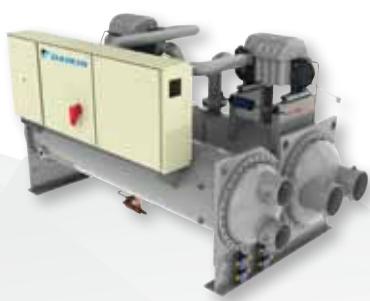




Industrial yet personal

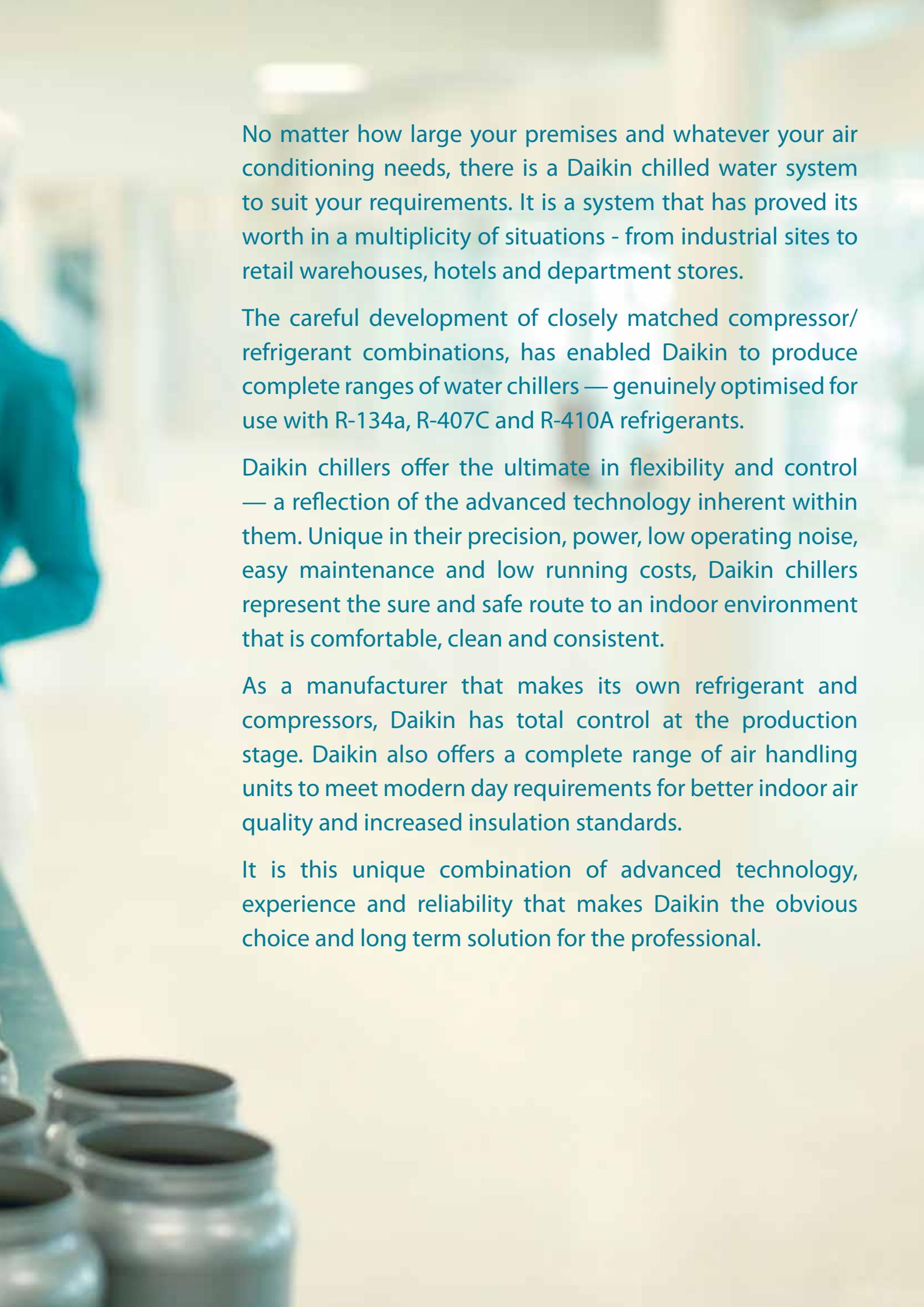


APPLIED SYSTEMS
CATALOGUE

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No matter how large your premises and whatever your air conditioning needs, there is a Daikin chilled water system to suit your requirements. It is a system that has proved its 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 ranges of water chillers — genuinely optimised for use with 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.

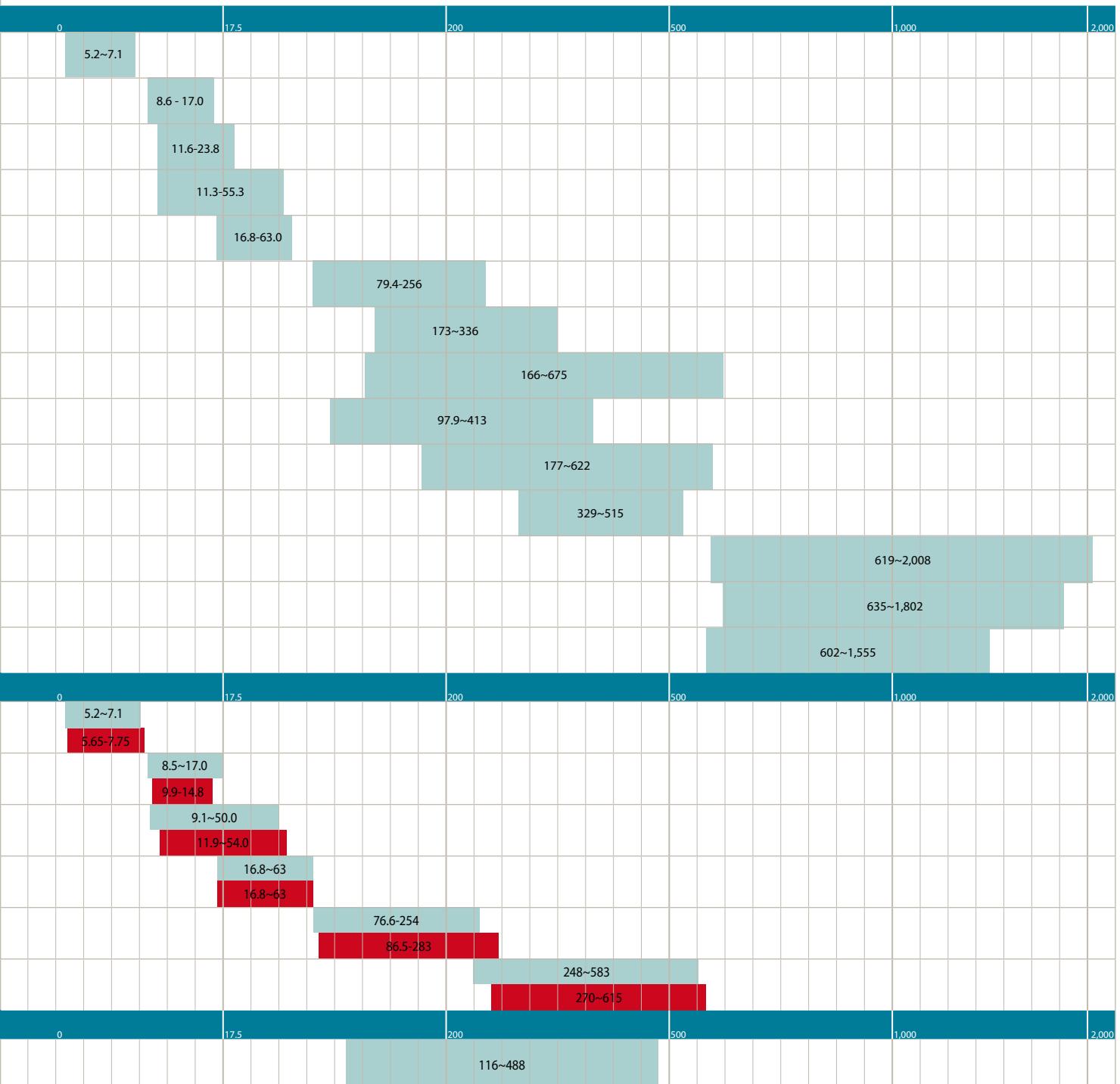
As a manufacturer that makes its own refrigerant and compressors, Daikin has total control at the production stage. Daikin also offers a complete range of air handling units to meet modern day requirements for better indoor air quality and increased insulation standards.

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

	Refrigerant	Inverter	Free cooling	Compressor			Efficiency version			Sound version		
				Swing	Scroll	Screw	Centrifugal	Standard	High	Premium	High ambient	Standard
Cooling only												
EWAQ~ADVP		R-410A	✓		✓			✓			✓	
EWAQ~ACV3/ACW1		R-410A	✓		✓			✓			✓	
EUWAC~FBZW1		R-407C			✓			✓			✓	
EUWA*~KBZW1		R-407C			✓			✓			✓	
EWAQ~BA*		R-410A	✓		✓			✓			✓	
EWAQ~DAYN		R-410A			✓			✓			✓	
EWAQ~E-		R-410A			✓				✓		✓	✓
EWAQ~F-		R-410A			✓			✓	✓		✓	✓
EWAD~E-		R-134a				✓		✓			✓	✓
EWAD~D-		R-134a				✓		✓	✓		✓	✓
EWAD~BZ		R-134a	✓			✓		✓	✓		✓	✓
EWAD~C-		R-134a				✓		✓	✓	✓	✓	✓
EWAD~CZ		R-134a	✓			✓		✓			✓	✓
EWAD~CF		R-134a		✓			✓		✓		✓	✓
Heat pump												
EWYQ~ADVP		R-410A	✓		✓			✓			✓	
EWYQ~ACV3/ACW1		R-410A	✓		✓			✓			✓	
EUWY*~KBZW1		R-407C			✓			✓			✓	
EWYQ~BA*		R-410A	✓		✓			✓			✓	
EWYQ~DAYN		R-410A			✓			✓			✓	
EWYD~BZ		R-134a	✓			✓		✓			✓	✓
Condensing unit												
ERAD~E-		R-134a					✓	✓			✓	✓

Product portfolio air cooled

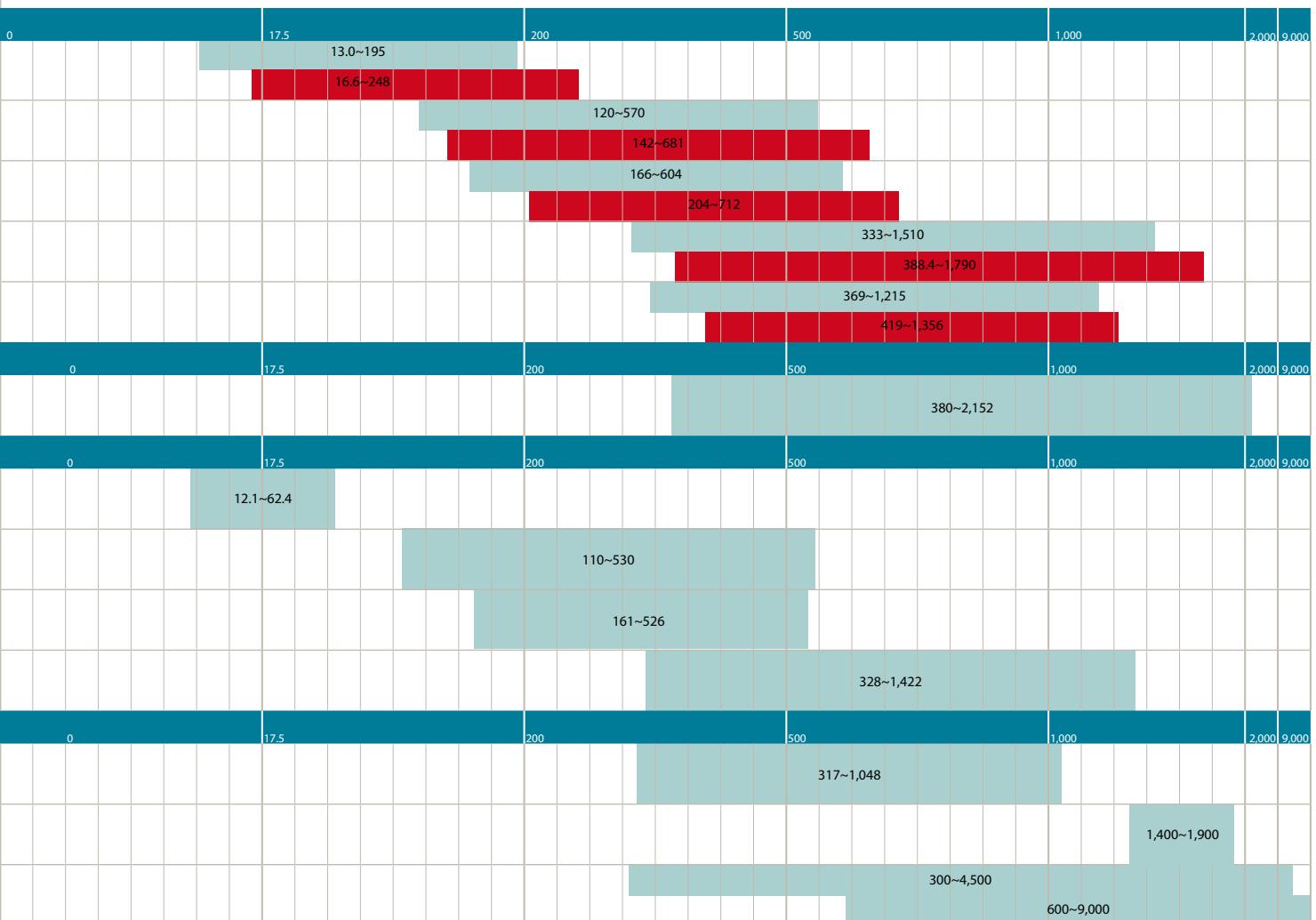
Capacity classes (kW)



Product portfolio water cooled

	Refrigerant	Inverter	Free cooling	Compressor	Efficiency version	Sound version						
				Swing	Standard	High	Premium	High ambient	Standard	Low	Reduced	Extra low
Water cooled chillers (Cooling only & Heating only)												
EWWP-KBW1N		R-407C		✓		✓				✓		
EWWD-J-		R-134a			✓		✓			✓		
EWWD-G-		R-134a			✓		✓	✓		✓		
EWWD-I-		R-134a			✓		✓	✓		✓		
EWWD-H-		R-134a			✓			✓		✓		
Water cooled chillers (Cooling only)												
EWWQ-B-		R-410A			✓		✓	✓		✓		
Condenserless chillers												
EWLP-KBW1N		R-407C			✓		✓			✓		
EWLD-J-		R-134a			✓		✓			✓		
EWLD-G-		R-134a			✓		✓			✓		
EWLD-I-		R-134a			✓		✓			✓		
Water cooled centrifugal chillers												
EWWD-FZ		R-134a	✓			✓		✓		✓		
DWME		R-134a	✓			✓		✓		✓		
DWSC DWDC		R-134a	✓			✓		✓		✓		

Capacity classes (kW)





About Daikin

**Daikin has a worldwide reputation based
on 85 years' experience in the successful manufacture
of high quality air conditioning equipment for
industrial, commercial and residential use.**

DAIKIN QUALITY

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

Environmental Awareness

DAIKIN AND THE ENVIRONMENT

Air conditioning systems provide a significant level of indoor comfort, making possible optimum working and living conditions in the most extreme climates. In recent years, motivated by a global awareness of the need to reduce the burdens on the environment, some manufacturers including Daikin have invested a great deal in limiting the negative effects associated with the production and the operation of air conditioners. Hence, models with energy saving features and improved eco-production techniques have seen the light of day, making a significant contribution to limiting the impact on the environment.



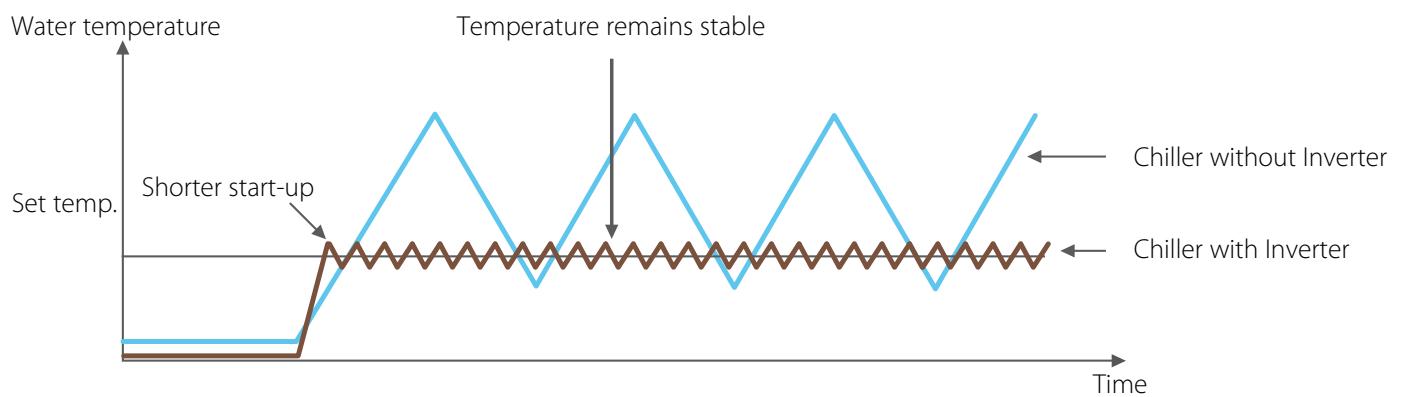
SMART CONTROL BRINGS COMFORT AND REDUCES ENERGY CONSUMPTION

Inverter technology used in the air cooled Mini Chiller (EWAQ-AC & EYWQ-AC), the heat pump inverter EWD-BZ and the cooling only inverter EWAD-CZ, allows more precise control of the leaving water condition in function of the load. This leads to energy savings and high comfort levels, ensuring it is never too cool or too hot. This is a major advantage over standard fixed speed models, which use on/off cycling of the compressor, creating greater fluctuations in control conditions. This technology has now also been introduced into our water cooled range with the centrifugal inverter DWSC/DWDC series.

Inverter technology

Inverter technology offers improved levels of comfort:

- › Energy efficient: continuous matching of load requirement
- › Start-up time is reduced by 1/3
- › Less frequent start/stop cycles
- › Reduced sound levels
- › High EER/COP values





INVERTER TECHNOLOGY FOR HIGHER EFFICIENCY

Both inverter drive (ID) and variable frequency drive (VFD) are terms used to describe a piece of electrical hardware that is used to start, stop, and control the speed of an electric motor. When fitted to a single screw compressor or scroll compressor, an inverter allows it to continuously adapt the cooling capacity to the requirement of the building load by controlling the speed of the compressor motor.

Traditional systems using electric motors running at full speed even when unloaded waste electricity and with most building energy being consumed by HVAC operations, possible savings are important. With soaring energy prices and global warming concerns, our variable frequency drives for HVAC compressors, pumps, fans and motors are a major efficiency improvement as well as an energy saver and these combine to reduce costs.

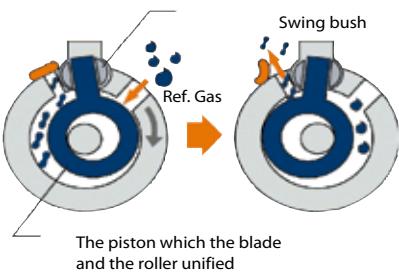
The full range of Daikin chillers now come with inverters already fitted or with an inverter alternative.

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 and so costs are constrained.
- Quick start-up: start up time reduced by 1/3
The ability to vary the output power in direct relation to the cooling requirements of the system by allowing compressor boosts, gives the inverter chiller a reduced start-up-to-operating-capacity making it possible to achieving building comfort conditions in 1/3 less time than with conventional systems.
- Less frequent start/stop cycles and low starting current
The inverter technology ensures fewer start/stop cycles as well as ensuring that the start-up current is always lower than current absorbed in the 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 the minimum sound levels at all times.

Reliable and efficient

THE SWING COMPRESSOR:



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

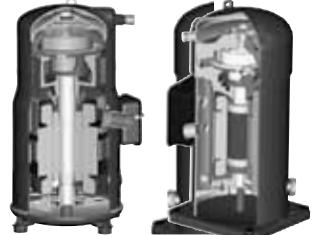


THE SCROLL COMPRESSOR FOR CONTROLLED CAPACITY:



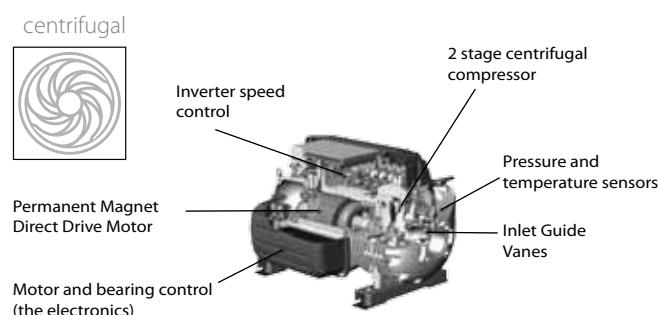
Being compact, the Daikin scroll compressor is used with R-407C and R-410A to provide constant reliability and high efficiency right throughout its service life. Designed for small and medium capacities, the scroll compressors are used with air cooled and water cooled chillers within the range of capacities between 8.6 and 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

INNOVATIVE FRICTIONLESS CENTRIFUGAL COMPRESSOR:



The innovative frictionless centrifugal compressor has an integrated VFD as well as magnetic bearings and delivers high levels of unit efficiency and reliability. The compressor's one moving part – the rotor shaft and impellers – is powered by the permanent magnet 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 operation.



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

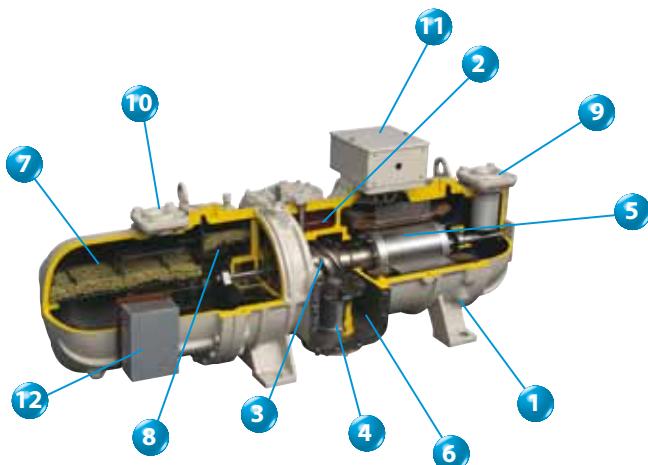
THE SINGLE SCREW STEPLESS COMPRESSOR FOR HIGH CAPACITY:

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 refrigerant, 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 in function of the chilled water temperature. 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 main screw and reduced friction greatly improving compressor efficiency and lifetime.
- › No oil pump necessary – lubrication based on differential pressure principle.
- › Easy access to both compressor and safety devices
- › Star delta starter with low starting current as standard



1. Casing
2. Slide valve
3. Screw rotor
4. Bearing
5. Motor
6. Gate rotor
7. 2nd stage oil separator
8. Demister (oil separator)
9. Refrigerant suction
10. Refrigerant discharge
11. Compressor terminal + CTP
12. Stepper Motor

STANDARD ANTI-CORROSION TREATMENT

As standard, condensers for air cooled chillers are given anti-corrosion treatment. 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.

Air Cooled

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

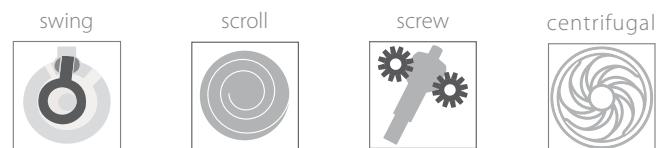
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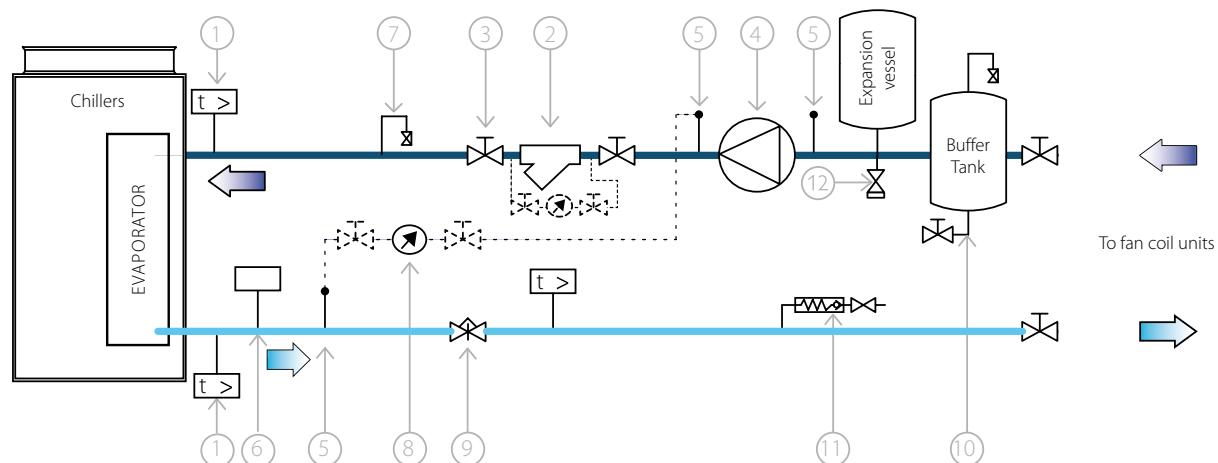


Daikin has taken great care to match major chiller components and refrigerant combinations to a point where high efficiency ranges of technically advanced and closely optimised air and water cooled units are now widely available for use with R-410A, R-407C and R-134a refrigerants.

R-410A **R-134a** **R-407C**



AIR COOLED CHILLER



- | | | |
|-----------------------|-------------------|--------------------|
| 1. Temperature sensor | 5. Pressure port | 9. Balancing valve |
| 2. Filter | 6. Flow switch | 10. Drain valve |
| 3. Shut-off valve | 7. Air purge | 11. Charging valve |
| 4. Pump | 8. Pressure gauge | 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

CONTROL

- › Leaving water control

AVAILABLE INPUTS

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



Digital controller



R-410A

INVERTER





EWAQ-ADVP

Cooling only

Capacity class				EWAQ005ADVP	EWAQ006ADVP	EWAQ007ADVP
Cooling capacity	Nom.	kW		5.2	6.0	7.1
Power input	Cooling	Nom.	kW	1.89	2.35	2.95
EER				2.75	2.55	2.41
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	

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

OPTION KIT

- › Digital Input/Output PCP

CONTROL

- › Leaving water control

AVAILABLE INPUTS

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





EWAQ009-011ACV3 / EWAQ009-013ACW1

Cooling only

Capacity class			EWAQ009ACV3	EWAQ010ACV3	EWAQ011ACV3	EWAQ009ACW1	EWAQ011ACW1	EWAQ013ACW1
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
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
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
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 ³ /min	96	100	97	-
Fan motor	Speed	Cooling	Nom.	rpm	780			780
				Steps	8			8
Sound power level	Cooling	Nom.		dBA	64			64
Sound pressure level	Cooling	Nom.		dBA	51			51
	Night quiet mode	Cooling		dBA	45			45
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			3N~/50/400

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

(2) Fan coil program: cooling Ta 35°C - LWE 7°C (Dt: 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (Dt: 5°C)

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

Capacity class			EWYQ005ADVP	EWYQ006ADVP	EWYQ007ADVP
Cooling capacity	Nom.	kW	5.2	6.0	7.1
Heating capacity	Nom.	kW	6.1 ¹ / 5.65 ²	6.8 ¹ / 6.35 ²	8.2 ¹ / 7.75 ²
Power input	Cooling	Nom.	1.89	2.35	2.95
	Heating	Nom.	1.60 ¹ / 1.97 ²	1.84 ¹ / 2.24 ²	2.36 ¹ / 2.83 ²
EER			2.75	2.55	2.41
COP			3.81 ¹ / 2.87 ²	3.70 ¹ / 2.83 ²	3.47 ¹ / 2.74 ²
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
		Heating	l/min	17.5	19.5
Air heat exchanger	Type			Tube type	
Pump	Nominal ESP unit	Cooling	kPa	49.4	45.1
Hydraulic components	Expansion vessel	Volume	l		38.3
Sound power level	Cooling	Nom.	dBA	62	6
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		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) DB/WB 7°C/6°C - LWC 35°C (Dt=5°C)

(2) 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

OPTION KIT

- › Digital Input/Output PCP (size 009-013 only)

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





EWYQ009-011ACV3/EWYQ009-013ACW1

Heating & Cooling

Capacity class			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	4.28 ¹ / 3.25 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.	m ³ /min	96	100	97	-	-		
		Heating Nom.	m ³ /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			
	Heating	Nom.	dBA		64		64			
Sound pressure level	Cooling	Nom.	dBA		51		51			
	Heating	Nom.	dBA		51		51			
	Night quiet mode	Cooling	dBA		45		45			
		Heating	dBA		42		42			
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" ¹ (female)	G 5/4" ¹ (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

- > Optimised for use with R-407C
- > Daikin scroll compressor
- > Electronic DDC controller
- > Standard phase sequence controller
- > Maximum external static pressure (ESP): 150Pa
- > Pressure gauges
- > Standard operation range down to -10°C
- > Regulating switch
- > Water inlet or outlet temperature control
- > Input contacts/available outputs
- > Input: on/off (per circuit), pump/flow switch
- > Outputs: compressor operation, summary alarm, pump relay contact
- > Compatible with hydraulic module
- > μ C² SE controller



μ C² SE

scroll



R-407C

OPTIONS (FACTORY MOUNTED)

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

ACCESSORIES (KIT)

- > Address card for connection to BMS or remote user interface (EKAC10C)
- > Remoted installed user interface (EKRUMCA)
*To install EKRUMCA -> EKAC10C needs to be installed on the unit

CONTROL

- > Water inlet temperature control

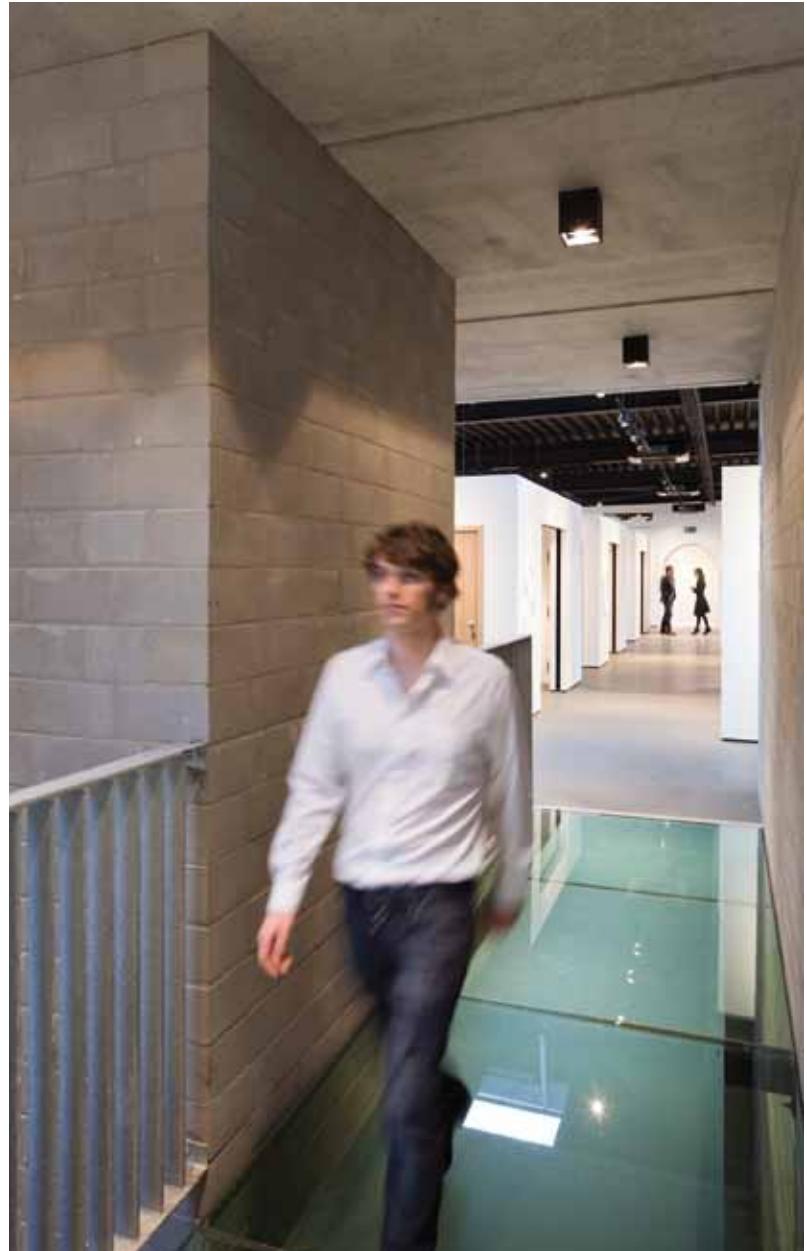
AVAILABLE INPUTS / OUTPUTS

Input

- > ON / OFF (per circuit)
- > Pump / flow switch

Output

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





EUWAC8FBZW1

Cooling only

Capacity class				5	8	10
Cooling capacity	Nom.	kW		11.6	18.4	23.8
Capacity steps		%			100-0	
Power input	Cooling	Nom.	kW	5.2	7.66	9.67
EER				2.23	2.40	2.46
Dimensions	Unit	HeightxWidthxDepth	mm	1,345x856x630	1,290x1,180x630	1,395x1,330x630
Weight	Unit	kg		164	224	261
	Operation weight	kg		166	228	266
Water heat exchanger - evaporator	Type			Brazed plate, one per circuit		
	Minimum water volume in the system	l		101	153	212
	Water flow rate	Nom.	l/min	33	53	68
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	26	42
	Model	Type		AC70-24	AC70-34	AC70-40
		Quantity			1	
Air heat exchanger	Type			Cross fin coil/Hi-X tubes and PE coated waffle louvre fins		
Fan	Air flow rate	Nom.	m ³ /min	70.2	109.8	126
Sound power level	Cooling	Nom.	dBA	63	66	69
Compressor	Type			Hermetically sealed scroll compressor		
Operation range	Water side	Cooling	Min.-Max.	°CDB	-10 (OPZL) ~ 21	
	Air side	Cooling	Min.-Max.	°CDB	-10 ~ 43	
Refrigerant	Type			R-407C		
	Control			Thermostatic expansion valve		
	Circuits	Quantity		1		
Refrigerant circuit	Charge	kg		2.1	3.9	4.7
Piping connections	Evaporator water inlet/outlet			FBSP 1"		
	Evaporator water drain			Field installation		
Power supply	Phase / Frequency / Voltage	Hz / V		3N~ / 50 / 400		

