TZ Chiller series

Screw inverter chiller

High efficiency chiller for comfort
and process cooling

TZ
CHILLER SERIES

Why choose Daikin?

Daikin were the among first to pioneer the use of inverters in air cooled screw chillers. And today, our next generation of inverter technology makes both comfort and process cooling even more efficient and cost-effective.

With the highest efficiency at both partial and full load, installers and building owners can give end-users better results all year round comfort – with lower noise levels and higher energy efficiency than ever before.

For over a decade, hundreds of sites around the world have relied on Daikin inverter driven single screw compressors to reduce their running costs without compromising on climate comfort or performance.

With the EWAD-TZB chiller, Daikin has once again improved the chiller performances by increasing the efficiency of the in-house developed compressor with integrated inverter: VVR technology, DC motors,... Further improvements are made by introducing new technologies as microchannel condenser coils and advanced electronic expansion valves.

Now also available with HFO refrigerant R-1234ze(E).

ALSO WITH HFO R-1234ze

The selection of R-1234ze(E) allows to minimize the global warming impact of screw compressor chillers thanks to low Global Warming Potential in combination with high energy efficiency.

R-1234ze(E) is a HFO refrigerant (Hydro Fluoro Olefins). Its Ozone Depletion Potential (ODP) is equal to zero (0) and the Global Warming Potential (GWP) is 7.

TZ Chiller series

Energy efficient cooling that does not compromise on comfort or performance

Why choose
TZ chiller series?

1 Top class efficiency:

R-134a
EER up to 3.93
ESEER up to 5.59

R-1234ze(E)
EER up to 3.86
ESEER up to 5.54

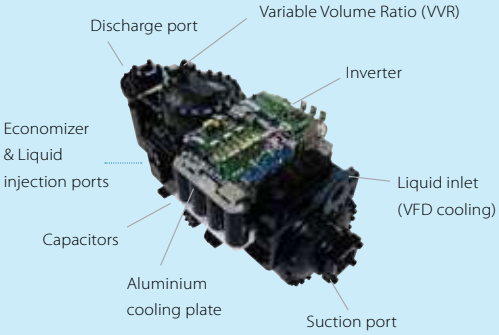
Best choice for every application

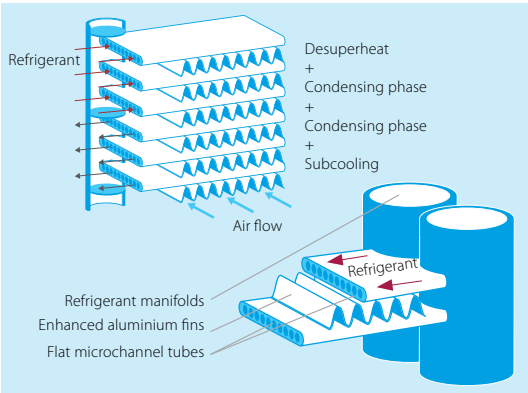
Rapid payback: 1 year for process cooling and 3 years for comfort cooling applications

INVERTER +VVR

☑ New generation of Daikin inverter screw compressors

› Integrated inverter, refrigerant cooled
› Variable volume ratio technology





☑ Microchannel condenser coils

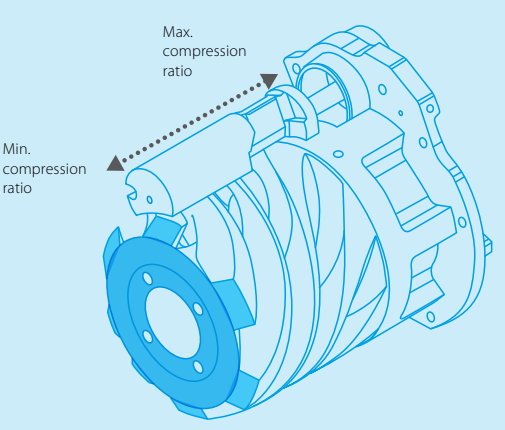
› High thermal efficiency
› Small volume, resulting in a small refrigerant charge
› Light & durable design
› Easy cleaned

☑ VVR (Variable Volume Ratio)

The operating conditions of a chiller are subjected to sensible changes due to the variation of ambient temperature and load request from the plant.

Screw compressors increase the pressure of the refrigerant by forcing it into a progressive smaller volume, from the suction to the discharge port. Once that the geometry of the compressor is defined the volume ratio is also defined.

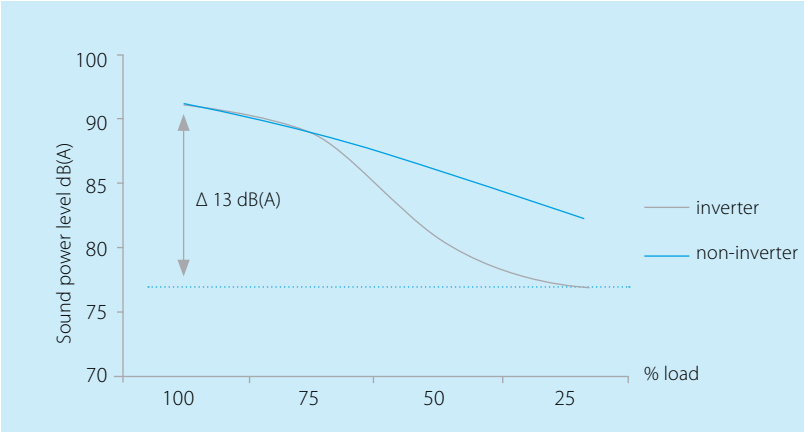
Daikin compressors can modify their own geometry thanks to variable volume ratio (VVR).
The volume ratio will change by moving the sliding valves. VVR changes the point at which the gas leaves the compressor, and therefore changes the pressures at discharge which will be optimal at any condition.



