DAIKIN

R-134a R-513A R-1234ze

VZ Chiller series

Water cooled inverter chiller

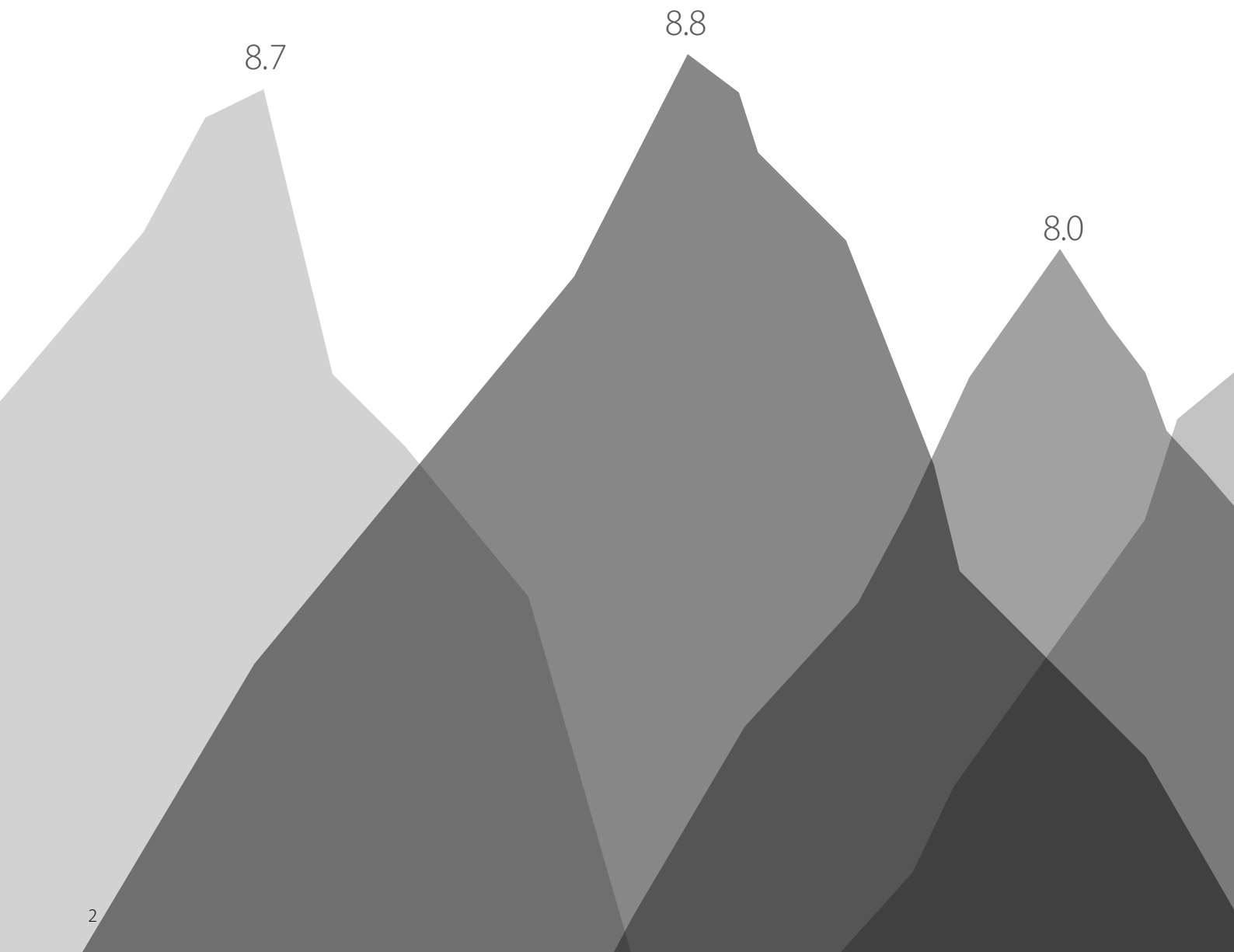
VZ CHILLER SERIES

The highest peak in chiller technology
for Comfort, Process & Marine Applications

The highest peak in chiller technology

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

9.0

ESEER 1

up to 8.7

Top efficiency ESEER

The 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

R-134a R-51

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,...

SERIES

3A R-1234ze

New condenser design with integral oil separator

High efficient flooded heat exchangers

Unique Daikin single screw compressor technology

UNIQUE SOLUTION

Single compressor

410 kW - 970 kW*

VZ CHILLER FOR

Full inverter water cooled chiller

INVERTER

Highest efficiency in the market in its category

TOP CLASS EFFICIENCY

*Marine operating conditions
Chilled Water IN/OUT: 12/6°C
Sea Water IN/OUT: 32/36°C

Dual compressor & dual circuit unit

1,080 kW – 1,910 kW*

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

SERIES
MARINE

New condenser design with integral oil separator

High efficient flooded heat exchangers

Unique Daikin single screw compressor technology

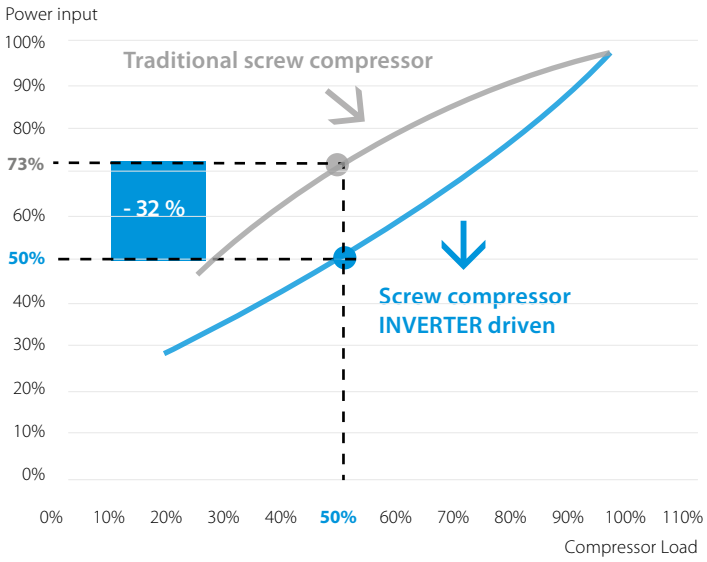
UNIQUE
SOLUTION

Why choose
VZ chiller series?

