



VZ Chiller series

Water cooled inverter chiller



The highest peak in chiller technology

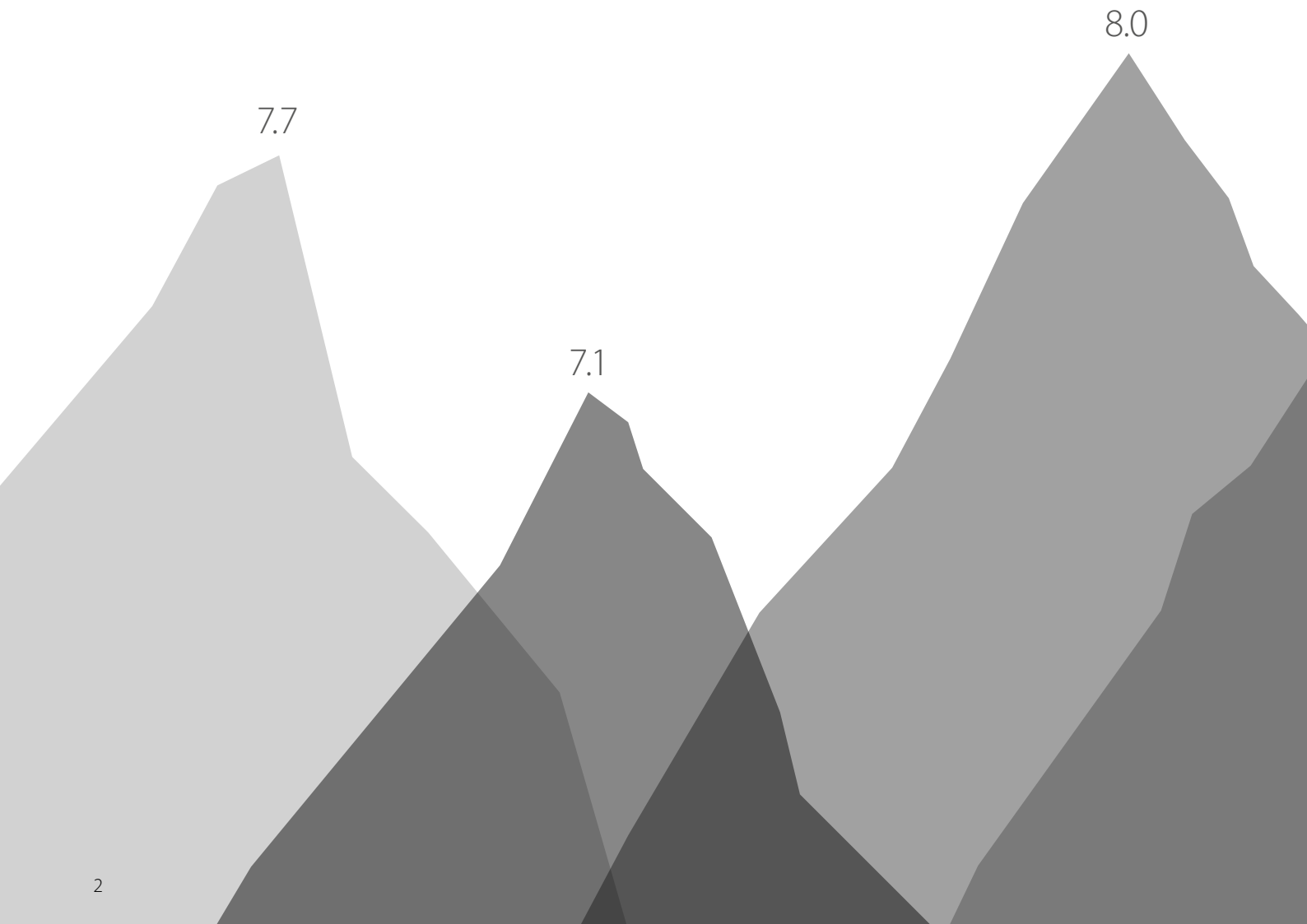


The highest peak in chiller technology

EWWD-VZ chiller series

An increasing demand for high efficient HVAC systems drives our product development mission.

