}$$



With the following weighting coefficients:

A = 0.03 (3%)

B = 0.33 (33%)

C = 0.41 (41%)

D = 0.23 (23%)

For the following part-load rating conditions for an air cooled chiller:

35°C

30°C

25°C

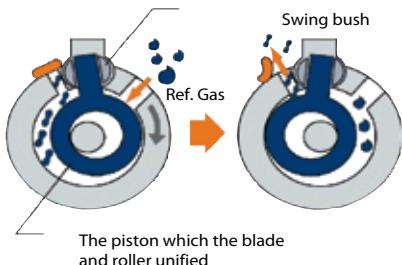
20°C

# Day-to-day reliability and efficiency

## INHOUSE DEVELOPMENT AND MANUFACTURING OF COMPRESSORS

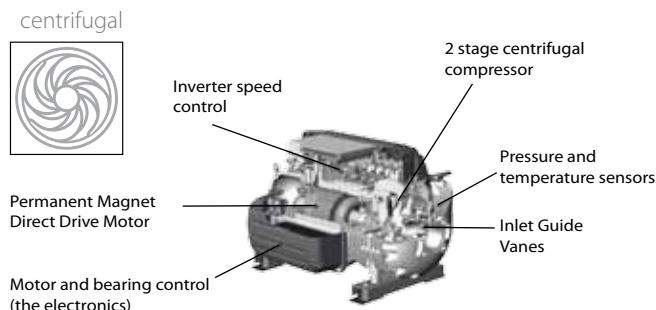
Unlike many other air conditioning manufacturers, Daikin manufactures its own compressors. This is important because the compressor is the very heart of the air conditioning system, increasing the pressure and temperature of the refrigerant vapour, effectively concentrating the heat as it passes around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

### THE SWING COMPRESSOR:



The Mini Chiller series EWAQ005-007ADVP & EWYQ005-007ADVP are equipped with a swing 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.

### INNOVATIVE FRICTIONLESS CENTRIFUGAL COMPRESSOR :



### THE 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 within the range of capacities from 8.6 to 675kW.

#### 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



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

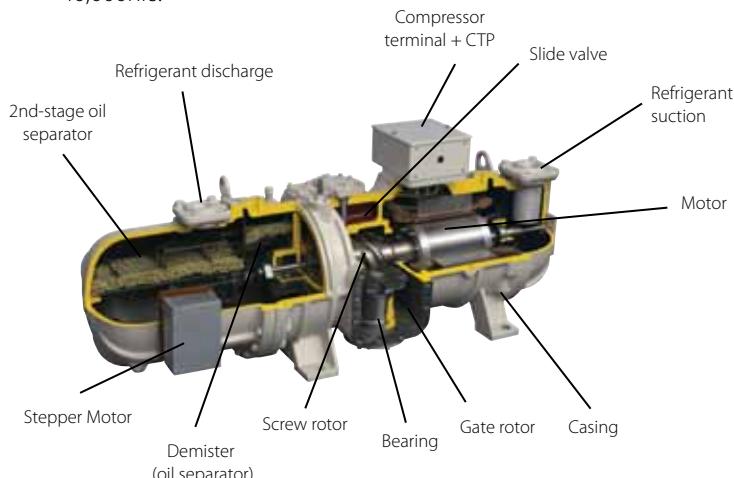


The innovative frictionless centrifugal compressor has an integrated VFD, as well as magnetic bearings, and delivers high levels of unit efficiency and reliability. The compressor's only moving part - the rotor shaft and impellers - are powered by the permanent magnetic direct-drive motor and kept levitated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

### THE SINGLE-SCREW STEPSLESS 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 laboratories, in order to meet the highest capacity, performance and maintenance specifications. This compressor has been especially developed for operation with R-410A, R-134a or R-407C refrigerants, guaranteeing unequalled reliability and many years of efficient operation. The bearing life is 100,000hrs with inspection and maintenance intervals every 40,000hrs.

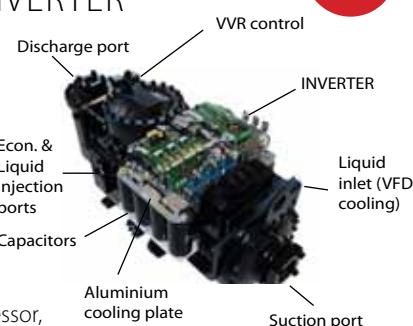


### Characteristics:

- › Optimal performance through stepless capacity control chilled water temperatures. The unit capacity is infinitely variable from 30 - 100% on single circuit units and 15 - 100 % on dual circuit units.
- › Compact, simple yet robust construction.
- › Using a main single screw and two gate rotors, axial and radial forces are balanced, thanks to the symmetrical compression guaranteeing low bearing loads.
- › Renowned for its low noise levels, the double walled casing design and integrated oil separator add to the attenuation effect.
- › 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

NEW



### Characteristics:

- › Compressor is optimized for high-speed rotation and high refrigerant flow
- › Truly stepless capacity control and perfect match with the requested load Inverter integral to compressor, resulting in compact design
- › Enlarged discharge port and suction side for optimized refrigerant pressure drop
- › Electric motors optimized for high speed (70 - 90Hz)
- › Standard cables

### Main benefits:

- › Better ESEER & EER values
- › 30% more compact than single-screw compressor
- › Rapid payback time

# Options flexibility

## STANDARD ANTI-CORROSION TREATMENT

Condensers for air cooled chillers are given anti-corrosion treatment as standard. This treatment significantly increases resistance to acid rain and saline corrosion. Depending on the capacities and models, treatments are of the following type:

### **Acrylic treatment (Daikin ref. PE)**



Example of acrylic treatment

The aluminium fins are coated with an acrylic resin and a hydrophilic film.

### **Epoxy treatment**

The aluminium fins are black-epoxy coated.

## HEAT RECOVERY

In many applications, simultaneous cooling and heating demand requirement alongside one another. To benefit from this, Daikin offers chillers with the option of heat recovery. This option further increases the application flexibility and extends possibilities in the hotel and leisure industry, as well as the industrial and process sectors.

By energetically recovering useful heat from the cooling cycle that would otherwise be rejected to the outside, extremely high COPs can be realised in heat recovery mode. The heat recovery unit aims to achieve an optimum balance between cooling and heat recovery to maximize the unit efficiency and offer savings in hot water production.

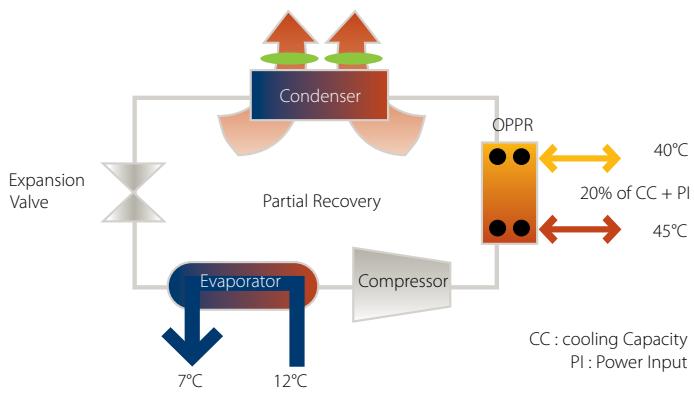
Depending on the temperature requirement either partial heat recovery or full heat recovery may be selected.



## AIR-COOLED

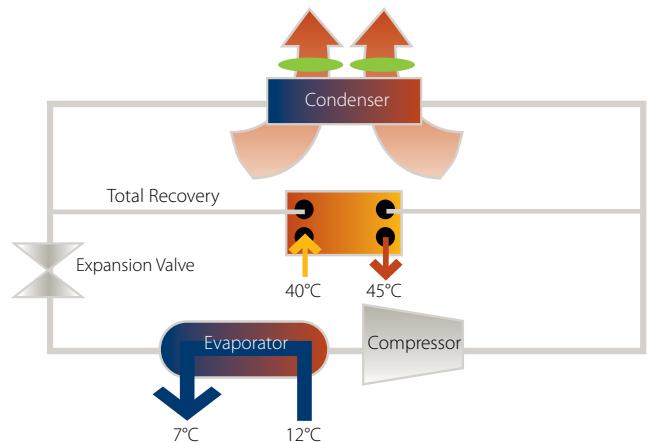
### OPPR – Partial heat recovery

A stainless-steel brazed plate heat exchanger is mounted in series between the compressor and air cooled condenser as a desuperheater. The sensible heat from the hot discharge gas will be recovered, while the latent heat exchange will occur in the air cooled condenser. The unit's efficiency is maintained as condensing pressure can be reduced due to air cooled condenser becoming oversized.



### OPTR – Total heat recovery

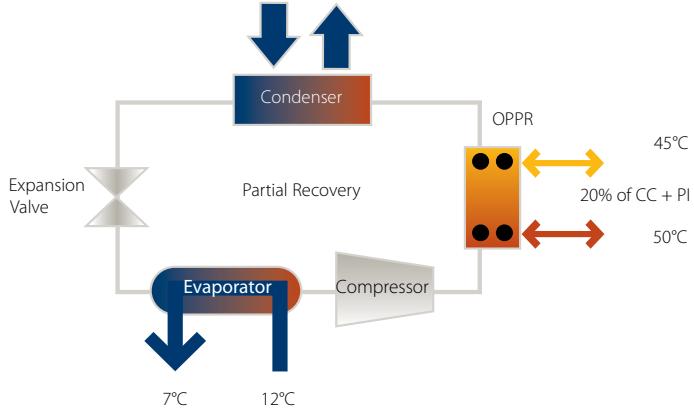
A Shell and Tube heat exchanger is mounted in parallel with the air cooled condenser for full heat recovery of both sensible and latent heat. Hot water temperatures up to 50°C can be achieved.



## WATER-COOLED

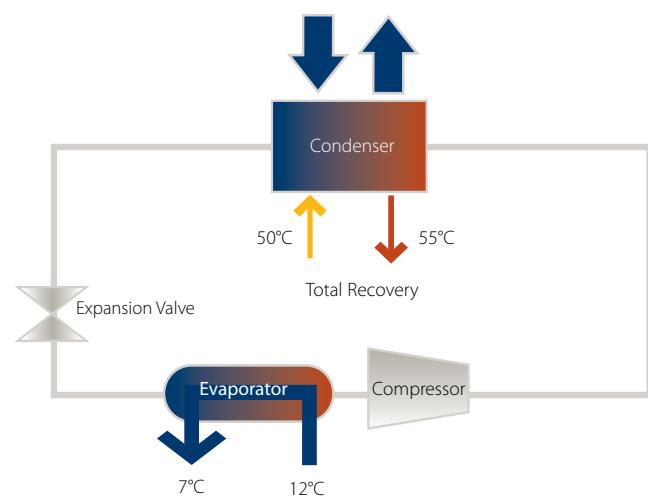
### OPPR – Partial heat recovery

A stainless-steel brazed plate heat exchanger is mounted in series between the compressor and water cooled condenser as a de-superheater. The sensible heat from the hot discharge gas will be recovered, while the latent heat exchange will occur in the water cooled condenser. The unit's efficiency is maintained as condensing pressure and can be reduced due to water cooled condenser becoming oversized.



### OPTR – Total heat recovery

A single, tailored Shell and Tube heat exchanger is mounted for full heat recovery of both sensible and latent heat. It is equipped with 2 independent water circuits with separate connections for condensate and heat recovery. Temperatures up to 55°C can be achieved.



# Air Cooled

In the chilled water market, air cooled chillers are the type most frequently used. From its wide range of chillers in cooling only or heat pump versions, with or without integrated hydronic components, Daikin always offers you a chiller to fit your application needs.

## Table of contents

EWAQ-ADVP	20	EWAD-BZXS/XL/XR	62
EWAQ-ACV3 & EWAQ-ACW1	22	EWAD-C-SS/SL	64
EUWA(N-P-B)-KBZW1	24	EWAD-C-SR	66
EWAQ-BAWN/BAWP	26	EWAD-C-XS/XL	68
EWAQ-DAYN	28	EWAD-C-XR	70
EWAQ-E-XS/XL	30	EWAD-C-PS/PL	72
EWAQ-E-XR	32	EWAD-C-PR	74
EWAQ-F-SS/SL	34	EWAD-CZXS/XL	76
EWAQ-F-SR	36	EWAD-CZXR	78
EWAQ-F-XS/XL	38	EWAD-CFXS/XL	80
EWAQ-F-XR	40	EWAD-CFXR	82
EWAD-E-SS	42	EWYQ-ADVP	84
EWAD-E-SL	44	EWYQ-ACV3 & EWYQ-ACW1	86
EWAD-D-SS	46	EUWY(N-P-B)-KBZW1	88
EWAD-D-SL	48	EWYQ-BAWN/BAWP	90
EWAD-D-SR	50	EWYQ-DAYN	92
EWAD-D-SX	52	EWYQ-F-XS/XL	94
EWAD-D-XS	54	EWYQ-F-XR	96
EWAD-D-XR	56	EWYD-BZSS	98
EWAD-D-HS	58	EWYD-BZSL	100
EWAD-BZSS/SL	60		



Daikin has taken great care to match major chiller components and refrigerant combinations to a point where high-efficiency ranges of technically advanced and closely optimised air and water cooled units are now widely available for use with R-410A, R-407C and R-134a refrigerants.

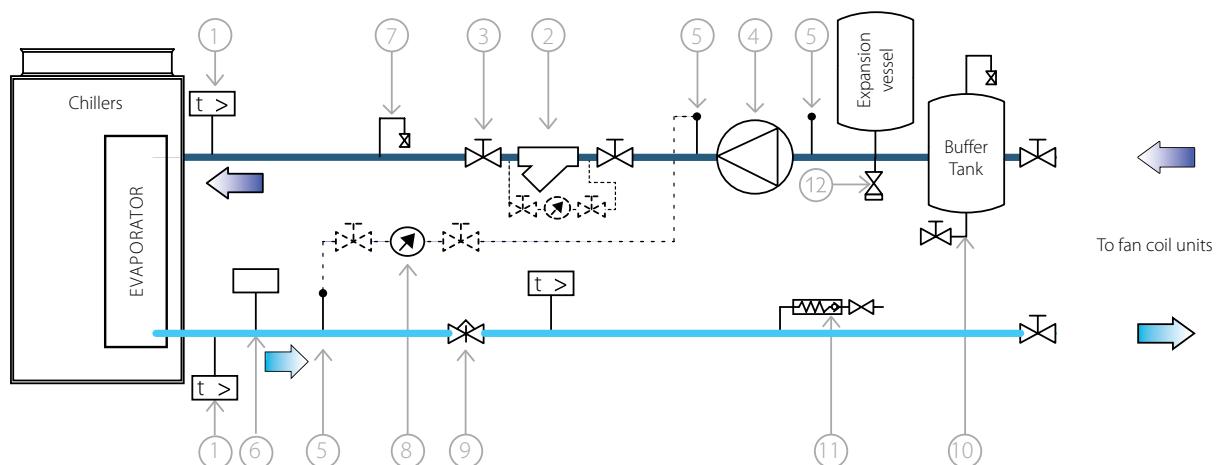
**R-410A**

**R-134a**

**R-407C**



## AIR COOLED CHILLER



1. Temperature sensor
2. Filter
3. Shut-off valve
4. Pump

5. Pressure port
6. Flow switch
7. Air purge
8. Pressure gauge

9. Balancing valve
10. Drain valve
11. Charging valve
12. Safety valve

### STRENGTHS

- › Wide operating range
- › Low operating sound level
- › Easy 'plug and play' installation
- › Daikin swing compressor
- › Integrated hydronics

### OPTIONS (FACTORY MOUNTED)

- › Evaporator heater tape



Digital controller

### CONTROL

- › Leaving water control

### AVAILABLE INPUTS

- › Voltage free contact:
  - ON/OFF
- › Schedule timer:
  - ON/OFF
  - Silent operation



**R-410A**

*INVERTER*





EWAQ-ADVP

## Cooling only

Model				EWAQ005ADVP	EWAQ006ADVP	EWAQ007ADVP
Cooling capacity	Nom.	kW		5.2 <sup>1</sup>	6.0 <sup>1</sup>	7.1 <sup>1</sup>
Power input	Cooling	Nom.	kW	1.89 <sup>1</sup>	2.35 <sup>1</sup>	2.95 <sup>1</sup>
EER				2.75 <sup>1</sup>	2.55 <sup>1</sup>	2.41 <sup>1</sup>
Dimensions	Unit	HeightxWidthxDepth	mm		805x1,190x360	
Weight	Unit	kg			100	
	Operation weight	kg			104	
Water heat exchanger	Type			Brazed plate		
	Nominal water flow	Cooling	l/min	14.9	17.2	20.4
Air heat exchanger	Type			Tube type		
Pump	Nominal ESP unit	Cooling	kPa	49.4	45.1	38.3
Hydraulic components	Expansion vessel	Volume	l		6	
Sound power level	Cooling	Nom.	dBA	62		63
Sound pressure level	Cooling	Nom.	dBA	48		50
Compressor	Type			Hermetically sealed swing compressor		
Operation range	Water side	Cooling	Min.-Max. °CDB		5~20	
	Air side	Cooling	Min.-Max. °CDB		10~43	
Refrigerant	Type			R-410A		
	Charge	kg		1.7		
	Control			Inverter		
	Circuits	Quantity		1		
Piping connections	Water heat exchanger inlet / outlet			1" MBSP		
	Water heat exchanger drain			5/16 SAE flare		
Power supply	Phase/Frequency/Voltage	Hz/V		1~/50/230		

(1) Fan coil program: cooling Ta 35°C - LWE 7°C (Dt: 5°C)

### STRENGTHS

- > Optimised for use with R-410A
- > Inverter controlled scroll compressor
- > Low operating sound level
- > Easy 'plug and play' installation'
- > Wide operating range
- > Integrated hydronics



Digital controller

### OPTIONS (FACTORY MOUNTED)

- > Evaporator heater tape (EWAQ-ACV3/ACW1)
- > Waterpiping heatertape (EWAQ-ACV3)

### OPTION KIT

- > Digital Input/Output PCB

### CONTROL

- > Leaving water control

### AVAILABLE INPUTS

- > Voltage free contact:
  - ON/OFF
- > Schedule timer:
  - ON/OFF
  - Silent operation





EWAQ009-011ACV3 / EWAQ009-013ACW1

## Cooling only

Model			EWAQ009ACV3	EWAQ010ACV3	EWAQ011ACV3	EWAQ009ACW1	EWAQ011ACW1	EWAQ013ACW1
Cooling capacity	Nom.	kW	12.2 <sup>1</sup> / 8.6 <sup>2</sup>	13.6 <sup>1</sup> / 9.6 <sup>2</sup>	15.7 <sup>1</sup> / 11.1 <sup>2</sup>	12.9 <sup>1</sup> / 9.1 <sup>2</sup>	15.7 <sup>1</sup> / 11.1 <sup>2</sup>	17.0 <sup>1</sup> / 13.3 <sup>2</sup>
Capacity control	Method		Inverter controlled			Inverter controlled		
Power input	Cooling	Nom.	kW	2.85 <sup>1</sup> / 2.83 <sup>2</sup>	3.41 <sup>1</sup> / 3.28 <sup>2</sup>	4.13 <sup>1</sup> / 3.90 <sup>2</sup>	3.08 <sup>1</sup> / 3.05 <sup>2</sup>	4.13 <sup>1</sup> / 3.90 <sup>2</sup>
EER				4.27 <sup>1</sup> / 3.05 <sup>2</sup>	4.00 <sup>1</sup> / 2.93 <sup>2</sup>	3.79 <sup>1</sup> / 2.85 <sup>2</sup>	4.19 <sup>1</sup> / 2.99 <sup>2</sup>	3.79 <sup>1</sup> / 2.85 <sup>2</sup>
ESEER				4.31	4.30	4.33	4.43	4.44
Dimensions	Unit	HeightxWidthxDepth	mm	1,435x1,418x382			1,435x1,418x382	
Weight	Unit		kg	180			180	
Water heat exchanger	Type			Brazed plate			Brazed plate	
	Water volume		l	1.01			1.01	
	Nominal water flow	Cooling	l/min	24.7	27.6	31.9	26.1	31.9
Air heat exchanger	Type			Hi-XSS			Hi-XSS	
Pump	Nominal ESP unit	Cooling	kPa	58.0	54.6	49.1	56.4	49.1
Hydraulic components	Expansion vessel	Volume	l	10			10	
Fan	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	96	100	97	-
Fan motor	Speed	Cooling	Nom.	rpm	780			780
				Steps	8			8
Sound power level	Cooling	Nom.	dBA	64			64	66
Sound pressure level	Cooling	Nom.	dBA	51			51	52
	Night quiet mode	Cooling	dBA	45			45	46
Compressor	Type			Hermetically sealed scroll compressor			Hermetically sealed scroll compressor	
Operation range	Water side	Cooling	Min.-Max. °CDB	5~22			5~22	
	Air side	Cooling	Min.-Max. °CDB	10~46			10~46	
Refrigerant	Type			R-410A			R-410A	
	Charge		kg	2.95			2.95	
	Control			Electronic expansion valve			Electronic expansion valve	
	Circuits	Quantity		1			1	
Water circuit	Piping connections diameter		inch	G 5/4" (female)			G 5/4" (female)	
	Piping		inch	5/4"			5/4"	
Power supply	Phase/Frequency/Voltage		Hz/V	1~50/230			3 ~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)

### STRENGTHS

- › Daikin scroll compressor
- › Reduced installation time thanks to integrated pump and and/or buffer tank
- › Possibility for a 200l buffer tank
- › Low operating sound level
- › Easy maintenance
- › Main switch
- › Water flow switch
- › 3 different design options available:
  - EUWAN chiller without integrated hydraulic module ;
  - EUWAP chiller with integrated hydraulic module (pump, expansion vessel, hydraulic components) ;
  - EUWAB chiller with integrated hydraulic module (buffer tank, pump, expansion vessel, hydraulic components)
- ›  $\mu\text{C}^2 \text{ SE}$  controller



### OPTIONS (FACTORY MOUNTED)

- › Chilled water temperature down to - 5°C or -10°C
- › High ESP fans (50Pa)

### ACCESSORIES (KIT)

- › Refrigerant pressure gauges (EKGAU5/8/10/12/16/20/24KA)
  - › 200l buffer tank for EUWAN and EUWAP models (EKBT, see EKBT page in this catalogue)
  - › Soft starter kit (EKSS)
  - › Address card for connection to BMS or remote user interface (EKAC10C)
  - › Remote installed user interface (EKRUMCA)
- \* To install EKRUMCA -> EKAC10C needs to be installed on the unit



### CONTROL

- › Water inlet temperature control

### AVAILABLE INPUTS / OUTPUTS

#### Input

- › Remote ON/OFF
- › Pump contact

#### Output

- › Compressor operation
- › Summary alarm
- › Pump relay contact

### HYDRAULIC CIRCUIT COMPONENTS





EUWA\*16KBZW1

**EUWAN:**

- › Scroll compressor
- › Main isolator switch
- › Water flow switch
- › Filter
- › Condenser protection grille
- › All year operation

**EUWAP = EUWAN +**

- › Pump
- › Expansion vessel
- › Adjusting valve
- › Drain
- › Water pressure gauge
- › Pressure relief valve

**EUWAB = EUWAP +**

- › Buffer tank

## Cooling only

Model				N5	P5	B5	N8	P8	B8	N10	P10	B10	N12	P12	B12	N16	P16	B16	N20	P20	B20	N24	P24	B24		
Cooling capacity	Nom.			kW	11.2	11.7	17.7	18.2	22.3	22.9	26.2	26.8	34.4	35.4	46.4	47.5	55.0	56.1								
Capacity steps				%	0-100			0-50-100																		
Power input	Cooling			Nom.	kW	4.56	4.59	7.44	7.39	8.87	8.88		11.7	14.90	15.1	18.1	18.2	24.1	24.2							
EER						2.46	2.55	2.38	2.46	2.51	2.58	2.24	2.29	2.31	2.34	2.56	2.61	2.28	2.32							
Dimensions	Unit	HeightxWidthxDepth			mm	1,230x1,290x734			1,450x1,290x734			1,321x2,580x734			1,541x2,580x734											
Weight	Unit				kg	150	168	180	215	229	241	245	259	271	248	262	274	430	448	460	490	508	520	496	514	526
	Operation weight			kg	152	171	239	218	232	300	248	262	330	251	265	335	436	457	525	496	518	545	503	524	592	
Water heat exchanger	Type	Brazed plate																						4.524		
	Water volume	I	1.14		1.615		1.9		2.375		2.964		3.9										158			
	Nominal water flow	Cooling	I/min	32		51		64		76		99		134												
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	24		38		43		37														22	
Air heat exchanger	Type	Cross fin coil/Hi-X tubes and PE coated waffle louvre fins																								
Pump	Nominal ESP unit	Cooling	kPa	-	209	-	128	-	138	-	105	-	240	-	195	-	158									
Hydraulic components	Expansion vessel			Volume	I	-	12	-	12	-	12	-	12	-	12	-	12	-	12	-	12	-	12			
Fan group	Air flow rate	Cooling	Nom.	m³/min	160 (per 2 fans)			170 (per 2 fans)														170 (per 2 fans)				
Fan group 2	Air flow rate	Cooling	Nom.	m³/min																						
Sound power level	Cooling	Nom.	dBA		67		76		78		79		81													
Compressor	Type	Hermetically sealed scroll compressor																								
Operation range	Water side	Cooling	Min.-Max. °CDB		-10~25																					
	Air side	Cooling	Min.-Max. °CDB		-15~43																					
Refrigerant	Type	R-407C																								
	Control	Thermostatic expansion valve																								
	Circuits	Quantity			1																				2	
Refrigerant circuit	Charge	kg		3.9		4.6		5.9		6.0															6.0	
Refrigerant circuit 2	Charge	kg			-																					
Piping connections	Water inlet/outlet				G 1"1/4 (male)																				2"	
	Water drain				1-1/4"																				2"	
Power supply	Phase/Frequency/Voltage	Hz/V			3N~/50/400																					

### STRENGTHS

- › High efficiency chiller with leader-of-class ESEER
- › Minimal starting currents and short payback times
- › No buffertank required for standard applications
- › Naked or with factory mounted (standard/high-ESP) pump
- › Low sound thanks to inverter compressor / fans
- › EWAQ-BAWN: Naked
- › EWAQ-BAWP: With pump



BRC21A52

### STANDARD AVAILABLE

- › Hydraulic package: filter, shut-off valves, drain/ fill valve, automatic air purge, flowswitch

### OPTIONS

- › Low leaving water operation down to -10°C
- › One centrifugal pump (low lift)
- › One centrifugal pump (high lift)
- › Evaporator electric heater



R-410A



### ACCESSORIES

- › Pressure gauges (BHGP26A1)
- › PCB with additional inputs/outputs (EKRP1AHTA)
- › External control adapter (DTA104A62)
- › Additional controller in parallel (EKRUUAHTB)
- › Modbus interface for monitoring and control (RTD-W)





EWAQ-BA\*

## Cooling only

Model			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)	
Capacity control	Method				Inverter controlled					
	Minimum capacity	%				25				
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)
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	HeightxWidthxDepth	mm	1,684x1,371x774			1,684x1,684x774	1,684x2,358x780		1,684x2,980x780
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	
	Nominal water flow	Cooling	l/min	50	62	74	93	124	148	
	Nominal water pressure drop	Cooling	Total	kPa	20	30	42	30	42	
Air heat exchanger	Type	Hi-XSS								
Fan	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	171	185	233	370	466	
Sound power level	Cooling	Nom.	dBA		78		80	81	83	
Compressor	Type	Hermetically sealed scroll compressor								
Operation range	Water side	Cooling	Min.-Max.	°CDB				5~20		
	Air side	Cooling	Min.-Max.	°CDB				~43		
Refrigerant	Type	R-410A								
	Charge	kg				7.6	9.6	15.2	19.2	
	Control	Electronic expansion valve								
	Circuits	Quantity	1							
Piping connections	Water inlet/outlet				1-1/4" (female)		2" (female)			
	Water drain				1-1/4"		1-1/2"			
Power supply	Phase/Frequency/Voltage	Hz/V	3N~/50/400							

(1) EWAQ-BAWN: Naked version (2); EWAQ-BAWP: Version with pump

### STRENGTHS

- > Optimised for use with R-410A refrigerant
- > Multiple compressors per circuit
- > Reliable and efficient scroll with high EER values
- > Anti-corrosion treated aluminium coils
- > Low operating sound level
- > Easy 'plug and play' installation
- > Fans protected against abnormal operation (4 - 8 fans depending on unit size)
- > Safety valves in each circuit
- > Electronic circuit breakers
- > Electronic expansion valve
- > True dual plate brazed plate heat exchanger
- > All hydraulics can be accessed easily from 3 sides (no surrounding cabinet)
- > Separate switchbox for easy access
- > Compressors and controls at unit side
- > Increased reliability via 2 independent refrigerant circuits (EWAQ130-260DAYN)
- > Double circuit heat exchanger (from >100 kW)
- > Non hermetic filter/dryer
- > Daikin Pcaso controller with user friendly and powerful LCD interface

### OPTIONS (FACTORY MOUNTED)

- > Single pump contactor
- > Twin pump contactor
- > Single pump
- > Twin pump (1 pump casing, dual motor)
- > High ESP pump (single pump only)
- > Buffer tank
- > Inverter fans (not available with low noise option)
- > Glycol 0°C / -10°C
- > Evaporator heater tape
- > Option valves
- > A-meter / V-meter
- > Low Noise
- > Condenser protection grills
- > Dual pressure relief valve

### ACCESSORIES (KIT)

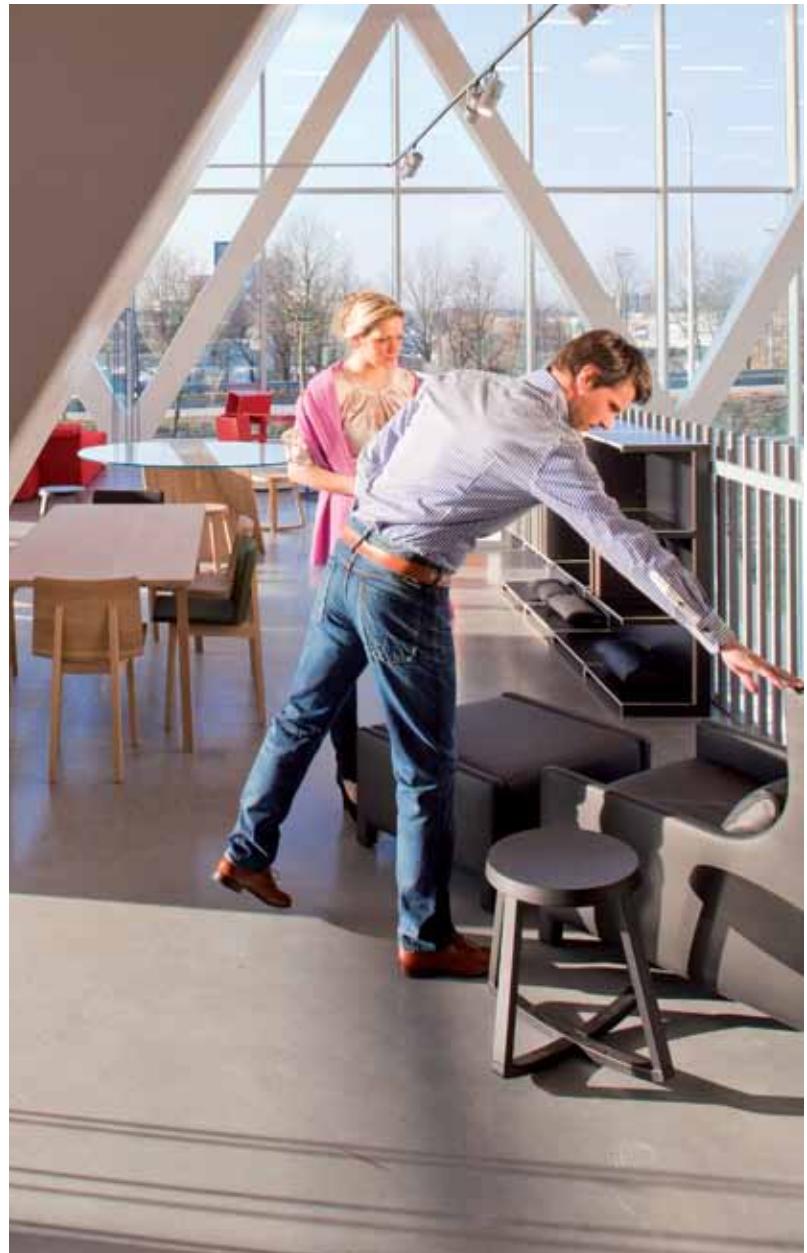
- > Address card (EKACPG)
- > Remote user interface (EKRUPG)
- > Waterpipe kit (EKN210 & EKN260)



PCASO



**R-410A**





EWAQ-DAYN chillers can be equipped with Daikin Integrated Chiller Network (DICN) which allows the simultaneous operation of up to 4 chillers as if they were a single unit, in order to deliver the required cooling capacity. This results in precise and efficient capacity control and is also useful for back up purposes, ensuring that the necessary amount of cooling is available and guaranteeing reliable operation of the chiller plant. This function enables a Daikin chiller plant to be operated via a single controller. Please note that DICN is only possible within the same series.



EWAQ130,150DAYN

## Cooling only

Capacity class			080	100	130	150	180	210	240	260
Cooling capacity	Nom.	kW	79.4 <sup>1</sup> / 81.0 <sup>2</sup>	104 <sup>1</sup> / 106 <sup>2</sup>	130 <sup>1</sup> / 133 <sup>2</sup>	151 <sup>1</sup> / 154 <sup>2</sup>	181 <sup>1</sup> / 184 <sup>2</sup>	208 <sup>1</sup> / 211 <sup>2</sup>	234 <sup>1</sup> / 238 <sup>2</sup>	252 <sup>1</sup> / 256 <sup>2</sup>
Capacity steps	%		0-50-100	0-25-50-75-100	21/29-43/50/57-71/79-100	0-25-50-75-100	22/28-40/50/56-72/78-100	0-25-50-75-100	22/28-40/50/56-72/78-100	0-25-50-75-100
Power input	Cooling	Nom.	27.0 <sup>1</sup> / 27.6 <sup>2</sup>	36.9 <sup>1</sup> / 37.2 <sup>2</sup>	47.4 <sup>1</sup> / 48.1 <sup>2</sup>	57.2 <sup>1</sup> / 57.8 <sup>2</sup>	65.6 <sup>1</sup> / 66.5 <sup>2</sup>	75.9 <sup>1</sup> / 76.6 <sup>2</sup>	84.4 <sup>1</sup> / 84.5 <sup>2</sup>	95.8 <sup>1</sup> / 95.8 <sup>2</sup>
EER			2.94 <sup>1</sup> / 2.93 <sup>2</sup>	2.82 <sup>1</sup> / 2.85 <sup>2</sup>	2.74 <sup>1</sup> / 2.77 <sup>2</sup>	2.64 <sup>1</sup> / 2.66 <sup>2</sup>	2.76 <sup>1</sup> / 2.77 <sup>2</sup>	2.74 <sup>1</sup> / 2.75 <sup>2</sup>	2.77 <sup>1</sup> / 2.82 <sup>2</sup>	2.63 <sup>1</sup> / 2.67 <sup>2</sup>
ESEER			3.88 <sup>1</sup> / 3.82 <sup>2</sup>	3.79 <sup>1</sup> / 3.83 <sup>2</sup>	4.03 <sup>1</sup> / 3.97 <sup>2</sup>	3.95 <sup>1</sup> / 3.96 <sup>2</sup>	4.04 <sup>1</sup> / 4.02 <sup>2</sup>	4.00 <sup>1</sup> / 4.02 <sup>2</sup>	3.89 <sup>1</sup> / 4.00 <sup>2</sup>	3.73 <sup>1</sup> / 3.84 <sup>2</sup>
Dimensions	Unit	HeightxWidthxDepth	mm	2,311x2,000x2,566	2,311x2,000x2,631	2,311x2,000x3,081	2,311x2,000x4,850			
Weight	Unit		kg	1,350	1,400	1,500	1,550	1,800	1,850	3,150
	Operation weight		kg	1,365	1,415	1,517	1,569	1,825	1,877	3,189
Water heat exchanger	Type					Brazed plate				
	Nominal water flow	Cooling	l/min	229	301	377	436	522	599	677
	Nominal water pressure drop	Cooling	Total	kPa	59	58	52	49	52	53
Air heat exchanger	Type					Cross fin coil/Hi-Xss tubes and poly ethylene coated waffle fins				
Fan	Air flow rate	Nom.	m <sup>3</sup> /min	780	800	860	1,290			1,600
	Speed		rpm	880	900		970			900
Sound power level	Cooling	Nom.	dBA	86	88	89	90			91
Compressor	Type					Scroll compressor				
Operation range	Water side	Cooling	Min.-Max. °CDB			-10~25				
	Air side	Cooling	Min.-Max. °CDB			-15~43				
Refrigerant	Type					R-410A				
	Control					Electronic expansion valve				
	Circuits	Quantity		1			2			
Refrigerant circuit	Charge	kg		33	19	23	31	30	40	39
Refrigerant circuit 2	Charge	kg		-	19	23	31	30	40	39
Piping connections	Water heat exchanger inlet / outlet				3" OD					3"
	Water heat exchanger drain					1/2"G				
Power supply	Phase/Frequency/Voltage	Hz/V				3~/50/400				

(1) For -N models (standard)

(2) For -P models (with optional pump / +OPSP) and for -B models (with optional pump and buffertank / +OPSP +OPBT)

### STRENGTHS

- > Reliable and efficient scroll with high EER values
- > A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced footprint, reduced weight, clearances around the unit
- > 1-2 truly independent refrigerant circuits
- > Reduced footprint thanks to the V-shaped frame
- > Large operation range: ambient temperatures up to 52°C and down to -18°C



MicroTech III

### STANDARD AVAILABLE

- > Direct on line starter (DOL)
- > Double setpoint
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Evaporator flow switch
- > Electronic expansion valve
- > Ambient outside temperature sensor and setpoint reset
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Water filter



### OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Brine version
- > Axial fans (250 Pa lift) (EWAQ-E-XS)
- > Condenser coil guards
- > Evaporator area guards
- > CuCu condenser coil
- > CuCuSn condenser coil
- > Alucoat fins coil
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure side manometers
- > Low pressure side manometers
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pump (low lift)
- > Two centrifugal pump (high lift)
- > Double pressure relief valve with diverter
- > Compressor thermal overload relays
- > Phase monitor
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Setpoint reset, demand limit and alarm from external device
- > Compressor circuit breakers
- > Fans circuit breakers
- > Fans speed regulation (+fan silent mode)
- > Ground fault relay
- > Rubber anti vibration mounts
- > Spring anti vibration mounts
- > External tank without cabinet (500 or 1000l)
- > External tank with cabinet (500 or 1000l)
- > Container kit
- > Transport kit
- > Blygold coil treatment
- > Condenser coil protection panels





EWAQ-E-

## High efficiency Cooling only

Standard/low sound

Model			180	200	230	260	320	340
Cooling capacity	Nom.	kW	178	200	226	263	315	334
Capacity control	Method				Step			
	Minimum capacity	%	50	43	50	33	27	33
Power input	Cooling	Nom.	kW	58.0	65.3	73.8	86.2	103
EER				3.06			3.05	
ESEER				3.99	4.06	3.87	4.09	4.04
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413		2,271x1,224x5,313		2,271x1,224x6,213
Weight (XS)	Unit	kg		1,722	1,807	1,871	2,173	2,304
	Operation weight	kg		1,734	1,819	1,885	2,188	2,318
Weight (XL)	Unit	kg		1,876	1,965	2,032	2,370	2,507
	Operation weight	kg		1,889	1,978	2,047	2,385	2,522
Water heat exchanger	Type				Plate heat exchanger			
	Water volume	l		12		14		
	Nominal water flow	Cooling	l/s	8.5	9.6	10.8	12.6	15.1
	Nominal water pressure drop	Cooling	Total	kPa	27	34	35	47
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler			
Fan	Air flow rate	Nom.	l/s	21,845	21,148	26,874	25,884	32,953
	Speed		rpm			900		32,065
Sound power level (XS)	Cooling	Nom.	dBA	93	94	96	95	96
Sound power level (XL)	Cooling	Nom.	dBA	91	92	93	92	93
Sound pressure level (XS)	Cooling	Nom.	dBA	75		76		77
Sound pressure level (XL)	Cooling	Nom.	dBA			73		74
Compressor	Type				Scroll compressor			
Operation range	Water side	Cooling	Min.-Max. °CDB			-15~18		
	Air side	Cooling	Min.-Max. °CDB			-18~52		
Refrigerant	Type				R-410A			
	Circuits	Quantity			1			
Refrigerant circuit	Charge	kg		15	18	16	21	26
Piping connections	Evaporator water inlet/outlet (OD)				3"			
Power supply	Phase/Frequency/Voltage	Hz/V			3~/50/400			

### STRENGTHS

- > Reliable and efficient scroll with high EER values
- > A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced footprint, reduced weight, clearances around the unit
- > 1-2 truly independent refrigerant circuits
- > Reduced footprint thanks to the V-shaped frame
- > Large operation range: ambient temperatures up to 52°C and down to -18°C



MicroTech III

### STANDARD AVAILABLE

- > Direct on line starter (DOL)
- > Double setpoint
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Evaporator flow switch
- > Electronic expansion valve
- > Ambient outside temperature sensor and setpoint reset
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Water filter



### OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Brine version
- > Condenser coil guards
- > Evaporator area guards
- > CuCu condenser coil
- > CuCuSn condenser coil
- > Alucoat fins coil
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure side manometers
- > Low pressure side manometers
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pump (low lift)
- > Two centrifugal pump (high lift)
- > Double pressure relief valve with diverter
- > Compressor thermal overload relays
- > Phase monitor
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Speedtrol (fan speed control device ON/OFF up to - 18°C)
- > Setpoint reset, demand limit and alarm from external device
- > Compressor circuit breakers
- > Fans circuit breakers
- > Fans speed regulation (+fan silent mode)
- > Ground fault relay
- > Rubber anti vibration mounts
- > Spring anti vibration mounts
- > External tank without cabinet (500 or 1000l)
- > External tank with cabinet (500 or 1000l)
- > Container kit
- > Transport kit
- > Blygold coil treatment
- > Condenser coil protection panels





EWAQ-E-

## Cooling only

High efficiency  
Reduced sound

Model			170	190	220	260	300	320
Cooling capacity	Nom.	kW	172	193	219	254	302	321
Capacity control	Method				Step			
	Minimum capacity	%	50	43	50	33	27	33
Power input	Cooling	Nom.	kW	56.5	64.4	71.8	85.4	102
EER				3.05	3.00	3.05	2.97	2.96
ESEER				4.41	4.48	4.27	4.54	4.52
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413		2,271x1,224x5,313		2,271x1,224x6,213
Weight	Unit	kg		1,970	2,064	2,134	2,489	2,632
	Operation weight	kg		1,982	2,076	2,148	2,503	2,647
Water heat exchanger	Type				Plate heat exchanger			
	Water volume	l		12			14	
	Nominal water flow	Cooling	l/s	8.2	9.2	10.5	12.1	14.5
	Nominal water pressure drop	Cooling	Total	kPa	26	32	44	50
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler				
Fan	Air flow rate	Nom.	l/s	16,743	16,285	20,618	20,056	25,243
	Speed		rpm			705		24,604
Sound power level	Cooling	Nom.	dBA	85	86	87	86	88
Sound pressure level	Cooling	Nom.	dBA	66	67	68	67	69
Compressor	Type			Scroll compressor				
Operation range	Water side	Cooling	Min.-Max. °CDB			-15~18		
	Air side	Cooling	Min.-Max. °CDB			-18~52		
Refrigerant	Type			R-410A				
	Circuits	Quantity		1				
Refrigerant circuit	Charge	kg		15	18	16	21	26
Piping connections	Evaporator water inlet/outlet (OD)			3"				
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400				

### STRENGTHS

- > Reliable and efficient scroll with high EER values
- > A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced footprint, reduced weight, clearances around the unit
- > 1-2 truly independent refrigerant circuits
- > 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

### STANDARD AVAILABLE

- > Direct on line starter (DOL)
- > Double setpoint
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Evaporator flow switch
- > Electronic expansion valve
- > Ambient outside temperature sensor and setpoint reset
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Water filter

### OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Axial fans (250 Pa lift) (EWAQ-F-SS)
- > Condenser coil guards
- > Evaporator area guards
- > CuCu condenser coil
- > CuCuSn condenser coil
- > Alucoat fins coil
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure side manometers
- > Low pressure side manometers
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pump (low lift)
- > Two centrifugal pump (high lift)
- > Double pressure relief valve with diverter
- > Soft starter
- > Compressor thermal overload relays
- > Phase monitor
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Setpoint reset, demand limit and alarm from external device
- > Compressor circuit breakers
- > Fans circuit breakers
- > Fans speed regulation (+fan silent mode)
- > Ground fault relay
- > Rubber anti vibration mounts
- > Spring anti vibration mounts
- > External tank without cabinet (500 or 1000l)
- > External tank with cabinet (500 or 1000l)
- > Container kit
- > Transport kit
- > Blygold coil treatment
- > Condenser coil protection panels



MicroTech III



**R-410A**





EWAQ210-400F-SS/SL



EWAQ360-610F-SS/SL

Cooling only

Standard efficiency  
Standard/low sound

Model			210	230	250	280	320	350	360	400	410	480	550	610	
Cooling capacity	Nom.	kW	206	224	247	283	313	359		407	480	551	609		
Capacity control	Method			Step											
	Minimum capacity %			25	22	25	23	25	21		25	17	14	17	
Power input	Cooling	Nom.	kW	73.3	84.9	93.6	109	122	141	154	187	207	229		
EER				2.81	2.64	2.60	2.58	2.55		2.64	2.57	2.67	2.66		
ESEER				3.75	3.72	3.74	3.66	3.67	3.74	4.00	3.78	4.01	4.10	4.00	
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413			2,271x1,224x5,313			2,271x1,224x6,213			2,271x1,224x6,213		
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		
Nominal water flow	Cooling	l/s	9.9	10.7	11.8	13.6	15.0	17.2		19.5	23.0	26.4	29.2		
Nominal water pressure drop	Cooling	Total kPa	37	43	53	56	69	30		32	35	46	56		
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler													
Fan	Air flow rate Nom.	l/s	21,845			21,148	27,306	26,435	32,767	32,513	43,690	54,612	52,870		
	Speed	rpm	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		
Compressor	Type	Scroll compressor													
Operation range	Water side	Cooling	Min.-Max. °CDB	-15~18											
	Air side	Cooling	Min.-Max. °CDB	-18~52											
Refrigerant	Type	R-410A													
Refrigerant circuit	Circuits	Quantity		2											
Piping connections	Evaporator water inlet/outlet (OD)			3"											
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400											