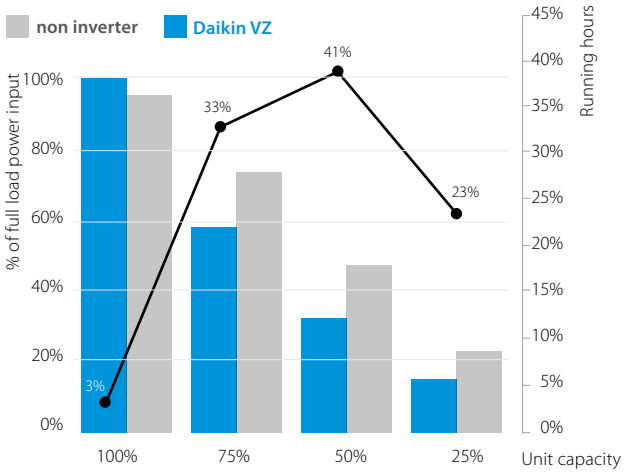
1 Top class efficiency: ESEER up to 8.7 – EER up to 5.9

New generation Daikin inverter single screw compressors

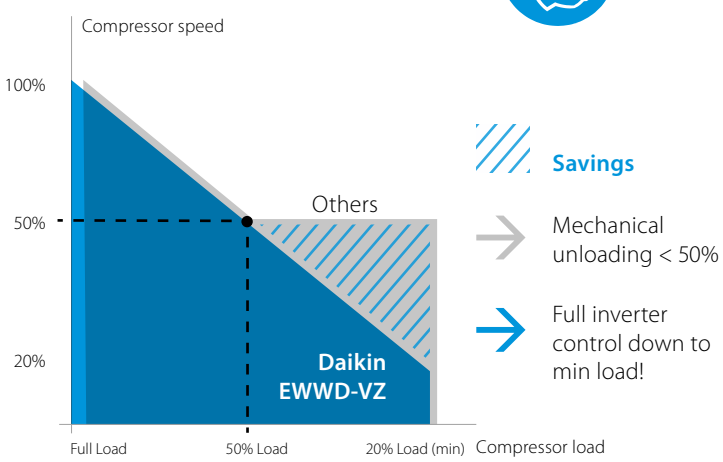
Importance of ESEER:
Power consumption significantly reduced at part loads where the machine will run for 97% of the operation hours (Eurovent load profile)



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

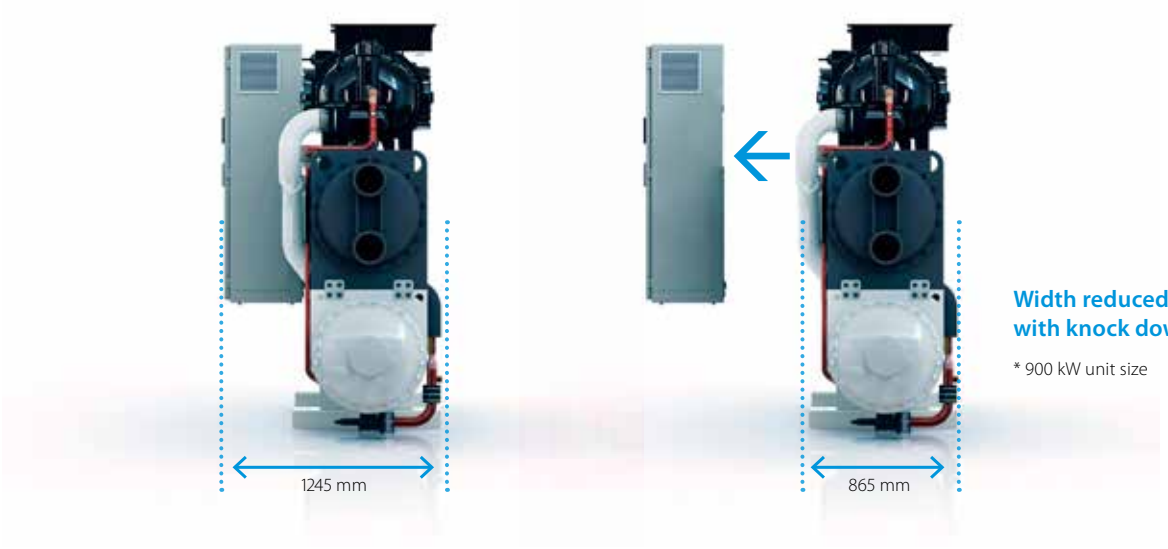
VZ Marine is fitted with a set of solutions in order to be compliant to Marine regulations [i.e. Lloyd's, DNV-GL, BV, RINA, ecc…]:

› Special cross-flow condenser specifically designed to operate in pitch and roll conditions;
› Oil reservoir to ensure proper oil return, in pitch and roll operation;
› Accelerometers activating dedicated EEXV control specifically designed for marine applications;

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



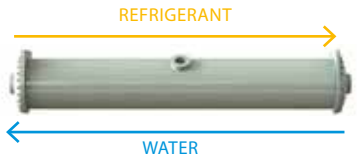
Width reduced below 900mm with knock down panel options*