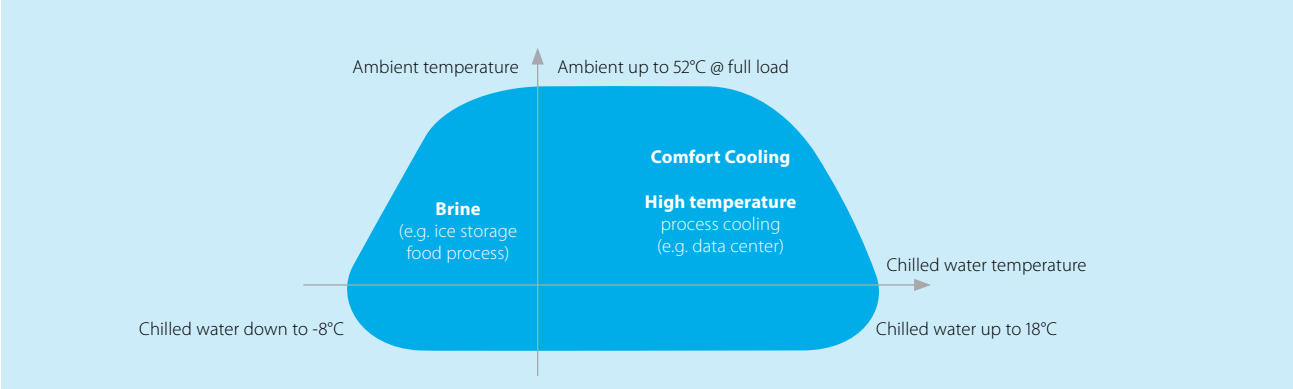
2 Silent operation – for distraction-free work

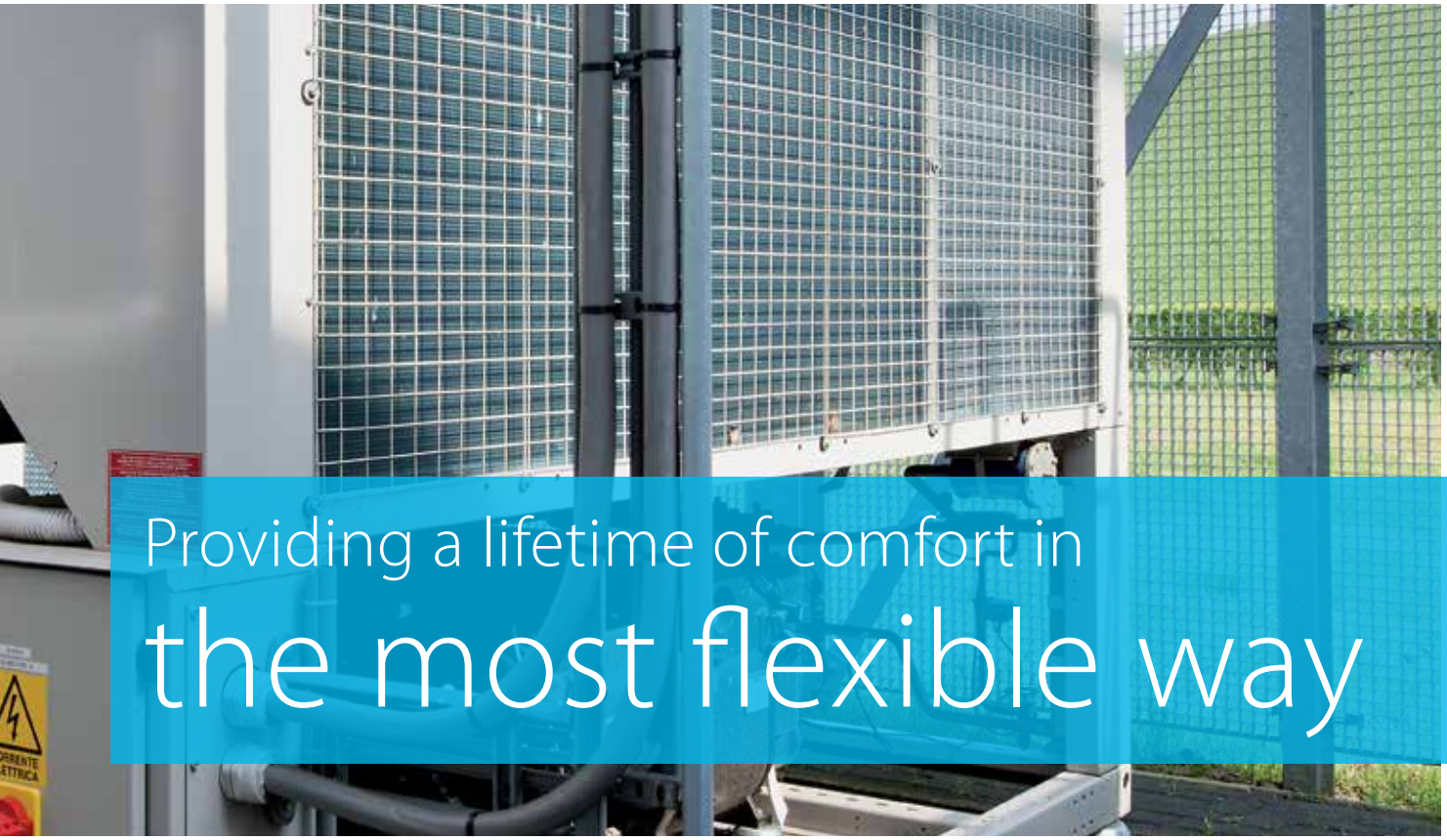
Nothing disrupts the workplace more than the sound of machinery. So our engineers have brought the sound power levels right down to just 90 dB(A)* at full load operating conditions - and even lower at part load conditions. Thanks to the special acoustic executions on the compressor and a custom Daikin fan design with reduced noise impact and vibration, the EWAD-TZB is ideal for even the most sound-sensitive environment.

*400 kW size



3 Application flexibility





Providing a lifetime of comfort in the most flexible way

4 Compact design

The EWAD-TZ keeps installation space at a minimum, so it's ideal for both new and retrofit projects. In particular, the highly efficient compressor with its integrated inverter allows us to mount more compact heat exchangers in the frame and, combined with the integrated compact control panel, deliver more power from a reduced footprint.

5 Simple to install. Even simpler to maintain

Our chillers are wired at the factory and are also pre-commissioned, with the unit's software tuned and set points already established. They also integrate easily with existing building management systems. So on site, all that is required is to plug the unit into the power supply, connect any pipes and wires, and switch the unit on.

6 Proven reliability

All our chillers and compressors are subjected to intensive performance, acoustic, endurance and vibration tests in Daikin factories and at selected job-sites - even at extreme working conditions. To ensure maximum reliability in every component – and the right, lifelong technical solution for your application.