### STRENGTHS

- > Reliable and efficient scroll with high EER values
- > A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced footprint, reduced weight, clearances around the unit
- > 1-2 truly independent refrigerant circuits
- > Ideal solution for a broad range of comfort and process applications
- > The unit can be equipped with a built-in hydraulic module that houses the main hydraulic components and optimizes the hydraulic and electrical installation time, space and cost
- > MicroTech III controller

### STANDARD AVAILABLE

- > Direct on line starter (DOL)
- > Double setpoint
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Evaporator flow switch
- > Electronic expansion valve
- > Ambient outside temperature sensor and setpoint reset
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Water filter

### OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Brine version
- > Condenser coil guards
- > Evaporator area guards
- > CuCu condenser coil
- > CuCuSn condenser coil
- > Alucoat fins coil
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure side manometers
- > Low pressure side manometers
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pump (low lift)
- > Two centrifugal pump (high lift)
- > Double pressure relief valve with diverter
- > Soft starter
- > Compressor thermal overload relays
- > Phase monitor
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Speedtrol (fan speed control device ON/OFF up to - 18°C)
- > Setpoint reset, demand limit and alarm from external device
- > Compressor circuit breakers
- > Fans circuit breakers
- > Fans speed regulation (+fan silent mode)
- > Ground fault relay
- > Rubber anti vibration mounts
- > Spring anti vibration mounts
- > External tank without cabinet (500 or 1000l)
- > External tank with cabinet (500 or 1000l)
- > Container kit
- > Transport kit
- > Blygold coil treatment
- > Condenser coil protection panels



MicroTech III



**R-410A**





EWAQ200-370F-SR



EWAQ340-580F-SR

## Cooling only

Standard efficiency  
Reduced sound

Model		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
Capacity control	Method								Step				
	Minimum capacity	%	25	22	25	23	25	21		25	17	14	17
Power input	Cooling	Nom.	kW	73.4	86.0	95.6	110	125	144	159	191	208	233
EER				2.70	2.49	2.46	2.45	2.38	2.37	2.41	2.39	2.53	2.49
ESEER				4.20	4.12	4.04	4.06	3.95	4.09	4.25	4.02	4.15	4.49
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413	2,271x1,224x5,313	2,271x1,224x6,213	2,271x2,258x3,210	2,447x1,224x6,213	2,397x2,258x3,210	2,271x2,258x4,110	2,221x2,258x5,010		
Weight	Unit		kg	2,412	2,491	2,571	2,661	2,799	2,899	3,116	3,216	3,481	3,863
	Operation weight		kg	2,424	2,504	2,585	2,676	2,814	2,914	3,156	3,256	3,527	3,909
Water heat exchanger	Type							Plate heat exchanger					
	Water volume	I		12			14		40		46		
	Nominal water flow	Cooling	l/s	9.5	10.2	11.3	13.0	14.3	16.3	18.3	21.8	25.2	27.8
	Nominal water pressure drop	Cooling	Total	kPa	34	40	48	51	63	27	29	31	42
Air heat exchanger	Type							High efficiency fin and tube type with integral subcooler					
Fan	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
Sound pressure level	Cooling	Nom.	dBA	66	67		68		69		70	71	72
Compressor	Type							Scroll compressor					
Operation range	Water side	Cooling	Min.-Max. °CDB					-15~18					
	Air side	Cooling	Min.-Max. °CDB					-18~52					
Refrigerant	Type							R-410A					
	Circuits	Quantity						2					
Refrigerant circuit	Charge		kg		18		21		24		34	40	46
Piping connections	Evaporator water inlet/outlet (OD)							3"					
Power supply	Phase/Frequency/Voltage	Hz/V						3~/50/400					

### STRENGTHS

- > Reliable and efficient scroll with high EER values
- > A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced footprint, reduced weight, clearances around the unit
- > 1-2 truly independent refrigerant circuits
- > 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

### STANDARD AVAILABLE

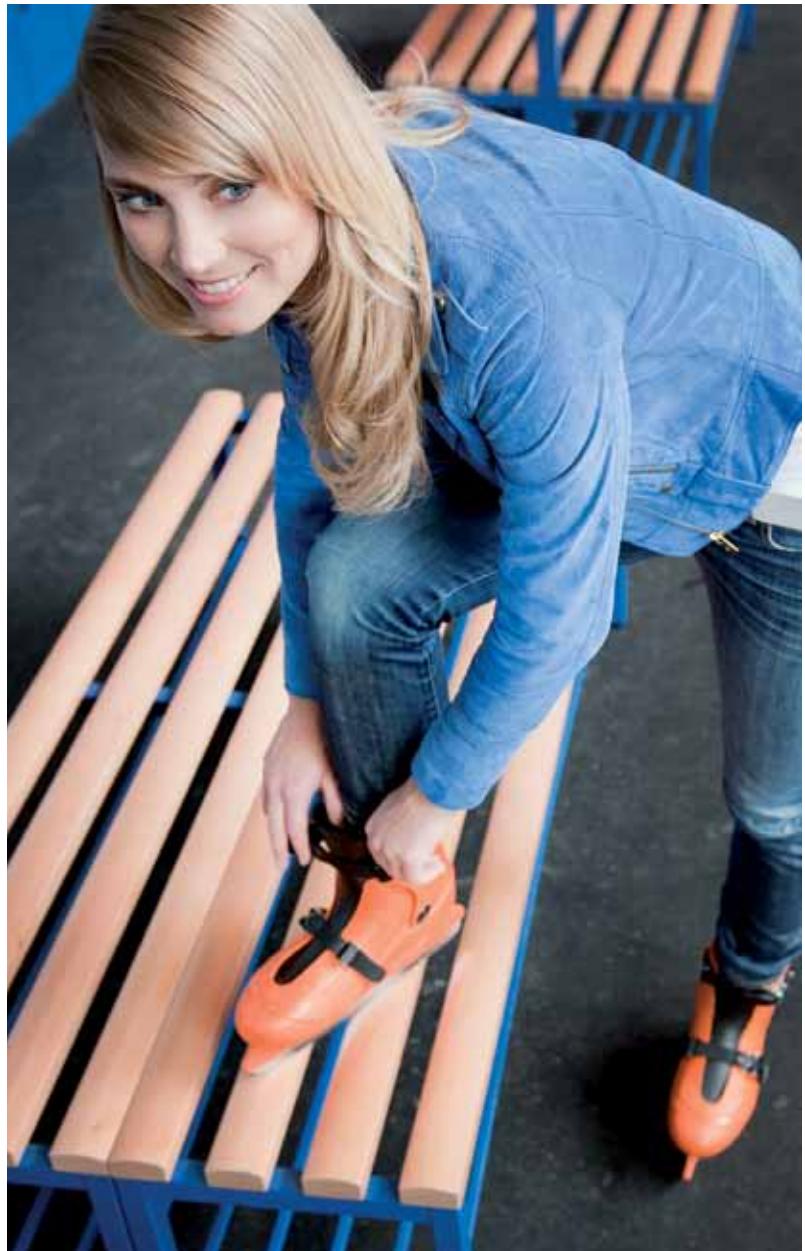
- > Direct on line starter (DOL)
- > Double setpoint
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Evaporator flow switch
- > Electronic expansion valve
- > Ambient outside temperature sensor and setpoint reset
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Water filter

### OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Brine version
- > Condenser coil guards
- > Evaporator area guards
- > CuCu condenser coil
- > CuCuSn condenser coil
- > Standard available
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure side manometers
- > Low pressure side manometers
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pump (low lift)
- > Two centrifugal pump (high lift)
- > Double pressure relief valve with diverter
- > Compressor thermal overload relays
- > Phase monitor
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Speedtrol (fan speed control device ON/OFF up to -10°C)
- > Setpoint reset, demand limit and alarm from external device
- > Compressor circuit breakers
- > Fans circuit breakers
- > Fans speed regulation (inverter)
- > Ground fault relay
- > Rubber anti vibration mounts
- > Spring anti vibration mounts
- > External tank without cabinet (500 or 1000l)
- > External tank with cabinet (500 or 1000l)
- > Container kit
- > Transport kit
- > Nordic kit
- > Blygold coil treatment
- > Condenser coil protection panels



MicroTech III





EWAQ170-350F-XS/XL



EWAQ320-680F-XS/XL

**High efficiency  
Cooling only** **Standard/low sound**

Model		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	
Capacity control	Method															
	Minimum capacity	%	25	21	25	22	23		25	21	20	25	17	14	17	
Power input	Cooling	Nom.	kW	54.8	62.2	70.6	78.3	102	115	130	137	146	170	198	219	
EER				3.11	3.13	3.12		3.09		3.10		3.12		3.10	3.07	
ESSEER				3.89	4.08	3.91	4.03	4.05	4.30	4.06	4.33	4.22	4.26	4.22	4.24	
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413	2,271x1,224x5,313	2,271x1,246,213	2,271x2,258x3,210	2,271x1,246,213	2,271x2,258x2,210	2,221x2,258x4,110	2,221x2,258x5,010	2,221x2,258x6,910				
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
	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
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
	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
Water heat exchanger	Type									Plate heat exchanger						
	Water volume	l	12			14				40			46		60	
	Nominal water flow	Cooling	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
	Nominal water pressure drop	Cooling	Total	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						
Fan	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	
Compressor	Type									Scroll compressor						
Operation range	Water side	Cooling	Min.-Max. °CDB							-15~18						
	Air side	Cooling	Min.-Max. °CDB							-18~52						
Refrigerant	Type									R-410A						
	Circuits	Quantity								2						
Refrigerant circuit	Charge	kg	14	18	21		24			35		40		46		
Piping connections	Evaporator water inlet/outlet (OD)							3"								
Power supply	Phase/Frequency/Voltage	Hz/V							3~/50/400							

### STRENGTHS

- > Reliable and efficient scroll with high EER values
- > A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced footprint, reduced weight, clearances around the unit
- > 1-2 truly independent refrigerant circuits
- > 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



MicroTech III

### STANDARD AVAILABLE

- > Direct on line starter (DOL)
- > Double setpoint
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Alucoat fins coil
- > Evaporator flow switch
- > Electronic expansion valve
- > Ambient outside temperature sensor and setpoint reset
- > Fans speed regulation (inverter)
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Water filter



### OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Brine version
- > Condenser coil guards
- > Evaporator area guards
- > CuCu condenser coil
- > CuCuSn condenser coil
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure side manometers
- > Low pressure side manometers
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pump (low lift)
- > Two centrifugal pump (high lift)
- > Double pressure relief valve with diverter
- > Compressor thermal overload relays
- > Phase monitor
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Speedtrol (fan speed control device ON/OFF up to -10°C)
- > Setpoint reset, demand limit and alarm form external device
- > Compressor circuit breakers
- > Fans circuit breakers
- > Ground fault relay
- > Rubber anti vibration mounts
- > Spring anti vibration mounts
- > External tank without cabinet (500 or 1000l)
- > External tank with cabinet (500 or 1000l)
- > Container kit
- > Transport kit
- > Nordic kit
- > Blygold coil treatment
- > Condenser coil protection panels





EWAQ170-330F-XR



EWAQ310-650F-XR

Cooling only

High efficiency  
Reduced sound

Model		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		
Capacity control	Method														Step	
	Minimum capacity	%	25	21	25	22	23	25	21	20	25	17	14	17		
Power input	Cooling	Nom.	kW	53.0	61.2	68.7	77.3	101	117	128	136	146	170	200	219	
EER				3.12	3.07	3.08	3.05	3.00	2.92	3.01	2.99	2.96	2.90	2.95		
ESEER				4.49	4.59	4.45	4.51	4.53	4.67	4.45	4.62	4.65	4.62	4.53	4.75	
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413	2,271x1,224x5,313	2,271x1,224x6,213	2,271x1,224x6,210	2,271x1,224x6,213	2,271x1,224x6,210	2,221x2,258x4,110	2,221x2,258x5,010	2,221x2,258x5,910				
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	
Nominal water flow	Cooling	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	
Nominal water pressure drop	Cooling	Total	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						
Fan	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	
Compressor	Type									Scroll compressor						
Operation range	Water side	Cooling	Min.-Max. °CDB							-15~18						
	Air side	Cooling	Min.-Max. °CDB							-18~52						
Refrigerant	Type									R-410A						
	Circuits	Quantity								2						
Refrigerant circuit	Charge	kg	14	18	21		24			35		40		46		
Piping connections	Evaporator water inlet/outlet (OD)									3"						
Power supply	Phase/Frequency/Voltage	Hz/V								3~/50/400						

### STRENGTHS

- > 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
- > MicroTech III controller for superior control logic  
and an easy interface with LonWorks, Bacnet,  
Ethernet TCP/IP or Modbus communication



MicroTech III

### STANDARD AVAILABLE

- > Wye delta starter (y - d)
- > Double setpoint
- > Fans circuit breakers  
with thermal overload relays
- > Phase monitor
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Low pressure side manometers
- > Ambient outside temperature sensor  
and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and  
alarm from external device
- > Fans circuit breakers
- > Main switch interlock door



R-134a

### OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under/Over voltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > 20 mm evaporator insulation
- > Speedtrol
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (low or high lift)
- > Two centrifugal pump (low or high lift) -  
(Not available on sizes 100 and 120)
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > External tank with or without cabinet (500 and 1000 l)
- > Fans speed regulation (+fan silent mode)
- > Transport kit
- > Blygold coil treatment
- > Condenser coil protection panels





EWAD100-210E-SS

**Standard efficiency**

**Standard sound**

**Cooling only**

Model			100	120	140	160	180	210	260	310	360	410		
Cooling capacity	Nom.		kW	101	121	138	163	183	213	255	306	359	411	
Capacity control	Method			Stepless										
	Minimum capacity		%	25										
Power input	Cooling		Nom.	kW	39.0	47.5	53.9	60.9	69.0	72.4	87.8	112.1	134.3	147
EER					2.58	2.54	2.55	2.67	2.64	2.95	2.90	2.73	2.67	2.80
ESEER					2.84	2.67	2.86	2.75	2.96	3.07	2.94	3.11	3.22	
Dimensions	Unit	HeightxWidthxDepth	mm	2,273x1,292x2,165	2,273x1,292x3,065	2,273x1,292x3,965				2,223x2,236x3,070				
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	
	Nominal water flow	Cooling	l/s	4.8	5.8	6.6	7.8	8.7	10.2	12.2	14.6	17.2	19.7	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	24	25	23	24	22	21	47	48	45	
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler										
Fan	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		
Compressor	Type			Semi-hermetic single screw compressor					Asymmetric single screw compressor					
Operation range	Water side	Cooling	Min.-Max. °CDB					-15~15						
	Air side	Cooling	Min.-Max. °CDB					-18~48						
Refrigerant	Type			R-134a										
	Charge		kg	18	21	23	28	30	33	46	56	60		
Piping connections	Evaporator water inlet/outlet (OD)			3"										
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/400										

## STRENGTHS

- > One refrigerant circuit with single screw compressor
- > Low operating sound level
- > Compact design with brazed plate heat exchanger
- > Large operation range  
(ambient temperature down to -18°C)
- > Water supply down to -15°C
- > MicroTech III controller for superior control logic  
and an easy interface with LonWorks, Bacnet,  
Ethernet TCP/IP or Modbus communication



MicroTech III

## STANDARD AVAILABLE

- > Wye delta starter (y - d)
- > Double setpoint
- > Phase monitor
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor  
and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and  
alarm from external device
- > Fans circuit breakers
- > Main switch interlock door



R-134a

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under/Over voltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > 20 mm evaporator insulation
- > Speedtrol
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (low or high lift)
- > Two centrifugal pump (low or high lift) -  
(Not available on sizes 100 and 120)
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fan speed regulation (+fan silent mode)
- > External tank with or without cabinet (500 and 1000 l)
- > Low pressure side manometers
- > Transport kit
- > Blygold coil treatment
- > Condenser coil protection panels





EWAD100-210E-SL

## Standard efficiency Cooling only

Model			100	120	130	160	180	210	250	300	350	400	
Cooling capacity	Nom.	kW	98	116	134	157	177	208	248	295	344	397	
Capacity control	Method		Stepless		25								
	Minimum capacity	%											
Power input	Cooling	Nom.	kW	39.2	48.3	53.4	60.8	68.3	72.8	85.4	111.2	135.0	152
EER				2.49	2.39	2.50	2.57	2.59	2.86	2.90	2.65	2.55	2.62
ESEER				2.92	2.89	2.78	2.92	3.00	3.24	3.41	3.28	3.22	3.33
Dimensions	Unit	HeightxWidthxDepth	mm	2,273x1,292x2,165	2,273x1,292x3,065	2,273x1,292x3,965				2,223x2,236x3,070			
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
	Nominal water flow	Cooling	l/s	4.7	5.5	6.4	7.5	8.4	10.0	11.9	14.1	16.5	19.0
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	23	22	23	21	20	45	44	42	
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler									
Fan	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		
Compressor	Type			Semi-hermetic single screw compressor					asymmetric single screw compressor				
Operation range	Water side	Cooling	Min.-Max. °CDB						-15~15				
	Air side	Cooling	Min.-Max. °CDB						-18~48				
Refrigerant	Type			R-134a									
	Charge		kg	18	21	23	28	30	33	46	56	60	
Piping connections	Evaporator water inlet/outlet (OD)			3"									
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400									

## STRENGTHS

- > Standard efficiency level
- > Standard sound level configuration:  
condenser fan rotating at 920 rpm, rubber antivibration under compressor
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communication
- > Large operation range (ambient temperature down to -18°C)



MicroTech III

## STANDARD AVAILABLE

- > Wye delta starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fans circuit breakers
- > Main switch interlock door



R-134a

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Evaporator flange kit
- > 20 mm evaporator insulation
- > Fan silent mode
- > Speedtrol
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pumps (low lift)
- > Two centrifugal pumps (high lift)
- > External tank without cabinet (500 l)
- > External tank without cabinet (1000 l)
- > External tank (500 l) with cabinet
- > External tank (1000 l) with cabinet
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fan speed regulation (+fan silent mode)
- > Axial fans (250 PA lift)
- > Low pressure side manometers
- > Evaporator right water connections
- > Inverter compressor starter
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment



EWAD390D-SS



## Cooling only

Standard efficiency  
Standard sound

Model		390	440	470	510	530	560	580
Cooling capacity	Nom.	kW	388	435	463	500	529	553
Capacity control	Method				Stepless			
	Minimum capacity	%			13			
Power input	Cooling	Nom.	kW	154	165	169	186	196
EER				2.52	2.63	2.74	2.70	2.67
ESEER				3.24	3.42	3.36	3.38	3.37
Dimensions	Unit	HeightxWidthxDepth	mm	2,223x2,234x3,139			2,223x2,234x4,040	
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
Nominal water flow	Cooling	l/s		18.6	20.8	22.2	24.0	25.4
Nominal water pressure drop	Cooling	Heat exchanger	kPa	46	38	67	47	52
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler			
Fan	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
Compressor	Type			Semi-hermetic single screw compressor		asymmetric single screw compressor		
Operation range	Water side	Cooling	Min.-Max. °CDB			-15~15		
	Air side	Cooling	Min.-Max. °CDB			-18~48		
Refrigerant	Type					R-134a		
	Circuits	Quantity		56	60	70	76	82
Refrigerant circuit	Charge		kg			5.5"		
Piping connections	Evaporator water inlet/outlet (OD)					3~/50/400		
Power supply	Phase/Frequency/Voltage		Hz/V					92

## STRENGTHS

- > Standard efficiency level
- > Low sound level configuration: condenser fan rotating at 715/900 rpm, rubber antivibration under compressor, compressor sound enclosure
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communication
- > Large operation range (ambient temperature down to -18°C)



MicroTech III

## STANDARD AVAILABLE

- > Wye delta starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fans circuit breakers
- > Main switch interlock door
- > 20mm evaporator insulation
- > Water pressure differential switch on evaporator



**R-134a**

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Evaporator flange kit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (10 different models)
- > Two centrifugal pumps (10 different models)
- > External tank without cabinet (500 l)
- > External tank without cabinet (1000 l)
- > External tank (500 l) with cabinet
- > External tank (1000 l) with cabinet
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fan speed regulation (+fan silent mode)
- > Low pressure side manometers
- > Inverter compressor starter
- > Transport kit
- > Axial fans (250 PA lift)
- > Condenser coil protection panels
- > Blygold coil treatment
- > Evaporator right water connections



EWAD400-530D-SL



**Standard efficiency  
Low sound**

**Cooling only**

Model		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	
Capacity control	Method																
	Minimum capacity	%															
Power input	Cooling	Nom.	kW	82.0	80.2	85.6	94.4	102	109	121	125	135	171	172	188	205	197
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	3.04	3.15	3.08	3.12	3.08	3.05	3.10	3.23	3.49	3.48	3.41	3.51	3.62
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x2,239			2,355x2,234x3,139			2,355x2,234x4,040						2,223x2,234x4,040	
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
Nominal water flow	Cooling	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
Nominal water pressure drop	Cooling	Heat exchanger	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										
Fan	Air flow rate	Nom.	l/s	15,295	14,868	22,943		22,623	22,302		30,591		24,432		33,494		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		
Compressor	Type						Semi-hermetic single screw compressor									asymmetric single screw compressor	
Operation range	Water side	Cooling	Min.-Max. °CDB							-15~15							
	Air side	Cooling	Min.-Max. °CDB							-18~48							
Refrigerant	Type									R-134a							
	Circuits	Quantity								2							
Refrigerant circuit	Charge		kg	36	42	48	50	54		58		66	70	76	82	84	86
Piping connections	Evaporator water inlet/outlet (OD)			3"			4"						5"				
Power supply	Phase/Frequency/Voltage	Hz/V								3~/50/400							

## STRENGTHS

- > Standard efficiency level
- > Reduced sound level configuration: condenser fan rotating at 680/715 rpm, rubber antivibration under compressor, compressor sound enclosure
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communication
- > Large operation range (ambient temperature down to -18°C)



MicroTech III

## STANDARD AVAILABLE

- > Wye delta starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fans circuit breakers
- > Main switch interlock door
- > 20mm evaporator insulation
- > Water pressure differential switch on evaporator



**R-134a**

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Evaporator flange kit
- > Speedtrol
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (10 different models)
- > Two centrifugal pumps (10 different models)
- > External tank without cabinet (500 l)
- > External tank without cabinet (1000 l)
- > External tank (500 l) with cabinet
- > External tank (1000 l) with cabinet
- > Compressor circuit breakers
- > Fan speed regulation (+fan silent mode)
- > Axial fans (250 PA lift)
- > Evaporator right water connections
- > Inverter compressor starter
- > Transport kit
- > Low pressure side manometers
- > Condenser coil protection panels
- > Blygold coil treatment



EWAD400-530D-SR



## Cooling only

Standard efficiency  
Reduced sound

Model		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	
Capacity control	Method																
	Minimum capacity	%															
Power input	Cooling	Nom.	kW	84.5	83.1	86.2	95.6	104	112	123	127	140	171	172	188	205	197
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				2.81	2.93	3.18	3.08	3.09	3.02	2.99	3.11	3.25	3.49	3.48	3.41	3.51	3.62
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x2,239			2,355x2,234x3,139			2,355x2,234x4,040						2,223x2,234x4,040	
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
Nominal water flow	Cooling	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
Nominal water pressure drop	Cooling	Heat exchanger	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										
Fan	Air flow rate	Nom.	l/s	12,389	11,928	18,583	18,237	17,892	24,777	24,432		33,494		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			
Compressor	Type						Semi-hermetic single screw compressor					asymmetric single screw compressor					
Operation range	Water side	Cooling	Min.-Max. °CDB							-15~15							
	Air side	Cooling	Min.-Max. °CDB							-18~48							
Refrigerant	Type						R-134a										
	Charge		kg	36	42	48	50	54	58	66	70	76	82	84	86		
Piping connections	Evaporator water inlet/outlet (OD)			3"			4"					5"					
Power supply	Phase/Frequency/Voltage	Hz/V								3~/50/400							

### STRENGTHS

- > Standard efficiency level
- > Extra low sound level configuration: condenser fan rotating at 500 rpm, rubber antivibration under compressor, compressor and evaporator sound enclosure
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communication
- > Large operation range (ambient temperature down to -18°C)



MicroTech III

### STANDARD AVAILABLE

- > Wye delta starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fans circuit breakers
- > Main switch interlock door
- > Fans speed regulation (+ fan silent mode)



**R-134a**

### OPTIONS (FACTORY MOUNTED)

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Evaporator flange kit
- > 20 mm evaporator insulation
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pumps (low lift)
- > Two centrifugal pumps (high lift)
- > External tank without cabinet (500 l)
- > External tank without cabinet (1000 l)
- > External tank (500 l) with cabinet
- > External tank (1000 l) with cabinet
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Transport kit
- > Water pressure differential switch on evaporator
- > Inverter compressor starter
- > Low pressure side manometers
- > Axial fans (250 PA lift)
- > Condenser coil protection panels
- > Blygold coil treatment
- > Evaporator right water connections





EWAD230-410D-SX

**Standard efficiency**

**Extra low sound**

**Cooling only**

Model			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	
Capacity control	Method			Stepless											
	Minimum capacity		%	13											
Power input	Cooling		Nom.	kW	80.8	86.0	94.4	105	115	127	137	150	171	175	189
EER					2.50	2.68	2.67	2.56	2.47	2.35	2.25	2.46	2.41	2.56	2.60
ESEER					3.24	3.50	3.39	3.42	3.32	3.27	3.14	3.12	3.35	3.45	3.44
Dimensions	Unit	HeightxWidthxDepth	mm	2,420x2,234x3,139	2,420x2,234x4,040								2,420x2,234x4,940		
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	170	170	165			
Nominal water flow	Cooling	l/s	9.7	11.0	12.1	12.9	13.7	14.3	14.7	17.7	19.7	21.5	23.5		
Nominal water pressure drop	Cooling	Heat exchanger	kPa	45	34	38	35	38	41	45	44	50	45		
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler											
Fan	Air flow rate	Nom.	l/s	12,876	17,893		17,169			26,496	28,981	33,120			
	Speed		rpm				500								
Sound power level	Cooling	Nom.	dBA	84			85					86			
Sound pressure level	Cooling	Nom.	dBA				65					66			
Compressor	Type			Semi-hermetic single screw compressor								asymmetric single screw compressor			
Operation range	Water side	Cooling	Min.-Max. °CDB				-15~15								
	Air side	Cooling	Min.-Max. °CDB				-18~48								
Refrigerant	Type			R-134a											
	Circuits	Quantity		2											
Refrigerant circuit	Charge		kg	56			60			65	70	76	82		
Piping connections	Evaporator water inlet/outlet (OD)			4"						5"					
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/400											

## STRENGTHS

- > High efficiency
- > Standard sound level configuration: condenser fan rotating at 900/920 rpm, rubber antivibration under compressor
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communication
- > Large operation range (ambient temperature down to -18°C)



MicroTech III

## STANDARD AVAILABLE

- > Wye delta starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fans circuit breakers
- > Main switch interlock door



R-134a

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors cosfi 0.9
- > Current limit
- > Evaporator flange kit
- > 20 mm evaporator insulation
- > Fan silent mode
- > Speedtrol (fan speed control device ON/OFF up to -18 °C)
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (10 different models)
- > Two centrifugal pumps (10 different models)
- > External tank without cabinet (500 l)
- > External tank without cabinet (1000 l)
- > External tank (500 l) with cabinet
- > External tank (1000 l) with cabinet
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fan speed regulation (+ fan silent mode)
- > Axial fans (250 PA lift)
- > Low pressure side manometers
- > Evaporator right water connections
- > Inverter compressor starter
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment
- > Evaporator right water connections



EWAD250D-XS



**High efficiency  
Standard sound**

**Cooling only**

Model			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					
Capacity control	Method			Stepless															
	Minimum capacity		%	13															
Power input	Cooling		Nom.	kW	80.1	88.2	95.4	105	114	121	129	152	169	183	196				
EER					3.07	3.11	3.15	3.10	3.06	3.08	3.10	3.07	3.09	3.12	3.16				
ESEER					3.41	3.45	3.47	3.69	3.51	3.42	3.41	3.68	3.79	3.82	3.75				
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x3,138	2,355x2,234x4,040					2,223x2,234x4,040	2,223x2,234x4,940								
Weight	Unit	kg	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								
Nominal water flow	Cooling	l/s		11.8	13.1	14.4	15.6	16.7	17.9	19.1	22.4	25.0	27.4	29.7					
Nominal water pressure drop	Cooling	Heat exchanger	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															
Fan	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					
Compressor	Type			Semi-hermetic single screw compressor										asymmetric single screw compressor					
Operation range	Water side	Cooling	Min.-Max. °CDB	-15~15															
	Air side	Cooling	Min.-Max. °CDB	-18~48															
Refrigerant	Type			R-134a															
	Circuits		Quantity	2															
Refrigerant circuit	Charge		kg	58	66	76	73	76	86	100									
Piping connections	Evaporator water inlet/outlet (OD)			4"										6"					
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/400															

## STRENGTHS

- > High efficiency
- > Reduced sound level configuration: condenser fan rotating at 680/715 rpm, rubber antivibration under compressor, compressor sound enclosure
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communication
- > Large operation range (ambient temperature down to -18°C)

## STANDARD AVAILABLE

- > Wye delta starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fans circuit breakers
- > Main switch interlock door

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Evaporator flange kit
- > 20 mm evaporator insulation
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (10 different models)
- > Two centrifugal pumps (10 different models)
- > External tank without cabinet (500 l)
- > External tank without cabinet (1000 l)
- > External tank (500 l) with cabinet
- > External tank (1000 l) with cabinet
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fan speed regulation (+ fan silent mode)
- > Axial fans (250 PA lift)
- > Evaporator right water connections
- > Inverter compressor starter
- > Water pressure differential switch on evaporator
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment
- > Low pressure side manometers



MicroTech III



EWAD270-390D-XR



## Cooling only

High efficiency  
Reduced sound

Model		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	
Capacity control	Method													
	Minimum capacity	%												
Power input	Cooling	Nom.	kW	81.6	88.0	96.3	107	117	121	129	154	169	185	200
EER				2.96	3.07	3.06	3.00	2.94	3.06	3.05	2.95	3.01	3.02	2.99
ESEER				3.47	3.55	3.53	3.66	3.55	3.81	3.64	3.73	3.89	3.91	3.80
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x3,138			2,355x2,234x4,040			2,223x2,234x4,040		2,223x2,234x4,940		
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	
Nominal water flow	Cooling	l/s	11.6		13.0		14.1		15.4		17.7		18.8	
Nominal water pressure drop	Cooling	Heat exchanger	kPa	47	44	48	45	49	56	45	45	60	54	36
Air heat exchanger	Type							High efficiency fin and tube type with integral subcooler						
Fan	Air flow rate	Nom.	l/s	17,892	24,777		23,856		33,035	32,576	33,494		41,867	
	Speed		rpm				680					705		
Sound power level	Cooling	Nom.	dBA				92			93			94	
Sound pressure level	Cooling	Nom.	dBA				73					74		
Compressor	Type						Semi-hermetic single screw compressor						asymmetric single screw compressor	
Operation range	Water side	Cooling	Min.-Max. °CDB					-15~15						
	Air side	Cooling	Min.-Max. °CDB						-18~48					
Refrigerant	Type							R-134a						
	Circuits	Quantity						2						
Refrigerant circuit	Charge	kg	60	68			80					104		
Piping connections	Evaporator water inlet/outlet (OD)						4"					6"		
Power supply	Phase/Frequency/Voltage	Hz/V						3~/50/400						

## STRENGTHS

- > High ambient
- > Standard sound level configuration:  
condenser fan rotating at 900/920 rpm,  
rubber antivibration under compressor
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > MicroTech III controller for superior control logic  
and an easy interface with LonWorks, Bacnet,  
Ethernet TCP/IP or Modbus communications
- > Large operation range (ambient  
temperature down to -18°C)



MicroTech III

## STANDARD AVAILABLE

- > Wye delta starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and  
alarm from external device
- > Fans circuit breakers
- > Main switch interlock door
- > 20mm evaporator insulation
- > Water pressure differential switch on evaporator



R-134a

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Evaporator flange kit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (10 different models)
- > Two centrifugal pumps (10 different models)
- > External tank without cabinet (500 l)
- > External tank without cabinet (1000 l)
- > External tank (500 l) with cabinet
- > External tank (1000 l) with cabinet
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fan speed regulation (+fan silent mode)
- > Axial fans (250 PA lift)
- > Evaporator right water connections
- > Low pressure side manometers
- > Inverter compressor starter
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment
- > Evaporator right water connections





EWAD340-450D-HS

**High ambient  
Standard sound**

**Cooling only**

Model			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																	
Capacity control	Method				Stepless																													
	Minimum capacity	%				13																												
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																
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				3.01	3.17	3.21	3.08	3.16	3.13	3.11	3.38	3.47	3.52	3.51	3.54	3.63																		
Dimensions	Unit	HeightxWidthxDepth	mm	2,223x2,234x2,239				2,223x2,234x3,339				2,223x2,234x4,040				2,223x2,234x4,940																		
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																				
	Nominal water flow	Cooling	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																
	Nominal water pressure drop	Cooling	Heat exchanger	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																																
Fan	Air flow rate	Nom.	l/s	21,848	21,153	32,772	32,250	31,729	43,696			42,306	54,620																					
Fan motor	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																					
Compressor	Type	Semi-hermetic single screw compressor												asymmetric single screw compressor																				
Operation range	Water side	Cooling	Min.-Max.	°CDB	-15~15																													
	Air side	Cooling	Min.-Max.	°CDB	-18~48																													
Refrigerant	Type	R-134a																																
	Circuits	Quantity	2																															
Refrigerant circuit	Charge	kg	36	42	44	55	56	58	66	70	90	95	100																					
Piping connections	Evaporator water inlet/outlet (OD)			3"	4"			5"																										
Power supply	Phase/Frequency/Voltage	Hz/V	3~/50/400																															

## STRENGTHS

- > All models are PED pressure vessel approved
- > Inverter stepless single-screw compressor
- > Optimised for use with R-134a
- > 2 truly independent refrigerant circuits
- > DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- > The ability to vary the output power in direct relation to the cooling requirements of the system allows to achieve building comfort conditions much faster at start-up
- > Standard electronic expansion valve
- > Partial and total heat recovery option available
- > Power factor over 0.95
- > Standard operation range down to -10°C

## STANDARD AVAILABLE

- > Double setpoint
- > Fans circuit breakers with thermal overload relays
- > Phase monitor
- > Inverter compressor starter
- > Evaporator victaulic kit
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Fan speed regulation (+fan silent mode)
- > Ambient outside temperature sensor and setpoint reset

## OPTIONS

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Brine version
- > Under/overvoltage control
- > Energy meter
- > Current limit
- > 20mm evaporator insulation
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti-vibration mount
- > Spring anti-vibration mount
- > One centrifugal pump (low or high lifting)
- > Two centrifugal pumps (low or high lifting)
- > External tank with or without cabinet (500 or 1000l)
- > Set point reset, demand limit and alarm
- > Double pressure relief valve with diverter
- > Low pressure side manometers
- > Evaporator water right connections
- > Transport kit
- > Condensor coil protection panels



PCO2



R-134a

INVERTER





EWAD330,360BZ

## Cooling only

## Standard efficiency

## Standard/low sound

Model		330	360	400	420	460	490	520
Cooling capacity	Nom.	kW	328	357	394	422	458	486
Capacity control	Method				Stepless			
	Minimum capacity	%			14			
Power input	Cooling	Nom.	kW	121.1	137.1	148.4	160.4	169.4
EER				2.71	2.60	2.65	2.63	2.70
ESEER				4.37	4.40	4.32	4.38	4.37
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x4,381		2,355x2,234x5,281		2,355x2,234x6,181
Weight (SS)	Unit	kg		4,190		4,590		4,990
	Operation weight	kg		4,440		4,840		5,240
Weight (SL)	Unit	kg		5,140	4,340	4,740	4,340	4,740
	Operation weight	kg		5,390	4,590	4,990	4,590	4,990
Water heat exchanger	Type				Single pass shell & tube			
	Water volume	l		271	264	256		248
	Nominal water flow	Cooling	l/s	15.7	17.1	18.8	20.2	21.9
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	40	37	44	40
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler			
Fan	Air flow rate	Nom.	l/s	32,700	42,899	41,887	51,478	50,264
	Speed		rpm		705			
Sound power level (SS)	Cooling	Nom.	dBA		103			104
Sound power level (SL)	Cooling	Nom.	dBA	98		97		98
Sound pressure level (SS)	Cooling	Nom.	dBA		83			84
Sound pressure level (SL)	Cooling	Nom.	dBA	78		77		78
Compressor	Type				Semi-hermetic single screw compressor			
Operation range	Water side	Cooling	Min.-Max. °CDB		-9.5~15			
	Air side	Cooling	Min.-Max. °CDB		-12~45			
Refrigerant	Type				R-134a			
	Charge		kg	73	99	105	114	118
	Circuits	Quantity			2			
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm			
Power supply	Phase/Frequency/Voltage	Hz/V			3~/50/400			

### STRENGTHS

- > All models are PED pressure vessel approved
- > Inverter stepless single-screw compressor
- > Optimised for use with R-134a
- > 2 truly independent refrigerant circuits
- > DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- > The ability to vary the output power in direct relation to the cooling requirements of the system allows to achieve building comfort conditions much faster at start-up
- > Standard electronic expansion valve
- > Partial and total heat recovery option available
- > Power factor over 0.95
- > Standard operation range down to -10°C

### STANDARD AVAILABLE

- > Double setpoint
- > Fans circuit breakers
- > Phase monitor
- > Inverter compressor starter
- > Evaporator victaulic kit
- > Fan silent mode
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Fan speed regulation (+fan silent mode)
- > Ambient outside temperature sensor and setpoint reset

### OPTIONS

- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Brine version
- > Under/overvoltage control
- > Energy meter
- > Current limit
- > 20mm evaporator insulation
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti-vibration mount
- > Spring anti-vibration mount
- > One centrifugal pump (low or high lifting)
- > Two centrifugal pumps (low or high lifting)
- > External tank with or without cabinet (500 or 1000l)
- > Set point reset, demand limit and alarm
- > Double pressure relief valve with diverter
- > Low pressure side manometers
- > Evaporator right water connections
- > Transport kit
- > Condenser coil protection panels



PCO<sup>2</sup>





EWAD330,360BZ

## High efficiency Cooling only Standard/low/reduced sound

Model		330	360	400	420	460	490	520
Cooling capacity	Nom.	kW	328	357	394	422	458	486
Capacity control	Method				Stepless			
	Minimum capacity	%			13.5			
Power input	Cooling	Nom.	kW	119	136	146	158	166
EER				2.75	2.62	2.69	2.66	2.75
ESEER				4.55	4.59	4.53	4.60	4.59
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x4,381		2,355x2,234x5,281		2,355x2,234x6,181
Weight (XS)	Unit	kg		4,190		4,590		4,990
	Operation weight	kg		4,440		4,840		5,240
Weight (XL)	Unit	kg		4,340		4,740		5,140
	Operation weight	kg		4,590		4,990		5,390
Weight (XR)	Unit	kg		4,390		4,790		5,190
	Operation weight	kg		4,640		5,040		5,440
Water heat exchanger	Type				Single pass shell & tube			
	Water volume	l	271	264		256		248
	Nominal water flow	Cooling	l/s	15.7	17.1	18.8	20.2	21.9
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	40	37	44	40
						38	43	47
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler			
Fan	Air flow rate	Nom.	l/s	32,700	42,899	41,887	51,478	50,264
	Speed		rpm			705		49,050
Sound power level (XS)	Cooling	Nom.	dBA		103			104
Sound power level (XL)	Cooling	Nom.	dBA		97			98
Sound power level (XR)	Cooling	Nom.	dBA		93			94
Sound pressure level (XS)	Cooling	Nom.	dBA		83			84
Sound pressure level (XL)	Cooling	Nom.	dBA		77			78
Sound pressure level (XR)	Cooling	Nom.	dBA		73			74
Compressor	Type				Semi-hermetic single screw compressor			
Operation range	Water side	Cooling	Min.-Max. °CDB			9.5~15		
	Air side	Cooling	Min.-Max. °CDB			-12~45		
Refrigerant	Type				R-134a			
	Charge		kg	73	99	105	114	118
	Circuits	Quantity				2		121
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm			
Power supply	Phase/Frequency/Voltage	Hz/V			3~/50/400			

## STRENGTHS

- > Stepless single-screw compressor
- > Large operation range (ambient temperature down to -18°C and up to 46°C)
- > All models are PED pressure vessel approved
- > Optimised for use with R-134a
- > 2-3 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 for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

## STANDARD AVAILABLE

- > Wye-delta starter (y-d)
- > Double setpoint
- > Phase monitor
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop

## OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Evaporator flange kit
- > Speedtrol (fan speed control device)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (3 models)
- > Two centrifugal pumps (4 models)
- > Double pressure relief valve with diverter
- > Fans speed regulation
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment



MicroTech III



R-134a





EWAD-C-

## Standard efficiency Cooling only

## Standard/low sound

Model		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					
Capacity control	Method																Stepless					
	Minimum capacity	%															7					
Power input	Cooling	Nom.	kW	223	265	302	322	355	382	408	446	479	557	586	627	669	687	721				
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	3.72	3.68	3.58	3.67	3.68	3.64				
Dimensions	Unit	HeightxWidthxDepth	mm														2,540x2,285x6,185					
Weight (SS)	Unit	kg	kg	5,630	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	kg	5,910	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	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	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 volume	l		266		251		243		386		408		474		850						
	Nominal water flow	Cooling	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				
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	47	54	53	62	69	64	74	54	58	62	68	75	36	39	40			
Air heat exchanger	Type																High efficiency fin and tube type with integral subcooler					
Fan	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		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		79		80		81		82											
Sound pressure level (SL)	Cooling	Nom.	dBA		76		77		78		79		80		81		82					
Compressor	Type																asymmetric single screw compressor					
Operation range	Water side	Cooling	Min.-Max. °CDB														-8~15					
	Air side	Cooling	Min.-Max. °CDB														-18~52					
Refrigerant	Type																R-134a					
	Circuits	Quantity															3					
Refrigerant circuit	Charge	kg		128		146		144		162		178		196		260		261		275		305
Piping connections	Evaporator water inlet/outlet (OD)						168.3mm								219.1mm				273mm			
Power supply	Phase/Frequency/Voltage	Hz/V																				

## STRENGTHS

- > Reduced sound version
- > Stepless single-screw compressor
- > Large operation range (ambient temperature down to -18°C and up to 46°C)
- > All models are PED pressure vessel approved
- > Optimised for use with R-134a
- > 2-3 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 for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

## STANDARD AVAILABLE

- > Wye-delta starter (y-d)
- > Double setpoint
- > Fans thermal relays
- > Phase monitor
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm
- > Double pressure relief valve with diverter
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop
- > Fans circuit breakers

## OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Evaporator flange kit
- > Speedtrol (fan speed control device - ON/OFF - up to -18°C)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (3 models)
- > Two centrifugal pumps (4 models)
- > Compressor circuit breakers
- > Double pressure relief valve with diverter
- > Fans speed regulation (+fan silent mode)
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment



MicroTech III



R-134a





EWAD-C-

**Cooling only**

**Standard efficiency  
Reduced sound**

Model				620	720	790	890	920	C10	C11	C12	H14	C13	C14	C15	C16	C17	C18	C19												
Cooling capacity	Nom.			kW	617	712	786	872	918	1,016	1,107	1,266	1,316	1,363	1,465	1,550	1,616	1,710	1,791	1,828											
Capacity control	Method				Stepless												7														
	Minimum capacity			%	13												7														
Power input	Cooling			Nom.	kW	226	276	317	334	373	398	422	461	500	522	582	609	654	706	722	762										
EER						2.74	2.59	2.48	2.61	2.46	2.55	2.63	2.74	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	3.76	3.74	3.92	3.81	3.76	3.70	3.71	3.64	3.68	3.70	3.64											
Dimensions	Unit	Height	Width	x	Depth	mm	2,540x2,285x6,185												2,540x2,285x11,985												
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 volume			l	266	251			243	386			421	408			474	850													
	Nominal water flow	Cooling	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	77.4	81.8	85.6	87.5											
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	43	50	48	58	63	60	69	50	54	45	57	63	69	33	36	37											
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																													
Fan	Air flow rate	Nom.	l/s		41,007		49,209		57,410	65,611	73,813	82,014	90,216	98,417																	
	Speed		rpm		700																										
Sound power level	Cooling	Nom.	dBA		92	93			94	95			96						74												
Sound pressure level	Cooling	Nom.	dBA		71	72	73																								
Compressor	Type	asymmetric single screw compressor																													
Operation range	Water side	Cooling	Min.-Max. °CDB		-8~15																										
	Air side	Cooling	Min.-Max. °CDB		-18~52																										
Refrigerant	Type	R-134a																													
Refrigerant circuit	Circuits	Quantity			2													3													
Piping connections	Evaporator water inlet/outlet (OD)				128	146	144	162	178	196	260	261	275	305						273mm											
Power supply	Phase/Frequency/Voltage	Hz/V			3~/50/400																										

### STRENGTHS

- > High efficiency version
- > Stepless single-screw compressor
- > Large operation range (ambient temperature down to -18°C and up to 50°C)
- > All models are PED pressure vessel approved
- > Optimised for use with R-134a
- > 2-3 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 for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

### STANDARD AVAILABLE

- > Wye-delta starter (y-d)
- > Double setpoint
- > Fans thermal relays
- > Phase monitor
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion device
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop

### OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Evaporator flange kit
- > Speedtrol (fan speed control device)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (3 models)
- > Two centrifugal pumps (4 models)
- > Compressor circuit breakers
- > Double pressure relief valve with diverter
- > Fans speed regulation (fan silent mode)
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Rapid restart
- > Transport kit
- > Low pressure side manometers
- > Condenser coil protection panels
- > Blygold coil treatment



MicroTech III

screw



R-134a





EWAD-C-

## Cooling only

### High efficiency Standard/Low sound

Model		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	1,948	2,002	
Capacity control	Method																			
	Minimum capacity	%																	7	
Power input	Cooling	Nom.	kW	237	256	282	311	343	367	404	416	451	483	510	541	569	598	620	648	677
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	3.01	2.96	
ESEER				3.77	3.91	3.81	3.91	3.83	3.98	3.86	4.05	4.04	4.05	3.97	3.94	3.92	3.90	3.98	3.89	3.86
Dimensions	Unit	HeightxWidthxDepth	mm	2540x2,285x7,085	2,540x2,285x7,085	2,540x2,285x7,985				2,540x2,285x9,785				2540x2,285x13,785	2,540x2,285x13,785	2,540x2,285x14,685				
2,285x6,185																				
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 volume	l	251	243		403		386		979		850		871		850					
Nominal water flow	Cooling	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	
Nominal water pressure drop	Cooling	Heat exchanger	kPa	81	57	64	61	69	45	51	68	77	84	62	68	74	39	41	43	
Air heat exchanger	Type																			
	High efficiency fin and tube type with integral subcooler																			
Fan	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	
Compressor	Type																			
	asymmetric single screw compressor																			
Operation range	Water side	Cooling	Min.-Max. °CDB																-8~15	
	Air side	Cooling	Min.-Max. °CDB																-18~52	
Refrigerant	Type																		R-134a	
	Circuits	Quantity					2												3	
Refrigerant circuit	Charge	kg	146	162		182		214		225		248		297	312	328		343		
Piping connections	Evaporator water inlet/outlet (OD)			168.3mm		219.1mm								273mm						
Power supply	Phase/Frequency/Voltage	Hz/V												3~/50/400						