By answering market demands and offering new opportunities we anticipate on the future HVAC market needs.





ESEER ¹
up to 8.5

7.9

Top efficiency ESEER

The EWWD-VZ chiller series were developed and manufactured to answer the growing market demands on high efficient chiller series.

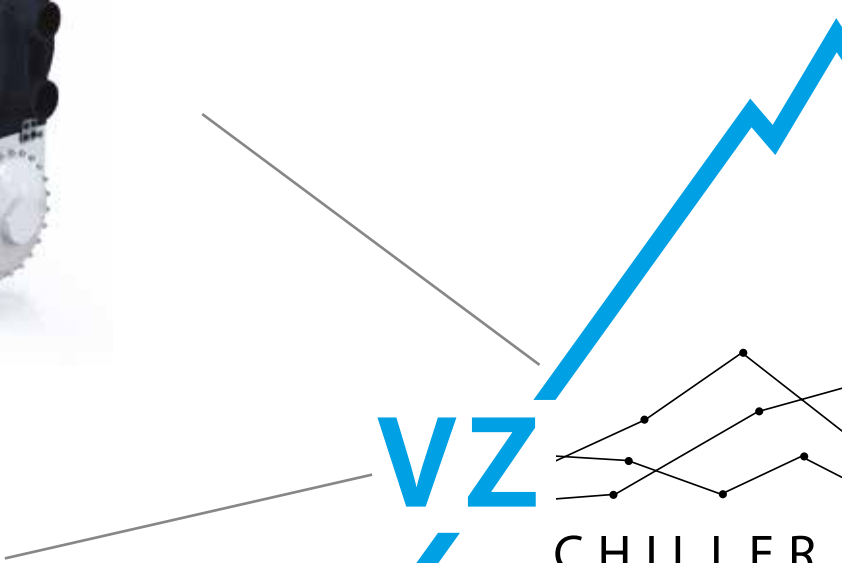
Thanks to the continuous evolution in components' technology, we are the first to reach the highest peak in chiller efficiency and technology.