7 Extensive options list

- **Rapid restart** - when a loss of cooling would be catastrophic, the chiller can restart within 30 seconds of the power being restored and reach full-load cooling capacity in less than 6 minutes.
- **VFD pumps** - variable frequency pumps can be used to optimise the working efficiency of the chiller and thus maximise energy savings, also in primary only variable flow systems.
- **Refrigerant leak detection** - rapid advanced warning of trouble, so you can avoid any environmentally harmful and potentially costly leaks in the refrigerant system.
- **Heat recovery** - a plate to plate heat exchanger for each refrigerant circuit is installed in series to the condenser coil. 15 to 85 % of the total heat rejection of the chiller can be recovered
- **Partial heat recovery** - a plate to plate heat exchanger for each refrigerant circuit is installed in series to the air condenser coil. The plant manager controls the operation of the pump on the recovery circuit. 15 to 20 % of the total heat rejection of the chiller can be recovered
- **Smart sequencing capability** - master/slave sequencing function up to 4 units connected together for system optimisation and without the need of external control systems.

Technical details - TZ series

R-134a

Cooling only				**EWAD-TZSSB/SLB**	**160**	**190**	**240**	**270**	**300**	**360**	**380**	**450**	**495**	**570**	**610**	**660**	**700**	**820**	**900**	**990**	**C10**	**C11**
Cooling capacity	Nom.			kW	169	200	235	268	306	351	394	455	499	569	612	660	700	816	890	987	1045	1104
Power input	Cooling	Nom.		kW	56.5	69.9	83.0	89.9	108	119	139	163	174	198	217	239	249	258	296	321	346	366
EER					2.99	2.87	2.83	2.99	2.82	2.95	2.83	2.78	2.86	2.88	2.81	2.76	2.81	3.16	3.01	3.07	3.02	
ESEER					4.55	4.61	4.41	4.59	4.57	4.65	4.61	4.62	4.71	4.83	4.80	4.81	4.89	4.43	4.44		4.51	
Dimensions	Unit	Height		mm	2483													2482				
		Width		mm	2258																	
		Depth		mm	2283			3183			4083		4983	5883			6783			7783	8820	9591
Weight (SSB)	Unit			kg	2066	2091	2149	2375	2422	2771	4044	4060	4317	4603	4780	4804	5074	6249	6147	6542	6897	7207
	Operation weight			kg	2086	2117	2187	2401	2460	2821	4202	4224	4475	4761	5050	5059	5329	6532	6632	7027	7382	7660
Weight (SLB)	Unit			kg	2081	2106	2164	2390	2437	2786	4074	4090	4347	4633	4810	4834	5104	6282	6382	6777	7132	7410
	Operation weight			kg	2101	2132	2202	2416	2475	2836	4232	4254	4505	4791	5080	5089	5359	6532	6632	7027	7382	7660
Water heat exchanger	Type				Plate heat exchanger						Single pass shell & tube											
	Water flow rate	Cooling	Nom.	l/s	8.1	9.6	11.2	12.9	14.6	16.8	18.9	21.8	23.9	27.3	29.3	31.6	33.5	39.1	42.6	47.2	50.0	52.8
	Water pressure drop	Cooling	Nom.	kPa	25.0	19.3	15.4	32.6	25.2	25.9		32.4	44.0	55.7	38.8	32.3	36.0	52.6	36.9	42.2	46.6	37.3
	Water volume			l	20.2	26.1	37.3	26.1	37.3	49.5	158	164	158		270	255		283	485			453
Air heat exchanger	Type				Microchannel																	
Compressor	Type				Inverter driven single screw compressor																	
	Quantity				1						2											
Fan	Type				Direct propeller																	
	Quantity				4			6		8			10	12			14			16	18	20
	Air flow rate	Cooling	Nom.	l/s	15109			22664		30219			37774	45328			52883	69177		79060	88942	98825
Sound power level (SSB)	Cooling	Nom.		dBA	96			97	98	99			100	101	102	105	102			103		
Sound pressure level (SSB)	Cooling	Nom.		dBA	77			78		79			80		82	84	81					
Sound power level (SLB)	Cooling	Nom.		dBA	90	90.5		91.5	92.5	93.5			94	94.5	95.5	96.5	98.5	99		100		
Sound pressure level (SLB)	Cooling	Nom.		dBA	71	72		73		74					75	76	77	78				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50																	
	Water side	Cooling	Min.~Max.	°CDB	-8~18													-15~20				
Refrigerant	Type / GWP				R-134a / 1,430																	
	Circuits	Quantity			1						2											
Refrigerant charge	Per circuit			kg	27	29	33	38	41	52	29	29.5	34	37.5	38.5	41.5	45	55		63	71	79
				TCO_2eq	39	41	47	54	59	74	41	42	49	54	55.0	59	64	79		90	101	113
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																	

Cooling only				**EWAD-TZSRB**	**160**	**190**	**240**	**270**	**300**	**360**	**380**	**450**	**495**	**570**	**610**	**660**	**700**	**820**	**900**	**990**	**C10**	**C11**
Cooling capacity	Nom.			kW	169	200	235	268	306	351	394	454	499	568	610	659	699	800	895	956	1013	1067
Power input	Cooling	Nom.		kW	56.5	69.9	83	89.9	108	119	140	164	175	199	218	240	250	248	294	317	336	359
EER					2.99	2.87	2.83	2.99	2.82	2.95	2.81	2.76	2.85	2.86	2.80	2.74	2.80	3,23	3,04	3,02	3,02	2,97
ESEER					4.55	4.61	4.41	4.59	4.57	4.65	4.59	4.60	4.69	4.81	4.82	4.78	4.88	4,80	4,80	4,85	4,83	4,98
Dimensions	Unit	Height		mm	2483													2482				
		Width		mm	2258																	
		Depth		mm	2283			3183			4083		4983	5883			6783	7783		8820	9591	10461
Weight	Unit			kg	2166	2191	2249	2475	2522	2871	4244	4260	4517	4803	4980	5004	5274	6964	6862	7217	7495	7820
	Operation weight			kg	2186	2217	2287	2501	2560	2921	4402	4424	4675	4961	5250	5259	5529	7247	7347	7702	7980	8273
Water heat exchanger	Type				Plate heat exchanger						Single pass shell & tube											
	Water flow rate	Cooling	Nom.	l/s	8.1	9.6	11.2	12.9	14.6	16.8	18.8	21.7	23.9	27.2	29.2	31.5	33.5	38.3	42.8	45.7	48.5	51.0
	Water pressure drop	Cooling	Nom.	kPa	25.0	19.3	15.4	32.6	25.2	25.9	25.8	32.2	43.9	55.5	38.6	32.2	35.9	52.1	36.3	41.0	45.6	36.3
	Water volume			l	20.2	26.1	37.3	26.1	37.3	49.5	158	164	158		270	255		283	485			453
Air heat exchanger	Type				Microchannel																	
Compressor	Type				Inverter driven single screw compressor																	
	Quantity				1						2											
Fan	Type				Direct propeller																	
	Quantity				4			6		8			10	12			14	16		18	20	22
	Air flow rate	Cooling	Nom.	l/s	15109			22664		30219	29650		36920	44475			51745	59299		66570	74124	81394
	Speed			rpm	700													700				
Sound power level	Cooling	Nom.		dBA	86	87		88			90			91		92		94			95	
Sound pressure level	Cooling	Nom.		dBA	67	68		69	70	70		70				71		73				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50																	
	Water side	Cooling	Min.~Max.	°CDB	-8~18													-15~20				
Refrigerant	Type / GWP				R-134a / 1,430																	
	Circuits	Quantity			1						2											
Refrigerant charge	Per circuit			kg	27	29	33	38	41	52	29	29.5	34	37.5	38.5	41.5	45	55		63	71	79
				TCO_2eq	39	41	47	54	59	74	41	42	49	54	55	59	64	79		90	101	113
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																	