### STRENGTHS

- > High efficiency and reduced sound version
- > Stepless single-screw compressor
- > Large operation range (ambient temperature down to -18°C and up to 50°C)
- > All models are PED pressure vessel approved
- > Optimised for use with R-134a
- > 2-3 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 for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

### STANDARD AVAILABLE

- > Wye-delta starter (y-d)
- > Double setpoint
- > Fans thermal relays
- > Phase monitor
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop

### OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Evaporator flange kit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (3 models)
- > Two centrifugal pumps (4 models)
- > Compressor circuit breakers
- > Double pressure relief valve with diverter
- > Fans speed regulation (+fan silent mode)
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment



MicroTech III

SCREW



R-134a





EWAD-C-

## Cooling only

High efficiency  
Reduced sound

Model				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	1,361	1,461	1,544	1,632	1,715	1,805	1,849	1,897	1,947			
Capacity control	Method						Stepless										7						
	Minimum capacity	%		13										7									
Power input	Cooling	Nom.	kW	238	257	285	313	348	369	409	420	461	498	518	548	574	604	629	663	695			
EER				3.07	3.15	3.03	3.10	2.98	3.16	3.04	3.09	2.95	2.93		2.98		2.99	2.94	2.86	2.80			
ESEER				4.00	4.14	4.01	4.12	4.01	4.21	4.07	4.07	4.10	4.12	4.06	3.99	4.00	3.97	4.05	3.96	3.93			
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x 2,285x1,185	2,540x2,285x7,085	2,540x2,285x7,985		2,540x2,285x9,785										2,540x 2,285x1,185	2,540x 2,285x12,885	2,540x 2,285x13,785	2,540x2,285x14,685		
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 volume	l		251	243		403		386		979		850	871		850		850					
	Nominal water flow	Cooling	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			
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	77	54	61	58	65	43	49	64	73	79	59	65	71	37	39	41			
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler																			
Fan	Air flow rate	Nom.	l/s	49,209	57,410		65,611			82,014		98,417	106,619	114,820			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					
Compressor	Type			asymmetric single screw compressor																			
Operation range	Water side	Cooling	Min.-Max. °CDB																				
	Air side	Cooling	Min.-Max. °CDB																				
Refrigerant	Type			R-134a																			
	Circuits	Quantity					2										3						
Refrigerant circuit	Charge	kg		146	162		182		214		225		248	297	312	328		343					
Piping connections	Evaporator water inlet/outlet (OD)			168.3mm			219.1mm			273mm													
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400																			

### STRENGTHS

- > Premium efficiency version
- > Stepless single-screw compressor
- > Large operation range (ambient temperature down to -18°C and up to 52°C)
- > All models are PED pressure vessel approved
- > Optimised for use with R-134a
- > 2 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 for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

### STANDARD AVAILABLE

- > Wye-delta starter (y-d)
- > Double setpoint
- > Fans thermal relays
- > Phase monitor
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Main switch interlock door
- > Emergency stop

### OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Evaporator flange kit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (3 models)
- > Two centrifugal pumps (4 models)
- > Fan speed regulation (+ fan silent mode)
- > Compressor circuit breakers
- > Fans speed regulation (+ fan silent mode)
- > Double pressure relief valve with diverter
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment



MicroTech III

SCREW



R-134a





EWAD-C-

## Premium efficiency Cooling only

Standard/low sound

Model		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	1,553			
Capacity control	Method						Stepless							
	Minimum capacity	%					13							
Power input	Cooling	Nom.	kW	229	253	276	306	335	368	402	431	461		
EER				3.57	3.51	3.52	3.49	3.44	3.46	3.44	3.40	3.37		
ESEER				4.22	4.24	4.28	4.29	4.14	4.22	4.08	4.07	4.02		
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285x8,885			2,540x2,285x9,785	2,540x2,285x11,085			2,540x2,285x11,985			
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 volume	l		599		1,043	1,027	995		979				
	Nominal water flow	Cooling	l/s	39.2	42.5	46.5	51.2	55.2	61.0	66.3	70.3	74.5		
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	58	67	31	61	70	60	70	81	88	
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler										
Fan	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						
Compressor	Type			asymmetric single screw compressor										
Operation range	Water side	Cooling	Min.-Max. °CDB	-8~15										
	Air side	Cooling	Min.-Max. °CDB	-18~52										
Refrigerant	Type			R-134a										
	Charge		kg	204	202	204	220	252		254				
	Circuits	Quantity		2										
Piping connections	Evaporator water inlet/outlet (OD)			219.1mm			273mm							
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/400										

## STRENGTHS

- > Premium efficiency and reduced sound version
- > Stepless single-screw compressor
- > Large operation range (ambient temperature down to -18°C and up to 52°C)
- > All models are PED pressure vessel approved
- > Optimised for use with R-134a
- > 2 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 for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

## STANDARD AVAILABLE

- > Wye-delta starter (y-d)
- > Double setpoint
- > Phase monitor
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop

## OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Evaporator flange kit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (3 models)
- > Two centrifugal pumps (4 models)
- > Compressor circuit breakers
- > Double pressure relief valve with diverter
- > Fans speed regulation (+Fan silent mode)
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Transport kit
- > Rapid restart
- > Condenser coil protection panels
- > Blygold coil treatment

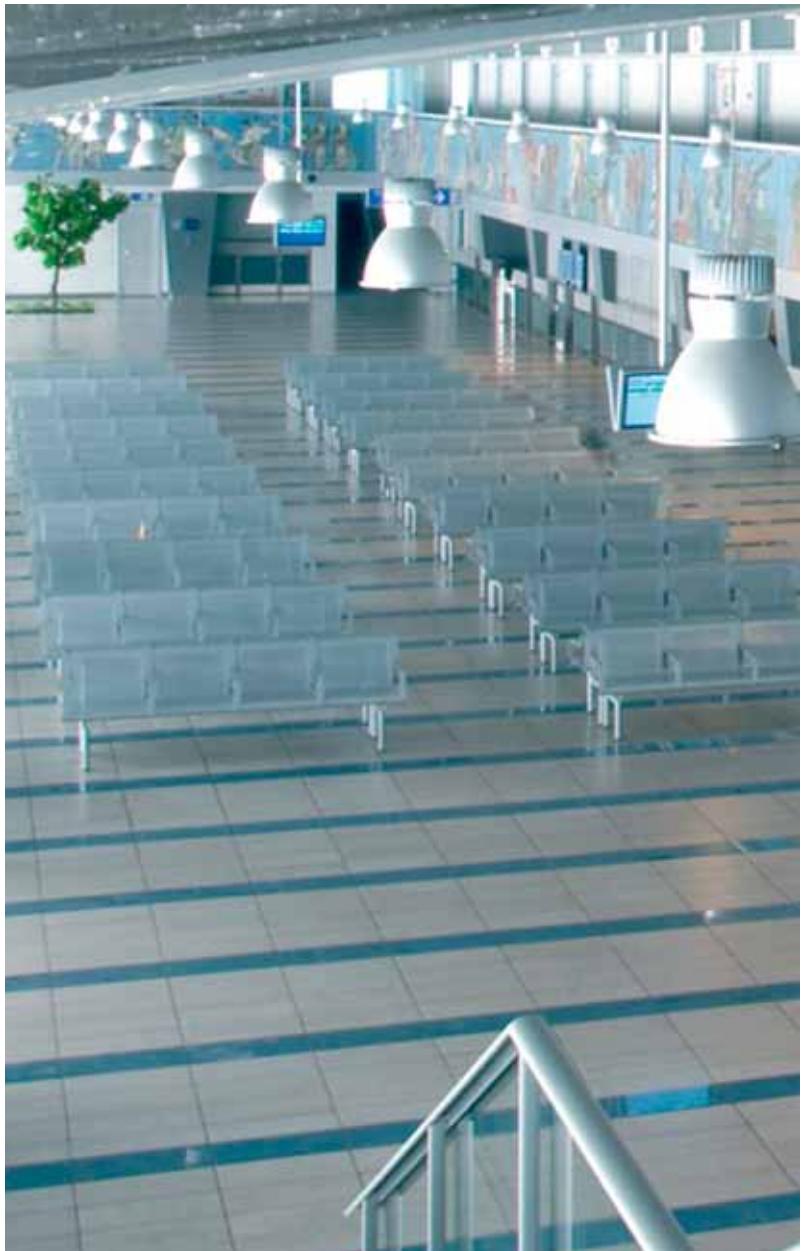


MicroTech III

SCREW



R-134a





EWAD-C-

## Cooling only

Premium efficiency  
Reduced sound

Model		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	
Capacity control	Method						Stepless					
	Minimum capacity	%					13					
Power input	Cooling	Nom.	kW	222	248	275	303	335	369	402	432	465
EER				3.63	3.51	3.47	3.46	3.36	3.38	3.36	3.32	3.26
ESEER				4.39	4.33	4.40	4.35	4.24	4.30	4.26	4.21	4.14
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285x8,885		2,540x2,285x9,785	2,540x2,285x11,085		2,540x2,285x11,985			
Weight	Unit	kg		7,820		7,950	8,580	8,840	10,380		10,720	
	Operation weight	kg		8,420		8,990	9,620	9,880	10,670		11,010	
Water heat exchanger	Type						Single pass shell & tube					
	Water volume	l		599		1,043	1,027	995		979		
Nominal water flow	Cooling	l/s		38.6	41.7	45.6	50.2	54.0	59.7	64.8	68.7	72.6
Nominal water pressure drop	Cooling	Heat exchanger	kPa	56	65	30	59	67	58	67	77	84
Air heat exchanger	Type						High efficiency fin and tube type with integral subcooler					
Fan	Air flow rate	Nom.	l/s	73,813		82,014	90,216		98,417			
	Speed		rpm			700						
Sound power level	Cooling	Nom.	dBA		93		94		95			
Sound pressure level	Cooling	Nom.	dBA		71		72		73			
Compressor	Type						asymmetric single screw compressor					
Operation range	Water side	Cooling	Min.-Max. °CDB				-8~15					
	Air side	Cooling	Min.-Max. °CDB				-18~52					
Refrigerant	Type						R-134a					
	Circuits	Quantity					2					
Refrigerant circuit	Charge	kg		204	202	204	220	252		254		
Piping connections	Evaporator water inlet/outlet (OD)			219.1mm			273mm					
Power supply	Phase/Frequency/Voltage	Hz/V					3~/50/400					

## STRENGTHS

- > Wide capacity range
- > Lower starting current and optimum power factor
- > Wide range of operating conditions
- > MicroTech III controller for superior control logic
- > and an easy interface with LonWorks, Bacnet,
- > Ethernet TCP/IP or Modbus communications
- > Single screw compressor
- > Highest part load performances in its class

## STANDARD AVAILABLE

- > Double setpoint
- > Compressor thermal overload relays
- > Phase monitor
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop
- > Inverter compressor starter

## OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Under / overvoltage control
- > Energy meter
- > Current limit
- > Evaporator flange kit
- > Fans speed control device
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (3 different models)
- > Two centrifugal pumps (4 different models)
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fans speed regulation (+ fan silent mode)
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit
- > Condenser coil protection panels
- > Glygold coil treatment



MicroTech III



R-134a

INVERTER





EWAD670-C18CZXS/XL

## High efficiency Cooling only Standard/low sound

Model		670	740	830	900	C10	C11	C12	C13	C14	C15	C16	C17	C18			
Cooling capacity	Nom.	kW	668	734	828	902	1,033	1,090	1,232	1,303	1,444	1,538	1,616	1,701	1,795		
Capacity control	Method																
	Minimum capacity	%															
Power input	Cooling	Nom.	kW	249	239	269	305	343	380	404	447	494	538	564	596	619	
EER				2.68	3.07	2.96	3.01	2.87	3.05	2.92	2.93	2.86	2.85	2.90			
ESEER				4.64	4.72	4.89	5.22	4.91	4.70	4.51	4.73	4.83	4.73	4.72	4.57		
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285x6,725	2,540x2,285x7,625	2,540x2,285x8,525	2,540x2,285x10,325	2,540x2,285x11,625	2,540x2,285x12,525	2,540x2,285x13,425	2,540x2,285x14,325						
Weight (XS)	Unit	kg		5,880	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		6,140	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		6,170	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		6,430	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																
	Water volume	l		263	248	241	441	383	374	850	871						
	Nominal water flow	Cooling	l/s	32.0	35.2	39.7	43.00	49.5	52.3	59.0	62.4	69.2	73.7	77.4	81.5	86.0	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	87	83	58	64	63	70	47	52	62	72	63	69	65
Air heat exchanger	Type																
Fan	Air flow rate	Nom.	l/s	54,188	65,025	75,863	86,700	108,376	119,213	130,051	129,454	140,143	151,129				
Fan motor	Speed	Cooling	Nom.	rpm				900									
Sound power level (XS)	Cooling	Nom.	dBA		102	103	102.5	103	104						106		
Sound power level (XL)	Cooling	Nom.	dBA		99		100		101						103		
Sound pressure level (XS)	Cooling	Nom.	dBA		81		81.1		81						83		
Sound pressure level (XL)	Cooling	Nom.	dBA					78							80		
Compressor	Type																
Operation range	Water side	Cooling	Min.-Max. °CDB														
	Air side	Cooling	Min.-Max. °CDB														
Refrigerant	Type																
	Circuits	Quantity					2								3		
Refrigerant circuit	Charge	kg		141	161	178	200	235	275	320	327	343	361				
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm			219.1mm						273mm			
Power supply	Phase/Frequency/Voltage	Hz/V					3~/50/400										

## STRENGTHS

- > Wide capacity range
- > Lower starting current and optimum power factor
- > Wide range of operating conditions
- > MicroTech III controller for superior control logic
- > and an easy interface with LonWorks, Bacnet,
- > Ethernet TCP/IP or Modbus communications
- > Single screw compressor
- > Highest part load performances in its class

## STANDARD AVAILABLE

- > Double setpoint
- > Compressor thermal overload relays
- > Phase monitor
- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop
- > Inverter compressor starter

## OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Brine version (down -8°C)
- > Under / overvoltage control
- > Energy meter
- > Current limit
- > Evaporator flange kit
- > Fan silent mode
- > Fans speed control device
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (3 different models)
- > Two centrifugal pumps (4 different models)
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fans speed regulation (+ fan silent mode)
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit
- > Condenser coil protection panels
- > Blygold coil treatment

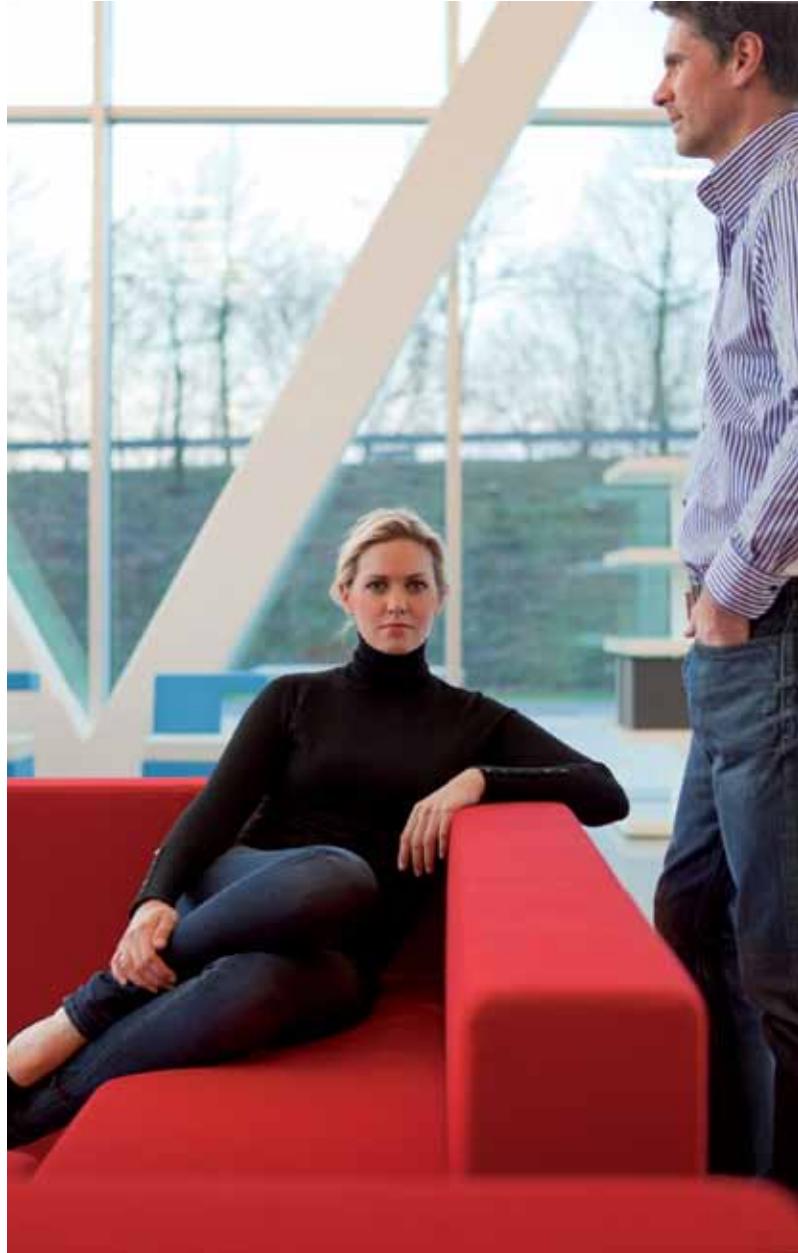


MicroTech III



R-134a

INVERTER





EWAD640-C17CZXR

Cooling only

High efficiency  
Reduced sound

Model			640	700	790	850	980	C10	C11	C12	C13	C14	C15	C16	C17		
Cooling capacity	Nom.	kW	631	696	786	849	972	1,027	1,166	1,231	1,327	1,437	1,539	1,624	1706		
Capacity control	Method					Stepless						13					
	Minimum capacity	%				20						Stepless					
Power input	Cooling	Nom.	kW	264	246	274	318	351	393	412	459	493	523	585	617	638	
EER				2.40	2.83	2.86	2.67	2.77	2.61	2.83	2.68	2.69	2.75	2.63	2.67		
ESEER				5.04	5.23	5.39	5.36	5.41	5.11	5.15	4.80	5.12	5.22	5.18	4.98	4.88	
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285x6,725	2,540x2,285x7,625	2,540x2,285x8,525	2,540x2,285x10,325	2,540x2,285x11,625	2,540x2,285x12,525	2,540x2,285x13,425	2,540x2,285x14,325						
Weight	Unit	kg	kg	6,170	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	kg	6,430	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 volume	l	l	263	248	241	441	383	374	374	850	850	871				
	Nominal water flow	Cooling	l/s	30.3	33.4	37.6	40.7	46.6	49.2	55.8	58.9	63.6	68.8	73.7	77.8	81.7	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	79	76	54	59	58	64	43	48	57	66	57	63	60
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler													
Fan	Air flow rate	Nom.	l/s	41,536	49,843	58,151	66,458	83,072	91,379	99,687	107,994	116,301					
Fan motor	Speed	Cooling	Nom.	rpm				700									
Sound power level	Cooling	Nom.	dBA	95		96		97							99		
Sound pressure level	Cooling	Nom.	dBA				74								76		
Compressor	Type			asymmetric single screw compressor													
Operation range	Water side	Cooling	Min.-Max.	°CDB				-8~15									
	Air side	Cooling	Min.-Max.	°CDB				-18~50									
Refrigerant	Type							R-134a									
	Circuits	Quantity					2								3		
Refrigerant circuit	Charge	kg	kg	141	161	178	200	235	275	320	327	343	361				
Piping connections	Evaporator water inlet/outlet (OD)			168.3mm			219.1mm			273mm							
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400													

## STRENGTHS

- > Free cooling chiller
- > High efficiency, standard/low (XS/XL) & reduced (XR) sound levels
- > Greater energy savings and reduced CO<sub>2</sub> emissions during cold season
- > Wide operating range
- > MicroTech III controller



MicroTech III

## STANDARD AVAILABLE

- > Wye-delta starter (y-d)
- > Double setpoint
- > Phase monitor
- > Evaporator flange kit
- > 20 mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop
- > Fans speed regulation (+fan silent mode)

screw

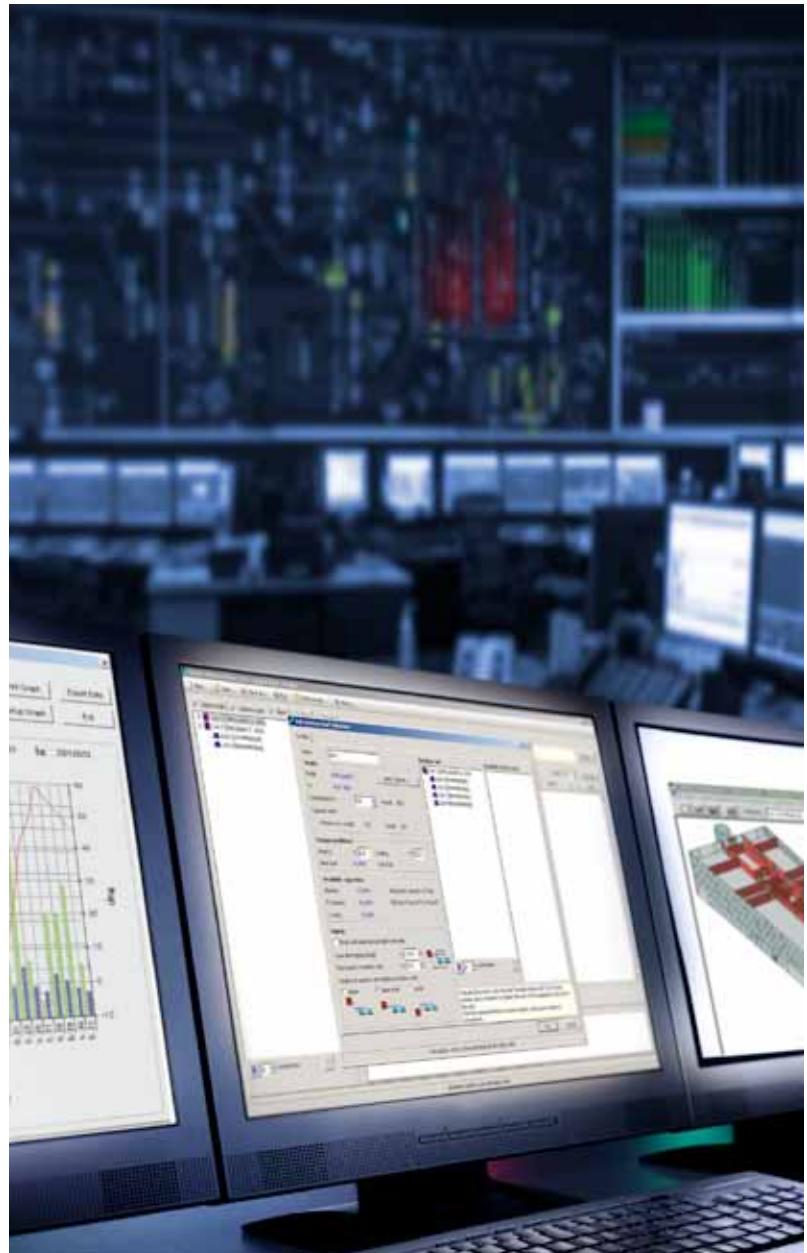


R-134a



## OPTIONS ON REQUEST

- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitor for power factor correction
- > Current limit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Low pressure side manometers
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump
- > Two centrifugal pumps
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Evaporator right water connection
- > Ground fault relay
- > Rapid restart
- > Optimized free cooling (VFD fans regulation)
- > Optimized free cooling (ON/OFF fans)
- > Condenser coil protection panels
- > Blygold coil treatment





EWAD-CF

## High efficiency Standard/low sound Cooling only

Capacity class				640	770	850	900	C10	C11	C12	C13	C14	C15	C16	
Cooling capacity	Nom.	kW	640 (1) / 295 (2)	772 (1) / 365 (2)	852 (1) / 413 (2)	902 (1) / 434 (2)	1,027 (1) / 502 (2)	1,089 (1) / 524 (2)	1,269 (1) / 594 (2)	1,349 (1) / 652 (2)	1,435 (1) / 663 (2)	1,493 (1) / 659 (2)	1,555 (1) / 722 (2)		
Mechanical capacity		kW	345 (2)	407 (2)	439 (2)	468 (2)	524 (2)	565 (2)	675 (2)	697 (2)	772 (2)		834 (2)		
Capacity control	Method														
	Minimum capacity	%													
Power input	Cooling	Nom.	kW	257 (1) / 74.3 (2)	272 (1) / 87.9 (2)	293 (1) / 90.7 (2)	324 (1) / 99.8 <sup>2</sup>	360 (1) / 109 (2)	399 (1) / 118 (2)	397 (1) / 131 (2)	439 (1) / 143 (2)	454 (1) / 152 (2)	492 (1) / 160 (2)	530 (1) / 170 (2)	
EER				2.49 (1) / 8.62 <sup>2</sup>	2.84 (1) / 8.78 (2)	2.90 (1) / 9.4 (2)	2.78 (1) / 9.04 (2)	2.85 (1) / 9.43 (2)	2.73 (1) / 9.19 (2)	3.19 (1) / 9.67 (2)	3.08 (1) / 9.45 (2)	3.16 (1) / 9.42 (2)	3.04 (1) / 9.33 (2)	2.93 (1) / 9.16 (2)	
ESEER				3.44	3.52	3.78	3.50	3.74	3.54	3.88	3.78	4.01	3.95	3.85	
Dimensions	Unit	HeightxWidthxDepth	mm	2,565x2,480 x6,185	2,565x2,480 x7,085	2,565x2,480x7,985		2,565x2,480x8,885						2,565x2,480x10,685	
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	8,040	8,580		9,140	10,560	10,820		12,290	13,530	13,610	13,660	
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	8,320	8,870		9,430	10,850	11,110		12,580	13,820	13,900	13,950	
Water heat exchanger	Type							Single pass shell & tube							
	Water volume		l	266	251	243		403		386				979	
	Nominal water flow	Cooling	l/s	27.8	33.5	37.0	39.2	44.6	47.3	55.1	58.6	62.4	64.9	67.6	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	85 / 128 (2)	105 / 172 (2)	90 / 178 (2)	101 / 198 (2)	111 / 245 (2)	124 / 272 (2)	98 / 232 (2)	110 / 259 (2)	139 / 305 (2)	150 / 328 (2)	162 / 354 (2)
Air heat exchanger	Type							High efficiency fin and tube type with integral subcooler							
Fan	Air flow rate	Nom.	l/s	50,367	60,440	70,513		80,587						95,253	
	Speed		rpm											920	
Sound power level (XS)	Cooling	Nom.	dBA	99.5	100.2	100.5		101.4	101.9	102.4				102.5	
Sound pressure level (XS)	Cooling	Nom.	dBA	79.0 (1)		79.7 (1)		80.2 <sup>1</sup>	80.7 (1)	80.3 (1)				80.4 (1)	
Sound power level (XL)	Cooling	Nom.	dBA	96.0	96.8	97.4		98.0	98.2	98.8				98.9	
Sound pressure level (XL)	Cooling	Nom.	dBA	75.5 (1)	76.3 (1)	76.5 (1)		76.9 (1)	77.1 (1)	76.7 (1)				76.8 (1)	
Compressor	Type							Asymm single screw							
Operation range	Water side	Cooling	Min.-Max. °CDB											-8~15	
	Air side	Cooling	Min.-Max. °CDB											-20~45	
Refrigerant	Type							R-134a							
	Charge		kg	128	146	162		182		214		225		248	
	Circuits	Quantity								2					
Piping connections	Evaporator water inlet/outlet		mm		168,3				219,1					273	
Power supply	Phase/Frequency/Voltage		Hz/V					3~/50/400							
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	

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

### STRENGTHS

- > Free cooling chiller
- > High efficiency, standard/low (XS/  
XL) & reduced (XR) sound levels
- > Greater energy savings and reduced CO<sub>2</sub>  
emissions during cold season
- > Wide operating range
- > MicroTech III controller



MicroTech III

### STANDARD AVAILABLE

- > Wye delta starter (y-d)
- > Double setpoint
- > Phase monitor
- > Evaporator flange kit
- > 20 mm evaporator insulation
- > Evaporator electric heater
- > Electronic expansion device
- > Discharge line shut off valve
- > Ambient temperature sensor and set-point reset
- > Fans speed regulation (+fan silent mode)
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm
- > Fan circuit breakers
- > Main switch interlock door
- > Emergency stop

SCREW

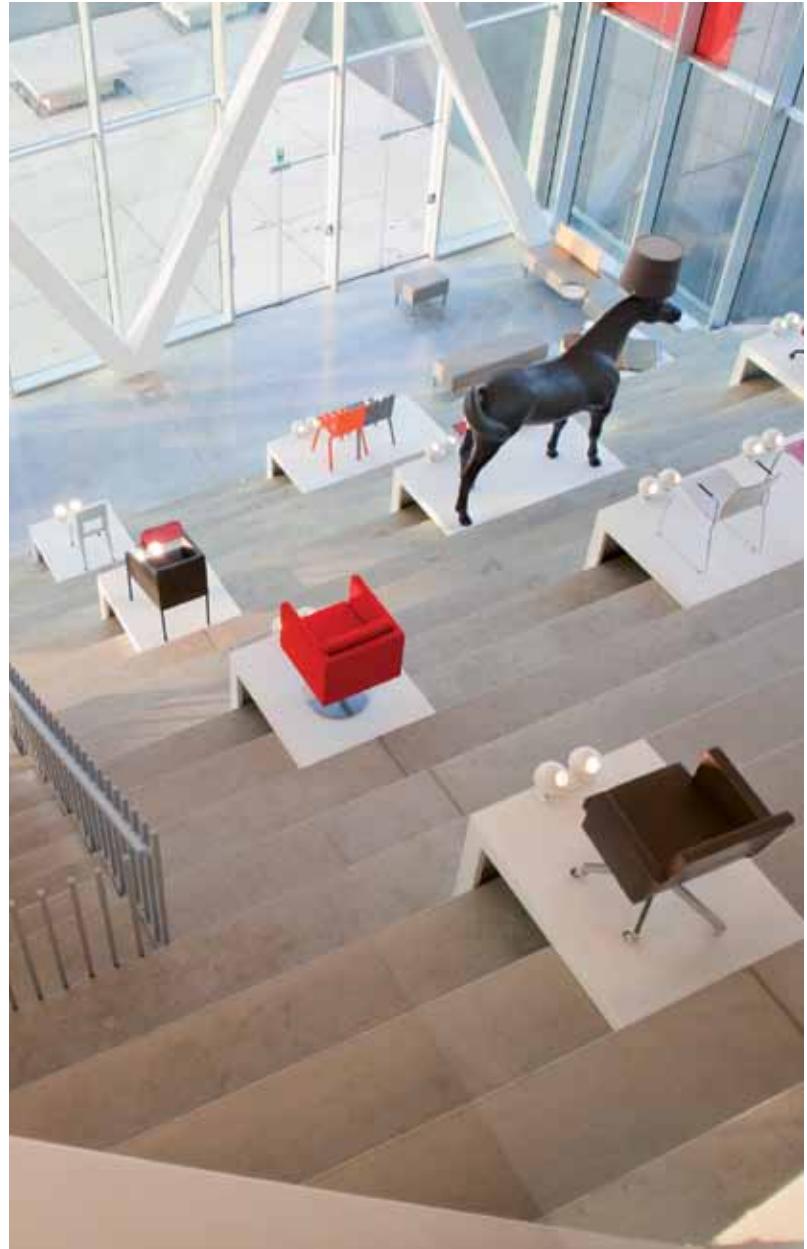


R-134a



### OPTIONS ON REQUEST

- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitor for power factor correction
- > Current limit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Evaporator area guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > Evaporator flow switch
- > Suction line shut off valve
- > High pressure side manometers
- > Low pressure side manometers
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Evaporator right water connection
- > Ground fault relay
- > Rapid restart
- > Optimized free cooling (VFD fans regulation)
- > Optimized free cooling (ON/OFF fans)
- > Condenser coil protection panels
- > Blygold coil treatment





EWAD-CF

## Cooling only

### High efficiency Reduced sound

Model				600	740	820	870	980	C10	C11	C12	C13	C14	C15			
Cooling capacity	Nom.			kW	602 (1) / 270 (2)	739 (1) / 334 (2)	821 (1) / 379 (2)	866 (1) / 409 (2)	981 (1) / 459 (2)	1,034 <sup>1</sup> / 492 (2)	1,229 <sup>1</sup> / 562 (2)	1,302 <sup>1</sup> / 598 (2)	1,374 <sup>1</sup> / 619 (2)	1,424 <sup>1</sup> / 640 (2)	1,476 <sup>1</sup> / 668 (2)		
Mechanical capacity				kW	332 (2)	405 (2)	442 (2)	457 (2)	523 (2)	542 (2)	667 (2)	704 (2)	756 (2)	784 (2)	809 (2)		
Capacity control	Method				Stepless												
	Minimum capacity			%	12,5												
Power input	Cooling	Nom.		kW	263 (1) / 70,3 (2)	278 (1) / 84,3 (2)	299 (1) / 88,4 (2)	334 (1) / 95,9 (2)	368 (1) / 106 (2)	412 (1) / 112 (2)	403 (1) / 127 (2)	450 (1) / 141 (2)	466 (1) / 146 (2)	511 (1) / 154 (2)	556 (1) / 161 (2)		
EER					2,29 (1) / 8,56 (2)	2,66 (1) / 8,77 (2)	2,75 (1) / 9,29 (2)	2,59 (1) / 9,03 (2)	2,67 (1) / 9,27 (2)	2,51 (1) / 9,21 (2)	3,05 (1) / 9,67 (2)	2,90 (1) / 9,22 (2)	2,95 (1) / 9,4 (2)	2,79 (1) / 9,26 (2)	2,66 (1) / 9,15 (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	HeightxWidthxDepth	mm		2,565x2,480 x6,185	2,565x2,480 x7,085	2,565x2,480x7,985	2,565x2,480x8,885							2,565x2,480x10,685		
Weight	Unit		kg		8,050	8,620		9,190	10,450	10,710	12,190	12,830	12,910	12,960			
	Operation weight			kg	8,320	8,870		9,430	10,850	11,110	12,580	13,820	13,900	13,950			
Water heat exchanger	Type	Single pass shell & tube															
	Water volume	I			266	251	243		403		386			979			
	Nominal water flow	Cooling	I/s		26,2	32,1	35,7	37,6	42,6	44,9	53,4	56,6	59,7	61,9	64,1		
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	76 / 115 (2)	97 / 159 (2)	84 / 167 (2)	93 / 184 (2)	102 / 225 (2)	113 / 248 (2)	92 / 219 (2)	103 / 243 (2)	128 / 282 (2)	137 / 301 (2)	146 / 321 (2)		
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler															
Fan	Air flow rate	Nom.	I/s		38,934	46,721	54,508		62,294				73,010				
	Speed		rpm						715								
Sound power level	Cooling	Nom.	dBA		91.5	92.0	92.3		93.5	93.7	94.3		94.5		94.6		
Sound pressure level	Cooling	Nom.	dBA		71.0 (1)		71.5 (1)		72.3 (1)	72.5 (1)	72.2 (1)		72.3 (1)		72.5 (1)		
Compressor	Type	Asymm single screw															
Operation range	Water side	Cooling	Min.-Max.	°CDB	-8~15												
	Air side	Cooling	Min.-Max.	°CDB	-20~45												
Refrigerant	Type	R-134a															
	Charge		kg		128	146	162		182		214		225		248		
	Circuits	Quantity							2								
Piping connections	Evaporator water inlet/outlet		mm		168.3				219.1				273				
Power supply	Phase/Frequency/Voltage		Hz/V		3~/50/400												
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		

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

## STRENGTHS

- › Wide operating range
- › Low operating sound level
- › Easy 'plug and play' installation
- › Daikin swing compressor
- › Integrated hydronics

## OPTIONS (FACTORY MOUNTED)

- › Evaporator heater tape



Digital controller

## CONTROL

- › Leaving water control
- › Setpoint in heating & cooling

## AVAILABLE INPUTS

- › Voltage free contact:
  - ON/OFF
  - Cooling/Heating changeover
- › Schedule timer:
  - ON/OFF
  - Dual setpoint
  - Silent operation





EWYQ-ADVP

## Heating & Cooling

Model			EWYQ005ADVP		EWYQ006ADVP		EWYQ007ADVP	
Cooling capacity	Nom.	kW		5.2 (1)		6.0 (1)		7.1 (1)
Heating capacity	Nom.	kW		6.1 (2) / 5.65 (3)		6.8 (2) / 6.35 (3)		8.2 (2) / 7.75 (3)
Capacity control	Method					Inverter controlled		
Power input	Cooling	Nom.	kW	1.89 (1)		2.35 (1)		2.95 (1)
	Heating	Nom.	kW	1.60 (2) / 1.97 (3)		1.84 (2) / 2.24 (3)		2.36 (2) / 2.83 (3)
EER				2.75 (1)		2.55 (1)		2.41 (1)
COP				3.81 (2) / 2.87 (3)		3.70 (2) / 2.83 (3)		3.47 (2) / 2.74 (3)
Dimensions	Unit	HeightxWidthxDepth	mm			805x1,190x360		
Weight	Unit		kg			100		
		Operation weight	kg			104		
Water heat exchanger	Type					Brazed plate		
	Water volume		l			-		
	Nominal water flow	Cooling	l/min	14.9		17.2		20.4
		Heating	l/min	17.5		19.5		23.5
Air heat exchanger	Type					Tube type		
	Pump	Nominal ESP unit	Cooling	kPa	49.4		45.1	38.3
Hydraulic components	Expansion vessel	Volume	l			6		
Sound power level	Cooling	Nom.	dBA		62			63
Sound pressure level	Cooling	Nom.	dBA		48			50
	Heating	Nom.	dBA		48			49
Compressor	Type					Hermetically sealed swing compressor		
	Operation range	Water side	Cooling	Min.-Max. °CDB		5~20		
			Heating	Min.-Max. °CDB		25~50		
	Air side	Cooling	Min.-Max. °CDB			10~43		
		Heating	Min.-Max. °CDB			-15~25		
Refrigerant	Type					R-410A		
	Charge		kg			1.7		
	Control					Inverter		
	Circuits	Quantity						
Piping connections	Water inlet / outlet					1" MBSP		
	Water drain					5/16 SAE flare		
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)

## STRENGTHS

- > Optimised for use with R-410A
- > Inverter controlled scroll compressor
- > Low operating sound level
- > Easy 'plug and play' installation
- > Integrated hydronics
- > Wide operating range



Digital controller

## OPTIONS (FACTORY MOUNTED)

- > Evaporator heater tape (EWYQ-ACV3/ACW1)
- > Waterpiping heatertape (EWYQ-ACV3)

## > OPTION KIT

- > Digital Input/Output PCB (size 009-013 only)

## CONTROL

- > Leaving water control
- > Setpoint in heating & cooling

scroll



R-410A

INVERTER

## AVAILABLE INPUTS

- > Voltage free contact:
  - ON/OFF
  - Cooling/Heating changeover
- > Schedule timer:
  - ON/OFF
  - Dual setpoint
  - Silent operation





EWYQ009-011ACV3/EWYQ009-013ACW1

## Heating & Cooling

Model			EWYQ009ACV3	EWYQ010ACV3	EWYQ011ACV3	EWYQ009ACW1	EWYQ011ACW1	EWYQ013ACW1
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)
Heating capacity	Nom.	kW	10.2 (1) / 9.9 (2)	11.7 (1) / 11.4 (2)	13.8 (1) / 12.9 (2)	11.2 (1) / 10.9 (2)	13.2 (1) / 12.4 (2)	14.8 (1) / 13.9 (2)
Capacity control	Method		Inverter controlled			Inverter controlled		
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)
	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)
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)
ESEER				4.31	4.30	4.33	4.43	4.44
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)
Dimensions	Unit	HeightxWidthxDepth	mm	1,435x1,418x382			1,435x1,418x382	
Weight	Unit		kg	180			180	
Water heat exchanger	Type			Brazed plate			Brazed plate	
	Water volume	I		1.01			1.01	
	Nominal water flow	Cooling	l/min	24.7	27.6	31.9	26.1	31.9
		Heating	l/min	28.3	32.6	36.9	31.2	35.5
Air heat exchanger	Type			Hi-XSS			Hi-XSS	
Pump	Nominal ESP unit	Cooling	kPa	58.0	54.6	49.1	56.4	49.1
Hydraulic components	Expansion vessel	Volume	I	10			10	
Fan	Air flow rate	Cooling Nom.	m³/min	96	100	97	-	-
		Heating Nom.	m³/min		90			
Fan motor	Speed	Cooling Nom.	rpm	780			780	
		Heating Nom.	rpm	760			760	
		Steps		8			8	
Sound power level	Cooling	Nom.	dBA	64			64	66
	Heating	Nom.	dBA	64			64	
Sound pressure level	Cooling	Nom.	dBA	51			51	52
	Heating	Nom.	dBA	51			51	
	Night quiet mode	Cooling	dBA	45			45	46
		Heating	dBA	42			42	43
Compressor	Type			Hermetically sealed scroll compressor			Hermetically sealed scroll compressor	
Operation range	Water side	Cooling Min.-Max.	°CDB	5~22			5~22	
		Heating Min.-Max.	°CDB	25~50			25~50	
	Air side	Cooling Min.-Max.	°CDB	10~46			10~46	
		Heating Min.-Max.	°CDB	-15~35			-15~35	
Refrigerant	Type			R-410A			R-410A	
	Charge	kg		2.95			2.95	
	Control			Electronic expansion valve			Electronic expansion valve	
	Circuits	Quantity		1			1	
Water circuit	Piping connections diameter	inch		G 5/4" (female)			G 5/4" (female)	
	Piping	inch		5/4"			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); heating Ta DB/WB 7°C/6°C -LWC 35°C (Dt: 5°C)

(2) FCU 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)

### STRENGTHS

- > Daikin scroll compressor
- > Reduced installation time thanks to integrated pump and/or buffer tank
- > Possibility for a 200l buffer tank
- > Low operating sound level
- > Easy maintenance
- > Main switch
- > Water flow switch
- > 3 different design options available:
  - EUWYN chiller without integrated hydraulic module;
  - EUWYP chiller with integrated hydraulic module (pump, expansion vessel, hydraulic components);
  - EUWYB chiller with integrated hydraulic module (buffer tank, pump, expansion vessel, hydraulic components)
- >  $\mu\text{C}^2 \text{ SE}$  controller



$\mu\text{C}^2 \text{ SE}$



R-407C

### OPTIONS (FACTORY MOUNTED)

- > Chilled water temperature down to -5°C or -10°C
- > High ESP fans (50Pa)

### ACCESSORIES (KIT)

- > Refrigerant pressure gauges (EKGAU5/8/10/12/16/20/24KA)
- > 200l buffer tank for EUWYN and EUWYP models (EKBT, see EKBT page in this catalogue)
- > Soft starter kit (EKSS)
- > Address card for connection to BMS or remote user interface (EKAC10C)
- > Remote installed user interface (EKRUMCA)

\*To install EKRUMCA -> EKAC10C needs to be installed on the unit

### CONTROL

- > Water inlet temperature control

### AVAILABLE INPUTS / OUTPUTS

#### Input

- > Remote ON/OFF
- > Pump contact
- > Remote cool/heat selection

#### Output

- > Compressor operation
- > Summary alarm
- > Pump relay contact





EUWY\*16KBZW1

**EUWYN:**

- Standard equipment
- > Scroll compressor
- > Main isolator switch
- > Water flow switch
- > Filter
- > Condenser protection grille.
- > All year operation

**EUWYP = EUWYN +**

- > Pump
- > Expansion vessel
- > Adjusting valve
- > Drain
- > Water pressure gauge
- > Pressure relief valve

**EUWYB = EUWYP +**

- > Buffer tank

## Heating & Cooling

Model					N5	P5	B5	N8	P8	B8	N10	P10	B10	N12	P12	B12	N16	P16	B16	N20	P20	B20	N24	P24	B24	
Cooling capacity	Nom.		kW		9.05	9.42	17.0	17.5	20.8	21.5	24.8	25.4	34.1	35.0	39.8	40.9	49.8	50.9								
Heating capacity	Nom.		kW		12.0	11.4	18.6	17.9	24.2	23.3	27.2	26.0	37.1	35.7	46.2	44.5	54.2	52.5								
Capacity steps		%			0-100				0-50-100																	
Power input	Cooling	Nom.	kW		3.82	3.91	7.51	7.47	8.65	8.69		11.5		14.9	15.2	16.4	16.6	22.8	22.9							
	Heating	Nom.	kW		4.62	4.52	7.14	6.88	9.14	8.98	10.9	10.4	14.2	14.0	17.5	17.1	21.6	21.1								
EER					2.37	2.41	2.26	2.34	2.40	2.47	2.16	2.21	2.29	2.30	2.43	2.46	2.18	2.22								
COP					2.60	2.52	2.61	2.60	2.65	2.59		2.50		2.61	2.55	2.64	2.60	2.51	2.49							
Dimensions	Unit	HeightxWidthxDepth	mm		1,230x1,290x734				1,450x1,290x734				1,321x2,580x734				1,541x2,580x734									
Weight	Unit		kg		163	181	193	227	241	253	258	272	284	272	284	455	473	485	516	534	546	516	534	546	612	
	Operation weight		kg		165	184	252	230	244	312	261	275	343	261	275	343	461	482	550	522	544	612	522	544	612	612
Water heat exchanger	Type								Brazed plate																	
	Water volume		l		1.14		1.615		1.9		2.375		2.964		3.9		4.524									
	Nominal water flow	Cooling	l/min		26		49		60		72		98		115		143									
		Heating	l/min		34		53		69		77		106		132		155									
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	10		25		24		33			12			19									
Air heat exchanger	Type								Cross fin coil/Hi-X tubes and PE coated waffle louvre fins																	
Pump	Nominal ESP unit	Cooling	kPa		-	232	-	149	-	167	-	123	-	249	-	229	-	185								
Hydraulic components	Expansion vessel	Volume	l		-	12	-	12	-	12	-	12	-	12	-	12	-	12	-	12						
Fan group	Air flow rate	Cooling	Nom.	m³/min	160	(per 2 fans)								170	(per 2 fans)											
Fan group 2	Air flow rate	Cooling	Nom.	m³/min																						
Sound power level	Cooling	Nom.	dBA		67		76		78		79		81													
Compressor	Type								Hermetically sealed scroll compressor																	
Operation range	Water side	Cooling	Min.-Max.	°CDB																						
		Heating	Min.-Max.	°CDB																						
	Air side	Cooling	Min.-Max.	°CDB																						
		Heating	Min.-Max.	°CDB																						
Refrigerant	Type								R-407C																	
	Control								Thermostatic expansion valve																	
	Circuits	Quantity								1										2						
Refrigerant circuit	Charge		kg		4.6		4.7			5.4										5.1		5.4		5.6		
Refrigerant circuit 2	Charge		kg							-										5.1		5.4		5.6		
Piping connections	Water inlet / outlet								G 1"1/4 (male)												2"					
	Water drain								1-1/4"												2"					
Power supply	Phase/Frequency/Voltage	Hz/V							3N~/50/400																	