STRENGTHS

- > Optimised for use with R-407C
- > 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



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



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 (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

Capacity class	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	11.3		19.7		22.5		26.5		34.6		46.6		55.3									
Capacity steps	%					0-100													0-50-100				
Power input Cooling	Nom.	kW	4.48		7.27		8.64		11.50		14.70		17.90		23.80								
EER			2.53		2.46		2.60		2.30		2.35		2.60		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		
	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																						
	Water volume	l	1.14		1.615		1.9		2.375		2.964		3.9		4.524								
	Nominal water flow Cooling	l/min	32		51		64		76		99		134		158								
	Nominal water pressure drop	Cooling	heat exchanger	kPa	24		38		43		37				22								
Air heat exchanger	Type																						
Hydraulic components	Expansion vessel	Volume	l	-	12	-	12	-	12	-	12	-	12	-	12	-	12	-	12	-	12		
Fan group	Air flow rate	Cooling	Nom.	m³/min	160 (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																						
Operation range	Water side	Cooling	Min.-Max.	°CDB																			
	Air side	Cooling	Min.-Max.	°CDB																			
Refrigerant	Type																						
	Control																						
	Circuits	Quantity								1									2				
Refrigerant circuit	Charge		kg	3.9		4.6		5.9		6.0		4.6		5.9		6.0							
Refrigerant circuit 2	Charge		kg					-				4.6		5.9		6.0							
Water circuit	Piping connections diameter		inch					G 1"1/4 (male)										2" male					
	Piping		inch					1-1/4"										-					
Power supply	Phase / Frequency / Voltage	Hz / V								3N~ / 50 / 400													

STRENGTHS

- > Optimised for use with R-407C
- > 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 (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

Capacity class			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	9.1		17.1		21.0		25.0		34.2		40		50.0										
Heating capacity	Nom.		kW	11.9		18.5		24.0		27.0		37.0		46		54.0										
Capacity steps	% 0-100			0-50-100																						
Power input	Cooling	Nom.	kW	3.77		7.38		8.49		11.3		14.8		16.2		22.6										
	Heating	Nom.	kW	4.56		7.01		8.98		10.7		14.10		17.3		21.4										
EER	2.41			2.32			2.47			2.21			2.3			2.5			2.2							
COP	2.61			2.64			2.67			2.52			2.62			2.66			2.52							
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	258	272	284	455	473	485	516	534	546	516	534	546	
	Operation weight	kg			165	184	252	230	244	312	261	275	343	261	275	343	461	482	550	522	544	612	522	544	612	
Water heat exchanger	Type	Brazed plate																					4.524			
	Water volume	I	1.140		1.615		1.900		2.375		2.964		3.900													
	Nominal water flow	Cooling	I/min	26		49		60		72		98		115		143										
	Nominal water pressure drop	Heating	I/min	34		53		69		77		106		132		155										
	Cooling	Filter	kPa	10		25		24		33													12	19		
	Heating	Filter	kPa	17		29		31		38		14												22		
Air heat exchanger	Type	Cross fin coil/Hi-X tubes and PE coated waffle louvre fins																								
Hydraulic components	Expansion vessel	Volume	I	-	12	-	12	-	12	-	12	-	12	-	12	-	12	-	12	-	12	-	12			
Fan group	Air flow rate	Cooling	Nom.	m³/min	160 (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(OPZL) ~ 20																					
		Heating	Min.-Max.	°CDB	35 ~ 50																					
	Air side	Cooling	Min.-Max.	°CDB	-15 ~ 43																					
		Heating	Min.-Max.	°CDB	-10 ~ 21																					
Refrigerant	Type	R-407C																								
	Control	Thermostatic expansion valve																								
	Circuits	Quantity			1																					
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		
Water circuit	Piping connections diameter		inch		G 1"1/4 (male)																					
	Piping		inch		1-1/4"																					
Power supply	Phase / Frequency / Voltage		Hz / V		3N~ / 50 / 400																					

STRENGTHS

- › High efficiency chiller with leader-of-class ESEER (up to 4.75)
- › 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

- › Additional hydraulic components: (high static) pump, expansion vessel, safety valve, pressure gauge
- › Heatertape
- › Low leaving water temperatures

scroll



R-410A

INVERTER

ACCESSORIES

- › Pressure gauges (BHGP26A1)
- › PCB with additional inputs/outputs (EKRP1AHTA)
- › External control adapter (DTA104A62)
- › Additional controller in parallel (EKRUUAHTB)





EWAQ-BA*

Cooling only

Capacity class				016	021	025	032	040	050	064
Cooling capacity	Nom.		kW	16.8	21.0	25.2	31.5	42.0	50.4	63.0
Capacity control	Method				Inverter controlled					
	Minimum capacity		%				25			
Power input	Cooling	Nom.	kW	5.57	7.25	9.25	12.9	14.9	19.0	26.7
EER				3.01	2.90	2.72	2.44	2.82	2.65	2.36
ESEER				4.75	4.65	4.45	4.00	4.60	4.40	3.95
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		2		3		5
Nominal water flow	Cooling	l/min		48	60	72	90	120	144	181
	Heating	l/min		48	60	72	90	120	144	181
Nominal water pressure drop	Cooling	Total	kPa	20	30	42	30	42	42	30
Air heat exchanger	Type	Hi-XSS								
Fan	Air flow rate	Cooling	Nom.	m³/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	-5~43					
Refrigerant	Type	R-410A								
	Charge	kg			7.6	9.6	15.2		19.2	
	Control	Electronic expansion valve								
	Circuits	Quantity			1					
Water circuit	Piping	inch			1-1/4"			1-1/2"		
Power supply	Phase/Frequency/Voltage	Hz/V			3N~/50/400					

STRENGTHS

- › High efficiency chiller with leader-of-class ESEER (up to 4.75)
- › 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

- › Additional hydraulic components: (high static) pump, expansion vessel, safety valve, pressure gauge
- › Heatertape
- › Low leaving water temperatures

scroll



R-410A

INVERTER

ACCESSORIES

- › Pressure gauges (BHGP26A1)
- › PCB with additional inputs/outputs (EKRP1AHTA)
- › External control adapter (DTA104A62)
- › Additional controller in parallel (EKRUUAHTB)





EWYQ-BA*

Heating & Cooling

Capacity class			016	021	025	032	040	050	064		
Cooling capacity	Nom.		kW	16.8	21.0	25.2	31.5	42.0	50.4	63.0	
Heating capacity	Nom.		kW	16.8	21.0	25.2	31.5	42.0	50.4	63.0	
Capacity control	Method			Inverter controlled							
	Minimum capacity			25							
Power input	Cooling	Nom.	kW	5.57	7.25	9.25	12.9	14.9	19.0	26.7	
	Heating	Nom.	kW	5.51	7.09	8.87	10.5	14.2	17.8	21.0	
EER				3.01	2.90	2.72	2.44	2.82	2.65	2.36	
ESEER				4.75	4.65	4.45	4.00	4.60	4.40	3.95	
COP				3.05	2.96	2.84	3.00	2.96	2.83	3.00	
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	I	1			2	3			5	
	Nominal water flow	Cooling	I/min	48	60	72	90	120	144	181	
		Heating	I/min	48	60	72	90	120	144	181	
	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.	m³/min	171	185	233	370	466.0		
		Heating	Nom.	m³/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						
Water circuit	Piping	inch		1-1/4"			1-1/2"				
Power supply	Phase/Frequency/Voltage	Hz/V		3N~/50/400							

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)

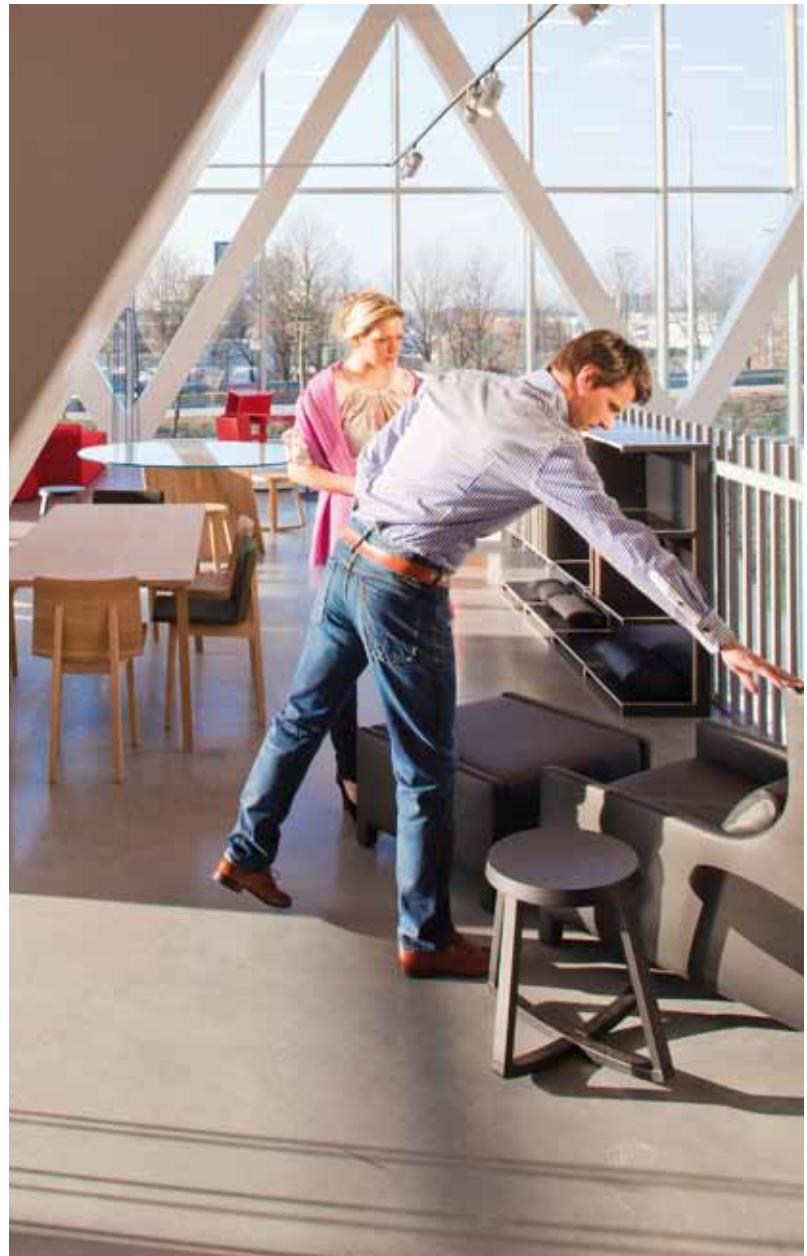
- > Gateway for LON (EKLONPG)
- > Gateway for BACNET (EKNPGL)
- > Address card (EKACPG)
- > Remote user interface (EKRUPG)
- > Waterpipe kit (EKN210 & EKN260)



PCASO



R-410A





EWAQ130,150DAYN

Cooling only

Capacity class			EWAQ080DAYN	EWAQ100DAYN	EWAQ130DAYN	EWAQ150DAYN	EWAQ180DAYN	EWAQ210DAYN	EWAQ240DAYN	EWAQ260DAYN
Cooling capacity	Nom.	kW	79.4 ¹ / 81.0 ²	104 ¹ / 106 ²	130 ¹ / 133 ²	151 ¹ / 154 ²	181 ¹ / 184 ²	208 ¹ / 211 ²	234 ¹ / 238 ²	252 ¹ / 256 ²
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
Power input	Cooling	Nom.	27.0 ¹ / 27.6 ²	36.9 ¹ / 37.2 ²	47.4 ¹ / 48.1 ²	57.2 ¹ / 57.8 ²	65.6 ¹ / 66.5 ²	75.9 ¹ / 76.6 ²	84.4 ¹ / 84.5 ²	95.8 ¹ / 95.8 ²
EER			2.94 ¹ / 2.93 ²	2.82 ¹ / 2.85 ²	2.74 ¹ / 2.77 ²	2.64 ¹ / 2.66 ²	2.76 ¹ / 2.77 ²	2.74 ¹ / 2.75 ²	2.77 ¹ / 2.82 ²	2.63 ¹ / 2.67 ²
ESEER			3.88 ¹ / 3.82 ²	3.79 ¹ / 3.83 ²	4.03 ¹ / 3.97 ²	3.95 ¹ / 3.96 ²	4.04 ¹ / 4.02 ²	4.00 ¹ / 4.02 ²	3.89 ¹ / 4.00 ²	3.73 ¹ / 3.84 ²
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 ³ /min	780		800	860	1,290		1,600
	Speed		rpm		880		900		970	
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
Refrigerant circuit 2	Charge	kg		-		19	23	31	30	40
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

- > 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)

- > Gateway for LON (EKLONPG)
- > Gateway for BACNET (EKBNPG)
- > Address card (EKACPG)
- > Remote user interface (EKRUPG)
- > Waterpipe kit (EKGN210 & EKGN260)



PCASO



R-410A





EWYQ130,150DAYN

Heating & Cooling

Capacity class			EWYQ080DAYN	EWYQ100DAYN	EWYQ130DAYN	EWYQ150DAYN	EWYQ180DAYN	EWYQ210DAYN	EWYQ230DAYN	EWYQ250DAYN
Cooling capacity	Nom.	kW	76.6 ¹ / 78.1 ²	100 ¹ / 101 ²	135 ¹ / 138 ²	144 ¹ / 147 ²	182 ¹ / 185 ²	210 ¹ / 213 ²	229 ¹ / 233 ²	251 ¹ / 254 ²
Heating capacity	Nom.	kW	88.2 ¹ / 86.5 ²	115 ¹ / 113 ²	150 ¹ / 148 ²	166 ¹ / 163 ²	200 ¹ / 197 ²	227 ¹ / 223 ²	260 ¹ / 256 ²	283 ¹ / 279 ²
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 ¹ / 27.5 ²	36.7 ¹ / 37.1 ²	48.4 ¹ / 49.0 ²	56.5 ¹ / 57.1 ²	64.8 ¹ / 65.7 ²	76.5 ¹ / 77.2 ²	83.6 ¹ / 83.8 ²
	Heating	Nom.	kW	30.5 ¹ / 31.0 ²	38.7 ¹ / 39.1 ²	50.5 ¹ / 51.1 ²	59.8 ¹ / 60.2 ²	69.2 ¹ / 69.9 ²	78.5 ¹ / 79.1 ²	85.9 ¹ / 86.0 ²
EER				2.86 ¹ / 2.84 ²	2.72 ¹ / 2.72 ²	2.79 ¹ / 2.82 ²	2.55 ¹ / 2.57 ²	2.81 ¹ / 2.82 ²	2.75 ¹ / 2.76 ²	2.74 ¹ / 2.78 ²
ESEER				3.84 ¹ / 3.76 ²	3.68 ¹ / 3.68 ²	4.03 ¹ / 3.99 ²	3.84 ¹ / 3.84 ²	4.06 ¹ / 4.02 ²	3.94 ¹ / 3.96 ²	3.93 ¹ / 4.04 ²
COP				2.89 ¹ / 2.79 ²	2.97 ¹ / 2.89 ²	2.97 ¹ / 2.90 ²	2.78 ¹ / 2.71 ²	2.89 ¹ / 2.82 ²	2.89 ¹ / 2.82 ²	3.03 ¹ / 2.98 ²
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 ³ /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" 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

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
- > Water filter

OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Axial fans (250 Pa lift)
- > 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



MicroTech III



R-410A





ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKMBACMSTP)
- › BACnet/IP communication module (EKMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity class			EWAQ-E-XS						EWAQ-E-XL							
Cooling capacity	Nom.	kW	178	201	227	264	316	336	178	201	227	264	316	336		
Capacity control	Method		Step						Step							
	Minimum capacity	%	50	43	50	33	27	33	50	43	50	33	27	33		
Power input	Cooling	Nom.	kW	57.4	64.6	73.0	85.1	102	108	57.4	64.6	73.0	85.1	102	108	
EER			3.10		3.11		3.10		3.10		3.11		3.10			
ESEER			4.14	4.24	4.03	4.31	4.30	4.27	4.14	4.24	4.03	4.31	4.30	4.27		
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413	2,271x1,224x5,313	2,271x1,224x6,213	2,271x1,224x4,413	2,271x1,224x5,313	2,271x1,224x6,213	2,271x1,224x4,413	2,271x1,224x5,313	2,271x1,224x6,213	2,271x1,224x4,413	2,271x1,224x5,313	2,271x1,224x6,213	
Weight	Unit	kg	kg	1,722	1,807	1,871	2,173	2,304	2,492	1,876	1,965	2,032	2,370	2,507	2,705	
	Operation weight	kg	kg	1,734	1,819	1,885	2,188	2,318	2,507	1,889	1,978	2,047	2,385	2,522	2,719	
Water heat exchanger	Type			Plate heat exchanger						Plate heat exchanger						
	Water volume	l		12		14		12		14		12		14		
Nominal water flow	Cooling	l/s		8.5	9.6	10.8	12.6	15.1	16.0	8.5	9.6	10.8	12.6	15.1	16.0	
Nominal water pressure drop	Cooling	Total	kPa	27	34	35	47	54		27	34	35	47	54		
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler						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	32,065	21,845	21,148	26,874	25,884	32,953	32,065	
	Speed		rpm			900						900				
Sound power level	Cooling	Nom.	dBA	93	94	96	95	96	97	91	92	93	92	93	94	
Sound pressure level	Cooling	Nom.	dBA	75		76		77			73				74	
Compressor	Type			Scroll compressor						Scroll compressor						
Operation range	Water side	Cooling	Min.-Max. °CDB		-15~18						-15~18					
	Air side	Cooling	Min.-Max. °CDB		-18~52						-18~52					
Refrigerant	Type			R-410A						R-410A						
	Circuits	Quantity		1						1						
Refrigerant circuit	Charge	kg		15	18	16	21	26		15	18	16	21	26		
Piping connections	Evaporator water inlet/outlet (OD)			3"						3"						
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400						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
- > Water filter



OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Axial fans (250 Pa lift)
- > 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





ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKMBACMSTP)
- › BACnet/IP communication module (EKMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity class			EWAQ170E-XR	EWAQ190E-XR	EWAQ220E-XR	EWAQ260E-XR	EWAQ300E-XR	EWAQ320E-XR
Cooling capacity	Nom.	kW	173	194	220	255	303	323
Capacity control	Method				Step			
	Minimum capacity	%	50	43	50	33	27	33
Power input	Cooling	Nom.	56.0	63.7	71.0	84.5	101	108
EER			3.09	3.04	3.09	3.01	3.00	2.99
ESEER			4.59	4.69	4.46	4.79	4.76	4.68
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	2,840
	Operation weight	kg	1,982	2,076	2,148	2,503	2,647	2,855
Water heat exchanger	Type			Plate heat exchanger				
	Water volume	l		12			14	
Nominal water flow	Cooling	l/s	8.2	9.2	10.5	12.1	14.5	15.4
Nominal water pressure drop	Cooling	Total	kPa	26	32	33	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
- > Water filter

OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Axial fans (250 Pa lift)
- > 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



MicroTech III



ACCESSORIES

- > Serial Sequencing Panel (EKDSSI)
- > Digital Sequencing Panel (EKDD)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (E)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRL)



EWAQ-F-SS / SL

Cooling only

Capacity class			EWAQ210F-SS	EWAQ230F-SS	EWAQ250F-SS	EWAQ280F-SS	EWAQ320F-SS	EWAQ350F-SS	EWAQ360F-SS	EWAQ400F-SS	EWAQ410F-SS	EWAQ480F-SS	EWAQ550F-SS	EWAQ610F-SS
Cooling capacity	Nom.	kW	207	225	248	284	315	360	408	482	553	612		
Capacity control	Method				Step									
	Minimum capacity	%	25	22	25	23	25	21	25	17	14	17		
Power input	Cooling	Nom.	kW	72.6	84.0	92.4	107	120	140	153	185	205	226	
EER				2.85	2.68	2.69	2.65	2.63	2.57	2.67	2.60	2.70		
ESEER				3.91	3.89	3.93	3.86	3.90	3.85	4.14	3.90	4.16	4.26	4.18 4.21
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413			2,271x1,224x5,313			2,271x1,224x6,213 2,221x2,258x3,210			2,447x1,224x6,213 2,397x2,258x3,210	
Weight	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
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	Cooling	Nom.	dBA	93	94		95			97			99	
Sound pressure level	Cooling	Nom.	dBA		75		76		77		78			79
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							

Capacity class			EWAQ210F-SL	EWAQ230F-SL	EWAQ250F-SL	EWAQ280F-SL	EWAQ320F-SL	EWAQ350F-SL	EWAQ360F-SL	EWAQ400F-SL	EWAQ410F-SL	EWAQ480F-SL	EWAQ550F-SL	EWAQ610F-SL	
Cooling capacity	Nom.	kW	207	225	248	284	315	360	408	482	553	612			
Capacity control	Method				Step										
	Minimum capacity	%	25	22	25	23	25	21	25	17	14	17			
Power input	Cooling	Nom.	kW	72.6	84.0	92.4	107	120	140	153	185	205	226		
EER				2.85	2.68	2.69	2.65	2.63	2.57	2.67	2.60	2.70			
ESEER				3.91	3.89	3.93	3.86	3.90	3.85	4.14	3.90	4.16	4.26	4.18 4.21	
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413			2,271x1,224x5,313			2,271x1,224x6,213 2,221x2,258x3,210			2,447x1,224x6,213 2,397x2,258x3,210		
Weight	Unit		kg	2,297			2,373			2,449			2,666		
	Operation weight		kg	2,309			2,385			2,463			2,681		
Water heat exchanger	Type				Plate heat exchanger									46	
	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	Cooling	Nom.	dBA	91	92		93			94		95		96	
Sound pressure level	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										
	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
- > 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 viatulic 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
- > Water filter

OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Axial fans (250 Pa lift)
- > 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



MicroTech III



R-410A





EWAQ-F-SR

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

EWAQ-F-SR															
Capacity class			200	220	240	270	300	330	340	370	380	460	530	580	
Cooling capacity	Nom.	kW	199	215	236	272	299	342		384		457	529	582	
Capacity control	Method							Step							
	Minimum capacity	%	25	22	25	23	25	21		25		17	14	17	
Power input	Cooling	Nom.	kW	72.7	85.1	94.6	109	123	143		158	190	206	231	
EER				2.73	2.52	2.49	2.42	2.39		2.44		2.41	2.56	2.53	
ESEER				4.40	4.33	4.26	4.29	4.21	4.23	4.40	4.15	4.29	4.67	4.63	4.57
Dimensions	Unit	HeightxWidthxDepth	mm	2,271x1,224x4,413			2,271x1,224x5,313			2,271x1,224 x6,213	2,221x2,258 x3,210	2,447x1,224 x6,213	2,397x2,258 x3,210	2,221x2,258 x4,110	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	4,108
	Operation weight	kg		2,424		2,504	2,585	2,676	2,814	2,914	3,156	3,256	3,527	3,909	4,154
Water heat exchanger	Type			Plate heat exchanger											
	Water volume	l		12			14			40		46			
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	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	20,929	20,356	25,115		24,922	33,487	41,858	40,713	
	Speed		rpm	705											
Sound power level	Cooling	Nom.	dBA	85	86	87		89		90	89	91	92		
Sound pressure level	Cooling	Nom.	dBA	66	67	68		69	70	71	70	71	72		
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
- > Water filter

OPTIONS (FACTORY MOUNTED)

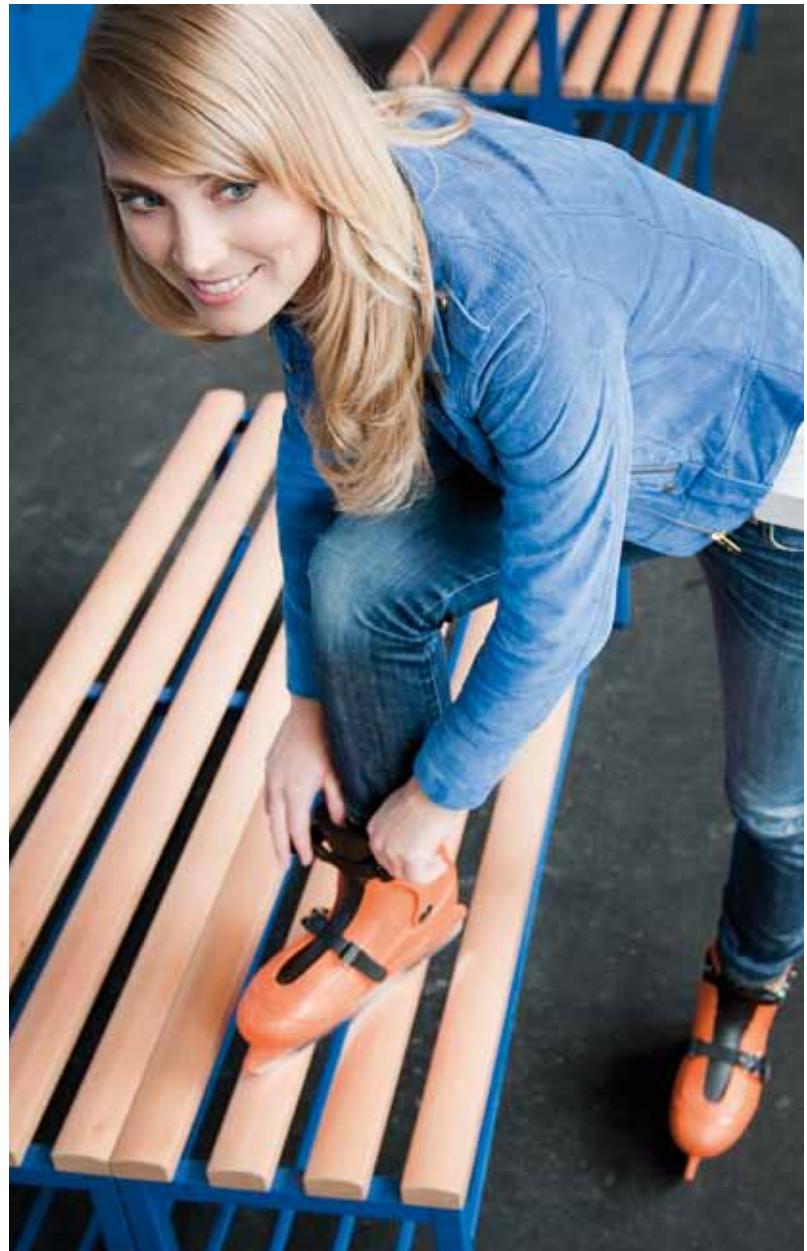
- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Axial fans (250 Pa lift)
- > Condenser coil guards
- > Evaporator area guards
- > CuCu condenser coil
- > CuCuSn condenser coil
- > Alucoat fins coil
- > Discharge line shut-off valve
- > Suction line shut-off valve
- > High pressure 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



MicroTech III



R-410A



ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)



Cooling only

EWAQ-F-XS																			
Capacity class			170	200	220	250	310	320	350	360	400	430	450	520	610	680			
Cooling capacity	Nom.	kW	171	195	221	245	317		357	404	429	458	529	609	675				
Capacity control		Method							Step										
Power input		Minimum capacity	%	25	21	25	22	23	25	21	20	25	17	14	17				
EER		Cooling	Nom.	kW	54.3	61.6	69.9	77.4	101	114	129	136	145	168	196	216			
ESEER					3.15	3.16	3.17		3.12	3.12	3.13	3.15	3.14	3.11	3.12				
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	1,688	1,958	2,210	2,339	2,500	2,600	2,632	2,732	2,744	2,845	2,861	3,569	3,667	4,054		
Operation weight		kg	1,700	1,973	2,225	2,353	2,514		2,672	2,772	2,784	2,891	2,907	3,615	3,727	4,115			
Type																			
Water 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																			
Fan		Type	High efficiency fin and tube type with integral subcooler												High efficiency fin and tube type with integral subcooler				
Speed		Nom.	l/s	21,845	21,148	26,874	25,204	31,722		30,245	42,296	40,326		50,408	60,489				
Sound power level		Air flow rate	rpm							900									
Sound pressure level		Cooling	Nom.	dBA	91	93	94	95		96		97		98		99	100		
Compressor		Type													Scroll compressor				
Operation range		Water side	Cooling	Min.-Max.	°CDB														
Air side		Cooling	Min.-Max.	°CDB													-15~18		
Refrigerant		Type													-18~52				
Circuits		Quantity													R-410A				
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									

EWAQ-F-XL																				
Capacity class			170	200	220	250	310	320	350	360	400	430	450	520	610	680				
Cooling capacity	Nom.	kW	171	195	221	245	317		357	404	429	458	529	609	675					
Capacity control		Method							Step											
Power input		Minimwum capacity	%	25	21	25	22	23	25	21	20	25	17	14	17					
EER		Cooling	Nom.	kW	54.3	61.6	69.9	77.4	101	114	129	136	145	168	196	216				
ESEER					3.15	3.16	3.17		3.12	3.13	3.15	3.14	3.11	3.12						
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	1,688	1,958	2,210	2,339	2,500	2,600	2,632	2,732	2,744	2,845	2,861	3,569	3,667	4,054			
Operation weight		kg	1,700	1,973	2,225	2,353	2,514		2,672	2,772	2,784	2,891	2,907	3,615	3,727	4,115				
Type																				
Water 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																				
Fan		Type	High efficiency fin and tube type with integral subcooler												High efficiency fin and tube type with integral subcooler					
Speed		Nom.	l/s	21,845	21,148	26,874	25,204	31,722		30,245	42,296	40,326		50,408	60,489					
Sound power level		Air flow rate	rpm							900				900						
Sound pressure level		Cooling	Nom.	dBA	90	91	92		93		95		96		97					
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

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
- > Water filter

OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Axial fans (250 Pa lift)
- > 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