* 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

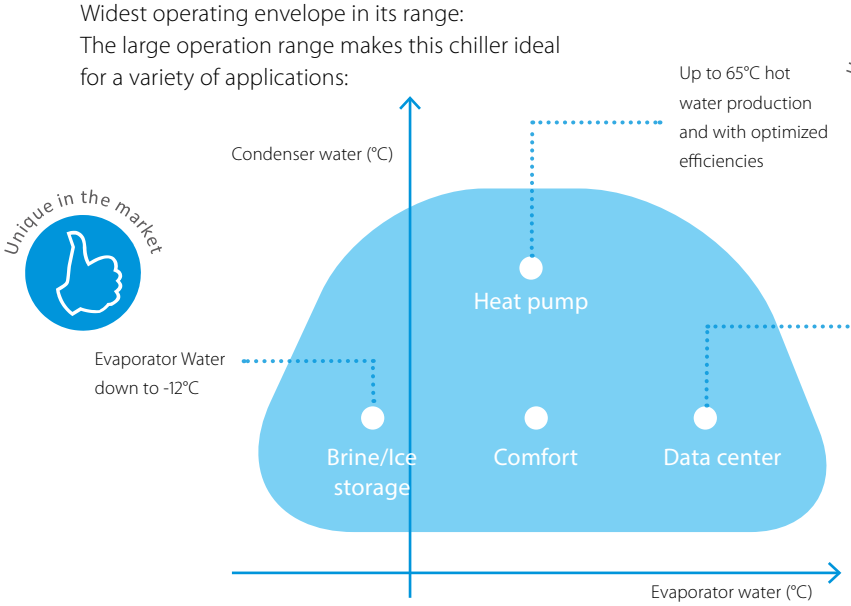


2. New integrated oil separator technology

- Low oil carry over
- Low refrigerant pressure drops

3 Application flexibility

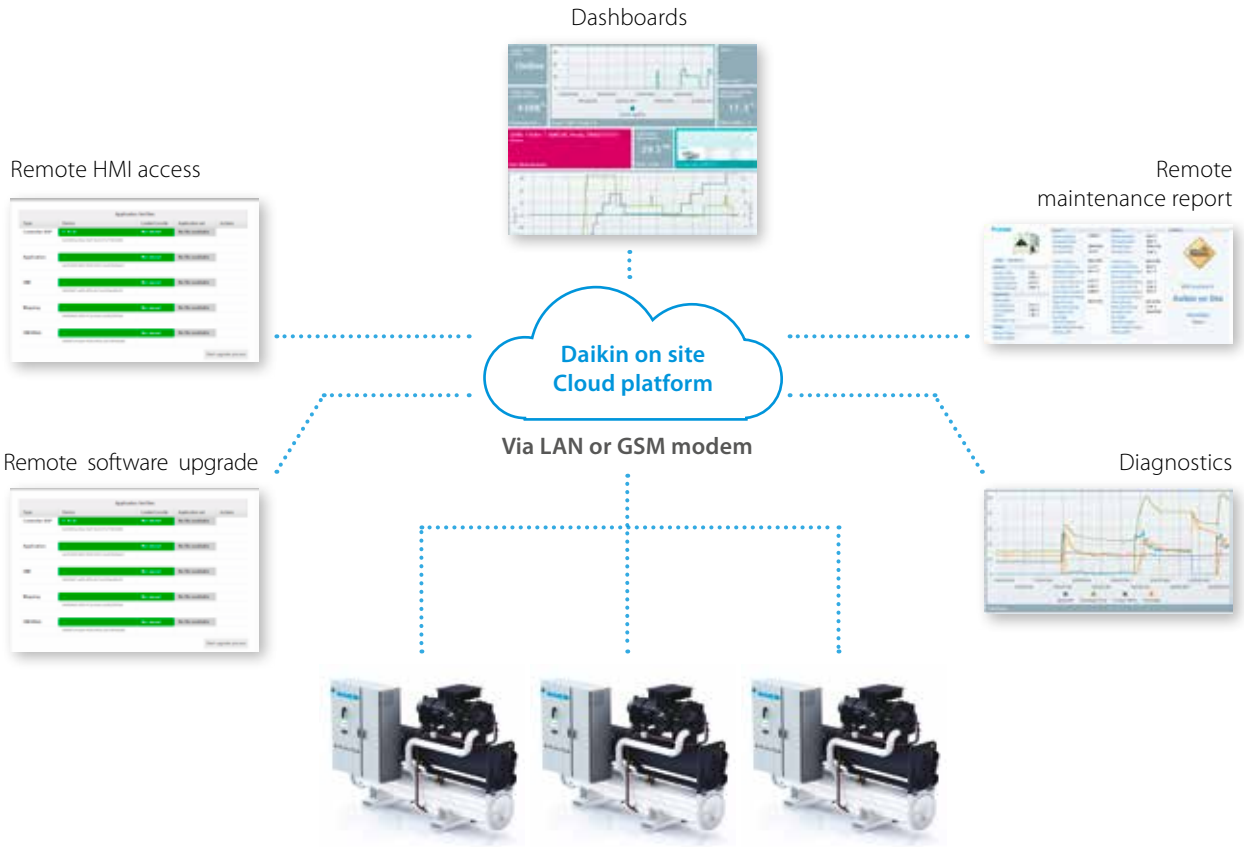
Widest operating envelope in its range:
The large operation range makes this chiller ideal for a variety of applications:



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).