Single compressor

450 kW - 1,053 kW

Full inverter water cooled chiller



VZ
CHILLER

Highest efficiency in the market in its category



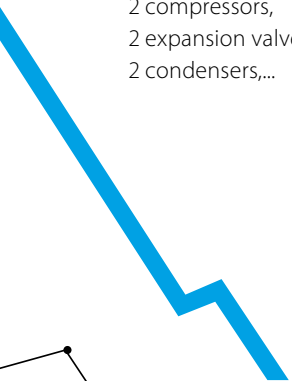
TOP CLASS EFFICIENCY



Dual compressor & dual circuit unit

1,200 kW - 2,100 kW

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



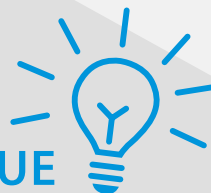
S E R I E S



New condenser design with integral oil separator

High efficient flooded heat exchangers

Unique Daikin single screw compressor technology



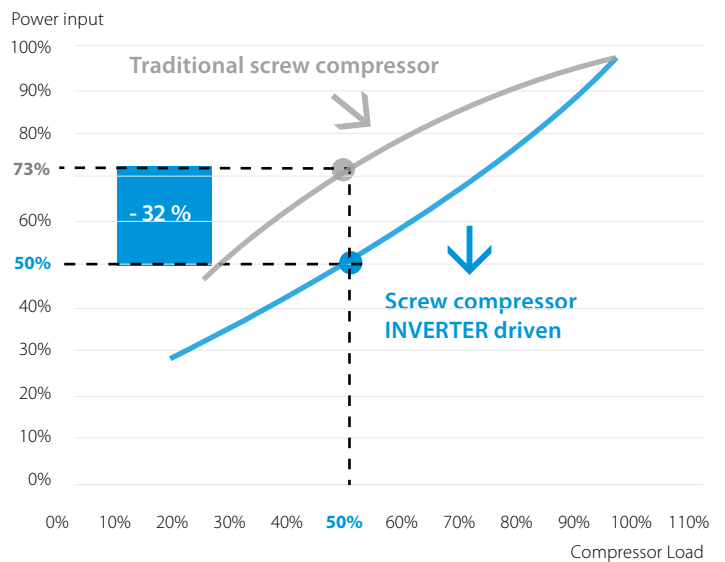
UNIQUE
SOLUTION

Why choose EWWD-VZ chiller series?

1 Top class efficiency: ESEER up to 8.5 – EER up to 5.8

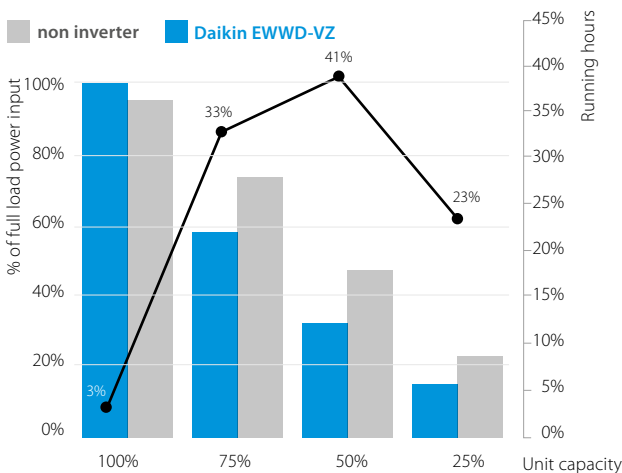
✓ New generation Daikin inverter single screw compressors

Importance of ESEER:
Power consumption significantly reduced at part loads where the machine will run for 97% of the operation hours (Eurovent load profile)



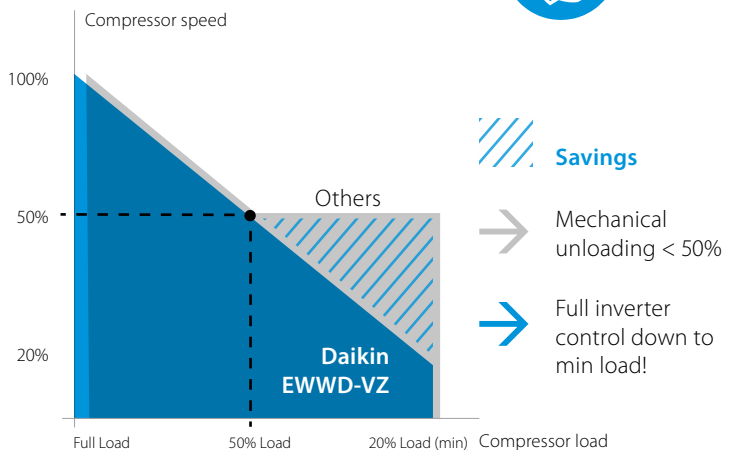
Why choose an inverter chiller?

- > -25% energy consumption
- > -25% CO₂ emissions
- > -25% running costs
- > Return on investment < 2 years vs non-inverter chiller



Why are we better than others?