MicroTech III





EWAQ-F-XR

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity class			170	190	210	240	300	310	330	340	390	410	430	500	580	650			
Cooling capacity			Nom.	kW	166	188	212	237	305	341	341	386	408	434	504	581	648		
Capacity control			Method					Step											
			Minimum capacity	%	25	21	25	22	23	25	21	20	25	17	14	17			
Power input			Cooling	Nom.	kW	52.5	60.6	68.0	76.4	101	116	116	127	135	145	168	198	216	
EER					3.16	3.11	3.12	3.10	3.03	2.94	2.94	3.04	3.02	2.99	3.00	2.94	3.00		
ESEER					4.67	4.78	4.65	4.74	4.67	4.82	4.58	4.77	4.82	4.78	4.68	4.97	4.84	4.79	
Dimensions	Unit	HeightxWidthxDepth	mm		2,271x1,224x4,413	2,271x1,224x5,313	2,271x1,224 x6,213	2,221x2,258 x3,210	2,271x1,224 x6,213	2,221x2,258 x3,210	2,221x2,258x4,110			2,221x2,258x5,010	2,221x2,258 x5,910				
Weight			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		
			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

- > Wide capacity range: 10 sizes to cover a range from 101 to 413 kW
- > 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

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

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 (500 and 1000 l)
- > Fans speed regulation (+fan silent mode)
- > Transport kit



MicroTech III



R-134a





EWAD100-210E-SS

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity class			100	120	140	160	180	210	260	310	360	410								
Cooling capacity	Nom.	kW	101	121	138	163	183	214	256	307	360	413								
Capacity control	Method			Stepless																
	Minimum capacity			25																
Power input	Cooling	Nom.	kW	38.7	46.9	53.4	60.3	68.5	71.7	86.7	111	133	146							
EER				2.61	2.57	2.58	2.70	2.67	2.98	2.95	2.77	2.71	2.84							
ESEER				2.93	2.75	2.93	2.81	3.02	3.18	3.05	3.23	3.34								
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			1,699	1,881		2,116		2,963											
Water heat exchanger	Type	Plate to plate																		
	Water volume	l		12	15	17	20	24	30	25	30	36	44							
	Nominal water flow	Cooling	l/s	4.83	5.76	6.58	7.77	8.74	10.22	12.22	14.65	17.21	19.74							
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	24	25	24	22	21		48		45							
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																		
Fan	Air flow rate	Nom.	l/s	10,922	10,575	16,383	15,863	21,844	21,150	32,767		31,725								
	Speed			920																
Sound power level	Cooling	Nom.	dBA	91.5		92.3		93.0		94.2		94.5								
Sound pressure level	Cooling	Nom.	dBA	73.5		73.7		73.9		75.1		75.3								
Compressor	Type	Semi-hermetic 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			3"																
Power supply	Phase / Frequency / Voltage	Hz / V		3~/50 / 400																

STRENGTHS

- > Wide capacity range: 10 sizes to cover a range from 97.9 kW to 398 kW
- > 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

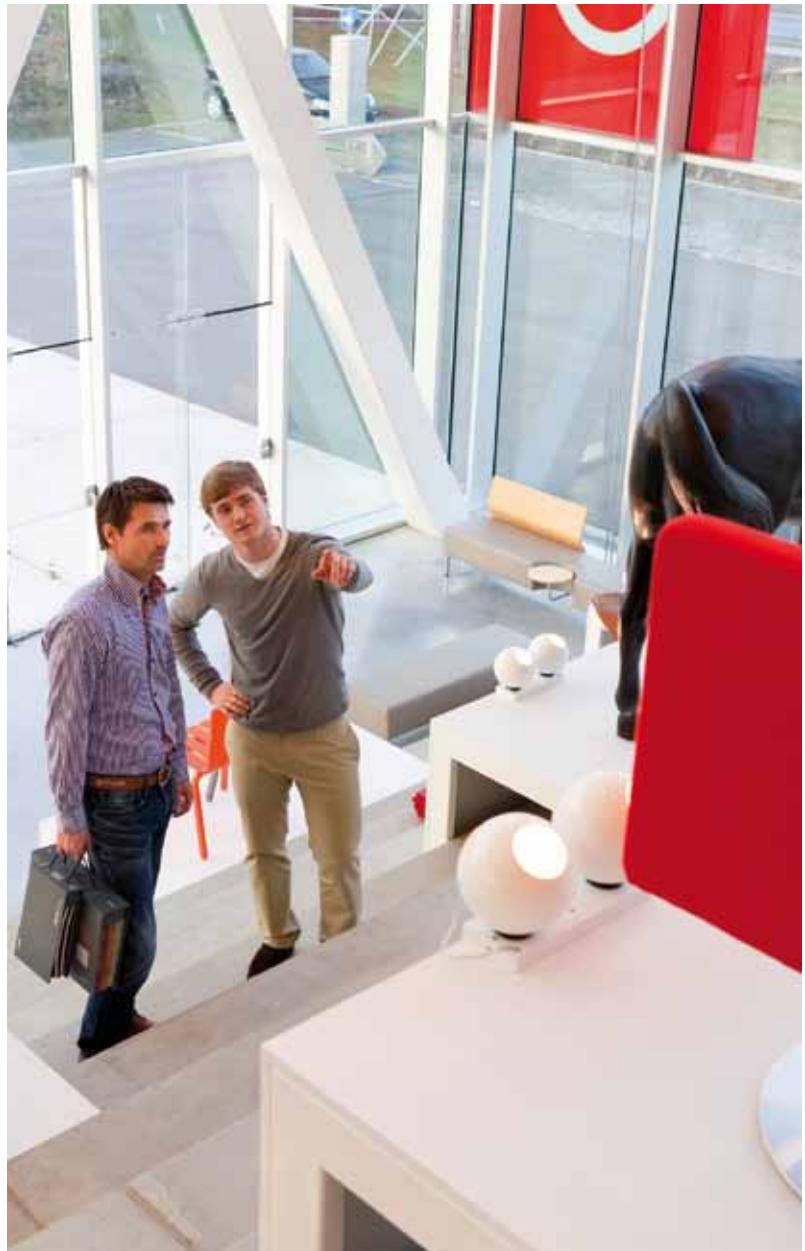
- > Wye delta starter (y - d)
- > Double setpoint
- > Phase monitor
- > Evaporator electric heater
- > Electronic expansion valve
- > Discharge line shut off valve
- > Suction line shut off valve
- > Ambient outside temperature sensor and set-point reset
- > Hour run meter
- > General fault contactor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



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
- > External tank with or without (500 and 1000 l)
- > Low pressure side manometers
- > Transport kit





EWAD100-210E-SL

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKMBACMSTP)
- › BACnet/IP communication module (EKMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity class			100	120	130	160	180	210	250	300	350	400		
Cooling capacity	Nom.	kW	97.9	116	134	157	177	209	249	296	345	398		
Capacity control	Method				Stepless									
	Minimum capacity	%				25								
Power input	Cooling	Nom.	kW	38.8	47.9	53.0	60.6	67.8	72.1	84.5	110	134	150	
EER				2.52	2.42	2.53	2.60	2.61	2.89	2.95	2.69	2.58	2.65	
ESEER				3.01	2.97	2.85	3.00	3.07	3.32	3.55	3.41	3.34	3.45	
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 to plate									
	Water volume	l		12	15	17	20	24	30	25	30	36	44	
	Nominal water flow	Cooling	l/s	4.68	5.54	6.40	7.51	8.47	9.97	11.90	14.15	16.50	19.01	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa				23		21	20	46	45	
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler									
Fan	Air flow rate	Nom.	l/s	8,372	8,144	12,558	12,217	16,744	16,289	25,117	24,433			
	Speed		rpm				715							
Sound power level	Cooling	Nom.	dBA	89.0		89.8		90.5	91.7	92.0	92.7			
Sound pressure level	Cooling	Nom.	dBA	71.0		71.2		71.4	72.6	72.5	72.8			
Compressor	Type				Semi-hermetic 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						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)

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

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
- > Axial fans (250 PA lift)
- > Low pressure side manometers
- > Evaporator right water connections
- > Inverter compressor starter
- > Transport kit



MicroTech III



R-134a





EWAD390D-SS

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity Class			390	440	470	510	530	560	580			
Cooling capacity	Nom.	kW	389	436	466	502	532	556	578			
Capacity control	Method			Stepless			12.5					
Power input	Cooling	Nom.	kW	152	164	167	184	194	205			
EER	2.56			2.66	2.79	2.73	2.74	2.72	2.93			
ESEER	3.36			3.54	3.55	3.52			3.56			
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	18.60	20.80	22.20	24.00	25.40	26.50			
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	45.6	37.9	66.5	47.1	52.1			
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler										
Fan	Air flow rate	Nom.	l/s	32,772		43,455	43,694		42,300			
	Speed	rpm		920								
Sound power level	Cooling	Nom.	dBA	95.8	96.7	96	96.7	98.2	98.7			
Sound pressure level	Cooling	Nom.	dBA	76.5	77.0			78.5	79.0			
Compressor	Type	Semi-hermetic 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	70	76	82	87	92			
Piping connections	Evaporator water inlet/outlet			139.7mm								
Power supply	Phase / Frequency / Voltage	Hz / V		3 / 50 / 400								

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)

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
- > 20mm evaporator insulation
- > Water pressure differential switch on evaporator

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
- > 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 (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
- > Low pressure side manometers
- > Inverter compressor starter
- > Transport kit
- > Axial fans (250 PA lift)



MicroTech III



R-134a





EWAD400-530D-SL

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity Class			180	200	230	250	260	280	300	320	370	400	440	480	510	530																			
Cooling capacity	Nom.	kW	184	198	225	245	261	275	298	321	370	404	440	477	505	533																			
Capacity control	Method				Stepless																														
	Minimum capacity	%				12.5																													
Power input	Cooling	Nom.	kW	81.4	79.7	84.5	93.4	101	108	119	123	133	169	170	186	203	195																		
EER				2.26	2.48	2.66	2.62	2.58	2.54	2.50	2.60	2.78	2.39	2.59	2.57	2.49	2.73																		
ESEER				3.00	3.12	3.31	3.21	3.26	3.23	3.20	3.24	3.41	3.65	3.67	3.57	3.67	3.77																		
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x2,239			2,355x2,234x3,139			2,223x2,234x3,139			2,223x2,234x4,040																						
Weight	Unit	kg	kg	2,475	2,470				2,860			2,960			4,029	4,224	4,229	4,234																	
	Operation weight	kg				2,500			2,960			3,090			4,194	4,394																			
Water heat exchanger	Type	Plate to plate			Single pass shell & tube																														
	Water volume	l	25	30	100			130			165			170			165	160																	
	Nominal water flow	Cooling	l/s	8.80	9.40	10.70	11.70	12.50	13.10	14.20	15.30	17.70	19.30	21.00	22.80	24.10	25.40																		
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	28.9	21.8	57.8	49.0	53.9	58.9	59.5	55.2	67.4	47.5	62.1	54.0	48.4	43.4																	
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																																	
Fan	Air flow rate	Nom.	l/s	15,300	14,900	22,900	22,600	22,300	24,428			33,489			32,572																				
	Speed				900											715																			
Sound power level	Cooling	Nom.	dBA	93.7			94.3			94.7			94.2			95.7	96.2																		
Sound pressure level	Cooling	Nom.	dBA				75.0			77.5			74.5			76.0	76.5																		
Compressor	Type	Semi-hermetic 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			88.9			114.3			139.7																									
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)

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
- > 20mm evaporator insulation
- > Water pressure differential switch on evaporator

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 (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
- > Axial fans (250 PA lift)
- > Evaporator right water connections
- > Inverter compressor starter
- > Transport kit
- > Low pressure side manometers



MicroTech III



R-134a





EWAD400-530D-SR

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity Class			180	190	220	240	250	270	280	310	370	400	440	480	510	530					
Cooling capacity	Norm.	kW	177	190	219	238	252	265	278	312	366	404	440	477	505	533					
Capacity control	Method			Stepless																	
	Minimum capacity			12.5																	
Power input	Cooling	Nom.	kW	84.0	82.7	85.2	94.7	103	111	122	125	138	169	170	186	203	195				
EER				2.11	2.30	2.57	2.51	2.44	2.38	2.28	2.49	2.65	2.39	2.59	2.57	2.49	2.73				
ESEER				2.89	3.00	3.34	3.21	3.23	3.16	3.13	3.25	3.42	3.65	3.67	3.57	3.67	3.77				
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x2,239			2,355x2,234x3,139			2,223x2,234x3,139			2,223x2,234x4,040								
Weight	Unit	kg		2,620			2,890			3,110			4,040			4,240					
	Operation weight	kg		2,650			3,100			3,240			4,342			4,542					
Water heat exchanger	Type	Plate to plate			Single pass shell & tube																
	Water volume	I		25	30	100			130			165	170			165	160				
	Nominal water flow	Cooling	l/s	8.50	9.10	10.40	11.30	12.00	12.60	13.30	14.90	17.40	19.30	21.00	22.80	24.10	25.40				
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	26.9	20.1	55.1	46.6	50.8	55.2		52.7	65.1	47.5	62.1	54.0	48.4	43.4			
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																			
Fan	Air flow rate	Nom.	l/s	15,300	14,900	22,900	22,600	22,300	24,428				33,489			32,572					
	Speed		rpm	680			715														
Sound power level	Cooling	Nom.	dBA	88.7			89.3			89.7	92.2	90.7			92.2	92.7					
Sound pressure level	Cooling	Nom.	dBA				70.0			72.5	71.0			72.5	73.0						
Compressor	Type	Semi-hermetic 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					
	Circuits	Quantity		2																	
Piping connections	Evaporator water inlet/outlet			88.9			114.3			139.7											
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)

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
- > Fans speed regulation (+ fan silent mode)

OPTIONS (FACTORY MOUNTED)

- > Total heat recovery 1 circuit
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Evaporator flange kit
- > 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 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)



MicroTech III



R-134a





EWAD230-410D-SX

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKCLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity Class			210	230	250	270	290	300	310	370	410	450	490								
Cooling capacity	Nom.	kW	203	231	253	271	286	299	309	370	413	451	492								
Capacity control	Method			Stepless			12.5														
Power input	Cooling	Nom.	kW	79.9	85.2	93.5	104	114	126	136	148	169	173								
EER	2.54			2.71	2.70	2.59	2.50	2.37	2.27	2.49	2.44	2.60	2.63								
ESER	3.39			3.63	3.52	3.55	3.44	3.39	3.25	3.24	3.49	3.61	3.58								
Dimensions	Unit	HeightxWidthxDepth	mm	2,420x2,234x3,139			2,420x2,234x4,040			2,420x2,234x4,940											
Weight	Unit	kg	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								
Water heat exchanger	Type	Single pass shell & tube																			
	Water volume	l	90	115			165	160			175	170									
	Nominal water flow	Cooling	l/s	9.70	11.00	12.10	12.90	13.70	14.30	14.70	17.70	19.70	21.50								
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	44.7	33.8	38	38.3	34.9	37.7	40.5	44.5	43.9								
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																			
Fan	Air flow rate	Nom.	l/s	12,900	17,900	17,200			26,495	25,933	28,625	33,116									
	Speed		rpm				500														
Sound power level	Cooling	Nom.	dBA	84.3	84.7						85.7	86.2									
Sound pressure level	Cooling	Nom.	dBA				65.0														
Compressor	Type	Semi-hermetic 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			114.3						139.7											
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



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 - 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 (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
- > Axial fans (250 PA lift)
- > Low pressure side manometers
- > Evaporator right water connections
- > Inverter compressor starter
- > Water pressure differential switch on evaporator
- > Transport kit





EWAD250D-XS

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKCLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity Class			250	280	300	330	350	380	400	470	520	580	620									
Cooling capacity	Nom.	kW	247	275	302	327	351	376	401	469	524	575	622									
Capacity control	Method				Stepless																	
	Minimum capacity	%				12.5																
Power input	Cooling	Nom.	kW	79.1	87.1	94.1	104	113	120	127	150	166	181	194								
EER				3.12	3.16	3.20	3.15	3.12	3.14	3.16	3.12	3.15	3.18	3.20								
ESEER				3.56	3.60	3.62	3.85	3.67	3.58	3.59	3.84	4.00	4.01	3.88								
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			3,510									
	Operation weight	kg	kg	3,000			3,400			3,780			4,940									
Water heat exchanger	Type	Single pass shell & tube																				
	Water volume	l	l	95			115			165			160									
	Nominal water flow	Cooling	l/s	11.80			13.10			14.40			15.60									
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	48.1			44.9			48.8			46.1								
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																				
Fan	Air flow rate	Nom.	l/s	22,300	30,600	29,700			44,000			43,000										
	Speed	rpm			900						43,695			54,616								
Sound power level	Cooling	Nom.	dBA	96.8	97.2			98.7			99.2			920								
Sound pressure level	Cooling	Nom.	dBA				77.5						79.0									
Compressor	Type	Semi-hermetic 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	kg	58	66	76			73			76										
Piping connections	Evaporator water inlet/outlet						114.3						168.3									
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

OPTIONS (FACTORY MOUNTED)

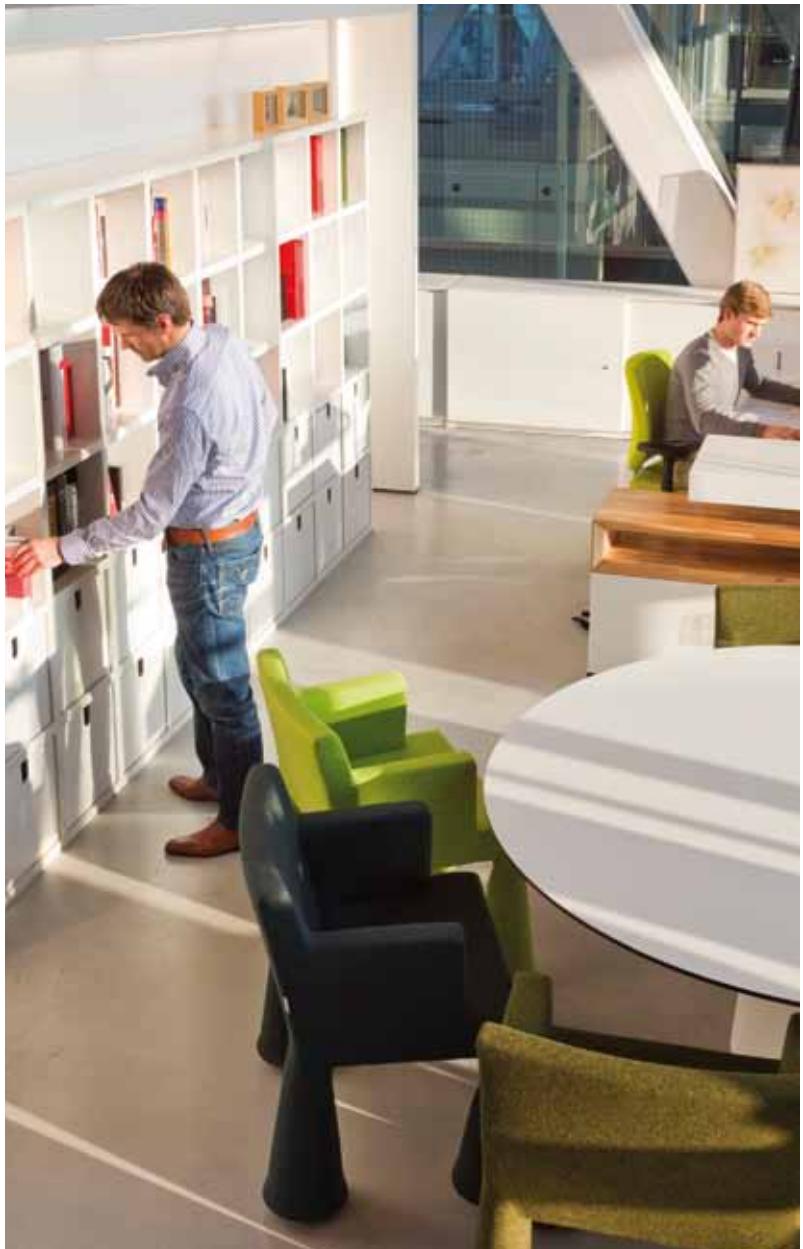
- > Total heat recovery (1 circuit)
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Evaporator flange kit
- > 20 mm evaporator 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 (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
- > Axial fans (250 PA lift)
- > Evaporator right water connections
- > Inverter compressor starter
- > Water pressure differential switch on evaporator
- > Transport kit



MicroTech III



R-134a





EWAD270-390D-XR

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity Class			240	270	300	320	350	370	390	460	510	560	600								
Cooling capacity	Nom.	kW	243	272	296	322	345	370	394	455	512	561	600								
Capacity control	Method				Stepless																
	Minimum capacity	%				12.5															
Power input	Cooling	Nom.	kW	80.6	87.0	95.1	106	115	119	127	152	167	183	198							
EER				3.01	3.12	3.11	3.05	2.99	3.12	3.10	2.99	3.07		3.03							
ESEER				3.63	3.70	3.69	3.82	3.71	4.01	3.82	3.89	4.11		3.93							
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												255							
	Water volume	l	95	115			165	160			270			255							
	Nominal water flow	Cooling	l/s	11.60	13.00	14.10	15.40	16.40	17.70	18.80	21.70	24.40	26.80	28.60							
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	46.7	44.0	47.5	44.7	49.2	56.2	55.6	44.8	60.4	53.7	36.1						
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																			
Fan	Air flow rate	Nom.	l/s				12,500				33,488	41,861	41,864								
	Speed				680						715										
Sound power level	Cooling	Nom.	dBA	91.8	92.2			93.2			93.7										
Sound pressure level	Cooling	Nom.	dBA				72.5				73.5										
Compressor	Type	Semi-hermetic 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			114.3						168.3											
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
- > 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
- > 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 (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
- > Axial fans (250 PA lift)
- > Evaporator right water connections
- > Low pressure side manometers
- > Inverter compressor starter
- > Transport kit





EWAD340-450D-HS

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity Class				200	210	230	260	270	290	310	340	380	420	450	480	510	550	590	
Cooling capacity	Nom.	kW		195	208	234	256	274	289	306	336	381	415	448	478	514	547	587	
Capacity control	Method						Stepless												
	Minimum capacity	%					12.5												
Power input	Cooling	Nom.	kW	77.2	75.5	83.0	91.0	97.7	104	112	120	127	141	150	162	175	182	191	
EER				2.52	2.76		2.81		2.80	2.78	2.73	2.80	3.00	2.94	2.98	2.95	2.94	3.00	3.07
ESEER				3.11	3.26		3.34	3.21	3.30	3.28	3.27	3.25	3.57	3.61	3.68	3.66	3.71	3.79	
Dimensions	Unit	HeightxWidthxDepth	mm	2,223x2,234x2,239			2,223x2,234x3,339			2,223x2,234x4,040			2,223x2,234x4,940						
Weight	Unit	kg	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 to plate						Single pass shell & tube											
	Water volume	I		25	30		95		90		115		170		165		160		
	Nominal water flow	Cooling	I/s	9.30	9.90	11.10	12.20	13.10	13.80	14.60	16.00	18.20	19.80	21.40	22.80	24.50	26.10	28.00	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	31.5	23.7	46.1	52.1	53.7	59.3	64.4	58.3	69.9	45.8	52.5	58.0	50.9	55.7	52.6
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler														
Fan	Air flow rate	Nom.	I/s	23,900	22,800	35,900	35,000	34,100		47,900	43,694	42,300		54,616					
Fan motor	Speed	Cooling	Nom.	rpm				900						920					
Sound power level	Cooling	Nom.	dBA		95.7			96.3		96.7	98.7	96.7		97.7		99.2	99.7		
Sound pressure level	Cooling	Nom.	dBA				77.0			79.0	77.0		77.5		79.0	79.5			
Compressor	Type				Semi-hermetic 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			88.9			114.3						139.7						
Power supply	Phase / Frequency / Voltage	Hz / V		3 / 50 / 400															

STRENGTHS

- > ESEER up to 4.70
- > All models are PED pressure vessel approved
- > Inverter stepless single-screw compressor
- > Optimised for use with R-134a
- > Cooling range: 329-515kW
- > 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
- > 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
- > Fan speed regulation
- > 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 / display
- > 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



PCO²



R-134a

INVERTER





EWAD330,360BZ

ACCESSORIES

- > Address card RS485 (EKAC200J)
- > Ethernet card BACnet (EKACBAC)
- > Serial card LON (EKACLONP)
- > 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)

Cooling only

			EWAD-BZSS							EWAD-BZSL								
Capacity class			330	360	400	420	460	490	520	330	360	400	420	460	490	520		
Cooling capacity	Nom.	kW	329	358	395	423	459	488	515	329	358	395	423	459	488	515		
Capacity control	Method		Stepless							Stepless								
	Minimum capacity	%	13.5							13.5								
Power input	Cooling	Nom.	kW	120.0	136	147	159	168	181	193	120.0	136	147	159	168	181	193	
EER				2.74	2.63	2.69	2.66	2.73	2.70	2.67	2.74	2.63	2.69	2.66	2.73	2.70	2.67	
ESEER				4.59	4.60	4.55	4.59	4.57	4.70	4.60	4.59	4.60	4.55	4.59	4.57	4.70	4.60	
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x4,381	2,355x2,234x5,281		2,355x2,234x6,181			2,355x2,234x4,381	2,355x2,234x5,281		2,355x2,234x6,181					
Weight	Unit		kg	4,190		4,590		4,990			4,340		4,740		5,140			
	Operation weight		kg	4,440		4,840		5,240			4,590		4,990		5,390			
Water heat exchanger	Type			Single pass shell & tube							Single pass shell & tube							
	Water volume	l	271	264	256	248				271	264	256	248					
	Nominal water flow	Cooling	l/s	15.72	17.10	18.87	20.21	21.93	23.32	24.61	15.72	17.10	18.87	20.21	21.93	23.32	24.61	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	60	61	72	67	78	69	76	60	61	72	67	78	69	76
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler							High efficiency fin and tube type with integral subcooler							
Fan	Air flow rate	Nom.	l/s	32,667		40,833		49,000			32,667		40,833		49,000			
	Speed		rpm		700							700						
Sound power level	Cooling	Nom.	dBA	102.8		103.2		103.6			96.9		97.3		98.2			
Sound pressure level	Cooling	Nom.	dBA		83.0							83.5						
Compressor	Type			Semi-hermetic single screw compressor							Semi-hermetic single screw compressor							
Operation range	Water side	Cooling	Min.-Max. °CDB		-9.5~15							-9.5~15						
	Air side	Cooling	Min.-Max. °CDB		-12~45							-12~45						
Refrigerant	Type			R-134a							R-134a							
	Charge		kg	73	99	105	114	118	121		73	99	105	114	118	121		
	Circuits	Quantity			2							2						
Piping connections	Evaporator water inlet/outlet (OD)			168.3mm							168.3mm							
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400							3~/50/400							

EWAD-BZXS/XL/XR

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

STRENGTHS

- > High seasonal efficiency (ESEER up to 5.01)
- > All models are PED pressure vessel approved
- > Inverter stepless single-screw compressor
- > Optimised for use with R-134a
- > Cooling range: 329-515kW
- > 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
- > Fan speed regulation
- > 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 - display
- > 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
- > Ambient outside temperature sensor and setpoint reset
- > Transport kit



PCO²



R-134a

INVERTER





EWAD330,360BZ

ACCESSORIES

- > Address card RS485 (EKAC200J)
- > Ethernet card BACnet (EKACBAC)
- > Serial card LON (EKACLONP)
- > 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)

Cooling only

Capacity class			EWAD-BZXS						EWAD-BZXL						EWAD-BZXR										
Cooling capacity	Nom.	kW	330	360	400	420	460	490	520	330	360	400	420	460	490	520	330	360	400	420	460	490	520		
Capacity control	Method		Stepless						Stepless						Stepless										
	Minimum capacity	%	13						13						13										
Power input	Cooling	Nom.	kW	118.0	135	145	157	165	178	190	118.0	135	145	157	165	178	190	118.0	135	145	157	165	178	190	
EER				2.79	2.65	2.72	2.69	2.78	2.74	2.71	2.79	2.65	2.72	2.69	2.78	2.74	2.71	2.79	2.65	2.72	2.69	2.78	2.74	2.71	
ESEER				4.79	4.82	4.78	4.84	4.81	5.01	4.84	4.79	4.82	4.78	4.84	4.81	5.01	4.84	4.79	4.82	4.78	4.84	4.81	5.01	4.84	
Dimensions	Unit	HeightxWidthxDepth	mm	2,355x2,234x4,381	2,355x2,234x5,281	2,355x2,234x6,181	2,355x2,234x4,381	2,355x2,234x5,281	2,355x2,234x6,181	2,355x2,234x4,381	2,355x2,234x5,281	2,355x2,234x6,181	2,355x2,234x4,381	2,355x2,234x5,281	2,355x2,234x6,181	2,355x2,234x4,381	2,355x2,234x5,281	2,355x2,234x6,181	2,355x2,234x4,381	2,355x2,234x5,281	2,355x2,234x6,181	2,355x2,234x4,381	2,355x2,234x5,281	2,355x2,234x6,181	
Weight	Unit	kg		4,190	4,590	4,990				4,340	4,740	5,140				4,390	4,790	5,190							
	Operation weight	kg		4,440	4,840	5,240				4,590	4,990	5,390				4,640	5,040	5,440							
Water heat exchanger	Type			Single pass shell & tube						Single pass shell & tube						Single pass shell & tube									
	Water volume	l		271	264	256	248			271	264	256	248			271	264	256	248						
Nominal water flow	Cooling	l/s		15.72	17.10	18.87	20.21	21.93	23.32	24.61	15.72	17.10	18.87	20.21	21.93	23.32	24.61	15.72	17.10	18.87	20.21	21.93	23.32	24.61	
Nominal water pressure drop	Cooling	Heat exchanger	kPa	60	61	72	67	78	69	76	60	61	72	67	78	69	76	60	61	72	67	78	69	76	
Air heat exchanger	Type			High efficiency fin and tube type with integral subcooler						High efficiency fin and tube type with integral subcooler						High efficiency fin and tube type with integral subcooler									
Fan	Air flow rate	Nom.	l/s	32,667	40,833	49,000				32,667	40,833	49,000				32,667	40,833	49,000							
	Speed		rpm			700						700									700				
Sound power level	Cooling	Nom.	dBA	102.8	103.2	103.6				96.9	97.3	98.2				92.9	93.3	94.2							
Sound pressure level	Cooling	Nom.	dBA		83.0	83.5				77.0	77.5					73.0	73.5								
Compressor	Type			Semi-hermetic single screw compressor						Semi-hermetic single screw compressor						Semi-hermetic single screw compressor									
Operation range	Water side	Cooling	Min.-Max. °CDB		-9.5~15						-9.5~15						-9.5~15								
	Air side	Cooling	Min.-Max. °CDB		-12~45						-12~45						-12~45								
Refrigerant	Type			R-134a						R-134a						R-134a									
	Charge		kg	73	99	105	114	118	121	73	99	105	114	118	121	73	99	105	114	118	121	73	99	105	
Piping connections	Evaporator water inlet/outlet (OD)			168.3						168.3						168.3									
Power supply	Phase/Frequency/Voltage			Hz/V						3~/50/400						3~/50/400									

STRENGTHS

- > Optimised for use with R-134a
- > Cooling range: 254-583kW
- > Heating range: 270-615kW
- > EER range up to 2.83
- > 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