R-134a – GWP 1430

R-513A – GWP 630

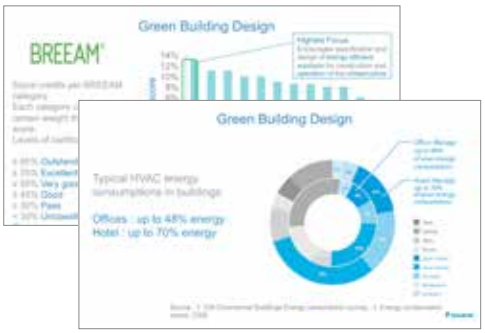
R-1234ze – GWP 7

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 R-134a

Water cooled screw inverter chiller, standard efficiency, standard sound

Cooling only/Heating only				EWWD-VZSS	600	700	760	890	C10	C12	C13	C14	C16	C17	C19	C21
Space cooling	A Condition (35°C - 27/19) Pdc			kW	609.91	704.22	756.52	894.23	1,039.49	1,173.02	1,288.02	1,381.01	1,552.02	1,722.02	1,875.55	2,051.2
	ηs,c			%	340		337.2	331.6	332	337.2	331.6	331.2	320.8	338.8	322	338.8
SEER					8.7		8.63	8.49	8.5	8.63	8.49	8.48	8.22	8.67	8.25	8.67
Cooling capacity	Nom.			kW	610	704	757	894	1,039	1,173	1,288	1,381	1,552	1,722	1,876	2,051
Power input	Cooling	Nom.		kW	110	132	142	162	196	231	252	276	315	339	380	404
Capacity control	Method				Variable											
	Minimum capacity			%	20					10						
EER					5.5	5.31	5.3	5.52	5.29	5.07	5.11	5	4.93	5.08	4.93	5.08
ESEER					7.62	7.5	7.63	7.54	7.52	7.86	7.81	7.9	7.46	7.99	7.49	7.95
IPLV					9.43	9.36	9.4	9.37	9.4	9.52	9.56	9.57	9.36	9.7	9.38	9.65
Dimensions	Unit	Height		mm	2,123			2,292	2,487	2,296				2,350	2,338	2,498
		Width		mm	1,178	1,179		1,233	1,303	1,484	1,487		1,484	1,580	1,627	1,753
		Depth		mm	3,722	3,750		3,690	3,822	4,792				4,508		4,750
Weight	Unit			kg	2,892	2,928	2,941	3,451	4,237	5,570	5,790	5,820	6,220	6,890	7,260	8,260
	Operation weight			kg	2,977	3,033	3,053	3,611	4,488	5,980	6,220	6,290	6,690	7,480	7,830	9,070
Water heat exchanger - evaporator	Type				Flooded shell and tube											
	Water volume			l	88		96	134	156	230		270		320		380
	Water flow rate	Cooling	Nom.	l/s	29.2	33.8	36.3	42.9	49.9	56.2	61.7	66.1	74.4	82.5	89.9	98.2
	Water pressure drop	Cooling	Nom.	kPa	79	106	88	98	102	69	84	70	89	78	92	80
Water heat exchanger - condenser	Type				Shell and tube											
	Water volume			l	81	102		126	217	180	200			270	250	430
	Water flow rate	Cooling	Nom.	l/s	35.3	41	44.1	51.9	60.6	69.1	75.8	81.5	91.9	101	111	120
	Water pressure drop	Cooling	Nom.	kPa	31	29	33	29	33	44	39	45	66	42	55	37
Compressor	Type				Driven vapour compressor											
	Quantity				1					2						
Sound power level	Cooling	Nom.		dBA	101	105		107	106		107		108		110	
Sound pressure level	Cooling	Nom.		dBA	82	86		88	87		88		89		90	
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-3~20											
	Condenser	Cooling	Min.~Max.	°CDB	16~63											
Refrigerant	Type/GWP				R-134a/1,430											
	Charge			kg	100	110		170	180	250	260	290		320		350
	Circuits	Quantity			1					2						
Piping connections				mm	139.7			168.3	219.1							
	Condenser water inlet/outlet (OD)				168.3mm			219.1mm	168.3 / 168.3 mm					219.1 / 219.1 mm		
Unit	Starting current	Max		A	179	214	245	295	344	-						
	Running current	Cooling	Nom.	A	171	202	220	249	300	349	379	414	470	508	566	604
Unit	Running current	Max		A	256	306	350	421	491	553	555	612	727	810	926	1,009
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Performance according to CSS software 10.28
Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Water cooled screw inverter chiller, high efficiency, standard sound

Cooling only/Heating only				EWWD-VZXS	450	500	610	710	800	900	C11	C12	C13	C14	C16	C17	C19	C21
Space cooling	A Condition (35°C - 27/19) Pdc			kW	448.83	500.51	612.77	713.11	793.52	901.21	1,053.02	1,194.03	1,305.01	1,406.98	1,593.03	1,748.03	1,912.01	2,074.02
	ηs,c			%	324.8	329.2	347.2	350	345.6	337.6	344.4	347.6	342.4	348	347.2	347.6	337.2	344.4
SEER					8.32	8.43	8.88	8.95	8.84	8.64	8.81	8.89	8.76	8.9	8.88	8.89	8.63	8.81
Cooling capacity	Nom.			kW	449	501	613	713	794	901	1,053	1,194	1,305	1,407	1,593	1,748	1,912	2,074
Power input	Cooling	Nom.		kW	81.2	89.7	108	128	146	159	192	221	244	262	296	329	365	394
Capacity control	Method				Variable													
	Minimum capacity			%	20							10						
EER					5.53	5.58	5.64	5.54	5.43	5.67	5.46	5.38	5.34	5.36	5.38	5.31	5.23	5.25
ESEER					7.51	7.92	8.1	8.2	8.22	7.92	8.17	8.36	8.25	8.47	8.24	8.45	8.2	8.33
IPLV					9.42	9.59	9.52	9.66	9.64	9.48	9.58	9.66	9.67	9.76	9.74	9.82	9.68	9.7
Dimensions	Unit	Height		mm	2,135		2,123	2,235		2,487		2,296		2,301	2,350	2,500	2,469	2,493
		Width		mm	1,178		1,179	1,189		1,303		1,484	1,639	1,579	1,580	1,610	1,704	1,769
		Depth		mm	3,722		3,750	3,690		3,822		4,792		4,508		4,750	4,874	
Weight	Unit			kg	2,968	2,911	3,102	3,470	3,451	4,257	4,552	5,860	6,240	6,520	6,920	7,530	7,790	8,670
	Operation weight			kg	3,098	3,006	3,274	3,648	3,611	4,518	4,860	6,370	6,760	7,130	7,530	8,300	8,560	9,630
Water heat exchanger - evaporator	Type				Flooded shell and tube													
	Water volume			l	70	88	136	134		168	199	270		320		380	480	
	Water flow rate	Cooling	Nom.	l/s	21.5	24	29.3	34.1	38	43.2	50.4	57.1	62.5	67.3	76.3	83.6	91.4	99.2
	Water pressure drop	Cooling	Nom.	kPa	89	63	59	63	55	67	59	52	62	52	67	58	49	58
Water heat exchanger - condenser	Type				Shell and tube													
	Water volume			l	81	92	126	145	126	217	241	240	250	290		390	290	480
	Water flow rate	Cooling	Nom.	l/s	26.4	29.4	35.3	41.2	46.1	52	61	69.8	76.3	82.2	93.2	102	112	121
	Water pressure drop	Cooling	Nom.	kPa	31	28	22	20	24	25		28		21	32	27	37	28
Compressor	Type				Driven vapour compressor													
	Quantity				1							2						
Sound power level	Cooling	Nom.		dBA	97	99	101	105			107	106		107		108	109	110
Sound pressure level	Cooling	Nom.		dBA	78	80	82	86			88	87		88		89		90
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-3~20													
	Condenser	Cooling	Min.~Max.	°CDB	16~65													
Refrigerant	Type/GWP				R-134a/1,430													
	Charge			kg	95		100	110	170		180	250	260	290		320		350
	Circuits	Quantity			1							2						
Piping connections				mm	139.7			168.3			219.1						273	
	Condenser water inlet/outlet (OD)				168.3mm		219.1mm					168.3 / 219.1 mm	219.1 / 219.1 mm					
Unit	Starting current	Max		A	155	173	179	214	256	295	344	-						
	Running current	Cooling	Nom.	A	126	140	171	201	229	249	299	340	372	400	450	498	554	596
Unit	Running current	Max		A	222	247	256	306	366	421	491	553	555	612	727	810	926	1,009
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

