VZ Chiller series

Water cooled inverter chiller

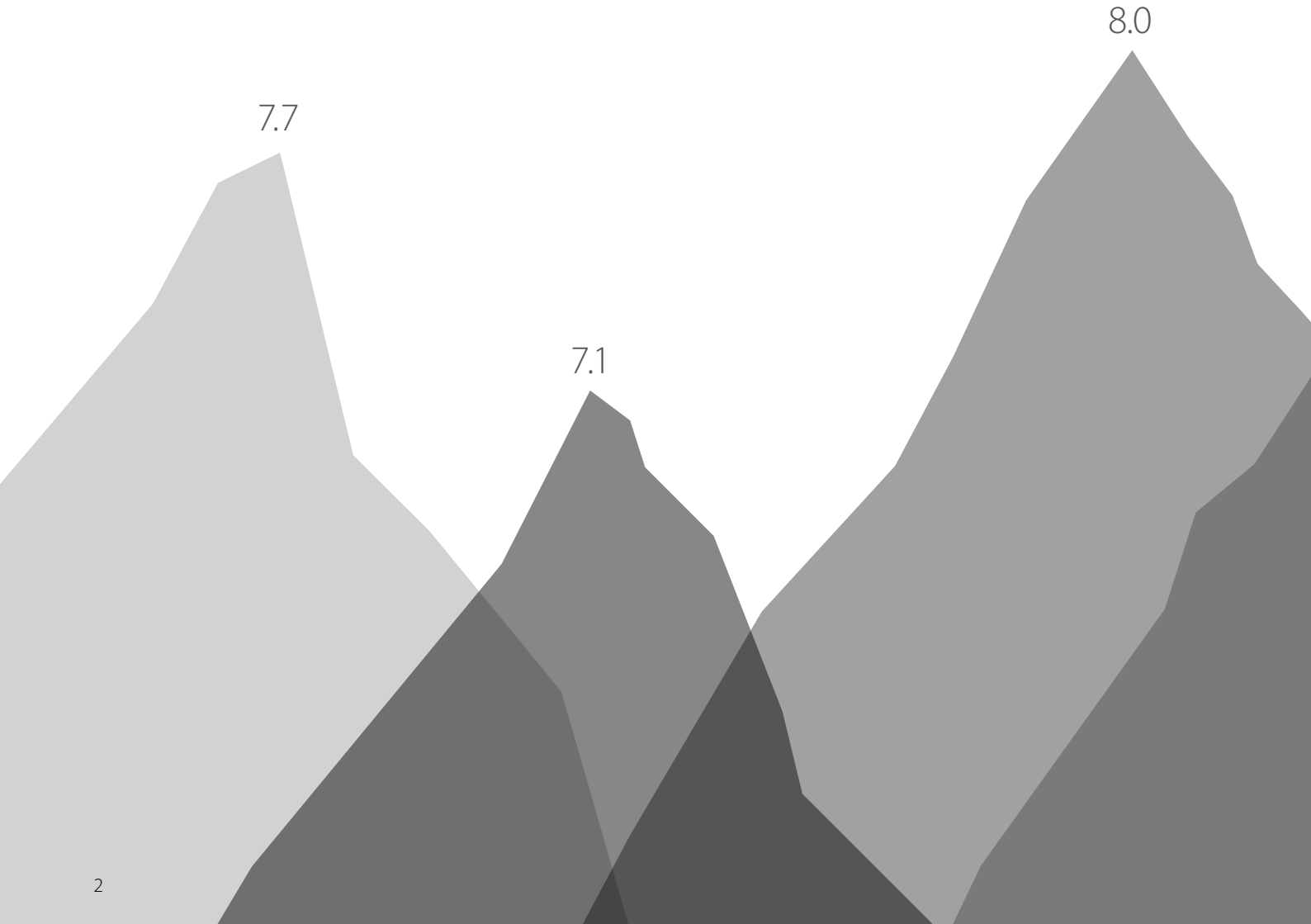
The highest peak in chiller technology

VZ CHILLER SERIES

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.