PCO²

STANDARD AVAILABLE

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

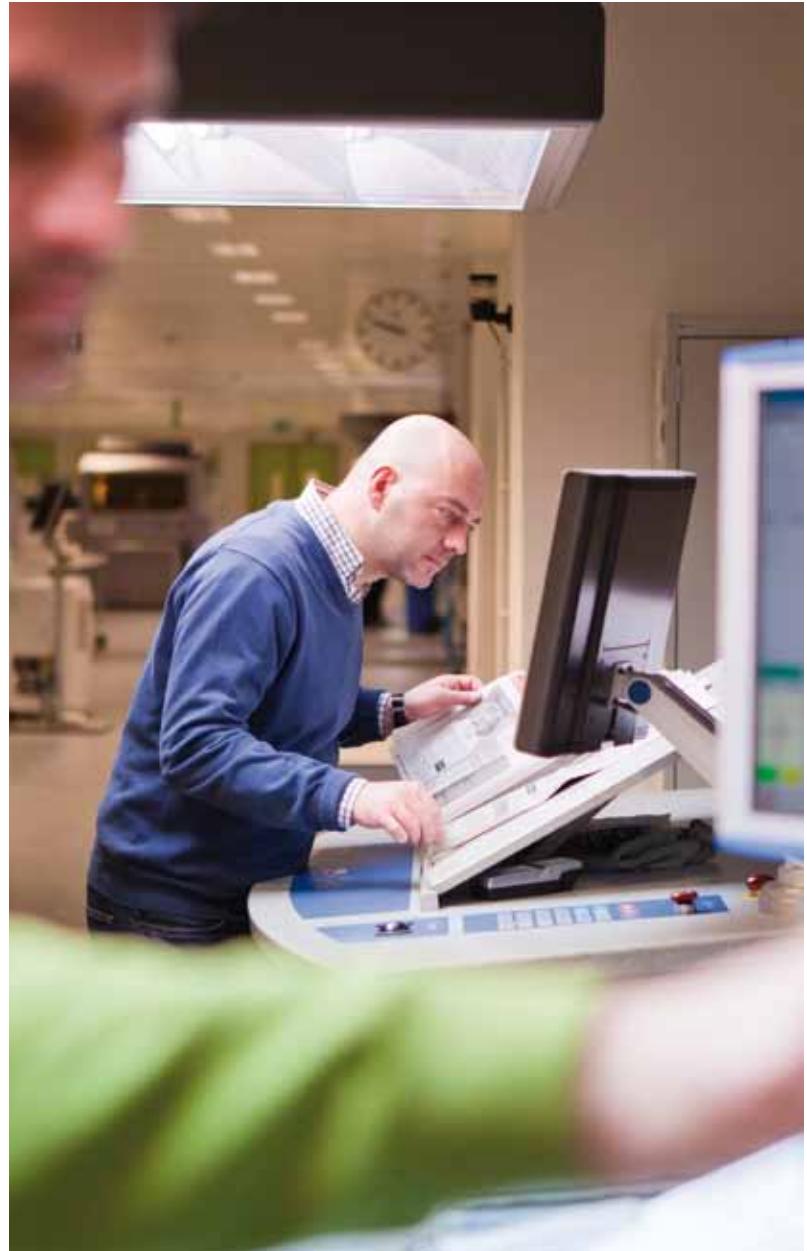


R-134a

INVERTER

OPTIONS

- > Partial heat recovery
- > Brine version
- > Under/ overvoltage control
- > Current limit - display
- > 20 mm evaporator insulation
- > Fan speed control device (phase cut on fan)
- > 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





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

Capacity class			EWYD-BZSS												
			250	270	290	320	340	370	380	410	440	460	510	520	580
Cooling capacity	Nom.	kW	254	273	292	324	339	365	382	413	436	457	505	522	583
Heating capacity	Nom.	kW	270	297	324	333	349	379	410	443	463	475	530	558	615
Capacity control	Method														
	Minimum capacity	%													9
Power input	Cooling	Nom.	kW	90.3	100	109	116	124	134	142	152	163	161	178	186
	Heating	Nom.	kW	90.4	99	107	117	124	132	141	155	165	164	176	184
EER				2.81	2.74	2.69	2.79	2.74	2.73	2.68	2.72	2.68	2.83	2.81	2.71
ESEER				4.05	4.04	4.01	4.07	4.01	4.02	3.94	4.03	4.01	4.31	4.13	4.05
COP				2.98	2.99	3.03	2.84	2.80	2.87	2.90	2.85	2.81	2.90	3.02	3.04
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														Single pass shell & tube
	Water volume	l													138
	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
	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
	Nominal water pressure drop	Cooling	Heat exchanger kPa	37	42	48	53	58	53	57	46	51	61	50	53
	Heating	Heat exchanger kPa		42	49	58	55	60	57	65	52	57	66	55	65
Air heat exchanger	Type														High efficiency fin and tube type with integral subcooler
Fan	Air flow rate	Nom.	l/s		31,728				42,304			52,880			63,456
	Speed		rpm						920						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														Semi-hermetic single screw compressor
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
Piping connections	Evaporator water inlet/outlet (OD)							2							3
	Circuits	Quantity						139.7mm							219.1mm
Power supply	Phase/Frequency/Voltage	Hz/V													

STRENGTHS

- > Optimised for use with R-134a
- > Cooling range: 248-567kW
- > Heating range: 270-615kW
- > EER range up to 2.87
- > 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



PCO²



R-134a

INVERTER





EWYD250-290BZ

ACCESSORIES

- › Address card RS485 (EKAC200J)
- › Ethernet card BACnet (EKACBAC)
- › Serial card LON (EKAACLONP)
- › 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) (EKGWEB)
- › Gateway for modem (EKGWMODEM)

Heating & Cooling

Capacity class			EWYD-BZSL																							
	250	270	290	320	330	360	370	400	430	450	490	510	570													
Cooling capacity	Nom.	kW	248	266	291	316	331	355	372	403	425	448	493	510	567											
Heating capacity	Nom.	kW	270	297	324	333	349	379	410	443	463	475	530	558	615											
Capacity control	Method												Stepless													
	Minimum capacity		%	13								9														
Power input	Cooling	Nom.	kW	88.5	98	109	113	122	132	142	149	161	156	174	183	214										
	Heating	Nom.	kW	90.4	99	107	117	124	132	141	155	165	164	176	184	205										
EER				2.80	2.70	2.66	2.79	2.72	2.68	2.62	2.71	2.64	2.87	2.83	2.79	2.65										
ESEER				4.18	4.16	4.11	4.29	4.18	4.16	4.13	4.19	4.14	4.31	4.29	4.23	4.10										
COP				2.98	2.99	3.03	2.84	2.80	2.87	2.90	2.85	2.81	2.90	3.02	3.04	3.00										
Dimensions	Unit	HeightxWidthxDepth	mm	2,335x2,254x3,547			2,335x2,254x4,381			2,335x2,254x5,281			2,335x2,254x6,583													
Weight	Unit	kg	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	21.39	23.56	24.34	27.11								
	Nominal water flow	Cooling	l/s	11.83	12.70	13.89	15.12	15.83	16.98	17.77	19.28	20.30	21.39	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									
Air heat exchanger	Heating	Heat exchanger	kPa	42	49	58	55	60	57	65	52	57	66	55	60	71										
	Type	High efficiency fin and tube type with integral subcooler													48,864											
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.	dBA		94.9			96.1			96.7			98.4												
Sound pressure level	Cooling	Nom.	dBA		75.6			75.8			76.0			77.2												
	Heating	Nom.	dBA		76.5			77.2			77.4			78.6												
Compressor	Type	Semi-hermetic single screw compressor																								
Operation range	Water side	Cooling	Min.-Max.	°CDB	-8~15																					
	Heating	Min.-Max.	°CDB		35~55																					
	Air side	Cooling	Min.-Max.	°CDB	-12~45																					
Refrigerant	Heating	Min.-Max.	°CDB		-12~20																					
	Type	R-134a																								
Piping connections	Charge	kg	88	94	100	118	121	124	148	177	183	186														
	Circuits	Quantity		2			139.7mm			219.1mm			3													
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400																						

STRENGTHS

- > Wide capacity range: 15 sizes to cover a range from 647 to 1,922 kW
- > 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
- > Fan circuit breakers
- > Main switch interlock
- > Emergency stop

OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal relays
- > Under / overvoltage control
- > Ampere volt 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
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit



MicroTech III

SCREW



R-134a





ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)

EWAD-C-

Cooling only

EWAD-C-SS																			
Capacity class		650	740	830	910	970	C11	C12	C13	H14	C15	C16	C17	C18	C19	C20			
Cooling capacity	Nom.	kW	647	744	832	912	967	1,064	1,152	1,319	1,418	1,538	1,622	1,714	1,802	1,875	1,922		
Capacity control	Method																		
	Minimum capacity	%					12.5									7			
Power input	Cooling	Nom.	kW	221	262	299	318	350	377	403	441	474	551	579	619	665	682	716	
EER				2.93	2.84	2.78	2.87	2.76	2.82	2.86	2.99	2.79	2.8	2.77	2.71	2.75	2.69		
ESEER				3.95	3.87	3.89	3.84	3.80	3.88	3.84	4.06	4.05	3.90	3.87	3.78	3.79	3.76		
Dimensions	Unit	HeightxWidthxDepth	mm			2,540x2,285x6,185			2,540x2,285 x7,085	2,540x2,285 x7,985	2,540x2,285x8,885	2,540x2,285 x10,185	2,540x2,285x11,085	2,540x2,285x11,985					
Weight	Unit		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	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			
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	Cooling	Nom.	dBA	99.5		100.0		100.9	101.1	101.5	101.7	101.9	103.0	103.2	103.3	103.5	103.7		
Sound pressure level	Cooling	Nom.	dBA	79.0		79.5		80.4		80.6		80.7	81.1	81.2	81.5	81.9			
Compressor	Type															Asymm single screw			
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									3~/50/400								

EWAD-C-SL																			
Capacity class		650	740	830	910	970	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20			
Cooling capacity	Nom.	kW	647	744	832	912	967	1,064	1,152	1,319	1,418	1,538	1,622	1,714	1,802	1,875	1,922		
Capacity control	Method															Stepless			
	Minimum capacity	%					12.5									7			
Power input	Cooling	Nom.	kW	221	262	299	318	350	377	403	441	474	551	579	619	665	682	714	
EER				2.93	2.84	2.78	2.87	2.76	2.82	2.86	2.99	2.79	2.80	2.77	2.71	2.75	2.69		
ESEER				3.95	3.87	3.89	3.84	3.80	3.88	3.84	4.08	4.05	3.90	3.87	3.78	3.79	3.77		
Dimensions	Unit	HeightxWidthxDepth	mm			2,540x2,285x6,185			2,540x2,285 x7,085	2,540x2,285 x7,985	2,540x2,285x8,885	2,540x2,285 x10,185	2,540x2,285x11,085	2,540x2,285x11,985					
Weight	Unit		kg	5,920	6,030	6,050	6,570	6,850	7,300	7,570	8,190	10,770	11,150	11,210	11,680	12,040			
	Operation weight		kg	6,200	6,280	6,300	6,820	7,100	7,540	7,810	8,570	11,170	11,550	11,700	12,560	12,920			
Water heat exchanger	Type															Single pass shell & tube			
	Water 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	91.70	
	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	96,199	106,885	117,573				128,262		
	Speed		rpm								900						920		
Sound power level	Cooling	Nom.	dBA	96.0		96.1		97.5	97.1	97.6	98.1	98.2	99.1	99.5	99.9	101.0			
Sound pressure level	Cooling	Nom.	dBA	75.5		75.6		76.5	76.6	76.8	76.9	77	77.2	77.3	77.4	77.9	78.0		
Compressor	Type															Semi-hermetic single screw compressor			
Operation range	Water side	Cooling	Min.-Max.	°CDB												Asymm single screw			
	Air side	Cooling	Min.-Max.	°CDB												Screw compressor			
Refrigerant	Type															Asymm single screw			
Circuits	Quantity															Semi-hermetic single screw			
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									3~/50/400								

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
- > Emergency stop

OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overloadrelays
- > Under / overvoltage control
- > Ampere volt 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
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit



MicroTech III

screw



R-134a



ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)



EWAD-C-

Cooling only

Capacity class			EWAD620C-SR	EWAD720C-SR	EWAD790C-SR	EWAD880C-SR	EWAD920C-SR	EWADC10C-SR	EWADC11C-SR	EWADC12C-SR
Cooling capacity	Nom.	kW	619	715	789	876	922	1,020	1,112	1,270
Capacity control	Method						Stepless			
	Minimum capacity	%					12.5			
Power input	Cooling	Nom.	kW	223	273	314	331	369	394	416
EER				2.77	2.62	2.51	2.65	2.50	2.59	2.67
ESEER				4.08	3.96	3.98	3.99	4.00		4.10
Dimensions	Unit	HeightxWidthxDepth	mm			2,540x2,285x6,185				
Weight	Unit		kg	5,920	6,030	6,050	6,570	6,850	7,300	7,570
	Operation weight		kg	6,200	6,280	6,300	6,820	7,100	7,540	7,810
Water heat exchanger	Type					Single pass shell & tube				
	Water volume	l		266		251		243		386
	Nominal water flow	Cooling	l/s	29.5	34.1	37.6	41.8	44.0	48.7	53.1
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	43	50	48	58	63	69
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
	Speed		rpm			700				
Sound power level	Cooling	Nom.	dBA	91.5	92.0	92.5	93.0	93.5	93.8	94.0
Sound pressure level	Cooling	Nom.	dBA	71.0	71.5	72.0	72.5	72.6	72.7	72.9
Compressor	Type					Asymm single screw				
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		128		146	144	162	178
Piping connections	Evaporator water inlet/outlet (OD)					168.3mm				219.1mm
Power supply	Phase/Frequency/Voltage		Hz/V				3~/50/400			

Capacity class			EWADH14C-SR	EWADC13C-SR	EWADC14C-SR	EWADC15C-SR	EWADC16C-SR	EWADC17C-SR	EWADC18C-SR	EWADC19C-SR
Cooling capacity	Nom.	kW	1,321	1,367	1,471	1,556	1,623	1,714	1,795	1,833
Capacity control	Method					Stepless				
	Minimum capacity	%	12.5			7.0				
Power input	Cooling	Nom.	kW	495	518	577	603	647	702	718
EER				2.67	2.64	2.55	2.58	2.51	2.44	2.50
ESEER				3.98	3.90	3.87	3.90	3.83	3.78	3.81
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285x8,885	2,540x2,285x10,185		2,540x2,285x11,085			2,540x2,285x11,985
Weight	Unit		kg	8,190	10,750	10,770	11,150	11,210	11,680	12,040
	Operation weight		kg	8,570		11,170	11,550	11,700	12,560	12,920
Water heat exchanger	Type					Single pass shell & tube				
	Water volume	l		386	421	408	474			850
	Nominal water flow	Cooling	l/s	63.0	65.2	70.2	74.2	77.4	81.8	85.6
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	54	45	57	63	69	37
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	94.0	94.8	94.9	95.1	95.2	95.7	95.8
Sound pressure level	Cooling	Nom.	dBA		72.9		73.0	73.1	73.6	73.7
Compressor	Type					Asymm single screw				
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	196		260		261	275	305
Piping connections	Evaporator water inlet/outlet (OD)					219.1mm				273mm
Power supply	Phase/Frequency/Voltage		Hz/V				3~/50/400			

STRENGTHS

- > High efficiency version
- > Wide capacity range: 17 sizes to cover a range from 756 to 2,008 kW
- > 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
- > Emergency stop

OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Ampere volt 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
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Rapid restart
- > Transport kit
- > Low pressure side manometers



MicroTech III

screw



R-134a



ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)



EAUD-C-

Cooling only

EAUD-C-XS																				
Capacity class	Nom.	kW	760	830	890	990	C10	C11	C12	C13	H14	H15	C16	C17	C18	C19	C20	C21	C22	
Cooling capacity	Nom.	kW	756	830	889	1,001	1,074	1,196	1,280	1,349	1,415	1,525	1,596	1,685	1,768	1,858	1,901	1,953	2,008	
Capacity control	Method																			
	Minimum capacity	%																		
Power input	Cooling	Nom.	kW	233	253	278	307	338	364	400	410	443	475	503	533	561	590	614	643	672
EER				3.25	3.28	3.20	3.26	3.18	3.29	3.2	3.29	3.19	3.21	3.17	3.16	3.15	3.09	3.04	2.99	
ESEER				4.02	4.11	4.02	4.11	4.05	4.14	4.02	4.28	4.30	4.33	4.17	4.16	4.13	4.11	4.02	3.99	
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285 x6,185	2,540x2,285x7,085	2,540x2,285x7,985								2,540x2,285 x1,985	2,540x2,285 x12,885	2,540x2,285 x13,785	2,540x2,285x14,685			
Weight	Unit		kg	5,990	6,340	6,360	7,190	7,470	8,220	8,240				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				12,430	12,760	13,140		13,470		
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	Cooling	Nom.	dBA	100.2	100.5	101.4	101.9	102.4		102.5				103.2	103.5	103.7		103.9		
Sound pressure level	Cooling	Nom.	dBA	79.7		80.2	80.7	80.3		80.4				80.9	80.8			81.0		
Compressor	Type													Asymm single screw						
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										

EAUD-C-XL																				
Capacity class	Nom.	kW	760	830	890	990	C10	C11	C12	C13	H14	H15	C16	C17	C18	C19	C20	C21	C22	
Cooling capacity	Nom.	kW	756	830	889	1,001	1,074	1,196	1,280	1,349	1,415	1,525	1,596	1,685	1,768	1,858	1,901	1,953	2,008	
Capacity control	Method																			
	Minimum capacity	%																		
Power input	Cooling	Nom.	kW	233	253	278	307	338	364	400	410	443	475	503	533	561	590	614	643	672
EER				3.25	3.28	3.20	3.26	3.18	3.29	3.2	3.29	3.19	3.21	3.17	3.16	3.15	3.09	3.04	2.99	
ESEER				4.02	4.11	4.02	4.11	4.05	4.14	4.02	4.28	4.30	4.33	4.17	4.16	4.13	4.11	4.02	3.99	
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285 x6,185	2,540x2,285x7,085	2,540x2,285x7,985								2,540x2,285 x1,985	2,540x2,285 x12,885	2,540x2,285 x13,785	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			
	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	Cooling	Nom.	dBA	96.8		97.4	98.0	98.2	98.8		98.9			99.6	100.0	100.2		100.4		
Sound pressure level	Cooling	Nom.	dBA	76.3		76.5	76.9	77.1	76.7		76.8			77.3	77.4			77.5		
Compressor	Type													Asymm single screw						
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
- > Wide capacity range: 17 sizes to cover a range from 736 to 1,959 kW
- > 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
- > Fan circuit breakers
- > Main switch interlock
- > Emergency stop

OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Ampere volt 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
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- > Suction line shut off valve
- > High pressure side manometers
- > Container kit
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- > 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
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit



MicroTech III

screw



R-134a



ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)



EWAD-C-

Cooling only

Capacity class			EWAD740C-XR	EWAD810C-XR	EWAD870C-XR	EWAD970C-XR	EWADC10C-XR	EWADC11C-XR	EWADC12C-XR	EWADC13C-XR	EWADH14C-XR	EWADH15C-XR		
Cooling capacity	Nom.	kW	736	811	866	974	1,041	1,168	1,247	1,302	1,367	1,468		
Capacity control	Method				Stepless			12.5						
Power input	Cooling	Nom.	kW	234	253	281	309	344	365	405	415	454	491	
EER				3.14	3.20	3.08	3.15	3.03	3.20	3.08	3.14	3.01	2.99	
ESEER				4.28	4.36	4.23	4.34	4.24	4.38	4.25	4.33	4.36	4.40	
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285x6,185	2,540x2,285x7,085	2,540x2,285x7,985				2,540x2,285x9,785				
Weight	Unit		kg	6,280	6,630	6,650	7,480	7,760	8,510	8,530		9,190		
	Operation weight		kg	6,520	6,870	6,890	7,880	8,160	8,900	8,920		10,180		
Water heat exchanger	Type				Single pass shell & tube									
	Water volume	l		251	243		403	386				979		
	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	
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	77	54	61	58	65	43	49	64	73	79
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		
	Speed		rpm				700							
Sound power level	Cooling	Nom.	dBA	92.0	92.3		93.5	93.7	94.3	94.5		94.6		
Sound pressure level	Cooling	Nom.	dBA		71.5		72.3	72.5	72.2	72.3		72.5		
Compressor	Type				Asymm single screw									
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		146	162		182		214	225		248		
Piping connections	Evaporator water inlet/outlet (OD)			168.3mm			219.1mm			273mm				
Power supply	Phase/Frequency/Voltage	Hz/V					3~/50/400							

Capacity class			EWADC16C-XR	EWADC17C-XR	EWADC18C-XR	EWADC19C-XR	EWADC20C-XR	EWADC21C-XR	EWADC22C-XR	
Cooling capacity	Nom.	kW	1,550	1,639	1,722	1,813	1,854	1,902	1,952	
Capacity control	Method				Stepless					
Power input	Cooling	Nom.	kW	512	541	566	596	624	657	691
EER				3.03	4.20	4.21	4.20	2.97	2.89	2.83
ESEER					4.20	4.21	4.20	4.18	4.09	4.06
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285x11,985	2,540x2,285x12,885	2,540x2,285x13,785		2,540x2,285x14,685		
Weight	Unit		kg	12,010	12,350	12,700		13,040		
	Operation weight		kg	12,870	13,200	13,580		13,910		
Water heat exchanger	Type				Single pass shell & tube			850		
	Water volume	l		850		871		850		
	Nominal water flow	Cooling	l/s	74.0	78.2	82.2	86.5	88.5	90.7	93.1
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	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	98,417	106,619	114,820		123,021		
	Speed		rpm				700			
Sound power level	Cooling	Nom.	dBA	95.3	95.6	95.7	95.9	96.2		96.6
Sound pressure level	Cooling	Nom.	dBA		72.9		73.0	73.3		73.7
Compressor	Type				Asymm single screw					
Operation range	Water side	Cooling	Min.-Max. °CDB				-8~15			
	Air side	Cooling	Min.-Max. °CDB				-18~52			
Refrigerant	Type				R-134a			3		
	Circuits	Quantity								
Refrigerant circuit	Charge	kg		297	312	328		343		
Piping connections	Evaporator water inlet/outlet (OD)						273mm			
Power supply	Phase/Frequency/Voltage	Hz/V					3~/50/400			

STRENGTHS

- > Premium efficiency version
- > Wide capacity range: 9 sizes to cover a range from 821 to 1,562 kW
- > 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
- > Fan speed regulation (+ fan silent mode)
- > Main switch interlock
- > Emergency stop

OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Ampere volt 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
- > 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
- > Fans circuit breakers
- > Transport kit



MicroTech III

screw



R-134a





EWAD-C-

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKMBACMSTP)
- > BACnet/IP communication module (EKMBACIP)
- > Local/remote Display HMI (EKRUPCS)

Cooling only

				EWAD-C-PS								EWAD-C-PL																	
Capacity class				820	890	980	C11	C12	C13	C14	C15	C16	820	890	980	C11	C12	C13	C14	C15	C16								
Cooling capacity	Nom.	kW		821	890	975	1,074	1,158	1,279	1,390	1,474	1,562	821	890	975	1,074	1,158	1,279	1,390	1,474	1,562								
Capacity control	Method					Stepless								Stepless															
	Minimum capacity	%					12.5							12.5															
Power input	Cooling	Nom.	kW	226	249	274	302	330	363	396	424	453	226	249	274	302	330	363	396	424	453								
EER				3.64	3.58	3.56	3.51	3.52	3.51	3.48	3.45	3.64	3.58	3.56	3.51	3.52	3.51	3.48	3.45										
ESEER				4.44	4.50	4.41	4.53	4.39	4.44	4.31	4.33	4.30	4.44	4.50	4.41	4.53	4.39	4.44	4.31	4.33	4.30								
Dimensions	Unit	HeightxWidthxDepth	mm	2,540x2,285x8,885				2,540x2,285x9,785				2,540x2,285x11,985				2,540x2,285x8,885				2,540x2,285x9,785									
																				x1,085									
Weight	Unit			kg				7,530				9,730				7,820				8,580									
	Operation weight			kg				8,130				10,720				8,420				10,380									
Water heat exchanger	Type	Single pass shell & tube																Single pass shell & tube											
	Water volume	I		599	1,043	1,027	995			979			599	1,043	1,027	995			979										
Nominal water flow	Cooling	I/s		39.2	42.5	46.5	51.2	55.2	61.0	66.3	70.3	74.5	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	58	67	31	61	70	60	70	81	88								
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler												High efficiency fin and tube type with integral subcooler															
Fan	Air flow rate	Nom.	I/s	96,196				106,885				117,573				96,196				106,885									
	Speed		rpm					900												117,573									
Sound power level	Cooling	Nom.	dBA	101				101.8				102.3				102.6				103.5									
Sound pressure level	Cooling	Nom.	dBA	79.5				80.0				80.4				80.5				81.1									
Compressor	Type	Asymm single screw																Asymm single screw											
Operation range	Water side	Cooling	Min.-Max. °CDB	-8~15																-8~15									
	Air side	Cooling	Min.-Max. °CDB	-18~52																-18~52									
Refrigerant	Type	R-134a																R-134a											
	Charge	kg		204	202	204	220	252		254			204	202	204	220	252		254										
	Circuits	Quantity		2												2													
Piping connections	Evaporator water inlet/outlet (OD)			219.1mm				273mm				219.1mm				273mm													
Power supply	Phase/Frequency/Voltage			Hz/V				3~/50/400								3~/50/400													

STRENGTHS

- > Premium efficiency and reduced sound version
- > Wide capacity range: 9 sizes to cover a range from 809 to 1,521 kW
- > 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
- > Fan circuit breakers
- > Main switch interlock
- > Emergency stop

OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal relays
- > Under / overvoltage control
- > Ampere volt 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
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Transport kit
- > Rapid restart

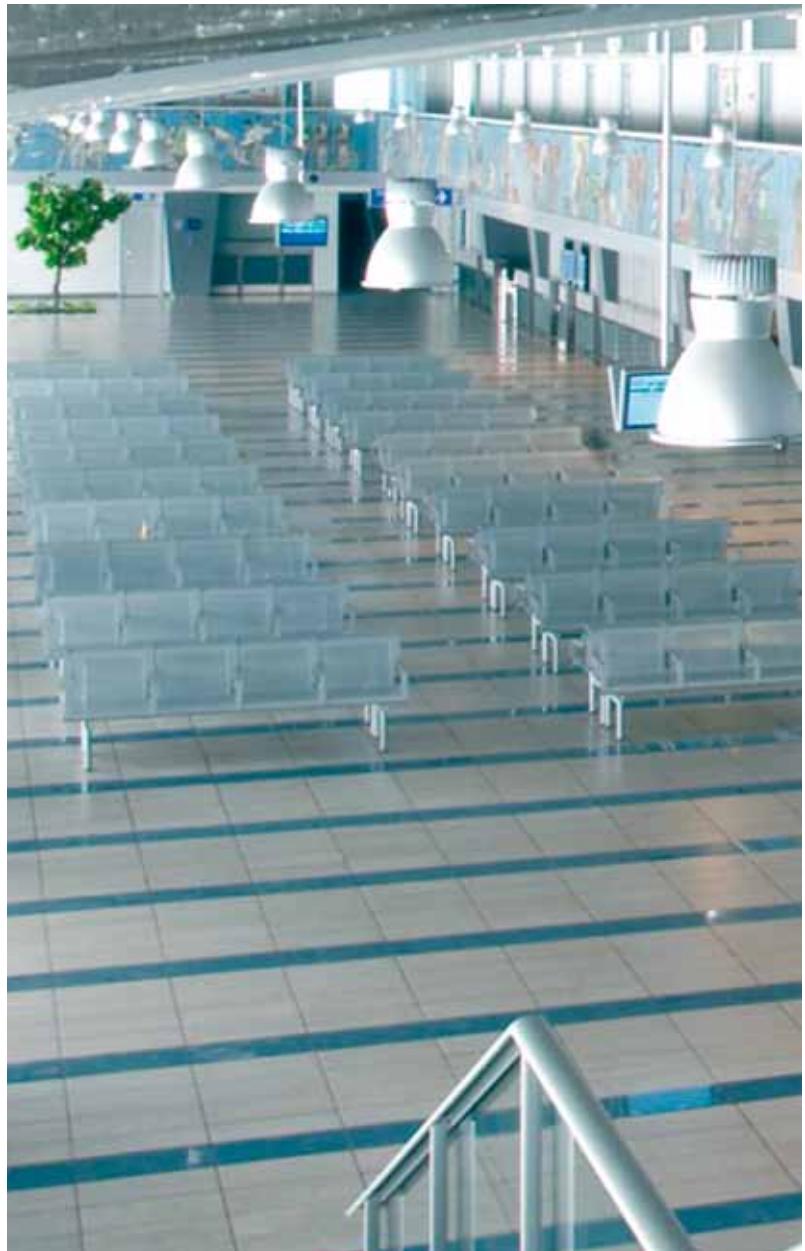


MicroTech III

SCREW



R-134a





EWAD-C-

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity class			EWAD810C-PR	EWAD880C-PR	EWAD960C-PR	EWADC10C-PR	EWADC11C-PR	EWADC13C-PR	EWADC14C-PR	EWADC15C-PR	EWADC16C-PR
Cooling capacity	Nom.	kW	809	875	956	1,053	1,132	1,251	1,359	1,439	1,521
Capacity control	Method						12.5				
	Minimum capacity	%									
Power input	Cooling	Nom.	kW	219	244	272	299	330	364	396	425
EER				3.70	3.58	3.51	3.52	3.43	3.44	3.43	3.39
ESEER				4.63	4.59	4.54	4.59	4.50	4.53	4.51	4.49
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										
	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
Nominal water pressure drop	Cooling	Heat exchanger	kPa	56	65	30	59	67	58	67	77
Air heat exchanger	Type										
Fan	Air flow rate	Nom.	l/s	73,813			82,014	90,216	98,417		
	Speed		rpm				700				
Sound power level	Cooling	Nom.	dBA	92.7			93.4	93.8	94.1	94.4	94.7
Sound pressure level	Cooling	Nom.	dBA	71.2			71.7		72.0	72.3	72.6
Compressor	Type										
Operation range	Water side	Cooling	Min.-Max. °CDB				-8~15				
	Air side	Cooling	Min.-Max. °CDB				-18~52				
Refrigerant	Type										
Refrigerant circuit	Circuits	Quantity					2				
Piping connections	Evaporator water inlet/outlet (OD)		kg	204	202	204	220	252		254	
				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
- > Emergency stop
- > Inverter compressor starter

OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Under / overvoltage control
- > Ampere volt meter
- > Current limit - display
- > Evaporator flange kit
- > Fan silent mode
- > Fans speed control device
- > 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 different models)
- > Two centrifugal pumps (4 different models)
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Fans speed regulation
- > Refrigerant recovery tank
- > Evaporator right water connection
- > Ground fault relay
- > Low pressure side manometers
- > Rapid restart
- > Transport kit



MicroTech III

screw



R-134a

INVERTER





EWAD670-C18CZXS/XL

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity class			670	740	830	900	C10	C11	C12	C13	C14	C15	C16	C17	C18				
Cooling capacity			Nom.	kW	672	738	832	902	1037	1095	1236	1308	1450	1545	1622	1709	1802		
Capacity control			Method			Stepless													
Power input			Minimum capacity			20	20	20	20	20	20	20	20	20	13	13			
Power input			Nom.			245	235	266	305	339	375	400	442	488	531	558	588	611	
EER			2.74			3.14	3.13	2.96	3.06	2.92	3.09	2.96	2.97	2.91	2.91	2.90	2.95		
ESEER			5.07			5.13	5.20	5.22	5.24	5.03	4.93	4.74	5.02	5.17	5.51	5.33	5.19		
Dimensions			Unit	HeightxWidthxDepth	mm	2540x2285x6725	2540x2285x7625	2540x2285x8525	2540x2285x10325	2540x2285x11625	2540x2285x12525	2540x2285x13425	2540x2285x14325						
Weight			Unit (XS)	kg	5880	6000	6620	6870	7440	7440	8570	8970	9600	9940	11370	12190	12920		
Weight			Operation weight (XS)			6140	6250	6860	7110	7880	7880	8960	9360	9980	10320	12220	13040	13790	
Weight			Unit (XL)	kg	6170	6280	6900	7150	7720	7720	8850	9250	9880	10220	11790	12610	13340		
Weight			Operation weight (XL)			6430	6530	7140	7390	8160	8160	9240	9640	10260	10600	12640	13460	14210	
Water heat exchanger			Type			Single Pass Shell&Tube													
Water heat exchanger			Water volume	l	263	248	241	241	441	383	383	374	374	374	850	850	871		
Water heat exchanger			Nominal water flow	Cooling	l/s	32.00	35.20	39.70	43.00	49.50	52.30	59.00	62.40	69.20	73.70	77.40	81.50	86.00	
Water heat exchanger			Nominal water pressure drop	Cooling	Heat exchanger	kPa	80	75	55	64	63	69	46	51	61	71	62	68	64
Air heat exchanger			Type			High efficiency fin and tube type with integral subcooler													
			Type			Direct propeller type													
			Drive			DOL													
Fan	Diameter			mm	800	800	800	800	800	800	800	800	800	800	800	800	800		
	Nominal air flow			l/s	54188	65025	75863	75863	86700	86700	108376	108376	119213	1300051	129454	140143	151129		
	Model			Quantity	No.	10	12	14	14	16	16	20	20	22	24	24	26	28	
				Speed	rpm	900	900	900	900	900	900	900	900	900	900	900	900		
			Motor input	kW	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75		
Sound power level (XS)			Cooling	Nom.	dBA	102.1	102.2	102.5	102.5	102.9	102.9	103.5	103.5	104.1	104.1	105.8	106	106.2	
Sound pressure level (XS)			Cooling	Nom.	dBA	81.0	81.0	81.1	81.1	81.1	81.1	81.2	81.2	81.2	81.2	82.8	82.9	82.9	
Sound power level (XL)			Cooling	Nom.	dBA	98.6	99.2	99.5	99.5	99.9	99.9	100.5	100.5	101.1	101.1	102.8	103.0	103.2	
Sound pressure level (XL)			Cooling	Nom.	dBA	77.5	78.0	78.1	78.1	78.1	78.2	78.2	78.2	78.2	79.8	79.9	79.9		
Compressor			Type			Semi-hermetic single screw compressor inverter driven													
			Type			R-134a													
Refrigerant circuit			Charge	kg	141	161	178	178	200	200	235	235	275	320	327	343	361		
			Circuits	Quantity							2								
Piping connections			Evaporator water inlet/outlet	mm		168.3			219.1			273			273				
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
- > Fan circuit breakers
- > Main switch interlock
- > Emergency stop
- > Inverter compressor starter