Performance according to CSS software 10.28
Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Water cooled screw inverter chiller, premium efficiency, standard sound

Cooling only/ Heating only				EWWD-VZPS	505	715	910	C12	C16	C18
Space cooling	A Condition (35°C - 27/19)	Pdc		kW	505.02	717.71	908.11	1,201.02	1,604.03	1,757.01
	ηs,c			%	339.6	355.2	344.4	353.6	354	350
SEER					8.69	9.08	8.81	9.04	9.05	8.95
Cooling capacity	Nom.			kW	505	718	908	1,201	1,604	1,757
Power input	Cooling	Nom.		kW	85.1	124	153	218	291	326
Capacity control	Method				Variable					
	Minimum capacity			%	20			10		
EER					5.93	5.77	5.91	5.49	5.5	5.39
ESEER					8.15	8.48	8.25	8.66	8.53	8.71
IPLV					9.61	9.68	9.57	9.79	9.82	9.92
Dimensions	Unit	Height		mm	2,108	2,430	2,487	2,302	2,500	2,493
		Width		mm	1,179	1,287	1,303	1,579	1,610	1,769
		Depth		mm	3,750	3,822		4,508	4,750	4,874
Weight	Unit			kg	3,247	4,082	4,346	6,310	7,530	8,250
	Operation weight			kg	3,375	4,349	4,660	6,900	8,300	9,200
Water heat exchanger - evaporator	Type				Flooded shell and tube					
	Water volume			l	96	168	199	320	380	480
	Water flow rate	Cooling	Nom.	l/s	24.2	34.3	43.4	57.4	76.7	84
	Water pressure drop	Cooling	Nom.	kPa	55	42	44	38	49	41
Water heat exchanger - condenser	Type				Shell and tube					
	Water volume			l	126	217	241	270	390	470
	Water flow rate	Cooling	Nom.	l/s	29.4	41.3	52.1	69.9	93.4	102
	Water pressure drop	Cooling	Nom.	kPa	16	17	19	21		28
Compressor	Type				Driven vapour compressor					
	Quantity				1			2		
Sound power level	Cooling	Nom.		dBA	99	105		106	107	109
Sound pressure level	Cooling	Nom.		dBA	80	86		87	88	89
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-3~20					
	Condenser	Cooling	Min.~Max.	°CDB	16~65					
Refrigerant	Type/GWP				R-134a/1,430					
	Charge			kg	100	150	180	290	320	350
	Circuits	Quantity			1				2	
Piping connections				mm	139.7	219.1				273
	Condenser water inlet/outlet (OD)				219.1mm			219.1 / 219.1 mm		
Unit	Starting current	Max		A	173	214	295	-		
	Running current	Cooling	Nom.	A	138	200	247	338	447	497
Unit	Running current	Max		A	247	306	421	553	727	810
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Performance according to CSS software 10.28
Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Technical specifications R-1234ze

Water cooled screw inverter chiller, standard efficiency, standard sound

Cooling only/Heating only					EWWH-VZSS	445	515	550	660	770	860	940	C10	C12	C13	C14	C15
Space cooling	A Condition (35°C - 27/19)	Pdc			kW	443	512	548.51	657.51	767.8	865.2	940.6	1,011.7	1,142.46	1,271.38	1,396.11	1,524.83
	ηs,c				%	336.4	338.4	336.8	348.4	345.2	318.4	327.2	339.6	331.2	340	345.6	353.2
SEER						8.61	8.66	8.62	8.91	8.83	8.16	8.38	8.69	8.48	8.7	8.84	9.03
Cooling capacity	Nom.				kW	443	512	549	658	768	865	941	1,012	1,142	1,271	1,396	1,525
Power input	Cooling	Nom.			kW	82.8	98.1	107	123	149	172	188	205	235	254	282	302
Capacity control	Method					Variable											
	Minimum capacity				%	20					10						
EER						5.35	5.22	5.15	5.34	5.14	5.02	5	4.93	4.87	5.01	4.95	5.04
ESEER						7.98	7.83	7.9	8.03	7.99	7.93	7.95	8.12	8	8.46	8	8.48
IPLV						9.25		9.24	9.48	9.32	8.94	9.08	9.13	9.14	9.3	9.13	9.34
Dimensions	Unit	Height			mm	2,123			2,292	2,487	2,296				2,350	2,338	2,498
		Width			mm	1,178	1,179		1,233	1,303	1,484	1,487		1,484	1,580	1,627	1,753
		Depth			mm	3,722	3,750		3,690	3,822	4,792				4,508		4,750
Weight	Unit				kg	2,892	2,928	2,941	3,451	4,237	5,570	5,790	5,820	6,220	6,890	7,260	8,260
	Operation weight				kg	2,977	3,033	3,053	3,611	4,488	5,980	6,220	6,290	6,690	7,480	7,830	9,070
Water heat exchanger - evaporator	Type					Flooded shell and tube											
	Water volume				l	88		96	134	156	230		270		320		380
	Water flow rate	Cooling	Nom.		l/s	21.2	24.5	26.2	31.5	36.8	41.4	45	48.4	54.6	60.8	66.8	72.9
	Water pressure drop	Cooling	Nom.		kPa	46	61	52	59	64	39	46	39	50	44	53	45
Water heat exchanger - condenser	Type					Shell and tube											
	Water volume				l	81	102		126	217	180	200			270	250	430
	Water flow rate	Cooling	Nom.		l/s	25.5	29.6	31.8	38.1	44.8	50.3	54.8	59	66.8	74	81.4	88.7
	Water pressure drop	Cooling	Nom.		kPa	19	17	20	19	17	25	22	25	38	25	32	18
Compressor	Type					Driven vapour compression											
	Quantity					1					2						
Sound power level	Cooling	Nom.			dBA	101	105		107	106		107		108		110	
Sound pressure level	Cooling	Nom.			dBA	82	86		88	87		88		89		90	
Refrigerant	Type/GWP					R-1234(ze)/7											
	Charge				kg	100	110		170	180	250	260	290		320		350
	Circuits	Quantity				1					2						
Refrigerant circuit	Charge				kg	100	110		170	180	250	260	290		320		350
Piping connections					mm	139.7			168.3	219.1							
	Condenser water inlet/outlet (OD)					168.3mm			219.1mm		168.3 / 168.3 mm				219.1 / 219.1 mm		
Unit	Running current	Cooling	Nom.		A	131.0	153.0	167.0	188.0	227.0	264.0	287.0	312.0	353.0	385.0	426.0	458.0
		Max			A	213.0	246.0	265.0	277.0	404.0	445.0	458.0	491.0	523.0	649.0	744.0	807.0
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400											