R-134a

Cooling only				**EWAD-TZXSB/XLB**	**190**	**220**	**240**	**290**	**320**	**360**	**420**	**450**	**540**	**570**	**610**	**660**	**680**	**770**	**850**	**910**	**C10**	**C11**
Cooling capacity	Nom.			kW	180	211	239	276	313	360	417	472	529	563	599	639	678	764	850	912	1001	1045
Power input	Cooling	Nom.		kW	52.1	63.2	72.5	83.9	100	109	132	144	163	181	191	202	219	226	266	275	303	320
EER					3.46	3.34	3.30		3.13	3.30	3.16	3.26	3.24	3.11	3.13	3.16	3.09	3.37	3.20	3.31	3.30	3.27
ESEER					5.28	5.20	5.15	5.25	5.32	5.39	5.31	5.26	5.31	5.35	5.29	5.36	5.31	5.09	5.09	5.13	5.15	5.22
Dimensions	Unit	Height		mm	2483													2482				
		Width		mm	2258																	
		Depth		mm	3183			4083		4983		5883			6783	7683		7783		8820	9591	10461
Weight (XSB)	Unit			kg	2362	2409	2421	2770		4292		4602	4800		5072	5425		6626	6542	6897	7175	7500
	Operation weight			kg	2388	2447	2459	2820		4450		4760	5055		5327	5680		6927	7027	7382	7660	7953
Weight (XLB)	Unit			kg	2377	2424	2436	2785		4322		4632	4830		5102	5455		6677	6777	7132	7410	7703
	Operation weight			kg	2403	2462	2474	2835		4480		4790	5085		5357	5710		6927	7027	7382	7660	7953
Water heat exchanger	Type				Plate heat exchanger					Single pass shell & tube												
	Water flow rate	Cooling	Nom.	l/s	8.6	10.1	11.5	13.2	15.0	17.3	20.0	22.6	25.3	27.0	28.7	30.6	32.4	36.6	40.7	43.6	47.9	50.0
	Water pressure drop	Cooling	Nom.	kPa	16.4	13.2	16.2	17.1	21.0	34.3	31.2	39.7	36.7	41.1	27.1	30.5	33.3	40.5	33.5	37.5	42.4	34.3
	Water volume			l	26.1	37.3		49.5		158			255					301	485	485	485	453
Air heat exchanger	Type				Microchannel																	
Compressor	Type				Inverter driven single screw compressor																	
	Quantity				1					2												
Fan	Type				Direct propeller																	
	Quantity				6			8		10		12			14	16				18	20	22
	Air flow rate	Nom.		l/s	22664			30219		37774		45328			52883	60438				67993	75547	83102
	Speed			rpm	700													900				
Sound power level (XSB)	Cooling	Nom.		dBA	96	97	96	97	98	99				100		101					102	
Sound pressure level (XSB)	Cooling	Nom.		dBA	77				78	79						80			79			
Sound power level (XLB)	Cooling	Nom.		dBA	91	91.5	91	91.5	92.5	93.5	94			94.5	95	95.5		97				
Sound pressure level (XLB)	Cooling	Nom.		dBA	72	72			73	74	73			74				75				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~55													-18~53				
	Water side	Cooling	Min.~Max.	°CDB	-8~18													-15~20				
Refrigerant	Type / GWP				R-134a / 1,430																	
	Circuits	Quantity			1					2												
Refrigerant charge	Per circuit			kg	36	39	40	51		32		37	40		44.5	48		63	63	71	79	79
				TCO_2eq	51	56	57	73		46		53	57		64	69		90	90	101	113	113
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																	

Cooling only				**EWAD-TZXRB**	**190**	**220**	**240**	**290**	**320**	**360**	**420**	**450**	**540**	**570**	**610**	**660**	**680**	**770**	**850**	**910**	**C10**	**C11**
Cooling capacity	Nom.			kW	180	211	239	276	313	360	417	472	528	562	598	638	677	764	850	912	1001	1045
Power input	Cooling	Nom.		kW	52.1	63.2	72.5	83.9	100	109	132	145	164	181	192	203	220	226	226	275	303	320
Capacity control	Method				Stepless																	
	Minimum capacity			%	34	29	34	29	25	17	16	17	16	15	14	13		10				
EER					3.46	3.34	3.30		3.13	3.29	3.16	3.24	3.22	3.09	3.11	3.15	3.07	3.37	3.19	3.31	3.30	3.26
ESEER					5.28	5.20	5.15	5.25	5.32	5.37	5.31	5.24	5.29	5.33	5.32	5.34	5.29	5.09	5.09	5.13	5.15	5.22
Dimensions	Unit	Height		mm	2483													2482				
		Width		mm	2258																	
		Depth		mm	3183			4083		4983		5883			6783	7683		7783		8820	9591	10461
Weight	Unit			kg	2462	2509	2521	2870		4492		4802	5000		5272	5625		6946	6862	7217	7495	7820
	Operation weight			kg	2488	2547	2559	2920		4650		4960	5255		5527	5880		7247	7347	7702	7980	8273
Water heat exchanger	Type				Plate heat exchanger					Single pass shell & tube												
	Water flow rate	Cooling	Nom.	l/s	8.6	10.1	11.5	13.2	15.0	17.2	20.0	22.6	25.3	26.9	28.6	30.5	32.4	36.6	40.7	43.6	47.9	50.0
	Water pressure drop	Cooling	Nom.	kPa	16.4	13.2	16.2	17.1	21.0	34.2	31.2	39.7	36.6	41.0	27.1	30.4	33.2	40.3	33.3	37.3	42.3	34.2
	Water volume			l	26.1	37.3		49.5		158			255					301	485			453
Air heat exchanger	Type				Microchannel																	
Compressor	Type				Inverter driven single screw compressor																	
	Quantity				1					2												
Fan	Type				Direct propeller																	
	Quantity				6			8		10		12			14	16			18		20	22
	Air flow rate	Nom.		l/s	22664			30219		36920	37774	44475			51745	59299			66570		74124	81394
	Speed			rpm	700																	
Sound power level	Cooling	Nom.		dBA	88			89		90		91				92		94			95	
Sound pressure level	Cooling	Nom.		dBA	68			69		70						71		73				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~55													-18~53				
	Water side	Cooling	Min.~Max.	°CDB	-8~18													-15~20				
Refrigerant	Type / GWP				R-134a / 1,430																	
	Circuits	Quantity			1					2												
Refrigerant charge	Per circuit			kg	36	39	40	51		32		37	40.0		44.5	48		63	63	71	79	79
				TCO_2eq	51	56	57	73		46		53	57		64	69		90	90	101	113	113
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																	