OPTIONS

- > Total heat recovery
- > Partial heat recovery
- > Brine version
- > Under / overvoltage control
- > Ampere volt meter
- > Current limit - display
- > Evaporator flange kit
- > Fan silent mode
- > Fans speed control device
- > 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 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



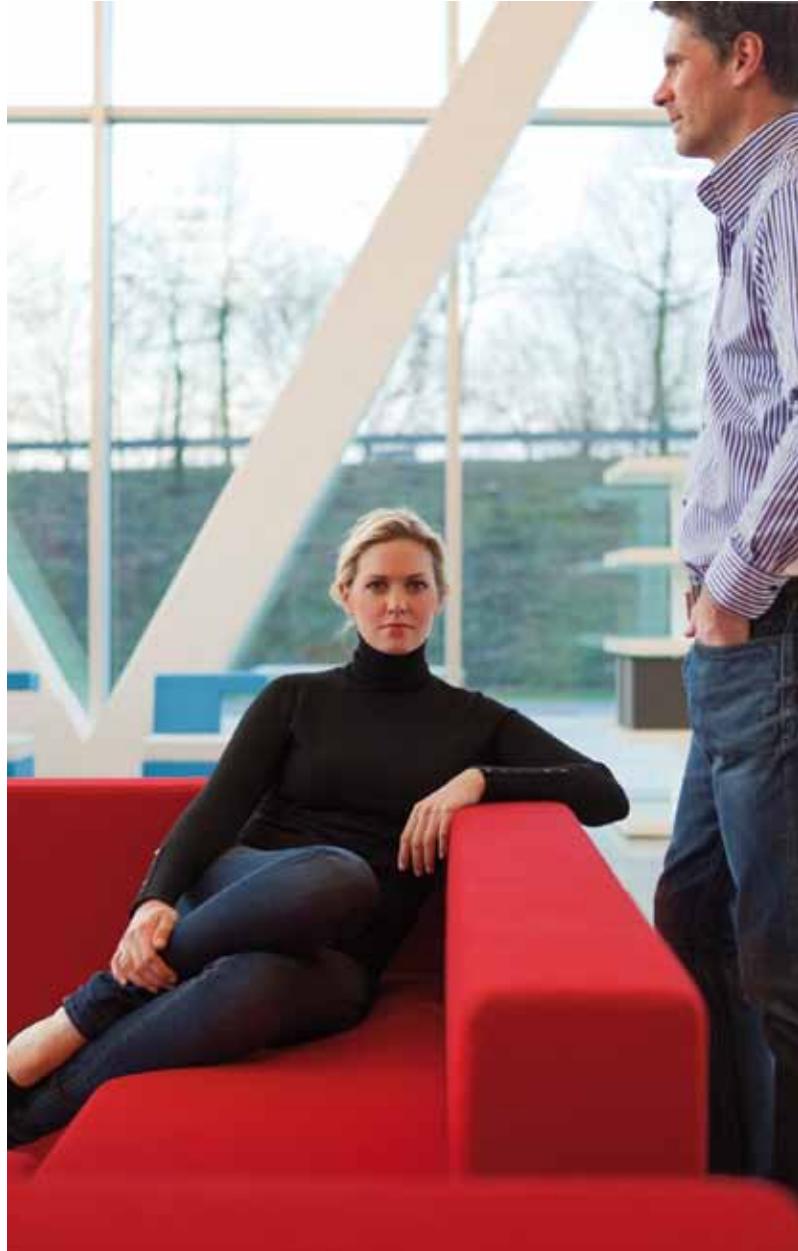
MicroTech III

screw



R-134a

INVERTER





EWAD640-C17CZXR

ACCESSORIES

- › Serial Sequencing Panel (EKDSSP-S)
- › Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKMBACMSTP)
- › BACnet/IP communication module (EKMBACIP)
- › Local/remote Display HMI (EKRUPCS)

Cooling only

Capacity class				640	700	790	850	980	C10	C11	C12	C13	C14	C15	C16	C17			
Cooling capacity			Nom.	kW	635	700	789	852	976	1,031	1,170	1,235	1,332	1,443	1,545	1,631	1,712		
Capacity control			Method		Stepless														
Power input			Minimum capacity	%	20	20	20	20	20	20	20	20	20	20	20	20	20		
EER			Cooling	Nom.	kw	260	242	271	314	347	388	408	455	524	589	580	610	631	
ESEER						2.44	2.89	2.91	2.71	2.81	2.65	2.86	2.71	2.55	2.45	2.66	2.67	2.71	
Dimensions			Unit	HeightxWidthxDepth	mm	25450x2285x6725	2540x2285x7625	2540x2285x8525	2540x2285x10325	2540x2285x11625	2540x2285x12525	2540x2285x13425	2540x2285x14325						
Weight			Unit		kg	6170	6470	7100	7360	7950	7950	9120	8530	10180	10530	12150	12990	13740	
			Operation weight		kg	6430	6720	7340	7600	8390	8390	9500	9920	10550	10910	13000	13840	14610	
Water heat exchanger - evaporator			Type			Single Pass Shell & Tube													
			Water volume	l	263	248	241	241	441	441	383	383	374	374	850	850	871		
			Nominal water flow	Cooling	l/s	30.30	33.40	37.60	40.70	46.60	49.20	55.80	58.90	63.60	68.80	73.70	77.80	81.70	
			Nominal water pressure drop	Cooling	Heat exchanger	kPa	73	69	51	58	57	63	43	47	53	59	57	62	59
Air heat exchanger			Type			High efficiency fin and tube type with integral subcooler													
			Type			Direct propeller type													
Fan			Drive			DOL													
			Diameter	mm	800	800	800	800	800	800	800	800	800	800	800	800	800		
			Nominal air flow	l/s	41536	49843	58151	58151	66458	66458	83072	83072	83072	83072	83072	99687	107994	116301	
			Model	Quantity	No.	10	12	14	14	16	16	20	20	22	24	24	26	28	
Soundpowerlevel (XR)			Speed	rpm	700	700	700	700	700	700	700	700	700	700	700	700	700	700	
Soundpressurelevel (XR)			Motor input	kW	0.78	0.78	0.78	0.78	0.78	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	
Compressor			Cooling	Nom.	dBA	94.6	95.2	95.5	95.5	95.9	95.9	96.5	96.5	97.1	97.1	98.8	99.0	99.2	
Refrigerant circuit			Cooling	Nom.	dBA	74.1	74.2	74.2	74.2	74.2	73.5	74.0	74.1	74.1	74.1	75.8	75.9	75.9	
Piping connections			Type			Semi-hermetic single screw compressor Inverter driven													
			Evaporator water inlet/outlet	kg	141	161	178	178	200	200	235	235	275	320	327	343	361		
Power supply			Phase / Frequency / Voltage	Hz/V		R-134a													
						2													
						3~/50/400													

STRENGTHS

- > Free cooling chiller
- > High efficiency, standard/low (XS/
XL) & reduced (XR) sound levels
- > Greater energy savings and reduced CO₂
emissions during cold season
- > Wide capacity range: 11 sizes between 602 and
1,476 kW (XR), 640 and 1,555 kW (XS/XL)
- > Wide operating range
- > MicroTech III controller



MicroTech III

STANDARD AVAILABLE

- > Why-delta starter
- > 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
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit and alarm
- > Fan circuit breakers
- > Main switch interlock
- > Emergency stop

screw



R-134a

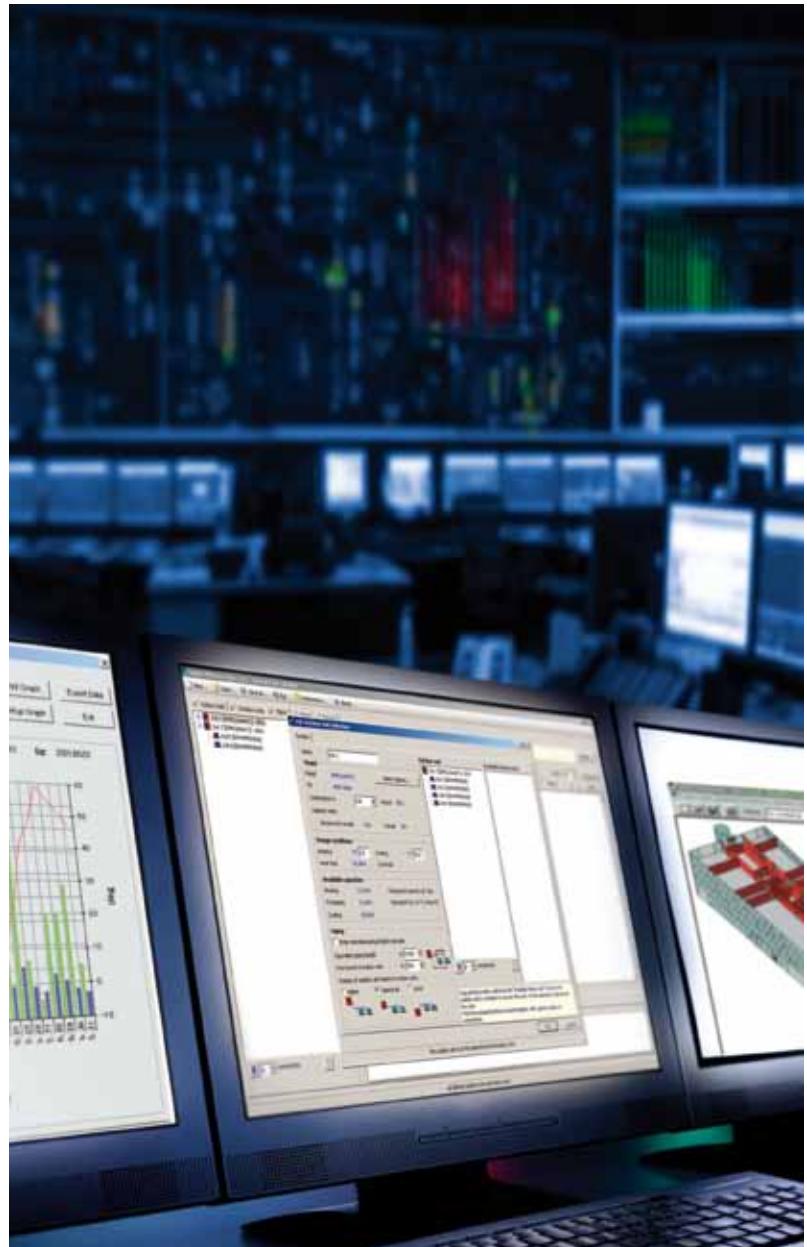


OPTIONS ON REQUEST

- > Soft starter
- > Brine version
- > Compressor thermal relays
- > Under / overvoltage control
- > Ampere volt meter
- > Capacitor cosf
- > Current limit - display
- > 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
- > 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
- > Fans speed regulation (+fan silent mode)
- > Evaporator right water connection
- > Ground fault relay
- > Rapid restart
- > Optimized free cooling

ACCESSORIES

- > Daikin Serial Sequencing Panel (EKDSSP-S***)
- > Daikin Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKCMLON)
- > BACnet/MSTP communication module (EKCBACMSTP)
- > BACnet/IP communication module (EKCBACIP)
- > Local/remote Display Human-Machine Interface (HMI) (EKRUPCS)





EWAD-CF

Cooling only

Capacity class			640	770	850	900	C10	C11	C12	C13	C14	C15	C16		
Cooling capacity	Nom.	kW	640 ¹ / ₂ 295 ²	772 ¹ / ₂ 365 ²	852 ¹ / ₂ 413 ²	902 ¹ / ₂ 434 ²	1,027 ¹ / ₂ 502 ²	1,089 ¹ / ₂ 524 ²	1,269 ¹ / ₂ 594 ²	1,349 ¹ / ₂ 652 ²	1,435 ¹ / ₂ 663 ²	1,493 ¹ / ₂ 659 ²	1,555 ¹ / ₂ 722 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							Stepless							
	Minimum capacity	%						12.5							
Power input	Cooling	Nom.	kW	257 ¹ / ₂ 74.3 ²	272 ¹ / ₂ 87.9 ²	293 ¹ / ₂ 90.7 ²	324 ¹ / ₂ 99.8 ²	360 ¹ / ₂ 109 ²	399 ¹ / ₂ 118 ²	397 ¹ / ₂ 131 ²	439 ¹ / ₂ 143 ²	454 ¹ / ₂ 152 ²	492 ¹ / ₂ 160 ²	530 ¹ / ₂ 170 ²	
EER				2.49 ¹ / ₂ 8.62 ²	2.84 ¹ / ₂ 8.78 ²	2.90 ¹ / ₂ 9.4 ²	2.78 ¹ / ₂ 9.04 ²	2.85 ¹ / ₂ 9.43 ²	2.73 ¹ / ₂ 9.19 ²	3.19 ¹ / ₂ 9.67 ²	3.08 ¹ / ₂ 9.45 ²	3.16 ¹ / ₂ 9.42 ²	3.04 ¹ / ₂ 9.33 ²	2.93 ¹ / ₂ 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	I		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.	I/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 ¹	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 CO₂
emissions during cold season
- › Wide capacity range: 11 sizes between 602 and
1,476 kW (XR), 640 and 1,555 kW (XS/XL)
- › Wide operating range
- › MicroTech III controller

STANDARD AVAILABLE

- › Wye delta starter
- › 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
- › Hour run meter
- › General fault contactor
- › Set-point reset, demand limit and alarm
- › Fan circuit breakers
- › Main switch interlock
- › Emergency stop

OPTIONS ON REQUEST

- › Soft starter
- › Brine version
- › Compressor thermal relays
- › Under / overvoltage control
- › Ampere volt meter
- › Capacitor cosf
- › Current limit - display
- › 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
- › 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
- › Fans speed regulation (+fan silent mode)
- › Evaporator right water connection
- › Ground fault relay
- › Rapid restart
- › Optimized free cooling

ACCESSORIES

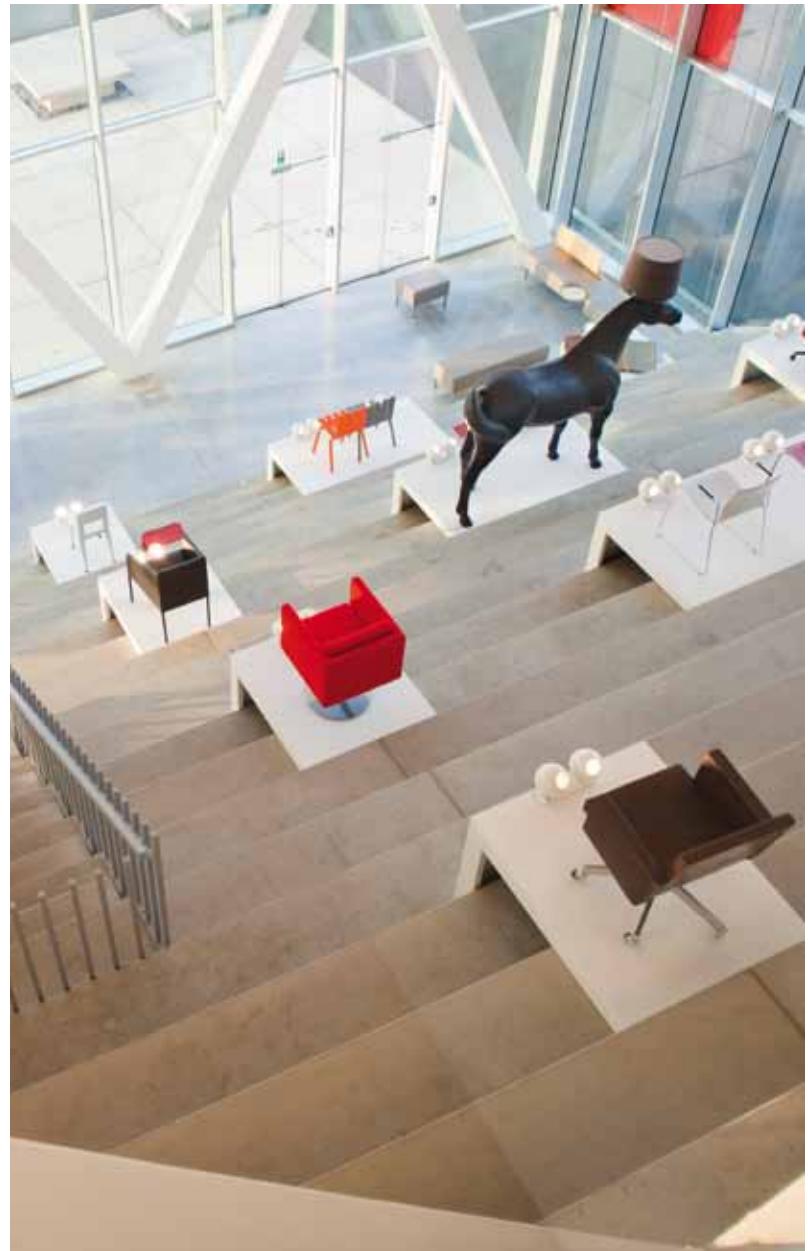
- › Daikin Serial Sequencing Panel (EKDSSP-S***)
- › Daikin Digital Sequencing Panel (EKDDSP)
- › ModBus RTU communication module (EKCM200J)
- › LON communication module (EKCMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/remote Display Human-Machine Interface (HMI) (EKRUPCS)



MicroTech III



R-134a





EWAD-CF

Cooling only

Capacity class			600	740	820	870	980	C10	C11	C12	C13	C14	C15		
Cooling capacity	Nom.	kW	602 ¹ / ₂ 270 ²	739 ¹ / ₂ 334 ²	821 ¹ / ₂ 379 ²	866 ¹ / ₂ 409 ²	981 ¹ / ₂ 459 ²	1,034 ¹ / ₂ 492 ²	1,229 ¹ / ₂ 562 ²	1,302 ¹ / ₂ 598 ²	1,374 ¹ / ₂ 619 ²	1,424 ¹ / ₂ 640 ²	1,476 ¹ / ₂ 668 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 / ₂ 70,3 ²	278 ¹ / ₂ 84,3 ²	299 ¹ / ₂ 88,4 ²	334 ¹ / ₂ 95,9 ²	368 ¹ / ₂ 106 ²	412 ¹ / ₂ 112 ²	403 ¹ / ₂ 127 ²	450 ¹ / ₂ 141 ²	466 ¹ / ₂ 146 ²	511 ¹ / ₂ 154 ²	556 ¹ / ₂ 161 ²	
EER				2.29 ¹ / ₂ 8.56 ²	2.66 ¹ / ₂ 8.77 ²	2.75 ¹ / ₂ 9.29 ²	2.59 ¹ / ₂ 9.03 ²	2.67 ¹ / ₂ 9.27 ²	2.51 ¹ / ₂ 9.21 ²	3.05 ¹ / ₂ 9.67 ²	2.90 ¹ / ₂ 9.22 ²	2.95 ¹ / ₂ 9.4 ²	2.79 ¹ / ₂ 9.26 ²	2.66 ¹ / ₂ 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		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	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.	l/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.

Condensing Unit



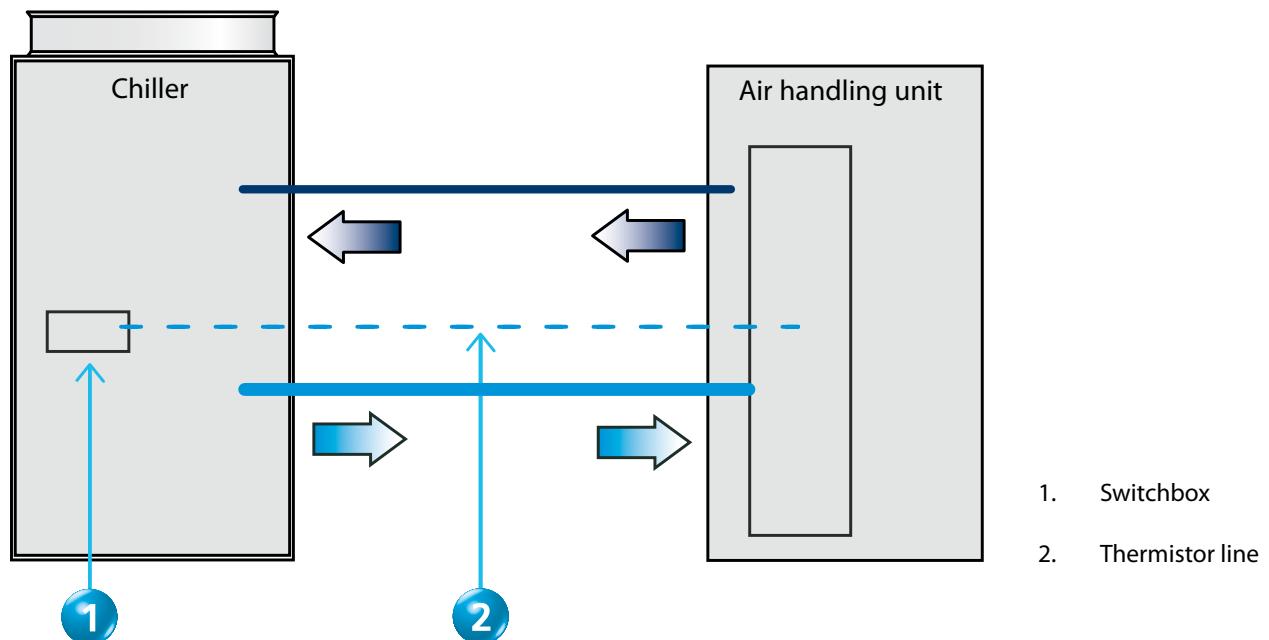
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The Daikin condensing units can be used in
a wide variety of air conditioning, refrigeration
and ventilation applications.

PIPING DIAGRAM FOR COMFORT COOLING APPLICATION



STRENGTHS

- > Wide capacity range (121 kW - 488 kW)
- > 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



R-134a

OPTIONS (FACTORY MOUNTED)

- > 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
- > Speedtrol
- > 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)

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKCMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)





ERAD170,200E-SS

Cooling only

Capacity class			120	140	170	200	220	250	310	370	440	490								
Cooling capacity	Nom.	kW	121	144	165	196	219	252	306	370	435	488								
Capacity control	Method				Stepless			25												
Power input	Cooling	Nom.	kW	41.8	51.0	57.4	65.2	73.7	76.6	92.8	122.0	147.2	160.8							
EER					2.90	2.83	2.87	3.00	2.97	3.28	3.30	3.04	2.96							
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							
	Operation weight			kg			1,617			1,781			1,981							
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																		
Fan	Air flow rate	Nom.	l/s	10,922	10,575	16,383	15,863	21,844	21,150	32,767		31,725								
Fan motor	Speed	Cooling	Nom.	rpm	920															
Sound power level	Cooling	Nom.	dBA	91.5			92.3			93.0			94.2							
Sound pressure level	Cooling	Nom.	dBA	73.5			73.7			73.9			75.1							
Compressor	Type	Semi-hermetic single screw compressor																		
Operation range	SST	Min-Max	°C	-9~12																
	Condenser	Min-Max	°C	-18~48																
Refrigerant	Type	R-134a																		
	Charge			kg	17	20	22	27	29	32	45	54	58							
	Circuits	Quantity	1																	
Power supply	Phase / Frequency / Voltage	Hz / V	3~/50/400																	

STRENGTHS

- > Low operating sound level
- > Wide capacity range (116 kW - 462 kW)
- > 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



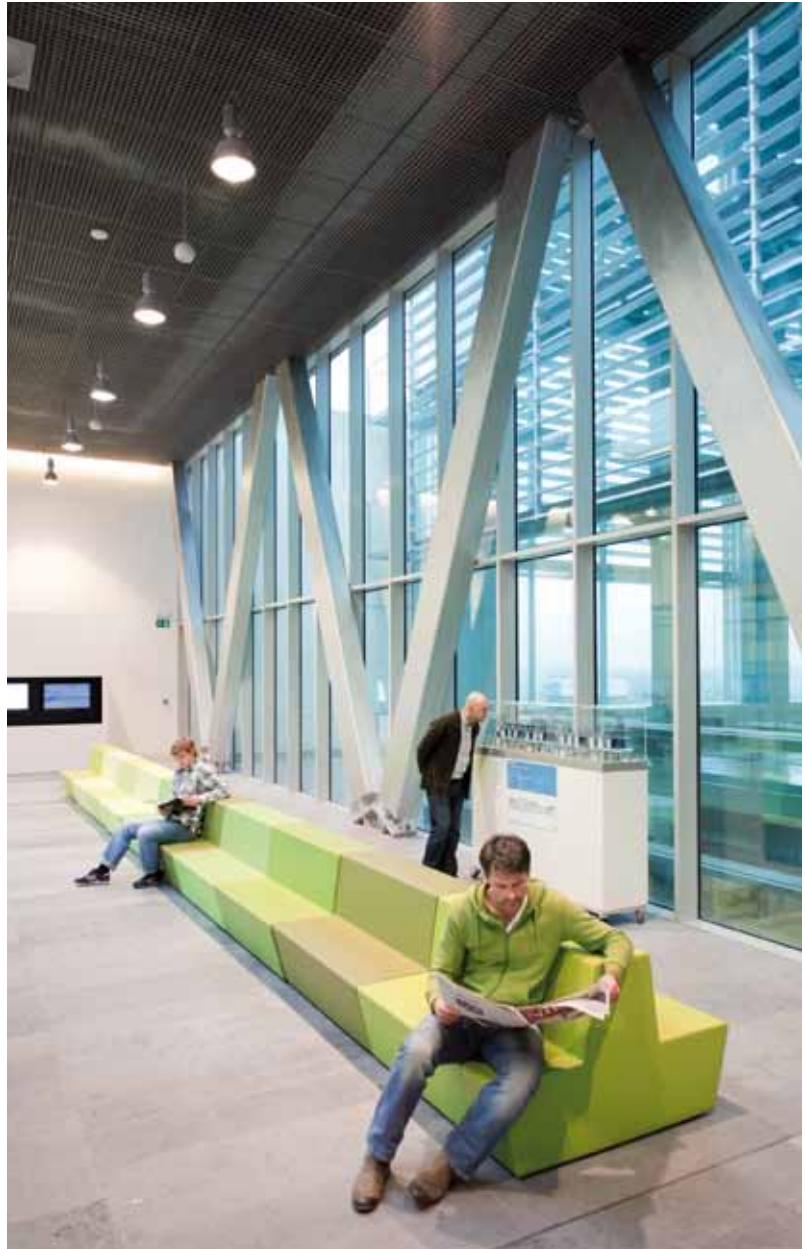
R-134a

OPTIONS (FACTORY MOUNTED)

- > 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
- > Speedtrol
- > 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

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > ModBus RTU communication module (EKCM200J)
- > LON communication module (EKCMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/remote Display HMI (EKRUPCS)





ERAD160,190E-SL

Cooling only

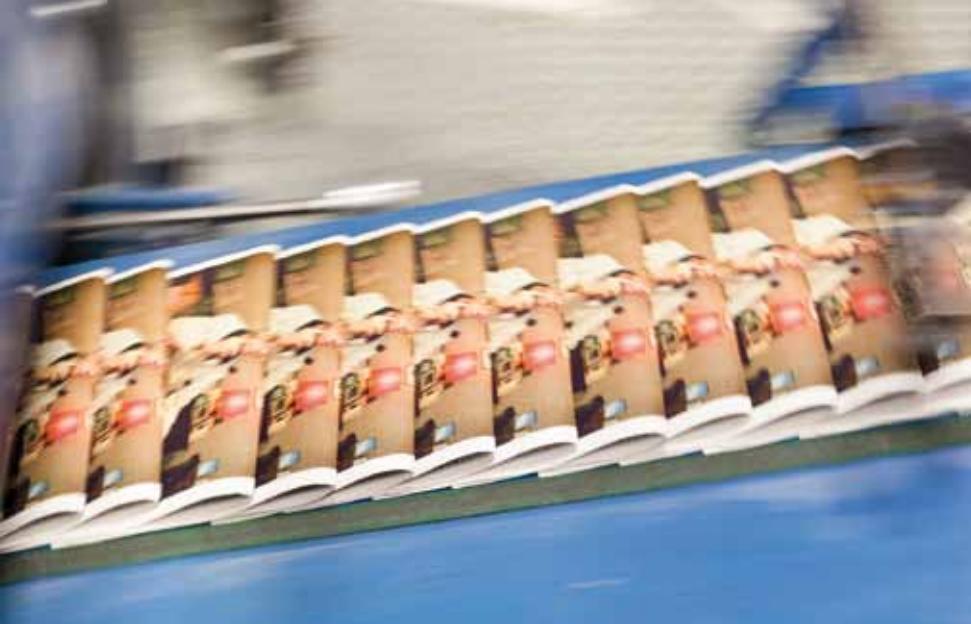
Capacity class			120	140	160	190	210	240	300	350	410	460				
Cooling capacity	Nom.	kW	116.0	137	159	187	209	243	295	352	409	462				
Capacity control	Method				Stepless			25								
	Minimum capacity	%														
Power input	Cooling	Nom.	kW	42.3	52.5	57.6	66.3	73.9	78.2	91.5	122	150	167			
EER					2.74	2.61	2.75	2.82	2.83	3.11	3.23	2.88	2.73			
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			2,036			2,789			
	Operation weight			kg			1,717			2,081			2,886			
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler														
Fan	Air flow rate	Nom.	l/s	8,372	8,144	12,558	12,217	16,744	16,289	25,117	24,433					
Fan motor	Speed	Cooling	Nom.	rpm				715								
Sound power level	Cooling	Nom.	dBA	89.0			89.8			90.5			91.7			
Sound pressure level	Cooling	Nom.	dBA	71.0			71.2			71.4			72.6			
72.5										72.8			73.5			
Compressor	Type	Semi-hermetic single screw compressor														
Operation range	SST			Min-Max	°C				-9~12							
	Condenser			Min-Max	°C				-18~48							
Refrigerant	Type	R-134a														
Charge			kg	17	20	22	27	29	32	45	54	58				
Circuits	Quantity	1														
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.