Performance according to CSS software 10.28
Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Water cooled screw inverter chiller, high efficiency, standard sound

Cooling only/Heating only				**EWWH-VZXS**	**335**	**365**	**450**	**525**	**580**	**670**	**800**	**875**	**950**	**C11**	**C12**	**C13**	**C14**	**C15**
Space cooling	A Condition (35°C - 27/19) Pdc			kW	329.01	364.52	448	520.61	579.19	665.41	788.2	877.36	952.01	1,028.81	1,169.3	1,288.48	1,421.75	1,540.03
	ηs,c			%	296	307.2	343.6	347.2	343.2	356	354.4	326	334	346.8			358	356.8
SEER					7.6	7.88	8.79	8.88	8.78	9.1	9.06	8.35	8.55	8.87			9.15	9.12
Cooling capacity	Nom.			kW	329	365	448	521	579	665	788	877	952	1,029	1,169	1,288	1,422	1,540
Power input	Cooling	Nom.		kW	60.5	66.6	81	96	109	121	147	168	185	198	224	248	276	298
Capacity control	Method				Variable													
	Minimum capacity			%	20							10						
EER					5.44	5.48	5.53	5.42	5.29	5.49	5.37	5.23	5.16	5.19	5.22	5.19	5.16	
ESEER					7.14	7.56	8.32		8.34	8.46	8.55	8.26		8.5	8.54	8.81	8.61	8.72
IPLV					8.51	8.79	9.46	9.51	9.47	9.63	9.65	9.19	9.27	9.46	9.37	9.52	9.23	9.5
Dimensions	Unit	Height		mm	2,135		2,123	2,235		2,487		2,296		2,301	2,350	2,500	2,469	2,493
		Width		mm	1,178		1,179	1,189		1,303		1,484	1,639	1,579	1,580	1,610	1,704	1,769
		Depth		mm	3,722		3,750	3,690		3,822		4,792		4,508		4,750	4,874	
Weight	Unit			kg	2,968	2,911	3,102	3,470	3,451	4,257	4,552	5,860	6,240	6,520	6,920	7,530	7,790	8,670
	Operation weight			kg	3,098	3,006	3,274	3,648	3,611	4,518	4,860	6,370	6,760	7,130	7,530	8,300	8,560	9,630
Water heat exchanger - evaporator	Type				Flooded shell and tube													
	Water volume			l	70	88	136	134		168	199	270		320		380	480	
	Water flow rate	Cooling	Nom.	l/s	15.8	17.5	21.4	24.9	27.7	31.8	37.7	41.9	45.5	49.1	55.9	61.6	67.9	73.6
	Water pressure drop	Cooling	Nom.	kPa	54	38	35	37	31	39	36	29	34	28	37	32	28	33
Water heat exchanger - condenser	Water volume			l	81	92	126	145	126	217	241	240	250	290		390	290	480
	Water flow rate	Cooling	Nom.	l/s	18.9	20.9	25.7	30	33.5	38.4	45.7	50.7	55.1	59.6	67.6	74.6	82.3	89.3
	Water pressure drop	Cooling	Nom.	kPa	19	16	13	12	15	13	16			13	19	16	23	16
Compressor	Type				Driven vapour compression													
	Quantity				1							2						
Sound power level	Cooling	Nom.		dBA	97	99	101	105			107	106		107		108	109	110
Sound pressure level	Cooling	Nom.		dBA	78	80	82	86			88	87		88		89		90
Refrigerant	Type/GWP				R-1234(ze)/7													
	Charge			kg	95		100	110	170		180	250	260	290		320		350
	Circuits	Quantity			1							2						
Piping connections				mm	139.7			168.3			219.1						273	
	Condenser water inlet/outlet (OD)				168.3mm		219.1mm					168.3 / 219.1 mm	219.1 / 219.1 mm					
Unit	Running current	Cooling	Nom.	A	96.0	106.0	129.0	151.0	173.0	187.0	226.0	259.0	284.0	304.0	341.0	379.0	421.0	454.0
		Max		A	178.0	199.0	213.0	246.0	275.0	277.0	404.0	445.0	458.0	491.0	523.0	649.0	744.0	807.0
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

Performance according to CSS software 10.28
Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Water cooled screw inverter chiller, premium efficiency, standard sound

Cooling only/Heating only				EWWH-VZPS	370	530	680	880	C12	C13
Space cooling	A Condition (35°C - 27/19)	Pdc		kW	369.3	525.1	677.11	883.79	1,180.43	1,295.36
	ηs,c			%	316.8	352.8	363.6	334.4	352.4	348.8
SEER					8.12	9.02	9.29	8.56	9.01	8.92
Cooling capacity	Nom.			kW	369	525	677	884	1,180	1,295
Power input	Cooling	Nom.		kW	64.7	94.9	119	166	221	247
Capacity control	Method				Variable					
	Minimum capacity			%	20				10	
EER					5.71	5.53	5.67	5.34	5.35	5.25
ESEER					7.9	8.64	8.83	8.54	8.85	9
IPLV					9.13	9.68	9.96	9.37	9.56	9.61
Dimensions	Unit	Height		mm	2,108	2,430	2,487	2,302	2,500	2,493
		Width		mm	1,179	1,287	1,303	1,579	1,610	1,769
		Depth		mm	3,750	3,822		4,508	4,750	4,874
Weight	Unit			kg	3,247	4,082	4,346	6,310	7,530	8,250
	Operation weight			kg	3,375	4,349	4,660	6,900	8,300	9,200
Water heat exchanger - evaporator	Type				Flooded shell and tube					
	Water volume			l	96	168	199	320	380	480
	Water flow rate	Cooling	Nom.	l/s	17.7	25.1	32.3	42.2	56.4	61.9
	Water pressure drop	Cooling	Nom.	kPa	32	25	27	20	26	23
Water heat exchanger - condenser	Type				Shell and tube					
	Water volume			l	126	217	241	270	390	470
	Water flow rate	Cooling	Nom.	l/s	21.1	30.1	38.9	50.9	68	74.9
	Water pressure drop	Cooling	Nom.	kPa	9		12	13	12	16
Compressor	Type				Driven vapour compression					
	Quantity				1				2	
Sound power level	Cooling	Nom.		dBA	99	105		106	107	109
Sound pressure level	Cooling	Nom.		dBA	80	86		87	88	89
Refrigerant	Type/GWP				R-1234(ze)/7					
	Charge			kg	100	150	180	290	320	350
	Circuits	Quantity			1				2	
Refrigerant circuit	Charge			kg	100	150	180	290	320	350
Piping connections				mm	139.7	219.1				273
	Condenser water inlet/outlet (OD)				219.1mm				219.1 / 219.1 mm	
Unit	Running current	Cooling	Nom.	A	104.0	150.0	185.0	257.0	338.0	378.0
		Max		A	199.0	246.0	277.0	445.0	523.0	649.0
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Performance according to CSS software 10.28
Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Technical specifications R-513A