- > Full inverter capacity control down to 20%
- > No inefficient mechanical unloading slides



✓ **New generation high efficiency heat exchangers**

- › Flooded type technology allowing maximizing unit performances
- › Latest technology enhanced surface tubes

Evaporator tubes:

- › Outside: Cavities for optimized nucleate boiling
- › Inside: Helical structure



Condenser tubes:

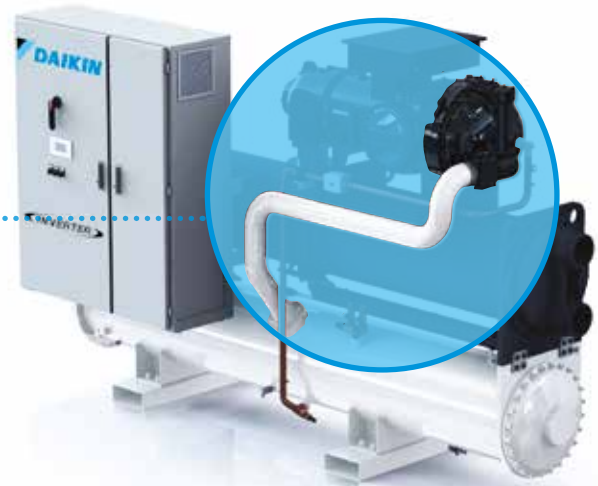
- › Outside: Optimized for condensation
- › Inside: Helical structure



✓ **Optimized design**

Pressure drops reduced by half

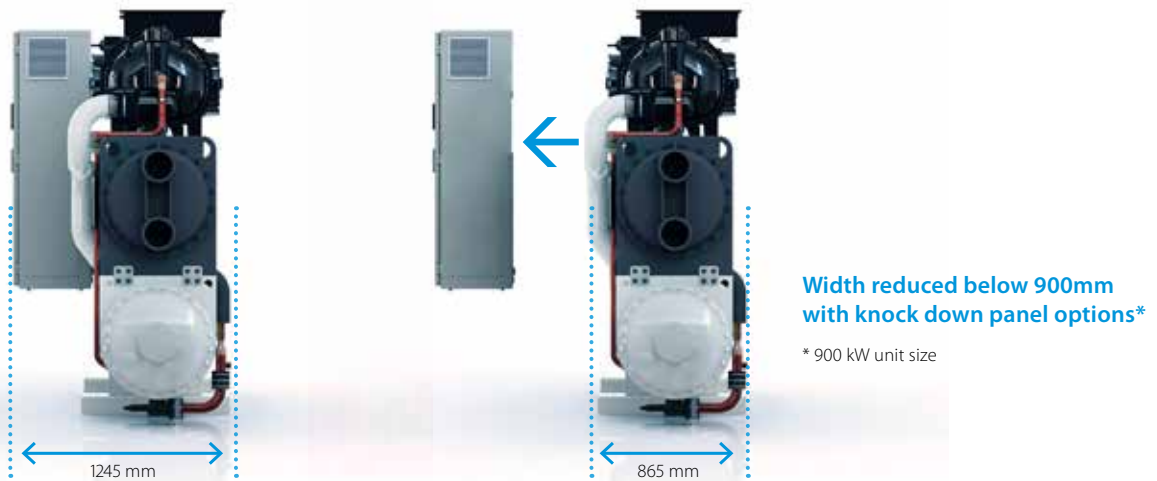
- › meaning 1°C lower condensing temperature
- › + 3.5 % efficiency



Did you know that you can maximize your BREEAM and programme score and LEED green building programme score with the Daikin HVAC solutions?

2 Compact unit

› Small footprint, ideal for installation through existing doorways



40 % footprint reduction in comparison to traditional water cooled series thanks to:

1. New single pass condenser technology

- High heat exchange performances thanks to counterflow design
- Low water pressure drops < 30 kPa