R-134a

Cooling only				EWAD-TZPSB/PLB	190	220	240	290	300	350	420	495	550	620	720	820	950
Cooling capacity	Nom.			kW	183	216	244	281	323	379	435	501	543	620	717	833	950
Power input	Cooling	Nom.		kW	50.5	60.7	68.7	83.4	95.9	104	123	139	151	178	182	220	252
EER					3.64	3.56	3.55	3.38	3.37	3.62	3.53	3.60	3.59	3.47	3.93	3.78	3.76
ESEER					5.70	5.66	5.58	5.59	5.55	5.67	5.69	5.71	5.50	5.42	5.59	5.54	5.55
Dimensions	Unit	Height		mm	2483								2482				
		Width		mm	2258												
		Depth		mm	4083				4983	5883	6783		8820	9591	9591	10461	11233
Weight (PSB)	Unit			kg	2758		2769	2770	3020	4735	5069	5077	6470	6498	7415	7708	8037
	Operation weight			kg	2808		2819	2820	3070	4990	5324	5332	6777	6805	7900	8193	8490
Weight (PLB)	Unit			kg	2773		2784	2785	3035	4765	5099	5107	6527	6555	7650	7943	8240
	Operation weight			kg	2823		2834	2835	3085	5020	5354	5362	6777	6805	7900	8193	8490
Water heat exchanger	Type				Plate heat exchanger					Single pass shell & tube							
	Water flow rate	Cooling	Nom.	l/s	8.8	10.3	11.7	13.5	15.5	18.1	20.8	24.0	26.9	29.6	34.3	39.8	45.4
	Water pressure drop	Cooling	Nom.	kPa	10.6	11.0	13.4	17.1	21.5	20.4	26.3	33.3	19.8	25.0	24.20	31.7	29.0
	Water volume			l	49.5					255			307		485		453
Air heat exchanger	Type				Microchannel												
Compressor	Type				Inverter driven single screw compressor												
	Quantity				1					2							
Fan	Type				Direct propeller												
	Quantity				8				10	12	14	16	18	20		22	24
	Air flow rate	Cooling	Nom.	l/s	29610				37013	44415	51818	59220	66623	74025		81428	88830
	Speed			rpm	700												
Sound power level (PSB)	Cooling	Nom.		dBA	97				98	99		100	101				
Sound pressure level (PSB)	Cooling	Nom.		dBA	77					78	77	78	79				
Sound power level (PLB)	Cooling	Nom.		dBA	91	91.5	91	91.5	92	93.5		94	97				
Sound pressure level (PLB)	Cooling	Nom.		dBA	71	72	71	72		73	72	73	75				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~55										-18~53		
	Water side	Cooling	Min.~Max.	°CDB	-8~18										-15~20		
Refrigerant	Type / GWP				R-134a / 1430												
	Circuits	Quantity			1					2							
Refrigerant charge	Per circuit			kg	49		50	51	58	38.5	43	47	53	57	79	87	94
				TCO_2eq	70		72	73	83	55	61	67	76	82	113	124	135
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400												

Cooling only				EWAD-TZPRB	190	220	240	290	300	350	420	495	550	620	720	820	950
Cooling capacity	Nom.			kW	187	218	246	279	317	382	435	505	543	620	717	833	950
Power input	Cooling	Nom.		kW	50.5	60.7	68.7	83.4	95.9	105	123	139	151	178	182	220	252
EER					3.71	3.59		3.35	3.31	3.64	3.52	3.62	3.59	3.47	3.93	3.78	3.76
ESEER					5.70	5.66	5.42	5.33	5.39	5.50	5.41	5.63	5.50	5.42	5.59	5.54	5.55
Dimensions	Unit	Height		mm	2483								2482				
		Width		mm	2258												
		Depth		mm	4083				4983	5883	6783		8820	9591		10461	11233
Weight	Unit			kg	2858		2869	2870	3120	4935	5269	5277	6620	6648	7735	8028	8537
	Operation weight			kg	2908		2919	2920	3170	5190	5524	5532	6927	6955	8220	8513	8810
Water heat exchanger	Type				Plate heat exchanger					Single pass shell & tube							
	Water flow rate	Cooling	Nom.	l/s	9.0	10.4	11.8	13.3	15.2	18.3	20.8	24.2	26.9	29.6	34.3	39.8	45.4
	Water pressure drop	Cooling	Nom.	kPa	10.6	11.0	13.4	17.1	21.5	20.4	26.2	33.2	19.8	25.0	24.2	31.7	29.0
	Water volume			l	49.5					255			307		485		453
Air heat exchanger	Type				Microchannel												
Compressor	Type				Inverter driven single screw compressor												
	Quantity				1					2							
Fan	Type				Direct propeller												
	Quantity				8				10	12	14	16	18	20		22	24
	Air flow rate	Cooling	Nom.	l/s	29610				37013	43369	50423	57826	64879	72282	72282	793336	86738
	Speed			rpm	700												
Sound power level	Cooling	Nom.		dBA	87	88	87	88		89	90		94	95			
Sound pressure level	Cooling	Nom.		dBA	67	68	67	68				69	73				
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18 ~ 55									-18~53			
	Water side	Cooling	Min.~Max.	°CDB	-8~18									-15~20			
Refrigerant	Type / GWP				R-134a / 1,430												
	Circuits	Quantity			1					2							
Refrigerant charge	Per circuit			kg	49		50	51	58	38.5	43	47	53	57	79	87	94
				TCO_2eq	70		72	73	83	55	61	67	76	82	113	124	135
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400												