Water cooled screw inverter chiller, standard efficiency, standard sound

Cooling only/Heating only				**EWWS~VZSS**	**600**	**700**	**740**	**880**	**C10**	**C12**	**C13**	**C14**	**C15**	**C17**	**C18**	**C20**
Space cooling	A Condition (35°C - 27/19)	Pdc		kW	599.51	693.53	743.53	879.64	1,020.09	1,148.77	1,263.41	1,351.55	1,514.87	1,689.61	1,832.00	2,013.41
	ηs,c				316	314.4	313.2	320	313.2	321.2	314.8	312	297.6	313.6	304	318.4
SEER					8.1	8.06	8.03	8.2	8.03	8.23	8.07	8	7.64	8.04	7.8	8.16
Cooling capacity	Nom.			kW	600	694	744	880	1,020	1,149	1,263	1,352	1,515	1,690	1,832	2,013
Power input	Cooling	Nom.		kW	120	143	154	175	212	251	273	301	343	367	413	437
Capacity control	Method				Variable											
	Minimum capacity			%	20	20	20	20	20	10	10	10	10	10	10	10
EER					4.99	4.84	4.81	5.02	4.8	4.56	4.61	4.49	4.42	4.6	4.43	4.61
IPLV					9.02	9.15	9.15	8.84	8.88	9.03	9.31	9.2	8.9	9.15	8.87	9.05
Dimensions	Unit	Height		mm	2,123	2,123	2,123	2,292	2,487	2,296	2,296	2,296	2,296	2,350	2,338	2,498
		Width		mm	1,178	1,179	1,179	1,233	1,303	1,484	1,487	1,487	1,484	1,580	1,627	1,753
		Depth		mm	3,722	3,750	3,750	3,690	3,822	4,792	4,792	4,792	4,792	4,508	4,508	4,750
Weight	Unit			kg	2,892	2,928	2,941	3,451	4,237	5,570	5,790	5,820	6,220	6,890	7,260	8,260
	Operation weight			kg	2,977	3,033	3,053	3,611	4,488	5,980	6,220	6,290	6,690	7,480	7,830	9,070
Water heat exchanger - evaporator	Type				Flooded shell and tube											
	Water volume			l	88	88	96	134	156	230	230	270	270	320	320	380
	Water flow rate	Cooling	Nom.	l/s	28.7	33.3	35.7	42.2	48.9	55	60.6	64.7	72.6	80.9	87.8	96.4
	Water pressure drop	Cooling	Nom.	kPa	80	108	89	100	103	69	85	70	89	79	92	81
Water heat exchanger - condenser	Type				Shell and tube											
	Water volume			l	81	102	102	126	217	180	200	200	200	270	250	430
	Water flow rate	Cooling	Nom.	l/s	34.5	40.1	43.2	50.6	59.3	67.1	73.7	79.2	89	98.7	107	117
	Water pressure drop	Cooling	Nom.	kPa	31	29	32	29	33	43	38	44	64	41	53	36
Compressor	Type				Driven vapour compressor											
	Quantity				1	1	1	1	1	2	2	2	2	2	2	2
Sound power level	Cooling	Nom.		dBA	101	105	105	105	107	106	106	107	107	108	108	110
Sound pressure level	Cooling	Nom.		dBA	82	86	86	86	88	87	87	88	88	89	89	90
Refrigerant	Type/GWP				R-513A/630											
	Charge			kg	100	110	110	170	180	250	260	270	290	295	320	350
	Circuits	Quantity			1	1	1	1	1	2	2	2	2	2	2	2
Piping connections	Evaporator water inlet/outlet			mm	139.7	139.7	139.7	168.3	219.1	219.1	219.1	219.1	219.1	219.1	219.1	219.1
	Condenser water inlet/outlet (OD)			mm	168.3	168.3	168.3	219.1	219.1	168.3/ 168.3	168.3/ 168.3	168.3/ 168.3	168.3/ 168.3	219.1/ 219.1	219.1/ 219.1	219.1/ 219.1
Unit	Starting current	Max			-	-	-	-	-	-	-	-	-	-	-	-
	Running current	Cooling	Nom.	A	182	212	233	261	319	370	401	439	496	536	600	637
Unit	Running current	Max			246	293	315	358	437	492	537	585	651	730	795	875
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Performance according to CSS software 10.28

Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Water cooled screw inverter chiller, high efficiency, standard sound