VZ CHILLER SERIES

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

VZ CHILLER

Full inverter water cooled chiller

INVERTER

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

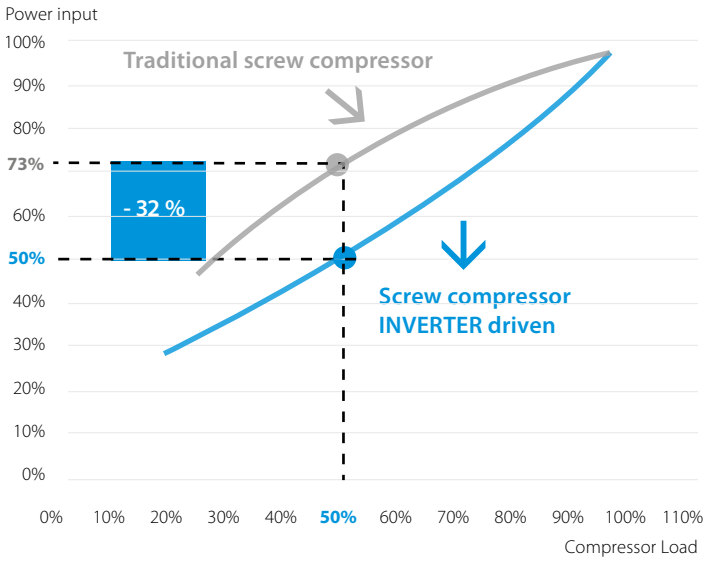
UNIQUE
SOLUTION

Why choose
EWWD-VZ chiller series?

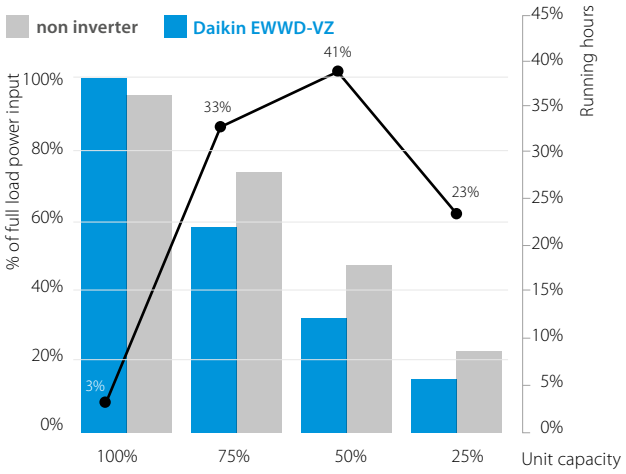
1 Top class efficiency: ESEER up to 8.5 – EER up to 5.8

New generation Daikin inverter single screw compressors

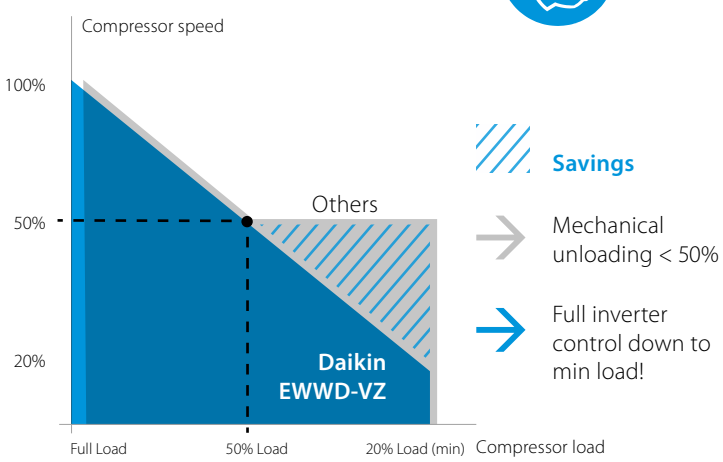
Importance of ESEER:
Power consumption significantly reduced at part loads where the machine will run for 97% of the operation hours (Eurovent load profile)



Why choose an inverter chiller?
- -25% energy consumption
- -25% CO_2 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