### STRENGTHS

- › High efficiency chiller with leader-of-class ESEER
- › Minimal starting currents and short payback times
- › No buffertank required for standard applications
- › Naked or with factory mounted (standard/high-ESP) pump
- › Low sound thanks to inverter compressor / fans
- › EWYQ-BAWN: Naked
- › EWYQ-BAWP: With pump



BRC21A52

### STANDARD AVAILABLE

- › Hydraulic package: filter, shut-off valves, drain/ fill valve, automatic air purge, flowswitch

### OPTIONS

- › Low leaving water operation down to -10°C
- › One centrifugal pump (low lift)
- › One centrifugal pump (high lift)
- › Evaporator electric heater



**R-410A**



### ACCESSORIES

- › Pressure gauges (BHGP26A1)
- › PCB with additional inputs/outputs (EKRP1AHTA)
- › External control adapter (DTA104A62)
- › Additional controller in parallel (EKRUUAHTB)
- › Modbus interface for monitoring and control (RTD-W)





EWYQ-BA\*

## Heating & Cooling

Model			016	021	025	032	040	050	064
Cooling capacity	Nom.	kW	17.4 <sup>1</sup> /16.6(2)	21.7 <sup>1</sup> /20.7(2)	25.8 <sup>1</sup> /24.7(2)	32.3 <sup>1</sup> /30.9(2)	43.4 <sup>1</sup> /41.5(2)	51.8 <sup>1</sup> /49.7 <sup>2</sup>	64.5 <sup>1</sup> /62.3 <sup>2</sup>
Heating capacity	Nom.	kW	16.2 <sup>1</sup> /17.0(2)	20.3 <sup>1</sup> /21.3(2)	24.6 <sup>1</sup> /25.7(2)	30.7 <sup>1</sup> /32.1(2)	40.6 <sup>1</sup> /42.5(2)	49.0 <sup>1</sup> /51.1 <sup>2</sup>	61.5 <sup>1</sup> /63.7 <sup>2</sup>
Capacity control	Method			Inverter controlled					
	Minimum capacity		%	25					
Power input	Cooling	Nom.	kW	5.60 <sup>1</sup> /5.80 <sup>2</sup>	7.25 <sup>1</sup> /7.59 <sup>2</sup>	9.29 <sup>1</sup> /9.74 <sup>2</sup>	13.0 <sup>1</sup> /13.5 <sup>2</sup>	14.7 <sup>1</sup> /15.4 <sup>2</sup>	18.8 <sup>1</sup> /19.7 <sup>2</sup>
	Heating	Nom.	kW	5.53 <sup>1</sup> /5.73 <sup>2</sup>	7.10 <sup>1</sup> /7.44 <sup>2</sup>	8.91 <sup>1</sup> /9.36 <sup>2</sup>	10.6 <sup>1</sup> /11.1 <sup>2</sup>	14.0 <sup>1</sup> /14.7 <sup>2</sup>	17.6 <sup>1</sup> /18.5 <sup>2</sup>
EER				3.11 <sup>1</sup> /2.86 <sup>2</sup>	2.99 <sup>1</sup> /7.44 <sup>2</sup>	2.78 <sup>1</sup> /2.54 <sup>2</sup>	2.48 <sup>1</sup> /2.29 <sup>2</sup>	2.95 <sup>1</sup> /2.69 <sup>2</sup>	2.76 <sup>1</sup> /2.52 <sup>2</sup>
ESEER				4.33 <sup>1</sup> /4.21 <sup>2</sup>	4.08 <sup>1</sup> /4.18 <sup>2</sup>	3.85 <sup>1</sup> /4.04 <sup>2</sup>	3.39 <sup>1</sup> /3.62 <sup>2</sup>	4.19 <sup>1</sup> /4.24 <sup>2</sup>	3.96 <sup>1</sup> /4.12 <sup>2</sup>
COP				2.93 <sup>1</sup> /2.97 <sup>2</sup>	2.86 <sup>1</sup> /2.86 <sup>2</sup>	2.76 <sup>1</sup> /2.75 <sup>2</sup>	2.90(1)/2.89(2)	2.78 <sup>1</sup> /2.76 <sup>2</sup>	2.97 <sup>1</sup> /2.94 <sup>2</sup>
Dimensions	Unit	HeightxWidthxDepth	mm	1,684x1,371x774			1,684x1,684x774	1,684x2,358x780	1,684x2,980x780
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	
Nominal water flow	Cooling	l/min	50	62	74	93	124	148	185
	Heating	l/min	46	58	71	88	116	140	176
Nominal water pressure drop	Cooling	Total	kPa	20	30	42	30	42	30
Air heat exchanger	Type	Hi-XSS							
Fan	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	171	185	233	370	466
		Heating	Nom.	m <sup>3</sup> /min	171	185	233	370	466
Sound power level	Cooling	Nom.	dBA		78	80	81	83	
Compressor	Type	Hermetically sealed scroll compressor							
Operation range	Water side	Cooling	Min.-Max.	°CDB	5~20				
		Heating	Min.-Max.	°CDB	25~50				
	Air side	Cooling	Min.-Max.	°CDB	-5~43				
		Heating	Min.-Max.	°CDB	-15~35				
Refrigerant	Type	R-410A							
	Charge	kg		7.6	9.6	15.2		19.2	
	Control	Electronic expansion valve							
	Circuits	Quantity			1				
Piping connections	Water inlet / outlet	1-1/4" (female)			2" (female)				
	Water drain	1-1/4"			1-1/2"				
Power supply	Phase/Frequency/Voltage	Hz/V		3N~/50/400					

(1) EWAQ-BAWN: Naked version (2): EWAQ-BAWP: Version with pump

### STRENGTHS

- > Optimised for use with R-410A refrigerant
- > Multiple compressors per circuit
- > Reliable and efficient scroll with high EER values
- > Anti-corrosion treated aluminium coils
- > Low operating sound level
- > Easy 'plug and play' installation
- > Fans protected against abnormal operation (4 - 8 fans depending on unit size)
- > Safety valves in each circuit
- > Electronic circuit breakers
- > Electronic expansion valve
- > True dual plate brazed plate heat exchanger
- > All hydraulics can be accessed easily from 3 sides (no surrounding cabinet)
- > Separate switchbox for easy access
- > Compressors and controls at unit side
- > Increased reliability via 2 independent refrigerant circuits (EWYQ130-250DAYN)
- > Double circuit heat exchanger (from >100 kW)
- > Non hermetic filter/dryer
- > Daikin Pcaso controller with user friendly and powerful LCD interface

### OPTIONS (FACTORY MOUNTED)

- > Single pump contactor
- > Twin pump contactor
- > Single pump
- > Twin pump (1 pump casing, dual motor)
- > High ESP pump (single pump only)
- > Buffer tank
- > Inverter fans (not available with low noise option)
- > Glycol 0°C / -10°C
- > Dual pressure relief valve
- > Evaporator heater tape
- > Option valves (discharge, liquid line and suction stop valve)
- > A-meter / V-meter
- > Low Noise
- > Condenser protection grills

### ACCESSORIES (KIT)

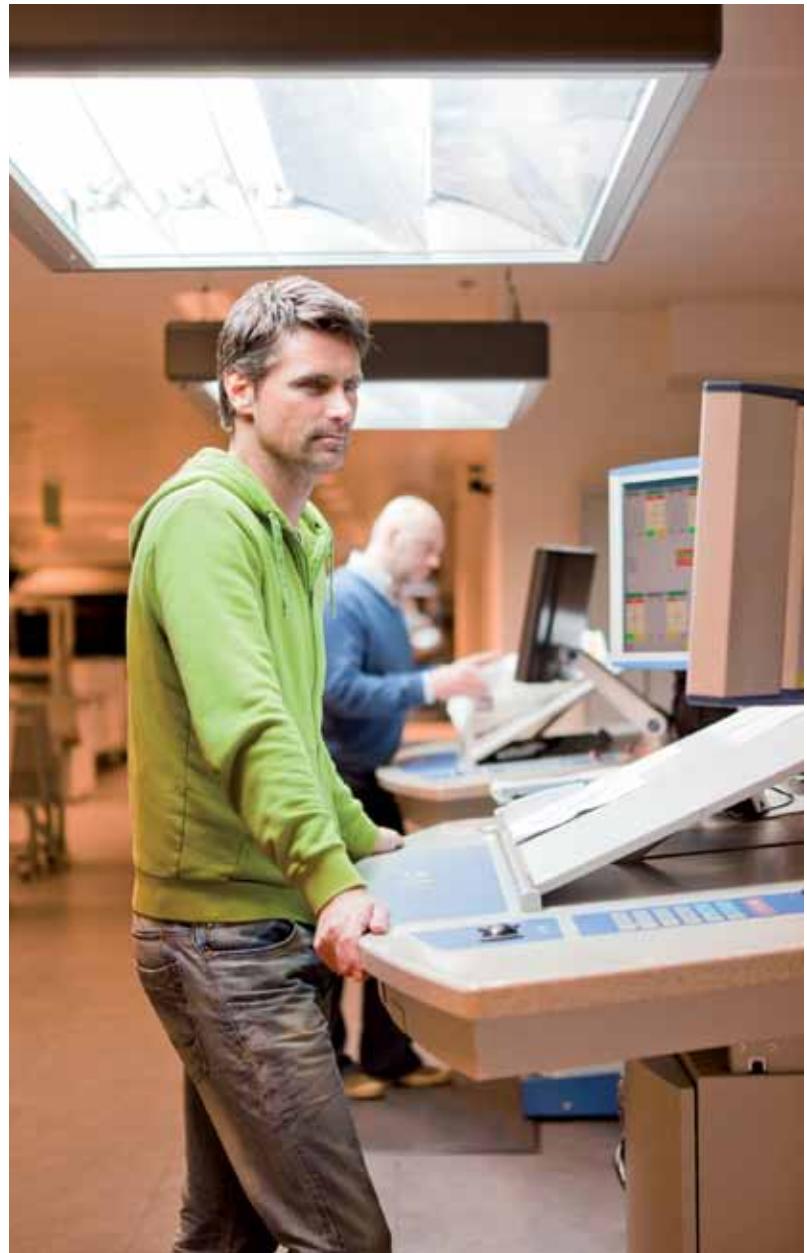
- > Address card (EKACPG)
- > Remote user interface (EKRUPG)
- > Waterpipe kit (EKN210 & EKN260)



PCASO



R-410A





EWYQ-DAYN chillers can be equipped with Daikin Integrated Chiller Network (DICN) which allows the simultaneous operation of up to 4 chillers as if they were a single unit, in order to deliver the required cooling capacity. This results in precise and efficient capacity control and is also useful for back up purposes, ensuring that the necessary amount of cooling is available and guaranteeing reliable operation of the chiller plant. This function enables a Daikin chiller plant to be operated via a single controller. Please note that DICN is only possible within the same series.



EWYQ130,150DAYN

## Heating & Cooling

Capacity class			080	100	130	150	180	210	230	250
Cooling capacity	Nom.	kW	76.6 <sup>1</sup> / 78.1 <sup>2</sup>	100 <sup>1</sup> / 101 <sup>2</sup>	135 <sup>1</sup> / 138 <sup>2</sup>	144 <sup>1</sup> / 147 <sup>2</sup>	182 <sup>1</sup> / 185 <sup>2</sup>	210 <sup>1</sup> / 213 <sup>2</sup>	229 <sup>1</sup> / 233 <sup>2</sup>	251 <sup>1</sup> / 254 <sup>2</sup>
Heating capacity	Nom.	kW	88.2 <sup>1</sup> / 86.5 <sup>2</sup>	115 <sup>1</sup> / 113 <sup>2</sup>	150 <sup>1</sup> / 148 <sup>2</sup>	166 <sup>1</sup> / 163 <sup>2</sup>	200 <sup>1</sup> / 197 <sup>2</sup>	227 <sup>1</sup> / 223 <sup>2</sup>	260 <sup>1</sup> / 256 <sup>2</sup>	283 <sup>1</sup> / 279 <sup>2</sup>
Capacity steps	%		0-50-100		0-25-50-75-100		2129-4350-5771-79-100	0-25-50-75-100	2228-4450-5872-78-100	0-25-50-75-100
Power input	Cooling	Nom.	kW	26.8 <sup>1</sup> / 27.5 <sup>2</sup>	36.7 <sup>1</sup> / 37.1 <sup>2</sup>	48.4 <sup>1</sup> / 49.0 <sup>2</sup>	56.5 <sup>1</sup> / 57.1 <sup>2</sup>	64.8 <sup>1</sup> / 65.7 <sup>2</sup>	76.5 <sup>1</sup> / 77.2 <sup>2</sup>	83.6 <sup>1</sup> / 83.8 <sup>2</sup>
	Heating	Nom.	kW	30.5 <sup>1</sup> / 31.0 <sup>2</sup>	38.7 <sup>1</sup> / 39.1 <sup>2</sup>	50.5 <sup>1</sup> / 51.1 <sup>2</sup>	59.8 <sup>1</sup> / 60.2 <sup>2</sup>	69.2 <sup>1</sup> / 69.9 <sup>2</sup>	78.5 <sup>1</sup> / 79.1 <sup>2</sup>	85.9 <sup>1</sup> / 86.0 <sup>2</sup>
EER				2.86 <sup>1</sup> / 2.84 <sup>2</sup>	2.72 <sup>1</sup> / 2.72 <sup>2</sup>	2.79 <sup>1</sup> / 2.82 <sup>2</sup>	2.55 <sup>1</sup> / 2.57 <sup>2</sup>	2.81 <sup>1</sup> / 2.82 <sup>2</sup>	2.75 <sup>1</sup> / 2.76 <sup>2</sup>	2.74 <sup>1</sup> / 2.78 <sup>2</sup>
ESEER				3.84 <sup>1</sup> / 3.76 <sup>2</sup>	3.68 <sup>1</sup> / 3.68 <sup>2</sup>	4.03 <sup>1</sup> / 3.99 <sup>2</sup>	3.84 <sup>1</sup> / 3.84 <sup>2</sup>	4.06 <sup>1</sup> / 4.02 <sup>2</sup>	3.94 <sup>1</sup> / 3.96 <sup>2</sup>	3.93 <sup>1</sup> / 4.04 <sup>2</sup>
COP				2.89 <sup>1</sup> / 2.79 <sup>2</sup>	2.97 <sup>1</sup> / 2.89 <sup>2</sup>	2.97 <sup>1</sup> / 2.90 <sup>2</sup>	2.78 <sup>1</sup> / 2.71 <sup>2</sup>	2.89 <sup>1</sup> / 2.82 <sup>2</sup>	2.89 <sup>1</sup> / 2.82 <sup>2</sup>	3.03 <sup>1</sup> / 2.98 <sup>2</sup>
Dimensions	Unit	HeightxWidthxDepth	mm	2,311x2,000x2,566		2,311x2,000x2,631		2,311x2,000x3,081		2,311x2,000x4,850
Weight	Unit	kg		1,400	1,450	1,550	1,600	1,850	1,900	3,200
	Operation weight	kg		1,415	1,465	1,567	1,619	1,875	1,927	3,239
Water heat exchanger	Type					Brazed plate, one per unit				
	Nominal water flow	Cooling	l/min	221	287	390	416	525	605	662
		Heating	l/min	251	327	427	473	570	645	740
	Nominal water pressure drop	Cooling	Total	kPa	36	43	38	41	44	39
		Heating	Total	kPa	47	46	51	49	48	46
Air heat exchanger	Type				Cross fin coil/H-Xss tubes and poly ethylene coated waffle fins					
Fan	Air flow rate	Nom.	m <sup>3</sup> /min		780	800	860	1,290		1,600
	Speed		rpm		880	900		970		900
Sound power level	Cooling	Nom.	dBA		86	88	89	90		91
Compressor	Type				Scroll compressor					
Operation range	Water side	Cooling	Min.-Max. °CDB			-10~25				
		Heating	Min.-Max. °CDB			25~50				
	Air side	Cooling	Min.-Max. °CDB			-15~43				
		Heating	Min.-Max. °CDB			-10~21				
Refrigerant	Type				R-410A					
	Control				Electronic expansion valve					
	Circuits	Quantity		1		2				
Refrigerant circuit	Charge	kg		33	37	23	26	32		43
Refrigerant circuit 2	Charge	kg		-		23	26	32		43
Piping connections	Water heat exchanger inlet / outlet					3"				
	Water heat exchanger drain						1/2"G			
Power supply	Phase/Frequency/Voltage	Hz/V					3~/50/400			

(1) For -N models (standard)

(2) For -P models (with optional pump / +OPSP) and for -B models (with optional pump and buffertank / +OPSP +OPBT)

## STANDARD AVAILABLE

- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Alucoat fins coils
- > Water filter
- > Direct on line starter (DOL)
- > Double setpoint
- > Evaporator electric heater
- > Evaporator flow switch
- > Electronic expansion valve
- > Ambient outside temperature sensor and setpoint reset
- > Hour run meter
- > General fault contactor
- > Main switch interlock door



MicroTech III

## OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Brine version (down -15°C)
- > Condenser coil guards
- > Evaporator area guards
- > CU-CU Condenser coil
- > CU-CU-SN Condenser coil
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure side manometers
- > Low pressure side manometers
- > One centrifugal pump
- > Two centrifugal pump
- > Double pressure relief valve with diverter
- > Water filter
- > Blygold coil treatment
- > Compressor thermal overload relays
- > Phase monitor
- > Under/over voltage control
- > Energy meter
- > Capacitors for power factor correction
- > Speedtrol (Fan speed control device -ON/OFF- up to -10°C in cooling)
- > Setpoint reset, demand limit and alarm from external device
- > Compressors circuit breakers
- > Fans circuit breakers
- > Fans speed regulation (inverter)
- > Ground fault relay
- > Nordic kit
- > Rubber anti vibration mounts
- > Spring anti vibration mounts
- > External tank with or without cabinet (500 or 1000 L)
- > Container kit
- > Transport kit
- > Condenser coil protection panels





EWYQ-F-



EWYQ-F-

## Heating & Cooling

High efficiency  
Standard/low sound

Model		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	501	565	624	
Heating capacity	Nom.	kW	173	197	227	254	329	362	404	429	463	535	607	674	
Capacity control	Method		Step												
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
EER				2.84	2.91	2.92		2.99	2.93	2.91	2.90	2.94	2.91	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	3.21
Dimensions	Unit	HeightxWidthxDepth	mm	2,270x1,200x4,370	2,270x1,200x5,270	2,220x2,258x4,125			2,220x2,258x5,025	2,220x2,258x5,925	2,220x2,258x6,825				
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 volume	l		18			44			60			70		
Nominal water flow	Cooling	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	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
Nominal water pressure drop	Cooling	Heat exchanger kPa		22	28	36	40	21	27	30	29	34	37	42	56
	Heating	Heat exchanger kPa		25	32	43	50	25	31	37	33	40	43	50	66
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler											
Compressor	Type			Scroll compressor											
	Quantity			4			8			4			6		
Fan	Quantity			4	5	8	8	10	12	14					
	Air flow rate	Nom.	l/s	22,577	21,593	26,992	43,187	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	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	75	76				77		
Operation range	Water side	Cooling	Min.-Max. °CDB	-15~15											
		Heating	Min.-Max. °CDB	25~50											
	Air side	Cooling	Min.-Max. °CDB	-10~46											
		Heating	Min.-Max. °CDB	-17~20											
Refrigerant	Type			R-410A											
	Charge		kg	38	58	84	84	92	94	105	117				
	Circuits	Quantity		2			2			3"			3"		
Piping connections	Evaporator water inlet/outlet (OD)			2.5"			3"			3"					
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400											

## STANDARD AVAILABLE

- > Evaporator victaulic kit
- > 20mm evaporator insulation
- > Alucoat fins coils
- > Water filter
- > Direct on line starter (DOL)
- > Double setpoint
- > Evaporator electric heater
- > Evaporator flow switch
- > Electronic expansion valve
- > Ambient outside temperature sensor and setpoint reset
- > Hour run meter
- > General fault contactor
- > Main switch interlock door



MicroTech III

## OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Brine version (down -15°C)
- > Condenser coil guards
- > Evaporator area guards
- > CU-CU Condenser coil
- > CU-CU-SN Condenser coil
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure side manometers
- > Low pressure side manometers
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- > Two centrifugal pump
- > Double pressure relief valve with diverter
- > Water filter
- > Blygold coil treatment
- > Compressor thermal overload relays
- > Phase monitor
- > Under/over voltage control
- > Energy meter
- > Capacitors for power factor correction
- > Speedtrol (Fan speed control device -ON/OFF- up to -10°C in cooling)
- > Setpoint reset, demand limit and alarm from external device
- > Compressors circuit breakers
- > Fans circuit breakers
- > Fans speed regulation (inverter)
- > Ground fault relay
- > Nordic kit
- > Rubber anti vibration mounts
- > Spring anti vibration mounts
- > External tank with or without cabinet (500 or 1000 L)
- > Container kit
- > Transport kit
- > Condenser coil protection panels





EWYQ-F-



EWYQ-F-

## Heating & Cooling

Model				160	180	200	220	300	330	360	390	420	490	550	610			
Cooling capacity	Nom.			kW	158	178	200	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		
Capacity control	Method			Step			Step											
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			
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	3.21	3.23	3.30	3.21	3.20	3.21			
Dimensions	Unit	HeightxWidthxDepth	mm	2,270x1,200x4,370	2,270x1,200x5,270			2,220x2,258x4,125		2,220x2,258x5,025	2,220x2,258x5,925		2,220x2,258x6,825					
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		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			Plate heat exchanger													
	Water volume	I				18				44				60	70			
	Nominal water flow	Cooling	I/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	I/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			
	Nominal water pressure drop	Cooling	Heat exchanger kPa	20	26	34	38	20	25	28	27	32	35	39	53			
	Heating	Heat exchanger kPa		25	32	43	50	25	31	37	33	40	43	50	66			
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler			High efficiency fin and tube type with integral subcooler													
Compressor	Type	Scroll compressor			Scroll compressor													
Fan	Quantity				4			4			4			6				
	Quantity													12				
	Air flow rate	Nom.	I/s	17,380	16,564		20,706		33,129	33,129	42,431	41,411	49,693	57,975				
		Heating	Nom.	21,047	20,433		25,542		40,867	40,867	51,850	51,084	61,300	71,517				
	Speed				700						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	69	70				71				
Operation range	Water side	Cooling	Min.-Max. °CDB				-15~15				-15~15							
	Heating	Min.-Max. °CDB					25~50				25~50							
	Air side	Cooling	Min.-Max. °CDB				-10~46				-10~46							
	Heating	Min.-Max. °CDB					-17~20				-17~20							
Refrigerant	Type	R-410A						R-410A										
Refrigerant circuit	Circuits	Quantity					2				2							
Piping connections	Evaporator water inlet/outlet (OD)						2.5"				3"			3"				
Power supply	Phase/Frequency/Voltage	Hz/V					3~/50/400							3~/50/400				

## STRENGTHS

- > Optimised for use with R-134a
- > Standard electronic expansion valve
- > DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- > Low starting current
- > No gas boiler required
- > Optimised defrost cycles
- > Optimum ESEER values
- > Partial and total heat recovery option available
- > PID microprocessor control
- > Power factor up to 0.95
- > 2-3 truly independent refrigerant circuits
- > Standard operation range down to -12°C

## STANDARD AVAILABLE

- > Double set point
- > Fans circuit breakers
- > Ambient outside temperature sensor and setpoint reset
- > Phase monitor
- > Inverter compressor starter
- > Evaporator victaulic kit
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > General fault contactor
- > Hour run meter

## OPTIONS

- > Partial heat recovery
- > Brine version
- > Under/ overvoltage control
- > Current limit - display
- > 20 mm evaporator insulation
- > Low pressure side manometers
- > Condenser coil guards
- > Cu-cu condensing coils
- > Cu-Cu-Sn condensing coils
- > Alucoat fins coils
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pumps (low lift)
- > Two centrifugal pumps (high lift)
- > Double pressure relief valve with diverter
- > External tank with or without cabinet (500 or 1000 l)
- > Fans speed regulation (+ fan silent mode)
- > Nordic kit
- > Transport kit
- > Setpoint reset, demand limit and alarm from external device
- > Energy meter
- > Evaporator right water connections
- > Condenser coil protection panels

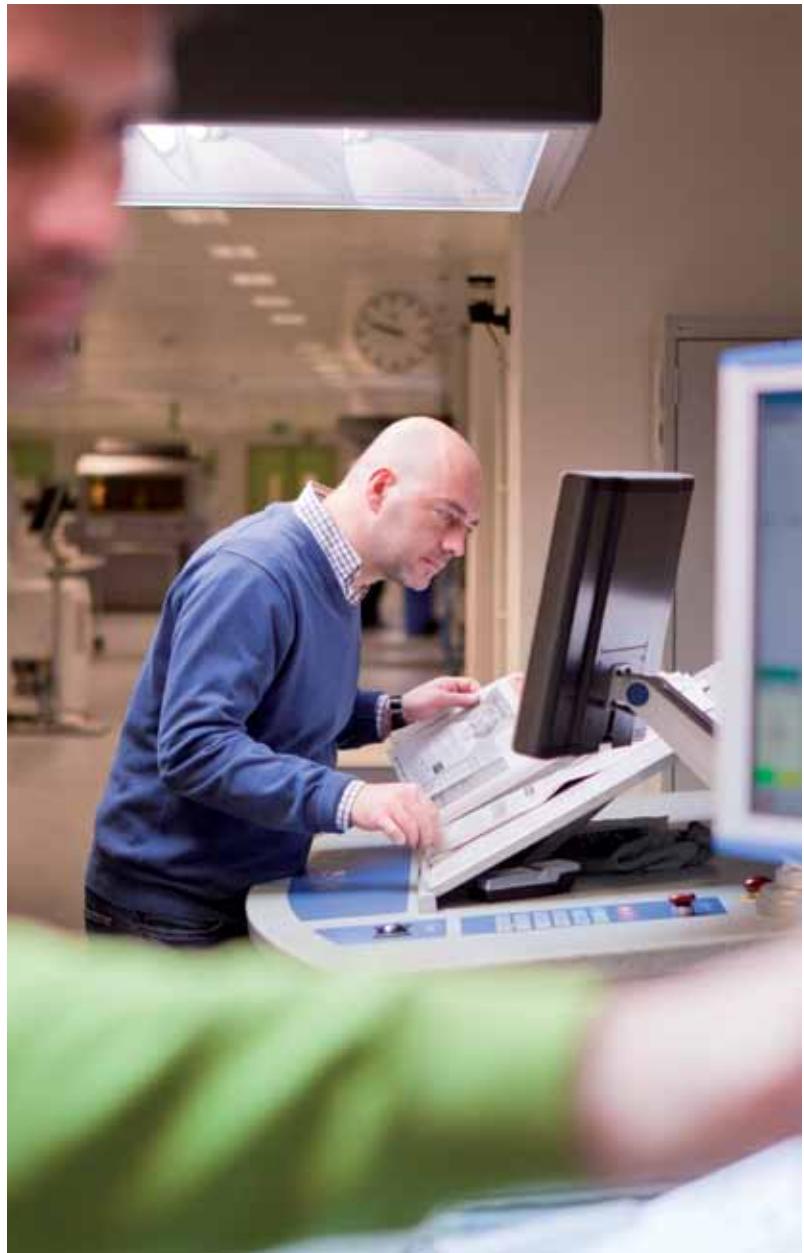


PCO<sup>2</sup>



R-134a

INVERTER





EWYD250-290BZ

## Heating & Cooling Standard efficiency Standard sound

Model		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	434	455	503	520	580		
Heating capacity	Nom.	kW	271	298	325	334	351	381	412	445	465	477	532	560	618		
Capacity control	Method																
	Minimum capacity	%															
Power input	Cooling	Nom.	kW	91.3	101	109	117	126	136	144	154	165	163	180	188	218	
	Heating	Nom.	kW	91.5	100	108	118	127	134	143	157	167	166	177	185	208	
EER				2.77	2.70	2.66	2.75	2.69	2.68	2.65	2.68	2.64	2.79	2.80	2.76	2.66	
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	3.01	2.82	2.77	2.85	2.88	2.84	2.79	2.87	3.01	3.03	2.97	
Dimensions	Unit	HeightxWidthxDepth	mm	2,335x2,254x3,547			2,335x2,254x4,381		2,335x2,254x5,281					2,335x2,254x6,583			
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																
	Water volume		l		138		133		128		240		229		218		
	Nominal water flow	Cooling	l/s	12.12	13.03	13.94	15.46	16.21	17.42	18.25	19.72	20.81	21.83	24.11	24.92	27.87	
	Heating		l/s	12.89	14.18	15.49	15.89	16.66	18.11	19.57	21.15	22.14	22.68	25.33	26.65	29.39	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	37	42	48	53	58	53	57	46	51	61	50	53	65
	Heating	Heat exchanger	kPa	42	49	58	55	60	57	65	52	57	66	55	60	71	
Air heat exchanger	Type																
Fan	Air flow rate	Nom.	l/s		31,728			42,304		52,880				63,456			
	Speed		rpm							920							
Sound power level	Cooling	Nom.	dBA		100.5			101.2		101.8				103.6			
	Heating	Nom.	dBA		100.5			101.2		101.8				103.6			
Sound pressure level	Cooling	Nom.	dBA		82.1			82.3		82.5				83.7			
	Heating	Nom.	dBA		82.1			82.3		82.5				83.7			
Compressor	Type																
Operation range	Water side	Cooling	Min.-Max. °CDB											-8~15			
	Heating	Min.-Max. °CDB												35~55			
	Air side	Cooling	Min.-Max. °CDB											-12~45			
	Heating	Min.-Max. °CDB												-12~20			
Refrigerant	Type													R-134a			
	Charge		kg	88	94	100	118	121.0	124	148	177	183		186			
	Circuits	Quantity						2						3			
Piping connections	Evaporator water inlet/outlet (OD)							139.7mm						219.1mm			
Power supply	Phase/Frequency/Voltage	Hz/V															

## STRENGTHS

- > Optimised for use with R-134a
- > Standard electronic expansion valve
- > DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- > Low operating sound level
- > Low starting current
- > No gas boiler required
- > Optimised defrost cycles
- > Optimum ESEER values
- > Partial and total heat recovery option available
- > PID microprocessor control
- > Power factor up to 0.95
- > 2-3 truly independent refrigerant circuits
- > Standard operation range down to -12°C

## STANDARD AVAILABLE

- > Double set point
- > Phase monitor
- > Inverter compressor starter
- > Evaporator victaulic kit
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > General fault contactor
- > Hour run meter
- > Ambient outside temperature sensor and setpoint reset
- > Fans circuit breakers
- > Fans speed regulation (+fan silent mode)

## OPTIONS

- > Partial heat recovery
- > Brine version
- > Under/ overvoltage control
- > Current limit - display
- > 20 mm evaporator insulation
- > Condenser coil guards
- > Cu-cu condensing coils
- > Cu-Cu-Sn condensing coils
- > Alucoat fins coil
- > Evaporator flow switch
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > One centrifugal pump (low lift)
- > One centrifugal pump (high lift)
- > Two centrifugal pumps (low lift)
- > Two centrifugal pumps (high lift)
- > Double pressure relief valve with diverter
- > External tank with or without cabinet (500 or 1000 l)
- > Evaporator right water connections
- > Energy meter
- > Setpoint reset, demand limit and alarm from external device
- > Nordic kit
- > Transport kit
- > Low pressure side manometers
- > Condenser coil protection panels



PCO<sup>2</sup>



screw



R-134a





EWYD250-290BZ

#### ACCESSORIES

- › Address card RS485 (EKAC200J)
- › Ethernet card BACnet (EKACBAC)
- › Serial card LON (EKAACLNP)
- › Converter RS485 to RS232 (EKCON)
- › Converter RS485 to USB (EKCONUSB)
- › Fixed modem (EKMODEM)
- › GSM modem (EKGSMOD)
- › Remote user interface (EKRUPCJ)
- › Serial sequencing panel (EKDSSP)
- › Digital sequencing panel (EKDDSP)
- › PlantWatchPRO monitoring system (EKPWPRO)
- › PlantWatchPRO monitoring system (modem & webserver included) (EKPWPROM)
- › Serial card RS232 Modem Interface (single unit only) (EKACRS232)
- › Web server card (EKACWEB)
- › Serial card BACnet MSTP (EKACBACMSTP)
- › PlantWatchPro I/O extension module for hardwiring and retrofit (EKPWPROEXT)
- › Gateway web (Ethernet LAN SNMP) (EKGWWEB)
- › Gateway for modem (EKGWMODEM)

## Heating & Cooling

Standard efficiency  
Low sound

Model			250	270	290	320	330	360	370	400	430	450	490	510	570													
Cooling capacity			Nom.	kW	247	265	290	315	330	354	370	402	423	446	491	508	564											
Heating capacity			Nom.	kW	271	298	325	334	350	380	412	444	465	477	532	560	618											
Capacity control			Method		Stepless								9															
Power input			Cooling	Nom.	kW	89.5	99.5	110	114	123	133	144	150	163	158	176	185	217										
			Heating	Nom.	kW	91.5	100	108	118	126	133	143	156	167	166	177	185	208										
EER						2.76	2.66	2.63	2.75	2.67	2.65	2.58	2.67	2.60	2.82	2.79	2.75	2.61										
ESEER						4.05	4.04	3.99	4.16	4.05	4.04	4.01	4.06	4.02	4.18	4.16	4.10	3.98										
COP						2.96	2.97	3.01	2.83	2.77	2.85	2.89	2.84	2.79	2.87	3.01	3.03	2.97										
Dimensions			Unit	HeightxWidthxDepth	mm	2,335x2,254x3,547			2,335x2,254x4,381			2,335x2,254x5,281			2,335x2,254x6,583													
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												218												
	Water volume			I		138			133			128			240	229		211										
	Nominal water flow		Cooling	I/s		11.83	12.70	13.89	15.12	15.83	16.98	17.77	19.28	20.30	21.39	23.56	24.34	27.11										
			Heating	I/s		12.89	14.18	15.49	15.89	16.66	18.11	19.57	21.15	22.14	22.68	25.33	26.65	29.39										
Nominal water pressure drop		Cooling	Heat exchanger	kPa		36	40	48	51	55	50	55	44	48	59	48	51	62										
		Heating	Heat exchanger	kPa		42	49	58	55	60	57	65	52	57	66	55	60	71										
Air heat exchanger			Type	High efficiency fin and tube type with integral subcooler												218												
Fan	Air flow rate		Cooling	Nom.	I/s	24,432			32,576			40,720			48,864													
			Heating	Nom.	I/s	31,728			42,304			52,880			63,456													
Fan motor	Speed		Cooling	Nom.	rpm	715																						
			Heating	Nom.	rpm	920																						
Sound power level	Cooling		Nom.		dBA	94.0			94.7			95.3			97.0													
			Heating	Nom.		94.9			96.1			96.7			98.4													
Sound pressure level	Cooling		Nom.		dBA	75.6			75.8			76.0			77.2													
			Heating	Nom.		76.5			77.2			77.4			78.6													
Compressor			Type	Semi-hermetic single screw compressor												218												
Operation range	Water side		Cooling	Min.-Max.	°CDB	-8~15																						
			Heating	Min.-Max.	°CDB	35~55																						
Refrigerant	Air side		Cooling	Min.-Max.	°CDB	-12~45																						
			Heating	Min.-Max.	°CDB	-12~20																						
Piping connections	Type			R-134a												186												
	Charge			kg	88	94	100	118	121	124	148	177	183	186	3													
	Circuits			Quantity		2																						
Power supply			Phase/Frequency/Voltage	Hz/V		139.7mm																						
						3~/50/400																						

# Condensing Unit



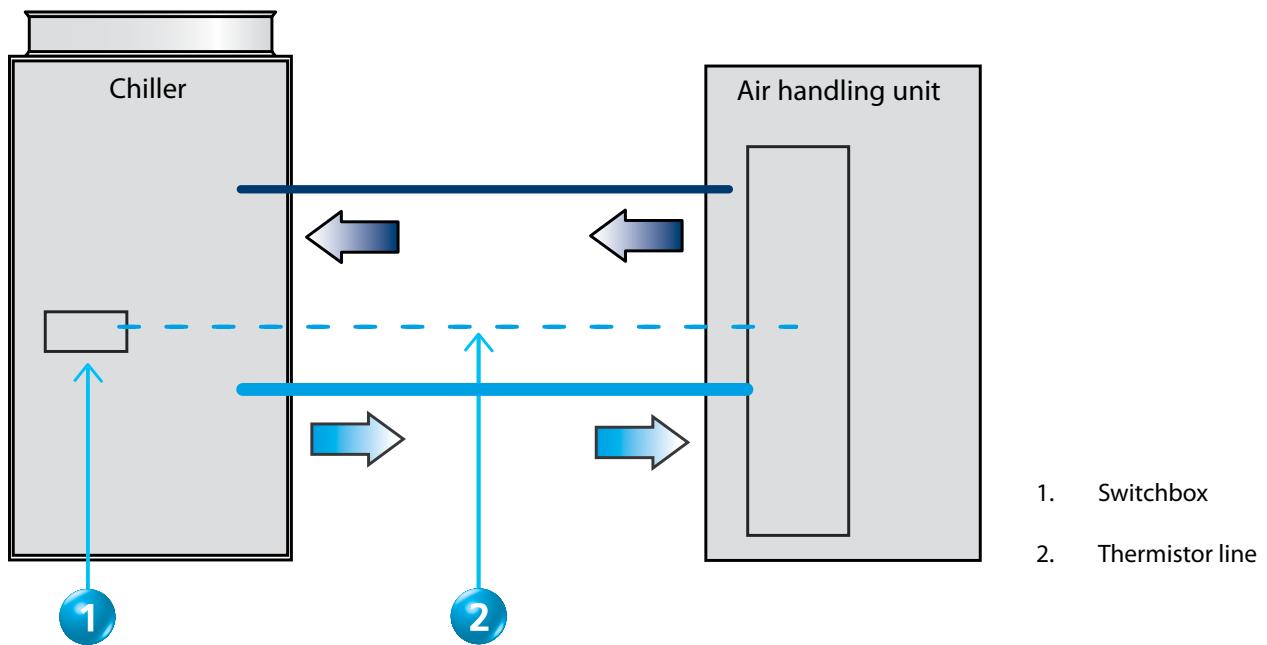
## TABLE OF CONTENTS

ERAD-E-SS	104
ERAD-E-SL	106



The Daikin condensing units can be used in  
a wide variety of air conditioning, refrigeration  
and ventilation applications.

#### PIPING DIAGRAM FOR COMFORT COOLING APPLICATION



### STRENGTHS

- > Single refrigerant circuit
- > Compact design
- > Large operation range  
(ambient temperature down to -18°C)
- > Water supply down to -15°C



MicroTech III

### STANDARD AVAILABLE

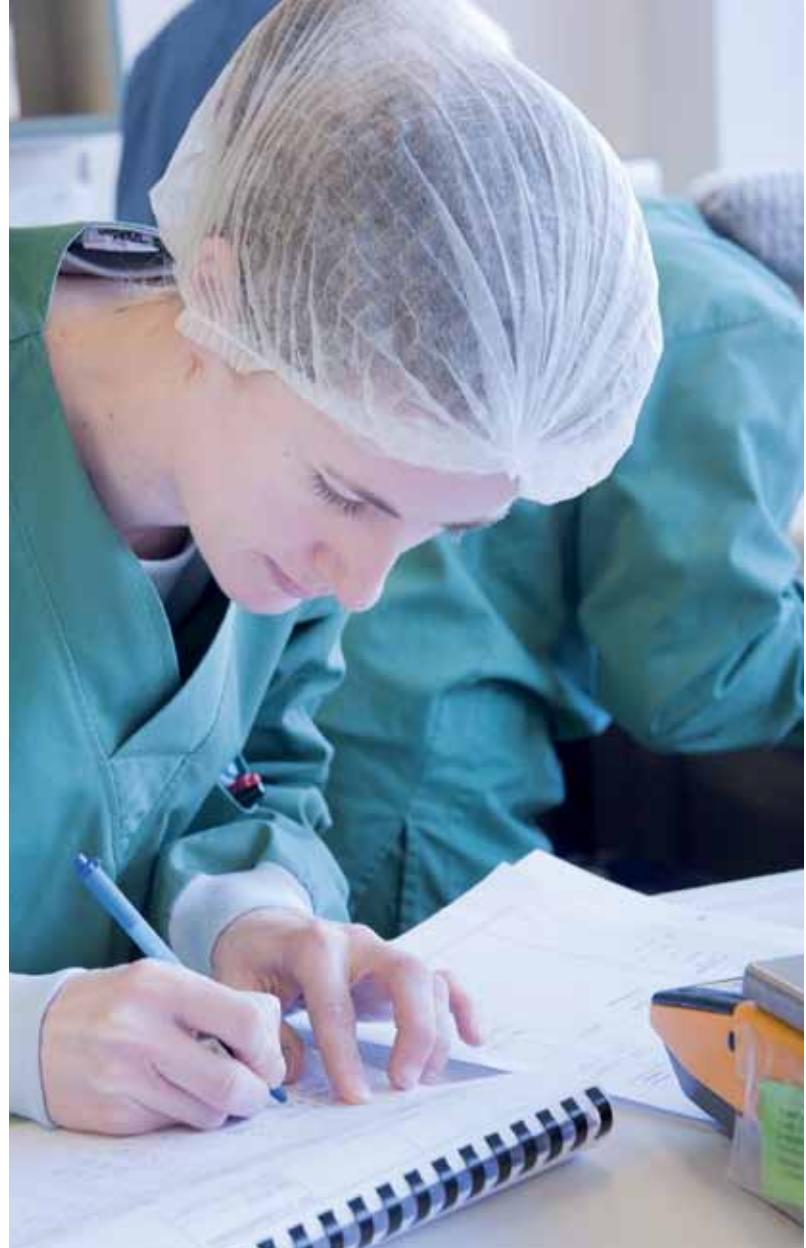
- > Wye delta starter (y - d)
- > Double setpoint
- > Phase monitor
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fans circuit breakers
- > Main switch interlock door



R-134a

### OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Transport kit
- > Fans speed regulation (+ fan silent mode)
- > Condenser coil protection panels
- > Blygold coil treatment





ERAD170,200E-SS

## Cooling only

Model			120	140	170	200	220	250	310	3770	440	490	
Cooling capacity	Nom.	kW	121	144	165	196	219	251	309	370	435	488	
Capacity control	Method				Stepless								
	Minimum capacity	%			25.0								
Power input	Cooling	Nom.	kW	42.1	51.2	57.7	65.6	74.2	77.0	93.8	123	148	161
EER				2.88	2.82	2.86	2.99	2.95	3.27	3.30	3.02	2.95	3.02
Dimensions	Unit	HeightxWidthxDepth	mm	2,273x1,292x2,165	2,273x1,292x3,065	2,273x1,292x3,965				2,223x2,236x3,070			
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									
Fan	Air flow rate	Nom.	l/s	10,924	10,576	16,386	15,865	21,848	21,153	32,772		31,729	
Fan motor	Speed	Cooling	Nom.	rpm					900				
Sound power level	Cooling	Nom.	dBA		92		93		94		95		
Sound pressure level	Cooling	Nom.	dBA			74				75		76	
Refrigerant	Type			R-134a									
	Charge	kg		17	20	22	27	29	32	45	54	58	
	Circuits	Quantity						1					
Piping connections	Condenser water inlet/outlet (OD)			-									
	Evaporator water inlet/outlet (OD)			76mm									139.7mm
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400									

## STRENGTHS

- > Low operating sound level
- > Single refrigerant circuit with single screw compressor
- > Compact design
- > Large operation range  
(ambient temperature down to -18°C)
- > Water supply down to -15°C



MicroTech III

## STANDARD AVAILABLE

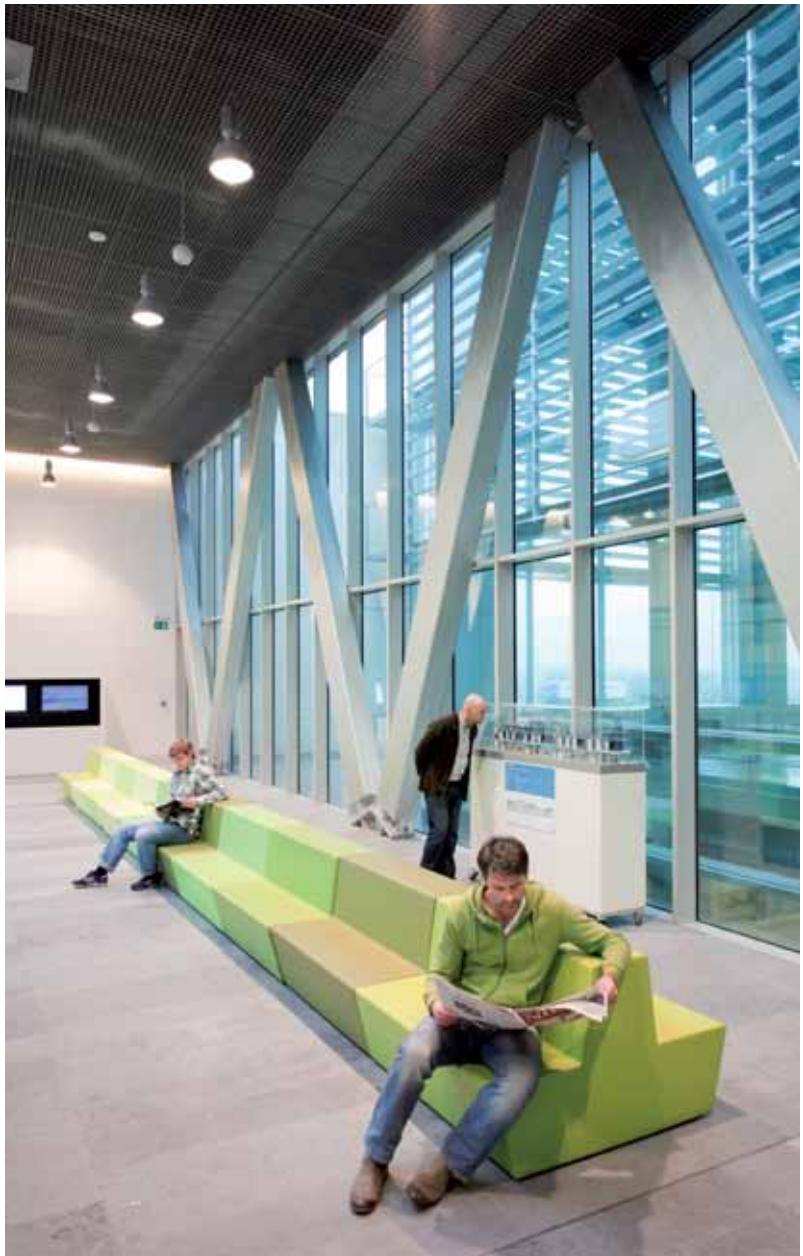
- > Wye delta starter (y - d)
- > Double setpoint
- > Fans circuit breakers with thermal overload relays
- > Phase monitor
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Fans circuit breakers
- > Main switch interlock door



R-134a

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Speedtrol (fan speed control device ON/OFF up to -18°C)
- > Condenser coil guards
- > Cu-cu condenser coil
- > Cu-cu sn condenser coil
- > Alucoat fins coil
- > High pressure side manometers
- > Container kit
- > Rubber anti vibration mount
- > Spring anti vibration mount
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Optimized free cooling (ON/OFF fans)
- > Condenser coil protection panels
- > Blygold coil treatment





ERAD160,190E-SL

## Cooling only

Model			120	140	160	190	210	240	300	350	410	460	
Cooling capacity	Nom.	kW	116	137	159	187	209	243	298	352	409	462	
Capacity control	Method				Stepless								
	Minimum capacity	%			25.0								
Power input	Cooling	Nom.	kW	42.4	52.5	57.7	66.3	73.9	78.1	91.9	122	150	167
EER				2.74	2.61	2.75	2.83	3.11	3.24	2.88	2.73	2.76	
Dimensions	Unit	HeightxWidthxDepth	mm	2,273x1,292x2,165	2,273x1,292x3,065	2,273x1,292x3,965			2,223x2,236x3,070				
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									
Fan	Air flow rate	Nom.	l/s	8,373	8,144	12,560	12,216	16,747	16,288	25,120		24,432	
Fan motor	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	
Refrigerant	Type			R-134a									
	Charge	kg		17	20	22	27	29	32	45	54	58	
	Circuits	Quantity						1					
Piping connections	Condenser water inlet/outlet (OD)			-									
	Evaporator water inlet/outlet (OD)			76mm									
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400									

# Water Cooled

Daikin offers you compact water cooled chiller units which require only very limited space in a machine room. Used for commercial or industrial applications, these chillers generate cold and hot water, which can be used for chilling, heating, or even both at the same time.