2. New integrated oil separator technology

- Low oil carry over
- Low refrigerant pressure drops

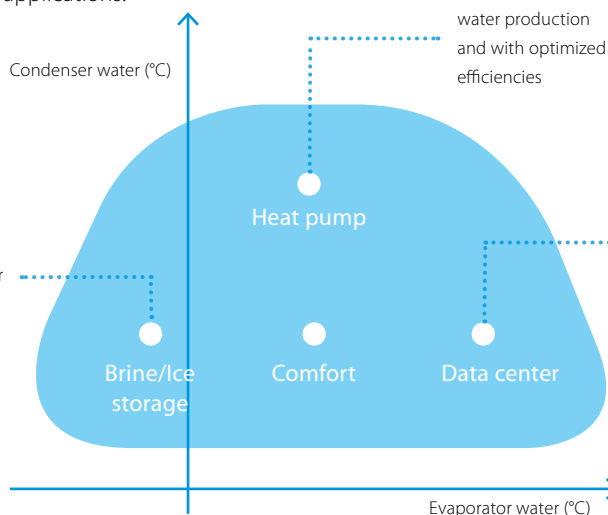


3 Application flexibility

Widest operating envelope in its range:
The large operation range makes this chiller ideal for a variety of applications:



Evaporator Water down to -8°C



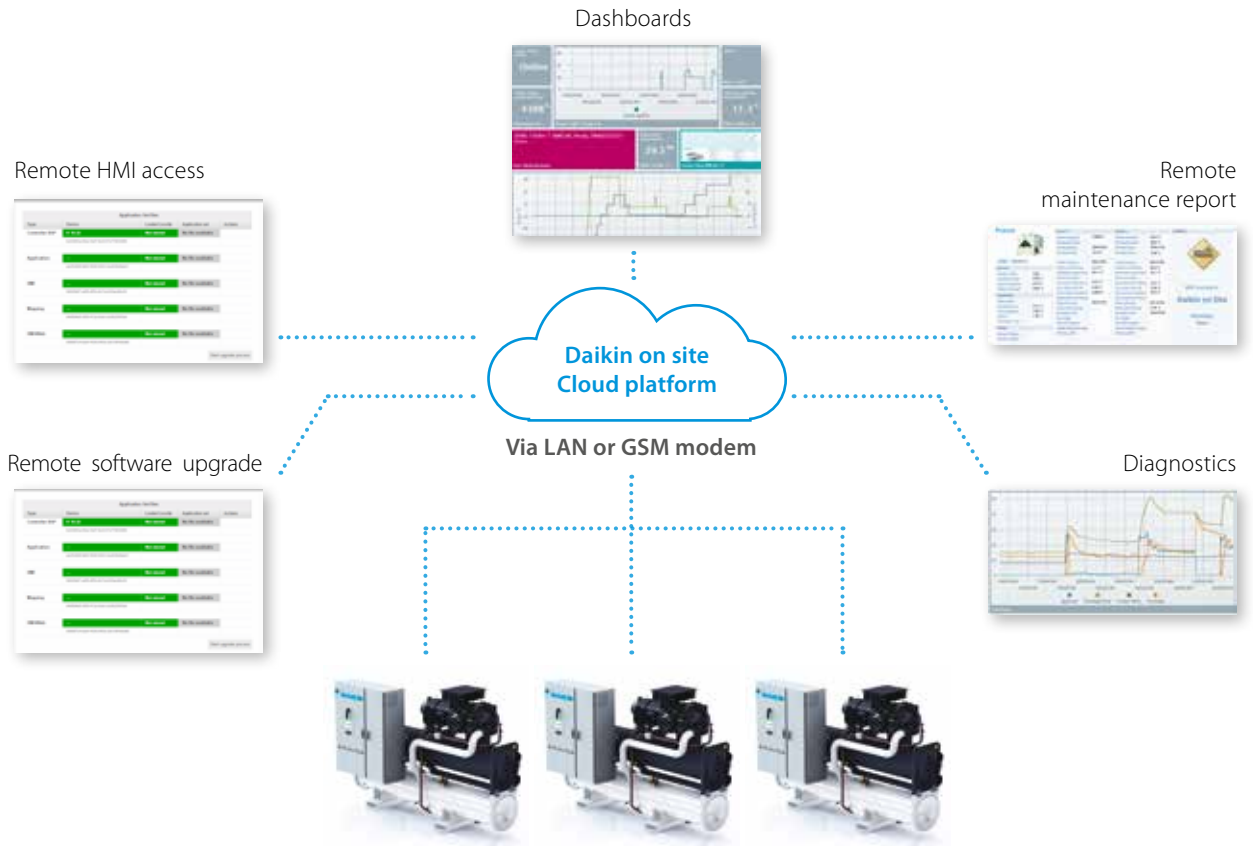
Widest operating envelope in its category... not only for comfort cooling