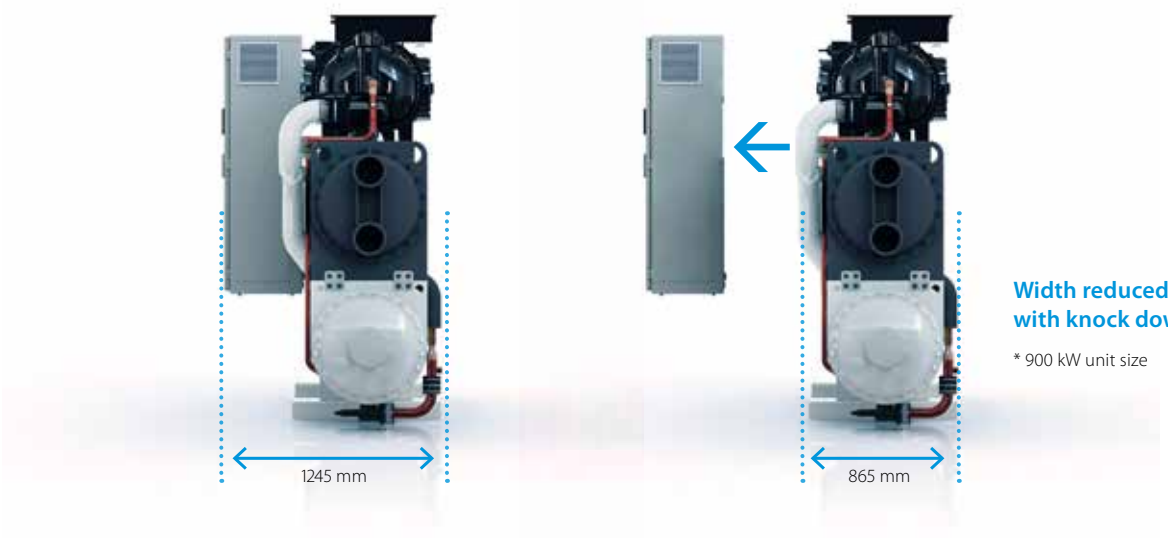
Optimized design

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



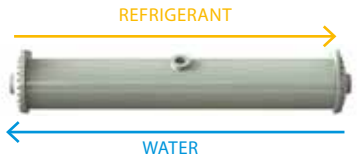
Width reduced below 900mm with knock down panel options*

* 900 kW unit size

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

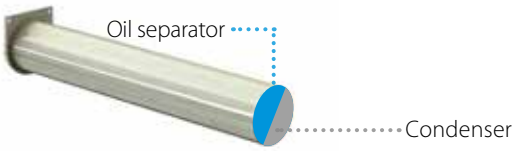
1. New single pass condenser technology

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



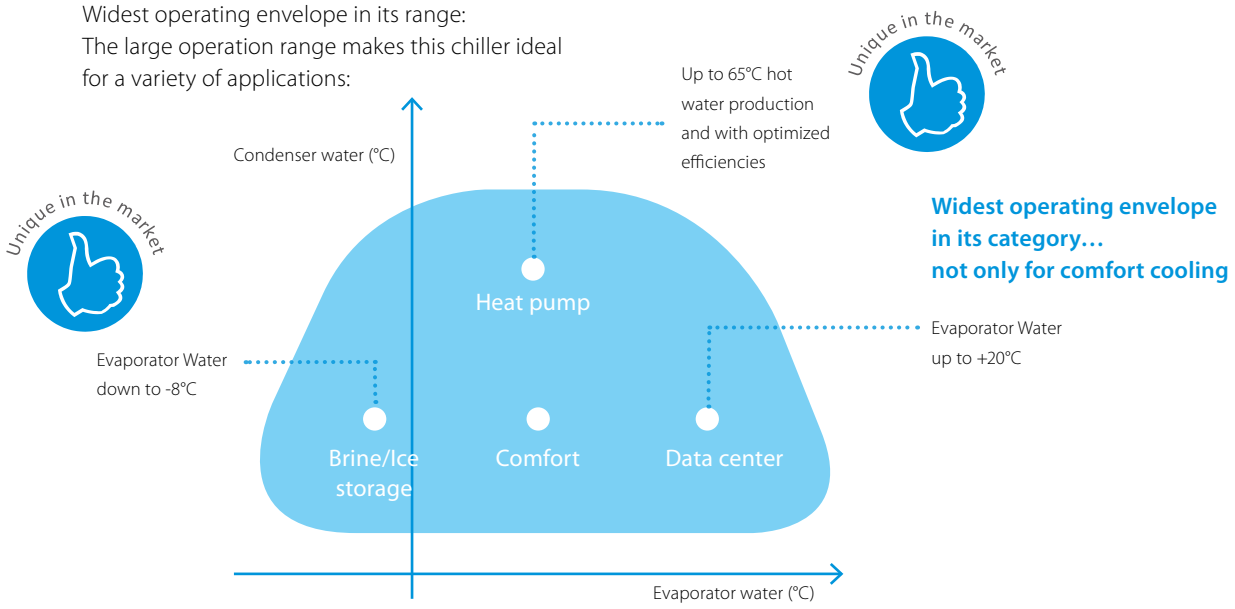
2. New integrated oil separator technology