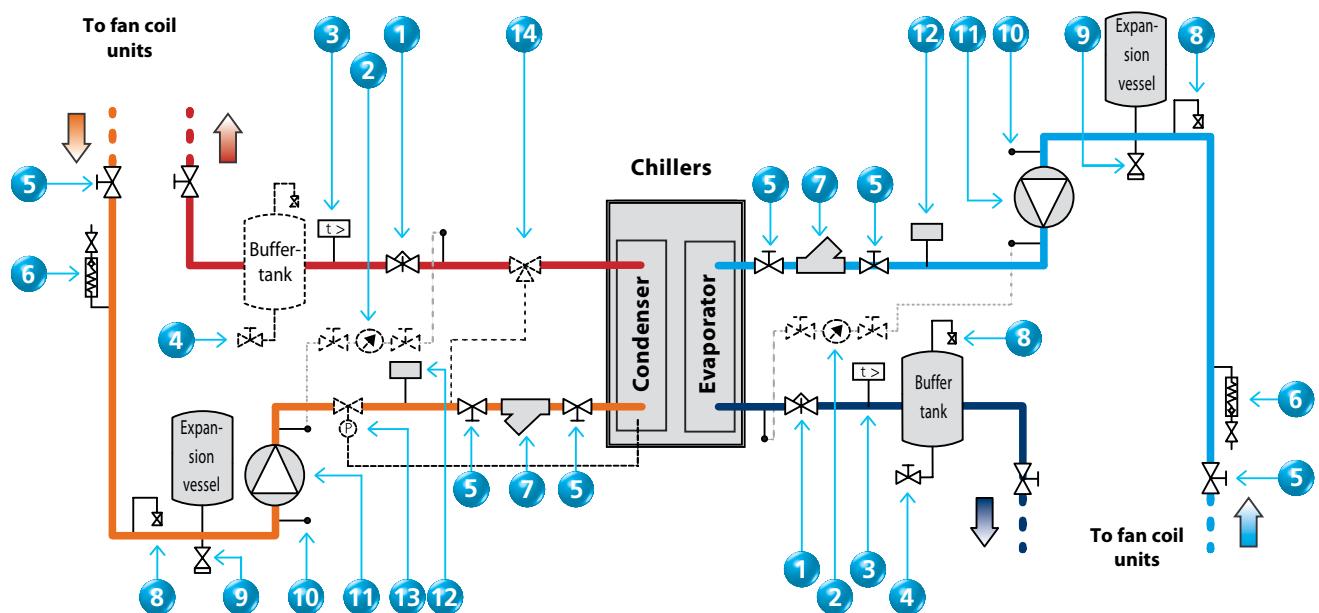
## TABLE OF CONTENTS

EWWP-KBW1N	110	DWSC / DWDC	130
EWWD-J-SS	112	DWME	132
EWWD-G-SS	114		
EWWD-G-XS	116		
EWWD-I-SS	118		
EWWD-I-XS	120		
EWWD-H-XS	122		
EWWQ-B-SS	124		
EWWQ-B-XS	126		
EWWD-FZXS	128		



1. Balancing valve
2. Pressure gauge
3. Temperature sensor
4. Drain valve
5. Shut-off valve
6. Fill valve
7. Filter
8. Drain
9. Safety valve
10. Pressure port
11. Pump
12. Flow switch
13. Pressure regulating valve
14. Bypass valve

## PIPING DIAGRAM FOR COMFORT COOLING APPLICATION



## STRENGTHS

- > Standard integrated: main switch, water filter, flow switch, air purge, pressure ports
- > Daikin scroll compressor
- > Optimised for use with R-407C
- > Electronic DDC controller
- > Low operating sound level
- > Low energy consumption
- > Extension possible up to 195 kW
- > Compact dimensions and low refrigerant volume
- > Easy installation and maintenance
- > Stainless steel plate heat exchanger
- > Remote cooling or heating selection
- > Water/water heat pump, with water reversibility
- > Compatible with hydraulic module
- >  $\mu\text{C}^2 \text{ SE}$  CONTROLLER
- > pCO<sup>3</sup> controller for assembly of 2 or 3 modules

## FOR SINGLE MODULE UNITS

- > Standard main isolator switch
- > Basic hydraulic components for KA-series included with the unit as a kit: flow switch, air purge, filter + shut-off valves for both condenser and evaporator

## OPTIONS (FACTORY MOUNTED)

- > Chilled water temperature down to - 5°C or -10°C

## ACCESSORIES (KIT)

- > Hydraulic module (see EHMC-page in this catalogue)
- > Address card for connection to BMS or Remote user interface (EKAC10C)
- > Remote installed user interface (EKRUMCA)
- > Low noise kit 14 Hp-units (EKLS1)
- > Low noise kit 22-65 Hp units (EKLS2)

## CONTROL

- > Microprocessor control
- > Water inlet temperature control
- > Cold water or hot water regulation

## AVAILABLE

### INPUTS / OUTPUTS

#### Input

- > Remote ON / OFF
- > Pump contact
- > Cool/heat selection

#### Output

- > Compressor operation
- > Summary alarm
- > Pump relay contact





EWWP014-035KBW1N

EWWP090-130KBW1N

EWWP145-195KBW1N

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)		13.0	21.5	28.0	32.5	43.0	56.0	65.0	86.0	99.0	112	121	130	142	155	168	177	186	195			
HEATING CAPACITY (KW)		16.6	27.3	35.4	41.2	54.8	71.4	82.7	110	126	143	154	165	181	198	214	226	237	248			
UNIT + CONTROL (Factory mounted)	EWWP014KBW1N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	EWWP022KBW1N	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	EWWP028KBW1N	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	EWWP035KBW1N	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	EWWP045KBW1N	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-			
	EWWP055KBW1N	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-			
MODULAR UNITS (Controller available as accessory)	EWWP065KBW1N	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-			
	EWWP045KAW1M	-	-	-	-	-	-	-	2	1	-	-	-	2	1	-	-	-	-			
	EWWP055KAW1M	-	-	-	-	-	-	-	-	1	2	1	-	1	2	3	2	1	-			
CONTROL (kit)	EWWP065KAW1M	-	-	-	-	-	-	-	-	-	1	2	-	-	-	1	2	3	-			
	ECB2MUW	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-			
ECB3MUW	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1			

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

## Heating only & Cooling only

Capacity class			014	022	028	035	045	055	065	090	100	110	120	130	145	155	165	175	185	195	
Cooling capacity	Nom.	kW	13.0	21.5	28.0	32.5	43.0	56.0	65.0	86.0	99.0	112	121	130	142	155	168	177	186	195	
Heating capacity	Nom.	kW	16.6	27.3	35.4	41.2	54.8	71.4	82.7	110	126	143	154	165	181	198	214	226	237	248	
Capacity steps number			1		2				4							6					
Power input	Cooling	Nom.	kW	3.61	5.79	7.48	8.75	11.80	15.50	17.60	23.6	27.3	31.0	33.1	35.2	39.1	42.8	46.5	48.6	50.7	52.8
EER				3.60	3.71	3.74	3.71	3.64	3.61	3.69	3.64	3.63	3.61	3.66	3.69	3.63	3.62	3.61	3.64	3.67	3.69
Dimensions	Unit	HeightxWidthxDepth	mm	600x600x600			600x600x1,200			1,200x600x1,200			1,800x600x1,200								
Weight	Unit	kg	118	155	165	172	300	320	334	600	620	640	654	668	920	940	960	974	988	1.002	
Water heat exchanger - evaporator	Type			Brazed plate															311		
	Minimum water volume in the system	l	62	103	134	155	205	268	311	205	268	311	205	268	307	323	339	355			
	Water flow rate	Min.	l/min	19	31	40	47	62	80	93	123	142	161	173	186	204	222	241	254	267	280
		Nom.	l/min	37	62	80	93	123	161	186	247	284	321	347	373	407	444	482	507	533	559
Water heat exchanger - condenser		Max.	l/min	75	123	161	186	247	321	373	493	568	642	694	745	814	889	963	1,015	1,066	1,118
	Type			Brazed plate															311		
	Water flow rate	Min.	l/min	24	39	51	59	79	102	118	157	181	205	221	237	260	283	307	323	339	355
Sound power level	Cooling	Nom.	dBA	64	71	67	74	71		75	77	73		76	78	79					
	Type			Hermetically sealed scroll compressor																	
Compressor				-10 (OPZL) ~ 25																	
	Operation range			20 ~ 55																	
Refrigerant	Type			R-407C																	
	Control			Thermostatic expansion valve																	
Refrigerant circuit	Circuits	Quantity		1		2		4							6						
	Charge	kg	1.2	2	2.5	3.1	4.6	5.6	9.2	10.2	11.2	13.8	14.8	15.8	16.8						
Piping connections	Evaporator water inlet/outlet			FBSP 25mm			FBSP 40mm			2 x 2 x FBSP 38mm			3 x 2 x FBSP 38mm								
	Evaporator water drain			FBSP 25mm			FBSP 40mm			2 x 2 x FBSP 38mm			3 x 2 x FBSP 38mm								
	Condenser water inlet/outlet												Field installation								
Power supply	Phase / Frequency / Voltage	Hz / V		3N~ / 50 / 400																	

## STRENGTHS

- > Compact design to allow easy indoor installation or retrofit operations
- > High efficiency at full and partial load
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications



MicroTech III

## STANDARD

- > Wye-delta compressor starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > 20 mm evaporator insulation
- > Condenser victaulic kit
- > Condenser Water Side Design pressure 16 bar
- > Condenser 2 passes (dt 4-8 °C)
- > Evaporator flow switch
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Emergency stop
- > Setpoint reset, demand limit and alarm from external device

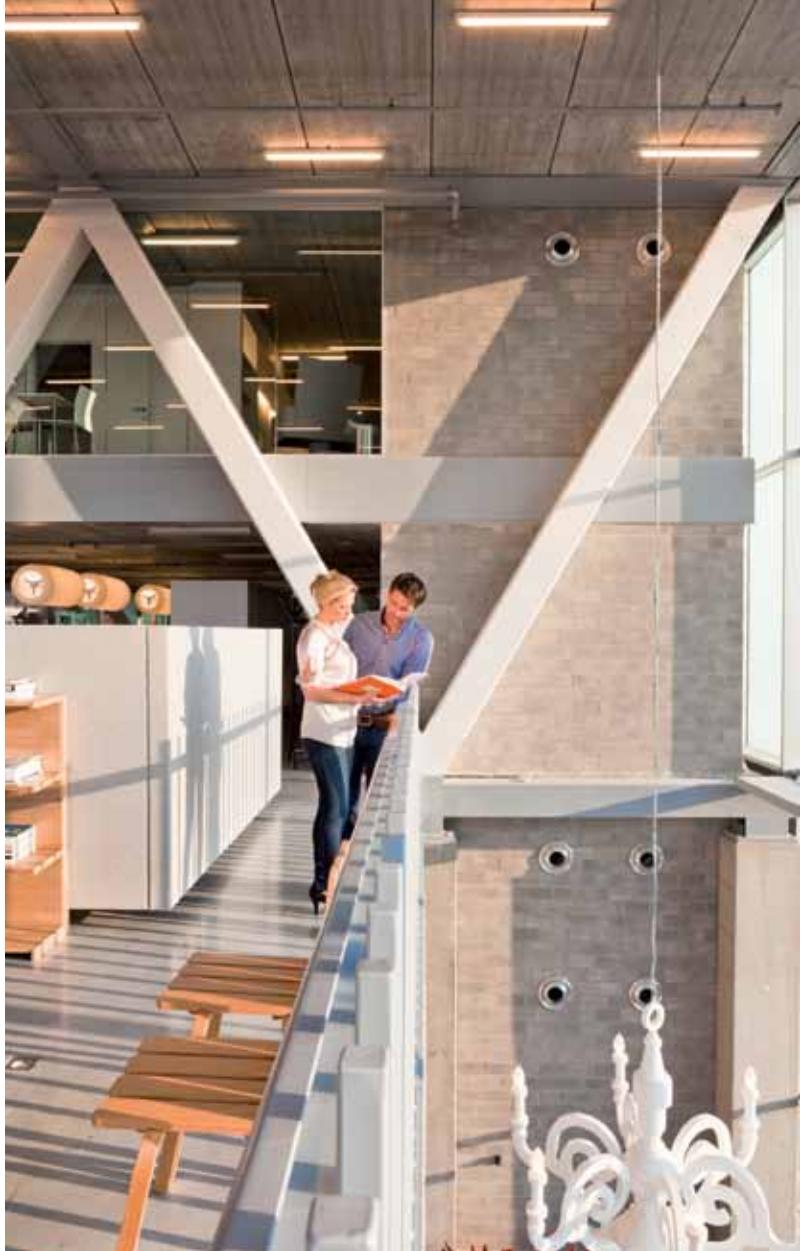
SCREW



R-134a

## OPTIONS

- > Heat pump version (including pursuit mode)
- > Brine version (down -8°C)
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit display
- > Condenser double flanges kit
- > 20mm condenser insulation
- > Low pressure side manometers
- > Rubber anti vibration mount
- > Sound proof system (compressor)
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Container kit
- > Transport kit
- > Ground fault relay
- > Soft starter
- > Rubber anti vibration mounts
- > Liquid receiver
- > High pressure side manometers
- > CU-NI 90-10 condenser tubes





EWWD-J-SS

## Heating only & Cooling only

Standard efficiency  
Standard sound

Model		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	142	172	188	216	249	305	340	377	405	432	466	499	554	610	645	681	
Capacity control	Method																		
	Minimum capacity	%																	
Power input	Cooling	Nom.	kW	28.0	33.9	39.5	45.3	50.5	60.0	70.1	78.6	84.4	90	100	110	119	129	140	
	Heating	Nom.	kW	32.9	40.1	46.4	53.5	59.57	71.68	80.75	92.88	99.9	107	113	119	131	143	152	162
EER				4.28	4.29	3.91	3.92	4.11	4.25	4.05	3.93	3.94	3.95	3.83	4.13	4.20	4.29	4.18	4.06
ESFEEER				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				4.32	4.29	4.05	4.04	4.18	4.26	4.21	4.06	4.05	4.04	4.12	4.19	4.22	4.26	4.23	4.22
Dimensions	Unit	HeightxWidthxDepth	mm																
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	Type																		
Water heat exchanger - evaporator	Water volume	l		14	18	14	17	20	26	29	31	33	37	41	46		52		
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	15	13	40	38	36	28	33	40	38	36		28		33	
Water heat exchanger - condenser	Type																		
	Water flow rate	Nom.	l/s	7.04	8.57	9.25	10.62	12.30	15.06	16.89	18.49	19.91	21.28	23.15	24.59	27.33	30.10	31.92	33.78
	Nominal water pressure drop	Cooling	kPa	20	12		11		16	26		11				16		26	
Sound power level	Cooling	Nom.	dBA																
Sound pressure level	Cooling	Nom.	dBA																
Compressor	Type																		
Operation range	Evaporator	Cooling	Min.-Max.	°CDB										-10~15					
	Condenser	Cooling	Min.-Max.	°CDB										23~60					
Refrigerant	Type													R-134a					
	Charge	kg		18	20	33	34	36	38	66	67	68	70	72	74		76		
	Circuits	Quantity							1						2				
Power supply	Phase/Frequency/Voltage	Hz/V												3~/50/400					

## STRENGTHS

- > All models are PED pressure vessel approved
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > 1-2 truly independent refrigerant circuits
- > Standard electronic expansion valve
- > DX shell and tube evaporator – one pass refrigerant side for easy oil circulation and return
- > Partial and total heat recovery option available
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications



MicroTech III

## STANDARD AVAILABLE

- > Wye-delta compressor starter (Y-D)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Condenser water side design pressure 16 bar
- > Electronic expansion valve
- > Suction line shut off valve
- > Discharge line shut off valve
- > Emergency stop
- > Main switch interlock door
- > Setpoint reset, demand limit and alarm from external device
- > Hour run meter
- > General fault contactor
- > Condenser 1 pass (dT4-8°C)



**R-134a**

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Heat pump version (including pursuit version)
- > Brine version (down -8°C)
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Condenser double flanges kit
- > 20mm evaporator insulation
- > 20mm condenser insulation
- > Condenser victaulic kit
- > Cu-ni 90-10 condenser tubes
- > Evaporator flow switch
- > Rubber anti vibration mount
- > Sound proof system (compressor)
- > Double pressure relief valve with diverter
- > High pressure side manometers
- > Low pressure side manometers
- > Ground fault relay
- > Container kit
- > Transport kit
- > Evaporator double flange kit





EWWD260G-SS

## Heating only & Cooling only

Model		170	210	260	300	320	380	420	460	500	600
Cooling capacity	Nom.	kW	165	200	252	279	332	370	401	446	492
Heating capacity	Nom.	kW	221	266	336	376	443	492	534	596	659
Capacity control	Method						Stepless				
	Minimum capacity	%		25				13			
Power input	Cooling	Nom.	kW	43.8	52.6	67.4	78.5	87.5	96.4	105.4	119.3
	Heating	Nom.	kW	55.6	66.8	85.4	99.3	111	122	134	152
EER				3.77	3.80	3.74	3.55	3.80	3.84	3.80	3.74
ESEER				4.46	4.47	4.41	4.15	4.66	4.71	4.65	4.60
COP				3.97	3.99	3.93	3.78	3.99	4.02	3.99	3.93
Dimensions	Unit	HeightxWidthxDepth	mm		1,860x920x3,435				1,880x860x4,305		
Weight	Unit		kg	1,393	1,410	1,503		2,687	2,697	2,702	2,757
	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
	Nominal 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
	Nominal water pressure drop	Cooling	kPa	38	39	60	73	37	38	39	41
	Nominal water pressure drop 2	Cooling	kPa		-			37	39	56	57
Compressor	Type						Semi-hermetic 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						R-134a				
	Charge	kg		50	55	110	50		55		110
	Control						Electronic expansion valve				
	Circuits	Quantity		1				2			
Power supply	Phase/Frequency/Voltage	Hz/V				3~/50/400					

## STRENGTHS

- > High efficiency
- > All models are PED pressure vessel approved
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > 1-2 truly independent refrigerant circuits
- > Standard electronic expansion valve
- > DX shell and tube evaporator – one pass refrigerant side for easy oil circulation and return
- > Partial and total heat recovery option available
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

## STANDARD AVAILABLE

- > Wye-delta starter
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Condenser water side design pressure 16 bar
- > Electronic expansion valve
- > Suction line shut off valve
- > Hour run meter
- > General fault contactor
- > Condenser 1 pass ( $dT$  4-8°C)
- > Discharge line shut-off valve
- > Setpoint reset, demand limit and alarm from external device
- > Main switch interlock door door
- > Emergency stop

## OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Heat pump version (including pursuit mode)
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Condenser double flanges kit
- > 20mm evaporator insulation
- > 20mm condenser insulation
- > Condenser victaulic kit
- > Cu-ni 90-10 condenser tubes
- > Evaporator flow switch
- > Rubber anti vibration mount
- > Sound proof system (compressor)
- > Double pressure relief valve with diverter
- > High pressure side manometers
- > Low pressure side manometers
- > Ground fault relay
- > Container kit
- > Transport kit
- > Evaporator double flange kit



MicroTech III



R-134a





EWW650G-XS

## Heating only & Cooling only

Model		190	230	280	320	380	400	460	500	550	650
Cooling capacity	Nom.	kW	185	222	276	306	365	407	443	495	539
Heating capacity	Nom.	kW	238	286	355	400	470	523	569	634	693
Capacity control	Method						Stepless				
	Minimum capacity	%		25					13		
Power input	Cooling	Min. kW	40.6	49.4	61.0	73.3	81.1	89.0	97.0	107.3	117.4
	Heating	Nom. kW	51.7	62.9	77.7	93.4	103	114	124	137	150
EER			4.57	4.50	4.53	4.17	4.50	4.58	4.57	4.61	4.59
ESEER			5.53	5.43	5.46	5.02	5.69	5.82	5.81	5.83	5.80
COP			4.61	4.55	4.57	4.29	4.55	4.61	4.6	4.64	4.63
Dimensions	Unit	HeightxWidthxDepth mm		1,860x920x3,435					1,880x860x4,305		
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
	Nominal water pressure drop	Cooling Total kPa	23	31	30	37	28	21	24	33	39
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
	Nominal water pressure drop	Cooling kPa	16	18	22	27		15		14	17
	Nominal water pressure drop 2	Cooling kPa			-			15		14	17
Compressor	Type					Semi-hermetic 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					R-134a					
	Charge	kg		55		110	105		100		
	Control					Electronic expansion valve					
	Circuits	Quantity		1				2			
Power supply	Phase/Frequency/Voltage	Hz/V				3~/50/400					

### STRENGTHS

- > All models are PED pressure vessel approved
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > 1-2-3 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 for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

### STANDARD AVAILABLE

- > Wye delta compressor starter (y - d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Condenser water side design pressure 16 bar
- > Electronic expansion valve
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Condenser 1 pass (dt 4-8 °C)
- > Main switch interlock door door
- > Emergency stop

### OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Heat pump version (including pursuit mode)
- > Brine version (down -8°C)
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Condenser double flanges kit
- > 20mm evaporator insulation
- > 20mm condenser insulation
- > Condenser victaulic kit
- > Cu-ni 90-10 condenser tubes
- > Condenser 2 passes (dt 9-15°C)
- > Evaporator flow switch
- > Discharge line shut off valve
- > Suction line shut off valve
- > Container kit
- > Rubber anti vibration mount
- > Sound proof system (integral)
- > Double pressure relief valve with diverter
- > Transport kit
- > Ground fault relay
- > Compressor thermal overload relays
- > High pressure manometers
- > Low pressure manometers
- > Evaporator double flange kit



MicroTech III



R-134a





EWWD-I-SS

## Heating only & Cooling only

Model		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	424	503	588	689	820	903	999	1,079	1,163	1,261	1,324	1,477	1,543	1,632	1,724	1,800	1,875	1,951							
Capacity control	Method		Stepless								Stepless																
	Minimum capacity	%	25				13				8																
Power input	Cooling	Nom.	kW	73.5	88.6	104.2	124.3	145.7	160.3	176.4	191.1	205.4	224.7	242.6	261.6	275.1	289.8	307.0	325.5	344.3	363						
	Heating	Nom.	kW	91.4	109	129	152	181	199	218	236	254	276	297	324	341	359	380	401	422	444						
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						
ESSEER				4.71	4.57	4.53	4.47	5.04	5.27	5.06	5.19	5.05	5.15	5.00	5.05	5.09	5.13	5.06	5.05	4.96	4.79						
COP				4.64	4.6	4.57	4.54	4.52	4.54	4.58	4.57	4.58	4.57	4.46	4.57	4.53	4.55	4.54	4.49	4.44	4.4						
Dimensions	Unit	HeightxWidthxDepth	mm	1,821x1,466x3,298								2,103x1,350x4,116								2,323x2,130x4,439							
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								Single pass shell and tube															
	Water volume	l		193	183	172	271	263	256	248	241	233	472	504	489	472											
	Nominal water pressure drop	Cooling	Heat exchanger	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								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									
	Nominal water pressure drop	Cooling	kPa	26	28	30	26	25	27	28	26	22	23	24	25	24				23							
	Nominal water pressure drop 2	Cooling	kPa		-	25	26	27	26	26	23	24	23	24	23	24	23										
Compressor	Type			Semi-hermetic single screw compressor															3								
	Quantity			1				2				3															
Sound power level	Cooling	Nom.	dBA	94	97				98	99	100	100				101	103										
Sound pressure level	Cooling	Nom.	dBA	75	76	78				79	80	81	81				80	83									
Operation range	Evaporator	Cooling	Min.-Max.	°CDB	-8~15																						
	Condenser	Cooling	Min.-Max.	°CDB	20~55																						
Refrigerant	Type				R-134a																						
	Circuits	Quantity			1				2				3														
Refrigerant circuit	Charge	kg		54	52	51	50	108	106	104				156	155	154	153	152	151	150							
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400																							

## STRENGTHS

- > High efficiency
- > All models are PED pressure vessel approved
- > Stepless single-screw compressor
- > Optimised for use with R-134a
- > 1 or 2 truly independent refrigerant circuits
- > Standard electronic expansion valve
- > DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications

## STANDARD AVAILABLE

- > Wye delta compressor starter (y - d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Condenser water side design pressure 16 bar
- > Condenser 2 passes (dt 4-8 °C)
- > Electronic expansion valve
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm from external device
- > Emergency stop
- > Main switch interlock door

## OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Soft starter
- > Heat pump version (including pursuit mode)
- > Brine version (down -8°C)
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Condenser double flanges kit
- > 20mm evaporator insulation
- > 20mm condenser insulation
- > Condenser victaulic kit
- > Cu-ni 90-10 condenser tubes
- > Condenser 4 passes
- > Evaporator flow switch
- > Discharge line shut off valve
- > Suction line shut off valve
- > Container kit
- > Rubber anti vibration mounts
- > Sound proof system (integral)
- > Double pressure relief valve with diverter
- > High pressure side manometers
- > Low pressure side manometers
- > Ground fault relay
- > Transport kit
- > Evaporator double flange kit
- > Compressor thermal overload relays
- > Phase monitor



MicroTech III



R-134a





EWWD-I-XS

## Heating only & Cooling only

Model		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	454	543	635	728	904	997	1,086	1,171	1,232	1,319	1,441		
Capacity control	Method		Stepless				Stepless				Stepless				
	Minimum capacity	%	25				13				13				
Power input	Cooling	Nom.	kW	74.5	89.5	104.5	126.8	147.9	163.4	177.8	193.1	208.4	228.3	250	
	Heating	Nom.	kW	92	110	128	155	183	201	218	237	256	280	306	
EER				4.83		4.82		4.50	4.85	4.84	4.85	4.81	4.66	4.53	4.51
ESEER				4.75	4.72	4.71	4.52	5.40	5.50	5.35	5.40	5.18	5.37	5.02	
COP				4.94		4.95		4.7	4.95	4.96	4.97	4.94	4.81	4.71	
Dimensions	Unit	HeightxWidthxDepth	mm	1,883x1,430x4,012				2,245x1,350x4,782				2,245x1,350x4,782			
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				Single pass shell and tube				Single pass shell and tube			
	Water volume	l		326	317	308		539				528		504	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	64	54	68	58	68	56	64	72	46	52	
Water heat exchanger - condenser	Type			Single pass shell and tube				Single pass shell and tube				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		
	Nominal water pressure drop	Cooling	kPa	48	47	51	66	48		47	50	51	65		
	Nominal water pressure drop 2	Cooling	kPa		-			48	47	47	50		65		
Compressor	Type			Semi-hermetic single screw compressor				Semi-hermetic single screw compressor				Semi-hermetic single screw compressor			
	Quantity			1				2				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				-8~15				-8~15		
	Condenser	Cooling	Min.-Max. °CDB		20~55				20~55				20~55		
Refrigerant	Type			R-134a				R-134a				R-134a			
	Circuits	Quantity		1				2				2			
Refrigerant circuit	Charge	kg		90	87	85		180	177	174	172		170		
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400				3~/50/400				3~/50/400			

### STRENGTHS

- > Condenser leaving water temperatures (CLWT) up to 50°C
- > Heat pump version available
- > Flooded type heat exchangers
- > MicroTech III controller



MicroTech III

### STANDARD AVAILABLE

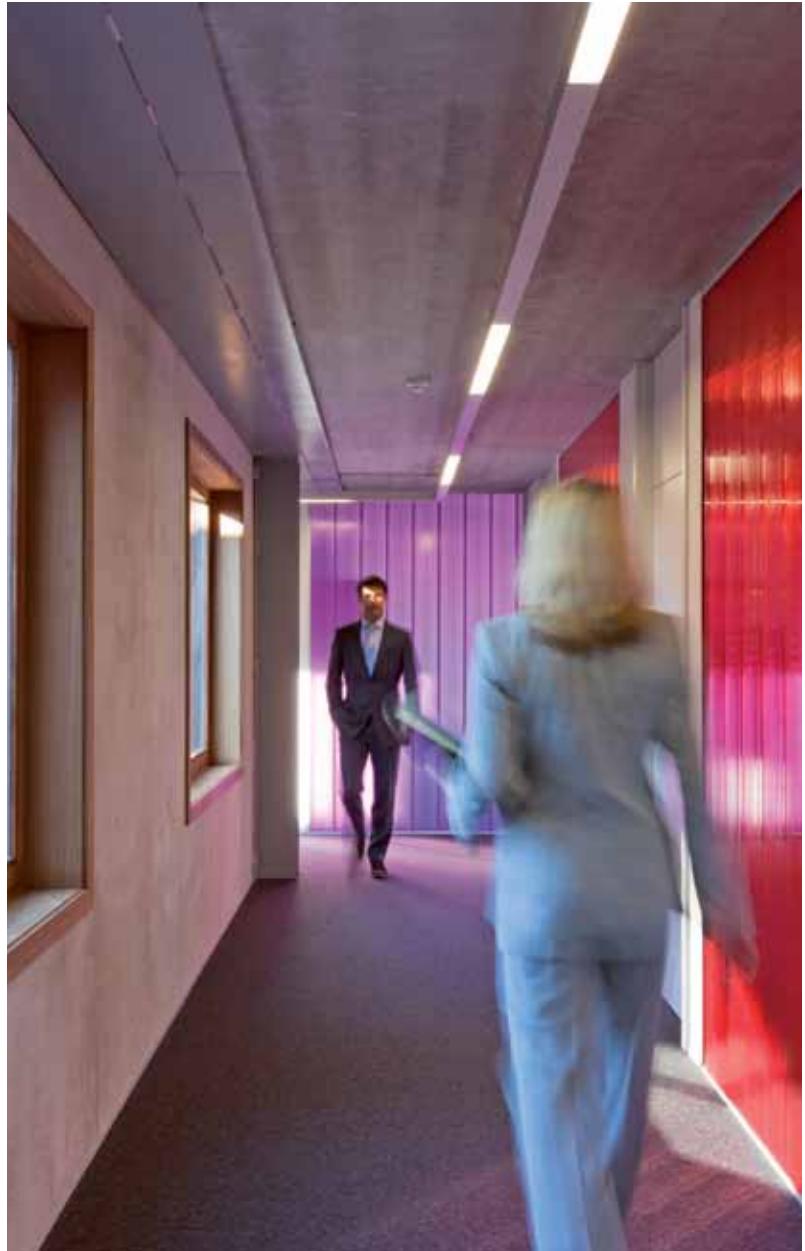
- > Wye delta compressor starter (y - d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > 20mm evaporator insulation
- > Condenser victaulic kit
- > Condenser water side design pressure 10 bar
- > Condenser 2 passes (4-8°C)
- > Electronic expansion valve
- > Discharge line shut off valve
- > Hour run meter
- > General fault contactor
- > Set point reset, demand limit and alarm for external device
- > Main switch interlock door door
- > Emergency stop
- > Evaporator 2 passes
- > Double pressure relief valve with diverter



R-134a

### OPTIONS

- > Heat pump version
- > Brine version (down -8°C)
- > Evaporator marine waterbox victaulic or flanged (1/2/3 passes)
- > CU-NI 90-10 Condenser tubes
- > Condenser 1 pass (dT 4-8°C)
- > Condenser 3 passes
- > Suction line shut-off valve
- > High/low pressure side manometers
- > Sound proof system (integral)
- > Evaporator 1 pass / 3 passes
- > High temperature kit
- > Soft starter
- > Compressor thermal overload relays
- > Under/over voltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > Water pressure differential switch on condenser/evaporator
- > Evaporator/Condenser flow switch
- > Compressor circuit breakers
- > Ground fault relay
- > Rubber anti vibration mounts
- > Container kit
- > Transport kit
- > Condenser double flanges kit
- > Evaporator double flanges kit
- > 20mm condenser insulation





EWWD-H-

## Heating only & Cooling only

Model		370	450	530	610	750	830
Cooling capacity	Nom.	kW	368	444	520	606	746
Heating capacity	Nom.	kW	454	547	639	746	918
Capacity control	Method			Stepless			
	Minimum capacity	%		25.0			12.5
Power input	Cooling	Nom.	kW	63.9	76.6	88.3	103
	Heating	Nom.	kW	82.7	99.2	114	132
EER			5.75	5.79	5.88	5.90	5.85
ESEER			6.11	6.18	6.27	6.25	6.76
COP			5.5	5.52	5.61	5.64	5.59
Dimensions	Unit	HeightxWidthxDepth	mm	2,121x1,353x3,341	2,121x1,353x3,419	2,048x1,384x3,417	2,048x1,689x3,609
Weight	Unit	kg	3,089	3,370	3,603	3,781	5,289
	Operation weight	kg	3,250	3,588	3,870	4,163	5,694
Water heat exchanger - evaporator	Type			Single pass shell and tube			
	Water volume	l	78	107	134	160	172
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	37	31	36
Water heat exchanger - condenser	Type			Single pass shell and tube			
	Water flow rate	Nom.	l/s	20.8	25.1	29.3	34.2
	Nominal water pressure drop	Cooling	kPa	29	24	26	21
Compressor	Type			Semi-hermetic single screw compressor			
	Quantity			1			2
Sound power level	Cooling	Nom.	dBA	97	98	99	100
Sound pressure level	Cooling	Nom.	dBA	78	79	80	81
Operation range	Evaporator	Cooling	Min.-Max. °CDB			-8~15	
	Condenser	Cooling	Min.-Max. °CDB			18~65	
Refrigerant	Type			R-134a			
	Charge	kg		210	190	180	210
	Circuits	Quantity			1		2
Power supply	Phase/Frequency/Voltage	Hz/V			3~/50/400		

### STRENGTHS

- › All models are PED pressure vessel approved
- › 1 or 2 stepless single-screw compressors
- › 1 or 2 truly independent refrigerant circuits
- › Optimised for use with R-410A
- › Standard electronic expansion valve
- › Compact design
- › Partial heat recovery available
- › MicroTech III controller



MicroTech III

### STANDARD AVAILABLE

- › Wye Delta Starter (Y-D)
- › Double setpoint
- › Phase monitor
- › Evaporator victaulic kit
- › Evaporator Water side design pressure 10 bar
- › Condenser Water side design pressure 16 bar
- › Electronic expansion valve
- › Hour run meter
- › General fault contactor
- › Set-point reset, demand limit & alarm from external device
- › Double pressure relief valve with diverter
- › Main switch interlock door door
- › Emergency stop



R-410A

### OPTIONS

- › Partial heat recovery
- › Soft starter
- › Brine version (down -8°C)
- › Compressor thermal overload relays
- › Under/overvoltage control
- › Energy meter
- › Capacitors for power factor correction
- › Current limit
- › 20mm evaporator insulation
- › 20mm condenser insulation
- › Condenser victaulic kit
- › Cu-ni 90-10 condenser tubes
- › Evaporator electric heater
- › Evaporator flow switch
- › Discharge line shut off valve
- › Suction line shut off valve
- › Container kit
- › Rubber anti vibration mount
- › Sound proof system (integral)
- › Condenser double flanges kit
- › High pressure side manometers
- › Low pressure side manometers
- › Ground fault relay
- › Transport kit
- › Evaporator double flange kit





EWWQC19,C20B-SS

## Standard efficiency Standard sound

Cooling only

Model			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		
Capacity control	Method																						
	Minimum capacity	%					12.5		25.0	12.5	25.0	12.5								25.0			
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	
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				4.61	4.59	4.67		4.62	4.95	4.52	4.91	4.90	4.42	4.86	4.96		4.89	4.81	4.76	4.61	4.63	4.54	
Dimensions	Unit	HeightxWidthxDepth	mm	1,849x1,140x3,373	2,001x1,276x3,454	1,848x2,158x2,378x																	
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																						
	Water volume	l		124	118	176	170	274	344	266	344	325	251	325	538		505	495	539	527			
	Nominal water pressure drop	Cooling	Heat exchanger	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																						
	Water flow rate	Nom.	I/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	
	Nominal water pressure drop	Cooling	kPa	59	63	67	65	16	64	20	64	67	26	67	73	69		16	17	17	15		
	Nominal water pressure drop 2	Cooling	kPa			-			64	-	66	67	-	69	73	69		16	19	17	14	15	
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		86	87		88		
Compressor	Type																						
Operation range	Evaporator	Cooling	Min.-Max.	°CDB																			
	Condenser	Cooling	Min.-Max.	°CDB																			
Refrigerant	Type																						
	Circuits	Quantity				1		2	1	2	1		2										
Refrigerant circuit	Charge	kg		80		90		80		90		85	100	90		100					130		
Refrigerant circuit 2	Charge	kg			-			80	-	90		85	100	90		100					130		
Power supply	Phase/Frequency/Voltage	Hz/V														3~/50/400							

### STRENGTHS

- > High efficiency
- > All models are PED pressure vessel approved
- > 1 or 2 stepless single-screw compressors
- > 1 or 2 truly independent refrigerant circuits
- > Shell and tube heat exchanger
- > Optimised for use with R-410A
- > Standard electronic expansion valve
- > Compact design
- > Partial heat recovery available
- > MicroTech III controller

### STANDARD AVAILABLE

- > Wye Delta compressor Starter (Y-D)
- > Double setpoint
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator Water side design pressure 10 bar
- > Condenser Water side design pressure 16 bar
- > Electronic expansion valve
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit & alarm from external device
- > Emergency stop
- > Main switch interlock door door
- > Evaporator victaulic kit

### OPTIONS

- > Partial heat recovery
- > Soft starter
- > Brine version (down -8°C)
- > Compressor thermal overload relays
- > Under/overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit
- > 20mm evaporator insulation
- > 20mm condenser insulation
- > Condenser victaulic kit
- > Cu-ni 90-10 condenser tubes
- > Evaporator electric heater
- > Evaporator flow switch
- > Discharge line shut off valve
- > Suction line shut off valve
- > Container kit
- > Rubber anti vibration mounts
- > Sound proof system (integral)
- > Ground fault relay
- > Transport kit
- > High pressure side manometers
- > Double pressure relief valve with diverter
- > Low pressure side manometers
- > Evaporator double flange kit
- > Condenser double flange kit



MicroTech III



R-410A





EWWQC19-C22B-XS

## High efficiency Standard sound

### Cooling only

Model			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	
Capacity control	Method					Stepless						Stepless						Stepless		
	Minimum capacity	%				12.5			25.0			12.5						25.0		
Power input	Cooling	Nom.	kW	88.7	107	131	149	166	201	213	239	238	262	281	299	324	361	397	436	474
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				5.19	5.22	5.28	5.22	5.06	5.53	4.85	5.45	5.53	5.47	5.26	5.18	4.98	4.91	4.75		
Dimensions	Unit	HeightxWidthxDepth	mm	2,001	1,276	3,863	2,011	1,369	3,873	2,024	1,462	3,979	2,035	1,466	3,919	2,047	1,556	3,219	2,454x1,350x4,829	2,495x1,350x4,865
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		
	Nominal water pressure drop	Cooling	Heat exchanger	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
	Nominal water pressure drop	Cooling	kPa	50	39	42	47	59	64	40	82	36	48	49	46	44	45	60	61	78
	Nominal water pressure drop 2	Cooling	kPa							40	-	47	48	46	44	60				78
Sound power level	Cooling	Nom.	dBA	101	102	103	102	103	105	104	106	107	106	107	106	107	107	108		
Sound pressure level	Cooling	Nom.	dBA	82	83	84	83	84	86	85	86	87	86	87	86	87	87	88		
Compressor	Type			Semi-hermetic single screw compressor																
Operation range	Evaporator	Cooling	Min.-Max.	°CDB	-4~10															
	Condenser	Cooling	Min.-Max.	°CDB	25~45															
Refrigerant	Type				R-410A															
	Circuits	Quantity			1			2	1						2					
Refrigerant circuit	Charge	kg		95		110	130	120	130		120					130				
Refrigerant circuit 2	Charge	kg		-				120	-		120					130				
Power supply	Phase/Frequency/Voltage	Hz/V						3~/50/400												

### STRENGTHS

- > 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

### STANDARD AVAILABLE

- > Evaporator – 2 passes
- > Evaporator Victaulic kit
- > Evaporator water side design pressure 10 bar
- > 20mm evaporator insulation
- > Condenser – 2 passes ( $dT$  4-8°C)
- > Condenser Victaulic kit
- > Condenser water side design pressure 10 bar
- > Electronic expansion valve
- > Water pressure differential switch on evaporator and condenser
- > Inverter compressor starter
- > Double pressure relief valve with diverter
- > Current limit
- > Hour run meter
- > General fault contactor
- > Set-point reset,demand limit and alarm from external device

### OPTIONS

- > Evaporator 1/3 passes
- > Evaporator double flange kit
- > Evaporator marine water box victaulic (2 passes))
- > Evaporator water side design pressure 21 bar
- > Condenser 1/3 passes
- > Condenser double flanges kit
- > Condenser marine water box victaulic (2 passes))
- > 20mm condenser insulation
- > Cu-Ni 90-10 condenser tubes
- > Evaporator/Condenser Flow switch
- > Suction line shut off valve
- > Energy Meter
- > Rubber type antivibration mounts
- > Sound proof system (integral)
- > Transport kit
- > Container kit
- > High pressure side manometers
- > Low pressure side manometers



R-134a

INVERTER





EWWD320-C10FZXS

#### ACCESSORIES

- › EKDSSP\*\*\* Serial Sequencing Panel
- › EKDDSP Digital Sequencing Panel
- › EKPWPRO PlantWatchPRO monitoring system
- › EKPWPROM PlantWatchPRO monitoring system (modem & webserver included)
- › EKAC200J Serial Card RS485/Modbus
- › EKACBAC Ethernet Card BACnet
- › EKACLON Serial Card LON FTT 10 (chiller profile pre-loaded)
- › EKACRS232 Serial Card RS232 Modem Interface (single unit only)
- › EKACWEB Web Server Card
- › EKACBACMSTP Serial Card BACnet MSTP
- › EKCON Converter RS485 to RS232
- › EKCONUSB Converter RS485 to USB
- › EKMODEM Fixed modem
- › EKGSMOD GSM modem
- › EKRUPCK Remote display kit
- › EKPWPROEXT PlantWatchPro I/O extension module for hardwiring and retrofit
- › EKGWEB Gateway web (Ethernet LAN SNMP)
- › EKGWMODEM Gateway for modem

Cooling only

High efficiency  
Standard sound

Model				320	430	520	640	860	C10
Cooling capacity	Min.	kW		114	128	172	114	128	172
	Nom.	kW		314	399	517	559	729	888
	Max.	kW		317	429	521	635	856	1,048
Capacity control	Variable speed centrifugal compressor								
Power input	Cooling	Min.	kW	21.6	27.7	33.1	21.6	27.7	33.1
		Nom.	kW	65.1	74.8	105	107	130	159
		Max.	kW	65.9	85.7	104	132	171	206
EER				4.83	5.34	4.93	5.21	5.61	5.58
ESEER				7.74	8.10	8.37	8.10	8.46	8.64
Dimensions	Unit	HeightxWidthxDepth	mm	1,823x1,276x3,254	1,823x1,276x3,419		1,755x1,790x3,441	1,748x1,853x3,289	1,794x1,904x3,401
Weight	Unit	kg		2,360	2,546		3,709	4,095	4,765
Water heat exchanger - evaporator	Operation weight			2,520	2,812		4,074	4,548	5,330
	Type	Flooded shell and tube (2 passes)							
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	30	23	18	21	11
Water heat exchanger - condenser	Type	Flooded shell and tube (2 passes)							
	Water flow rate	Nom.	l/s	18.3	29.9		36.7	49.1	59.9
	Nominal water pressure drop	Cooling	kPa	24	28		24	25	29
Sound power level	Cooling	Nom.	dBA	89.0	90.1	91.2	92.4	93.6	94.6
Sound pressure level	Cooling	Nom.	dBA	70.9	72.0	73.0	73.8	75.1	75.9
Compressor	Type	Oil-free centrifugal compressor with magnetic bearings							
Operation range	Evaporator	Cooling	Min.-Max. °CDB	2~15					
	Condenser	Cooling	Min.-Max. °CDB	18~46					
Refrigerant	Type	R-134a							
	Charge	kg		210	180		220	300	
	Circuits	Quantity			1				
Power supply	Phase/Frequency/Voltage	Hz/V			3~/50/400				



- › Single compressor unit up to 4.5MW
- › Dual compressor unit on single circuit up to 9MW
- › Optional variable speed drives (VFD) for superior partload performance
- › Compressor unloading down to 5% for dual compressor units and 10% for single compressor units without hot gas bypass
- › Control flexibility for easy integration into BMS

#### WIDE CHOICE OF CAPACITIES AND EFFICIENCIES

##### Single compressor

- › DWSC: 300 kW - 4,500 kW - Approximately 1.1 million possible chiller offerings with combination options of motors, impellers, gears and vessels

##### Dual compressor

- › DWDC: 600 kW - 9,000 kW - Approximately 0.75 million possible chiller offerings with combination options of motors, impellers, gears and vessels

#### VARIABLE FREQUENCY DRIVE OPTION (VFD)

- › Inverter technology greatly improving part load efficiency
- › Reducing annual energy costs

#### HIGH EFFICIENCY

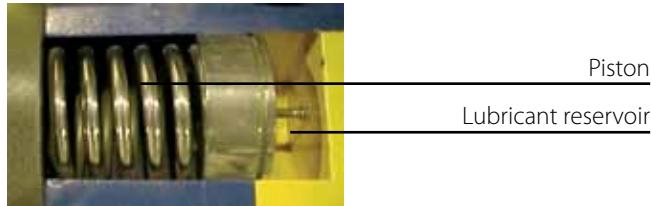
- › COP up to 7 at full load
- › COP up to 12 at partial load  
(when coupled with inverter VFD)

## POWER LOSS DAMAGE PROTECTION

Power failures do not allow chillers to proceed through their normal shutdown sequence. Poor lubrication at this point can damage the bearings and reduce compressor life. The compressors are equipped with a lubricant reservoir and a piston with a compressed spring that provides pressurized lubricant to the bearings during the coast-down period. Also, the compressors decelerate quickly due to the low inertia.