R-1234ze(E)

Cooling Only				EWAH-TZSSB/SLB	170	200	240	290	330	390	420	490	530	600	690	750	820	920	980	C10
Space cooling	ηs,c			%	166.8	169.44	179.68	186.68	180.56	181.08	180.56	187.04	186.72	190.68	195.04	197.24	206.92	208.12	205.24	202.2
SEER					4.245	4.311	4.567	4.742	4.589	4.602	4.589	4.751	4.743	4.842	4.951	5.006	5.248	5.278	5.206	5.13
Cooling capacity	Nom.			kW	171	200	240	294	326	394	421	491	528	599	690	746	821	915	982	1,063
Power input	Cooling	Nom.		kW	55.4	69.4	83.3	97.5	115	131	146	170	188	212	244	259	280	321	341	378
EER					3.08	2.88	2.89	3.02	2.82	2.99	2.88		2.8	2.82		2.87	2.93	2.85	2.88	2.81
ESEER					4.45	4.52	4.75		4.56	4.55	4.51	4.6	4.57	4.74	4.7	4.91	4.85	4.83	4.81	4.99
Dimensions	Unit	Height		mm	2,537															
		Width		mm	2,258															
		Depth		mm	2,283		3,183			4,983		5,883		6,783		7,776		8,676	9,576	
Weight	Unit			kg	2,160.6	2,170.6	2,449.4	2,559.4		4,170.2		4,634		5,619		6,820.8	6,942.8	7,262.2	7,553	
	Operation weight			kg	2,186.7	2,207.95	2,486.75	2,608.9		4,329.2	4,323.2	4,890	4,867	5,867	5,920	7,316.8	7,438.8	7,758.2	8,038	8,006
Water heat exchanger	Type				Plate heat exchanger					Shell and tube										
	Water volume			l	26	37		50		159	153	256	233	248	301	496			485	453
	Water flow rate	Cooling	Nom.	l/s	8.2	9.5	11.5	14	15.6	18.8	20.1	23.4	25.2	28.6	33	35.6	39.2	43.7	47	50.8
	Water pressure drop	Cooling	Nom.	kPa	15.1	12.3	17.1	18.2	22	24.4	31.6	33.8	31.1	27.8	34.4	26.3	31.2	38	45.7	34.7
Air heat exchanger	Type				Microchannel															
Compressor	Type				Driven vapour compression															
	Quantity				1					2										
Fan	Type				Direct propeller															
	Quantity				4		6			10		12			14	16		18	20	
	Air flow rate	Nom.		l/s	17,448		26,172			43,620		52,344			61,068	69,792		78,516	87,240	
	Speed			rpm	760															
Sound power level (SSB)	Cooling	Nom.		dBA	97.07	97.53	100.19	101.14		100.59	101.02	103.19	105.6	104.14	104.17	104.19	105.02	106.46	107.18	107.89
Sound power level (SLB)					91.73	92.13	94.69	96,44		95.32	97.69		99.9	99.44	99.51	99.57	99.46	100.8	101.49	102.16
Sound pressure level (SSB)	Cooling	Nom.		dBA	78.10	78.60	80.7	81.70		80.2	80.60	82.40	84.8	83.40	83.00	82.7	83.50	84.70	85.1	85.80
Sound pressure level (SLB)					72.78	73.17	75.2	76.96		74.94	75.31	76.92	79.12	78.67	78.39	78.08	77.97	79.01	79.41	80.08
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50															
	Water side	Cooling	Min.~Max.	°CDB	-8~18															
Refrigerant	Type/GWP				R-1234(ze)/7															
	Charge			kg	27.6		41.4			64.2		78		102		116.8		131.2	146	
	Circuits	Quantity			1					2										
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															

Cooling Only				EWAH-TZSRB	170	200	240	290	330	390	420	490	530	600	690	750	820	920	980	C10
Space cooling	ηs,c			%	166.8	169.44	179.68	186.68	180.56	180.04	181.36	187.4	185.56	189.6	194.04	195.92	204	206.92	203.36	201.2
SEER					4.245	4.311	4.567	4.742	4.589	4.576	4.609	4.76	4.714	4.815	4.926	4.973	5.175	5.248	5.159	5.105
Cooling capacity	Nom.			kW	171	200	240	294	326	393	421	490	528	598	689	745	819	913	980	1,060
Power input	Cooling	Nom.		kW	55.4	69.4	83.3	97.5	115	132	146	171	189	214	245	261	281	323	343	380
EER					3.08	2.88	2.89	3.02	2.82	2.98	2.87	2.86	2.78	2.79	2.8	2.85	2.91	2.83	2.86	2.79
ESEER					4.45	4.52	4.75		4.56	4.52	4.49	4.58	4.55	4.71	4.67	4.89	4.83	4.81	4.83	4.97
Dimensions	Unit	Height		mm	2,537															
		Width		mm	2,258															
		Depth		mm	2,283		3,183			4,983		5,883		6,783		7,776		8,676	9,576	
Weight	Unit			kg	2,260.6	2,270.6	2,549.4	2,719.4		4,370.2		4,834		5,939		7,140.8	7,262.8	7,582.2	7,873	
	Operation weight			kg	2,286.7	2,307.95	2,586.75	2,768.9		4,529.2	4,523.2	5,090	5,067	6,187	6,240	7,636.8	7,758.8	8,078.2	8,358	8,326
Water heat exchanger	Type				Plate heat exchanger					Shell and tube										
	Water volume			l	26	37		50		159	153	256	233	248	301	496			485	453
	Water flow rate	Cooling	Nom.	l/s	8.2	9.5	11.5	14	15.6	18.8	20.1	23.4	25.2	28.6	32.9	35.6	39.1	43.6	46.9	50.7
	Water pressure drop	Cooling	Nom.	kPa	15.1	12.3	17.1	18.2	22	24.4	31.6	33.7	31	27.7	34.3	26.2	31.1	37.8	45.5	34.5
Air heat exchanger	Type				Microchannel															
Compressor	Type				Driven vapour compression															
	Quantity				1					2										
Fan	Type				Direct propeller															
	Quantity				4		6			10		12			14	16		18	20	
	Air flow rate	Nom.		l/s	17,448		26,172			42,600		51,324			59,709	68,433		76,817	85,541	
	Speed			rpm	760															
Sound power level	Cooling	Nom.		dBA	87.67	87.93	90.25	92.27		91.42	91.65	93.25	94.9	95.27	95.46	95.6	94.85	95.96	96.53	97.07
Sound pressure level	Cooling	Nom.		dBA	68.70	69.00	70.80	72.80		71.00	71.30	72.50	74.10	74.5	74.30	74.10	73.40	74.20	74.50	75.00
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~50															
	Water side	Cooling	Min.~Max.	°CDB	-8~18															
Refrigerant	Type/GWP				R-1234(ze)/7															
	Charge			kg	27.6		41.4			64.2		78		102		116.8		131.2	146	
	Circuits	Quantity			1					2										
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															