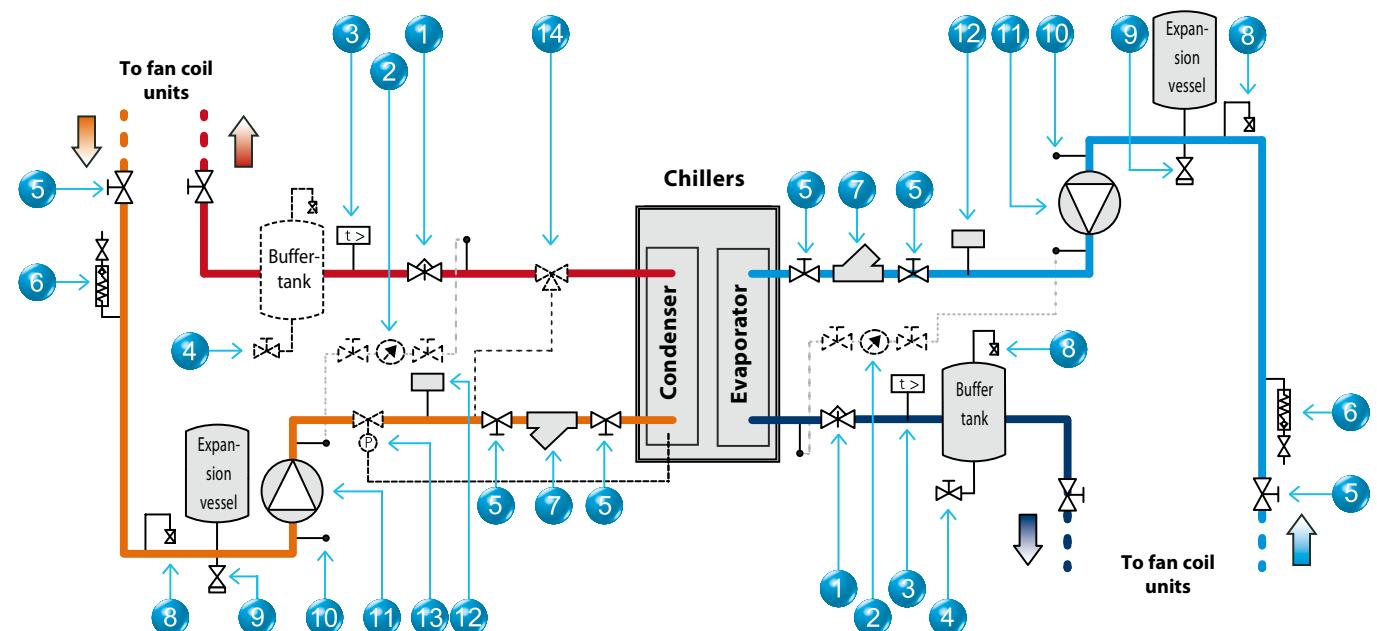
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EWWD-FZXS	122		



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
- > pCO³ controller for assembly of 2 or 3 modules

 $\mu\text{C}^2\text{ SE}$ **R-407C****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 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)

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)					
			014	022	028	035	045	055	065	090	100	110	120	130	145	155	165	175	185	195
CAPACITY INDEX																				
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	-	-	-	-	-	-	-	-	-	-	-	-	-
	EWWP065KBW1N	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
MODULAR UNITS (Controller available as accessory)	EWWP045KAW1M	-	-	-	-	-	-	-	2	1	-	-	-	2	1	-	-	-	-	-
	EWWP055KAW1M	-	-	-	-	-	-	-	-	1	2	1	-	1	2	3	2	1	-	-
	EWWP065KAW1M	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	1	2	3	-
CONTROL (kit)	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			3			4		5			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																	
	Minimum water volume in the system	l	62	103	134	155	205	268	311	205	268	311	205	268	311	205	268	311	205		
	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
		Max.	l/min	75	123	161	186	247	321	373	493	568	642	694	745	814	889	963	1,015	1,066	1,118
Water heat exchanger - condenser	Type			Brazed plate																	
	Water flow rate	Min.	l/min	24	39	51	59	79	102	118	157	181	205	221	237	260	283	307	323	339	355
		Nom.	l/min	48	78	102	118	157	205	237	314	362	410	442	474	519	567	614	647	679	711
		Max.	l/min	95	157	203	237	314	410	474	629	724	819	883	948	1,038	1,133	1,229	1,293	1,357	1,422
Sound power level	Cooling	Nom.	dBA	64	71	67	74	71	75	77	73	76	78	79							
Compressor	Type			Hermetically sealed scroll compressor																	
Operation range	Evaporator	Cooling	Min.-Max.	°CDB	-10 (OPZL) ~ 25																
	Condenser	Cooling	Min.-Max.	°CDB	20 ~ 55																
Refrigerant	Type			R-407C																	
	Control			Thermostatic expansion valve																	
Refrigerant circuit	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 FBSP 38mm			3 x 2 x FBSP 38mm								
	Evaporator water drain			FBSP 25mm			FBSP 40mm			2 x 2 FBSP 38mm			3 x 2 x FBSP 38mm								
	Condenser water inlet/outlet			FBSP 25mm			FBSP 40mm			2 x 2 FBSP 38mm			Field installation								
	Condenser water drain			FBSP 25mm			FBSP 40mm			2 x 2 FBSP 38mm			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 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
- > Emergency stop
- > Setpoint reset, demand limit and alarm from external device



R-134a

OPTIONS

- > Heat pump version
- > Brine version
- > 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)
- > Set-point reset, demand limit and alarm from external device
- > Double pressure relief valve with diverter
- > Compressor circuit breakers
- > Container kit
- > Transport kit
- > Ground fault relay
- > Soft starter
- > Liquid receiver
- > High pressure side manometers
- > CU-NI 90-10 condenser tubes

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > Modbus RTU communication module (EKCM200J)
- > LON communication module (EKCM-LON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/Remote Display HMI (EKRUPCS)





EWWD-J-SS

Heating only & Cooling only

Capacity class			120	140	150	180	210	250	280	310	330	360	380	400	450	500	530	560									
Cooling capacity			Nom.	kW	120	146	155	178	208	256	285	310	334	357	386	416	464	513	541	570							
Heating capacity			Nom.	kW	142	172	188	216	249	305	340	377	405	432	466	499	554	610	645	681							
Capacity control			Method		Stepless																						
			Minimum capacity	%	25						12.5																
Power input	Cooling	Nom.	kw	27.3	33.3	38.5	44.2	49.3	58.7	68.3	77	82.7	88.4	98.6	98.6	108	117	127	137								
	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			4.40	4.38	4.03	4.03	4.22	4.37	4.18	4.03	4.04	4.04	3.91	4.22	4.30	4.38	4.26	4.16									
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									
ESEER			5.01	4.67	4.67	4.66	4.75	5.20	4.46	4.80	4.84	5.00	4.79	5.17	5.27	5.37	5.25	4.81									
Dimensions			Unit	HeightxWidthxDepth	mm	1,020x2,684x913												2,000x2,684x913									
Weight	Unit	kg	1,777	1,233	1,334	1,366	1,416	1,600	1,607	2,668	2,700	2,732	2,782	2,832	3,016	3,200	3,207	3,215									
	Operation weight	kg	1,211	1,276	1,378	1,415	1,473	1,663	1,675	2,755	2,792	2,830	2,888	2,946	3,136	3,327	3,338	3,350									
Water heat exchanger - evaporator			Type	Brazed plate, one per circuit																							
Water heat exchanger - evaporator	Water volume	I	1.4	1.8	1.4	1.7	2.0	2.6	2.6	2.9	31	33	37	41	46	52	52	52									
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	15	13	40	38	36	28	33	40	40	38	38	36	36	28	33								
Water heat exchanger - condensor			Type	Double pass shell and tube																							
Water heat exchanger - condensor	Waterflow rate	Nom.	I/s	7.04	8.57	9.25	10.62	13.30	15.06	16.89	18.49	19.91	28.28	23.15	24.59	27.33	30.10	31.92	33.78								
	Nominal water pressure drop	Cooling	kPa	20	12	11	11	11	16	26	11	11	11	11	11	11	16	16	26								
Sound power level	Cooling	Nom.	kPa	71.4	71.4	71.4	71.4	71.4	70.0	70.0	74.4	74.4	74.4	74.4	74.4	73.8	73.0	73.0	73.0								
Sound pressure level	Cooling	Nom.	dBA	88.6	88.6	88.6	88.6	88.6	87.2	87.2	92.4	92.4	92.4	92.4	92.4	91.8	91.0	91.0	91.0								
Compressor	Type	Semi-hermetic single screw compressor																									
Refrigerant	Type	R-134a																									
	Circuits	Quantity	1						2																		
Piping connections	Evaporator water inlet/outlet		76.2mm																								
	Condenser water inlet/outlet		2" 1/2															4"									
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
- > EER values: up to 4
- > 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 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
- > High pressure side manometers
- > Hour run meter
- > General fault contactor



R-134a

OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Heat pump version
- > Brine version
- > Compressor thermal overload relays
- > 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
- > 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

ACCESSORIES

- > Serial sequencing panel (EKDSSP-S)
- > Digital sequencing panel (EKDDSP)
- > Modbus RTU communication module (EKCM200J)
- > LON communication module (EKCMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/Remote Display HMI (EKRUPCS)





EWWD260G-SS

Heating only & Cooling only

Capacity class			EWWD170G-SS	EWWD210G-SS	EWWD260G-SS	EWWD300G-SS	EWWD320G-SS	EWWD380G-SS	EWWD420G-SS	EWWD460G-SS	EWWD500G-SS	EWWD600G-SS										
Cooling capacity			Nom.	kW	166	201	253	280	334	372	403	448	494	556								
Heating capacity			Nom.	kW	204	247	310	343	410	456	494	552	610	674								
Capacity control			Method																			
Minimum capacity			%	25				12.5														
Power input	Cooling	Nom.	kW	42.2	50.6	64.9	75.3	84.3	93	101	115	129	150									
	Heating	Nom.	kW	52.7	63.5	80.8	89.2	106	117	127	144	161	177									
EER				3.93	3.97	3.90	3.72	3.96	4.00	3.97	3.89	3.83	3.70									
ESEER				5.00	5.04	4.95	4.72	5.28	5.33	5.29	5.19	5.1	4.93									
COP				3.87	3.89	3.84		3.88	3.91	3.89	3.84	3.79	3.81									
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	2,762										
	Operation weight		kg	1,470	1,480	1,650		2,840	2,850	2,860	2,970											
Water heat exchanger - evaporator	Type			Single pass shell and tube																		
	Water volume		l	60	56	123		118	113	173	168											
Sound power level	Cooling	Nom.	dBA	87.7				90.2														
	Sound pressure level	Cooling	Nom.	69.7				71.7														
Compressor			Type	Semi-hermetic single screw compressor																		
Operation range	Evaporator	Cooling	Min. °CDB	-8																		
			Max. °CDB	15																		
	Condenser	Cooling	Min. °CDB	20																		
			Max. °CDB	55																		
Refrigerant	Type			R-134a																		
	Charge		kg	50	55	110	50	55	110													
	Control			Electronic expansion valve																		
	Circuits	Quantity		1				2														
Piping connections	Evaporator water inlet/outlet (OD)			88.9	114.3				139.7mm													
	Condenser water inlet/outlet (OD)				5"																	
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
- > EER values: up to 4.73
- > 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
- > Evaporator 2 passes
- > Setpoint reset, demand limit and alarm from external device
- > Main switch interlock door
- > Emergency stop

OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Heat pump version
- > Brine version
- > Compressor thermal overload relays
- > 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
- > 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



MicroTech III

SCREW



R-134a





EWW650G-XS

ACCESSORIES

- › Serial sequencing panel (EKDSSP-S)
- › Digital sequencing panel (EKDDSP)
- › Modbus RTU communication module (EKCM200J)
- › LON communication module (EKCMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/Remote Display HMI (EKRUPCS)

Heating only & Cooling only

Capacity class			EWW6190G-XS	EWW6230G-XS	EWW6280G-XS	EWW6320G-XS	EWW6380G-XS	EWW6400G-XS	EWW6460G-XS	EWW6500G-XS	EWW6550G-XS	EWW650G-XS		
Cooling capacity	Nom.	kW	186	223	277	307	366	408	444	496	541	604		
Heating capacity	Nom.	kW	220	264	326	354	434	482	524	585	638	712		
Capacity control	Method													
	Stepless													
Power input	Minimum capacity	%	25				12.5							
Cooling	Nom.	kW	50.1	60.6	74.5	83.7	99.9	110	120	132	144	162		
Heating	Nom.	kW	4.70	4.64	4.66	4.30	4.62	4.68	4.67	4.73	4.72	4.39		
EER			5.97	5.9	5.92	5.46	6.15	6.24	6.23	6.31	6.30	5.85		
ESEER			4.38	4.35	4.38	4.23	4.34	4.38	4.42	4.43	4.43	4.40		
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	25	35	44	30	24	28	39	46		
Sound power level	Cooling	Nom.	dBA		88.2			90.9						
Sound pressure level	Cooling	Nom.	dBA		69.7			71.7						
Compressor	Type	Semi-hermetic single screw compressor												
Operation range	Evaporator	Cooling	Min.	°CDB	-8									
			Max.	°CDB	15									
	Condenser	Cooling	Min.	°CDB	20									
			Max.	°CDB	55									
Refrigerant	Type	R-134a												
	Charge	kg			55		110	105		100				
	Control				Electronic expansion valve									
	Circuits	Quantity			1					2				
Piping connections	Evaporator water inlet/outlet (OD)				114.3		139.7			168.3mm				
	Condenser water inlet/outlet (OD)						5"							
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
- > Cooling range: 333–1,510kW
- > EER values: 4.28 to 4.66
- > 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 starter (y - d)
- > Double set point
- > Phase monitor
- > Evaporator victaulic kit
- > Evaporator water side design pressure 10 bar
- > Condenser water side design pressure 10 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)
- > Evaporator 2 passes
- > Main switch interlock door
- > Emergency stop

OPTIONS (FACTORY MOUNTED)

- > Total heat recovery
- > Partial heat recovery
- > Soft starter
- > Heat pump version
- > Brine version
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > Condenser double flanges kit
- > Evaporator water side design pressure 25 bar
- > 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
- > Condenser 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
- > Condenser 4 passes
- > Condenser 2 passes (dT4-8°C)



MicroTech III

screw



R-134a



ACCESSORIES

- > Serial sequencing panel (EKDSSP-S)
- > Digital sequencing panel (EKDDSP)
- > Modbus RTU communication module (EKCM200J)
- > LON communication module (EKMLON)
- > BACnet/MSTP communication module (EKMBACMSTP)
- > BACnet/IP communication module (EKMBACIP)
- > Local/Remote Display HMI (EKRUPCS)



EWWD-I-SS

Heating only & Cooling only

Capacity class			EWWD340I-SS	EWWD400I-SS	EWWD460I-SS	EWWD550I-SS	EWWD650I-SS	EWWD700I-SS	EWWD800I-SS	EWWD850I-SS	EWWD900I-SS						
Cooling capacity	Nom.	kW	333	394	460	538	640	705	782	844	910						
Heating capacity	Nom.	kW	388	460	538	630	757	832	919	993	1,072						
Capacity control	Method			Stepless					12.5								
	Minimum capacity			25.0					12.5								
Power input	Cooling	Nom.	kW	71.5	85.8	101	120	141	156	171	186	200					
	Heating	Nom.	kW	87.4	104	122	143	174	191	208	225	243					
EER				4.66	4.59	4.56	4.47	4.53	4.52	4.57	4.55						
ESEER				5.06	4.96	4.93	4.86	5.54	5.75	5.56	5.70	5.47					
COP				4.44	4.42	4.41		4.35	4.36	4.42	4.41						
Dimensions	Unit	HeightxWidthxDepth	mm	1,821x1,466x3,298					2,103x1,350x4,116								
Weight	Unit	kg	2,150	2,160	2,179	2,224	3,909	3,927	3,945	3,971	3,996						
	Operation weight	kg	2,380	2,396	2,410	2,457	4,217	4,228	4,243	4,262	4,288						
Water heat exchanger - evaporator	Type	Single pass shell and tube															
	Water volume	l	193			183	172	271	263	256	248	241					
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	37	50	54	62	55	44	57	53	44				
Sound power level	Cooling	Nom.	dBA	93.7	96.6	96.7		96.9	97.3	97.8	98.9	99.8					
Sound pressure level	Cooling	Nom.	dBA	75.2	76.2	78.2		77.8	78.2	78.7	79.8	80.7					
Compressor	Type	Single screw compressor															
Operation range	Evaporator	Cooling	Min.	°CDB	-8					15							
			Max.	°CDB	15					20							
	Condenser	Cooling	Min.	°CDB	20					55							
Refrigerant	Type	R-134a															
	Circuits	Quantity	1			2			104								
Refrigerant circuit	Charge	kg	54	52	51	50	108	106	104								
Piping connections	Evaporator water inlet/outlet (OD)	168.3mm															
	Condenser water inlet/outlet (OD)	5"															
Power supply	Phase/Frequency/Voltage	Hz/V	3~/50/400														

Capacity class			EWWD950I-SS	EWWD10I-SS	EWWD12I-SS	EWWD13I-SS	EWWD14I-SS	EWWD15I-SS	EWWD16I-SS	EWWD17I-SS	EWWD18I-SS				
Cooling capacity	Nom.	kW	986	1,027	1,155	1,204	1,274	1,346	1,401	1,455	1,510				
Heating capacity	Nom.	kW	1,161	1,217	1,363	1,427	1,507	1,227	1,661	1,730	1,790				
Capacity control	Method			Stepless					8.3						
	Minimum capacity			12.5			8.3			4.51					
Power input	Cooling	Nom.	kW	219	237	254	268	282	298	316	334	353			
	Heating	Nom.	kW	262	282	309	326	344	363	383	401	420			
EER				4.51	4.33	4.54	4.50	4.51		4.43	4.35	4.28			
ESEER				5.61	5.36	5.51	5.56		5.54	5.55	5.45	5.27			
COP				4.43	4.32	4.41	4.38		3.38	4.34	4.31	4.26			
Dimensions	Unit	HeightxWidthxDepth	mm	2,103x1,350x4,116					2,323x2,130x4,439						
Weight	Unit	kg	4,080	4,092	6,079	6,097	6,136	6,174	6,192	6,210	6,228				
	Operation weight	kg	4,369	4,386	6,628	6,646	6,670	6,699	6,717	6,735	6,761				
Water heat exchanger - evaporator	Type	Single pass shell and tube													
	Water volume	l	233			472	504	489	472						
	Nominal water pressure drop	Cooling	Heat exchanger	kPa	54	39	52	55	46	57	62	66			
Sound power level	Cooling	Nom.	dBA	99.8	100.4	100.8	101.2	103.0			80.7				
Sound pressure level	Cooling	Nom.	dBA	80.7			80.8	81.2	83.0						
Compressor	Type	Single screw compressor													
Operation range	Evaporator	Cooling	Min.	°CDB	-8					15					
			Max.	°CDB	15					20					
	Condenser	Cooling	Min.	°CDB	20					55					
Refrigerant	Type	R-134a													
	Circuits	Quantity	2			3			150						
Refrigerant circuit	Charge	kg	100			156	155	154	153	152	151	150			
Piping connections	Evaporator water inlet/outlet (OD)	168.3mm													
	Condenser water inlet/outlet (OD)	5"													
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
- > Cooling range: 362–1,134kW
- > EER values: 4.73 to 5.10
- > 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 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
- > Evaporator 2 passes
- > Emergency stop

OPTIONS (FACTORY MOUNTED)

- > Partial heat recovery
- > Soft starter
- > Heat pump version
- > Brine version
- > 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
- > Water pressure differential switch on condenser
- > Water pressure differential switch on evaporator
- > 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
- > High pressure side manometers
- > Low pressure side manometers
- > Ground fault relay
- > Transport kit



MicroTech III

SCREW



R-134a





EWWD-I-XS

ACCESSORIES

- › Serial sequencing panel (EKDSSP-S)
- › Digital sequencing panel (EKDDSP)
- › Modbus RTU communication module (EKCM200J)
- › LON communication module (EKMLON)
- › BACnet/MSTP communication module (EKCMBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/Remote Display HMI (EKRUPCS)

Heating only & Cooling only

			EWWD-I-XS													
Capacity class			360	440	500	600	750	800	850	950	C10	C11	C12			
Cooling capacity			Nom. kW	362	433	506	573	720	795	866	933	976	1,038	1,134		
Heating capacity			Nom. kW	411	493	577	660	823	908	990	1,069	1,126	1,203	1,313		
Capacity control			Method	Stepless												
Minimum capacity			%	25.0				12.5								
Power input	Cooling	Nom.	kW	71.0	85.4	100	121	141	156	170	185	199	219	240		
	Heating	Nom.	kW	85.9	103	121	143	172	189	206	223	240	263	285		
EER				5.10	5.07	5.06	4.75	5.09	5.10	5.08	5.05	4.90	4.73			
ESEER				5.34	5.27	5.22	5.11	6.13	6.31	6.01	6.14	5.9	6.05	5.67		
COP				4.78	4.79	4.77	4.62	4.78	4.80	4.81	4.79	4.69	4.57	4.61		
Dimensions	Unit	HeightxWidthxDepth	mm	1,883x1,430x4,012				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												
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												
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	67	51	66	48	67			50	51	65		
Nominal water pressure drop2	Cooling	kPa		-	-	-	-	48	66	67	50	65				
Sound power level	Cooling	Nom.	dBA	94	97				98	99	100					
Sound pressure level	Cooling	Nom.	dBA	75	76		78	79	80	81						
Compressor	Type	Single screw compressor														
Operation range	Evaporator	Cooling	Min.-Max. °CDB	-8~15												
	Condenser	Cooling	Min.-Max. °CDB	20~55												
Refrigerant			Type	R-134a												
Control				-												
Circuits		Quantity		1				2								
Refrigerant circuit	Charge	kg		90	87	85		180	177	174	172	170				
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400												

STRENGTHS

- > Cooling range: 369 -1,215 kW
- > Heating range: 419 - 1,356 kW
- > Condenser leaving water temperatures (CLWT) up to 65°C (optional)
- > Heat pump version available
- > Flooded type heat exchangers
- > MicroTech III controller



MicroTech III

STANDARD AVAILABLE

- > Wye delta 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
- > Emergency stop
- > Evaporator 2 passes
- > Double pressure relief valve with diverter

screw



R-134a

OPTIONS

- > Heat pump version
- > Brine version
- > 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





ACCESSORIES

- > Serial sequencing panel (EKDSSP-S)
- > Digital sequencing panel (EKDDSP)
- > Modbus RTU communication module (EKCM200J)
- > LON communication module (EKCMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/Remote Display HMI (EKRUPCS)

Heating only & Cooling only

Capacity class			370	450	530	610	750	830	930	980	C10	C11	C12	
Cooling capacity	Nom.	kW	369	445	521	608	748	827	932	978	1,050	1,133	1,215	
Heating capacity	Nom.	kW	419	505	589	687	837	924	1,036	1,093	1,173	1,265	1,356	
Capacity control	Method			Stepless										
Power input	Minimum capacity	%	25				12.5							
Cooling	Nom.	kW	62.8	75.4	87.0	101	125	138	151	163	174	188	201	
Heating	Nom.	kW	84.5	101	117	136	159	175	192	206	221	238	255	
EER			5.88	5.90	5.99	6.02	5.98	5.99	6.17	6.00	6.03		6.04	
ESEER			6.44	6.47	6.56	6.57	7.16	7.23	7.32	7.37	7.40	7.43	7.42	
COP			4.96	4.98	5.03	5.06	5.28	5.27	5.40	5.30	5.31	5.32	5.31	
Dimensions	Unit	HeightxWidthxDepth	mm	2,121x1,353x3,341	2,121x1,353 x3,419	2,048x1,384 x3,417	2,048x1,689x3,609	2,048x1,711x3,609		2,161x1,711x3,509				
Weight	Unit		kg	3,089	3,370	3,603	3,781	5,289	5,375	5,654	5,707	6,066	6,105	6,156
	Operation weight		kg	3,250	3,588	3,870	4,163	5,694	5,835	6,174	6,262	6,709	6,773	6,859
Water heat exchanger - evaporator	Type			Flooded shell & tube										
Water volume	I		l	78	107	134	160	172	201	261	272	295	310	327
Nominal water pressure drop	Cooling	Heat exchanger	kPa	48	40	38	42	48	40	38		35.0	37.0	40
Water heat exchanger - condenser	Type			Flooded Shell & Tube										
Water flow rate	Nom.		l/s	20.63	24.86	29.05	33.87	41.71	46.11	51.74	54.52	58.48	63.12	67.65
Nominal water pressure drop	Cooling		kPa	35	30	32	28	34	30	37	35.0	33.0		35
Sound power level	Cooling	Nom.	dBA	96.7	97.7	98.7	99.1	100.2	100.7	101.2	101.7	102.2	102.7	
Sound pressure level	Cooling	Nom.	dBA	78.0	79.0	80.0		81.0	81.5	82.0	82.5	83.0	83.5	
Compressor	Type			Semi-hermetic single screw compressor										
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	220	250		300		330	
Circuits	Quantity									1				
Piping connections	Evaporator water inlet/outlet	mm		168.3						219.1				
	Condenser water inlet/outlet	inch			6						8			
Power supply	Phase/Frequency/Voltage	Hz/V												

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
- › Evaporator 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
- › Evaporator 2 passes
- › Main switch interlock door
- › Emergency stop



R-410A

OPTIONS

- › Partial heat recovery
- › Soft starter
- › Brine version
- › Compressor thermal overload relays
- › Under/overvoltage control
- › Energy meter
- › Capacitors for power factor correction
- › Current limit - display
- › 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

ACCESSORIES

- › Serial sequencing panel (EKDSSP-S)
- › Digital sequencing panel (EKDDSP)
- › Modbus RTU communication module (EKCM200J)
- › LO N communication module (EKCMLON)
- › BACnet/MSTP communication module (EKCBACMSTP)
- › BACnet/IP communication module (EKCMBACIP)
- › Local/Remote Display HMI (EKRUPCS)





EWWQC19,C20B-SS

Cooling only

Capacity class			380	460	560	640	730	800	860	870	960	C10	C11	C12	C13	C14	C15	C16	C17	C19	C20	
Cooling capacity	Nom.	kW	380	464	562	637	727	796	862	872	960	1,007	1,055	1,185	1,255	1,325	1,460	1,584	1,748	1,888	2,050	
Capacity control	Method																					
	Minimum capacity	%																				
Power input	Cooling	Nom.	kW	85.6	104	128	144	166	172	202	190	209	240	232	256	274	290	333	367	401	432	466
EER				4.44	4.46	4.40	4.41	4.37	4.64	4.26	4.59	4.60	4.19	4.55	4.62	4.59	4.56	4.38	4.32	4.36	4.37	4.40
ESEER				5.16	5.21	5.22	4.95	5.64	4.83	5.63	5.59	4.76	5.6	5.61	5.62	5.55	5.18	5.06	5.11	5.07		
Dimensions	Unit	HeightxWidthxDepth	mm	1,849x1,140x3,373		2,001x1,276x3,454	1,848x1,314 x3,355	2,158x1,350 x5,020	1,848x1,314 x2,001	2,158x1,350x5,020	1,848x1,314 x2,001	2,378x1,350 x4,894		2,455x1,350x5,070			2,495x1,350x4,892		2,495x1,350x4,865			
Weight	Unit	kg		1,933	1,967	2,283	2,332	2,407	3,921	2,427	3,949	3,988	2,457	4,344	4,529	4,536	4,607	4,988	4,999	5,053	5,204	5,289
	Operation weight	kg		2,135	2,169	2,543	2,628	2,777	4,422	2,795	4,463	4,496	2,812	4,780	5,186	5,200	5,280	5,602	5,615	5,670	5,881	5,970
Water heat exchanger - evaporator	Type																					
	Water volume	l		124	118	176	170	274	344	266	344	325	251	325			538		505	495	539	527
	Nominal water pressure drop	Cooling	kPa	47	63	43	46	53	52	48	62	57	55	67	43	48	53	58	67	86	95	119
Water heat exchanger - condenser	Type																					
	Water flow rate	Nom.	l/s	22.2	27.2	32.9	37.3	42.7	23.1	50.9	23.4	27.9	59.6	27.6	34.3	33.4	38.4	42.6	42.7	51	50.8	59.8
	Nominal water pressure drop	Cooling	kPa	58	62	66	63	15	62	19	62	65	25	65	70	67			16		14	
	Nominal water pressure drop2	Cooling	kPa			-		62	-	65		67	70	67	16	18	16		14			
Sound power level	Cooling	Nom.	dBA	100.2	101.2	102.3	101.5	104.7	102.3	104.7	105.1	103.2	104.7	105.2	106.5	105.8	106.2	106.6	107.1	107.5		
Sound pressure level	Cooling	Nom.	dBA	82.2	83.0	83.9	83.2	84	84.9	85.2	85	85.6	86	86.5	86.9	86.2	86.6	87.0	87.5	87.9		
Compressor	Type																					
	Evaporator	Cooling	Min.-Max. °CDB																			
	Condenser	Cooling	Min.-Max. °CDB																			
Refrigerant	Type																R-410A					
	Charge	kg		80		90		80										-				
	Control																					
	Circuits	Quantity						1		2	1						2					
Refrigerant circuit	Charge	kg						-		80		90		85		100	95	100			130	
Refrigerant circuit 2	Charge	kg						-		80	-	90		85		100	95	100			130	
Piping connections	Evaporator water inlet/outlet																	-				
Power supply	Phase/Frequency/Voltage	Hz/V																				

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 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
- > High pressure side manometers
- > Hour run meter
- > General fault contactor
- > Set-point reset, demand limit & alarm from external device
- > Double pressure relief valve with diverter
- > Evaporator 2 passes
- > Emergency stop
- > Main switch interlock door

OPTIONS

- > Partial heat recovery
- > Soft starter
- > Brine version
- > Compressor thermal overload relays
- > Under/overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > 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)
- > Ground fault relay
- > Transport kit

ACCESSORIES

- > Serial sequencing panel (EKDSSP-S)
- > Digital sequencing panel (EKDDSP)
- > Modbus RTU communication module (EKCM200J)
- > LO N communication module (EKCMLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/Remote Display HMI (EKRUPCS)



MicroTech III

SCREW



R-410A





EWWQC19-C22B-XS

Cooling only

Capacity class			420	520	640	730	800	970	C10	C11	C12	C13	C14	C15	C16	C17	C19	C20	C21		
Cooling capacity	Nom.	kW	422	516	639	725	801	973	1,037	1,116	1,158	1,270	1,369	1,449	1,573	1,733	1,863	2,020	2,152		
Capacity control	Method																				
	Minimum capacity	%																			
Power input	Cooling	Nom.	kW	84.9	102	126	143	159	193	205	227	228	252	269	286	315	349	382	417 ¹	451	
EER				4.97	5.03	5.09	5.07		5.05	5.06	4.91	5.07	5.04	5.08	5.07	4.99	4.96	4.87	4.84	4.77	
ESEER				5.86	5.88	5.97	5.95	5.89	5.66	6.18	5.54		6.13		6.28	6.23	5.92	6	5.73	5.78	5.64
Dimensions	Unit	HeightxWidthxDepth	mm	2,001x1,276x3,863	2,001x1,268 x3,878	2,003x1,314 x3,878	2,003x1,446 x3,919	2,454x1,350 x5,219	2,003x1,446 x3,919	2,454x1,350x5,219	2,454x1,350x5,219				2,495x1,350x4,829		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																				
	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	57	70	73	65	58	55		70	65	56	68	76	71	91	93	115	129
Water heat exchanger - condenser	Type																				
	Water flow rate	Nom.	I/s	24.2	29.5	36.5	41.4	45.8	55.7	29.5	64.2	29.6	36.3	36.7	41.2	44.9	44.6	53.3	53.2	61.9	
	Nominal water pressure drop	Cooling	kPa	50	40	41	46	60	64	39	84	35	48	49	46		43	60	52	78	
	Nominal water pressure drop 2	Cooling	kPa							39	-	48		46		43	62	60	79	78	
Sound power level	Cooling	Nom.	dBA	100.9	101.7	102.6	102.7	102.0	102.9	105.2	103.8	105.6	106.1	106.5	105.8	106.2	106.6	107.1	107.5		
Sound pressure level	Cooling	Nom.	dBA	82.2	83.0		83.9	83.2	84.0	85.6	84.9	86.0	86.5	86.9	86.2	86.6	87.0	87.5	87.9		
Compressor	Type																				
Operation range	Evaporator	Cooling	Min.-Max. °CDB																		
	Condenser	Cooling	Min.-Max. °CDB																		
Refrigerant	Type																				
	Control																				
	Circuits	Quantity																			
Refrigerant circuit	Charge	kg		95		110	130	120	130		120		120		120		130				
Refrigerant circuit 2	Charge	kg			-			120	-	120		120		120		130					
Piping connections	Evaporator water inlet/outlet																				
Power supply	Phase/Frequency/Voltage	Hz/V																			

STRENGTHS

- > Wide capacity range from 114 to 1,048 kW
- > An inverter driven compressor allows the capacity to be adjusted precisely to match variations in room and outside temperatures
- > Top seasonal efficiency (ESEER up to 9.60)
- > Onboard digital electronics provide smart controls

STANDARD AVAILABLE

- > Evaporator – 2 passes configuration
- > Evaporator Victaulic kit
- > Evaporator water side design pressure 10 bar
- > 20mm evaporator insulation
- > Condenser – 2 passes configuration
- > 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)
- > Evaporator water side design pressure 21 bar
- > Condenser 1/3 passes
- > Condenser double flange kit
- > Condenser marine water box (victaulic)
- > 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

centrifugal



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
- › EKGWWEB Gateway web (Ethernet LAN SNMP)
- › EKGWMODEM Gateway for modem

Cooling only

Capacity class			320	430	520	640	860	C10
Cooling capacity	Min.	kW	114	128	172	114	128	172
	Max.	kW	317	429	521	635	856	1,048
Capacity control								
Power input	Cooling	Min.	kW	21.6	27.7	33.1	21.6	27.7
	Cooling	Max.	kW	65.9	85.7	104	132	171
EER				5.40		6.00	5.40	5.50
ESEER				8.60		9.40	8.80	8.60
Dimensions	Unit	HeightxWidthxDepth	mm	1,823x1,276x3,254		1,823x1,276x3,419	1,755x1,790x3,441	1,748x1,853x3,289
Weight	Unit		kg	2,360	2,416	2,546	3,709	4,095
	Operation weight		kg	2,520	2,634	2,812	4,074	4,548
Water heat exchanger - evaporator	Type	Flooded shell and tube (2 passes)						
Nominal water pressure drop	Cooling	Heat exchanger	kPa	30	31	23	18	21
Water heat exchanger - condenser	Type	Flooded shell and tube (2 passes)						
Water flow rate	Nom.		l/s	18.3	24.6	29.9	36.7	49.1
Nominal water pressure drop	Cooling		kPa	24	25	28	24	25
Sound power level	Cooling	Nom.	dBA	89.0	90.1	91.2	92.4	93.6
Sound pressure level	Cooling	Nom.	dBA	70.9	72.0	73.0	73.8	75.1
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	190	180	220	300
Control						Electronic expansion valve		
Circuits	Quantity					1		
Piping connections	Evaporator water inlet/outlet		mm	168.3		219.1		273
	Condenser water inlet/outlet		mm	168.3			219.1	
Power supply	Phase / Frequency / Voltage		Hz / V			3~ / 50 / 400		

R-134a

INVERTER



DAIKIN WATER COOLED CHILLERS WITH CENTRIFUGAL COMPRESSORS

- › 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

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

Dual compressor

- › D-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)

UNMATCHED UNLOADING

Unloading to 10% of full load for a D-DWSC single compressor chiller and 5% for a D-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.