## REFRIGERANT STORAGE CAPABILITY

The condensers are sized to hold the entire chiller refrigerant charge and are provided with the necessary valves to isolate this charge. This feature eliminates the need for separate storage vessels in most applications.



## UNMATCHED UNLOADING

Unloading to 10% of full load for a DWSC single compressor chiller and 5% for a DWDC dual compressor unit, without using inefficient hot gas bypass. This unloading capability provides improved stability of the chilled water temperature and less harmful cycling of compressors.

Movable discharge diffuser increases stability and reduces vibrations.



Movable diffuser closing off impeller discharge area

## LOW OPERATIONAL SOUND LEVEL

### Liquid Injection

A small amount of liquid refrigerant is taken from the condenser and injected into the compressor discharge area. The liquid droplets absorb sound energy and reduce the compressor's overall operational sound level. The droplets evaporate and reduce discharge superheat.

### Quieter as chiller unloads

Daikin's design results in a reduction in sound levels at lower loads, where most chillers spend most of their operating hours.

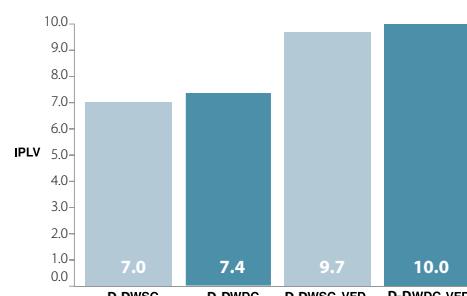
## ONE D-DWDC DUAL COMPRESSOR CHILLER VERSUS TWO SINGLE COMPRESSOR CHILLERS

- › Lower equipment costs than two separate chillers
- › Lower installation cost than two separate chillers
- › Lower annual operating cost than either one large or two small chillers
- › Less equipment room space required than for two separate chillers (smaller footprint)
- › Capacity reduction to 5% of design value
- › Standby redundancy for most of the cooling season options of motors, impellers, gears and vessels

## EXCELLENT PART LOAD EFFICIENCY

When one compressor is running, it is able to utilize the heat transfer area of the entire chiller, twice the amount found on a single compressor chiller. This huge amount of surface provides exceptional part load efficiency. The addition of VFDs to the dual compressor chiller produces a very high ARI certified Integrated Part Load Value (IPLV).

## PARTIAL LOADS EFFICIENCY FOR 2,000 KW CENTRIFUGAL UNIT



D-DWSC: single compressor  
D-DWDC: double compressor  
VFD: compressor inverter  
Specific selections can vary up or down from this example.

**R-134a**

centrifugal



#### Reduced life cycle cost

- › Payback periods as low as 1 to 2 years

#### Centrifugal compressor

- › Industry's highest full load efficiency
- › Best part load efficiency when coupled with a variable frequency drive
- › One moving part (rotor - shaft assembly)

#### Unit mounted Variable Frequency Drive (VFD)

- › Very high part load efficiency
- › Great unloading capability
- › Automatic speed adjustment
- › Soft start

#### Magnetic bearing technology

- › No friction loss
- › No oil contamination
- › No additional oil management systems
- › Increased equipment life

#### WIDE CHOICE OF CAPACITIES AND EFFICIENCIES

DWME chillers can be selected with different combination of the main components such as the compressor size, the exchangers, the electrical motor, etc. A selected unit, at fixed evaporator and condenser conditions, will provide cooling capacity, power input, EER, etc. depending on the compressor speed of rotation. A dedicated selection tool is available to perform the unit selection at the real working conditions. DWME boast outstanding energy efficiencies, at both full and part load.



SIZE	COOLING CAPACITY
500S	1,400 - 1,900 kW
EER *	up to 6.50
ESEER	up to 10.0

\* at Eurovent conditions:  
Evaporator water In/Out 12/7°C, Condenser water In/Out 30/35°C



## QUIET OPERATION

- › 76~82dB(A) of sound level at 1 meter (according to AHRI standard 575)
- › DWME chillers are ideal for sound sensitive environments such as libraries, schools, etc

## SMART CONTROL

- › On-board advanced electronics allow smart control also in case of power failure
- › User friendly touch screen operator interface

## EXTENSIVE PORTFOLIO OF OPTIONS

### Standard options

- › Water-side vessel construction of 150psi
- › Copper evaporator and condenser tubes
- › 0.025 inches tube thickness
- › Victaulic connections
- › 2 pass heat exchangers
- › Single insulation  $\frac{3}{4}$  inches on evaporator, suction and discharge piping
- › Water differential pressure switches
- › Sound insulation
- › EMI filter

### Options (on request)

- › Water-side vessel construction of 300psi
- › 0.028/0.035 inches tube thickness
- › 90/10 Cu-Ni condenser tubes (only with 0.028/0.035 tube thickness)
- › Flanged connections
- › Marine water boxes
- › 1 or 3 pass heat exchangers
- › Double insulation  $1\frac{1}{2}$  inches on evaporator
- › Pumpout unit
- › Refrigerant monitor
- › Low THD (Harmonics)
- › High short circuit current rating
- › Ground fault protection
- › Input power meter

# Condenserless Chiller

Daikin offers you flexible and compact chillers with remote condenser, which can be used to satisfy applications with special requirements in the field of available space, sound level or extreme operating conditions. In these exceptional cases, remote condenser solutions can be preferred over standard air cooled or water cooled solutions.

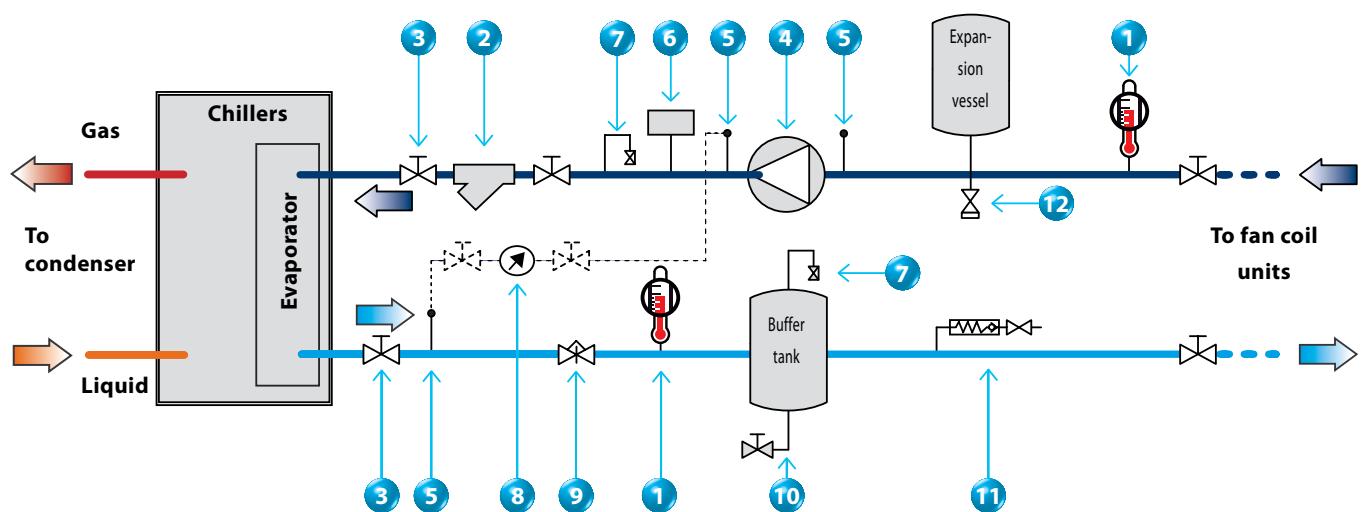
## TABLE OF CONTENTS

EWLP-KBW1N	136
EWLD-J-SS	138
EWLD-G-SS	140
EWLD-I-SS	142



1. Temperature sensor
2. Filter
3. Shut-off valve
4. Pump
5. Pressure port
6. Flow switch
7. Drain
8. Pressure gauge
9. Water flow adjusting valve
10. Drain valve
11. Fill valve
12. Safety valve

#### PIPING DIAGRAM FOR COMFORT COOLING APPLICATION



### STRENGTHS

- > Daikin scroll compressor
- > Electronic DDC controller
- > Low operating sound level
- > Low energy consumption
- > Compact dimensions and low refrigerant volume
- > Easy installation and maintenance
- > Stainless steel plate heat exchanger
- > Compatible with hydraulic module
- > For EWLP012-065KBW1N following components are standard included: main switch, pressure ports, flow switch, filter, shut-off valves and air purge
- >  $\mu$ C<sup>2</sup> SE controller



### OPTIONS (FACTORY MOUNTED)

- > Chilled water temperature down to - 5°C or -10°C

### ACCESSORIES (KIT)

- > Hydraulic module  
(see page EHMC-page in this catalogue)
- > Address card for connection to BMS or  
Remote user interface (EKAC10C)
- > Remote installed user interface (EKRUMCA)
- > Low noise kit 14 Hp-units (EKLS1)
- > Low noise kit 22-65 Hp units (EKLS2)



**R-407C**

### CONTROL

- > Microprocessor control
- > Water inlet  
temperature control
- > Cold water or hot water regulation

### AVAILABLE

#### INPUTS / OUTPUTS

##### Input

- > Remote ON / OFF
- > Pump contact
- > Cool/heat selection

##### Output

- > Compressor operation
- > Summary alarm
- > Pump relay contact





EWLP012-030KBW1N

## Cooling only

Capacity class			012	020	026	030	040	055	065
Capacity	Cooling	kW	12.1	20.0	26.8	31.2	40.0	53.7	62.4
Power input	Cooling	kW	4.2	6.6	8.5	10.1	13.4	17.8	20.3
Capacity Steps				1				2	
EER			2.88	3.03	3.15	3.09	2.99	3.02	3.07
Dimensions	Height x Width x Depth	mm		600 x 600 x 600				600 x 600 x 1,200	
Weight	Machine weight	kg	108	141	147	151	252	265	274
Water Heat Exchanger	Type			Brased plate					
Evaporator	Minimum water volume in the system	l	62	103	134	155	205	268	311
	Water flow rate	Min	17	29	38	45	57	77	89
		Nominal	35	57	77	89	115	154	179
		Max	69	115	153	179	229	307	358
Compressor	Type			Hermetically sealed scroll compressor					
	Model	Quantity		1			2		
Sound Power	Cooling	dBA		64	71		67		74
Operation Range	Evaporator	Min-Max	°CDB		-10(OPZL) ~ 20				
	Condensing temperature	Min~Max	°CDB		25 ~ 60				
Refrigerant circuit	Refrigerant type				R-407C				
	No of circuits			1			2		
	Refrigerant control				Thermostatic expansion valve				
Power Supply				3N~/400V/50Hz					
Piping connections	Evaporator water inlet/outlet	mm		FBSP 25				FBSP 40	
	Evaporator water drain			Field installation					
	Liquid line connection	mm	9.52 flare	12.7 flare			2x12.7 flare		
	Discharge line connection	mm	12.7 flare	19.1 flare			2x19.1 flare		

### STRENGTHS

- > Compact design to allow easy indoor installation or retrofit operations
- > High efficiency at full and partial load
- > MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications



MicroTech III

### STANDARD

- > Wye-delta compressor starter (y-d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > 20 mm evaporator insulation
- > Evaporator flow switch
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Hour run meter
- > General fault contactor
- > Main switch interlock door
- > Emergency stop
- > Set-point reset, demand limit and alarm from external device

SCREW



R-134a

### OPTIONS

- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Current limit display
- > Low pressure side manometers
- > Rubber anti vibration mounts
- > Sound proof system (compressor)
- > Double pressure relief valve with diverter
- > Automatic circuit breakers
- > Liquid receiver
- > High pressure side manometers
- > Soft starter
- > Container kit
- > Transport kit
- > Ground fault relay
- > Compressor circuit breakers





EWLD120J-SS

**Cooling only**

**Standard efficiency  
Standard sound**

Model			110	130	145	165	195	235	265	290	310	330	360	390	430	470	500	530							
Cooling capacity	Nom.	kW	109	127	143	164	191	236	264	285	306	327	355	382	427	473	501	528							
Capacity control	Method/Minimum capacity	%	Stepless/25			Stepless/12.5																			
Power input	Cooling	Nom.	kW	31.1	38.2	43.8	50.4	56.0	65.9	75.3	87.5	94.0	100	106	112	122	131	141	150						
EER				3.52	3.33	3.25	3.41	3.59	3.51		3.26		3.34	3.42	3.51	3.60	3.56	3.52							
Dimensions	Unit	HeightxWidthxDepth	mm	1,020x913x2,684								2,000x913x2,684													
Weight	Unit	kg	1,124	1,141	1,237	1,263	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	1,327		1,518	2,505	2,533	2,562	2,608	2,655	2,845		3,036								
Water heat exchanger - evaporator	Type	Brazed plate, one per circuit																							
	Nominal water pressure drop	Cooling	Total	kPa	14	12	36	34	32	25	31	36	34		32	25	31								
Sound power level	Cooling	Nom.	dBA		88.6				87.2				92.4				91.8	91.0							
Sound pressure level	Cooling	Nom.	dBA		71.4				70.0				74.4				73.8	73.0							
Compressor	Type	Semi-hermetic single screw compressor																							
Operation range	Evaporator	Cooling	Min.-Max. °CDB		-10~15																				
	Condenser	Cooling	Min.-Max. °CDB		25~60																				
Refrigerant	Type	R-134a																							
	Circuits	Quantity			1				2																
Power supply	Phase/Frequency/Voltage	Hz/V			3~/50/400																				

## STRENGTHS

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



MicroTech III

## STANDARD AVAILABLE

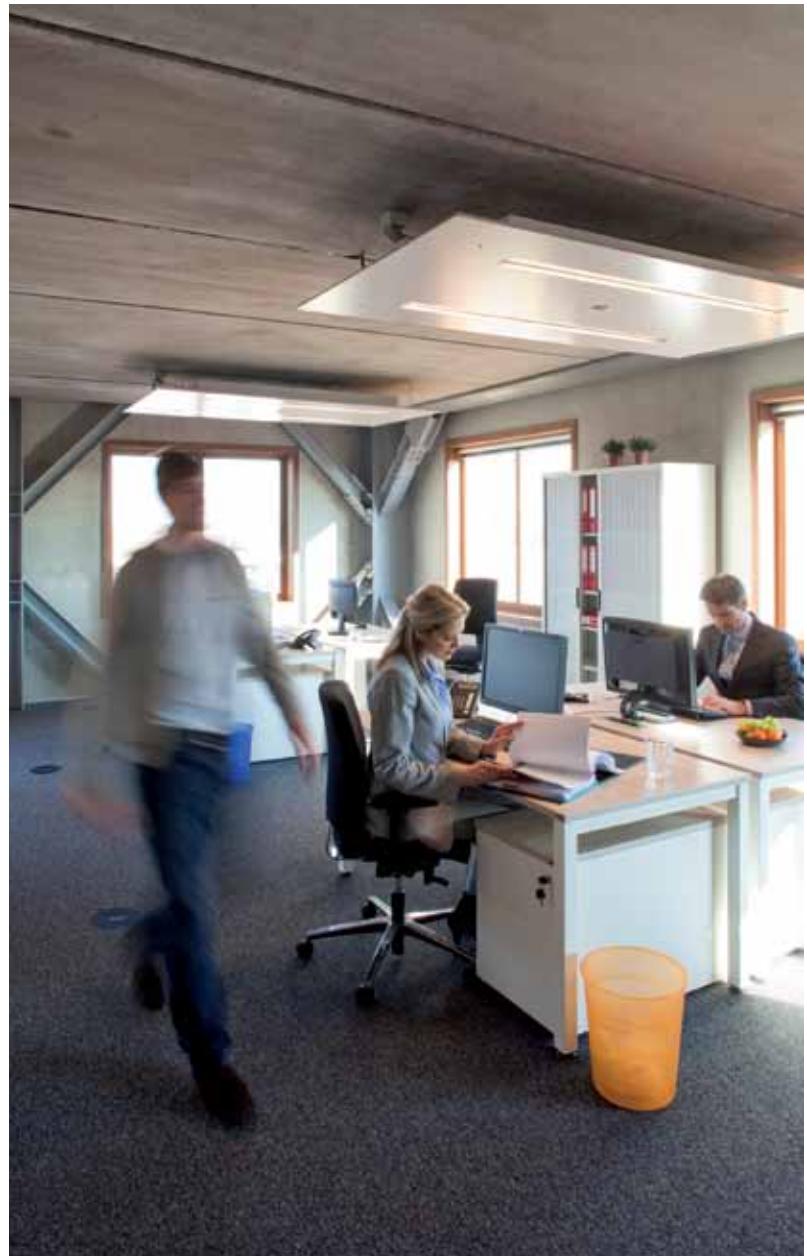
- › Wye Delta starter (Y-D)
- › Double setpoint
- › Phase monitor
- › Evaporator victaulic kit
- › Evaporator Water side design pressure 10 bar
- › Electronic expansion valve
- › Suction line shut off valve
- › Discharge line shut off valve
- › Hour run meter
- › General fault contactor
- › Emergency stop
- › Main switch interlock door



R-134a

## OPTIONS

- › Partial heat recovery
- › Soft starter
- › Brine version (down -8°C)
- › Compressor thermal overload relays
- › Under/ overvoltage control
- › Energy meter
- › Capacitors for power factor correction
- › Current limit
- › 20mm evaporator insulation
- › Evaporator flow switch
- › Transport kit
- › Rubber anti vibration mount
- › Sound proof system (compressor)
- › Double pressure relief valve with diverter
- › Liquid receiver
- › High pressure side manometers
- › Low pressure side manometers
- › Ground fault relay
- › Container kit
- › Evaporator double flange kit





EWLD~G-SS

## Cooling only Standard efficiency Standard sound

Model		160	190	240	280	320	360	380	420	480	550
Cooling capacity	Nom.	kW	160	188	243	269	315	350	379	426	474
Capacity control	Method/Minimum capacity	%			Stepless/25				Stepless/12.5		
Power input	Cooling	Nom.	kW	46.1	55.3	66.8	75.7	92.1	101.3	110.5	121.7
EER				3.47	3.40	3.64	3.55	3.42	3.46	3.43	3.50
Dimensions	Unit	HeightxWidthxDepth	mm		1,860x1,000x3,700		1,860x1,100x4,400			1,942x1,100x4,400	
Weight	Unit		kg		1,280		1,398		2,442	2,446	2,501
	Operation weight		kg		1,337		1,516		2,560		2,670
Water heat exchanger - evaporator	Type						Single pass shell and tube				
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	44	60	41	49	57	55.9	64.4
Sound power level	Cooling	Nom.	dBA			87.7				90.2	
Sound pressure level	Cooling	Nom.	dBA			69.7				71.7	
Compressor	Type						Semi-hermetic single screw compressor				
Operation range	Evaporator	Cooling	Min.-Max. °CDB				-8~15				
	Condenser	Cooling	Min.-Max. °CDB				25~60				
Refrigerant	Type						R-134a				
	Circuits	Quantity			1				2		
Power supply	Phase/Frequency/Voltage	Hz/V					3~/50/400				

## STRENGTHS

- › Stepless single-screw compressor
- › Optimised for use with R-134a
- › Standard electronic expansion valve
- › DX shell and tube evaporator – one pass refrigerant side for easy oil circulation and return
- › All models are PED pressure vessel approved
- › MicroTech III controller for superior control logic and an easy interface with LonWorks, Bacnet, Ethernet TCP/IP or Modbus communications



MicroTech III

## STANDARD AVAILABLE

- › Wye Delta compressor Starter (Y-D)
- › Double setpoint
- › Phase monitor
- › Evaporator victaulic kit
- › Evaporator water side design pressure 10 bar
- › Electronic expansion valve
- › High pressure side manometers
- › Hour run meter
- › General fault contactor
- › Set-point reset, demand limit and alarm from external device
- › Main switch interlock door door
- › Emergency stop



**R-134a**

## OPTION

- › Soft starter
- › Brine version (down -8°C)
- › Under / overvoltage control
- › Energy meter
- › Capacitors for power factor correction
- › Current limit
- › 20mm evaporator insulation
- › Evaporator flow switch
- › Discharge line shut off valve
- › Suction line shut off valve
- › Container kit
- › Rubber anti-vibration mount
- › Sound proof system (integral)
- › Double pressure relief valve with diverter
- › Liquid receiver
- › High pressure side manometers
- › Low pressure side manometers
- › Compressor thermal overload relays
- › Transport kit
- › Evaporator double flange kit
- › Ground fault relay





EWLD~I-SS

## Standard efficiency

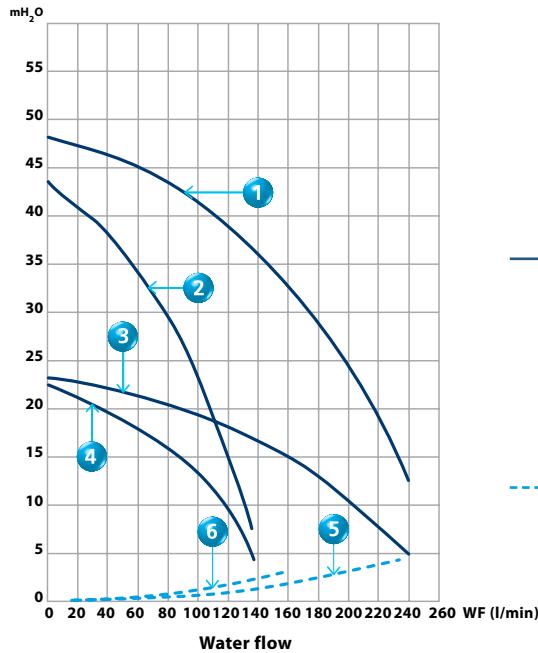
Cooling only

## Standard sound

Model	320	400	420	500	600	650	750	800	850	900	950	C10	C11	C12	C13	C14	C15	C16	C17	
Cooling capacity Nom.	327	389	426	502	594	655	727	785	847	916	963	1,029	1,074	1,121	1,185	1,263	1,314	1,365	1,416	
Capacity control Method/Minimum capacity %			Stepless/25															Stepless/8.3		
Power input Cooling Nom.	kW	84.8	102	118	139	167	183	201	217	234	255	274	283	300	316	332	351	371	391	411
EER		3.86	3.84	3.62	3.61	3.55	3.58		3.62		3.59	3.51	3.64	3.59	3.55	3.56	3.59	3.54	3.49	3.45
Dimensions Unit	HeightxWidthxDepth mm		1,899x1,468x3,114				2,323x1,350x4,116								2,415x2,128x4,427				2,415x2,135x4,426	
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					
	Nominal water pressure drop	Cooling	Total	kPa	34	47	54	49	39	52	47	45	52	46	49	41	51	55	59	63
Sound power level	Cooling	Nom.	dBA	93.7	96.6	96.7	96.9	97.3	97.8	98.9	99.8	100.4	100.8	101.2	103	100.4	100.8	101.2	103	
Sound pressure level	Cooling	Nom.	dBA	75.2	76.2	78.2	77.8	78.2	78.7	79.8	80.7	80.4	80.8	81.2	83	80.4	80.8	81.2	83	
Compressor	Type														Semi-hermetic single screw compressor					
Operation range	Evaporator	Cooling	Min.-Max. °CDB												-8~15					
	Condenser	Cooling	Min.-Max. °CDB												25~60					
Refrigerant	Type														R-134a					
	Charge		kg												5					
	Circuits	Quantity			1					2					3					
Power supply	Phase/Frequency/Voltage	Hz/V									3~/50/400									



## PUMP CHARACTERISTICS



## 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



## STRENGTHS

- > 100l buffer tank
- > Freeze-up protection (heater tape)
- > Single pump
- > 12l expansion vessel
- > Standard dual pressure ports

## Hydraulic module

EHMC-AV	10		15		30	
	1010	1080	1010	1080	1010	1080
Nominal flow	l/min	62		88		187
Nominal ESP	mH <sub>2</sub> O	17	34	15	27	27
Nominal input	W	630	1,050	650	1,070	1,070
Dimensions (HxWxD)	mm			1,284x635x688		2,090
Machine weight	kg	99	101	102	104	105
Sound power	dBA			63		
Sound pressure	dBA			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"		

## Buffer tank

The Daikin EKBT is a hydraulic kit for in- or outdoor installation. It is designed to be installed with EUWA/Y-KBZW1 series, in closed systems, and can be used for water and glycol applications.

MODEL	Description	Volume	Dimensions	Unit weight
EKBT	Buffer tank with cabinet	200l	1,284x637x754	86,5
EKBTC500N	Buffer tank	500l	710x1,670	70
EKBTC10N	Buffer tank	1,000l	860x2,020	100
EKBTC500C	Buffer tank with cabinet	500l	1,200x1,200x1,950	160
EKBTC10C	Buffer tank with cabinet	1,000l	1,200x1,450x1,950	185

# Fan Coil Units

Fan Coil Units are a highly efficient means of turning a water chiller, heat pump or hot water boiler into an efficient, quiet air conditioning system. These units are an effective solution to provide a comfortable environment for both commercial and residential applications.

Daikin offers a wide range of Fan Coil Units for both concealed and exposed applications. Three models are available in flexible application.

The only moving part in the units is the fan, making them ideal for use in offices, hotels and at home. The goal is to obtain the right solution, both technically and aesthetically.

## TABLE OF CONTENTS

FAN COIL UNIT - ACCESSORIES	148	FWM-DAT/DAF	159
FAN COIL UNIT - CONTROL	152	FWD-AT/AF	160
FWZ-AT/AF	153	FWT-CT	161
FWR-AT/AF	154	FWB-BT	162
FWS-AT/AF	155	FWE-CT/CF	163
FWP-AT	156	FWC -BT/BF	164
FWV-DAT/DAF	157	FWF-BT/BF	165
FWL-DAT/DAF	158	FWF-CT	166

## FAN COIL UNITS PRODUCT PORTFOLIO

Reference		1	2	3	4	5	6	7	8	9	10	11	12	16	18	20	22kW
900x900 cassette	cooling																
	heating																
600x600 cassette	cooling																
	heating																
Wall mounted	cooling																
	heating																
Flexi with cabinet	cooling																
	heating																
	cooling																
	heating																
	cooling																
	heating																
	cooling																
	heating																
	cooling																
	heating																
Flexi without cabinet	cooling																
	heating																
	cooling																
	heating																
	cooling																
	heating																
	cooling																
	heating																
Ducted Low ESP	cooling																
	heating																
	cooling																
	heating																
Ducted Medium ESP	cooling																
	heating																
	cooling																
	heating																
Ducted High ESP	cooling																
	heating																
	cooling																
	heating																
Floor standing	cooling																
	heating																
	cooling																
	heating																
	cooling																
	heating																
	cooling																
	heating																

# FAN COIL UNIT - ACCESSORIES

	FWM-DAT/DAF / FWL-DAT/DAF / FWV-DAT/DAF										FWD-AT/AF						
	1	15	2	25	3	35	4	6	8	10	4	6	8	10	12	16	18
<b>Network &amp; control systems</b>																	
Wired remote controller (Standard)							FWEC1A							FWEC1A			
Wired remote controller (Advanced)							FWEC2A							FWEC2A			
Wired remote controller (Advanced Plus)							FWEC3A							FWEC3A			
Controller electromechanical							ECFWMB6							-			
On board FCU controller installation kit							FWECKA							-			
Wall mounting kit for electronic controller							FWFCKA							FWFCKA			
Wired remote controller (Cooling only)							-							-			
Wired remote controller (Heat pump)							-							-			
Wireless controller (Heat pump)							-							-			
Temperature sensor kit							FWTSKA							FWTSKA			
Relative humidity sensor kit							FWHSKA							FWHSKA			
Fan stop thermostat							YFSTA6							YFSTA6			
Master slave interface							EPIMSB6							EPIMSB6			
Power interface							-							-			EPIB6
Optional PCB for MOD-bus connection							-							-			
Remote control - Infrared - H/P							-							-			
Remote control - Infrared - C/O							-							-			
Central remote control + electrical box with earth terminal (3 blocks)							-							-			
Unified on/off controller + electrical box with earth terminal (2 blocks)							-							-			
Schedule timer							-							-			
Intelligent touch controller + electrical installation box							-							-			
Remote sensor							-							-			
Remote "On/Off" and "forced off" kit							-							-			
Valve control PCB							-							-			
Optional PCB for MOD-bus connection							-							-			
Wiring adapter for electrical appendices							-							-			

	FWM-DAT/DAF / FWL-DAT/DAF / FWV-DAT/DAF										FWD-AT/AF						
Valves	1	15	2	25	3	35	4	6	8	10	4	6	8	10	12	16	18
2-pipe 230V ON/OFF 3-way motor driven valve complete with mounting kit					E2MV03A6					E2MV10A6			ED2MV04A6			ED2MV10A6	
4-pipe 230V ON-OFF 3-way motor driven valve complete with mounting kit					E4MV03A6					E4MV10A6			ED4MV04A6			ED4MV10A6	
24V ON-OFF 2-way motor drive valve complete with mounting kit (cooling heat exchanger)						E2MV207A6							E2MV210A6				
2-pipe 230V ON-OFF 3 way motor driven valve complete with simplified mounting kit																	
4-pipe 230V ON-OFF 3 way motor driven valve complete with simplified mounting kit							-							-			
2-pipe 24V ON-OFF 3 way motor driven valve complete with mounting kit							-							-			
4-pipe 24V ON-OFF 3 way motor driven valve complete with mounting kit							-							-			
230 V ON-OFF 2 way motor driven valve complete with mounting kit (cooling heat exchanger)							-							-			
230 V ON-OFF 2 way motor driven valve complete with mounting kit (additional heat exchanger)							-							-			
24 V ON-OFF 2 way motor driven valve complete with mounting kit (cooling heat exchanger)							-							-			
24 V ON-OFF 2 way motor driven valve complete with mounting kit (additional heat exchanger)							-							-			

	FWB-BT			FWC-BT/BF		FWF-CT		FWF-BT/BF		FWT-CT		FWE-CT		FWE-CF	
Valves	2-4	5-7	8-10	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes
3-way on/off valve kit (2-pipe)	-	-	-	EKMV3C09B7	MCKCW2T3VN	EKMV3C09B	-			1 x EKMV3B10B7		-			
3-way on/off valve kit (4-pipe)	-	-	-	2 x EKMV3C09B7	-	2 x EKMV3C09B7	-			-		2 x EKMV3B10B7			
2-way on/off valve kit (additional heat exchanger)		E2MV207A6	E2MV210A6		-	-	-	-	-	-	-			-	-
3-way on/off valve kit (additional heat exchanger)		E2MV307A6	E2MV310A6		-	-	-	-	-	-	-			-	-
2-way on/off valve kit (2-pipe)	-	-	-	EKMV2C09B7	-	EKMV2C09B7	MWMJW2T2VN	1 x EKMV2B10C7		-					
2-way on/off valve kit (4-pipe)	-	-	-	2 x EKMV2C09B7	-	2 x EKMV2C09B7	-			-	-	2 x EKMV2B10C7			

FWB-BT			FWT-CT	FWC-BT/BF	FWF-CT	FWF-BT/BF	FWE-CT/CF	FWZ-AT				FWR-AT				FWS-AT			
2-4	5-7	8-10	All sizes	All sizes	All sizes	All sizes	All sizes	2	3	6	8	2	3	6	8	2	3	6	8
FWEC1A	MERCA	BRC315D7	MERCA	BRC315D7	FWEC1A			-				-				-			
FWEC2A	-	-	-	-	FWEC2A			-				-				-			
FWEC3A	-	-	-	-	FWEC3A			-				-				-			
-	-	-	-	-	-			-				-				-			
-	-	-	-	-	-			-				-				-			
FWFCKA	-	-	-	-	-			-				-				FWEC3A	FWFCKA		
-	SRC-COB	-	SRC-COB	-	-			-				-				-			
-	SRC-HPB	-	SRC-HPB	-	-			-				-				-			
-	WRC-HPC	-	WRC-HPC	-	-			-				-				-			
FWTSKA	-	-	-	-	-			-				-				FWTSKA			
FWHSKA	-	-	-	-	-			-				-				FWHSKA			
YFSTA6	-	-	-	-	-			-				-				-			
EPIMSB6	-	-	-	-	-			-				-				-			
-	EKFCMBCB7	-	EKFCMBCB7	-	-			-				-				-			
-	EKFCMBCB	-	EKFCMBCB	-	-			-				-				-			
-	BRC7F532F	-	BRC7F530	-	-			-				-				-			
-	BRC7F533F	-	BRC7F531	-	-			-				-				-			
-	DCS302C51+KJB31A	-	DCS302C51+KJB31A	-	-			-				-				-			
-	DCS301B51+KJB212A	-	DCS301B51+KJB212A	-	-			-				-				-			
-	DST301BA51	-	DST301BA51	-	-			-				-				-			
-	DCS601C51C+KJB411A	-	DCS601C51C+KJB411A	-	-			-				-				-			
-	KRCS01-1	-	KRCS01-1	-	-			-				-				-			
-	-	-	EKROROA	-	-			-				-				-			
-	-	-	EKRP1C11	-	-			-				-				-			
-	-	-	EKFCMBCB7	-	-			-				-				-			
-	-	KRP2A52/KRP4A53	-	KRP2A52/KRP4A53	-	-		-				-				-			
FWD-AT/AF				FWZ-AT				FWR-AT				FWS-AT							
10	12	16	18	2	3	6	8	2	3	6	8	2	3	6	8	2	3	6	8
	ED2MV12A6	ED2MV18A6		E2MV03A6	E2MV06A6	E2MV10A6		E2MV03A6	E2MV06A6	E2MV10A6		E2MV03A6	E2MV06A6	E2MV10A6					
	2x ED2MV12A6	2x ED2MV18A6		E4MV03A6	E4MV06A6	E4MV10A6		E4MV03A6	E4MV06A6	E4MV10A6		E4MV03A6	E4MV06A6	E4MV10A6					
				E2MVD03A6	E2MVD03A6	E2MVD06A6	E2MVD10A6	E2MVD03A6	E2MVD06A6	E2MVD10A6		E2MVD03A6	E2MVD06A6	E2MVD10A6					
				E4MVD03A6	E4MVD03A6	E4MVD06A6	E4MVD10A6	E4MVD03A6	E4MVD06A6	E4MVD10A6		E4MVD03A6	E4MVD06A6	E4MVD10A6					
				E2M2V03A6	E2M2V03A6	E2M2V06A6	E2M2V10A6	E2M2V03A6	E2M2V06A6	E2M2V10A6		E2M2V03A6	E2M2V06A6	E2M2V10A6					
				E4M2V03A6	E4M2V03A6	E4M2V06A6	E4M2V10A6	E4M2V03A6	E4M2V06A6	E4M2V10A6		E4M2V03A6	E4M2V06A6	E4M2V10A6					
				E2MV2B07A6	E2MV2B07A6	E2MV2B07A6	E2MV2B10A6	E2MV2B07A6	E2MV2B07A6	E2MV2B10A6		E2MV2B07A6	E2MV2B10A6	E2MV2B07A6					
												E2MV2B07A6							
				E2M2V207A6	E2M2V207A6	E2M2V207A6	E2M2V210A6	E2M2V207A6	E2M2V207A6	E2M2V210A6		E2M2V207A6	E2M2V207A6	E2M2V210A6					

# FAN COIL UNIT - ACCESSORIES

Other accessories	FWM-DAT/DAF / FWL-DAT/DAF / FWV-DAT/DAF										FWD-AT/AF			
	1	15	2	25	3	35	4	6	8	10	4	6	8	10
Electric heater (Standard)	EEH01A6		EEH02A6		EEH03A6		EEH06A6		EEH10A6		EDEH04A6	EDEHS06A6		EDEHS10A6
Electric heater (Big)					-						EDEH04A6	EDEHB06A6		EDEHB10A6
Fresh air intake louvers (manual)		EFA02A6			EFA03A6		EFA06A6		EFA10A6		EDM-FA04A6	EDMFA06A6		EDMFA10A6
Additional single row heat exchanger		ESRH02A6			ESRH03A6		ESRH06A6		ESRH10A6					-
Air intake & discharge grille + front filter fixing kit for concealed models		EAIDF02A6			EAIDF03A6 202		EAIDF06A6		EAIDF10A6					-
Rear panel for vertical mounted units		ERPV02A6			ERPV03A6 40		ERPV06A6 48		ERPV10A6					-
Supporting feet (feet= supporting brackets + covers)			ESFV06A6 21						ESFV10A6					-
Supporting feet & grill		ESFVG02A6			ESFVG03A6		ESFVG06A6		ESFVG10A6					-
Vertical drainpan			EDPV86											EDDPV10A6
Horizontal drainpan			EDPHB6											EDDPH10A6
Plenum box with circular connections			-											-

Other accessories	FWC-BT/BF	FWF-BT/BF
Sealing member of air discharge outlet	KDBHQ55C140	KDBH44BA60
Panel spacer	-	KDBQ44B60
Long-life filter	KAFP551K160	KAFQ441BA60
Fresh air intake kit	KDDQ55C140-1/-2	KDDQ44XA60
Installation box for adapter PCB	KRP1H98	KRP1BA101

			FWB-BT				FWZ-AT				FWR-AT				FWS-AT			
12	16	18	2-4	5-7	8-10	2	3	6	8	2	3	6	8	2	3	6	8	
EDEHS12A6	EDEHS18A6		Factory mounted			EEH02A6	EEH03A6	EEH06A6	EEH10A6	EEH02A6	EEH03A6	EEH06A6	EEH10A6	EEH02A6	EEH03A6	EEH06A6	EEH10A6	
EDEHB12A6	EDEHB18A6		-			-				-				-				
EDMFA12A6	EDMFA18A6		-			-				-				-				
			EAH04A6	EAH07A6	EAH10A6	ESRH02A6	ESRH03A6	ESRH06A6	ESRH10A6	ESRH02A6	ESRH03A6	ESRH06A6	ESRH10A6	ESRH02A6	ESRH03A6	ESRH06A6	ESRH10A6	
			-			-				-				EAIDF02A6	EAIDF03A6	EAIDF06A6	EAIDF10A6	
			-			ERPV02A6	ERPV03A6	ERPV06A6	ERPV10A6	ERPV02A6	ERPV03A6	ERPV06A6	ERPV10A6	-				
			-			ESFV06A6	ESFV06A6	ESFV06A6	ESFV10A6	-				ESFV06A6	ESFV06A6	ESFV06A6	ESFV10A6	
			-			ESFV-G02A6	ESFV-G03A6	ESFV-G06A6	ESFV-G10A6	-				-				
EDDPV18A6			-			EDPVA6												
EDDPH18A6			-			-				-				EDPHA6				
-			-			-				-				EPCC02A6	EPCC03A6	EPCC06A6	EPCC10A6	

Panels	FWF-CT		FWC-BT/BF		FWF-BT/BF	
	All sizes		All sizes		All sizes	
Decoration panel 600x600 (2-pipe)	DCP600TC		-		-	
Decoration panel 4-way blow (RAL 9010 Grey sealings)	-		-		BYFQ60B	
Decoration panel - Standard (RAL 9010 - grey sealings) Round flow	-		BYCQ140CW1		-	
Decoration panel - White (RAL 9010 - white sealings) Round flow	-		BYCQ140CW1W		-	

# FAN COIL UNIT - CONTROL

The fan coil units can be operated by different controllers according to the model.