Evaporator Water up to +20°C

4 Connectivity

Remote access with one click

- › Remote monitoring
- › System optimization
- › Preventive maintenance



5 Future readiness: Choose for today's best solution and be ready for the future!



R-134A refrigerant, still today the best possible choice:

- › Still most efficient refrigerant.
- › Availability in high quantities and at competitive prices.
- › No phase out planned in F-GAS regulation.
- › Classified as non flammable

All VZ units are 'new refrigerant ready'!

Possibility to retrofit them in the future with lower GWP refrigerants (HFO blends).

Supporting tools

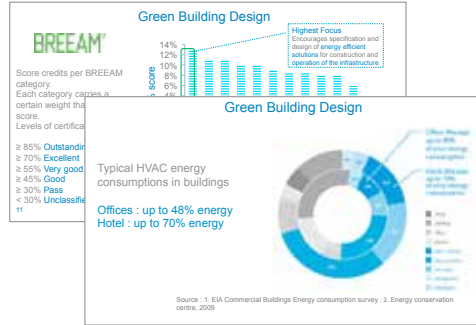
Product video



Marketing material

All marketing material and tools for the EWWD-VZ range can be downloaded from the business portal.

Asset finder > Campaign > VZ chiller series



Web

Want to know more about this product?

Have a look at our dedicated webpage:

www.daikineurope.com/vzchillerseries

Technical specifications - single compressor range

Standard efficiency, standard sound

Cooling only /Heating only				EWWD600VZSSA1	EWWD700VZSSA1	EWWD760VZSSA1	EWWD890VZSSA1	EWWD10VZSS		
Cooling capacity	Nom.		kW	610	704	757	894	1,039		
Heating capacity	Nom.		kW	756.7	877.8	943.2	1,107	1,292		
Power input	Cooling	Nom.	kW	110	132	142	162	196		
	Heating	Nom.	kW	140	166	179	201	244		
EER				5.51	5.31	5.31	5.52	5.28		
ESEER				7.25	7.30	7.40	7.27	7.52		
COP				5.42	5.27	5.28	5.5	5.3		
Dimensions	Unit	Height	mm	2,120	2,120	2,120	2,290	2,480		
		Width	mm	1,180	1,180	1,180	1,240	1,340		
		Depth	mm	3,460	3,460	3,460	3,690	3,690		
Weight	Unit		kg	2,892	2,928	2,941	3,451	4,237		
	Operation weight		kg	2,977	3,033	3,053	3,611	4,488		
Water heat exchanger - evaporator	Type			Flooded single pass shell and tube						
	Water volume			l	88	88	96	134	156	
	Water flow rate	Cooling	Nom.	l/s	29.3	33.8	36.3	42.9	49.9	
		Heating	Nom.	l/s	29.6	34.2	36.7	43.5	50.4	
	Water pressure drop	Cooling	Nom.	kPa	80.0	106.0	89.0	98.0	104	
Heating		Nom.	kPa	82	108	90	100	106		
Water heat exchanger - condenser	Type			Single pass shell and tube						
	Water volume			l	81	102	102	126	217	
	Water flow rate	Cooling	Nom.	l/s	34.5	40.2	43.1	50.7	59.4	
		Heating	Nom.	l/s	36.46	42.33	45.47	53.38	62.35	
	Water pressure drop	Cooling	Nom.	kPa	54.0	41.0	46.0	44.0	33.0	
Heating		Nom.	kPa	60	44	51	48	36		
Compressor	Type			Inverter driven single screw compressor						
	Quantity			1						
Sound power level	Cooling	Nom.	dBA	101	105	105	105	108		
Sound pressure level	Cooling	Nom.	dBA	82	86	86	86	89		
Operation range	Evaporator	Cooling	Min.~Max.	°CDB						
	Condenser	Cooling	Min.~Max.	°CDB						
Refrigerant	Type / GWP / Circuits			R-134a / 1,430 / 1						
Refrigerant charge	Per circuit			kg	100	110	110	170	180	
				TCO ₂ eq	143	157	157	243	257	
Piping connections	Evaporator water inlet/outlet (OD)			141.3	141.3	141.3	168.3	219.1		
	Condenser water inlet/outlet (OD)			168.3	168.3	168.3	219.1	219.1		
Unit	Starting current			Max.	A	179	214	245	295	344
	Running current	Cooling	Nom.	A	171	202	220	249	300	
		Max.	A	A	256	306	350	421	491	
Power supply	Phase/Frequency/Voltage			Hz/V						
				3~/50/400						