R-1234ze(E)

Cooling Only				EWAH-TZXSB/XLB	180	220	270	300	350	390	430	480	580	620	670	710	760	820	930	990
Space cooling	ηs,c			%	188.68	195.84	194.04	203.08	196.16	196.4	203.28	206.2	214.96	217.88	216.48	220.72	226.8	227.72	227.88	223.6
SEER					4.792	4.971	4.926	5.152	4.979	4.985	5.157	5.23	5.449	5.522	5.487	5.593	5.745	5.768	5.772	5.665
Cooling capacity	Nom.			kW	180	225	271	300	355	392	428	482	574	620	673	714	759	825	926	988
Power input	Cooling	Nom.		kW	51.8	66.3	79	89.6	103	114	125	144	164	181	194	209	224	243	274	307
EER					3.49	3.39	3.43	3.35	3.44	3.42		3.33	3.5	3.41	3.45	3.4	3.38	3.39	3.37	3.22
ESEER					5.14	5.21	4.95	5.16	4.94	4.95	5.06	5.05		5.08	4.96	5.13	5.23	5.26	5.32	5.08
Dimensions	Unit	Height		mm	2,537															
		Width		mm	2,258															
		Depth		mm	3,183	4,083	3,183	4,083	5,883		6,783	7,776	6,783	7,683		8,583	9,483	10,383	11,283	
Weight	Unit			kg	2,447	2,813	2,557	2,923	4,445.2	4,629.2	5,004.6	5,748.6	5,720	6,364.8		7,140.2	7,431	7,879	8,178.2	
	Operation weight			kg	2,484.35	2,862.5	2,606.5	2,972.5	4,598.2	4,870.2	5,237.6	5,981.6	6,021	6,656.8	6,647.8	7,625.2	7,884	8,343	8,631.2	
Water heat exchanger	Type				Plate heat exchanger				Shell and tube											
	Water volume			l	37	50			153	241	233		301	292	283	485	453	464	453	
	Water flow rate	Cooling	Nom.	l/s	8.6	10.7	12.9	14.3	17	18.7	20.4	23	27.4	29.6	32.2	34.1	36.3	39.4	44.2	47.3
	Water pressure drop	Cooling	Nom.	kPa	10.2	11.2	15.7	18.9	23.2	16.7	34.2	26.3	24.7	31.1	39.8	25.6	57	40.5	27	56.2
Air heat exchanger	Type				Microchannel															
Compressor	Type				Driven vapour compressor															
	Quantity				1				2											
Fan	Type				Direct propeller															
	Quantity				6	8	6	8	12		14	16	14	16		18	20	22	24	
	Air flow rate	Nom.		l/s	26,172	34,896	26,172	34,896	52,344		61,068	69,792	61,068	69,792		78,516	87,240	95,964	104,688	
	Speed			rpm	760															
Sound power level (XSB)	Cooling	Nom.		dBA	97.19	98.16	101.14	96.57	100.19	100.4	100.7	101.94	99.44	104.19		104.21	104.22	104.34	105.79	106.49
Sound power level (XLB)					92.14	93.15	96.44	96.57	95.14	95.3	95.68	96.78	99.44	99.57		99.63	99.65	98.92	100.3	100.93
Sound pressure level (XSB)	Cooling	Nom.		dBA	77.7	78.20	81.70	76.60	79.40	79.60		80.40	78.70	82.70		82.40	82.20	82.3	83.20	83.90
Sound pressure level (XLB)					72.65	73.19	76.96	76.62	74.36	74.53	74.55	75.29	78.67	78.12		77.86	77.6	76.87	77.73	78.36
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~55															
	Water side	Cooling	Min.~Max.	°CDB	-8~18															
Refrigerant	Type/GWP				R-1234(ze)/7															
	Charge			kg	39	52	39	52	73.2		84.6	97.6	102	116.8		131.2	146	160	175.2	
	Circuits	Quantity			1				2											
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															