The movable discharge diffuser increases stability and reduces vibrations.



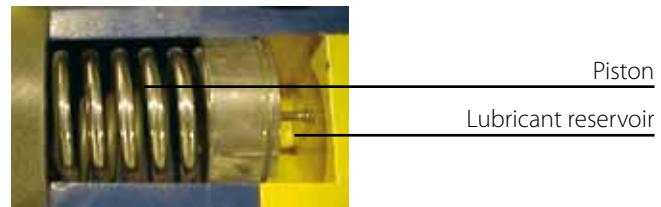
Moveable diffuser closing off impeller discharge area

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 which 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.



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

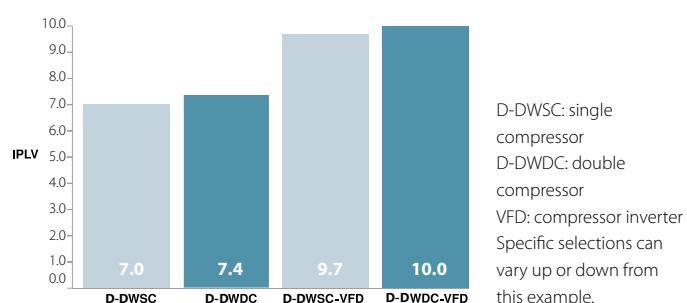
TWO SINGLE COMPRESSOR CHILLERS

- › 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



R-134a

centrifugal



IN-HOUSE DEVELOPED MAGNETIC BEARING COMPRESSOR

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 mete

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.

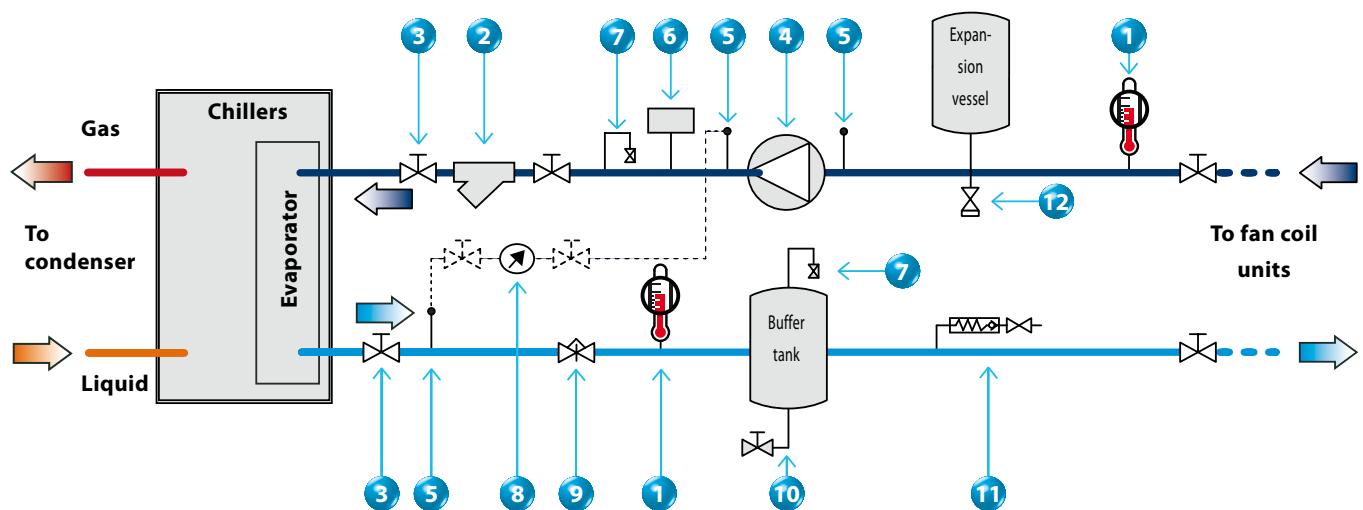
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1. Temperature sensor
2. Filter
3. Shut-off valve
4. Pump
5. Pressure port
6. Flow switch
7. Drain
8. Pressure gauge
9. Water flow adjusting valve
10. Drain valve
11. Fill valve
12. Safety valve

PIPING DIAGRAM FOR COMFORT COOLING APPLICATION



STRENGTHS

- > Daikin scroll compressor
- > Optimised for use with R-407C
- > 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
- > μ C² SE controller



OPTIONS (FACTORY MOUNTED)

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

scroll



R-407C

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)

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 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
- > Emergency stop



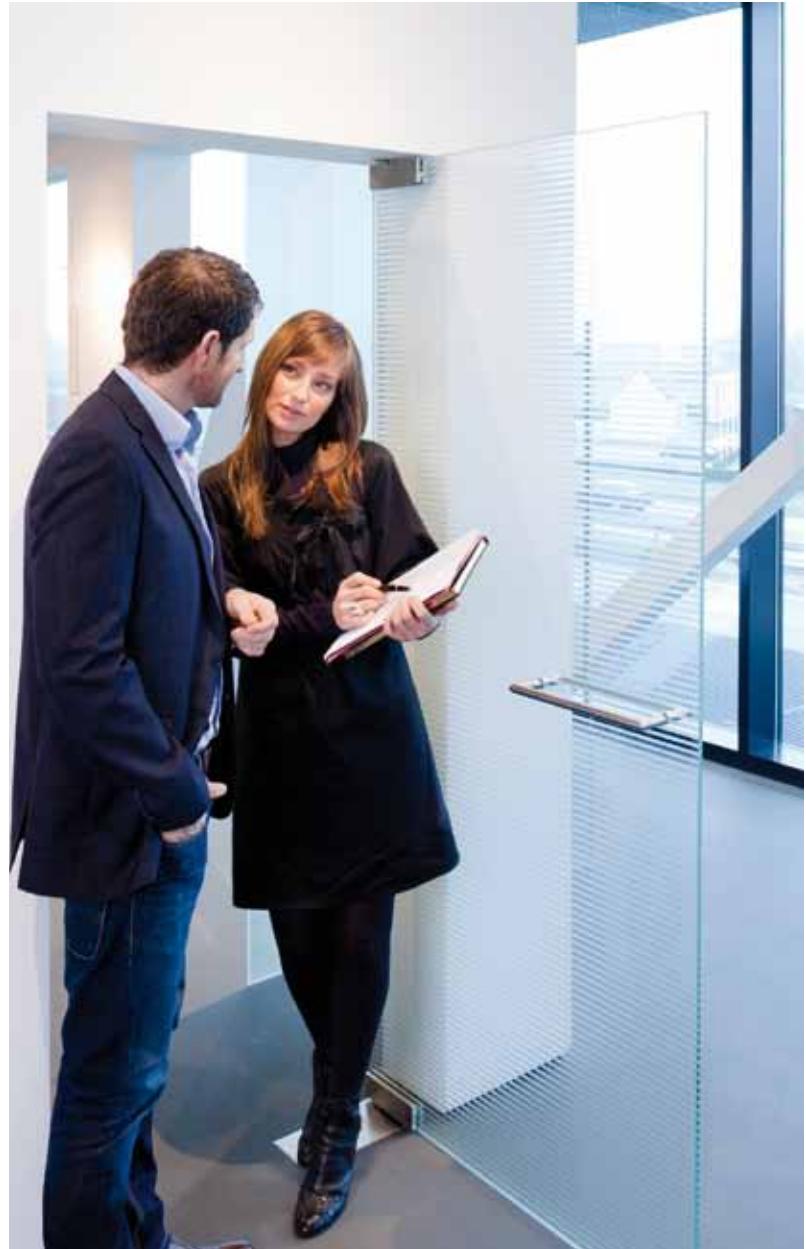
R-134a

OPTIONS

- > Brine version
- > Compressor thermal overload relays
- > Under / overvoltage control
- > Energy meter
- > Current limit display
- > Low pressure side manometers
- > Rubber anti vibration mount
- > Sound proof system (compressor)
- > Set-point reset, demand limit and alarm from external device
- > 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

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > Modbus RTU communication module (EKCM200J)
- > LON communication module (EKCLON)
- > BACnet/MSTP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/Remote Display HMI (EKRUPCS)





EWLD120J-SS

Cooling only

Capacity class			110	130	145	165	195	235	265	290	310	330	360	390	430	470	500	530											
Cooling capacity			Nom. kW	110	128	143	164	192	237	265	286	307	328	356	383	429	474	502	530										
Power input			Cooling Nom. kw	30.9	38.0	43.3	49.8	55.3	65.2	74.5	86.5	93.0	99.5	105	111	121	130	140	149										
EER				3.55	3.36	3.31	3.30	3.47	3.63	3.56	3.31	3.30	3.30	3.39	3.47	3.56	3.63	3.59	3.56										
Dimensions			HeightxWidthxDepth mm	1,020x2,684x913								2,000x2,684x913																	
Weight			Unit kg	1,124	1,141	1,237	1,263	1,305	1,489	1,489	2,474	2,500	2,526	2,568	2,611	2,795	2,979	2,979	2,979										
			Operation weight kg	1,138	1,159	1,253	1,281	1,327	1,518	1,518	2,505	2,533	2,562	2,608	2,655	2,845	3,036	3,036	3,036										
Water heat exchanger - evaporator			Type																										
Sound power level			Cooling Nom. dBA	71.4	71.4	71.4	71.4	71.4	70.0	70.0	74.4	74.4	74.4	74.4	74.4	73.8	73.0	73.0	73.0										
Sound pressure level			Cooling Nom. dBA	88.6	88.6	88.6	88.6	88.6	87.2	87.2	92.4	92.4	92.4	92.4	92.4	91.8	91.0	91.0	91.0										
Compressor			Type	Semi-hermetic single screw compressor																									
Refrigerant			Type	R-134a																									
			Circuits	Quantity		1				2																			
Piping connections			Evaporator water inlet/outlet	3"																									
Power supply			Phase / Frequency / Voltage Hz / V	3 / 50 / 400																									

STRENGTHS

- > Cooling range: 161-526kW
- > 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
- > Hour run meter
- > General fault contactor



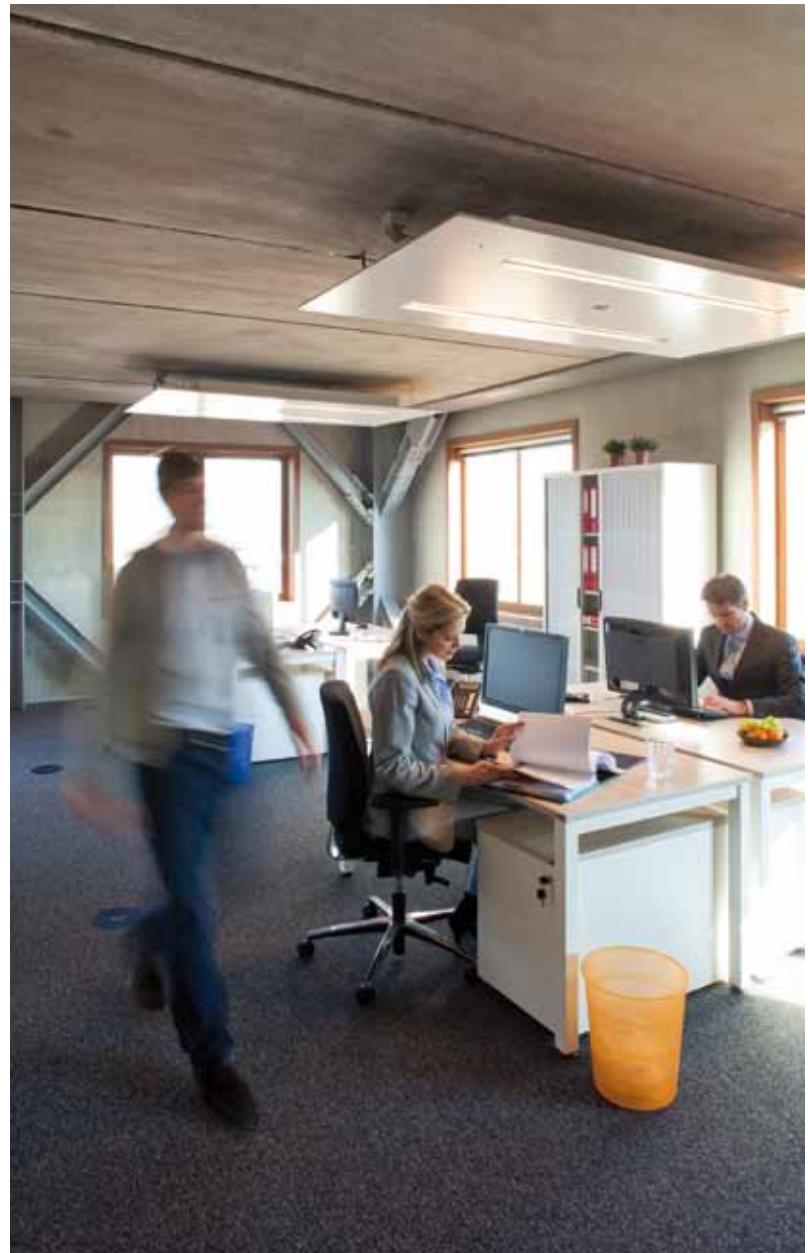
R-134a

OPTIONS

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

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > Modbus RTU communication module (EKCM200J)
- > LON communication module (EKCLON)
- > BACnet/MTSP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/Remote Display HMI (EKRUPCS)





EWLD~G-SS

Cooling only

Capacity class			160	190	240	280	320	360	380	420	480	550						
Cooling capacity	Nom.		kW	161	189	244	270	316	352	381	428	476	526					
Capacity steps	%		stepless 25 - 100			stepless 12.5 - 100												
Power input	Cooling		kW	45.4	54.3	65.9	74.6	90.6	99.7	108.6	120	131.5	148					
EER				3.54	3.48	3.70	3.62	3.48	3.53	3.51	3.57	3.62	3.55					
Dimensions	Unit	HeightxWidthxDepth	mm	1,860x1,000x3,700			1,942x1,100x4,400											
Weight	Unit	kg		1,280		1,398		2,442	2,446		2,501	2,506						
	Operation weight		kg	1,337		1,516		2,560		2,670								
Water heat exchanger - evaporator	Minimum water volume in the system			l	1,151	1,354	1,749	1,938	1,130	1,262	1,365	1,535	1,704	1,884				
	Water flow rate	Min.		l/min	230.20	270.90	349.74	387.58	452.22	504.83	546.25	613.90	681.84	753.80				
		Nom.		l/min	460.39	541.81	699.47	775.16	904.44	1,009.65	1,092.50	1,227.81	1,363.69	1,507.60				
	Nominal water pressure drop	Max.		l/min	649.15	763.95	986.26	1,092.97	1,275.27	1,423.61	1,540.42	1,731.21	1,922.80	2,125.71				
		Cooling	Heat exchanger	kPa	48	69	43	53	64	63	72	54	68					
	Model			Quantity			1											
	Type			EV19270055			EV27270066			EV27270088			EV32270099					
	Type			Shell and tube - direct expansion														
Sound power level	Cooling	Nom.	dBA	88			90.5											
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														
	Charge			kg			5			10								
	Control			Electronic expansion valve														
	Circuits	Quantity		1			2											
Piping connections	Evaporator water inlet/outlet			88.9			114.3			139.7								
Power supply	Phase / Frequency / Voltage		Hz / V	3~/50/400														

STRENGTHS

- > Cooling range: 328–1,422kW
- > EER range: 3.51 to 3.91
- > 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 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
- > Evaporator 2 passes
- > Main switch interlock door
- > Emergency stop



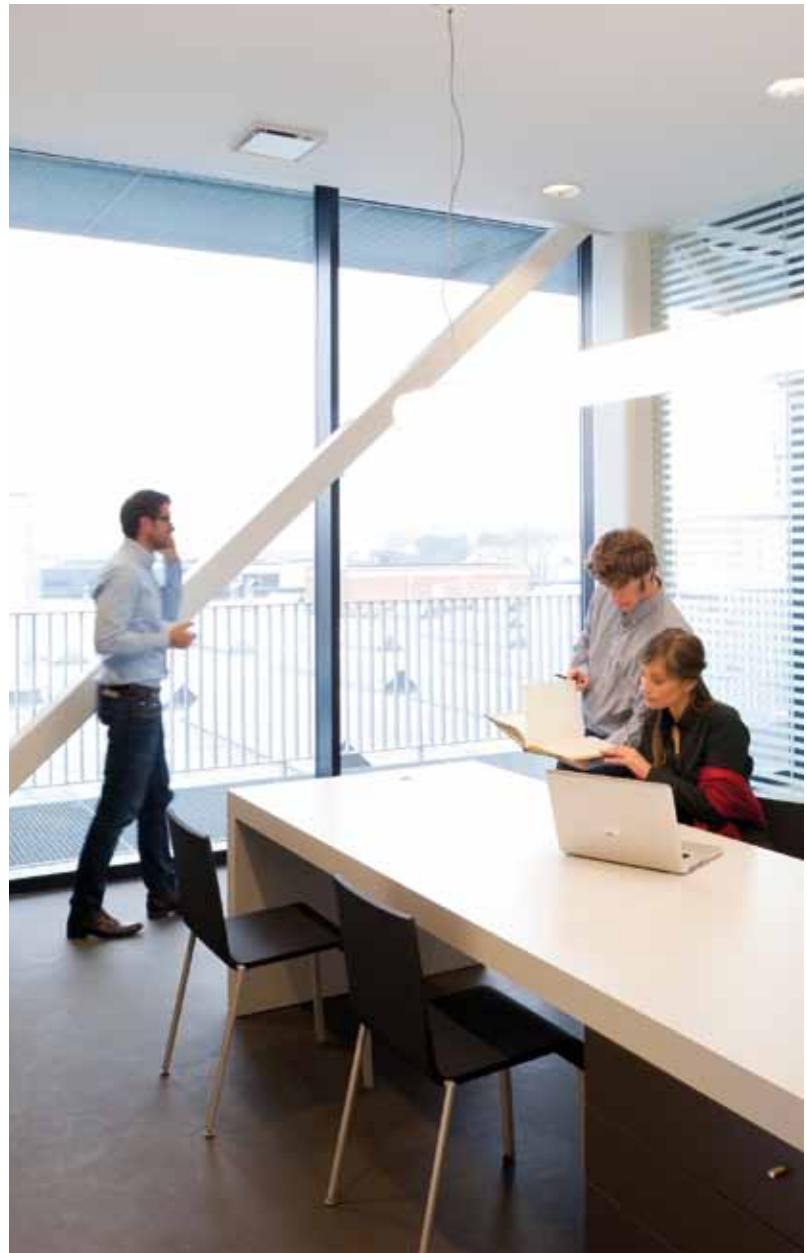
R-134a

OPTION

- > Soft starter
- > Brine version
- > Under / overvoltage control
- > Energy meter
- > Capacitors for power factor correction
- > Current limit - display
- > 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

ACCESSORIES

- > Serial Sequencing Panel (EKDSSP-S)
- > Digital Sequencing Panel (EKDDSP)
- > Modbus RTU communication module (EKCM200J)
- > LON communication module (EKCMLON)
- > BACnet/MTSP communication module (EKCMBACMSTP)
- > BACnet/IP communication module (EKCMBACIP)
- > Local/Remote Display HMI (EKRUPCS)



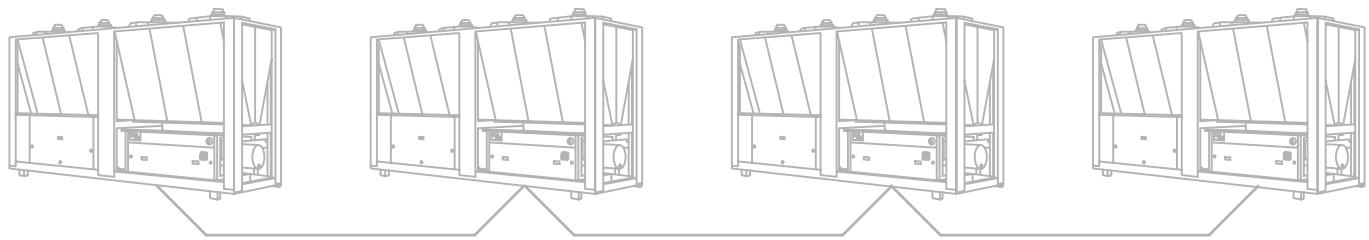
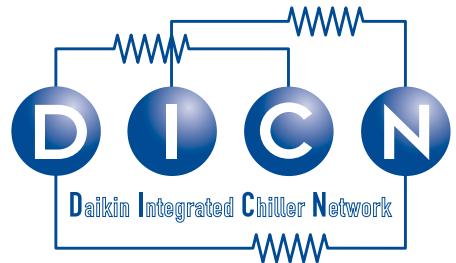


EWLD~I-SS

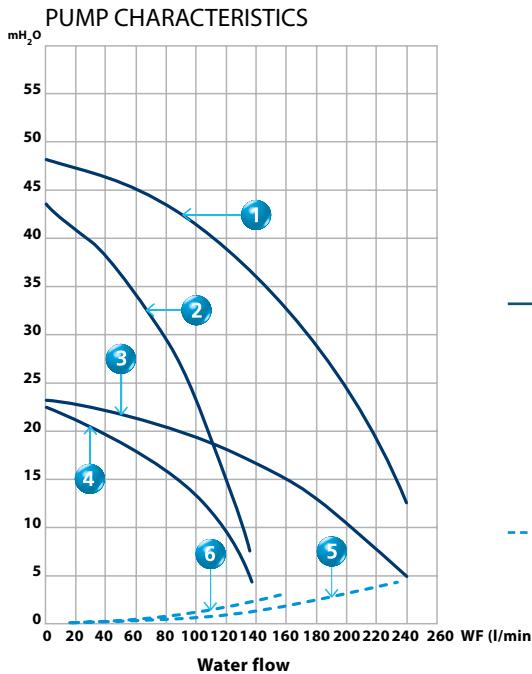
Cooling only

EWLD-I-SS																						
Capacity class			320	400	420	500	600	650	750	800	850	900	950	C10	C11	C12	C13	C14	C15	C16	C17	
Cooling capacity	Nom.	kW	328	391	428	504	596	657	730	788	850	919	966	1,033	1,078	1,125	1,188	1,267	1,319	1,370	1,422	
Capacity control	Method												Stepless									
	Minimum capacity		% 25		12.5		8.3															
Power input	Cooling	Nom.	kW	83.8	100	116	137	165	181	198	214	231	252	271	279	296	312	329	347	366	386	405
EER				3.91	3.9	3.7	3.67	3.61	3.63	3.69	3.67	3.65	3.56	3.59	3.64	3.60	3.61	3.65	3.6	3.55	3.51	
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	Water volume	l		193	183	172	271	263	256	248	241	233	504	489	472	504	489	472				
	Nominal water pressure drop	Cooling	Total	kPa	34	47	54	49	39	52	47	45	52	46	49	41	51	55	59	63		
	Type	Single pass shell and tube																				
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							
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. °CDB	-8																		
			Max. °CDB	15																		
	Condenser	Cooling	Min. °CDB	25																		
			Max. °CDB	60																		
Refrigerant	Type	R-134a																				
	Charge	kg		5																		
	Circuits	Quantity		1			2									3						
Piping connections	Condenser water inlet/outlet (OD)	-																				
	Evaporator water inlet/outlet (OD)	168.3mm																	219.1mm			
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400																		

Daikin 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.

**APPLICABLE SERIES:**

- › EWAQ080-260DAYN (R-410A)
- › EWYQ080-250DAYN (R-410A)



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 ₂ O	17	34	15	27	10
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.

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FWT-BT	150		

FAN COIL UNITS PRODUCT PORTFOLIO

Reference			1	2	3	4	5	6	7	8	9	10	11	12	16	18	20	22kW
FWC-BT/BF	2-pipe	cooling						06 - 07 - 08 - 09										
		heating						06 - 07 - 08 - 09 - 10 - 19										
	4-pipe	cooling					06 - 07 - 08 - 09											
		heating					06 - 07 - 08 - 09 - 10											
FWF-BT/BF	2-pipe	cooling		02 - 03 - 04 - 05														
		heating		02 - 03 - 04 - 05														
	4-pipe	cooling		02 - 03 - 04 - 05														
		heating		02 - 03 - 04 - 05														
FWC-AT/AF	2-pipe	cooling						07 - 08 - 10 - 11 - 12										
		heating						07 - 08 - 10 - 11 - 12										
	4-pipe	cooling		0203 - 04 - 05 - 06														
		heating		0203 - 04 - 05 - 06														
FWF-CT	2-pipe	cooling		02 - 03 - 04														
		heating		02 - 03 - 04														
FWB-BT	2-pipe	cooling		02 - 03 - 04 - 05 - 06 - 07 - 08 - 09 - 10														
		heating		02 - 03 - 04 - 05 - 06 - 07 - 08 - 09 - 10														
	4-pipe	cooling		02 - 03 - 04 - 05 - 06 - 07 - 08 - 09 - 10														
		heating		02 - 03 - 04 - 05 - 06 - 07 - 08 - 09 - 10														
FWB-JT/JF	2-pipe	cooling		02 - 03 - 04 - 05 - 06 - 07 - 08 - 09 - 10 - 11														
		heating		02 - 03 - 04 - 05 - 06 - 07 - 08 - 09 - 10 - 11														
	4-pipe	cooling		02 - 03 - 04 - 05 - 06 - 07 - 08 - 10														
		heating		02 - 03 - 04 - 05 - 06 - 07 - 08 - 10														
FWT-BT	2-pipe	cooling		02 - 03 - 04 - 05 - 06														
		heating		02 - 03 - 04 - 05 - 06														
FWL-DT/DF	2-pipe	cooling		01 - 02 - 03 - 04 - 06 - 08 - 10														
		heating		01 - 02 - 03 - 04 - 06 - 08 - 10														
	4-pipe	cooling		01 - 02 - 03 - 04 - 06 - 08 - 10														
		heating		01 - 02 - 03 - 04 - 06 - 08 - 10														
FWM-DT/DF	2-pipe	cooling		01 - 02 - 03 - 04 - 06 - 08 - 10														
		heating		01 - 02 - 03 - 04 - 06 - 08 - 10														
	4-pipe	cooling		01 - 02 - 03 - 04 - 06 - 08 - 10														
		heating		01 - 02 - 03 - 04 - 06 - 08 - 10														
FWD-AT/AF	2-pipe	cooling		04 - 06 - 08 - 10 - 12 - 16 - 18														
		heating		04 - 06 - 08 - 10 - 12 - 16 - 18														
	4-pipe	cooling		04 - 06 - 08 - 10 - 12 - 16 - 18														
		heating		04 - 06 - 08 - 10 - 12 - 16 - 18														
FWV-DT/DF	2-pipe	cooling		01 - 02 - 03 - 04 - 06 - 08 - 10														
		heating		01 - 02 - 03 - 04 - 06 - 08 - 10														
	4-pipe	cooling		01 - 02 - 03 - 04 - 06 - 08 - 10														
		heating		01 - 02 - 03 - 04 - 06 - 08 - 10														

FAN COIL UNIT - ACCESSORIES

	FWM-DT/DF / FWL-DT/DF / FWV-DT/DF								FWD-AT/AF						FWB-BT				FWT-BT	FWC-AT/AF	FWC-BT/BF	FWF-CT	FWF-BT/BF			
	1	2	3	4	6	8	10	4	6	8	10	12	16	18	2-4	5-7	8-10	All sizes	All sizes							
Network & control systems																										
Wired remote controller (Standard)																										
Wired remote controller (Advanced)																										
Wired remote controller (Advanced Plus)																										
Controller electromechanical																										
On board mounting kit																										
Wall mounting kit																										
Wired remote controller (Cooling only)	-																		SRC-COB	SRC-COB	-	SRC-COB	-			
Wired remote controller (Heat pump)	-																		SRC-HPB	SRC-HPB	-	SRC-HPB	-			
Wireless controller (Cooling only)	-																		WRC-COB	-	-	-	-	-		
Wireless controller (Heat pump)	-																		WRC-HPB	-	-	-	-	-		
Temperature sensor kit																				-	-	-	-	-	-	
Relative humidity sensor kit																				-	-	-	-	-	-	
Fan stop thermostat																				-	-	-	-	-	-	
Master slave interface																				-	-	-	-	-	-	
Power interface	-														EPIB6				-	-		EKFCMBCB7	-	EKFCMBCB7		
Optional PCB for MOD-bus connection	-																		-	-		EKFCMBCB	-	EKFCMBCB		
Remote control - Infrared - H/P	-																		-	-		BRC7E532F	-	BRC7E530		
Remote control - Infrared - C/O	-																		-	-		BRC7E533F	-	BRC7E531		
Central remote control + electrical box with earth terminal (3 blocks)	-																		-	-		DCS302CA51+J0831A	-	DCS302CA51+J0831A		
Unified on/off controller + electrical box with earth terminal (2 blocks)	-																		-	-		DCS301BA51+J0812A	-	DCS301BA51+J0812A		
Schedule timer	-																		-	-		DST301BA51	-	DST301BA51		
Intelligent touch controller + electrical installation box	-																		-	-		DCS601CS1C+J0841A	-	DCS601CS1C+J0841A		
Remote sensor	-																		-	-		KRCS01-1	-	KRCS01-1		
Remote "On/Off" and "forced off" kit	-																		-	-		EKROROA	-	EKROROA		
Valve control PCB	-																		-	-		EKRP1C11	-	EKRP1C11		
Optional PCB for MOD-bus connection	-																		-	-		EKFCMBCB7	-	EKFCMBCB7		
Wiring adapter for electrical appendices	-																		-	-		KRP2A52/KRP4AA53	-	KRP2A52/KRP4AA53		

	FWM-DT/DF / FWL-DT/DF / FWV-DT/DF								FWD-AT/AF												
	1	2	3	4	6	8	10	4	6	8	10	12	16	18	4	6	8	10	12	16	18
Valves																					
3-way on/off valve kit (2-pipe)				E2MV03A6				E2MV06A6			E2MV10A6			ED2MV04A6			ED2MV10A6		ED2MV12A6		ED2MV18A6
3-way on/off valve kit (4-pipe)				E4MV03A6				E4MV06A6			E4MV10A6			ED4MV04A6			ED4MV10A6		2x ED2MV12A6		2x ED2MV18A6
2-way on/off valve kit (cooling heat exchanger)							E2MV207A6			E2MV210A6											

	FWB-BT			FWB-JT/JF			FWC-AT/AF			FWC-BT/BF			FWF-CT			FWF-BT/BF					
	2-4	5-7	8-10	All sizes			All sizes			All sizes			All sizes			All sizes			All sizes		
Valves																					
3-way on/off valve kit (2-pipe)	-	-	-				MCWCN			MCKAW2T3VN			EKMV3C09B7			MCKCW2T3VN			EKMV3C09B		
3-way on/off valve kit (4-pipe)	-	-	-				MCWHN			MCKAWH4T3VN			2 x EKMV3C09B7			-			2x EKMV3C09B7		
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		
2-way on/off valve kit (4-pipe)	-	-	-				-			-			2x EKMV2C09B7			-			2x EKMV2C09B7		

	FWC-AT/AF		FWF-CT		FWC-BT/BF		FWF-BT/BF	
	All sizes		All sizes		All sizes		All sizes	
Decoration panel 600x600 (2-pipe)	-		DCP600TB		-		-	
Decoration panel 900x900 (2-pipe)		DCP900TB 243		-		-		
Decoration panel 900x900 (4-pipe)		DCP900FB 243		-		-		
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		-	