High efficiency, standard sound

Cooling only/Heating only				EWWD-VZXS	450	500	610	710	800	900	C11		
Cooling capacity	Nom.			kW	449	501	613	713	793	901	1,053		
Heating capacity	Nom.			kW	553	617.2	756.7	882.2	984.6	1,110	1,302		
Power input	Cooling	Nom.		kW	81.1	89.6	108	128	146	158	192		
	Heating	Nom.		kW	102	112	138	163	185	199	240		
EER					5.53	5.58	5.64	5.54	5.43	5.67	5.46		
ESEER					7.51	7.92	8.10	8.20	8.22	7.92	8.17		
COP					5.45	5.49	5.48	5.42	5.33	5.58	5.43		
Dimensions	Unit	Height	mm		2,090	2,120		2,230	2,290	2,480			
		Width	mm		1,180			1,220	1,240	1,340			
		Depth	mm		3,460			3,690		3,830			
Weight	Unit			kg	2,968	2,911	3,102	3,470	3,451	4,257	4,552		
	Operation weight				kg	3,098	3,006	3,274	3,648	3,611	4,518	4,860	
Water heat exchanger - evaporator	Type				Flooded single pass shell and tube								
	Water volume				l	70	88	136	134		168	199	
	Water flow rate	Cooling	Nom.		l/s	21.6	24.0	29.4	34.2	38.0	43.2	50.4	
		Heating	Nom.		l/s	21.7	24.2	29.7	34.5	38.4	43.7	50.9	
	Water press. drop	Cooling	Nom.		kPa	89.0	63.0	59.0	63.0	55.0	67.0	58.0	
Heating		Nom.		kPa	90	64	60	64	56	68	59		
Water heat exchanger - condenser	Type				Single pass shell and tube								
	Water volume				l	81	92	126	145	126	217	241	
	Water flow rate	Cooling	Nom.		l/s	25.4	28.3	34.7	40.4	45.2	50.9	59.9	
		Heating	Nom.		l/s	26.68	29.78	36.53	42.60	47.53	53.59	62.85	
	Water press. drop	Cooling	Nom.		kPa	31.0	28.0	22.0	20.0	24.0	25.0	25.0	
Heating		Nom.		kPa	34	31	24	22	27	28	27		
Compressor	Type				Inverter driven single screw compressor								
	Quantity				1								
Sound power level	Cooling	Nom.		dBA	97	99	101	105		108			
Sound pressure level	Cooling	Nom.		dBA	78	80	82	86		89			
Operation range	Evaporator	Cooling	Min.-Max		°CDB -3~20								
	Condenser	Cooling	Min.-Max.		°CDB 16~65								
Refrigerant	Type / GWP / Circuits				R-134a / 1,430 / 1								
Refrigerant charge	Per circuit				kg	95	100	110	170	180			
					TCO ₂ eq	136	143	157	243	257			
Piping connections	Evaporator water inlet/outlet				mm 141.3			mm 168.3		mm 219.1			
	Condenser water inlet/outlet				mm 168.3			mm 219.1		mm 219.1			
Unit	Starting current				Max	A	155	173	179	214	256	295	344
	Running current	Cooling	Nom.		A	126	140	171	201	229	249	299	
		Max				A	222	247	256	306	366	421	491
Power supply	Phase/Frequency/Voltage				Hz/V 3~/50/400								