ECFWMB6

## ELECTROMECHANICAL BUILT-IN CONTROLLER

- › Fan speed selector
- › Manual cooling/heating changeover.
- › ON/OFF valves can also be controlled with ECFWMB6



BR315D7

## WIRED REMOTE CONTROLLER

- › to control each fan coil unit independently
- › cooling and heating function
- › ON/OFF timer function



BRC7F532F

## INFRARED REMOTE CONTROLLER

- › to control each fan coil unit independently
- › cooling and heating function



FWEC1A

## ELECTRONIC CONTROLLER

- › Control of on-off valves for two or four pipes systems
- › Control of auxiliary heating element
- › Cooling/heating switching in the following modes: local or remote manual (centralised), automatic (depending on water temperature (optional) or air temperature)
- › Possibility, by means of clean contacts, of remote centralised cooling/heating switching and external activation
- › Temperature sensor kit (accessory FWTSKAA)
- › Economy function (setpoint correction by 2.5°C and forcing of the fan to run at minimum available speed)



FWEC2A

- › Composed by:
  - Ic display
  - keyboard
- › On board and wall mounted installation.
- › Same as FWEC1A with following additional functions:
  - 1) humidity management:
    - display of relative humidity
    - dehumidification function
    - (cooling mode) Manual activation
  - 2) serial communication interface (RS485 bus)
    - possibility to set up a master-slave system up to 247 slave units, in which one of the controls plays the role of master and manages all the other slave units. ( modbus protocol )



FWEC3A

- › Composed by:
  - Ic display
  - keyboard
- › On board and wall mounted installation.
- › Same as FWEC2A with following additional functions:
  - 1) Back light
  - 2) Proportional valve control (two voltage outputs for the proportional valves)
  - 3) Voltage contact 0-10V
  - 4) Time clock and weekly schedule (on / off or setpoint air)
  - 5) Integration in BMS (already included in the FWEC2A version)
  - 6) Two digital outputs (voltage free) to manage electric heaters with the weekly schedule



MERCA

#### STANDARD WIRED REMOTE CONTROLLER

- › Fan speed
- › Sleep function
- › Swing
- › Temperature setting
- › Operating mode
- › LCD display
- › ON/OFF switch
- › Real time clock
- › Timer active
- › Timer ON/OFF



SRC-COA



SRC-HPA

#### SIMPLIFIED WIRED REMOTE CONTROLLER FOR COOLING ONLY & HEAT PUMP

- › Temperature display
- › Temperature setting
- › Timer switch setting
- › ON/OFF switch
- › Fan speed
- › Operating mode
- › Swing
- › "Sleep" function



WRC-HPC

#### WIRELESS CONTROLLER FOR HEATPUMP

- › "ON/OFF" button
- › Temperature setting
- › Fan speed selection
- › Operating mode selection
- › Automatic air swing
- › Quiet function



FWZ-AT/AF



FWEC3A

- > Up to 70% energy saving with BLDC 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



## Heating only & Cooling only

Indoor unit			2-PIPE				4-PIPE			
			02	03	06	08	02	03	06	08
Cooling capacity	Total capacity	High kW	2.64	4.96	6.32	10.08	2.43	4.96	6.32	10.08
	Sensible capacity	High kW	1.95	3.60	4.80	7.43	2.25	3.60	4.80	7.43
Heating capacity	2-Pipe	High kW	3.47	6.40	7.51	11.18				-
	4-Pipe	High kW			-		2.46	4.19	6.45	10.06
Power input	High W		57.4	82.7	101.4	147	57.4	82.7	101.4	147
Current input	High A		0.50	0.72	0.88	1.27	0.50	0.72	0.88	1.27
	Low A		0.05		0.07	0.09		0.05	0.07	0.09
Dimensions	Unit	HeightxWidthxDepth mm	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251
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	418	853	1,084	1,728
	Heating l/h		454	853	1,084	1,728	216	367	565	882
Water pressure drop	Cooling kPa		20	29	24	25	22	29	24	25
	Heating kPa		16	23	19	20	11	9	14	45
Fan	Type		Centrifugal multi-blade, double suction							
	Air flow rate High m³/h		560	900	1,200	1,660	560	900	1,200	1,660
Sound power level	High dBA		62	70	64	71	62	70	64	71
Piping connections	Water Inlet			1/2"		3/4"		1/2"		3/4"
	Outlet			1/2"		3/4"		1/2"		3/4"
	Drain OD mm						16			
Power supply	Phase/Frequency/Voltage Hz/V						1~50/230			



FWR-AT/AF



FWR-AT/AF



FWEC3A



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

## Heating only & Cooling only

Indoor unit			2-PIPE				4-PIPE			
			02	03	06	08	02	03	06	08
Cooling capacity	Total capacity	High kW	2.64	4.96	6.32	10.08	2.43	4.96	6.32	10.08
	Sensible capacity	kW	1.95	3.60	4.80	7.43	2.25	3.60	4.80	7.43
Heating capacity	2-Pipe	High kW	3.47	6.40	7.51	11.18	-	-	-	-
	4-Pipe	High kW			-		2.46	4.19	6.45	10.06
Power input	High W		57.4	82.7	101.4	147	57.4	82.7	101.4	147
Current input	High A		0.50	0.72	0.88	1.27	0.50	0.72	0.88	1.27
	Low A		0.05	0.07	0.09		0.05	0.07	0.09	
Dimensions	Unit HeightxWidthxDepth mm		564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251
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	418	853	1,084	1,728
	Heating l/h		454	853	1,084	1,728	216	367	565	882
Water pressure drop	Cooling kPa		20	29	24	25	22	29	24	25
	Heating kPa		16	23	19	20	11	9	14	45
Fan	Type		Centrifugal multi-blade, double suction				Centrifugal multi-blade, double suction			
	Air flow rate High m³/h		560	900	1,200	1,660	560	900	1,200	1,660
Sound power level	High dBA		62	70	64	71	62	70	64	71
Piping connections	Water Inlet			1/2"		3/4"		1/2"		3/4"
	Outlet			1/2"		3/4"		1/2"		3/4"
Power supply	Phase/Frequency/Voltage Hz/V		1~50/230				1~50/230			



FWS-AT/AF



FWS-AT/AF



FWEC3A



- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › Up to 70% energy saving with BLDC 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

## Heating only & Cooling only

Indoor unit			2-PIPE				4-PIPE			
			02	03	06	08	02	03	06	08
Cooling capacity	Total capacity	High kW	2.64	4.96	6.32	10.08	2.43	4.96	6.32	10.08
	Sensible capacity	High kW	1.95	3.60	4.80	7.43	2.25	3.60	4.80	7.43
Heating capacity	2-Pipe	High kW	3.47	6.40	7.51	11.18	-	-	-	-
	4-Pipe	High kW					2.46	4.19	6.45	10.06
Power input	High W		57.4	82.7	101.4	147	57.4	82.7	101.4	147
Current input	High A		0.50	0.72	0.88	1.27	0.50	0.72	0.88	1.27
	Low A		0.05		0.07	0.09	0.05		0.07	0.09
Dimensions	Unit HeightxWidthxDepth mm		535x584x224	535x794x224	535x1,004x224	535x1,214x249	535x584x224	535x794x224	535x1,004x224	535x1,214x249
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	418	853	1,084	1,728
	Heating l/h		454	853	1,084	1,728	216	367	565	882
Water pressure drop	Cooling kPa		20	29	24	25	22	29	24	25
	Heating kPa		16	23	19	20	11	9	14	45
Fan	Type		Centrifugal multi-blade, double suction							
Air flow rate	High m³/h		560	900	1,200	1,660	560	900	1,200	1,660
Sound power level	High dBA		62	70	64	71	62	70	64	71
Piping connections	Water Inlet			1/2"		3/4"		1/2"		1/2"
	Outlet			1/2"		3/4"		1/2"		3/4"
	Drain OD mm					17				
Power supply	Phase/Frequency/Voltage Hz/V				1~/50/230					



FWP-AT



FWEC3A

- › Blends unobtrusively with any interior décor: only the suction and discharge grills are visible
- › Up to 50% energy saving with BLDC 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



## Heating only & Cooling only

Indoor unit				2-PIPE					
				02	03	04	05	06	07
Cooling capacity	Total capacity	High	kW	2.61	3.14	3.49	5.08	5.45	6.47
	Sensible capacity	High	kW	1.88	2.16	2.34	3.6	3.87	4.4
Heating capacity	2-Pipe	High	kW	5.47	6.01	6.47	10.31	11.39	12.28
	4-Pipe	High	kW		3.14			5.99	
Power input	High		W	46.4				80	
Dimensions	Unit	HeightxWidthxDepth	mm	239x1,039x609			239x1,389x609		
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	Cooling	kPa		8	14	11	15	8	14
	Heating	kPa		7	10	8	12	7	10
	Additional heat exchanger	kPa			3			5	
Fan	Type			Centrifugal - forward blades - directly coupled on fan motor					
	Air flow rate	High	m³/h		400			800	
	Available pressure	High	Pa		71			65	
Sound power level	High		dBA		55.6			60.6	
Sound pressure level	High		dBA		44.1			49.1	
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			



FWV01, 02DT/DF



FWEC1, 2, 3A



ECFWMB6



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

## Heating only & Cooling only

Indoor unit				2-PIPE										4-PIPE																				
				01	15	02	25	03	35	04	06	08	10	01	15	02	25	03	35	04	06	08	10											
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											
	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											
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	-	-	-	-	-	-	-	-	-	-											
	4-Pipe	High	kW	-	-	-	-	-	-	-	-	-	-	1.90	2.02	2.01	2.92	3.08	4.80	5.05	5.30	7.91	8.35											
Power input	High		W	37	53	57	56	98	-	182	244	37	53	57	56	98	-	182	244	-	-	-												
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	-	-	-												
Dimensions	Unit	HeightxWidthxDepth	mm	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251											
Weight	Unit	kg		19	20	25	30	31	41	41	41	20	21	26	32	33	44	44	44	44	44	44	44											
Heat exchanger	Water volume	l		0.5	0.7	1	1.4	2.1	-	0.5	0.7	1	1.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1												
Additional heat exchanger	Water volume	l		-	-	-	-	-	-	-	-	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4											
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											
Water pressure drop	Cooling	kPa		13	14	12	16	11	12	14	12	19	12	14	13	16	11	12	14	12	16	14	12											
	Heating	kPa		11	12	10	13	9	10	12	10	16	6	8	7	4	5	9	12	10	10	30	30											
Fan	Type			Centrifugal multi-blade, double suction																														
	Air flow rate	High	m³/h	319	344	442	640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362	1,362												
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	Water	Inlet		1/2"						3/4"						1/2"						3/4"												
		Outlet		1/2"						3/4"						1/2"						3/4"												
	Drain	OD	mm	16																														
Power supply	Phase/Frequency/Voltage	Hz/V		1~50/230																														



FWL-DAT/DAF



FWL-DAT/DAF



FWEC1, 2, 3A



ECFWMB6

- > Valve packages are insulated, no extra drain pan required
- > The air filter can easily be removed for cleaning
- > Valve packages contain balancing valves and sensor pocket
- > **Quick fixing system for wall or ceiling mounted installation**
- > Pre-assembled 3-way/4-port on/off valves are available
- > Fast-on connections for electrical options: no tools needed



## Heating only & Cooling only

Indoor unit				2-PIPE										4-PIPE											
				01	15	02	25	03	35	04	06	08	10	01	15	02	25	03	35	04	06	08	10		
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		
	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		
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	-	-	1.90	2.02	2.01	2.92	3.08	4.80	5.05	5.30	7.91	8.35
	4-Pipe	High	kW	-	-	-	-	-	-	-	-	-	-	1.90	2.02	2.01	2.92	3.08	4.80	5.05	5.30	7.91	8.35		
Power input	High	W		37	53	57	56	98	-	182	244	37	53	57	56	98	-	182	244	-	-	-	-		
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	-	-	-	-		
Dimensions	Unit	HeightxWidthxDepth	mm	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251	564x774x226	564x987x226	564x1,194x226	564x1,404x251		
Weight	Unit	kg		20	21	27	32	33	44	21	22	28	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	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		
Water pressure drop	Cooling	kPa		13	14	12	16	11	12	14	12	19	12	14	13	16	11	12	14	12	16	-	-		
	Heating	kPa		11	12	10	13	9	10	12	10	16	6	8	7	4	5	9	12	10	30	-	-		
Fan	Type			Centrifugal multi-blade, double suction																					
	Air flow rate	High	m³/h	319	344	442	640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362	-	-		
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	Water	Inlet		1/2"						3/4"						1/2"						3/4"			
	Outlet			1/2"						3/4"						1/2"						3/4"			
Power supply	Phase/Frequency/Voltage	Hz/V		1~50/230																					



FWM-DAT/DAF



FWM-DAT/DAF



FWEC1, 2, 3A

- > The air filter can easily be removed for cleaning
- > Valve packages are insulated, no extra drain pan required
- > Valve packages contain balancing valves and sensor pocket
- > Quick fixing system for wall or ceiling mounted installation
- > Pre-assembled 3-way/4-port on/off valves are available
- > **Fast-on connections for electrical options: no tools needed**



## Heating only & Cooling only

Indoor unit				2-PIPE										4-PIPE																					
				01	15	02	25	03	35	04	06	08	10	01	15	02	25	03	35	04	06	08	10												
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												
	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												
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	-	-	-	-	-	-	-	-	-	-												
	4-Pipe	High	kW	-	-	-	-	-	-	-	-	-	-	1.90	2.02	2.01	2.92	3.08	4.80	5.05	5.30	7.91	8.35												
Power input	High		W	37	53	57	56	98		182		244	37	53	57	56	98		182		244														
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	-	-	-	-												
Dimensions	Unit	HeightxWidthxDepth	mm	535x584x224	535x794x224	535x1,004x224	535x1,214x249	535x584x224	535x794x224	535x1,004x224	535x1,214x249	-	-	-	-	-	-	-	-	-	-	-													
Weight	Unit		kg	14	15	19	23	32		15	16	20		25		34		34		34															
Heat exchanger	Water volume		l	0.5	0.7	1	1.4	2.1		0.5	0.7	1	1.4	2.1		2.1		2.1		2.1															
Additional heat exchanger	Water volume		l	-	-	-	-	0.2		0.3		0.4		0.4		0.6		0.6		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												
Water pressure drop	Cooling		kPa	13	14	12	16	11	12	14	12	19	12	14	13	16	11	12	14	12	16	-	-												
	Heating		kPa	11	12	10	13	9	10	12	10	16	6	8	7	4	5	9	12	10	30	-	-												
Fan	Type			Centrifugal multi-blade, double suction																															
	Air flow rate	High	m³/h	319	344	442	640	706	785	1,011	1,393	307	330	327	432	431	628	690	763	998	1,362	-	-												
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	Water	Inlet		1/2"								3/4"								1/2"															
	Outlet			1/2"								3/4"								1/2"															
	Drain	OD	mm	17																															
Power supply	Phase/Frequency/Voltage	Hz/V		1~50/230																															



FWD04AT/AF



FWD04AT/AF



FWEC1,2,3A



- › Quick fixing system for wall or ceiling mounted installation
- › **Straight duct connector is mounted to discharge side**
- › Electronic controller with water probe, available in standard, advanced and advanced plus version
- › The air filter can easily be removed for cleaning

## Heating only & Cooling only

Indoor unit				2-PIPE							4-PIPE						
				04	06	08	10	12	16	18	04	06	08	10	12	16	18
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	-	4.49	6.62	9.21	15.86	21.15	
	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	
Current input	High	A		0.95	1.58	1.97		3.21	5.37		0.95	1.58	1.97	3.21		5.37	
Dimensions	Unit	HeightxWidthxDepth	mm	280x754x559	280x964x559	280x1,174x559	352x1,174x718	352x1,384x718	280x754x559	280x964x559	280x1,174x559	352x1,174x718	352x1,384x718				
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	
Water pressure drop	Cooling	kPa		17	24	16	26	34	45	17	24	16	26	34	45		
	Heating	kPa		14	20	13	21	28	37	9	15	13	12	16	26		
Fan	Type			Centrifugal multi-blade, double suction							Centrifugal multi-blade, double suction						
	Air flow rate	High	m³/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							16			
Water connections	Std. heat exchanger	inch				3/4			1				3/4			1	
Power supply	Phase / Frequency / Voltage	Hz / V					1~50/230							1~50/230			



FWT-CT



WRC-HPC

- > Wide operating range
- > Easy installation and maintenance
- > 3-speed fan motor
- > Double-intake centrifugal fans
- > Excellent air flow and air distribution
- > Flexibility via interchangeable water connection side
- > High power air flow
- > Insulated with self-extinguishing class 1 heat insulation
- > Removable washable air filter (self-extinguishing class 1)
- > **Wireless remote control up to 9m distance, availability of a wired or simplified controller**
- > LED indicator gives an indication on the (normal or wrong) operation of the unit



## Heating only & Cooling only

Indoor unit				02	03	04	05	06
Cooling capacity	Total capacity	High	kW	2.43	2.70	3.31	4.54	5.28
	Sensible capacity	High	kW	1.85	2.02	2.64	3.43	4.10
Heating capacity	2-Pipe	High	kW	3.22	3.52	4.40	6.01	5.26
Power input	High		W	31	32	42	53	72
Current input	High		A	0.19	0.20	0.21	0.29	0.34
	Medium		A	0.18	0.20	0.20	0.26	0.32
	Low		A	0.17	0.19	0.19	0.25	0.31
Dimensions	Unit	HeightxWidthxDepth	mm	288x800x206	288x800x206	288x800x206	310x1,065x224	310x1,065x224
Weight	Unit	kg		9	9	9	14	14
	Operation weight	kg		9.5	9.6	9.6	15	15
Heat exchanger	Water volume	l		0.52	0.58	0.58	0.95	0.95
Water flow	Cooling	l/h		420	460	570	780	910
	Heating	l/h		420	460	570	780	910
Water pressure drop	Cooling	kPa		34	24	31	28	32
	Heating	kPa		29	20	25	25	29
Fan	Type		Cross flow fan		Cross flow fan		Cross flow fan	
	Air flow rate	High	m³/h	442	476	629	866	1,053
Sound power level	High		dBA	45	48	55	55	59
Sound pressure level	High		dBA	34	35	42	42	46
Piping connections	Drain	OD	mm	19	19	19	19	19
Water connections	Std. heat exchanger		inch	1/2	1/2	1/2	1/2	1/2



FWB04BT



FWEC1, 2, 3A

- › **Low sound power levels and electrical absorption thanks to plastic impeller, ABS winding staircase and improved electric motor**
- › 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
- › The air filter can easily be removed for cleaning



## Heating only & Cooling only

Indoor unit			2-PIPE									
			02	03	04	05	06	07	08	09	10	
Cooling capacity	Total capacity	High	kW	2.61	3.14	3.49	5.08	5.45	6.47	7.57	8.67	10.34
	Sensible capacity	High	kW	1.88	2.16	2.34	3.6	3.87	4.4	5.23	5.96	6.9
Heating capacity	2-Pipe	High	kW	5.47	6.01	6.47	10.31	11.39	12.28	15.05	16.85	18.78
	4-Pipe*	High	kW		3.14			5.99				12.8
Power input	High		W		79			154				294
Current input	High		A		0.36			0.73				1.28
Dimensions	Unit	HeightxWidthxDepth	mm	239x1,039x609			239x1,389x609			239x1,739x609		
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	Cooling		kPa	8	14	11	15	8	14	21		26
	Heating		kPa	7	10	8	12	7	10	16	15	18
	Additional heat exchanger		kPa		3			5				8
Fan	Type			Centrifugal - forward blades - directly coupled on fan motor								
	Air flow rate	High	m³/h		400			800			1,200	
	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	
Piping connections	Drain	OD	mm					16				
Water connections	Std. heat exchanger		inch					3/4				
	Add. heat exchanger		inch									1
Power supply	Phase / Frequency / Voltage		Hz / V					1~50/230				

\*4-pipe = 2-pipe + option additional heat exchanger



FWE-CT/CF



FWEC1,2,3A

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



## Heating only & Cooling only

Indoor unit			2-PIPE							4-PIPE								
			02	03	04	06	07	08	10	02	03	04	06	07	08	10		
Cooling capacity	Total capacity	High	kW	1.81	2.78	3.49	5.32	5.68	6.92	8.64	1.76	2.69	3.22	5.20	5.61	6.79	8.61	
	Sensible capacity	High	kW	1.33	2.08	2.58	3.94	4.30	5.25	6.48	1.28	1.99	2.53	3.81	4.20	5.09	6.39	
Heating capacity	2-Pipe	High	kW	2.31	3.67	4.44	6.65	7.62	9.18	11.10	-	1.94	3.06	3.76	5.37	6.42	7.52	9.16
	4-Pipe	High	kW								1.94	3.06	3.76	5.37	6.42	7.52	9.16	
Power input	High		W	39	54	59	93	128	145	180	39	54	59	93	128	145	180	
Current input	Super high		A	0.206	0.309	0.372	0.533	0.731	0.811	1.031	0.206	0.309	0.372	0.533	0.731	0.811	1.031	
	High		A	0.174	0.243	0.265	0.430	0.575	0.648	0.780	0.174	0.243	0.265	0.430	0.575	0.648	0.780	
	Medium		A	0.150	0.208	0.217	0.325	0.472	0.523	0.648	0.150	0.208	0.217	0.325	0.472	0.523	0.648	
	Low		A	0.128	0.177	0.188	0.271	0.400	0.456	0.540	0.128	0.177	0.188	0.271	0.400	0.456	0.540	
Dimensions	Unit	HeightxWidthxDepth	mm	253x590x705	253x590x875	253x590x1,005	253x590x1,205	253x590x1,455	253x590x1,555	253x590x1,815	253x590x705	253x590x875	253x590x1,005	253x590x1,205	253x590x1,555	253x590x1,815		
Weight	Unit	kg		17	20	24	28	37	39	46	18	22	25	30	40	41	49	
	Operation weight	kg		17	20	24	28	37	39	46	18	22	25	30	40	41	49	
Heat exchanger	Water volume		l	0.74	1.02	1.24	1.56	1.97	2.14	2.56	0.74	1.02	1.24	1.56	1.97	2.14	2.56	
											0.25	0.34	0.41	0.52	0.66	0.71	0.85	
Water flow	Cooling		l/h	360	540	756	1,044	1,188	1,368	1,728	360	540	720	1,044	1,188	1,332	1,728	
	Heating		l/h	252	360	504	684	828	936	1,188	108	180	216	324	432	468	576	
Water pressure drop	Cooling		kPa	15.1	11.7	23.9	46.4	14.8	19.3	32.9	14.5	11.4	21.6	46.3	14.6	19.1	32.7	
	Heating		kPa	6.1	4.9	9.7	17.9	6.6	8.4	13.7	3.6	8.8	15.6	31.8	58.6	74.6	123	
Fan	Type			Centrifugal (Blade: Forward - curve)							Centrifugal (Blade: Forward - curve)							
	Air flow rate	High	m³/h	311	518	619	926	1,188	1,413	1,735	302.41	501.23	571.11	905.11	1,173.36	1,386.46	1,728.98	
Sound power level	High		dBA	49	56	48	55	57	58	60	49	56	48	55	57	58	60	
Sound pressure level	High		dBA	39	46	38	45	47	48	49	39	46	38	45	47	48	49	
Piping connections	Drain	OD	mm					19.05							19.05			
Water connections	Std. heat exchanger		inch					3/4							3/4			
Power supply	Phase/Frequency/Voltage	Hz/V		1~/50/220-240							1~/50/220-240							



FWC-BT/BF



BRC315D7



BR7F532F



- > 360° air discharge ensures uniform air flow and temperature distribution
- > Modern style decoration panel in white (RAL9010)
- > Fresh air intake for healthy living
- > Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling
- > Possibility to shut 1 or 2 flaps for easy installation in corners
- > Standard drain pump with 850mm lift



## Heating only & Cooling only

Indoor unit			2-PIPE				4-PIPE			
			06	07	08	09	06	07	08	09
Cooling capacity	Total capacity	High kW	5.0	5.6	6.3	7.2	4.9	5.6	6.3	7.2
	Sensible capacity	High kW	3.4	4.0	4.5	5.3	3.4	3.9	4.4	5.2
Heating capacity	2-Pipe High kW		6.3	7.1	8.3	9.5				
	4-Pipe High kW			-			6.2	6.8	7.8	8.8
Power input	High W		40	46	58	76	41	47	59	77
Dimensions	Unit HeightxWidthxDepth mm		288x840x840				288x840x840			
Weight	Unit kg		26				29			
Water pressure drop	Cooling kPa	15	19	26	34	15	19	25	32	
	Heating kPa	15	19	26	34	24	30	38	47	
Fan	Type	Turbo fan				Turbo fan				
	Air flow rate High m³/h	1,062	1,236	1,518	1,776	1,032	1,200	1,476	1,746	
Sound power level	High dBA	36	39	44	49	36	39	44	49	
Sound pressure level	High dBA	24	28	32	37	24	28	32	37	
Piping connections	Water Inlet	3/4" BSP (female thread)				3/4" BSP (female thread)				
	Outlet	3/4" BSP (female thread)				3/4" BSP (female thread)				
	Drain OD mm	VP25 (External dia. 32, Internal dia. 25)				VP25 (External dia. 32, Internal dia. 25)				
Power supply	Phase/Frequency/Voltage Hz/V	1~/50/220-240				1~/50/220-240				



FWF-BT/BF



BRC315D7



BRC7F532F



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

## Heating only & Cooling only

Indoor unit				2-PIPE				4-PIPE			
				02	03	04	05	02	03	04	05
Cooling capacity	Total capacity	High	kW	1.7	2.8	3.3	4.0	1.7	2.3	2.8	3.5
	Sensible capacity	High	kW	1.3	1.7	2.1	2.7		1.3	1.7	2.3
Heating capacity	2-Pipe	High	kW	2.6	3.4	4.1	5.3				-
	4-Pipe	High	kW		-			3.1	3.3	3.9	4.8
Power input	High	W		67		70	89	67	62	74	93
Dimensions	Unit	HeightxWidthxDepth	mm		285x575x575				285x575x575		
Weight	Unit	kg			19			19		20	
Water pressure drop	Cooling	kPa	6	19	31	42	6	13	21	33	
	Heating	kPa	6	19	31	42	12	6	9	13	
Fan	Type			Turbo fan				Turbo fan			
	Air flow rate	High	m³/h	468		660	876	468	438	618	822
Sound power level	High	dBA		40		44	49	40	42	46	51
Sound pressure level	High	dBA		27		33	39	27	29	35	41
Piping connections	Water	Inlet		3/4" BSP (female thread)				3/4" BSP (female thread)			
		Outlet		3/4" BSP (female thread)				3/4" BSP (female thread)			
	Drain	OD	mm	VP20 (External dia. 26, Internal dia.20)				VP20 (External dia. 26, Internal dia.20)			
Power supply	Phase/Frequency/Voltage	Hz/V		1~/50/220-440				1~/50/220-440			



FWF-CT



MERCA



SRC-COA/HPA



WRC-HPC

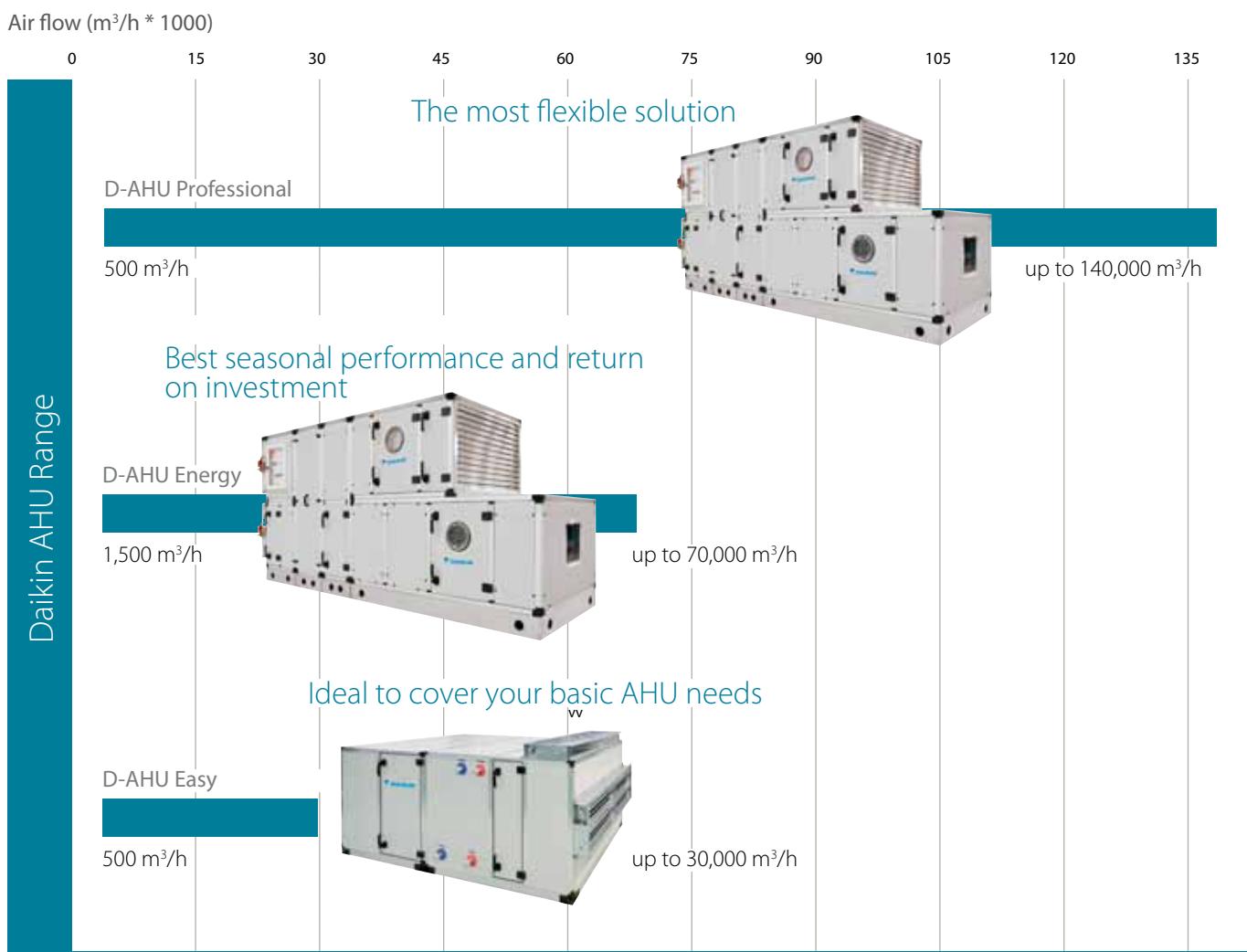


- > 4 way air discharge and air swing
- > Compact casing (570mm in width and depth) enables unit to fit flush into ceilings and match standard architectural modules, without cutting ceiling tiles
- > Wide operating range
- > Air suction from underneath
- > Easy installation and maintenance
- > Built-in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

## Heating only & Cooling only

Indoor unit				2-PIPE		
				02	03	04
Cooling capacity	Total capacity	High	kW	2.49	4.10	4.54
	Sensible capacity	High	kW	1.91	2.93	3.37
Heating capacity	2-Pipe	High	kW	3.52	4.69	5.28
Power input	High		W	63	64	79
Current input	High		A	0.27	0.28	0.34
Dimensions	Unit	HeightxWidthxDepth	mm	250x570x570		
Weight	Unit	kg		22	23	
	Operation weight	kg		22	23	
Water pressure drop	Cooling	kPa		19.00	27.00	29.00
	Heating	kPa		17.00	24.00	27.00
Fan	Type	Direct drive turbo fan				
	Air flow rate	High	m³/h	646	680	748
Sound power level	High		dBA	52	54	56
Sound pressure level	High		dBA	42	45	48
Piping connections	Drain	OD	mm	19.05		
Water connections	Std. heat exchanger		inch	3/4		
Power supply	Phase/Frequency/Voltage	Hz/V		1~/50/220-440		

# Air handling units



## TABLE OF CONTENTS

PRODUCTS OVERVIEW - AIR HANDLING UNITS	168
D-AHU PROFESSIONAL	171
D-AHU ENERGY	175
D-AHU EASY	179



## AHU

### SOFTWARE

ASTRA is the powerful software that Daikin has developed to offer a quick and comprehensive service for the customer in order to make the technical choice and the economic valorization of each AHU. 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.



### 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](http://www.eurovent-certification.com)



MODEL BOX-SP65		EUROVENT CLASSIFICATION ACCORDING TO EN1886				
CASING MECHANICAL STRENGTH						
Casing mechanical strength	D1	Casing Class	D1	D2	D3	EXCEEDING10
Maximum relative deflection mm x m <sup>-1</sup>						
			4,00	10,00		
CASING AIR LEAKAGE						
Casing air leakage Negative pressure -400 Pa	L1	Leakage Class	L1	L2	L3	
		Maximum leakage rate ( $f_{400}$ ) l x s <sup>-1</sup> x m <sup>-2</sup>	0,15	0,44	1,32	
CASING AIR LEAKAGE						
Casing air leakage Positive pressure +700 Pa	L1	Leakage Class	L1	L2	L3	
		Maximum leakage rate ( $f_{700}$ ) l x s <sup>-1</sup> x m <sup>-2</sup>	0,22	0,63	1,90	
FILTER BYPASS LEAKAGE						
Filter bypass leakage	F9	Filter Class	F9	F8	F7	F6
		Maximum filter bypass leakage rate k in % of the volume flow rate	0,50	1	2	4
THERMAL TRANSMITTANCE						
Thermal transmittance	T2	Class	T1	T2	T3	T4
		Thermal transmittance (U) W/m <sup>2</sup> x K	U <= 0,5	0,5 < U <= 1	1 < U <= 1,4	1,4 < U <= 2
THERMAL BRIDGING OF THE CASING						
Thermal bridging of the casing	TB2	Class	TB1	TB2	TB3	TB4
		Thermal bridging facto (kb) W x m <sup>2</sup> x K-1	0,75 < K <sub>b</sub> <= 1	0,6 < K <sub>b</sub> <= 0,75	0,45 < K <sub>b</sub> <= 0,6	0,3 < K <sub>b</sub> <= 0,45
						No requirements



## D-AHU Professional

### Pre defined family of size

Twenty-seven (27) fixed sizes optimized for the most cost effective selection and manufacturing standardization.

### Infinite variable

- Designed for special applications all over the world. The system is giving the possibility to tailor the unit to the clients need with very small incremental, 1 cm.
- Air flow from 1,100 m<sup>3</sup>/h up to 140,000 m<sup>3</sup>/h
- All the sizes are modular manufactured to facilitate the transport and the assembly on site.

### Pre defined sizes - Overall dimension

Size	Air Flow (m <sup>3</sup> /h)	Height - mm	Width - mm
1	1.105	550	850
2	1.550	600	900
3	1.980	650	950
4	2.600	780	1.100
5	3.170	780	1.150
6	3.550	800	1.150
7	4.000	800	1.250
8	4.800	850	1.300
9	5.560	900	1.350
10	6.600	900	1.550
11	7.950	1.100	1.550
12	9.320	1.100	1.650
13	10.050	1.150	1.650

Size	Air Flow (m <sup>3</sup> /h)	Height - mm	Width - mm
14	13.200	1.400	1.850
15	19.200	1.500	2.100
16	25.300	1.580	2.650
17	31.500	1.750	2.750
18	37.000	1.800	3.240
19	43.400	2.100	3.090
20	51.300	2.250	3.340
21	58.000	2.250	3.820
22	67.500	2.400	4.040
23	78.000	2.450	4.490
24	84.700	2.700	4.490
25	98.000	2.850	4.890
26	111.000	2.850	5.490
27	124.000	3.000	5.990

### Infinitely variable sizes

#### Flexible sizing for AHU optimization

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

### Example

Air Flow (m <sup>3</sup> /h)	Unit Size	Height - mm	Width - mm	Face Velocity m/s
15.000	STD 15	1.500	2.100	1.95
	1.500x1.750	1.500	1.750	2.46

### FANS

- > Forward bladed fan
- > Backward bladed fan
- > Backward airfoil blades fan
- > Plug fan



### EXCHANGERS

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



### HUMIDIFIERS

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

### HEAT RECOVERY SYSTEMS

- > Heat wheel, sensible or sorption
- > Plate heat exchanger
- > Run-around coils



### OTHER SECTION

- > Attenuator section
- > Mixing box section with actuators or
- > manual controlled dampers
- > Empty section
- > Gas burner section



### FILTERS

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



### ACCESSORIES

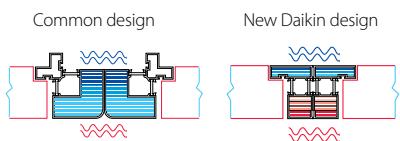
- › Frost protection
- › Manometers
- › Drive guard
- › Roof

...



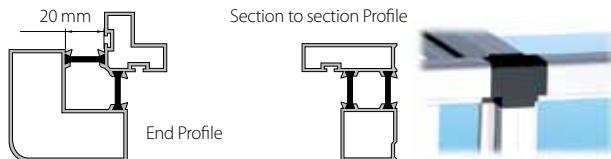
### UNIQUE SECTION TO SECTION THERMAL BREAK PROFILE

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

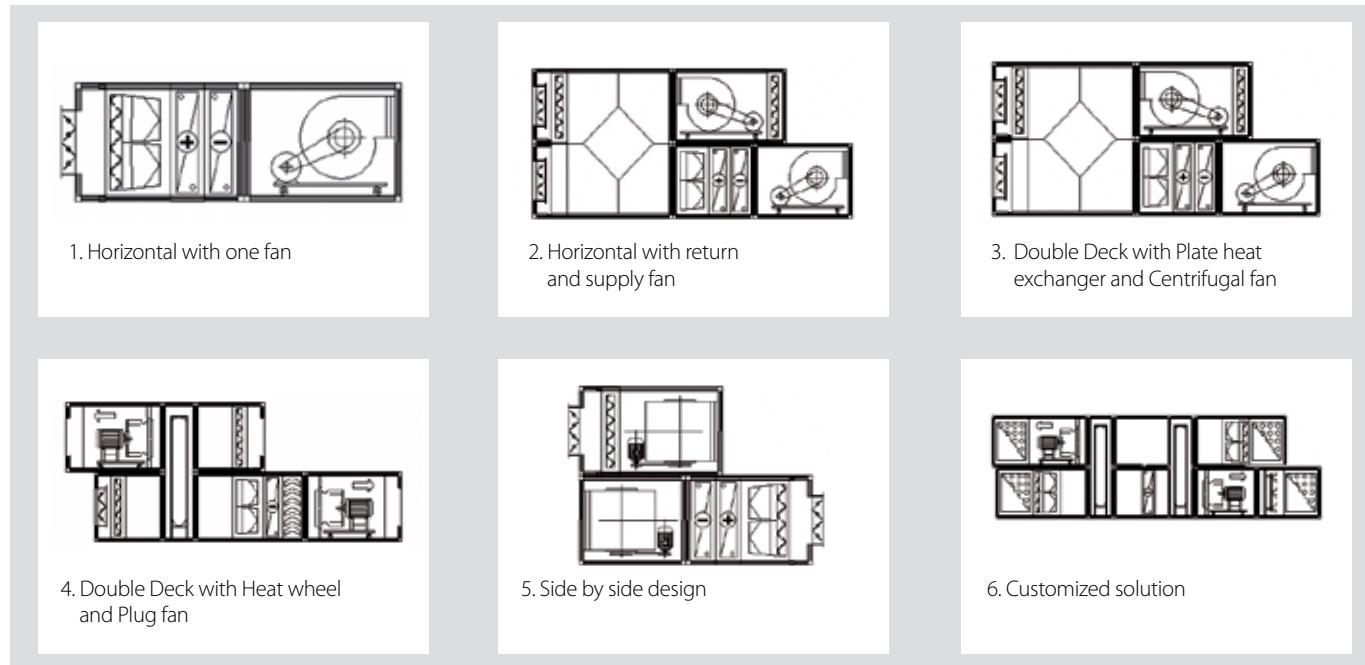


### EXCLUSIVE & INNOVATIVE REAL THERMAL BREAK PROFILE

- Real thermal break profile
- Reduce section to section length



### CONFIGURATIONS



### Energy concept

Daikin leads the way in energy efficiency and the Energy series represents the ultimate in air handling units. The D-AHU Energy has been designed to optimize the energy consumption and thus minimize the running cost. When compared with standard AHUs, this means lower seasonal (year-round) power consumption and a reduction in the overall energy bill.



### ENERGY DESIGN

Looking at the whole life cycle cost of an air handling unit, we can easily identify three major expenses: the first is the capital cost when you are buying the equipment, the second is the ongoing maintenance cost and the third relates to the energy costs. In terms of value, the energy costs represent, on average, 70-80% of the total life cycle cost and to keep this to a minimum, we have built our AHUs to deliver exceptional mechanical performance (in accordance with EN 1886) and to avoid energy loss through the casing and structure and this is certified through the EUROVENT programme.

### HIGH EFFICIENT SELECTED COMPONENTS

#### HIGH EFFICIENCY HEAT RECOVERY

The D-AHU Energy series is equipped with high efficiency heat recovery equipment that delivers a minimum of 65% of heat recovered and could go up to the exceptional value of 90% heat recovery. The client can chose between different equipment and in particular the heat recovery section could be arranged with:



Condensation wheel  
Enthalpy wheel  
Sorption wheel

#### PREMIUM EFFICIENCY MOTOR

Premium efficiency motors in line with EU REG 640\_2009 are available for the Energy series in order to further reduce electrical power consumption.



#### HIGH EFFICIENCY FAN

Fans with double-width, double-inlet and backward curved AIRFOIL blades are available with efficiency of up to 85% as well as reinforced bearings for longer lifespan.



#### CONTROLS

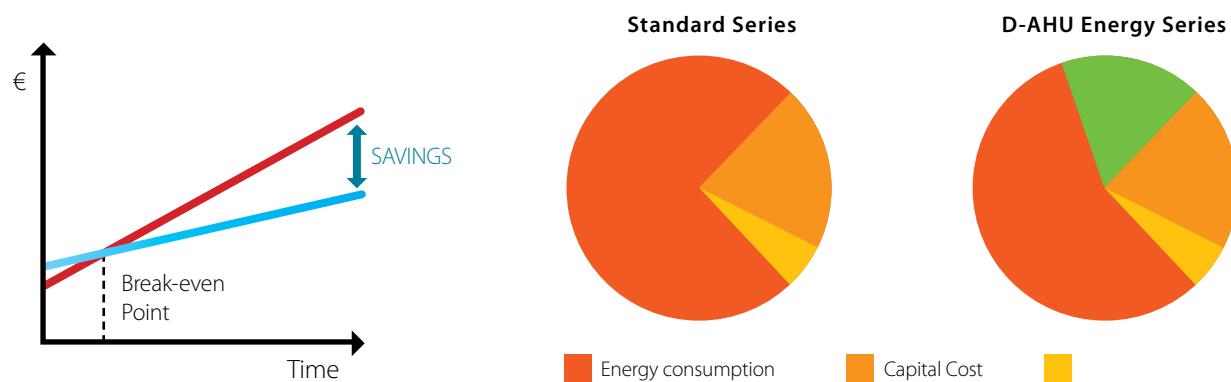
Daikin have engineered a control system to efficiently manage all components selected either independently or through external supervision system. The control package includes the control panel, advanced microprocessor, sensors for temperature, humidity and air quality, and more other features.



### RETURN ON INVESTMENT

The air handling unit (AHU) is critical to an effective climate control system and, although the initial investment can appear high, the savings generated by our advanced designs and operating efficiencies guarantee a rapid return on the investment made. Our AHU Energy series has been designed to deliver exceptional performance thus driving down the energy consumed and so lowering energy bills. Taken over the expected 15-year life-span of the equipment, this will result in an enormous saving, especially in a time of ever increasing energy prices.

### AHU LIFE CYCLE COST (LCC)

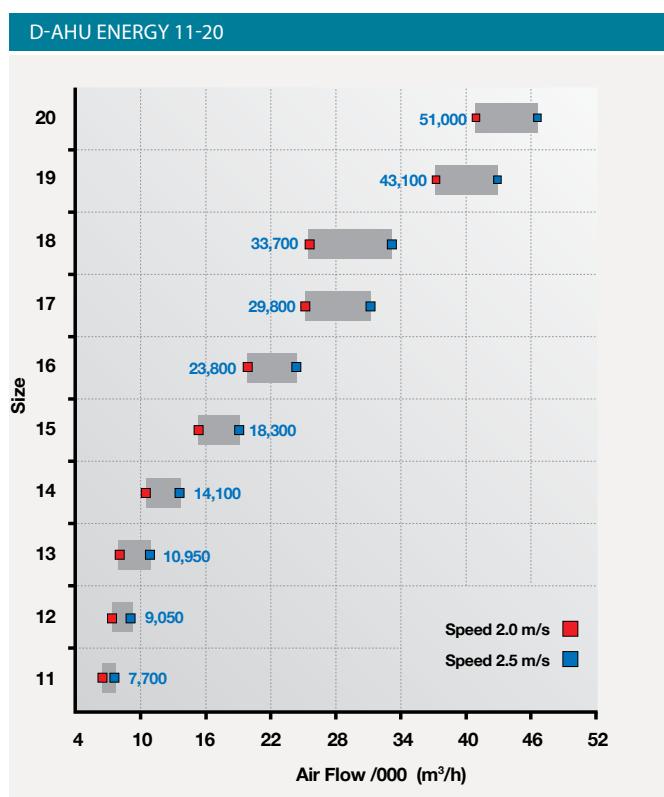
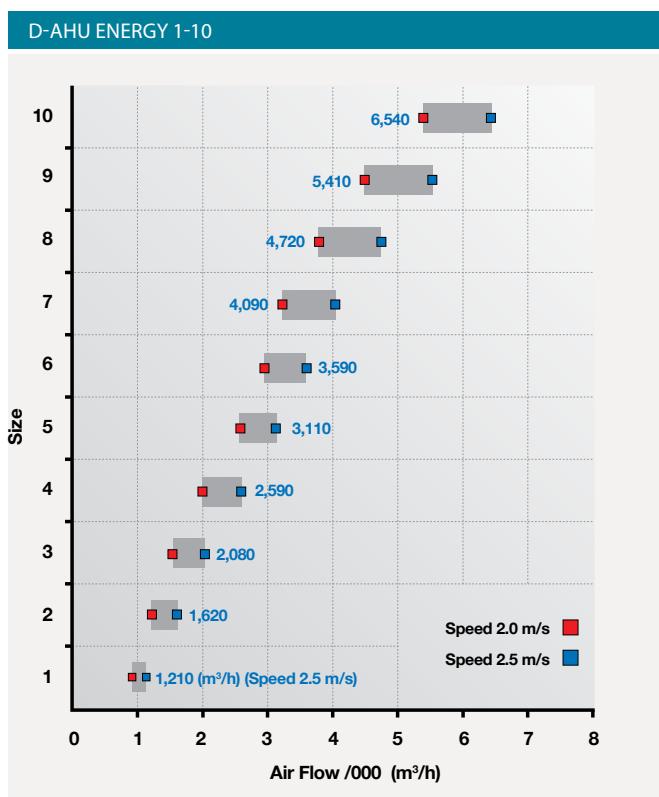


Specific Fan Power (SFP) is a measure used in the evaluation of the energy consumed by an air handling unit (AHU). As defined in EN 13053 and EN 13779, the lower the SFP, the lower the power consumption of the entire air handling unit. The Daikin D-AHU Energy has been designed to deliver the lowest possible SFP by using the most efficient components designed to provide the perfect solution to your needs. The D-AHU is an optimized answer to the European directive on the energy performance of buildings (EPBD) that seeks to reduce the impact on global warming.



### D-AHU Energy

#### TECHNICAL DATA



**D-AHU ENERGY 1-20**

Size	Air Flow (m³/h) Speed 2.5 m/s	Height - mm	Width - mm
1	1,210	580	720
2	1,620	610	770
3	2,080	680	820
4	2,590	750	870
5	3,110	750	990
6	3,590	750	1,100
7	4,090	800	1,110
8	4,720	810	1,240
9	5,410	870	1,270
10	6,540	970	1,370
11	7,700	1,050	1,370
12	9,050	1,110	1,470
13	10,950	1,180	1,620
14	14,100	1,360	1,720
15	18,300	1,480	1,970
16	23,800	1,610	2,270
17	29,800	1,740	2,570
18	33,700	1,900	2,710
19	43,100	2,090	3,060
20	51,000	2,220	3,360

**Infinitely variable sizes**

**Flexible sizing for AHU optimization**

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

**Example**

Air Flow (m³/h)	Unit Size	Height - mm	Width - mm	Face Velocity m/s
15,000	Size 15	1,480	1,970	2.04
	1,480 x 1,660	1,480	1,660	2.50



### D-AHU Easy



The range covers an area of air flow rates from 500 m<sup>3</sup>/h up to 30,000 m<sup>3</sup>/h\*, with the possibility to choose the more appropriate face velocity, depending on the treatment required.

#### PRE DEFINED SIZES

Fifteen fixed sizes optimized to reach the best compromise between competitiveness and manufacturing standardization.

#### Pre defined sizes - Overall dimension

Size	Air Flow (m <sup>3</sup> /h) Speed 2.5 m/s	Height - mm	Width - mm
Std 1	1,105	550	850
Std 2	1,550	600	900
Std 3	1,980	650	950
Std 4	2,600	780	1,100
Std 5	3,170	780	1,150
Std 6	3,550	800	1,150
Std 7	4,000	800	1,250
Std 8	4,800	850	1,300
Std 9	5,560	900	1,350
Std 10	6,600	900	1,550
Std 11	7,950	1,100	1,550
Std 12	9,320	1,100	1,650
Std 13	10,050	1,150	1,650
Std 14	13,200	1,400	1,850
Std 15	19,200	1,500	2,100

#### VARIABLE DIMENSIONING

Designed to overcome installation constraints where space requirements of the section "height x width" must be adapted to the available space. The system gives the possibility to tailor the unit sizes through increments of 1 cm average.