- Low oil carry over
- Low refrigerant pressure drops



3 Application flexibility

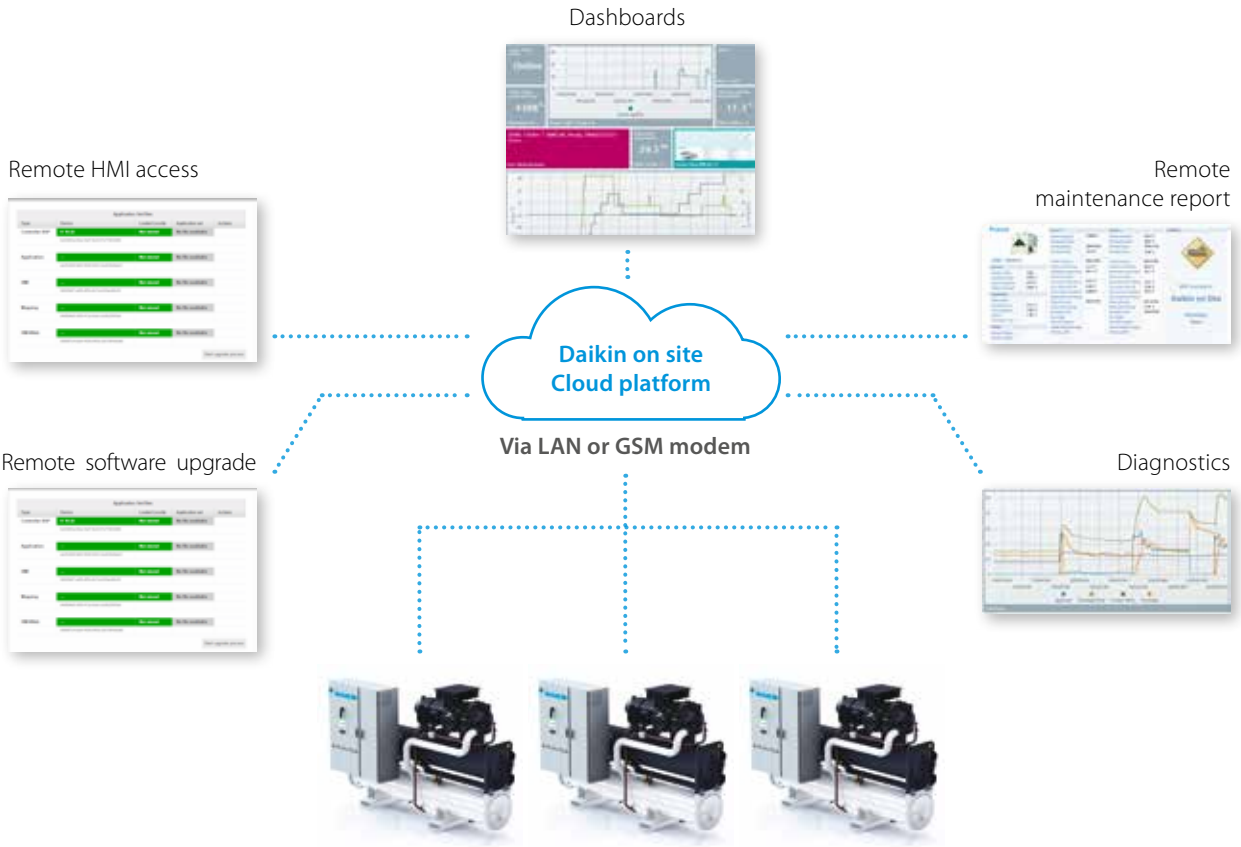
Widest operating envelope in its range:
The large operation range makes this chiller ideal for a variety of applications:



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

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 quantitates and at competitive prices.
- No phase out planned in F-GAS regulation.
- Classified as non flammable

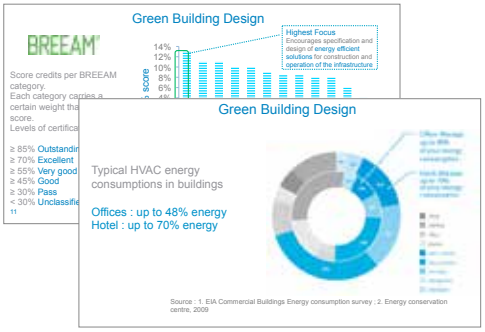
All VZ units are 'new refrigerant ready'!
Possibility to retrofit them in the future with lower GWP refrigerants (HFO blends).

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	EWWDC10VZSS
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	-3~20				
	Condenser	Cooling	Min.~Max.	°CDB	16~63				
Refrigerant	Type / GWP / Circuits				R-134a / 1,430 / 1				
Refrigerant charge	Per circuit			kg	100	110	110	170	180
				TCO_2eq	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_2eq	136		143	157	243		257
Piping connections	Evaporator water inlet/outlet			mm	141.3			168.3		219.1	
	Condenser water inlet/outlet			mm	168.3		219.1				
Unit	Starting current	Max		A	155	173	179	214	256	295	344
	Running current	Cooling	Nom.	A	126	140	171	201	229	249	299
		Max		A	222	247	256	306	366	421	491
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400						

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_2eq	143	215	257
Piping connections	Evaporator water inlet/outlet			mm	141.3	219.1	
	Condenser water inlet/outlet			mm	219.1		
Unit	Starting current	Max		A	173	214	295
	Running current	Cooling	Nom.	A	138	200	247
		Max		A	247	306	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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ECPEN17-418 10/16

Daikin Europe N.V. participates in the Eurovent Certification programme for Liquid Chilling Packages (LCP), Air handling units (AHU) and Fan coil units (FCU), Check ongoing validity of certificate online: www.eurovent-certification.com or using: www.certiflash.com