Cooling Only				EWAH-TZXRB	180	220	270	300	350	390	430	480	580	620	670	710	760	820	930	990
Space cooling	ηs,c			%	188.68	195.84	194.04	203.08	195.44	195.76	202.72	205.68	213.64	217.16	215.52	219.4	226.04	226.28	227.08	222.8
SEER					4.792	4.971	4.926	5.152	4.961	4.969	5.143	5.217	5.416	5.504	5.463	5.56	5.726	5.732	5.752	5.645
Cooling capacity	Nom.			kW	180	225	271	300	355	392	427	482	574	619	672	713	759	824	925	987
Power input	Cooling	Nom.		kW	51.8	66.3	79	89.6	103	115	125	145	164	182	195	210	225	244	275	308
EER					3.49	3.39	3.43	3.35	3.42	3.41		3.32	3.48	3.39	3.44	3.39	3.36	3.38	3.36	3.2
ESEER					5.14	5.21	4.95	5.16	4.93	4.94	5.03		5.02	5.06	4.95	5.09	5.21	5.24	5.31	5.07
Dimensions	Unit	Height		mm	2,537															
		Width		mm	2,258															
		Depth		mm	3,183	4,083	3,183	4,083	5,883		6,783	7,776	6,783	7,683		8,583	9,483	10,383	11,283	
Weight	Unit			kg	2,547	2,913	2,717	3,083	4,645.2	4,829.2	5,204.6	5,948.6	6,040	6,684.8		7,460.2	7,751	8,199	8,498.2	
	Operation weight			kg	2,584.35	2,962.5	2,766.5	3,132.5	4,798.2	5,070.2	5,437.6	6,181.6	6,341	6,976.8	6,967.8	7,945.2	8,204	8,663	8,951.2	
Water heat exchanger	Type				Plate heat exchanger				Shell and tube											
	Water volume			l	37	50			153	241	233		301	292	283	485	453	464	453	
	Water flow rate	Cooling	Nom.	l/s	8.6	10.7	12.9	14.3	16.9	18.7	20.4	23	27.4	29.6	32.1	34.1	36.3	39.4	44.2	47.2
	Water pressure drop	Cooling	Nom.	kPa	10.2	11.2	15.7	18.9	23.2	16.6	34.1	26.3	24.7	31.1	39.7	25.6	56.9	40.4	26.9	56
Air heat exchanger	Type				Microchannel															
Compressor	Type				Driven vapour compressor															
	Quantity				1				2											
Fan	Type				Direct propeller															
	Quantity				6	8	6	8	12		14	16	14	16		18	20	22	24	
	Air flow rate	Nom.		l/s	26,172	34,896	26,172	34,896	51,324		59,709	68,433	59,709	68,433		76,817	85,541	93,925	102,649	
	Speed			rpm	760															
Sound power level	Cooling	Nom.		dBA	88.63	89.73	92.27	92.6	91.63	91.73	92.25	93.09	95.27	95.6		95.73	95.8	94.66	95.89	96.34
Sound pressure level	Cooling	Nom.		dBA	69.20	69.80	72.80	72.60	70.90	71.00	71.10	71.6	74.5	74.20		74.00	73.80	72.60	73.30	73.80
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~55															
	Water side	Cooling	Min.~Max.	°CDB	-8~18															
Refrigerant	Type/GWP				R-1234(ze)/7															
	Charge			kg	39	52	39	52	73.2		84.6	97.6	102	116.8		131.2	146	160	175.2	
	Circuits	Quantity			1				2											
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															

R-1234ze(E)

Cooling Only				EWAH-TZPSB/PLB	370	440	530	610	690	770
Space cooling	ηs,c			%	206.56	213.68	220.48	224.96	231.2	232.04
SEER					5.239	5.417	5.587	5.699	5.855	5.876
Cooling capacity	Nom.			kW	371	435	532	606	692	779
Power input	Cooling	Nom.		kW	102	121	137	163	186	217
EER					3.62	3.58	3.86	3.7	3.72	3.58
ESEER					5.18	5.46	5.23	5.34		5.54
Dimensions	Unit	Height		mm	2,537					
		Width		mm	2,258					
		Depth		mm	7,683	9,483	7,683	8,583	9,483	11,283
Weight	Unit			kg	5,741.4	6,722	6,364.8	7,140.2	7,804.4	8,208.2
	Operation weight			kg	5,982.4	7,023	6,656.8	7,636.2	8,289.4	8,661.2
Water heat exchanger	Type				Shell and tube					
	Water volume			l	241	301	292	496	485	453
	Water flow rate	Cooling	Nom.	l/s	17.7	20.8	25.4	29	33.1	37.2
	Water pressure drop	Cooling	Nom.	kPa	24.4	15	15.3	18	24.3	19.7
Air heat exchanger	Type				Microchannel					
Compressor	Type				Driven vapour compression					
	Quantity				2					
Fan	Type				Direct propeller					
	Quantity				16	20	16	18	22	24
	Air flow rate	Nom.		l/s	251,251.0	314,064	251,251.0	282,658.0	345,470.0	376,877.0
	Speed			rpm	760					
Sound power level (PSB)	Cooling	Nom.		dBA	100.3	100.8	103.24	104.21	104.24	103.7
Sound power level (PLB)	Cooling	Nom.		dBA	95.48	96	98.71	99.63	99.73	98.5
Sound pressure level (PSB)	Cooling	Nom.		dBA	78.80		81.80	82.40	82.2	81.10
Sound pressure level (PLB)	Cooling	Nom.		dBA	74.03	73.96	77.25	77.86	77.68	75.93
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~55					
	Water side	Cooling	Min.~Max.	°CDB	-8~18					
Refrigerant	Type/GWP				R-1234(ze)/7					
	Circuits	Quantity			2					
Refrigerant circuit	Charge			kg	90.4	113	116.8	131.2	160.4	175.2
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Cooling Only				EWAH-TZPRB	370	440	530	610	690	770
Space cooling	ηs,c			%	206.04	213.28	219.28	223.8	229.96	231.24
SEER					5.226	5.407	5.557	5.67	5.824	5.856
Cooling capacity	Nom.			kW	371	435	532	606	692	778
Power input	Cooling	Nom.		kW	102	122	138	164	186	218
EER					3.61	3.57	3.84	3.69	3.7	3.57
ESEER					5.17	5.44	5.22	5.31		5.53
Dimensions	Unit	Height		mm	2,537					
		Width		mm	2,258					
		Depth		mm	7,683	9,483	7,683	8,583	9,483	11,283
Weight	Unit			kg	5,941.4	6,922	6,684.8	7,460.2	8,124.4	8,528.2
	Operation weight			kg	6,182.4	7,223	6,976.8	7,956.2	8,609.4	8,981.2
Water heat exchanger	Type				Shell and tube					
	Water volume			l	241	301	292	496	485	453
	Water flow rate	Cooling	Nom.	l/s	17.7	20.8	25.4	28.9	33	37.1
	Water pressure drop	Cooling	Nom.	kPa	24.4	14.9	15.3	18	24.2	19.7
Air heat exchanger	Type				Microchannel					
Compressor	Type				Driven vapour compression					
	Quantity				2					
Fan	Type				Direct propeller					
	Quantity				16	20	16	18	22	24
	Air flow rate	Nom.		l/s	246,359.0	307,948.0	246,359.0	276,541.0	338,130	369,536.0
	Speed			rpm	760					
Sound power level	Cooling	Nom.		dBA	92.37	92.94	94.94	95.73	95.97	94.72
Sound pressure level	Cooling	Nom.		dBA	70.90		73.50	74.00	73.90	72.20
Operation range	Air side	Cooling	Min.~Max.	°CDB	-18~55					
	Water side	Cooling	Min.~Max.	°CDB	-8~18					
Refrigerant	Type/GWP				R-1234(ze)/7					
	Circuits	Quantity			2					
Refrigerant circuit	Charge			kg	90.4	113	116.8	131.2	160.4	175.2
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

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