Cooling only/Heating only				EWWS~VZXS	450	490	600	700	780	890	C10	C12	C13	C14	C16	C17	C19	C20
Space cooling	A Condition (35°C - 27/19)	Pdc	kW		441.23	493.3	605.33	704.66	783.15	888.49	1,038.69	1,178.53	1,287.26	1,390.42	1,570.18	1,725.3	1,876.19	2,045.68
	ηs,c		%		306.4	313.6	328.4	329.2	328	328.4	328.8	331.2	326.4	329.2	331.2	326.4	323.2	326.8
SEER					7.86	8.04	8.41	8.43	8.4	8.41	8.42	8.48	8.36	8.43	8.48	8.36	8.28	8.37
Cooling capacity	Nom.		kW		441	493	605	705	783	889	1039	1179	1287	1390	1570	1725	1876	2046
Power input	Cooling	Nom.	kW		87.8	96.8	116	138	157	171	207	239	263	282	319	354	396	425
Capacity control	Method				Variable													
	Minimum capacity		%		20	20	20	20	20	20	20	10	10	10	10	10	10	10
EER					5.02	5.1	5.18	5.09	4.97	5.19	5	4.93	4.88	4.92	4.91	4.87	4.73	4.81
IPLV					8.87	9.01	9.29	9.43	9.39	8.96	9.27	9.23	9.48	9.42	9.39	9.3	9.15	9.17
Dimensions	Unit	Height	mm		2,135	2,135	2,123	2,235	2,235	2,487	2,487	2,296	2,296	2,301	2,350	2,500	2,469	2,493
		Width	mm		1,178	1,178	1,179	1,189	1,189	1,303	1,303	1,484	1,639	1,579	1,580	1,610	1,704	1,769
		Depth	mm		3,722	3,722	3,750	3,690	3,690	3,822	3,822	4,792	4,792	4,508	4,508	4,750	4,874	4,874
Weight	Unit		kg		2,968	2,911	3,102	3,470	3,451	4,257	4,552	5,860	6,240	6,520	6,920	7,530	7,790	8,670
	Operation weight		kg		3,098	3,006	3,274	3,648	3,611	4,518	4,860	6,370	6,760	7,130	7,530	8,300	8,560	9,630
Water heat exchanger - evaporator	Type				Flooded shell and tube													
	Water volume		l		70	88	136	134	134	168	199	270	270	320	320	380	480	480
	Water flow rate	Cooling Nom.	l/s		21.2	23.6	29	33.7	37.5	42.6	49.7	56.4	61.6	66.5	75.2	82.6	89.7	97.9
	Water pressure drop	Cooling Nom.	kPa		91	64	61	65	57	69	60	53	64	53	68	59	50	60
Water heat exchanger - condenser	Type				Shell and tube													
	Water volume		l		81	92	126	145	126	217	241	240	250	290	290	390	290	480
	Water flow rate	Cooling Nom.	l/s		25.8	28.7	34.5	40.4	45.1	50.8	59.8	68	74.4	80.2	90.7	99.8	108	118
	Water pressure drop	Cooling Nom.	kPa		31	27	22	20	24	25	25	28	28	21	32	27	36	27
Compressor	Type				Driven vapour compressor													
	Quantity				1	1	1	1	1	1	1	2	2	2	2	2	2	2
Sound power level	Cooling	Nom.	dBA		97	99	101	105	105	105	107	106	106	107	107	108	109	110
Sound pressure level	Cooling	Nom.	dBA		78	80	82	86	86	86	88	87	87	88	88	89	89	90
Refrigerant	Type/GWP				R-513A/630													
	Charge		kg		95	95	130	110	170	210	185	250	260	290	290	320	320	350
	Circuits	Quantity	No.		1	1	1	1	1	1	1	2	2	2	2	2	2	2
Piping connections	Evaporator water inlet/outlet		mm		139.7	139.7	139.7	168.3	168.3	219.1	219.1	219.1	219.1	219.1	219.1	219.1	273	273
	Condenser water inlet/outlet (OD)		mm		168.3	168.3	219.1	219.1	219.1	219.1	219.1	168.3/ 219.1	219.1/ 219.1	219.1/ 219.1	219.1/ 219.1	219.1/ 219.1	219.1/ 219.1	219.1/ 219.1
Unit	Starting current	Max			-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Running current	Cooling Nom.	A		131	146	179	209	239	258	313	355	389	418	469	521	584	624
Unit	Running current	Max	A		179	200	246	293	331	358	437	492	537	585	651	730	795	875
Power supply	Phase/Frequency/Voltage		Hz/V		3~/50/400													

Performance according to CSS software 10.28
Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Water cooled screw inverter chiller, premium efficiency, standard sound

Cooling only/Heating only				**EWWS~VZXS**	**500**	**710**	**900**	**C12**	**C16**	**C17**
Space cooling	A Condition (35°C - 27/19)	Pdc		kW	500.08	710.8	898.24	1,187.65	1,585.78	1,735.47
	ηs,c			%	321.6	334	335.2	336.4	336.4	330
SEER					8.24	8.55	8.58	8.61	8.61	8.45
Cooling capacity	Nom.			kW	500	710	898	1188	1586	1735
Power input	Cooling	Nom.		kW	91.3	133	165	235	313	350
Capacity control	Method				Variable					
	Minimum capacity			%	20	20	20	10	10	10
EER					5.48	5.31	5.44	5.05	5.06	4.95
IPLV					9.13	9.48	9.17	9.36	9.48	9.39
Dimensions	Unit	Height		mm	2,108	2,430	2,487	2,302	2,500	2,493
		Width		mm	1,179	1,287	1,303	1,579	1,610	1,769
		Depth		mm	3,750	3,822	3,822	4,508	4,750	4,874
Weight	Unit			kg	3,247	4,082	4,346	6,310	7,530	8,250
	Operation weight			kg	3,375	4,349	4,660	6,900	8,300	9,200
Water heat exchanger - evaporator	Type				Flooded shell and tube					
	Water volume			l	96	168	199	320	380	480
	Water flow rate	Cooling	Nom.	l/s	23.9	34	43	56.8	75.8	83
	Water pressure drop	Cooling	Nom.	kPa	57	44	46	39	50	42
Water heat exchanger - condenser	Type				Shell and tube					
	Water volume			l	126	217	241	270	390	470
	Water flow rate	Cooling	Nom.	l/s	28.9	40.6	51.1	68.3	91.1	100
	Water pressure drop	Cooling	Nom.	kPa	16	17	19	21	21	27
Compressor	Type				Driven vapour compressor					
	Quantity				1	1	1	2	2	2
Sound power level	Cooling	Nom.		dBA	99	105	105	106	107	109
Sound pressure level	Cooling	Nom.		dBA	80	86	86	87	88	89
Refrigerant	Type/GWP				R-513A/630					
	Charge			kg	130	180	180	190	320	350
	Circuits	Quantity		No.	1	1	1	2	2	2
Piping connections	Evaporator water inlet/outlet			mm	139.7	219.1	219.1	219.1	219.1	273
	Condenser water inlet/outlet (OD)			mm	219.1	219.1	219.1	219.1/219.1	219.1/219.1	219.1/219.1
Unit	Starting current	Max			-	-	-	-	-	-
	Running current	Cooling	Nom.	A	143	208	255	352	464	519
Unit	Running current	Max		A	200	293	358	492	651	730
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Performance according to CSS software 10.28
Cooling is referred to the following conditions: evaporator 12/7°C; condenser 30/35°C

Notes

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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.

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ECPEN21-480 02/21

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