Premium efficiency, standard sound

Cooling only/Heating only				EWWD-VZPS	505	715	910		
Cooling capacity	Nom.			kW	505	718	908		
Heating capacity	Nom.			kW	619.7	885.3	1,115		
Power input	Cooling	Nom.		kW	87.5	126	156		
	Heating	Nom.		kW	110	161	196		
EER					5.77	5.66	5.81		
ESEER					8.15	8.48	8.25		
COP					5.62	5.49	5.68		
Dimensions	Unit	Height	mm		2,090	2,430	2,480		
		Width	mm		1,180	1,330	1,340		
		Depth	mm		3,690		3,830		
Weight	Unit			kg	3,247	4,082	4,346		
	Operation weight				kg	3,375	4,349	4,660	
Water heat exchanger - evaporator	Type				Flooded single pass shell and tube				
	Water volume				l	96	168	199	
	Water flow rate	Cooling	Nom.		l/s	24.2	34.4	43.5	
		Heating	Nom.		l/s	24.4	34.7	44	
	Water press. drop	Cooling	Nom.		kPa	55.0	42.0	44.0	
Heating		Nom.		kPa	56	43	45		
Water heat exchanger - condenser	Type				Single pass shell and tube				
	Water volume				l	126	217	241	
	Water flow rate	Cooling	Nom.		l/s	28.5	40.6	51.2	
		Heating	Nom.		l/s	29.93	42.7	53.83	
	Water press. drop	Cooling	Nom.		kPa	15	17	19	
Heating		Nom.		kPa	17	18	21		
Compressor	Type				Inverter driven single screw compressor				
	Quantity				1				
Sound power level	Cooling	Nom.		dBA	99	105			
Sound pressure level	Cooling	Nom.		dBA	80	86			
Operation range	Evaporator	Cooling	Min.-Max.		°CDB -3~20				
	Condenser	Cooling	Min.-Max.		°CDB 16~65				
Refrigerant	Type / GWP / Circuits				R-134a / 1,430 / 1				
Refrigerant charge	Per circuit				kg	100	150	180	
					TCO ₂ eq	143	215	257	
Piping connections	Evaporator water inlet/outlet				mm 141.3			mm 219.1	
	Condenser water inlet/outlet				mm 141.3			mm 219.1	
Unit	Starting current				Max	A	173	214	295
	Running current	Cooling	Nom.		A	138	200	247	
		Max				A	247	306	421
Power supply	Phase/Frequency/Voltage				Hz/V 3~/50/400				



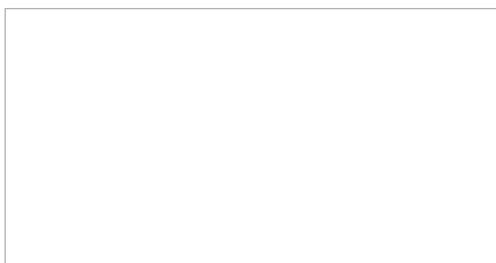
Why choose Daikin?

Daikin is Europe's leading manufacturer and global n°1 of highly energy-efficient heating, cooling, ventilation and refrigeration solutions for residential, commercial and industrial applications.

Why choose Daikin chillers?

- › The widest and most flexible chiller portfolio
- › Worldwide experience in chiller design and manufacturing
- › The highest efficiency for every installation
- › Quality and reliability

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