#### Example

Air Flow (m <sup>3</sup> /h)	Unit Size	Height - mm	Width - mm	Face Velocity m/s
15.000	STD 15	1,500	2,100	1.95
	1.500x1.700	1,500	1,700	2.48

#### Infinitely variable sizes

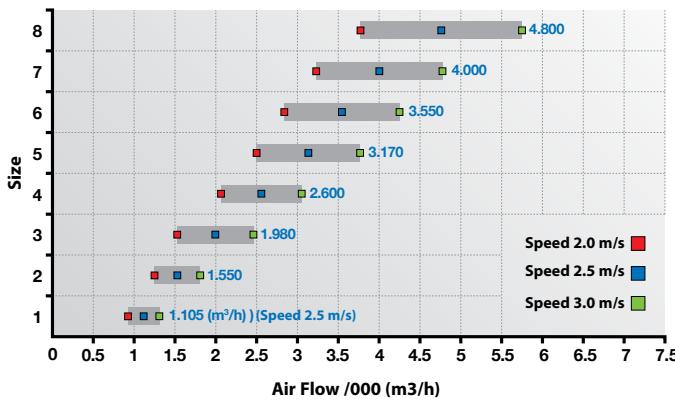
##### Flexible sizing for AHU optimization

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

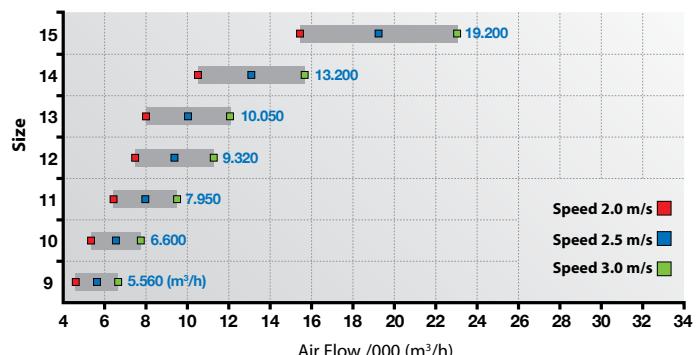


\*Air Flow limits of 500 m<sup>3</sup>/h and 30,000 m<sup>3</sup>/h are calculated using non standard sizes (max dimensions 2,150x2,150) and considering 2.5 m/s coil face velocity

#### D-AHU Easy 1-8



#### D-AHU Easy 9-15



# Control systems options & accessories

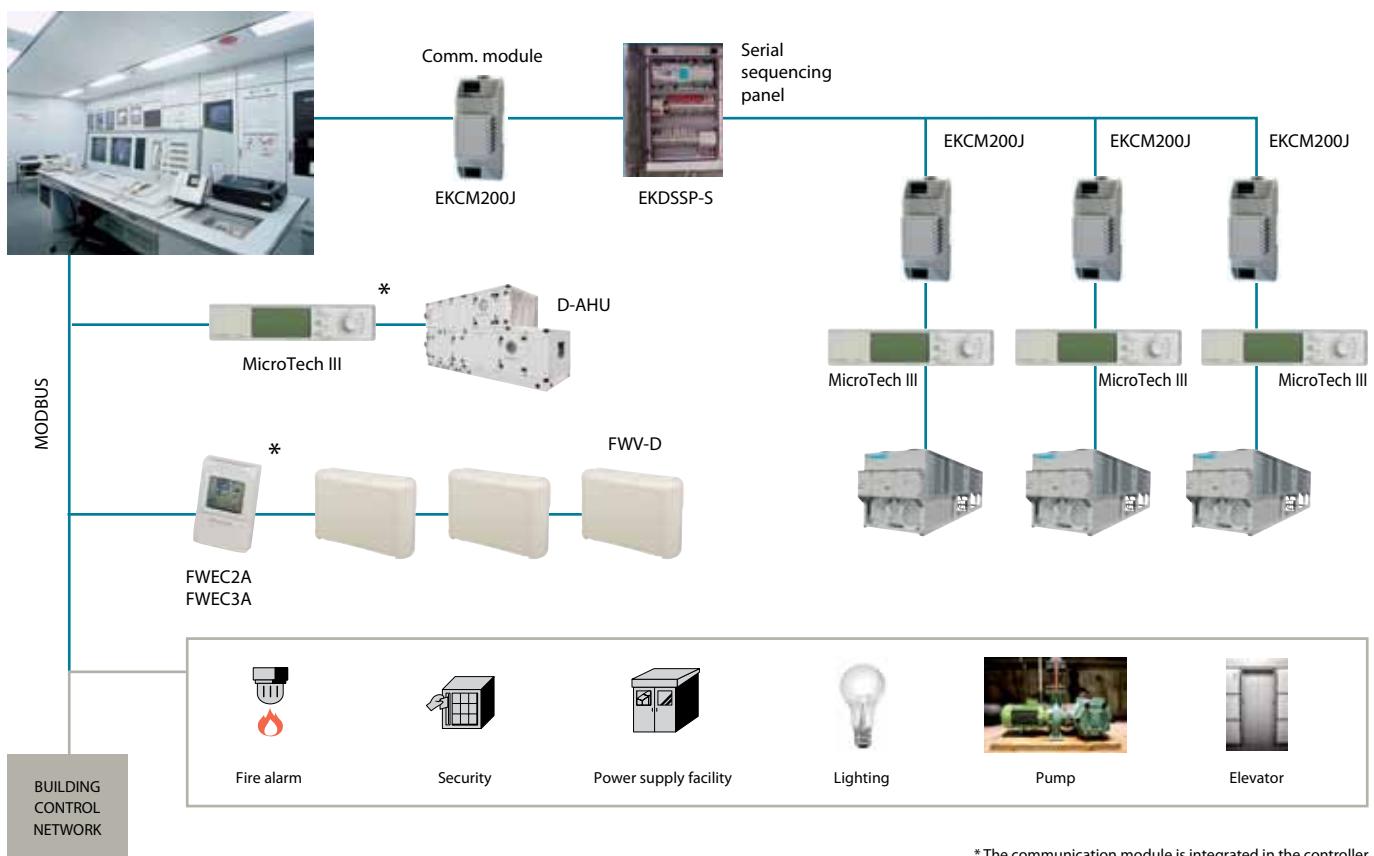
## TABLE OF CONTENTS

MODBUS INTERFACE	181
<b>BACnet Interface</b>	182
<b>LonWorks Interface</b>	183
<b>Option and accessories lists</b>	184
CHILLERS	184
FAN COIL UNITS	188
AIR HANDLING UNITS	192

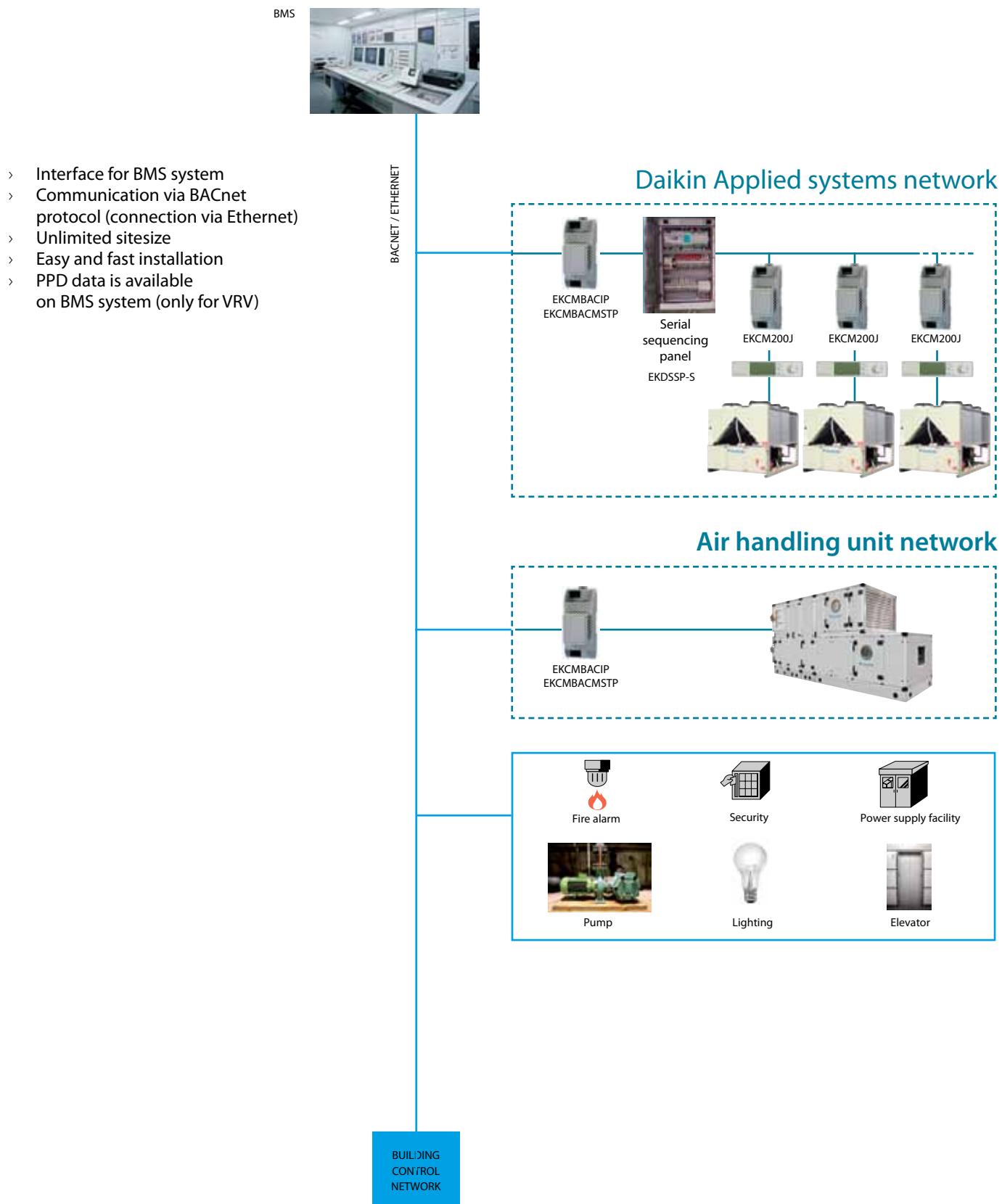
## INTERFACES

Modbus interface

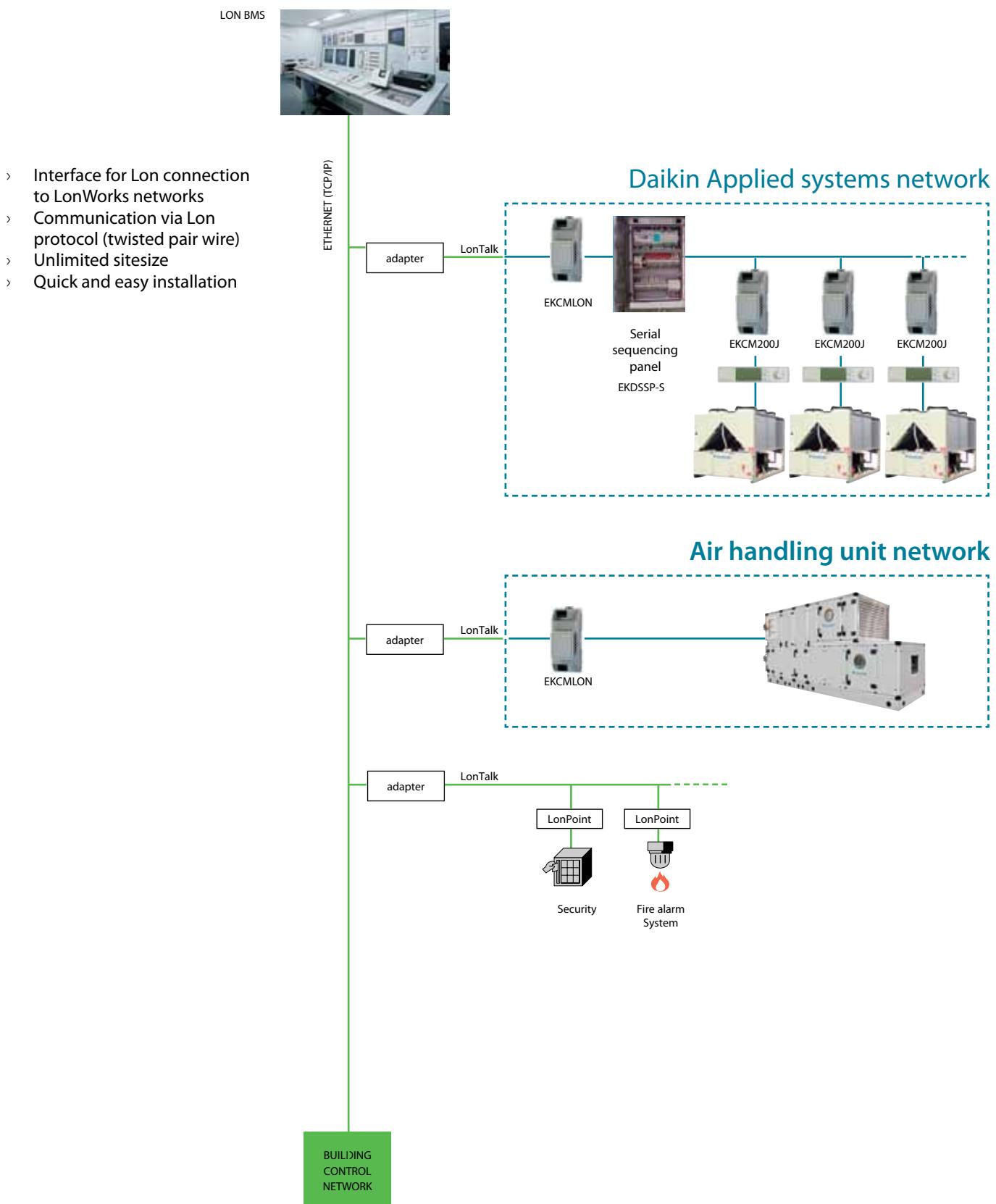
Integrate chillers, fan coils units and air handling units in BMS systems via modbus protocol



Integrated control system for **seamless connection** between Air handling units, Applied Systems and BMS systems



# Open network integration of Air handling units monitoring and control functions into LonWorks networks



# OPTIONS - CHILLERS

## Options - small chillers

Type	Compr.	Refr	Mode	Reference	Products	Integrated Hydronics				
						Single pump contact	Twin pump contact	Single pump	Twin pump	High ESP pump
						OPSC	OPTC	OPSP	OPTP	OPHP
Air Cooled	SWING	R-410A		EWAQ-ADVP	005-006-007				STD	
				EWYQ-ADVP	005-006-007				STD	
		R-410A		EWAQ-ACV3	009-010-011				STD	
				EWAQ-ACW1	009-011-013				STD	
				EWYQ-ACV3	009-010-011				STD	
	SCROLL	R-410A		EWYQ-ACW1	009-011-013				STD	
				EUWAN-KBZW1	5-8-10-12-16-20-24					
				EUWAB-KBZW1	5-8-10-12-16-20-24					.
		R-410A		EUWAB-KBZW1	5-8-10-12-16-20-24					.
				EUWYN-KBZW1	5-8-10-12-16-20-24					.
				EUWYP-KBZW1	5-8-10-12-16-20-24					.
				EUWYB-KBZW1	5-8-10-12-16-20-24					.
				EWAQ-DAYNN	080-100-130-150-180-210-240-260		•	•	•	•
				EWYQ-DAYNN	080-100-130-150-180-210-240-260		•	•	•	•
Water Cooled	SCROLL	R-407C		EWWP-KBW1N	014-022-028-035-045-055-065					
Condenserless chiller	SCROLL	R-407C		EWLP-KBW1N	012-020-026-030-040-055-065					

## Options - Medium and large chillers

Nomenclature for air-cooled B and C series:

E	W	A	D	4	6	0	B	Z	X	S
1	2	3	4	5	6	7	8	9	10	11

9 Inverter  
-: non-inverter  
Z: inverter

10 Efficiency level  
S: Standard  
X: High  
P: Premium

11 Sound level  
S: Standard  
L: Low  
R: Reduced

(s) OP12 & OP03 need to be added to meet Swedish national law 1992: 16

(1) Impossible option combination: OPZH+OPZL

(2) Not available with option OPLN

Description	code	EWAQ-BA EWYQ-BA	EWAD-BZ EWYD-BZ	EWAD-CZ	EWAD-CF	EWWQ-B-	EWAD-D-	EWAD-E-	ERAD-E-	EWWD-G-XS EWWD-G-SSS	EWLD-G-SS	EWWD-I-XS EWWD-I-SS	EWLD-I-SS	EWWD-FZXS	EWAD-C-	EWWD-J-SS EWLD-J-SS	EWWD-H-	EWAD-Q-E-	EWAQ-F-
Total heat recovery	01	Option	Option				Option	Option	Option	Option	Option	Option	Option			Option			
Total heat recovery 1 circuit	02	Option					Option									Option			
Partial heat recovery	03	Option	Option			Option	Option	Option	Option	Option	Option	Option	Option			Option	Option	Option	Option
Direct on line starter (DOL)	04																	Option	Option
Wye delta compressor starter (y - d)	05			STD	STD	STD	STD		STD	STD	STD								
Soft starter	06			Option	Option	Option	Option		Option	Option	Option								
Heat pump version	07															Option	Option		
Brine version	08	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option		Option	Option	Option	Option	Option
Double set point	10		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD		STD	STD	STD	STD	STD
Compressor thermal overload relays	11			STD	Option	Option	Option	Option	Option	Option	Option	Option	Option		Option	Option	Option	Option	Option
Fans circuit breakers with thermal overload relays	12		STD			STD	STD	STD											
Phase monitor	13		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD		STD	STD	STD	Option	Option
Inverter compressor starter	14		STD	STD			Option								STD				
Under / overvoltage control	15	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option		Option	Option	Option	Option	Option
Energy meter	16	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option		Option	Option	Option	Option	Option
Capacitors for power factor correction	17			Option	Option	Option	Option		Option										
Current limit - display	19	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option		STD	Option	Option		
Evaporator viciaulic kit	20		STD	STD		STD	Option			STD	STD	STD	STD		STD	STD	STD	STD	STD
Evaporator flange kit	21			Option	STD		Option									Option			
Evaporator Marine WaterBox VICTAULIC (1 Pass)	22a																Option		
Evaporator marine waterbox viciaulic (2 step)	22															Option			
Evaporator marine waterbox viciaulic (3 step)	23															Option			
Evaporator Marine WaterBox FLANGED (1 Pass)	24a															Option			
Evaporator marine waterbox flanged (2 step)	24															Option			
Evaporator marine waterbox flanged (3 step)	25															Option			
Condenser double flanges kit	26					Option				Option		Option			Option	Option	Option		
Evaporator water side design pressure 10 bar	27					STD	STD			STD	STD	STD	STD		STD			STD	
Evaporator water side design pressure 25 bar	28																		
20 mm evaporator insulation	29	Option	STD	STD	Option	STD	Option			Option	Option	Option	Option		STD	STD	STD	STD	STD
Axial fans 100 pa lift	30																	Option	Option
Axial fans 250 pa lift	32																		
20mm condenser insulation	33					Option	Option			Option		Option			Option		Option	Option	
Fans speed control device (phase cut on fan)	35		STD																
Condenser viciaulic kit	36					Option				Option	Option	Option			STD				
Condenser flange kit	37														Option				
Condenser Marine WaterBox VICTAULIC (1 Pass)	38a																Option		
Condenser Marine WaterBox VICTAULIC (2 Passes)	38															Option			
Condenser Marine WaterBox VICTAULIC (3 Passes)	39															Option			
Condenser Marine WaterBox FLANGED (1 Pass)	40a																Option		
Condenser Marine WaterBox FLANGED (2 Passes)	40															Option			
Condenser Marine WaterBox FLANGED (3 Passes)	41															Option			
Speedtrol (fan speed control device - on/off - up to -18°C)	42				Option					Option	Option	Option					Option		Option
Condenser coil guards	43		Option	Option						Option	Option	Option					Option	Option	Option
Evaporator area guards	44				Option														
Cu-cu condenser coil	45		Option	Option						Option	Option	Option					Option	Option	Option
Cu-cu sn condenser coil	46		Option	Option						Option	Option	Option					Option	Option	Option
Condenser water side design 16 bar	47						STD								STD	STD	STD		STD
Condenser water side design 21 bar	48																		
Alucoat fins coil	49		Option	Option						Option	Option	Option					Option		Option
Cu-ni 90-10 condenser tubes	50						Option								Option		Option	Option	Option

	Noise & Head Pressure Control			LWE		Electrical			Refrigerant		Condenser	
Buffer tank	Low noise	Inverter fans	High ESP fans	High Glycol	Low Glycol	Evaporator heater tape	Main switch	A/V meter	Dual pressure relief valve	Suction stop valve	Coil guards	
OPBT	OPLN	OPIF	OPHF	OPZH	OPZL	OP10	OP52	OP57	OP03	OP12	OPCG	
						STD						
						STD						
						STD						
						STD						
						STD						
						STD						
						•	•	•				
						•	•	•				
STD						•	•	•				
						•	•	•				
STD						•	•	•				
•	•	•	•(2)			•	•	STD	•	•	•(s)	
•	•	•	•(2)			•	•	STD	•	•	•(s)	
						•	•					
						•	•					

Description	code	EWAQ-BA EWYQ-BA	EWAD-BZ EWYD-BZ	EWAD-CZ	EWAD-CF	EWWQ-B	EWAD-D	EWAD-E	ERAD-E	EWWD-G-XS EWWD-G-SS	EWLD-G-SS	EWWD-I-XS EWWD-I-SS	EWLD-I-SS	EWWD-FZXS	EWAD-C	EWWD-J-SS EWLD-J-SS	EWWD-H-	EWAQ-E-	EWAQ-F-
Condenser 1 pass	51									STD		STD			Option		Option		
Condenser 2 passes	52										STD				STD	Option	STD		
Condenser 2 passes	53											Option						Option	
Condenser 3 passes	53b																		
Condenser 4 passes	54																		
Water pressure differential switch on condenser	55														STD		Option		
Water pressure differential switch on evaporator	56									STD					STD	Option	Option		
Evaporator electric heater	57	Option	STD	STD	STD	Option	STD	STD	STD						STD		STD	STD	
Evaporator flow switch	58	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	STD	STD	STD	
Condenser flow switch	59																Option		
Electronic expansion valve	60	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	
Discharge line shut off valve	61	STD	STD	STD	Option	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	Option	Option
Suction line shut off valve	62	STD		Option	Option	STD	STD	STD	STD	STD	STD	STD	Option	Option	Option	STD	Option	Option	Option
High pressure side manometers	63	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	STD	Option	Option	Option
Low pressure side manometers	64	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Additional capacity reduction steps	65																		
Ambient outside temperature sensor and set-point reset	67		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	STD	STD	STD	STD	STD	
General fault contactor	69	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	
Container kit	71	Option	Option		Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Wooden box packing	74																		
Rubber anti vibration mount	75	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Sound proof system	76																		
Spring anti vibration mount	77	Option	Option	Option	Option		Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
One centrifugal pump (low lift)	78	Option	Option	Option	Option		Option	Option	Option								Option	Option	Option
One centrifugal pump (high lift)	79	Option	Option														Option	Option	Option
Two centrifugal pumps (low lift)	80	Option	Option														Option	Option	Option
Two centrifugal pumps (high lift)	81	Option															Option	Option	Option
Witness test	82																		
External tank without cabinet (500 l) (3)	83	Option																	
External tank without cabinet (1000 l) (3)	84	Option																	
External tank (500 l) with cabinet RAL7032 (3)	87	Option																	
External tank (1000 l) with cabinet RAL7032 (3)	88	Option																	
Set-point reset, demand limit and alarm from external device	90	Option	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	Option	Option
Double pressure relief valve with diverter	91	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	STD	Option	Option	STD	Option
Low ambient kit for 1 circuit	93																		
Low ambient kit for 2 circuits	94																		
Compressor circuit breakers	95		Option	Option		Option	Option	Option								Option	Option	Option	Option
Fans circuit breakers	96		STD	STD	STD		STD	STD	STD						STD		Option	Option	
Main switch interlock door	97	STD (16)	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Emergency stop	98		STD	STD	STD										STD	STD	STD	STD	
Fan speed regulation (+ fan silent mode) 2	99	STD (16)	Option	STD		Option		Option								Option		Option	Option
Refrigerant recovery tank	100		Option													Option			
Evaporator right water connection	101	Option	Option	Option												Option			
Ground fault relay	102		Option	Option	Option	Option	Option								Option	Option	Option	Option	Option
Evaporator 1 pass	103															Option	Option		
Evaporator 2 passes	103a															STD			
Evaporator 3 passes	103b															STD		Option	
Evaporator Double Flange Kit	104						Option											Option	
Liquid receiver	105															Option			
Rapid restart	110		Option	Option													Option		
High temperature kit	111																	Option	
Transport kit	112	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option
Optimized free cooling	113					Option													
Water filter	115																	STD	STD
Condenser coil protection panels	116	Option	Option	Option		Option	Option	Option								Option		Option	Option
Blygold coil treatment	117	Option	Option	Option		Option	Option	Option								Option		Option	Option

# ACCESSORIES - CHILLERS

							Air cooled chillers	
	EWA/YQ009-011ACV3 EWA/YQ009-013ACW1	EUWA/Y*-KBZW1	EWA/YQ~BA*	EWA/YQ-DAYN	EWAD-E- ERAD-E	EWAD~D-	EWA(Y)D~BZ	EWAD~C-
<b>Panels</b>								
EKDSSP							.	
EKDSSP-S***					.	.		
EKDDSP					.	.	.	
EKPWPRO							.	
EKPWPROM							.	
<b>Serial Cards &amp; Comm. Modules</b>								
EKAC10C		.						
EKACPG				.				
EKAC200A								
EKAC200J							.	
EKACBAC							.	
EKACLON							.	
EKACLONP							.	
EKACRS232							.	
EKACWEB							.	
EKACBACMSTP							.	
EKACBACCERT								
EKCM200J					.	.		
EKMLON					.	.		
EKCMBACMSTP					.	.		
EKCMBACIP					.	.		
<b>LON Gateway</b>								
EKLONPG								
<b>Other Systems &amp; Accessories</b>								
EKCLWS								
EKCON							.	
EKCONUSB							.	
EKMODEM							.	
EKGSMOD							.	
EKR1HB	.							
EKRUPCJ							.	
EKRUPCK								
EKRUPCS					.	.		
EKPV2J							.	
EKPWPROEXT							.	
EKGWWEB							.	
EKGWMODEM							.	
EKBNPG							.	
EKBMSBNA								
EKBMSMBA								
EKRUMCA		.						
EKRUPC								
EKRUPG			.					
EHMC*								
EKR1AHT			.					
DTA104A62			.					
EKRUHTB			.					
<b>Gauges</b>								
EKGAU5/8KA		.	(5-8)					
EKGAU10/12KA		.	(10-12)					
EKGAU16KA		.	(16)					
EKGAU20/24KA		.	(20-24)					
BHGP26A1			.					
<b>Soft starter</b>								
EKSS		.						
<b>Buffer tank</b>								
EKBT		.						
<b>Waterpipe kit</b>								
EKGN210				.	(080-210)			
EKGN260					* (EWAQ240-260DAYN & EWYQ230-250DAYN)			

\* To install EKRUMCA => EKAC10C needs to be installed on the unit.

\* EKAC10C allows direct connection to MODBUS BMS system

\* To install EKLONPG & EKBNPG => EKACPG needs to be installed on the unit.



# ACCESSORIES - FAN COIL UNITS

	FWM-DAT/DAF / FWL-DAT/DAF / FWV-DAT/DAF										FWD-AT/AF						
	1	15	2	25	3	35	4	6	8	10	4	6	8	10	12	16	18
<b>Network &amp; control systems</b>																	
Wired remote controller (Standard)							FWEC1A							FWEC1A			
Wired remote controller (Advanced)							FWEC2A							FWEC2A			
Wired remote controller (Advanced Plus)							FWEC3A							FWEC3A			
Controller electromechanical							ECFWMB6							-			
On board FCU controller installation kit							FWECKA							-			
Wall mounting kit for electronic controller							FWFCKA							FWFCKA			
Wired remote controller (Cooling only)							-							-			
Wired remote controller (Heat pump)							-							-			
Wireless controller (Heat pump)							-							-			
Temperature sensor kit							FWTSKA							FWTSKA			
Relative humidity sensor kit							FWHSKA							FWHSKA			
Fan stop thermostat							YFSTA6							YFSTA6			
Master slave interface							EPIMSB6							EPIMSB6			
Power interface							-							-			EPIB6
Optional PCB for MOD-bus connection							-							-			
Remote control - Infrared - H/P							-							-			
Remote control - Infrared - C/O							-							-			
Central remote control + electrical box with earth terminal (3 blocks)							-							-			
Unified on/off controller + electrical box with earth terminal (2 blocks)							-							-			
Schedule timer							-							-			
Intelligent touch controller + electrical installation box							-							-			
Remote sensor							-							-			
Remote "On/Off" and "forced off" kit							-							-			
Valve control PCB							-							-			
Optional PCB for MOD-bus connection							-							-			
Wiring adapter for electrical appendices							-							-			

	FWM-DAT/DAF / FWL-DAT/DAF / FWV-DAT/DAF										FWD-AT/AF						
Valves	1	15	2	25	3	35	4	6	8	10	4	6	8	10	12	16	18
2-pipe 230V ON/OFF 3-way motor driven valve complete with mounting kit					E2MV03A6					E2MV10A6			ED2MV04A6			ED2MV10A6	
4-pipe 230V ON-OFF 3-way motor driven valve complete with mounting kit					E4MV03A6					E4MV10A6			ED4MV04A6			ED4MV10A6	
24V ON-OFF 2-way motor drive valve complete with mounting kit (cooling heat exchanger)						E2MV207A6							E2MV210A6				
2-pipe 230V ON-OFF 3 way motor driven valve complete with simplified mounting kit																	
4-pipe 230V ON-OFF 3 way motor driven valve complete with simplified mounting kit							-							-			
2-pipe 24V ON-OFF 3 way motor driven valve complete with mounting kit							-							-			
4-pipe 24V ON-OFF 3 way motor driven valve complete with mounting kit							-							-			
230 V ON-OFF 2 way motor driven valve complete with mounting kit (cooling heat exchanger)							-							-			
230 V ON-OFF 2 way motor driven valve complete with mounting kit (additional heat exchanger)							-							-			
24 V ON-OFF 2 way motor driven valve complete with mounting kit (cooling heat exchanger)							-							-			
24 V ON-OFF 2 way motor driven valve complete with mounting kit (additional heat exchanger)							-							-			

	FWB-BT			FWC-BT/BF		FWF-CT		FWF-BT/BF		FWT-CT		FWE-CT		FWE-CF		
Valves	2-4	5-7	8-10	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	All sizes	
3-way on/off valve kit (2-pipe)	-	-	-	EKMV3C09B7	MCKCW2T3VN	EKMV3C09B	-			1 x EKMV3B10B7			-			
3-way on/off valve kit (4-pipe)	-	-	-	2 x EKMV3C09B7	-	2 x EKMV3C09B7	-			-			2 x EKMV3B10B7			
2-way on/off valve kit (additional heat exchanger)		E2MV207A6	E2MV210A6		-	-	-	-	-	-	-	-	-	-	-	
3-way on/off valve kit (additional heat exchanger)		E2MV307A6	E2MV310A6		-	-	-	-	-	-	-	-	-	-	-	
2-way on/off valve kit (2-pipe)	-	-	-	EKMV2C09B7	-	EKMV2C09B7	MWMJW2T2VN	1 x EKMV2B10C7		-			-			
2-way on/off valve kit (4-pipe)	-	-	-	2 x EKMV2C09B7	-	2 x EKMV2C09B7	-	-		-			2 x EKMV2B10C7			

FWB-BT			FWT-CT	FWC-BT/BF	FWF-CT	FWF-BT/BF	FWE-CT/CF	FWZ-AT				FWR-AT				FWS-AT			
2-4	5-7	8-10	All sizes	All sizes	All sizes	All sizes	All sizes	2	3	6	8	2	3	6	8	2	3	6	8
FWEC1A	MERCA	BRC315D7	MERCA	BRC315D7	FWEC1A			-				-				-			
FWEC2A	-	-	-	-	FWEC2A			-				-				-			
FWEC3A	-	-	-	-	FWEC3A			-				-				-			
-	-	-	-	-	-			-				-				-			
-	-	-	-	-	-			-				-				-			
FWFCKA	-	-	-	-	-			-				-				FWEC3A	FWFCKA		
-	SRC-COB	-	SRC-COB	-	-			-				-				-			
-	SRC-HPB	-	SRC-HPB	-	-			-				-				-			
-	WRC-HPC	-	WRC-HPC	-	-			-				-				-			
FWTSKA	-	-	-	-	-			-				-				FWTSKA			
FWHSKA	-	-	-	-	-			-				-				FWHSKA			
YFSTA6	-	-	-	-	-			-				-				-			
EPIMSB6	-	-	-	-	-			-				-				-			
-	EKFCMBCB7	-	EKFCMBCB7	-	-			-				-				-			
-	EKFCMBCB	-	EKFCMBCB	-	-			-				-				-			
-	BRC7F532F	-	BRC7F530	-	-			-				-				-			
-	BRC7F533F	-	BRC7F531	-	-			-				-				-			
-	DCS302C51+KJB31A	-	DCS302C51+KJB31A	-	-			-				-				-			
-	DCS301B451+KJB212A	-	DCS301B451+KJB212A	-	-			-				-				-			
-	DST301BA51	-	DST301BA51	-	-			-				-				-			
-	DCS601C51C+KJB411A	-	DCS601C51C+KJB411A	-	-			-				-				-			
-	KRCS01-1	-	KRCS01-1	-	-			-				-				-			
-	-	-	EKROROA	-	-			-				-				-			
-	-	-	EKRP1C11	-	-			-				-				-			
-	-	-	EKFCMBCB7	-	-			-				-				-			
-	-	KRP2A52/KRP4A53	-	KRP2A52/KRP4A53	-	-		-				-				-			

FWD-AT/AF				FWZ-AT				FWR-AT				FWS-AT			
10	12	16	18	2	3	6	8	2	3	6	8	2	3	6	8
	ED2MV12A6	ED2MV18A6		E2MV03A6	E2MV06A6	E2MV10A6		E2MV03A6	E2MV06A6	E2MV10A6		E2MV03A6	E2MV06A6	E2MV10A6	
	2x ED2MV12A6	2x ED2MV18A6		E4MV03A6	E4MV06A6	E4MV10A6		E4MV03A6	E4MV06A6	E4MV10A6		E4MV03A6	E4MV06A6	E4MV10A6	
-				E2MVD03A6	E2MVD03A6	E2MVD06A6	E2MVD10A6	E2MVD03A6	E2MVD06A6	E2MVD10A6		E2MVD03A6	E2MVD06A6	E2MVD10A6	
-				E4MVD03A6	E4MVD03A6	E4MVD06A6	E4MVD10A6	E4MVD03A6	E4MVD06A6	E4MVD10A6		E4MVD03A6	E4MVD06A6	E4MVD10A6	
-				E2M2V03A6	E2M2V03A6	E2M2V06A6	E2M2V10A6	E2M2V03A6	E2M2V06A6	E2M2V10A6		E2M2V03A6	E2M2V06A6	E2M2V10A6	
-				E4M2V03A6	E4M2V03A6	E4M2V06A6	E4M2V10A6	E4M2V03A6	E4M2V06A6	E4M2V10A6		E4M2V03A6	E4M2V06A6	E4M2V10A6	
-				E2MV2B07A6		E2MV2B07A6	E2MV2B07A6	E2MV2B07A6							
-								E2MV2B07A6							
				E2MV207A6		E2MV207A6	E2MV207A6	E2MV207A6							
								E2MV207A6							

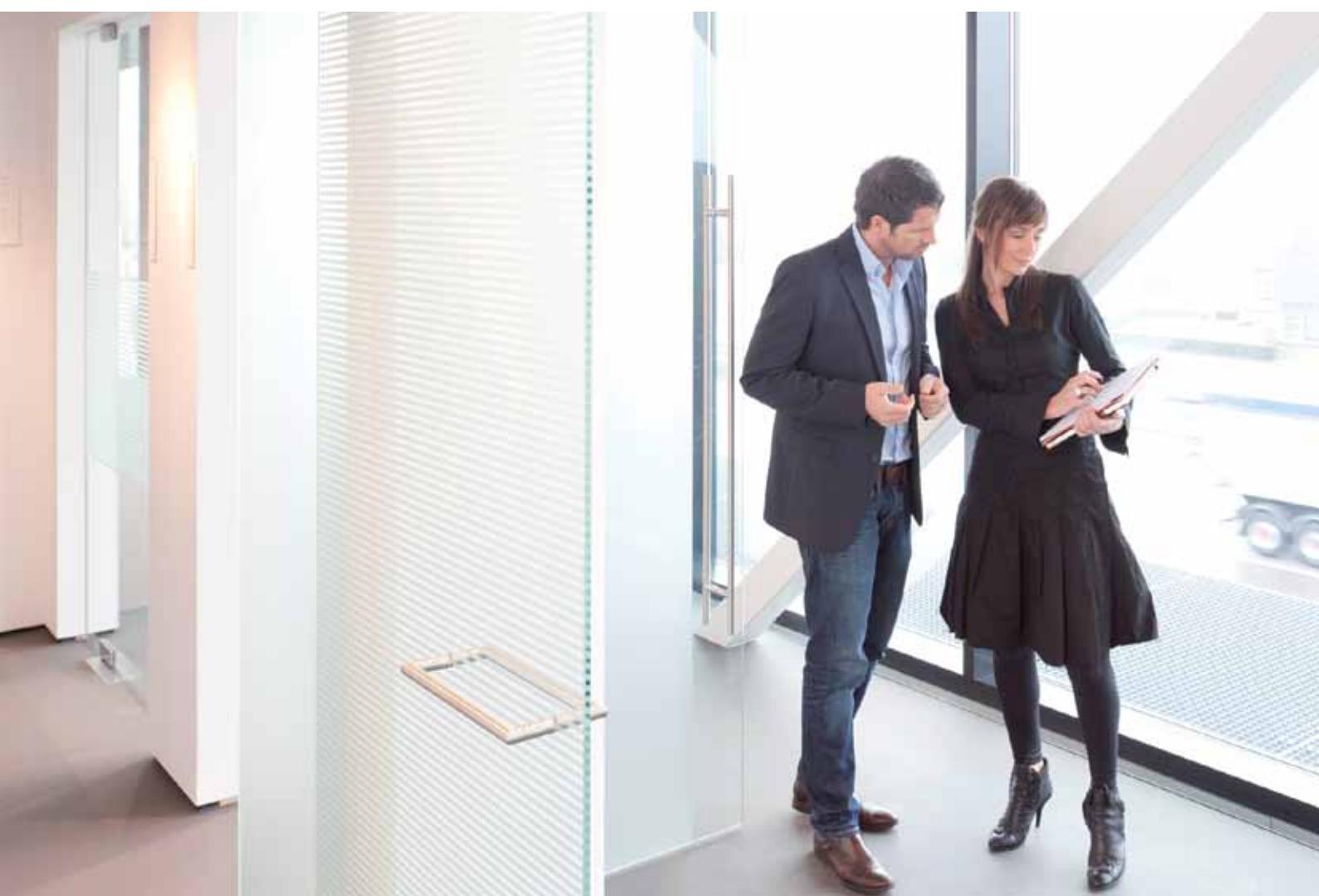
# ACCESSORIES - FAN COIL UNITS

Other accessories	FWM-DAT/DAF / FWL-DAT/DAF / FWV-DAT/DAF										FWD-AT/AF			
	1	15	2	25	3	35	4	6	8	10	4	6	8	10
Electric heater (Standard)	EEH01A6		EEH02A6		EEH03A6		EEH06A6		EEH10A6		EDEH04A6	EDEHS06A6		EDEHS10A6
Electric heater (Big)					-						EDEH04A6	EDEHB06A6		EDEHB10A6
Fresh air intake louvers (manual)		EFA02A6			EFA03A6		EFA06A6		EFA10A6		EDM-FA04A6	EDMFA06A6		EDMFA10A6
Additional single row heat exchanger		ESRH02A6			ESRH03A6		ESRH06A6		ESRH10A6					-
Air intake & discharge grille + front filter fixing kit for concealed models		EAIDF02A6			EAIDF03A6 202		EAIDF06A6		EAIDF10A6					-
Rear panel for vertical mounted units		ERPV02A6			ERPV03A6 40		ERPV06A6 48		ERPV10A6					-
Supporting feet (feet= supporting brackets + covers)			ESFV06A6 21						ESFV10A6					-
Supporting feet & grill		ESFVG02A6			ESFVG03A6		ESFVG06A6		ESFVG10A6					-
Vertical drainpan			EDPBV6											EDDPV10A6
Horizontal drainpan			EDPHB6											EDDPH10A6
Plenum box with circular connections			-											-

Other accessories	FWC-BT/BF	FWF-BT/BF
Sealing member of air discharge outlet	KDBHQ55C140	KDBH44BA60
Panel spacer	-	KDBQ44B60
Long-life filter	KAFP551K160	KAFQ441BA60
Fresh air intake kit	KDDQ55C140-1/-2	KDDQ44XA60
Installation box for adapter PCB	KRP1H98	KRP1BA101

Panels	FWF-CT	FWC-BT/BF	FWF-BT/BF
	All sizes	All sizes	All sizes
Decoration panel 600x600 (2-pipe)	DCP600TC	-	-
Decoration panel 4-way blow (RAL 9010 Grey sealings)	-	-	BYFQ60B
Decoration panel - Standard (RAL 9010 - grey sealings) Round flow	-	BYCQ140CW1	-
Decoration panel - White (RAL 9010 - white sealings ) Round flow	-	BYCQ140CW1W	-

			FWB-BT				FWZ-AT				FWR-AT				FWS-AT							
12	16	18	2-4	5-7	8-10	2	3	6	8	2	3	6	8	2	3	6	8					
EDEHS12A6	EDEHS18A6		Factory mounted			EEH02A6	EEH03A6	EEH06A6	EEH10A6	EEH02A6	EEH03A6	EEH06A6	EEH10A6	EEH02A6	EEH03A6	EEH06A6	EEH10A6					
EDEHB12A6	EDEHB18A6		-			-				-				-								
EDMFA12A6	EDMFA18A6		-			-				-				-								
			EAH04A6	EAH07A6	EAH10A6	ESRH02A6	ESRH03A6	ESRH06A6	ESRH10A6	ESRH02A6	ESRH03A6	ESRH06A6	ESRH10A6	ESRH02A6	ESRH03A6	ESRH06A6	ESRH10A6					
			-			-				-				EAIDF02A6	EAIDF03A6	EAIDF06A6	EAIDF10A6					
			-			ERPVO2A6	ERPVO3A6	ERPVO6A6	ERPVI0A6	ERPVO2A6	ERPVO3A6	ERPVO6A6	ERPVI0A6	-								
			-			ESFV06A6	ESFV06A6	ESFV06A6	ESFV10A6	-				ESFV06A6	ESFV06A6	ESFV06A6	ESFV10A6					
			-			ESFV-G02A6	ESFV-G03A6	ESFV-G06A6	ESFV-G10A6	-				-								
EDDPV18A6			-			EDPVA6																
EDDPH18A6			-			-				EDPHA6												
-			-			-				-				EPCC02A6	EPCC03A6	EPCC06A6	EPCC10A6					



# OPTIONS - AIR HANDLING UNITS

## D-AHU PROFESSIONAL

Construction type	SP 65	SP 45	FP 50	FP 25
Material	-	-	-	-
Aluminium	standard	standard	standard	standard
Anodized aluminium	option	option	option	option
Aluminium with thermal break	option	option	option	option
Anodized aluminium with thermal break	option	option	option	option
Corner	-	-	-	-
Material	-	-	-	-
Glass fibre reinforced nylon	standard	standard	standard	standard
Panel	-	-	-	-
Insulation	-	-	-	-
Polyurethane foam density 45 kg/m <sup>3</sup> thermal conductivity 0.020 W/m*K fire reaction class 1	standard	standard	standard	standard
Mineral wool density 90 kg/m <sup>3</sup> thermal conductivity 0.037 W/m*K(referred to 20°C) fire reaction class 0	option	option	option	option
External sheet material	-	-	-	-
Grey Plastisol covered galvanized steel	standard	standard	standard	standard
Pre-coated galvanized steel	option	option	option	option
Galvanized steel	option	option	option	option
Aluminium	option	option	option	option
AISI 304 stainless steel	option	option	option	option
Internal sheet material	-	-	-	-
Galvanized steel	standard	standard	standard	standard
Pre-coated galvanized steel	option	option	option	option
Grey Plastisol covered galvanized steel	option	option	option	option
Aluminium	option	option	option	option
AISI 304 stainless steel	option	option	option	option
Base frame	-	-	-	-
Material	-	-	-	-
Aluminium	standard (from size 1 to size 17)			
Galvanized steel	standard (from size 18 to size 27)			
Handle	-	-	-	-
Material	-	-	-	-
Glass fibre reinforced nylon	standard	standard	standard	standard
Type	-	-	-	-
Compression type	standard	standard	standard	standard
Hinge function type (possibility to remove door)	option	option	option	option

## D-AHU EASY

Construction type	DS 50	DS 25
Profile	-	-
Material	-	-
Aluminium	Standard	Standard
Corner	-	-
Material	-	-
Glass fibre reinforced nylon	Standard	Standard
Panel	-	-
Insulation	-	-
Polyurethane foam thermal conductivity 0.024 W/m*K	Standard (density 45 kg/m <sup>3</sup> )	standard (density 47 kg/m <sup>3</sup> )
External sheet material	-	-
Pre-coated galvanized steel (RAL 9002)	Standard	Standard
Internal sheet material	-	-
Galvanized steel	Standard	Standard
Base frame	-	-
Material	-	-
Aluminium	Standard	Standard
Handle	-	-
Material	-	-
Glass fibre reinforced nylon	Standard	Standard
Type	-	-
Compression type	Standard	Standard

# MEASURING CONDITIONS

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

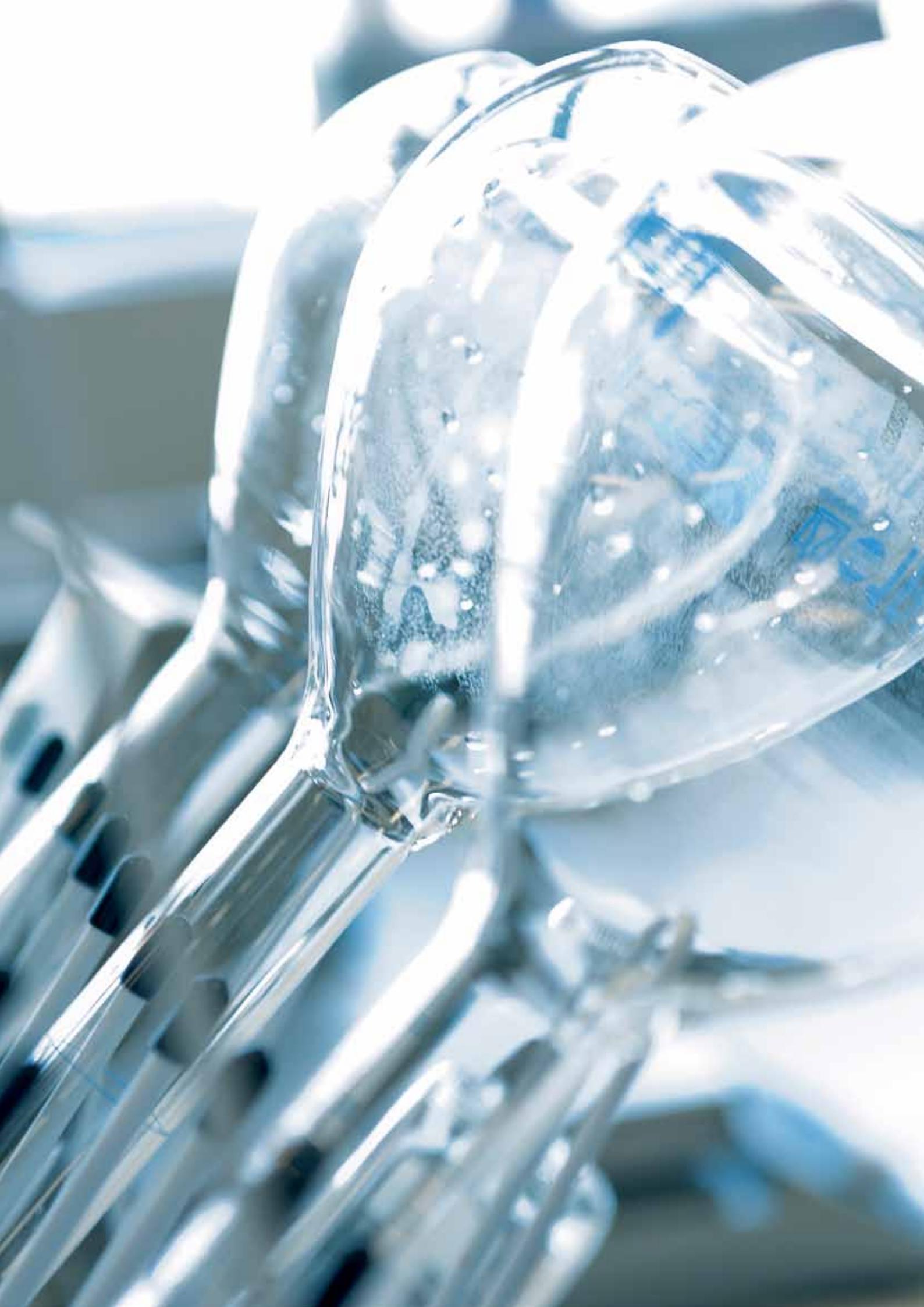
## CHILLERS

Air cooled	Cooling	Water 7°C / 12°C	Ambient temperature : 35°C
	Heating	Water 45°C / 50°C	Ambient temperature : 7°C
Condensing unit	Suction dewpoint : 5°C		Ambient temperature : 35°C
Condenserless chiller	Cooling	Water 7°C / 12°C	Condensing temp : 45°C
			Liquid temp. : 40°C
Water cooled	Cooling	Evaporator water : 7°C / 12°C	Water condenser : 30°C / 35°C
	Heating	Evaporator water : 7°C / 12°C	Water condenser : 40°C / 45°C

## FAN COILS

Measuring conditions (at nominal air flow and ESP): COOLING: air temperature entering the unit: 27°C/19°C, water temperature entering the unit 7°C, water temperature leaving the unit 12°C - HEATING: room air temperature 20°C, for 2-pipe units: water temperature entering 50°C - water flow rate same as for the cooling test, for 4-pipe units: water temperature entering 70°C - water temperature leaving 60°C

## NOTES





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