Other accessories	FWM-DT/DF / FWL-DT/DF / FWV-DT/DF							FWD-AT/AF							FWB-BT								
	1	2	3	4	6	8	10	4	6	8	10	12	16	18	2-4	5-7	8-10						
Electric heater (Standard)	EEH01A6	EEH02A6	EEH03A6	EEH06A6		EEH10A6		EDE-H04A6	ED-EHS06A6	EDEHS10A6		ED-EHS12A6	EDEHS18A6		Factory mounted								
Electric heater (Big)	-							EDE-H04A6	ED-EHB06A6	EDEHB10A6		ED-EHB12A6	EDEHB18A6		-								
Fresh air intake	EFA02A6		EFA03A6	EFA06A6		EFA10A6		EDM-FA04A6	EDM-FA06A6	EDMFA10A6		EDM-FA12A6	EDMFA18A6		-								
Additional heat exchanger	ESRH02A6		ESRH03A6	ESRH06A6		ESRH10A6		-							EA-H04A6	EA-H07A6	EA-H10A6						
Air intake & discharge grille	EAIDF02A6		EAID-F03A6 202	EAIDF06A6		EAIDF10A6		-							-								
Rear panel	ERPV02A6		ERP-V03A6 40	ERPV06A6 48		ERPV10A6		-							-								
Supporting feet	ESFV06A6 21							ESFV10A6							-								
Supporting feet & grille	ESFVG02A6		ESFV-G03A6	ESFVG06A6		ESFVG10A6		-							-								
Vertical auxiliary drainpan	EDPVB6							EDDPV10A6					EDDPV18A6		-								
Horizontal auxiliary drainpan	EDPHB6							EDDPH10A6					EDDPH18A6		-								

Other accessories	FWC-BT/BF	FWF-BT/BF
Sealing member of air discharge outlet	KDBHQ55C140	KDBHQ48A60
Panel spacer	-	KDBQ44B60
Long-life filter	KAFP551K160	KAFQ441BA60
Fresh air intake kit	KDDQ55C140-1/-2	KDDQ44XA60
Installation box for adapter PCB	KRP1H98	KRP1BA101

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



BRCE532F

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)
- › Composed by:
 - lc 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)



FWEC2A

- › Composed by:

lc 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



FWEC3A



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 - COB/HPB

WIRELESS CONTROLLER FOR COOLING ONLY & HEATPUMP

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



FWV01, 02DT/DF



FWEC1, 2, 3A



ECFWMB6



- > Low sound power levels and electrical absorption thanks to plastic impeller, ABS winding staircase and improved electric motor
- > 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
- > Quick removal of washable filter
- > Electric heater : no relay up to 2kW capacity
- > Electronic controller with water probe, available in standard, advanced and advanced plus version

Indoor units				2-PIPE							4-PIPE						
				01	02	03	04	06	08	10	01	02	03	04	06	08	10
Cooling capacity	Total capacity	High	kW	1.54	2.09	2.93	4.33	4.77	6.71	8.02	1.46	1.90	2.87	4.33	4.67	6.64	7.88
	Sensible capacity	High	kW	1.20	1.51	2.11	3.15	3.65	4.91	5.96	1.14	1.51	2.07	3.15	3.57	4.85	5.85
Heating capacity	2-Pipe	High	kW	2.14	2.57	3.81	5.63	6.36	7.83	10.03						-	
	4-Pipe	High	kW								1.90	2.10	3.08	5.05	5.30	7.91	9.30
Power input	High	W		37	53	56	98		137	175	37	53	56	98	98	137	175
Dimensions	Unit	HeightxWidthxDepth	mm	564x774x226	564x984x226	564x1,194x226	564x1,404x251	564x774x226	564x984x226	564x1,194x226	564x1,404x251						
Weight	Unit	kg		19	20	25	30	31	41		20	21	26	32	33	44	
Heat exchanger	Water volume	l		0.5	0.7	1	1.4		2.1		0.5	0.7	1	1.4		2.1	
Additional heat exchanger	Water volume	l									0.2	0.3	0.4	0.4	0.4	0.6	
Water flow	Cooling	l/h		265	359	504	745	820	1,154	1,343	251	327	494	745	803	1,142	1,355
	Heating	l/h		265	359	504	745	820	1,154	1,343	196	182	286	396	465	694	816
Water pressure drop	Cooling	kPa		13		11	12	14	12	19		13	11	12	14	12	19
	Heating	kPa		9	11	9	10	9	16		7	8	5	10	8	9	
Fan	Type			Centrifugal multi-blade, double suction							Centrifugal multi-blade, double suction						
	Air flow rate	High	m³/h	319	344	442	706	785	1,011	1,393	307	327	431	690	763	998	1,362
Sound power level	High	dBA		45	50	47	52	56	58	64	45	50	47	52	56	58	64
Piping connections	Drain	OD	mm				16							16			
Water connections	Std. heat exchanger	inch					1/2		3/4				1/2			3/4	
Power supply	Phase / Frequency / Voltage	Hz / V		1 / 50 / 230							1 / 50 / 230						
Current input	High	A		0.17	0.24	0.25	0.44	0.43	0.60	0.76	0.17	0.24	0.25	0.44	0.43	0.60	0.76



FWL03DT/DF



FWL03DT/DF



FWEC1, 2, 3A



ECFWMB6

- > Low sound power levels and electrical absorption thanks to plastic impeller, ABS winding staircase and improved electric motor
- > Quick fixing system for wall or ceiling mounted installation
- > Pre-assembled 3-way/4-port ON/OFF valves are available
- > Valve packages are insulated, no extra drain pan required
- > Valve packages contain balancing valves and sensor pocket
- > Fast-on connections for electrical options : no tools needed
- > Quick removal of washable filter
- > Electric heater : no relay up to 2kW capacity
- > Electronic controller with water probe, available in standard, advanced and advanced plus version



Indoor units				2-PIPE							4-PIPE						
				01	02	03	04	06	08	10	01	02	03	04	06	08	10
Cooling capacity	Total capacity	High	kW	1.54	2.09	2.93	4.33	4.77	6.71	8.02	1.46	1.90	2.87	4.33	4.67	6.64	7.88
	Sensible capacity	High	kW	1.20	1.51	2.11	3.15	3.65	4.91	5.96	1.14	1.51	2.07	3.15	3.57	4.85	5.85
Heating capacity	2-Pipe	High	kW	2.14	2.57	3.81	5.63	6.36	7.83	10.03						-	
	4-Pipe	High	kW					-			1.90	2.10	3.08	5.05	5.30	7.91	9.30
Power input	High	W		37	53	56		98	137	175	37	53	56		98	137	175
Dimensions	Unit	HeightxWidthxDepth	mm	564x774x226	564x984x226	564x1,194x226	564x1,404x251		564x774x226	564x984x226	564x1,194x226	564x1,404x251					
Weight	Unit	kg		20	21	27	32	33		44	21	22	28	34	35		46
Heat exchanger	Water volume	l		0.5	0.7	1	1.4		2.1		0.5	0.7	1	1.4			2.1
Additional heat exchanger	Water volume	l					-				0.2	0.3	0.4			0.6	
Water flow	Cooling	l/h		265	359	504	745	820	1,154	1,343	251	327	494	745	803	1,142	1,355
	Heating	l/h		265	359	504	745	820	1,154	1,343	196	182	286	396	465	694	816
Water pressure drop	Cooling	kPa		13		11	12	14	12	19		13	11	12	14	12	19
	Heating	kPa		9	11		9	10	9	16	7	8	5	10	8	9	
Fan	Type			Centrifugal multi-blade, double suction							Centrifugal multi-blade, double suction						
	Air flow rate	High	m³/h	319	344	442	706	785	1,011	1,393	307	327	431	690	763	998	1,362
Sound power level	High	dBA		45	50	47	52	56	58	64	45	50	47	52	56	58	64
Water connections	Std. heat exchanger	inch		1/2				3/4		1/2				3/4			
Power supply	Phase / Frequency / Voltage	Hz / V		1 / 50 / 230							1 / 50 / 230						
Current input	High	A		0.17	0.24	0.25	0.44	0.43	0.60	0.76	0.17	0.24	0.25	0.44	0.43	0.60	0.76



FWM01, 02DT/DF



FWM01, 02DT/DF



FWEC1, 2, 3A

- > Low sound power levels and electrical absorption thanks to plastic impeller, ABS winding staircase and improved electric motor
- > Quick fixing system for wall or ceiling mounted installation
- > Pre-assembled 3-way/4-port ON/OFF valves are available
- > Valve packages are insulated, no extra drain pan required
- > Valve packages contain balancing valves and sensor pocket
- > Fast-on connections for electrical options : no tools needed
- > Quick removal of washable filter
- > Electric heater: no relay up to 2kW capacity
- > Electronic controller with water probe, available in standard, advanced and advanced plus version



Indoor units				2-PIPE							4-PIPE						
				01	02	03	04	06	08	10	01	02	03	04	06	08	10
Cooling capacity	Total capacity	High	kW	1.54	2.09	2.93	4.33	4.77	6.71	8.02	1.46	1.90	2.87	4.33	4.67	6.64	7.88
	Sensible capacity	High	kW	1.20	1.51	2.11	3.15	3.65	4.91	5.96	1.14	1.51	2.07	3.15	3.57	4.85	5.85
Heating capacity	2-Pipe	High	kW	2.14	2.57	3.81	5.63	6.36	7.83	10.03						-	
	4-Pipe	High	kW								1.90	2.10	3.08	5.05	5.30	7.91	9.30
Power input	High		W	37	53	56	98		137	175	37	53	56	98		137	175
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	
Heat exchanger	Water volume		l	0.5	0.7	1	1.4		2.1		0.5	0.7	1	1.4		2.1	
Additional heat exchanger	Water volume		l								0.2	0.3	0.4	0.6			
Water flow	Cooling		l/h	265	359	504	745	820	1,154	1,343	251	327	494	745	803	1,142	1,355
	Heating		l/h	265	359	504	745	820	1,154	1,343	196	182	286	396	465	694	816
Water pressure drop	Cooling		kPa	13	11	12	14	12	19		13	11	12	14	12	19	
	Heating		kPa	9	11	9	10	9	16	7	8	5	10	8	9		
Fan	Type			Centrifugal multi-blade, double suction							Centrifugal multi-blade, double suction						
Sound power level	Air flow rate	High	m³/h	319	344	442	706	785	1,011	1,393	307	327	431	690	763	998	1,362
Piping connections	Drain	OD	mm				17							17			
Water connections	Std. heat exchanger		inch				1/2		3/4				1/2			3/4	
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 230							1~ / 50 / 230						
Current input	High		A	0.17	0.24	0.25	0.44	0.43	0.60	0.76	0.17	0.24	0.25	0.44	0.43	0.60	0.76

FWD-AT/AF

Flexi type unit



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

Indoor units				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	
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			
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				
Current input	High		A	0.95	1.58	1.97	3.21		5.37		0.95	1.58	1.97	3.21		5.37	



FWT05, 06BT



MERCA



SRC-COA/HPA



WRC-COB/HPB



- > 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)
- > Slim and compact aesthetic design
- > 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

Indoor units				2-PIPE				
				02	03	04	05	06
Cooling capacity	Total capacity	High	kW	2.34	2.78	3.22	4.54	5.28
	Sensible capacity	High	kW	1.74	2.03	2.35	3.65	4.33
Heating capacity	2-Pipe	High	kW	3.02	3.75	4.10	6.01	6.74
Power input	High		W	24	25	29	66	69
Dimensions	Unit	HeightxWidthxDepth	mm	260x799x198	260x899x198		304x1,062x222	
Weight	Unit		kg	10	12		16	
	Operation weight		kg	10	13		17	
Heat exchanger	Water volume		l	0.49	0.57		0.85	
Water flow	Cooling		l/h	402	478	554	781	908
	Heating		l/h	402	478	554	781	908
Water pressure drop	Cooling		kPa	48.3	64.7	69.3	50.3	69.3
	Heating		kPa	42	58.6	60.6	50.6	70.6
Fan	Type			Centrifugal-direct driven fan motor				
	Air flow rate	High	m³/h	467	510	586	1,070	1,121
Sound power level	High		dBA	53		55	61	64
Sound pressure level	High		dBA	40	39	42	49	50
Piping connections	Drain	OD	mm	16			20	
Water connections	Std. heat exchanger		inch	1/2				
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240				
Current input	High		A	0.11	0.13	0.29	0.30	



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



Indoor units			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
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	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					
Current input	High		A	0.36			0.73			1.28		



FWB02JT/JF



FWEC1, 2, 3A

- > Wide operating range
- > Quiet operation via enlarged fan wheels
- > Easy maintenance: filter can be removed from both sides and beneath (maximum filter size is 400mm)
- > Flexibility (2-pipe or 4-pipe)
- > 4-speed fan motor
- > Direct driven centrifugal fans
- > Flexibility via interchangeable water connection side
- > High power air flow
- > Available static pressure of 30 Pa
- > Extended drain pan as standard
- > Standard Filter
- > Insulated with self-extinguishing class 1 heat insulation
- > Electronic room thermostat



Indoor units				2-PIPE											4-PIPE								
				02	03	04	05	06	07	08	09	10	11	02	03	04	06	07	08	10			
Indoor units				02	03	04	05	06	07	08	09	10	11	02	03	04	06	07	08	10	02	03	
Cooling capacity	Total capacity	High	kW	1.64	2.67	2.99	3.34	4.81	5.31	6.16	7.26	8.49	8.99	1.67	2.67	3.03	4.88	5.33	6.53	8.21	251x814	251x984	
Sensible capacity	High		kW	0.94	1.88	1.95	2.07	3.40	4.15	4.39	5.06	6.37	6.41	0.97	1.83	1.93	3.41	4.01	4.91	6.28	x590	x590	
Heating capacity	2-Pipe	High	kW	2.16	3.62	3.97	4.11	6.30	7.47	8.09	9.64	11.57	11.71	-	2.12	3.69	3.87	6.40	7.52	9.01	11.09	251x814	251x984
4-Pipe	High		kW	-	-	-	-	-	-	-	-	-	-	2.49	3.92	4.43	6.70	8.16	9.56	11.68	x590	x590	
Power input	High		W	34	53	57	54	86	121	117	134	164	166	34	51	54	84	117	137	163	251x814	251x984	
Dimensions	Unit	HeightxWidthxDepth	mm	251x814	251x984	251x1,114x590	251x1,314x590	251x1,564x590	251x1,664x590	251x1,924x590	251x1,114	251x1,314	251x1,564	251x1,664	251x1,924	251x814	251x984	251x1,114	251x1,314	251x1,564	251x1,664	251x1,924	
Weight	Unit		kg	20.0	23.0	28.0	31.0	33.0	44.0	48.0	52.0	50.0	56.0	22.0	27.0	31.0	36.0	48.0	52.0	56.0	x590	x590	
Operation weight			kg	20.7	24.0	29.1	32.5	34.4	45.8	50.4	54.6	52.4	59.1	22.9	28.3	32.5	37.9	50.4	54.6	59.1	x590	x590	
Heat exchanger	Water volume		l	0.69	0.95	1.14	1.52	1.44	1.82	2.42	2.62	2.36	3.14	0.92	1.26	1.52	1.92	2.42	2.62	3.14	251x814	251x984	
Water flow	Cooling		l/h	386	549	739	803	1,022	1,109	1,383	1,523	1,764	1,910	386	530	724	986	1,138	1,296	1,660	251x814	251x984	
	Heating		l/h	386	549	738	802	1,020	1,107	1,336	1,524	1,764	1,911	387	530	725	985	1,139	1,299	1,660	x590	x590	
	Additional heat exchanger		l/h	-	-	-	-	-	-	-	-	-	269	391	493	663	820	924	1,142	251x814	251x984		
Water pressure drop	Cooling		kPa	10.91	8.34	15.64	11.22	31.31	12.56	7.62	9.83	21.71	16.81	10.95	8.24	15.67	29.95	9.24	12.49	19.38	251x814	251x984	
	Heating		kPa	8.86	6.76	12.84	9.21	25.87	11.13	6.57	8.60	18.56	14.46	8.94	6.64	12.84	24.16	7.89	9.67	16.50	x590	x590	
	Additional heat exchanger		kPa	-	-	-	-	-	-	-	-	-	10.66	24.73	41.72	81.63	25.31	31.33	50.03	251x814	251x984		
Fan	Type			Direct driven centrifugal fan (forward-curved blades)hot-galvanised steel											30								
	Air flow rate	High	m³/h	262	428	431	428	757	945	950	1,066	1,463	1,341	220	424	437	747	898	1,112	1,385	251x814	251x984	
	Available pressure	High	Pa																			30	
Sound power level	High		dBA	47.5	52	49	50		52		55	55.5	56	47	52	50		52		55		56	
Sound pressure level	High		dBA	35.5	40	37	38		40		39.5	43	43.5	44	35	40	38	40	39.5	43	44	251x814	251x984
Water connections	Std. heat exchanger		inch						3/4													3/4	
Power supply	Phase / Frequency / Voltage	Hz / V							1~ / 50 / 220-240													251x814	251x984
Current input	High	A		0.15	0.24	0.26	0.25	0.39	0.55	0.53	0.61		0.75									251x814	251x984



FWC-BT/BF



BRC315D7



BRCE532F



- > 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



Indoor units				2-PIPE				4-PIPE			
				FWC06BT	FWC07BT	FWC08BT	FWC09BT	FWC06BF	FWC07BF	FWC08BF	FWC09BF
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	HxWxD	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
Power supply	Phase/Frequency/Voltage	Hz/V		1~/50/220-240				1~/50/220-240			



FWF-BT/BF



BRC315D7



BRCE532F

- > Modern stylish decoration panel in white (RAL9010)
- > Fresh air intake kit available
- > Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling
- > Possibility to close 1 or 2 flaps for different air flow patterns
- > Drainpump standard mounted (lift: 750mm)



Indoor units				2-PIPE				4-PIPE			
				FWF02BT	FWF03BT	FWF04BT	FWF05BT	FWF02BF	FWF03BF	FWF04BF	FWF05BF
Cooling capacity	Total capacity	High	kW	1.7	2.8	3.3	4.0	1.7	2.3	2.8	3.5
Sensible capacity				1.3	1.7	2.1	2.7	1.3	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		kW		67	70	89	67	62	74	93
Dimensions	Unit	HxWxD	mm		285x575x575				285x575x575		
Weight	Unit		kg	19	19	19	19	19	20	20	20
Water pressure drop	Cooling		kPa	6	19	31	42	6	13	21	33
	Heating			6	19	31	42	12	6	9	13
Fan	Type			Turbo fan				Turbo fan			
	Air flow rate	High	m³/h	468	468	660	876	468	438	618	822
Sound power level	High		dBA	40	40	44	49	40	42	46	51
Sound pressure level	High		dBA	27	27	33	39	27	29	35	41
Power supply	Phase / Frequency / Voltage	Hz / V		1~ / 50 / 220-240				1~ / 50 / 220-240			





FWC-AT/AF



SRC-COA/HPA



WRC-COB/HPB

- > Wide operating range
- > Easy installation and maintenance
- > Flexibility (2-pipe or 4-pipe)
- > 3-speed fan motor
- > Double-intake centrifugal fans
- > Air suction from underneath
- > High power air flow
- > Removable washable air filter (self-extinguishing class 1)
- > Built-in high pressure drain pump with 700mm lift
- > Infrared remote control as standard with decoration panel kit



Indoor units				2-PIPE					4-PIPE				
				FWC07AT	FWC08AT	FWC10AT	FWC11AT	FWC12AT	FWC02AF	FWC03AF	FWC04AF	FWC05AF	FWC06AF
Cooling capacity	Total capacity	High	kW	6.63	7.50	8.80	9.95	10.80	3.81	3.96	4.63	5.01	5.16
	Sensible capacity	High	kW	4.90	5.40	6.40	7.10	7.70	3.40	3.52	4.07	4.40	4.54
Heating capacity	2-Pipe	High	kW	8.40	9.50	11.00	12.00	12.90	-				
	4-Pipe	High	kW			-			10.55	10.99	12.51	13.48	13.77
Current input	High	A		0.52	0.64	0.68	0.79	1.06	0.53	0.61	0.67	0.80	1.02
Power input	High	W		127	151	164	192	253	122	138	153	184	232
Dimensions	Unit	HeightxWidthxDepth	mm	335x820x821					335x820x821				
Weight	Unit	kg		31.0	32.0	35.0	38.0	40.0	31.0	32.0	35.0	38.0	40.0
	Operation weight	kg		34.0	35.0	38.0	41.0	43.0	34.0	35.0	38.0	41.0	43.0
Heat exchanger	Water volume	l		2.69					2.69				
Water flow	Cooling	l/h		1,140	1,290	1,514	1,711	1,858	655	681	796	862	888
	Heating	l/h		1,140	1,290	1,514	1,711	1,858	907	945	1,076	1,159	1,184
Water pressure drop	Cooling	kPa		24.8	30.8	41.6	52.2	69.3	3.56	3.78	4.94	5.70	5.96
	Heating	kPa		21.4	26.8	35.3	45.2	64.1	4.8	5.5	7.2	8.6	8.9
Fan	Type	Direct drive turbo fan							Direct drive turbo fan				
	Air flow rate	High	m³/h	1,310	1,380	1,560	1,740	1,840	1,310	1,380	1,560	1,740	1,840
Sound power level	High	dBA		52	55	60	61	64	52	55	60	61	64
Sound pressure level	High	dBA		42	45	49	51	53	42	45	49	51	53
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				



FWF-CT



MERCA



SRC-COA/HPA



WRC-COB/HPB



- > 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

Indoor units				2-PIPE		
				FWF02CT	FWF03CT	FWF04CT
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
	4-Pipe	High	kW	-	-	-
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	23
	Operation weight	kg		22	23	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

D-AHU Professional

GENERAL CHARACTERISTICS

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 m³/h up to 124.000 m³/h
- All the sizes are modular manufactured to facilitate the transport and the assembly on site.

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



MODEL BOX-SP65		EUROVENT CLASSIFICATION ACCORDING TO EN1886				
Casing mechanical strength	D1	CASING MECHANICAL STRENGTH	D1	D2	D3	EXCEEDING10
		Casing Class	4,00	10,00		
		Maximum relative deflection mm x m ⁻¹				
Casing air leakage Negative pressure -400 Pa	L1	CASING AIR LEAKAGE	L1	L2	L3	
		Leakage Class	0,15	0,44	1,32	
		Maximum leakage rate (f ₇₀₀) l x s ⁻¹ x m ⁻²				
Casing air leakage Positive pressure +700 Pa	L1	CASING AIR LEAKAGE	L1	L2	L3	
		Leakage Class	0,22	0,63	1,90	
		Maximum leakage rate (f ₇₀₀) l x s ⁻¹ x m ⁻²				
Filter bypass leakage	F9	FILTER BYPASS LEAKAGE	F9	F8	F7	F6
		Filter Class	0,50	1	2	4
		Maximum filter bypass leakage rate k in % of the volume flow rate				G1 TO F5
Thermal transmittance	T2	THERMAL TRANSMITTANCE	T1	T2	T3	T4
		Class	U <= 0,5	0,5 < U <= 1	1 < U <= 1,4	1,4 < U <= 2
		Thermal transmittance (U) W/m ² x K				T5
Thermal bridging of the casing	TB2	THERMAL BRDGING OF THE CASING	TB1	TB2	TB3	TB4
		Class	0,75 < K _b <= 1	0,6 < K _b <= 0,75	0,45 < K _b <= 0,6	0,3 < K _b <= 0,45
		Thermal bridging facto (kb) W x m ² x K-1				TB5
						No requirements

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 did not stop there, 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.





TECHNICAL DATA

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/m³ thermal conductivity 0.020 W/m*K fire reaction class 1	standard	standard	standard	standard
Mineral wool density 90 kg/m³ 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

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



FILTERS

flat synthetic filters
EN 779 class: G2 - G3



plated synthetic filters
EN 779 class: G3 - G4



moisture resistant plated synthetic filters
EN 779 class: G3 - G4



bag filters
EN 779 class: F6 - F8



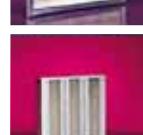
deep pleated filters
EN 779 class: F6 - F8



extended surface mini-pleat filters
EN 779 class: F6 - F8



high capacity rigid pocket filters
EN 779 class: F6 - F9



absolute mini-pleat filters
EN 1886 class: H12 - H13



absolute high capacity filters
EN 1886 class: H12 - H13



ACCESSORIES

- > Frost protection
- > Manometers
- > Drive guard
- > Roof
- ...



Pre defined sizes - Overall dimension

Size	Air Flow (m ³ /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 ³ /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

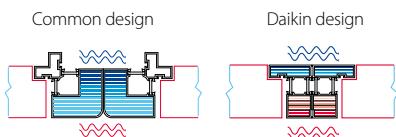
- 1 cm increment for width & height dimensions
- No additional cost for customized unit size
- No additional lead time

Example

Air Flow (m ³ /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

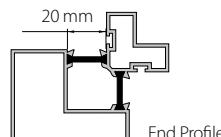
UNIQUE SECTION TO SECTION THERMAL BREAK PROFILE

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

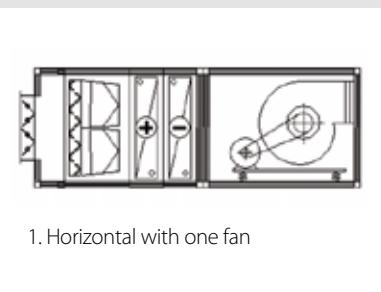
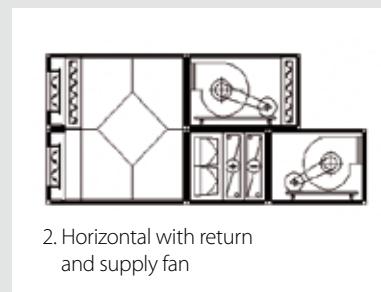
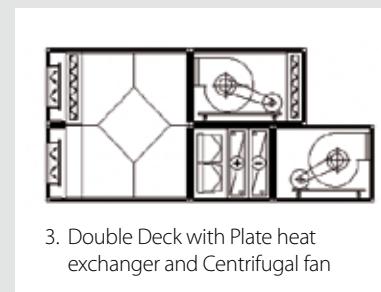
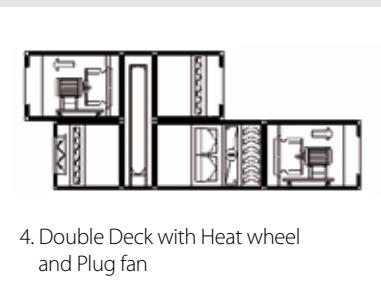
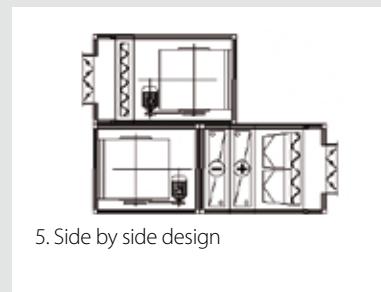
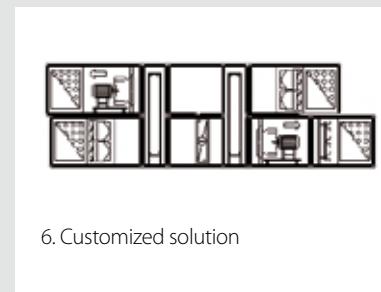


EXCLUSIVE & INNOVATIVE REAL THERMAL BREAK PROFILE

- Real thermal break profile
- Reduce section to section length



CONFIGURATIONS

 1. Horizontal with one fan	 2. Horizontal with return and supply fan	 3. Double Deck with Plate heat exchanger and Centrifugal fan
 4. Double Deck with Heat wheel and Plug fan	 5. Side by side design	 6. Customized solution

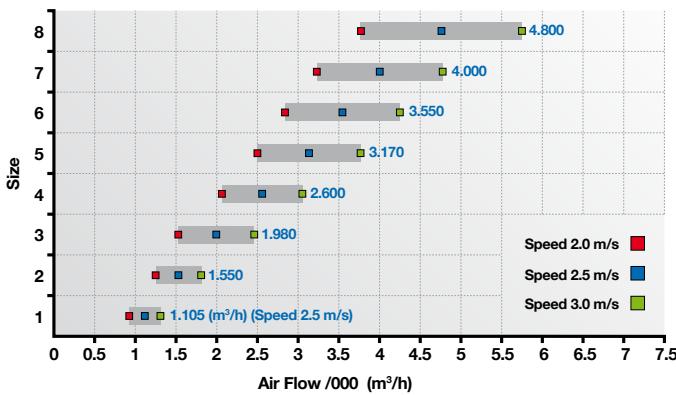
D-AHU Easy



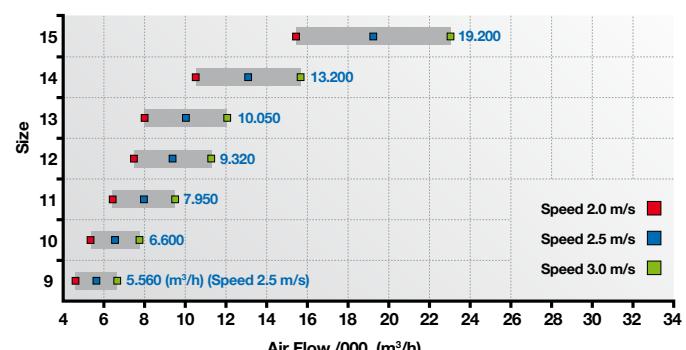
TECHNICAL DATA

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 ³)	standard (density 47 kg/m ³)
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

D-AHU Easy 1-8



D-AHU Easy 9-15



D-AHU Easy

The range covers an area of air flow rates from 500 m³/h up to 30.000 m³/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

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 5 cm average.

Pre defined sizes - Overall dimension

Size	Air Flow (m ³ /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

Example

Air Flow (m ³ /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

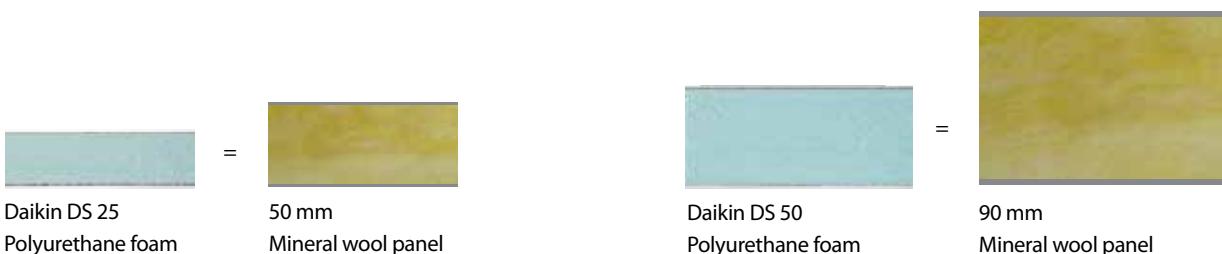
Flexible sizing for AHU optimization

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

*Air Flow limits of 500 m³/h and 30.000 m³/h are calculated using non standard sizes (max dimensions 2.150x2.150) and considering 2,5 m/s coil face velocity

PANEL PERFORMANCE

Daikin polyurethane panels guarantee an excellent performance in terms of thermal insulation. For instance Daikin DS 25 perform the same as mineral wool panel of 50 mm thickness. While Daikin DS 50 will match the thermal performance of a mineral wool panel of 90mm panel thickness



Considering a λ of 0.024 [W/(m*K)] for Daikin Polyurethane panel and 0.047 [W/(m*K)] for Mineral wool panel



UNIT FEATURES

Ahu selection

AHU selection and offers directly issued from ASTRA selection software for both standard and non standard units

Range

Wide range of components and design selectable directly with our selection software ASTRA

Variable dimensioning

thanks to the exclusive Variable Dimensioning design method, clients will always enjoy an efficient and optimized dimensioning of the units

Construction

The exclusive fixing method used for panels and profiles will ensure an uniform pressure on the whole profile length. That feature will improve significantly the air leakage rate

INTERNAL SURFACE

Completely smooth internal surface

Autocad drawings

AutoCAD drawings (.dwg) immediately available with ASTRA selection software with both standard and non standard size, this will ease AHU integration within job site allocated space

Optimized air face velocity

automatic dimensioning of section in order to guarantee an optimal air face velocity on coils and optimized unit cost

Unit competitiveness

through Variable Dimensioning™ exclusive design our clients are sure to invest only for the most optimized panel surface needed to match their requirements

Delivery lead time

same delivery lead-time for both standard and non standard units thanks to our exclusive design and production software MECCANO

Special gaskets

utilization of special gasket will ensure internal insulation of the profiles and will help to improve the thermal bridging factor

MEASURING CONDITIONS

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

NOTES





Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



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